Final

Data Summary Report

June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Prepared for

Air Force Civil Engineer Center

Environmental Restoration Division

Lackland Air Force Base, Texas 78236-9853

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Acronyms and Abbreviations

°C	Degrees Celsius
µg/L	Microgram(s) per liter
µS/cm	MicroSiemens per centimeter
AFCEC	Air Force Civil Engineer Center
ASP	Analytical Services Protocol
CEV	Civil Engineering-Environmental
CO	Order on Consent
COC	Contaminant of concern
CVOC	Chlorinated volatile organic compound
DCA	Dichloroethane
DCE	Dichloroethene
DoD	Department of Defense
EA	EA Engineering, PC and its affiliate EA Science and Technology
EPA	U.S. Environmental Protection Agency
EZVI	Emulsified vegetable oil and zero valent iron
EVO	Emulsified vegetable oil
GWTS	Groundwater Treatment System
ID	Identification
IRP	Installation Restoration Program
IWGP	Installation-Wide Groundwater Monitoring Program
MS	Matrix spike
MSD	Matrix spike duplicate
NA	Not applicable
NFARS	Niagara Falls Air Reserve Station
No.	Number
NYSDEC	New York State Department of Environmental Conservation
ORC®	Oxygen release compound
PBR	Performance based remediation
PDB	Passive diffusion bag
QA	Quality assurance
QC	Quality control
RA	Remedial action

SGS Accutest	SGS Accutest New Jersey
SMP	Site Management Plan
s.u.	Standard units
TCE	Trichloroethene
VC	Vinyl chloride
VOC	Volatile organic compound
ZVI	Zero valent iron

1.0 Introduction

The United States Department of the Air Force, Air Force Civil Engineer Center (AFCEC), has retained Versar, Inc. and its teaming partner EA Engineering, P.C. and its affiliate EA Science and Technology (EA) on behalf of the 914th Air Refueling Wing Mission Support Group/Civil Engineering-Environmental (CEV) under Contract Number (No.) FA8903-09-D-8588, Task Order 0006, to perform installation-wide groundwater monitoring in support of the Performance Based Remediation (PBR) contract activities at the Niagara Falls Air Reserve Station (NFARS) in Niagara Falls, New York.

As part of the PBR, remedial actions (RAs) were conducted at 6 sites managed under the United States Department of Defense (DoD) Installation Restoration Program (IRP) in 2015. The primary objective of the 2015 RAs was to reduce chlorinated volatile organic compounds (CVOCs) in the overburden and the shallow bedrock groundwater at Site 10 (FT005), Site 13 (ST010), Site 8 (DS002), and Site 5 (DS004) using a synergistic mixture of emulsified vegetable oil (EVO) and zero valent iron (ZVI) (EZVI). The primary objective of the RA for Site 7 (SS014) was to reduce the concentrations of petroleum related volatile organic compounds (VOCs) in the overburden and shallow bedrock groundwater using an oxygen release compound (ORC®). The RA at Site 3 (LF008), which included the application of approximately 300 gallons of EZVI to the collection trench, was conducted to maintain protectiveness of a creek located downgradient of the site.

As a result of the 2015 RAs, concentrations of site related COCs have been reduced at each of the 6 sites. Based on performance monitoring trends of site COCs, recommendations for each of the sites were presented in the 2017 Annual Comprehensive Sampling Monitoring Report Installation-Wide Groundwater Monitoring Program (IWGP) (EA 2018). These recommendations, which have been approved by New York State Department of Environmental Conservation (NYSDEC) are as follows:

- The sampling frequency for Site 3 has been reduced to annual; based on the stable or declining concentrations of site COCs in Site 3 monitoring wells.
- Concentrations of site COCs at Site 7 reached the alternative termination criteria presented in the Site Management Plan (SMP) (EA 2017). As such, the site was removed from the IWGP in June 2018.
- Quarterly operations and maintenance visits to the groundwater treatment system (GWTS) at Site 10 and the pumping well systems at Sites 10 and 13 were discontinued (June 2018) because the systems are no longer needed to remove CVOC mass from the ground following the RAs, and the systems have not been operating since 2015.
- A second round of EZVI injections were recommended for Sites 10, 13, 8, and 5. The second round of injections were being completed at the time of the spring sampling effort from 19 to 28 June 2018.
- Quarterly RA performance monitoring will continue for selected performance monitoring wells at Sites 10, 13, 8 and 5 for a period of one year following 2018 Injections.

The work related to the IWGP is conducted under the DoD IRP and in compliance with the requirements of a NYSDEC Order on Consent (CO) and Administrative Settlement (Site No. 932106, Index No. R9-20150902-65). Unless otherwise noted, all work was performed in accordance with the SMP. As described in the 2017 Annual Comprehensive Sampling Monitoring Report IWGP (EA 2018) both the IWGP monitoring well data and the additional RA performance monitoring data will be provided for each site.

1.1 Report Organization

Section 2 of this report describes the field investigation tasks conducted in June 2018 under the IWGP. These tasks include the following:

- Groundwater and surface water elevation measurements performed on 5 and 6 June 2018 (Section 2 and Appendix A). As a supplement to the elevation data, the June 2018 daily precipitation data are presented in Appendix B.
- Sampling of groundwater and surface water for long-term monitoring at Sites 3, 5, 8, 10, and 13 performed on 25 and 26 June 2018 (Section 2 and Appendix C).
- Quarterly operation and maintenance inspections at the GWTS at Site 10 and at the pumping wells at Sites 10 and 13 for January and April 2018. These quarterly inspections were discontinued in June 2018 based upon the approved recommendation noted in Section 1.0. The operation and maintenance inspection was recorded on forms designed specifically for the existing remedial system (Appendix D).
- Well inspections performed on 6 June 2018 (Section 2 and Appendix E).

Section 2 also presents the IGWP groundwater analytical data and RA performance monitoring data collected during the Spring 2018 sampling event.

Section 3 of this report presents the RA performance monitoring data, which were collected in concurrence with the IWGP Spring sampling event. An evaluation of all the RA trend data (CVOCs) will be provided in the 2018 Annual Comprehensive Sampling /Monitoring Report. Table 1-1 presents each of the sampled monitoring wells, and clarifies which program the data is used for, as multiple wells serve dual purposes.

Table 1-1

Program Related Monitoring Wells

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Well Number	IGWP Well Sampling Frequency	IGWP Sample Analyses	RA Well Sampling Frequency	Sample Analyses
Background Well				
MW1-1DA	Annual (Fall)	VOCs	Not Sampled for RA	NA
MW8-11D	Annual (Spring)	VOCs	Not Sampled for RA	NA
Site 3				
MW3-3DA	Annual (Spring)	VOCs	Not Sampled for RA	NA
MW3-4DA	Annual (Spring)	VOCs	Not Sampled for RA	NA
PZ3-6D	Annual (Spring)	VOCs	Not Sampled for RA	NA
PZ3-7D	Annual (Spring)	VOCs	Not Sampled for RA	NA
PZ3-8D	Annual (Spring)	VOCs	Not Sampled for RA	NA
PW3-3A	Annual (Spring)	VOCs	Not Sampled for RA	NA
Site 5				
MW5-1DA	Semi-Annual	VOCs	Not Sampled for RA	NA
MW5-5D	Semi-Annual	VOCs	Quarterly	VOCs
MW5-6	Semi-Annual	VOCs	Not Sampled for RA	NA
RW5-1	Semi-Annual	VOCs	Quarterly	VOCs
RW5-2	Semi-Annual	VOCs	Quarterly	VOCs
RW5-4	Semi-Annual	VOCs	Quarterly	VOCs
Site 8				
MW8-1	Semi-Annual	VOCs	Quarterly	VOCs
MW8-10D	Semi-Annual	VOCs	Quarterly	VOCs
MW8-8	Not Sampled for IGWP	NA	Quarterly	VOCs
CH8-01	Not Sampled for IGWP	NA	Quarterly	VOCs
Site 7				
MW7-1D	Removed from IGWP	NA	NA	NA
Site 10				
MW10-1DA	Annual (Fall)	VOCs	Quarterly	VOCs
MW10-3	Annual (Spring)	VOCs	Not Sampled for RA	NA
MW10-3D	Annual (Fall)	VOCs	Not Sampled for RA	NA
MW10-4D	Annual (Fall)	VOCs	Not Sampled for RA	NA
MW10-4E	Annual (Fall)	VOCs	Not Sampled for RA	NA
MW10-7	Annual (Spring)	VOCs	Not Sampled for RA	NA
MW10-9D	Annual (Fall)	VOCs	Not Sampled for RA	NA
MW10-10D	Annual (Fall)	VOCs	Quarterly	VOCs
PW10-1	Semi-Annual	VOCs	Not Sampled for RA	NA

Table 1-1

Program Related Monitoring Wells

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Well Number	IGWP Well Sampling Frequency	IGWP Sample Analyses	RA Well Sampling Frequency	Sample Analyses
Site 10				
PW10-2	Semi-Annual	VOCs	Quarterly	VOCs
MW10-2	Not Sampled for IGWP	NA	Quarterly	VOCs
PZ10-7	Annual (Spring)	VOCs	Quarterly	VOCs
Site 13				
MW13-3	Not Sampled for IGWP	NA	Quarterly	VOCs
MW13-4	Not Sampled for IGWP	NA	Quarterly	VOCs
MW13-4D	Semi-Annual	VOCs	Not Sampled for RA	NA
MW13-5A	Not Sampled for IGWP	NA	Quarterly	VOCs
MW13-5D	Semi-Annual	VOCs	Quarterly	VOCs
PW13-1	Semi-Annual	VOCs	Quarterly	VOCs
PZ13-3D	Not Sampled for IGWP	NA	Quarterly	VOCs
PW13-4D	Semi-Annual	VOCs	Not Sampled for RA	NA

The VOC data from samples collected during Spring (June) and Fall (October) events will be used for both the IGWP and RA programs (i.e., The VOC samples collected from the PDBs deployed in the Site 8 monitoring well MW8-10D in June and October will be included in the data set for both the IGWP and the RA programs).

NA = Not applicable

2.0 Installation-Wide Groundwater Monitoring Program

2.1 Groundwater and Surface Water Elevations

Groundwater and surface water level measurements were collected on 5 and 6 June 2018 from 127 monitoring wells and 5 surface water locations (Figure 2-1 and Appendix A). The groundwater elevations were measured during passive diffusion bag (PDB) deployment, prior to the RA injections. To supplement the water level data, the June 2018 daily precipitation data are presented in Appendix B.

Groundwater elevation contour maps were prepared from the June 2018 water levels after conversion to elevations in feet above mean sea level, based on North American Datum 1983 for both the overburden and shallow bedrock water-bearing zones for each site (Figures 2-2 through 2-12). Surface water data were incorporated onto the contour maps, where applicable. The June 2018 groundwater flow patterns are summarized as follows:

- Overburden and shallow bedrock groundwater flow at Site 3 is primarily directed toward Cayuga Creek (Figure 2-2 and Figure 2-3).
- Overburden groundwater flow at Site 5 is to the southwest in the northern portion of the site, and to the south in the southern portion where groundwater recharge to the overburden may be limited under Building 920 and the parking lot (Figure 2-4). Shallow bedrock groundwater flow is primarily to the southwest (Figure 2-5).
- Overburden groundwater flow at Site 8 is to the south-southwest on the southern portion of the site and to the north on the northern part of the site. The small tributary to Cayuga Creek near the site serves as a losing stream with groundwater flowing away from the tributary creating a local groundwater divide in the overburden (Figure 2-6). General groundwater flow in the shallow bedrock is to the southeast with a very gradual gradient (Figure 2-7).
- Overburden water level elevations at Site 10 indicate radial flow toward Cayuga Creek and the drainage ditch to the southwest of the site (Figure 2-8). Shallow bedrock groundwater flow has a similar eastern and south eastern pattern towards Cayuga Creek on the eastern half of the site with a south western component of flow near the drainage ditch (Figure 2-9). There appears to be a groundwater high at monitoring well MW10-10D, which has been present since the injections conducted in 2015 when the pumping well was turned off. Groundwater flow in deep bedrock was to the south toward Cayuga Creek at well (Figure 2-10).
- Overburden groundwater flow at Site 13 was to the northeast and east (Figure 2-11). Shallow bedrock groundwater flow at Site 13 was toward the east (Figure 2-12).

2.2 Sampling and Analysis

Laboratory analysis was performed by SGS Accutest New Jersey (SGS Accutest) of Dayton, New Jersey, a DoD-certified laboratory, in accordance with NYSDEC Analytical Services Protocol (ASP) of June 2005 and EPA SW-846 Methods (2007 [with updates – last updated in 2010]). These samples were analyzed for VOCs by EPA Method 8260C. The June 2018 results for the IWGP are included in the groundwater and surface water analytical discussions in Section 2.2.1 and Section 2.2.2, respectively. A summary of the analyses performed for each groundwater sampling location is provided in Table 2-1. Table 2-2 provides details for the surface water locations.

Groundwater and surface water sample results for the June 2018 sampling period are included in SGS Accutest laboratory report JC68966, which is provided in Appendix C of this report. Positive results for target compounds present in one or more groundwater samples from wells included in the IWGP are listed in Table 2-3. Positive results for target compounds present in one or more surface water samples are listed in Table 2-4. Analytical results for compounds with positive hits are bolded. The groundwater analytical results for the contaminants of concern (COCs) were compared to the Groundwater Protection Standards specified in the SMP (EA 2017) (Table 2-3). The analytical results for the remaining VOCs detected in the samples were compared to the Water Class GA Standards and Guidance Values listed in the NYSDEC Technical and Operational Guidance Series 1.1.1 (NYSDEC 1998).

2.2.1 Groundwater Sampling and Analysis

As part of the IWGP and RA performance monitoring, 33 wells were sampled using PDB samplers deployed on 5 June 2018, approximately 3 weeks prior to sampling (Table 2-2). The samplers remained, undisturbed, in the wells until retrieval on 25 and 26 June 2018. Table 2-3 provides a summary of the analytical results. The June 2018 groundwater analytical data for each site are summarized as follows:

- One background well, MW8-11D, was sampled. One non-site related COC (1,2,-Dichloroethane [DCA]) was detected in groundwater at a concentration above the NYSDEC Class GA Groundwater Protection Standards. Acetone was also detected in groundwater at this location, below NYSDEC Class GA Groundwater Protection Standards.
- Six Site 3 wells/piezometers were sampled and analyzed for VOCs (MW3-3DA, MW3-4DA, PZ3-6D, PZ3-7D, PW3-3A, and PZ3-8D). Two site-related COCs (vinyl chloride [VC] in 6 of the samples and cis-1,2-Dichloroethene [DCE] in 4 samples, including the field duplicate) were detected at concentrations exceeding the NYSDEC Class GA Groundwater Protection Standards. Two other site-related COCs (trans-1,2-DCE and trichloroethene [TCE]) were detected in PW3-3A but were below the NYSDEC Class GA Groundwater Protection Standards. Two other non-site related VOCs (acetone and 1,4-dioxane) were detected PW3-3A and MW3-3DA at Site 3 respectively; however, concentrations were below the NYSDEC Class GA Groundwater Protection Standards.
- Six Site 5 wells (MW5-1DA, MW5-5D, MW5-6, RW5-1, RW5-2, and RW5-4) were sampled for VOCs. Six site-related COCs were detected at concentrations exceeding NYSDEC Class GA Groundwater Protection Standards. VC and cis-1,2-DCE concentrations exceeded NYSDEC Class GA Groundwater Protection Standards in 4 wells sampled at Site 5 (MW5-1DA, MW5-5D, RW5-1, and RW5-2). Trans 1,2-DCE was detected above NYSDEC Class GA Groundwater Protection Standards in one well (MW5-5D). Benzene and toluene were detected above NYSDEC Class GA Groundwater Protection Standards in monitoring well RW5-4. TCE concentrations exceeded the NYSDEC Class GA Groundwater Protection Standards in 2 semi-annual samples from wells MW5-5D, and RW5-1. 1,1-DCE was detected below concentrations in MW5-5D and RW5-1. Six other VOCs (acetone, 2-butanone, carbon disulfide, 1,4-dioxane, 2-hexanone, and methylene chloride) were detected in the semi-annual samples; however, none of these compounds were detected at concentrations exceeding the NYSDEC Class GA Groundwater Protection Standards.
- Four Site 8 wells were sampled and analyzed for VOCs (CH8-01, MW8-1, MW8-8, and MW8-10D). Two site-related site COCs, VC, and cis-1,2-DCE were detected at concentrations exceeding NYSDEC Class GA Groundwater Protection Standards. Four other site-related COCs (benzene, chloroform trans-1,2-DCE, and TCE) were detected in these wells; however, concentrations were below NYSDEC Class GA Groundwater Protection Standards. Non-site-related VOCs acetone, 1,1-DCA, and methylene chloride were detected below NYSDEC Class GA Groundwater Protection Standards.

- Eight Site 10 wells (monitoring wells, recovery wells, and piezometer) were sampled and analyzed for VOCs (MW10-1DA, MW10-2, MW10-3, MW10-7, MW10-10D, PW10-1, PW10-2, and PZ10-7). Six site-related COCs (benzene, cis-1,2-DCE, toluene, trans-1,2-DCE, TCE, and VC) were detected at concentrations exceeding NYSDEC Glass GA Groundwater Protection Standards. Benzene was detected in exceedance of NYSDEC Class GA Groundwater Protection Standards in 4 wells (MW10-1DA, MW10-2, MW10-10D, and PW10-2); cis-1,2-DCE was in exceedance in 4 wells (MW10-2, MW10-10D, PW10-1, and MW10-7); toluene was detected in exceedance in 2 wells (MW10-2 and MW10-10D); trans-1,2-DCE was detected in exceedance in one well (MW10-10D); TCE was detected in exceedance in 2 wells (MW10-7 and MW10-10D); and VC was detected in exceedance in 4 wells (MW10-1DA, MW10-2, MW10-10D, and PW10-1). Two other site-related COCs (ethylbenzene and xylene) were detected in Site 10 wells; however, concentrations were below NYSDEC Class GA Groundwater Protection Standards. Three other non-site-related VOCs were detected in Site 10 wells (acetone, 2-butanone, and cyclohexane); however, none of these compounds were detected in concentrations exceeding NYSDEC Class GA Groundwater Protection Standards.
- Eight Site 13 wells (monitoring and recovery wells) were sampled and analyzed for VOCs (MW13-3, MW13-4, MW13-4D, MW13-5A, MW13-5D, PW13-1, PZ13-3D, and PW13-4D). Two site-related site COCs, VC, and cis-1,2-DCE were detected at concentrations exceeding NYSDEC Class GA Groundwater Protection Standards (MW13-4D, PW13-1, and MW13-5D). Four other site-related COCs (benzene, toluene, trans-1,2-DCE, and TCE) were detected in Site 13 wells; however, concentrations were below NYSDEC Class GA Groundwater Protection Standards. One other VOC was detected in the Site 13 wells, (acetone); however, concentrations did not exceed NYSDEC Class GA Groundwater Protection Standards.

2.2.2 Surface Water Sampling and Analysis

During the June 2018 sampling event, 7 surface water samples (including one duplicate) were collected at 6 locations, in support of monitoring efforts for Sites 3 and 10, to determine whether site-related contamination has entered nearby surface water bodies (Table 2-2). 1,4-dioxane was detected in surface water in SW3-15 at Site 3. Acetone and carbon disulfide were detected in SW99-10 (Table 2-4). As per the Class C Surface Water Quality Standards, there are no screening criteria for acetone or carbon disulfide. Two locations at Site 10 (SW10-5 and SW10-6) were dry at the time of gauging and sample collection. At the time of sample collection, readings of pH, temperature, and conductivity were recorded (Table 2-5).

2.2.3 Quality Assurance/Quality Control Results

All procedures were consistent with the EPA quality assurance (QA)/quality control (QC) requirements as described in SW-846 (EPA 2007 including updates). All analytical data have been reviewed for compliance with precision, accuracy, representativeness, completeness, and comparability parameters based on EPA's National Functional Guidelines for Organic Data Review (EPA 2008). Data validation reports are included in Appendix C. The number of trip blanks, duplicates, and matrix spike (MS)/matrix spike duplicate (MSD) sample sets collected during surface water and groundwater sampling are summarized in Table 2-6.

There were no QA/QC concerns that significantly affected data usability, except for bromoform in samples JC8966-8, JC68966-10, JC68966-24, and JC6899-24 through JC68966-30, which were rejected due to poor continuing calibration performances, and qualified with "R". Other minor issues were addressed by adding validation qualifiers where necessary. Results and quantitation limits are estimated values when flagged "J" or "UJ". Any "J" qualifier not explicitly explained in the QA/QC review

memorandum indicates that the level detected is below the quantitation limit, but above the method detection limit for organic compounds.

Blank contamination was identified in the equipment blank for the June sampling event (Sample Delivery Group [SDG]: JC68966), but not in the trip blanks or the method blank samples. Acetone was reported at 31.6 parts per billion (ppb) in the equipment blank JC68966-45. As a result, acetone concentrations were qualified based on the following:

- Where acetone was detected below the reporting limit (J values), the result was raised to 10U ppb.
- Where acetone was detected above the reporting limit, but below two times the reporting limit, the detection limit was raised to the reported concentration.
- Where acetone was detected at greater than 20 ppb, but less than the contamination concentration of 31.6 ppb, the detection limit was raised to the reported concentration.
- Where acetone was not detected in the associated samples or was present at a concentration greater than 31.6 ppb, qualification of the sample data was not required.

2.3 Well Inspection and Maintenance

Well inspections of all existing IRP groundwater wells and piezometers were performed in June 2018 (Figure 2-1 and Appendix E). The purpose of these inspections was to determine and document the physical condition of the monitoring and pumping wells, and to identify maintenance actions required to keep the wells operational. The results of the inspections were documented on well inspection checklists that will be included in the annual comprehensive report to be submitted after the second semi-annual sampling event.

Well inspections included the following:

- Inspection of well identification marking and painting, protective casing lock, protective casing cover, monitoring well riser, concrete drainage pad, and guard posts
- Inspection of each well casing annulus for the presence of trapped water

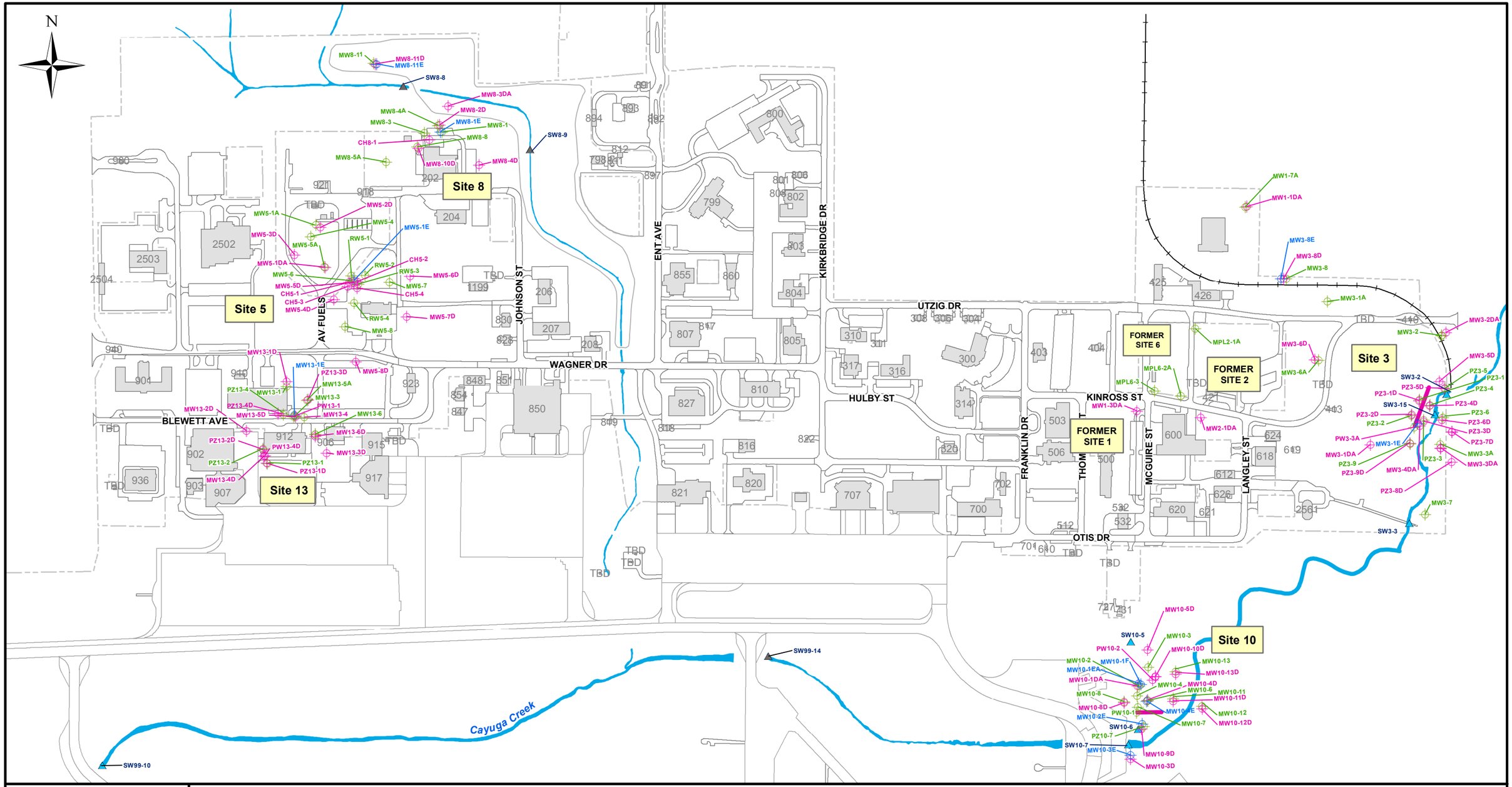
The necessity for well maintenance was determined by the results of the well inspection. The following maintenance items were identified:

- Five wells require a new label.
- Two wells require patching of the concrete pad.
- One well requires a new flush mount cover.
- One well requires painting on associated stick-ups and/or bollards.
- Six well covers had missing bolts or stripped bolts.
- One well with severe casing damage by mowers needs to be cut down and new concrete pads are needed.
- One well is covered with soil and needs to be located and uncovered.

2.4 Decontamination and Investigation Derived Waste

All non-dedicated sampling tools were decontaminated before and after use. All solid waste generated during sampling, including PDB plastic and protective clothing used during sampling, was segregated and disposed of offsite.

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Monitoring Wells

- Deep Bedrock Well
- Overburden Well/Piezometer
- Shallow Bedrock Well/Piezometer
- Groundwater Collection Trench

Surface Water Locations

- Sample and Elevation
- Elevation Only

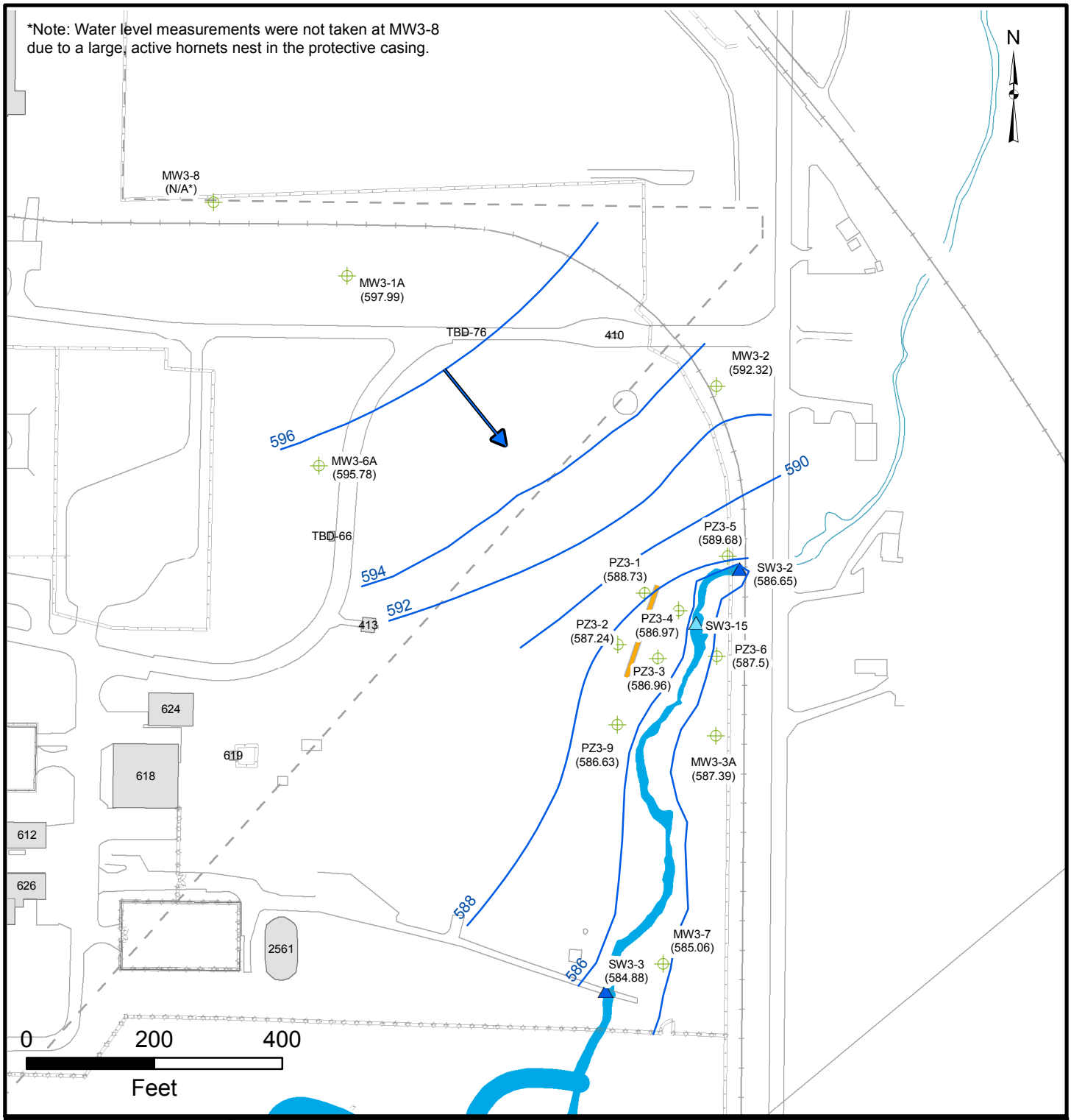
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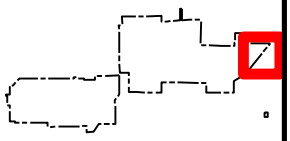
Data Summary Report June 2015 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-1
Installation-Wide Monitoring Well and Sample Locations

PROJECT MGR: BY	DESIGNED BY: FD	CREATED BY: FD	CHECKED BY: BY	SCALE: AS SHOWN	DATE: DECEMBER 2018	PROJECT NO: 6265401	FILE NO: G:\Projects\Federal\DOD\ 6265401-AFCEC-NFARS

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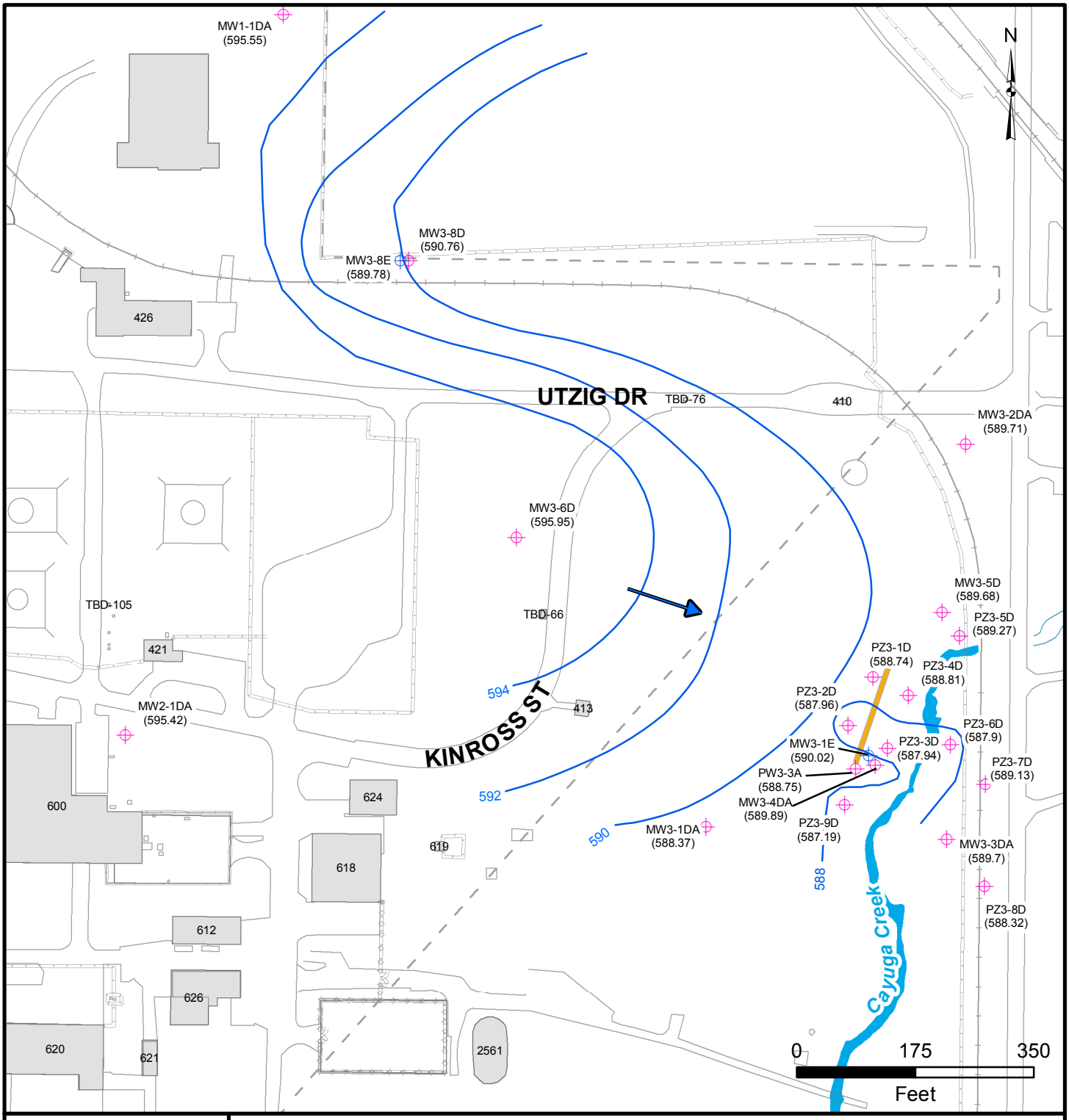


- Overburden Well/Piezometer
- Surface Water Sample
- Surface Water Sample and Elevation Measurement
- Groundwater Collection Trench
- Inferred Groundwater Flow Direction
- Groundwater Elevation Contours (ft)

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

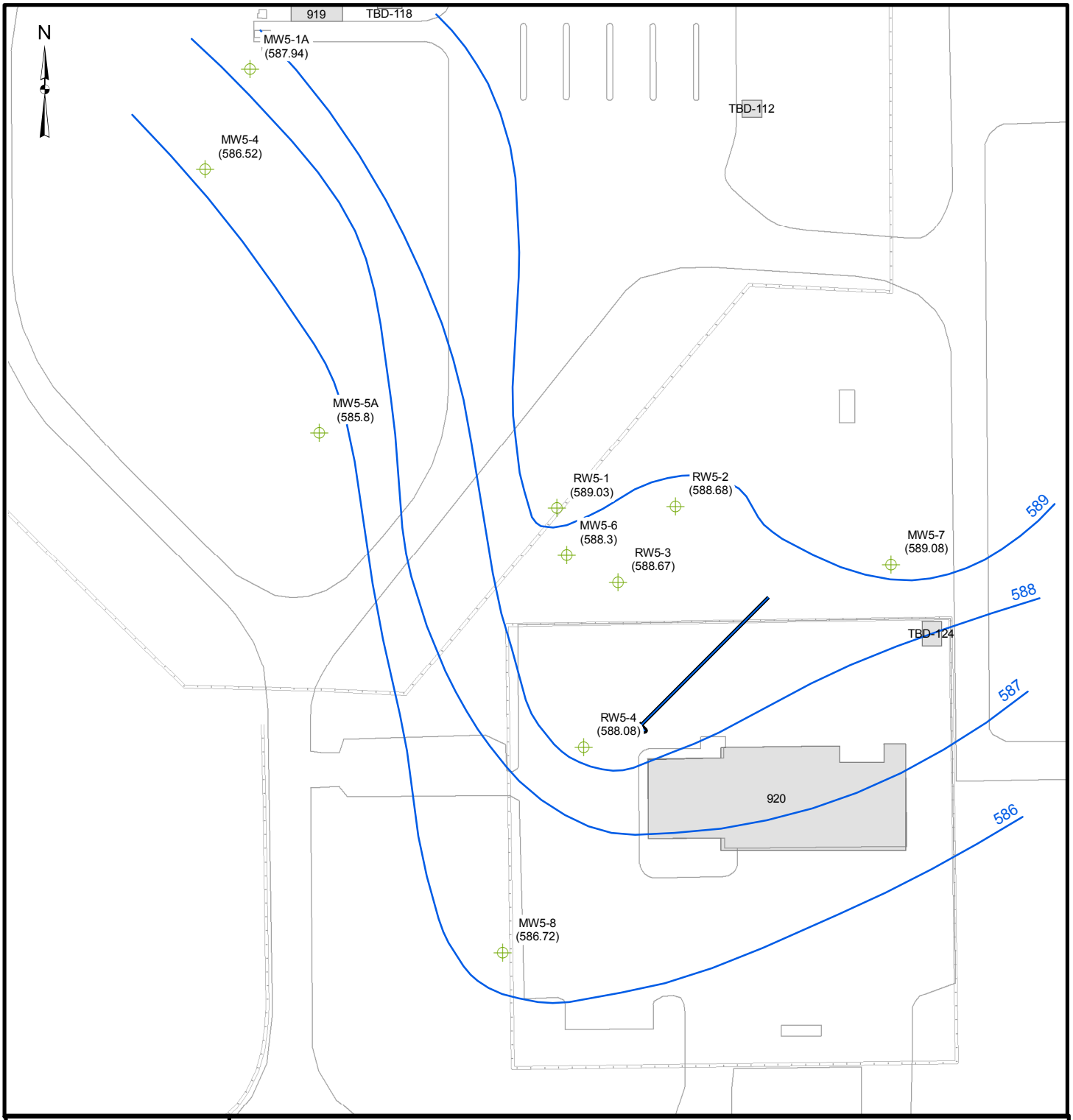
FIGURE 2-2
Overburden Groundwater Contour Map (June 2018)
IRP Site 3

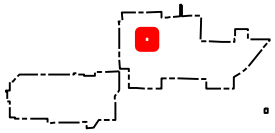
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	Data Summary Report June 2018 Basewide Sampling Installation-Wide Groundwater Monitoring Program Niagara Falls Air Reserve Station Niagara Falls, New York	FIGURE 2-3 Shallow Bedrock Groundwater Contour Map (June 2018) IRP Site 3

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Overburden Well

Inferred Groundwater Flow Direction

Groundwater Elevation Contours (ft)

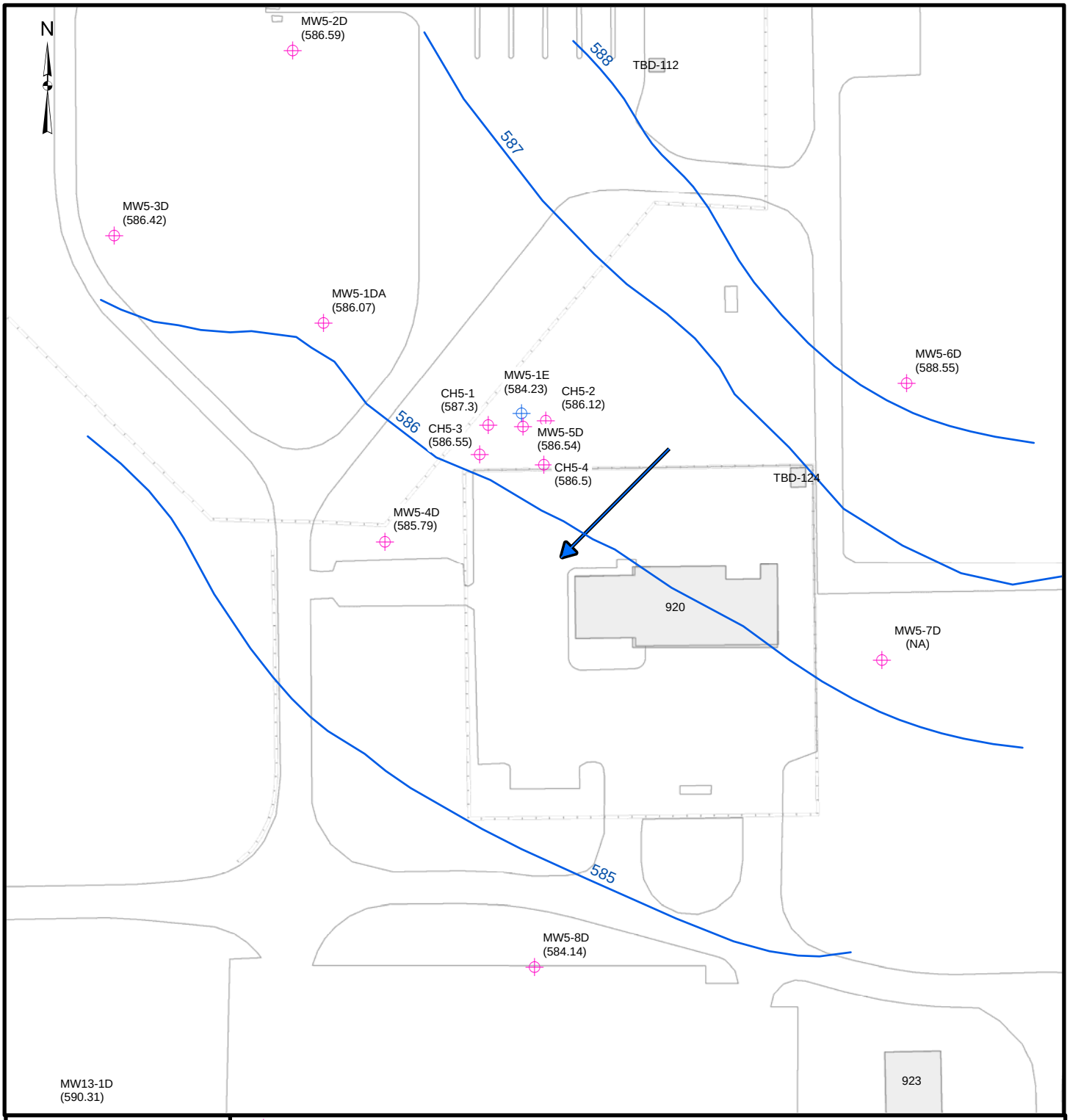
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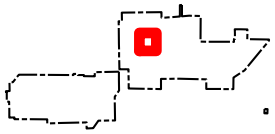
Feet

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-4
Overburden Groundwater
Contour Map (June 2018)
IRP Site 5

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Shallow Bedrock Well

Deep Bedrock Well

Inferred Groundwater Flow Direction

Groundwater Elevation Contours (ft)

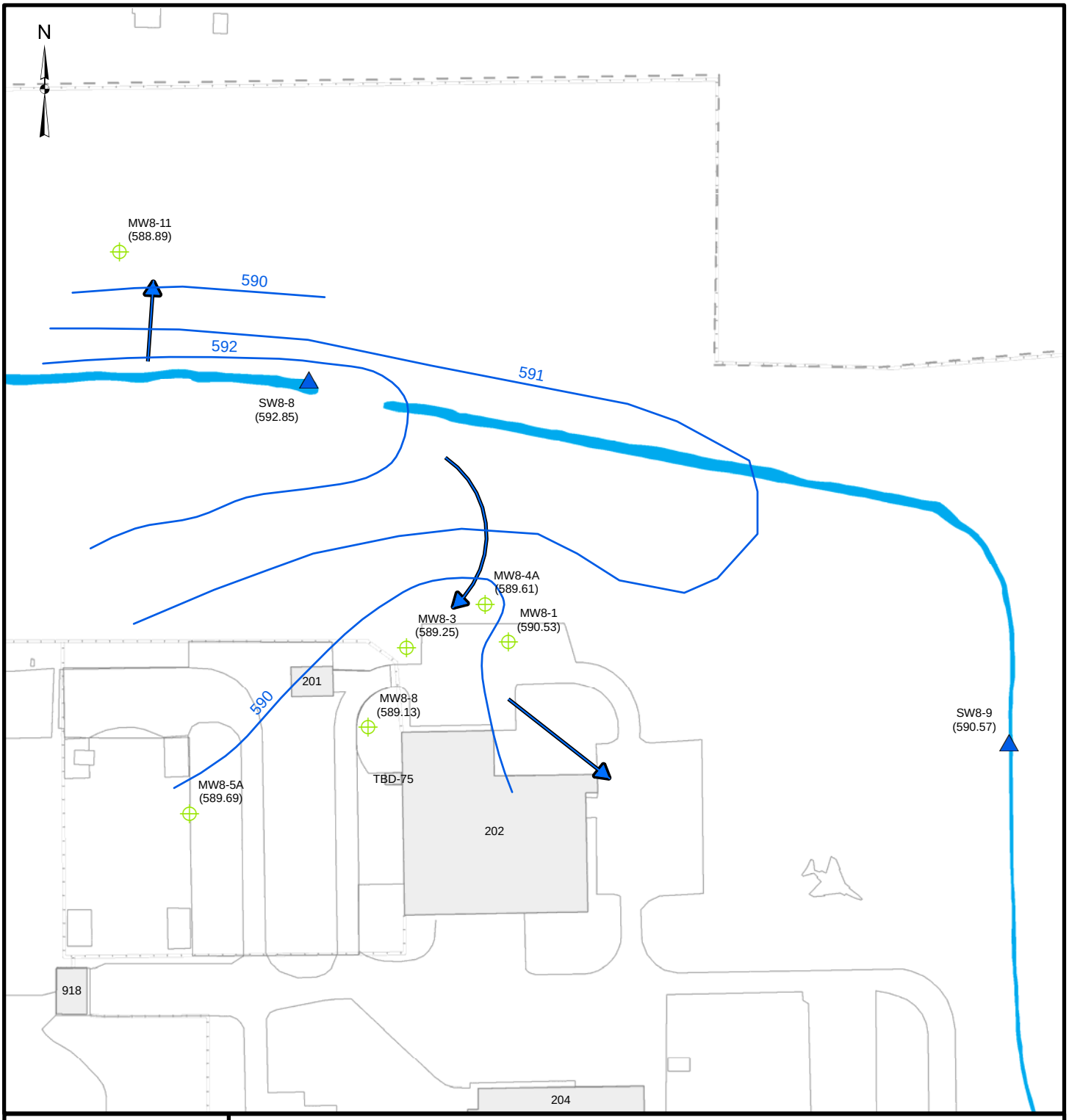
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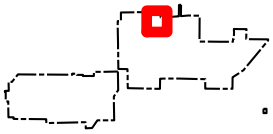
Feet

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-5
Shallow Bedrock Groundwater
Contour Map (June 2018)
IRP Site 5

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Surface Water Elevation

Overburden Well/Piezometer

Inferred Groundwater Flow Direction

Groundwater Elevation Contours (ft)

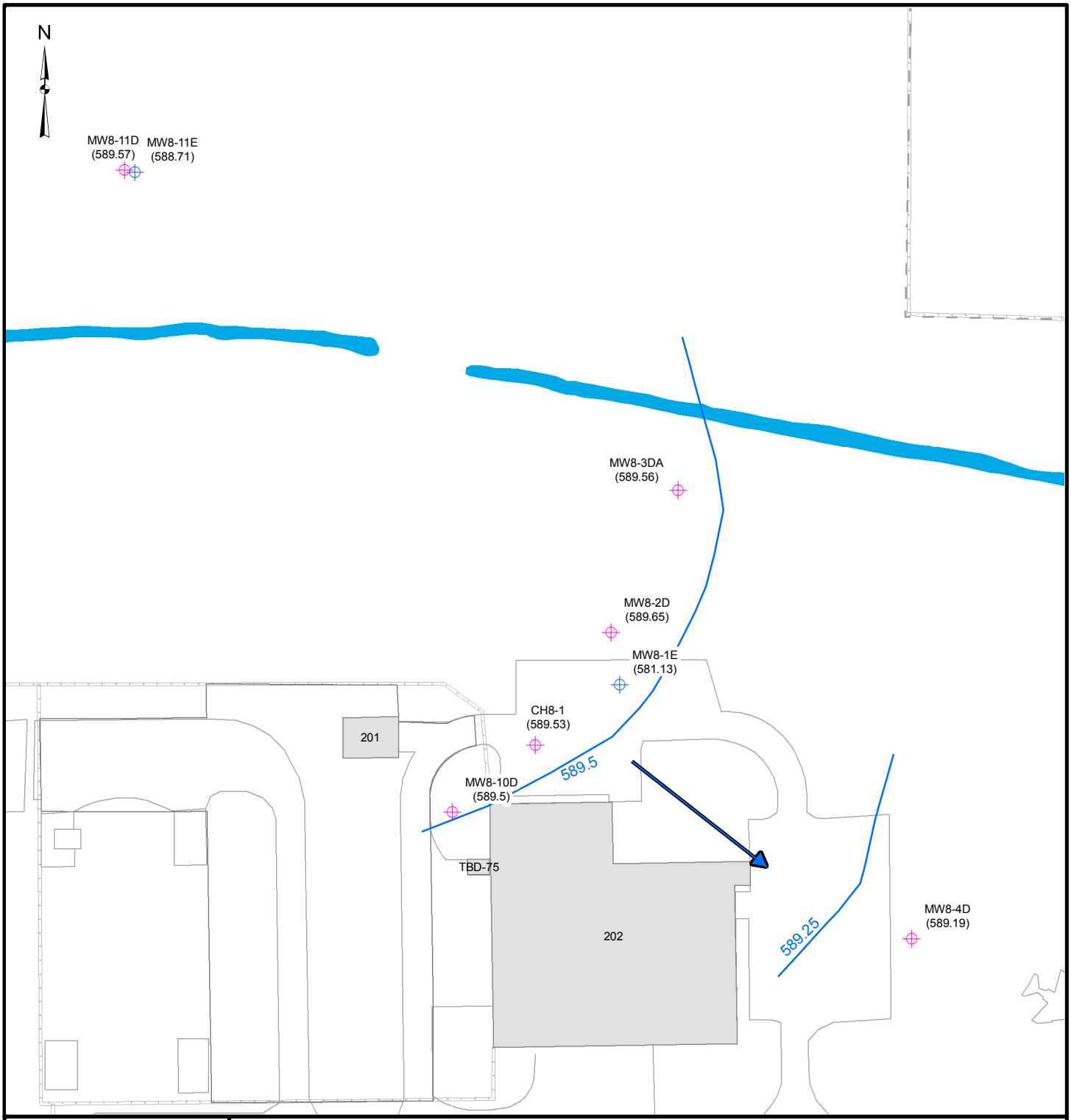
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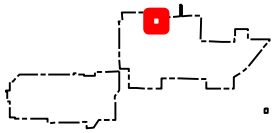
Feet

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-6
Overburden Groundwater
Contour Map (June 2018)
IRP Site 8

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Shallow Bedrock Well

Deep Bedrock Well

bedrock

Groundwater Elevation Contours (ft)

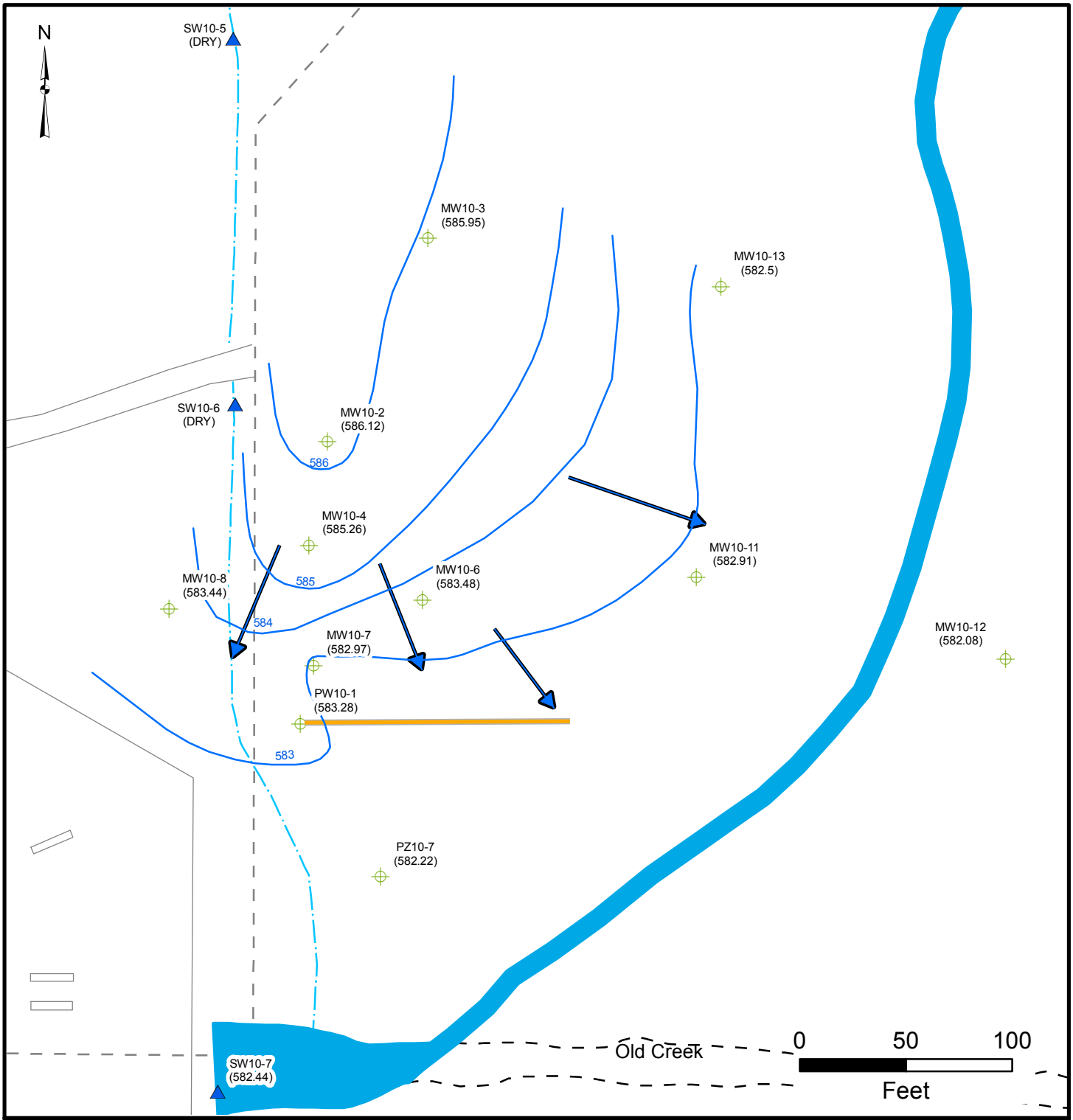
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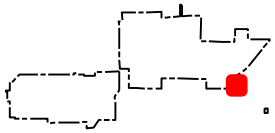
Feet

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-7
Shallow Bedrock Groundwater
Contour Map (June 2018)
IRP Site 8

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Overburden Well/Piezometer

Surface Water Sample and Elevation Measurement

Groundwater Collection Trench

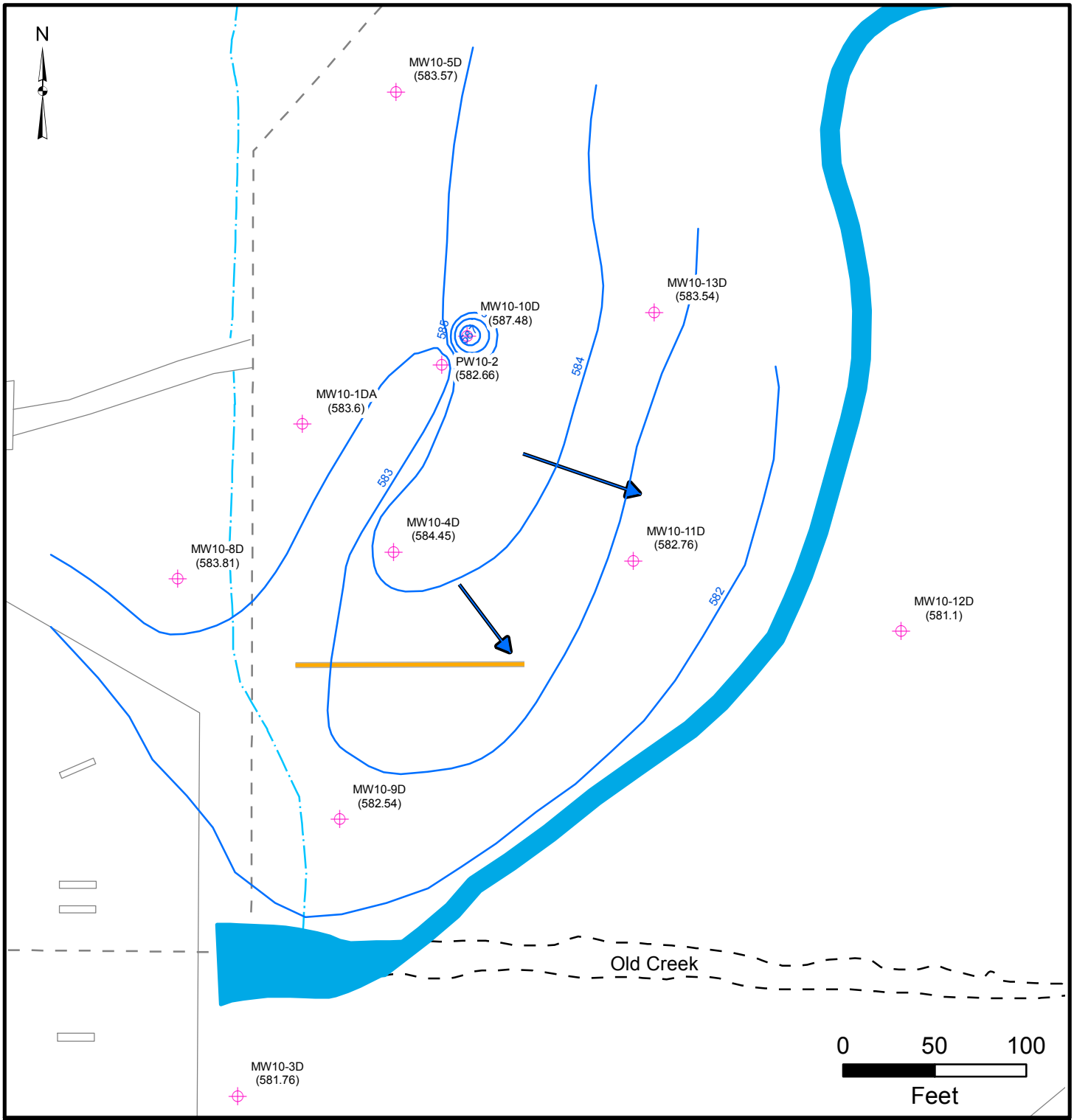
Inferred Groundwater Flow Direction

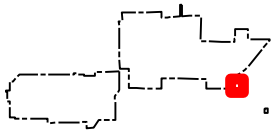
Groundwater Elevation Contours (ft)

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-8
Overburden Groundwater
Contour Map (June 2018)
IRP Site 10

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Shallow Bedrock Well

Groundwater Collection Trench

Inferred Groundwater Flow Direction

Groundwater Elevation Contours (ft)

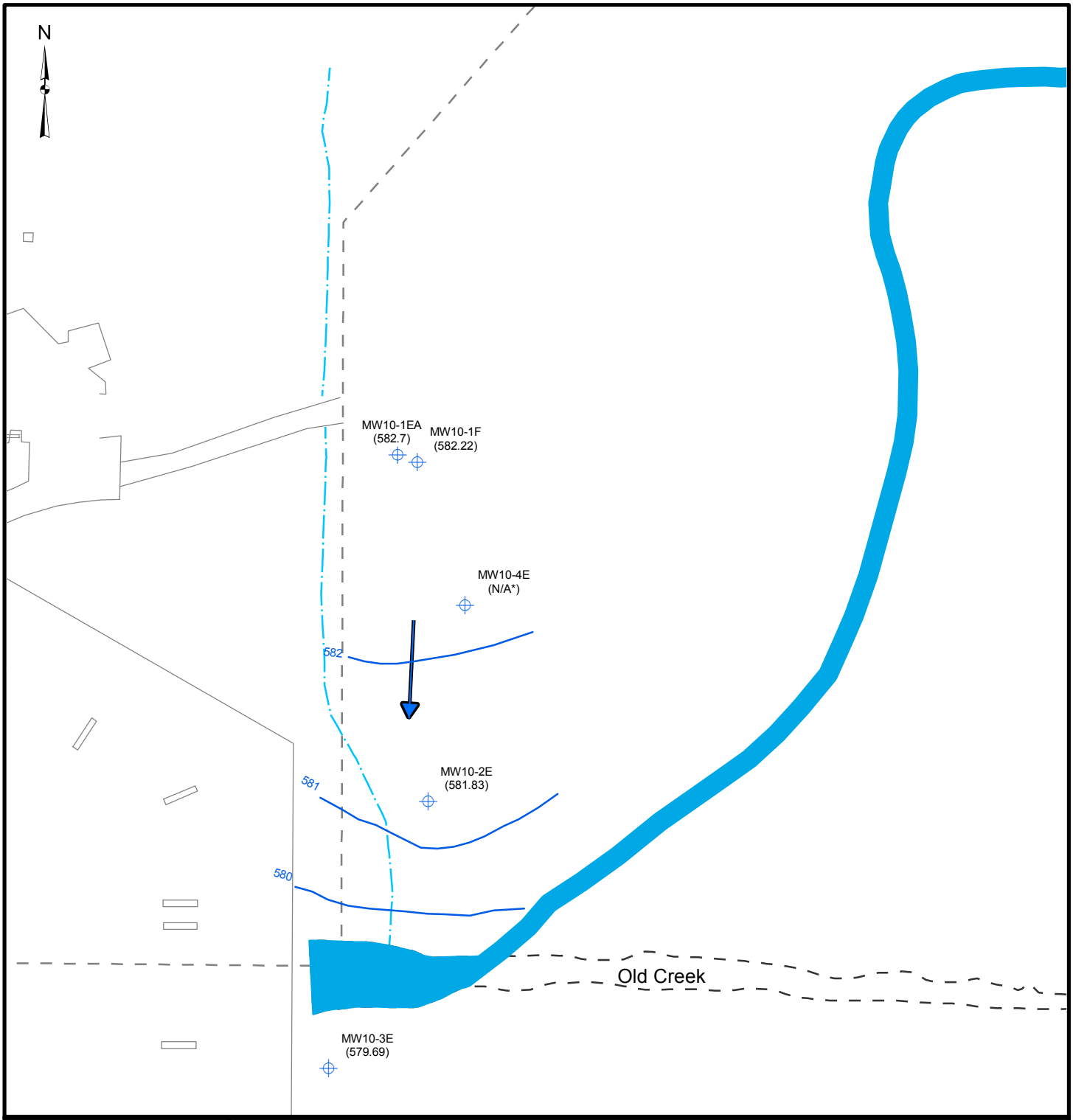
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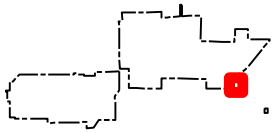
Feet

Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-9
Shallow Bedrock Groundwater
Contour Map (June 2018)
IRP Site 10

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Deep Bedrock Well

Inferred Groundwater Flow Direction

Groundwater Elevation Contours (ft)

Note: Water levels and samples were not collected form MW10-4E due to severe damaged by mowers.

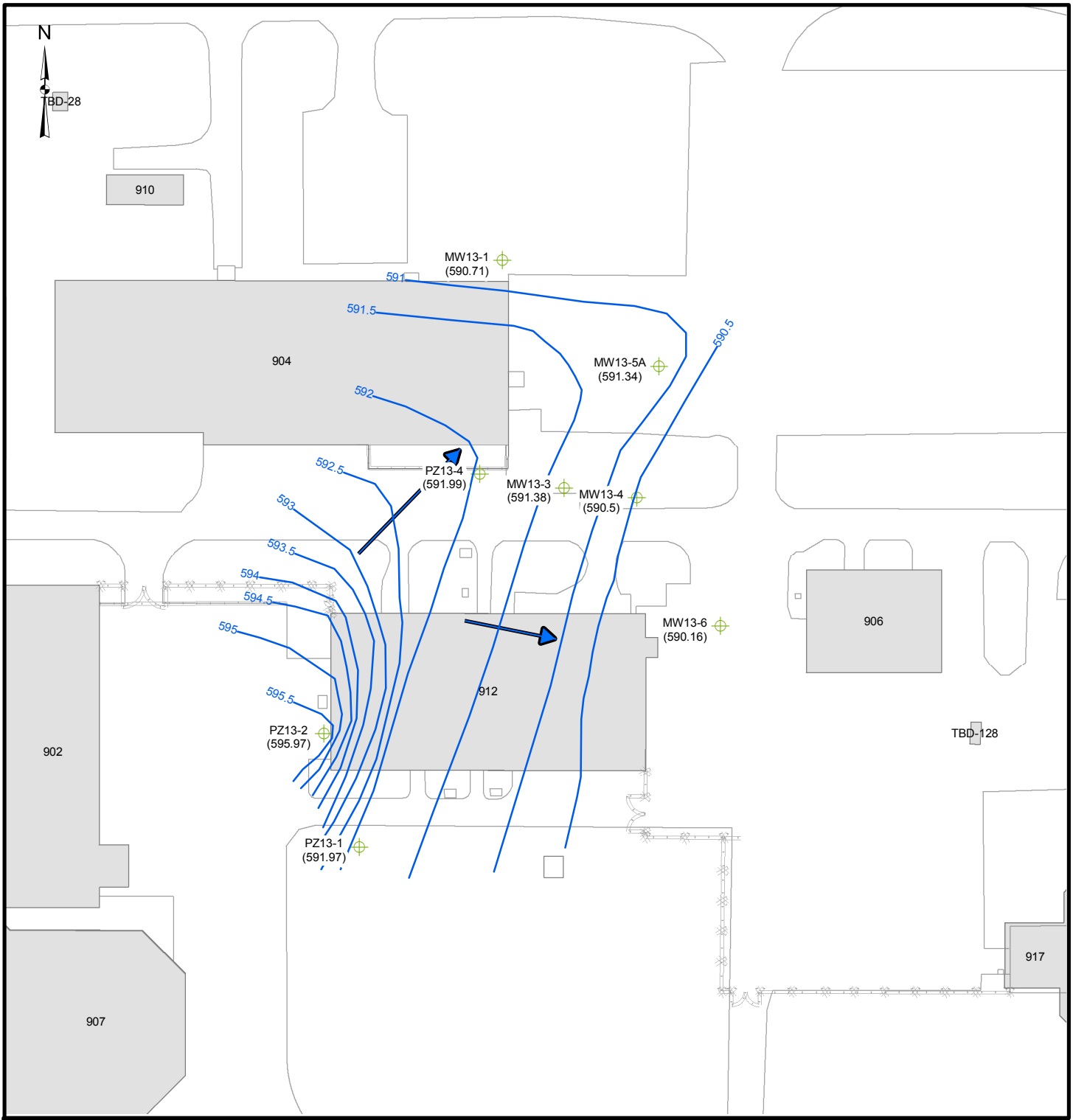
0 50 100

Feet

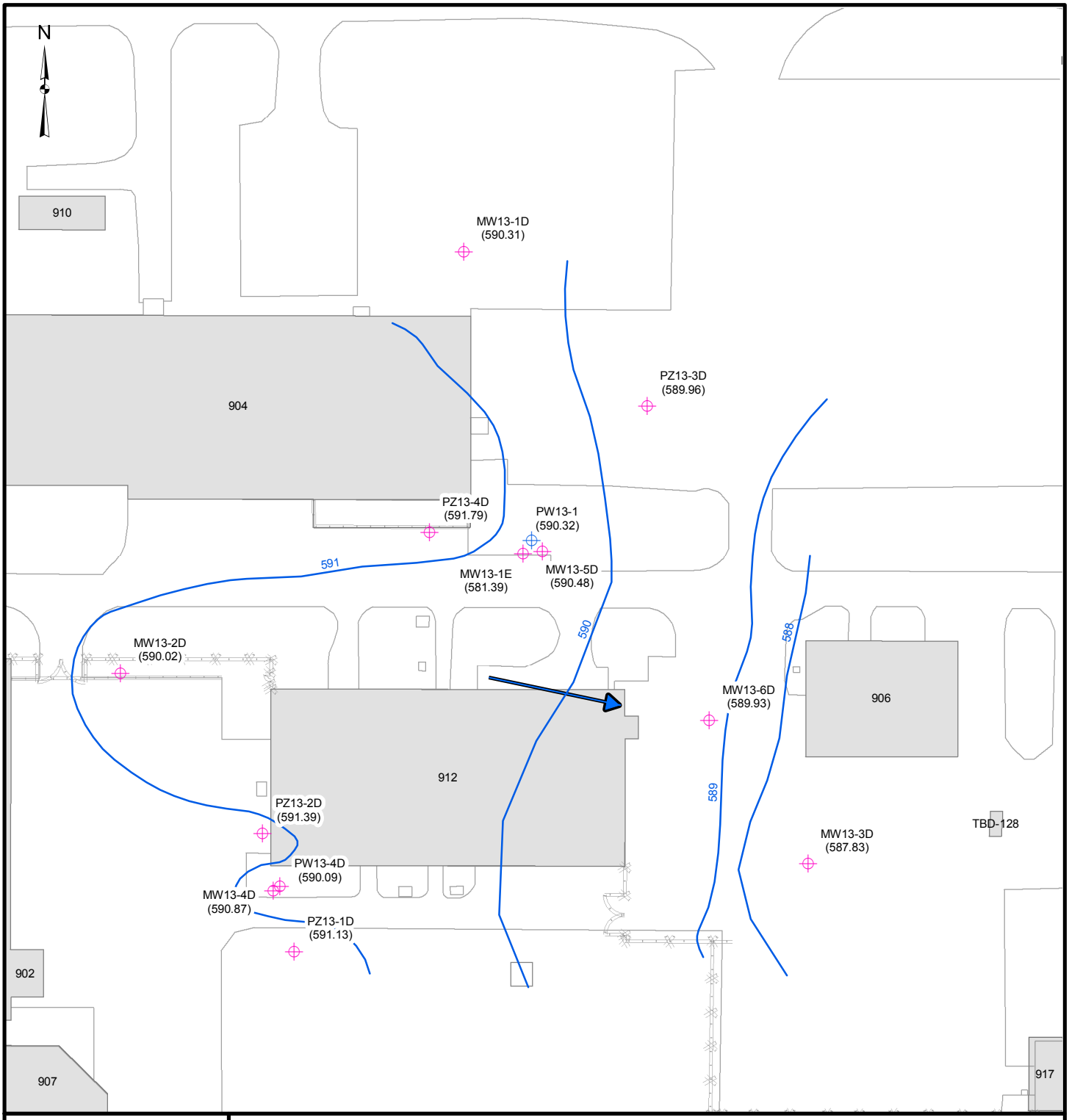
Data Summary Report June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-10
Deep Bedrock Groundwater
Contour Map (June 2018)
IRP Site 10

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EA®	Data Summary Report June 2018 Basewide Sampling Installation-Wide Groundwater Monitoring Program Niagara Falls Air Reserve Station Niagara Falls, New York					FIGURE 2-11 Overburden Groundwater Contour Map (June 2018) IRP Site 13	
PROJECT MGR: BY	DESIGNED BY: FD	CREATED BY: AK	CHECKED BY: BY	SCALE: AS SHOWN	DATE: DECEMBER 2018	PROJECT NO: 6265401	FILE NO: G:\Projects\Federal\DOD\ 6265401_AFCEC_NFARS



Shallow Bedrock Well

Deep Bedrock Well

Inferred Groundwater Flow Direction

Groundwater Elevation Contour (ft)

0 75 150

Feet

Data Suppary Report, June 2018 Basewide Sampling
Installation-Wide Groundwater Monitoring Program
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-12
Shallow Bedrock Groundwater
Contour Map (June 2018)
IRP Site 13

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TABLE 2-1

June 2018 Installation-Wide Groundwater Program Sample Collection Summary

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Well Number	Sample Date	Purge/Sample Method	Sample Analyses	Field QC Samples[a]
Background Well				
MW8-11D	6/25/18	PDB	VOCs	
Site 3				
MW3-3DA	6/26/18	PDB	VOCs	
MW3-4DA / MW3-FD-2018-06-26	6/26/18	PDB	VOCs	Duplicate (VOCs)
PZ3-6D	6/26/18	PDB	VOCs	
PZ3-7D	6/26/18	PDB	VOCs	
PZ3-8D	6/26/18	PDB	VOCs	
PW3-3A	6/26/18	PDB	VOCs	MS/MSD (VOCs)
Site 5				
MW5-1DA	6/25/18	PDB	VOCs	
MW5-5D	6/25/18	PDB	VOCs	
MW5-6	6/25/18	PDB	VOCs	
RW5-1	6/25/18	PDB	VOCs	
RW5-2	6/25/18	PDB	VOCs	
RW5-4	6/25/18	PDB	VOCs	
Site 8				
MW8-1	6/25/18	PDB	VOCs	
MW8-8	6/25/18	PDB	VOCs	
MW8-10D	6/25/18	PDB	VOCs	
CH8-1	6/25/18	PDB	VOCs	MS/MSD (VOCs)
Site 10				
MW10-1DA	6/26/18	PDB	VOCs	
MW10-2	6/26/18	PDB	VOCs	
MW10-3	6/26/18	PDB	VOCs	
MW10-7	6/26/18	PDB	VOCs	
MW10-10D	6/26/18	PDB	VOCs	
PW10-1	6/26/18	PDB	VOCs	
PW10-2	6/26/18	PDB	VOCs	
PZ10-7	6/26/18	PDB	VOCs	

TABLE 2-1

June 2018 Installation-Wide Groundwater Program Sample Collection Summary

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Well Number	Sample Date	Purge/Sample Method	Sample Analyses	Field QC Samples[a]
Site 13				
MW13-3 / MW13-FD-2018-06-25	6/25/18	PDB	VOCs	Duplicate (VOCs)
MW13-4	6/25/18	PDB	VOCs	
MW13-4D	6/25/18	PDB	VOCs	
MW13-5A	6/25/18	PDB	VOCs	
MW13-5D	6/25/18	PDB	VOCs	
PW13-1	6/25/18	PDB	VOCs	
PZ13-3D	6/25/18	PDB	VOCs	
PW13-4D	6/25/18	PDB	VOCs	

(a) A field blank "PDB-BLANK-2018-06-25" was collected at the beginning of the sample collection event.

NOTE: QC = Quality control.
PDB = Passive diffusion bag.
VOC = Volatile organic compound (Method 8260C).
MS/MSD = Matrix spike/matrix spike duplicate.

TABLE 2-2

June 2018 Installation-Wide Surface Water Program Sample Collection Summary

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Location	Description	Sample Date	Analysis	Field QC Samples[a]
SW3-2	Cayuga Creek as it enters the base, upstream of Site 3	6/26/18	VOCs, field parameters[b], water level[c]	MS/MSD (VOCs)
SW3-3	Cayuga Creek near gravel road crossing, downstream of Site 3	6/26/18	VOCs, field parameters[b], water level[c]	
SW3-15	Cayuga Creek between SW3-2 and SW3-3, downstream of PW3-3A and the collection trench	6/26/18	VOCs and basic field parameters	
SW10-7	Cayuga Creek downstream of Site 10 and confluence with drainage ditch	6/26/18	VOCs and basic field parameters, and water level	
SW10-8[d] SW10-FD-2018-06-26	Cayuga Creek upstream of Site 10	6/26/18	VOCs and basic field parameters	Duplicate (VOCs)
SW99-10	Cayuga Creek near taxiway A2 just before it flows off base	6/26/18	VOCs, field parameters[b], water level[c]	

[a] A trip blank was also shipped with the field samples.

[b] Basic field parameters include temperature, pH, and conductivity.

[c] Surface water elevation reference points

SW3-2 = PK nail in wooden railroad tie.
SW3-3 = East end of west gate (top edge of the bottom rail of gate over creek).
SW8-8 = Top of west culvert pipe and cut.
SW8-9 = Top of stake.
SW10-5 = Top of concrete junction box.
SW10-6 = Top of pipe.
SW10-7 = Top of south culvert pipe and cut.
SW99-10 = Top of concrete culvert.

[d] Location added as part of 2015 Remedial Action to monitor protectiveness of creek following suspension of groundwater pumping.

NOTE: QC = Quality control.
VOC = Volatile organic compound (Method 8260C).
MS/MSD = Matrix spike/matrix spike duplicate.

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Table 2-3

Summary of Positive Validated June 2018 Installation-wide Groundwater Program Groundwater Analytical Results

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Analyte	Screening Criteria [(a)]	Background	Site 3							
		MW8-11D	MW3-3DA	MW3-4DA	MW-3-FD-2018-06-26	PW3-3A	PZ3-6D	PZ3-7D	PZ3-8D	PDB-BLANK
		6/25/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018
Volatile Organic Compounds by Method SW8260 (µg/L)										
BENZENE	1	0.5 U	0.5 U	0.5 U	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	1 U	**5.4**	**4.7**	**5.8**	**17.6 J**	**3.3**	**13.4**	1 U	1 U
CHLOROFORM	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	5	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
TOLUENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TRANS-1,2-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	**0.43 J**	1 U	1 U	1 U	1 U
TRICHLOROETHENE	5	1 U	1 U	1 U	1 U	**0.64 J**	1 U	1 U	1 U	1 U
VINYL CHLORIDE	2	1 U	**13.6**	**5.2**	**8.3**	**17.8**	**2.7**	**21.3**	1 U	1 U
XYLENE (TOTAL)	5	1 U	1 U	1 U	1 U	1 UJ	1 U	1 U	1 U	1 U
Other Volatile Organic Compounds Detected by Method SW8260 (µg/L)										
ACETONE	50	**40.1**	10 U	5 U	10 U	**45.3**	10 U	10 U	10 U	**31.6**
2 BUTANONE (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	---	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	2 U
CYCLOHEXANE	---	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-DICHLOROETHANE	0.6	**0.73 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4 DIOXANE	---	75 UJ	**61.4 J**	75 UJ	75 UJ	52 U	52 U	75 UJ	75 UJ	75 UJ
1,1-DICHLOROETHANE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
ISOPROPYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYLENE CHLORIDE	5	2 U	2 U	2 U	2 U	2 UJ	2 U	2 U	2 U	2 U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

(b) Field Duplicates MW3-FD-2018-06-26 and MW13-FD-2018-06-25 collected from MW3-4DA and MW13-3, respectively.

NOTE: µg/L = Microgram(s) per liter.

U = Analyte was analyzed for but not detected, method reporting limit provided.

J = Analyte detected, estimated concentration.

--- = No Screening Criteria.

Shaded cells exceed the screening value.

Bold values denote detections.

Table 2-3

Summary of Positive Validated June 2018 Installation-wide Groundwater Program Groundwater Analytical Results

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Analyte	Screening Criteria [a]	Background	Site 5						Trip Blanks	
		MW8-11D	MW5-1DA	MW5-5D	MW5-6	RW5-1	RW5-2	RW5-4	TB-1	TB-2
		6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/26/2018
Volatile Organic Compounds by Method SW8260 (µg/L)										
BENZENE	1	0.5 U	0.5 U	0.5 U	**0.23 J**	0.5 U	0.5 U	**3.9**	0.5 U	0.5 U
CIS-1,2-DICHLOROETHENE	5	1 U	**41.7**	**1,310**	**1.1**	**854**	**8.7**	**4.6**	1 U	1 U
CHLOROFORM	7	1 U	1 U	1 U	**0.89 J**	**1.3**	1 U	1 U	1 U	1 U
1,1-DICHLOROETHENE	5	1 U	1 U	**3.2**	1 U	**2**	1 U	1 U	1 U	1 U
ETHYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	5	1 U	1 U	1 U	1 U	1 U	1 U	**6.3**	1 U	1 U
TRANS-1,2-DICHLOROETHENE	5	1 U	1 U	**32.8**	1 U	**3.9**	**0.47 J**	1 U	1 U	1 U
TRICHLOROETHENE	5	1 U	1 U	**38.7**	1 U	**21.7**	**0.32 J**	1 U	1 U	1 U
VINYL CHLORIDE	2	1 U	**4.2**	**3,170**	1 U	**338**	**20.6**	1 U	1 U	1 U
XYLENE (TOTAL)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other Volatile Organic Compounds Detected by Method SW8260 (µg/L)										
ACETONE	50	**40.1**	14.2 U	5 U	**36.2**	30.8 U	**41**	10 U	5 U	5 U
2 BUTANONE (MEK)	50	10 U	10 U	10 U	**8.8 J**	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	---	2 U	2 U	2 U	2 U	**1.5 J**	2 U	2 U	2 U	2 U
CYCLOHEXANE	---	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-DICHLOROETHANE	0.6	**0.73 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4 DIOXANE	---	75 UJ	75 UJ	**104 J**	75 UJ	**129 J**	75 UJ	52 U	75 UJ	75 UJ
1,1-DICHLOROETHANE	5	1 U	1 U	**1 U**	1 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	50	5 U	5 U	5 U	5 U	5 U	5 U	**7.5**	5 U	5 U
ISOPROPYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYLENE CHLORIDE	5	2 U	2 U	2 U	**1.7 J**	2 UJ	2 U	2 U	2 U	2 U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

(b) Field Duplicates MW3-FD-2018-06-26 and MW13-FD-2018-06-25 collected from MW3-4DA and MW13-3, respectively.

NOTE: µg/L = Microgram(s) per liter.

U = Analyte was analyzed for but not detected, method reporting limit provided.

J = Analyte detected, estimated concentration.

--- = No Screening Criteria.

Shaded cells exceed the screening value.

Bold values denote detections.

Table 2-3

Summary of Positive Validated June 2018 Installation-wide Groundwater Program Groundwater Analytical Results

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Analyte	Screening Criteria [a]	Background	Site 8				Site 10							
		MW8-11D	CH8-01	MW8-1	MW8-8	MW8-10D	MW10-1DA	MW10-2	MW10-3	MW10-7	MW10-10D	PW10-1	PW10-2	PZ10-7
		6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018	6/26/2018
Volatile Organic Compounds by Method SW8260 (µg/L)														
BENZENE	1	0.5 U	0.5 U	0.59	0.5 U	0.5 U	**5**	**2**	0.5 U	0.5 U	**2.4 J**	0.5 U	**3.4**	0.5 U
CIS-1,2-DICHLOROETHENE	5	1 U	**0.87 J**	**81.6**	1 U	**3**	1 U	**7.2**	**1.5**	**23.4**	**1,660**	**11.3**	1 U	1 U
CHLOROFORM	7	1 U	1 U	1 U	**6.1**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	**0.22 J**	1 U	1 U	1 U	1 U	1 U	**0.37 J**	1 U
TOLUENE	5	1 U	1 U	1 U	1 U	1 U	**2.2**	**5.7**	1 U	1 U	**10.4**	1 U	1	1 U
TRANS-1,2-DICHLOROETHENE	5	1 U	1 U	3	1 U	1 U	**0.46 J**	**1.4**	1 U	**0.81 J**	**9 J**	1.6	1 U	1 U
TRICHLOROETHENE	5	1 U	1 U	**0.55 J**	1 U	1 U	1 U	**0.64 J**	1 U	**13.4**	**28.1**	1.3	1 U	1 U
VINYL CHLORIDE	2	1 U	**0.79 J**	**75.9**	1 U	**1.6**	**2.2**	**2.5**	1 U	1 U	**212**	**4.9**	1 U	1 U
XYLENE (TOTAL)	5	1 U	1 U	1 U	1 U	1 U	**1.4**	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other Volatile Organic Compounds Detected by Method SW8260 (µg/L)														
ACETONE	50	**40.1**	5 U	**40.4**	10 U	**42**	10 U	18.9 U	10 U	12.7 U	5 U	5 U	28.3 U	10 U
2 BUTANONE (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	**8.3 J**	10 U	10 U	100 U	10 U	10 U	10 U
CARBON DISULFIDE	---	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U
CYCLOHEXANE	---	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	**0.64 J**	5 U
1,2-DICHLOROETHANE	0.6	**0.73 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4 DIOXANE	---	75 UJ	75 UJ	75 UJ	75 UJ	75 UJ	75 U	75 UJ	75 U	75 U	75 UJ	75 UJ	75 UJ	75 U
1,1-DICHLOROETHANE	5	1 U	1 U	**0.34 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U	5 U
ISOPROPYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYLENE CHLORIDE	5	2 U	2 U	2 U	**1.1 J**	2 U	2 U	2 U	2 U	2 U	20 U	2 U	2 U	2 U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

(b) Field Duplicates MW3-FD-2018-06-26 and MW13-FD-2018-06-25 collected from MW3-4DA and MW13-3, respectively.

NOTE: µg/L = Microgram(s) per liter.

U = Analyte was analyzed for but not detected, method reporting limit provided.

J = Analyte detected, estimated concentration.

--- = No Screening Criteria.

Shaded cells exceed the screening value.

Bold values denote detections.

Table 2-3

Summary of Positive Validated June 2018 Installation-wide Groundwater Program Groundwater Analytical Results

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Analyte	Screening Criteria [a]	Background	Site 13								
		MW8-11D	MW13-3	MW13-3-FD2018-06-25	MW13-4	MW13-4D	MW13-5A	MW13-5D	PW13-1	PW13-4D	PZ13-3D
		6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018	6/25/2018
Volatile Organic Compounds by Method SW8260 (µg/L)											
BENZENE	1	0.5 U	0.5 U	0.5 U	**0.41 J**	**0.21 J**	**0.21 J**	0.5 U	0.5 U	0.5 U	**0.25 J**
CIS-1,2-DICHLOROETHENE	5	1 U	**1.7**	**1.8**	1 U	**9.6**	**0.63 J**	**39.7**	**14.1**	**4.1**	**0.73 J**
CHLOROFORM	7	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,1-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
ETHYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
TOLUENE	5	1 U	1 U	**0.28 J**	**0.41 J**	1 U	**2**	1 U	1 U	1 U	1 U
TRANS-1,2-DICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	**0.53 J**	**1**	1 U	1 U
TRICHLOROETHENE	5	1 U	1 U	1 U	1 U	1 U	1 U	**2.9**	**4.2**	1 U	1 U
VINYL CHLORIDE	2	1 U	1 U	1 U	1 U	**4.9**	1 U	**3.1**	**5.3**	1 U	**0.77 J**
XYLENE (TOTAL)	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
Other Volatile Organic Compounds Detected by Method SW8260B (µg/L)											
ACETONE	50	**40.1**	**33**	**31.7**	16.5 U	21.9 U	**38.1**	31.2 U	5 U	31.4 U	27.8 U
2 BUTANONE (MEK)	50	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U	10 U
CARBON DISULFIDE	---	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U
CYCLOHEXANE	---	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
1,2-DICHLOROETHANE	0.6	**0.73 J**	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
1,4 DIOXANE	---	75 UJ	75 U	75 U	75 U	75 U	75 U	75 U	75 U	75 U	75 U
1,1-DICHLOROETHANE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
2-HEXANONE	50	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
ISOPROPYLBENZENE	5	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U
METHYLENE CHLORIDE	5	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U	2 U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class GA Groundwater Standards and Guidance Values.

(b) Field Duplicates MW3-FD-2018-06-26 and MW13-FD-2018-06-25 collected from MW3-4DA and MW13-3, respectively.

NOTE: µg/L = Microgram(s) per liter.

U = Analyte was analyzed for but not detected, method reporting limit provided.

J = Analyte detected, estimated concentration.

--- = No Screening Criteria.

Shaded cells exceed the screening value.

Bold values denote detections.

TABLE 2-4

Summary of Positive Validated June 2018 Installation-Wide Groundwater Program Surface Water Analytical Results

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Analyte	Screening Criteria [a]	Sample ID:	SW3-2	SW3-3	SW3-15	SW10-5	SW10-6	SW10-7	SW10-8	SW-FD-2018-06-28	SW99-10
		Date:	06/26/18	06/26/18	06/26/18			06/26/18	06/26/18	06/26/18	06/26/18
Volatile Organic Compounds by Method SW8260B (µg/L)											
ACETONE	---		10 U	10 U	10 U	NS	NS	10 U	10 U	10 U	**133**
CARBON DISULFIDE	---		1 U	1 U	1 U	NS	NS	1 U	1 U	1 U	**0.76 J**
1,4-DIOXANE	---		75 UJ	75 U	**54.6 J**	NS	NS	75 UJ	75 UJ	75 UJ	75 U

(a) New York State Department of Environmental Conservation, Technical and Operational Guidance Series Memorandum #1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, 1998 (with updates), Class C Surface Water Standards and Guidance Values.

NOTE: ID = Identification.

µg/L = Micrograms per liter.

U = Not detected (lab reporting limit shown).

NS = Not Sampled.

--- = No Screening Criteria.

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Table 2-5

Summary of June 2018 Field Measurements of Surface Water Samples

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Location ID	Date Sampled	pH (s.u.)	Temperature (°C)	Conductivity (µS/cm)
SW3-2	6/26/18	7.82	14.52	0.701
SW3-3	6/26/18	7.91	16.78	0.599
SW3-15	6/26/18	8.67	16.02	0.671
SW10-7	6/26/18	7.56	17.46	0.762
SW10-8	6/26/18	7.88	17.38	0.734
SW99-10	6/26/18	7.84	16.98	0.949

NOTE: ID = Identification
s.u. = Standard units
°C = Degrees Celsius
µS/cm = MicroSiemens per centimeter

Table 2-6

June 2018 Installation-Wide Groundwater Monitoring Program Sampling and Analysis Summary

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Matrix	Analysis	Number of Field Samples	Number of Quality Assurance/ Quality Control Samples		
			Duplicates	Matrix Spike/Matrix Spike Duplicates	Trip Blanks[a]
Surface Water	EPA Method 8260C Volatile Organic Compounds	6	1	1/1	1
Groundwater		33	2	2/2	3

(a) Trip blanks collected at the rate of one per shipping cooler. Number includes one passive diffusion bag blank for groundwater.

NOTE: EPA = U.S. Environmental Protection Agency

3.0 Performance Monitoring

The performance monitoring wells for the 2018 RAs are presented on Table 3-1. The RA performance monitoring results and associated CVOC trend graphs for Sites 5, 8, 10, and 13 have been updated with June 2018 data and are included in Appendix F. A summary of the 2018 RAs are included in the 2018 Remedial Action Injection Summary Memorandum Sites FT005 – Site 10, ST010 – Site 13, DS002 – Site 8, and DS004 – Site 5 (EA 2018) Appendix G. An evaluation of all the RA trend data (CVOCs) will be provided in the 2018 Annual Comprehensive Sampling /Monitoring Report.

TABLE 3-1

June 2018 Remedial Action Performance Monitoring Sample Collection Summary

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Well Number	Sample Date	Purge/Sample Method	Sample Analyses	Field QC Samples[a]
Site 5 – Quarterly				
MW5-5D	6/25/18	PDB	VOCs	
RW5-1	6/25/18	PDB	VOCs	
RW5-2	6/25/18	PDB	VOCs	
RW5-4	6/25/18	PDB	VOCs	
Site 8 – Quarterly				
MW8-1	6/25/18	PDB	VOCs	
MW8-10D	6/25/18	PDB	VOCs	
MW8-8	6/25/18	PDB	VOCs	
CH8-1	6/25/18	PDB	VOCs	MS/MSD (VOCs)
Site 10 – Quarterly				
MW10-10D	6/26/18	PDB	VOCs	
MW10-1DA	6/26/18	PDB	VOCs	
PW10-2	6/26/18	PDB	VOCs	
MW10-2	6/26/18	PDB	VOCs	
PZ10-7	6/26/18	PDB	VOCs	
Well Number	Sample Date	Purge/Sample Method	Sample Analyses	Field QC Samples[a]
Site 13 – Quarterly				
MW13-3/MW13-FD-2018-06-25	6/25/18	PDB	VOCs	Duplicate (VOCs)
MW13-4	6/25/18	PDB	VOCs	
MW13-5A	6/25/18	PDB	VOCs	
MW13-5D	6/25/18	PDB	VOCs	
PW13-1	6/25/18	PDB	VOCs	
PZ13-3D	6/25/18	PDB	VOCs	

(a) A field blank was collected at the beginning of the sample collection event.

4.0 References

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APPENDIX A
WATER LEVEL DATA

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TABLE A-1

Groundwater Elevations, June 2018

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Location	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Depth (6/06/18)	Depth to Water (6/06/18)	Groundwater Elevation (6/06/18)
MW1-1DA	603.05	605.61	24.03	10.06	595.55
MW1-7A	603.04	605.71	13.00	7.08	598.63
MPL2-1A	602.2	603.29	13.50	5.45	597.84
MW2-1DA	597.36	599.39	14.36	3.97	595.42
MW3-1A	601.60	603.65	13.39	5.66	597.99
MW3-1DA	590.70	593.29	16.02	4.92	588.37
MW3-1E	589.00	591.51	44.20	1.49	590.02
MW3-2	596.90	598.44	10.06	6.12	592.32
MW3-2DA	596.80	599.02	22.05	9.31	589.71
MW3-3DA	588.30	590.10	16.99	0.40	589.70
MW3-3A	588.30	588.23	5.10	0.84	587.39
MW3-4DA	588.50	590.99	15.60	1.32	589.67
MW3-5D	593.00	594.96	25.65	5.28	589.68
MW3-6A	599.80	602.26	10.96	6.48	595.78
MW3-6D	600.70	602.05	18.04	6.10	595.95
MW3-7	588.10	591.14	7.40	6.08	585.06
MW3-8	601.50	603.84	12.75	---	---
MW3-8D	601.50	603.67	23.72	12.91	590.76
MW3-8E	601.60	603.69	46.41	13.91	589.78
PW3-3A	589.40	589.95	14.00	1.20	588.75
PZ3-1	592.10	591.71	5.81	2.98	588.73
PZ3-1D	592.20	591.75	12.32	3.01	588.74
PZ3-2	590.90	590.12	4.07	2.88	587.24
PZ3-2D	590.90	590.52	12.70	2.56	587.96
PZ3-3	588.90	588.14	2.28	1.18	586.96
PZ3-3D	588.80	588.62	9.37	0.68	587.94
PZ3-4	590.50	589.95	3.32	2.98	586.97
PZ3-4D	590.60	590.52	11.52	1.71	588.81
PZ3-5	590.03	589.68	2.86	0.00	589.68
PZ3-5D	589.80	589.57	9.90	0.30	589.27
PZ3-6	585.09	588.34	3.25	1.89	586.45
PZ3-6D	588.30	587.90	12.82	0.00	587.90
PZ3-7D	593.40	593.01	21.55	3.88	589.13
PZ3-8D	592.40	592.12	18.19	3.80	588.32
PZ3-9	588.76	588.7	4.10	2.07	586.63
PZ3-9D	591.06	588.5	24.31	1.31	587.19
CH5-01	597.36	597.21	30.00	9.91	587.30
CH5-02	597.21	597.07	30.01	10.95	586.12
CH5-03	597.73	597.74	32.58	11.19	586.55
CH5-04	597.67	597.6	33.80	11.10	586.50
MW5-1A	-------	600.42	16.00	12.48	587.94
MW5-1DA	598.12	600.07	28.72	14.00	586.07
MW5-1E	596.56	596.39	57.22	12.16	584.23
MW5-2D	598.55	600.8	26.37	14.21	586.59
MW5-3D	598.61	600.5	25.01	14.08	586.42
MW5-4	596.96	599.42	15.57	12.90	586.52

TABLE A-1

Groundwater Elevations, June 2018

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Location	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Depth (6/06/18)	Depth to Water (6/06/18)	Groundwater Elevation (6/06/18)
MW5-4D	597.90	597.34	25.96	11.55	585.79
MW5-5A	598.00	600.8	20.00	15.00	585.80
MW5-5D	597.50	597.12	27.28	10.58	586.54
MW5-6	596.64	596.42	13.52	8.12	588.30
MW5-6D	595.18	594.94	22.92	6.39	588.55
MW5-7	596.63	596.46	12.91	7.38	589.08
MW5-7D	595.38	595.14	22.55	--	--
MW5-8	594.55	594.14	10.50	7.42	586.72
MW5-8D	594.10	593.95	20.38	9.81	584.14
RW5-1	597.12	596.88	14.64	7.85	589.03
RW5-2	595.79	595.46	11.01	6.78	588.68
RW5-3	597.79	597.5	14.15	8.83	588.67
RW5-4	597.52	597.16	14.70	9.08	588.08
MPL6-2A	599.1	601.3	14.25	8.02	593.28
MPL6-3	599.46	601.58	15.55	7.56	594.02
MW7-1D	589.81	589.59	10.94	6.28	583.31
MW7-2	588.94	588.82	5.90	DRY	DRY
MW7-2D	588.32	588.08	15.30	4.88	583.20
MW7-3D	587.81	587.54	15.05	3.95	583.59
CH8-01	597.94	597.93	32.22	8.40	589.53
MW8-1	597.63	598.87	13.74	8.34	590.53
MW8-1E	598.57	598.52	50.62	17.39	581.13
MW8-2D	598.48	600.57	30.00	10.92	589.65
MW8-3	597.36	599.06	14.51	9.81	589.25
MW8-3DA	598.94	601.24	26.65	11.68	589.56
MW8-4A	598.49	600.4	14.95	10.79	589.61
MW8-4D	596.11	598.41	22.45	9.22	589.19
MW8-5A	597.9	600.02	15.00	10.33	589.69
MW8-8	598.1	600.18	13.90	11.05	589.13
MW8-10D	598.32	600.17	24.75	10.67	589.50
MW8-11	599.58	602.28	16.55	13.39	588.89
MW8-11D	599.53	601.99	27.55	12.42	589.57
MW8-11E	599.48	602.02	49.65	13.31	588.71
MW10-1DA	587.5	588.55	22.91	4.95	583.60
MW10-1EA	587.96	588.9	39.82	6.20	582.70
MW10-1F	588.11	588.73	59.10	6.51	582.22
MW10-2	588	590.38	8.80	4.26	586.12
MW10-2E	586.6	587.33	47.11	5.50	581.83
MW10-3	588.37	590.5	9.40	4.55	585.95
MW10-3D	586.5	586.26	26.82	4.50	581.76
MW10-3E	586.4	586.19	43.26	6.50	579.69
MW10-4	586.96	589.37	8.05	4.11	585.26
MW10-4D	587.00	587.76	19.95	3.31	584.45
MW10-4E	587.00	588.15	41.04	--	--
MW10-5D	588.08	589.05	19.68	5.48	583.57
MW10-6	587.00	586.35	9.60	2.87	583.48
MW10-7	586.95	587.29	8.94	4.32	582.97

TABLE A-1

Groundwater Elevations, June 2018

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Location	Ground Elevation (ft AMSL)	TOIC Elevation (ft AMSL)	Well Depth (6/06/18)	Depth to Water (6/06/18)	Groundwater Elevation (6/06/18)
MW10-8	587.49	588.02	9.41	4.58	583.44
MW10-8D	587.30	588.33	24.22	4.52	583.81
MW10-9D	586.52	587.03	20.31	4.49	582.54
MW10-10D	588.20	591.39	11.11	3.91	587.48
MW10-11	---	586.51	7.40	3.60	582.91
MW10-11D	---	586.58	17.35	3.82	582.76
MW10-12	---	587.76	8.41	5.68	582.08
MW10-12D	---	587.76	18.80	5.96	581.80
MW10-13	587.64	587.29	6.99	4.79	582.50
MW10-13D	587.66	587.38	16.87	3.84	583.54
PW10-1	587.02	587.47	13.86	4.19	583.28
PW10-2	588.48	586.51	22.80	3.85	582.66
PZ10-7	586.90	586.80	10.05	4.58	582.22
MW13-1	595.79	598.91	10.08	8.20	590.71
MW13-1D	596.00	598.03	20.69	7.72	590.31
MW13-1E	595.80	598.02	43.88	16.63	581.39
MW13-2D	598.00	601.11	23.65	11.09	590.02
MW13-3	595.98	598.67	10.89	7.29	591.38
MW13-3D	592.10	591.94	15.94	4.01	587.93
MW13-4	595.36	598.38	10.95	7.88	590.50
MW13-4D	597.70	599.96	18.75	9.09	590.87
MW13-5A	596.01	595.72	8.10	4.38	591.34
MW13-5D	595.60	597.49	20.72	7.01	590.48
MW13-6	594.64	594.06	6.78	3.90	590.16
MW13-6D	594.64	594.17	8.92	4.24	589.93
PW13-1	595.96	596.41	27.38	6.09	590.32
PW13-4D	598.13	598.50	22.80	8.41	590.09
PZ13-1	596.00	595.60	4.31	3.63	591.97
PZ13-1D	595.90	595.61	16.96	4.48	591.13
PZ13-2	598.70	598.37	5.90	2.40	595.97
PZ13-2D	598.60	598.00	17.15	6.61	591.39
PZ13-3D	595.98	595.44	17.70	5.48	589.96
PZ13-4	597.10	596.26	9.60	4.27	591.99
PZ13-4D	597.10	596.61	22.19	4.82	591.79

NOTE: AMSL = Above mean sea level
TOIC = Top of inner casing

TABLE A-2

Surface Water Elevations, June 2018

Data Summary Report June 2018 Basewide Sampling

Niagara Falls Air Reserve Station, New York

Location	Reference Point Elevation (ft AMSL)	Water Level (6/06/18)	Elevation (6/06/18)
SW3-2	594.55	7.90	586.65
SW3-3	587.78	2.90	584.88
SW10-5	589.49	DRY	DRY
SW10-6	582.65	DRY	DRY
SW10-7	589.56	7.12	582.44
SW8-8	596.84	3.99	592.85
SW8-9	591.17	0.60	590.57
SW99-10	585.58	11.74	573.84
SW99-14	585.93	6.30	579.63
NOTE: AMSL = Above mean sea level			

APPENDIX B
CLIMATE DATA

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2018 Weather History for Niagara Falls NY - Weather Underground (www.wunderground.com)

Weather History and Observations

2018	Temp. (°F)			Dew Point (°F)			Humidity (%)		Wind (mph)		Sea Level Press. (in)		Precip. (in)
Jun	high	avg	low	high	avg	low	high	low	high	low	high	low	sum
6/1/2018	84	76	69	70	66	59	83	60	15	0	29.84	29.71	0.57
6/2/2018	73	66	60	59	54	50	78	55	15	4	29.98	29.85	0
6/3/2018	75	65	57	63	58	53	84	63	16	0	29.94	29.69	0
6/4/2018	72	65	60	61	53	44	87	45	22	5	29.78	29.68	0.03
6/5/2018	64	59	54	50	47	43	83	54	18	0	29.83	29.68	0.11
6/6/2018	61	57	52	46	45	43	77	56	12	0	30.02	29.82	0
6/7/2018	75	64	52	52	49	45	83	38	15	4	30.09	30	0
6/8/2018	79	66	55	57	52	48	77	37	12	0	30.19	30.09	0
6/9/2018	77	65	55	57	52	49	77	43	7	0	30.19	30.07	0
6/10/2018	80	72	62	52	46	36	63	31	18	0	30.07	29.96	0
6/11/2018	78	67	57	46	42	38	55	26	17	5	30.1	30	0
6/12/2018	84	72	59	61	55	41	78	45	12	4	30.11	29.88	0
6/13/2018	82	76	66	68	61	45	87	41	24	6	29.87	29.64	0.04
6/14/2018	79	70	60	50	46	43	58	32	23	0	29.97	29.84	0
6/15/2018	81	67	54	51	48	44	72	30	12	0	30.06	29.98	0
6/16/2018	84	70	57	54	52	49	81	32	14	0	30.05	29.98	0
6/17/2018	90	76	63	63	59	50	70	37	14	0	30.06	29.95	0
6/18/2018	91	82	72	73	69	62	85	57	17	4	29.95	29.78	0.1
6/19/2018	77	69	63	65	54	46	84	35	13	0	30.02	29.85	0
6/20/2018	79	69	60	55	52	49	72	36	8	0	29.94	29.8	0
6/21/2018	75	67	57	55	49	36	81	26	16	0	29.94	29.81	0
6/22/2018	81	65	52	62	51	42	81	37	12	0	29.95	29.85	0.1
6/23/2018	77	70	64	65	61	57	87	66	10	0	29.83	29.7	0.02
6/24/2018	69	64	60	63	60	56	90	68	12	0	30.01	29.76	0.17
6/25/2018	75	64	54	58	48	41	86	30	12	0	30.22	30.04	0
6/26/2018	82	66	50	56	47	40	77	23	12	0	30.25	29.96	0
6/27/2018	77	72	68	66	63	55	87	55	13	0	29.96	29.72	0.13
6/28/2018	84	76	68	66	65	60	93	43	15	0	29.84	29.71	0.08
6/29/2018	89	77	64	66	65	60	97	48	12	0	29.5	29.4	0
6/30/2018	85	76	67	73	67	61	76	53	22	0	29.4	29.3	0

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APPENDIX C
LABORATORY DATA AND VALIDATION SUMMARIES
(Provided on CD)

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The results set forth herein are provided by SGS North America Inc.

e-Hardcopy 2.0
Automated Report



Technical Report for

EA Engineering

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

6265401

SGS Job Number: JC68966

Sampling Dates: 06/25/18 - 06/26/18

Report to:

EA Engineering
6712 Brooklawn Parkway Suite 104
Syracuse, NY 13211
NKranes@eaest.com; tlamond@eaest.com;
edimeo@eaest.com
ATTN: Nate Kranes

Total number of pages in report: **966**

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

A. Paul Ioannidis
General Manager

Client Service contact: Cynthia Romero 732-329-0200

Certifications: NJ(12129), NY(10983), CA, CT, FL, IL, IN, KS, KY, LA, MA, MD, ME, MN, NC, OH VAP (CL0056), AK (UST-103), AZ (AZ0786), PA, RI, SC, TX, UT, VA, WV, DoD ELAP (ANAB L2248)

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Test results relate only to samples analyzed.

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Please share your ideas about
how we can serve you better at:
EHS.US.CustomerCare@sgs.com

July 10, 2018

Mr. Nate Kranes
EA Engineering
6712 Brooklawn Parkway Suite 104
Syracuse, NY 13211

Re: SGS North America – Dayton, NJ Jobs # JC68966 – Reissue

Dear Mr. Kranes,

The final reports for SGS jobs number JC68966 has been edited to reflect corrections to the final results. These edits have been incorporated into the revised report which is attached.

Specifically, the sample's ID of JC68966-28 has been revised to "SW3-3-2018-06-26" as per your request on 7/9/2018. The attached revised report incorporates these revisions.

Please contact me if I can be of further assistance in this matter.

Sincerely,

Report Department

SGS North America Inc.



CONTINUOUS SERVICE IMPROVEMENT!

Our goal is to continuously improve our service to you. Please share your ideas about how we can serve you better at EHS.US.CustomerCare@sgs.com. Your feedback is appreciated!

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SGS North America Inc.

Sample Summary

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC68966-1	06/25/18	11:45	NK	06/28/18	AQ	Ground Water	MW8-11D-2018-06-25
JC68966-2	06/25/18	11:50	NK	06/28/18	AQ	Ground Water	CH8-01-2018-06-25
JC68966-2D	06/25/18	11:50	NK	06/28/18	AQ	Water Dup/MSD	CH8-01-2018-06-25
JC68966-2S	06/25/18	11:50	NK	06/28/18	AQ	Water Matrix Spike	CH8-01-2018-06-25
JC68966-3	06/25/18	12:10	NK	06/28/18	AQ	Ground Water	MW8-1-2018-06-25
JC68966-4	06/25/18	12:20	NK	06/28/18	AQ	Ground Water	MW8-10D-2018-06-25
JC68966-5	06/25/18	12:30	NK	06/28/18	AQ	Ground Water	MW8-8-2018-06-25
JC68966-6	06/25/18	15:00	NK	06/28/18	AQ	Trip Blank Water	TRIP BLANK 01
JC68966-7	06/25/18	13:00	NK	06/28/18	AQ	Ground Water	MW5-1DA-2018-06-25
JC68966-8	06/25/18	13:10	NK	06/28/18	AQ	Ground Water	MW5-5D-2018-06-25
JC68966-9	06/25/18	13:20	NK	06/28/18	AQ	Ground Water	MW5-6-2018-06-25
JC68966-10	06/25/18	13:30	NK	06/28/18	AQ	Ground Water	RW5-1-2018-06-25
JC68966-11	06/25/18	13:35	NK	06/28/18	AQ	Ground Water	RW5-2-2018-06-25

Sample Summary
(continued)

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC68966-12	06/25/18	13:45	NK	06/28/18	AQ	Ground Water	RW5-4-2018-06-25
JC68966-13	06/25/18	14:00	NK	06/28/18	AQ	Ground Water	MW13-4D-2018-06-25
JC68966-14	06/25/18	14:10	NK	06/28/18	AQ	Ground Water	MW13-5D-2018-06-25
JC68966-15	06/25/18	14:20	NK	06/28/18	AQ	Ground Water	PW13-1-2018-06-25
JC68966-16	06/25/18	14:30	NK	06/28/18	AQ	Ground Water	PW13-4D-2018-06-25
JC68966-17	06/25/18	15:00	NK	06/28/18	AQ	Ground Water	PW13-3D-2018-06-25
JC68966-18	06/25/18	14:50	NK	06/28/18	AQ	Ground Water	MW13-5A-2018-06-25
JC68966-19	06/25/18	14:40	NK	06/28/18	AQ	Ground Water	MW13-4-2018-06-25
JC68966-20	06/25/18	14:35	NK	06/28/18	AQ	Ground Water	MW13-3-2018-06-25
JC68966-21	06/25/18	00:00	NK	06/28/18	AQ	Ground Water	MW13-FD-2018-06-25
JC68966-22	06/26/18	13:30	NK	06/28/18	AQ	Ground Water	MW10-10D-2018-06-26
JC68966-23	06/26/18	13:40	NK	06/28/18	AQ	Ground Water	MW10-3-2018-06-26
JC68966-24	06/26/18	13:50	NK	06/28/18	AQ	Ground Water	MW10-7-2018-06-26

Sample Summary
(continued)

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC68966-25	06/26/18	09:00	NK	06/28/18	AQ	Ground Water	MW3-3DA-2018-06-26
JC68966-26	06/26/18	09:05	NK	06/28/18	AQ	Ground Water	PZ3-6D-2018-06-26
JC68966-27	06/26/18	09:10	NK	06/28/18	AQ	Ground Water	SW03-15-2018-06-26
JC68966-28	06/26/18	09:15	NK	06/28/18	AQ	Ground Water	SW3-3-2018-06-26
JC68966-29	06/26/18	10:10	NK	06/28/18	AQ	Ground Water	SW99-10-2018-06-26
JC68966-30	06/26/18	11:00	NK	06/28/18	AQ	Ground Water	MW7-1D-2018-06-26
JC68966-31	06/26/18	13:30	NK	06/28/18	AQ	Ground Water	PW3-3A-2018-06-26
JC68966-31D	06/26/18	13:30	NK	06/28/18	AQ	Water Dup/MSD	PW3-3A-2018-06-26
JC68966-31S	06/26/18	13:30	NK	06/28/18	AQ	Water Matrix Spike	PW3-3A-2018-06-26
JC68966-32	06/26/18	13:35	NK	06/28/18	AQ	Ground Water	MW3-4DA-2018-06-26
JC68966-33	06/26/18	00:00	NK	06/28/18	AQ	Ground Water	MW3-FD-2018-06-26
JC68966-34	06/26/18	14:00	NK	06/28/18	AQ	Ground Water	MW10-10D-2018-06-26
JC68966-35	06/26/18	14:10	NK	06/28/18	AQ	Ground Water	PW10-1-2018-06-26

Sample Summary
(continued)

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC68966-36	06/26/18	14:20	NK	06/28/18	AQ	Ground Water	MW10-2-2018-06-26
JC68966-37	06/26/18	14:20	NK	06/28/18	AQ	Ground Water	PW10-2-2018-06-26
JC68966-38	06/26/18	14:35	NK	06/28/18	AQ	Ground Water	PZ10-7-2018-06-26
JC68966-39	06/26/18	14:45	NK	06/28/18	AQ	Ground Water	SW10-08-2018-06-26
JC68966-40	06/26/18	15:10	NK	06/28/18	AQ	Ground Water	SW10-07-2018-06-26
JC68966-41	06/26/18	09:30	NK	06/28/18	AQ	Ground Water	SW3-2-2018-06-26
JC68966-41D	06/26/18	09:30	NK	06/28/18	AQ	Water Dup/MSD	SW3-2-2018-06-26
JC68966-41S	06/26/18	09:30	NK	06/28/18	AQ	Water Matrix Spike	SW3-2-2018-06-26
JC68966-42	06/26/18	16:10	NK	06/28/18	AQ	Ground Water	PZ3-7D-2018-06-26
JC68966-43	06/26/18	16:15	NK	06/28/18	AQ	Ground Water	PZ3-8D-2018-06-26
JC68966-44	06/26/18	00:00	NK	06/28/18	AQ	Ground Water	SW10-FD-2018-06-26
JC68966-45	06/26/18	16:30	NK	06/28/18	AQ	Ground Water	PDB-BLANK-2018-06-26
JC68966-46	06/26/18	17:00	NK	06/28/18	AQ	Ground Water	MW5-PT-2018-06-26

Sample Summary
(continued)

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
JC68966-47	06/26/18	17:00	NK	06/28/18	AQ	Trip Blank Water	TB-02

CASE NARRATIVE / CONFORMANCE SUMMARY

Client:	EA Engineering	**Job No**	JC68966
Site:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Nia	**Report Date**	7/9/2018 11:57:40 AM

On 06/28/2018, 45 Sample(s), 2 Trip Blank(s) and 0 Field Blank(s) were received at SGS North America Inc. at a maximum corrected temperature of 2.3 C. Samples were intact and chemically preserved, unless noted below. A SGS North America Inc. Job Number of JC68966 was assigned to the project. Laboratory sample ID, client sample ID and dates of sample collection are detailed in the report's Results Summary Section.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

Compounds qualified as out of range in the continuing calibration summary report are acceptable as per method requirements when there is a high bias but the sample result is non-detect.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V1A7793

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC68966-25MS, JC68966-26DUP were used as the QC samples indicated.
- Matrix Spike Recovery(s) for Bromomethane, Chloroethane, Iodomethane are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for Duplicate for Acetone are outside control limits for sample JC68966-26DUP. RPD acceptable due to low DUP and sample concentrations.
- JC68966-29 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-10 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-8 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-10 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-8 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-24 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-30 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-24 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-26 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-25 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-30 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-25 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-29 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-26 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-27 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-27 for Bromomethane: Associated CCV outside of DoD control limits low.
- JC68966-28 for Methyl Acetate: Associated CCV outside of control limits high, sample was ND.
- JC68966-28 for Bromomethane: Associated CCV outside of DoD control limits low.

Matrix: AQ **Batch ID:** V2C7121

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC68966-10MS, JC68966-10MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for cis-1,2-Dichloroethene are outside control limits. Outside control limits due to matrix interference.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2C7121

- Matrix Spike Duplicate Recovery(s) for cis-1,2-Dichloroethene are outside control limits. Outside control limits due to matrix interference.
- JC68966-12 for Chloroethane: Associated CCV outside of control limits low.
- JC68966-14 for Chloroethane: Associated CCV outside of control limits low.

Matrix: AQ **Batch ID:** V2D7472

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC68966-2MS, JC68966-2MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for cis-1,3-Dichloropropene, trans-1,3-Dichloropropene are outside control limits. Outside control limits due to matrix interference.
- Matrix Spike Duplicate Recovery(s) for cis-1,3-Dichloropropene, trans-1,3-Dichloropropene are outside control limits. Outside control limits due to matrix interference.
- JC68966-2 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-9 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-11 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-7 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-4 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-3 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-6 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-1 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-5 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V2D7474

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC68966-41MS, JC68966-41MSD were used as the QC samples indicated.
- Matrix Spike Recovery(s) for 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, trans-1,2-Dichloroethene are outside control limits. Outside control limits due to matrix interference.
- JC68966-41 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-41 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-34 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-34 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-32 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-32 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- V2D7474-BS for 1,3-Dichlorobenzene: High percent recoveries and no associated positive reported in the QC batch.
- JC68966-35 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-43 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-42 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-33 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-35 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-36 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-37 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-37 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V2D7474

- JC68966-43 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-38 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-38 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-39 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-39 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-40 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-42 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-36 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-45 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-47 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-33 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-40 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-47 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-46 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-46 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-45 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.
- JC68966-44 for 1,4-Dioxane: Associated CCV outside of control limits high, sample was ND.
- JC68966-44 for 1,3-Dichlorobenzene: This compound in BS is outside in house QC limits bias high.

Matrix: AQ **Batch ID:** V2E6328

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC68966-31MS, JC68966-31MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery(s) for 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,2-Dichlorobenzene, 1,2-Dichloropropane, Bromochloromethane, Chlorobenzene, cis-1,3-Dichloropropene, Methylene chloride are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for 1,1,1-Trichloroethane, 1,1,2,2-Tetrachloroethane, 1,1,2-Trichloroethane, 1,1-Dichloroethane, 1,1-Dichloroethene, 1,2,3-Trichlorobenzene, 1,2,4-Trichlorobenzene, 1,2-Dibromoethane, 1,2-Dichlorobenzene, 1,2-Dichloroethane, 1,2-Dichloropropane, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, Benzene, Bromochloromethane, Bromodichloromethane, Bromoform, Carbon disulfide, Carbon tetrachloride, Chlorobenzene, Chloroform, cis-1,2-Dichloroethene, cis-1,3-Dichloropropene, Dibromochloromethane, Ethylbenzene, Iodomethane, Isopropylbenzene, Methyl Tert Butyl Ether, Methylene chloride, Styrene, Tetrachloroethene, Toluene, trans-1,2-Dichloroethene, trans-1,3-Dichloropropene, Trichloroethene, Vinyl chloride are outside control limits for sample JC68966-31MSD. Outside control limits due to matrix interference.
- JC68966-31 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-16 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-22 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-21 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-17 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-19 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-23 for Dichlorodifluoromethane: Associated CCV outside of control limits high, sample was ND.

Matrix: AQ **Batch ID:** V4B3470

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) JC68932-1MS, JC68932-1MSD were used as the QC samples indicated.

MS Volatiles By Method SW846 8260C

Matrix: AQ **Batch ID:** V4B3470

- Matrix Spike Duplicate Recovery(s) for Styrene are outside control limits. Outside control limits due to matrix interference.
- RPD(s) for MSD for Styrene are outside control limits for sample JC68932-1MSD. Outside control limits due to matrix interference.
- JC68966-18 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-13 for Bromoform: Associated CCV and BS outside of control limits high, sample was ND.
- JC68966-13 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-18 for Bromoform: Associated CCV and BS outside of control limits high, sample was ND.
- JC68966-20 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.
- JC68966-20 for Bromoform: Associated CCV and BS outside of control limits high, sample was ND.
- V4B3470-BS for Bromoform: High percent recoveries and no associated positive reported in the QC batch.
- JC68966-15 for Bromoform: Associated CCV and BS outside of control limits high, sample was ND.
- JC68966-15 for Dibromochloromethane: Associated CCV outside of control limits high, sample was ND.

SGS North America Inc. certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting the Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

SGS North America Inc. is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. Data release is authorized by SGS North America Inc indicated via signature on the report cover

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC68966-1	**MW8-11D-2018-06-25**					
Acetone		40.1	10	5.0	ug/l	SW846 8260C
1,2-Dichloroethane		0.73 J	1.0	0.50	ug/l	SW846 8260C
JC68966-2	**CH8-01-2018-06-25**					
cis-1,2-Dichloroethene		0.87 J	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		0.79 J	1.0	0.62	ug/l	SW846 8260C
JC68966-3	**MW8-1-2018-06-25**					
Acetone		40.4	10	5.0	ug/l	SW846 8260C
Benzene		0.59	0.50	0.25	ug/l	SW846 8260C
1,1-Dichloroethane		0.34 J	1.0	0.50	ug/l	SW846 8260C
cis-1,2-Dichloroethene		81.6	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		3.0	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		0.55 J	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		75.9	1.0	0.62	ug/l	SW846 8260C
JC68966-4	**MW8-10D-2018-06-25**					
Acetone		42.0	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		3.0	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		1.6	1.0	0.62	ug/l	SW846 8260C
JC68966-5	**MW8-8-2018-06-25**					
Acetone		7.3 J	10	5.0	ug/l	SW846 8260C
Chloroform		6.1	1.0	0.50	ug/l	SW846 8260C
Methylene chloride		1.1 J	2.0	1.0	ug/l	SW846 8260C
JC68966-6	**TRIP BLANK 01**					
No hits reported in this sample.						
JC68966-7	**MW5-1DA-2018-06-25**					
Acetone		14.2	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		41.7	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		4.2	1.0	0.62	ug/l	SW846 8260C
JC68966-8	**MW5-5D-2018-06-25**					
1,1-Dichloroethene		3.2	1.0	0.50	ug/l	SW846 8260C

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
cis-1,2-Dichloroethene		1310	20	10	ug/l	SW846 8260C
trans-1,2-Dichloroethene		32.8	1.0	0.50	ug/l	SW846 8260C
1,4-Dioxane		104 J	130	75	ug/l	SW846 8260C
Trichloroethene		38.7	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		3170	20	12	ug/l	SW846 8260C
JC68966-9	**MW5-6-2018-06-25**					
Acetone		36.2	10	5.0	ug/l	SW846 8260C
Benzene		0.23 J	0.50	0.25	ug/l	SW846 8260C
2-Butanone (MEK)		8.8 J	10	5.0	ug/l	SW846 8260C
Chloroform		0.89 J	1.0	0.50	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.1	1.0	0.50	ug/l	SW846 8260C
Methylene chloride		1.7 J	2.0	1.0	ug/l	SW846 8260C
JC68966-10	**RW5-1-2018-06-25**					
Acetone		30.8	10	5.0	ug/l	SW846 8260C
Carbon disulfide		1.5 J	2.0	1.0	ug/l	SW846 8260C
Chloroform		1.3	1.0	0.50	ug/l	SW846 8260C
1,1-Dichloroethene		2.0	1.0	0.50	ug/l	SW846 8260C
cis-1,2-Dichloroethene		854	10	5.0	ug/l	SW846 8260C
trans-1,2-Dichloroethene		3.9	1.0	0.50	ug/l	SW846 8260C
1,4-Dioxane		129 J	130	75	ug/l	SW846 8260C
Trichloroethene		21.7	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		338	10	6.2	ug/l	SW846 8260C
JC68966-11	**RW5-2-2018-06-25**					
Acetone		41.0	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		8.7	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.47 J	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		0.32 J	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		20.6	1.0	0.62	ug/l	SW846 8260C
JC68966-12	**RW5-4-2018-06-25**					
Acetone		6.5 J	10	5.0	ug/l	SW846 8260C
Benzene		3.9	0.50	0.25	ug/l	SW846 8260C
cis-1,2-Dichloroethene		4.6	1.0	0.50	ug/l	SW846 8260C
2-Hexanone		7.5	5.0	3.5	ug/l	SW846 8260C
Toluene		6.3	1.0	0.50	ug/l	SW846 8260C

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC68966-13	**MW13-4D-2018-06-25**					
Acetone		21.9	10	5.0	ug/l	SW846 8260C
Benzene		0.21 J	0.50	0.25	ug/l	SW846 8260C
cis-1,2-Dichloroethene		9.6	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		4.9	1.0	0.62	ug/l	SW846 8260C
JC68966-14	**MW13-5D-2018-06-25**					
Acetone		31.2	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		39.7	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.53 J	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		2.9	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		3.1	1.0	0.62	ug/l	SW846 8260C
JC68966-15	**PW13-1-2018-06-25**					
cis-1,2-Dichloroethene		14.1	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		1.0	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		4.2	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		5.3	1.0	0.62	ug/l	SW846 8260C
JC68966-16	**PW13-4D-2018-06-25**					
Acetone		31.4	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		4.1	1.0	0.50	ug/l	SW846 8260C
JC68966-17	**PW13-3D-2018-06-25**					
Acetone		27.8	10	5.0	ug/l	SW846 8260C
Benzene		0.25 J	0.50	0.25	ug/l	SW846 8260C
cis-1,2-Dichloroethene		0.73 J	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		0.77 J	1.0	0.62	ug/l	SW846 8260C
JC68966-18	**MW13-5A-2018-06-25**					
Acetone		38.1	10	5.0	ug/l	SW846 8260C
Benzene		0.21 J	0.50	0.25	ug/l	SW846 8260C
cis-1,2-Dichloroethene		0.63 J	1.0	0.50	ug/l	SW846 8260C
Toluene		2.0	1.0	0.50	ug/l	SW846 8260C
JC68966-19	**MW13-4-2018-06-25**					
Acetone		16.5	10	5.0	ug/l	SW846 8260C
Benzene		0.41 J	0.50	0.25	ug/l	SW846 8260C

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
Toluene		0.41 J	1.0	0.50	ug/l	SW846 8260C
JC68966-20	**MW13-3-2018-06-25**					
Acetone		33.0	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.7	1.0	0.50	ug/l	SW846 8260C
JC68966-21	**MW13-FD-2018-06-25**					
Acetone		31.7	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.8	1.0	0.50	ug/l	SW846 8260C
Toluene		0.28 J	1.0	0.50	ug/l	SW846 8260C
JC68966-22	**MW10-10D-2018-06-26**					
Benzene		5.0	0.50	0.25	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.46 J	1.0	0.50	ug/l	SW846 8260C
Ethylbenzene		0.22 J	1.0	0.50	ug/l	SW846 8260C
Toluene		2.2	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		2.2	1.0	0.62	ug/l	SW846 8260C
Xylene (total)		1.4	1.0	0.50	ug/l	SW846 8260C
JC68966-23	**MW10-3-2018-06-26**					
Acetone		5.3 J	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1.5	1.0	0.50	ug/l	SW846 8260C
JC68966-24	**MW10-7-2018-06-26**					
Acetone		12.7	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		23.4	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.81 J	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		13.4	1.0	0.50	ug/l	SW846 8260C
JC68966-25	**MW3-3DA-2018-06-26**					
Acetone		7.5 J	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		5.4	1.0	0.50	ug/l	SW846 8260C
1,4-Dioxane		61.4 J	130	75	ug/l	SW846 8260C
Vinyl chloride		13.6	1.0	0.62	ug/l	SW846 8260C
JC68966-26	**PZ3-6D-2018-06-26**					
Acetone		5.1 J	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		3.3	1.0	0.50	ug/l	SW846 8260C

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
Vinyl chloride		2.7	1.0	0.62	ug/l	SW846 8260C
JC68966-27	**SW03-15-2018-06-26**					
1,4-Dioxane		54.6 J	130	75	ug/l	SW846 8260C
JC68966-28	**SW3-3-2018-06-26**					
No hits reported in this sample.						
JC68966-29	**SW99-10-2018-06-26**					
Acetone		133	10	5.0	ug/l	SW846 8260C
Carbon disulfide		0.76 J	2.0	1.0	ug/l	SW846 8260C
JC68966-30	**MW7-1D-2018-06-26**					
Acetone		5.8 J	10	5.0	ug/l	SW846 8260C
Benzene		15.2	0.50	0.25	ug/l	SW846 8260C
Ethylbenzene		0.54 J	1.0	0.50	ug/l	SW846 8260C
Isopropylbenzene		0.56 J	1.0	0.50	ug/l	SW846 8260C
Toluene		0.35 J	1.0	0.50	ug/l	SW846 8260C
JC68966-31	**PW3-3A-2018-06-26**					
Acetone		45.3	10	5.0	ug/l	SW846 8260C
Benzene		0.20 J	0.50	0.25	ug/l	SW846 8260C
cis-1,2-Dichloroethene		17.6	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		0.43 J	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		0.64 J	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		17.8	1.0	0.62	ug/l	SW846 8260C
JC68966-32	**MW3-4DA-2018-06-26**					
cis-1,2-Dichloroethene		4.7	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		5.2	1.0	0.62	ug/l	SW846 8260C
JC68966-33	**MW3-FD-2018-06-26**					
Acetone		5.6 J	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		5.8	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		8.3	1.0	0.62	ug/l	SW846 8260C

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC68966-34	**MW10-10D-2018-06-26**					
Benzene		2.4 J	5.0	2.5	ug/l	SW846 8260C
cis-1,2-Dichloroethene		1660	10	5.0	ug/l	SW846 8260C
trans-1,2-Dichloroethene		9.0 J	10	5.0	ug/l	SW846 8260C
Toluene		10.4	10	5.0	ug/l	SW846 8260C
Trichloroethene		28.1	10	5.0	ug/l	SW846 8260C
Vinyl chloride		212	10	6.2	ug/l	SW846 8260C
JC68966-35	**PW10-1-2018-06-26**					
cis-1,2-Dichloroethene		11.3	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		1.6	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		1.3	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		4.9	1.0	0.62	ug/l	SW846 8260C
JC68966-36	**MW10-2-2018-06-26**					
Acetone		18.9	10	5.0	ug/l	SW846 8260C
Benzene		2.0	0.50	0.25	ug/l	SW846 8260C
2-Butanone (MEK)		8.3 J	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		7.2	1.0	0.50	ug/l	SW846 8260C
trans-1,2-Dichloroethene		1.4	1.0	0.50	ug/l	SW846 8260C
Toluene		5.7	1.0	0.50	ug/l	SW846 8260C
Trichloroethene		0.63 J	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		2.5	1.0	0.62	ug/l	SW846 8260C
JC68966-37	**PW10-2-2018-06-26**					
Acetone		28.3	10	5.0	ug/l	SW846 8260C
Benzene		3.4	0.50	0.25	ug/l	SW846 8260C
Cyclohexane		0.64 J	5.0	1.0	ug/l	SW846 8260C
Ethylbenzene		0.37 J	1.0	0.50	ug/l	SW846 8260C
Toluene		1.0	1.0	0.50	ug/l	SW846 8260C
JC68966-38	**PZ10-7-2018-06-26**					
Acetone		6.9 J	10	5.0	ug/l	SW846 8260C
JC68966-39	**SW10-08-2018-06-26**					

No hits reported in this sample.

Summary of Hits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	LOQ	LOD	Units	Method
JC68966-40	**SW10-07-2018-06-26**					
No hits reported in this sample.						
JC68966-41	**SW3-2-2018-06-26**					
No hits reported in this sample.						
JC68966-42	**PZ3-7D-2018-06-26**					
Acetone		5.9 J	10	5.0	ug/l	SW846 8260C
cis-1,2-Dichloroethene		13.4	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		21.3	1.0	0.62	ug/l	SW846 8260C
JC68966-43	**PZ3-8D-2018-06-26**					
Acetone		5.4 J	10	5.0	ug/l	SW846 8260C
JC68966-44	**SW10-FD-2018-06-26**					
No hits reported in this sample.						
JC68966-45	**PDB-BLANK-2018-06-26**					
Acetone		31.6	10	5.0	ug/l	SW846 8260C
JC68966-46	**MW5-PT-2018-06-26**					
Benzene		9.1	0.50	0.25	ug/l	SW846 8260C
cis-1,2-Dichloroethene		25.8	1.0	0.50	ug/l	SW846 8260C
Methylene chloride		3.7	2.0	1.0	ug/l	SW846 8260C
Trichloroethene		10.8	1.0	0.50	ug/l	SW846 8260C
Vinyl chloride		13.0	1.0	0.62	ug/l	SW846 8260C
JC68966-47	**TB-02**					
No hits reported in this sample.						

Sample Results

Report of Analysis

SGS North America Inc.

Report of Analysis

Client Sample ID: MW8-11D-2018-06-25
Lab Sample ID: JC68966-1 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176945.D	1	07/01/18 14:25	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	40.1	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.73	1.0	0.50	0.20	ug/l	J
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-11D-2018-06-25		
Lab Sample ID:	JC68966-1	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	88%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: CH8-01-2018-06-25
Lab Sample ID: JC68966-2 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176946.D	1	07/01/18 14:57	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.87	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: CH8-01-2018-06-25
Lab Sample ID: JC68966-2 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.79	1.0	0.62	0.62	ug/l	J
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW8-1-2018-06-25
Lab Sample ID: JC68966-3 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176947.D	1	07/01/18 15:31	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	40.4	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.59	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.34	1.0	0.50	0.21	ug/l	J
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	81.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.0	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW8-1-2018-06-25
Lab Sample ID: JC68966-3 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.55	1.0	0.50	0.27	ug/l	J
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	75.9	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW8-10D-2018-06-25
Lab Sample ID: JC68966-4 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176950.D	1	07/01/18 17:10	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	42.0	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.0	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-10D-2018-06-25		
Lab Sample ID:	JC68966-4	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	1.6	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	92%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW8-8-2018-06-25
Lab Sample ID: JC68966-5 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176948.D	1	07/01/18 16:03	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	7.3	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	6.1	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-8-2018-06-25		
Lab Sample ID:	JC68966-5	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.1	2.0	1.0	1.0	ug/l	J
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: TRIP BLANK 01
Lab Sample ID: JC68966-6 **Date Sampled:** 06/25/18
Matrix: AQ - Trip Blank Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176956.D	1	07/01/18 20:31	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TRIP BLANK 01
Lab Sample ID: JC68966-6 **Date Sampled:** 06/25/18
Matrix: AQ - Trip Blank Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW5-1DA-2018-06-25
Lab Sample ID: JC68966-7 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176949.D	1	07/01/18 16:37	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	14.2	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	41.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-1DA-2018-06-25		
Lab Sample ID:	JC68966-7	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	4.2	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW5-5D-2018-06-25
Lab Sample ID: JC68966-8 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182811.D	1	07/05/18 22:38	JP	n/a	n/a	V1A7793
Run #2	2C160383.D	20	07/02/18 23:08	HT	n/a	n/a	V2C7121

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	3.2	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1310 [b]	20	10	10	ug/l	
156-60-5	trans-1,2-Dichloroethene	32.8	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	104	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-5D-2018-06-25		
Lab Sample ID:	JC68966-8	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [c]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	38.7	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	3170 [b]	20	12	12	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	112%	81-124%
2037-26-5	Toluene-D8	91%	96%	80-120%
460-00-4	4-Bromofluorobenzene	107%	110%	80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW5-6-2018-06-25		
Lab Sample ID:	JC68966-9	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176951.D	1	07/01/18 17:54	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	36.2	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.23	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	8.8	10	5.0	4.8	ug/l	J
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.89	1.0	0.50	0.29	ug/l	J
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-6-2018-06-25		
Lab Sample ID:	JC68966-9	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.7	2.0	1.0	1.0	ug/l	J
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: RW5-1-2018-06-25
Lab Sample ID: JC68966-10 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182812.D	1	07/05/18 23:03	JP	n/a	n/a	V1A7793
Run #2	2C160382.D	10	07/02/18 22:38	HT	n/a	n/a	V2C7121

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	30.8	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.5	2.0	1.0	0.50	ug/l	J
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	1.3	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	2.0	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	854 [b]	10	5.0	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.9	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	129	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW5-1-2018-06-25		
Lab Sample ID:	JC68966-10	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [c]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	21.7	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	338 [b]	10	6.2	6.2	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	113%	81-124%
2037-26-5	Toluene-D8	91%	97%	80-120%
460-00-4	4-Bromofluorobenzene	105%	110%	80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: RW5-2-2018-06-25
Lab Sample ID: JC68966-11 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176952.D	1	07/01/18 18:26	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	41.0	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	8.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.47	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: RW5-2-2018-06-25
Lab Sample ID: JC68966-11 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.32	1.0	0.50	0.27	ug/l	J
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	20.6	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: RW5-4-2018-06-25
Lab Sample ID: JC68966-12 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C160395.D	1	07/03/18 05:08	HT	n/a	n/a	V2C7121
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	6.5	10	5.0	5.0	ug/l	J
71-43-2	Benzene	3.9	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane [a]	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: RW5-4-2018-06-25
Lab Sample ID: JC68966-12 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	7.5	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	6.3	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	117%		81-124%
2037-26-5	Toluene-D8	96%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV outside of control limits low.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW13-4D-2018-06-25
Lab Sample ID: JC68966-13 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83398.D	1	07/06/18 14:58	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	21.9	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.21	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	9.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW13-4D-2018-06-25
Lab Sample ID: JC68966-13 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	4.9	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	102%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) Associated CCV and BS outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW13-5D-2018-06-25
Lab Sample ID: JC68966-14 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C160397.D	1	07/03/18 06:13	HT	n/a	n/a	V2C7121
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.2	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane [a]	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	39.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.53	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW13-5D-2018-06-25
Lab Sample ID: JC68966-14 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	2.9	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	3.1	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		80-120%
17060-07-0	1,2-Dichloroethane-D4	118%		81-124%
2037-26-5	Toluene-D8	97%		80-120%
460-00-4	4-Bromofluorobenzene	113%		80-120%

(a) Associated CCV outside of control limits low.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW13-1-2018-06-25		
Lab Sample ID:	JC68966-15	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83399.D	1	07/06/18 15:26	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	14.1	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.0	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW13-1-2018-06-25		
Lab Sample ID:	JC68966-15	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	4.2	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	5.3	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	103%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

(a) Associated CCV and BS outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PW13-4D-2018-06-25
Lab Sample ID: JC68966-16 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144442.D	1	07/01/18 17:30	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.4	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.1	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PW13-4D-2018-06-25
Lab Sample ID: JC68966-16 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	118%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW13-3D-2018-06-25		
Lab Sample ID:	JC68966-17	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144443.D	1	07/01/18 17:59	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	27.8	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.73	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW13-3D-2018-06-25		
Lab Sample ID:	JC68966-17	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.77	1.0	0.62	0.62	ug/l	J
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	118%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW13-5A-2018-06-25
Lab Sample ID: JC68966-18 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83391.D	1	07/06/18 11:39	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	38.1	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.21	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.63	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW13-5A-2018-06-25
Lab Sample ID: JC68966-18 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	2.0	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	100%		81-124%
2037-26-5	Toluene-D8	93%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) Associated CCV and BS outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW13-4-2018-06-25
Lab Sample ID: JC68966-19 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144445.D	1	07/01/18 18:57	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	16.5	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.41	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-4-2018-06-25		
Lab Sample ID:	JC68966-19	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.41	1.0	0.50	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	117%		81-124%
2037-26-5	Toluene-D8	101%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-3-2018-06-25		
Lab Sample ID:	JC68966-20	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83390.D	1	07/06/18 11:11	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	33.0	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-3-2018-06-25		
Lab Sample ID:	JC68966-20	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-120%
17060-07-0	1,2-Dichloroethane-D4	98%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	109%		80-120%

(a) Associated CCV and BS outside of control limits high, sample was ND.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW13-FD-2018-06-25
Lab Sample ID: JC68966-21 **Date Sampled:** 06/25/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144450.D	1	07/01/18 21:52	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.7	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.8	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW13-FD-2018-06-25		
Lab Sample ID:	JC68966-21	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.28	1.0	0.50	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	117%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW10-10D-2018-06-26
Lab Sample ID: JC68966-22 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144451.D	1	07/01/18 22:20	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	5.0	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.46	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.22	1.0	0.50	0.22	ug/l	J
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-10D-2018-06-26		
Lab Sample ID:	JC68966-22	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	2.2	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	2.2	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	1.4	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	116%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW10-3-2018-06-26
Lab Sample ID: JC68966-23 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144452.D	1	07/01/18 22:49	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.3	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-3-2018-06-26		
Lab Sample ID:	JC68966-23	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	116%		81-124%
2037-26-5	Toluene-D8	98%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW10-7-2018-06-26
Lab Sample ID: JC68966-24 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182804.D	1	07/05/18 19:42	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	12.7	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	23.4	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.81	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-7-2018-06-26		
Lab Sample ID:	JC68966-24	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	13.4	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW3-3DA-2018-06-26
Lab Sample ID: JC68966-25 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182805.D	1	07/05/18 20:07	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	7.5	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.4	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	61.4	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-3DA-2018-06-26		
Lab Sample ID:	JC68966-25	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	13.6	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PZ3-6D-2018-06-26
Lab Sample ID: JC68966-26 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182806.D	1	07/05/18 20:32	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.1	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.3	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ3-6D-2018-06-26		
Lab Sample ID:	JC68966-26	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	2.7	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: SW03-15-2018-06-26
Lab Sample ID: JC68966-27 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182807.D	1	07/05/18 20:57	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	54.6	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW03-15-2018-06-26		
Lab Sample ID:	JC68966-27	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	95%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: SW3-3-2018-06-26
Lab Sample ID: JC68966-28 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182808.D	1	07/05/18 21:22	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW3-3-2018-06-26		
Lab Sample ID:	JC68966-28	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: SW99-10-2018-06-26
Lab Sample ID: JC68966-29 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182809.D	1	07/05/18 21:48	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	133	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	0.76	2.0	1.0	0.50	ug/l	J
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW99-10-2018-06-26		
Lab Sample ID:	JC68966-29	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	95%		81-124%
2037-26-5	Toluene-D8	91%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW7-1D-2018-06-26
Lab Sample ID: JC68966-30 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182810.D	1	07/05/18 22:13	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.8	10	5.0	5.0	ug/l	J
71-43-2	Benzene	15.2	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.54	1.0	0.50	0.22	ug/l	J
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-1D-2018-06-26		
Lab Sample ID:	JC68966-30	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.56	1.0	0.50	0.25	ug/l	J
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.35	1.0	0.50	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	90%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PW3-3A-2018-06-26
Lab Sample ID: JC68966-31 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144441.D	1	07/01/18 17:01	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	45.3	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.20	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	17.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.43	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW3-3A-2018-06-26		
Lab Sample ID:	JC68966-31	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.64	1.0	0.50	0.27	ug/l	J
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	17.8	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	118%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW3-4DA-2018-06-26
Lab Sample ID: JC68966-32 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176991.D	1	07/02/18 23:39	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-4DA-2018-06-26		
Lab Sample ID:	JC68966-32	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	5.2	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW3-FD-2018-06-26		
Lab Sample ID:	JC68966-33	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176992.D	1	07/03/18 00:09	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.6	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.8	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-FD-2018-06-26		
Lab Sample ID:	JC68966-33	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	8.3	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	88%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW10-10D-2018-06-26
Lab Sample ID: JC68966-34 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176987.D	10	07/02/18 21:36	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	50 U	100	50	50	ug/l	
71-43-2	Benzene	2.4	5.0	2.5	1.7	ug/l	J
74-97-5	Bromochloromethane	5.0 U	10	5.0	3.8	ug/l	
75-27-4	Bromodichloromethane	7.5 U	10	7.5	2.2	ug/l	
75-25-2	Bromoform	5.0 U	10	5.0	4.2	ug/l	
74-83-9	Bromomethane	14 U	20	14	14	ug/l	
78-93-3	2-Butanone (MEK)	50 U	100	50	48	ug/l	
75-15-0	Carbon disulfide	10 U	20	10	5.0	ug/l	
56-23-5	Carbon tetrachloride	7.5 U	10	7.5	3.4	ug/l	
108-90-7	Chlorobenzene	5.0 U	10	5.0	2.4	ug/l	
75-00-3	Chloroethane	5.9 U	10	5.9	5.9	ug/l	
67-66-3	Chloroform	5.0 U	10	5.0	2.9	ug/l	
74-87-3	Chloromethane	10 U	10	10	5.3	ug/l	
110-82-7	Cyclohexane	10 U	50	10	6.3	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	10 U	20	10	6.9	ug/l	
124-48-1	Dibromochloromethane	5.0 U	10	5.0	1.6	ug/l	
106-93-4	1,2-Dibromoethane	5.0 U	10	5.0	2.1	ug/l	
95-50-1	1,2-Dichlorobenzene	5.0 U	10	5.0	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	5.0 U	10	5.0	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	5.0 U	10	5.0	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	19 U	20	19	19	ug/l	
75-34-3	1,1-Dichloroethane	5.0 U	10	5.0	2.1	ug/l	
107-06-2	1,2-Dichloroethane	5.0 U	10	5.0	2.0	ug/l	
75-35-4	1,1-Dichloroethene	5.0 U	10	5.0	4.7	ug/l	
156-59-2	cis-1,2-Dichloroethene	1660	10	5.0	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	9.0	10	5.0	4.0	ug/l	J
78-87-5	1,2-Dichloropropane	5.0 U	10	5.0	2.4	ug/l	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	10	5.0	2.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	10	5.0	2.2	ug/l	
123-91-1	1,4-Dioxane [b]	750 U	1300	750	520	ug/l	
100-41-4	Ethylbenzene	5.0 U	10	5.0	2.2	ug/l	
76-13-1	Freon 113	25 U	50	25	12	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-10D-2018-06-26		
Lab Sample ID:	JC68966-34	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	35 U	50	35	33	ug/l	
74-88-4	Iodomethane	10 U	20	10	2.7	ug/l	
98-82-8	Isopropylbenzene	5.0 U	10	5.0	2.5	ug/l	
79-20-9	Methyl Acetate	35 U	50	35	31	ug/l	
108-87-2	Methylcyclohexane	20 U	50	20	18	ug/l	
1634-04-4	Methyl Tert Butyl Ether	5.0 U	10	5.0	2.5	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	35 U	50	35	30	ug/l	
75-09-2	Methylene chloride	10 U	20	10	10	ug/l	
100-42-5	Styrene	5.0 U	10	5.0	2.4	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	5.0 U	10	5.0	1.7	ug/l	
127-18-4	Tetrachloroethene	5.0 U	10	5.0	5.0	ug/l	
108-88-3	Toluene	10.4	10	5.0	2.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	7.5 U	10	7.5	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	7.5 U	10	7.5	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	5.0 U	10	5.0	2.5	ug/l	
79-00-5	1,1,2-Trichloroethane	5.0 U	10	5.0	2.4	ug/l	
79-01-6	Trichloroethene	28.1	10	5.0	2.7	ug/l	
75-69-4	Trichlorofluoromethane	10 U	20	10	6.0	ug/l	
75-01-4	Vinyl chloride	212	10	6.2	6.2	ug/l	
1330-20-7	Xylene (total)	5.0 U	10	5.0	2.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	108%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PW10-1-2018-06-26
Lab Sample ID: JC68966-35 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176993.D	1	07/03/18 00:40	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	11.3	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.6	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PW10-1-2018-06-26
Lab Sample ID: JC68966-35 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	1.3	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	4.9	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW10-2-2018-06-26
Lab Sample ID: JC68966-36 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176994.D	1	07/03/18 01:10	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	18.9	10	5.0	5.0	ug/l	
71-43-2	Benzene	2.0	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	8.3	10	5.0	4.8	ug/l	J
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.2	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.4	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW10-2-2018-06-26
Lab Sample ID: JC68966-36 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	5.7	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.63	1.0	0.50	0.27	ug/l	J
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	2.5	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	103%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PW10-2-2018-06-26
Lab Sample ID: JC68966-37 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176995.D	1	07/03/18 01:40	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	28.3	10	5.0	5.0	ug/l	
71-43-2	Benzene	3.4	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	0.64	5.0	1.0	0.63	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.37	1.0	0.50	0.22	ug/l	J
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PW10-2-2018-06-26
Lab Sample ID: JC68966-37 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	1.0	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PZ10-7-2018-06-26
Lab Sample ID: JC68966-38 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176996.D	1	07/03/18 02:11	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	6.9	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ10-7-2018-06-26		
Lab Sample ID:	JC68966-38	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: SW10-08-2018-06-26
Lab Sample ID: JC68966-39 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176997.D	1	07/03/18 02:41	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW10-08-2018-06-26		
Lab Sample ID:	JC68966-39	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: SW10-07-2018-06-26
Lab Sample ID: JC68966-40 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176998.D	1	07/03/18 03:11	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW10-07-2018-06-26		
Lab Sample ID:	JC68966-40	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SW3-2-2018-06-26		
Lab Sample ID:	JC68966-41	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176986.D	1	07/02/18 21:05	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW3-2-2018-06-26		
Lab Sample ID:	JC68966-41	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PZ3-7D-2018-06-26		
Lab Sample ID:	JC68966-42	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176999.D	1	07/03/18 03:41	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.9	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	13.4	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: PZ3-7D-2018-06-26
Lab Sample ID: JC68966-42 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	21.3	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PZ3-8D-2018-06-26
Lab Sample ID: JC68966-43 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177000.D	1	07/03/18 04:11	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.4	10	5.0	5.0	ug/l	J
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ3-8D-2018-06-26		
Lab Sample ID:	JC68966-43	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: SW10-FD-2018-06-26
Lab Sample ID: JC68966-44 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177001.D	1	07/03/18 04:41	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW10-FD-2018-06-26		
Lab Sample ID:	JC68966-44	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	112%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: PDB-BLANK-2018-06-26
Lab Sample ID: JC68966-45 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177002.D	1	07/03/18 05:13	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.6	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PDB-BLANK-2018-06-26		
Lab Sample ID:	JC68966-45	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		80-120%
17060-07-0	1,2-Dichloroethane-D4	91%		81-124%
2037-26-5	Toluene-D8	104%		80-120%
460-00-4	4-Bromofluorobenzene	111%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID: MW5-PT-2018-06-26
Lab Sample ID: JC68966-46 **Date Sampled:** 06/26/18
Matrix: AQ - Ground Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177003.D	1	07/03/18 05:46	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	9.1	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	25.8	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-PT-2018-06-26		
Lab Sample ID:	JC68966-46	**Date Sampled:**	06/26/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	3.7	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	10.8	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	13.0	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	93%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	TB-02		
Lab Sample ID:	JC68966-47	**Date Sampled:**	06/26/18
Matrix:	AQ - Trip Blank Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177004.D	1	07/03/18 06:21	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: TB-02
Lab Sample ID: JC68966-47 **Date Sampled:** 06/26/18
Matrix: AQ - Trip Blank Water **Date Received:** 06/28/18
Method: SW846 8260C **Percent Solids:** n/a
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	105%		80-120%
460-00-4	4-Bromofluorobenzene	110%		80-120%

(a) This compound in BS is outside in house QC limits bias high.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- Sample Tracking Chronicle
- Internal Chain of Custody
- QC Evaluation: DOD QSM5 Limits

GW WTB

SGS ACCUTEST

CHAIN OF CUSTODY- ~~ExxonMobil Projects~~

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SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
SGS Accutest Quote #	SGS Accutest Job # JC68966

Client / Reporting Information

Company Name: EA Engineering
Street Address: 6712 Brooklawn Pkwy Suite 104
City: Syracuse State: NY Zip: 13211
Project Contact: Nate Kramer E-mail: nkramer@eaest.com
Phone #: (716)243-6227 Fax #:
Sample(s) Name(s): Nate Kramer Phone #:

SITE NAME - Provide Site Name for Retail or AFE Number for Major Projects

Retail Project (Site Name): NFARS
Major Project (AFE):
Project Name:
ExxonMobil Manager:
ExxonMobil Purchase Order #:

~~ExxonMobil Environmental Engineer~~
~~Project is Direct Bill to Consultant~~
Company Name: EA northeastap@eaest.com
Street Address:
City: Niagara Falls State: NY
City State Zip:
Attention: PO#

Requested Analysis (see TEST CODE sheet)

8260C VOC's

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
-1	MW8-11D-2018-06-25		06/25/18	1145	NK	water	3	X								V904
-2	CH8-01-2018-06-25		06/25/18	1150			9	X								V905
-3	MW8-1-2018-06-25		06/25/18	1210			3	X								
-4	MW8-10D-2018-06-25		06/25/18	1220			3	X								
-5	MW8-8-2018-06-25		06/25/18	1230			3	X								
-6	Trip Blank 01		6/25/18	—			2	X								
-7	MW5-1DA-2018-06-25		06/25/18	1300			3	X								
-8	MW5-5D-2018-06-25		06/25/18	1310			3	X								
-9	MW5-6-2018-06-25		06/25/18	1320			3	X								
-10	RW5-1-2018-06-25		06/25/18	1330			3	X								
-11	RW5-2-2018-06-25		06/25/18	1335			3	X								
-12	RW5-4-2018-06-25		06/25/18	1345	NK	water	3	X								

Turnaround Time (Business days)

Approved By (SGS Accutest PM): / Date:

- [ ] Std. 10 Business Days
- [ ] 8 Day *RUSH*
- [ ] 5 Day *RUSH*
- [ ] 3 Day *EMERGENCY*
- [ ] 2 Day *EMERGENCY*
- [ ] 1 Day *EMERGENCY*

INITIAL ASESSMENT 3B/M14

LABEL VERIFICATION

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" (Level 1)
- [ ] Commercial "B" (Level 2)
- [ ] FULLT1 (Level 3+4)
- [ ] NJ Reduced
- [ ] Commercial "C"
- [ ] *NJ Data of Known Quality Protocol Reporting*
- [ ] NYASP Category A
- [x] NYASP Category B
- [ ] State Forms
- [x] EDD Format ERPIms
- [x] Other NYSDEC EQUIS EDD

NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

CH8-01-2018-06-25 (MS/MSD)

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1		6/27/18 0900	Fedex	Fedex	6/28/18 0900	
2						
3						
4						
5						

Custody Seal # ☐ Intact ☐ Not intact | Preserved where applicable ☐ | On Ice ☑ | Cooler Temp. 2.3°C IR 2.6°C BP

2 coolers

SGS ACCUTEST

GW WTB

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 2 OF 4

FED-EX Tracking # | Bottle Order Control #

SGS Accutest Quote # | SGS Accutest Job # JC68966

Client / Reporting Information

Company Name: EA Engineering
Street Address: Brookview Pkwy
City: Syracuse State: NY Zip:
Project Contact: Nate Kramer E-mail:
Phone # Fax #
Sampler(s) Name(s): NK Phone #

Project Information

Project Name: NFARS
Street
City State
Project #
Client Purchase Order #
Project Manager
Attention:

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip

Requested Analysis (see TEST CODE sheet)

8260C VOCs

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NI Water	MEOH	ENCORE	LAB USE ONLY
-13	MW13-3D-2018-06-25		06/25/18	1400	NK	GW	3	X								V904
-14	MW13-5D-2018-06-25		06/25/18	1410			3	X								V905
-15	PW13-1-2018-06-25		06/25/18	1420			3	X								
-16	PW13-4D-2018-06-25		06/25/18	1430			3	X								
-17	PW13-3D-2018-06-25		06/25/18	1500			3	X								
-18	MW13-5A-2018-06-25		06/25/18	1450			3	X								
-19	MW13-4-2018-06-25		06/25/18	1440			3	X								
-20	MW13-3-2018-06-25		06/25/18	1435			3	X								
-21	MW13-FD-2018-06-25		06/25/18	—			3	X								
-22	MW10-1DA-2018-06-26		06/26/18	1330			3	X								
-23	MW10-3-2018-06-26		06/26/18	1340			3	X								
-24	MW10-7-2018-06-26		06/26/18	1350	NK	GW	3	X								

Turnaround Time (Business days)

Approved by (SGS Accutest PM): / Date:

- ☐ Std. 10 Business Days
- ☐ 5 Day RUSH
- ☐ 3 Day RUSH
- ☐ 2 Day RUSH
- ☐ 1 Day RUSH
- ☐ other

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- ☐ Commercial "a" (Level 1)
- ☐ Commercial "b" *Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ *NJ Data of Known Quality Protocol Reporting*
- ☐ NYASP Category A
- ☒ NYASP Category B
- ☐ State Forms
- ☒ EDD Format ERPIMS
- ☒ Other NYSDEC EQUIS EDD

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	6/27/18 1700	1 Fedex F	2 Fedex	6/28/18 9:40	2
3		3	4		4
5		5	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐

SGS ACCUTEST GW WTB

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

FED-EX Tracking # | Bottle Order Control #
SGS Accutest Quote # | SGS Accutest Job # JC68966

Client / Reporting Information

Company Name: EA Engineering
Street Address: Brooklawn Pkwy
City: Syracuse State: NY Zip:
Project Contact: Mark Kranes E-mail:
Phone # Fax #
Sampler(s) Name(s): N. Kranes Phone #

Project Information

Project Name: NFARS
Street
City State
Project #
Client Purchase Order #
Project Manager

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

VOCs 8260C

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL- Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB- Rinse Blank
TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	Ni Water	MEOH	ENCORE	LAB USE ONLY
-25	MW3-3DA-2018-06-26		06/26/18	0930	NK	water	3	X								V904
-26	FB3-6D-2018-06-26			0935			3	X								V905
-27	SW03-15-2018-06-26			0940			3	X								
-28	SW03-7-2018-06-26			0945			3	X								
-29	SW99-10-2018-06-26			1010			3	X								
-30	MW7-1D-2018-06-26			1100			3	X								
-31	PW3-3A-2018-06-26			1130			9	X								
-32	MW3-4DA-2018-06-26			1135			3	X								
-33	MW3-FD-2018-06-26			—			3	X								
-34	MW10-1D-2018-06-26			1400			3	X								
-35	MW10-1-2018-06-26		06/26/18	1410	NK	water	3	X								
-36	MW10-2-2018-06		06/26/18	1425	NK	water	3	X								

Turnaround Time (Business days)

- ☐ Std. 10 Business Days
- ☐ 5 Day RUSH
- ☐ 3 Day RUSH
- ☐ 2 Day RUSH
- ☐ 1 Day RUSH
- ☐ other

Approved by (SGS Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- ☐ Commercial "a" (Level 1)
- ☐ Commercial "b" *Level 2)
- ☐ FULLT1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ *NJ Data of Known Quality Protocol Reporting*
- ☐ NYASP Category A
- ☑ NYASP Category B
- ☐ State Forms
- ☐ EDD Format ERPIMS
- ☑ Other NYSDEC EQUIS EDP

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

use PW3-3A-2018-06-26 for MS/MSD

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	6/27/18 1200	1 Fedex	2 Fedex	6/28/18 9:40	2
Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3		3	4		4
Relinquished by Sampler:	Date Time:	Received By:	Custody Seal # ☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☑ Cooler Temp. 2.3 2.6
5		5			

SGS ACCUTEST

GW WTB

CHAIN OF CUSTODY

SGS Accutest - Dayton
2235 Route 130, Dayton, NJ 08810
TEL. 732-329-0200 FAX: 732-329-3499/3480
www.accutest.com

PAGE 4 OF 7

FED-EX Tracking # | Bottle Order Control #
SGS Accutest Quote # | SGS Accutest Job # JC68966

Client / Reporting Information

Company Name: EA Engineering
Street Address: 6712 Brooklawn Pkwy
City State Zip: Syracuse, NY 13211
Project Contact: Nate Kramer | E-mail
Phone # | Fax #
Sampler(s) Name(s): N. Kramer | Phone #

Project Information

Project Name: NFARS
Street
City State
Project #
Client Purchase Order #
Project Manager

Billing Information (if different from Report to)

Company Name
Street Address
City State Zip
Attention:

Requested Analysis (see TEST CODE sheet)

VOC's 8260

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
SED-Sediment
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe
FB-Field Blank
EB-Equipment Blank
RB - Rinse Blank
TB-Trip Blank

SGS Accutest Sample #	Field ID / Point of Collection	MEOH/DI Vial #	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	DI Water	MEOH	ENCORE	LAB USE ONLY
-37	PW10-2-2018-06-26		06/26/18	1420	NK	GW	3	X								✓904
-38	PZ10-7-2018-06-26		06/26/18	1435			3	X								✓905
-39	SW10-08-2018-06-26		06/26/18	1445			3	X								
	~~SW10-05-2018-06-26~~			~~1445~~			~~3~~	~~X~~								
	~~SW10-06-2018-06-26~~			~~1445~~			~~3~~	~~X~~								
-40	SW10-07-2018-06-26			1510			3	X								
-41	SW3-2-2018-06-26		6/26/18	0930	NK		9	X								
-42	PZ3-7D-2018-06-26			1610			3	X								
-43	PZ3-8D-2018-06-26			1615			3	X								
-44	SC10-FD-2018-06-26			—			3	X								
-45	PDB-BLANK-2018-06-26			1630			3	X								
-46	MWS-PT-2018-06-26			1700			3	X								

Turnaround Time (Business days)

-47 TB-02

- ☐ Std. 10 Business Days
- ☐ 5 Day RUSH
- ☐ 3 Day RUSH
- ☐ 2 Day RUSH
- ☐ 1 Day RUSH
- ☐ other

Approved By (SGS Accutest PM): / Date:

Emergency & Rush T/A data available VIA Lablink

Data Deliverable Information

- ☐ Commercial "A" (Level 1)
- ☐ Commercial "B" (Level 2)
- ☐ FULL T1 (Level 3+4)
- ☐ NJ Reduced
- ☐ Commercial "C"
- ☐ NJ Data of Known Quality Protocol Reporting
- ☐ NYASP Category A
- ☒ NYASP Category B
- ☐ State Forms
- ☒ EDD Format ~~NJ~~ NYSDEC
- ☒ Other NYSDEC EQUIS EAD

Commercial "A" = Results Only, Commercial "B" = Results + QC Summary
NJ Reduced = Results + QC Summary + Partial Raw data

Comments / Special Instructions

VOC SW3-2-2018-06-26 MS/MSD

Sample inventory is verified upon receipt in the Laboratory

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time: 6/27/18 0900	Received By: 1 Fedex	Relinquished By: 2 Fedex	Date Time: 6/28/18 9:40	Received By: 2		
Relinquished by Sampler: 3	Date Time:	Received By: 3	Relinquished By: 4	Date Time:	Received By: 4		
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	☐ Intact ☐ Not intact	Preserved where applicable ☐	On Ice ☐	Cooler Temp. 2.5°C/IR 2.6

Form:SM088-01CRev.Date:9/13/16

SGS Sample Receipt Summary

Job Number: JC68966 **Client:** **Project:** NFARS

Date / Time Received: 6/28/2018 9:40:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Raw Measured) °C: Cooler 1: (2.3); Cooler 2: (2.6);

Cooler Temps (Corrected) °C: Cooler 1: (2.3); Cooler 2: (2.6);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR Gun		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	2		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☑		☐	☐
2. Trip Blank listed on COC:	☑		☐	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Test Strip Lot #s: pH 1-12: 216017 pH 12+: 208717 Other: (Specify)

Comments
1) Rec'd 2 extra 40ml vials labeled TB-02 put them on coc -47

2) Fedex numbers were not legible couldn't see tracking numbers

SM089-02 Rev. Date 12/1/16

Responded to by: Cynthia Romero

Response Date: 6/30/2018

Per client, please add samples and run as trip blank.

Job Change Order: JC68966

Requested Date:	7/9/2018	**Received Date:**	6/28/2018
Account Name:	EA Engineering	**Due Date:**	7/5/2018
Project Description:	Niagara Falls Air Reserve Station (NFARS), Semi A	**Deliverable:**	NYASPB
C/O Initiated By:	CR **PM:** CR	**TAT (Days):**	7

==========

Sample #: JC68966-28

Dept:

TAT: 7

SW03-7-2018-06-26

Change:

Revise sample ID to SW3-3-2018-06-26 and reissue the report.

==========

Above Changes Per: Client - Nate Kranes **Date/Time:** 7/9/2018 5:31:51 PM

To Client: This Change Order is confirmation of the revisions, previously discussed with the Client Service Representative.

Internal Sample Tracking Chronicle

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC68966-1	Collected: 25-JUN-18 11:45 By: NK		Received: 28-JUN-18 By: MH			
MW8-11D-2018-06-25						
JC68966-1	SW846 8260C	01-JUL-18 14:25	JTP			V8260SL
JC68966-2	Collected: 25-JUN-18 11:50 By: NK		Received: 28-JUN-18 By: MH			
CH8-01-2018-06-25						
JC68966-2	SW846 8260C	01-JUL-18 14:57	JTP			V8260SL
JC68966-3	Collected: 25-JUN-18 12:10 By: NK		Received: 28-JUN-18 By: MH			
MW8-1-2018-06-25						
JC68966-3	SW846 8260C	01-JUL-18 15:31	JTP			V8260SL
JC68966-4	Collected: 25-JUN-18 12:20 By: NK		Received: 28-JUN-18 By: MH			
MW8-10D-2018-06-25						
JC68966-4	SW846 8260C	01-JUL-18 17:10	JTP			V8260SL
JC68966-5	Collected: 25-JUN-18 12:30 By: NK		Received: 28-JUN-18 By: MH			
MW8-8-2018-06-25						
JC68966-5	SW846 8260C	01-JUL-18 16:03	JTP			V8260SL
JC68966-6	Collected: 25-JUN-18 15:00 By: NK		Received: 28-JUN-18 By: MH			
TRIP BLANK 01						
JC68966-6	SW846 8260C	01-JUL-18 20:31	JTP			V8260SL
JC68966-7	Collected: 25-JUN-18 13:00 By: NK		Received: 28-JUN-18 By: MH			
MW5-1DA-2018-06-25						
JC68966-7	SW846 8260C	01-JUL-18 16:37	JTP			V8260SL
JC68966-8	Collected: 25-JUN-18 13:10 By: NK		Received: 28-JUN-18 By: MH			
MW5-5D-2018-06-25						
JC68966-8	SW846 8260C	02-JUL-18 23:08	HT			V8260SL
JC68966-8	SW846 8260C	05-JUL-18 22:38	JP			V8260SL

Internal Sample Tracking Chronicle

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC68966-9 Collected: 25-JUN-18 13:20 By: NK MW5-6-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-9	SW846 8260C	01-JUL-18 17:54	JTP			V8260SL
JC68966-10 Collected: 25-JUN-18 13:30 By: NK RW5-1-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-10	SW846 8260C	02-JUL-18 22:38	HT			V8260SL
JC68966-10	SW846 8260C	05-JUL-18 23:03	JP			V8260SL
JC68966-11 Collected: 25-JUN-18 13:35 By: NK RW5-2-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-11	SW846 8260C	01-JUL-18 18:26	JTP			V8260SL
JC68966-12 Collected: 25-JUN-18 13:45 By: NK RW5-4-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-12	SW846 8260C	03-JUL-18 05:08	HT			V8260SL
JC68966-13 Collected: 25-JUN-18 14:00 By: NK MW13-4D-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-13	SW846 8260C	06-JUL-18 14:58	HT			V8260SL
JC68966-14 Collected: 25-JUN-18 14:10 By: NK MW13-5D-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-14	SW846 8260C	03-JUL-18 06:13	HT			V8260SL
JC68966-15 Collected: 25-JUN-18 14:20 By: NK PW13-1-2018-06-25				Received: 28-JUN-18	By: MH	
JC68966-15	SW846 8260C	06-JUL-18 15:26	HT			V8260SL
JC68966-16 Collected: 25-JUN-18 14:30 By: NK PW13-4D-2018-06-25				Received: 28-JUN-18	By: MH	

Internal Sample Tracking Chronicle

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC68966-16	SW846 8260C	01-JUL-18 17:30	JTP			V8260SL
JC68966-17	Collected: 25-JUN-18 15:00 By: NK PW13-3D-2018-06-25		Received: 28-JUN-18 By: MH			
JC68966-17	SW846 8260C	01-JUL-18 17:59	JTP			V8260SL
JC68966-18	Collected: 25-JUN-18 14:50 By: NK MW13-5A-2018-06-25		Received: 28-JUN-18 By: MH			
JC68966-18	SW846 8260C	06-JUL-18 11:39	HT			V8260SL
JC68966-19	Collected: 25-JUN-18 14:40 By: NK MW13-4-2018-06-25		Received: 28-JUN-18 By: MH			
JC68966-19	SW846 8260C	01-JUL-18 18:57	JTP			V8260SL
JC68966-20	Collected: 25-JUN-18 14:35 By: NK MW13-3-2018-06-25		Received: 28-JUN-18 By: MH			
JC68966-20	SW846 8260C	06-JUL-18 11:11	HT			V8260SL
JC68966-21	Collected: 25-JUN-18 00:00 By: NK MW13-FD-2018-06-25		Received: 28-JUN-18 By: MH			
JC68966-21	SW846 8260C	01-JUL-18 21:52	JTP			V8260SL
JC68966-22	Collected: 26-JUN-18 13:30 By: NK MW10-10D-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-22	SW846 8260C	01-JUL-18 22:20	JTP			V8260SL
JC68966-23	Collected: 26-JUN-18 13:40 By: NK MW10-3-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-23	SW846 8260C	01-JUL-18 22:49	JTP			V8260SL
JC68966-24	Collected: 26-JUN-18 13:50 By: NK MW10-7-2018-06-26		Received: 28-JUN-18 By: MH			

Internal Sample Tracking Chronicle

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC68966-24	SW846 8260C	05-JUL-18 19:42	JP			V8260SL
JC68966-25	Collected: 26-JUN-18 09:00 By: NK MW3-3DA-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-25	SW846 8260C	05-JUL-18 20:07	JP			V8260SL
JC68966-26	Collected: 26-JUN-18 09:05 By: NK PZ3-6D-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-26	SW846 8260C	05-JUL-18 20:32	JP			V8260SL
JC68966-27	Collected: 26-JUN-18 09:10 By: NK SW03-15-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-27	SW846 8260C	05-JUL-18 20:57	JP			V8260SL
JC68966-28	Collected: 26-JUN-18 09:15 By: NK SW3-3-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-28	SW846 8260C	05-JUL-18 21:22	JP			V8260SL
JC68966-29	Collected: 26-JUN-18 10:10 By: NK SW99-10-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-29	SW846 8260C	05-JUL-18 21:48	JP			V8260SL
JC68966-30	Collected: 26-JUN-18 11:00 By: NK MW7-1D-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-30	SW846 8260C	05-JUL-18 22:13	JP			V8260SL
JC68966-31	Collected: 26-JUN-18 13:30 By: NK PW3-3A-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-31	SW846 8260C	01-JUL-18 17:01	JTP			V8260SL
JC68966-32	Collected: 26-JUN-18 13:35 By: NK MW3-4DA-2018-06-26		Received: 28-JUN-18 By: MH			

Internal Sample Tracking Chronicle

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC68966-32	SW846 8260C	02-JUL-18 23:39	JTP			V8260SL
JC68966-33	Collected: 26-JUN-18 00:00 By: NK MW3-FD-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-33	SW846 8260C	03-JUL-18 00:09	JTP			V8260SL
JC68966-34	Collected: 26-JUN-18 14:00 By: NK MW10-10D-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-34	SW846 8260C	02-JUL-18 21:36	JTP			V8260SL
JC68966-35	Collected: 26-JUN-18 14:10 By: NK PW10-1-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-35	SW846 8260C	03-JUL-18 00:40	JTP			V8260SL
JC68966-36	Collected: 26-JUN-18 14:20 By: NK MW10-2-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-36	SW846 8260C	03-JUL-18 01:10	JTP			V8260SL
JC68966-37	Collected: 26-JUN-18 14:20 By: NK PW10-2-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-37	SW846 8260C	03-JUL-18 01:40	JTP			V8260SL
JC68966-38	Collected: 26-JUN-18 14:35 By: NK PZ10-7-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-38	SW846 8260C	03-JUL-18 02:11	JTP			V8260SL
JC68966-39	Collected: 26-JUN-18 14:45 By: NK SW10-08-2018-06-26		Received: 28-JUN-18 By: MH			
JC68966-39	SW846 8260C	03-JUL-18 02:41	JTP			V8260SL
JC68966-40	Collected: 26-JUN-18 15:10 By: NK SW10-07-2018-06-26		Received: 28-JUN-18 By: MH			

Internal Sample Tracking Chronicle

EA Engineering

Job No: JC68966

Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Project No: 6265401

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
JC68966-40	SW846 8260C	03-JUL-18 03:11	JTP			V8260SL
JC68966-41	Collected: 26-JUN-18 09:30 By: NK		Received: 28-JUN-18 By: MH			
	SW3-2-2018-06-26					
JC68966-41	SW846 8260C	02-JUL-18 21:05	JTP			V8260SL
JC68966-42	Collected: 26-JUN-18 16:10 By: NK		Received: 28-JUN-18 By: MH			
	PZ3-7D-2018-06-26					
JC68966-42	SW846 8260C	03-JUL-18 03:41	JTP			V8260SL
JC68966-43	Collected: 26-JUN-18 16:15 By: NK		Received: 28-JUN-18 By: MH			
	PZ3-8D-2018-06-26					
JC68966-43	SW846 8260C	03-JUL-18 04:11	JTP			V8260SL
JC68966-44	Collected: 26-JUN-18 00:00 By: NK		Received: 28-JUN-18 By: MH			
	SW10-FD-2018-06-26					
JC68966-44	SW846 8260C	03-JUL-18 04:41	JTP			V8260SL
JC68966-45	Collected: 26-JUN-18 16:30 By: NK		Received: 28-JUN-18 By: MH			
	PDB-BLANK-2018-06-26					
JC68966-45	SW846 8260C	03-JUL-18 05:13	JTP			V8260SL
JC68966-46	Collected: 26-JUN-18 17:00 By: NK		Received: 28-JUN-18 By: MH			
	MW5-PT-2018-06-26					
JC68966-46	SW846 8260C	03-JUL-18 05:46	JTP			V8260SL
JC68966-47	Collected: 26-JUN-18 17:00 By: NK		Received: 28-JUN-18 By: MH			
	TB-02					
JC68966-47	SW846 8260C	03-JUL-18 06:21	JTP			V8260SL

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-1.2	Secured Storage	Maricela Delgaolillo	07/01/18 12:08	Retrieve from Storage
JC68966-1.2	Maricela Delgaolillo	GCMS2D	07/01/18 12:08	Load on Instrument
JC68966-1.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-1.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-2.1	Secured Storage	Maricela Delgaolillo	07/01/18 12:08	Retrieve from Storage
JC68966-2.1	Maricela Delgaolillo	GCMS2D	07/01/18 12:08	Load on Instrument
JC68966-2.1	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-2.1	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-2.2	Secured Storage	Maricela Delgaolillo	07/01/18 14:00	Retrieve from Storage
JC68966-2.2	Maricela Delgaolillo	GCMS2D	07/01/18 14:00	Load on Instrument
JC68966-2.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-2.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-3.2	Secured Storage	Maricela Delgaolillo	07/01/18 12:08	Retrieve from Storage
JC68966-3.2	Maricela Delgaolillo	GCMS2D	07/01/18 12:08	Load on Instrument
JC68966-3.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-3.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-4.2	Secured Storage	Maricela Delgaolillo	07/01/18 12:08	Retrieve from Storage
JC68966-4.2	Maricela Delgaolillo	GCMS2D	07/01/18 12:08	Load on Instrument
JC68966-4.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-4.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-5.2	Secured Storage	Maricela Delgaolillo	07/01/18 12:08	Retrieve from Storage
JC68966-5.2	Maricela Delgaolillo	GCMS2D	07/01/18 12:08	Load on Instrument
JC68966-5.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-5.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-6.2	Secured Storage	Maricela Delgaolillo	07/01/18 12:08	Retrieve from Storage
JC68966-6.2	Maricela Delgaolillo	GCMS2D	07/01/18 12:08	Load on Instrument
JC68966-6.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-6.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-7.2	Secured Storage	Maricela Delgaolillo	07/01/18 12:25	Retrieve from Storage
JC68966-7.2	Maricela Delgaolillo	GCMS2D	07/01/18 12:25	Load on Instrument
JC68966-7.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-7.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-8.1	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-8.1	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-8.1	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-8.1	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-8.2	Secured Storage	Joshua Reitan	07/02/18 21:23	Retrieve from Storage
JC68966-8.2	Joshua Reitan	Secured Storage	07/02/18 21:23	Return to Storage
JC68966-9.2	Secured Storage	Maricela Delgaolillo	07/01/18 17:40	Retrieve from Storage
JC68966-9.2	Maricela Delgaolillo	GCMS2D	07/01/18 17:40	Load on Instrument
JC68966-9.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-9.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-10.1	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-10.1	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-10.1	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-10.1	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-10.2	Secured Storage	Joshua Reitan	07/02/18 21:23	Retrieve from Storage
JC68966-10.2	Joshua Reitan	Secured Storage	07/02/18 21:23	Return to Storage
JC68966-11.2	Secured Storage	Maricela Delgaolillo	07/01/18 17:40	Retrieve from Storage
JC68966-11.2	Maricela Delgaolillo	GCMS2D	07/01/18 17:40	Load on Instrument
JC68966-11.2	GCMS2D	Jessica Potts	07/02/18 09:28	Unload from Instrument
JC68966-11.2	Jessica Potts	Secured Storage	07/02/18 09:28	Return to Storage
JC68966-12.2	Secured Storage	Joshua Reitan	07/02/18 21:24	Retrieve from Storage
JC68966-12.2	Joshua Reitan	GCMS2C	07/02/18 21:24	Load on Instrument
JC68966-12.2	GCMS2C	Hueanh Tran	07/03/18 12:16	Unload from Instrument
JC68966-12.2	Hueanh Tran	Secured Storage	07/03/18 12:16	Return to Storage
JC68966-13.1	Secured Storage	Hueanh Tran	07/06/18 14:51	Retrieve from Storage
JC68966-13.1	Hueanh Tran	GCMS4B	07/06/18 14:51	Load on Instrument
JC68966-13.1	GCMS4B	Hueanh Tran	07/09/18 11:40	Unload from Instrument
JC68966-13.1	Hueanh Tran	Secured Storage	07/09/18 11:40	Return to Storage
JC68966-13.2	Secured Storage	Joshua Reitan	07/02/18 21:24	Retrieve from Storage
JC68966-13.2	Joshua Reitan	GCMS2C	07/02/18 21:24	Load on Instrument
JC68966-13.2	GCMS2C	Hueanh Tran	07/03/18 12:16	Unload from Instrument
JC68966-13.2	Hueanh Tran	Secured Storage	07/03/18 12:16	Return to Storage
JC68966-14.2	Secured Storage	Joshua Reitan	07/02/18 21:24	Retrieve from Storage
JC68966-14.2	Joshua Reitan	GCMS2C	07/02/18 21:24	Load on Instrument
JC68966-14.2	GCMS2C	Hueanh Tran	07/03/18 12:16	Unload from Instrument
JC68966-14.2	Hueanh Tran	Secured Storage	07/03/18 12:16	Return to Storage
JC68966-15.1	Secured Storage	Hueanh Tran	07/06/18 14:51	Retrieve from Storage
JC68966-15.1	Hueanh Tran	GCMS4B	07/06/18 14:51	Load on Instrument

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-15.1	GCMS4B	Hueanh Tran	07/09/18 11:40	Unload from Instrument
JC68966-15.1	Hueanh Tran	Secured Storage	07/09/18 11:40	Return to Storage
JC68966-15.2	Secured Storage	Joshua Reitan	07/02/18 21:24	Retrieve from Storage
JC68966-15.2	Joshua Reitan	GCMS2C	07/02/18 21:24	Load on Instrument
JC68966-15.2	GCMS2C	Hueanh Tran	07/03/18 12:16	Unload from Instrument
JC68966-15.2	Hueanh Tran	Secured Storage	07/03/18 12:16	Return to Storage
JC68966-16.2	Secured Storage	Maricela Delgaolillo	07/01/18 16:46	Retrieve from Storage
JC68966-16.2	Maricela Delgaolillo	GCMS2E	07/01/18 16:46	Load on Instrument
JC68966-16.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-16.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-17.2	Secured Storage	Maricela Delgaolillo	07/01/18 16:46	Retrieve from Storage
JC68966-17.2	Maricela Delgaolillo	GCMS2E	07/01/18 16:46	Load on Instrument
JC68966-17.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-17.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-18.1	Secured Storage	Hueanh Tran	07/06/18 10:28	Retrieve from Storage
JC68966-18.1	Hueanh Tran	GCMS4B	07/06/18 10:28	Load on Instrument
JC68966-18.1	GCMS4B	Hueanh Tran	07/06/18 10:40	Unload from Instrument
JC68966-18.1	Hueanh Tran	Secured Storage	07/09/18 11:40	Return to Storage
JC68966-18.2	Secured Storage	Maricela Delgaolillo	07/01/18 16:46	Retrieve from Storage
JC68966-18.2	Maricela Delgaolillo	GCMS2E	07/01/18 16:46	Load on Instrument
JC68966-18.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-18.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-19.2	Secured Storage	Maricela Delgaolillo	07/01/18 16:46	Retrieve from Storage
JC68966-19.2	Maricela Delgaolillo	GCMS2E	07/01/18 16:46	Load on Instrument
JC68966-19.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-19.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-20.1	Secured Storage	Hueanh Tran	07/06/18 10:28	Retrieve from Storage
JC68966-20.1	Hueanh Tran	GCMS4B	07/06/18 10:28	Load on Instrument
JC68966-20.1	GCMS4B	Hueanh Tran	07/06/18 10:40	Unload from Instrument
JC68966-20.1	Hueanh Tran	Secured Storage	07/09/18 11:40	Return to Storage
JC68966-20.2	Secured Storage	Maricela Delgaolillo	07/01/18 16:46	Retrieve from Storage
JC68966-20.2	Maricela Delgaolillo	GCMS2E	07/01/18 16:46	Load on Instrument
JC68966-20.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-20.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-21.2	Secured Storage	Maricela Delgaolillo	07/01/18 18:32	Retrieve from Storage

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-21.2	Maricela Delgaolillo	GCMS2E	07/01/18 18:32	Load on Instrument
JC68966-21.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-21.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-22.2	Secured Storage	Maricela Delgaolillo	07/01/18 18:32	Retrieve from Storage
JC68966-22.2	Maricela Delgaolillo	GCMS2E	07/01/18 18:32	Load on Instrument
JC68966-22.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-22.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-23.2	Secured Storage	Maricela Delgaolillo	07/01/18 18:32	Retrieve from Storage
JC68966-23.2	Maricela Delgaolillo	GCMS2E	07/01/18 18:32	Load on Instrument
JC68966-23.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-23.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-24.1	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-24.1	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-24.1	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-24.1	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-24.2	Secured Storage	Maricela Delgaolillo	07/01/18 18:32	Retrieve from Storage
JC68966-24.2	Maricela Delgaolillo	GCMS2E	07/01/18 18:32	Load on Instrument
JC68966-24.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-24.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-25.1	Secured Storage	Joshua Reitan	07/05/18 20:50	Retrieve from Storage
JC68966-25.1	Joshua Reitan	GCMS1A	07/05/18 20:50	Load on Instrument
JC68966-25.1	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-25.1	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-25.2	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-25.2	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-25.2	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-25.2	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-26.1	Secured Storage	Joshua Reitan	07/05/18 20:50	Retrieve from Storage
JC68966-26.1	Joshua Reitan	GCMS1A	07/05/18 20:50	Load on Instrument
JC68966-26.1	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-26.1	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-26.2	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-26.2	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-26.2	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-26.2	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-27.2	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-27.2	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-27.2	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-27.2	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-28.2	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-28.2	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-28.2	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-28.2	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-29.2	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-29.2	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-29.2	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-29.2	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-30.2	Secured Storage	Joshua Reitan	07/05/18 19:01	Retrieve from Storage
JC68966-30.2	Joshua Reitan	GCMS1A	07/05/18 19:01	Load on Instrument
JC68966-30.2	GCMS1A	Jessica Potts	07/06/18 09:19	Unload from Instrument
JC68966-30.2	Jessica Potts	Secured Storage	07/06/18 09:19	Return to Storage
JC68966-31.1	Secured Storage	Maricela Delgaolillo	07/01/18 18:32	Retrieve from Storage
JC68966-31.1	Maricela Delgaolillo	GCMS2E	07/01/18 18:32	Load on Instrument
JC68966-31.1	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-31.1	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-31.2	Secured Storage	Maricela Delgaolillo	07/01/18 18:32	Retrieve from Storage
JC68966-31.2	Maricela Delgaolillo	GCMS2E	07/01/18 18:32	Load on Instrument
JC68966-31.2	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-31.2	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-31.3	Secured Storage	Maricela Delgaolillo	07/01/18 16:46	Retrieve from Storage
JC68966-31.3	Maricela Delgaolillo	GCMS2E	07/01/18 16:46	Load on Instrument
JC68966-31.3	GCMS2E	Sydney Scelfo	07/02/18 09:53	Unload from Instrument
JC68966-31.3	Sydney Scelfo	Secured Storage	07/02/18 09:53	Return to Storage
JC68966-32.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-32.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-32.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-32.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-33.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-33.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-33.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-33.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-34.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-34.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-34.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-34.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-35.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-35.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-35.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-35.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-36.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-36.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-36.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-36.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-37.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-37.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-37.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-37.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-38.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-38.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-38.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-38.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-39.2	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-39.2	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-39.2	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-39.2	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-40.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-40.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-40.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-40.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-41.3	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-41.3	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-41.3	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-41.3	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-41.4	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-41.4	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-41.4	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument

SGS Internal Chain of Custody

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Received: 06/28/18

Sample.Bottle Number	Transfer FROM	Transfer TO	Date/Time	Reason
JC68966-41.4	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-41.5	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-41.5	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-41.5	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-41.5	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-42.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-42.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-42.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-42.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-43.2	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-43.2	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-43.2	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-43.2	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-44.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-44.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-44.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-44.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-45.2	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-45.2	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-45.2	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-45.2	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-46.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-46.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-46.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-46.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage
JC68966-47.1	Secured Storage	Juntae Park	07/02/18 19:37	Retrieve from Storage
JC68966-47.1	Juntae Park	GCMS2D	07/02/18 19:37	Load on Instrument
JC68966-47.1	GCMS2D	Hersh Dharia	07/05/18 06:53	Unload from Instrument
JC68966-47.1	Hersh Dharia	Secured Storage	07/05/18 06:53	Return to Storage

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V1A7793	SW846 8260C						
V1A7793-BS	67-64-1	Acetone	BSP	REC	115	%	39-160
V1A7793-BS	71-43-2	Benzene	BSP	REC	98	%	79-120
V1A7793-BS	74-97-5	Bromochloromethane	BSP	REC	111	%	78-123
V1A7793-BS	75-27-4	Bromodichloromethane	BSP	REC	106	%	79-125
V1A7793-BS	75-25-2	Bromoform	BSP	REC	102	%	66-130
V1A7793-BS	74-83-9	Bromomethane	BSP	REC	118	%	53-141
V1A7793-BS	78-93-3	2-Butanone (MEK)	BSP	REC	120	%	56-143
V1A7793-BS	75-15-0	Carbon disulfide	BSP	REC	106	%	64-133
V1A7793-BS	56-23-5	Carbon tetrachloride	BSP	REC	104	%	72-136
V1A7793-BS	108-90-7	Chlorobenzene	BSP	REC	91	%	82-118
V1A7793-BS	75-00-3	Chloroethane	BSP	REC	113	%	60-138
V1A7793-BS	67-66-3	Chloroform	BSP	REC	107	%	79-124
V1A7793-BS	74-87-3	Chloromethane	BSP	REC	108	%	50-139
V1A7793-BS	110-82-7	Cyclohexane	BSP	REC	120	%	71-130
V1A7793-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	109	%	62-128
V1A7793-BS	124-48-1	Dibromochloromethane	BSP	REC	99	%	74-126
V1A7793-BS	106-93-4	1,2-Dibromoethane	BSP	REC	94	%	77-121
V1A7793-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	92	%	80-119
V1A7793-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	94	%	80-119
V1A7793-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	92	%	79-118
V1A7793-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	122	%	32-152
V1A7793-BS	75-34-3	1,1-Dichloroethane	BSP	REC	106	%	77-125
V1A7793-BS	107-06-2	1,2-Dichloroethane	BSP	REC	101	%	73-128
V1A7793-BS	75-35-4	1,1-Dichloroethene	BSP	REC	108	%	71-131
V1A7793-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	102	%	78-123
V1A7793-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	107	%	75-124
V1A7793-BS	78-87-5	1,2-Dichloropropane	BSP	REC	100	%	78-122
V1A7793-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	106	%	75-124
V1A7793-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	95	%	73-127
V1A7793-BS	123-91-1	1,4-Dioxane	BSP	REC	93	%	59-139
V1A7793-BS	100-41-4	Ethylbenzene	BSP	REC	87	%	79-121
V1A7793-BS	76-13-1	Freon 113	BSP	REC	121	%	70-136
V1A7793-BS	591-78-6	2-Hexanone	BSP	REC	105	%	57-139
V1A7793-BS	74-88-4	Iodomethane	BSP	REC	121	%	69-131
V1A7793-BS	98-82-8	Isopropylbenzene	BSP	REC	88	%	72-131
V1A7793-BS	79-20-9	Methyl Acetate	BSP	REC	128	%	56-136
V1A7793-BS	108-87-2	Methylcyclohexane	BSP	REC	110	%	72-132
V1A7793-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	109	%	71-124
V1A7793-BS	108-10-1	4-Methyl-2-pentanone(MIBK)	BSP	REC	115	%	67-130
V1A7793-BS	75-09-2	Methylene chloride	BSP	REC	107	%	74-124
V1A7793-BS	100-42-5	Styrene	BSP	REC	90	%	78-123
V1A7793-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	104	%	71-121

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V1A7793-BS	127-18-4	Tetrachloroethene	BSP	REC	90	%	74-129
V1A7793-BS	108-88-3	Toluene	BSP	REC	88	%	80-121
V1A7793-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	97	%	69-129
V1A7793-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	101	%	69-130
V1A7793-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	107	%	74-131
V1A7793-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	98	%	80-119
V1A7793-BS	79-01-6	Trichloroethene	BSP	REC	100	%	79-123
V1A7793-BS	75-69-4	Trichlorofluoromethane	BSP	REC	119	%	65-141
V1A7793-BS	75-01-4	Vinyl chloride	BSP	REC	116	%	58-137
V1A7793-BS	1330-20-7	Xylene (total)	BSP	REC	86	%	79-121
V1A7793-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	104	%	80-119
V1A7793-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	89	%	81-118
V1A7793-BS	2037-26-5	Toluene-D8	BSP	SURR	90	%	89-112
V1A7793-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	107	%	85-114
JC68966-25MS	67-64-1	Acetone	MS	REC	107	%	39-160
JC68966-25MS	71-43-2	Benzene	MS	REC	107	%	79-120
JC68966-25MS	74-97-5	Bromochloromethane	MS	REC	109	%	78-123
JC68966-25MS	75-27-4	Bromodichloromethane	MS	REC	109	%	79-125
JC68966-25MS	75-25-2	Bromoform	MS	REC	102	%	66-130
JC68966-25MS	74-83-9	Bromomethane	MS	REC	24 [a]	%	53-141
JC68966-25MS	78-93-3	2-Butanone (MEK)	MS	REC	118	%	56-143
JC68966-25MS	75-15-0	Carbon disulfide	MS	REC	122	%	64-133
JC68966-25MS	56-23-5	Carbon tetrachloride	MS	REC	109	%	72-136
JC68966-25MS	108-90-7	Chlorobenzene	MS	REC	97	%	82-118
JC68966-25MS	75-00-3	Chloroethane	MS	REC	168 [a]	%	60-138
JC68966-25MS	67-66-3	Chloroform	MS	REC	110	%	79-124
JC68966-25MS	74-87-3	Chloromethane	MS	REC	96	%	50-139
JC68966-25MS	110-82-7	Cyclohexane	MS	REC	116	%	71-130
JC68966-25MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	107	%	62-128
JC68966-25MS	124-48-1	Dibromochloromethane	MS	REC	101	%	74-126
JC68966-25MS	106-93-4	1,2-Dibromoethane	MS	REC	90	%	77-121
JC68966-25MS	95-50-1	1,2-Dichlorobenzene	MS	REC	95	%	80-119
JC68966-25MS	541-73-1	1,3-Dichlorobenzene	MS	REC	98	%	80-119
JC68966-25MS	106-46-7	1,4-Dichlorobenzene	MS	REC	96	%	79-118
JC68966-25MS	75-71-8	Dichlorodifluoromethane	MS	REC	113	%	32-152
JC68966-25MS	75-34-3	1,1-Dichloroethane	MS	REC	109	%	77-125
JC68966-25MS	107-06-2	1,2-Dichloroethane	MS	REC	104	%	73-128
JC68966-25MS	75-35-4	1,1-Dichloroethene	MS	REC	108	%	71-131
JC68966-25MS	156-59-2	cis-1,2-Dichloroethene	MS	REC	107	%	78-123
JC68966-25MS	156-60-5	trans-1,2-Dichloroethene	MS	REC	110	%	75-124
JC68966-25MS	78-87-5	1,2-Dichloropropane	MS	REC	108	%	78-122
JC68966-25MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	112	%	75-124
JC68966-25MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	97	%	73-127
JC68966-25MS	123-91-1	1,4-Dioxane	MS	REC	94	%	59-139
JC68966-25MS	100-41-4	Ethylbenzene	MS	REC	93	%	79-121

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-25MS	76-13-1	Freon 113	MS	REC	122	%	70-136
JC68966-25MS	591-78-6	2-Hexanone	MS	REC	106	%	57-139
JC68966-25MS	74-88-4	Iodomethane	MS	REC	56 [a]	%	69-131
JC68966-25MS	98-82-8	Isopropylbenzene	MS	REC	95	%	72-131
JC68966-25MS	79-20-9	Methyl Acetate	MS	REC	112	%	56-136
JC68966-25MS	108-87-2	Methylcyclohexane	MS	REC	122	%	72-132
JC68966-25MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	106	%	71-124
JC68966-25MS	108-10-1	4-Methyl-2-pentanone(MIBK)	MS	REC	119	%	67-130
JC68966-25MS	75-09-2	Methylene chloride	MS	REC	107	%	74-124
JC68966-25MS	100-42-5	Styrene	MS	REC	94	%	78-123
JC68966-25MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	105	%	71-121
JC68966-25MS	127-18-4	Tetrachloroethene	MS	REC	100	%	74-129
JC68966-25MS	108-88-3	Toluene	MS	REC	93	%	80-121
JC68966-25MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	95	%	69-129
JC68966-25MS	120-82-1	1,2,4-Trichlorobenzene	MS	REC	100	%	69-130
JC68966-25MS	71-55-6	1,1,1-Trichloroethane	MS	REC	111	%	74-131
JC68966-25MS	79-00-5	1,1,2-Trichloroethane	MS	REC	99	%	80-119
JC68966-25MS	79-01-6	Trichloroethene	MS	REC	108	%	79-123
JC68966-25MS	75-69-4	Trichlorofluoromethane	MS	REC	114	%	65-141
JC68966-25MS	75-01-4	Vinyl chloride	MS	REC	118	%	58-137
JC68966-25MS	1330-20-7	Xylene (total)	MS	REC	92	%	79-121
JC68966-25MS	1868-53-7	Dibromofluoromethane	MS	SURR	101	%	80-119
JC68966-25MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	93	%	81-118
JC68966-25MS	2037-26-5	Toluene-D8	MS	SURR	89	%	89-112
JC68966-25MS	460-00-4	4-Bromofluorobenzene	MS	SURR	106	%	85-114
JC68966-26DUP	67-64-1	Acetone	DUP	RPD	200 [b]	%	20
JC68966-26DUP	71-43-2	Benzene	DUP	RPD	0	%	20
JC68966-26DUP	74-97-5	Bromochloromethane	DUP	RPD	0	%	20
JC68966-26DUP	75-27-4	Bromodichloromethane	DUP	RPD	0	%	20
JC68966-26DUP	75-25-2	Bromoform	DUP	RPD	0	%	20
JC68966-26DUP	74-83-9	Bromomethane	DUP	RPD	0	%	20
JC68966-26DUP	78-93-3	2-Butanone (MEK)	DUP	RPD	0	%	20
JC68966-26DUP	75-15-0	Carbon disulfide	DUP	RPD	0	%	20
JC68966-26DUP	56-23-5	Carbon tetrachloride	DUP	RPD	0	%	20
JC68966-26DUP	108-90-7	Chlorobenzene	DUP	RPD	0	%	20
JC68966-26DUP	75-00-3	Chloroethane	DUP	RPD	0	%	20
JC68966-26DUP	67-66-3	Chloroform	DUP	RPD	0	%	20
JC68966-26DUP	74-87-3	Chloromethane	DUP	RPD	0	%	20
JC68966-26DUP	110-82-7	Cyclohexane	DUP	RPD	0	%	20
JC68966-26DUP	96-12-8	1,2-Dibromo-3-chloropropane	DUP	RPD	0	%	20
JC68966-26DUP	124-48-1	Dibromochloromethane	DUP	RPD	0	%	20
JC68966-26DUP	106-93-4	1,2-Dibromoethane	DUP	RPD	0	%	20
JC68966-26DUP	95-50-1	1,2-Dichlorobenzene	DUP	RPD	0	%	20
JC68966-26DUP	541-73-1	1,3-Dichlorobenzene	DUP	RPD	0	%	20
JC68966-26DUP	106-46-7	1,4-Dichlorobenzene	DUP	RPD	0	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-26DUP	75-71-8	Dichlorodifluoromethane	DUP	RPD	0	%	20
JC68966-26DUP	75-34-3	1,1-Dichloroethane	DUP	RPD	0	%	20
JC68966-26DUP	107-06-2	1,2-Dichloroethane	DUP	RPD	0	%	20
JC68966-26DUP	75-35-4	1,1-Dichloroethene	DUP	RPD	0	%	20
JC68966-26DUP	156-59-2	cis-1,2-Dichloroethene	DUP	RPD	9	%	20
JC68966-26DUP	156-60-5	trans-1,2-Dichloroethene	DUP	RPD	0	%	20
JC68966-26DUP	78-87-5	1,2-Dichloropropane	DUP	RPD	0	%	20
JC68966-26DUP	10061-01-5	cis-1,3-Dichloropropene	DUP	RPD	0	%	20
JC68966-26DUP	10061-02-6	trans-1,3-Dichloropropene	DUP	RPD	0	%	20
JC68966-26DUP	123-91-1	1,4-Dioxane	DUP	RPD	0	%	20
JC68966-26DUP	100-41-4	Ethylbenzene	DUP	RPD	0	%	20
JC68966-26DUP	76-13-1	Freon 113	DUP	RPD	0	%	20
JC68966-26DUP	591-78-6	2-Hexanone	DUP	RPD	0	%	20
JC68966-26DUP	74-88-4	Iodomethane	DUP	RPD	0	%	20
JC68966-26DUP	98-82-8	Isopropylbenzene	DUP	RPD	0	%	20
JC68966-26DUP	79-20-9	Methyl Acetate	DUP	RPD	0	%	20
JC68966-26DUP	108-87-2	Methylcyclohexane	DUP	RPD	0	%	20
JC68966-26DUP	1634-04-4	Methyl Tert Butyl Ether	DUP	RPD	0	%	20
JC68966-26DUP	108-10-1	4-Methyl-2-pentanone(MIBK)	DUP	RPD	0	%	20
JC68966-26DUP	75-09-2	Methylene chloride	DUP	RPD	0	%	20
JC68966-26DUP	100-42-5	Styrene	DUP	RPD	0	%	20
JC68966-26DUP	79-34-5	1,1,2,2-Tetrachloroethane	DUP	RPD	0	%	20
JC68966-26DUP	127-18-4	Tetrachloroethene	DUP	RPD	0	%	20
JC68966-26DUP	108-88-3	Toluene	DUP	RPD	0	%	20
JC68966-26DUP	87-61-6	1,2,3-Trichlorobenzene	DUP	RPD	0	%	20
JC68966-26DUP	120-82-1	1,2,4-Trichlorobenzene	DUP	RPD	0	%	20
JC68966-26DUP	71-55-6	1,1,1-Trichloroethane	DUP	RPD	0	%	20
JC68966-26DUP	79-00-5	1,1,2-Trichloroethane	DUP	RPD	0	%	20
JC68966-26DUP	79-01-6	Trichloroethene	DUP	RPD	0	%	20
JC68966-26DUP	75-69-4	Trichlorofluoromethane	DUP	RPD	0	%	20
JC68966-26DUP	75-01-4	Vinyl chloride	DUP	RPD	4	%	20
JC68966-26DUP	1330-20-7	Xylene (total)	DUP	RPD	0	%	20
JC68966-26DUP	1868-53-7	Dibromofluoromethane	DUP	SURR	103	%	80-119
JC68966-26DUP	17060-07-0	1,2-Dichloroethane-D4	DUP	SURR	93	%	81-118
JC68966-26DUP	2037-26-5	Toluene-D8	DUP	SURR	92	%	89-112
JC68966-26DUP	460-00-4	4-Bromofluorobenzene	DUP	SURR	105	%	85-114
V1A7793-MB	1868-53-7	Dibromofluoromethane	MB	SURR	104	%	80-119
V1A7793-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	90	%	81-118
V1A7793-MB	2037-26-5	Toluene-D8	MB	SURR	92	%	89-112
V1A7793-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	106	%	85-114
JC68966-8	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-8	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	94	%	81-118
JC68966-8	2037-26-5	Toluene-D8	SAMP	SURR	91	%	89-112
JC68966-8	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	85-114
JC68966-10	1868-53-7	Dibromofluoromethane	SAMP	SURR	104	%	80-119

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-10	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	94	%	81-118
JC68966-10	2037-26-5	Toluene-D8	SAMP	SURR	91	%	89-112
JC68966-10	460-00-4	4-Bromofluorobenzene	SAMP	SURR	105	%	85-114
JC68966-24	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-24	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-24	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-24	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	85-114
JC68966-25	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-25	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-25	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-25	460-00-4	4-Bromofluorobenzene	SAMP	SURR	107	%	85-114
JC68966-26	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-26	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-26	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-26	460-00-4	4-Bromofluorobenzene	SAMP	SURR	106	%	85-114
JC68966-27	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-27	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	95	%	81-118
JC68966-27	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-27	460-00-4	4-Bromofluorobenzene	SAMP	SURR	104	%	85-114
JC68966-28	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-28	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-28	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-28	460-00-4	4-Bromofluorobenzene	SAMP	SURR	106	%	85-114
JC68966-29	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-29	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	95	%	81-118
JC68966-29	2037-26-5	Toluene-D8	SAMP	SURR	91	%	89-112
JC68966-29	460-00-4	4-Bromofluorobenzene	SAMP	SURR	104	%	85-114
JC68966-30	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-30	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	94	%	81-118
JC68966-30	2037-26-5	Toluene-D8	SAMP	SURR	90	%	89-112
JC68966-30	460-00-4	4-Bromofluorobenzene	SAMP	SURR	105	%	85-114
V2C7121	SW846 8260C						
V2C7121-BS	67-64-1	Acetone	BSP	REC	90	%	39-160
V2C7121-BS	71-43-2	Benzene	BSP	REC	94	%	79-120
V2C7121-BS	74-97-5	Bromochloromethane	BSP	REC	100	%	78-123
V2C7121-BS	75-27-4	Bromodichloromethane	BSP	REC	98	%	79-125
V2C7121-BS	75-25-2	Bromoform	BSP	REC	114	%	66-130
V2C7121-BS	74-83-9	Bromomethane	BSP	REC	80	%	53-141
V2C7121-BS	78-93-3	2-Butanone (MEK)	BSP	REC	96	%	56-143
V2C7121-BS	75-15-0	Carbon disulfide	BSP	REC	92	%	64-133
V2C7121-BS	56-23-5	Carbon tetrachloride	BSP	REC	103	%	72-136
V2C7121-BS	108-90-7	Chlorobenzene	BSP	REC	99	%	82-118
V2C7121-BS	75-00-3	Chloroethane	BSP	REC	80	%	60-138

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2C7121-BS	67-66-3	Chloroform	BSP	REC	91	%	79-124
V2C7121-BS	74-87-3	Chloromethane	BSP	REC	85	%	50-139
V2C7121-BS	110-82-7	Cyclohexane	BSP	REC	97	%	71-130
V2C7121-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	103	%	62-128
V2C7121-BS	124-48-1	Dibromochloromethane	BSP	REC	111	%	74-126
V2C7121-BS	106-93-4	1,2-Dibromoethane	BSP	REC	108	%	77-121
V2C7121-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	98	%	80-119
V2C7121-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	99	%	80-119
V2C7121-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	99	%	79-118
V2C7121-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	120	%	32-152
V2C7121-BS	75-34-3	1,1-Dichloroethane	BSP	REC	95	%	77-125
V2C7121-BS	107-06-2	1,2-Dichloroethane	BSP	REC	97	%	73-128
V2C7121-BS	75-35-4	1,1-Dichloroethene	BSP	REC	92	%	71-131
V2C7121-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	91	%	78-123
V2C7121-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	89	%	75-124
V2C7121-BS	78-87-5	1,2-Dichloropropane	BSP	REC	95	%	78-122
V2C7121-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	96	%	75-124
V2C7121-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	100	%	73-127
V2C7121-BS	123-91-1	1,4-Dioxane	BSP	REC	104	%	59-139
V2C7121-BS	100-41-4	Ethylbenzene	BSP	REC	94	%	79-121
V2C7121-BS	76-13-1	Freon 113	BSP	REC	114	%	70-136
V2C7121-BS	591-78-6	2-Hexanone	BSP	REC	93	%	57-139
V2C7121-BS	74-88-4	Iodomethane	BSP	REC	88	%	69-131
V2C7121-BS	98-82-8	Isopropylbenzene	BSP	REC	92	%	72-131
V2C7121-BS	79-20-9	Methyl Acetate	BSP	REC	92	%	56-136
V2C7121-BS	108-87-2	Methylcyclohexane	BSP	REC	97	%	72-132
V2C7121-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	92	%	71-124
V2C7121-BS	108-10-1	4-Methyl-2-pentanone(MIBK)	BSP	REC	93	%	67-130
V2C7121-BS	75-09-2	Methylene chloride	BSP	REC	84	%	74-124
V2C7121-BS	100-42-5	Styrene	BSP	REC	93	%	78-123
V2C7121-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	100	%	71-121
V2C7121-BS	127-18-4	Tetrachloroethene	BSP	REC	107	%	74-129
V2C7121-BS	108-88-3	Toluene	BSP	REC	96	%	80-121
V2C7121-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	98	%	69-129
V2C7121-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	96	%	69-130
V2C7121-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	85	%	74-131
V2C7121-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	97	%	80-119
V2C7121-BS	79-01-6	Trichloroethene	BSP	REC	94	%	79-123
V2C7121-BS	75-69-4	Trichlorofluoromethane	BSP	REC	95	%	65-141
V2C7121-BS	75-01-4	Vinyl chloride	BSP	REC	91	%	58-137
V2C7121-BS	1330-20-7	Xylene (total)	BSP	REC	95	%	79-121
V2C7121-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	101	%	80-119
V2C7121-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	99	%	81-118
V2C7121-BS	2037-26-5	Toluene-D8	BSP	SURR	100	%	89-112
V2C7121-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	107	%	85-114

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-10MS	67-64-1	Acetone	MS	REC	86	%	39-160
JC68966-10MS	71-43-2	Benzene	MS	REC	86	%	79-120
JC68966-10MS	74-97-5	Bromochloromethane	MS	REC	93	%	78-123
JC68966-10MS	75-27-4	Bromodichloromethane	MS	REC	94	%	79-125
JC68966-10MS	75-25-2	Bromoform	MS	REC	110	%	66-130
JC68966-10MS	74-83-9	Bromomethane	MS	REC	67	%	53-141
JC68966-10MS	78-93-3	2-Butanone (MEK)	MS	REC	91	%	56-143
JC68966-10MS	75-15-0	Carbon disulfide	MS	REC	77	%	64-133
JC68966-10MS	56-23-5	Carbon tetrachloride	MS	REC	94	%	72-136
JC68966-10MS	108-90-7	Chlorobenzene	MS	REC	91	%	82-118
JC68966-10MS	75-00-3	Chloroethane	MS	REC	66	%	60-138
JC68966-10MS	67-66-3	Chloroform	MS	REC	86	%	79-124
JC68966-10MS	74-87-3	Chloromethane	MS	REC	71	%	50-139
JC68966-10MS	110-82-7	Cyclohexane	MS	REC	86	%	71-130
JC68966-10MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	102	%	62-128
JC68966-10MS	124-48-1	Dibromochloromethane	MS	REC	105	%	74-126
JC68966-10MS	106-93-4	1,2-Dibromoethane	MS	REC	100	%	77-121
JC68966-10MS	95-50-1	1,2-Dichlorobenzene	MS	REC	93	%	80-119
JC68966-10MS	541-73-1	1,3-Dichlorobenzene	MS	REC	93	%	80-119
JC68966-10MS	106-46-7	1,4-Dichlorobenzene	MS	REC	94	%	79-118
JC68966-10MS	75-71-8	Dichlorodifluoromethane	MS	REC	101	%	32-152
JC68966-10MS	75-34-3	1,1-Dichloroethane	MS	REC	87	%	77-125
JC68966-10MS	107-06-2	1,2-Dichloroethane	MS	REC	93	%	73-128
JC68966-10MS	75-35-4	1,1-Dichloroethene	MS	REC	79	%	71-131
JC68966-10MS	156-59-2	cis-1,2-Dichloroethene	MS	REC	49 [a]	%	78-123
JC68966-10MS	156-60-5	trans-1,2-Dichloroethene	MS	REC	79	%	75-124
JC68966-10MS	78-87-5	1,2-Dichloropropane	MS	REC	90	%	78-122
JC68966-10MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	89	%	75-124
JC68966-10MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	91	%	73-127
JC68966-10MS	123-91-1	1,4-Dioxane	MS	REC	94	%	59-139
JC68966-10MS	100-41-4	Ethylbenzene	MS	REC	88	%	79-121
JC68966-10MS	76-13-1	Freon 113	MS	REC	98	%	70-136
JC68966-10MS	591-78-6	2-Hexanone	MS	REC	88	%	57-139
JC68966-10MS	74-88-4	Iodomethane	MS	REC	76	%	69-131
JC68966-10MS	98-82-8	Isopropylbenzene	MS	REC	85	%	72-131
JC68966-10MS	79-20-9	Methyl Acetate	MS	REC	82	%	56-136
JC68966-10MS	108-87-2	Methylcyclohexane	MS	REC	86	%	72-132
JC68966-10MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	85	%	71-124
JC68966-10MS	108-10-1	4-Methyl-2-pentanone(MIBK)	MS	REC	90	%	67-130
JC68966-10MS	75-09-2	Methylene chloride	MS	REC	75	%	74-124
JC68966-10MS	100-42-5	Styrene	MS	REC	87	%	78-123
JC68966-10MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	96	%	71-121
JC68966-10MS	127-18-4	Tetrachloroethene	MS	REC	97	%	74-129
JC68966-10MS	108-88-3	Toluene	MS	REC	87	%	80-121
JC68966-10MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	94	%	69-129

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-10MS	120-82-1	1,2,4-Trichlorobenzene	MS	REC	91	%	69-130
JC68966-10MS	71-55-6	1,1,1-Trichloroethane	MS	REC	78	%	74-131
JC68966-10MS	79-00-5	1,1,2-Trichloroethane	MS	REC	90	%	80-119
JC68966-10MS	79-01-6	Trichloroethene	MS	REC	86	%	79-123
JC68966-10MS	75-69-4	Trichlorofluoromethane	MS	REC	84	%	65-141
JC68966-10MS	75-01-4	Vinyl chloride	MS	REC	65	%	58-137
JC68966-10MS	1330-20-7	Xylene (total)	MS	REC	89	%	79-121
JC68966-10MS	1868-53-7	Dibromofluoromethane	MS	SURR	102	%	80-119
JC68966-10MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	104	%	81-118
JC68966-10MS	2037-26-5	Toluene-D8	MS	SURR	98	%	89-112
JC68966-10MS	460-00-4	4-Bromofluorobenzene	MS	SURR	106	%	85-114
JC68966-10MSD	67-64-1	Acetone	MSD	REC	76	%	39-160
JC68966-10MSD	67-64-1	Acetone	MSD	RPD	12	%	20
JC68966-10MSD	71-43-2	Benzene	MSD	REC	86	%	79-120
JC68966-10MSD	71-43-2	Benzene	MSD	RPD	0	%	20
JC68966-10MSD	74-97-5	Bromochloromethane	MSD	REC	91	%	78-123
JC68966-10MSD	74-97-5	Bromochloromethane	MSD	RPD	2	%	20
JC68966-10MSD	75-27-4	Bromodichloromethane	MSD	REC	94	%	79-125
JC68966-10MSD	75-27-4	Bromodichloromethane	MSD	RPD	0	%	20
JC68966-10MSD	75-25-2	Bromoform	MSD	REC	111	%	66-130
JC68966-10MSD	75-25-2	Bromoform	MSD	RPD	2	%	20
JC68966-10MSD	74-83-9	Bromomethane	MSD	REC	67	%	53-141
JC68966-10MSD	74-83-9	Bromomethane	MSD	RPD	1	%	20
JC68966-10MSD	78-93-3	2-Butanone (MEK)	MSD	REC	93	%	56-143
JC68966-10MSD	78-93-3	2-Butanone (MEK)	MSD	RPD	2	%	20
JC68966-10MSD	75-15-0	Carbon disulfide	MSD	REC	76	%	64-133
JC68966-10MSD	75-15-0	Carbon disulfide	MSD	RPD	1	%	20
JC68966-10MSD	56-23-5	Carbon tetrachloride	MSD	REC	94	%	72-136
JC68966-10MSD	56-23-5	Carbon tetrachloride	MSD	RPD	1	%	20
JC68966-10MSD	108-90-7	Chlorobenzene	MSD	REC	94	%	82-118
JC68966-10MSD	108-90-7	Chlorobenzene	MSD	RPD	3	%	20
JC68966-10MSD	75-00-3	Chloroethane	MSD	REC	66	%	60-138
JC68966-10MSD	75-00-3	Chloroethane	MSD	RPD	0	%	20
JC68966-10MSD	67-66-3	Chloroform	MSD	REC	85	%	79-124
JC68966-10MSD	67-66-3	Chloroform	MSD	RPD	1	%	20
JC68966-10MSD	74-87-3	Chloromethane	MSD	REC	73	%	50-139
JC68966-10MSD	74-87-3	Chloromethane	MSD	RPD	3	%	20
JC68966-10MSD	110-82-7	Cyclohexane	MSD	REC	84	%	71-130
JC68966-10MSD	110-82-7	Cyclohexane	MSD	RPD	2	%	20
JC68966-10MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	100	%	62-128
JC68966-10MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	2	%	20
JC68966-10MSD	124-48-1	Dibromochloromethane	MSD	REC	107	%	74-126
JC68966-10MSD	124-48-1	Dibromochloromethane	MSD	RPD	2	%	20
JC68966-10MSD	106-93-4	1,2-Dibromoethane	MSD	REC	103	%	77-121
JC68966-10MSD	106-93-4	1,2-Dibromoethane	MSD	RPD	2	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-10MSD	95-50-1	1,2-Dichlorobenzene	MSD	REC	94	%	80-119
JC68966-10MSD	95-50-1	1,2-Dichlorobenzene	MSD	RPD	1	%	20
JC68966-10MSD	541-73-1	1,3-Dichlorobenzene	MSD	REC	95	%	80-119
JC68966-10MSD	541-73-1	1,3-Dichlorobenzene	MSD	RPD	2	%	20
JC68966-10MSD	106-46-7	1,4-Dichlorobenzene	MSD	REC	95	%	79-118
JC68966-10MSD	106-46-7	1,4-Dichlorobenzene	MSD	RPD	1	%	20
JC68966-10MSD	75-71-8	Dichlorodifluoromethane	MSD	REC	100	%	32-152
JC68966-10MSD	75-71-8	Dichlorodifluoromethane	MSD	RPD	1	%	20
JC68966-10MSD	75-34-3	1,1-Dichloroethane	MSD	REC	85	%	77-125
JC68966-10MSD	75-34-3	1,1-Dichloroethane	MSD	RPD	2	%	20
JC68966-10MSD	107-06-2	1,2-Dichloroethane	MSD	REC	92	%	73-128
JC68966-10MSD	107-06-2	1,2-Dichloroethane	MSD	RPD	1	%	20
JC68966-10MSD	75-35-4	1,1-Dichloroethene	MSD	REC	77	%	71-131
JC68966-10MSD	75-35-4	1,1-Dichloroethene	MSD	RPD	3	%	20
JC68966-10MSD	156-59-2	cis-1,2-Dichloroethene	MSD	REC	47 [a]	%	78-123
JC68966-10MSD	156-59-2	cis-1,2-Dichloroethene	MSD	RPD	1	%	20
JC68966-10MSD	156-60-5	trans-1,2-Dichloroethene	MSD	REC	79	%	75-124
JC68966-10MSD	156-60-5	trans-1,2-Dichloroethene	MSD	RPD	0	%	20
JC68966-10MSD	78-87-5	1,2-Dichloropropane	MSD	REC	90	%	78-122
JC68966-10MSD	78-87-5	1,2-Dichloropropane	MSD	RPD	1	%	20
JC68966-10MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	91	%	75-124
JC68966-10MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	2	%	20
JC68966-10MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	93	%	73-127
JC68966-10MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	2	%	20
JC68966-10MSD	123-91-1	1,4-Dioxane	MSD	REC	116	%	59-139
JC68966-10MSD	123-91-1	1,4-Dioxane	MSD	RPD	21	%	20
JC68966-10MSD	100-41-4	Ethylbenzene	MSD	REC	89	%	79-121
JC68966-10MSD	100-41-4	Ethylbenzene	MSD	RPD	2	%	20
JC68966-10MSD	76-13-1	Freon 113	MSD	REC	95	%	70-136
JC68966-10MSD	76-13-1	Freon 113	MSD	RPD	3	%	20
JC68966-10MSD	591-78-6	2-Hexanone	MSD	REC	91	%	57-139
JC68966-10MSD	591-78-6	2-Hexanone	MSD	RPD	3	%	20
JC68966-10MSD	74-88-4	Iodomethane	MSD	REC	74	%	69-131
JC68966-10MSD	74-88-4	Iodomethane	MSD	RPD	2	%	20
JC68966-10MSD	98-82-8	Isopropylbenzene	MSD	REC	87	%	72-131
JC68966-10MSD	98-82-8	Isopropylbenzene	MSD	RPD	2	%	20
JC68966-10MSD	79-20-9	Methyl Acetate	MSD	REC	81	%	56-136
JC68966-10MSD	79-20-9	Methyl Acetate	MSD	RPD	1	%	20
JC68966-10MSD	108-87-2	Methylcyclohexane	MSD	REC	83	%	72-132
JC68966-10MSD	108-87-2	Methylcyclohexane	MSD	RPD	4	%	20
JC68966-10MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	83	%	71-124
JC68966-10MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	2	%	20
JC68966-10MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	REC	92	%	67-130
JC68966-10MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	RPD	2	%	20
JC68966-10MSD	75-09-2	Methylene chloride	MSD	REC	73	%	74-124

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-10MSD	75-09-2	Methylene chloride	MSD	RPD	3	%	20
JC68966-10MSD	100-42-5	Styrene	MSD	REC	90	%	78-123
JC68966-10MSD	100-42-5	Styrene	MSD	RPD	3	%	20
JC68966-10MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	97	%	71-121
JC68966-10MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	2	%	20
JC68966-10MSD	127-18-4	Tetrachloroethene	MSD	REC	99	%	74-129
JC68966-10MSD	127-18-4	Tetrachloroethene	MSD	RPD	2	%	20
JC68966-10MSD	108-88-3	Toluene	MSD	REC	89	%	80-121
JC68966-10MSD	108-88-3	Toluene	MSD	RPD	3	%	20
JC68966-10MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	96	%	69-129
JC68966-10MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	1	%	20
JC68966-10MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	93	%	69-130
JC68966-10MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	3	%	20
JC68966-10MSD	71-55-6	1,1,1-Trichloroethane	MSD	REC	78	%	74-131
JC68966-10MSD	71-55-6	1,1,1-Trichloroethane	MSD	RPD	0	%	20
JC68966-10MSD	79-00-5	1,1,2-Trichloroethane	MSD	REC	91	%	80-119
JC68966-10MSD	79-00-5	1,1,2-Trichloroethane	MSD	RPD	2	%	20
JC68966-10MSD	79-01-6	Trichloroethene	MSD	REC	86	%	79-123
JC68966-10MSD	79-01-6	Trichloroethene	MSD	RPD	0	%	20
JC68966-10MSD	75-69-4	Trichlorofluoromethane	MSD	REC	82	%	65-141
JC68966-10MSD	75-69-4	Trichlorofluoromethane	MSD	RPD	2	%	20
JC68966-10MSD	75-01-4	Vinyl chloride	MSD	REC	67	%	58-137
JC68966-10MSD	75-01-4	Vinyl chloride	MSD	RPD	1	%	20
JC68966-10MSD	1330-20-7	Xylene (total)	MSD	REC	91	%	79-121
JC68966-10MSD	1330-20-7	Xylene (total)	MSD	RPD	2	%	20
JC68966-10MSD	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
JC68966-10MSD	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	103	%	81-118
JC68966-10MSD	2037-26-5	Toluene-D8	MSD	SURR	100	%	89-112
JC68966-10MSD	460-00-4	4-Bromofluorobenzene	MSD	SURR	108	%	85-114
V2C7121-MB	1868-53-7	Dibromofluoromethane	MB	SURR	102	%	80-119
V2C7121-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	110	%	81-118
V2C7121-MB	2037-26-5	Toluene-D8	MB	SURR	97	%	89-112
V2C7121-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	113	%	85-114
JC68966-8	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-8	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	112	%	81-118
JC68966-8	2037-26-5	Toluene-D8	SAMP	SURR	96	%	89-112
JC68966-8	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
JC68966-10	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-10	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	113	%	81-118
JC68966-10	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
JC68966-10	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
JC68966-12	1868-53-7	Dibromofluoromethane	SAMP	SURR	106	%	80-119
JC68966-12	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	117	%	81-118
JC68966-12	2037-26-5	Toluene-D8	SAMP	SURR	96	%	89-112
JC68966-12	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	85-114

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-14	1868-53-7	Dibromofluoromethane	SAMP	SURR	106	%	80-119
JC68966-14	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	118	%	81-118
JC68966-14	2037-26-5	Toluene-D8	SAMP	SURR	97	%	89-112
JC68966-14	460-00-4	4-Bromofluorobenzene	SAMP	SURR	113	%	85-114
V2D7472	SW846 8260C						
V2D7472-BS	67-64-1	Acetone	BSP	REC	98	%	39-160
V2D7472-BS	71-43-2	Benzene	BSP	REC	102	%	79-120
V2D7472-BS	74-97-5	Bromochloromethane	BSP	REC	100	%	78-123
V2D7472-BS	75-27-4	Bromodichloromethane	BSP	REC	99	%	79-125
V2D7472-BS	75-25-2	Bromoform	BSP	REC	106	%	66-130
V2D7472-BS	74-83-9	Bromomethane	BSP	REC	95	%	53-141
V2D7472-BS	78-93-3	2-Butanone (MEK)	BSP	REC	97	%	56-143
V2D7472-BS	75-15-0	Carbon disulfide	BSP	REC	90	%	64-133
V2D7472-BS	56-23-5	Carbon tetrachloride	BSP	REC	94	%	72-136
V2D7472-BS	108-90-7	Chlorobenzene	BSP	REC	101	%	82-118
V2D7472-BS	75-00-3	Chloroethane	BSP	REC	102	%	60-138
V2D7472-BS	67-66-3	Chloroform	BSP	REC	98	%	79-124
V2D7472-BS	74-87-3	Chloromethane	BSP	REC	95	%	50-139
V2D7472-BS	110-82-7	Cyclohexane	BSP	REC	107	%	71-130
V2D7472-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	95	%	62-128
V2D7472-BS	124-48-1	Dibromochloromethane	BSP	REC	101	%	74-126
V2D7472-BS	106-93-4	1,2-Dibromoethane	BSP	REC	98	%	77-121
V2D7472-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	105	%	80-119
V2D7472-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	107	%	80-119
V2D7472-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	106	%	79-118
V2D7472-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	98	%	32-152
V2D7472-BS	75-34-3	1,1-Dichloroethane	BSP	REC	97	%	77-125
V2D7472-BS	107-06-2	1,2-Dichloroethane	BSP	REC	84	%	73-128
V2D7472-BS	75-35-4	1,1-Dichloroethene	BSP	REC	100	%	71-131
V2D7472-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	104	%	78-123
V2D7472-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	104	%	75-124
V2D7472-BS	78-87-5	1,2-Dichloropropane	BSP	REC	97	%	78-122
V2D7472-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	94	%	75-124
V2D7472-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	94	%	73-127
V2D7472-BS	123-91-1	1,4-Dioxane	BSP	REC	126	%	59-139
V2D7472-BS	100-41-4	Ethylbenzene	BSP	REC	101	%	79-121
V2D7472-BS	76-13-1	Freon 113	BSP	REC	104	%	70-136
V2D7472-BS	591-78-6	2-Hexanone	BSP	REC	90	%	57-139
V2D7472-BS	74-88-4	Iodomethane	BSP	REC	92	%	69-131
V2D7472-BS	98-82-8	Isopropylbenzene	BSP	REC	99	%	72-131
V2D7472-BS	79-20-9	Methyl Acetate	BSP	REC	87	%	56-136
V2D7472-BS	108-87-2	Methylcyclohexane	BSP	REC	111	%	72-132
V2D7472-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	84	%	71-124

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2D7472-BS	108-10-1	4-Methyl-2-pentanone(MIBK)	BSP	REC	90	%	67-130
V2D7472-BS	75-09-2	Methylene chloride	BSP	REC	99	%	74-124
V2D7472-BS	100-42-5	Styrene	BSP	REC	101	%	78-123
V2D7472-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	99	%	71-121
V2D7472-BS	127-18-4	Tetrachloroethene	BSP	REC	107	%	74-129
V2D7472-BS	108-88-3	Toluene	BSP	REC	102	%	80-121
V2D7472-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	97	%	69-129
V2D7472-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	99	%	69-130
V2D7472-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	91	%	74-131
V2D7472-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	99	%	80-119
V2D7472-BS	79-01-6	Trichloroethene	BSP	REC	102	%	79-123
V2D7472-BS	75-69-4	Trichlorofluoromethane	BSP	REC	94	%	65-141
V2D7472-BS	75-01-4	Vinyl chloride	BSP	REC	99	%	58-137
V2D7472-BS	1330-20-7	Xylene (total)	BSP	REC	99	%	79-121
V2D7472-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	100	%	80-119
V2D7472-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	87	%	81-118
V2D7472-BS	2037-26-5	Toluene-D8	BSP	SURR	101	%	89-112
V2D7472-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	103	%	85-114
JC68966-2MS	67-64-1	Acetone	MS	REC	104	%	39-160
JC68966-2MS	71-43-2	Benzene	MS	REC	99	%	79-120
JC68966-2MS	74-97-5	Bromochloromethane	MS	REC	97	%	78-123
JC68966-2MS	75-27-4	Bromodichloromethane	MS	REC	95	%	79-125
JC68966-2MS	75-25-2	Bromoform	MS	REC	89	%	66-130
JC68966-2MS	74-83-9	Bromomethane	MS	REC	92	%	53-141
JC68966-2MS	78-93-3	2-Butanone (MEK)	MS	REC	106	%	56-143
JC68966-2MS	75-15-0	Carbon disulfide	MS	REC	77	%	64-133
JC68966-2MS	56-23-5	Carbon tetrachloride	MS	REC	91	%	72-136
JC68966-2MS	108-90-7	Chlorobenzene	MS	REC	100	%	82-118
JC68966-2MS	75-00-3	Chloroethane	MS	REC	104	%	60-138
JC68966-2MS	67-66-3	Chloroform	MS	REC	98	%	79-124
JC68966-2MS	74-87-3	Chloromethane	MS	REC	83	%	50-139
JC68966-2MS	110-82-7	Cyclohexane	MS	REC	109	%	71-130
JC68966-2MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	97	%	62-128
JC68966-2MS	124-48-1	Dibromochloromethane	MS	REC	94	%	74-126
JC68966-2MS	106-93-4	1,2-Dibromoethane	MS	REC	99	%	77-121
JC68966-2MS	95-50-1	1,2-Dichlorobenzene	MS	REC	102	%	80-119
JC68966-2MS	541-73-1	1,3-Dichlorobenzene	MS	REC	102	%	80-119
JC68966-2MS	106-46-7	1,4-Dichlorobenzene	MS	REC	102	%	79-118
JC68966-2MS	75-71-8	Dichlorodifluoromethane	MS	REC	74	%	32-152
JC68966-2MS	75-34-3	1,1-Dichloroethane	MS	REC	96	%	77-125
JC68966-2MS	107-06-2	1,2-Dichloroethane	MS	REC	83	%	73-128
JC68966-2MS	75-35-4	1,1-Dichloroethene	MS	REC	90	%	71-131
JC68966-2MS	156-59-2	cis-1,2-Dichloroethene	MS	REC	101	%	78-123
JC68966-2MS	156-60-5	trans-1,2-Dichloroethene	MS	REC	99	%	75-124
JC68966-2MS	78-87-5	1,2-Dichloropropane	MS	REC	96	%	78-122

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-2MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	76 [a]	%	75-124
JC68966-2MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	65 [a]	%	73-127
JC68966-2MS	123-91-1	1,4-Dioxane	MS	REC	108	%	59-139
JC68966-2MS	100-41-4	Ethylbenzene	MS	REC	100	%	79-121
JC68966-2MS	76-13-1	Freon 113	MS	REC	93	%	70-136
JC68966-2MS	591-78-6	2-Hexanone	MS	REC	100	%	57-139
JC68966-2MS	74-88-4	Iodomethane	MS	REC	82	%	69-131
JC68966-2MS	98-82-8	Isopropylbenzene	MS	REC	97	%	72-131
JC68966-2MS	79-20-9	Methyl Acetate	MS	REC	94	%	56-136
JC68966-2MS	108-87-2	Methylcyclohexane	MS	REC	106	%	72-132
JC68966-2MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	83	%	71-124
JC68966-2MS	108-10-1	4-Methyl-2-pentanone(MIBK)	MS	REC	97	%	67-130
JC68966-2MS	75-09-2	Methylene chloride	MS	REC	94	%	74-124
JC68966-2MS	100-42-5	Styrene	MS	REC	98	%	78-123
JC68966-2MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	104	%	71-121
JC68966-2MS	127-18-4	Tetrachloroethene	MS	REC	112	%	74-129
JC68966-2MS	108-88-3	Toluene	MS	REC	102	%	80-121
JC68966-2MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	95	%	69-129
JC68966-2MS	120-82-1	1,2,4-Trichlorobenzene	MS	REC	96	%	69-130
JC68966-2MS	71-55-6	1,1,1-Trichloroethane	MS	REC	91	%	74-131
JC68966-2MS	79-00-5	1,1,2-Trichloroethane	MS	REC	101	%	80-119
JC68966-2MS	79-01-6	Trichloroethene	MS	REC	100	%	79-123
JC68966-2MS	75-69-4	Trichlorofluoromethane	MS	REC	97	%	65-141
JC68966-2MS	75-01-4	Vinyl chloride	MS	REC	93	%	58-137
JC68966-2MS	1330-20-7	Xylene (total)	MS	REC	99	%	79-121
JC68966-2MS	1868-53-7	Dibromofluoromethane	MS	SURR	102	%	80-119
JC68966-2MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	90	%	81-118
JC68966-2MS	2037-26-5	Toluene-D8	MS	SURR	103	%	89-112
JC68966-2MS	460-00-4	4-Bromofluorobenzene	MS	SURR	103	%	85-114
JC68966-2MSD	67-64-1	Acetone	MSD	REC	109	%	39-160
JC68966-2MSD	67-64-1	Acetone	MSD	RPD	4	%	20
JC68966-2MSD	71-43-2	Benzene	MSD	REC	101	%	79-120
JC68966-2MSD	71-43-2	Benzene	MSD	RPD	2	%	20
JC68966-2MSD	74-97-5	Bromochloromethane	MSD	REC	100	%	78-123
JC68966-2MSD	74-97-5	Bromochloromethane	MSD	RPD	3	%	20
JC68966-2MSD	75-27-4	Bromodichloromethane	MSD	REC	98	%	79-125
JC68966-2MSD	75-27-4	Bromodichloromethane	MSD	RPD	3	%	20
JC68966-2MSD	75-25-2	Bromoform	MSD	REC	92	%	66-130
JC68966-2MSD	75-25-2	Bromoform	MSD	RPD	3	%	20
JC68966-2MSD	74-83-9	Bromomethane	MSD	REC	97	%	53-141
JC68966-2MSD	74-83-9	Bromomethane	MSD	RPD	5	%	20
JC68966-2MSD	78-93-3	2-Butanone (MEK)	MSD	REC	108	%	56-143
JC68966-2MSD	78-93-3	2-Butanone (MEK)	MSD	RPD	2	%	20
JC68966-2MSD	75-15-0	Carbon disulfide	MSD	REC	78	%	64-133
JC68966-2MSD	75-15-0	Carbon disulfide	MSD	RPD	2	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-2MSD	56-23-5	Carbon tetrachloride	MSD	REC	93	%	72-136
JC68966-2MSD	56-23-5	Carbon tetrachloride	MSD	RPD	2	%	20
JC68966-2MSD	108-90-7	Chlorobenzene	MSD	REC	103	%	82-118
JC68966-2MSD	108-90-7	Chlorobenzene	MSD	RPD	3	%	20
JC68966-2MSD	75-00-3	Chloroethane	MSD	REC	106	%	60-138
JC68966-2MSD	75-00-3	Chloroethane	MSD	RPD	2	%	20
JC68966-2MSD	67-66-3	Chloroform	MSD	REC	101	%	79-124
JC68966-2MSD	67-66-3	Chloroform	MSD	RPD	4	%	20
JC68966-2MSD	74-87-3	Chloromethane	MSD	REC	87	%	50-139
JC68966-2MSD	74-87-3	Chloromethane	MSD	RPD	5	%	20
JC68966-2MSD	110-82-7	Cyclohexane	MSD	REC	110	%	71-130
JC68966-2MSD	110-82-7	Cyclohexane	MSD	RPD	1	%	20
JC68966-2MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	98	%	62-128
JC68966-2MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	1	%	20
JC68966-2MSD	124-48-1	Dibromochloromethane	MSD	REC	97	%	74-126
JC68966-2MSD	124-48-1	Dibromochloromethane	MSD	RPD	2	%	20
JC68966-2MSD	106-93-4	1,2-Dibromoethane	MSD	REC	102	%	77-121
JC68966-2MSD	106-93-4	1,2-Dibromoethane	MSD	RPD	3	%	20
JC68966-2MSD	95-50-1	1,2-Dichlorobenzene	MSD	REC	105	%	80-119
JC68966-2MSD	95-50-1	1,2-Dichlorobenzene	MSD	RPD	3	%	20
JC68966-2MSD	541-73-1	1,3-Dichlorobenzene	MSD	REC	106	%	80-119
JC68966-2MSD	541-73-1	1,3-Dichlorobenzene	MSD	RPD	3	%	20
JC68966-2MSD	106-46-7	1,4-Dichlorobenzene	MSD	REC	106	%	79-118
JC68966-2MSD	106-46-7	1,4-Dichlorobenzene	MSD	RPD	3	%	20
JC68966-2MSD	75-71-8	Dichlorodifluoromethane	MSD	REC	76	%	32-152
JC68966-2MSD	75-71-8	Dichlorodifluoromethane	MSD	RPD	2	%	20
JC68966-2MSD	75-34-3	1,1-Dichloroethane	MSD	REC	100	%	77-125
JC68966-2MSD	75-34-3	1,1-Dichloroethane	MSD	RPD	4	%	20
JC68966-2MSD	107-06-2	1,2-Dichloroethane	MSD	REC	85	%	73-128
JC68966-2MSD	107-06-2	1,2-Dichloroethane	MSD	RPD	3	%	20
JC68966-2MSD	75-35-4	1,1-Dichloroethene	MSD	REC	92	%	71-131
JC68966-2MSD	75-35-4	1,1-Dichloroethene	MSD	RPD	2	%	20
JC68966-2MSD	156-59-2	cis-1,2-Dichloroethene	MSD	REC	105	%	78-123
JC68966-2MSD	156-59-2	cis-1,2-Dichloroethene	MSD	RPD	4	%	20
JC68966-2MSD	156-60-5	trans-1,2-Dichloroethene	MSD	REC	104	%	75-124
JC68966-2MSD	156-60-5	trans-1,2-Dichloroethene	MSD	RPD	4	%	20
JC68966-2MSD	78-87-5	1,2-Dichloropropane	MSD	REC	99	%	78-122
JC68966-2MSD	78-87-5	1,2-Dichloropropane	MSD	RPD	3	%	20
JC68966-2MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	78 [a]	%	75-124
JC68966-2MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	2	%	20
JC68966-2MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	67 [a]	%	73-127
JC68966-2MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	3	%	20
JC68966-2MSD	123-91-1	1,4-Dioxane	MSD	REC	116	%	59-139
JC68966-2MSD	123-91-1	1,4-Dioxane	MSD	RPD	7	%	20
JC68966-2MSD	100-41-4	Ethylbenzene	MSD	REC	103	%	79-121

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-2MSD	100-41-4	Ethylbenzene	MSD	RPD	3	%	20
JC68966-2MSD	76-13-1	Freon 113	MSD	REC	93	%	70-136
JC68966-2MSD	76-13-1	Freon 113	MSD	RPD	0	%	20
JC68966-2MSD	591-78-6	2-Hexanone	MSD	REC	103	%	57-139
JC68966-2MSD	591-78-6	2-Hexanone	MSD	RPD	3	%	20
JC68966-2MSD	74-88-4	Iodomethane	MSD	REC	83	%	69-131
JC68966-2MSD	74-88-4	Iodomethane	MSD	RPD	1	%	20
JC68966-2MSD	98-82-8	Isopropylbenzene	MSD	REC	100	%	72-131
JC68966-2MSD	98-82-8	Isopropylbenzene	MSD	RPD	3	%	20
JC68966-2MSD	79-20-9	Methyl Acetate	MSD	REC	96	%	56-136
JC68966-2MSD	79-20-9	Methyl Acetate	MSD	RPD	3	%	20
JC68966-2MSD	108-87-2	Methylcyclohexane	MSD	REC	107	%	72-132
JC68966-2MSD	108-87-2	Methylcyclohexane	MSD	RPD	1	%	20
JC68966-2MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	86	%	71-124
JC68966-2MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	3	%	20
JC68966-2MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	REC	100	%	67-130
JC68966-2MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	RPD	3	%	20
JC68966-2MSD	75-09-2	Methylene chloride	MSD	REC	97	%	74-124
JC68966-2MSD	75-09-2	Methylene chloride	MSD	RPD	3	%	20
JC68966-2MSD	100-42-5	Styrene	MSD	REC	100	%	78-123
JC68966-2MSD	100-42-5	Styrene	MSD	RPD	2	%	20
JC68966-2MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	107	%	71-121
JC68966-2MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	2	%	20
JC68966-2MSD	127-18-4	Tetrachloroethene	MSD	REC	114	%	74-129
JC68966-2MSD	127-18-4	Tetrachloroethene	MSD	RPD	2	%	20
JC68966-2MSD	108-88-3	Toluene	MSD	REC	104	%	80-121
JC68966-2MSD	108-88-3	Toluene	MSD	RPD	2	%	20
JC68966-2MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	96	%	69-129
JC68966-2MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	1	%	20
JC68966-2MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	98	%	69-130
JC68966-2MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	2	%	20
JC68966-2MSD	71-55-6	1,1,1-Trichloroethane	MSD	REC	92	%	74-131
JC68966-2MSD	71-55-6	1,1,1-Trichloroethane	MSD	RPD	2	%	20
JC68966-2MSD	79-00-5	1,1,2-Trichloroethane	MSD	REC	103	%	80-119
JC68966-2MSD	79-00-5	1,1,2-Trichloroethane	MSD	RPD	2	%	20
JC68966-2MSD	79-01-6	Trichloroethene	MSD	REC	103	%	79-123
JC68966-2MSD	79-01-6	Trichloroethene	MSD	RPD	3	%	20
JC68966-2MSD	75-69-4	Trichlorofluoromethane	MSD	REC	98	%	65-141
JC68966-2MSD	75-69-4	Trichlorofluoromethane	MSD	RPD	1	%	20
JC68966-2MSD	75-01-4	Vinyl chloride	MSD	REC	98	%	58-137
JC68966-2MSD	75-01-4	Vinyl chloride	MSD	RPD	5	%	20
JC68966-2MSD	1330-20-7	Xylene (total)	MSD	REC	101	%	79-121
JC68966-2MSD	1330-20-7	Xylene (total)	MSD	RPD	3	%	20
JC68966-2MSD	1868-53-7	Dibromofluoromethane	MSD	SURR	103	%	80-119
JC68966-2MSD	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	89	%	81-118

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-2MSD	2037-26-5	Toluene-D8	MSD	SURR	103	%	89-112
JC68966-2MSD	460-00-4	4-Bromofluorobenzene	MSD	SURR	104	%	85-114
V2D7472-MB	1868-53-7	Dibromofluoromethane	MB	SURR	99	%	80-119
V2D7472-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	86	%	81-118
V2D7472-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	89-112
V2D7472-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	108	%	85-114
JC68966-1	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-1	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	88	%	81-118
JC68966-1	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-1	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
JC68966-2	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-2	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-2	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-2	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	85-114
JC68966-3	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-3	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-3	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
JC68966-3	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
JC68966-4	1868-53-7	Dibromofluoromethane	SAMP	SURR	104	%	80-119
JC68966-4	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	92	%	81-118
JC68966-4	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-4	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	85-114
JC68966-5	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-5	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-5	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
JC68966-5	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	85-114
JC68966-6	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-6	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-6	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-6	460-00-4	4-Bromofluorobenzene	SAMP	SURR	111	%	85-114
JC68966-7	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-7	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-7	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-7	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
JC68966-9	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-9	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-9	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-9	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
JC68966-11	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-11	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-11	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
JC68966-11	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	85-114

V2D7474 SW846 8260C

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2D7474-BS	67-64-1	Acetone	BSP	REC	117	%	39-160
V2D7474-BS	71-43-2	Benzene	BSP	REC	113	%	79-120
V2D7474-BS	74-97-5	Bromochloromethane	BSP	REC	113	%	78-123
V2D7474-BS	75-27-4	Bromodichloromethane	BSP	REC	109	%	79-125
V2D7474-BS	75-25-2	Bromoform	BSP	REC	116	%	66-130
V2D7474-BS	74-83-9	Bromomethane	BSP	REC	112	%	53-141
V2D7474-BS	78-93-3	2-Butanone (MEK)	BSP	REC	117	%	56-143
V2D7474-BS	75-15-0	Carbon disulfide	BSP	REC	103	%	64-133
V2D7474-BS	56-23-5	Carbon tetrachloride	BSP	REC	105	%	72-136
V2D7474-BS	108-90-7	Chlorobenzene	BSP	REC	113	%	82-118
V2D7474-BS	75-00-3	Chloroethane	BSP	REC	121	%	60-138
V2D7474-BS	67-66-3	Chloroform	BSP	REC	112	%	79-124
V2D7474-BS	74-87-3	Chloromethane	BSP	REC	109	%	50-139
V2D7474-BS	110-82-7	Cyclohexane	BSP	REC	121	%	71-130
V2D7474-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	111	%	62-128
V2D7474-BS	124-48-1	Dibromochloromethane	BSP	REC	113	%	74-126
V2D7474-BS	106-93-4	1,2-Dibromoethane	BSP	REC	112	%	77-121
V2D7474-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	116	%	80-119
V2D7474-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	118 [c]	%	80-119
V2D7474-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	116	%	79-118
V2D7474-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	122	%	32-152
V2D7474-BS	75-34-3	1,1-Dichloroethane	BSP	REC	110	%	77-125
V2D7474-BS	107-06-2	1,2-Dichloroethane	BSP	REC	94	%	73-128
V2D7474-BS	75-35-4	1,1-Dichloroethene	BSP	REC	114	%	71-131
V2D7474-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	118	%	78-123
V2D7474-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	118	%	75-124
V2D7474-BS	78-87-5	1,2-Dichloropropane	BSP	REC	109	%	78-122
V2D7474-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	104	%	75-124
V2D7474-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	103	%	73-127
V2D7474-BS	123-91-1	1,4-Dioxane	BSP	REC	133	%	59-139
V2D7474-BS	100-41-4	Ethylbenzene	BSP	REC	111	%	79-121
V2D7474-BS	76-13-1	Freon 113	BSP	REC	117	%	70-136
V2D7474-BS	591-78-6	2-Hexanone	BSP	REC	109	%	57-139
V2D7474-BS	74-88-4	Iodomethane	BSP	REC	101	%	69-131
V2D7474-BS	98-82-8	Isopropylbenzene	BSP	REC	108	%	72-131
V2D7474-BS	79-20-9	Methyl Acetate	BSP	REC	107	%	56-136
V2D7474-BS	108-87-2	Methylcyclohexane	BSP	REC	124	%	72-132
V2D7474-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	97	%	71-124
V2D7474-BS	108-10-1	4-Methyl-2-pentanone(MIBK)	BSP	REC	105	%	67-130
V2D7474-BS	75-09-2	Methylene chloride	BSP	REC	112	%	74-124
V2D7474-BS	100-42-5	Styrene	BSP	REC	112	%	78-123
V2D7474-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	115	%	71-121
V2D7474-BS	127-18-4	Tetrachloroethene	BSP	REC	120	%	74-129
V2D7474-BS	108-88-3	Toluene	BSP	REC	114	%	80-121
V2D7474-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	107	%	69-129

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2D7474-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	109	%	69-130
V2D7474-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	103	%	74-131
V2D7474-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	113	%	80-119
V2D7474-BS	79-01-6	Trichloroethene	BSP	REC	113	%	79-123
V2D7474-BS	75-69-4	Trichlorofluoromethane	BSP	REC	114	%	65-141
V2D7474-BS	75-01-4	Vinyl chloride	BSP	REC	120	%	58-137
V2D7474-BS	1330-20-7	Xylene (total)	BSP	REC	110	%	79-121
V2D7474-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	102	%	80-119
V2D7474-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	87	%	81-118
V2D7474-BS	2037-26-5	Toluene-D8	BSP	SURR	102	%	89-112
V2D7474-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	103	%	85-114
JC68966-41MS	67-64-1	Acetone	MS	REC	128	%	39-160
JC68966-41MS	71-43-2	Benzene	MS	REC	123	%	79-120
JC68966-41MS	74-97-5	Bromochloromethane	MS	REC	120	%	78-123
JC68966-41MS	75-27-4	Bromodichloromethane	MS	REC	116	%	79-125
JC68966-41MS	75-25-2	Bromoform	MS	REC	122	%	66-130
JC68966-41MS	74-83-9	Bromomethane	MS	REC	125	%	53-141
JC68966-41MS	78-93-3	2-Butanone (MEK)	MS	REC	128	%	56-143
JC68966-41MS	75-15-0	Carbon disulfide	MS	REC	106	%	64-133
JC68966-41MS	56-23-5	Carbon tetrachloride	MS	REC	115	%	72-136
JC68966-41MS	108-90-7	Chlorobenzene	MS	REC	123	%	82-118
JC68966-41MS	75-00-3	Chloroethane	MS	REC	134	%	60-138
JC68966-41MS	67-66-3	Chloroform	MS	REC	119	%	79-124
JC68966-41MS	74-87-3	Chloromethane	MS	REC	115	%	50-139
JC68966-41MS	110-82-7	Cyclohexane	MS	REC	119	%	71-130
JC68966-41MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	119	%	62-128
JC68966-41MS	124-48-1	Dibromochloromethane	MS	REC	119	%	74-126
JC68966-41MS	106-93-4	1,2-Dibromoethane	MS	REC	122 [a]	%	77-121
JC68966-41MS	95-50-1	1,2-Dichlorobenzene	MS	REC	125 [a]	%	80-119
JC68966-41MS	541-73-1	1,3-Dichlorobenzene	MS	REC	127 [a]	%	80-119
JC68966-41MS	106-46-7	1,4-Dichlorobenzene	MS	REC	125 [a]	%	79-118
JC68966-41MS	75-71-8	Dichlorodifluoromethane	MS	REC	115	%	32-152
JC68966-41MS	75-34-3	1,1-Dichloroethane	MS	REC	118	%	77-125
JC68966-41MS	107-06-2	1,2-Dichloroethane	MS	REC	103	%	73-128
JC68966-41MS	75-35-4	1,1-Dichloroethene	MS	REC	121	%	71-131
JC68966-41MS	156-59-2	cis-1,2-Dichloroethene	MS	REC	126	%	78-123
JC68966-41MS	156-60-5	trans-1,2-Dichloroethene	MS	REC	127 [a]	%	75-124
JC68966-41MS	78-87-5	1,2-Dichloropropane	MS	REC	118	%	78-122
JC68966-41MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	108	%	75-124
JC68966-41MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	108	%	73-127
JC68966-41MS	123-91-1	1,4-Dioxane	MS	REC	124	%	59-139
JC68966-41MS	100-41-4	Ethylbenzene	MS	REC	122	%	79-121
JC68966-41MS	76-13-1	Freon 113	MS	REC	121	%	70-136
JC68966-41MS	591-78-6	2-Hexanone	MS	REC	121	%	57-139
JC68966-41MS	74-88-4	Iodomethane	MS	REC	107	%	69-131

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-41MS	98-82-8	Isopropylbenzene	MS	REC	119	%	72-131
JC68966-41MS	79-20-9	Methyl Acetate	MS	REC	109	%	56-136
JC68966-41MS	108-87-2	Methylcyclohexane	MS	REC	134	%	72-132
JC68966-41MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	103	%	71-124
JC68966-41MS	108-10-1	4-Methyl-2-pentanone(MIBK)	MS	REC	118	%	67-130
JC68966-41MS	75-09-2	Methylene chloride	MS	REC	120	%	74-124
JC68966-41MS	100-42-5	Styrene	MS	REC	122	%	78-123
JC68966-41MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	127 [a]	%	71-121
JC68966-41MS	127-18-4	Tetrachloroethene	MS	REC	130	%	74-129
JC68966-41MS	108-88-3	Toluene	MS	REC	126	%	80-121
JC68966-41MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	114	%	69-129
JC68966-41MS	120-82-1	1,2,4-Trichlorobenzene	MS	REC	116	%	69-130
JC68966-41MS	71-55-6	1,1,1-Trichloroethane	MS	REC	112	%	74-131
JC68966-41MS	79-00-5	1,1,2-Trichloroethane	MS	REC	123 [a]	%	80-119
JC68966-41MS	79-01-6	Trichloroethene	MS	REC	123	%	79-123
JC68966-41MS	75-69-4	Trichlorofluoromethane	MS	REC	126	%	65-141
JC68966-41MS	75-01-4	Vinyl chloride	MS	REC	130	%	58-137
JC68966-41MS	1330-20-7	Xylene (total)	MS	REC	121	%	79-121
JC68966-41MS	1868-53-7	Dibromofluoromethane	MS	SURR	102	%	80-119
JC68966-41MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	89	%	81-118
JC68966-41MS	2037-26-5	Toluene-D8	MS	SURR	102	%	89-112
JC68966-41MS	460-00-4	4-Bromofluorobenzene	MS	SURR	103	%	85-114
JC68966-41MSD	67-64-1	Acetone	MSD	REC	121	%	39-160
JC68966-41MSD	67-64-1	Acetone	MSD	RPD	6	%	20
JC68966-41MSD	71-43-2	Benzene	MSD	REC	117	%	79-120
JC68966-41MSD	71-43-2	Benzene	MSD	RPD	5	%	20
JC68966-41MSD	74-97-5	Bromochloromethane	MSD	REC	114	%	78-123
JC68966-41MSD	74-97-5	Bromochloromethane	MSD	RPD	5	%	20
JC68966-41MSD	75-27-4	Bromodichloromethane	MSD	REC	110	%	79-125
JC68966-41MSD	75-27-4	Bromodichloromethane	MSD	RPD	5	%	20
JC68966-41MSD	75-25-2	Bromoform	MSD	REC	117	%	66-130
JC68966-41MSD	75-25-2	Bromoform	MSD	RPD	4	%	20
JC68966-41MSD	74-83-9	Bromomethane	MSD	REC	119	%	53-141
JC68966-41MSD	74-83-9	Bromomethane	MSD	RPD	5	%	20
JC68966-41MSD	78-93-3	2-Butanone (MEK)	MSD	REC	120	%	56-143
JC68966-41MSD	78-93-3	2-Butanone (MEK)	MSD	RPD	7	%	20
JC68966-41MSD	75-15-0	Carbon disulfide	MSD	REC	97	%	64-133
JC68966-41MSD	75-15-0	Carbon disulfide	MSD	RPD	8	%	20
JC68966-41MSD	56-23-5	Carbon tetrachloride	MSD	REC	108	%	72-136
JC68966-41MSD	56-23-5	Carbon tetrachloride	MSD	RPD	7	%	20
JC68966-41MSD	108-90-7	Chlorobenzene	MSD	REC	117	%	82-118
JC68966-41MSD	108-90-7	Chlorobenzene	MSD	RPD	4	%	20
JC68966-41MSD	75-00-3	Chloroethane	MSD	REC	128	%	60-138
JC68966-41MSD	75-00-3	Chloroethane	MSD	RPD	5	%	20
JC68966-41MSD	67-66-3	Chloroform	MSD	REC	114	%	79-124

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-41MSD	67-66-3	Chloroform	MSD	RPD	4	%	20
JC68966-41MSD	74-87-3	Chloromethane	MSD	REC	112	%	50-139
JC68966-41MSD	74-87-3	Chloromethane	MSD	RPD	2	%	20
JC68966-41MSD	110-82-7	Cyclohexane	MSD	REC	114	%	71-130
JC68966-41MSD	110-82-7	Cyclohexane	MSD	RPD	4	%	20
JC68966-41MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	112	%	62-128
JC68966-41MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	6	%	20
JC68966-41MSD	124-48-1	Dibromochloromethane	MSD	REC	114	%	74-126
JC68966-41MSD	124-48-1	Dibromochloromethane	MSD	RPD	4	%	20
JC68966-41MSD	106-93-4	1,2-Dibromoethane	MSD	REC	116	%	77-121
JC68966-41MSD	106-93-4	1,2-Dibromoethane	MSD	RPD	5	%	20
JC68966-41MSD	95-50-1	1,2-Dichlorobenzene	MSD	REC	120	%	80-119
JC68966-41MSD	95-50-1	1,2-Dichlorobenzene	MSD	RPD	4	%	20
JC68966-41MSD	541-73-1	1,3-Dichlorobenzene	MSD	REC	122	%	80-119
JC68966-41MSD	541-73-1	1,3-Dichlorobenzene	MSD	RPD	4	%	20
JC68966-41MSD	106-46-7	1,4-Dichlorobenzene	MSD	REC	122	%	79-118
JC68966-41MSD	106-46-7	1,4-Dichlorobenzene	MSD	RPD	3	%	20
JC68966-41MSD	75-71-8	Dichlorodifluoromethane	MSD	REC	106	%	32-152
JC68966-41MSD	75-71-8	Dichlorodifluoromethane	MSD	RPD	8	%	20
JC68966-41MSD	75-34-3	1,1-Dichloroethane	MSD	REC	111	%	77-125
JC68966-41MSD	75-34-3	1,1-Dichloroethane	MSD	RPD	5	%	20
JC68966-41MSD	107-06-2	1,2-Dichloroethane	MSD	REC	97	%	73-128
JC68966-41MSD	107-06-2	1,2-Dichloroethane	MSD	RPD	6	%	20
JC68966-41MSD	75-35-4	1,1-Dichloroethene	MSD	REC	111	%	71-131
JC68966-41MSD	75-35-4	1,1-Dichloroethene	MSD	RPD	8	%	20
JC68966-41MSD	156-59-2	cis-1,2-Dichloroethene	MSD	REC	120	%	78-123
JC68966-41MSD	156-59-2	cis-1,2-Dichloroethene	MSD	RPD	5	%	20
JC68966-41MSD	156-60-5	trans-1,2-Dichloroethene	MSD	REC	120	%	75-124
JC68966-41MSD	156-60-5	trans-1,2-Dichloroethene	MSD	RPD	6	%	20
JC68966-41MSD	78-87-5	1,2-Dichloropropane	MSD	REC	112	%	78-122
JC68966-41MSD	78-87-5	1,2-Dichloropropane	MSD	RPD	5	%	20
JC68966-41MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	103	%	75-124
JC68966-41MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	4	%	20
JC68966-41MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	103	%	73-127
JC68966-41MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	5	%	20
JC68966-41MSD	123-91-1	1,4-Dioxane	MSD	REC	128	%	59-139
JC68966-41MSD	123-91-1	1,4-Dioxane	MSD	RPD	3	%	20
JC68966-41MSD	100-41-4	Ethylbenzene	MSD	REC	117	%	79-121
JC68966-41MSD	100-41-4	Ethylbenzene	MSD	RPD	5	%	20
JC68966-41MSD	76-13-1	Freon 113	MSD	REC	108	%	70-136
JC68966-41MSD	76-13-1	Freon 113	MSD	RPD	12	%	20
JC68966-41MSD	591-78-6	2-Hexanone	MSD	REC	114	%	57-139
JC68966-41MSD	591-78-6	2-Hexanone	MSD	RPD	6	%	20
JC68966-41MSD	74-88-4	Iodomethane	MSD	REC	100	%	69-131
JC68966-41MSD	74-88-4	Iodomethane	MSD	RPD	7	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-41MSD	98-82-8	Isopropylbenzene	MSD	REC	115	%	72-131
JC68966-41MSD	98-82-8	Isopropylbenzene	MSD	RPD	4	%	20
JC68966-41MSD	79-20-9	Methyl Acetate	MSD	REC	99	%	56-136
JC68966-41MSD	79-20-9	Methyl Acetate	MSD	RPD	10	%	20
JC68966-41MSD	108-87-2	Methylcyclohexane	MSD	REC	123	%	72-132
JC68966-41MSD	108-87-2	Methylcyclohexane	MSD	RPD	8	%	20
JC68966-41MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	97	%	71-124
JC68966-41MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	7	%	20
JC68966-41MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	REC	111	%	67-130
JC68966-41MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	RPD	7	%	20
JC68966-41MSD	75-09-2	Methylene chloride	MSD	REC	113	%	74-124
JC68966-41MSD	75-09-2	Methylene chloride	MSD	RPD	6	%	20
JC68966-41MSD	100-42-5	Styrene	MSD	REC	116	%	78-123
JC68966-41MSD	100-42-5	Styrene	MSD	RPD	5	%	20
JC68966-41MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	120	%	71-121
JC68966-41MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	5	%	20
JC68966-41MSD	127-18-4	Tetrachloroethene	MSD	REC	125	%	74-129
JC68966-41MSD	127-18-4	Tetrachloroethene	MSD	RPD	3	%	20
JC68966-41MSD	108-88-3	Toluene	MSD	REC	125	%	80-121
JC68966-41MSD	108-88-3	Toluene	MSD	RPD	1	%	20
JC68966-41MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	108	%	69-129
JC68966-41MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	5	%	20
JC68966-41MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	110	%	69-130
JC68966-41MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	5	%	20
JC68966-41MSD	71-55-6	1,1,1-Trichloroethane	MSD	REC	105	%	74-131
JC68966-41MSD	71-55-6	1,1,1-Trichloroethane	MSD	RPD	7	%	20
JC68966-41MSD	79-00-5	1,1,2-Trichloroethane	MSD	REC	118	%	80-119
JC68966-41MSD	79-00-5	1,1,2-Trichloroethane	MSD	RPD	4	%	20
JC68966-41MSD	79-01-6	Trichloroethene	MSD	REC	116	%	79-123
JC68966-41MSD	79-01-6	Trichloroethene	MSD	RPD	5	%	20
JC68966-41MSD	75-69-4	Trichlorofluoromethane	MSD	REC	117	%	65-141
JC68966-41MSD	75-69-4	Trichlorofluoromethane	MSD	RPD	7	%	20
JC68966-41MSD	75-01-4	Vinyl chloride	MSD	REC	126	%	58-137
JC68966-41MSD	75-01-4	Vinyl chloride	MSD	RPD	3	%	20
JC68966-41MSD	1330-20-7	Xylene (total)	MSD	REC	115	%	79-121
JC68966-41MSD	1330-20-7	Xylene (total)	MSD	RPD	5	%	20
JC68966-41MSD	1868-53-7	Dibromofluoromethane	MSD	SURR	100	%	80-119
JC68966-41MSD	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	89	%	81-118
JC68966-41MSD	2037-26-5	Toluene-D8	MSD	SURR	104	%	89-112
JC68966-41MSD	460-00-4	4-Bromofluorobenzene	MSD	SURR	104	%	85-114
V2D7474-MB	1868-53-7	Dibromofluoromethane	MB	SURR	102	%	80-119
V2D7474-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	89	%	81-118
V2D7474-MB	2037-26-5	Toluene-D8	MB	SURR	103	%	89-112
V2D7474-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	110	%	85-114
JC68966-32	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-32	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-32	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-32	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
JC68966-33	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-33	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	88	%	81-118
JC68966-33	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-33	460-00-4	4-Bromofluorobenzene	SAMP	SURR	111	%	85-114
JC68966-34	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-34	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-34	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
JC68966-34	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
JC68966-35	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-35	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-35	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
JC68966-35	460-00-4	4-Bromofluorobenzene	SAMP	SURR	111	%	85-114
JC68966-36	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-36	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-36	2037-26-5	Toluene-D8	SAMP	SURR	103	%	89-112
JC68966-36	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
JC68966-37	1868-53-7	Dibromofluoromethane	SAMP	SURR	104	%	80-119
JC68966-37	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-37	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-37	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
JC68966-38	1868-53-7	Dibromofluoromethane	SAMP	SURR	104	%	80-119
JC68966-38	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-38	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-38	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-39	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-39	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-39	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
JC68966-39	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-40	1868-53-7	Dibromofluoromethane	SAMP	SURR	104	%	80-119
JC68966-40	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-40	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
JC68966-40	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-41	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-41	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	89	%	81-118
JC68966-41	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-41	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-42	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	80-119
JC68966-42	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	90	%	81-118
JC68966-42	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-42	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-43	1868-53-7	Dibromofluoromethane	SAMP	SURR	104	%	80-119
JC68966-43	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-43	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-43	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-44	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	80-119
JC68966-44	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-44	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-44	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-45	1868-53-7	Dibromofluoromethane	SAMP	SURR	107	%	80-119
JC68966-45	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	91	%	81-118
JC68966-45	2037-26-5	Toluene-D8	SAMP	SURR	104	%	89-112
JC68966-45	460-00-4	4-Bromofluorobenzene	SAMP	SURR	111	%	85-114
JC68966-46	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	80-119
JC68966-46	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	93	%	81-118
JC68966-46	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
JC68966-46	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
JC68966-47	1868-53-7	Dibromofluoromethane	SAMP	SURR	105	%	80-119
JC68966-47	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	94	%	81-118
JC68966-47	2037-26-5	Toluene-D8	SAMP	SURR	105	%	89-112
JC68966-47	460-00-4	4-Bromofluorobenzene	SAMP	SURR	110	%	85-114
V2E6328	SW846 8260C						
V2E6328-BS	67-64-1	Acetone	BSP	REC	85	%	39-160
V2E6328-BS	71-43-2	Benzene	BSP	REC	93	%	79-120
V2E6328-BS	74-97-5	Bromochloromethane	BSP	REC	96	%	78-123
V2E6328-BS	75-27-4	Bromodichloromethane	BSP	REC	109	%	79-125
V2E6328-BS	75-25-2	Bromoform	BSP	REC	115	%	66-130
V2E6328-BS	74-83-9	Bromomethane	BSP	REC	100	%	53-141
V2E6328-BS	78-93-3	2-Butanone (MEK)	BSP	REC	96	%	56-143
V2E6328-BS	75-15-0	Carbon disulfide	BSP	REC	85	%	64-133
V2E6328-BS	56-23-5	Carbon tetrachloride	BSP	REC	121	%	72-136
V2E6328-BS	108-90-7	Chlorobenzene	BSP	REC	96	%	82-118
V2E6328-BS	75-00-3	Chloroethane	BSP	REC	96	%	60-138
V2E6328-BS	67-66-3	Chloroform	BSP	REC	102	%	79-124
V2E6328-BS	74-87-3	Chloromethane	BSP	REC	104	%	50-139
V2E6328-BS	110-82-7	Cyclohexane	BSP	REC	107	%	71-130
V2E6328-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	96	%	62-128
V2E6328-BS	124-48-1	Dibromochloromethane	BSP	REC	108	%	74-126
V2E6328-BS	106-93-4	1,2-Dibromoethane	BSP	REC	100	%	77-121
V2E6328-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	97	%	80-119
V2E6328-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	97	%	80-119
V2E6328-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	96	%	79-118
V2E6328-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	133	%	32-152
V2E6328-BS	75-34-3	1,1-Dichloroethane	BSP	REC	96	%	77-125
V2E6328-BS	107-06-2	1,2-Dichloroethane	BSP	REC	108	%	73-128
V2E6328-BS	75-35-4	1,1-Dichloroethene	BSP	REC	101	%	71-131

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V2E6328-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	93	%	78-123
V2E6328-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	98	%	75-124
V2E6328-BS	78-87-5	1,2-Dichloropropane	BSP	REC	96	%	78-122
V2E6328-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	100	%	75-124
V2E6328-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	104	%	73-127
V2E6328-BS	123-91-1	1,4-Dioxane	BSP	REC	119	%	59-139
V2E6328-BS	100-41-4	Ethylbenzene	BSP	REC	98	%	79-121
V2E6328-BS	76-13-1	Freon 113	BSP	REC	113	%	70-136
V2E6328-BS	591-78-6	2-Hexanone	BSP	REC	99	%	57-139
V2E6328-BS	74-88-4	Iodomethane	BSP	REC	95	%	69-131
V2E6328-BS	98-82-8	Isopropylbenzene	BSP	REC	103	%	72-131
V2E6328-BS	79-20-9	Methyl Acetate	BSP	REC	82	%	56-136
V2E6328-BS	108-87-2	Methylcyclohexane	BSP	REC	110	%	72-132
V2E6328-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	95	%	71-124
V2E6328-BS	108-10-1	4-Methyl-2-pentanone(MIBK)	BSP	REC	99	%	67-130
V2E6328-BS	75-09-2	Methylene chloride	BSP	REC	89	%	74-124
V2E6328-BS	100-42-5	Styrene	BSP	REC	100	%	78-123
V2E6328-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	91	%	71-121
V2E6328-BS	127-18-4	Tetrachloroethene	BSP	REC	98	%	74-129
V2E6328-BS	108-88-3	Toluene	BSP	REC	92	%	80-121
V2E6328-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	96	%	69-129
V2E6328-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	98	%	69-130
V2E6328-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	112	%	74-131
V2E6328-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	93	%	80-119
V2E6328-BS	79-01-6	Trichloroethene	BSP	REC	98	%	79-123
V2E6328-BS	75-69-4	Trichlorofluoromethane	BSP	REC	123	%	65-141
V2E6328-BS	75-01-4	Vinyl chloride	BSP	REC	106	%	58-137
V2E6328-BS	1330-20-7	Xylene (total)	BSP	REC	99	%	79-121
V2E6328-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	100	%	80-119
V2E6328-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	118	%	81-118
V2E6328-BS	2037-26-5	Toluene-D8	BSP	SURR	98	%	89-112
V2E6328-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	101	%	85-114
JC68966-31MS	67-64-1	Acetone	MS	REC	79	%	39-160
JC68966-31MS	71-43-2	Benzene	MS	REC	87	%	79-120
JC68966-31MS	74-97-5	Bromochloromethane	MS	REC	89	%	78-123
JC68966-31MS	75-27-4	Bromodichloromethane	MS	REC	102	%	79-125
JC68966-31MS	75-25-2	Bromoform	MS	REC	108	%	66-130
JC68966-31MS	74-83-9	Bromomethane	MS	REC	86	%	53-141
JC68966-31MS	78-93-3	2-Butanone (MEK)	MS	REC	94	%	56-143
JC68966-31MS	75-15-0	Carbon disulfide	MS	REC	78	%	64-133
JC68966-31MS	56-23-5	Carbon tetrachloride	MS	REC	115	%	72-136
JC68966-31MS	108-90-7	Chlorobenzene	MS	REC	92	%	82-118
JC68966-31MS	75-00-3	Chloroethane	MS	REC	85	%	60-138
JC68966-31MS	67-66-3	Chloroform	MS	REC	98	%	79-124
JC68966-31MS	74-87-3	Chloromethane	MS	REC	78	%	50-139

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-31MS	110-82-7	Cyclohexane	MS	REC	92	%	71-130
JC68966-31MS	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	91	%	62-128
JC68966-31MS	124-48-1	Dibromochloromethane	MS	REC	103	%	74-126
JC68966-31MS	106-93-4	1,2-Dibromoethane	MS	REC	94	%	77-121
JC68966-31MS	95-50-1	1,2-Dichlorobenzene	MS	REC	92	%	80-119
JC68966-31MS	541-73-1	1,3-Dichlorobenzene	MS	REC	93	%	80-119
JC68966-31MS	106-46-7	1,4-Dichlorobenzene	MS	REC	93	%	79-118
JC68966-31MS	75-71-8	Dichlorodifluoromethane	MS	REC	85	%	32-152
JC68966-31MS	75-34-3	1,1-Dichloroethane	MS	REC	91	%	77-125
JC68966-31MS	107-06-2	1,2-Dichloroethane	MS	REC	104	%	73-128
JC68966-31MS	75-35-4	1,1-Dichloroethene	MS	REC	90	%	71-131
JC68966-31MS	156-59-2	cis-1,2-Dichloroethene	MS	REC	88	%	78-123
JC68966-31MS	156-60-5	trans-1,2-Dichloroethene	MS	REC	91	%	75-124
JC68966-31MS	78-87-5	1,2-Dichloropropane	MS	REC	91	%	78-122
JC68966-31MS	10061-01-5	cis-1,3-Dichloropropene	MS	REC	91	%	75-124
JC68966-31MS	10061-02-6	trans-1,3-Dichloropropene	MS	REC	97	%	73-127
JC68966-31MS	123-91-1	1,4-Dioxane	MS	REC	103	%	59-139
JC68966-31MS	100-41-4	Ethylbenzene	MS	REC	96	%	79-121
JC68966-31MS	76-13-1	Freon 113	MS	REC	92	%	70-136
JC68966-31MS	591-78-6	2-Hexanone	MS	REC	96	%	57-139
JC68966-31MS	74-88-4	Iodomethane	MS	REC	83	%	69-131
JC68966-31MS	98-82-8	Isopropylbenzene	MS	REC	101	%	72-131
JC68966-31MS	79-20-9	Methyl Acetate	MS	REC	82	%	56-136
JC68966-31MS	108-87-2	Methylcyclohexane	MS	REC	96	%	72-132
JC68966-31MS	1634-04-4	Methyl Tert Butyl Ether	MS	REC	88	%	71-124
JC68966-31MS	108-10-1	4-Methyl-2-pentanone(MIBK)	MS	REC	94	%	67-130
JC68966-31MS	75-09-2	Methylene chloride	MS	REC	85	%	74-124
JC68966-31MS	100-42-5	Styrene	MS	REC	95	%	78-123
JC68966-31MS	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	85	%	71-121
JC68966-31MS	127-18-4	Tetrachloroethene	MS	REC	97	%	74-129
JC68966-31MS	108-88-3	Toluene	MS	REC	90	%	80-121
JC68966-31MS	87-61-6	1,2,3-Trichlorobenzene	MS	REC	92	%	69-129
JC68966-31MS	120-82-1	1,2,4-Trichlorobenzene	MS	REC	96	%	69-130
JC68966-31MS	71-55-6	1,1,1-Trichloroethane	MS	REC	108	%	74-131
JC68966-31MS	79-00-5	1,1,2-Trichloroethane	MS	REC	88	%	80-119
JC68966-31MS	79-01-6	Trichloroethene	MS	REC	94	%	79-123
JC68966-31MS	75-69-4	Trichlorofluoromethane	MS	REC	117	%	65-141
JC68966-31MS	75-01-4	Vinyl chloride	MS	REC	84	%	58-137
JC68966-31MS	1330-20-7	Xylene (total)	MS	REC	95	%	79-121
JC68966-31MS	1868-53-7	Dibromofluoromethane	MS	SURR	104	%	80-119
JC68966-31MS	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	120	%	81-118
JC68966-31MS	2037-26-5	Toluene-D8	MS	SURR	99	%	89-112
JC68966-31MS	460-00-4	4-Bromofluorobenzene	MS	SURR	100	%	85-114
JC68966-31MSD	67-64-1	Acetone	MSD	REC	78	%	39-160
JC68966-31MSD	67-64-1	Acetone	MSD	RPD	1	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-31MSD	71-43-2	Benzene	MSD	REC	70	%	79-120
JC68966-31MSD	71-43-2	Benzene	MSD	RPD	21 [a]	%	20
JC68966-31MSD	74-97-5	Bromochloromethane	MSD	REC	72 [a]	%	78-123
JC68966-31MSD	74-97-5	Bromochloromethane	MSD	RPD	21 [a]	%	20
JC68966-31MSD	75-27-4	Bromodichloromethane	MSD	REC	85	%	79-125
JC68966-31MSD	75-27-4	Bromodichloromethane	MSD	RPD	18 [a]	%	20
JC68966-31MSD	75-25-2	Bromoform	MSD	REC	90	%	66-130
JC68966-31MSD	75-25-2	Bromoform	MSD	RPD	19 [a]	%	20
JC68966-31MSD	74-83-9	Bromomethane	MSD	REC	95	%	53-141
JC68966-31MSD	74-83-9	Bromomethane	MSD	RPD	9	%	20
JC68966-31MSD	78-93-3	2-Butanone (MEK)	MSD	REC	89	%	56-143
JC68966-31MSD	78-93-3	2-Butanone (MEK)	MSD	RPD	6	%	20
JC68966-31MSD	75-15-0	Carbon disulfide	MSD	REC	63	%	64-133
JC68966-31MSD	75-15-0	Carbon disulfide	MSD	RPD	21 [a]	%	20
JC68966-31MSD	56-23-5	Carbon tetrachloride	MSD	REC	95	%	72-136
JC68966-31MSD	56-23-5	Carbon tetrachloride	MSD	RPD	19 [a]	%	20
JC68966-31MSD	108-90-7	Chlorobenzene	MSD	REC	74 [a]	%	82-118
JC68966-31MSD	108-90-7	Chlorobenzene	MSD	RPD	21 [a]	%	20
JC68966-31MSD	75-00-3	Chloroethane	MSD	REC	93	%	60-138
JC68966-31MSD	75-00-3	Chloroethane	MSD	RPD	9	%	20
JC68966-31MSD	67-66-3	Chloroform	MSD	REC	79	%	79-124
JC68966-31MSD	67-66-3	Chloroform	MSD	RPD	22 [a]	%	20
JC68966-31MSD	74-87-3	Chloromethane	MSD	REC	90	%	50-139
JC68966-31MSD	74-87-3	Chloromethane	MSD	RPD	14	%	20
JC68966-31MSD	110-82-7	Cyclohexane	MSD	REC	104	%	71-130
JC68966-31MSD	110-82-7	Cyclohexane	MSD	RPD	13	%	20
JC68966-31MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	84	%	62-128
JC68966-31MSD	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	7	%	20
JC68966-31MSD	124-48-1	Dibromochloromethane	MSD	REC	85	%	74-126
JC68966-31MSD	124-48-1	Dibromochloromethane	MSD	RPD	19 [a]	%	20
JC68966-31MSD	106-93-4	1,2-Dibromoethane	MSD	REC	80	%	77-121
JC68966-31MSD	106-93-4	1,2-Dibromoethane	MSD	RPD	16 [a]	%	20
JC68966-31MSD	95-50-1	1,2-Dichlorobenzene	MSD	REC	76 [a]	%	80-119
JC68966-31MSD	95-50-1	1,2-Dichlorobenzene	MSD	RPD	18 [a]	%	20
JC68966-31MSD	541-73-1	1,3-Dichlorobenzene	MSD	REC	77	%	80-119
JC68966-31MSD	541-73-1	1,3-Dichlorobenzene	MSD	RPD	19 [a]	%	20
JC68966-31MSD	106-46-7	1,4-Dichlorobenzene	MSD	REC	76	%	79-118
JC68966-31MSD	106-46-7	1,4-Dichlorobenzene	MSD	RPD	20 [a]	%	20
JC68966-31MSD	75-71-8	Dichlorodifluoromethane	MSD	REC	100	%	32-152
JC68966-31MSD	75-71-8	Dichlorodifluoromethane	MSD	RPD	16	%	20
JC68966-31MSD	75-34-3	1,1-Dichloroethane	MSD	REC	72 [a]	%	77-125
JC68966-31MSD	75-34-3	1,1-Dichloroethane	MSD	RPD	23 [a]	%	20
JC68966-31MSD	107-06-2	1,2-Dichloroethane	MSD	REC	87	%	73-128
JC68966-31MSD	107-06-2	1,2-Dichloroethane	MSD	RPD	18 [a]	%	20
JC68966-31MSD	75-35-4	1,1-Dichloroethene	MSD	REC	75	%	71-131

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-31MSD	75-35-4	1,1-Dichloroethene	MSD	RPD	18 [a]	%	20
JC68966-31MSD	156-59-2	cis-1,2-Dichloroethene	MSD	REC	71	%	78-123
JC68966-31MSD	156-59-2	cis-1,2-Dichloroethene	MSD	RPD	14 [a]	%	20
JC68966-31MSD	156-60-5	trans-1,2-Dichloroethene	MSD	REC	73	%	75-124
JC68966-31MSD	156-60-5	trans-1,2-Dichloroethene	MSD	RPD	23 [a]	%	20
JC68966-31MSD	78-87-5	1,2-Dichloropropane	MSD	REC	74 [a]	%	78-122
JC68966-31MSD	78-87-5	1,2-Dichloropropane	MSD	RPD	20 [a]	%	20
JC68966-31MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	75 [a]	%	75-124
JC68966-31MSD	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	19 [a]	%	20
JC68966-31MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	79	%	73-127
JC68966-31MSD	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	21 [a]	%	20
JC68966-31MSD	123-91-1	1,4-Dioxane	MSD	REC	114	%	59-139
JC68966-31MSD	123-91-1	1,4-Dioxane	MSD	RPD	10	%	20
JC68966-31MSD	100-41-4	Ethylbenzene	MSD	REC	78	%	79-121
JC68966-31MSD	100-41-4	Ethylbenzene	MSD	RPD	21 [a]	%	20
JC68966-31MSD	76-13-1	Freon 113	MSD	REC	83	%	70-136
JC68966-31MSD	76-13-1	Freon 113	MSD	RPD	10	%	20
JC68966-31MSD	591-78-6	2-Hexanone	MSD	REC	88	%	57-139
JC68966-31MSD	591-78-6	2-Hexanone	MSD	RPD	8	%	20
JC68966-31MSD	74-88-4	Iodomethane	MSD	REC	67	%	69-131
JC68966-31MSD	74-88-4	Iodomethane	MSD	RPD	21 [a]	%	20
JC68966-31MSD	98-82-8	Isopropylbenzene	MSD	REC	82	%	72-131
JC68966-31MSD	98-82-8	Isopropylbenzene	MSD	RPD	21 [a]	%	20
JC68966-31MSD	79-20-9	Methyl Acetate	MSD	REC	73	%	56-136
JC68966-31MSD	79-20-9	Methyl Acetate	MSD	RPD	11	%	20
JC68966-31MSD	108-87-2	Methylcyclohexane	MSD	REC	87	%	72-132
JC68966-31MSD	108-87-2	Methylcyclohexane	MSD	RPD	10	%	20
JC68966-31MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	76	%	71-124
JC68966-31MSD	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	15 [a]	%	20
JC68966-31MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	REC	85	%	67-130
JC68966-31MSD	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	RPD	10	%	20
JC68966-31MSD	75-09-2	Methylene chloride	MSD	REC	69 [a]	%	74-124
JC68966-31MSD	75-09-2	Methylene chloride	MSD	RPD	20 [a]	%	20
JC68966-31MSD	100-42-5	Styrene	MSD	REC	79	%	78-123
JC68966-31MSD	100-42-5	Styrene	MSD	RPD	19 [a]	%	20
JC68966-31MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	76	%	71-121
JC68966-31MSD	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	12 [a]	%	20
JC68966-31MSD	127-18-4	Tetrachloroethene	MSD	REC	77	%	74-129
JC68966-31MSD	127-18-4	Tetrachloroethene	MSD	RPD	22 [a]	%	20
JC68966-31MSD	108-88-3	Toluene	MSD	REC	72	%	80-121
JC68966-31MSD	108-88-3	Toluene	MSD	RPD	23 [a]	%	20
JC68966-31MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	79	%	69-129
JC68966-31MSD	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	16 [a]	%	20
JC68966-31MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	79	%	69-130
JC68966-31MSD	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	19 [a]	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-31MSD	71-55-6	1,1,1-Trichloroethane	MSD	REC	88	%	74-131
JC68966-31MSD	71-55-6	1,1,1-Trichloroethane	MSD	RPD	20 [a]	%	20
JC68966-31MSD	79-00-5	1,1,2-Trichloroethane	MSD	REC	74 [a]	%	80-119
JC68966-31MSD	79-00-5	1,1,2-Trichloroethane	MSD	RPD	17 [a]	%	20
JC68966-31MSD	79-01-6	Trichloroethene	MSD	REC	76	%	79-123
JC68966-31MSD	79-01-6	Trichloroethene	MSD	RPD	20 [a]	%	20
JC68966-31MSD	75-69-4	Trichlorofluoromethane	MSD	REC	125	%	65-141
JC68966-31MSD	75-69-4	Trichlorofluoromethane	MSD	RPD	6	%	20
JC68966-31MSD	75-01-4	Vinyl chloride	MSD	REC	105	%	58-137
JC68966-31MSD	75-01-4	Vinyl chloride	MSD	RPD	17 [a]	%	20
JC68966-31MSD	1330-20-7	Xylene (total)	MSD	REC	78	%	79-121
JC68966-31MSD	1330-20-7	Xylene (total)	MSD	RPD	20	%	20
JC68966-31MSD	1868-53-7	Dibromofluoromethane	MSD	SURR	101	%	80-119
JC68966-31MSD	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	119	%	81-118
JC68966-31MSD	2037-26-5	Toluene-D8	MSD	SURR	98	%	89-112
JC68966-31MSD	460-00-4	4-Bromofluorobenzene	MSD	SURR	100	%	85-114
V2E6328-MB	1868-53-7	Dibromofluoromethane	MB	SURR	102	%	80-119
V2E6328-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	117	%	81-118
V2E6328-MB	2037-26-5	Toluene-D8	MB	SURR	100	%	89-112
V2E6328-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	102	%	85-114
JC68966-16	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-16	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	118	%	81-118
JC68966-16	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
JC68966-16	460-00-4	4-Bromofluorobenzene	SAMP	SURR	104	%	85-114
JC68966-17	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-17	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	118	%	81-118
JC68966-17	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
JC68966-17	460-00-4	4-Bromofluorobenzene	SAMP	SURR	102	%	85-114
JC68966-19	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
JC68966-19	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	117	%	81-118
JC68966-19	2037-26-5	Toluene-D8	SAMP	SURR	101	%	89-112
JC68966-19	460-00-4	4-Bromofluorobenzene	SAMP	SURR	112	%	85-114
JC68966-21	1868-53-7	Dibromofluoromethane	SAMP	SURR	103	%	80-119
JC68966-21	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	117	%	81-118
JC68966-21	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
JC68966-21	460-00-4	4-Bromofluorobenzene	SAMP	SURR	102	%	85-114
JC68966-22	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-22	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	116	%	81-118
JC68966-22	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
JC68966-22	460-00-4	4-Bromofluorobenzene	SAMP	SURR	105	%	85-114
JC68966-23	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-23	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	116	%	81-118
JC68966-23	2037-26-5	Toluene-D8	SAMP	SURR	98	%	89-112
JC68966-23	460-00-4	4-Bromofluorobenzene	SAMP	SURR	104	%	85-114
JC68966-31	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68966-31	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	118	%	81-118
JC68966-31	2037-26-5	Toluene-D8	SAMP	SURR	99	%	89-112
JC68966-31	460-00-4	4-Bromofluorobenzene	SAMP	SURR	102	%	85-114
V4B3470	SW846 8260C						
V4B3470-BS	67-64-1	Acetone	BSP	REC	97	%	39-160
V4B3470-BS	71-43-2	Benzene	BSP	REC	94	%	79-120
V4B3470-BS	74-97-5	Bromochloromethane	BSP	REC	99	%	78-123
V4B3470-BS	75-27-4	Bromodichloromethane	BSP	REC	104	%	79-125
V4B3470-BS	75-25-2	Bromoform	BSP	REC	137 [c]	%	66-130
V4B3470-BS	74-83-9	Bromomethane	BSP	REC	83	%	53-141
V4B3470-BS	78-93-3	2-Butanone (MEK)	BSP	REC	99	%	56-143
V4B3470-BS	75-15-0	Carbon disulfide	BSP	REC	95	%	64-133
V4B3470-BS	56-23-5	Carbon tetrachloride	BSP	REC	99	%	72-136
V4B3470-BS	108-90-7	Chlorobenzene	BSP	REC	97	%	82-118
V4B3470-BS	75-00-3	Chloroethane	BSP	REC	82	%	60-138
V4B3470-BS	67-66-3	Chloroform	BSP	REC	92	%	79-124
V4B3470-BS	74-87-3	Chloromethane	BSP	REC	80	%	50-139
V4B3470-BS	110-82-7	Cyclohexane	BSP	REC	89	%	71-130
V4B3470-BS	96-12-8	1,2-Dibromo-3-chloropropane	BSP	REC	112	%	62-128
V4B3470-BS	124-48-1	Dibromochloromethane	BSP	REC	120	%	74-126
V4B3470-BS	106-93-4	1,2-Dibromoethane	BSP	REC	106	%	77-121
V4B3470-BS	95-50-1	1,2-Dichlorobenzene	BSP	REC	96	%	80-119
V4B3470-BS	541-73-1	1,3-Dichlorobenzene	BSP	REC	100	%	80-119
V4B3470-BS	106-46-7	1,4-Dichlorobenzene	BSP	REC	99	%	79-118
V4B3470-BS	75-71-8	Dichlorodifluoromethane	BSP	REC	90	%	32-152
V4B3470-BS	75-34-3	1,1-Dichloroethane	BSP	REC	96	%	77-125
V4B3470-BS	107-06-2	1,2-Dichloroethane	BSP	REC	96	%	73-128
V4B3470-BS	75-35-4	1,1-Dichloroethene	BSP	REC	94	%	71-131
V4B3470-BS	156-59-2	cis-1,2-Dichloroethene	BSP	REC	94	%	78-123
V4B3470-BS	156-60-5	trans-1,2-Dichloroethene	BSP	REC	95	%	75-124
V4B3470-BS	78-87-5	1,2-Dichloropropane	BSP	REC	97	%	78-122
V4B3470-BS	10061-01-5	cis-1,3-Dichloropropene	BSP	REC	103	%	75-124
V4B3470-BS	10061-02-6	trans-1,3-Dichloropropene	BSP	REC	103	%	73-127
V4B3470-BS	123-91-1	1,4-Dioxane	BSP	REC	92	%	59-139
V4B3470-BS	100-41-4	Ethylbenzene	BSP	REC	95	%	79-121
V4B3470-BS	76-13-1	Freon 113	BSP	REC	104	%	70-136
V4B3470-BS	591-78-6	2-Hexanone	BSP	REC	105	%	57-139
V4B3470-BS	74-88-4	Iodomethane	BSP	REC	96	%	69-131
V4B3470-BS	98-82-8	Isopropylbenzene	BSP	REC	92	%	72-131
V4B3470-BS	79-20-9	Methyl Acetate	BSP	REC	103	%	56-136
V4B3470-BS	108-87-2	Methylcyclohexane	BSP	REC	98	%	72-132
V4B3470-BS	1634-04-4	Methyl Tert Butyl Ether	BSP	REC	91	%	71-124
V4B3470-BS	108-10-1	4-Methyl-2-pentanone(MIBK)	BSP	REC	100	%	67-130

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
V4B3470-BS	75-09-2	Methylene chloride	BSP	REC	96	%	74-124
V4B3470-BS	100-42-5	Styrene	BSP	REC	100	%	78-123
V4B3470-BS	79-34-5	1,1,2,2-Tetrachloroethane	BSP	REC	103	%	71-121
V4B3470-BS	127-18-4	Tetrachloroethene	BSP	REC	98	%	74-129
V4B3470-BS	108-88-3	Toluene	BSP	REC	92	%	80-121
V4B3470-BS	87-61-6	1,2,3-Trichlorobenzene	BSP	REC	101	%	69-129
V4B3470-BS	120-82-1	1,2,4-Trichlorobenzene	BSP	REC	97	%	69-130
V4B3470-BS	71-55-6	1,1,1-Trichloroethane	BSP	REC	91	%	74-131
V4B3470-BS	79-00-5	1,1,2-Trichloroethane	BSP	REC	101	%	80-119
V4B3470-BS	79-01-6	Trichloroethene	BSP	REC	96	%	79-123
V4B3470-BS	75-69-4	Trichlorofluoromethane	BSP	REC	96	%	65-141
V4B3470-BS	75-01-4	Vinyl chloride	BSP	REC	84	%	58-137
V4B3470-BS	1330-20-7	Xylene (total)	BSP	REC	95	%	79-121
V4B3470-BS	1868-53-7	Dibromofluoromethane	BSP	SURR	95	%	80-119
V4B3470-BS	17060-07-0	1,2-Dichloroethane-D4	BSP	SURR	93	%	81-118
V4B3470-BS	2037-26-5	Toluene-D8	BSP	SURR	93	%	89-112
V4B3470-BS	460-00-4	4-Bromofluorobenzene	BSP	SURR	100	%	85-114
JC68932-1MS*	67-64-1	Acetone	MS	REC	91	%	39-160
JC68932-1MS*	71-43-2	Benzene	MS	REC	90	%	79-120
JC68932-1MS*	74-97-5	Bromochloromethane	MS	REC	92	%	78-123
JC68932-1MS*	75-27-4	Bromodichloromethane	MS	REC	99	%	79-125
JC68932-1MS*	75-25-2	Bromoform	MS	REC	117	%	66-130
JC68932-1MS*	74-83-9	Bromomethane	MS	REC	80	%	53-141
JC68932-1MS*	78-93-3	2-Butanone (MEK)	MS	REC	96	%	56-143
JC68932-1MS*	75-15-0	Carbon disulfide	MS	REC	86	%	64-133
JC68932-1MS*	56-23-5	Carbon tetrachloride	MS	REC	98	%	72-136
JC68932-1MS*	108-90-7	Chlorobenzene	MS	REC	91	%	82-118
JC68932-1MS*	75-00-3	Chloroethane	MS	REC	86	%	60-138
JC68932-1MS*	67-66-3	Chloroform	MS	REC	91	%	79-124
JC68932-1MS*	74-87-3	Chloromethane	MS	REC	90	%	50-139
JC68932-1MS*	110-82-7	Cyclohexane	MS	REC	88	%	71-130
JC68932-1MS*	96-12-8	1,2-Dibromo-3-chloropropane	MS	REC	94	%	62-128
JC68932-1MS*	124-48-1	Dibromochloromethane	MS	REC	107	%	74-126
JC68932-1MS*	106-93-4	1,2-Dibromoethane	MS	REC	98	%	77-121
JC68932-1MS*	95-50-1	1,2-Dichlorobenzene	MS	REC	87	%	80-119
JC68932-1MS*	541-73-1	1,3-Dichlorobenzene	MS	REC	91	%	80-119
JC68932-1MS*	106-46-7	1,4-Dichlorobenzene	MS	REC	90	%	79-118
JC68932-1MS*	75-71-8	Dichlorodifluoromethane	MS	REC	95	%	32-152
JC68932-1MS*	75-34-3	1,1-Dichloroethane	MS	REC	96	%	77-125
JC68932-1MS*	107-06-2	1,2-Dichloroethane	MS	REC	94	%	73-128
JC68932-1MS*	75-35-4	1,1-Dichloroethene	MS	REC	96	%	71-131
JC68932-1MS*	156-59-2	cis-1,2-Dichloroethene	MS	REC	92	%	78-123
JC68932-1MS*	156-60-5	trans-1,2-Dichloroethene	MS	REC	96	%	75-124
JC68932-1MS*	78-87-5	1,2-Dichloropropane	MS	REC	93	%	78-122
JC68932-1MS*	10061-01-5	cis-1,3-Dichloropropene	MS	REC	95	%	75-124

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68932-1MS*	10061-02-6	trans-1,3-Dichloropropene	MS	REC	96	%	73-127
JC68932-1MS*	123-91-1	1,4-Dioxane	MS	REC	79	%	59-139
JC68932-1MS*	100-41-4	Ethylbenzene	MS	REC	92	%	79-121
JC68932-1MS*	76-13-1	Freon 113	MS	REC	99	%	70-136
JC68932-1MS*	591-78-6	2-Hexanone	MS	REC	99	%	57-139
JC68932-1MS*	74-88-4	Iodomethane	MS	REC	88	%	69-131
JC68932-1MS*	98-82-8	Isopropylbenzene	MS	REC	88	%	72-131
JC68932-1MS*	79-20-9	Methyl Acetate	MS	REC	98	%	56-136
JC68932-1MS*	108-87-2	Methylcyclohexane	MS	REC	94	%	72-132
JC68932-1MS*	1634-04-4	Methyl Tert Butyl Ether	MS	REC	85	%	71-124
JC68932-1MS*	108-10-1	4-Methyl-2-pentanone(MIBK)	MS	REC	94	%	67-130
JC68932-1MS*	75-09-2	Methylene chloride	MS	REC	90	%	74-124
JC68932-1MS*	100-42-5	Styrene	MS	REC	88	%	78-123
JC68932-1MS*	79-34-5	1,1,2,2-Tetrachloroethane	MS	REC	94	%	71-121
JC68932-1MS*	127-18-4	Tetrachloroethene	MS	REC	98	%	74-129
JC68932-1MS*	108-88-3	Toluene	MS	REC	89	%	80-121
JC68932-1MS*	87-61-6	1,2,3-Trichlorobenzene	MS	REC	81	%	69-129
JC68932-1MS*	120-82-1	1,2,4-Trichlorobenzene	MS	REC	79	%	69-130
JC68932-1MS*	71-55-6	1,1,1-Trichloroethane	MS	REC	92	%	74-131
JC68932-1MS*	79-00-5	1,1,2-Trichloroethane	MS	REC	94	%	80-119
JC68932-1MS*	79-01-6	Trichloroethene	MS	REC	95	%	79-123
JC68932-1MS*	75-69-4	Trichlorofluoromethane	MS	REC	101	%	65-141
JC68932-1MS*	75-01-4	Vinyl chloride	MS	REC	90	%	58-137
JC68932-1MS*	1330-20-7	Xylene (total)	MS	REC	91	%	79-121
JC68932-1MS*	1868-53-7	Dibromofluoromethane	MS	SURR	98	%	80-119
JC68932-1MS*	17060-07-0	1,2-Dichloroethane-D4	MS	SURR	100	%	81-118
JC68932-1MS*	2037-26-5	Toluene-D8	MS	SURR	94	%	89-112
JC68932-1MS*	460-00-4	4-Bromofluorobenzene	MS	SURR	102	%	85-114
JC68932-1MSD*	67-64-1	Acetone	MSD	REC	93	%	39-160
JC68932-1MSD*	67-64-1	Acetone	MSD	RPD	2	%	20
JC68932-1MSD*	71-43-2	Benzene	MSD	REC	89	%	79-120
JC68932-1MSD*	71-43-2	Benzene	MSD	RPD	1	%	20
JC68932-1MSD*	74-97-5	Bromochloromethane	MSD	REC	92	%	78-123
JC68932-1MSD*	74-97-5	Bromochloromethane	MSD	RPD	0	%	20
JC68932-1MSD*	75-27-4	Bromodichloromethane	MSD	REC	98	%	79-125
JC68932-1MSD*	75-27-4	Bromodichloromethane	MSD	RPD	1	%	20
JC68932-1MSD*	75-25-2	Bromoform	MSD	REC	113	%	66-130
JC68932-1MSD*	75-25-2	Bromoform	MSD	RPD	3	%	20
JC68932-1MSD*	74-83-9	Bromomethane	MSD	REC	80	%	53-141
JC68932-1MSD*	74-83-9	Bromomethane	MSD	RPD	1	%	20
JC68932-1MSD*	78-93-3	2-Butanone (MEK)	MSD	REC	96	%	56-143
JC68932-1MSD*	78-93-3	2-Butanone (MEK)	MSD	RPD	1	%	20
JC68932-1MSD*	75-15-0	Carbon disulfide	MSD	REC	84	%	64-133
JC68932-1MSD*	75-15-0	Carbon disulfide	MSD	RPD	2	%	20
JC68932-1MSD*	56-23-5	Carbon tetrachloride	MSD	REC	97	%	72-136

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68932-1MSD*	56-23-5	Carbon tetrachloride	MSD	RPD	1	%	20
JC68932-1MSD*	108-90-7	Chlorobenzene	MSD	REC	90	%	82-118
JC68932-1MSD*	108-90-7	Chlorobenzene	MSD	RPD	1	%	20
JC68932-1MSD*	75-00-3	Chloroethane	MSD	REC	84	%	60-138
JC68932-1MSD*	75-00-3	Chloroethane	MSD	RPD	2	%	20
JC68932-1MSD*	67-66-3	Chloroform	MSD	REC	91	%	79-124
JC68932-1MSD*	67-66-3	Chloroform	MSD	RPD	0	%	20
JC68932-1MSD*	74-87-3	Chloromethane	MSD	REC	87	%	50-139
JC68932-1MSD*	74-87-3	Chloromethane	MSD	RPD	3	%	20
JC68932-1MSD*	110-82-7	Cyclohexane	MSD	REC	86	%	71-130
JC68932-1MSD*	110-82-7	Cyclohexane	MSD	RPD	2	%	20
JC68932-1MSD*	96-12-8	1,2-Dibromo-3-chloropropane	MSD	REC	98	%	62-128
JC68932-1MSD*	96-12-8	1,2-Dibromo-3-chloropropane	MSD	RPD	4	%	20
JC68932-1MSD*	124-48-1	Dibromochloromethane	MSD	REC	105	%	74-126
JC68932-1MSD*	124-48-1	Dibromochloromethane	MSD	RPD	2	%	20
JC68932-1MSD*	106-93-4	1,2-Dibromoethane	MSD	REC	99	%	77-121
JC68932-1MSD*	106-93-4	1,2-Dibromoethane	MSD	RPD	1	%	20
JC68932-1MSD*	95-50-1	1,2-Dichlorobenzene	MSD	REC	86	%	80-119
JC68932-1MSD*	95-50-1	1,2-Dichlorobenzene	MSD	RPD	0	%	20
JC68932-1MSD*	541-73-1	1,3-Dichlorobenzene	MSD	REC	91	%	80-119
JC68932-1MSD*	541-73-1	1,3-Dichlorobenzene	MSD	RPD	0	%	20
JC68932-1MSD*	106-46-7	1,4-Dichlorobenzene	MSD	REC	90	%	79-118
JC68932-1MSD*	106-46-7	1,4-Dichlorobenzene	MSD	RPD	0	%	20
JC68932-1MSD*	75-71-8	Dichlorodifluoromethane	MSD	REC	90	%	32-152
JC68932-1MSD*	75-71-8	Dichlorodifluoromethane	MSD	RPD	5	%	20
JC68932-1MSD*	75-34-3	1,1-Dichloroethane	MSD	REC	94	%	77-125
JC68932-1MSD*	75-34-3	1,1-Dichloroethane	MSD	RPD	2	%	20
JC68932-1MSD*	107-06-2	1,2-Dichloroethane	MSD	REC	94	%	73-128
JC68932-1MSD*	107-06-2	1,2-Dichloroethane	MSD	RPD	1	%	20
JC68932-1MSD*	75-35-4	1,1-Dichloroethene	MSD	REC	95	%	71-131
JC68932-1MSD*	75-35-4	1,1-Dichloroethene	MSD	RPD	1	%	20
JC68932-1MSD*	156-59-2	cis-1,2-Dichloroethene	MSD	REC	92	%	78-123
JC68932-1MSD*	156-59-2	cis-1,2-Dichloroethene	MSD	RPD	1	%	20
JC68932-1MSD*	156-60-5	trans-1,2-Dichloroethene	MSD	REC	93	%	75-124
JC68932-1MSD*	156-60-5	trans-1,2-Dichloroethene	MSD	RPD	3	%	20
JC68932-1MSD*	78-87-5	1,2-Dichloropropane	MSD	REC	93	%	78-122
JC68932-1MSD*	78-87-5	1,2-Dichloropropane	MSD	RPD	1	%	20
JC68932-1MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	REC	95	%	75-124
JC68932-1MSD*	10061-01-5	cis-1,3-Dichloropropene	MSD	RPD	1	%	20
JC68932-1MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	REC	92	%	73-127
JC68932-1MSD*	10061-02-6	trans-1,3-Dichloropropene	MSD	RPD	4	%	20
JC68932-1MSD*	123-91-1	1,4-Dioxane	MSD	REC	83	%	59-139
JC68932-1MSD*	123-91-1	1,4-Dioxane	MSD	RPD	5	%	20
JC68932-1MSD*	100-41-4	Ethylbenzene	MSD	REC	90	%	79-121
JC68932-1MSD*	100-41-4	Ethylbenzene	MSD	RPD	2	%	20

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68932-1MSD*	76-13-1	Freon 113	MSD	REC	98	%	70-136
JC68932-1MSD*	76-13-1	Freon 113	MSD	RPD	1	%	20
JC68932-1MSD*	591-78-6	2-Hexanone	MSD	REC	102	%	57-139
JC68932-1MSD*	591-78-6	2-Hexanone	MSD	RPD	2	%	20
JC68932-1MSD*	74-88-4	Iodomethane	MSD	REC	89	%	69-131
JC68932-1MSD*	74-88-4	Iodomethane	MSD	RPD	1	%	20
JC68932-1MSD*	98-82-8	Isopropylbenzene	MSD	REC	86	%	72-131
JC68932-1MSD*	98-82-8	Isopropylbenzene	MSD	RPD	2	%	20
JC68932-1MSD*	79-20-9	Methyl Acetate	MSD	REC	98	%	56-136
JC68932-1MSD*	79-20-9	Methyl Acetate	MSD	RPD	0	%	20
JC68932-1MSD*	108-87-2	Methylcyclohexane	MSD	REC	92	%	72-132
JC68932-1MSD*	108-87-2	Methylcyclohexane	MSD	RPD	2	%	20
JC68932-1MSD*	1634-04-4	Methyl Tert Butyl Ether	MSD	REC	85	%	71-124
JC68932-1MSD*	1634-04-4	Methyl Tert Butyl Ether	MSD	RPD	1	%	20
JC68932-1MSD*	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	REC	97	%	67-130
JC68932-1MSD*	108-10-1	4-Methyl-2-pentanone(MIBK)	MSD	RPD	3	%	20
JC68932-1MSD*	75-09-2	Methylene chloride	MSD	REC	90	%	74-124
JC68932-1MSD*	75-09-2	Methylene chloride	MSD	RPD	0	%	20
JC68932-1MSD*	100-42-5	Styrene	MSD	REC	67 [a]	%	78-123
JC68932-1MSD*	100-42-5	Styrene	MSD	RPD	26 [a]	%	20
JC68932-1MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	REC	94	%	71-121
JC68932-1MSD*	79-34-5	1,1,2,2-Tetrachloroethane	MSD	RPD	0	%	20
JC68932-1MSD*	127-18-4	Tetrachloroethene	MSD	REC	98	%	74-129
JC68932-1MSD*	127-18-4	Tetrachloroethene	MSD	RPD	0	%	20
JC68932-1MSD*	108-88-3	Toluene	MSD	REC	88	%	80-121
JC68932-1MSD*	108-88-3	Toluene	MSD	RPD	2	%	20
JC68932-1MSD*	87-61-6	1,2,3-Trichlorobenzene	MSD	REC	84	%	69-129
JC68932-1MSD*	87-61-6	1,2,3-Trichlorobenzene	MSD	RPD	4	%	20
JC68932-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	REC	81	%	69-130
JC68932-1MSD*	120-82-1	1,2,4-Trichlorobenzene	MSD	RPD	3	%	20
JC68932-1MSD*	71-55-6	1,1,1-Trichloroethane	MSD	REC	92	%	74-131
JC68932-1MSD*	71-55-6	1,1,1-Trichloroethane	MSD	RPD	0	%	20
JC68932-1MSD*	79-00-5	1,1,2-Trichloroethane	MSD	REC	95	%	80-119
JC68932-1MSD*	79-00-5	1,1,2-Trichloroethane	MSD	RPD	1	%	20
JC68932-1MSD*	79-01-6	Trichloroethene	MSD	REC	95	%	79-123
JC68932-1MSD*	79-01-6	Trichloroethene	MSD	RPD	0	%	20
JC68932-1MSD*	75-69-4	Trichlorofluoromethane	MSD	REC	98	%	65-141
JC68932-1MSD*	75-69-4	Trichlorofluoromethane	MSD	RPD	3	%	20
JC68932-1MSD*	75-01-4	Vinyl chloride	MSD	REC	86	%	58-137
JC68932-1MSD*	75-01-4	Vinyl chloride	MSD	RPD	4	%	20
JC68932-1MSD*	1330-20-7	Xylene (total)	MSD	REC	88	%	79-121
JC68932-1MSD*	1330-20-7	Xylene (total)	MSD	RPD	3	%	20
JC68932-1MSD*	1868-53-7	Dibromofluoromethane	MSD	SURR	99	%	80-119
JC68932-1MSD*	17060-07-0	1,2-Dichloroethane-D4	MSD	SURR	100	%	81-118
JC68932-1MSD*	2037-26-5	Toluene-D8	MSD	SURR	93	%	89-112

* Sample used for QC is not from job JC68966

QC Evaluation: DOD QSM5 Limits

Job Number: JC68966
Account: EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Collected: 06/25/18 thru 06/26/18

QC Sample ID	CAS#	Analyte	Sample Type	Result Type	Result	Units	Limits
JC68932-1MSD*	460-00-4	4-Bromofluorobenzene	MSD	SURR	101	%	85-114
V4B3470-MB	1868-53-7	Dibromofluoromethane	MB	SURR	97	%	80-119
V4B3470-MB	17060-07-0	1,2-Dichloroethane-D4	MB	SURR	98	%	81-118
V4B3470-MB	2037-26-5	Toluene-D8	MB	SURR	92	%	89-112
V4B3470-MB	460-00-4	4-Bromofluorobenzene	MB	SURR	107	%	85-114
JC68966-13	1868-53-7	Dibromofluoromethane	SAMP	SURR	102	%	80-119
JC68966-13	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	102	%	81-118
JC68966-13	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-13	460-00-4	4-Bromofluorobenzene	SAMP	SURR	108	%	85-114
JC68966-15	1868-53-7	Dibromofluoromethane	SAMP	SURR	101	%	80-119
JC68966-15	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	103	%	81-118
JC68966-15	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-15	460-00-4	4-Bromofluorobenzene	SAMP	SURR	111	%	85-114
JC68966-18	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
JC68966-18	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	100	%	81-118
JC68966-18	2037-26-5	Toluene-D8	SAMP	SURR	93	%	89-112
JC68966-18	460-00-4	4-Bromofluorobenzene	SAMP	SURR	106	%	85-114
JC68966-20	1868-53-7	Dibromofluoromethane	SAMP	SURR	99	%	80-119
JC68966-20	17060-07-0	1,2-Dichloroethane-D4	SAMP	SURR	98	%	81-118
JC68966-20	2037-26-5	Toluene-D8	SAMP	SURR	92	%	89-112
JC68966-20	460-00-4	4-Bromofluorobenzene	SAMP	SURR	109	%	85-114

(a) Outside control limits due to matrix interference.
(b) RPD acceptable due to low DUP and sample concentrations.
(c) High percent recoveries and no associated positive reported in the QC batch.

* Sample used for QC is not from job JC68966

MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Instrument Performance Checks (BFB)
- Internal Standard Area Summaries
- Surrogate Recovery Summaries
- Initial and Continuing Calibration Summaries

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7472-MB	2D176940.D	1	07/01/18	JTP	n/a	n/a	V2D7472

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-1, JC68966-2, JC68966-3, JC68966-4, JC68966-5, JC68966-6, JC68966-7, JC68966-9, JC68966-11

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
123-91-1	1,4-Dioxane	ND	130	52	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
74-88-4	Iodomethane	ND	2.0	0.27	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7472-MB	2D176940.D	1	07/01/18	JTP	n/a	n/a	V2D7472

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-1, JC68966-2, JC68966-3, JC68966-4, JC68966-5, JC68966-6, JC68966-7, JC68966-9, JC68966-11

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	86%	81-124%
2037-26-5	Toluene-D8	103%	80-120%
460-00-4	4-Bromofluorobenzene	108%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6328-MB	2E144440.D	1	07/01/18	JTP	n/a	n/a	V2E6328

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-16, JC68966-17, JC68966-19, JC68966-21, JC68966-22, JC68966-23, JC68966-31

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
123-91-1	1,4-Dioxane	ND	130	52	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
74-88-4	Iodomethane	ND	2.0	0.27	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6328-MB	2E144440.D	1	07/01/18	JTP	n/a	n/a	V2E6328

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-16, JC68966-17, JC68966-19, JC68966-21, JC68966-22, JC68966-23, JC68966-31

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	117%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	102%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7474-MB	2D176985.D	1	07/02/18	JTP	n/a	n/a	V2D7474

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-32, JC68966-33, JC68966-34, JC68966-35, JC68966-36, JC68966-37, JC68966-38, JC68966-39, JC68966-40, JC68966-41, JC68966-42, JC68966-43, JC68966-44, JC68966-45, JC68966-46, JC68966-47

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
123-91-1	1,4-Dioxane	ND	130	52	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
74-88-4	Iodomethane	ND	2.0	0.27	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7474-MB	2D176985.D	1	07/02/18	JTP	n/a	n/a	V2D7474

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-32, JC68966-33, JC68966-34, JC68966-35, JC68966-36, JC68966-37, JC68966-38, JC68966-39, JC68966-40, JC68966-41, JC68966-42, JC68966-43, JC68966-44, JC68966-45, JC68966-46, JC68966-47

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	89%	81-124%
2037-26-5	Toluene-D8	103%	80-120%
460-00-4	4-Bromofluorobenzene	110%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7121-MB	2C160379.D	1	07/02/18	HT	n/a	n/a	V2C7121

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-12, JC68966-14

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
123-91-1	1,4-Dioxane	ND	130	52	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
74-88-4	Iodomethane	ND	2.0	0.27	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7121-MB	2C160379.D	1	07/02/18	HT	n/a	n/a	V2C7121

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-12, JC68966-14

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	110%	81-124%
2037-26-5	Toluene-D8	97%	80-120%
460-00-4	4-Bromofluorobenzene	113%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A7793-MB	1A182803.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
123-91-1	1,4-Dioxane	ND	130	52	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
74-88-4	Iodomethane	ND	2.0	0.27	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A7793-MB	1A182803.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	81-124%
2037-26-5	Toluene-D8	92%	80-120%
460-00-4	4-Bromofluorobenzene	106%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3470-MB	4B83388.D	1	07/06/18	HT	n/a	n/a	V4B3470

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-13, JC68966-15, JC68966-18, JC68966-20

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	10	5.0	ug/l	
71-43-2	Benzene	ND	0.50	0.17	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.38	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.22	ug/l	
75-25-2	Bromoform	ND	1.0	0.42	ug/l	
74-83-9	Bromomethane	ND	2.0	1.4	ug/l	
78-93-3	2-Butanone (MEK)	ND	10	4.8	ug/l	
75-15-0	Carbon disulfide	ND	2.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.34	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.24	ug/l	
75-00-3	Chloroethane	ND	1.0	0.59	ug/l	
67-66-3	Chloroform	ND	1.0	0.29	ug/l	
74-87-3	Chloromethane	ND	1.0	0.53	ug/l	
110-82-7	Cyclohexane	ND	5.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.69	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.16	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	1.9	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.21	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.22	ug/l	
123-91-1	1,4-Dioxane	ND	130	52	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.22	ug/l	
76-13-1	Freon 113	ND	5.0	1.2	ug/l	
591-78-6	2-Hexanone	ND	5.0	3.3	ug/l	
74-88-4	Iodomethane	ND	2.0	0.27	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.25	ug/l	
79-20-9	Methyl Acetate	ND	5.0	3.1	ug/l	

Method Blank Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3470-MB	4B83388.D	1	07/06/18	HT	n/a	n/a	V4B3470

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-13, JC68966-15, JC68966-18, JC68966-20

CAS No.	Compound	Result	RL	MDL	Units	Q
108-87-2	Methylcyclohexane	ND	5.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	ND	5.0	3.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	1.0	ug/l	
100-42-5	Styrene	ND	1.0	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.17	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	1.0	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	1.0	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.24	ug/l	
79-01-6	Trichloroethene	ND	1.0	0.27	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.60	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.62	ug/l	
1330-20-7	Xylene (total)	ND	1.0	0.22	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	80-120%
17060-07-0	1,2-Dichloroethane-D4	98%	81-124%
2037-26-5	Toluene-D8	92%	80-120%
460-00-4	4-Bromofluorobenzene	107%	80-120%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7472-BS	2D176938.D	1	07/01/18	JTP	n/a	n/a	V2D7472

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-1, JC68966-2, JC68966-3, JC68966-4, JC68966-5, JC68966-6, JC68966-7, JC68966-9, JC68966-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	195	98	42-150
71-43-2	Benzene	50	51.0	102	80-120
74-97-5	Bromochloromethane	50	49.9	100	84-121
75-27-4	Bromodichloromethane	50	49.4	99	83-120
75-25-2	Bromoform	50	52.9	106	76-129
74-83-9	Bromomethane	50	47.6	95	57-138
78-93-3	2-Butanone (MEK)	200	193	97	64-137
75-15-0	Carbon disulfide	50	45.2	90	64-137
56-23-5	Carbon tetrachloride	50	46.9	94	75-135
108-90-7	Chlorobenzene	50	50.5	101	84-117
75-00-3	Chloroethane	50	50.8	102	63-132
67-66-3	Chloroform	50	48.8	98	80-119
74-87-3	Chloromethane	50	47.4	95	46-136
110-82-7	Cyclohexane	50	53.5	107	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	47.4	95	72-127
124-48-1	Dibromochloromethane	50	50.7	101	80-123
106-93-4	1,2-Dibromoethane	50	48.8	98	84-117
95-50-1	1,2-Dichlorobenzene	50	52.7	105	84-119
541-73-1	1,3-Dichlorobenzene	50	53.3	107	81-117
106-46-7	1,4-Dichlorobenzene	50	53.1	106	82-117
75-71-8	Dichlorodifluoromethane	50	49.0	98	36-149
75-34-3	1,1-Dichloroethane	50	48.7	97	79-120
107-06-2	1,2-Dichloroethane	50	41.9	84	78-126
75-35-4	1,1-Dichloroethene	50	49.9	100	69-126
156-59-2	cis-1,2-Dichloroethene	50	51.9	104	80-120
156-60-5	trans-1,2-Dichloroethene	50	52.2	104	76-120
78-87-5	1,2-Dichloropropane	50	48.7	97	82-121
10061-01-5	cis-1,3-Dichloropropene	50	47.2	94	83-120
10061-02-6	trans-1,3-Dichloropropene	50	46.9	94	82-121
123-91-1	1,4-Dioxane	1250	1580	126	52-147
100-41-4	Ethylbenzene	50	50.5	101	80-120
76-13-1	Freon 113	50	51.9	104	62-182
591-78-6	2-Hexanone	200	180	90	65-132
74-88-4	Iodomethane	50	45.9	92	72-128
98-82-8	Isopropylbenzene	50	49.4	99	83-120
79-20-9	Methyl Acetate	50	43.6	87	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7472-BS	2D176938.D	1	07/01/18	JTP	n/a	n/a	V2D7472

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-1, JC68966-2, JC68966-3, JC68966-4, JC68966-5, JC68966-6, JC68966-7, JC68966-9, JC68966-11

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	55.3	111	71-134
1634-04-4	Methyl Tert Butyl Ether	50	42.2	84	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	179	90	71-131
75-09-2	Methylene chloride	50	49.6	99	77-120
100-42-5	Styrene	50	50.5	101	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	49.4	99	76-119
127-18-4	Tetrachloroethene	50	53.5	107	70-131
108-88-3	Toluene	50	51.0	102	80-120
87-61-6	1,2,3-Trichlorobenzene	50	48.4	97	76-134
120-82-1	1,2,4-Trichlorobenzene	50	49.6	99	79-132
71-55-6	1,1,1-Trichloroethane	50	45.5	91	81-128
79-00-5	1,1,2-Trichloroethane	50	49.7	99	83-118
79-01-6	Trichloroethene	50	51.2	102	80-120
75-69-4	Trichlorofluoromethane	50	47.2	94	64-136
75-01-4	Vinyl chloride	50	49.6	99	51-135
1330-20-7	Xylene (total)	150	149	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	87%	81-124%
2037-26-5	Toluene-D8	101%	80-120%
460-00-4	4-Bromofluorobenzene	103%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6328-BS	2E144438.D	1	07/01/18	JTP	n/a	n/a	V2E6328

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-16, JC68966-17, JC68966-19, JC68966-21, JC68966-22, JC68966-23, JC68966-31

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	170	85	42-150
71-43-2	Benzene	50	46.7	93	80-120
74-97-5	Bromochloromethane	50	47.8	96	84-121
75-27-4	Bromodichloromethane	50	54.5	109	83-120
75-25-2	Bromoform	50	57.7	115	76-129
74-83-9	Bromomethane	50	50.2	100	57-138
78-93-3	2-Butanone (MEK)	200	191	96	64-137
75-15-0	Carbon disulfide	50	42.6	85	64-137
56-23-5	Carbon tetrachloride	50	60.3	121	75-135
108-90-7	Chlorobenzene	50	47.9	96	84-117
75-00-3	Chloroethane	50	47.9	96	63-132
67-66-3	Chloroform	50	51.1	102	80-119
74-87-3	Chloromethane	50	51.9	104	46-136
110-82-7	Cyclohexane	50	53.6	107	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	48.1	96	72-127
124-48-1	Dibromochloromethane	50	54.1	108	80-123
106-93-4	1,2-Dibromoethane	50	50.1	100	84-117
95-50-1	1,2-Dichlorobenzene	50	48.5	97	84-119
541-73-1	1,3-Dichlorobenzene	50	48.6	97	81-117
106-46-7	1,4-Dichlorobenzene	50	48.1	96	82-117
75-71-8	Dichlorodifluoromethane	50	66.6	133	36-149
75-34-3	1,1-Dichloroethane	50	48.1	96	79-120
107-06-2	1,2-Dichloroethane	50	54.2	108	78-126
75-35-4	1,1-Dichloroethene	50	50.7	101	69-126
156-59-2	cis-1,2-Dichloroethene	50	46.6	93	80-120
156-60-5	trans-1,2-Dichloroethene	50	49.1	98	76-120
78-87-5	1,2-Dichloropropane	50	48.1	96	82-121
10061-01-5	cis-1,3-Dichloropropene	50	49.8	100	83-120
10061-02-6	trans-1,3-Dichloropropene	50	52.2	104	82-121
123-91-1	1,4-Dioxane	1250	1490	119	52-147
100-41-4	Ethylbenzene	50	49.2	98	80-120
76-13-1	Freon 113	50	56.7	113	62-182
591-78-6	2-Hexanone	200	197	99	65-132
74-88-4	Iodomethane	50	47.7	95	72-128
98-82-8	Isopropylbenzene	50	51.3	103	83-120
79-20-9	Methyl Acetate	50	41.2	82	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2E6328-BS	2E144438.D	1	07/01/18	JTP	n/a	n/a	V2E6328

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-16, JC68966-17, JC68966-19, JC68966-21, JC68966-22, JC68966-23, JC68966-31

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	55.0	110	71-134
1634-04-4	Methyl Tert Butyl Ether	50	47.3	95	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	198	99	71-131
75-09-2	Methylene chloride	50	44.4	89	77-120
100-42-5	Styrene	50	50.2	100	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	45.5	91	76-119
127-18-4	Tetrachloroethene	50	49.0	98	70-131
108-88-3	Toluene	50	46.2	92	80-120
87-61-6	1,2,3-Trichlorobenzene	50	48.0	96	76-134
120-82-1	1,2,4-Trichlorobenzene	50	49.2	98	79-132
71-55-6	1,1,1-Trichloroethane	50	56.2	112	81-128
79-00-5	1,1,2-Trichloroethane	50	46.6	93	83-118
79-01-6	Trichloroethene	50	49.2	98	80-120
75-69-4	Trichlorofluoromethane	50	61.5	123	64-136
75-01-4	Vinyl chloride	50	53.2	106	51-135
1330-20-7	Xylene (total)	150	148	99	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	80-120%
17060-07-0	1,2-Dichloroethane-D4	118%	81-124%
2037-26-5	Toluene-D8	98%	80-120%
460-00-4	4-Bromofluorobenzene	101%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7474-BS	2D176983.D	1	07/02/18	JTP	n/a	n/a	V2D7474

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-32, JC68966-33, JC68966-34, JC68966-35, JC68966-36, JC68966-37, JC68966-38, JC68966-39, JC68966-40, JC68966-41, JC68966-42, JC68966-43, JC68966-44, JC68966-45, JC68966-46, JC68966-47

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	233	117	42-150
71-43-2	Benzene	50	56.6	113	80-120
74-97-5	Bromochloromethane	50	56.4	113	84-121
75-27-4	Bromodichloromethane	50	54.3	109	83-120
75-25-2	Bromoform	50	58.1	116	76-129
74-83-9	Bromomethane	50	56.2	112	57-138
78-93-3	2-Butanone (MEK)	200	234	117	64-137
75-15-0	Carbon disulfide	50	51.6	103	64-137
56-23-5	Carbon tetrachloride	50	52.7	105	75-135
108-90-7	Chlorobenzene	50	56.3	113	84-117
75-00-3	Chloroethane	50	60.6	121	63-132
67-66-3	Chloroform	50	55.8	112	80-119
74-87-3	Chloromethane	50	54.7	109	46-136
110-82-7	Cyclohexane	50	60.4	121	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	55.4	111	72-127
124-48-1	Dibromochloromethane	50	56.3	113	80-123
106-93-4	1,2-Dibromoethane	50	56.0	112	84-117
95-50-1	1,2-Dichlorobenzene	50	58.1	116	84-119
541-73-1	1,3-Dichlorobenzene	50	58.8	118* [a]	81-117
106-46-7	1,4-Dichlorobenzene	50	58.0	116	82-117
75-71-8	Dichlorodifluoromethane	50	60.8	122	36-149
75-34-3	1,1-Dichloroethane	50	55.0	110	79-120
107-06-2	1,2-Dichloroethane	50	46.8	94	78-126
75-35-4	1,1-Dichloroethene	50	57.0	114	69-126
156-59-2	cis-1,2-Dichloroethene	50	59.1	118	80-120
156-60-5	trans-1,2-Dichloroethene	50	58.9	118	76-120
78-87-5	1,2-Dichloropropane	50	54.4	109	82-121
10061-01-5	cis-1,3-Dichloropropene	50	52.0	104	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.7	103	82-121
123-91-1	1,4-Dioxane	1250	1660	133	52-147
100-41-4	Ethylbenzene	50	55.7	111	80-120
76-13-1	Freon 113	50	58.6	117	62-182
591-78-6	2-Hexanone	200	218	109	65-132
74-88-4	Iodomethane	50	50.4	101	72-128
98-82-8	Isopropylbenzene	50	54.2	108	83-120
79-20-9	Methyl Acetate	50	53.3	107	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2D7474-BS	2D176983.D	1	07/02/18	JTP	n/a	n/a	V2D7474

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-32, JC68966-33, JC68966-34, JC68966-35, JC68966-36, JC68966-37, JC68966-38, JC68966-39, JC68966-40, JC68966-41, JC68966-42, JC68966-43, JC68966-44, JC68966-45, JC68966-46, JC68966-47

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	61.8	124	71-134
1634-04-4	Methyl Tert Butyl Ether	50	48.4	97	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	210	105	71-131
75-09-2	Methylene chloride	50	55.8	112	77-120
100-42-5	Styrene	50	56.0	112	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	57.4	115	76-119
127-18-4	Tetrachloroethene	50	59.9	120	70-131
108-88-3	Toluene	50	57.2	114	80-120
87-61-6	1,2,3-Trichlorobenzene	50	53.5	107	76-134
120-82-1	1,2,4-Trichlorobenzene	50	54.7	109	79-132
71-55-6	1,1,1-Trichloroethane	50	51.5	103	81-128
79-00-5	1,1,2-Trichloroethane	50	56.5	113	83-118
79-01-6	Trichloroethene	50	56.5	113	80-120
75-69-4	Trichlorofluoromethane	50	57.0	114	64-136
75-01-4	Vinyl chloride	50	60.1	120	51-135
1330-20-7	Xylene (total)	150	165	110	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	87%	81-124%
2037-26-5	Toluene-D8	102%	80-120%
460-00-4	4-Bromofluorobenzene	103%	80-120%

(a) High percent recoveries and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7121-BS	2C160377.D	1	07/02/18	HT	n/a	n/a	V2C7121

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-12, JC68966-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	180	90	42-150
71-43-2	Benzene	50	47.0	94	80-120
74-97-5	Bromochloromethane	50	49.8	100	84-121
75-27-4	Bromodichloromethane	50	48.8	98	83-120
75-25-2	Bromoform	50	56.9	114	76-129
74-83-9	Bromomethane	50	40.1	80	57-138
78-93-3	2-Butanone (MEK)	200	192	96	64-137
75-15-0	Carbon disulfide	50	46.2	92	64-137
56-23-5	Carbon tetrachloride	50	51.5	103	75-135
108-90-7	Chlorobenzene	50	49.5	99	84-117
75-00-3	Chloroethane	50	40.0	80	63-132
67-66-3	Chloroform	50	45.7	91	80-119
74-87-3	Chloromethane	50	42.4	85	46-136
110-82-7	Cyclohexane	50	48.7	97	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	51.7	103	72-127
124-48-1	Dibromochloromethane	50	55.4	111	80-123
106-93-4	1,2-Dibromoethane	50	54.2	108	84-117
95-50-1	1,2-Dichlorobenzene	50	49.2	98	84-119
541-73-1	1,3-Dichlorobenzene	50	49.5	99	81-117
106-46-7	1,4-Dichlorobenzene	50	49.3	99	82-117
75-71-8	Dichlorodifluoromethane	50	60.1	120	36-149
75-34-3	1,1-Dichloroethane	50	47.6	95	79-120
107-06-2	1,2-Dichloroethane	50	48.4	97	78-126
75-35-4	1,1-Dichloroethene	50	45.9	92	69-126
156-59-2	cis-1,2-Dichloroethene	50	45.6	91	80-120
156-60-5	trans-1,2-Dichloroethene	50	44.6	89	76-120
78-87-5	1,2-Dichloropropane	50	47.7	95	82-121
10061-01-5	cis-1,3-Dichloropropene	50	48.1	96	83-120
10061-02-6	trans-1,3-Dichloropropene	50	50.1	100	82-121
123-91-1	1,4-Dioxane	1250	1300	104	52-147
100-41-4	Ethylbenzene	50	47.0	94	80-120
76-13-1	Freon 113	50	57.2	114	62-182
591-78-6	2-Hexanone	200	186	93	65-132
74-88-4	Iodomethane	50	44.1	88	72-128
98-82-8	Isopropylbenzene	50	45.9	92	83-120
79-20-9	Methyl Acetate	50	45.8	92	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V2C7121-BS	2C160377.D	1	07/02/18	HT	n/a	n/a	V2C7121

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-12, JC68966-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	48.3	97	71-134
1634-04-4	Methyl Tert Butyl Ether	50	46.1	92	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	186	93	71-131
75-09-2	Methylene chloride	50	41.9	84	77-120
100-42-5	Styrene	50	46.4	93	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	50.0	100	76-119
127-18-4	Tetrachloroethene	50	53.6	107	70-131
108-88-3	Toluene	50	48.2	96	80-120
87-61-6	1,2,3-Trichlorobenzene	50	49.0	98	76-134
120-82-1	1,2,4-Trichlorobenzene	50	47.9	96	79-132
71-55-6	1,1,1-Trichloroethane	50	42.5	85	81-128
79-00-5	1,1,2-Trichloroethane	50	48.4	97	83-118
79-01-6	Trichloroethene	50	46.8	94	80-120
75-69-4	Trichlorofluoromethane	50	47.4	95	64-136
75-01-4	Vinyl chloride	50	45.6	91	51-135
1330-20-7	Xylene (total)	150	143	95	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	80-120%
17060-07-0	1,2-Dichloroethane-D4	99%	81-124%
2037-26-5	Toluene-D8	100%	80-120%
460-00-4	4-Bromofluorobenzene	107%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A7793-BS	1A182801.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	230	115	42-150
71-43-2	Benzene	50	48.8	98	80-120
74-97-5	Bromochloromethane	50	55.4	111	84-121
75-27-4	Bromodichloromethane	50	52.9	106	83-120
75-25-2	Bromoform	50	50.9	102	76-129
74-83-9	Bromomethane	50	59.2	118	57-138
78-93-3	2-Butanone (MEK)	200	240	120	64-137
75-15-0	Carbon disulfide	50	52.8	106	64-137
56-23-5	Carbon tetrachloride	50	52.0	104	75-135
108-90-7	Chlorobenzene	50	45.3	91	84-117
75-00-3	Chloroethane	50	56.3	113	63-132
67-66-3	Chloroform	50	53.3	107	80-119
74-87-3	Chloromethane	50	53.9	108	46-136
110-82-7	Cyclohexane	50	60.0	120	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	54.3	109	72-127
124-48-1	Dibromochloromethane	50	49.4	99	80-123
106-93-4	1,2-Dibromoethane	50	47.0	94	84-117
95-50-1	1,2-Dichlorobenzene	50	46.1	92	84-119
541-73-1	1,3-Dichlorobenzene	50	47.0	94	81-117
106-46-7	1,4-Dichlorobenzene	50	46.2	92	82-117
75-71-8	Dichlorodifluoromethane	50	61.2	122	36-149
75-34-3	1,1-Dichloroethane	50	52.9	106	79-120
107-06-2	1,2-Dichloroethane	50	50.6	101	78-126
75-35-4	1,1-Dichloroethene	50	53.8	108	69-126
156-59-2	cis-1,2-Dichloroethene	50	51.2	102	80-120
156-60-5	trans-1,2-Dichloroethene	50	53.3	107	76-120
78-87-5	1,2-Dichloropropane	50	50.2	100	82-121
10061-01-5	cis-1,3-Dichloropropene	50	53.2	106	83-120
10061-02-6	trans-1,3-Dichloropropene	50	47.6	95	82-121
123-91-1	1,4-Dioxane	1250	1160	93	52-147
100-41-4	Ethylbenzene	50	43.3	87	80-120
76-13-1	Freon 113	50	60.4	121	62-182
591-78-6	2-Hexanone	200	209	105	65-132
74-88-4	Iodomethane	50	60.3	121	72-128
98-82-8	Isopropylbenzene	50	43.8	88	83-120
79-20-9	Methyl Acetate	50	63.8	128	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V1A7793-BS	1A182801.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	54.9	110	71-134
1634-04-4	Methyl Tert Butyl Ether	50	54.6	109	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	229	115	71-131
75-09-2	Methylene chloride	50	53.4	107	77-120
100-42-5	Styrene	50	44.8	90	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	51.9	104	76-119
127-18-4	Tetrachloroethene	50	44.8	90	70-131
108-88-3	Toluene	50	43.8	88	80-120
87-61-6	1,2,3-Trichlorobenzene	50	48.6	97	76-134
120-82-1	1,2,4-Trichlorobenzene	50	50.5	101	79-132
71-55-6	1,1,1-Trichloroethane	50	53.3	107	81-128
79-00-5	1,1,2-Trichloroethane	50	49.2	98	83-118
79-01-6	Trichloroethene	50	49.8	100	80-120
75-69-4	Trichlorofluoromethane	50	59.7	119	64-136
75-01-4	Vinyl chloride	50	57.9	116	51-135
1330-20-7	Xylene (total)	150	129	86	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	80-120%
17060-07-0	1,2-Dichloroethane-D4	89%	81-124%
2037-26-5	Toluene-D8	90%	80-120%
460-00-4	4-Bromofluorobenzene	107%	80-120%

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3470-BS	4B83386.D	1	07/06/18	HT	n/a	n/a	V4B3470

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-13, JC68966-15, JC68966-18, JC68966-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
67-64-1	Acetone	200	194	97	42-150
71-43-2	Benzene	50	47.1	94	80-120
74-97-5	Bromochloromethane	50	49.4	99	84-121
75-27-4	Bromodichloromethane	50	52.2	104	83-120
75-25-2	Bromoform	50	68.6	137* [a]	76-129
74-83-9	Bromomethane	50	41.4	83	57-138
78-93-3	2-Butanone (MEK)	200	197	99	64-137
75-15-0	Carbon disulfide	50	47.6	95	64-137
56-23-5	Carbon tetrachloride	50	49.3	99	75-135
108-90-7	Chlorobenzene	50	48.5	97	84-117
75-00-3	Chloroethane	50	41.1	82	63-132
67-66-3	Chloroform	50	45.9	92	80-119
74-87-3	Chloromethane	50	40.1	80	46-136
110-82-7	Cyclohexane	50	44.5	89	64-137
96-12-8	1,2-Dibromo-3-chloropropane	50	55.8	112	72-127
124-48-1	Dibromochloromethane	50	59.8	120	80-123
106-93-4	1,2-Dibromoethane	50	52.9	106	84-117
95-50-1	1,2-Dichlorobenzene	50	48.2	96	84-119
541-73-1	1,3-Dichlorobenzene	50	50.2	100	81-117
106-46-7	1,4-Dichlorobenzene	50	49.7	99	82-117
75-71-8	Dichlorodifluoromethane	50	45.2	90	36-149
75-34-3	1,1-Dichloroethane	50	47.9	96	79-120
107-06-2	1,2-Dichloroethane	50	48.0	96	78-126
75-35-4	1,1-Dichloroethene	50	47.1	94	69-126
156-59-2	cis-1,2-Dichloroethene	50	47.1	94	80-120
156-60-5	trans-1,2-Dichloroethene	50	47.6	95	76-120
78-87-5	1,2-Dichloropropane	50	48.4	97	82-121
10061-01-5	cis-1,3-Dichloropropene	50	51.7	103	83-120
10061-02-6	trans-1,3-Dichloropropene	50	51.6	103	82-121
123-91-1	1,4-Dioxane	1250	1150	92	52-147
100-41-4	Ethylbenzene	50	47.4	95	80-120
76-13-1	Freon 113	50	51.8	104	62-182
591-78-6	2-Hexanone	200	209	105	65-132
74-88-4	Iodomethane	50	47.9	96	72-128
98-82-8	Isopropylbenzene	50	45.9	92	83-120
79-20-9	Methyl Acetate	50	51.5	103	67-129

* = Outside of Control Limits.

Blank Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
V4B3470-BS	4B83386.D	1	07/06/18	HT	n/a	n/a	V4B3470

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-13, JC68966-15, JC68966-18, JC68966-20

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
108-87-2	Methylcyclohexane	50	48.9	98	71-134
1634-04-4	Methyl Tert Butyl Ether	50	45.5	91	80-119
108-10-1	4-Methyl-2-pentanone(MIBK)	200	199	100	71-131
75-09-2	Methylene chloride	50	47.9	96	77-120
100-42-5	Styrene	50	50.0	100	82-122
79-34-5	1,1,2,2-Tetrachloroethane	50	51.3	103	76-119
127-18-4	Tetrachloroethene	50	49.1	98	70-131
108-88-3	Toluene	50	46.0	92	80-120
87-61-6	1,2,3-Trichlorobenzene	50	50.5	101	76-134
120-82-1	1,2,4-Trichlorobenzene	50	48.6	97	79-132
71-55-6	1,1,1-Trichloroethane	50	45.6	91	81-128
79-00-5	1,1,2-Trichloroethane	50	50.6	101	83-118
79-01-6	Trichloroethene	50	48.1	96	80-120
75-69-4	Trichlorofluoromethane	50	47.8	96	64-136
75-01-4	Vinyl chloride	50	42.0	84	51-135
1330-20-7	Xylene (total)	150	142	95	80-120

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	80-120%
17060-07-0	1,2-Dichloroethane-D4	93%	81-124%
2037-26-5	Toluene-D8	93%	80-120%
460-00-4	4-Bromofluorobenzene	100%	80-120%

(a) High percent recoveries and no associated positive reported in the QC batch.

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-25MS	1A182813.D	1	07/05/18	JP	n/a	n/a	V1A7793
JC68966-25	1A182805.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	JC68966-25 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
67-64-1	Acetone	7.5	J	200	221	107	34-149
71-43-2	Benzene	0.50 U		50	53.3	107	54-136
74-97-5	Bromochloromethane	1.0 U		50	54.5	109	79-124
75-27-4	Bromodichloromethane	1.0 U		50	54.3	109	79-124
75-25-2	Bromoform	1.0 U		50	50.9	102	71-130
74-83-9	Bromomethane	2.0 U		50	12.1	24* [a]	53-142
78-93-3	2-Butanone (MEK)	10 U		200	235	118	54-142
75-15-0	Carbon disulfide	2.0 U		50	60.8	122	59-145
56-23-5	Carbon tetrachloride	1.0 U		50	54.3	109	70-143
108-90-7	Chlorobenzene	1.0 U		50	48.5	97	78-123
75-00-3	Chloroethane	1.0 U		50	83.9	168* [a]	57-141
67-66-3	Chloroform	1.0 U		50	54.8	110	76-123
74-87-3	Chloromethane	1.0 U		50	48.0	96	43-141
110-82-7	Cyclohexane	5.0 U		50	58.1	116	51-155
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	53.4	107	66-130
124-48-1	Dibromochloromethane	1.0 U		50	50.5	101	76-125
106-93-4	1,2-Dibromoethane	1.0 U		50	45.2	90	78-119
95-50-1	1,2-Dichlorobenzene	1.0 U		50	47.6	95	77-123
541-73-1	1,3-Dichlorobenzene	1.0 U		50	48.9	98	76-122
106-46-7	1,4-Dichlorobenzene	1.0 U		50	47.9	96	76-122
75-71-8	Dichlorodifluoromethane	2.0 U		50	56.4	113	31-159
75-34-3	1,1-Dichloroethane	1.0 U		50	54.4	109	73-126
107-06-2	1,2-Dichloroethane	1.0 U		50	51.8	104	72-131
75-35-4	1,1-Dichloroethene	1.0 U		50	54.1	108	63-136
156-59-2	cis-1,2-Dichloroethene	5.4		50	58.9	107	60-136
156-60-5	trans-1,2-Dichloroethene	1.0 U		50	54.8	110	70-126
78-87-5	1,2-Dichloropropane	1.0 U		50	54.0	108	78-124
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	55.8	112	79-123
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	48.5	97	77-123
123-91-1	1,4-Dioxane	61.4	J	1250	1240	94	49-146
100-41-4	Ethylbenzene	1.0 U		50	46.6	93	51-140
76-13-1	Freon 113	5.0 U		50	61.1	122	60-192
591-78-6	2-Hexanone	5.0 U		200	211	106	56-139
74-88-4	Iodomethane	2.0 U		50	27.8	56* [a]	67-132
98-82-8	Isopropylbenzene	1.0 U		50	47.4	95	75-129
79-20-9	Methyl Acetate	5.0 U		50	56.1	112	55-131

* = Outside of Control Limits.

Matrix Spike Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-25MS	1A182813.D	1	07/05/18	JP	n/a	n/a	V1A7793
JC68966-25	1A182805.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	JC68966-25 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
108-87-2	Methylcyclohexane	5.0 U		50	60.8	122	57-155
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	53.0	106	72-123
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	238	119	66-136
75-09-2	Methylene chloride	2.0 U		50	53.7	107	73-125
100-42-5	Styrene	1.0 U		50	47.0	94	75-129
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	52.3	105	71-122
127-18-4	Tetrachloroethene	1.0 U		50	50.1	100	61-139
108-88-3	Toluene	1.0 U		50	46.5	93	60-135
87-61-6	1,2,3-Trichlorobenzene	1.0 U		50	47.7	95	70-138
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	50.1	100	72-137
71-55-6	1,1,1-Trichloroethane	1.0 U		50	55.5	111	74-138
79-00-5	1,1,2-Trichloroethane	1.0 U		50	49.4	99	78-121
79-01-6	Trichloroethene	1.0 U		50	54.2	108	62-141
75-69-4	Trichlorofluoromethane	2.0 U		50	57.1	114	57-149
75-01-4	Vinyl chloride	13.6		50	72.7	118	43-146
1330-20-7	Xylene (total)	1.0 U		150	138	92	56-139

CAS No.	Surrogate Recoveries	MS	JC68966-25	Limits
1868-53-7	Dibromofluoromethane	101%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	93%	89%	81-124%
2037-26-5	Toluene-D8	89%	92%	80-120%
460-00-4	4-Bromofluorobenzene	106%	107%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-2MS	2D176953.D	1	07/01/18	JTP	n/a	n/a	V2D7472
JC68966-2MSD	2D176954.D	1	07/01/18	JTP	n/a	n/a	V2D7472
JC68966-2	2D176946.D	1	07/01/18	JTP	n/a	n/a	V2D7472

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-1, JC68966-2, JC68966-3, JC68966-4, JC68966-5, JC68966-6, JC68966-7, JC68966-9, JC68966-11

CAS No.	Compound	JC68966-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10 U		200	208	104	200	217	109	4	34-149/17
71-43-2	Benzene	0.50 U		50	49.6	99	50	50.7	101	2	54-136/10
74-97-5	Bromochloromethane	1.0 U		50	48.6	97	50	50.2	100	3	79-124/11
75-27-4	Bromodichloromethane	1.0 U		50	47.3	95	50	48.8	98	3	79-124/11
75-25-2	Bromoform	1.0 U		50	44.6	89	50	45.9	92	3	71-130/11
74-83-9	Bromomethane	2.0 U		50	46.0	92	50	48.6	97	5	53-142/14
78-93-3	2-Butanone (MEK)	10 U		200	212	106	200	216	108	2	54-142/15
75-15-0	Carbon disulfide	2.0 U		50	38.4	77	50	39.0	78	2	59-145/17
56-23-5	Carbon tetrachloride	1.0 U		50	45.6	91	50	46.4	93	2	70-143/12
108-90-7	Chlorobenzene	1.0 U		50	49.9	100	50	51.3	103	3	78-123/10
75-00-3	Chloroethane	1.0 U		50	52.1	104	50	53.1	106	2	57-141/14
67-66-3	Chloroform	1.0 U		50	48.8	98	50	50.7	101	4	76-123/11
74-87-3	Chloromethane	1.0 U		50	41.5	83	50	43.5	87	5	43-141/16
110-82-7	Cyclohexane	5.0 U		50	54.6	109	50	54.9	110	1	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	48.3	97	50	48.8	98	1	66-130/13
124-48-1	Dibromochloromethane	1.0 U		50	47.2	94	50	48.3	97	2	76-125/11
106-93-4	1,2-Dibromoethane	1.0 U		50	49.6	99	50	51.2	102	3	78-119/11
95-50-1	1,2-Dichlorobenzene	1.0 U		50	51.0	102	50	52.3	105	3	77-123/11
541-73-1	1,3-Dichlorobenzene	1.0 U		50	51.1	102	50	52.9	106	3	76-122/11
106-46-7	1,4-Dichlorobenzene	1.0 U		50	51.1	102	50	52.8	106	3	76-122/11
75-71-8	Dichlorodifluoromethane	2.0 U		50	37.2	74	50	37.8	76	2	31-159/16
75-34-3	1,1-Dichloroethane	1.0 U		50	47.8	96	50	49.8	100	4	73-126/11
107-06-2	1,2-Dichloroethane	1.0 U		50	41.6	83	50	42.7	85	3	72-131/11
75-35-4	1,1-Dichloroethene	1.0 U		50	45.2	90	50	46.2	92	2	63-136/14
156-59-2	cis-1,2-Dichloroethene	0.87	J	50	51.5	101	50	53.6	105	4	60-136/11
156-60-5	trans-1,2-Dichloroethene	1.0 U		50	49.7	99	50	51.9	104	4	70-126/11
78-87-5	1,2-Dichloropropane	1.0 U		50	48.2	96	50	49.6	99	3	78-124/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	38.1	76* [a]	50	39.0	78* [a]	2	79-123/11
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	32.4	65* [a]	50	33.3	67* [a]	3	77-123/11
123-91-1	1,4-Dioxane	130 U		1250	1350	108	1250	1450	116	7	49-146/26
100-41-4	Ethylbenzene	1.0 U		50	50.0	100	50	51.7	103	3	51-140/20
76-13-1	Freon 113	5.0 U		50	46.3	93	50	46.5	93	0	60-192/14
591-78-6	2-Hexanone	5.0 U		200	200	100	200	206	103	3	56-139/14
74-88-4	Iodomethane	2.0 U		50	40.8	82	50	41.4	83	1	67-132/14
98-82-8	Isopropylbenzene	1.0 U		50	48.5	97	50	50.1	100	3	75-129/11
79-20-9	Methyl Acetate	5.0 U		50	46.9	94	50	48.1	96	3	55-131/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-2MS	2D176953.D	1	07/01/18	JTP	n/a	n/a	V2D7472
JC68966-2MSD	2D176954.D	1	07/01/18	JTP	n/a	n/a	V2D7472
JC68966-2	2D176946.D	1	07/01/18	JTP	n/a	n/a	V2D7472

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-1, JC68966-2, JC68966-3, JC68966-4, JC68966-5, JC68966-6, JC68966-7, JC68966-9, JC68966-11

CAS No.	Compound	JC68966-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	5.0 U		50	53.1	106	50	53.7	107	1	57-155/13
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	41.7	83	50	43.0	86	3	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	194	97	200	199	100	3	66-136/13
75-09-2	Methylene chloride	2.0 U		50	47.1	94	50	48.4	97	3	73-125/13
100-42-5	Styrene	1.0 U		50	49.1	98	50	50.2	100	2	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	52.2	104	50	53.3	107	2	71-122/11
127-18-4	Tetrachloroethene	1.0 U		50	55.9	112	50	57.1	114	2	61-139/11
108-88-3	Toluene	1.0 U		50	50.8	102	50	52.0	104	2	60-135/10
87-61-6	1,2,3-Trichlorobenzene	1.0 U		50	47.3	95	50	47.9	96	1	70-138/13
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	47.9	96	50	48.8	98	2	72-137/13
71-55-6	1,1,1-Trichloroethane	1.0 U		50	45.4	91	50	46.2	92	2	74-138/12
79-00-5	1,1,2-Trichloroethane	1.0 U		50	50.5	101	50	51.6	103	2	78-121/11
79-01-6	Trichloroethene	1.0 U		50	49.8	100	50	51.3	103	3	62-141/10
75-69-4	Trichlorofluoromethane	2.0 U		50	48.7	97	50	49.0	98	1	57-149/14
75-01-4	Vinyl chloride	0.79	J	50	47.3	93	50	49.7	98	5	43-146/15
1330-20-7	Xylene (total)	1.0 U		150	148	99	150	152	101	3	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC68966-2	Limits
1868-53-7	Dibromofluoromethane	102%	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	90%	89%	89%	81-124%
2037-26-5	Toluene-D8	103%	103%	104%	80-120%
460-00-4	4-Bromofluorobenzene	103%	104%	109%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-31MS	2E144447.D	1	07/01/18	JTP	n/a	n/a	V2E6328
JC68966-31MSD	2E144448.D	1	07/01/18	JTP	n/a	n/a	V2E6328
JC68966-31	2E144441.D	1	07/01/18	JTP	n/a	n/a	V2E6328

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-16, JC68966-17, JC68966-19, JC68966-21, JC68966-22, JC68966-23, JC68966-31

CAS No.	Compound	JC68966-31 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	45.3		200	204	79	200	202	78	1	34-149/17
71-43-2	Benzene	0.20	J	50	43.9	87	50	35.4	70	21* a	54-136/10
74-97-5	Bromochloromethane	1.0 U		50	44.6	89	50	36.2	72* a	21* a	79-124/11
75-27-4	Bromodichloromethane	1.0 U		50	50.9	102	50	42.3	85	18* a	79-124/11
75-25-2	Bromoform	1.0 U		50	54.2	108	50	44.8	90	19* a	71-130/11
74-83-9	Bromomethane	2.0 U		50	43.1	86	50	47.3	95	9	53-142/14
78-93-3	2-Butanone (MEK)	10 U		200	188	94	200	177	89	6	54-142/15
75-15-0	Carbon disulfide	2.0 U		50	38.9	78	50	31.4	63	21* a	59-145/17
56-23-5	Carbon tetrachloride	1.0 U		50	57.5	115	50	47.6	95	19* a	70-143/12
108-90-7	Chlorobenzene	1.0 U		50	46.1	92	50	37.2	74* a	21* a	78-123/10
75-00-3	Chloroethane	1.0 U		50	42.4	85	50	46.6	93	9	57-141/14
67-66-3	Chloroform	1.0 U		50	48.9	98	50	39.3	79	22* a	76-123/11
74-87-3	Chloromethane	1.0 U		50	39.0	78	50	45.0	90	14	43-141/16
110-82-7	Cyclohexane	5.0 U		50	45.8	92	50	52.0	104	13	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	45.3	91	50	42.2	84	7	66-130/13
124-48-1	Dibromochloromethane	1.0 U		50	51.4	103	50	42.4	85	19* a	76-125/11
106-93-4	1,2-Dibromoethane	1.0 U		50	47.0	94	50	40.1	80	16* a	78-119/11
95-50-1	1,2-Dichlorobenzene	1.0 U		50	45.8	92	50	38.2	76* a	18* a	77-123/11
541-73-1	1,3-Dichlorobenzene	1.0 U		50	46.3	93	50	38.4	77	19* a	76-122/11
106-46-7	1,4-Dichlorobenzene	1.0 U		50	46.5	93	50	38.0	76	20* a	76-122/11
75-71-8	Dichlorodifluoromethane	2.0 U		50	42.6	85	50	50.2	100	16	31-159/16
75-34-3	1,1-Dichloroethane	1.0 U		50	45.3	91	50	36.0	72* a	23* a	73-126/11
107-06-2	1,2-Dichloroethane	1.0 U		50	52.0	104	50	43.3	87	18* a	72-131/11
75-35-4	1,1-Dichloroethene	1.0 U		50	44.8	90	50	37.4	75	18* a	63-136/14
156-59-2	cis-1,2-Dichloroethene	17.6		50	61.4	88	50	53.1	71	14* a	60-136/11
156-60-5	trans-1,2-Dichloroethene	0.43	J	50	46.1	91	50	36.7	73	23* a	70-126/11
78-87-5	1,2-Dichloropropane	1.0 U		50	45.4	91	50	37.1	74* a	20* a	78-124/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	45.7	91	50	37.7	75* a	19* a	79-123/11
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	48.4	97	50	39.4	79	21* a	77-123/11
123-91-1	1,4-Dioxane	130 U		1250	1290	103	1250	1430	114	10	49-146/26
100-41-4	Ethylbenzene	1.0 U		50	47.9	96	50	38.8	78	21* a	51-140/20
76-13-1	Freon 113	5.0 U		50	45.8	92	50	41.5	83	10	60-192/14
591-78-6	2-Hexanone	5.0 U		200	191	96	200	176	88	8	56-139/14
74-88-4	Iodomethane	2.0 U		50	41.3	83	50	33.4	67	21* a	67-132/14
98-82-8	Isopropylbenzene	1.0 U		50	50.5	101	50	40.8	82	21* a	75-129/11
79-20-9	Methyl Acetate	5.0 U		50	41.0	82	50	36.7	73	11	55-131/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-31MS	2E144447.D	1	07/01/18	JTP	n/a	n/a	V2E6328
JC68966-31MSD	2E144448.D	1	07/01/18	JTP	n/a	n/a	V2E6328
JC68966-31	2E144441.D	1	07/01/18	JTP	n/a	n/a	V2E6328

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-16, JC68966-17, JC68966-19, JC68966-21, JC68966-22, JC68966-23, JC68966-31

CAS No.	Compound	JC68966-31 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	5.0 U		50	48.0	96	50	43.3	87	10	57-155/13
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	44.2	88	50	37.9	76	15* [a]	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	187	94	200	170	85	10	66-136/13
75-09-2	Methylene chloride	2.0 U		50	42.3	85	50	34.7	69* [a]	20* [a]	73-125/13
100-42-5	Styrene	1.0 U		50	47.7	95	50	39.3	79	19* [a]	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	42.7	85	50	37.8	76	12* [a]	71-122/11
127-18-4	Tetrachloroethene	1.0 U		50	48.3	97	50	38.7	77	22* [a]	61-139/11
108-88-3	Toluene	1.0 U		50	45.2	90	50	36.0	72	23* [a]	60-135/10
87-61-6	1,2,3-Trichlorobenzene	1.0 U		50	46.1	92	50	39.4	79	16* [a]	70-138/13
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	47.8	96	50	39.4	79	19* [a]	72-137/13
71-55-6	1,1,1-Trichloroethane	1.0 U		50	53.8	108	50	43.8	88	20* [a]	74-138/12
79-00-5	1,1,2-Trichloroethane	1.0 U		50	43.9	88	50	37.2	74* [a]	17* [a]	78-121/11
79-01-6	Trichloroethene	0.64	J	50	47.4	94	50	38.7	76	20* [a]	62-141/10
75-69-4	Trichlorofluoromethane	2.0 U		50	58.6	117	50	62.3	125	6	57-149/14
75-01-4	Vinyl chloride	17.8		50	59.7	84	50	70.5	105	17* [a]	43-146/15
1330-20-7	Xylene (total)	1.0 U		150	143	95	150	117	78	20	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC68966-31	Limits
1868-53-7	Dibromofluoromethane	104%	101%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	120%	119%	118%	81-124%
2037-26-5	Toluene-D8	99%	98%	99%	80-120%
460-00-4	4-Bromofluorobenzene	100%	100%	102%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-41MS	2D176988.D	1	07/02/18	JTP	n/a	n/a	V2D7474
JC68966-41MSD	2D176989.D	1	07/02/18	JTP	n/a	n/a	V2D7474
JC68966-41	2D176986.D	1	07/02/18	JTP	n/a	n/a	V2D7474

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-32, JC68966-33, JC68966-34, JC68966-35, JC68966-36, JC68966-37, JC68966-38, JC68966-39, JC68966-40, JC68966-41, JC68966-42, JC68966-43, JC68966-44, JC68966-45, JC68966-46, JC68966-47

CAS No.	Compound	JC68966-41 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10 U		200	256	128	200	242	121	6	34-149/17
71-43-2	Benzene	0.50 U		50	61.3	123	50	58.5	117	5	54-136/10
74-97-5	Bromochloromethane	1.0 U		50	59.9	120	50	56.8	114	5	79-124/11
75-27-4	Bromodichloromethane	1.0 U		50	58.0	116	50	55.0	110	5	79-124/11
75-25-2	Bromoform	1.0 U		50	60.9	122	50	58.3	117	4	71-130/11
74-83-9	Bromomethane	2.0 U		50	62.5	125	50	59.6	119	5	53-142/14
78-93-3	2-Butanone (MEK)	10 U		200	256	128	200	239	120	7	54-142/15
75-15-0	Carbon disulfide	2.0 U		50	52.8	106	50	48.5	97	8	59-145/17
56-23-5	Carbon tetrachloride	1.0 U		50	57.5	115	50	53.8	108	7	70-143/12
108-90-7	Chlorobenzene	1.0 U		50	61.4	123	50	58.7	117	4	78-123/10
75-00-3	Chloroethane	1.0 U		50	67.2	134	50	64.2	128	5	57-141/14
67-66-3	Chloroform	1.0 U		50	59.6	119	50	57.0	114	4	76-123/11
74-87-3	Chloromethane	1.0 U		50	57.5	115	50	56.2	112	2	43-141/16
110-82-7	Cyclohexane	5.0 U		50	59.3	119	50	57.2	114	4	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	59.4	119	50	56.1	112	6	66-130/13
124-48-1	Dibromochloromethane	1.0 U		50	59.5	119	50	57.2	114	4	76-125/11
106-93-4	1,2-Dibromoethane	1.0 U		50	60.8	122* [a]	50	57.9	116	5	78-119/11
95-50-1	1,2-Dichlorobenzene	1.0 U		50	62.3	125* [a]	50	60.1	120	4	77-123/11
541-73-1	1,3-Dichlorobenzene	1.0 U		50	63.3	127* [a]	50	60.8	122	4	76-122/11
106-46-7	1,4-Dichlorobenzene	1.0 U		50	62.7	125* [a]	50	60.8	122	3	76-122/11
75-71-8	Dichlorodifluoromethane	2.0 U		50	57.4	115	50	52.8	106	8	31-159/16
75-34-3	1,1-Dichloroethane	1.0 U		50	58.8	118	50	55.7	111	5	73-126/11
107-06-2	1,2-Dichloroethane	1.0 U		50	51.4	103	50	48.5	97	6	72-131/11
75-35-4	1,1-Dichloroethene	1.0 U		50	60.5	121	50	55.6	111	8	63-136/14
156-59-2	cis-1,2-Dichloroethene	1.0 U		50	63.2	126	50	59.9	120	5	60-136/11
156-60-5	trans-1,2-Dichloroethene	1.0 U		50	63.3	127* [a]	50	59.8	120	6	70-126/11
78-87-5	1,2-Dichloropropane	1.0 U		50	59.0	118	50	56.1	112	5	78-124/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	54.0	108	50	51.7	103	4	79-123/11
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	54.0	108	50	51.4	103	5	77-123/11
123-91-1	1,4-Dioxane	130 U		1250	1550	124	1250	1600	128	3	49-146/26
100-41-4	Ethylbenzene	1.0 U		50	61.2	122	50	58.4	117	5	51-140/20
76-13-1	Freon 113	5.0 U		50	60.5	121	50	53.9	108	12	60-192/14
591-78-6	2-Hexanone	5.0 U		200	241	121	200	227	114	6	56-139/14
74-88-4	Iodomethane	2.0 U		50	53.5	107	50	49.8	100	7	67-132/14
98-82-8	Isopropylbenzene	1.0 U		50	59.6	119	50	57.3	115	4	75-129/11
79-20-9	Methyl Acetate	5.0 U		50	54.4	109	50	49.3	99	10	55-131/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-41MS	2D176988.D	1	07/02/18	JTP	n/a	n/a	V2D7474
JC68966-41MSD	2D176989.D	1	07/02/18	JTP	n/a	n/a	V2D7474
JC68966-41	2D176986.D	1	07/02/18	JTP	n/a	n/a	V2D7474

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-32, JC68966-33, JC68966-34, JC68966-35, JC68966-36, JC68966-37, JC68966-38, JC68966-39, JC68966-40, JC68966-41, JC68966-42, JC68966-43, JC68966-44, JC68966-45, JC68966-46, JC68966-47

CAS No.	Compound	JC68966-41 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	5.0 U		50	66.9	134	50	61.6	123	8	57-155/13
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	51.7	103	50	48.4	97	7	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	236	118	200	221	111	7	66-136/13
75-09-2	Methylene chloride	2.0 U		50	59.8	120	50	56.5	113	6	73-125/13
100-42-5	Styrene	1.0 U		50	60.9	122	50	58.2	116	5	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	63.6	127* [a]	50	60.2	120	5	71-122/11
127-18-4	Tetrachloroethene	1.0 U		50	64.9	130	50	62.7	125	3	61-139/11
108-88-3	Toluene	1.0 U		50	62.9	126	50	62.4	125	1	60-135/10
87-61-6	1,2,3-Trichlorobenzene	1.0 U		50	56.8	114	50	54.1	108	5	70-138/13
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	57.9	116	50	55.2	110	5	72-137/13
71-55-6	1,1,1-Trichloroethane	1.0 U		50	56.2	112	50	52.6	105	7	74-138/12
79-00-5	1,1,2-Trichloroethane	1.0 U		50	61.4	123* [a]	50	58.8	118	4	78-121/11
79-01-6	Trichloroethene	1.0 U		50	61.3	123	50	58.1	116	5	62-141/10
75-69-4	Trichlorofluoromethane	2.0 U		50	62.8	126	50	58.4	117	7	57-149/14
75-01-4	Vinyl chloride	1.0 U		50	65.1	130	50	63.1	126	3	43-146/15
1330-20-7	Xylene (total)	1.0 U		150	181	121	150	173	115	5	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC68966-41	Limits
1868-53-7	Dibromofluoromethane	102%	100%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	89%	89%	89%	81-124%
2037-26-5	Toluene-D8	102%	104%	104%	80-120%
460-00-4	4-Bromofluorobenzene	103%	104%	112%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-10MS	2C160384.D	10	07/02/18	HT	n/a	n/a	V2C7121
JC68966-10MSD	2C160385.D	10	07/03/18	HT	n/a	n/a	V2C7121
JC68966-10	2C160382.D	10	07/02/18	HT	n/a	n/a	V2C7121

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-12, JC68966-14

CAS No.	Compound	JC68966-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	100 U		2000	1710	86	2000	1520	76	12	34-149/17
71-43-2	Benzene	5.0 U		500	429	86	500	430	86	0	54-136/10
74-97-5	Bromochloromethane	10 U		500	463	93	500	455	91	2	79-124/11
75-27-4	Bromodichloromethane	10 U		500	468	94	500	469	94	0	79-124/11
75-25-2	Bromoform	10 U		500	548	110	500	557	111	2	71-130/11
74-83-9	Bromomethane	20 U		500	337	67	500	333	67	1	53-142/14
78-93-3	2-Butanone (MEK)	100 U		2000	1820	91	2000	1850	93	2	54-142/15
75-15-0	Carbon disulfide	20 U		500	384	77	500	380	76	1	59-145/17
56-23-5	Carbon tetrachloride	10 U		500	472	94	500	468	94	1	70-143/12
108-90-7	Chlorobenzene	10 U		500	453	91	500	469	94	3	78-123/10
75-00-3	Chloroethane	10 U		500	330	66	500	329	66	0	57-141/14
67-66-3	Chloroform	10 U		500	432	86	500	427	85	1	76-123/11
74-87-3	Chloromethane	10 U		500	354	71	500	365	73	3	43-141/16
110-82-7	Cyclohexane	50 U		500	432	86	500	422	84	2	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	20 U		500	509	102	500	499	100	2	66-130/13
124-48-1	Dibromochloromethane	10 U		500	526	105	500	535	107	2	76-125/11
106-93-4	1,2-Dibromoethane	10 U		500	501	100	500	513	103	2	78-119/11
95-50-1	1,2-Dichlorobenzene	10 U		500	466	93	500	472	94	1	77-123/11
541-73-1	1,3-Dichlorobenzene	10 U		500	467	93	500	477	95	2	76-122/11
106-46-7	1,4-Dichlorobenzene	10 U		500	469	94	500	476	95	1	76-122/11
75-71-8	Dichlorodifluoromethane	20 U		500	505	101	500	501	100	1	31-159/16
75-34-3	1,1-Dichloroethane	10 U		500	433	87	500	424	85	2	73-126/11
107-06-2	1,2-Dichloroethane	10 U		500	466	93	500	461	92	1	72-131/11
75-35-4	1,1-Dichloroethene	10 U		500	396	79	500	385	77	3	63-136/14
156-59-2	cis-1,2-Dichloroethene	854		500	1100	49* [a]	500	1090	47* [a]	1	60-136/11
156-60-5	trans-1,2-Dichloroethene	10 U		500	394	79	500	394	79	0	70-126/11
78-87-5	1,2-Dichloropropane	10 U		500	449	90	500	452	90	1	78-124/10
10061-01-5	cis-1,3-Dichloropropene	10 U		500	443	89	500	453	91	2	79-123/11
10061-02-6	trans-1,3-Dichloropropene	10 U		500	455	91	500	464	93	2	77-123/11
123-91-1	1,4-Dioxane	1300 U		12500	11800	94	12500	14500	116	21	49-146/26
100-41-4	Ethylbenzene	10 U		500	438	88	500	447	89	2	51-140/20
76-13-1	Freon 113	50 U		500	491	98	500	475	95	3	60-192/14
591-78-6	2-Hexanone	50 U		2000	1760	88	2000	1810	91	3	56-139/14
74-88-4	Iodomethane	20 U		500	381	76	500	372	74	2	67-132/14
98-82-8	Isopropylbenzene	10 U		500	427	85	500	434	87	2	75-129/11
79-20-9	Methyl Acetate	50 U		500	409	82	500	405	81	1	55-131/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-10MS	2C160384.D	10	07/02/18	HT	n/a	n/a	V2C7121
JC68966-10MSD	2C160385.D	10	07/03/18	HT	n/a	n/a	V2C7121
JC68966-10	2C160382.D	10	07/02/18	HT	n/a	n/a	V2C7121

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-12, JC68966-14

CAS No.	Compound	JC68966-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	50 U		500	432	86	500	417	83	4	57-155/13
1634-04-4	Methyl Tert Butyl Ether	10 U		500	424	85	500	417	83	2	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	50 U		2000	1800	90	2000	1840	92	2	66-136/13
75-09-2	Methylene chloride	20 U		500	377	75	500	366	73	3	73-125/13
100-42-5	Styrene	10 U		500	436	87	500	448	90	3	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	10 U		500	478	96	500	486	97	2	71-122/11
127-18-4	Tetrachloroethene	10 U		500	485	97	500	493	99	2	61-139/11
108-88-3	Toluene	10 U		500	433	87	500	447	89	3	60-135/10
87-61-6	1,2,3-Trichlorobenzene	10 U		500	471	94	500	478	96	1	70-138/13
120-82-1	1,2,4-Trichlorobenzene	10 U		500	454	91	500	467	93	3	72-137/13
71-55-6	1,1,1-Trichloroethane	10 U		500	389	78	500	388	78	0	74-138/12
79-00-5	1,1,2-Trichloroethane	10 U		500	449	90	500	457	91	2	78-121/11
79-01-6	Trichloroethene	17.3		500	448	86	500	449	86	0	62-141/10
75-69-4	Trichlorofluoromethane	20 U		500	418	84	500	408	82	2	57-149/14
75-01-4	Vinyl chloride	338		500	665	65	500	673	67	1	43-146/15
1330-20-7	Xylene (total)	10 U		1500	1340	89	1500	1370	91	2	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC68966-10	Limits
1868-53-7	Dibromofluoromethane	102%	101%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	104%	103%	113%	81-124%
2037-26-5	Toluene-D8	98%	100%	97%	80-120%
460-00-4	4-Bromofluorobenzene	106%	108%	110%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68932-1MS	4B83400.D	1	07/06/18	HT	n/a	n/a	V4B3470
JC68932-1MSD	4B83401.D	1	07/06/18	HT	n/a	n/a	V4B3470
JC68932-1	4B83393.D	1	07/06/18	HT	n/a	n/a	V4B3470

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-13, JC68966-15, JC68966-18, JC68966-20

CAS No.	Compound	JC68932-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	10 U		200	181	91	200	185	93	2	34-149/17
71-43-2	Benzene	0.50 U		50	45.1	90	50	44.7	89	1	54-136/10
74-97-5	Bromochloromethane	1.0 U		50	45.9	92	50	46.1	92	0	79-124/11
75-27-4	Bromodichloromethane	1.0 U		50	49.3	99	50	48.8	98	1	79-124/11
75-25-2	Bromoform	1.0 U		50	58.3	117	50	56.7	113	3	71-130/11
74-83-9	Bromomethane	2.0 U		50	40.0	80	50	39.8	80	1	53-142/14
78-93-3	2-Butanone (MEK)	10 U		200	191	96	200	192	96	1	54-142/15
75-15-0	Carbon disulfide	2.0 U		50	43.1	86	50	42.2	84	2	59-145/17
56-23-5	Carbon tetrachloride	1.0 U		50	49.1	98	50	48.6	97	1	70-143/12
108-90-7	Chlorobenzene	1.0 U		50	45.7	91	50	45.2	90	1	78-123/10
75-00-3	Chloroethane	1.0 U		50	42.9	86	50	42.2	84	2	57-141/14
67-66-3	Chloroform	1.0 U		50	45.7	91	50	45.5	91	0	76-123/11
74-87-3	Chloromethane	1.0 U		50	45.0	90	50	43.7	87	3	43-141/16
110-82-7	Cyclohexane	5.0 U		50	44.1	88	50	43.2	86	2	51-155/16
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		50	47.2	94	50	49.2	98	4	66-130/13
124-48-1	Dibromochloromethane	1.0 U		50	53.5	107	50	52.5	105	2	76-125/11
106-93-4	1,2-Dibromoethane	1.0 U		50	49.1	98	50	49.7	99	1	78-119/11
95-50-1	1,2-Dichlorobenzene	1.0 U		50	43.3	87	50	43.1	86	0	77-123/11
541-73-1	1,3-Dichlorobenzene	1.0 U		50	45.7	91	50	45.5	91	0	76-122/11
106-46-7	1,4-Dichlorobenzene	1.0 U		50	45.2	90	50	45.1	90	0	76-122/11
75-71-8	Dichlorodifluoromethane	2.0 U		50	47.4	95	50	45.1	90	5	31-159/16
75-34-3	1,1-Dichloroethane	1.0 U		50	47.8	96	50	46.9	94	2	73-126/11
107-06-2	1,2-Dichloroethane	1.0 U		50	47.2	94	50	46.8	94	1	72-131/11
75-35-4	1,1-Dichloroethene	1.0 U		50	48.2	96	50	47.6	95	1	63-136/14
156-59-2	cis-1,2-Dichloroethene	1.0 U		50	45.8	92	50	46.2	92	1	60-136/11
156-60-5	trans-1,2-Dichloroethene	1.0 U		50	48.2	96	50	46.6	93	3	70-126/11
78-87-5	1,2-Dichloropropane	1.0 U		50	46.7	93	50	46.4	93	1	78-124/10
10061-01-5	cis-1,3-Dichloropropene	1.0 U		50	47.4	95	50	47.7	95	1	79-123/11
10061-02-6	trans-1,3-Dichloropropene	1.0 U		50	47.9	96	50	46.2	92	4	77-123/11
123-91-1	1,4-Dioxane	130 U		1250	987	79	1250	1040	83	5	49-146/26
100-41-4	Ethylbenzene	1.0 U		50	45.9	92	50	44.8	90	2	51-140/20
76-13-1	Freon 113	5.0 U		50	49.6	99	50	49.2	98	1	60-192/14
591-78-6	2-Hexanone	5.0 U		200	198	99	200	203	102	2	56-139/14
74-88-4	Iodomethane	2.0 U		50	44.2	88	50	44.5	89	1	67-132/14
98-82-8	Isopropylbenzene	1.0 U		50	43.9	88	50	43.1	86	2	75-129/11
79-20-9	Methyl Acetate	5.0 U		50	49.0	98	50	48.9	98	0	55-131/15

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68932-1MS	4B83400.D	1	07/06/18	HT	n/a	n/a	V4B3470
JC68932-1MSD	4B83401.D	1	07/06/18	HT	n/a	n/a	V4B3470
JC68932-1	4B83393.D	1	07/06/18	HT	n/a	n/a	V4B3470

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-13, JC68966-15, JC68966-18, JC68966-20

CAS No.	Compound	JC68932-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
108-87-2	Methylcyclohexane	5.0 U		50	46.8	94	50	46.1	92	2	57-155/13
1634-04-4	Methyl Tert Butyl Ether	1.0 U		50	42.3	85	50	42.7	85	1	72-123/11
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		200	188	94	200	194	97	3	66-136/13
75-09-2	Methylene chloride	2.0 U		50	45.0	90	50	45.1	90	0	73-125/13
100-42-5	Styrene	1.0 U		50	43.8	88	50	33.7	67* [a]	26* [a]	75-129/11
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		50	46.8	94	50	46.9	94	0	71-122/11
127-18-4	Tetrachloroethene	1.0 U		50	48.9	98	50	48.9	98	0	61-139/11
108-88-3	Toluene	0.30	J	50	44.9	89	50	44.1	88	2	60-135/10
87-61-6	1,2,3-Trichlorobenzene	1.0 U		50	40.3	81	50	41.9	84	4	70-138/13
120-82-1	1,2,4-Trichlorobenzene	1.0 U		50	39.4	79	50	40.6	81	3	72-137/13
71-55-6	1,1,1-Trichloroethane	1.0 U		50	46.1	92	50	45.9	92	0	74-138/12
79-00-5	1,1,2-Trichloroethane	1.0 U		50	47.1	94	50	47.5	95	1	78-121/11
79-01-6	Trichloroethene	6.8		50	54.1	95	50	54.2	95	0	62-141/10
75-69-4	Trichlorofluoromethane	2.0 U		50	50.3	101	50	48.8	98	3	57-149/14
75-01-4	Vinyl chloride	1.0 U		50	44.8	90	50	43.2	86	4	43-146/15
1330-20-7	Xylene (total)	1.0 U		150	136	91	150	132	88	3	56-139/20

CAS No.	Surrogate Recoveries	MS	MSD	JC68932-1	Limits
1868-53-7	Dibromofluoromethane	98%	99%	99%	80-120%
17060-07-0	1,2-Dichloroethane-D4	100%	100%	101%	81-124%
2037-26-5	Toluene-D8	94%	93%	93%	80-120%
460-00-4	4-Bromofluorobenzene	102%	101%	109%	80-120%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-26DUP	1A182815.D	1	07/06/18	JP	n/a	n/a	V1A7793
JC68966-26	1A182806.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	JC68966-26 ug/l	Q	DUP ug/l	Q	RPD	Limits
67-64-1	Acetone	5.1	J	ND		200* [a]	20
71-43-2	Benzene	0.50 U		ND		nc	20
74-97-5	Bromochloromethane	1.0 U		ND		nc	20
75-27-4	Bromodichloromethane	1.0 U		ND		nc	20
75-25-2	Bromoform	1.0 U		ND		nc	20
74-83-9	Bromomethane	2.0 U		ND		nc	20
78-93-3	2-Butanone (MEK)	10 U		ND		nc	20
75-15-0	Carbon disulfide	2.0 U		ND		nc	20
56-23-5	Carbon tetrachloride	1.0 U		ND		nc	20
108-90-7	Chlorobenzene	1.0 U		ND		nc	20
75-00-3	Chloroethane	1.0 U		ND		nc	20
67-66-3	Chloroform	1.0 U		ND		nc	20
74-87-3	Chloromethane	1.0 U		ND		nc	20
110-82-7	Cyclohexane	5.0 U		ND		nc	20
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		ND		nc	20
124-48-1	Dibromochloromethane	1.0 U		ND		nc	20
106-93-4	1,2-Dibromoethane	1.0 U		ND		nc	20
95-50-1	1,2-Dichlorobenzene	1.0 U		ND		nc	20
541-73-1	1,3-Dichlorobenzene	1.0 U		ND		nc	20
106-46-7	1,4-Dichlorobenzene	1.0 U		ND		nc	20
75-71-8	Dichlorodifluoromethane	2.0 U		ND		nc	20
75-34-3	1,1-Dichloroethane	1.0 U		ND		nc	20
107-06-2	1,2-Dichloroethane	1.0 U		ND		nc	20
75-35-4	1,1-Dichloroethene	1.0 U		ND		nc	20
156-59-2	cis-1,2-Dichloroethene	3.3		3.6		9	20
156-60-5	trans-1,2-Dichloroethene	1.0 U		ND		nc	20
78-87-5	1,2-Dichloropropane	1.0 U		ND		nc	20
10061-01-5	cis-1,3-Dichloropropene	1.0 U		ND		nc	20
10061-02-6	trans-1,3-Dichloropropene	1.0 U		ND		nc	20
123-91-1	1,4-Dioxane	130 U		ND		nc	20
100-41-4	Ethylbenzene	1.0 U		ND		nc	20
76-13-1	Freon 113	5.0 U		ND		nc	20
591-78-6	2-Hexanone	5.0 U		ND		nc	20
74-88-4	Iodomethane	2.0 U		ND		nc	20
98-82-8	Isopropylbenzene	1.0 U		ND		nc	20
79-20-9	Methyl Acetate	5.0 U		ND		nc	20

* = Outside of Control Limits.

Duplicate Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
JC68966-26DUP	1A182815.D	1	07/06/18	JP	n/a	n/a	V1A7793
JC68966-26	1A182806.D	1	07/05/18	JP	n/a	n/a	V1A7793

The QC reported here applies to the following samples: **Method:** SW846 8260C

JC68966-8, JC68966-10, JC68966-24, JC68966-25, JC68966-26, JC68966-27, JC68966-28, JC68966-29, JC68966-30

CAS No.	Compound	JC68966-26 ug/l	Q	DUP ug/l	Q	RPD	Limits
108-87-2	Methylcyclohexane	5.0 U		ND		nc	20
1634-04-4	Methyl Tert Butyl Ether	1.0 U		ND		nc	20
108-10-1	4-Methyl-2-pentanone(MIBK)	5.0 U		ND		nc	20
75-09-2	Methylene chloride	2.0 U		ND		nc	20
100-42-5	Styrene	1.0 U		ND		nc	20
79-34-5	1,1,2,2-Tetrachloroethane	1.0 U		ND		nc	20
127-18-4	Tetrachloroethene	1.0 U		ND		nc	20
108-88-3	Toluene	1.0 U		ND		nc	20
87-61-6	1,2,3-Trichlorobenzene	1.0 U		ND		nc	20
120-82-1	1,2,4-Trichlorobenzene	1.0 U		ND		nc	20
71-55-6	1,1,1-Trichloroethane	1.0 U		ND		nc	20
79-00-5	1,1,2-Trichloroethane	1.0 U		ND		nc	20
79-01-6	Trichloroethene	1.0 U		ND		nc	20
75-69-4	Trichlorofluoromethane	2.0 U		ND		nc	20
75-01-4	Vinyl chloride	2.7		2.6		4	20
1330-20-7	Xylene (total)	1.0 U		ND		nc	20

CAS No.	Surrogate Recoveries	DUP	JC68966-26	Limits
1868-53-7	Dibromofluoromethane	103%	102%	80-120%
17060-07-0	1,2-Dichloroethane-D4	93%	89%	81-124%
2037-26-5	Toluene-D8	92%	92%	80-120%
460-00-4	4-Bromofluorobenzene	105%	106%	80-120%

(a) RPD acceptable due to low DUP and sample concentrations.

* = Outside of Control Limits.

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V1A7758-BFB
Lab File ID: 1A182040.D
Instrument ID: GCMS1A
Injection Date: 06/14/18
Injection Time: 17:00

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	11323	16.4		Pass
75	30.0 - 60.0% of mass 95	31618	45.7		Pass
95	Base peak, 100% relative abundance	69120	100.0		Pass
96	5.0 - 9.0% of mass 95	4467	6.46		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	70912	102.6		Pass
175	5.0 - 9.0% of mass 174	5561	8.05	(7.84) [a]	Pass
176	95.0 - 101.0% of mass 174	68893	99.7	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	4614	6.68	(6.70) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A7758-IC7758	1A182041.D	06/14/18	17:24	00:24	Initial cal 0.2
V1A7758-IC7758	1A182042.D	06/14/18	17:49	00:49	Initial cal 0.5
V1A7758-IC7758	1A182043.D	06/14/18	18:14	01:14	Initial cal 1
V1A7758-IC7758	1A182044.D	06/14/18	18:39	01:39	Initial cal 2
V1A7758-IC7758	1A182045.D	06/14/18	19:04	02:04	Initial cal 5
V1A7758-IC7758	1A182046.D	06/14/18	19:28	02:28	Initial cal 10
V1A7758-IC7758	1A182047.D	06/14/18	19:53	02:53	Initial cal 20
V1A7758-ICC7758	1A182048.D	06/14/18	20:18	03:18	Initial cal 50
V1A7758-IC7758	1A182049.D	06/14/18	20:43	03:43	Initial cal 100
V1A7758-IC7758	1A182050.D	06/14/18	21:08	04:08	Initial cal 200
V1A7758-ICV7758	1A182053.D	06/14/18	22:22	05:22	Initial cal verification 50
V1A7758-ICV7758	1A182054.D	06/14/18	22:46	05:46	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V1A7793-BFB
Lab File ID: 1A182800.D
Instrument ID: GCMS1A
Injection Date: 07/05/18
Injection Time: 17:35

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	14.99 - 40.0% of mass 95	16002	16.0		Pass
75	30.0 - 60.0% of mass 95	44581	44.6		Pass
95	Base peak, 100% relative abundance	99941	100.0		Pass
96	5.0 - 9.0% of mass 95	6301	6.30		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	101429	101.5		Pass
175	5.0 - 9.0% of mass 174	8326	8.33	(8.21) [a]	Pass
176	95.0 - 101.0% of mass 174	98584	98.6	(97.2) [a]	Pass
177	5.0 - 9.0% of mass 176	6655	6.66	(6.75) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V1A7793-CC7758	1A182800.D	07/05/18	17:35	00:00	Continuing cal 50
V1A7793-BS	1A182801.D	07/05/18	18:26	00:51	Blank Spike
V1A7793-MB	1A182803.D	07/05/18	19:16	01:41	Method Blank
JC68966-24	1A182804.D	07/05/18	19:42	02:07	MW10-7-2018-06-26
JC68966-25	1A182805.D	07/05/18	20:07	02:32	MW3-3DA-2018-06-26
JC68966-26	1A182806.D	07/05/18	20:32	02:57	PZ3-6D-2018-06-26
JC68966-27	1A182807.D	07/05/18	20:57	03:22	SW03-15-2018-06-26
JC68966-28	1A182808.D	07/05/18	21:22	03:47	SW3-3-2018-06-26
JC68966-29	1A182809.D	07/05/18	21:48	04:13	SW99-10-2018-06-26
JC68966-30	1A182810.D	07/05/18	22:13	04:38	MW7-1D-2018-06-26
JC68966-8	1A182811.D	07/05/18	22:38	05:03	MW5-5D-2018-06-25
JC68966-10	1A182812.D	07/05/18	23:03	05:28	RW5-1-2018-06-25
JC68966-25MS	1A182813.D	07/05/18	23:28	05:53	Matrix Spike
JC68966-26DUP	1A182815.D	07/06/18	00:18	06:43	Duplicate
ZZZZZZ	1A182816.D	07/06/18	00:43	07:08	(unrelated sample)
ZZZZZZ	1A182817.D	07/06/18	01:08	07:33	(unrelated sample)
V1A7793-ECC7758	1A182818.D	07/06/18	01:33	07:58	Ending cal 20

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2C7025-BFB
Lab File ID: 2C158318.D
Instrument ID: GCMS2C
Injection Date: 04/16/18
Injection Time: 16:16

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	14691	17.8		Pass
75	30.0 - 60.0% of mass 95	37965	46.0		Pass
95	Base peak, 100% relative abundance	82565	100.0		Pass
96	5.0 - 9.0% of mass 95	5414	6.56		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	85733	103.8		Pass
175	5.0 - 9.0% of mass 174	6848	8.29	(7.99) [a]	Pass
176	95.0 - 101.0% of mass 174	83202	100.8	(97.0) [a]	Pass
177	5.0 - 9.0% of mass 176	5410	6.55	(6.50) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C7025-IC7025	2C158319.D	04/16/18	16:59	00:43	Initial cal 0.5
V2C7025-IC7025	2C158320.D	04/16/18	17:28	01:12	Initial cal 1
V2C7025-IC7025	2C158321.D	04/16/18	17:57	01:41	Initial cal 2
V2C7025-IC7025	2C158322.D	04/16/18	18:26	02:10	Initial cal 5
V2C7025-IC7025	2C158323.D	04/16/18	18:55	02:39	Initial cal 10
V2C7025-IC7025	2C158324.D	04/16/18	19:24	03:08	Initial cal 20
V2C7025-ICC7025	2C158325.D	04/16/18	19:52	03:36	Initial cal 50
V2C7025-IC7025	2C158326.D	04/16/18	20:21	04:05	Initial cal 100
V2C7025-IC7025	2C158327.D	04/16/18	20:50	04:34	Initial cal 200
V2C7025-ICV7025	2C158330.D	04/16/18	22:16	06:00	Initial cal verification 50
V2C7025-ICV7025	2C158331.D	04/16/18	22:45	06:29	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2C7025-BFB2
Lab File ID: 2C158334.D
Instrument ID: GCMS2C
Injection Date: 04/17/18
Injection Time: 15:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16413	17.8		Pass
75	30.0 - 60.0% of mass 95	41570	45.1		Pass
95	Base peak, 100% relative abundance	92157	100.0		Pass
96	5.0 - 9.0% of mass 95	6076	6.59		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	95880	104.0		Pass
175	5.0 - 9.0% of mass 174	7709	8.37	(8.04) [a]	Pass
176	95.0 - 101.0% of mass 174	93357	101.3	(97.4) [a]	Pass
177	5.0 - 9.0% of mass 176	6373	6.92	(6.83) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C7025-ICV7025	2C158335.D	04/17/18	16:26	00:29	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2C7121-BFB
Lab File ID: 2C160375.D
Instrument ID: GCMS2C
Injection Date: 07/02/18
Injection Time: 18:38

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	16284	17.7		Pass
75	30.0 - 60.0% of mass 95	42789	46.5		Pass
95	Base peak, 100% relative abundance	91992	100.0		Pass
96	5.0 - 9.0% of mass 95	6041	6.57		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	97013	105.5		Pass
175	5.0 - 9.0% of mass 174	7817	8.50	(8.06) [a]	Pass
176	95.0 - 101.0% of mass 174	93067	101.2	(95.9) [a]	Pass
177	5.0 - 9.0% of mass 176	6338	6.89	(6.81) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2C7121-CC7025	2C160375.D	07/02/18	18:38	00:00	Continuing cal 50
V2C7121-BS	2C160377.D	07/02/18	19:44	01:06	Blank Spike
V2C7121-MB	2C160379.D	07/02/18	20:45	02:07	Method Blank
ZZZZZZ	2C160380.D	07/02/18	21:38	03:00	(unrelated sample)
ZZZZZZ	2C160381.D	07/02/18	22:08	03:30	(unrelated sample)
JC68966-10	2C160382.D	07/02/18	22:38	04:00	RW5-1-2018-06-25
JC68966-8	2C160383.D	07/02/18	23:08	04:30	MW5-5D-2018-06-25
JC68966-10MS	2C160384.D	07/02/18	23:38	05:00	Matrix Spike
JC68966-10MSD	2C160385.D	07/03/18	00:08	05:30	Matrix Spike Duplicate
ZZZZZZ	2C160387.D	07/03/18	01:08	06:30	(unrelated sample)
ZZZZZZ	2C160388.D	07/03/18	01:38	07:00	(unrelated sample)
ZZZZZZ	2C160389.D	07/03/18	02:08	07:30	(unrelated sample)
ZZZZZZ	2C160390.D	07/03/18	02:38	08:00	(unrelated sample)
ZZZZZZ	2C160391.D	07/03/18	03:08	08:30	(unrelated sample)
ZZZZZZ	2C160392.D	07/03/18	03:38	09:00	(unrelated sample)
ZZZZZZ	2C160393.D	07/03/18	04:08	09:30	(unrelated sample)
ZZZZZZ	2C160394.D	07/03/18	04:37	09:59	(unrelated sample)
JC68966-12	2C160395.D	07/03/18	05:08	10:30	RW5-4-2018-06-25
JC68966-14	2C160397.D	07/03/18	06:13	11:35	MW13-5D-2018-06-25
V2C7121-ECC7025	2C160399.D	07/03/18	07:25	12:47	Ending cal 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2D7390-BFB
Lab File ID: 2D175264.D
Instrument ID: GCMS2D
Injection Date: 05/03/18
Injection Time: 15:39

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	17674	16.8		Pass
75	30.0 - 60.0% of mass 95	48434	46.1		Pass
95	Base peak, 100% relative abundance	105000	100.0		Pass
96	5.0 - 9.0% of mass 95	6978	6.65		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	102509	97.6		Pass
175	5.0 - 9.0% of mass 174	7907	7.53	(7.71) [a]	Pass
176	95.0 - 101.0% of mass 174	99776	95.0	(97.3) [a]	Pass
177	5.0 - 9.0% of mass 176	6501	6.19	(6.52) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7390-IC7390	2D175265.D	05/03/18	16:10	00:31	Initial cal 1
V2D7390-IC7390	2D175266.D	05/03/18	16:41	01:02	Initial cal 0.5
V2D7390-IC7390	2D175267.D	05/03/18	17:12	01:33	Initial cal 2
V2D7390-IC7390	2D175268.D	05/03/18	17:43	02:04	Initial cal 5
V2D7390-IC7390	2D175269.D	05/03/18	18:14	02:35	Initial cal 10
V2D7390-IC7390	2D175270.D	05/03/18	18:45	03:06	Initial cal 20
V2D7390-ICC7390	2D175271.D	05/03/18	19:16	03:37	Initial cal 50
V2D7390-IC7390	2D175272.D	05/03/18	19:46	04:07	Initial cal 100
V2D7390-IC7390	2D175273.D	05/03/18	20:17	04:38	Initial cal 200
V2D7390-ICV7390	2D175276.D	05/03/18	21:50	06:11	Initial cal verification 50
V2D7390-ICV7390	2D175277.D	05/03/18	22:21	06:42	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2D7472-BFB
Lab File ID: 2D176937.D
Instrument ID: GCMS2D
Injection Date: 07/01/18
Injection Time: 09:04

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18851	15.6		Pass
75	30.0 - 60.0% of mass 95	53205	44.0		Pass
95	Base peak, 100% relative abundance	120811	100.0		Pass
96	5.0 - 9.0% of mass 95	8271	6.85		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 120.0% of mass 95	119651	99.0		Pass
175	5.0 - 9.0% of mass 174	8817	7.30	(7.37) [a]	Pass
176	95.0 - 101.0% of mass 174	115693	95.8	(96.7) [a]	Pass
177	5.0 - 9.0% of mass 176	7674	6.35	(6.63) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7472-CC7390	2D176937.D	07/01/18	09:04	00:00	Continuing cal 20
V2D7472-BS	2D176938.D	07/01/18	10:11	01:07	Blank Spike
V2D7472-MB	2D176940.D	07/01/18	11:14	02:10	Method Blank
JC68966-1	2D176945.D	07/01/18	14:25	05:21	MW8-11D-2018-06-25
JC68966-2	2D176946.D	07/01/18	14:57	05:53	CH8-01-2018-06-25
JC68966-3	2D176947.D	07/01/18	15:31	06:27	MW8-1-2018-06-25
JC68966-5	2D176948.D	07/01/18	16:03	06:59	MW8-8-2018-06-25
JC68966-7	2D176949.D	07/01/18	16:37	07:33	MW5-1DA-2018-06-25
JC68966-4	2D176950.D	07/01/18	17:10	08:06	MW8-10D-2018-06-25
JC68966-9	2D176951.D	07/01/18	17:54	08:50	MW5-6-2018-06-25
JC68966-11	2D176952.D	07/01/18	18:26	09:22	RW5-2-2018-06-25
JC68966-2MS	2D176953.D	07/01/18	18:57	09:53	Matrix Spike
JC68966-2MSD	2D176954.D	07/01/18	19:29	10:25	Matrix Spike Duplicate
JC68966-6	2D176956.D	07/01/18	20:31	11:27	TRIP BLANK 01
V2D7472-ECC7390	2D176960.D	07/01/18	21:02	11:58	Ending cal 20

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2D7474-BFB
Lab File ID: 2D176982.D
Instrument ID: GCMS2D
Injection Date: 07/02/18
Injection Time: 18:53

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	18659	15.8		Pass
75	30.0 - 60.0% of mass 95	51816	43.7		Pass
95	Base peak, 100% relative abundance	118451	100.0		Pass
96	5.0 - 9.0% of mass 95	7896	6.67		Pass
173	Less than 2.0% of mass 174	308	0.26	(0.27) [a]	Pass
174	50.0 - 120.0% of mass 95	113104	95.5		Pass
175	5.0 - 9.0% of mass 174	8680	7.33	(7.67) [a]	Pass
176	95.0 - 101.0% of mass 174	110315	93.1	(97.5) [a]	Pass
177	5.0 - 9.0% of mass 176	7256	6.13	(6.58) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2D7474-CC7390	2D176982.D	07/02/18	18:53	00:00	Continuing cal 50
V2D7474-BS	2D176983.D	07/02/18	19:31	00:38	Blank Spike
V2D7474-MB	2D176985.D	07/02/18	20:34	01:41	Method Blank
JC68966-41	2D176986.D	07/02/18	21:05	02:12	SW3-2-2018-06-26
JC68966-34	2D176987.D	07/02/18	21:36	02:43	MW10-10D-2018-06-26
JC68966-41MS	2D176988.D	07/02/18	22:07	03:14	Matrix Spike
JC68966-41MSD	2D176989.D	07/02/18	22:37	03:44	Matrix Spike Duplicate
JC68966-32	2D176991.D	07/02/18	23:39	04:46	MW3-4DA-2018-06-26
JC68966-33	2D176992.D	07/03/18	00:09	05:16	MW3-FD-2018-06-26
JC68966-35	2D176993.D	07/03/18	00:40	05:47	PW10-1-2018-06-26
JC68966-36	2D176994.D	07/03/18	01:10	06:17	MW10-2-2018-06-26
JC68966-37	2D176995.D	07/03/18	01:40	06:47	PW10-2-2018-06-26
JC68966-38	2D176996.D	07/03/18	02:11	07:18	PZ10-7-2018-06-26
JC68966-39	2D176997.D	07/03/18	02:41	07:48	SW10-08-2018-06-26
JC68966-40	2D176998.D	07/03/18	03:11	08:18	SW10-07-2018-06-26
JC68966-42	2D176999.D	07/03/18	03:41	08:48	PZ3-7D-2018-06-26
JC68966-43	2D177000.D	07/03/18	04:11	09:18	PZ3-8D-2018-06-26
JC68966-44	2D177001.D	07/03/18	04:41	09:48	SW10-FD-2018-06-26
JC68966-45	2D177002.D	07/03/18	05:13	10:20	PDB-BLANK-2018-06-26
JC68966-46	2D177003.D	07/03/18	05:46	10:53	MW5-PT-2018-06-26
JC68966-47	2D177004.D	07/03/18	06:21	11:28	TB-02
V2D7474-ECC7390	2D177005.D	07/03/18	06:58	12:05	Ending cal 20

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2E6300-BFB
Lab File ID: 2E143849.D
Instrument ID: GCMS2E
Injection Date: 06/14/18
Injection Time: 16:33

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	19125	16.6		Pass
75	30.0 - 60.0% of mass 95	52168	45.3		Pass
95	Base peak, 100% relative abundance	115269	100.0		Pass
96	5.0 - 9.0% of mass 95	7412	6.43		Pass
173	Less than 2.0% of mass 174	254	0.22	(0.26) [a]	Pass
174	50.0 - 120.0% of mass 95	97888	84.9		Pass
175	5.0 - 9.0% of mass 174	7236	6.28	(7.39) [a]	Pass
176	95.0 - 101.0% of mass 174	95581	82.9	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	6104	5.30	(6.39) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2E6300-IC6300	2E143850.D	06/14/18	17:03	00:30	Initial cal 0.2
V2E6300-IC6300	2E143851.D	06/14/18	17:32	00:59	Initial cal 0.5
V2E6300-IC6300	2E143852.D	06/14/18	18:00	01:27	Initial cal 1
V2E6300-IC6300	2E143853.D	06/14/18	18:29	01:56	Initial cal 2
V2E6300-IC6300	2E143854.D	06/14/18	18:57	02:24	Initial cal 5
V2E6300-IC6300	2E143855.D	06/14/18	19:26	02:53	Initial cal 10
V2E6300-IC6300	2E143856.D	06/14/18	19:55	03:22	Initial cal 20
V2E6300-ICC6300	2E143857.D	06/14/18	20:24	03:51	Initial cal 50
V2E6300-IC6300	2E143858.D	06/14/18	20:52	04:19	Initial cal 100
V2E6300-IC6300	2E143859.D	06/14/18	21:20	04:47	Initial cal 200
V2E6300-ICV6300	2E143862.D	06/14/18	22:46	06:13	Initial cal verification 50
V2E6300-ICV6300	2E143863.D	06/14/18	23:14	06:41	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V2E6328-BFB
Lab File ID: 2E144436.D
Instrument ID: GCMS2E
Injection Date: 07/01/18
Injection Time: 11:31

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	20040	19.2		Pass
75	30.0 - 60.0% of mass 95	51487	49.2		Pass
95	Base peak, 100% relative abundance	104552	100.0		Pass
96	5.0 - 9.0% of mass 95	6946	6.64		Pass
173	Less than 2.0% of mass 174	343	0.33	(0.36) [a]	Pass
174	50.0 - 120.0% of mass 95	95320	91.2		Pass
175	5.0 - 9.0% of mass 174	7101	6.79	(7.45) [a]	Pass
176	95.0 - 101.0% of mass 174	91707	87.7	(96.2) [a]	Pass
177	5.0 - 9.0% of mass 176	5927	5.67	(6.46) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V2E6328-CC6300	2E144436.D	07/01/18	11:31	00:00	Continuing cal 20
V2E6328-BS	2E144438.D	07/01/18	15:01	03:30	Blank Spike
V2E6328-MB	2E144440.D	07/01/18	15:59	04:28	Method Blank
JC68966-31	2E144441.D	07/01/18	17:01	05:30	PW3-3A-2018-06-26
JC68966-16	2E144442.D	07/01/18	17:30	05:59	PW13-4D-2018-06-25
JC68966-17	2E144443.D	07/01/18	17:59	06:28	PW13-3D-2018-06-25
JC68966-19	2E144445.D	07/01/18	18:57	07:26	MW13-4-2018-06-25
JC68966-31MS	2E144447.D	07/01/18	20:25	08:54	Matrix Spike
JC68966-31MSD	2E144448.D	07/01/18	20:54	09:23	Matrix Spike Duplicate
JC68966-21	2E144450.D	07/01/18	21:52	10:21	MW13-FD-2018-06-25
JC68966-22	2E144451.D	07/01/18	22:20	10:49	MW10-10D-2018-06-26
JC68966-23	2E144452.D	07/01/18	22:49	11:18	MW10-3-2018-06-26
V2E6328-ECC6300	2E144454.D	07/01/18	23:17	11:46	Ending cal 20

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V4B3432-BFB
Lab File ID: 4B82568.D
Instrument ID: GCMS4B
Injection Date: 06/07/18
Injection Time: 19:12

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	15775	19.6		Pass
75	30.0 - 60.0% of mass 95	38290	47.7		Pass
95	Base peak, 100% relative abundance	80320	100.0		Pass
96	5.0 - 9.0% of mass 95	5356	6.67		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	72850	90.7		Pass
175	5.0 - 9.0% of mass 174	5932	7.39	(8.14) [a]	Pass
176	95.0 - 101.0% of mass 174	71112	88.5	(97.6) [a]	Pass
177	5.0 - 9.0% of mass 176	4942	6.15	(6.95) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B3432-IC3432	4B82569.D	06/07/18	19:59	00:47	Initial cal 0.5
V4B3432-IC3432	4B82570.D	06/07/18	20:27	01:15	Initial cal 1
V4B3432-IC3432	4B82571.D	06/07/18	20:55	01:43	Initial cal 2
V4B3432-IC3432	4B82572.D	06/07/18	21:23	02:11	Initial cal 5
V4B3432-IC3432	4B82573.D	06/07/18	21:51	02:39	Initial cal 10
V4B3432-IC3432	4B82574.D	06/07/18	22:19	03:07	Initial cal 20
V4B3432-ICC3432	4B82575.D	06/07/18	22:47	03:35	Initial cal 50
V4B3432-IC3432	4B82576.D	06/07/18	23:15	04:03	Initial cal 100
V4B3432-IC3432	4B82577.D	06/07/18	23:43	04:31	Initial cal 200
V4B3432-ICV3432	4B82580.D	06/08/18	01:07	05:55	Initial cal verification 50
V4B3432-ICV3432	4B82581.D	06/08/18	01:36	06:24	Initial cal verification 50

Instrument Performance Check (BFB)

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Sample: V4B3470-BFB
Lab File ID: 4B83385.D
Instrument ID: GCMS4B
Injection Date: 07/06/18
Injection Time: 07:57

m/e	Ion Abundance Criteria	Raw Abundance	% Relative Abundance		Pass/Fail
50	15.0 - 40.0% of mass 95	13678	18.8		Pass
75	30.0 - 60.0% of mass 95	33762	46.4		Pass
95	Base peak, 100% relative abundance	72728	100.0		Pass
96	5.0 - 9.0% of mass 95	4946	6.80		Pass
173	Less than 2.0% of mass 174	0	0.00	(0.00) [a]	Pass
174	50.0 - 150.0% of mass 95	71309	98.0		Pass
175	5.0 - 9.0% of mass 174	5740	7.89	(8.05) [a]	Pass
176	95.0 - 101.0% of mass 174	70336	96.7	(98.6) [a]	Pass
177	5.0 - 9.0% of mass 176	4612	6.34	(6.56) [b]	Pass

(a) Value is % of mass 174
(b) Value is % of mass 176

This check applies to the following Samples, MS, MSD, Blanks, and Standards:

Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed	Hours Lapsed	Client Sample ID
V4B3470-CC3432	4B83385.D	07/06/18	07:57	00:00	Continuing cal 20
V4B3470-BS	4B83386.D	07/06/18	09:00	01:03	Blank Spike
V4B3470-MB	4B83388.D	07/06/18	09:57	02:00	Method Blank
ZZZZZZ	4B83389.D	07/06/18	10:43	02:46	(unrelated sample)
JC68966-20	4B83390.D	07/06/18	11:11	03:14	MW13-3-2018-06-25
JC68966-18	4B83391.D	07/06/18	11:39	03:42	MW13-5A-2018-06-25
JC68932-1	4B83393.D	07/06/18	12:36	04:39	(used for QC only; not part of job JC68966)
ZZZZZZ	4B83394.D	07/06/18	13:05	05:08	(unrelated sample)
ZZZZZZ	4B83395.D	07/06/18	13:33	05:36	(unrelated sample)
ZZZZZZ	4B83396.D	07/06/18	14:01	06:04	(unrelated sample)
ZZZZZZ	4B83397.D	07/06/18	14:29	06:32	(unrelated sample)
JC68966-13	4B83398.D	07/06/18	14:58	07:01	MW13-4D-2018-06-25
JC68966-15	4B83399.D	07/06/18	15:26	07:29	PW13-1-2018-06-25
JC68932-1MS	4B83400.D	07/06/18	15:55	07:58	Matrix Spike
JC68932-1MSD	4B83401.D	07/06/18	16:23	08:26	Matrix Spike Duplicate
ZZZZZZ	4B83403.D	07/06/18	17:19	09:22	(unrelated sample)
ZZZZZZ	4B83404.D	07/06/18	17:48	09:51	(unrelated sample)
ZZZZZZ	4B83405.D	07/06/18	18:16	10:19	(unrelated sample)
ZZZZZZ	4B83406.D	07/06/18	18:44	10:47	(unrelated sample)
V4B3470-ECC3432	4B83407.D	07/06/18	19:12	11:15	Ending cal 20

Internal Standard Area Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Check Std:	V1A7793-CC7758	**Injection Date:**	07/05/18
Lab File ID:	1A182800.D	**Injection Time:**	17:35
Instrument ID:	GCMS1A	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	248537	3.24	282251	4.47	380712	5.05	400038	7.47	211744	9.68
Upper Limit [a]	497074	3.74	564502	4.97	761424	5.55	800076	7.97	423488	10.18
Lower Limit [b]	124269	2.74	141126	3.97	190356	4.55	200019	6.97	105872	9.18

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V1A7793-BS	237600	3.24	278280	4.47	388425	5.05	390821	7.47	207097	9.68
V1A7793-MB	254769	3.24	288701	4.47	397447	5.05	396550	7.47	214571	9.68
JC68966-24	245240	3.24	287057	4.47	385718	5.05	388321	7.47	205938	9.69
JC68966-25	246538	3.24	291935	4.47	392079	5.05	396187	7.47	210064	9.68
JC68966-26	246488	3.24	288388	4.47	389915	5.05	390076	7.47	207754	9.68
JC68966-27	257357	3.24	298672	4.47	396484	5.05	401954	7.47	220872	9.68
JC68966-28	259108	3.24	294200	4.47	397040	5.05	395747	7.47	212652	9.68
JC68966-29	257655	3.24	293968	4.47	393884	5.05	401495	7.47	222380	9.68
JC68966-30	260615	3.24	299056	4.47	407133	5.05	415523	7.47	224317	9.68
JC68966-8	250828	3.24	299160	4.47	406981	5.05	414647	7.47	223684	9.68
JC68966-10	246763	3.23	296448	4.47	404553	5.05	412076	7.47	224482	9.68
JC68966-25MS	249644	3.24	297263	4.47	394265	5.05	405245	7.47	216242	9.68
JC68966-26DUP	249206	3.24	305880	4.47	408923	5.05	412810	7.47	223570	9.68
ZZZZZZ	261662	3.23	301980	4.47	410395	5.05	411669	7.47	222078	9.68
ZZZZZZ	253292	3.23	304130	4.47	409510	5.05	415585	7.47	228442	9.68
V1A7793-ECC7758	245312	3.24	296080	4.47	404433	5.05	403803	7.47	216777	9.68

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Check Std:	V2C7121-CC7025	**Injection Date:**	07/02/18
Lab File ID:	2C160375.D	**Injection Time:**	18:38
Instrument ID:	GCMS2C	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	273545	8.31	281397	10.78	355645	11.71	296902	14.69	177662	16.86
Upper Limit [a]	547090	8.81	562794	11.28	711290	12.21	593804	15.19	355324	17.36
Lower Limit [b]	136773	7.81	140699	10.28	177823	11.21	148451	14.19	88831	16.36

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2C7121-BS	250967	8.31	281875	10.78	358320	11.71	296162	14.69	177947	16.86
V2C7121-MB	268247	8.31	282792	10.78	351523	11.72	303004	14.69	172134	16.86
ZZZZZZ	279701	8.30	259893	10.78	323760	11.71	277424	14.69	154978	16.86
ZZZZZZ	250257	8.31	265544	10.78	330437	11.71	285867	14.69	163177	16.86
JC68966-10	253209	8.30	255071	10.78	316112	11.71	276610	14.69	156956	16.86
JC68966-8	236209	8.31	253638	10.77	315821	11.71	272304	14.69	157840	16.86
JC68966-10MS	259061	8.30	247883	10.78	311337	11.71	262815	14.69	161482	16.86
JC68966-10MSD	224144	8.31	260431	10.78	328261	11.72	279274	14.69	168357	16.86
ZZZZZZ	254876	8.30	261915	10.78	328782	11.71	284591	14.69	163015	16.86
ZZZZZZ	251354	8.31	254228	10.78	314459	11.71	280009	14.69	158602	16.86
ZZZZZZ	228982	8.31	251628	10.78	315790	11.71	280761	14.69	158847	16.86
ZZZZZZ	226548	8.30	245101	10.78	301046	11.71	255503	14.69	149226	16.86
ZZZZZZ	224457	8.31	240063	10.78	299424	11.71	253109	14.69	144587	16.86
ZZZZZZ	222852	8.31	232486	10.78	292363	11.72	253232	14.69	143777	16.86
ZZZZZZ	201951	8.30	228647	10.78	281558	11.71	243852	14.69	139645	16.86
ZZZZZZ	222629	8.30	222619	10.77	275879	11.71	227922	14.69	136312	16.86
JC68966-12	230660	8.30	232645	10.78	292530	11.71	252594	14.69	145994	16.86
JC68966-14	226394	8.31	247910	10.78	309273	11.72	262219	14.69	141112	16.86
V2C7121-ECC7025	219422	8.31	260751	10.77	331720	11.71	275714	14.69	161762	16.86

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Check Std:	V2D7472-CC7390	**Injection Date:**	07/01/18
Lab File ID:	2D176937.D	**Injection Time:**	09:04
Instrument ID:	GCMS2D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	106260	7.38	343995	10.08	471890	11.23	459606	15.45	252868	18.25
Upper Limit [a]	212520	7.88	687990	10.58	943780	11.73	919212	15.95	505736	18.75
Lower Limit [b]	53130	6.88	171998	9.58	235945	10.73	229803	14.95	126434	17.75

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7472-BS	106182	7.39	349056	10.09	474904	11.23	464830	15.45	255140	18.25
V2D7472-MB	106899	7.39	351675	10.08	486293	11.23	461480	15.45	235789	18.25
JC68966-1	119801	7.40	343113	10.09	475127	11.24	456510	15.45	233894	18.25
JC68966-2	119732	7.40	343790	10.09	474687	11.24	451355	15.45	233591	18.25
JC68966-3	123956	7.40	338326	10.09	466797	11.24	451404	15.45	233796	18.25
JC68966-5	131488	7.40	338212	10.09	469081	11.24	449954	15.45	232305	18.25
JC68966-7	132355	7.39	344479	10.09	479384	11.24	457331	15.45	235842	18.25
JC68966-4	141735	7.39	341043	10.09	475304	11.24	455695	15.45	233029	18.25
JC68966-9	127995	7.39	342901	10.09	478552	11.23	456989	15.45	232702	18.25
JC68966-11	130692	7.40	349524	10.09	487613	11.24	468213	15.45	238046	18.25
JC68966-2MS	124740	7.40	329081	10.09	455464	11.24	440155	15.45	239398	18.25
JC68966-2MSD	126465	7.40	333487	10.09	465247	11.24	451250	15.45	247364	18.25
JC68966-6	120795	7.39	323046	10.09	454895	11.24	431476	15.45	216940	18.25
V2D7472-ECC7390	119588	7.39	337460	10.09	469143	11.24	448825	15.45	246728	18.25

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Check Std:	V2D7474-CC7390	**Injection Date:**	07/02/18
Lab File ID:	2D176982.D	**Injection Time:**	18:53
Instrument ID:	GCMS2D	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	121043	7.40	343770	10.09	480894	11.24	459974	15.45	247352	18.25
Upper Limit [a]	242086	7.90	687540	10.59	961788	11.74	919948	15.95	494704	18.75
Lower Limit [b]	60522	6.90	171885	9.59	240447	10.74	229987	14.95	123676	17.75

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2D7474-BS	114796	7.39	322333	10.08	448932	11.23	434204	15.45	236396	18.25
V2D7474-MB	132168	7.39	347624	10.08	481409	11.23	459959	15.45	228061	18.25
JC68966-41	130372	7.38	344995	10.08	480662	11.23	451122	15.45	220399	18.25
JC68966-34	125643	7.38	337362	10.08	472774	11.23	447296	15.45	232695	18.25
JC68966-41MS	118965	7.39	315806	10.08	436649	11.23	424666	15.45	231131	18.25
JC68966-41MSD	118004	7.39	324915	10.08	446427	11.23	431214	15.45	235068	18.25
JC68966-32	118322	7.38	339489	10.08	469666	11.23	450341	15.45	224946	18.25
JC68966-33	120886	7.39	355554	10.08	489949	11.23	462657	15.45	228134	18.25
JC68966-35	116229	7.39	333612	10.08	463046	11.23	437722	15.45	217806	18.25
JC68966-36	116458	7.38	342043	10.08	477232	11.23	452911	15.45	228271	18.25
JC68966-37	114748	7.38	322415	10.08	450712	11.23	429099	15.45	214673	18.25
JC68966-38	115529	7.38	332038	10.08	458200	11.23	442130	15.45	217711	18.25
JC68966-39	109805	7.38	324994	10.08	454986	11.23	428239	15.45	209493	18.25
JC68966-40	110028	7.38	332233	10.08	465294	11.23	444617	15.45	215095	18.25
JC68966-42	106572	7.38	322828	10.08	448351	11.23	428693	15.45	210332	18.25
JC68966-43	106189	7.37	326735	10.08	454642	11.23	434908	15.45	209291	18.25
JC68966-44	105101	7.37	319808	10.08	446565	11.23	426865	15.45	204960	18.25
JC68966-45	107713	7.39	320868	10.08	455766	11.23	429756	15.45	209229	18.25
JC68966-46	131592	7.39	325900	10.08	460968	11.23	429025	15.45	213703	18.24
JC68966-47	144176	7.39	327335	10.08	460053	11.23	428807	15.45	215964	18.24
V2D7474-ECC7390	159052	7.39	320016	10.07	446297	11.22	420932	15.44	235668	18.24

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Check Std:	V2E6328-CC6300	**Injection Date:**	07/01/18
Lab File ID:	2E144436.D	**Injection Time:**	11:31
Instrument ID:	GCMS2E	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	124094	7.39	275724	9.62	385371	10.53	356691	13.67	201903	15.97
Upper Limit [a]	248188	7.89	551448	10.12	770742	11.03	713382	14.17	403806	16.47
Lower Limit [b]	62047	6.89	137862	9.12	192686	10.03	178346	13.17	100952	15.47

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V2E6328-BS	127396	7.39	292892	9.62	409759	10.53	384421	13.67	216270	15.97
V2E6328-MB	132524	7.40	273182	9.62	386041	10.54	347209	13.67	186179	15.97
JC68966-31	123451	7.39	277905	9.62	390187	10.53	349229	13.67	187678	15.97
JC68966-16	124554	7.40	268039	9.62	381934	10.54	349646	13.67	186494	15.97
JC68966-17	129363	7.39	277241	9.62	389957	10.54	360866	13.68	192051	15.97
JC68966-19	106665	7.37	284885	9.62	398577	10.53	355397	13.67	171327	15.97
JC68966-31MS	127045	7.39	272575	9.62	387461	10.53	355363	13.67	204500	15.97
JC68966-31MSD	129992	7.40	270380	9.62	381787	10.53	356077	13.67	203663	15.97
JC68966-21	133490	7.39	267525	9.62	379329	10.53	345569	13.67	183703	15.97
JC68966-22	138515	7.38	272935	9.62	388201	10.53	355949	13.67	189905	15.97
JC68966-23	143465	7.39	281061	9.62	399786	10.54	367016	13.67	195154	15.97
V2E6328-ECC6300	140909	7.39	275915	9.62	392897	10.53	356552	13.67	200307	15.97

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Internal Standard Area Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Check Std:	V4B3470-CC3432	**Injection Date:**	07/06/18
Lab File ID:	4B83385.D	**Injection Time:**	07:57
Instrument ID:	GCMS4B	**Method:**	SW846 8260C

	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
Check Std	104703	6.77	207015	8.78	283123	9.65	269416	12.83	159337	15.40
Upper Limit [a]	209406	7.27	414030	9.28	566246	10.15	538832	13.33	318674	15.90
Lower Limit [b]	52352	6.27	103508	8.28	141562	9.15	134708	12.33	79669	14.90

Lab Sample ID	IS 1 AREA	RT	IS 2 AREA	RT	IS 3 AREA	RT	IS 4 AREA	RT	IS 5 AREA	RT
V4B3470-BS	95238	6.77	201391	8.78	272248	9.65	257471	12.83	153137	15.40
V4B3470-MB	101546	6.77	201133	8.77	276636	9.65	264239	12.83	153278	15.40
ZZZZZZ	86497	6.79	183730	8.78	249586	9.65	241054	12.83	139711	15.40
JC68966-20	91796	6.77	184934	8.78	258539	9.65	250503	12.83	141615	15.40
JC68966-18	92130	6.78	184390	8.78	255923	9.65	246364	12.83	144203	15.40
JC68932-1	94238	6.78	183031	8.77	254211	9.65	246158	12.83	141370	15.40
ZZZZZZ	95875	6.77	184261	8.78	258915	9.65	250696	12.83	142595	15.40
ZZZZZZ	95507	6.79	177579	8.78	250787	9.65	239356	12.83	135359	15.40
ZZZZZZ	97016	6.78	171270	8.77	241688	9.65	237444	12.83	137217	15.40
ZZZZZZ	99500	6.78	173650	8.78	246148	9.65	242270	12.83	138804	15.40
JC68966-13	86329	6.78	161257	8.77	227851	9.65	224254	12.83	130313	15.40
JC68966-15	95305	6.79	169134	8.78	238742	9.65	233972	12.83	132726	15.40
JC68932-1MS	87527	6.78	178515	8.78	249672	9.65	236405	12.83	143242	15.40
JC68932-1MSD	93291	6.78	178759	8.78	248551	9.65	238661	12.83	145860	15.40
ZZZZZZ	110553	6.78	174382	8.77	247802	9.65	240135	12.83	139210	15.40
ZZZZZZ	97481	6.78	172719	8.78	247091	9.65	239727	12.83	137130	15.40
ZZZZZZ	97479	6.77	168508	8.77	239660	9.65	232093	12.83	135038	15.40
ZZZZZZ	92276	6.78	164861	8.77	235198	9.65	229083	12.83	133093	15.40
V4B3470-ECC3432	95588	6.77	167892	8.78	240600	9.65	234336	12.83	140664	15.40

IS 1 = Tert Butyl Alcohol-D9
IS 2 = Pentafluorobenzene
IS 3 = 1,4-Difluorobenzene
IS 4 = Chlorobenzene-D5
IS 5 = 1,4-Dichlorobenzene-d4

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Surrogate Recovery Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC68966-1	2D176945.D	102	88	104	108
JC68966-2	2D176946.D	102	89	104	109
JC68966-3	2D176947.D	103	89	103	108
JC68966-4	2D176950.D	104	92	104	109
JC68966-5	2D176948.D	103	91	103	109
JC68966-6	2D176956.D	102	89	104	111
JC68966-7	2D176949.D	103	91	104	108
JC68966-8	1A182811.D	103	94	91	107
JC68966-8	2C160383.D	103	112	96	110
JC68966-9	2D176951.D	102	90	104	108
JC68966-10	1A182812.D	104	94	91	105
JC68966-10	2C160382.D	103	113	97	110
JC68966-11	2D176952.D	103	91	103	109
JC68966-12	2C160395.D	106	117	96	109
JC68966-13	4B83398.D	102	102	92	108
JC68966-14	2C160397.D	106	118	97	113
JC68966-15	4B83399.D	101	103	92	111
JC68966-16	2E144442.D	103	118	99	104
JC68966-17	2E144443.D	101	118	99	102
JC68966-18	4B83391.D	99	100	93	106
JC68966-19	2E144445.D	99	117	101	112
JC68966-20	4B83390.D	99	98	92	109
JC68966-21	2E144450.D	103	117	99	102
JC68966-22	2E144451.D	101	116	99	105
JC68966-23	2E144452.D	101	116	98	104
JC68966-24	1A182804.D	102	90	92	107
JC68966-25	1A182805.D	102	89	92	107
JC68966-26	1A182806.D	102	89	92	106
JC68966-27	1A182807.D	101	95	92	104
JC68966-28	1A182808.D	101	90	92	106
JC68966-29	1A182809.D	103	95	91	104
JC68966-30	1A182810.D	103	94	90	105
JC68966-31	2E144441.D	102	118	99	102
JC68966-32	2D176991.D	102	89	104	110
JC68966-33	2D176992.D	101	88	104	111
JC68966-34	2D176987.D	103	89	105	108
JC68966-35	2D176993.D	102	90	105	111
JC68966-36	2D176994.D	103	90	103	110
JC68966-37	2D176995.D	104	91	104	110
JC68966-38	2D176996.D	104	91	104	112

Surrogate Recovery Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4
JC68966-39	2D176997.D	103	90	105	112
JC68966-40	2D176998.D	104	89	105	112
JC68966-41	2D176986.D	102	89	104	112
JC68966-42	2D176999.D	105	90	104	112
JC68966-43	2D177000.D	104	91	104	112
JC68966-44	2D177001.D	105	91	104	112
JC68966-45	2D177002.D	107	91	104	111
JC68966-46	2D177003.D	105	93	105	110
JC68966-47	2D177004.D	105	94	105	110
JC68932-1MS	4B83400.D	98	100	94	102
JC68932-1MSD	4B83401.D	99	100	93	101
JC68966-10MS	2C160384.D	102	104	98	106
JC68966-10MSD	2C160385.D	101	103	100	108
JC68966-25MS	1A182813.D	101	93	89	106
JC68966-26DUP	1A182815.D	103	93	92	105
JC68966-2MS	2D176953.D	102	90	103	103
JC68966-2MSD	2D176954.D	103	89	103	104
JC68966-31MS	2E144447.D	104	120	99	100
JC68966-31MSD	2E144448.D	101	119	98	100
JC68966-41MS	2D176988.D	102	89	102	103
JC68966-41MSD	2D176989.D	100	89	104	104
V1A7793-BS	1A182801.D	104	89	90	107
V1A7793-MB	1A182803.D	104	90	92	106
V2C7121-BS	2C160377.D	101	99	100	107
V2C7121-MB	2C160379.D	102	110	97	113
V2D7472-BS	2D176938.D	100	87	101	103
V2D7472-MB	2D176940.D	99	86	103	108
V2D7474-BS	2D176983.D	102	87	102	103
V2D7474-MB	2D176985.D	102	89	103	110
V2E6328-BS	2E144438.D	100	118	98	101
V2E6328-MB	2E144440.D	102	117	100	102
V4B3470-BS	4B83386.D	95	93	93	100
V4B3470-MB	4B83388.D	97	98	92	107

Surrogate Compounds	Recovery Limits
S1 = Dibromofluoromethane	80-120%
S2 = 1,2-Dichloroethane-D4	81-124%
S3 = Toluene-D8	80-120%

Surrogate Recovery Summary

Job Number: JC68966
Account: EAENYES EA Engineering
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Method: SW846 8260C **Matrix:** AQ

Samples and QC shown here apply to the above method

Surrogate Compounds	Recovery Limits
S4 = 4-Bromofluorobenzene	80-120%

Initial Calibration Summary

Job Number: JC68966 **Sample:** V1A7758-ICC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182048.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Response Factor Report MS1A

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
Last Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration

Calibration Files
1 =1a182043.D 0.5 =1a182042.D 100 =1a182049.D 50 =1a182048.D
20 =1a182047.D 200 =1a182050.D 5 =1a182045.D 2 =1a182044.D
10 =1a182046.D 0.2 =1a182041.D = =

Compound	1	0.5	100	50	20	200	5	2	10	0.2	Avg	%RSD
1) tert butyl alcohol-d9	----------ISTD----------											
2) tertiary butyl alcohol	1.300	1.417	1.345	1.306	1.287	1.315	1.408	1.395	1.307		1.342	3.79
3) ethanol	0.129		0.093	0.100	0.106	0.069	0.122	0.129	0.114		0.108	19.13
4) 1,4-dioxane	0.094	0.102	0.112	0.109	0.113	0.113	0.125	0.117	0.117		0.112	7.98
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.300	0.304	0.304	0.305	0.306	0.301	0.299	0.318	0.305		0.305	1.80
7) dichlorodifluoromethane	0.442	0.517	0.443	0.444	0.433	0.449	0.378	0.406	0.444	0.486	0.444	8.60
8) freon 142b	0.387	0.493	0.411	0.412	0.408	0.417	0.398	0.390	0.418	0.489	0.422	8.93
9) chloromethane	0.381	0.461	0.376	0.378	0.379	0.389	0.394	0.385	0.383		0.392	6.78
10) vinyl chloride	0.346	0.447	0.405	0.392	0.402	0.404	0.391	0.336	0.402	0.395	0.392	7.97
11) 1,3-butadiene	0.365	0.419	0.324	0.331	0.323	0.317	0.361	0.356	0.347		0.349	8.98
12) bromomethane			0.174	0.178	0.185	0.164	0.192	0.214	0.203		0.187	9.30
13) chloroethane	0.243		0.211	0.221	0.234	0.194	0.249	0.258	0.229		0.230	9.15
14) trichlorofluoromethane	0.506	0.654	0.507	0.511	0.517	0.504	0.464	0.503	0.512		0.520	10.10
15) vinyl bromide	0.284	0.351	0.284	0.290	0.277	0.279	0.293	0.264	0.289	0.277	0.289	8.14
16) ethyl ether	0.172	0.243	0.186	0.186	0.186	0.183	0.190	0.213	0.192		0.194	10.77
17) acrolein	0.109		0.091	0.089	0.087	0.088	0.098	0.091	0.095		0.093	7.75
18) freon 113	0.230	0.226	0.247	0.252	0.248	0.239	0.230	0.271	0.246	0.221	0.241	6.21
19) 1,1-dichloroethene	0.288	0.310	0.287	0.284	0.289	0.280	0.314	0.333	0.298	0.303	0.299	5.57
20) acetone	0.048		0.041	0.042	0.043	0.039	0.045	0.048	0.044		0.044	7.58
21) acetonitrile	0.063	0.069	0.058	0.059	0.059	0.056	0.066	0.064	0.063		0.062	6.71
22) iodomethane	*This compound does not meet initial calibration criteria*											
			0.276	0.257	0.200	0.276	0.147	0.122	0.156		0.205	31.89
----- Linear regression ----- Coefficient = 0.9949												

```
              Response Ratio = -0.01097 + 0.27427 *A

22)  For JC68966 samples only:
     iodomethane  0.276 0.257 0.200 0.276 0.147 0.122 0.156        0.205   31.89
         ----- Quadratic regression -----  Coefficient =  0.9995
              Response Ratio = -0.01881 + 0.28110 *A + 0.00010 *A^2

23)  carbon disulfide
      0.731 0.839 0.693 0.683 0.679 0.702 0.732 0.764 0.707        0.726    6.93
24)  methylene chloride
      0.324 0.379 0.302 0.296 0.304 0.301 0.342 0.314 0.311        0.319    8.36
25)  methyl acetate
                 0.329 0.331 0.332 0.320 0.354 0.358 0.340        0.338    4.18
26)  methyl tert butyl ether
      0.949 0.959 0.951 0.945 0.935 0.949 1.028 1.050 0.989 1.139  0.989    6.59
27)  trans-1,2-dichloroethene
      0.328 0.374 0.303 0.302 0.305 0.299 0.312 0.338 0.317 0.311  0.319    7.15
28)  di-isopropyl ether
      0.881 0.985 0.880 0.889 0.882 0.876 0.927 0.989 0.920 1.146  0.937    9.04
29)  2-butanone
      0.058 0.063 0.057 0.057 0.059 0.056 0.062 0.066 0.060        0.060    5.86
30)  1,1-dichloroethane
      0.508 0.608 0.529 0.530 0.539 0.522 0.588 0.593 0.551 0.617  0.558    7.07
31)  chloroprene
      0.420 0.497 0.458 0.455 0.469 0.460 0.486 0.484 0.475        0.467    4.82
32)  acrylonitrile
      0.170 0.184 0.160 0.155 0.156 0.156 0.164 0.191 0.175 0.188  0.170    8.11
33)  hexane
      0.153 0.180 0.171 0.169 0.173 0.168 0.161 0.185 0.174        0.170    5.57
34)  vinyl acetate
                 0.067 0.069 0.068 0.069 0.074       0.068        0.069    3.38
35)  ethyl tert-butyl ether
      0.900 0.984 0.926 0.919 0.915 0.931 0.975 1.000 0.943 1.180  0.967    8.44
36)  ethyl acetate
                 0.069 0.068 0.070 0.067 0.070       0.078        0.071    5.59
37)  2,2-dichloropropane
      0.433 0.521 0.436 0.433 0.435 0.440 0.468 0.507 0.458        0.459    7.33
38)  cis-1,2-dichloroethene
      0.349 0.447 0.336 0.341 0.347 0.335 0.373 0.401 0.351        0.365   10.24
39)  methyl acrylate
                 0.068 0.068 0.067 0.067 0.068 0.089 0.072        0.071   11.22
40)  propionitrile
      0.076 0.088 0.074 0.074 0.076 0.071 0.081 0.082 0.080        0.078    6.56
41)  bromochloromethane
      0.152 0.176 0.166 0.170 0.176 0.163 0.190 0.192 0.183        0.174    7.47
42)  tetrahydrofuran
                 0.060 0.059 0.062 0.060 0.066 0.074 0.067        0.064    8.38
43)  chloroform
      0.357 0.431 0.348 0.351 0.355 0.352 0.372 0.381 0.368        0.369    6.99
44)  t-butyl formate
      0.204 0.210 0.216 0.215 0.211 0.230 0.218 0.220 0.216        0.216    3.34
45)  dibromofluoromethane (s)
      0.361 0.363 0.358 0.369 0.362 0.370 0.369 0.365 0.363 0.350  0.363    1.63
46)  methacrylonitrile
      0.184       0.169 0.163 0.164 0.167 0.187 0.187 0.177        0.175    5.96
47)  1,1,1-trichloroethane
      0.536 0.544 0.502 0.501 0.496 0.508 0.522 0.538 0.513        0.518    3.41
48)  cyclohexane
      0.526 0.407 0.389 0.400 0.415 0.412 0.416 0.438 0.434 0.418  0.425    8.92
49)  1,1-dichloropropene
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      0.452 0.528 0.421 0.407 0.414 0.420 0.418 0.442 0.423 0.468  0.439    8.29
50)  iso-butyl alcohol
                0.014 0.015 0.015 0.013 0.015       0.017        0.015    7.36
51)  carbon tetrachloride
      0.424 0.502 0.449 0.442 0.439 0.451 0.463 0.456 0.440 0.537  0.460    7.40
52)  tert amyl alcohol
      0.024       0.024 0.025 0.026 0.023 0.026 0.025 0.027        0.025    5.53

53) I   1,4-difluorobenzene   ----------------ISTD---------------------
54)  1,2-dichloroethane-d4 (s)
      0.309 0.303 0.302 0.313 0.313 0.300 0.303 0.310 0.312 0.302  0.307    1.69
55)  n-butyl alcohol
      0.012 0.016 0.013 0.013 0.014 0.013 0.014 0.014 0.014 0.015  0.014    8.22
56)  2,2,4-trimethylpentane
      0.492 0.580 0.493 0.491 0.519 0.488 0.498 0.538 0.518 0.641  0.526    9.43
57)  benzene
      0.962 1.161 0.905 0.904 0.931 0.896 0.996 1.069 0.955        0.975    9.09
58)  tert-amyl methyl ether
      0.183 0.194 0.176 0.174 0.180 0.177 0.192 0.185 0.177 0.140  0.178    8.47
59)  heptane
      0.129       0.124 0.122 0.126 0.124 0.120 0.138 0.124        0.126    4.29
60)  isopropyl acetate
                0.070 0.069 0.067 0.069 0.076       0.071        0.070    4.62
61)  1,2-dichloroethane
      0.344 0.370 0.323 0.322 0.323 0.319 0.346 0.362 0.349        0.340    5.53
62)  trichloroethene
      0.308 0.342 0.275 0.274 0.288 0.270 0.304 0.328 0.281        0.297    8.58
63)  ethyl acrylate
      0.419 0.434 0.374 0.373 0.382 0.364 0.375 0.425 0.389        0.393    6.64
64)  2-nitropropane
                0.091 0.086 0.083 0.087 0.087       0.079        0.085    4.43
65)  2-chloroethyl vinyl ether
      0.160 0.170 0.170 0.169 0.171 0.168 0.176 0.179 0.173 0.210  0.175    7.70
66)  methyl methacrylate
      0.091       0.092 0.090 0.092 0.089 0.093 0.104 0.097        0.093    5.06
67)  1,2-dichloropropane
      0.220 0.239 0.221 0.217 0.229 0.215 0.244 0.261 0.223 0.254  0.232    7.04
68)  dibromomethane
      0.130 0.140 0.145 0.145 0.146 0.143 0.157 0.177 0.153 0.171  0.151    9.57
69)  methylcyclohexane
      0.354 0.368 0.339 0.334 0.350 0.333 0.332 0.359 0.342 0.303  0.342    5.31
70)  bromodichloromethane
      0.335 0.319 0.329 0.325 0.319 0.328 0.357 0.364 0.336 0.334  0.335    4.49
71)  epichlorohydrin
      0.036       0.037 0.036 0.038 0.036 0.037 0.038 0.037        0.037    2.24
72)  cis-1,3-dichloropropene
      0.396 0.397 0.390 0.389 0.386 0.391 0.419 0.423 0.395 0.433  0.402    4.13
73)  4-methyl-2-pentanone
      0.142 0.130 0.125 0.126 0.131 0.120 0.134 0.134 0.138        0.131    5.25
74)  3-methyl-1-butanol
      0.018 0.021 0.020 0.020 0.021 0.019 0.020 0.021 0.021        0.020    5.18

75) I   chlorobenzene-d5      ----------------ISTD---------------------
76)  toluene-d8 (s)
      1.243 1.236 1.197 1.197 1.215 1.208 1.238 1.229 1.248 1.229  1.224    1.52
77)  toluene
      0.747 0.729 0.654 0.644 0.667 0.657 0.723 0.773 0.675 0.868  0.714    9.79
78)  trans-1,3-dichloropropene
      0.393 0.454 0.402 0.396 0.387 0.407 0.423 0.439 0.410        0.412    5.40
79)  ethyl methacrylate
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```
      0.357 0.458 0.385 0.379 0.382 0.381 0.400 0.428 0.403 0.483  0.406    9.70
 80)  1,1,2-trichloroethane
      0.207 0.175 0.198 0.195 0.198 0.197 0.219 0.240 0.211        0.205    8.86
 81)  tetrachloroethene
      0.311 0.256 0.266 0.263 0.267 0.259 0.287 0.320 0.278 0.312  0.282    8.56
 82)  1,3-dichloropropane
      0.458 0.423 0.404 0.413 0.408 0.402 0.460 0.482 0.447        0.433    6.81
 83)  2-hexanone
      0.149 0.157 0.144 0.146 0.152 0.138 0.161 0.168 0.158        0.152    6.12
 84)  butyl acetate
      0.230 0.245 0.210 0.214 0.215 0.206 0.229 0.248 0.228        0.225    6.59
 85)  dibromochloromethane
      0.300 0.304 0.308 0.308 0.297 0.307 0.307 0.314 0.309 0.309  0.306    1.60
 86)  1,2-dibromoethane
      0.334 0.309 0.300 0.294 0.309 0.302 0.321 0.326 0.317 0.424  0.324   11.50
 87)  n-butyl ether
      1.017 1.029 1.039 1.021 1.038 1.033 1.115 1.157 1.075 1.170  1.069    5.37
 88)  chlorobenzene
      0.845 0.825 0.788 0.775 0.781 0.784 0.829 0.872 0.832        0.815    4.16
 89)  1,1,1,2-tetrachloroethane
      0.298 0.298 0.290 0.285 0.291 0.285 0.301 0.325 0.304 0.284  0.296    4.16
 90)  ethylbenzene
      1.315 1.398 1.248 1.254 1.265 1.227 1.362 1.444 1.352 1.615  1.348    8.73
 91)  m,p-xylene
      0.513 0.579 0.497 0.495 0.511 0.494 0.567 0.570 0.537 0.657  0.542    9.62
 92)  o-xylene
      0.565 0.606 0.488 0.489 0.492 0.477 0.540 0.578 0.521 0.583  0.534    8.79
 93)  styrene
      0.875 0.956 0.836 0.839 0.849 0.810 0.902 0.942 0.895 0.999  0.890    6.79
 94)  bromoform
      0.220 0.227 0.240 0.234 0.233 0.240 0.253 0.255 0.236        0.237    4.73
 95)  butyl acrylate
      0.562 0.554 0.548 0.552 0.545 0.541 0.569 0.571 0.552 0.620  0.562    4.07
 96)  isopropylbenzene
      1.337 1.349 1.258 1.259 1.265 1.241 1.393 1.299 1.310 1.480  1.319    5.62
 97)  cis-1,4-dichloro-2-butene
               0.161 0.154 0.144 0.163 0.148 0.141 0.140        0.150    6.07

 98) I   1,4-dichlorobenzene-d ----------------ISTD---------------------
 99)  4-bromofluorobenzene (s)
      0.796 0.785 0.832 0.813 0.814 0.874 0.795 0.784 0.808 0.779  0.808    3.52
100)  bromobenzene
      0.608 0.637 0.700 0.668 0.684 0.691 0.709 0.712 0.703        0.679    5.24
101)  1,1,2,2-tetrachloroethane
      0.708 0.650 0.699 0.683 0.689 0.706 0.737 0.681 0.701 0.677  0.693    3.30
102)  trans-1,4-dichloro-2-butene
               0.204 0.190 0.190 0.208 0.182       0.197        0.195    4.93
103)  1,2,3-trichloropropane
      0.251       0.243 0.232 0.235 0.239 0.246 0.268 0.244        0.245    4.62
104)  n-propylbenzene
      2.472 2.560 2.647 2.506 2.513 2.675 2.666 2.603 2.547 3.267  2.646    8.67
105)  2-chlorotoluene
      0.551 0.607 0.620 0.588 0.584 0.625 0.650 0.598 0.598 0.712  0.613    7.11
106)  4-chlorotoluene
      0.480 0.583 0.609 0.582 0.604 0.613 0.630 0.633 0.600        0.593    7.76
107)  1,3,5-trimethylbenzene
      1.820 1.814 1.971 1.870 1.888 1.974 1.967 1.970 1.902 2.232  1.941    6.14
108)  tert-butylbenzene
      0.391 0.370 0.438 0.419 0.424 0.433 0.425 0.414 0.443        0.418    5.66
109)  1,2,4-trimethylbenzene
```

```
       1.876 2.034 1.962 1.882 1.922 1.963 2.006 1.965 1.956 2.039  1.960    2.88
110)  sec-butylbenzene
       1.975 2.310 2.246 2.173 2.171 2.255 2.285 2.241 2.191 2.715  2.256    8.25
111)  1,3-dichlorobenzene
       1.161 1.212 1.205 1.168 1.177 1.220 1.217 1.201 1.203 1.266  1.203    2.50
112)  p-isopropyltoluene
       1.750 1.851 2.006 1.938 1.963 1.990 1.974 1.927 1.981 2.096  1.947    4.77
113)  1,4-dichlorobenzene
       1.222 1.250 1.213 1.175 1.176 1.220 1.240 1.268 1.196        1.218    2.62
114)  benzyl chloride
       1.177 1.441 1.313 1.248 1.214 1.374 1.203 1.157 1.202 1.496  1.283    9.22
115)  1,2-dichlorobenzene
       1.130 1.348 1.130 1.109 1.124 1.151 1.179 1.139 1.136 1.202  1.165    5.99
116)  n-butylbenzene
       0.810 0.778 0.876 0.851 0.834 0.865 0.850 0.819 0.809 1.098  0.859   10.37
117)  1,2-dibromo-3-chloropropane
       0.236 0.207 0.251 0.235 0.235 0.261 0.247 0.255 0.235        0.240    6.54
118)  1,3,5-trichlorobenzene
       0.696 0.868 0.833 0.799 0.774 0.835 0.774 0.793 0.800        0.797    6.13
119)  2-ethylhexyl acrylate
                  0.388 0.337 0.305 0.409 0.297       0.281        0.336   15.52
120)  1,2,4-trichlorobenzene
       0.591 0.741 0.742 0.700 0.689 0.756 0.683 0.636 0.685 0.650  0.687    7.54
121)  hexachlorobutadiene
       0.266 0.247 0.281 0.264 0.270 0.285 0.277 0.289 0.262        0.271    4.80
122)  naphthalene
       2.261 2.387 2.378 2.194 2.188 2.432 2.192 2.174 2.182 2.352  2.274    4.49
123)  1,2,3-trichlorobenzene
       0.615 0.647 0.692 0.637 0.647 0.707 0.629 0.646 0.649 0.758  0.663    6.56
124)  hexachloroethane
       0.321       0.354 0.331 0.322 0.353 0.312 0.295 0.329        0.327    6.01
125)  2-methylnaphthalene
       0.989       1.258 1.104 1.112 1.260 1.052 0.972 1.051        1.100    9.97
126)  bis(chloromethyl)ether
                                                                    0.000#  -1.00
127)  ethylenimine
                                                                    0.000#  -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

          M1A7758.M         Fri Jul 06 14:41:51 2018   MSD1A
```

Initial Calibration Verification

Job Number: JC68966 **Sample:** V1A7758-ICV7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182053.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1A7758\1a182053.D Vial: 14
Acq On : 14 Jun 2018 10:22 pm Operator: JessicaP
Sample : icv7758-50 Inst : MS1A
Misc : ms27117,v1a7758,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
Last Update : Fri Jun 15 09:38:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	101	0.00	3.24
2	M	tertiary butyl alcohol	1.342	1.257	6.3	98	0.00	3.29
3		ethanol	0.108	0.104	3.7	105	0.00	2.64
4	M	1,4-dioxane	0.112	0.115	-2.7	107	0.00	5.49
5	I	pentafluorobenzene	1.000	1.000	0.0	102	0.00	4.47
6	M	chlorodifluoromethane	0.305	0.314	-3.0	105	0.00	1.77
7	M	dichlorodifluoromethane	0.444	0.425	4.3	98	0.00	1.76
8		freon 142b	0.422	0.392	7.1	97	0.00	1.89
9	M	chloromethane	0.392	0.456	-16.3	123	0.00	1.92
10	M	vinyl chloride	0.392	0.421	-7.4	110	0.00	2.02
11		1,3-butadiene	0.349	0.320	8.3	99	0.00	2.05
12	M	bromomethane	0.187	0.220	-17.6	126	-0.01	2.27
13	M	chloroethane	0.230	0.225	2.2	104	0.00	2.36
14	M	trichlorofluoromethane	0.520	0.506	2.7	101	0.00	2.55
15		vinyl bromide	0.289	0.316	-9.3	111	0.00	2.50
16	M	ethyl ether	0.194	0.188	3.1	103	0.00	2.74
17	M	acrolein	0.093	0.100	-7.5	114	0.00	2.84
18		freon 113	0.241	0.249	-3.3	101	0.00	2.92
19	M	1,1-dichloroethene	0.299	0.272	9.0	98	0.00	2.93
20	M	acetone	0.044	0.045	-2.3	110	0.00	2.94
21	M	acetonitrile		----------NA----------				
		----------	True	Calc.	% Drift	----------		
22	M	iodomethane	50.000	53.722	-7.4	113	0.00	3.04
		----------	AvgRF	CCRF	% Dev	----------		
23	M	carbon disulfide	0.726	0.806	-11.0	121	0.00	3.11
24	M	methylene chloride	0.319	0.304	4.7	105	0.00	3.26
25	M	methyl acetate	0.338	0.327	3.3	101	0.00	3.15
26	M	methyl tert butyl ether	0.989	0.976	1.3	106	0.00	3.43
27	M	trans-1,2-dichloroethene	0.319	0.302	5.3	102	0.00	3.45
28	M	di-isopropyl ether	0.937	0.924	1.4	106	0.00	3.75
29	M	2-butanone	0.060	0.061	-1.7	108	0.00	4.12
30	M	1,1-dichloroethane	0.558	0.538	3.6	104	0.00	3.76
31	M	chloroprene	0.467	0.479	-2.6	107	0.00	3.81
32	M	acrylonitrile	0.170	0.181	-6.5	119	0.00	3.41
33		hexane	0.170	0.153	10.0	92	0.00	3.64
34	M	vinyl acetate	0.069	0.076	-10.1	113	0.00	3.73
35	M	ethyl tert-butyl ether	0.967	0.961	0.6	107	0.00	4.00
36	M	ethyl acetate	0.071	0.073	-2.8	110	0.00	4.13
37	M	2,2-dichloropropane	0.459	0.435	5.2	103	0.00	4.16

Initial Calibration Verification

Job Number: JC68966 **Sample:** V1A7758-ICV7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182053.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38	M	cis-1,2-dichloroethene	0.365	0.348	4.7	104	0.00	4.15
39		methyl acrylate	0.071	0.068	4.2	101	0.00	4.17
40	M	propionitrile	0.078	0.076	2.6	105	0.00	4.16
41	M	bromochloromethane	0.174	0.179	-2.9	107	0.00	4.32
42	M	tetrahydrofuran	0.064	0.060	6.3	104	0.00	4.33
43	M	chloroform	0.369	0.354	4.1	103	0.00	4.37
44	M	t-butyl formate	0.216	0.201	6.9	95	0.00	4.39
45	S	dibromofluoromethane (s)	0.363	0.368	-1.4	102	0.00	4.49
46	M	methacrylonitrile	0.175	0.172	1.7	108	0.00	4.28
47	M	1,1,1-trichloroethane	0.518	0.492	5.0	100	0.00	4.52
48		cyclohexane	0.425	0.407	4.2	104	0.00	4.58
49		1,1-dichloropropene	0.439	0.428	2.5	107	0.00	4.63
50		iso-butyl alcohol	0.015	0.016	-6.7	109	0.00	4.62
51		carbon tetrachloride	0.460	0.439	4.6	101	0.00	4.63
52		tert amyl alcohol	0.025	0.026	-4.0	105	0.00	4.72
53	I	1,4-difluorobenzene	1.000	1.000	0.0	102	0.00	5.05
54	S	1,2-dichloroethane-d4 (s)	0.307	0.299	2.6	97	0.00	4.74
55	M	n-butyl alcohol	0.014	0.014	0.0	108	0.00	5.10
56		2,2,4-trimethylpentane	0.526	0.483	8.2	100	0.00	4.84
57	M	benzene	0.975	0.930	4.6	105	0.00	4.78
58	M	tert-amyl methyl ether	0.178	0.182	-2.2	107	0.00	4.83
59	M	heptane	0.126	0.137	-8.7	115	0.00	4.95
60	M	isopropyl acetate	0.070	0.072	-2.9	107	0.00	4.74
61	M	1,2-dichloroethane	0.340	0.332	2.4	105	0.00	4.80
62	M	trichloroethene	0.297	0.286	3.7	106	0.00	5.25
63		ethyl acrylate	0.393	0.400	-1.8	109	0.00	5.26
64	M	2-nitropropane	0.085	0.087	-2.4	103	0.00	5.80
65	M	2-chloroethyl vinyl ether	0.175	0.197	-12.6	118	0.00	5.83
66	M	methyl methacrylate	0.093	0.096	-3.2	108	0.00	5.44
67	M	1,2-dichloropropane	0.232	0.223	3.9	104	0.00	5.45
68	M	dibromomethane	0.151	0.151	0.0	106	0.00	5.52
69	M	methylcyclohexane	0.342	0.322	5.8	98	0.00	5.44
70	M	bromodichloromethane	0.335	0.333	0.6	104	0.00	5.64
71		epichlorohydrin	0.037	0.037	0.0	105	0.00	5.89
72	M	cis-1,3-dichloropropene	0.402	0.403	-0.2	105	0.00	5.98
73	M	4-methyl-2-pentanone	0.131	0.132	-0.8	107	0.00	6.08
74	M	3-methyl-1-butanol	0.020	0.021	-5.0	109	0.00	6.09
75	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	7.47
76	S	toluene-d8 (s)	1.224	1.208	1.3	103	0.00	6.21
77		toluene	0.714	0.678	5.0	107	0.00	6.27
78		trans-1,3-dichloropropene	0.412	0.391	5.1	101	0.00	6.43
79		ethyl methacrylate	0.406	0.392	3.4	105	0.00	6.45
80		1,1,2-trichloroethane	0.205	0.208	-1.5	108	0.00	6.61
81	M	tetrachloroethene		----------NA----------				
82	M	1,3-dichloropropane	0.433	0.432	0.2	106	0.00	6.76
83		2-hexanone	0.152	0.151	0.7	105	0.00	6.77
84	M	butyl acetate	0.225	0.236	-4.9	112	0.00	6.85
85	M	dibromochloromethane	0.306	0.326	-6.5	108	0.00	6.95
86	M	1,2-dibromoethane	0.324	0.317	2.2	110	0.00	7.07
87		n-butyl ether	1.069	1.058	1.0	105	0.00	7.53
88	M	chlorobenzene	0.815	0.807	1.0	106	0.00	7.50
89	M	1,1,1,2-tetrachloroethane	0.296	0.303	-2.4	108	0.00	7.57
90	M	ethylbenzene	1.348	1.305	3.2	106	0.00	7.58
91	M	m,p-xylene	0.542	0.526	3.0	108	0.00	7.69
92	M	o-xylene	0.534	0.510	4.5	106	0.00	8.05
93	M	styrene	0.890	0.872	2.0	106	0.00	8.06
94	M	bromoform	0.237	0.257	-8.4	112	0.00	8.25
95		butyl acrylate	0.562	0.583	-3.7	107	0.00	7.96

Initial Calibration Verification

Job Number: JC68966 **Sample:** V1A7758-ICV7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182053.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		isopropylbenzene	1.319	1.299	1.5	105	0.00	8.39
97		cis-1,4-dichloro-2-butene	0.150	0.158	-5.3	104	0.00	8.43
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	9.68
99	S	4-bromofluorobenzene (s)	0.808	0.837	-3.6	100	0.00	8.56
100	M	bromobenzene	0.679	0.719	-5.9	105	0.00	8.71
101	M	1,1,2,2-tetrachloroethane	0.693	0.718	-3.6	102	0.00	8.67
102	M	trans-1,4-dichloro-2-bute	0.195	0.228	-16.9	116	0.00	8.70
103	M	1,2,3-trichloropropane	0.245	0.243	0.8	102	0.00	8.73
104	M	n-propylbenzene	2.646	2.714	-2.6	105	0.00	8.78
105	M	2-chlorotoluene	0.613	0.618	-0.8	102	0.00	8.89
106	M	4-chlorotoluene	0.593	0.639	-7.8	107	0.00	9.00
107	M	1,3,5-trimethylbenzene	1.941	1.990	-2.5	104	0.00	8.95
108	M	tert-butylbenzene	0.418	0.495	-18.4	115	0.00	9.26
109	M	1,2,4-trimethylbenzene	1.960	2.033	-3.7	105	0.00	9.32
110	M	sec-butylbenzene	2.256	2.330	-3.3	104	0.00	9.48
111	M	1,3-dichlorobenzene	1.203	1.262	-4.9	105	0.00	9.61
112	M	p-isopropyltoluene	1.947	2.090	-7.3	105	0.00	9.63
113	M	1,4-dichlorobenzene	1.218	1.257	-3.2	104	0.00	9.71
114		benzyl chloride	1.283	1.072	16.4	84	0.00	9.81
115	M	1,2-dichlorobenzene	1.165	1.178	-1.1	103	0.00	10.07
116	M	n-butylbenzene	0.859	0.896	-4.3	103	0.00	10.03
117	M	1,2-dibromo-3-chloropropa	0.240	0.241	-0.4	100	0.00	10.83
118		1,3,5-trichlorobenzene	0.797	0.849	-6.5	103	0.00	11.03
119		2-ethylhexyl acrylate	0.336	0.419	-24.7	121	0.00	11.82
120	M	1,2,4-trichlorobenzene	0.687	0.748	-8.9	104	0.00	11.66
121	M	hexachlorobutadiene	0.271	0.283	-4.4	104	0.00	11.80
122	M	naphthalene	2.274	2.413	-6.1	107	0.00	11.93
123	M	1,2,3-trichlorobenzene	0.663	0.686	-3.5	105	0.00	12.15
124	m	hexachloroethane	0.327	0.361	-10.4	106	0.00	10.34
125		2-methylnaphthalene	1.100	1.187	-7.9	105	0.00	13.08
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1a182048.D M1A7758.M Fri Jun 15 09:39:31 2018 MSD1A

Initial Calibration Verification

Job Number: JC68966 **Sample:** V1A7758-ICV7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182054.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1A7758\1a182054.D Vial: 15
Acq On : 14 Jun 2018 10:46 pm Operator: JessicaP
Sample : icv7758-50 Inst : MS1A
Misc : ms27117,v1a7758,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
Last Update : Fri Jun 15 09:29:31 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	105	0.00	3.23
2	M	tertiary butyl alcohol		----------NA----------				
3		ethanol		----------NA----------				
4	M	1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	4.47
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8		freon 142b		----------NA----------				
9	M	chloromethane		----------NA----------				
10	M	vinyl chloride		----------NA----------				
11		1,3-butadiene		----------NA----------				
12	M	bromomethane		----------NA----------				
13	M	chloroethane		----------NA----------				
14	M	trichlorofluoromethane		----------NA----------				
15		vinyl bromide		----------NA----------				
16	M	ethyl ether		----------NA----------				
17	M	acrolein		----------NA----------				
18		freon 113		----------NA----------				
19	M	1,1-dichloroethene		----------NA----------				
20	M	acetone		----------NA----------				
21	M	acetonitrile	0.062	0.059	4.8	109	0.00	3.13
		----------	True	Calc.	% Drift	----------		
22	M	iodomethane		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
23	M	carbon disulfide		----------NA----------				
24	M	methylene chloride		----------NA----------				
25	M	methyl acetate		----------NA----------				
26	M	methyl tert butyl ether		----------NA----------				
27	M	trans-1,2-dichloroethene		----------NA----------				
28	M	di-isopropyl ether		----------NA----------				
29	M	2-butanone		----------NA----------				
30	M	1,1-dichloroethane		----------NA----------				
31	M	chloroprene		----------NA----------				
32	M	acrylonitrile		----------NA----------				
33		hexane		----------NA----------				
34	M	vinyl acetate		----------NA----------				
35	M	ethyl tert-butyl ether		----------NA----------				
36	M	ethyl acetate		----------NA----------				
37	M	2,2-dichloropropane		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V1A7758-ICV7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182054.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38	M	cis-1,2-dichloroethene		----------NA----------					
39		methyl acrylate		----------NA----------					
40	M	propionitrile		----------NA----------					
41	M	bromochloromethane		----------NA----------					
42	M	tetrahydrofuran		----------NA----------					
43	M	chloroform		----------NA----------					
44	M	t-butyl formate		----------NA----------					
45	S	dibromofluoromethane (s)	0.363	0.362	0.3	106	0.00	4.48	
46	M	methacrylonitrile		----------NA----------					
47	M	1,1,1-trichloroethane		----------NA----------					
48		cyclohexane		----------NA----------					
49		1,1-dichloropropene		----------NA----------					
50		iso-butyl alcohol		----------NA----------					
51		carbon tetrachloride		----------NA----------					
52		tert amyl alcohol		----------NA----------					
53	I	1,4-difluorobenzene	1.000	1.000	0.0	107	0.00	5.05	
54	S	1,2-dichloroethane-d4 (s)	0.307	0.304	1.0	104	0.00	4.74	
55	M	n-butyl alcohol		----------NA----------					
56		2,2,4-trimethylpentane		----------NA----------					
57	M	benzene		----------NA----------					
58	M	tert-amyl methyl ether		----------NA----------					
59	M	heptane		----------NA----------					
60	M	isopropyl acetate		----------NA----------					
61	M	1,2-dichloroethane		----------NA----------					
62	M	trichloroethene		----------NA----------					
63		ethyl acrylate		----------NA----------					
64	M	2-nitropropane		----------NA----------					
65	M	2-chloroethyl vinyl ether		----------NA----------					
66	M	methyl methacrylate		----------NA----------					
67	M	1,2-dichloropropane		----------NA----------					
68	M	dibromomethane		----------NA----------					
69	M	methylcyclohexane		----------NA----------					
70	M	bromodichloromethane		----------NA----------					
71		epichlorohydrin		----------NA----------					
72	M	cis-1,3-dichloropropene		----------NA----------					
73	M	4-methyl-2-pentanone		----------NA----------					
74	M	3-methyl-1-butanol		----------NA----------					
75	I	chlorobenzene-d5	1.000	1.000	0.0	104	0.00	7.47	
76	S	toluene-d8 (s)	1.224	1.249	-2.0	109	0.00	6.21	
77		toluene		----------NA----------					
78		trans-1,3-dichloropropene		----------NA----------					
79		ethyl methacrylate		----------NA----------					
80		1,1,2-trichloroethane		----------NA----------					
81	M	tetrachloroethene	0.282	0.268	5.0	106	0.00	6.71	
82	M	1,3-dichloropropane		----------NA----------					
83		2-hexanone		----------NA----------					
84	M	butyl acetate		----------NA----------					
85	M	dibromochloromethane		----------NA----------					
86	M	1,2-dibromoethane		----------NA----------					
87		n-butyl ether		----------NA----------					
88	M	chlorobenzene		----------NA----------					
89	M	1,1,1,2-tetrachloroethane		----------NA----------					
90	M	ethylbenzene		----------NA----------					
91	M	m,p-xylene		----------NA----------					
92	M	o-xylene		----------NA----------					
93	M	styrene		----------NA----------					
94	M	bromoform		----------NA----------					
95		butyl acrylate		----------NA----------					

Initial Calibration Verification

Job Number: JC68966 **Sample:** V1A7758-ICV7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182054.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		isopropylbenzene		----------NA----------				
97		cis-1,4-dichloro-2-butene		----------NA----------				
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	9.68
99	S	4-bromofluorobenzene (s)	0.808	0.831	-2.8	105	0.00	8.56
100	M	bromobenzene		----------NA----------				
101	M	1,1,2,2-tetrachloroethane		----------NA----------				
102	M	trans-1,4-dichloro-2-bute		----------NA----------				
103	M	1,2,3-trichloropropane		----------NA----------				
104	M	n-propylbenzene		----------NA----------				
105	M	2-chlorotoluene		----------NA----------				
106	M	4-chlorotoluene		----------NA----------				
107	M	1,3,5-trimethylbenzene		----------NA----------				
108	M	tert-butylbenzene		----------NA----------				
109	M	1,2,4-trimethylbenzene		----------NA----------				
110	M	sec-butylbenzene		----------NA----------				
111	M	1,3-dichlorobenzene		----------NA----------				
112	M	p-isopropyltoluene		----------NA----------				
113	M	1,4-dichlorobenzene		----------NA----------				
114		benzyl chloride		----------NA----------				
115	M	1,2-dichlorobenzene		----------NA----------				
116	M	n-butylbenzene		----------NA----------				
117	M	1,2-dibromo-3-chloropropa		----------NA----------				
118		1,3,5-trichlorobenzene		----------NA----------				
119		2-ethylhexyl acrylate		----------NA----------				
120	M	1,2,4-trichlorobenzene		----------NA----------				
121	M	hexachlorobutadiene		----------NA----------				
122	M	naphthalene		----------NA----------				
123	M	1,2,3-trichlorobenzene		----------NA----------				
124	m	hexachloroethane		----------NA----------				
125		2-methylnaphthalene		----------NA----------				
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1a182048.D M1A7758.M Fri Jun 15 09:32:11 2018 MSD1A

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V1A7793-CC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182800.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V1A7793\1a182800.D Vial: 51
Acq On : 5 Jul 2018 5:35 pm Operator: jessicap
Sample : CC7758-50 Inst : MS1A
Misc : ms27583,v1a7793,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
Last Update : Fri Jun 15 09:38:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	162	0.00	3.24
2	M	tertiary butyl alcohol	1.342	1.078	19.7	134	0.00	3.29
3		ethanol	0.108	0.091	15.7	148	0.00	2.64
4	M	1,4-dioxane	0.112	0.101	9.8	150	0.00	5.49
5	I	pentafluorobenzene	1.000	1.000	0.0	113	0.00	4.47
6	M	chlorodifluoromethane	0.305	0.367	-20.3#	136	0.00	1.77
7	M	dichlorodifluoromethane	0.444	0.520	-17.1	132	0.00	1.76
8		freon 142b		----------NA----------				
9	M	chloromethane	0.392	0.404	-3.1	121	0.00	1.92
10	M	vinyl chloride	0.392	0.445	-13.5	128	0.00	2.02
11		1,3-butadiene		----------NA----------				
12	M	bromomethane	0.187	0.177	5.3	113	-0.01	2.27
13	M	chloroethane	0.230	0.255	-10.9	131	0.00	2.36
14	M	trichlorofluoromethane	0.520	0.577	-11.0	128	0.00	2.55
15		vinyl bromide	0.289	0.299	-3.5	117	0.00	2.50
16	M	ethyl ether	0.194	0.201	-3.6	122	0.00	2.74
17	M	acrolein	0.093	0.090	3.2	115	0.00	2.84
18		freon 113	0.241	0.275	-14.1	123	0.00	2.92
19	M	1,1-dichloroethene	0.299	0.305	-2.0	122	0.00	2.92
20	M	acetone	0.044	0.048	-9.1	131	0.00	2.94
21	M	acetonitrile	0.062	0.074	-19.4	142	0.00	3.14
		----------	True	Calc.	% Drift	----------		
22	M	iodomethane	50.000	59.935	-19.9	133	0.00	3.04
		----------	AvgRF	CCRF	% Dev	----------		
23	M	carbon disulfide	0.726	0.756	-4.1	125	0.00	3.11
24	M	methylene chloride	0.319	0.336	-5.3	129	0.00	3.26
25	M	methyl acetate	0.338	0.412	-21.9#	141	0.00	3.15
26	M	methyl tert butyl ether	0.989	1.064	-7.6	127	0.00	3.44
27	M	trans-1,2-dichloroethene	0.319	0.335	-5.0	126	0.00	3.45
28	M	di-isopropyl ether	0.937	1.028	-9.7	131	0.00	3.75
29	M	2-butanone	0.060	0.071	-18.3	141	0.00	4.12
30	M	1,1-dichloroethane	0.558	0.593	-6.3	127	0.00	3.76
31	M	chloroprene	0.467	0.511	-9.4	127	0.00	3.81
32	M	acrylonitrile	0.170	0.193	-13.5	141	0.00	3.41
33		hexane	0.170	0.197	-15.9	132	0.00	3.63
34	M	vinyl acetate	0.069	0.080	-15.9	129	0.00	3.73
35	M	ethyl tert-butyl ether	0.967	1.065	-10.1	131	0.00	4.00
36	M	ethyl acetate	0.071	0.085	-19.7	143	0.00	4.13
37	M	2,2-dichloropropane	0.459	0.500	-8.9	131	0.00	4.16

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V1A7793-CC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182800.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38	M	cis-1,2-dichloroethene	0.365	0.378	-3.6	125	0.00	4.15
39		methyl acrylate	0.071	0.085	-19.7	140	0.00	4.18
40	M	propionitrile	0.078	0.094	-20.5#	144	0.00	4.17
41	M	bromochloromethane	0.174	0.196	-12.6	130	0.00	4.32
42	M	tetrahydrofuran	0.064	0.079	-23.4#	150	0.00	4.33
43	M	chloroform	0.369	0.390	-5.7	126	0.00	4.37
44	M	t-butyl formate	0.216	0.313	-44.9#	164	0.00	4.40
45	S	dibromofluoromethane (s)	0.363	0.370	-1.9	113	0.00	4.49
46	M	methacrylonitrile	0.175	0.202	-15.4	141	0.00	4.28
47	M	1,1,1-trichloroethane	0.518	0.536	-3.5	121	0.00	4.52
48		cyclohexane	0.425	0.488	-14.8	138	0.00	4.58
49		1,1-dichloropropene	0.439	0.461	-5.0	128	0.00	4.63
50		iso-butyl alcohol	0.015	0.020	-33.3#	145	0.00	4.62
51		carbon tetrachloride	0.460	0.469	-2.0	120	0.00	4.64
52		tert amyl alcohol	0.025	0.032	-28.0#	145	0.00	4.72
53	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	5.05
54	S	1,2-dichloroethane-d4 (s)	0.307	0.284	7.5	105	0.00	4.74
55	M	n-butyl alcohol	0.014	0.017	-21.4#	152	0.00	5.10
56		2,2,4-trimethylpentane	0.526	0.571	-8.6	134	0.00	4.84
57	M	benzene	0.975	0.995	-2.1	127	0.00	4.78
58	M	tert-amyl methyl ether	0.178	0.195	-9.6	130	0.00	4.84
59	M	heptane	0.126	0.147	-16.7	139	0.00	4.95
60	M	isopropyl acetate	0.070	0.080	-14.3	133	0.00	4.74
61	M	1,2-dichloroethane	0.340	0.344	-1.2	123	0.00	4.80
62	M	trichloroethene	0.297	0.308	-3.7	129	0.00	5.25
63		ethyl acrylate	0.393	0.442	-12.5	137	0.00	5.27
64	M	2-nitropropane	0.085	0.093	-9.4	125	0.00	5.80
65	M	2-chloroethyl vinyl ether	0.175	0.198	-13.1	135	0.00	5.83
66	M	methyl methacrylate	0.093	0.104	-11.8	133	0.00	5.45
67	M	1,2-dichloropropane	0.232	0.246	-6.0	131	0.00	5.45
68	M	dibromomethane	0.151	0.164	-8.6	130	0.00	5.52
69	M	methylcyclohexane	0.342	0.385	-12.6	133	0.00	5.45
70	M	bromodichloromethane	0.335	0.359	-7.2	127	0.00	5.64
71		epichlorohydrin	0.037	0.047	-27.0#	150	0.00	5.89
72	M	cis-1,3-dichloropropene	0.402	0.428	-6.5	127	0.00	5.98
73	M	4-methyl-2-pentanone	0.131	0.149	-13.7	137	0.00	6.08
74	M	3-methyl-1-butanol	0.020	0.027	-35.0#	155	0.00	6.09
75	I	chlorobenzene-d5	1.000	1.000	0.0	134	0.00	7.47
76	S	toluene-d8 (s)	1.224	1.077	12.0	120	0.00	6.21
77		toluene	0.714	0.620	13.2	129	0.00	6.28
78		trans-1,3-dichloropropene	0.412	0.382	7.3	129	0.00	6.44
79		ethyl methacrylate	0.406	0.383	5.7	135	0.00	6.46
80		1,1,2-trichloroethane	0.205	0.193	5.9	132	0.00	6.61
81	M	tetrachloroethene	0.282	0.250	11.3	127	0.00	6.71
82	M	1,3-dichloropropane	0.433	0.390	9.9	126	0.00	6.76
83		2-hexanone	0.152	0.155	-2.0	143	0.00	6.77
84	M	butyl acetate	0.225	0.210	6.7	132	0.00	6.85
85	M	dibromochloromethane	0.306	0.297	2.9	129	0.00	6.95
86	M	1,2-dibromoethane	0.324	0.299	7.7	136	0.00	7.07
87		n-butyl ether	1.069	0.998	6.6	131	0.00	7.54
88	M	chlorobenzene	0.815	0.726	10.9	125	0.00	7.50
89	M	1,1,1,2-tetrachloroethane	0.296	0.275	7.1	129	0.00	7.57
90	M	ethylbenzene	1.348	1.156	14.2	123	0.00	7.58
91	M	m,p-xylene	0.542	0.467	13.8	126	0.00	7.69
92	M	o-xylene	0.534	0.463	13.3	127	0.00	8.05
93	M	styrene	0.890	0.795	10.7	127	0.00	8.06
94	M	bromoform	0.237	0.233	1.7	133	0.00	8.25
95		butyl acrylate	0.562	0.555	1.2	135	0.00	7.96

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V1A7793-CC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182800.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		isopropylbenzene	1.319	1.156	12.4	123	0.00	8.39
97		cis-1,4-dichloro-2-butene	0.150	0.149	0.7	130	0.00	8.43
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	131	0.00	9.68
99	S	4-bromofluorobenzene (s)	0.808	0.869	-7.5	140	0.00	8.56
100	M	bromobenzene	0.679	0.663	2.4	130	0.00	8.71
101	M	1,1,2,2-tetrachloroethane	0.693	0.689	0.6	132	0.00	8.67
102	M	trans-1,4-dichloro-2-bute	0.195	0.188	3.6	129	0.00	8.70
103	M	1,2,3-trichloropropane	0.245	0.228	6.9	129	0.00	8.73
104	M	n-propylbenzene	2.646	2.395	9.5	125	0.00	8.79
105	M	2-chlorotoluene	0.613	0.563	8.2	126	0.00	8.89
106	M	4-chlorotoluene	0.593	0.562	5.2	127	0.00	9.00
107	M	1,3,5-trimethylbenzene	1.941	1.756	9.5	123	0.00	8.96
108	M	tert-butylbenzene	0.418	0.393	6.0	123	0.00	9.27
109	M	1,2,4-trimethylbenzene	1.960	1.781	9.1	124	0.00	9.32
110	M	sec-butylbenzene	2.256	2.032	9.9	123	0.00	9.48
111	M	1,3-dichlorobenzene	1.203	1.132	5.9	127	0.00	9.61
112	M	p-isopropyltoluene	1.947	1.796	7.8	122	0.00	9.63
113	M	1,4-dichlorobenzene	1.218	1.130	7.2	126	0.00	9.71
114		benzyl chloride	1.283	1.377	-7.3	145	0.00	9.82
115	M	1,2-dichlorobenzene	1.165	1.088	6.6	129	0.00	10.07
116	M	n-butylbenzene	0.859	0.789	8.1	122	0.00	10.03
117	M	1,2-dibromo-3-chloropropa	0.240	0.252	-5.0	141	0.00	10.84
118		1,3,5-trichlorobenzene	0.797	0.777	2.5	128	0.00	11.03
119		2-ethylhexyl acrylate	0.336	0.342	-1.8	133	0.00	11.82
120	M	1,2,4-trichlorobenzene	0.687	0.668	2.8	125	0.00	11.66
121	M	hexachlorobutadiene	0.271	0.250	7.7	124	0.00	11.80
122	M	naphthalene	2.274	2.150	5.5	129	0.00	11.93
123	M	1,2,3-trichlorobenzene	0.663	0.627	5.4	129	0.00	12.15
124	m	hexachloroethane	0.327	0.322	1.5	127	0.00	10.35
125		2-methylnaphthalene	1.100	1.038	5.6	123	0.00	13.08
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1a182048.D M1A7758.M Fri Jul 06 15:28:28 2018 MSD1A

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V1A7793-ECC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182818.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\v1a7793\1a182818.d Vial: 69
Acq On : 6 Jul 2018 1:33 am Operator: jessicap
Sample : ecc7758-20 Inst : MS1A
Misc : ms27608,v1a7793,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
Last Update : Fri Jun 15 09:38:43 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1		tert butyl alcohol-d9	1.000	1.000	0.0	155	0.00	3.24
2	M	tertiary butyl alcohol	1.342	1.152	14.2	138	0.00	3.29
3		ethanol	0.108	0.104	3.7	152	0.00	2.64
4	M	1,4-dioxane	0.112	0.113	-0.9	155	0.00	5.49
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	4.47
6	M	chlorodifluoromethane	0.305	0.362	-18.7	138	0.00	1.77
7	M	dichlorodifluoromethane	0.444	0.435	2.0	117	0.00	1.76
8		freon 142b		----------NA----------				
9	M	chloromethane	0.392	0.345	12.0	106	0.00	1.92
10	M	vinyl chloride	0.392	0.402	-2.6	117	0.00	2.02
11		1,3-butadiene		----------NA----------				
12	M	bromomethane	0.187	0.079	57.8#	50#	0.00	2.28
13	M	chloroethane	0.230	0.248	-7.8	123	0.00	2.36
14	M	trichlorofluoromethane	0.520	0.552	-6.2	125	0.00	2.55
15		vinyl bromide	0.289	0.279	3.5	118	0.00	2.51
16	M	ethyl ether	0.194	0.210	-8.2	132	0.00	2.74
17	M	acrolein	0.093	0.089	4.3	119	0.00	2.84
18		freon 113	0.241	0.285	-18.3	134	0.00	2.92
19	M	1,1-dichloroethene	0.299	0.313	-4.7	126	0.00	2.93
20	M	acetone	0.044	0.051	-15.9	139	0.00	2.94
21	M	acetonitrile	0.062	0.078	-25.8	154	0.00	3.14
		----------	True	Calc.	% Drift	----------		
22	M	iodomethane	20.000	12.478	37.6	75	0.00	3.04
		----------	AvgRF	CCRF	% Dev	----------		
23	M	carbon disulfide	0.726	0.815	-12.3	140	0.00	3.11
24	M	methylene chloride	0.319	0.368	-15.4	142	0.00	3.26
25	M	methyl acetate	0.338	0.439	-29.9	154	0.00	3.15
26	M	methyl tert butyl ether	0.989	1.147	-16.0	143	0.00	3.44
27	M	trans-1,2-dichloroethene	0.319	0.357	-11.9	137	0.00	3.46
28	M	di-isopropyl ether	0.937	1.112	-18.7	147	0.00	3.75
29	M	2-butanone	0.060	0.076	-26.7	152	0.00	4.12
30	M	1,1-dichloroethane	0.558	0.623	-11.6	135	0.00	3.76
31	M	chloroprene	0.467	0.533	-14.1	133	0.00	3.81
32	M	acrylonitrile	0.170	0.202	-18.8	151	0.00	3.41
33		hexane	0.170	0.187	-10.0	126	0.00	3.64
34	M	vinyl acetate	0.069	0.078	-13.0	134	0.00	3.73
35	M	ethyl tert-butyl ether	0.967	1.128	-16.6	144	0.00	4.00
36	M	ethyl acetate	0.071	0.090	-26.8	150	0.00	4.13
37	M	2,2-dichloropropane	0.459	0.476	-3.7	128	0.00	4.16

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V1A7793-ECC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182818.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38	M	cis-1,2-dichloroethene	0.365	0.417	-14.2	140	0.00	4.15
39		methyl acrylate	0.071	0.091	-28.2	159	0.00	4.18
40	M	propionitrile	0.078	0.100	-28.2	153	0.00	4.16
41	M	bromochloromethane	0.174	0.212	-21.8	141	0.00	4.32
42	M	tetrahydrofuran	0.064	0.079	-23.4	148	0.00	4.33
43	M	chloroform	0.369	0.419	-13.6	138	0.00	4.37
44	M	t-butyl formate	0.216	0.325	-50.5#	180	0.00	4.40
45	S	dibromofluoromethane (s)	0.363	0.367	-1.1	119	0.00	4.49
46	M	methacrylonitrile	0.175	0.219	-25.1	156	0.00	4.28
47	M	1,1,1-trichloroethane	0.518	0.569	-9.8	134	0.00	4.52
48		cyclohexane	0.425	0.435	-2.4	122	0.00	4.58
49		1,1-dichloropropene	0.439	0.485	-10.5	137	0.00	4.63
50		iso-butyl alcohol	0.015	0.020	-33.3	155	0.00	4.61
51		carbon tetrachloride	0.460	0.494	-7.4	131	0.00	4.64
52		tert amyl alcohol	0.025	0.033	-32.0	147	0.00	4.71
53	I	1,4-difluorobenzene	1.000	1.000	0.0	123	0.00	5.05
54	S	1,2-dichloroethane-d4 (s)	0.307	0.269	12.4	106	0.00	4.74
55	M	n-butyl alcohol	0.014	0.018	-28.6	160	0.00	5.10
56		2,2,4-trimethylpentane	0.526	0.543	-3.2	129	0.00	4.84
57	M	benzene	0.975	1.059	-8.6	140	0.00	4.78
58	M	tert-amyl methyl ether	0.178	0.213	-19.7	146	0.00	4.84
59	M	heptane	0.126	0.142	-12.7	140	0.00	4.95
60	M	isopropyl acetate	0.070	0.083	-18.6	154	0.00	4.74
61	M	1,2-dichloroethane	0.340	0.370	-8.8	141	0.00	4.80
62	M	trichloroethene	0.297	0.312	-5.1	134	0.00	5.25
63		ethyl acrylate	0.393	0.459	-16.8	148	0.00	5.27
64	M	2-nitropropane	0.085	0.095	-11.8	141	0.00	5.80
65	M	2-chloroethyl vinyl ether	0.175	0.204	-16.6	147	0.00	5.83
66	M	methyl methacrylate	0.093	0.111	-19.4	149	0.00	5.45
67	M	1,2-dichloropropane	0.232	0.261	-12.5	141	0.00	5.45
68	M	dibromomethane	0.151	0.171	-13.2	144	0.00	5.52
69	M	methylcyclohexane	0.342	0.377	-10.2	133	0.00	5.45
70	M	bromodichloromethane	0.335	0.374	-11.6	145	0.00	5.64
71		epichlorohydrin	0.037	0.045	-21.6	148	0.00	5.89
72	M	cis-1,3-dichloropropene	0.402	0.453	-12.7	145	0.00	5.98
73	M	4-methyl-2-pentanone	0.131	0.157	-19.8	148	0.00	6.08
74	M	3-methyl-1-butanol	0.020	0.027	-35.0	155	0.00	6.09
75	I	chlorobenzene-d5	1.000	1.000	0.0	135	0.00	7.47
76	S	toluene-d8 (s)	1.224	1.103	9.9	123	0.00	6.21
77		toluene	0.714	0.685	4.1	139	0.00	6.28
78		trans-1,3-dichloropropene	0.412	0.415	-0.7	145	0.00	6.43
79		ethyl methacrylate	0.406	0.411	-1.2	146	0.00	6.45
80		1,1,2-trichloroethane	0.205	0.215	-4.9	147	0.00	6.61
81	M	tetrachloroethene	0.282	0.278	1.4	141	0.00	6.71
82	M	1,3-dichloropropane	0.433	0.439	-1.4	146	0.00	6.76
83		2-hexanone	0.152	0.169	-11.2	151	0.00	6.77
84	M	butyl acetate	0.225	0.235	-4.4	148	0.00	6.85
85	M	dibromochloromethane	0.306	0.321	-4.9	146	0.00	6.95
86	M	1,2-dibromoethane	0.324	0.314	3.1	137	0.00	7.07
87		n-butyl ether	1.069	1.083	-1.3	141	0.00	7.54
88	M	chlorobenzene	0.815	0.805	1.2	139	0.00	7.50
89	M	1,1,1,2-tetrachloroethane	0.296	0.300	-1.4	140	0.00	7.57
90	M	ethylbenzene	1.348	1.270	5.8	136	0.00	7.58
91	M	m,p-xylene	0.542	0.507	6.5	134	0.00	7.69
92	M	o-xylene	0.534	0.502	6.0	138	0.00	8.05
93	M	styrene	0.890	0.887	0.3	141	0.00	8.06
94	M	bromoform	0.237	0.247	-4.2	143	0.00	8.25
95		butyl acrylate	0.562	0.594	-5.7	147	0.00	7.96

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V1A7793-ECC7758
Account: EAENYES EA Engineering **Lab FileID:** 1A182818.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		isopropylbenzene	1.319	1.249	5.3	134	0.00	8.39
97		cis-1,4-dichloro-2-butene	0.150	0.115	23.3	107	0.00	8.44
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	135	0.00	9.68
99	S	4-bromofluorobenzene (s)	0.808	0.854	-5.7	142	0.00	8.56
100	M	bromobenzene	0.679	0.718	-5.7	142	0.00	8.71
101	M	1,1,2,2-tetrachloroethane	0.693	0.732	-5.6	144	0.00	8.67
102	M	trans-1,4-dichloro-2-bute	0.195	0.145	25.6	103	0.00	8.70
103	M	1,2,3-trichloropropane	0.245	0.258	-5.3	149	0.00	8.73
104	M	n-propylbenzene	2.646	2.491	5.9	134	0.00	8.78
105	M	2-chlorotoluene	0.613	0.595	2.9	138	0.00	8.89
106	M	4-chlorotoluene	0.593	0.607	-2.4	136	0.00	9.00
107	M	1,3,5-trimethylbenzene	1.941	1.871	3.6	134	0.00	8.95
108	M	tert-butylbenzene	0.418	0.411	1.7	131	0.00	9.26
109	M	1,2,4-trimethylbenzene	1.960	1.906	2.8	134	0.00	9.32
110	M	sec-butylbenzene	2.256	2.097	7.0	131	0.00	9.48
111	M	1,3-dichlorobenzene	1.203	1.197	0.5	138	0.00	9.61
112	M	p-isopropyltoluene	1.947	1.880	3.4	130	0.00	9.63
113	M	1,4-dichlorobenzene	1.218	1.203	1.2	139	0.00	9.71
114		benzyl chloride	1.283	1.185	7.6	132	0.00	9.82
115	M	1,2-dichlorobenzene	1.165	1.177	-1.0	142	0.00	10.07
116	M	n-butylbenzene	0.859	0.794	7.6	129	0.00	10.03
117	M	1,2-dibromo-3-chloropropa	0.240	0.248	-3.3	143	0.00	10.84
118		1,3,5-trichlorobenzene	0.797	0.790	0.9	138	0.00	11.03
119		2-ethylhexyl acrylate	0.336	0.330	1.8	146	0.00	11.82
120	M	1,2,4-trichlorobenzene	0.687	0.717	-4.4	141	0.00	11.66
121	M	hexachlorobutadiene	0.271	0.250	7.7	125	0.00	11.80
122	M	naphthalene	2.274	2.312	-1.7	143	0.00	11.93
123	M	1,2,3-trichlorobenzene	0.663	0.664	-0.2	139	0.00	12.15
124	m	hexachloroethane	0.327	0.288	11.9	121	0.00	10.35
125		2-methylnaphthalene	1.100	1.042	5.3	127	0.00	13.08
126		bis(chloromethyl)ether		----------NA----------				
127		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
1a182047.D M1A7758.M Fri Jul 06 16:03:36 2018 1

Initial Calibration Summary

Job Number: JC68966 **Sample:** V2C7025-ICC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158325.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Response Factor Report Instrument #1

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration

Calibration Files
1 =2C158320.D 2 =2C158321.D 100 =2C158326.D 50 =2C158325.D
20 =2C158324.D 200 =2C158327.D 5 =2C158322.D 10 =2C158323.D
0.5 =2C158319.D =

Compound	1	2	100	50	20	200	5	10	0.5	Avg	%RSD
1) I Tert Butyl Alcohol-d9	----------ISTD----------										
2) ethanol										0.000#	-1.00
3) tertiary butyl alcohol	1.235	1.255	1.291	1.227	1.227	1.261	1.183	1.205		1.235	2.72
4) 1,4-dioxane	0.079	0.095	0.090	0.088	0.092	0.090	0.088	0.092		0.089	5.18
5) I pentafluorobenzene	----------ISTD----------										
6) chlorodifluoromethane			0.776	0.841	0.919	0.811	0.983	0.969		0.883	9.78
7) dichlorodifluoromethane		0.865	0.655	0.724	0.763	0.753	0.885	0.808		0.779	10.33
8) chloromethane	1.460	1.283	1.043	1.059	1.123	1.149	1.273	1.241		1.204	11.52
9) vinyl chloride	0.978	0.993	0.959	0.983	1.040	1.062	1.049	1.098	1.143	1.034	5.93
10) 1,3-butadiene										0.000#	-1.00
11) bromomethane	0.816	0.721	0.569	0.609	0.656	0.604	0.689	0.702		0.671	11.80
12) chloroethane	0.662	0.577	0.472	0.503	0.527	0.508	0.547	0.553		0.544	10.70
13) trichlorofluoromethane	0.931	0.921	0.930	0.969	1.011	1.035	1.002	1.037	1.038	0.986	4.97
14) vinyl bromide	0.664	0.613	0.588	0.608	0.635	0.648	0.637	0.650	0.787	0.648	8.86
15) ethyl ether	0.281	0.271	0.292	0.295	0.289	0.295	0.288	0.292	0.299	0.289	2.95
16) 2-chloropropane	1.080	1.068	0.962	1.021	1.057	1.034	1.099	1.084	1.445	1.095	12.59
17) acrolein			0.174	0.187	0.194	0.184	0.188	0.194		0.187	3.95
18) freon 113	0.408	0.414	0.424	0.456	0.486	0.473	0.459	0.480	0.381	0.442	8.35
19) 1,1-dichloroethene	0.693	0.610	0.525	0.560	0.604	0.569	0.619	0.620		0.600	8.38
20) acetone	0.082	0.078	0.074	0.075	0.081	0.077	0.076	0.081		0.078	3.75
21) iodomethane	0.950	0.931	0.936	0.971	1.003	1.024	0.989	1.019	1.188	1.001	7.79
22) acetonitrile			0.127	0.126	0.139	0.136	0.123	0.151		0.134	7.75
23) carbon disulfide											

		1.774	1.707	1.647	1.743	1.840	1.822	1.806	1.854		1.774	4.02
24)	methylene chloride											
		0.739	0.668	0.629	0.637	0.676	0.683	0.652	0.680	0.938	0.700	13.53
25)	methyl acetate											
		0.649	0.695	0.633	0.636	0.631	0.629	0.618	0.641	0.821	0.661	9.66
26)	methyl tert butyl ether											
		1.820	1.759	1.748	1.697	1.789	1.693	1.778	1.799	2.253	1.815	9.35
27)	trans-1,2-dichloroethene											
		0.601	0.585	0.502	0.518	0.535	0.527	0.558	0.549	0.697	0.564	10.48
28)	hexane											
		0.420	0.366	0.312	0.325	0.334	0.325	0.369	0.339		0.349	10.06
29)	di-isopropyl ether											
		2.197	2.018	1.835	1.891	2.008	1.905	2.018	2.048	2.713	2.070	12.71
30)	1,1-dichloroethane											
		1.012	0.949	0.906	0.920	0.944	0.923	0.938	0.960	1.120	0.964	6.86
31)	chloroprene											
		0.826	0.807	0.741	0.758	0.748	0.747	0.780	0.793	1.049	0.806	11.89
32)	acrylonitrile											
		0.328	0.312	0.322	0.318	0.328	0.336	0.316	0.335	0.393	0.332	7.25
33)	vinyl acetate											
		0.070	0.081	0.099	0.095	0.095	0.097	0.094	0.099		0.091	11.35
34)	ethyl tert-butyl ether											
		1.878	1.785	1.820	1.808	1.868	1.940	1.843	1.864	2.197	1.889	6.57
35)	2-butanone											
		0.089	0.091	0.093	0.093	0.090	0.091	0.090	0.087	0.089	0.090	2.09
36)	ethyl acetate											
				0.116	0.116	0.120	0.107	0.139	0.133		0.122	9.78
37)	2,2-dichloropropane											
		0.801	0.745	0.630	0.662	0.733	0.684	0.771	0.768		0.724	8.24
38)	cis-1,2-dichloroethene											
		0.657	0.613	0.539	0.553	0.558	0.546	0.570	0.591	0.774	0.600	12.51
39)	propionitrile											
		0.159	0.153	0.138	0.143	0.147	0.137	0.147	0.149	0.164	0.149	6.09
40)	bromochloromethane											
		0.317	0.270	0.293	0.292	0.290	0.299	0.279	0.303	0.329	0.297	6.04
41)	tetrahydrofuran											
			0.386	0.286	0.295	0.306	0.287	0.317	0.331		0.315	11.09
42)	chloroform											
		1.054	0.915	0.857	0.865	0.871	0.869	0.910	0.892	1.289	0.947	14.97
43)	t-butyl formate											
		0.585	0.565	0.548	0.545	0.582	0.559	0.580	0.604		0.571	3.51
44)	dibromofluoromethane (s)											
		0.431	0.428	0.427	0.427	0.424	0.441	0.420	0.435	0.461	0.433	2.86
45)	methacrylonitrile											
		0.297	0.289	0.281	0.277	0.274	0.279	0.263	0.279	0.230	0.274	6.97
46)	1,1,1-trichloroethane											
		0.918	0.851	0.820	0.835	0.860	0.913	0.866	0.896	1.171	0.903	11.71
47)	Cyclohexane											
		0.795	0.726	0.675	0.736	0.805	0.771	0.782	0.772	0.810	0.764	5.72
48)	1,1-dichloropropene											
		0.703	0.676	0.597	0.618	0.620	0.589	0.665	0.648	0.773	0.654	8.90
49)	carbon tetrachloride											
		0.685	0.686	0.648	0.666	0.686	0.718	0.707	0.707		0.688	3.37
50)	isobutyl alcohol											
				0.034	0.034	0.037	0.035	0.034	0.043		0.036	10.37
51)	I 1,4-difluorobenzene	----------	ISTD	----------								
52)	1,2-dichloroethane-d4 (s)											
		0.376	0.374	0.336	0.352	0.361	0.333	0.368	0.361	0.401	0.362	5.78
53)	n-butyl alcohol											

		0.031	0.029	0.025	0.026	0.029	0.026	0.027	0.028		0.028	7.68
54)	tert-amyl alcohol											
		0.051	0.035	0.036	0.044	0.036	0.041	0.042			0.041	13.59
55)	iso-octane											
		1.721	1.622	1.415	1.542	1.677	1.628	1.669	1.666		1.618	6.00
56)	benzene											
		1.544	1.513	1.370	1.406	1.435	1.363	1.455	1.464	1.785	1.482	8.68
57)	tert-amyl methyl ether											
		0.308	0.282	0.276	0.285	0.299	0.294	0.297	0.297		0.292	3.57
58)	heptane											
		0.335	0.287	0.295	0.307	0.302	0.332	0.300			0.308	5.97
59)	isopropyl acetate											
		0.071	0.091	0.093	0.094	0.095	0.093	0.092	0.096		0.091	8.77
60)	1,2-dichloroethane											
		0.606	0.553	0.469	0.477	0.504	0.453	0.515	0.503		0.510	9.71
61)	ethyl acrylate											
		0.590	0.557	0.563	0.557	0.552	0.553	0.556			0.561	2.36
62)	trichloroethene											
		0.396	0.376	0.338	0.348	0.354	0.335	0.366	0.365	0.453	0.370	9.84
63)	2-nitropropane											
		0.191	0.168	0.165	0.163	0.173	0.205	0.158			0.175	9.82
64)	2-chloroethyl vinyl ether											
		0.251	0.238	0.239	0.247	0.248	0.236	0.240	0.244	0.247	0.243	2.16
65)	methyl methacrylate											
		0.108	0.102	0.116	0.113	0.112	0.118	0.108	0.113		0.111	4.41
66)	1,2-dichloropropane											
		0.399	0.387	0.351	0.364	0.376	0.346	0.378	0.377	0.376	0.373	4.44
67)	dibromomethane											
		0.273	0.241	0.243	0.241	0.251	0.245	0.252	0.254	0.288	0.254	6.27
68)	methylcyclohexane											
		0.765	0.727	0.640	0.689	0.748	0.730	0.735	0.737		0.721	5.44
69)	bromodichloromethane											
		0.512	0.501	0.491	0.491	0.484	0.501	0.473	0.477	0.626	0.506	9.18
70)	epichlorohydrin											
		0.073	0.067	0.062	0.063	0.064	0.065	0.061	0.064		0.065	5.68
71)	cis-1,3-dichloropropene											
		0.602	0.557	0.584	0.583	0.570	0.592	0.575	0.567	0.597	0.581	2.56
72)	4-methyl-2-pentanone											
		0.231	0.215	0.201	0.212	0.222	0.206	0.219	0.222		0.216	4.45
73)	3-methyl-1-butanol											
		0.049	0.036	0.040	0.045	0.037	0.046	0.046			0.043	11.37
74)	I chlorobenzene-d5	----------	ISTD	----------								
75)	toluene-d8 (s)											
		1.267	1.259	1.296	1.244	1.254	1.267	1.247	1.261	1.250	1.261	1.25
76)	toluene											
		0.991	0.969	0.955	0.927	0.923	0.913	0.939	0.943	1.039	0.955	4.14
77)	ethyl methacrylate											
		0.666	0.600	0.573	0.551	0.559	0.547	0.568	0.573	0.728	0.596	10.28
78)	trans-1,3-dichloropropene											
		0.619	0.615	0.608	0.589	0.582	0.565	0.594	0.593	0.606	0.597	2.89
79)	1,1,2-trichloroethane											
		0.342	0.332	0.333	0.317	0.319	0.318	0.318	0.336	0.435	0.339	11.02
80)	2-hexanone											
		0.259	0.254	0.220	0.219	0.236	0.210	0.242	0.242	0.266	0.238	8.11
81)	tetrachloroethene											
		0.378	0.380	0.378	0.373	0.368	0.362	0.379	0.386	0.400	0.378	2.89
82)	1,3-dichloropropane											
		0.615	0.598	0.566	0.556	0.575	0.539	0.573	0.581	0.601	0.578	4.08
83)	butyl acetate											

Initial Calibration Summary

Job Number: JC68966 **Sample:** V2C7025-ICC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158325.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

		0.415	0.350	0.322	0.318	0.343	0.319	0.359	0.361	0.404	0.355	9.99
84)	dibromochloromethane											
		0.416	0.402	0.482	0.446	0.433	0.482	0.407	0.417	0.456	0.438	6.96
85)	1,2-dibromoethane											
		0.440	0.441	0.459	0.439	0.440	0.460	0.431	0.434	0.421	0.440	2.82
86)	n-butyl ether											
		1.992	1.846	1.724	1.714	1.803	1.711	1.845	1.864	2.313	1.868	10.15
87)	chlorobenzene											
		1.097	0.999	1.045	1.026	1.022	1.051	1.047	1.029	1.103	1.047	3.27
88)	1,1,1,2-tetrachloroethane											
		0.438	0.427	0.437	0.426	0.445	0.435	0.449	0.455	0.507	0.446	5.52
89)	ethylbenzene											
		1.814	1.713	1.645	1.651	1.716	1.639	1.733	1.733	2.105	1.750	8.25
90)	m,p-xylene											
		0.676	0.674	0.659	0.650	0.663	0.676	0.683	0.676	0.791	0.683	6.14
91)	o-xylene											
		0.714	0.681	0.716	0.703	0.732	0.738	0.717	0.725	0.804	0.725	4.68
92)	styrene											
		1.221	1.178	1.117	1.118	1.150	1.159	1.195	1.180	1.301	1.180	4.80
93)	butyl acrylate											
		1.083	0.994	0.898	0.887	0.963	0.908	0.989	0.997		0.965	6.82
94)	bromoform											
		0.340	0.342	0.393	0.368	0.358	0.422	0.343	0.350	0.354	0.363	7.59
95)	isopropylbenzene											
		2.033	1.926	1.892	1.909	1.994	1.940	1.983	2.029	2.372	2.009	7.23
96)	cis-1,4-dichloro-2-butene											
		0.209	0.231	0.234	0.232	0.239	0.248	0.225	0.241	0.225	0.231	4.93
97)	I 1,4-dichlorobenzene-d ----------ISTD----------											
98)	4-bromofluorobenzene (s)											
		0.719	0.728	0.756	0.749	0.717	0.761	0.725	0.719	0.689	0.729	3.12
99)	bromobenzene											
		0.883	0.863	0.822	0.832	0.811	0.791	0.855	0.830	0.857	0.838	3.44
100)	1,1,2,2-tetrachloroethane											
		1.098	1.101	1.080	1.078	1.069	1.010	1.068	1.058	1.251	1.090	6.05
101)	trans-1,4-dichloro-2-butene											
			0.123	0.131	0.126	0.123	0.125	0.126	0.120		0.125	2.82
102)	1,2,3-trichloropropane											
		0.269	0.267	0.263	0.261	0.261	0.247	0.273	0.269	0.278	0.265	3.37
103)	n-propylbenzene											
		3.535	3.348	3.090	3.178	3.188	2.955	3.311	3.307	3.830	3.305	7.78
104)	2-chlorotoluene											
		0.781	0.782	0.746	0.750	0.732	0.719	0.754	0.741	0.739	0.749	2.78
105)	4-chlorotoluene											
		2.131	2.065	1.955	1.959	1.940	1.904	1.976	1.958	2.309	2.022	6.34
106)	1,3,5-trimethylbenzene											
		2.730	2.684	2.465	2.543	2.562	2.354	2.597	2.614	2.878	2.603	5.84
107)	tert-butylbenzene											
		2.184	2.235	2.374	2.327	2.239	2.212	2.210	2.231	2.347	2.262	3.02
108)	1,2,4-trimethylbenzene											
		2.836	2.621	2.502	2.565	2.593	2.399	2.690	2.647	2.993	2.650	6.67
109)	sec-butylbenzene											
		3.431	3.423	3.428	3.499	3.472	3.296	3.502	3.484	3.791	3.481	3.80
110)	1,3-dichlorobenzene											
		1.644	1.674	1.582	1.611	1.640	1.529	1.674	1.694	1.814	1.651	4.83
111)	p-isopropyltoluene											
		2.957	2.994	2.970	3.028	3.027	2.868	3.020	3.095	3.303	3.029	3.97
112)	1,4-dichlorobenzene											
		1.702	1.644	1.613	1.625	1.613	1.560	1.613	1.604	1.783	1.639	3.99
113)	1,2-dichlorobenzene											

Initial Calibration Summary

Job Number: JC68966 **Sample:** V2C7025-ICC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158325.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

```
            1.813 1.762 1.737 1.759 1.785 1.624 1.784 1.789 1.958   1.779    4.86
114)  n-butylbenzene
            1.558 1.509 1.500 1.543 1.545 1.470 1.563 1.550 1.807   1.560    6.24
115)  1,2-dibromo-3-chloropropane
            0.249 0.266 0.292 0.276 0.269 0.274 0.271 0.284 0.250   0.270    5.24
116)  1,3,5-trichlorobenzene
            1.772 1.758 1.809 1.823 1.880 1.605 1.818 1.858 2.028   1.817    6.18
117)  Nitrobenzene
                  0.046 0.056 0.052 0.052 0.061 0.049 0.043         0.051   12.30
118)  1,2,4-trichlorobenzene
            1.409 1.450 1.606 1.578 1.615 1.390 1.503 1.549 1.786   1.543    7.96
119)  2-ethylhexyl acrylate
                  1.211 1.337 1.175 1.145 1.255 1.128 1.073         1.189    7.37
120)  hexachlorobutadiene
            0.883 0.901 0.865 0.888 0.921 0.782 0.913 0.915         0.883    5.10
121)  naphthalene
            3.130 3.221 3.834 3.755 3.870 3.235 3.588 3.752 3.953   3.593    8.79
122)  1,2,3-trichlorobenzene
            1.279 1.384 1.495 1.448 1.488 1.318 1.396 1.459 1.522   1.421    5.83
123)  hexachloroethane
            0.524 0.521 0.657 0.629 0.569 0.632 0.549 0.558 0.573   0.579    8.49
124)  2-methylnaphthalene
                        2.219 2.037 1.878 1.945       1.661         1.948   10.55
125)  Ethylenimine
                                                                    0.000#  -1.00
126)  Bis(chloromethyl)ether
                                                                    0.000#  -1.00
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2C7025.M         Mon Apr 23 11:00:19 2018   RPT1
```

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158330.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\v2c7025\2C158330.D Vial: 19
Acq On : 16 Apr 2018 10:16 pm Operator: HueanhT
Sample : icv7025-50 Inst : Instrument #1
Misc : MS25516,V2C7025,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Mon Apr 23 10:59:15 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	0.00	8.33
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.235	1.282	-3.8	105	-0.02	8.45
4		1,4-dioxane	0.089	0.073	18.0	83	0.00	12.35
5	I	pentafluorobenzene	1.000	1.000	0.0	103	0.00	10.78
6		chlorodifluoromethane	0.883	0.566	35.9#	70	0.01	4.45
7		dichlorodifluoromethane	0.779	0.693	11.0	99	0.00	4.42
8		chloromethane	1.204	1.119	7.1	109	0.01	4.87
9		vinyl chloride	1.034	0.978	5.4	103	0.00	5.14
10		1,3-butadiene		----------NA----------				
11		bromomethane	0.671	0.642	4.3	109	0.02	5.86
12		chloroethane	0.544	0.520	4.4	107	0.01	6.05
13		trichlorofluoromethane	0.986	0.942	4.5	100	0.01	6.60
14		vinyl bromide	0.648	0.713	-10.0	121	0.02	6.46
15		ethyl ether	0.289	0.286	1.0	100	0.00	7.04
16		2-chloropropane	1.095	1.034	5.6	105	0.00	7.30
17		acrolein	0.187	0.255	-36.4#	141	0.00	7.31
18		freon 113	0.442	0.507	-14.7	115	0.01	7.55
19		1,1-dichloroethene	0.600	0.500	16.7	92	0.00	7.54
20		acetone	0.078	0.075	3.8	103	0.00	7.53
21		iodomethane	1.001	1.074	-7.3	114	0.00	7.83
22		acetonitrile	0.134	0.079	41.0#	64	0.00	8.04
23		carbon disulfide	1.774	1.661	6.4	98	0.01	7.99
24		methylene chloride	0.700	0.639	8.7	104	0.01	8.36
25		methyl acetate	0.661	0.593	10.3	96	0.00	8.06
26		methyl tert butyl ether	1.815	3.655	-0.7	111	0.00	8.75
27		trans-1,2-dichloroethene	0.564	0.501	11.2	100	0.00	8.77
28		hexane	0.349	0.292	16.3	93	0.01	9.17
29		di-isopropyl ether	2.070	2.017	2.6	110	0.00	9.41
30		1,1-dichloroethane	0.964	0.933	3.2	105	0.00	9.41
31		chloroprene	0.806	0.788	2.2	107	0.00	9.52
32		acrylonitrile	0.332	0.356	-7.2	115	0.00	8.68
33		vinyl acetate	0.091	0.110	-20.9	120	0.00	9.36
34		ethyl tert-butyl ether	1.889	1.950	-3.2	111	0.00	9.92
35		2-butanone	0.090	0.093	-3.3	103	0.00	10.13
36		ethyl acetate	0.122	0.120	1.6	107	0.00	10.15
37		2,2-dichloropropane	0.724	0.677	6.5	106	0.00	10.23
38		cis-1,2-dichloroethene	0.600	0.582	3.0	109	0.00	10.19
39		propionitrile	0.149	0.140	6.0	101	0.00	10.22
40		bromochloromethane	0.297	0.310	-4.4	110	0.00	10.51
41		tetrahydrofuran	0.315	0.294	6.7	103	0.00	10.53

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158330.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		chloroform	0.947	0.919	3.0	110	0.00	10.60
43		t-butyl formate	0.571	0.400	29.9	76	0.00	10.65
44	S	dibromofluoromethane (s)	0.433	0.432	0.2	105	0.00	10.80
45		methacrylonitrile	0.274	0.291	-6.2	108	0.00	10.42
46		1,1,1-trichloroethane	0.903	0.842	6.8	104	0.00	10.88
47		Cyclohexane	0.764	1.076	-40.8#	151	0.00	10.99
48		1,1-dichloropropene	0.654	0.632	3.4	106	0.00	11.05
49		carbon tetrachloride	0.688	0.679	1.3	105	0.00	11.08
50		isobutyl alcohol	0.036	0.039	-8.3	121	0.00	11.03
51	I	1,4-difluorobenzene	1.000	1.000	0.0	104	0.00	11.72
52	S	1,2-dichloroethane-d4 (s)	0.362	0.345	4.7	102	0.00	11.24
53		n-butyl alcohol	0.028	0.024	14.3	94	0.00	11.77
54		tert-amyl alcohol	0.041	0.036	12.2	103	0.00	11.20
55		iso-octane	1.618	1.456	10.0	98	0.00	11.40
56		benzene	1.482	1.461	1.4	108	0.00	11.30
57		tert-amyl methyl ether	0.292	0.300	-2.7	109	0.00	11.39
58		heptane	0.308	0.307	0.3	108	0.00	11.55
59		isopropyl acetate	0.091	0.099	-8.8	110	0.00	11.22
60		1,2-dichloroethane	0.510	0.502	1.6	109	0.00	11.33
61		ethyl acrylate	0.561	0.604	-7.7	112	0.00	12.00
62		trichloroethene	0.370	0.373	-0.8	111	0.00	12.01
63		2-nitropropane	0.175	0.180	-2.9	113	0.00	12.74
64		2-chloroethyl vinyl ether	0.243	0.273	-12.3	115	0.00	12.78
65		methyl methacrylate	0.111	0.121	-9.0	111	0.00	12.26
66		1,2-dichloropropane	0.373	0.370	0.8	106	0.00	12.29
67		dibromomethane	0.254	0.263	-3.5	113	0.00	12.40
68		methylcyclohexane	0.721	0.633	12.2	95	0.00	12.30
69		bromodichloromethane	0.506	0.516	-2.0	109	0.00	12.55
70		epichlorohydrin	0.065	0.063	3.1	105	0.00	12.86
71		cis-1,3-dichloropropene	0.581	0.625	-7.6	111	0.00	12.98
72		4-methyl-2-pentanone	0.216	0.221	-2.3	108	0.00	13.08
73		3-methyl-1-butanol	0.043	0.039	9.3	101	0.00	13.08
74	I	chlorobenzene-d5	1.000	1.000	0.0	102	0.00	14.69
75	S	toluene-d8 (s)	1.261	1.232	2.3	101	0.00	13.27
76		toluene	0.955	0.993	-4.0	110	0.00	13.34
77		ethyl methacrylate	0.596	0.597	-0.2	111	0.00	13.50
78		trans-1,3-dichloropropene	0.597	0.610	-2.2	106	0.00	13.51
79		1,1,2-trichloroethane	0.339	0.349	-2.9	112	0.00	13.72
80		2-hexanone	0.238	0.236	0.8	110	0.00	13.88
81		tetrachloroethene	0.378	0.404	-6.9	111	0.00	13.86
82		1,3-dichloropropane	0.578	0.616	-6.6	113	0.00	13.90
83		butyl acetate	0.355	0.365	-2.8	117	0.00	13.95
84		dibromochloromethane	0.438	0.512	-16.9	117	0.00	14.13
85		1,2-dibromoethane	0.440	0.492	-11.8	114	0.00	14.27
86		n-butyl ether	1.868	1.846	1.2	110	0.00	14.67
87		chlorobenzene	1.047	1.126	-7.5	112	0.00	14.72
88		1,1,1,2-tetrachloroethane	0.446	0.471	-5.6	113	0.00	14.78
89		ethylbenzene	1.750	1.824	-4.2	113	0.00	14.77
90		m,p-xylene	0.683	0.719	-5.3	113	0.00	14.88
91		o-xylene	0.725	0.781	-7.7	114	0.00	15.26
92		styrene	1.180	1.246	-5.6	114	0.00	15.27
93		butyl acrylate	0.965	1.003	-3.9	116	0.00	15.09
94		bromoform	0.363	0.431	-18.7	120	0.00	15.49
95		isopropylbenzene	2.009	2.092	-4.1	112	0.00	15.59
96		cis-1,4-dichloro-2-butene	0.231	0.242	-4.8	107	0.00	15.62
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	103	0.00	16.86
98	S	4-bromofluorobenzene (s)	0.729	0.748	-2.6	102	0.00	15.77

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158330.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

99	bromobenzene	0.838	0.930	-11.0	115	0.00	15.95
100	1,1,2,2-tetrachloroethane	1.090	1.175	-7.8	112	0.00	15.84
101	trans-1,4-dichloro-2-bute	0.125	0.148	-18.4	121	0.00	15.87
102	1,2,3-trichloropropane	0.265	0.282	-6.4	111	0.00	15.93
103	n-propylbenzene	3.305	3.505	-6.1	113	0.00	15.97
104	2-chlorotoluene	0.749	0.812	-8.4	111	0.00	16.10
105	4-chlorotoluene	2.022	2.214	-9.5	116	0.00	16.20
106	1,3,5-trimethylbenzene	2.603	2.720	-4.5	110	0.00	16.12
107	tert-butylbenzene	2.262	2.550	-12.7	112	0.00	16.43
108	1,2,4-trimethylbenzene	2.650	2.854	-7.7	114	0.00	16.48
109	sec-butylbenzene	3.481	3.826	-9.9	112	0.00	16.64
110	1,3-dichlorobenzene	1.651	1.774	-7.5	113	0.00	16.80
111	p-isopropyltoluene	3.029	3.325	-9.8	113	0.00	16.76
112	1,4-dichlorobenzene	1.639	1.785	-8.9	113	0.00	16.89
113	1,2-dichlorobenzene	1.779	1.928	-8.4	112	0.00	17.25
114	n-butylbenzene	1.560	1.680	-7.7	112	0.00	17.15
115	1,2-dibromo-3-chloropropa	0.270	0.299	-10.7	111	0.00	18.01
116	1,3,5-trichlorobenzene	1.817	2.018	-11.1	113	0.00	18.20
117	Nitrobenzene	0.051	0.049	3.9	97	0.00	18.21
118	1,2,4-trichlorobenzene	1.543	1.798	-16.5	117	0.00	18.85
119	2-ethylhexyl acrylate	1.189	1.392	-17.1	121	0.00	18.86
120	hexachlorobutadiene	0.883	0.940	-6.5	109	0.00	18.97
121	naphthalene	3.593	4.283	-19.2	117	0.00	19.16
122	1,2,3-trichlorobenzene	1.421	1.639	-15.3	116	0.00	19.38
123	hexachloroethane	0.579	0.704	-21.6	115	0.00	17.54
124	2-methylnaphthalene	1.948	2.105	-8.1	106	0.00	20.31
125	Ethylenimine		----------NA----------				
126	Bis(chloromethyl)ether		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C158325.D M2C7025.M Mon Apr 23 11:00:34 2018 RPT1

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158331.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\v2c7025\2C158331.D Vial: 20
Acq On : 16 Apr 2018 10:45 pm Operator: HueanhT
Sample : icv7025-50 Inst : Instrument #1
Misc : MS25516,V2C7025,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Tue Apr 17 15:50:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	115	0.01	8.34
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	100	0.00	10.77
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		iodomethane		----------NA----------				
22		acetonitrile	0.134	0.154	-14.9	122	0.02	8.06
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		1,1-dichloroethane		----------NA----------				
31		chloroprene		----------NA----------				
32		acrylonitrile		----------NA----------				
33		vinyl acetate		----------NA----------				
34		ethyl tert-butyl ether		----------NA----------				
35		2-butanone		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		bromochloromethane		----------NA----------				
41		tetrahydrofuran		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158331.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		chloroform		----------NA----------				
43		t-butyl formate		----------NA----------				
44	S	dibromofluoromethane (s)	0.433	0.427	1.4	100	0.00	10.80
45		methacrylonitrile		----------NA----------				
46		1,1,1-trichloroethane		----------NA----------				
47		Cyclohexane		----------NA----------				
48		1,1-dichloropropene		----------NA----------				
49		carbon tetrachloride		----------NA----------				
		----------	True	Calc.	% Drift	----------		
50		isobutyl alcohol		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
51	I	1,4-difluorobenzene	1.000	1.000	0.0	98	0.00	11.71
52	S	1,2-dichloroethane-d4 (s)	0.362	0.373	-3.0	104	0.00	11.23
53		n-butyl alcohol		----------NA----------				
54		tert-amyl alcohol		----------NA----------				
55		iso-octane		----------NA----------				
56		benzene		----------NA----------				
57		tert-amyl methyl ether		----------NA----------				
58		heptane		----------NA----------				
59		isopropyl acetate		----------NA----------				
60		1,2-dichloroethane		----------NA----------				
61		ethyl acrylate		----------NA----------				
62		trichloroethene		----------NA----------				
63		2-nitropropane		----------NA----------				
64		2-chloroethyl vinyl ether		----------NA----------				
65		methyl methacrylate		----------NA----------				
66		1,2-dichloropropane		----------NA----------				
67		dibromomethane		----------NA----------				
68		methylcyclohexane		----------NA----------				
69		bromodichloromethane		----------NA----------				
70		epichlorohydrin		----------NA----------				
71		cis-1,3-dichloropropene		----------NA----------				
72		4-methyl-2-pentanone		----------NA----------				
73		3-methyl-1-butanol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	101	0.00	14.69
75	S	toluene-d8 (s)	1.261	1.235	2.1	100	0.00	13.27
76		toluene		----------NA----------				
77		ethyl methacrylate		----------NA----------				
78		trans-1,3-dichloropropene		----------NA----------				
79		1,1,2-trichloroethane		----------NA----------				
80		2-hexanone		----------NA----------				
81		tetrachloroethene	0.378	0.364	3.7	98	0.00	13.86
82		1,3-dichloropropane		----------NA----------				
83		butyl acetate		----------NA----------				
84		dibromochloromethane		----------NA----------				
85		1,2-dibromoethane		----------NA----------				
86		n-butyl ether		----------NA----------				
87		chlorobenzene		----------NA----------				
88		1,1,1,2-tetrachloroethane		----------NA----------				
89		ethylbenzene		----------NA----------				
90		m,p-xylene		----------NA----------				
91		o-xylene		----------NA----------				
92		styrene		----------NA----------				
93		butyl acrylate		----------NA----------				
94		bromoform		----------NA----------				
95		isopropylbenzene		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158331.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		cis-1,4-dichloro-2-butene		----------NA----------				
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	108	0.00	16.86
98	S	4-bromofluorobenzene (s)	0.729	0.708	2.9	102	0.00	15.77
99		bromobenzene		----------NA----------				
100		1,1,2,2-tetrachloroethane		----------NA----------				
101		trans-1,4-dichloro-2-bute		----------NA----------				
102		1,2,3-trichloropropane		----------NA----------				
103		n-propylbenzene		----------NA----------				
104		2-chlorotoluene		----------NA----------				
105		4-chlorotoluene		----------NA----------				
106		1,3,5-trimethylbenzene		----------NA----------				
107		tert-butylbenzene		----------NA----------				
108		1,2,4-trimethylbenzene		----------NA----------				
109		sec-butylbenzene		----------NA----------				
110		1,3-dichlorobenzene		----------NA----------				
111		p-isopropyltoluene		----------NA----------				
112		1,4-dichlorobenzene		----------NA----------				
113		1,2-dichlorobenzene		----------NA----------				
114		n-butylbenzene		----------NA----------				
115		1,2-dibromo-3-chloropropa		----------NA----------				
116		1,3,5-trichlorobenzene		----------NA----------				
117		Nitrobenzene		----------NA----------				
118		1,2,4-trichlorobenzene		----------NA----------				
119		2-ethylhexyl acrylate		----------NA----------				
120		hexachlorobutadiene		----------NA----------				
121		naphthalene		----------NA----------				
122		1,2,3-trichlorobenzene		----------NA----------				
123		hexachloroethane		----------NA----------				
124		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C158325.D M2C7025.M Tue Apr 17 16:02:35 2018 RPT1

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158335.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\v2c7025\2C158335.D Vial: 24
Acq On : 17 Apr 2018 4:26 pm Operator: HueanhT
Sample : icv7025-50 Inst : Instrument #1
Misc : MS25516,V2C7025,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Tue Apr 17 15:50:34 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	122	0.00	8.34
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.77
6		chlorodifluoromethane	0.883	0.926	-4.9	115	0.00	4.45
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene		----------NA----------				
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein	0.187	0.207	-10.7	116	0.02	7.32
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		iodomethane		----------NA----------				
22		acetonitrile		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		1,1-dichloroethane		----------NA----------				
31		chloroprene		----------NA----------				
32		acrylonitrile		----------NA----------				
33		vinyl acetate		----------NA----------				
34		ethyl tert-butyl ether		----------NA----------				
35		2-butanone		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		bromochloromethane		----------NA----------				
41		tetrahydrofuran		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158335.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		chloroform		----------NA----------				
43		t-butyl formate		----------NA----------				
44	S	dibromofluoromethane (s)	0.433	0.429	0.9	105	0.00	10.80
45		methacrylonitrile		----------NA----------				
46		1,1,1-trichloroethane		----------NA----------				
47		Cyclohexane	0.764	0.877	-14.8	125	0.00	10.99
48		1,1-dichloropropene		----------NA----------				
49		carbon tetrachloride		----------NA----------				
		----------	True	Calc.	% Drift	----------		
50		isobutyl alcohol		----------NA----------				
		----------	AvgRF	CCRF	% Dev	----------		
51	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	11.71
52	S	1,2-dichloroethane-d4 (s)	0.362	0.377	-4.1	108	0.00	11.23
53		n-butyl alcohol		----------NA----------				
54		tert-amyl alcohol		----------NA----------				
55		iso-octane		----------NA----------				
56		benzene		----------NA----------				
57		tert-amyl methyl ether		----------NA----------				
58		heptane		----------NA----------				
59		isopropyl acetate		----------NA----------				
60		1,2-dichloroethane		----------NA----------				
61		ethyl acrylate		----------NA----------				
62		trichloroethene		----------NA----------				
63		2-nitropropane		----------NA----------				
64		2-chloroethyl vinyl ether		----------NA----------				
65		methyl methacrylate		----------NA----------				
66		1,2-dichloropropane		----------NA----------				
67		dibromomethane		----------NA----------				
68		methylcyclohexane		----------NA----------				
69		bromodichloromethane		----------NA----------				
70		epichlorohydrin		----------NA----------				
71		cis-1,3-dichloropropene		----------NA----------				
72		4-methyl-2-pentanone		----------NA----------				
73		3-methyl-1-butanol		----------NA----------				
74	I	chlorobenzene-d5	1.000	1.000	0.0	100	0.00	14.69
75	S	toluene-d8 (s)	1.261	1.247	1.1	100	0.00	13.27
76		toluene		----------NA----------				
77		ethyl methacrylate		----------NA----------				
78		trans-1,3-dichloropropene		----------NA----------				
79		1,1,2-trichloroethane		----------NA----------				
80		2-hexanone		----------NA----------				
81		tetrachloroethene		----------NA----------				
82		1,3-dichloropropane		----------NA----------				
83		butyl acetate		----------NA----------				
84		dibromochloromethane		----------NA----------				
85		1,2-dibromoethane		----------NA----------				
86		n-butyl ether		----------NA----------				
87		chlorobenzene		----------NA----------				
88		1,1,1,2-tetrachloroethane		----------NA----------				
89		ethylbenzene		----------NA----------				
90		m,p-xylene		----------NA----------				
91		o-xylene		----------NA----------				
92		styrene		----------NA----------				
93		butyl acrylate		----------NA----------				
94		bromoform		----------NA----------				
95		isopropylbenzene		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2C7025-ICV7025
Account: EAENYES EA Engineering **Lab FileID:** 2C158335.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		cis-1,4-dichloro-2-butene		----------NA----------				
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	106	0.00	16.86
98	S	4-bromofluorobenzene (s)	0.729	0.716	1.8	101	0.00	15.77
99		bromobenzene		----------NA----------				
100		1,1,2,2-tetrachloroethane		----------NA----------				
101		trans-1,4-dichloro-2-bute		----------NA----------				
102		1,2,3-trichloropropane		----------NA----------				
103		n-propylbenzene		----------NA----------				
104		2-chlorotoluene		----------NA----------				
105		4-chlorotoluene		----------NA----------				
106		1,3,5-trimethylbenzene		----------NA----------				
107		tert-butylbenzene		----------NA----------				
108		1,2,4-trimethylbenzene		----------NA----------				
109		sec-butylbenzene		----------NA----------				
110		1,3-dichlorobenzene		----------NA----------				
111		p-isopropyltoluene		----------NA----------				
112		1,4-dichlorobenzene		----------NA----------				
113		1,2-dichlorobenzene		----------NA----------				
114		n-butylbenzene		----------NA----------				
115		1,2-dibromo-3-chloropropa		----------NA----------				
116		1,3,5-trichlorobenzene		----------NA----------				
117		Nitrobenzene		----------NA----------				
118		1,2,4-trichlorobenzene		----------NA----------				
119		2-ethylhexyl acrylate		----------NA----------				
120		hexachlorobutadiene		----------NA----------				
121		naphthalene		----------NA----------				
122		1,2,3-trichlorobenzene		----------NA----------				
123		hexachloroethane		----------NA----------				
124		2-methylnaphthalene		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C158325.D M2C7025.M Tue Apr 17 16:51:51 2018 RPT1

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2C7121-CC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C160375.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...18\v2c7121\2c160375.d Vial: 25
Acq On : 2 Jul 2018 6:38 pm Operator: HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Tue Apr 17 17:03:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	100	-0.02	8.31
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.235	1.216	1.5	99	-0.03	8.45
4		1,4-dioxane	0.089	0.092	-3.4	104	-0.02	12.33
5	I	pentafluorobenzene	1.000	1.000	0.0	114	0.00	10.78
6		chlorodifluoromethane	0.883	0.724	18.0	98	0.02	4.46
7		dichlorodifluoromethane	0.779	0.930	-19.4	146	0.02	4.43
8		chloromethane	1.204	1.001	16.9	107	-0.05	4.81
9		vinyl chloride	1.034	0.939	9.2	109	-0.03	5.11
10		1,3-butadiene		----------NA----------				
11		bromomethane	0.671	0.537	20.0	100	-0.01	5.82
12		chloroethane	0.544	0.426	21.7#	96	-0.03	6.02
13		trichlorofluoromethane	0.986	0.947	4.0	111	0.00	6.59
14		vinyl bromide	0.648	0.519	19.9	97	0.00	6.44
15		ethyl ether	0.289	0.294	-1.7	113	0.01	7.05
16		2-chloropropane	1.095	0.922	15.8	103	0.00	7.29
17		acrolein	0.187	0.129	31.0#	79	0.00	7.31
18		freon 113	0.442	0.511	-15.6	127	0.02	7.55
19		1,1-dichloroethene	0.600	0.551	8.2	112	0.00	7.53
20		acetone	0.078	0.074	5.1	112	0.01	7.55
21		iodomethane	1.001	0.880	12.1	103	0.00	7.82
22		acetonitrile	0.134	0.124	7.5	111	0.00	8.04
23		carbon disulfide	1.774	1.630	8.1	106	0.00	7.98
24		methylene chloride	0.700	0.579	17.3	103	0.00	8.35
25		methyl acetate	0.661	0.585	11.5	105	0.01	8.07
26		methyl tert butyl ether	1.815	1.663	8.4	111	0.00	8.75
27		trans-1,2-dichloroethene	0.564	0.507	10.1	111	0.00	8.77
28		hexane	0.349	0.359	-2.9	126	0.01	9.17
29		di-isopropyl ether	2.070	1.757	15.1	106	0.00	9.41
30		1,1-dichloroethane	0.964	0.915	5.1	113	0.00	9.41
31		chloroprene	0.806	0.762	5.5	114	0.00	9.52
32		acrylonitrile	0.332	0.304	8.4	108	0.00	8.68
33		vinyl acetate	0.091	0.095	-4.4	114	0.00	9.36
34		ethyl tert-butyl ether	1.889	1.722	8.8	108	0.00	9.92
35		2-butanone	0.090	0.088	2.2	107	0.00	10.13
36		ethyl acetate	0.122	0.105	13.9	103	0.00	10.15
37		2,2-dichloropropane	0.724	0.744	-2.8	128	0.00	10.23
38		cis-1,2-dichloroethene	0.600	0.551	8.2	113	0.00	10.19
39		propionitrile	0.149	0.134	10.1	106	0.00	10.22
40		bromochloromethane	0.297	0.295	0.7	115	0.00	10.51
41		tetrahydrofuran	0.315	0.255	19.0	98	0.00	10.53

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2C7121-CC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C160375.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		chloroform	0.947	0.875	7.6	115	0.00	10.60
43		t-butyl formate	0.571	0.523	8.4	109	0.00	10.65
44	S	dibromofluoromethane (s)	0.433	0.439	-1.4	117	0.00	10.80
45		methacrylonitrile	0.274	0.260	5.1	106	0.00	10.42
46		1,1,1-trichloroethane	0.903	0.785	13.1	107	0.00	10.87
47		Cyclohexane	0.764	0.760	0.5	117	0.00	10.99
48		1,1-dichloropropene	0.654	0.622	4.9	114	0.00	11.05
49		carbon tetrachloride	0.688	0.726	-5.5	124	0.00	11.08
			True	Calc.	% Drift			
50		isobutyl alcohol	500.000	322.014	35.6#	79	0.00	11.03
			AvgRF	CCRF	% Dev			
51	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.71
52	S	1,2-dichloroethane-d4 (s)	0.362	0.366	-1.1	112	0.00	11.24
53		n-butyl alcohol	0.028	0.024#	14.3	99	0.00	11.77
54		tert-amyl alcohol	0.041	0.036#	12.2	106	0.00	11.19
55		iso-octane	1.618	1.683	-4.0	118	0.00	11.40
56		benzene	1.482	1.422	4.0	109	0.00	11.30
57		tert-amyl methyl ether	0.292	0.291	0.3	110	0.00	11.39
58		heptane	0.308	0.276	10.4	101	0.00	11.56
59		isopropyl acetate	0.091	0.097	-6.6	111	0.00	11.22
60		1,2-dichloroethane	0.510	0.498	2.4	113	0.00	11.33
61		ethyl acrylate	0.561	0.557	0.7	107	0.00	12.00
62		trichloroethene	0.370	0.356	3.8	110	0.00	12.02
63		2-nitropropane	0.175	0.167	4.6	109	0.00	12.74
64		2-chloroethyl vinyl ether	0.243	0.194	20.2#	85	0.00	12.77
65		methyl methacrylate	0.111	0.112	-0.9	107	0.00	12.26
66		1,2-dichloropropane	0.373	0.362	2.9	107	0.00	12.29
67		dibromomethane	0.254	0.249	2.0	111	0.00	12.40
68		methylcyclohexane	0.721	0.719	0.3	113	0.00	12.30
69		bromodichloromethane	0.506	0.499	1.4	110	0.00	12.54
70		epichlorohydrin	0.065	0.059	9.2	101	0.00	12.85
71		cis-1,3-dichloropropene	0.581	0.564	2.9	104	0.00	12.98
72		4-methyl-2-pentanone	0.216	0.205	5.1	104	0.00	13.07
73		3-methyl-1-butanol	0.043	0.038#	11.6	101	0.00	13.08
74	I	chlorobenzene-d5	1.000	1.000	0.0	103	0.00	14.69
75	S	toluene-d8 (s)	1.261	1.264	-0.2	105	0.00	13.27
76		toluene	0.955	0.933	2.3	104	0.00	13.34
77		ethyl methacrylate	0.596	0.566	5.0	106	0.00	13.50
78		trans-1,3-dichloropropene	0.597	0.600	-0.5	105	0.00	13.51
79		1,1,2-trichloroethane	0.339	0.327	3.5	106	0.00	13.72
80		2-hexanone	0.238	0.225	5.5	106	0.00	13.88
81		tetrachloroethene	0.378	0.407	-7.7	113	0.00	13.86
82		1,3-dichloropropane	0.578	0.564	2.4	104	0.00	13.89
83		butyl acetate	0.355	0.322	9.3	104	0.00	13.94
84		dibromochloromethane	0.438	0.489	-11.6	113	0.00	14.12
85		1,2-dibromoethane	0.440	0.476	-8.2	112	0.00	14.27
86		n-butyl ether	1.868	1.684	9.9	101	0.00	14.67
87		chlorobenzene	1.047	1.041	0.6	105	0.00	14.72
88		1,1,1,2-tetrachloroethane	0.446	0.450	-0.9	109	0.00	14.78
89		ethylbenzene	1.750	1.684	3.8	105	0.00	14.77
90		m,p-xylene	0.683	0.665	2.6	105	0.00	14.88
91		o-xylene	0.725	0.707	2.5	104	0.00	15.26
92		styrene	1.180	1.111	5.8	102	0.00	15.27
93		butyl acrylate	0.965	0.873	9.5	101	0.00	15.09
94		bromoform	0.363	0.414	-14.0	116	0.00	15.49
95		isopropylbenzene	2.009	1.858	7.5	100	0.00	15.58

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2C7121-CC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C160375.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		cis-1,4-dichloro-2-butene	0.231	0.142	38.5#	63	0.00	15.61
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	0.00	16.86
98	S	4-bromofluorobenzene (s)	0.729	0.785	-7.7	102	0.00	15.77
99		bromobenzene	0.838	0.900	-7.4	105	0.00	15.94
100		1,1,2,2-tetrachloroethane	1.090	1.106	-1.5	100	0.00	15.84
101		trans-1,4-dichloro-2-bute	0.125	0.087	30.4#	67	0.00	15.87
102		1,2,3-trichloropropane	0.265	0.284	-7.2	106	0.00	15.92
103		n-propylbenzene	3.305	3.337	-1.0	102	0.00	15.97
104		2-chlorotoluene	0.749	0.790	-5.5	103	0.00	16.09
105		4-chlorotoluene	2.022	2.036	-0.7	101	0.00	16.20
106		1,3,5-trimethylbenzene	2.603	2.536	2.6	97	0.00	16.11
107		tert-butylbenzene	2.262	2.298	-1.6	96	0.00	16.43
108		1,2,4-trimethylbenzene	2.650	2.563	3.3	97	0.00	16.48
109		sec-butylbenzene	3.481	3.423	1.7	95	0.00	16.63
110		1,3-dichlorobenzene	1.651	1.640	0.7	99	0.00	16.80
111		p-isopropyltoluene	3.029	2.951	2.6	95	0.00	16.75
112		1,4-dichlorobenzene	1.639	1.643	-0.2	98	0.00	16.89
113		1,2-dichlorobenzene	1.779	1.737	2.4	96	0.00	17.25
114		n-butylbenzene	1.560	1.452	6.9	92	0.00	17.15
115		1,2-dibromo-3-chloropropa	0.270	0.276	-2.2	98	-0.01	18.00
116		1,3,5-trichlorobenzene	1.817	1.749	3.7	93	0.00	18.19
117		Nitrobenzene	0.051	0.068	-33.3#	128	0.00	18.20
118		1,2,4-trichlorobenzene	1.543	1.488	3.6	92	0.00	18.85
119		2-ethylhexyl acrylate	1.189	0.570	52.1#	47#	0.00	18.85
120		hexachlorobutadiene	0.883	0.811	8.2	89	0.00	18.96
121		naphthalene	3.593	3.542	1.4	92	-0.01	19.15
122		1,2,3-trichlorobenzene	1.421	1.392	2.0	94	-0.01	19.37
123		hexachloroethane	0.579	0.577	0.3	89	0.00	17.54
124		2-methylnaphthalene	1.948	1.375	29.4#	66	0.00	20.31
125		Ethylenimine		----------NA----------				
126		Bis(chloromethyl)ether		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C158325.D M2C7025.M Tue Jul 03 21:21:06 2018

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2C7121-ECC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C160399.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...18\v2c7121\2c160399.d Vial: 49
Acq On : 3 Jul 2018 7:25 am Operator: HueanhT
Sample : ECC7025-50 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
Last Update : Tue Apr 17 17:03:04 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	Tert Butyl Alcohol-d9	1.000	1.000	0.0	80	-0.02	8.31
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.235	1.331	-7.8	87	-0.03	8.45
4		1,4-dioxane	0.089	0.091	-2.2	83	-0.02	12.33
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.77
6		chlorodifluoromethane	0.883	0.680	23.0	85	0.03	4.47
7		dichlorodifluoromethane	0.779	0.827	-6.2	120	0.00	4.42
8		chloromethane	1.204	0.874	27.4	87	-0.04	4.82
9		vinyl chloride	1.034	0.775	25.0	83	0.00	5.13
10		1,3-butadiene		----------NA----------				
11		bromomethane	0.671	0.457	31.9	79	0.00	5.84
12		chloroethane	0.544	0.387	28.9	81	-0.01	6.03
13		trichlorofluoromethane	0.986	0.901	8.6	98	0.02	6.61
14		vinyl bromide	0.648	0.462	28.7	80	0.01	6.45
15		ethyl ether	0.289	0.311	-7.6	111	0.02	7.06
16		2-chloropropane	1.095	0.753	31.2	78	0.01	7.30
17		acrolein	0.187	0.099	47.1	56	0.02	7.32
18		freon 113	0.442	0.457	-3.4	106	0.02	7.56
19		1,1-dichloroethene	0.600	0.555	7.5	104	0.02	7.55
20		acetone	0.078	0.067	14.1	94	0.01	7.55
21		iodomethane	1.001	0.808	19.3	88	0.00	7.82
22		acetonitrile	0.134	0.101	24.6	84	0.00	8.04
23		carbon disulfide	1.774	1.447	18.4	87	0.03	8.01
24		methylene chloride	0.700	0.563	19.6	93	0.00	8.35
25		methyl acetate	0.661	0.616	6.8	102	0.01	8.07
26		methyl tert butyl ether	1.815	1.642	9.5	102	0.00	8.75
27		trans-1,2-dichloroethene	0.564	0.520	7.8	106	0.00	8.77
28		hexane	0.349	0.327	6.3	106	0.00	9.17
29		di-isopropyl ether	2.070	1.736	16.1	97	0.00	9.41
30		1,1-dichloroethane	0.964	0.971	-0.7	111	0.00	9.41
31		chloroprene	0.806	0.810	-0.5	113	0.00	9.52
32		acrylonitrile	0.332	0.292	12.0	97	0.00	8.68
33		vinyl acetate	0.091	0.074	18.7	83	0.00	9.36
34		ethyl tert-butyl ether	1.889	1.703	9.8	99	0.00	9.92
35		2-butanone	0.090	0.084	6.7	95	0.00	10.13
36		ethyl acetate	0.122	0.117	4.1	107	0.00	10.15
37		2,2-dichloropropane	0.724	0.423	41.6	67	-0.01	10.22
38		cis-1,2-dichloroethene	0.600	0.558	7.0	106	0.00	10.19
39		propionitrile	0.149	0.125	16.1	92	0.00	10.21
40		bromochloromethane	0.297	0.298	-0.3	107	0.00	10.51
41		tetrahydrofuran	0.315	0.250	20.6	89	0.00	10.53

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2C7121-ECC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C160399.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		chloroform	0.947	0.930	1.8	113	0.00	10.60
43		t-butyl formate	0.571	0.416	27.1	80	0.00	10.65
44	S	dibromofluoromethane (s)	0.433	0.448	-3.5	110	0.00	10.80
45		methacrylonitrile	0.274	0.265	3.3	101	0.00	10.42
46		1,1,1-trichloroethane	0.903	0.712	21.2	90	-0.01	10.87
47		Cyclohexane	0.764	0.689	9.8	99	0.00	10.98
48		1,1-dichloropropene	0.654	0.650	0.6	111	0.00	11.05
49		carbon tetrachloride	0.688	0.708	-2.9	112	0.00	11.07
			True	Calc.	% Drift			
50		isobutyl alcohol	500.000	348.955	30.2	79	0.00	11.03
			AvgRF	CCRF	% Dev			
51	I	1,4-difluorobenzene	1.000	1.000	0.0	101	0.00	11.71
52	S	1,2-dichloroethane-d4 (s)	0.362	0.394	-8.8	113	0.00	11.23
53		n-butyl alcohol	0.028	0.022#	21.4	84	0.00	11.77
54		tert-amyl alcohol	0.041	0.033#	19.5	92	0.00	11.20
55		iso-octane	1.618	1.403	13.3	92	0.00	11.41
56		benzene	1.482	1.437	3.0	103	0.00	11.30
57		tert-amyl methyl ether	0.292	0.282	3.4	99	0.00	11.39
58		heptane	0.308	0.245	20.5	84	0.00	11.55
59		isopropyl acetate	0.091	0.095	-4.4	102	0.00	11.22
60		1,2-dichloroethane	0.510	0.542	-6.3	114	0.00	11.33
61		ethyl acrylate	0.561	0.568	-1.2	102	0.00	12.00
62		trichloroethene	0.370	0.383	-3.5	111	0.00	12.01
63		2-nitropropane	0.175	0.170	2.9	104	0.00	12.74
64		2-chloroethyl vinyl ether	0.243	0.191	21.4	78	0.00	12.77
65		methyl methacrylate	0.111	0.109	1.8	97	0.00	12.26
66		1,2-dichloropropane	0.373	0.367	1.6	102	0.00	12.29
67		dibromomethane	0.254	0.254	0.0	106	0.00	12.40
68		methylcyclohexane	0.721	0.645	10.5	94	0.00	12.30
69		bromodichloromethane	0.506	0.533	-5.3	109	0.00	12.54
70		epichlorohydrin	0.065	0.051	21.5	82	0.00	12.85
71		cis-1,3-dichloropropene	0.581	0.548	5.7	95	0.00	12.98
72		4-methyl-2-pentanone	0.216	0.189	12.5	90	0.00	13.07
73		3-methyl-1-butanol	0.043	0.033#	23.3	83	0.00	13.08
74	I	chlorobenzene-d5	1.000	1.000	0.0	96	0.00	14.69
75	S	toluene-d8 (s)	1.261	1.233	2.2	95	0.00	13.27
76		toluene	0.955	0.927	2.9	96	0.00	13.34
77		ethyl methacrylate	0.596	0.558	6.4	97	0.00	13.50
78		trans-1,3-dichloropropene	0.597	0.595	0.3	97	0.00	13.51
79		1,1,2-trichloroethane	0.339	0.333	1.8	100	0.00	13.72
80		2-hexanone	0.238	0.214	10.1	94	0.00	13.88
81		tetrachloroethene	0.378	0.408	-7.9	105	0.00	13.86
82		1,3-dichloropropane	0.578	0.581	-0.5	100	0.00	13.89
83		butyl acetate	0.355	0.320	9.9	96	0.00	13.94
84		dibromochloromethane	0.438	0.503	-14.8	108	0.00	14.12
85		1,2-dibromoethane	0.440	0.489	-11.1	107	0.00	14.27
86		n-butyl ether	1.868	1.628	12.8	91	0.00	14.67
87		chlorobenzene	1.047	1.041	0.6	97	0.00	14.72
88		1,1,1,2-tetrachloroethane	0.446	0.444	0.4	100	0.00	14.78
89		ethylbenzene	1.750	1.678	4.1	97	0.00	14.77
90		m,p-xylene	0.683	0.655	4.1	96	0.00	14.88
91		o-xylene	0.725	0.687	5.2	94	0.00	15.26
92		styrene	1.180	1.123	4.8	96	0.00	15.27
93		butyl acrylate	0.965	0.877	9.1	95	0.00	15.09
94		bromoform	0.363	0.425	-17.1	110	0.00	15.49
95		isopropylbenzene	2.009	1.792	10.8	90	0.00	15.58

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2C7121-ECC7025
Account: EAENYES EA Engineering **Lab FileID:** 2C160399.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		cis-1,4-dichloro-2-butene	0.231	0.136	41.1	56	0.00	15.61
97	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	16.86
98	S	4-bromofluorobenzene (s)	0.729	0.815	-11.8	96	0.00	15.77
99		bromobenzene	0.838	0.952	-13.6	101	0.00	15.94
100		1,1,2,2-tetrachloroethane	1.090	1.021	6.3	84	0.00	15.84
101		trans-1,4-dichloro-2-bute	0.125	0.103	17.6	73	0.00	15.87
102		1,2,3-trichloropropane	0.265	0.287	-8.3	97	0.00	15.92
103		n-propylbenzene	3.305	3.353	-1.5	93	0.00	15.97
104		2-chlorotoluene	0.749	0.794	-6.0	94	0.00	16.09
105		4-chlorotoluene	2.022	2.107	-4.2	95	0.00	16.20
106		1,3,5-trimethylbenzene	2.603	2.499	4.0	87	0.00	16.11
107		tert-butylbenzene	2.262	2.319	-2.5	88	0.00	16.43
108		1,2,4-trimethylbenzene	2.650	2.533	4.4	88	0.00	16.48
109		sec-butylbenzene	3.481	3.354	3.6	85	0.00	16.63
110		1,3-dichlorobenzene	1.651	1.657	-0.4	91	0.00	16.80
111		p-isopropyltoluene	3.029	2.884	4.8	84	0.00	16.75
112		1,4-dichlorobenzene	1.639	1.654	-0.9	90	0.00	16.89
113		1,2-dichlorobenzene	1.779	1.762	1.0	89	0.00	17.25
114		n-butylbenzene	1.560	1.419	9.0	81	0.00	17.15
115		1,2-dibromo-3-chloropropa	0.270	0.277	-2.6	89	0.00	18.00
116		1,3,5-trichlorobenzene	1.817	1.659	8.7	81	0.00	18.19
117		Nitrobenzene	0.051	0.070	-37.3	120	-0.01	18.20
118		1,2,4-trichlorobenzene	1.543	1.451	6.0	81	0.00	18.85
119		2-ethylhexyl acrylate	1.189	0.628	47.2	47#	0.00	18.85
120		hexachlorobutadiene	0.883	0.802	9.2	80	0.00	18.96
121		naphthalene	3.593	3.305	8.0	78	-0.01	19.15
122		1,2,3-trichlorobenzene	1.421	1.398	1.6	86	-0.01	19.37
123		hexachloroethane	0.579	0.618	-6.7	87	0.00	17.54
124		2-methylnaphthalene	1.948	1.309	32.8	57	0.00	20.31
125		Ethylenimine		----------NA----------				
126		Bis(chloromethyl)ether		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2C158325.D M2C7025.M Tue Jul 03 21:20:33 2018

Initial Calibration Summary

Job Number: JC68966 **Sample:** V2D7390-ICC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175271.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Response Factor Report MS2D

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Calibration Files
1 =2D175265.D 2 =2D175267.D 100 =2D175272.D 50 =2D175271.D
20 =2D175270.D 200 =2D175273.D 5 =2D175268.D 0.5 =2D175266.D
10 =2D175269.D =

Compound	1	2	100	50	20	200	5	0.5	10	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD										
2) tertiary butyl alcohol	0.913	0.885	0.994	0.972	0.954	0.988	0.938		0.935	0.947	3.93
3) ethanol	0.154	0.127	0.087	0.085	0.090	0.084	0.102		0.092	0.103	24.44
---- Linear regression ---- Coefficient = 0.9997											
Response Ratio = 0.01545 + 0.08442 *A											
4) 1,4-dioxane			0.083	0.101	0.097	0.094	0.103	0.087	0.092	0.094	7.58
5) I pentafluorobenzene	ISTD										
6) chlorodifluoromethane	0.480	0.479	0.473	0.466	0.466	0.426	0.450	0.531	0.471	0.471	5.92
7) dichlorodifluoromethane	0.503	0.533	0.568	0.594	0.603	0.529	0.527		0.591	0.556	6.78
8) freon 142b										0.000	-1.00
9) freon 114										0.000	-1.00
10) chloromethane	0.731	0.633	0.614	0.578	0.609	0.590	0.616	0.690	0.591	0.628	8.05
11) vinyl chloride	0.596	0.556	0.580	0.561	0.562	0.562	0.533	0.474	0.546	0.552	6.24
12) bromomethane			0.449	0.384	0.377	0.384	0.350	0.387	0.387	0.388	7.66
13) chloroethane	0.360	0.279	0.277	0.276	0.279	0.260	0.285	0.312	0.281	0.290	10.18
14) trichlorofluoromethane	0.695	0.627	0.639	0.650	0.657	0.619	0.605	0.481	0.646	0.624	9.56
15) vinyl bromide	0.455	0.399	0.407	0.408	0.410	0.398	0.393	0.462	0.392	0.414	6.31
16) 1,3-butadiene										0.000	-1.00
17) ethyl ether	0.203	0.200	0.197	0.187	0.189	0.191	0.180	0.211	0.190	0.194	4.83
18) acrolein	0.092	0.078	0.079	0.075	0.076	0.078	0.084		0.075	0.080	7.31
19) 1,1-dichloroethene	0.375	0.377	0.374	0.368	0.366	0.370	0.360	0.429	0.372	0.377	5.37
20) freon 113	0.270	0.341	0.319	0.325	0.324	0.323	0.304		0.325	0.316	6.75
21) 2-chloropropane				0.624	0.612	0.619	0.606	0.685	0.652	0.633	4.79

Initial Calibration Summary

Job Number: JC68966 **Sample:** V2D7390-ICC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175271.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

22) acetone
0.023 0.027 0.029 0.027 0.027 0.027 0.026 0.028 0.027 6.25
23) acetonitrile
0.044 0.044 0.046 0.041 0.046 0.047 0.045 4.59
24) iodomethane
0.659 0.619 0.649 0.640 0.624 0.633 0.597 0.703 0.624 0.639 4.71
25) carbon disulfide
1.287 1.178 1.194 1.178 1.165 1.148 1.129 1.438 1.150 1.207 8.07
26) methylene chloride
0.437 0.429 0.422 0.408 0.406 0.416 0.404 0.413 0.417 2.81
27) methyl acetate
0.276 0.266 0.259 0.263 0.256 0.269 0.267 0.265 2.53
28) methyl tert butyl ether
1.107 1.094 1.093 1.065 1.071 1.038 1.048 1.286 1.060 1.096 6.82
29) trans-1,2-dichloroethene
0.382 0.397 0.383 0.368 0.362 0.371 0.361 0.441 0.373 0.382 6.57
30) hexane
0.498 0.537 0.511 0.509 0.501 0.511 0.481 0.440 0.508 0.499 5.32
31) di-isopropyl ether
1.331 1.351 1.295 1.255 1.270 1.232 1.253 1.552 1.278 1.313 7.43
32) 2-butanone
0.029 0.030 0.038 0.036 0.037 0.037 0.033 0.036 0.035 9.94
33) 1,1-dichloroethane
0.717 0.717 0.709 0.686 0.677 0.680 0.692 0.829 0.688 0.710 6.63
34) chloroprene
0.577 0.582 0.566 0.550 0.549 0.543 0.544 0.637 0.540 0.565 5.47
35) acrylonitrile
0.111 0.117 0.140 0.134 0.135 0.134 0.123 0.133 0.128 7.94
36) vinyl acetate
0.066 0.062 0.063 0.064 0.052 0.063 0.062 7.74
37) ethyl tert-butyl ether
1.246 1.203 1.206 1.197 1.201 1.147 1.168 1.509 1.194 1.230 8.78
38) ethyl acetate
0.047 0.047 0.048 0.044 0.045 0.049 0.047 3.88
39) 2,2-dichloropropane
0.638 0.575 0.529 0.532 0.542 0.500 0.553 0.663 0.558 0.565 9.37
40) cis-1,2-dichloroethene
0.414 0.432 0.428 0.412 0.410 0.418 0.404 0.526 0.408 0.428 8.87
41) propionitrile
0.053 0.051 0.057 0.054 0.055 0.055 0.053 0.059 0.055 0.055 4.10
42) tert-Butyl Formate
This compound does not meet initial calibration criteria
0.402 0.386 0.372 0.367 0.371 0.347 0.369 0.403 0.380 0.377 4.70
43) bromochloromethane
0.203 0.213 0.218 0.207 0.205 0.212 0.204 0.256 0.211 0.214 7.60
44) tetrahydrofuran
0.042 0.048 0.044 0.045 0.046 0.043 0.046 0.045 4.09
45) chloroform
0.721 0.725 0.690 0.671 0.667 0.662 0.663 0.683 0.685 3.71
46) dibromofluoromethane (s)
0.428 0.435 0.431 0.432 0.428 0.432 0.430 0.431 0.429 0.431 0.55
47) methacrylonitrile
0.140 0.132 0.150 0.143 0.145 0.146 0.136 0.130 0.142 0.140 4.75
48) 1,1,1-trichloroethane
0.629 0.652 0.633 0.622 0.611 0.612 0.618 0.702 0.618 0.633 4.55
49) cyclohexane
0.471 0.493 0.540 0.542 0.541 0.537 0.544 0.513 0.553 0.526 5.26
50) 1,1-dichloropropene
0.528 0.529 0.526 0.506 0.500 0.512 0.499 0.592 0.517 0.523 5.44
51) isobutyl alcohol

Job Number: JC68966 **Sample:** V2D7390-ICC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175271.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

```
                        0.016 0.015 0.017 0.015 0.017       0.018   0.016    6.58
52)  carbon tetrachloride
           0.543 0.566 0.559 0.550 0.539 0.546 0.531 0.613 0.554   0.556    4.31
53)  tert-amyl alcohol
                  0.018 0.018 0.018 0.019 0.018 0.017       0.019   0.018    4.26

54) I   1,4-difluorobenzene   ----------------ISTD--------------------
55)  1,2-dichloroethane-d4 (s)
           0.343 0.348 0.337 0.345 0.341 0.322 0.352 0.351 0.352   0.343    2.78
56)  benzene
           1.148 1.103 1.097 1.071 1.064 1.061 1.077 1.335 1.072   1.114    7.81
57)  iso-octane
           1.057 1.183 1.122 1.159 1.150 1.123 1.116 1.003 1.171   1.120    5.15
58)  tert-amyl methyl ether
           0.876 0.841 0.829 0.833 0.826 0.780 0.848       0.846   0.835    3.23
59)  heptane
           0.191 0.226 0.199 0.204 0.203 0.202 0.208 0.172 0.220   0.203    7.69
60)  isopropyl acetate
                        0.053 0.050 0.051 0.051 0.048       0.053   0.051    3.25
61)  1,2-dichloroethane
           0.430 0.422 0.377 0.374 0.377 0.354 0.389       0.384   0.388    6.56
62)  n-butyl alcohol
           0.006 0.007 0.007 0.007 0.007 0.007 0.006 0.007 0.007   0.007    8.05
63)  ethyl acrylate
           0.321 0.317 0.331 0.322 0.325 0.319 0.309 0.369 0.328   0.327    5.24
64)  trichloroethene
           0.308 0.302 0.298 0.292 0.288 0.293 0.278 0.351 0.294   0.300    6.92
65)  2-nitropropane
           0.065 0.055 0.056 0.052 0.053 0.055 0.054       0.054   0.055    7.27
66)  2-chloroethyl vinyl ether
           0.172 0.175 0.183 0.178 0.179 0.175 0.173 0.207 0.179   0.180    5.98
67)  methyl methacrylate
           0.157 0.174 0.183 0.175 0.177 0.176 0.173 0.163 0.179   0.173    4.60
68)  1,2-dichloropropane
           0.305 0.294 0.295 0.287 0.286 0.287 0.286 0.353 0.297   0.299    7.10
69)  dibromomethane
           0.178 0.171 0.180 0.176 0.174 0.173 0.176 0.177 0.176   0.176    1.55
70)  methylcyclohexane
           0.470 0.515 0.505 0.513 0.505 0.517 0.487 0.438 0.517   0.496    5.37
71)  bromodichloromethane
           0.383 0.381 0.391 0.381 0.373 0.378 0.367 0.433 0.379   0.385    4.95
72)  epichlorohydrin
           0.027 0.025 0.026 0.026 0.026 0.025 0.024       0.026   0.026    2.84
73)  cis-1,3-dichloropropene
           0.473 0.487 0.489 0.474 0.468 0.475 0.472 0.604 0.467   0.490    8.86
74)  4-methyl-2-pentanone
           0.101 0.104 0.105 0.102 0.101 0.101 0.099       0.101   0.102    1.86
75)  3-methyl-1-butanol
           0.012 0.011 0.012 0.012 0.012 0.012 0.012       0.012   0.012    2.83

76) I   chlorobenzene-d5      ----------------ISTD--------------------
77)  toluene-d8 (s)
           1.176 1.176 1.148 1.159 1.166 1.134 1.167 1.172 1.167   1.163    1.20
78)  toluene
           0.744 0.706 0.695 0.671 0.682 0.671 0.675 0.828 0.672   0.705    7.36
79)  trans-1,3-dichloropropene
           0.422 0.409 0.441 0.426 0.424 0.421 0.414 0.512 0.426   0.433    7.11
80)  ethyl methacrylate
           0.346 0.343 0.370 0.354 0.363 0.354 0.353 0.403 0.355   0.360    4.99
81)  1,1,2-trichloroethane
```

		0.231	0.204	0.216	0.210	0.213	0.209	0.216	0.237	0.213	0.217	5.00
82)	tetrachloroethene											
		0.255	0.279	0.261	0.256	0.257	0.256	0.246	0.310	0.262	0.265	7.27
83)	1,3-dichloropropane											
		0.436	0.420	0.426	0.414	0.413	0.409	0.418	0.485	0.420	0.427	5.45
84)	2-hexanone											
		0.091	0.096	0.098	0.094	0.096	0.094	0.093	0.109	0.097	0.096	5.28
85)	butyl acetate											
		0.170	0.186	0.177	0.174	0.178	0.174	0.175	0.165	0.184	0.176	3.70
86)	dibromochloromethane											
		0.300	0.292	0.316	0.303	0.290	0.309	0.273	0.341	0.296	0.302	6.32
87)	1,2-dibromoethane											
		0.283	0.286	0.295	0.287	0.290	0.285	0.285	0.356	0.285	0.295	7.86
88)	n-butyl ether											
		1.395	1.339	1.309	1.280	1.280	1.267	1.267	1.553	1.284	1.330	7.00
89)	chlorobenzene											
		0.841	0.830	0.821	0.795	0.802	0.808	0.783	1.030	0.803	0.835	9.05
90)	1,1,1,2-tetrachloroethane											
		0.307	0.302	0.323	0.313	0.307	0.313	0.295	0.348	0.310	0.313	4.82
91)	ethylbenzene											
		1.438	1.412	1.373	1.350	1.355	1.326	1.327	1.647	1.354	1.398	7.19
92)	m,p-xylene											
		1.128	1.088	1.063	1.039	1.046	1.028	1.030	1.316	1.050	1.088	8.41
93)	o-xylene											
		0.542	0.555	0.544	0.531	0.524	0.535	0.540	0.634	0.535	0.549	6.00
94)	styrene											
		0.900	0.913	0.928	0.908	0.903	0.902	0.879	1.075	0.917	0.925	6.27
95)	butyl acrylate											
		0.576	0.571	0.588	0.581	0.582	0.578	0.563	0.679	0.571	0.588	5.96
96)	bromoform											
		0.195	0.196	0.231	0.214	0.206	0.229	0.191	0.217	0.201	0.209	7.06
97)	isopropylbenzene											
		1.522	1.462	1.442	1.430	1.426	1.422	1.404	1.684	1.424	1.468	5.98
98)	cis-1,4-dichloro-2-butene											
		0.101	0.113	0.126	0.124	0.123	0.122	0.109	0.131	0.116	0.118	8.01
99)	I 1,4-dichlorobenzene-d ----------ISTD----------											
100)	4-bromofluorobenzene (s)											
		0.811	0.802	0.799	0.792	0.796	0.798	0.812	0.812	0.798	0.802	0.94
101)	bromobenzene											
		0.742	0.714	0.701	0.669	0.661	0.686	0.666	0.828	0.682	0.706	7.50
102)	1,1,2,2-tetrachloroethane											
		0.639	0.620	0.630	0.600	0.614	0.611	0.613	0.773	0.616	0.635	8.34
103)	trans-1,4-dichloro-2-butene											
		0.149	0.142	0.153	0.144	0.148	0.146	0.142		0.144	0.146	2.59
104)	1,2,3-trichloropropane											
		0.161	0.163	0.166	0.159	0.162	0.158	0.160		0.164	0.162	1.64
105)	n-propylbenzene											
		3.007	2.938	2.893	2.819	2.805	2.831	2.757	3.491	2.821	2.929	7.65
106)	2-chlorotoluene											
		0.616	0.638	0.629	0.600	0.598	0.621	0.598	0.718	0.611	0.626	5.95
107)	4-chlorotoluene											
		1.846	1.783	1.727	1.671	1.679	1.700	1.689	2.078	1.685	1.762	7.48
108)	4-ethyltoluene											
											0.000	-1.00
109)	1,3,5-trimethylbenzene											
		2.157	2.185	2.141	2.085	2.059	2.121	2.039	2.553	2.077	2.157	7.22
110)	tert-butylbenzene											
		1.926	1.916	1.927	1.871	1.843	1.906	1.782	2.222	1.831	1.914	6.57
111)	1,2,4-trimethylbenzene											

		2.251	2.195	2.183	2.133	2.093	2.153	2.100	2.585	2.124	2.202	6.90
112)	sec-butylbenzene											
		2.983	2.822	2.851	2.784	2.748	2.835	2.686	3.282	2.745	2.859	6.27
113)	1,3-dichlorobenzene											
		1.328	1.364	1.324	1.271	1.264	1.295	1.269	1.642	1.268	1.336	8.97
114)	p-isopropyltoluene											
		2.468	2.465	2.502	2.415	2.382	2.477	2.316	2.918	2.412	2.484	6.94
115)	1,4-dichlorobenzene											
		1.391	1.370	1.351	1.302	1.289	1.328	1.288	1.571	1.278	1.352	6.74
116)	1,2-dichlorobenzene											
		1.372	1.331	1.346	1.312	1.312	1.316	1.255	1.528	1.295	1.341	5.78
117)	benzyl chloride											
		1.278	1.204	1.251	1.206	1.197	1.195	1.149		1.197	1.210	3.21
118)	1,4-diethylbenzene											
											0.000	-1.00
119)	n-butylbenzene											
		1.257	1.247	1.262	1.235	1.205	1.259	1.157	1.396	1.199	1.246	5.30
120)	1,2,4,5-tetramethylbenzene											
											0.000	-1.00
121)	1,2-dibromo-3-chloropropane											
		0.155	0.141	0.169	0.159	0.158	0.166	0.153	0.148	0.149	0.155	5.72
122)	nitrobenzene											
			0.022	0.019	0.019	0.024				0.015	0.020	15.59
123)	1,3,5-trichlorobenzene											
		1.172	1.206	1.331	1.286	1.259	1.284	1.155	1.373	1.214	1.253	5.81
124)	hexachlorobutadiene											
		0.594	0.596	0.634	0.619	0.615	0.602	0.578	0.683	0.599	0.613	5.02
125)	naphthalene											
		1.928	1.962	2.423	2.347	2.282	2.296	1.985	2.214	2.130	2.174	8.35
126)	2-ethylhexyl acrylate											
			0.708	0.633	0.547	0.721				0.501	0.622	15.56
127)	1,2,4-trichlorobenzene											
		0.989	0.981	1.181	1.127	1.082	1.134	0.979	1.099	1.013	1.065	7.13
128)	1,2,3-trichlorobenzene											
		0.867	0.901	1.073	1.042	1.004	1.024	0.890	1.076	0.952	0.981	8.21
129)	hexachloroethane											
		0.399	0.391	0.484	0.458	0.429	0.489	0.394		0.408	0.431	9.34
130)	2-methylnaphthalene											
			1.324	1.212	1.058	1.323				0.915	1.166	15.26
131)	bis(chloromethyl)ether											
											0.000	-1.00
132)	ethylenimine											
											0.000	-1.00

(#) = Out of Range ### Number of calibration levels exceeded format ###

M2D7390.M Fri May 04 11:26:05 2018 GCMS2D

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2D7390-ICV7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175276.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7390\2D175276.D Vial: 13
Acq On : 3 May 2018 9:50 pm Operator: oyinadei
Sample : ICV7390-50 Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	102	-0.01	7.38
2		tertiary butyl alcohol	0.947	0.954	-0.7	100	0.00	7.51
			True	Calc.	% Drift			
3		ethanol	5000.000	5120.548	-2.4	106	-0.01	5.99
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.099	-5.3	104	0.00	12.18
5	I	pentafluorobenzene	1.000	1.000	0.0	105	0.00	10.09
6		chlorodifluoromethane	0.471	0.574	-21.9	130	0.00	3.89
7		dichlorodifluoromethane	0.556	0.541	2.7	96	0.00	3.86
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.668	-6.4	121	0.00	4.26
11		vinyl chloride	0.552	0.548	0.7	103	0.00	4.49
12		bromomethane	0.388	0.370	4.6	103	0.00	5.12
13		chloroethane	0.290	0.270	6.9	103	0.00	5.28
14		trichlorofluoromethane	0.624	0.599	4.0	97	0.00	5.77
15		vinyl bromide	0.414	0.375	9.4	97	0.00	5.65
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.184	5.2	104	0.00	6.19
18		acrolein	0.080	0.081	-1.3	113	0.00	6.43
19		1,1-dichloroethene	0.377	0.341	9.5	97	0.00	6.63
20		freon 113	0.316	0.312	1.3	101	0.00	6.62
21	m	2-chloropropane	0.633	0.634	-0.2	109	0.00	6.38
22		acetone	0.027	0.028	-3.7	109	0.00	6.68
23		acetonitrile		----------NA----------				
24		iodomethane	0.639	0.737	-15.3	121	-0.01	6.91
25		carbon disulfide	1.207	1.299	-7.6	116	0.00	7.05
26		methylene chloride	0.417	0.394	5.5	101	0.00	7.40
27		methyl acetate	0.265	0.250	5.7	102	0.00	7.19
28		methyl tert butyl ether	1.096	1.039	5.2	103	0.00	7.81
29		trans-1,2-dichloroethene	0.382	0.355	7.1	101	0.00	7.83
30		hexane	0.499	0.460	7.8	95	0.00	8.23
31		di-isopropyl ether	1.313	1.262	3.9	106	0.00	8.54
32		2-butanone	0.035	0.037	-5.7	107	0.00	9.36
33		1,1-dichloroethane	0.710	0.663	6.6	102	0.00	8.49
34		chloroprene	0.565	0.558	1.2	107	0.00	8.63
35		acrylonitrile	0.128	0.148	-15.6	116	0.00	7.77
36		vinyl acetate	0.062	0.066	-6.5	112	0.00	8.51
37		ethyl tert-butyl ether	1.230	1.170	4.9	103	0.00	9.10

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2D7390-ICV7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175276.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38		ethyl acetate	0.047	0.048	-2.1	108	0.00	9.42
39		2,2-dichloropropane	0.565	0.481	14.9	95	0.00	9.40
40		cis-1,2-dichloroethene	0.428	0.412	3.7	105	0.00	9.38
41		propionitrile	0.055	0.054	1.8	106	0.00	9.47
42		tert-Butyl Formate	0.377	0.256	32.1#	73	0.00	9.93
43		bromochloromethane	0.214	0.207	3.3	105	0.00	9.76
44		tetrahydrofuran	0.045	0.044	2.2	106	0.00	9.83
45		chloroform	0.685	0.651	5.0	102	0.00	9.84
46	S	dibromofluoromethane (s)	0.431	0.432	-0.2	105	0.00	10.09
47		methacrylonitrile	0.140	0.141	-0.7	103	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.577	8.8	97	0.00	10.18
49		cyclohexane	0.526	0.547	-4.0	106	0.00	10.28
50		1,1-dichloropropene	0.523	0.489	6.5	102	0.00	10.40
51		isobutyl alcohol	0.016	0.016	0.0	107	0.00	10.43
52		carbon tetrachloride	0.556	0.523	5.9	100	0.00	10.43
53		tert-amyl alcohol	0.018	0.018	0.0	108	0.00	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	105	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	101	0.00	10.62
56		benzene	1.114	1.061	4.8	104	0.00	10.73
57		iso-octane	1.120	1.103	1.5	100	0.00	10.81
58		tert-amyl methyl ether	0.835	0.813	2.6	102	0.00	10.83
59		heptane	0.203	0.215	-5.9	110	0.00	11.03
60		isopropyl acetate	0.051	0.052	-2.0	109	0.00	10.71
61		1,2-dichloroethane	0.388	0.364	6.2	102	0.00	10.74
62		n-butyl alcohol	0.007	0.007	0.0	105	0.00	11.41
63		ethyl acrylate	0.327	0.334	-2.1	108	0.00	11.73
64		trichloroethene	0.300	0.284	5.3	102	0.00	11.67
65		2-nitropropane	0.055	0.052	5.5	104	0.00	12.71
66		2-chloroethyl vinyl ether	0.180	0.187	-3.9	110	0.00	12.77
67		methyl methacrylate	0.173	0.178	-2.9	106	0.00	12.08
68		1,2-dichloropropane	0.299	0.279	6.7	102	0.00	12.02
69		dibromomethane	0.176	0.176	0.0	105	0.00	12.20
70		methylcyclohexane	0.496	0.474	4.4	97	0.00	11.99
71		bromodichloromethane	0.385	0.366	4.9	100	0.00	12.39
72		epichlorohydrin	0.026	0.026	0.0	105	0.00	12.90
73		cis-1,3-dichloropropene	0.490	0.471	3.9	104	0.00	13.03
74		4-methyl-2-pentanone	0.102	0.102	0.0	106	0.00	13.21
75		3-methyl-1-butanol	0.012	0.012	0.0	108	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	105	0.00	15.46
77	S	toluene-d8 (s)	1.163	1.158	0.4	105	0.00	13.44
78		toluene	0.705	0.669	5.1	105	0.00	13.54
79		trans-1,3-dichloropropene	0.433	0.401	7.4	99	0.00	13.80
80		ethyl methacrylate	0.360	0.343	4.7	102	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.209	3.7	104	0.00	14.08
82		tetrachloroethene		----------NA----------				
83		1,3-dichloropropane	0.427	0.420	1.6	107	0.00	14.32
84		2-hexanone	0.096	0.096	0.0	107	0.00	14.37
85		butyl acetate	0.176	0.180	-2.3	109	0.00	14.51
86		dibromochloromethane	0.302	0.307	-1.7	107	0.00	14.66
87		1,2-dibromoethane	0.295	0.288	2.4	106	0.00	14.85
88	m	n-butyl ether	1.330	1.258	5.4	103	0.00	15.50
89		chlorobenzene	0.835	0.800	4.2	106	0.00	15.50
90		1,1,1,2-tetrachloroethane	0.313	0.311	0.6	104	0.00	15.58
91		ethylbenzene	1.398	1.344	3.9	105	0.00	15.61
92		m,p-xylene	1.088	1.045	4.0	106	0.00	15.76
93		o-xylene	0.549	0.531	3.3	105	0.00	16.30
94		styrene	0.925	0.917	0.9	106	0.00	16.31
95		butyl acrylate	0.588	0.599	-1.9	108	0.00	16.13

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2D7390-ICV7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175276.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		bromoform	0.209	0.226	-8.1	111	0.00	16.59
97		isopropylbenzene	1.468	1.405	4.3	103	0.00	16.75
98		cis-1,4-dichloro-2-butene	0.118	0.118	0.0	100	0.00	16.82
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	105	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.791	1.4	105	0.00	16.96
101		bromobenzene	0.706	0.678	4.0	106	0.00	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.599	5.7	105	0.00	17.09
103		trans-1,4-dichloro-2-bute	0.146	0.153	-4.8	112	0.00	17.15
104		1,2,3-trichloropropane	0.162	0.156	3.7	103	0.00	17.17
105		n-propylbenzene	2.929	2.797	4.5	104	0.00	17.24
106		2-chlorotoluene	0.626	0.597	4.6	104	0.00	17.38
107		4-chlorotoluene	1.762	1.715	2.7	108	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.034	5.7	102	0.00	17.42
110		tert-butylbenzene	1.914	1.821	4.9	102	0.00	17.80
111		1,2,4-trimethylbenzene	2.202	2.149	2.4	106	0.00	17.85
112		sec-butylbenzene	2.859	2.739	4.2	103	0.00	18.03
113		1,3-dichlorobenzene	1.336	1.272	4.8	105	0.00	18.19
114		p-isopropyltoluene	2.484	2.383	4.1	104	0.00	18.17
115		1,4-dichlorobenzene	1.352	1.298	4.0	105	0.00	18.28
116		1,2-dichlorobenzene	1.341	1.292	3.7	103	0.00	18.67
117		benzyl chloride	1.210	0.943	22.1	82	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.203	3.5	102	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.154	0.6	102	0.00	19.39
122		nitrobenzene	0.020	0.017	15.0	92	0.00	19.59
123		1,3,5-trichlorobenzene	1.253	1.257	-0.3	103	0.00	19.58
124		hexachlorobutadiene	0.613	0.588	4.1	100	0.00	20.28
125		naphthalene	2.174	2.305	-6.0	103	0.00	20.41
126		2-ethylhexyl acrylate	0.622	0.661	-6.3	110	0.00	20.17
127		1,2,4-trichlorobenzene	1.065	1.106	-3.8	103	0.00	20.16
128	m	1,2,3-trichlorobenzene	0.981	1.005	-2.4	101	0.00	20.63
129		hexachloroethane	0.431	0.456	-5.8	104	0.00	18.92
130		2-methylnaphthalene	1.166	1.134	2.7	98	0.00	21.47
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175271.D M2D7390.M Fri May 04 11:26:30 2018 GCMS2D

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2D7390-ICV7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175277.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\DATA\V2D7390\2D175277.D Vial: 14
Acq On : 3 May 2018 10:21 pm Operator: oyinadei
Sample : ICV7390-50 Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	105	-0.01	7.38
2		tertiary butyl alcohol		NA				
		----------	True	Calc.	% Drift	----------		
3		ethanol		NA				
		----------	AvgRF	CCRF	% Dev	----------		
4		1,4-dioxane		NA				
5	I	pentafluorobenzene	1.000	1.000	0.0	108	0.00	10.09
6		chlorodifluoromethane		NA				
7		dichlorodifluoromethane		NA				
8		freon 142b		NA				
9		freon 114		NA				
10		chloromethane		NA				
11		vinyl chloride		NA				
12		bromomethane		NA				
13		chloroethane		NA				
14		trichlorofluoromethane		NA				
15		vinyl bromide		NA				
16		1,3-butadiene		NA				
17		ethyl ether		NA				
18		acrolein		NA				
19		1,1-dichloroethene		NA				
20		freon 113		NA				
21	m	2-chloropropane		NA				
22		acetone		NA				
23		acetonitrile	0.045	0.044	2.2	108	0.00	7.14
24		iodomethane		NA				
25		carbon disulfide		NA				
26		methylene chloride		NA				
27		methyl acetate		NA				
28		methyl tert butyl ether		NA				
29		trans-1,2-dichloroethene		NA				
30		hexane		NA				
31		di-isopropyl ether		NA				
32		2-butanone		NA				
33		1,1-dichloroethane		NA				
34		chloroprene		NA				
35		acrylonitrile		NA				
36		vinyl acetate		NA				
37		ethyl tert-butyl ether		NA				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2D7390-ICV7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175277.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38		ethyl acetate		----------NA----------					
39		2,2-dichloropropane		----------NA----------					
40		cis-1,2-dichloroethene		----------NA----------					
41		propionitrile		----------NA----------					
42		tert-Butyl Formate		----------NA----------					
43		bromochloromethane		----------NA----------					
44		tetrahydrofuran		----------NA----------					
45		chloroform		----------NA----------					
46	S	dibromofluoromethane (s)	0.431	0.431	0.0	107	0.00	10.09	
47		methacrylonitrile		----------NA----------					
48		1,1,1-trichloroethane		----------NA----------					
49		cyclohexane		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		isobutyl alcohol		----------NA----------					
52		carbon tetrachloride		----------NA----------					
53		tert-amyl alcohol		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	11.24	
55	S	1,2-dichloroethane-d4 (s)	0.343	0.334	2.6	105	0.00	10.62	
56		benzene		----------NA----------					
57		iso-octane		----------NA----------					
58		tert-amyl methyl ether		----------NA----------					
59		heptane		----------NA----------					
60		isopropyl acetate		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		n-butyl alcohol		----------NA----------					
63		ethyl acrylate		----------NA----------					
64		trichloroethene		----------NA----------					
65		2-nitropropane		----------NA----------					
66		2-chloroethyl vinyl ether		----------NA----------					
67		methyl methacrylate		----------NA----------					
68		1,2-dichloropropane		----------NA----------					
69		dibromomethane		----------NA----------					
70		methylcyclohexane		----------NA----------					
71		bromodichloromethane		----------NA----------					
72		epichlorohydrin		----------NA----------					
73		cis-1,3-dichloropropene		----------NA----------					
74		4-methyl-2-pentanone		----------NA----------					
75		3-methyl-1-butanol		----------NA----------					
76	I	chlorobenzene-d5	1.000	1.000	0.0	106	0.00	15.46	
77	S	toluene-d8 (s)	1.163	1.173	-0.9	108	0.00	13.44	
78		toluene		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		1,1,2-trichloroethane		----------NA----------					
82		tetrachloroethene	0.265	0.260	1.9	108	0.00	14.32	
83		1,3-dichloropropane		----------NA----------					
84		2-hexanone		----------NA----------					
85		butyl acetate		----------NA----------					
86		dibromochloromethane		----------NA----------					
87		1,2-dibromoethane		----------NA----------					
88	m	n-butyl ether		----------NA----------					
89		chlorobenzene		----------NA----------					
90		1,1,1,2-tetrachloroethane		----------NA----------					
91		ethylbenzene		----------NA----------					
92		m,p-xylene		----------NA----------					
93		o-xylene		----------NA----------					
94		styrene		----------NA----------					
95		butyl acrylate		----------NA----------					

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2D7390-ICV7390
Account: EAENYES EA Engineering **Lab FileID:** 2D175277.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		bromoform			----------NA----------			
97		isopropylbenzene			----------NA----------			
98		cis-1,4-dichloro-2-butene			----------NA----------			
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.812	-1.2	106	0.00	16.96
101		bromobenzene			----------NA----------			
102		1,1,2,2-tetrachloroethane			----------NA----------			
103		trans-1,4-dichloro-2-bute			----------NA----------			
104		1,2,3-trichloropropane			----------NA----------			
105		n-propylbenzene			----------NA----------			
106		2-chlorotoluene			----------NA----------			
107		4-chlorotoluene			----------NA----------			
108		4-ethyltoluene			----------NA----------			
109		1,3,5-trimethylbenzene			----------NA----------			
110		tert-butylbenzene			----------NA----------			
111		1,2,4-trimethylbenzene			----------NA----------			
112		sec-butylbenzene			----------NA----------			
113		1,3-dichlorobenzene			----------NA----------			
114		p-isopropyltoluene			----------NA----------			
115		1,4-dichlorobenzene			----------NA----------			
116		1,2-dichlorobenzene			----------NA----------			
117		benzyl chloride			----------NA----------			
118		1,4-diethylbenzene			----------NA----------			
119		n-butylbenzene			----------NA----------			
120		1,2,4,5-tetramethylbenzen			----------NA----------			
121		1,2-dibromo-3-chloropropa			----------NA----------			
122		nitrobenzene			----------NA----------			
123		1,3,5-trichlorobenzene			----------NA----------			
124		hexachlorobutadiene			----------NA----------			
125		naphthalene			----------NA----------			
126		2-ethylhexyl acrylate			----------NA----------			
127		1,2,4-trichlorobenzene			----------NA----------			
128	m	1,2,3-trichlorobenzene			----------NA----------			
129		hexachloroethane			----------NA----------			
130		2-methylnaphthalene			----------NA----------			
131		bis(chloromethyl)ether			----------NA----------			
132		ethylenimine			----------NA----------			

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175271.D M2D7390.M Fri May 04 11:26:32 2018 GCMS2D

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7472-CC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176937.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...OA\v2d7472\2d176937.d Vial: 2
Acq On : 1 Jul 2018 9:04 am Operator: juntaep
Sample : cc7390-20 Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	92	-0.01	7.38
2		tertiary butyl alcohol	0.947	0.975	-3.0	94	0.00	7.51
			True	Calc.	% Drift			
3		ethanol	2000.000	2656.219	-32.8#	118	0.00	6.01
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.115	-22.3#	112	-0.01	12.17
5	I	pentafluorobenzene	1.000	1.000	0.0	116	0.00	10.08
6		chlorodifluoromethane	0.471	0.430	8.7	107	0.02	3.91
7		dichlorodifluoromethane	0.556	0.533	4.1	102	0.03	3.89
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.580	7.6	110	0.03	4.29
11		vinyl chloride	0.552	0.548	0.7	113	0.02	4.52
12		bromomethane	0.388	0.412	-6.2	124	0.03	5.14
13		chloroethane	0.290	0.303	-4.5	126	0.02	5.30
14		trichlorofluoromethane	0.624	0.590	5.4	104	0.01	5.78
15		vinyl bromide	0.414	0.339	18.1	96	0.02	5.66
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.202	-4.1	124	0.00	6.20
18		acrolein	0.080	0.054	32.5#	83	0.01	6.44
19		1,1-dichloroethene	0.377	0.369	2.1	117	0.00	6.63
20		freon 113	0.316	0.314	0.6	112	0.02	6.63
21	m	2-chloropropane	0.633	0.606	4.3	113	0.00	6.39
22		acetone	0.027	0.026	3.7	111	0.01	6.69
23		acetonitrile	0.045	0.040	11.1	99	0.01	7.15
24		iodomethane	0.639	0.586	8.3	109	0.00	6.92
25		carbon disulfide	1.207	1.077	10.8	107	-0.01	7.05
26		methylene chloride	0.417	0.427	-2.4	121	0.00	7.40
27		methyl acetate	0.265	0.234	11.7	103	0.00	7.20
28		methyl tert butyl ether	1.096	0.938	14.4	101	0.00	7.82
29		trans-1,2-dichloroethene	0.382	0.404	-5.8	129	0.00	7.83
30		hexane	0.499	0.495	0.8	114	0.00	8.23
31		di-isopropyl ether	1.313	1.206	8.1	110	0.00	8.54
32		2-butanone	0.035	0.032	8.6	101	-0.01	9.36
33		1,1-dichloroethane	0.710	0.691	2.7	118	0.00	8.49
34		chloroprene	0.565	0.517	8.5	109	0.00	8.64
35		acrylonitrile	0.128	0.115	10.2	99	0.00	7.77
36		vinyl acetate	0.062	0.055	11.3	102	0.00	8.51
37		ethyl tert-butyl ether	1.230	1.137	7.6	109	0.00	9.10

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7472-CC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176937.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38		ethyl acetate	0.047	0.039	17.0	93	-0.01	9.41
39		2,2-dichloropropane	0.565	0.533	5.7	114	0.00	9.40
40		cis-1,2-dichloroethene	0.428	0.449	-4.9	127	0.00	9.38
41		propionitrile	0.055	0.049	10.9	103	-0.01	9.46
42		tert-Butyl Formate	0.377	0.277	26.5#	86	0.00	9.93
43		bromochloromethane	0.214	0.217	-1.4	122	0.00	9.75
44		tetrahydrofuran	0.045	0.039	13.3	101	0.00	9.83
45		chloroform	0.685	0.677	1.2	117	0.00	9.84
46	S	dibromofluoromethane (s)	0.431	0.430	0.2	116	0.00	10.08
47		methacrylonitrile	0.140	0.123	12.1	98	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.580	8.4	110	0.00	10.17
49		cyclohexane	0.526	0.554	-5.3	118	0.00	10.28
50		1,1-dichloropropene	0.523	0.493	5.7	114	0.00	10.40
51		isobutyl alcohol	0.016	0.012	25.0#	86	-0.01	10.42
52		carbon tetrachloride	0.556	0.516	7.2	111	0.00	10.43
53		tert-amyl alcohol	0.018	0.015	16.7	92	-0.01	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	11.23
55	S	1,2-dichloroethane-d4 (s)	0.343	0.295	14.0	100	0.00	10.62
56		benzene	1.114	1.131	-1.5	122	0.00	10.73
57		iso-octane	1.120	1.105	1.3	111	-0.01	10.80
58		tert-amyl methyl ether	0.835	0.803	3.8	112	-0.01	10.83
59		heptane	0.203	0.197	3.0	112	0.00	11.03
60		isopropyl acetate	0.051	0.046	9.8	104	-0.01	10.70
61		1,2-dichloroethane	0.388	0.323	16.8	99	0.00	10.73
62		n-butyl alcohol	0.007	0.006	14.3	94	-0.01	11.40
63		ethyl acrylate	0.327	0.263	19.6	94	0.00	11.72
64		trichloroethene	0.300	0.297	1.0	119	0.00	11.66
65		2-nitropropane	0.055	0.043	21.8#	94	-0.01	12.70
66		2-chloroethyl vinyl ether	0.180	0.150	16.7	97	-0.02	12.76
67		methyl methacrylate	0.173	0.150	13.3	98	-0.01	12.08
68		1,2-dichloropropane	0.299	0.289	3.3	117	0.00	12.01
69		dibromomethane	0.176	0.168	4.5	112	-0.01	12.19
70		methylcyclohexane	0.496	0.516	-4.0	118	0.00	11.98
71		bromodichloromethane	0.385	0.369	4.2	114	-0.01	12.38
72		epichlorohydrin	0.026	0.022	15.4	97	-0.01	12.89
73		cis-1,3-dichloropropene	0.490	0.453	7.6	112	-0.01	13.02
74		4-methyl-2-pentanone	0.102	0.089	12.7	101	-0.01	13.20
75		3-methyl-1-butanol	0.012	0.010	16.7	98	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	114	0.00	15.45
77	S	toluene-d8 (s)	1.163	1.187	-2.1	116	-0.01	13.43
78		toluene	0.705	0.718	-1.8	119	0.00	13.53
79		trans-1,3-dichloropropene	0.433	0.390	9.9	104	0.00	13.80
80		ethyl methacrylate	0.360	0.312	13.3	98	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.216	0.5	115	0.00	14.07
82		tetrachloroethene	0.265	0.276	-4.2	122	0.00	14.31
83		1,3-dichloropropane	0.427	0.407	4.7	112	-0.01	14.32
84		2-hexanone	0.096	0.084	12.5	99	-0.01	14.37
85		butyl acetate	0.176	0.152	13.6	97	-0.01	14.50
86		dibromochloromethane	0.302	0.300	0.7	117	-0.01	14.65
87		1,2-dibromoethane	0.295	0.281	4.7	110	-0.01	14.84
88	m	n-butyl ether	1.330	1.245	6.4	110	0.00	15.50
89		chlorobenzene	0.835	0.844	-1.1	120	-0.01	15.49
90		1,1,1,2-tetrachloroethane	0.313	0.317	-1.3	118	-0.01	15.58
91		ethylbenzene	1.398	1.402	-0.3	117	0.00	15.60
92		m,p-xylene	1.088	1.077	1.0	117	-0.01	15.75
93		o-xylene	0.549	0.547	0.4	119	-0.01	16.29
94		styrene	0.925	0.911	1.5	115	0.00	16.30
95		butyl acrylate	0.588	0.470	20.1#	92	0.00	16.13

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7472-CC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176937.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		bromoform	0.209	0.214	-2.4	118	-0.01	16.58
97		isopropylbenzene	1.468	1.412	3.8	112	0.00	16.74
98		cis-1,4-dichloro-2-butene	0.118	0.028	76.3#	25#	0.00	16.81
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	-0.01	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.828	-3.2	108	-0.01	16.95
101		bromobenzene	0.706	0.745	-5.5	117	-0.01	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.626	1.4	106	0.00	17.08
103		trans-1,4-dichloro-2-bute	0.146	0.037	74.7#	26#	0.00	17.15
104		1,2,3-trichloropropane	0.162	0.162	0.0	104	-0.01	17.16
105		n-propylbenzene	2.929	3.106	-6.0	115	-0.01	17.23
106		2-chlorotoluene	0.626	0.685	-9.4	119	-0.01	17.37
107		4-chlorotoluene	1.762	1.826	-3.6	113	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.209	-2.4	112	-0.01	17.41
110		tert-butylbenzene	1.914	1.901	0.7	107	-0.01	17.80
111		1,2,4-trimethylbenzene	2.202	2.242	-1.8	112	0.00	17.84
112		sec-butylbenzene	2.859	2.907	-1.7	110	-0.01	18.03
113		1,3-dichlorobenzene	1.336	1.413	-5.8	116	-0.01	18.18
114		p-isopropyltoluene	2.484	2.441	1.7	107	0.00	18.16
115		1,4-dichlorobenzene	1.352	1.401	-3.6	113	-0.01	18.27
116		1,2-dichlorobenzene	1.341	1.387	-3.4	110	0.00	18.66
117		benzyl chloride	1.210	1.268	-4.8	110	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.218	2.2	105	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.132	14.8	87	0.00	19.39
122		nitrobenzene	0.020	0.021	-5.0	115	0.00	19.59
123		1,3,5-trichlorobenzene	1.253	1.213	3.2	100	0.00	19.57
124		hexachlorobutadiene	0.613	0.582	5.1	98	0.00	20.27
125		naphthalene	2.174	1.692	22.2#	77	-0.01	20.40
126		2-ethylhexyl acrylate	0.622	0.209	66.4#	40#	0.00	20.16
127		1,2,4-trichlorobenzene	1.065	0.908	14.7	87	0.00	20.15
128	m	1,2,3-trichlorobenzene	0.981	0.816	16.8	85	0.00	20.62
129		hexachloroethane	0.431	0.465	-7.9	113	-0.01	18.92
130		2-methylnaphthalene	1.166	0.565	51.5#	56	0.00	21.46
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175270.D M2D7390.M Mon Jul 02 21:39:35 2018

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7472-ECC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176960.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...OA\v2d7472\2d176960.d Vial: 23
Acq On : 1 Jul 2018 9:02 pm Operator: juntaep
Sample : ecc7390-20 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	103	0.00	7.39
2		tertiary butyl alcohol	0.947	1.056	-11.5	114	0.01	7.52
			True	Calc.	% Drift			
3		ethanol	2000.000	2609.861	-30.5	131	0.03	6.03
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.106	-12.8	116	-0.01	12.17
5	I	pentafluorobenzene	1.000	1.000	0.0	113	0.00	10.09
6		chlorodifluoromethane	0.471	0.463	1.7	113	0.03	3.92
7		dichlorodifluoromethane	0.556	0.577	-3.8	109	0.03	3.89
8		freon 142b		NA				
9		freon 114		NA				
10		chloromethane	0.628	0.592	5.7	110	0.03	4.30
11		vinyl chloride	0.552	0.571	-3.4	115	0.03	4.53
12		bromomethane	0.388	0.389	-0.3	115	0.03	5.15
13		chloroethane	0.290	0.327	-12.8	133	0.03	5.30
14		trichlorofluoromethane	0.624	0.636	-1.9	110	0.02	5.79
15		vinyl bromide	0.414	0.356	14.0	99	0.03	5.67
16		1,3-butadiene		NA				
17		ethyl ether	0.194	0.221	-13.9	133	0.01	6.21
18		acrolein	0.080	0.048	40.0	72	0.02	6.45
19		1,1-dichloroethene	0.377	0.391	-3.7	121	0.00	6.64
20		freon 113	0.316	0.326	-3.2	114	0.03	6.64
21	m	2-chloropropane	0.633	0.663	-4.7	122	0.00	6.39
22		acetone	0.027	0.030	-11.1	124	0.02	6.69
23		acetonitrile	0.045	0.044	2.2	109	0.01	7.15
24		iodomethane	0.639	0.602	5.8	110	0.01	6.93
25		carbon disulfide	1.207	1.104	8.5	107	0.01	7.07
26		methylene chloride	0.417	0.443	-6.2	124	0.01	7.41
27		methyl acetate	0.265	0.272	-2.6	117	0.01	7.21
28		methyl tert butyl ether	1.096	1.022	6.8	108	0.01	7.83
29		trans-1,2-dichloroethene	0.382	0.421	-10.2	132	0.01	7.84
30		hexane	0.499	0.493	1.2	112	0.01	8.24
31		di-isopropyl ether	1.313	1.293	1.5	116	0.00	8.54
32		2-butanone	0.035	0.038	-8.6	118	0.00	9.37
33		1,1-dichloroethane	0.710	0.747	-5.2	125	0.00	8.49
34		chloroprene	0.565	0.565	0.0	117	0.01	8.64
35		acrylonitrile	0.128	0.132	-3.1	111	0.02	7.78
36		vinyl acetate	0.062	0.051	17.7	93	0.01	8.52
37		ethyl tert-butyl ether	1.230	1.190	3.3	112	0.00	9.11

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7472-ECC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176960.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38		ethyl acetate	0.047	0.049	-4.3	116	0.00	9.42
39		2,2-dichloropropane	0.565	0.407	28.0	85	0.00	9.41
40		cis-1,2-dichloroethene	0.428	0.470	-9.8	130	0.00	9.39
41		propionitrile	0.055	0.057	-3.6	118	0.00	9.47
42		tert-Butyl Formate	0.377	0.252	33.2	77	0.00	9.94
43		bromochloromethane	0.214	0.230	-7.5	127	0.00	9.76
44		tetrahydrofuran	0.045	0.046	-2.2	117	0.00	9.83
45		chloroform	0.685	0.727	-6.1	124	0.00	9.85
46	S	dibromofluoromethane (s)	0.431	0.443	-2.8	118	0.00	10.09
47		methacrylonitrile	0.140	0.146	-4.3	115	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.599	5.4	111	0.00	10.18
49		cyclohexane	0.526	0.588	-11.8	123	0.00	10.28
50		1,1-dichloropropene	0.523	0.538	-2.9	122	0.00	10.40
51		isobutyl alcohol	0.016	0.015	6.3	105	0.00	10.43
52		carbon tetrachloride	0.556	0.537	3.4	113	0.00	10.43
53		tert-amyl alcohol	0.018	0.018	0.0	107	0.00	10.61
54	I	1,4-difluorobenzene	1.000	1.000	0.0	115	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.307	10.5	103	0.00	10.62
56		benzene	1.114	1.188	-6.6	128	0.00	10.73
57		iso-octane	1.120	1.082	3.4	108	0.00	10.81
58		tert-amyl methyl ether	0.835	0.827	1.0	115	0.00	10.83
59		heptane	0.203	0.186	8.4	105	0.00	11.04
60		isopropyl acetate	0.051	0.052	-2.0	118	0.00	10.71
61		1,2-dichloroethane	0.388	0.350	9.8	106	0.00	10.73
62		n-butyl alcohol	0.007	0.007	0.0	112	0.00	11.41
63		ethyl acrylate	0.327	0.297	9.2	105	0.00	11.73
64		trichloroethene	0.300	0.319	-6.3	127	0.00	11.67
65		2-nitropropane	0.055	0.047	14.5	102	0.00	12.70
66		2-chloroethyl vinyl ether	0.180	0.143	20.6	92	-0.01	12.77
67		methyl methacrylate	0.173	0.172	0.6	112	0.00	12.08
68		1,2-dichloropropane	0.299	0.302	-1.0	121	0.00	12.01
69		dibromomethane	0.176	0.185	-5.1	122	0.00	12.20
70		methylcyclohexane	0.496	0.537	-8.3	122	0.00	11.99
71		bromodichloromethane	0.385	0.380	1.3	117	-0.01	12.39
72		epichlorohydrin	0.026	0.023	11.5	99	0.00	12.90
73		cis-1,3-dichloropropene	0.490	0.419	14.5	103	0.00	13.03
74		4-methyl-2-pentanone	0.102	0.103	-1.0	116	0.00	13.21
75		3-methyl-1-butanol	0.012	0.012	0.0	114	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	111	0.00	15.45
77	S	toluene-d8 (s)	1.163	1.200	-3.2	114	0.00	13.44
78		toluene	0.705	0.760	-7.8	123	0.00	13.53
79		trans-1,3-dichloropropene	0.433	0.361	16.6	94	0.00	13.80
80		ethyl methacrylate	0.360	0.362	-0.6	110	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.238	-9.7	124	0.00	14.07
82		tetrachloroethene	0.265	0.296	-11.7	128	0.00	14.31
83		1,3-dichloropropane	0.427	0.446	-4.4	120	-0.01	14.32
84		2-hexanone	0.096	0.101	-5.2	116	-0.01	14.37
85		butyl acetate	0.176	0.176	0.0	109	0.00	14.50
86		dibromochloromethane	0.302	0.299	1.0	114	-0.01	14.65
87		1,2-dibromoethane	0.295	0.312	-5.8	120	0.00	14.85
88	m	n-butyl ether	1.330	1.329	0.1	115	0.00	15.50
89		chlorobenzene	0.835	0.889	-6.5	123	0.00	15.49
90		1,1,1,2-tetrachloroethane	0.313	0.331	-5.8	120	0.00	15.58
91		ethylbenzene	1.398	1.484	-6.2	121	0.00	15.60
92		m,p-xylene	1.088	1.128	-3.7	120	-0.01	15.75
93		o-xylene	0.549	0.577	-5.1	122	-0.01	16.29
94		styrene	0.925	0.977	-5.6	120	0.00	16.30
95		butyl acrylate	0.588	0.533	9.4	101	0.00	16.13

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7472-ECC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176960.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		bromoform	0.209	0.205	1.9	111	-0.01	16.58
97		isopropylbenzene	1.468	1.487	-1.3	116	0.00	16.74
98		cis-1,4-dichloro-2-butene		----------NA----------				
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	0.00	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.842	-5.0	108	0.00	16.96
101		bromobenzene	0.706	0.786	-11.3	121	0.00	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.690	-8.7	114	0.00	17.08
103		trans-1,4-dichloro-2-bute		----------NA----------				
104		1,2,3-trichloropropane	0.162	0.180	-11.1	113	-0.01	17.16
105		n-propylbenzene	2.929	3.224	-10.1	117	0.00	17.23
106		2-chlorotoluene	0.626	0.698	-11.5	118	0.00	17.37
107		4-chlorotoluene	1.762	1.925	-9.3	116	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.287	-6.0	113	-0.01	17.41
110		tert-butylbenzene	1.914	1.995	-4.2	110	-0.01	17.80
111		1,2,4-trimethylbenzene	2.202	2.327	-5.7	113	0.00	17.84
112		sec-butylbenzene	2.859	3.019	-5.6	112	0.00	18.03
113		1,3-dichlorobenzene	1.336	1.465	-9.7	118	0.00	18.19
114		p-isopropyltoluene	2.484	2.516	-1.3	107	0.00	18.16
115		1,4-dichlorobenzene	1.352	1.460	-8.0	115	-0.01	18.27
116		1,2-dichlorobenzene	1.341	1.446	-7.8	112	0.00	18.66
117		benzyl chloride	1.210	0.823	32.0	70	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.240	0.5	105	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.145	6.5	93	0.00	19.40
122		nitrobenzene	0.020	0.017	15.0	89	0.00	19.58
123		1,3,5-trichlorobenzene	1.253	1.221	2.6	99	0.00	19.57
124		hexachlorobutadiene	0.613	0.565	7.8	93	0.00	20.28
125		naphthalene	2.174	1.864	14.3	83	-0.01	20.40
126		2-ethylhexyl acrylate	0.622	0.238	61.7#	44#	0.00	20.16
127		1,2,4-trichlorobenzene	1.065	0.929	12.8	87	0.00	20.16
128	m	1,2,3-trichlorobenzene	0.981	0.871	11.2	88	0.00	20.62
129		hexachloroethane	0.431	0.438	-1.6	104	0.00	18.92
130		2-methylnaphthalene	1.166	0.621	46.7	60	0.00	21.46
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175270.D M2D7390.M Mon Jul 02 22:53:47 2018

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7474-CC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176982.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ke...kb\v2d7474\2d176982.d Vial: 22
Acq On : 2 Jul 2018 6:53 pm Operator: juntaep
Sample : CC7390-50 Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	107	0.02	7.40
2		tertiary butyl alcohol	0.947	1.035	-9.3	114	0.02	7.53
			True	Calc.	% Drift			
3		ethanol	5000.000	6473.957	-29.5#	140	0.04	6.05
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.114	-21.3#	126	0.00	12.18
5	I	pentafluorobenzene	1.000	1.000	0.0	117	0.00	10.09
6		chlorodifluoromethane	0.471	0.502	-6.6	126	0.04	3.93
7		dichlorodifluoromethane	0.556	0.608	-9.4	119	0.04	3.91
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.632	-0.6	128	0.05	4.31
11		vinyl chloride	0.552	0.606	-9.8	126	0.04	4.54
12		bromomethane	0.388	0.403	-3.9	125	0.05	5.17
13		chloroethane	0.290	0.320	-10.3	136	0.04	5.32
14		trichlorofluoromethane	0.624	0.651	-4.3	117	0.04	5.81
15		vinyl bromide	0.414	0.369	10.9	105	0.04	5.68
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.219	-12.9	137	0.02	6.22
18		acrolein	0.080	0.063	21.3#	97	0.03	6.46
19		1,1-dichloroethene	0.377	0.405	-7.4	128	0.03	6.66
20		freon 113	0.316	0.345	-9.2	124	0.03	6.64
21	m	2-chloropropane	0.633	0.645	-1.9	123	0.02	6.41
22		acetone	0.027	0.030	-11.1	128	0.02	6.70
23		acetonitrile	0.045	0.041	8.9	109	0.02	7.16
24		iodomethane	0.639	0.617	3.4	113	0.02	6.94
25		carbon disulfide	1.207	1.154	4.4	114	0.03	7.09
26		methylene chloride	0.417	0.440	-5.5	126	0.02	7.42
27		methyl acetate	0.265	0.270	-1.9	122	0.02	7.22
28		methyl tert butyl ether	1.096	1.010	7.8	111	0.02	7.83
29		trans-1,2-dichloroethene	0.382	0.425	-11.3	135	0.01	7.84
30		hexane	0.499	0.569	-14.0	130	0.01	8.24
31		di-isopropyl ether	1.313	1.277	2.7	119	0.00	8.55
32		2-butanone	0.035	0.039	-11.4	127	0.00	9.37
33		1,1-dichloroethane	0.710	0.744	-4.8	127	0.00	8.50
34		chloroprene	0.565	0.585	-3.5	124	0.01	8.64
35		acrylonitrile	0.128	0.133	-3.9	115	0.02	7.78
36		vinyl acetate	0.062	0.066	-6.5	125	0.00	8.52
37		ethyl tert-butyl ether	1.230	1.179	4.1	115	0.01	9.11

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7474-CC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176982.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38		ethyl acetate	0.047	0.052	-10.6	130	0.00	9.42
39		2,2-dichloropropane	0.565	0.522	7.6	115	0.00	9.41
40		cis-1,2-dichloroethene	0.428	0.475	-11.0	135	0.01	9.39
41		propionitrile	0.055	0.057	-3.6	124	0.00	9.47
42		tert-Butyl Formate	0.377	0.293	22.3#	93	0.00	9.94
43		bromochloromethane	0.214	0.231	-7.9	130	0.00	9.76
44		tetrahydrofuran	0.045	0.048	-6.7	128	0.00	9.84
45		chloroform	0.685	0.723	-5.5	126	0.00	9.85
46	S	dibromofluoromethane (s)	0.431	0.441	-2.3	119	0.00	10.09
47		methacrylonitrile	0.140	0.148	-5.7	121	0.00	9.71
48		1,1,1-trichloroethane	0.633	0.608	3.9	114	0.00	10.18
49		cyclohexane	0.526	0.576	-9.5	124	0.00	10.28
50		1,1-dichloropropene	0.523	0.553	-5.7	128	0.00	10.41
51		isobutyl alcohol	0.016	0.015	6.3	113	0.00	10.43
52		carbon tetrachloride	0.556	0.542	2.5	115	0.00	10.43
53		tert-amyl alcohol	0.018	0.018	0.0	117	0.00	10.61
54	I	1,4-difluorobenzene	1.000	1.000	0.0	119	0.00	11.24
55	S	1,2-dichloroethane-d4 (s)	0.343	0.301	12.2	104	0.00	10.62
56		benzene	1.114	1.198	-7.5	133	0.00	10.74
57		iso-octane	1.120	1.174	-4.8	121	0.00	10.81
58		tert-amyl methyl ether	0.835	0.803	3.8	115	0.00	10.84
59		heptane	0.203	0.220	-8.4	128	0.00	11.03
60		isopropyl acetate	0.051	0.053	-3.9	124	0.00	10.71
61		1,2-dichloroethane	0.388	0.353	9.0	113	0.00	10.74
62		n-butyl alcohol	0.007	0.007	0.0	122	0.00	11.41
63		ethyl acrylate	0.327	0.313	4.3	116	0.00	11.72
64		trichloroethene	0.300	0.319	-6.3	130	0.00	11.67
65		2-nitropropane	0.055	0.049	10.9	112	0.00	12.70
66		2-chloroethyl vinyl ether	0.180	0.166	7.8	111	-0.01	12.77
67		methyl methacrylate	0.173	0.175	-1.2	119	0.00	12.08
68		1,2-dichloropropane	0.299	0.309	-3.3	128	0.00	12.01
69		dibromomethane	0.176	0.184	-4.5	125	0.00	12.20
70		methylcyclohexane	0.496	0.557	-12.3	129	0.00	11.99
71		bromodichloromethane	0.385	0.397	-3.1	124	0.00	12.39
72		epichlorohydrin	0.026	0.025	3.8	115	0.00	12.89
73		cis-1,3-dichloropropene	0.490	0.476	2.9	120	0.00	13.03
74		4-methyl-2-pentanone	0.102	0.103	-1.0	121	0.00	13.21
75		3-methyl-1-butanol	0.012	0.012	0.0	123	0.00	13.23
76	I	chlorobenzene-d5	1.000	1.000	0.0	113	0.00	15.45
77	S	toluene-d8 (s)	1.163	1.191	-2.4	116	0.00	13.44
78		toluene	0.705	0.765	-8.5	129	0.00	13.53
79		trans-1,3-dichloropropene	0.433	0.421	2.8	112	0.00	13.80
80		ethyl methacrylate	0.360	0.367	-1.9	117	0.00	13.86
81		1,1,2-trichloroethane	0.217	0.237	-9.2	127	0.00	14.07
82		tetrachloroethene	0.265	0.301	-13.6	133	0.00	14.31
83		1,3-dichloropropane	0.427	0.449	-5.2	122	-0.01	14.32
84		2-hexanone	0.096	0.101	-5.2	122	-0.01	14.37
85		butyl acetate	0.176	0.178	-1.1	115	0.00	14.50
86		dibromochloromethane	0.302	0.320	-6.0	120	0.00	14.65
87		1,2-dibromoethane	0.295	0.318	-7.8	125	0.00	14.85
88	m	n-butyl ether	1.330	1.349	-1.4	119	0.00	15.50
89		chlorobenzene	0.835	0.897	-7.4	127	0.00	15.49
90		1,1,1,2-tetrachloroethane	0.313	0.333	-6.4	120	0.00	15.58
91		ethylbenzene	1.398	1.482	-6.0	124	0.00	15.60
92		m,p-xylene	1.088	1.134	-4.2	123	-0.01	15.75
93		o-xylene	0.549	0.579	-5.5	123	-0.01	16.29
94		styrene	0.925	0.983	-6.3	122	0.00	16.30
95		butyl acrylate	0.588	0.572	2.7	111	0.00	16.13

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7474-CC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D176982.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		bromoform	0.209	0.224	-7.2	118	-0.01	16.58
97		isopropylbenzene	1.468	1.501	-2.2	119	0.00	16.74
98		cis-1,4-dichloro-2-butene	0.118	0.027	77.1#	25#	0.00	16.81
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	102	-0.01	18.25
100	S	4-bromofluorobenzene (s)	0.802	0.849	-5.9	109	-0.01	16.95
101		bromobenzene	0.706	0.810	-14.7	124	-0.01	17.17
102		1,1,2,2-tetrachloroethane	0.635	0.710	-11.8	121	0.00	17.08
103		trans-1,4-dichloro-2-bute	0.146	0.042	71.2#	30#	0.00	17.15
104		1,2,3-trichloropropane	0.162	0.180	-11.1	115	-0.01	17.16
105		n-propylbenzene	2.929	3.296	-12.5	119	-0.01	17.23
106		2-chlorotoluene	0.626	0.727	-16.1	124	0.00	17.37
107		4-chlorotoluene	1.762	1.934	-9.8	118	0.00	17.49
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.351	-9.0	115	-0.01	17.41
110		tert-butylbenzene	1.914	2.078	-8.6	113	-0.01	17.80
111		1,2,4-trimethylbenzene	2.202	2.377	-7.9	114	0.00	17.84
112		sec-butylbenzene	2.859	3.128	-9.4	115	-0.01	18.03
113		1,3-dichlorobenzene	1.336	1.478	-10.6	119	0.00	18.19
114		p-isopropyltoluene	2.484	2.630	-5.9	111	0.00	18.16
115		1,4-dichlorobenzene	1.352	1.484	-9.8	116	-0.01	18.27
116		1,2-dichlorobenzene	1.341	1.462	-9.0	114	0.00	18.66
117		benzyl chloride	1.210	1.386	-14.5	117	0.00	18.40
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.345	-7.9	111	0.00	18.58
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.159	-2.6	102	0.00	19.39
122		nitrobenzene	0.020	0.024	-20.0	129	0.00	19.58
123		1,3,5-trichlorobenzene	1.253	1.361	-8.6	108	0.00	19.57
124		hexachlorobutadiene	0.613	0.649	-5.9	107	0.00	20.27
125		naphthalene	2.174	2.162	0.6	94	-0.01	20.40
126		2-ethylhexyl acrylate	0.622	0.379	39.1#	61	0.00	20.17
127		1,2,4-trichlorobenzene	1.065	1.096	-2.9	99	0.00	20.15
128	m	1,2,3-trichlorobenzene	0.981	0.999	-1.8	98	0.00	20.62
129		hexachloroethane	0.431	0.494	-14.6	110	0.00	18.92
130		2-methylnaphthalene	1.166	0.904	22.5#	76	0.00	21.46
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175271.D M2D7390.M Wed Jul 04 00:14:09 2018

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7474-ECC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D177005.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ke...kb\v2d7474\2d177005.d Vial: 45
Acq On : 3 Jul 2018 6:58 am Operator: juntaep
Sample : ECC7390-20 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
Last Update : Fri May 04 11:23:40 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	137	0.00	7.39
2		tertiary butyl alcohol	0.947	1.114	-17.6	160	0.00	7.51
			True	Calc.	% Drift			
3		ethanol	2000.000	2491.929	-24.6	166	0.04	6.04
			AvgRF	CCRF	% Dev			
4		1,4-dioxane	0.094	0.103	-9.6	151	-0.02	12.16
5	I	pentafluorobenzene	1.000	1.000	0.0	108	-0.02	10.07
6		chlorodifluoromethane	0.471	0.385	18.3	89	0.03	3.92
7		dichlorodifluoromethane	0.556	0.517	7.0	92	0.03	3.89
8		freon 142b		----------NA----------				
9		freon 114		----------NA----------				
10		chloromethane	0.628	0.575	8.4	102	0.04	4.30
11		vinyl chloride	0.552	0.564	-2.2	108	0.02	4.52
12		bromomethane	0.388	0.400	-3.1	112	0.04	5.16
13		chloroethane	0.290	0.325	-12.1	125	0.02	5.30
14		trichlorofluoromethane	0.624	0.640	-2.6	105	0.02	5.79
15		vinyl bromide	0.414	0.368	11.1	97	0.03	5.67
16		1,3-butadiene		----------NA----------				
17		ethyl ether	0.194	0.235	-21.1	134	0.00	6.20
18		acrolein	0.080	0.059	26.3	83	0.01	6.44
19		1,1-dichloroethene	0.377	0.368	2.4	108	0.02	6.65
20		freon 113	0.316	0.312	1.3	104	0.02	6.63
21	m	2-chloropropane	0.633	0.621	1.9	108	0.02	6.40
22		acetone	0.027	0.038	-40.7	151	0.00	6.68
23		acetonitrile	0.045	0.053	-17.8	124	0.00	7.14
24		iodomethane	0.639	0.560	12.4	97	0.01	6.93
25		carbon disulfide	1.207	1.007	16.6	93	0.03	7.09
26		methylene chloride	0.417	0.453	-8.6	120	0.02	7.41
27		methyl acetate	0.265	0.356	-34.3	146	0.00	7.20
28		methyl tert butyl ether	1.096	1.099	-0.3	110	0.00	7.81
29		trans-1,2-dichloroethene	0.382	0.417	-9.2	124	0.00	7.83
30		hexane	0.499	0.448	10.2	96	0.00	8.22
31		di-isopropyl ether	1.313	1.307	0.5	111	-0.01	8.53
32		2-butanone	0.035	0.051	-45.7	148	-0.01	9.36
33		1,1-dichloroethane	0.710	0.754	-6.2	120	-0.01	8.48
34		chloroprene	0.565	0.559	1.1	110	0.00	8.63
35		acrylonitrile	0.128	0.165	-28.9	132	0.00	7.77
36		vinyl acetate	0.062	0.061	1.6	105	-0.01	8.50
37		ethyl tert-butyl ether	1.230	1.209	1.7	108	-0.01	9.09

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7474-ECC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D177005.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

38		ethyl acetate	0.047	0.063	-34.0	140	-0.02	9.41
39		2,2-dichloropropane	0.565	0.329	41.8	65	-0.02	9.39
40		cis-1,2-dichloroethene	0.428	0.481	-12.4	126	-0.01	9.37
41		propionitrile	0.055	0.074	-34.5	146	-0.02	9.46
42		tert-Butyl Formate	0.377	0.277	26.5	80	-0.01	9.92
43		bromochloromethane	0.214	0.245	-14.5	129	-0.02	9.74
44		tetrahydrofuran	0.045	0.061	-35.6	144	-0.01	9.82
45		chloroform	0.685	0.758	-10.7	122	-0.01	9.83
46	S	dibromofluoromethane (s)	0.431	0.451	-4.6	113	-0.01	10.08
47		methacrylonitrile	0.140	0.177	-26.4	132	-0.01	9.70
48		1,1,1-trichloroethane	0.633	0.604	4.6	107	-0.02	10.16
49		cyclohexane	0.526	0.526	0.0	104	-0.02	10.26
50		1,1-dichloropropene	0.523	0.535	-2.3	115	-0.02	10.39
51		isobutyl alcohol	0.016	0.021	-31.3	137	-0.01	10.42
52		carbon tetrachloride	0.556	0.539	3.1	108	-0.02	10.41
53		tert-amyl alcohol	0.018	0.026	-44.4	150	-0.01	10.60
54	I	1,4-difluorobenzene	1.000	1.000	0.0	109	-0.02	11.22
55	S	1,2-dichloroethane-d4 (s)	0.343	0.321	6.4	103	-0.02	10.61
56		benzene	1.114	1.215	-9.1	124	-0.02	10.72
57		iso-octane	1.120	1.019	9.0	97	-0.02	10.80
58		tert-amyl methyl ether	0.835	0.863	-3.4	114	-0.02	10.82
59		heptane	0.203	0.177	12.8	95	-0.02	11.02
60		isopropyl acetate	0.051	0.064	-25.5	137	-0.02	10.69
61		1,2-dichloroethane	0.388	0.386	0.5	111	-0.02	10.72
62		n-butyl alcohol	0.007	0.010	-42.9	156	-0.02	11.40
63		ethyl acrylate	0.327	0.377	-15.3	126	-0.02	11.71
64		trichloroethene	0.300	0.318	-6.0	120	-0.02	11.65
65		2-nitropropane	0.055	0.060	-9.1	124	-0.02	12.69
66		2-chloroethyl vinyl ether	0.180	0.161	10.6	98	-0.03	12.75
67		methyl methacrylate	0.173	0.207	-19.7	128	-0.02	12.07
68		1,2-dichloropropane	0.299	0.318	-6.4	121	-0.02	12.00
69		dibromomethane	0.176	0.205	-16.5	128	-0.02	12.18
70		methylcyclohexane	0.496	0.518	-4.4	112	-0.02	11.97
71		bromodichloromethane	0.385	0.400	-3.9	117	-0.02	12.37
72		epichlorohydrin	0.026	0.029	-11.5	122	-0.02	12.88
73		cis-1,3-dichloropropene	0.490	0.445	9.2	104	-0.02	13.02
74		4-methyl-2-pentanone	0.102	0.132	-29.4	142	-0.02	13.20
75		3-methyl-1-butanol	0.012	0.017	-41.7	161	-0.02	13.22
76	I	chlorobenzene-d5	1.000	1.000	0.0	104	-0.02	15.44
77	S	toluene-d8 (s)	1.163	1.219	-4.8	109	-0.02	13.42
78		toluene	0.705	0.784	-11.2	119	-0.02	13.52
79		trans-1,3-dichloropropene	0.433	0.404	6.7	99	-0.02	13.78
80		ethyl methacrylate	0.360	0.409	-13.6	117	-0.02	13.85
81		1,1,2-trichloroethane	0.217	0.269	-24.0	131	-0.02	14.06
82		tetrachloroethene	0.265	0.291	-9.8	118	-0.02	14.30
83		1,3-dichloropropane	0.427	0.497	-16.4	125	-0.02	14.31
84		2-hexanone	0.096	0.134	-39.6	145	-0.02	14.36
85		butyl acetate	0.176	0.216	-22.7	126	-0.02	14.49
86		dibromochloromethane	0.302	0.334	-10.6	119	-0.02	14.64
87		1,2-dibromoethane	0.295	0.351	-19.0	126	-0.02	14.84
88	m	n-butyl ether	1.330	1.336	-0.5	109	-0.02	15.49
89		chlorobenzene	0.835	0.909	-8.9	118	-0.02	15.48
90		1,1,1,2-tetrachloroethane	0.313	0.344	-9.9	117	-0.02	15.57
91		ethylbenzene	1.398	1.499	-7.2	115	-0.02	15.59
92		m,p-xylene	1.088	1.139	-4.7	113	-0.02	15.74
93		o-xylene	0.549	0.588	-7.1	117	-0.02	16.28
94		styrene	0.925	0.997	-7.8	115	-0.02	16.29
95		butyl acrylate	0.588	0.624	-6.1	111	-0.01	16.12

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2D7474-ECC7390
Account: EAENYES EA Engineering **Lab FileID:** 2D177005.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

96		bromoform	0.209	0.238	-13.9	120	-0.02	16.57
97		isopropylbenzene	1.468	1.489	-1.4	109	-0.02	16.73
98		cis-1,4-dichloro-2-butene	0.118	0.029	75.4#	24#	-0.02	16.80
99	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	97	-0.02	18.24
100	S	4-bromofluorobenzene (s)	0.802	0.828	-3.2	101	-0.02	16.95
101		bromobenzene	0.706	0.801	-13.5	118	-0.02	17.16
102		1,1,2,2-tetrachloroethane	0.635	0.818	-28.8	129	-0.02	17.07
103		trans-1,4-dichloro-2-bute	0.146	0.046	68.5#	30#	-0.02	17.14
104		1,2,3-trichloropropane	0.162	0.215	-32.7	128	-0.02	17.16
105		n-propylbenzene	2.929	3.196	-9.1	111	-0.02	17.22
106		2-chlorotoluene	0.626	0.696	-11.2	113	-0.02	17.36
107		4-chlorotoluene	1.762	1.924	-9.2	111	-0.02	17.48
108		4-ethyltoluene		----------NA----------				
109		1,3,5-trimethylbenzene	2.157	2.303	-6.8	108	-0.02	17.41
110		tert-butylbenzene	1.914	1.970	-2.9	104	-0.02	17.79
111		1,2,4-trimethylbenzene	2.202	2.328	-5.7	108	-0.02	17.83
112		sec-butylbenzene	2.859	3.003	-5.0	106	-0.02	18.02
113		1,3-dichlorobenzene	1.336	1.476	-10.5	113	-0.02	18.18
114		p-isopropyltoluene	2.484	2.469	0.6	101	-0.02	18.15
115		1,4-dichlorobenzene	1.352	1.477	-9.2	111	-0.02	18.27
116		1,2-dichlorobenzene	1.341	1.501	-11.9	111	-0.01	18.66
117		benzyl chloride	1.210	0.835	31.0	68	-0.02	18.39
118		1,4-diethylbenzene		----------NA----------				
119		n-butylbenzene	1.246	1.243	0.2	100	-0.01	18.57
120		1,2,4,5-tetramethylbenzen		----------NA----------				
121		1,2-dibromo-3-chloropropa	0.155	0.189	-21.9	116	-0.01	19.38
122		nitrobenzene	0.020	0.020	0.0	105	-0.02	19.57
123		1,3,5-trichlorobenzene	1.253	1.248	0.4	96	-0.01	19.57
124		hexachlorobutadiene	0.613	0.581	5.2	92	-0.01	20.27
125		naphthalene	2.174	2.336	-7.5	99	-0.02	20.40
126		2-ethylhexyl acrylate	0.622	0.295	52.6#	52	-0.01	20.16
127		1,2,4-trichlorobenzene	1.065	1.010	5.2	91	-0.01	20.14
128	m	1,2,3-trichlorobenzene	0.981	0.981	0.0	95	-0.02	20.61
129		hexachloroethane	0.431	0.472	-9.5	107	-0.02	18.91
130		2-methylnaphthalene	1.166	0.877	24.8	80	-0.02	21.45
131		bis(chloromethyl)ether		----------NA----------				
132		ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2D175270.D M2D7390.M Wed Jul 04 01:00:40 2018

Initial Calibration Summary

Job Number: JC68966 **Sample:** V2E6300-ICC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143857.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Response Factor Report VOAMS2E

Method : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Calibration Files
5 =2E143854.D 2 =2E143853.D 0.5 =2E143851.D 50 =2E143857.D
100 =2E143858.D 1 =2E143852.D 200 =2E143859.D 20 =2E143856.D
10 =2E143855.D 0.2 =2E143850.D = =

Compound	5	2	0.5	50	100	1	200	20	10	0.2	Avg	%RSD
1) I tert butyl alcohol-d9	----------ISTD----------											
2) ethanol	0.118	0.150	0.111	0.103	0.138	0.093	0.119	0.128			0.120	15.34
3) tertiary butyl alcohol	1.383	1.329	1.288	1.268	1.334	1.285	1.343	1.357			1.323	3.00
4) 1,4-dioxane	0.102	0.102	0.098	0.092	0.101	0.095	0.102	0.111			0.101	5.81
5) I pentafluorobenzene	----------ISTD----------											
6) chlorodifluoromethane	0.723	0.735	0.782	0.689	0.706	0.706	0.650	0.676	0.698	0.818	0.718	6.93
7) dichlorodifluoromethane	0.779	0.817	0.931	0.819	0.838	0.791	0.798	0.811	0.844	0.761	0.819	5.72
8) freon 114											0.000#	-1.00
9) freon 142b	0.772	0.730	0.862	0.760	0.773	0.805	0.697	0.757	0.760		0.768	6.01
10) chloromethane	1.084	1.101	1.400	1.033	1.064	1.129	0.960	1.015	1.021		1.090	11.65
11) vinyl chloride	0.948	0.941	1.174	0.965	0.999	0.907	0.938	0.947	0.947	1.221	0.999	10.79
12) bromomethane	0.597	0.619	0.780	0.572	0.601	0.625	0.572	0.565	0.580		0.612	10.86
13) chloroethane	0.583	0.595	0.714	0.546	0.575	0.595	0.535	0.536	0.556		0.582	9.42
14) trichlorofluoromethane	0.816	0.855	1.007	0.839	0.882	0.856	0.843	0.846	0.857	0.896	0.870	6.09
15) 1,3-butadiene	0.834	0.845	1.016	0.811	0.854	0.897	0.767	0.798	0.827		0.850	8.50
16) vinyl bromide	0.599	0.597	0.633	0.573	0.607	0.577	0.582	0.571	0.574	0.762	0.608	9.49
17) ethyl ether	0.399	0.418	0.513	0.352	0.367	0.382	0.350	0.351	0.364		0.388	13.48
18) 2-chloropropane	1.067	1.144	0.963	1.009	1.126	0.927	0.950	0.987			1.022	7.98
19) acrolein	0.132	0.151	0.116	0.118	0.124	0.117	0.118	0.123			0.125	9.35
20) freon 113	0.405	0.448	0.445	0.411	0.437	0.426	0.412	0.417	0.420	0.413	0.423	3.56
21) 1,1-dichloroethene	0.926	0.950	1.032	0.859	0.900	0.904	0.840	0.846	0.870	0.936	0.906	6.44
22) acetone	0.050	0.059	0.045	0.046	0.058	0.043	0.046	0.048			0.049	12.34
23) acetonitrile												

	0.077	0.093	0.071	0.071	0.079	0.065	0.069	0.073		0.074	11.50
24)	iodomethane											
	0.821	0.822	0.792	0.768	0.791	0.766	0.760	0.759	0.776	0.835	0.789	3.55
25)	carbon disulfide											
	1.741	1.824	1.902	1.619	1.694	1.749	1.580	1.606	1.645		1.707	6.31
26)	methylene chloride											
	0.643	0.650	0.667	0.577	0.631	0.618	0.599	0.566	0.598		0.617	5.54
27)	methyl acetate											
	0.501		0.407	0.418		0.391	0.403	0.429			0.425	9.31
28)	methyl tert butyl ether											
	1.626	1.686	1.711	1.488	1.537	1.549	1.443	1.483	1.500		1.558	6.08
29)	trans-1,2-dichloroethene											
	0.804	0.827	0.869	0.743	0.770	0.781	0.726	0.744	0.762		0.781	5.87
30)	hexane											
	0.396	0.414	0.413	0.370	0.385	0.410	0.352	0.377	0.378		0.388	5.52
31)	di-isopropyl ether											
	1.928	2.068	2.154	1.797	1.876	1.889	1.776	1.775	1.825		1.899	7.01
32)	ethyl tert-butyl ether											
	1.818	1.844	1.866	1.709	1.781	1.653	1.672	1.691	1.755	1.955	1.774	5.47
33)	2-butanone											
	0.058	0.057	0.059	0.055	0.055	0.042	0.053	0.054	0.055		0.054	9.12
34)	1,1-dichloroethane											
	1.022	1.045	1.062	0.950	0.978	1.002	0.927	0.943	0.976	1.207	1.011	8.06
35)	chloroprene											
	0.859	0.866	0.919	0.812	0.840	0.824	0.790	0.806	0.809		0.836	4.78
36)	acrylonitrile											
	0.193	0.220	0.170	0.190	0.191	0.195	0.180	0.191	0.193		0.191	6.91
37)	vinyl acetate											
	0.112	0.114		0.110	0.117		0.111	0.109	0.105		0.111	3.42
38)	ethyl acetate											
	0.081			0.071	0.075		0.067	0.071	0.076		0.074	6.71
39)	2,2-dichloropropane											
	0.785	0.806	0.943	0.706	0.731	0.804	0.682	0.711	0.726		0.766	10.42
40)	cis-1,2-dichloroethene											
	0.659	0.664	0.763	0.594	0.616	0.620	0.591	0.594	0.609		0.635	8.71
41)	propionitrile											
	0.083	0.083	0.077	0.078	0.079	0.074	0.073	0.078	0.080		0.078	4.29
42)	methyl acrylate											
	0.073			0.076	0.077		0.075	0.072	0.068		0.074	4.25
43)	bromochloromethane											
	0.309	0.299	0.318	0.278	0.287	0.278	0.274	0.278	0.280	0.271	0.287	5.60
44)	tetrahydrofuran											
	0.072	0.066		0.068	0.068	0.056	0.064	0.069	0.067		0.066	7.51
45)	chloroform											
	0.958	1.000	1.014	0.885	0.920	0.931	0.873	0.876	0.912		0.930	5.55
46)	t-butyl formate											
	0.425	0.439	0.408	0.418	0.439	0.376	0.410	0.393	0.405		0.413	5.00
47)	1,1-dichloropropene											
	0.771	0.793	0.849	0.716	0.746	0.767	0.710	0.717	0.721	0.825	0.761	6.40
48)	carbon tetrachloride											
	0.653	0.646	0.709	0.624	0.657	0.667	0.626	0.616	0.627	0.707	0.653	5.08
49)	isopropyl acetate											
	0.127	0.126		0.118	0.122		0.117	0.114	0.112		0.120	4.76
50)	dibromofluoromethane (s)											
	0.414	0.417	0.420	0.420	0.429	0.414	0.422	0.415	0.420	0.417	0.419	1.11
51)	methacrylonitrile											
	0.197	0.211	0.196	0.208	0.212	0.173	0.203	0.204	0.207		0.201	5.95
52)	1,1,1-trichloroethane											
	0.816	0.842	0.924	0.768	0.798	0.812	0.762	0.763	0.782		0.808	6.38
53)	cyclohexane											

0.798 0.833 0.894 0.795 0.805 0.867 0.804 0.785 0.828 0.885 0.829 4.77

54) iso-butyl alcohol
0.026 0.021 0.020 0.018 0.022 0.021 0.021 11.21

55) tert amyl alcohol
0.034 0.028 0.027 0.024 0.029 0.031 0.029 11.62

56) I 1,4-difluorobenzene ----------ISTD----------

57) 1,2-dichloroethane-d4 (s)
0.309 0.309 0.313 0.307 0.314 0.304 0.302 0.310 0.309 0.306 0.308 1.17

58) 2,2,4-trimethylpentane
1.381 1.470 1.526 1.387 1.458 1.411 1.365 1.402 1.412 1.689 1.450 6.69

59) n-butyl alcohol
0.011 0.011 0.010 0.009 0.009 0.008 0.010 0.010 0.010# 9.19

60) benzene
1.678 1.739 1.749 1.520 1.566 1.615 1.493 1.541 1.576 2.044 1.652 9.91

61) tert-amyl methyl ether
1.273 1.304 1.394 1.142 1.168 1.269 1.097 1.140 1.201 1.532 1.252 10.65

62) heptane
0.278 0.303 0.304 0.269 0.277 0.294 0.258 0.274 0.277 0.333 0.287 7.63

63) 1,2-dichloroethane
0.485 0.507 0.577 0.436 0.450 0.494 0.428 0.437 0.455 0.474 10.03

64) ethyl acrylate
0.430 0.436 0.413 0.420 0.434 0.382 0.413 0.413 0.429 0.419 3.96

65) trichloroethene
0.401 0.407 0.421 0.361 0.373 0.398 0.358 0.363 0.366 0.442 0.389 7.45

66) 2-nitropropane
0.114 0.106 0.109 0.103 0.108 0.105 0.107 3.66

67) 2-chloroethyl vinyl ether
0.232 0.232 0.226 0.224 0.231 0.215 0.220 0.219 0.223 0.246 0.227 3.93

68) methyl methacrylate
0.094 0.092 0.072 0.097 0.100 0.099 0.094 0.093 0.093 9.68

69) 1,2-dichloropropane
0.428 0.424 0.454 0.391 0.404 0.370 0.386 0.387 0.395 0.404 6.45

70) methylcyclohexane
0.663 0.738 0.718 0.664 0.697 0.701 0.660 0.677 0.669 0.839 0.703 7.74

71) dibromomethane
0.218 0.233 0.220 0.210 0.216 0.205 0.209 0.205 0.216 0.236 0.217 4.95

72) bromodichloromethane
0.487 0.486 0.469 0.472 0.493 0.475 0.477 0.463 0.469 0.527 0.482 3.83

73) epichlorohydrin
0.038 0.034 0.035 0.035 0.032 0.032 0.034 0.035 0.034 5.09

74) cis-1,3-dichloropropene
0.651 0.624 0.628 0.612 0.644 0.598 0.624 0.597 0.617 0.755 0.635 7.17

75) 4-methyl-2-pentanone
0.142 0.140 0.125 0.133 0.136 0.127 0.126 0.131 0.134 0.136 0.133 4.28

76) 3-methyl-1-butanol
0.011 0.011 0.010 0.010 0.009 0.009 0.010 0.011 0.010 7.63

77) I chlorobenzene-d5 ----------ISTD----------

78) toluene-d8 (s)
1.302 1.299 1.305 1.301 1.289 1.292 1.282 1.301 1.302 1.286 1.296 0.62

79) toluene
1.144 1.202 1.140 1.037 1.045 1.063 1.013 1.047 1.078 1.334 1.110 8.86

80) ethyl methacrylate
0.561 0.521 0.516 0.520 0.531 0.479 0.511 0.520 0.528 0.463 0.515 5.28

81) trans-1,3-dichloropropene
0.633 0.613 0.568 0.588 0.600 0.524 0.578 0.585 0.588 0.739 0.602 9.30

82) 1,1,2-trichloroethane
0.312 0.330 0.321 0.293 0.299 0.289 0.286 0.289 0.302 0.373 0.309 8.65

83) tetrachloroethene

```
      0.381 0.398 0.378 0.355 0.361 0.364 0.352 0.360 0.357 0.403  0.371    4.91
 84)  2-hexanone
      0.143 0.146 0.117 0.139 0.138 0.124 0.129 0.141 0.140        0.135    7.22
 85)  1,3-dichloropropane
      0.640 0.654 0.631 0.600 0.609 0.603 0.584 0.606 0.616 0.801  0.634    9.76
 86)  butyl acetate
      0.277 0.276 0.253 0.252 0.250 0.230 0.237 0.255 0.259        0.254    6.05
 87)  dibromochloromethane
      0.385 0.392 0.384 0.386 0.396 0.373 0.389 0.373 0.373 0.349  0.380    3.58
 88)  1,2-dibromoethane
      0.399 0.380 0.393 0.381 0.390 0.372 0.380 0.376 0.386 0.403  0.386    2.63
 89)  n-butyl ether
      1.954 1.960 1.875 1.838 1.897 1.805 1.810 1.813 1.821 2.112  1.888    5.16
 90)  chlorobenzene
      1.213 1.217 1.174 1.109 1.132 1.134 1.093 1.101 1.139 1.391  1.170    7.59
 91)  1,1,1,2-tetrachloroethane
      0.426 0.437 0.394 0.400 0.413 0.400 0.406 0.396 0.405 0.396  0.407    3.49
 92)  ethylbenzene
      2.112 2.128 2.053 1.918 1.965 1.967 1.882 1.924 1.992 2.464  2.041    8.32
 93)  m,p-xylene
      0.815 0.799 0.814 0.746 0.767 0.716 0.737 0.747 0.762 0.908  0.781    7.12
 94)  o-xylene
      1.644 1.662 1.629 1.550 1.584 1.553 1.520 1.536 1.585 1.947  1.621    7.65
 95)  styrene
      1.341 1.306 1.308 1.278 1.306 1.206 1.259 1.258 1.296 1.452  1.301    4.97
 96)  butyl acrylate
      0.785 0.773 0.724 0.769 0.783 0.784 0.747 0.752 0.756 0.821  0.769    3.44
 97)  bromoform
      0.248 0.251 0.235 0.262 0.270 0.211 0.266 0.252 0.250 0.240  0.248    6.93
 98)  isopropylbenzene
      2.037 2.017 2.024 1.927 1.974 1.875 1.885 1.921 1.972 2.235  1.987    5.24
 99)  cis-1,4-dichloro-2-butene
      0.150 0.144 0.174 0.165 0.169 0.151 0.165 0.153 0.151        0.158    6.58

100) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
101)  4-bromofluorobenzene (s)
      0.873 0.866 0.885 0.868 0.872 0.867 0.869 0.864 0.872 0.891  0.873    1.00
102)  bromobenzene
      1.001 1.032 0.906 0.925 0.946 0.942 0.930 0.916 0.936        0.948    4.36
103)  1,1,2,2-tetrachloroethane
      0.900 0.903 0.964 0.833 0.853 0.834 0.813 0.825 0.849 0.973  0.875    6.60
104)  trans-1,4-dichloro-2-butene
      0.204 0.221       0.197 0.203 0.196 0.194 0.193 0.198        0.201    4.54
105)  1,2,3-trichloropropane
      0.265 0.259       0.231 0.233 0.217 0.223 0.229 0.242        0.237    7.18
106)  n-propylbenzene
      4.566 4.538 4.777 4.135 4.250 4.163 4.013 4.157 4.247 5.208  4.405    8.36
107)  2-chlorotoluene
      0.929 0.900 0.971 0.859 0.889 0.813 0.858 0.857 0.882 0.897  0.885    4.92
108)  4-chlorotoluene
      2.754 2.750 2.726 2.457 2.513 2.595 2.410 2.434 2.558 3.104  2.630    8.03
109)  1,3,5-trimethylbenzene
      3.251 3.164 3.270 2.996 3.098 2.976 2.960 2.979 3.045 3.662  3.140    6.87
110)  tert-butylbenzene
      2.701 2.721 3.076 2.563 2.640 2.550 2.568 2.538 2.560 3.272  2.719    9.28
111)  1,2,4-trimethylbenzene
      3.310 3.190 2.938 2.990 3.092 2.958 2.954 2.966 3.099 3.653  3.115    7.20
112)  sec-butylbenzene
      4.138 4.086 4.029 3.838 3.945 3.894 3.732 3.811 3.913 4.441  3.983    5.12
113)  1,3-dichlorobenzene
```

```
       1.860 1.875 1.946 1.719 1.790 1.832 1.719 1.738 1.787 2.187  1.845    7.62
114)  p-isopropyltoluene
       3.484 3.385 3.471 3.249 3.348 3.229 3.185 3.258 3.356 3.915  3.388    6.21
115)  1,4-dichlorobenzene
       1.951 1.924 2.058 1.761 1.812 1.739 1.754 1.753 1.814 2.274  1.884    9.18
116)  1,2-dichlorobenzene
       1.844 1.867 1.921 1.701 1.745 1.650 1.684 1.702 1.728 2.235  1.808    9.64
117)  n-butylbenzene
       1.749 1.764 1.717 1.693 1.741 1.643 1.658 1.668 1.710 2.083  1.743    7.23
118)  1,2-dibromo-3-chloropropane
       0.222 0.204       0.195 0.204 0.201 0.190 0.191 0.193        0.200    5.18
119)  1,3,5-trichlorobenzene
       1.653 1.611 1.560 1.552 1.615 1.624 1.540 1.547 1.576 1.791  1.607    4.66
120)  1,2,4-trichlorobenzene
       1.356 1.389 1.426 1.326 1.367 1.331 1.299 1.309 1.345        1.350    2.96
121)  2-ethylhexyl acrylate
       0.902 0.985       1.023 1.106 0.929 1.062 0.947 0.976        0.991    6.95
122)  hexachlorobutadiene
       0.687 0.691 0.671 0.669 0.697 0.687 0.660 0.683 0.687 0.861  0.699    8.30
123)  naphthalene
       2.954 2.899 2.789 2.819 2.846 2.644 2.601 2.778 2.833 3.176  2.834    5.66
124)  1,2,3-trichlorobenzene
       1.208 1.227 1.221 1.189 1.221 1.208 1.150 1.157 1.182 1.466  1.223    7.32
125)  hexachloroethane
       0.545 0.541 0.483 0.561 0.595 0.461 0.590 0.542 0.547 0.566  0.543    7.83
126)  benzyl chloride
       1.732 1.781       1.610 1.653 1.720 1.569 1.577 1.611        1.657    4.76
127)  2-methylnaphthalene
       1.513 1.477       1.581 1.634 1.304 1.534 1.518 1.467        1.504    6.46

128) I   chlorobenzene-d5 (a)  ----------------ISTD--------------------
129)  cyclohexanone
       0.012 0.014       0.011 0.012       0.012 0.010 0.011        0.012   10.21
 ---------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M2E6300.M         Fri Jun 29 10:49:13 2018
```

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2E6300-ICV6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143862.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V2E6300\2E143862.D Vial: 13
Acq On : 14 Jun 2018 10:46 pm Operator: sydneys
Sample : icv6300-50 Inst : VOAMS2E
Misc : MS27143,V2E6300,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Fri Jun 15 11:45:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	99	0.00	7.38
2		ethanol	0.120	0.107	10.8	96	0.00	6.13
3	M	tertiary butyl alcohol	1.323	1.279	3.3	98	0.00	7.50
4		1,4-dioxane	0.101	0.093	7.9	94	0.00	11.26
5	I	pentafluorobenzene	1.000	1.000	0.0	98	0.00	9.62
6	M	chlorodifluoromethane	0.718	0.721	-0.4	102	0.00	4.02
7	M	dichlorodifluoromethane	0.819	0.796	2.8	95	0.00	4.00
8		freon 114		----------NA----------				
9		freon 142b	0.768	0.737	4.0	95	0.00	4.29
10	M	chloromethane	1.090	1.215	-11.5	115	0.00	4.40
11	M	vinyl chloride	0.999	1.028	-2.9	104	0.00	4.64
12	M	bromomethane	0.612	0.615	-0.5	105	0.00	5.28
13	M	chloroethane	0.582	0.568	2.4	102	0.00	5.43
14	M	trichlorofluoromethane	0.870	0.849	2.4	99	0.00	5.89
15		1,3-butadiene	0.850	0.797	6.2	96	0.00	4.66
16		vinyl bromide	0.608	0.613	-0.8	105	0.00	5.78
17	M	ethyl ether	0.388	0.359	7.5	100	0.00	6.29
18		2-chloropropane	1.022	1.083	-6.0	110	0.00	6.49
19	M	acrolein	0.125	0.132	-5.6	111	0.00	6.54
20		freon 113	0.423	0.421	0.5	100	0.00	6.68
21	M	1,1-dichloroethene	0.906	0.826	8.8	94	0.00	6.71
22	M	acetone	0.049	0.049	0.0	106	0.00	6.76
23		acetonitrile		----------NA----------				
24	M	iodomethane	0.789	0.940	-19.1	120	0.00	7.00
25	M	carbon disulfide	1.707	1.917	-12.3	116	0.00	7.12
26	M	methylene chloride	0.617	0.616	0.2	104	0.00	7.44
27	M	methyl acetate	0.425	0.419	1.4	101	0.00	7.23
28	M	methyl tert butyl ether	1.558	1.556	0.1	102	0.00	7.75
29	M	trans-1,2-dichloroethene	0.781	0.752	3.7	99	0.00	7.80
30		hexane	0.388	0.332	14.4	88	0.00	8.09
31	M	di-isopropyl ether	1.899	1.930	-1.6	105	0.00	8.34
32	M	ethyl tert-butyl ether	1.774	1.807	-1.9	103	0.00	8.81
33	M	2-butanone	0.054	0.059	-9.3	104	0.00	9.07
34	M	1,1-dichloroethane	1.011	0.971	4.0	100	0.00	8.37
35	M	chloroprene	0.836	0.846	-1.2	102	0.00	8.48
36	M	acrylonitrile	0.191	0.223	-16.8	114	0.00	7.77
37	M	vinyl acetate	0.111	0.124	-11.7	110	0.00	8.36
38	M	ethyl acetate	0.074	0.076	-2.7	104	0.00	9.09
39	M	2,2-dichloropropane	0.766	0.704	8.1	97	0.00	9.11
40	M	cis-1,2-dichloroethene	0.635	0.619	2.5	102	0.00	9.11
41	M	propionitrile	0.078	0.081	-3.8	102	0.00	9.18

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2E6300-ICV6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143862.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		methyl acrylate	0.074	0.079	-6.8	101	0.00	9.17
43	M	bromochloromethane	0.287	0.285	0.7	100	0.00	9.42
44	M	tetrahydrofuran	0.066	0.070	-6.1	100	0.00	9.46
45	M	chloroform	0.930	0.915	1.6	101	0.00	9.48
46		t-butyl formate	0.413	0.388	6.1	91	0.00	9.51
47		1,1-dichloropropene	0.761	0.732	3.8	100	0.00	9.91
48		carbon tetrachloride	0.653	0.635	2.8	99	0.00	9.93
49		isopropyl acetate	0.120	0.122	-1.7	101	0.00	10.08
50	S	dibromofluoromethane (s)	0.419	0.421	-0.5	98	0.00	9.68
51	M	methacrylonitrile	0.201	0.221	-10.0	104	0.00	9.37
52	M	1,1,1-trichloroethane	0.808	0.770	4.7	98	0.00	9.73
53		cyclohexane	0.829	0.828	0.1	102	0.00	9.80
54		iso-butyl alcohol	0.021	0.022	-4.8	104	0.00	9.91
55		tert amyl alcohol	0.029	0.030	-3.4	105	0.00	10.04
56	I	1,4-difluorobenzene	1.000	1.000	0.0	99	0.00	10.54
57	S	1,2-dichloroethane-d4 (s)	0.308	0.306	0.6	99	0.00	10.10
58		2,2,4-trimethylpentane	1.450	1.341	7.5	96	0.00	10.16
59	M	n-butyl alcohol	0.010	0.010#	0.0	101	0.00	10.66
60	M	benzene	1.652	1.550	6.2	101	0.00	10.17
61		tert-amyl methyl ether	1.252	1.174	6.2	102	0.00	10.19
62	M	heptane	0.287	0.290	-1.0	107	0.00	10.32
63	M	1,2-dichloroethane	0.474	0.451	4.9	103	0.00	10.19
64		ethyl acrylate	0.419	0.443	-5.7	105	0.00	10.88
65	M	trichloroethene	0.389	0.369	5.1	102	0.00	10.88
66	M	2-nitropropane	0.107	0.120	-12.1	112	0.00	11.66
67	M	2-chloroethyl vinyl ether	0.227	0.257	-13.2	114	0.00	11.67
68	M	methyl methacrylate	0.093	0.102	-9.7	104	0.00	11.14
69	M	1,2-dichloropropane	0.404	0.394	2.5	100	0.00	11.15
70	M	methylcyclohexane	0.703	0.631	10.2	94	0.00	11.09
71	M	dibromomethane	0.217	0.223	-2.8	106	0.00	11.31
72	M	bromodichloromethane	0.482	0.474	1.7	100	0.00	11.44
73		epichlorohydrin	0.034	0.036	-5.9	102	0.00	11.79
74	M	cis-1,3-dichloropropene	0.635	0.631	0.6	103	0.00	11.89
75	M	4-methyl-2-pentanone	0.133	0.141	-6.0	105	0.00	11.98
76	M	3-methyl-1-butanol	0.010	0.011	-10.0	101	0.00	11.99
77	I	chlorobenzene-d5	1.000	1.000	0.0	99	0.00	13.68
78	S	toluene-d8 (s)	1.296	1.299	-0.2	99	0.00	12.17
79		toluene	1.110	1.067	3.9	102	0.00	12.24
80		ethyl methacrylate	0.515	0.530	-2.9	101	0.00	12.43
81		trans-1,3-dichloropropene	0.602	0.582	3.3	98	0.00	12.44
82		1,1,2-trichloroethane	0.309	0.300	2.9	102	0.00	12.66
83	M	tetrachloroethene		----------NA----------				
84		2-hexanone	0.135	0.145	-7.4	103	0.00	12.82
85	M	1,3-dichloropropane	0.634	0.623	1.7	103	0.00	12.84
86	M	butyl acetate	0.254	0.276	-8.7	108	0.00	12.89
87	M	dibromochloromethane	0.380	0.400	-5.3	103	0.00	13.10
88	M	1,2-dibromoethane	0.386	0.394	-2.1	102	0.00	13.25
89		n-butyl ether	1.888	1.876	0.6	101	0.00	13.60
90	M	chlorobenzene	1.170	1.135	3.0	101	0.00	13.70
91	M	1,1,1,2-tetrachloroethane	0.407	0.420	-3.2	104	0.00	13.76
92	M	ethylbenzene	2.041	1.985	2.7	103	0.00	13.75
93	M	m,p-xylene	0.781	0.777	0.5	103	0.00	13.86
94	M	o-xylene	1.621	1.599	1.4	102	0.00	14.27
95	M	styrene	1.301	1.325	-1.8	103	0.00	14.29
96		butyl acrylate	0.769	0.819	-6.5	106	0.00	14.09
97	M	bromoform	0.248	0.280	-12.9	106	0.00	14.56
98		isopropylbenzene	1.987	1.980	0.4	102	0.00	14.61
99		cis-1,4-dichloro-2-butene	0.158	0.162	-2.5	97	0.00	14.69

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2E6300-ICV6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143862.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	15.97
101	S	4-bromofluorobenzene (s)	0.873	0.878	-0.6	99	0.00	14.82
102	M	bromobenzene	0.948	0.953	-0.5	101	0.00	15.01
103	M	1,1,2,2-tetrachloroethane	0.875	0.863	1.4	102	0.00	14.92
104	M	trans-1,4-dichloro-2-bute	0.201	0.224	-11.4	112	0.00	14.97
105	M	1,2,3-trichloropropane	0.237	0.236	0.4	100	0.00	15.00
106	M	n-propylbenzene	4.405	4.316	2.0	103	0.00	15.02
107	M	2-chlorotoluene	0.885	0.876	1.0	100	0.00	15.17
108	M	4-chlorotoluene	2.630	2.611	0.7	104	0.00	15.26
109	M	1,3,5-trimethylbenzene	3.140	3.101	1.2	102	0.00	15.16
110	M	tert-butylbenzene	2.719	2.640	2.9	101	0.00	15.52
111	M	1,2,4-trimethylbenzene	3.115	3.157	-1.3	104	0.00	15.56
112	M	sec-butylbenzene	3.983	4.000	-0.4	102	0.00	15.73
113	M	1,3-dichlorobenzene	1.845	1.791	2.9	102	0.00	15.91
114	M	p-isopropyltoluene	3.388	3.395	-0.2	103	0.00	15.84
115	M	1,4-dichlorobenzene	1.884	1.827	3.0	102	0.00	15.99
116	M	1,2-dichlorobenzene	1.808	1.754	3.0	101	0.00	16.38
117	M	n-butylbenzene	1.743	1.747	-0.2	101	0.00	16.24
118	M	1,2-dibromo-3-chloropropa	0.200	0.204	-2.0	103	0.00	17.10
119		1,3,5-trichlorobenzene	1.607	1.580	1.7	100	0.00	17.27
120	M	1,2,4-trichlorobenzene	1.350	1.381	-2.3	102	0.00	17.84
121		2-ethylhexyl acrylate	0.991	1.222	-23.3	117	0.00	17.81
122	M	hexachlorobutadiene	0.699	0.669	4.3	98	0.00	17.94
123	M	naphthalene	2.834	2.960	-4.4	103	0.00	18.10
124	M	1,2,3-trichlorobenzene	1.223	1.214	0.7	100	0.00	18.33
125	M	hexachloroethane	0.543	0.595	-9.6	104	0.00	16.62
126		benzyl chloride	1.657	1.318	20.5	80	0.00	16.11
127		2-methylnaphthalene	1.504	1.536	-2.1	95	0.00	19.20

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2E143857.D M2E6300.M Fri Jun 15 11:46:54 2018

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2E6300-ICV6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143863.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\V2E6300\2E143863.D Vial: 14
Acq On : 14 Jun 2018 11:14 pm Operator: sydneys
Sample : icv6300-50 Inst : VOAMS2E
Misc : MS27143,V2E6300,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Fri Jun 15 11:45:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	109	0.00	7.39
2		ethanol		----------NA----------				
3	M	tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	109	0.00	9.62
6	M	chlorodifluoromethane		----------NA----------				
7	M	dichlorodifluoromethane		----------NA----------				
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane		----------NA----------				
11	M	vinyl chloride		----------NA----------				
12	M	bromomethane		----------NA----------				
13	M	chloroethane		----------NA----------				
14	M	trichlorofluoromethane		----------NA----------				
15		1,3-butadiene		----------NA----------				
16		vinyl bromide		----------NA----------				
17	M	ethyl ether		----------NA----------				
18		2-chloropropane		----------NA----------				
19	M	acrolein		----------NA----------				
20		freon 113		----------NA----------				
21	M	1,1-dichloroethene		----------NA----------				
22	M	acetone		----------NA----------				
23		acetonitrile	0.074	0.075	-1.4	115	0.00	7.21
24	M	iodomethane		----------NA----------				
25	M	carbon disulfide		----------NA----------				
26	M	methylene chloride		----------NA----------				
27	M	methyl acetate		----------NA----------				
28	M	methyl tert butyl ether		----------NA----------				
29	M	trans-1,2-dichloroethene		----------NA----------				
30		hexane		----------NA----------				
31	M	di-isopropyl ether		----------NA----------				
32	M	ethyl tert-butyl ether		----------NA----------				
33	M	2-butanone		----------NA----------				
34	M	1,1-dichloroethane		----------NA----------				
35	M	chloroprene		----------NA----------				
36	M	acrylonitrile		----------NA----------				
37	M	vinyl acetate		----------NA----------				
38	M	ethyl acetate		----------NA----------				
39	M	2,2-dichloropropane		----------NA----------				
40	M	cis-1,2-dichloroethene		----------NA----------				
41	M	propionitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2E6300-ICV6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143863.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		methyl acrylate		----------NA----------					
43	M	bromochloromethane		----------NA----------					
44	M	tetrahydrofuran		----------NA----------					
45	M	chloroform		----------NA----------					
46		t-butyl formate		----------NA----------					
47		1,1-dichloropropene		----------NA----------					
48		carbon tetrachloride		----------NA----------					
49		isopropyl acetate		----------NA----------					
50	S	dibromofluoromethane (s)	0.419	0.413	1.4	107	0.00	9.68	
51	M	methacrylonitrile		----------NA----------					
52	M	1,1,1-trichloroethane		----------NA----------					
53		cyclohexane		----------NA----------					
54		iso-butyl alcohol		----------NA----------					
55		tert amyl alcohol		----------NA----------					
56	I	1,4-difluorobenzene	1.000	1.000	0.0	108	0.00	10.54	
57	S	1,2-dichloroethane-d4 (s)	0.308	0.301	2.3	106	0.00	10.10	
58		2,2,4-trimethylpentane		----------NA----------					
59	M	n-butyl alcohol		----------NA----------					
60	M	benzene		----------NA----------					
61		tert-amyl methyl ether		----------NA----------					
62	M	heptane		----------NA----------					
63	M	1,2-dichloroethane		----------NA----------					
64		ethyl acrylate		----------NA----------					
65	M	trichloroethene		----------NA----------					
66	M	2-nitropropane		----------NA----------					
67	M	2-chloroethyl vinyl ether		----------NA----------					
68	M	methyl methacrylate		----------NA----------					
69	M	1,2-dichloropropane		----------NA----------					
70	M	methylcyclohexane		----------NA----------					
71	M	dibromomethane		----------NA----------					
72	M	bromodichloromethane		----------NA----------					
73		epichlorohydrin		----------NA----------					
74	M	cis-1,3-dichloropropene		----------NA----------					
75	M	4-methyl-2-pentanone		----------NA----------					
76	M	3-methyl-1-butanol		----------NA----------					
77	I	chlorobenzene-d5	1.000	1.000	0.0	107	0.00	13.68	
78	S	toluene-d8 (s)	1.296	1.290	0.5	106	0.00	12.17	
79		toluene		----------NA----------					
80		ethyl methacrylate		----------NA----------					
81		trans-1,3-dichloropropene		----------NA----------					
82		1,1,2-trichloroethane		----------NA----------					
83	M	tetrachloroethene	0.371	0.354	4.6	107	0.00	12.83	
84		2-hexanone		----------NA----------					
85	M	1,3-dichloropropane		----------NA----------					
86	M	butyl acetate		----------NA----------					
87	M	dibromochloromethane		----------NA----------					
88	M	1,2-dibromoethane		----------NA----------					
89		n-butyl ether		----------NA----------					
90	M	chlorobenzene		----------NA----------					
91	M	1,1,1,2-tetrachloroethane		----------NA----------					
92	M	ethylbenzene		----------NA----------					
93	M	m,p-xylene		----------NA----------					
94	M	o-xylene		----------NA----------					
95	M	styrene		----------NA----------					
96		butyl acrylate		----------NA----------					
97	M	bromoform		----------NA----------					
98		isopropylbenzene		----------NA----------					
99		cis-1,4-dichloro-2-butene		----------NA----------					

Initial Calibration Verification

Job Number: JC68966 **Sample:** V2E6300-ICV6300
Account: EAENYES EA Engineering **Lab FileID:** 2E143863.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	104	0.00	15.97
101	S	4-bromofluorobenzene (s)	0.873	0.870	0.3	104	0.00	14.82
102	M	bromobenzene	----------NA----------					
103	M	1,1,2,2-tetrachloroethane	----------NA----------					
104	M	trans-1,4-dichloro-2-bute	----------NA----------					
105	M	1,2,3-trichloropropane	----------NA----------					
106	M	n-propylbenzene	----------NA----------					
107	M	2-chlorotoluene	----------NA----------					
108	M	4-chlorotoluene	----------NA----------					
109	M	1,3,5-trimethylbenzene	----------NA----------					
110	M	tert-butylbenzene	----------NA----------					
111	M	1,2,4-trimethylbenzene	----------NA----------					
112	M	sec-butylbenzene	----------NA----------					
113	M	1,3-dichlorobenzene	----------NA----------					
114	M	p-isopropyltoluene	----------NA----------					
115	M	1,4-dichlorobenzene	----------NA----------					
116	M	1,2-dichlorobenzene	----------NA----------					
117	M	n-butylbenzene	----------NA----------					
118	M	1,2-dibromo-3-chloropropa	----------NA----------					
119		1,3,5-trichlorobenzene	----------NA----------					
120	M	1,2,4-trichlorobenzene	----------NA----------					
121		2-ethylhexyl acrylate	----------NA----------					
122	M	hexachlorobutadiene	----------NA----------					
123	M	naphthalene	----------NA----------					
124	M	1,2,3-trichlorobenzene	----------NA----------					
125	M	hexachloroethane	----------NA----------					
126		benzyl chloride	----------NA----------					
127		2-methylnaphthalene	----------NA----------					

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2E143857.D M2E6300.M Fri Jun 15 11:46:56 2018

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2E6328-CC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E144436.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

```
Data File : C:\msdchem\1\data\lo...OA\v2e6328\2e144436.d Vial: 2
Acq On    :  1 Jul 2018  11:31 am                    Operator: juntaep
Sample    : cc6300-20                                Inst    : VOAMS2E
Misc      : MS27449,V2E6328,5,,,,1                   Multiplr: 1.00
MS Integration Params: rteint.p

Method       : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title        : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update  : Fri Jun 15 11:45:10 2018
Response via : Multiple Level Calibration

Min. RRF     :   0.010  Min. Rel. Area :  50%  Max. R.T. Dev  0.50min
Max. RRF Dev :  20%     Max. Rel. Area : 200%
```

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	88	0.00	7.39
2		ethanol	0.120	0.122	-1.7	90	0.00	6.13
3	M	tertiary butyl alcohol	1.323	1.316	0.5	86	0.00	7.50
4		1,4-dioxane	0.101	0.104	-3.0	89	0.00	11.26
5	I	pentafluorobenzene	1.000	1.000	0.0	84	0.00	9.62
6	M	chlorodifluoromethane	0.718	0.801	-11.6	100	0.00	4.02
7	M	dichlorodifluoromethane	0.819	1.008	-23.1#	104	0.00	4.00
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane	1.090	0.945	13.3	78	0.01	4.41
11	M	vinyl chloride	0.999	0.874	12.5	78	0.01	4.65
12	M	bromomethane	0.612	0.538	12.1	80	0.01	5.29
13	M	chloroethane	0.582	0.491	15.6	77	0.00	5.44
14	M	trichlorofluoromethane	0.870	1.021	-17.4	101	0.01	5.90
15		1,3-butadiene		----------NA----------				
16		vinyl bromide	0.608	0.492	19.1	72	0.00	5.79
17	M	ethyl ether	0.388	0.313	19.3	75	0.00	6.29
18		2-chloropropane	1.022	0.980	4.1	87	0.00	6.49
19	M	acrolein	0.125	0.086	31.2#	61	0.00	6.56
20		freon 113	0.423	0.451	-6.6	91	0.00	6.68
21	M	1,1-dichloroethene	0.906	0.896	1.1	89	0.00	6.71
22	M	acetone	0.049	0.041	16.3	74	0.00	6.76
23		acetonitrile	0.074	0.063	14.9	77	0.00	7.21
24	M	iodomethane	0.789	0.714	9.5	79	0.00	7.00
25	M	carbon disulfide	1.707	1.496	12.4	78	0.00	7.13
26	M	methylene chloride	0.617	0.540	12.5	80	0.00	7.43
27	M	methyl acetate	0.425	0.357	16.0	75	0.00	7.23
28	M	methyl tert butyl ether	1.558	1.457	6.5	83	0.01	7.76
29	M	trans-1,2-dichloroethene	0.781	0.743	4.9	84	0.00	7.80
30		hexane	0.388	0.367	5.4	82	0.00	8.09
31	M	di-isopropyl ether	1.899	1.659	12.6	79	0.00	8.34
32	M	ethyl tert-butyl ether	1.774	1.703	4.0	85	0.00	8.81
33	M	2-butanone	0.054	0.050	7.4	77	0.00	9.08
34	M	1,1-dichloroethane	1.011	0.958	5.2	85	0.00	8.37
35	M	chloroprene	0.836	0.849	-1.6	89	0.00	8.48
36	M	acrylonitrile	0.191	0.165	13.6	72	0.01	7.77
37	M	vinyl acetate	0.111	0.088	20.7#	68	0.00	8.35
38	M	ethyl acetate	0.074	0.063	14.9	74	0.00	9.09
39	M	2,2-dichloropropane	0.766	0.841	-9.8	99	0.00	9.11
40	M	cis-1,2-dichloroethene	0.635	0.578	9.0	82	0.00	9.11
41	M	propionitrile	0.078	0.074	5.1	80	0.00	9.18

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2E6328-CC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E144436.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		methyl acrylate	0.074	0.062	16.2	72	0.00	9.17
43	M	bromochloromethane	0.287	0.265	7.7	80	0.00	9.43
44	M	tetrahydrofuran	0.066	0.064	3.0	77	0.00	9.46
45	M	chloroform	0.930	0.944	-1.5	91	0.00	9.48
46		t-butyl formate	0.413	0.478	-15.7	102	0.00	9.51
47		1,1-dichloropropene	0.761	0.715	6.0	84	0.00	9.90
48		carbon tetrachloride	0.653	0.782	-19.8	107	0.00	9.93
49		isopropyl acetate	0.120	0.103	14.2	76	0.00	10.08
50	S	dibromofluoromethane (s)	0.419	0.428	-2.1	87	0.00	9.67
51	M	methacrylonitrile	0.201	0.180	10.4	74	0.00	9.37
52	M	1,1,1-trichloroethane	0.808	0.900	-11.4	99	0.00	9.73
53		cyclohexane	0.829	0.812	2.1	87	0.00	9.80
54		iso-butyl alcohol	0.021	0.022	-4.8	84	0.00	9.92
55		tert amyl alcohol	0.029	0.030	-3.4	86	0.00	10.04
56	I	1,4-difluorobenzene	1.000	1.000	0.0	82	0.00	10.53
57	S	1,2-dichloroethane-d4 (s)	0.308	0.364	-18.2	96	0.00	10.10
58		2,2,4-trimethylpentane	1.450	1.479	-2.0	86	0.00	10.15
59	M	n-butyl alcohol	0.010	0.010	0.0	85	0.00	10.66
60	M	benzene	1.652	1.497	9.4	80	0.00	10.17
61		tert-amyl methyl ether	1.252	1.188	5.1	85	0.00	10.19
62	M	heptane	0.287	0.279	2.8	84	0.00	10.32
63	M	1,2-dichloroethane	0.474	0.510	-7.6	95	0.00	10.18
64		ethyl acrylate	0.419	0.395	5.7	78	0.00	10.88
65	M	trichloroethene	0.389	0.368	5.4	83	0.00	10.88
66	M	2-nitropropane	0.107	0.128	-19.6	97	0.00	11.66
67	M	2-chloroethyl vinyl ether	0.227	0.219	3.5	82	0.00	11.67
68	M	methyl methacrylate	0.093	0.088	5.4	77	0.00	11.14
69	M	1,2-dichloropropane	0.404	0.382	5.4	81	0.00	11.14
70	M	methylcyclohexane	0.703	0.712	-1.3	86	0.00	11.10
71	M	dibromomethane	0.217	0.212	2.3	85	0.00	11.31
72	M	bromodichloromethane	0.482	0.495	-2.7	88	0.00	11.43
73		epichlorohydrin	0.034	0.034	0.0	81	0.00	11.79
74	M	cis-1,3-dichloropropene	0.635	0.604	4.9	83	0.00	11.89
75	M	4-methyl-2-pentanone	0.133	0.124	6.8	77	0.00	11.98
76	M	3-methyl-1-butanol	0.010	0.011	-10.0	84	0.00	11.99
77	I	chlorobenzene-d5	1.000	1.000	0.0	86	0.00	13.67
78	S	toluene-d8 (s)	1.296	1.274	1.7	84	0.00	12.17
79		toluene	1.110	1.015	8.6	83	0.00	12.24
80		ethyl methacrylate	0.515	0.455	11.7	75	0.00	12.43
81		trans-1,3-dichloropropene	0.602	0.608	-1.0	89	0.00	12.44
82		1,1,2-trichloroethane	0.309	0.270	12.6	80	0.00	12.65
83	M	tetrachloroethene	0.371	0.349	5.9	83	0.00	12.82
84		2-hexanone	0.135	0.128	5.2	78	0.00	12.82
85	M	1,3-dichloropropane	0.634	0.588	7.3	83	0.00	12.84
86	M	butyl acetate	0.254	0.225	11.4	76	0.00	12.89
87	M	dibromochloromethane	0.380	0.390	-2.6	90	0.00	13.10
88	M	1,2-dibromoethane	0.386	0.363	6.0	83	0.00	13.25
89		n-butyl ether	1.888	1.733	8.2	82	0.00	13.60
90	M	chlorobenzene	1.170	1.102	5.8	86	0.00	13.70
91	M	1,1,1,2-tetrachloroethane	0.407	0.415	-2.0	90	0.00	13.76
92	M	ethylbenzene	2.041	1.938	5.0	86	0.00	13.75
93	M	m,p-xylene	0.781	0.751	3.8	86	0.00	13.86
94	M	o-xylene	1.621	1.575	2.8	88	0.00	14.27
95	M	styrene	1.301	1.248	4.1	85	0.00	14.29
96		butyl acrylate	0.769	0.688	10.5	79	0.00	14.09
97	M	bromoform	0.248	0.265	-6.9	90	0.00	14.56
98		isopropylbenzene	1.987	1.953	1.7	87	0.00	14.61
99		cis-1,4-dichloro-2-butene	0.158	0.165	-4.4	93	0.00	14.69

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2E6328-CC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E144436.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	89	0.00	15.97
101	S	4-bromofluorobenzene (s)	0.873	0.873	0.0	90	0.00	14.82
102	M	bromobenzene	0.948	0.917	3.3	89	0.00	15.01
103	M	1,1,2,2-tetrachloroethane	0.875	0.764	12.7	82	0.00	14.92
104	M	trans-1,4-dichloro-2-bute	0.201	0.209	-4.0	96	0.00	14.96
105	M	1,2,3-trichloropropane	0.237	0.233	1.7	90	0.00	15.00
106	M	n-propylbenzene	4.405	4.161	5.5	89	0.00	15.02
107	M	2-chlorotoluene	0.885	0.844	4.6	88	0.00	15.17
108	M	4-chlorotoluene	2.630	2.500	4.9	91	0.00	15.26
109	M	1,3,5-trimethylbenzene	3.140	2.972	5.4	89	0.00	15.16
110	M	tert-butylbenzene	2.719	2.529	7.0	89	0.00	15.51
111	M	1,2,4-trimethylbenzene	3.115	3.036	2.5	91	0.00	15.56
112	M	sec-butylbenzene	3.983	3.821	4.1	89	0.00	15.72
113	M	1,3-dichlorobenzene	1.845	1.719	6.8	88	0.00	15.91
114	M	p-isopropyltoluene	3.388	3.270	3.5	89	0.00	15.84
115	M	1,4-dichlorobenzene	1.884	1.764	6.4	90	0.00	15.99
116	M	1,2-dichlorobenzene	1.808	1.679	7.1	88	0.00	16.37
117	M	n-butylbenzene	1.743	1.648	5.5	88	0.00	16.24
118	M	1,2-dibromo-3-chloropropa	0.200	0.178	11.0	83	0.00	17.10
119		1,3,5-trichlorobenzene	1.607	1.500	6.7	86	0.00	17.26
120	M	1,2,4-trichlorobenzene	1.350	1.239	8.2	84	0.00	17.84
121		2-ethylhexyl acrylate	0.991	0.694	30.0#	65	0.00	17.80
122	M	hexachlorobutadiene	0.699	0.684	2.1	89	0.00	17.94
123	M	naphthalene	2.834	2.533	10.6	81	0.00	18.10
124	M	1,2,3-trichlorobenzene	1.223	1.096	10.4	84	0.00	18.33
125	M	hexachloroethane	0.543	0.560	-3.1	92	0.00	16.62
126		benzyl chloride	1.657	1.746	-5.4	99	0.00	16.10
127		2-methylnaphthalene	1.504	1.256	16.5	74	0.00	19.20
128		chlorobenzene-d5 (a)	N/A	1.00	0.0	518#	-5.53#	13.67
129		cyclohexanone	N/A	1.00	0.0	1#	-4.39#	14.81

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2E143856.D M2E6300.M Tue Jul 03 00:44:02 2018

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2E6328-ECC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E144454.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\lo...OA\v2e6328\2e144454.d Vial: 20
Acq On : 1 Jul 2018 11:17 pm Operator: juntaep
Sample : ecc6300-20 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
Last Update : Fri Jun 15 11:45:10 2018
Response via : Multiple Level Calibration

Min. RRF : 0.010 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	100	0.01	7.39
2		ethanol	0.120	0.114	5.0	96	0.01	6.14
3	M	tertiary butyl alcohol	1.323	1.302	1.6	97	0.00	7.50
4		1,4-dioxane	0.101	0.104	-3.0	102	0.00	11.25
5	I	pentafluorobenzene	1.000	1.000	0.0	84	0.00	9.62
6	M	chlorodifluoromethane	0.718	0.780	-8.6	97	0.01	4.03
7	M	dichlorodifluoromethane	0.819	0.968	-18.2	100	0.02	4.01
8		freon 114		----------NA----------				
9		freon 142b		----------NA----------				
10	M	chloromethane	1.090	0.948	13.0	79	0.02	4.42
11	M	vinyl chloride	0.999	0.896	10.3	80	0.01	4.65
12	M	bromomethane	0.612	0.537	12.3	80	0.01	5.29
13	M	chloroethane	0.582	0.509	12.5	80	0.02	5.45
14	M	trichlorofluoromethane	0.870	1.036	-19.1	103	0.01	5.90
15		1,3-butadiene		----------NA----------				
16		vinyl bromide	0.608	0.500	17.8	74	0.01	5.79
17	M	ethyl ether	0.388	0.318	18.0	76	0.01	6.29
18		2-chloropropane	1.022	0.981	4.0	87	0.01	6.49
19	M	acrolein	0.125	0.079	36.8	56	0.00	6.55
20		freon 113	0.423	0.444	-5.0	90	0.00	6.68
21	M	1,1-dichloroethene	0.906	0.917	-1.2	91	0.00	6.72
22	M	acetone	0.049	0.044	10.2	80	0.01	6.77
23		acetonitrile	0.074	0.068	8.1	83	0.01	7.22
24	M	iodomethane	0.789	0.733	7.1	81	0.00	7.00
25	M	carbon disulfide	1.707	1.532	10.3	80	0.00	7.13
26	M	methylene chloride	0.617	0.576	6.6	86	0.00	7.44
27	M	methyl acetate	0.425	0.391	8.0	82	0.00	7.23
28	M	methyl tert butyl ether	1.558	1.519	2.5	86	0.01	7.76
29	M	trans-1,2-dichloroethene	0.781	0.745	4.6	84	0.00	7.81
30		hexane	0.388	0.337	13.1	75	0.00	8.10
31	M	di-isopropyl ether	1.899	1.700	10.5	81	0.00	8.34
32	M	ethyl tert-butyl ether	1.774	1.735	2.2	86	0.00	8.81
33	M	2-butanone	0.054	0.051	5.6	78	0.00	9.08
34	M	1,1-dichloroethane	1.011	0.951	5.9	85	0.00	8.38
35	M	chloroprene	0.836	0.866	-3.6	90	0.00	8.48
36	M	acrylonitrile	0.191	0.171	10.5	75	0.01	7.77
37	M	vinyl acetate	0.111	0.088	20.7	68	0.01	8.36
38	M	ethyl acetate	0.074	0.067	9.5	79	0.00	9.09
39	M	2,2-dichloropropane	0.766	0.661	13.7	78	0.00	9.11
40	M	cis-1,2-dichloroethene	0.635	0.580	8.7	82	0.00	9.11
41	M	propionitrile	0.078	0.077	1.3	83	0.00	9.18

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2E6328-ECC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E144454.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		methyl acrylate	0.074	0.067	9.5	79	0.00	9.18
43	M	bromochloromethane	0.287	0.264	8.0	80	0.00	9.42
44	M	tetrahydrofuran	0.066	0.063	4.5	76	0.01	9.47
45	M	chloroform	0.930	0.938	-0.9	90	0.00	9.48
46		t-butyl formate	0.413	0.457	-10.7	98	0.00	9.51
47		1,1-dichloropropene	0.761	0.721	5.3	85	0.00	9.91
48		carbon tetrachloride	0.653	0.786	-20.4	107	0.00	9.93
49		isopropyl acetate	0.120	0.112	6.7	82	0.00	10.09
50	S	dibromofluoromethane (s)	0.419	0.423	-1.0	86	0.00	9.67
51	M	methacrylonitrile	0.201	0.190	5.5	78	0.00	9.37
52	M	1,1,1-trichloroethane	0.808	0.907	-12.3	100	0.00	9.73
53		cyclohexane	0.829	0.839	-1.2	90	0.00	9.80
54		iso-butyl alcohol	0.021	0.021	0.0	82	0.00	9.91
55		tert amyl alcohol	0.029	0.030	-3.4	87	0.00	10.04
56	I	1,4-difluorobenzene	1.000	1.000	0.0	83	0.00	10.53
57	S	1,2-dichloroethane-d4 (s)	0.308	0.359	-16.6	97	0.00	10.10
58		2,2,4-trimethylpentane	1.450	1.323	8.8	79	0.00	10.15
59	M	n-butyl alcohol	0.010	0.010	0.0	89	0.00	10.67
60	M	benzene	1.652	1.484	10.2	80	0.00	10.17
61		tert-amyl methyl ether	1.252	1.203	3.9	88	0.00	10.19
62	M	heptane	0.287	0.234	18.5	71	0.00	10.32
63	M	1,2-dichloroethane	0.474	0.503	-6.1	96	0.00	10.19
64		ethyl acrylate	0.419	0.394	6.0	80	0.00	10.88
65	M	trichloroethene	0.389	0.373	4.1	86	0.00	10.88
66	M	2-nitropropane	0.107	0.125	-16.8	97	0.00	11.66
67	M	2-chloroethyl vinyl ether	0.227	0.199	12.3	76	0.00	11.67
68	M	methyl methacrylate	0.093	0.087	6.5	77	0.00	11.15
69	M	1,2-dichloropropane	0.404	0.371	8.2	80	0.00	11.15
70	M	methylcyclohexane	0.703	0.701	0.3	86	0.00	11.09
71	M	dibromomethane	0.217	0.211	2.8	86	0.00	11.31
72	M	bromodichloromethane	0.482	0.498	-3.3	90	0.00	11.44
73		epichlorohydrin	0.034	0.032	5.9	79	0.00	11.79
74	M	cis-1,3-dichloropropene	0.635	0.558	12.1	78	0.00	11.89
75	M	4-methyl-2-pentanone	0.133	0.129	3.0	82	0.00	11.98
76	M	3-methyl-1-butanol	0.010	0.011	-10.0	90	0.00	12.00
77	I	chlorobenzene-d5	1.000	1.000	0.0	86	0.00	13.67
78	S	toluene-d8 (s)	1.296	1.275	1.6	84	0.00	12.17
79		toluene	1.110	1.003	9.6	82	0.00	12.24
80		ethyl methacrylate	0.515	0.485	5.8	80	0.00	12.43
81		trans-1,3-dichloropropene	0.602	0.574	4.7	84	0.00	12.44
82		1,1,2-trichloroethane	0.309	0.285	7.8	85	0.00	12.66
83	M	tetrachloroethene	0.371	0.350	5.7	83	0.00	12.82
84		2-hexanone	0.135	0.134	0.7	82	0.00	12.82
85	M	1,3-dichloropropane	0.634	0.594	6.3	84	0.00	12.84
86	M	butyl acetate	0.254	0.246	3.1	83	0.00	12.89
87	M	dibromochloromethane	0.380	0.394	-3.7	91	0.00	13.10
88	M	1,2-dibromoethane	0.386	0.369	4.4	84	0.00	13.25
89		n-butyl ether	1.888	1.746	7.5	83	0.00	13.60
90	M	chlorobenzene	1.170	1.087	7.1	85	0.00	13.70
91	M	1,1,1,2-tetrachloroethane	0.407	0.404	0.7	88	0.00	13.76
92	M	ethylbenzene	2.041	1.952	4.4	87	0.00	13.75
93	M	m,p-xylene	0.781	0.745	4.6	86	0.00	13.86
94	M	o-xylene	1.621	1.562	3.6	87	0.00	14.27
95	M	styrene	1.301	1.249	4.0	85	0.00	14.28
96		butyl acrylate	0.769	0.730	5.1	83	0.00	14.10
97	M	bromoform	0.248	0.259	-4.4	88	0.00	14.56
98		isopropylbenzene	1.987	1.944	2.2	87	0.00	14.61
99		cis-1,4-dichloro-2-butene	0.158	0.036	77.2#	20#	0.00	14.69

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V2E6328-ECC6300
Account: EAENYES EA Engineering **Lab FileID:** 2E144454.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

100	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	88	0.00	15.97	
101	S	4-bromofluorobenzene (s)	0.873	0.880	-0.8	90	0.00	14.82	
102	M	bromobenzene	0.948	0.938	1.1	90	0.00	15.01	
103	M	1,1,2,2-tetrachloroethane	0.875	0.775	11.4	83	0.00	14.92	
104	M	trans-1,4-dichloro-2-bute	0.201	0.053	73.6#	24#	0.00	14.97	
105	M	1,2,3-trichloropropane	0.237	0.249	-5.1	96	0.00	15.00	
106	M	n-propylbenzene	4.405	4.197	4.7	89	0.00	15.02	
107	M	2-chlorotoluene	0.885	0.849	4.1	87	0.00	15.17	
108	M	4-chlorotoluene	2.630	2.518	4.3	91	0.00	15.26	
109	M	1,3,5-trimethylbenzene	3.140	2.960	5.7	88	0.00	15.16	
110	M	tert-butylbenzene	2.719	2.540	6.6	88	0.00	15.51	
111	M	1,2,4-trimethylbenzene	3.115	3.032	2.7	90	0.00	15.56	
112	M	sec-butylbenzene	3.983	3.806	4.4	88	0.00	15.72	
113	M	1,3-dichlorobenzene	1.845	1.788	3.1	91	0.00	15.91	
114	M	p-isopropyltoluene	3.388	3.246	4.2	88	0.00	15.84	
115	M	1,4-dichlorobenzene	1.884	1.790	5.0	90	0.00	15.99	
116	M	1,2-dichlorobenzene	1.808	1.727	4.5	90	0.00	16.37	
117	M	n-butylbenzene	1.743	1.652	5.2	87	0.00	16.24	
118	M	1,2-dibromo-3-chloropropa	0.200	0.183	8.5	85	0.00	17.10	
119		1,3,5-trichlorobenzene	1.607	1.515	5.7	86	0.00	17.26	
120	M	1,2,4-trichlorobenzene	1.350	1.245	7.8	84	0.00	17.84	
121		2-ethylhexyl acrylate	0.991	0.670	32.4	62	0.00	17.81	
122	M	hexachlorobutadiene	0.699	0.668	4.4	86	0.00	17.94	
123	M	naphthalene	2.834	2.621	7.5	83	0.00	18.10	
124	M	1,2,3-trichlorobenzene	1.223	1.120	8.4	85	0.00	18.33	
125	M	hexachloroethane	0.543	0.547	-0.7	89	0.00	16.62	
126		benzyl chloride	1.657	1.166	29.6	65	0.00	16.10	
127		2-methylnaphthalene	1.504	1.245	17.2	72	0.00	19.20	
128		chlorobenzene-d5 (a)	N/A	1.00	0.0	518#	-5.53#	13.67	
129		cyclohexanone	N/A	1.00	0.0	0#	0.00	0.00	

(#) = Out of Range SPCC's out = 0 CCC's out = 0
2E143856.D M2E6300.M Tue Jul 03 02:29:20 2018

Initial Calibration Summary

Job Number: JC68966 **Sample:** V4B3432-ICC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82575.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Response Factor Report MS4B

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration

Calibration Files
1 =4B82570.D 5 =4B82572.D 100 =4B82576.D 50 =4B82575.D
20 =4B82574.D 200 =4B82577.D 10 =4B82573.D 0.5 =4B82569.D
2 =4B82571.D =

Compound	1	5	100	50	20	200	10	0.5	2	Avg	%RSD
1) I tert butyl alcohol-d9	ISTD										
2) ethanol										0.000	-1.00
3) tertiary butyl alcohol	1.370	1.349	1.363	1.416	1.353	1.405		1.455		1.387	2.84
4) 1,4-dioxane	0.122	0.124	0.119	0.124	0.130	0.123		0.114		0.122	4.14
5) I pentafluorobenzene	ISTD										
6) chlorodifluoromethane	1.461	1.386	1.260	1.315	1.387	1.277	1.412	1.395	1.438	1.370	5.14
7) dichlorodifluoromethane	1.260	1.352	1.402	1.371	1.408	1.300	1.417	0.948	1.390	1.316	11.22
8) chloromethane	1.578	1.612	1.535	1.486	1.541	1.402	1.586	1.740	1.675	1.573	6.32
9) vinyl chloride	1.262	1.394	1.410	1.359	1.399	1.299	1.410	1.248	1.429	1.357	5.10
10) 1,3-butadiene	1.204	1.188	1.170	1.160	1.191	1.103	1.169	1.200	1.154	1.171	2.65
11) bromomethane	1.011	0.912	0.781	0.777	0.840		0.850		0.998	0.881	10.85
12) chloroethane	0.751	0.673	0.638	0.636	0.676	0.523	0.681	0.800	0.768	0.683	12.19
13) trichlorofluoromethane	1.133	1.212	1.208	1.175	1.222	1.086	1.225	0.855	1.294	1.157	11.04
14) vinyl bromide	0.715	0.745	0.751	0.724	0.737	0.663	0.741	0.607	0.785	0.719	7.38
15) ethyl ether	0.281	0.293	0.290	0.298	0.303	0.288	0.301		0.314	0.296	3.46
16) 2-chloropropane	1.302	1.198	1.251	1.291	1.184	1.301		1.497		1.289	8.02
17) acrolein	0.133	0.124	0.129	0.130	0.120	0.138				0.129	4.94
18) freon 113	0.550	0.574	0.560	0.578	0.597	0.568	0.616	0.430	0.600	0.564	9.64
19) 1,1-dichloroethene	1.137	1.180	1.116	1.160	1.203	1.104	1.197	1.071	1.197	1.152	4.10
20) acetone	0.044	0.046	0.048	0.048	0.045	0.050		0.051		0.048	5.03
21) acetonitrile	0.105	0.091	0.095	0.099	0.086	0.104				0.097	7.56
22) iodomethane	1.065	1.076	1.036	1.054	1.089	1.040	1.092	0.953	1.079	1.054	4.06
23) carbon disulfide											

	2.139	2.092	2.112	2.145	2.191	2.119	2.165	2.087	2.181	2.137	1.74
24)	methylene chloride										
	0.745	0.744	0.702	0.714	0.735	0.699	0.744	0.737	0.763	0.732	2.98
25)	methyl acetate										
		0.491	0.423	0.444	0.430	0.413	0.462			0.444	6.50
26)	methyl tert butyl ether										
	1.899	1.963	1.805	1.863	1.932	1.763	1.939	1.858	1.912	1.882	3.49
27)	trans-1,2-dichloroethene										
	0.955	0.980	0.935	0.960	0.993	0.929	0.998	0.880	1.035	0.963	4.73
28)	hexane										
	0.525	0.493	0.465	0.498	0.505	0.467	0.507	0.487	0.523	0.497	4.28
29)	di-isopropyl ether										
	2.575	2.488	2.370	2.424	2.547	2.354	2.528	2.472	2.602	2.484	3.54
30)	2-butanone										
	0.044	0.052	0.055	0.056	0.055	0.054	0.053		0.051	0.053	7.47
31)	1,1-dichloroethane										
	1.270	1.210	1.153	1.179	1.224	1.154	1.219	1.048	1.252	1.190	5.62
32)	chloroprene										
	0.990	0.979	0.944	0.981	1.013	0.940	1.016	0.913	1.034	0.979	4.08
33)	acrylonitrile										
	0.176	0.220	0.214	0.223	0.221	0.210	0.220		0.197	0.210	7.70
34)	vinyl acetate										
		0.067	0.081	0.081	0.082	0.082	0.077			0.078	7.42
35)	ethyl tert-butyl ether										
	2.123	2.197	2.080	2.134	2.225	2.053	2.194	1.982	2.204	2.132	3.83
36)	ethyl acetate										
		0.087	0.087	0.092	0.096	0.085	0.094			0.090	4.87
37)	2,2-dichloropropane										
	1.101	1.049	0.957	1.000	1.056	0.950	1.062	1.038	1.076	1.032	5.09
38)	cis-1,2-dichloroethene										
	0.730	0.690	0.668	0.684	0.709	0.672	0.696	0.646	0.709	0.689	3.67
39)	propionitrile										
	0.093	0.093	0.092	0.095	0.096	0.090	0.095	0.080	0.097	0.093	5.46
40)	methyl acrylate										
		0.065	0.077	0.079	0.073	0.076	0.069			0.073	7.08
41)	methacrylonitrile										
	0.219	0.204	0.207	0.214	0.211	0.204	0.217		0.211	0.211	2.64
42)	bromochloromethane										
	0.324	0.310	0.310	0.314	0.320	0.313	0.323	0.254	0.344	0.312	7.81
43)	tetrahydrofuran										
		0.063	0.072	0.073	0.074	0.071	0.068			0.070	5.83
44)	chloroform										
	1.162	1.117	1.063	1.087	1.113	1.069	1.125	1.148	1.144	1.114	3.14
45)	tert-butyl formate										
	0.437	0.443	0.487	0.484	0.479	0.485	0.454		0.442	0.464	4.72
46)	dibromofluoromethane (s)										
	0.474	0.477	0.469	0.471	0.474	0.468	0.474	0.472	0.473	0.472	0.60
47)	1,1,1-trichloroethane										
	1.087	1.094	1.061	1.078	1.123	1.064	1.128	0.982	1.144	1.085	4.43
48)	cyclohexane										
	1.210	1.107	1.051	1.094	1.132	1.068	1.136	1.076	1.318	1.133	7.43
49)	isobutyl alcohol										
										0.000	-1.00
50)	1,1-dichloropropene										
	0.849	0.854	0.827	0.847	0.863	0.837	0.862	0.737	0.855	0.837	4.66
51)	carbon tetrachloride										
	0.869	0.873	0.878	0.883	0.903	0.906	0.906	0.782	0.886	0.876	4.36
52)	tert-amyl alcohol										
	0.037	0.038	0.032	0.033	0.034	0.030	0.038		0.037	0.035	8.78
53)	isopropyl acetate										

0.098 0.105 0.105 0.109 0.105 0.100 0.103 3.72

54) I 1,4-difluorobenzene ----------ISTD----------
55) 1,2-dichloroethane-d4 (s)
0.363 0.369 0.348 0.351 0.360 0.341 0.367 0.366 0.364 0.359 2.74
56) n-butyl alcohol
0.011 0.009 0.010 0.010 0.009 0.011 0.010 8.99
57) 2,2,4-trimethylpentane
1.969 1.906 2.074 2.140 2.086 2.132 2.080 1.903 1.997 2.032 4.49
58) benzene
1.744 1.748 1.718 1.739 1.790 1.739 1.767 1.695 1.820 1.751 2.13
59) tert-amyl methyl ether
1.402 1.395 1.346 1.373 1.446 1.316 1.415 1.336 1.481 1.390 3.85
60) heptane
0.360 0.346 0.343 0.360 0.371 0.342 0.375 0.364 0.374 0.359 3.66
61) 1,2-dichloroethane
0.548 0.535 0.515 0.527 0.550 0.512 0.549 0.458 0.573 0.530 6.23
62) ethyl acrylate
0.450 0.421 0.431 0.434 0.441 0.424 0.430 0.435 0.433 2.10
63) trichloroethene
0.403 0.425 0.414 0.421 0.431 0.420 0.426 0.348 0.427 0.413 6.20
64) 2-chloroethyl vinyl ether
0.221 0.225 0.235 0.236 0.239 0.238 0.232 0.193 0.229 0.228 6.26
65) methyl methacrylate
0.079 0.089 0.088 0.088 0.088 0.085 0.076 0.085 6.06
66) methylcyclohexane
0.969 0.957 0.932 0.948 1.003 0.950 1.004 0.881 0.975 0.958 3.94
67) 1,2-dichloropropane
0.466 0.459 0.451 0.456 0.470 0.454 0.457 0.416 0.462 0.454 3.49
68) dibromomethane
0.243 0.238 0.244 0.246 0.249 0.246 0.249 0.213 0.251 0.242 4.78
69) bromodichloromethane
0.514 0.508 0.550 0.543 0.546 0.564 0.535 0.452 0.532 0.527 6.27
70) 2-nitropropane
0.145 0.131 0.136 0.145 0.129 0.145 0.138 5.30
71) epichlorohydrin
0.038 0.039 0.040 0.040 0.038 0.040 0.043 0.040 4.65
72) cis-1,3-dichloropropene
0.613 0.599 0.653 0.647 0.642 0.669 0.624 0.517 0.630 0.622 7.20
73) 4-methyl-2-pentanone
0.154 0.156 0.156 0.160 0.162 0.151 0.161 0.125 0.159 0.154 7.29
74) isoamyl alcohol
0.010 0.011 0.011 0.012 0.012 0.011 0.012 0.012 0.011 7.72

75) I chlorobenzene-d5 ----------ISTD----------
76) toluene-d8 (s)
1.283 1.276 1.256 1.254 1.273 1.204 1.280 1.285 1.280 1.266 2.03
77) toluene
1.107 1.079 1.065 1.087 1.109 1.056 1.116 0.993 1.151 1.085 4.14
78) ethyl methacrylate
0.477 0.488 0.490 0.502 0.512 0.470 0.514 0.415 0.516 0.487 6.55
79) trans-1,3-dichloropropene
0.581 0.546 0.568 0.580 0.575 0.563 0.559 0.500 0.538 0.557 4.67
80) 1,1,2-trichloroethane
0.317 0.306 0.296 0.304 0.311 0.289 0.299 0.255 0.306 0.298 6.06
81) tetrachloroethene
0.383 0.386 0.397 0.399 0.399 0.393 0.404 0.326 0.405 0.388 6.30
82) 2-hexanone
0.143 0.144 0.139 0.144 0.146 0.132 0.150 0.114 0.152 0.140 8.23
83) 1,3-dichloropropane

```
          0.566 0.568 0.563 0.575 0.581 0.558 0.579 0.514 0.610   0.568    4.47
 84)  butyl acetate
          0.239 0.260 0.239 0.253 0.261 0.230 0.259       0.244   0.248    4.76
 85)  dibromochloromethane
          0.303 0.338 0.402 0.394 0.377 0.406 0.354 0.315 0.331   0.358   10.77
 86)  1,2-dibromoethane
          0.392 0.369 0.379 0.386 0.386 0.374 0.384 0.314 0.383   0.374    6.33
 87)  n-butyl ether
          2.218 2.199 2.043 2.111 2.193 2.025 2.214 2.131 2.275   2.157    3.93
 88)  chlorobenzene
          1.185 1.135 1.149 1.159 1.172 1.161 1.186 1.100 1.198   1.161    2.59
 89)  1,1,1,2-tetrachloroethane
          0.443 0.459 0.488 0.492 0.493 0.487 0.486 0.458 0.471   0.475    3.82
 90)  ethylbenzene
          2.117 2.093 2.097 2.108 2.161 2.136 2.153 2.003 2.209   2.120    2.70
 91)  m,p-xylene
          0.790 0.803 0.798 0.801 0.814 0.802 0.808 0.723 0.822   0.796    3.63
 92)  o-xylene
          1.825 1.811 1.784 1.807 1.867 1.796 1.846 1.730 1.944   1.823    3.26
 93)  styrene
          1.230 1.312 1.324 1.315 1.334 1.349 1.325 1.154 1.351   1.299    5.02
 94)  butyl acrylate
          0.909 0.896 0.802 0.838 0.872 0.777 0.873 0.820 0.922   0.856    5.84
 95)  isopropylbenzene
          2.352 2.347 2.321 2.366 2.438 2.350 2.426 2.188 2.449   2.360    3.34
 96)  bromoform
          0.186 0.203 0.265 0.253 0.228 0.273 0.219       0.210   0.230   13.56
 97)  cis-1,4-dichloro-2-butene
                0.106 0.146 0.144 0.134 0.147 0.123               0.133   12.30

 98) I   1,4-dichlorobenzene-d ----------------ISTD--------------------
 99)  4-bromofluorobenzene (s)
          0.775 0.766 0.773 0.780 0.769 0.755 0.765 0.762 0.760   0.767    1.06
100)  1,1,2,2-tetrachloroethane
          0.883 0.855 0.859 0.890 0.900 0.816 0.869 0.902 0.897   0.875    3.23
101)  trans-1,4-dichloro-2-butene
          0.190 0.181 0.185 0.191 0.185 0.180 0.181       0.177   0.184    2.73
102)  1,2,3-trichloropropane
          0.223 0.214 0.207 0.213 0.216 0.196 0.208       0.218   0.212    3.88
103)  bromobenzene
          0.862 0.849 0.902 0.899 0.908 0.908 0.877 0.710 0.885   0.867    7.17
104)  n-propylbenzene
          4.293 4.255 4.378 4.395 4.502 4.378 4.359 3.897 4.364   4.314    3.95
105)  2-chlorotoluene
          0.916 0.867 0.893 0.900 0.922 0.885 0.879 0.789 0.878   0.881    4.40
106)  4-chlorotoluene
          2.464 2.372 2.428 2.426 2.476 2.470 2.418 2.166 2.448   2.408    3.99
107)  1,3,5-trimethylbenzene
          3.137 3.261 3.392 3.396 3.466 3.374 3.364 2.940 3.297   3.292    4.95
108)  tert-butylbenzene
          2.636 2.693 2.920 2.916 2.918 2.883 2.810 2.389 2.733   2.766    6.39
109)  1,2,4-trimethylbenzene
          3.302 3.276 3.335 3.358 3.444 3.341 3.338 2.961 3.372   3.303    4.14
110)  sec-butylbenzene
          4.232 4.331 4.588 4.587 4.695 4.530 4.490 3.863 4.446   4.418    5.67
111)  p-isopropyltoluene
          3.576 3.718 3.893 3.881 3.948 3.840 3.837 3.371 3.764   3.759    4.86
112)  1,3-dichlorobenzene
          1.822 1.767 1.847 1.838 1.887 1.868 1.836 1.714 1.900   1.831    3.20
113)  1,4-dichlorobenzene
```

Initial Calibration Summary

Job Number: JC68966 **Sample:** V4B3432-ICC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82575.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

```
            1.913 1.796 1.857 1.839 1.879 1.878 1.849 1.699 1.897   1.845    3.51
114)  1,2-dichlorobenzene
            1.886 1.890 1.900 1.914 1.968 1.877 1.922 1.909 1.958   1.914    1.64
115)  benzyl chloride
            1.357 1.436 1.614 1.608 1.575 1.604 1.465 1.425 1.437   1.502    6.50
116)  n-butylbenzene
            1.886 1.950 1.996 1.994 2.071 1.959 1.992 1.765 1.984   1.955    4.43
117)  hexachloroethane
            0.464 0.478 0.677 0.648 0.585 0.695 0.536       0.460   0.568   17.17
118)  1,2-dibromo-3-chloropropane
            0.159 0.189 0.222 0.224 0.216 0.211 0.197       0.169   0.198   12.42
119)  1,3,5-trichlorobenzene
            1.903 1.926 1.991 2.002 2.090 1.907 2.002 1.857 1.949   1.959    3.58
120)  1,2,4-trichlorobenzene
            1.576 1.543 1.674 1.674 1.710 1.581 1.628 1.593 1.560   1.616    3.63
121)  2-ethylhexyl acrylate
                  0.853 1.213 1.166 1.084 1.191 0.953               1.076   13.47
122)  hexachlorobutadiene
            0.905 0.920 0.951 0.937 0.975 0.895 0.935 0.877 0.894   0.921    3.39
123)  naphthalene
            3.093 2.984 3.139 3.194 3.254 2.897 3.077 3.879 3.058   3.175    8.97
124)  1,2,3-trichlorobenzene
            1.397 1.312 1.438 1.430 1.492 1.351 1.423 1.440 1.380   1.407    3.82
125)  2-methylnaphthalene
            1.267 1.256 1.533 1.495 1.469 1.436 1.331       1.271   1.382    8.20
126)  Bis(chloromethyl)ether
                                                                    0.000   -1.00
127)  Ethylenimine
                                                                    0.000   -1.00
 ------------------------------------------------------------------------------
 (#) = Out of Range  ###  Number of calibration levels exceeded format  ###

           M4B3432.M         Fri Jun 08 11:45:38 2018   GCMS4B
```

Initial Calibration Verification

Job Number: JC68966 **Sample:** V4B3432-ICV3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82580.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V4B3431\4B82580.D Vial: 13
Acq On : 8 Jun 2018 1:07 am Operator: HueanhT
Sample : icv3432-50 Inst : MS4B
Misc : MS26915,V4B3432,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Jun 08 11:32:59 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	98	0.00	6.79
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.387	1.350	2.7	97	0.00	6.90
4		1,4-dioxane	0.122	0.121	0.8	100	-0.01	10.26
5	I	pentafluorobenzene	1.000	1.000	0.0	96	0.00	8.78
6		chlorodifluoromethane	1.370	1.015	25.9	74	0.00	3.92
7		dichlorodifluoromethane	1.316	1.396	-6.1	98	0.00	3.90
8		chloromethane	1.573	1.748	-11.1	113	0.00	4.23
9		vinyl chloride	1.357	1.413	-4.1	100	0.00	4.44
10		1,3-butadiene		----------NA----------				
11		bromomethane	0.881	0.811	7.9	100	0.00	4.98
12		chloroethane	0.683	0.646	5.4	98	0.00	5.13
13		trichlorofluoromethane	1.157	1.186	-2.5	97	0.00	5.53
14		vinyl bromide	0.719	0.782	-8.8	104	0.00	5.42
15		ethyl ether	0.296	0.280	5.4	90	0.00	5.83
16		2-chloropropane	1.289	1.249	3.1	96	0.00	6.05
17		acrolein	0.129	0.130	-0.8	97	0.00	6.05
18		freon 113	0.564	0.587	-4.1	97	0.00	6.23
19		1,1-dichloroethene	1.152	1.008	12.5	83	0.00	6.22
20		acetone	0.048	0.049	-2.1	99	0.00	6.23
21		acetonitrile		----------NA----------				
22		iodomethane	1.054	1.177	-11.7	107	0.00	6.46
23		carbon disulfide	2.137	2.563	-19.9	115	0.00	6.59
24		methylene chloride	0.732	0.674	7.9	91	0.00	6.83
25		methyl acetate	0.444	0.403	9.2	87	-0.01	6.58
26		methyl tert butyl ether	1.882	1.833	2.6	95	0.00	7.14
27		trans-1,2-dichloroethene	0.963	0.893	7.3	89	0.00	7.17
28		hexane	0.497	0.434	12.7	84	-0.02	7.45
29		di-isopropyl ether	2.484	2.443	1.7	97	0.00	7.65
30		2-butanone	0.053	0.056	-5.7	96	0.00	8.23
31		1,1-dichloroethane	1.190	1.139	4.3	93	0.00	7.67
32		chloroprene	0.979	0.966	1.3	95	0.00	7.76
33		acrylonitrile	0.210	0.241	-14.8	104	0.00	7.08
34		vinyl acetate	0.078	0.083	-6.4	98	0.00	7.59
35		ethyl tert-butyl ether	2.132	2.118	0.7	95	0.00	8.06
36		ethyl acetate	0.090	0.089	1.1	93	0.00	8.23
37		2,2-dichloropropane	1.032	0.957	7.3	92	0.00	8.35
38		cis-1,2-dichloroethene	0.689	0.662	3.9	93	0.00	8.31
39		propionitrile	0.093	0.094	-1.1	95	0.00	8.31
40		methyl acrylate	0.073	0.074	-1.4	90	0.00	8.32
41		methacrylonitrile	0.211	0.209	0.9	94	0.00	8.49

Initial Calibration Verification

Job Number: JC68966 **Sample:** V4B3432-ICV3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82580.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		bromochloromethane	0.312	0.308	1.3	94	0.00	8.58
43		tetrahydrofuran	0.070	0.070	0.0	92	-0.01	8.59
44		chloroform	1.114	1.062	4.7	94	0.00	8.65
45		tert-butyl formate	0.464	0.397	14.4	79	0.00	8.68
46	S	dibromofluoromethane (s)	0.472	0.475	-0.6	97	0.00	8.83
47		1,1,1-trichloroethane	1.085	1.037	4.4	92	0.00	8.91
48		cyclohexane	1.133	1.079	4.8	95	0.00	9.01
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.837	0.819	2.2	93	0.00	9.04
51		carbon tetrachloride	0.876	0.872	0.5	95	0.00	9.09
52		tert-amyl alcohol	0.035	0.035	0.0	103	0.00	9.15
53		isopropyl acetate	0.103	0.103	0.0	94	0.00	9.16
54	I	1,4-difluorobenzene	1.000	1.000	0.0	96	0.00	9.65
55	S	1,2-dichloroethane-d4 (s)	0.359	0.354	1.4	97	0.00	9.21
56		n-butyl alcohol	0.010	0.010	0.0	100	0.00	9.68
57		2,2,4-trimethylpentane	2.032	2.028	0.2	91	0.00	9.35
58		benzene	1.751	1.683	3.9	93	0.00	9.28
59		tert-amyl methyl ether	1.390	1.365	1.8	96	0.00	9.34
60		heptane	0.359	0.377	-5.0	101	0.00	9.49
61		1,2-dichloroethane	0.530	0.519	2.1	95	0.00	9.30
62		ethyl acrylate	0.433	0.435	-0.5	96	0.00	9.91
63		trichloroethene	0.413	0.417	-1.0	95	0.00	9.95
64		2-chloroethyl vinyl ether	0.228	0.253	-11.0	103	0.00	10.70
65		methyl methacrylate	0.085	0.088	-3.5	96	0.00	10.17
66		methylcyclohexane	0.958	0.901	5.9	91	0.00	10.24
67		1,2-dichloropropane	0.454	0.441	2.9	93	0.00	10.23
68		dibromomethane	0.242	0.249	-2.9	97	0.00	10.33
69		bromodichloromethane	0.527	0.530	-0.6	94	0.00	10.48
70		2-nitropropane	0.138	0.149	-8.0	106	0.00	10.67
71		epichlorohydrin	0.040	0.039	2.5	95	0.00	10.79
72		cis-1,3-dichloropropene	0.622	0.634	-1.9	94	0.00	10.93
73		4-methyl-2-pentanone	0.154	0.163	-5.8	98	0.00	11.02
74		isoamyl alcohol	0.011	0.012	-9.1	101	0.00	11.02
75	I	chlorobenzene-d5	1.000	1.000	0.0	97	0.00	12.83
76	S	toluene-d8 (s)	1.266	1.260	0.5	98	0.00	11.24
77		toluene	1.085	1.063	2.0	95	0.00	11.31
78		ethyl methacrylate	0.487	0.475	2.5	92	0.00	11.48
79		trans-1,3-dichloropropene	0.557	0.542	2.7	91	0.00	11.50
80		1,1,2-trichloroethane	0.298	0.295	1.0	94	0.00	11.73
81		tetrachloroethene		----------NA----------				
82		2-hexanone	0.140	0.144	-2.9	97	0.00	11.90
83		1,3-dichloropropane	0.568	0.575	-1.2	97	0.00	11.92
84		butyl acetate	0.248	0.257	-3.6	99	0.00	11.97
85		dibromochloromethane	0.358	0.395	-10.3	97	0.00	12.19
86		1,2-dibromoethane	0.374	0.378	-1.1	95	0.00	12.35
87		n-butyl ether	2.157	2.057	4.6	95	0.00	12.81
88		chlorobenzene	1.161	1.141	1.7	96	0.00	12.86
89		1,1,1,2-tetrachloroethane	0.475	0.496	-4.4	98	0.00	12.94
90		ethylbenzene	2.120	2.113	0.3	97	0.00	12.93
91		m,p-xylene	0.796	0.804	-1.0	98	0.00	13.06
92		o-xylene	1.823	1.805	1.0	97	0.00	13.50
93		styrene	1.299	1.320	-1.6	98	0.00	13.51
94		butyl acrylate	0.856	0.834	2.6	97	0.00	13.30
95		isopropylbenzene	2.360	2.367	-0.3	97	0.00	13.88
96		bromoform	0.230	0.259	-12.6	100	0.00	13.76
97		cis-1,4-dichloro-2-butene	0.133	0.138	-3.8	93	0.00	13.92
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	98	0.00	15.40

Initial Calibration Verification

Job Number: JC68966 **Sample:** V4B3432-ICV3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82580.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

99	S	4-bromofluorobenzene (s)	0.767	0.767	0.0	96	0.00	14.10
100		1,1,2,2-tetrachloroethane	0.875	0.869	0.7	96	0.00	14.19
101		trans-1,4-dichloro-2-bute	0.184	0.200	-8.7	103	0.00	14.22
102		1,2,3-trichloropropane	0.212	0.210	0.9	97	0.00	14.28
103		bromobenzene	0.867	0.897	-3.5	98	0.00	14.31
104		n-propylbenzene	4.314	4.359	-1.0	97	0.00	14.34
105		2-chlorotoluene	0.881	0.882	-0.1	96	0.00	14.48
106		4-chlorotoluene	2.408	2.471	-2.6	100	0.00	14.61
107		1,3,5-trimethylbenzene	3.292	3.333	-1.2	96	0.00	14.51
108		tert-butylbenzene	2.766	2.914	-5.4	98	0.00	14.89
109		1,2,4-trimethylbenzene	3.303	3.418	-3.5	100	0.00	14.94
110		sec-butylbenzene	4.418	4.597	-4.1	98	0.00	15.13
111		p-isopropyltoluene	3.759	3.910	-4.0	99	0.00	15.28
112		1,3-dichlorobenzene	1.831	1.843	-0.7	98	0.00	15.32
113		1,4-dichlorobenzene	1.845	1.826	1.0	97	0.00	15.43
114		1,2-dichlorobenzene	1.914	1.899	0.8	97	0.00	15.84
115		benzyl chloride	1.502	1.270	15.4	77	0.00	15.53
116		n-butylbenzene	1.955	2.002	-2.4	98	0.00	15.73
117		hexachloroethane	0.568	0.650	-14.4	98	0.00	16.17
118		1,2-dibromo-3-chloropropa	0.198	0.219	-10.6	96	0.00	16.69
119		1,3,5-trichlorobenzene	1.959	1.999	-2.0	98	0.00	16.89
120		1,2,4-trichlorobenzene	1.616	1.667	-3.2	98	0.00	17.57
121		2-ethylhexyl acrylate	1.076	1.303	-21.1	110	0.00	17.58
122		hexachlorobutadiene	0.921	0.928	-0.8	97	0.00	17.69
123		naphthalene	3.175	3.209	-1.1	99	0.00	17.88
124		1,2,3-trichlorobenzene	1.407	1.415	-0.6	97	0.00	18.11
125		2-methylnaphthalene	1.382	1.422	-2.9	93	0.00	19.17
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B82575.D M4B3432.M Fri Jun 08 11:45:13 2018 GCMS4B

Initial Calibration Verification

Job Number: JC68966 **Sample:** V4B3432-ICV3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82581.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDChem\1\DATA\V4B3431\4B82581.D Vial: 14
Acq On : 8 Jun 2018 1:36 am Operator: HueanhT
Sample : icv3432-50 Inst : MS4B
Misc : MS26915,V4B3432,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Jun 08 11:32:59 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 30% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	99	0.00	6.79
2		ethanol		----------NA----------				
3		tertiary butyl alcohol		----------NA----------				
4		1,4-dioxane		----------NA----------				
5	I	pentafluorobenzene	1.000	1.000	0.0	95	0.00	8.78
6		chlorodifluoromethane		----------NA----------				
7		dichlorodifluoromethane		----------NA----------				
8		chloromethane		----------NA----------				
9		vinyl chloride		----------NA----------				
10		1,3-butadiene	1.171	0.982	16.1	80	0.00	4.46
11		bromomethane		----------NA----------				
12		chloroethane		----------NA----------				
13		trichlorofluoromethane		----------NA----------				
14		vinyl bromide		----------NA----------				
15		ethyl ether		----------NA----------				
16		2-chloropropane		----------NA----------				
17		acrolein		----------NA----------				
18		freon 113		----------NA----------				
19		1,1-dichloroethene		----------NA----------				
20		acetone		----------NA----------				
21		acetonitrile	0.097	0.099	-2.1	98	0.00	6.60
22		iodomethane		----------NA----------				
23		carbon disulfide		----------NA----------				
24		methylene chloride		----------NA----------				
25		methyl acetate		----------NA----------				
26		methyl tert butyl ether		----------NA----------				
27		trans-1,2-dichloroethene		----------NA----------				
28		hexane		----------NA----------				
29		di-isopropyl ether		----------NA----------				
30		2-butanone		----------NA----------				
31		1,1-dichloroethane		----------NA----------				
32		chloroprene		----------NA----------				
33		acrylonitrile		----------NA----------				
34		vinyl acetate		----------NA----------				
35		ethyl tert-butyl ether		----------NA----------				
36		ethyl acetate		----------NA----------				
37		2,2-dichloropropane		----------NA----------				
38		cis-1,2-dichloroethene		----------NA----------				
39		propionitrile		----------NA----------				
40		methyl acrylate		----------NA----------				
41		methacrylonitrile		----------NA----------				

Initial Calibration Verification

Job Number: JC68966 **Sample:** V4B3432-ICV3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82581.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		bromochloromethane		----------NA----------					
43		tetrahydrofuran		----------NA----------					
44		chloroform		----------NA----------					
45		tert-butyl formate		----------NA----------					
46	S	dibromofluoromethane (s)	0.472	0.469	0.6	94	0.00	8.83	
47		1,1,1-trichloroethane		----------NA----------					
48		cyclohexane		----------NA----------					
49		isobutyl alcohol		----------NA----------					
50		1,1-dichloropropene		----------NA----------					
51		carbon tetrachloride		----------NA----------					
52		tert-amyl alcohol		----------NA----------					
53		isopropyl acetate		----------NA----------					
54	I	1,4-difluorobenzene	1.000	1.000	0.0	93	0.00	9.65	
55	S	1,2-dichloroethane-d4 (s)	0.359	0.360	-0.3	96	0.00	9.22	
56		n-butyl alcohol		----------NA----------					
57		2,2,4-trimethylpentane		----------NA----------					
58		benzene		----------NA----------					
59		tert-amyl methyl ether		----------NA----------					
60		heptane		----------NA----------					
61		1,2-dichloroethane		----------NA----------					
62		ethyl acrylate		----------NA----------					
63		trichloroethene		----------NA----------					
64		2-chloroethyl vinyl ether		----------NA----------					
65		methyl methacrylate		----------NA----------					
66		methylcyclohexane		----------NA----------					
67		1,2-dichloropropane		----------NA----------					
68		dibromomethane		----------NA----------					
69		bromodichloromethane		----------NA----------					
70		2-nitropropane		----------NA----------					
71		epichlorohydrin		----------NA----------					
72		cis-1,3-dichloropropene		----------NA----------					
73		4-methyl-2-pentanone		----------NA----------					
74		isoamyl alcohol		----------NA----------					
75	I	chlorobenzene-d5	1.000	1.000	0.0	91	0.00	12.83	
76	S	toluene-d8 (s)	1.266	1.273	-0.6	92	0.00	11.24	
77		toluene		----------NA----------					
78		ethyl methacrylate		----------NA----------					
79		trans-1,3-dichloropropene		----------NA----------					
80		1,1,2-trichloroethane		----------NA----------					
81		tetrachloroethene	0.388	0.388	0.0	88	0.00	11.89	
82		2-hexanone		----------NA----------					
83		1,3-dichloropropane		----------NA----------					
84		butyl acetate		----------NA----------					
85		dibromochloromethane		----------NA----------					
86		1,2-dibromoethane		----------NA----------					
87		n-butyl ether		----------NA----------					
88		chlorobenzene		----------NA----------					
89		1,1,1,2-tetrachloroethane		----------NA----------					
90		ethylbenzene		----------NA----------					
91		m,p-xylene		----------NA----------					
92		o-xylene		----------NA----------					
93		styrene		----------NA----------					
94		butyl acrylate		----------NA----------					
95		isopropylbenzene		----------NA----------					
96		bromoform		----------NA----------					
97		cis-1,4-dichloro-2-butene		----------NA----------					
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	94	0.00	15.40	

Initial Calibration Verification

Job Number: JC68966 **Sample:** V4B3432-ICV3432
Account: EAENYES EA Engineering **Lab FileID:** 4B82581.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

99	S	4-bromofluorobenzene (s)	0.767	0.761	0.8	92	0.00	14.10
100		1,1,2,2-tetrachloroethane		----------NA----------				
101		trans-1,4-dichloro-2-bute		----------NA----------				
102		1,2,3-trichloropropane		----------NA----------				
103		bromobenzene		----------NA----------				
104		n-propylbenzene		----------NA----------				
105		2-chlorotoluene		----------NA----------				
106		4-chlorotoluene		----------NA----------				
107		1,3,5-trimethylbenzene		----------NA----------				
108		tert-butylbenzene		----------NA----------				
109		1,2,4-trimethylbenzene		----------NA----------				
110		sec-butylbenzene		----------NA----------				
111		p-isopropyltoluene		----------NA----------				
112		1,3-dichlorobenzene		----------NA----------				
113		1,4-dichlorobenzene		----------NA----------				
114		1,2-dichlorobenzene		----------NA----------				
115		benzyl chloride		----------NA----------				
116		n-butylbenzene		----------NA----------				
117		hexachloroethane		----------NA----------				
118		1,2-dibromo-3-chloropropa		----------NA----------				
119		1,3,5-trichlorobenzene		----------NA----------				
120		1,2,4-trichlorobenzene		----------NA----------				
121		2-ethylhexyl acrylate		----------NA----------				
122		hexachlorobutadiene		----------NA----------				
123		naphthalene		----------NA----------				
124		1,2,3-trichlorobenzene		----------NA----------				
125		2-methylnaphthalene		----------NA----------				
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B82575.D M4B3432.M Fri Jun 08 11:46:53 2018 GCMS4B

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V4B3470-CC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B83385.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\MSDCHEM\1\DATA\V4B3470\4B83385.D Vial: 3
Acq On : 6 Jul 2018 7:57 am Operator: HueanhT
Sample : CC3432-20 Inst : MS4B
Misc : MS27606,V4B3470,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Tue Jun 26 09:12:57 2018
Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	75	-0.02	6.77
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.387	1.385	0.1	73	-0.02	6.87
4		1,4-dioxane	0.122	0.108	11.5	65	0.00	10.27
5	I	pentafluorobenzene	1.000	1.000	0.0	84	0.00	8.78
6		chlorodifluoromethane	1.370	1.085	20.8#	65	0.00	3.92
7		dichlorodifluoromethane	1.316	1.182	10.2	70	0.00	3.91
8		chloromethane	1.573	1.368	13.0	74	0.02	4.25
9		vinyl chloride	1.357	1.224	9.8	73	0.02	4.46
10		1,3-butadiene	1.171	1.093	6.7	77	0.02	4.48
11		bromomethane	0.881	0.774	12.1	77	0.01	5.00
12		chloroethane	0.683	0.618	9.5	76	0.02	5.14
13		trichlorofluoromethane	1.157	1.121	3.1	77	0.01	5.54
14		vinyl bromide	0.719	0.664	7.6	75	0.01	5.43
15		ethyl ether	0.296	0.319	-7.8	88	0.00	5.83
16		2-chloropropane	1.289	1.260	2.2	82	0.00	6.04
17		acrolein	0.129	0.112	13.2	72	0.00	6.04
18		freon 113	0.564	0.557	1.2	78	0.00	6.23
19		1,1-dichloroethene	1.152	1.093	5.1	76	0.00	6.22
20		acetone	0.048	0.049	-2.1	85	-0.03	6.20
21		acetonitrile	0.097	0.093	4.1	78	-0.02	6.58
22		iodomethane	1.054	1.021	3.1	78	0.00	6.45
23		carbon disulfide	2.137	2.068	3.2	79	0.00	6.59
24		methylene chloride	0.732	0.723	1.2	82	0.00	6.83
25		methyl acetate	0.444	0.500	-12.6	97	0.01	6.60
26		methyl tert butyl ether	1.882	1.814	3.6	78	0.00	7.14
27		trans-1,2-dichloroethene	0.963	0.965	-0.2	81	0.00	7.17
28		hexane	0.497	0.460	7.4	76	0.00	7.47
29		di-isopropyl ether	2.484	2.397	3.5	79	0.00	7.65
30		2-butanone	0.053	0.057	-7.5	85	0.00	8.23
31		1,1-dichloroethane	1.190	1.214	-2.0	83	0.00	7.67
32		chloroprene	0.979	0.980	-0.1	81	0.00	7.76
33		acrylonitrile	0.210	0.228	-8.6	86	0.00	7.07
34		vinyl acetate	0.078	0.080	-2.6	82	0.01	7.61
35		ethyl tert-butyl ether	2.132	2.114	0.8	79	0.00	8.06
36		ethyl acetate	0.090	0.085	5.6	74	0.00	8.24
37		2,2-dichloropropane	1.032	0.974	5.6	77	0.00	8.35
38		cis-1,2-dichloroethene	0.689	0.684	0.7	81	0.00	8.31
39		propionitrile	0.093	0.095	-2.2	82	0.00	8.31
40		methyl acrylate	0.073	0.075	-2.7	86	0.01	8.33
41		methacrylonitrile	0.211	0.213	-0.9	84	0.00	8.49

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V4B3470-CC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B83385.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		bromochloromethane	0.312	0.323	-3.5	84	0.00	8.58
43		tetrahydrofuran	0.070	0.075	-7.1	85	-0.01	8.59
44		chloroform	1.114	1.105	0.8	83	0.00	8.65
45		tert-butyl formate	0.464	0.567	-22.2#	99	-0.01	8.68
46	S	dibromofluoromethane (s)	0.472	0.450	4.7	79	0.00	8.82
47		1,1,1-trichloroethane	1.085	1.026	5.4	76	0.00	8.90
48		cyclohexane	1.133	0.969	14.5	72	0.00	9.00
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.837	0.808	3.5	78	0.00	9.05
51		carbon tetrachloride	0.876	0.873	0.3	81	0.00	9.08
52		tert-amyl alcohol	0.035	0.033	5.7	81	-0.02	9.14
53		isopropyl acetate	0.103	0.102	1.0	78	0.00	9.16
54	I	1,4-difluorobenzene	1.000	1.000	0.0	80	0.00	9.65
55	S	1,2-dichloroethane-d4 (s)	0.359	0.361	-0.6	81	0.00	9.21
56		n-butyl alcohol	0.010	0.009	10.0	75	0.00	9.68
57		2,2,4-trimethylpentane	2.032	1.959	3.6	76	0.00	9.35
58		benzene	1.751	1.754	-0.2	79	0.00	9.27
59		tert-amyl methyl ether	1.390	1.403	-0.9	78	0.00	9.34
60		heptane	0.359	0.342	4.7	74	0.00	9.49
61		1,2-dichloroethane	0.530	0.549	-3.6	80	0.00	9.30
62		ethyl acrylate	0.433	0.475	-9.7	87	0.00	9.91
63		trichloroethene	0.413	0.423	-2.4	79	0.00	9.95
64		2-chloroethyl vinyl ether	0.228	0.259	-13.6	87	0.00	10.70
65		methyl methacrylate	0.085	0.089	-4.7	82	0.00	10.17
66		methylcyclohexane	0.958	0.888	7.3	71	0.00	10.24
67		1,2-dichloropropane	0.454	0.470	-3.5	80	0.00	10.23
68		dibromomethane	0.242	0.263	-8.7	85	0.00	10.33
69		bromodichloromethane	0.527	0.582	-10.4	86	0.00	10.47
70		2-nitropropane	0.138	0.141	-2.2	79	0.00	10.67
71		epichlorohydrin	0.040	0.040	0.0	79	0.00	10.79
72		cis-1,3-dichloropropene	0.622	0.684	-10.0	86	0.00	10.92
73		4-methyl-2-pentanone	0.154	0.168	-9.1	84	0.00	11.02
74		isoamyl alcohol	0.011	0.012	-9.1	79	0.00	11.01
75	I	chlorobenzene-d5	1.000	1.000	0.0	82	0.00	12.83
76	S	toluene-d8 (s)	1.266	1.175	7.2	76	0.00	11.24
77		toluene	1.085	1.065	1.8	79	0.00	11.31
78		ethyl methacrylate	0.487	0.523	-7.4	84	0.00	11.48
79		trans-1,3-dichloropropene	0.557	0.612	-9.9	87	0.00	11.50
80		1,1,2-trichloroethane	0.298	0.322	-8.1	85	0.00	11.73
81		tetrachloroethene	0.388	0.404	-4.1	83	0.00	11.89
82		2-hexanone	0.140	0.163	-16.4	91	0.00	11.90
83		1,3-dichloropropane	0.568	0.614	-8.1	87	0.00	11.92
84		butyl acetate	0.248	0.283	-14.1	89	0.00	11.97
85		dibromochloromethane	0.358	0.445	-24.3#	97	0.00	12.18
86		1,2-dibromoethane	0.374	0.424	-13.4	90	0.00	12.35
87		n-butyl ether	2.157	2.152	0.2	81	0.00	12.81
88		chlorobenzene	1.161	1.186	-2.2	83	0.00	12.86
89		1,1,1,2-tetrachloroethane	0.475	0.492	-3.6	82	0.00	12.93
90		ethylbenzene	2.120	2.117	0.1	80	0.00	12.93
91		m,p-xylene	0.796	0.804	-1.0	81	0.00	13.05
92		o-xylene	1.823	1.744	4.3	77	0.00	13.49
93		styrene	1.299	1.357	-4.5	84	0.00	13.51
94		butyl acrylate	0.856	0.918	-7.2	87	0.00	13.30
95		isopropylbenzene	2.360	2.226	5.7	75	0.00	13.88
96		bromoform	0.230	0.319	-38.7#	115	0.00	13.76
97		cis-1,4-dichloro-2-butene	0.133	0.118	11.3	72	0.00	13.92
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	79	0.00	15.40

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V4B3470-CC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B83385.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

99	S	4-bromofluorobenzene (s)	0.767	0.791	-3.1	81	0.00	14.10
100		1,1,2,2-tetrachloroethane	0.875	0.967	-10.5	85	0.00	14.19
101		trans-1,4-dichloro-2-bute	0.184	0.161	12.5	69	0.00	14.22
102		1,2,3-trichloropropane	0.212	0.236	-11.3	86	0.00	14.28
103		bromobenzene	0.867	0.987	-13.8	86	0.00	14.30
104		n-propylbenzene	4.314	4.480	-3.8	78	0.00	14.33
105		2-chlorotoluene	0.881	0.932	-5.8	80	0.00	14.48
106		4-chlorotoluene	2.408	2.552	-6.0	81	0.00	14.61
107		1,3,5-trimethylbenzene	3.292	3.220	2.2	73	0.00	14.51
108		tert-butylbenzene	2.766	2.673	3.4	72	0.00	14.89
109		1,2,4-trimethylbenzene	3.303	3.230	2.2	74	0.00	14.94
110		sec-butylbenzene	4.418	4.277	3.2	72	0.00	15.13
111		p-isopropyltoluene	3.759	3.641	3.1	73	0.00	15.27
112		1,3-dichlorobenzene	1.831	1.891	-3.3	79	0.00	15.32
113		1,4-dichlorobenzene	1.845	1.914	-3.7	80	0.00	15.43
114		1,2-dichlorobenzene	1.914	1.872	2.2	75	0.00	15.84
115		benzyl chloride	1.502	1.680	-11.9	84	0.00	15.52
116		n-butylbenzene	1.955	1.823	6.8	69	0.00	15.73
117		hexachloroethane	0.568	0.609	-7.2	82	0.00	16.17
118		1,2-dibromo-3-chloropropa	0.198	0.219	-10.6	80	0.00	16.68
119		1,3,5-trichlorobenzene	1.959	1.837	6.2	69	0.00	16.88
120		1,2,4-trichlorobenzene	1.616	1.485	8.1	68	0.00	17.56
121		2-ethylhexyl acrylate	1.076	0.401	62.7#	29#	0.00	17.57
122		hexachlorobutadiene	0.921	0.834	9.4	67	0.00	17.68
123		naphthalene	3.175	2.672	15.8	65	0.00	17.87
124		1,2,3-trichlorobenzene	1.407	1.337	5.0	71	0.00	18.11
125		2-methylnaphthalene	1.382	0.791	42.8#	42#	0.00	19.16
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B82574.D M4B3432.M Fri Jul 06 17:14:13 2018 GCMS4B

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V4B3470-ECC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B83407.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

Evaluate Continuing Calibration Report

Data File : C:\msdchem\1\data\ja...-18\v4b3470\4b83407.d Vial: 25
Acq On : 6 Jul 2018 7:12 pm Operator: HueanhT
Sample : ecc3432-20 Inst : MS4B
Misc : MS27563,V4B3470,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
Last Update : Fri Jun 08 11:32:59 2018
Response via : Multiple Level Calibration

Min. RRF : 0.050 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
Max. RRF Dev : 50% Max. Rel. Area : 200%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(min)	R.T.
1	I	tert butyl alcohol-d9	1.000	1.000	0.0	68	-0.02	6.77
2		ethanol		----------NA----------				
3		tertiary butyl alcohol	1.387	1.462	-5.4	70	-0.01	6.88
4		1,4-dioxane	0.122	0.113	7.4	63	0.00	10.27
5	I	pentafluorobenzene	1.000	1.000	0.0	68	0.00	8.78
6		chlorodifluoromethane	1.370	0.985	28.1	48#	0.00	3.92
7		dichlorodifluoromethane	1.316	1.037	21.2	50#	0.00	3.90
8		chloromethane	1.573	1.435	8.8	63	0.02	4.25
9		vinyl chloride	1.357	1.080	20.4	52	0.01	4.45
10		1,3-butadiene		----------NA----------				
11		bromomethane	0.881	0.705	20.0	57	0.00	4.99
12		chloroethane	0.683	0.569	16.7	57	0.01	5.13
13		trichlorofluoromethane	1.157	1.003	13.3	56	0.00	5.53
14		vinyl bromide	0.719	0.586	18.5	54	0.01	5.43
15		ethyl ether	0.296	0.321	-8.4	72	0.00	5.83
16		2-chloropropane	1.289	1.166	9.5	61	0.00	6.04
17		acrolein	0.129	0.104	19.4	54	0.00	6.05
18		freon 113	0.564	0.459	18.6	52	0.00	6.23
19		1,1-dichloroethene	1.152	0.984	14.6	55	0.00	6.23
20		acetone	0.048	0.057	-18.8	80	-0.03	6.20
21		acetonitrile	0.097	0.112	-15.5	76	-0.01	6.58
22		iodomethane	1.054	0.904	14.2	56	0.00	6.45
23		carbon disulfide	2.137	1.826	14.6	56	0.00	6.59
24		methylene chloride	0.732	0.704	3.8	65	0.00	6.83
25		methyl acetate	0.444	0.553	-24.5	87	0.00	6.60
26		methyl tert butyl ether	1.882	1.870	0.6	66	0.00	7.14
27		trans-1,2-dichloroethene	0.963	0.889	7.7	61	0.00	7.17
28		hexane	0.497	0.354	28.8	48#	-0.01	7.46
29		di-isopropyl ether	2.484	2.488	-0.2	66	0.00	7.65
30		2-butanone	0.053	0.062	-17.0	75	0.00	8.23
31		1,1-dichloroethane	1.190	1.154	3.0	64	0.00	7.67
32		chloroprene	0.979	0.868	11.3	58	0.00	7.76
33		acrylonitrile	0.210	0.246	-17.1	75	0.00	7.07
34		vinyl acetate	0.078	0.076	2.6	63	0.00	7.60
35		ethyl tert-butyl ether	2.132	2.147	-0.7	65	0.00	8.06
36		ethyl acetate	0.090	0.093	-3.3	66	0.00	8.24
37		2,2-dichloropropane	1.032	0.720	30.2	46#	0.00	8.34
38		cis-1,2-dichloroethene	0.689	0.636	7.7	61	0.00	8.31
39		propionitrile	0.093	0.107	-15.1	75	0.00	8.31
40		methyl acrylate	0.073	0.080	-9.6	74	0.00	8.32
41		methacrylonitrile	0.211	0.229	-8.5	74	0.00	8.49

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V4B3470-ECC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B83407.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

42		bromochloromethane	0.312	0.313	-0.3	66	0.00	8.58
43		tetrahydrofuran	0.070	0.078	-11.4	71	-0.01	8.59
44		chloroform	1.114	1.058	5.0	64	0.00	8.65
45		tert-butyl formate	0.464	0.543	-17.0	77	-0.01	8.68
46	S	dibromofluoromethane (s)	0.472	0.476	-0.8	68	0.00	8.83
47		1,1,1-trichloroethane	1.085	0.949	12.5	57	0.00	8.90
48		cyclohexane	1.133	0.847	25.2	51	0.00	9.01
49		isobutyl alcohol		----------NA----------				
50		1,1-dichloropropene	0.837	0.712	14.9	56	0.00	9.04
51		carbon tetrachloride	0.876	0.780	11.0	59	0.00	9.08
52		tert-amyl alcohol	0.035	0.037#	-5.7	73	0.00	9.15
53		isopropyl acetate	0.103	0.105	-1.9	65	0.00	9.17
54	I	1,4-difluorobenzene	1.000	1.000	0.0	68	0.00	9.65
55	S	1,2-dichloroethane-d4 (s)	0.359	0.370	-3.1	70	0.00	9.21
56		n-butyl alcohol	0.010	0.011#	-10.0	74	0.00	9.68
57		2,2,4-trimethylpentane	2.032	1.495	26.4	49#	0.00	9.35
58		benzene	1.751	1.545	11.8	59	0.00	9.28
59		tert-amyl methyl ether	1.390	1.373	1.2	65	0.00	9.34
60		heptane	0.359	0.243	32.3	45#	0.00	9.49
61		1,2-dichloroethane	0.530	0.555	-4.7	69	0.00	9.30
62		ethyl acrylate	0.433	0.491	-13.4	76	0.00	9.91
63		trichloroethene	0.413	0.366	11.4	58	0.00	9.94
64		2-chloroethyl vinyl ether	0.228	0.255	-11.8	73	0.00	10.70
65		methyl methacrylate	0.085	0.086	-1.2	67	0.00	10.17
66		methylcyclohexane	0.958	0.714	25.5	49#	0.00	10.24
67		1,2-dichloropropane	0.454	0.452	0.4	66	0.00	10.23
68		dibromomethane	0.242	0.264	-9.1	72	0.00	10.33
69		bromodichloromethane	0.527	0.560	-6.3	70	0.00	10.48
70		2-nitropropane	0.138	0.148	-7.2	70	0.00	10.67
71		epichlorohydrin	0.040	0.040#	0.0	67	0.00	10.79
72		cis-1,3-dichloropropene	0.622	0.613	1.4	65	0.00	10.92
73		4-methyl-2-pentanone	0.154	0.178	-15.6	75	0.00	11.02
74		isoamyl alcohol	0.011	0.013#	-18.2	72	0.00	11.01
75	I	chlorobenzene-d5	1.000	1.000	0.0	71	0.00	12.83
76	S	toluene-d8 (s)	1.266	1.165	8.0	65	0.00	11.24
77		toluene	1.085	0.921	15.1	59	0.00	11.31
78		ethyl methacrylate	0.487	0.523	-7.4	73	0.00	11.48
79		trans-1,3-dichloropropene	0.557	0.570	-2.3	71	0.00	11.50
80		1,1,2-trichloroethane	0.298	0.316	-6.0	73	0.00	11.73
81		tetrachloroethene	0.388	0.332	14.4	59	0.00	11.89
82		2-hexanone	0.140	0.174	-24.3	85	0.00	11.89
83		1,3-dichloropropane	0.568	0.610	-7.4	75	0.00	11.92
84		butyl acetate	0.248	0.298	-20.2	81	0.00	11.97
85		dibromochloromethane	0.358	0.420	-17.3	80	0.00	12.18
86		1,2-dibromoethane	0.374	0.417	-11.5	77	0.00	12.35
87		n-butyl ether	2.157	1.992	7.6	65	0.00	12.81
88		chlorobenzene	1.161	1.049	9.6	64	0.00	12.86
89		1,1,1,2-tetrachloroethane	0.475	0.447	5.9	65	0.00	12.93
90		ethylbenzene	2.120	1.855	12.5	61	0.00	12.93
91		m,p-xylene	0.796	0.697	12.4	61	0.00	13.06
92		o-xylene	1.823	1.589	12.8	61	0.00	13.49
93		styrene	1.299	1.244	4.2	67	0.00	13.51
94		butyl acrylate	0.856	0.949	-10.9	78	0.00	13.30
95		isopropylbenzene	2.360	1.902	19.4	56	0.00	13.88
96		bromoform	0.230	0.308	-33.9	96	0.00	13.76
97		cis-1,4-dichloro-2-butene	0.133	0.071	46.6	38#	0.00	13.91
98	I	1,4-dichlorobenzene-d4	1.000	1.000	0.0	70	0.00	15.40

Continuing Calibration Summary

Job Number: JC68966 **Sample:** V4B3470-ECC3432
Account: EAENYES EA Engineering **Lab FileID:** 4B83407.D
Project: Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY

99	S	4-bromofluorobenzene (s)	0.767	0.807	-5.2	73	0.00	14.10
100		1,1,2,2-tetrachloroethane	0.875	0.964	-10.2	75	0.00	14.18
101		trans-1,4-dichloro-2-bute	0.184	0.099	46.2	37#	0.00	14.22
102		1,2,3-trichloropropane	0.212	0.239	-12.7	77	0.00	14.28
103		bromobenzene	0.867	0.904	-4.3	69	0.00	14.30
104		n-propylbenzene	4.314	3.867	10.4	60	0.00	14.33
105		2-chlorotoluene	0.881	0.809	8.2	61	0.00	14.48
106		4-chlorotoluene	2.408	2.349	2.5	66	0.00	14.61
107		1,3,5-trimethylbenzene	3.292	2.817	14.4	57	0.00	14.51
108		tert-butylbenzene	2.766	2.246	18.8	54	0.00	14.88
109		1,2,4-trimethylbenzene	3.303	2.900	12.2	59	0.00	14.94
110		sec-butylbenzene	4.418	3.578	19.0	53	0.00	15.13
111		p-isopropyltoluene	3.759	3.080	18.1	54	0.00	15.27
112		1,3-dichlorobenzene	1.831	1.732	5.4	64	0.00	15.32
113		1,4-dichlorobenzene	1.845	1.778	3.6	66	0.00	15.43
114		1,2-dichlorobenzene	1.914	1.796	6.2	63	0.00	15.84
115		benzyl chloride	1.502	1.110	26.1	49#	0.00	15.53
116		n-butylbenzene	1.955	1.565	19.9	53	0.00	15.73
117		hexachloroethane	0.568	0.472	16.9	56	0.00	16.16
118		1,2-dibromo-3-chloropropa	0.198	0.214	-8.1	69	0.00	16.68
119		1,3,5-trichlorobenzene	1.959	1.607	18.0	53	0.00	16.89
120		1,2,4-trichlorobenzene	1.616	1.314	18.7	53	0.00	17.56
121		2-ethylhexyl acrylate	1.076	0.239	77.8#	15#	0.00	17.57
122		hexachlorobutadiene	0.921	0.677	26.5	48#	0.00	17.69
123		naphthalene	3.175	2.452	22.8	52	0.00	17.87
124		1,2,3-trichlorobenzene	1.407	1.190	15.4	55	0.00	18.11
125		2-methylnaphthalene	1.382	0.602	56.4#	28#	0.00	19.16
126		Bis(chloromethyl)ether		----------NA----------				
127		Ethylenimine		----------NA----------				

(#) = Out of Range SPCC's out = 0 CCC's out = 0
4B82574.D M4B3432.M Mon Jul 09 09:54:39 2018

MS Volatiles

Raw Data

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2d7472\
Data File : 2d176945.d
Acq On : 1 Jul 2018 2:25 pm
Operator : juntaep
Sample : jc68966-1 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 17:19:22 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

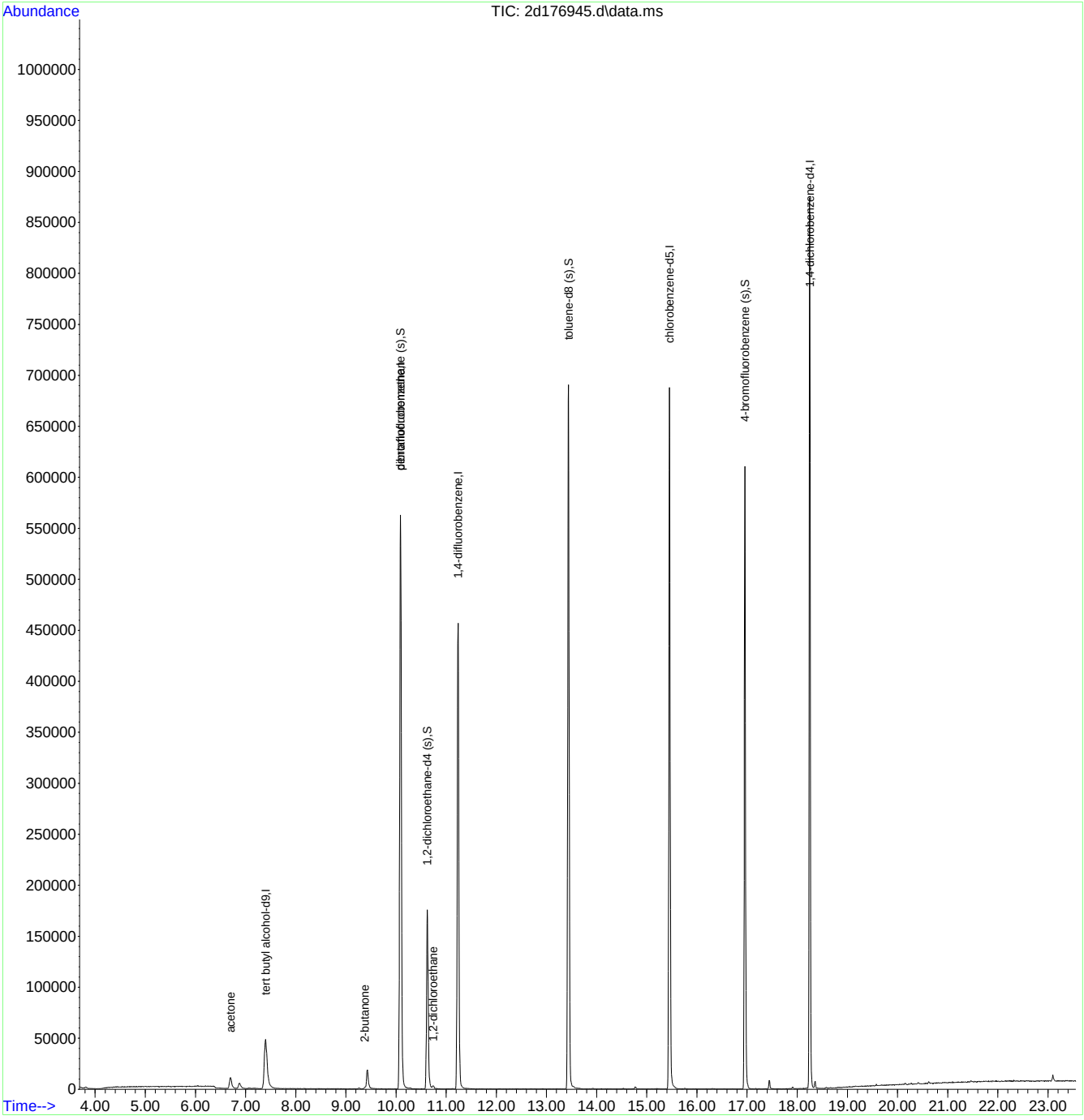
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	119801	500.00	ug/L	0.01
5) pentafluorobenzene	10.089	168	343113	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	475127	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	456510	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	233894	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	150535	50.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.86%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	143882	44.09	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.18%			
77) toluene-d8 (s)	13.439	98	550418	51.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.70%			
100) 4-bromofluorobenzene (s)	16.957	95	202177	53.88	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.76%			
Target Compounds						Qvalue
22) acetone	6.702	58	7350	40.07	ug/L #	70
32) 2-butanone	9.375	72	844	3.56	ug/L #	31
61) 1,2-dichloroethane	10.739	62	2680	0.73	ug/L	94

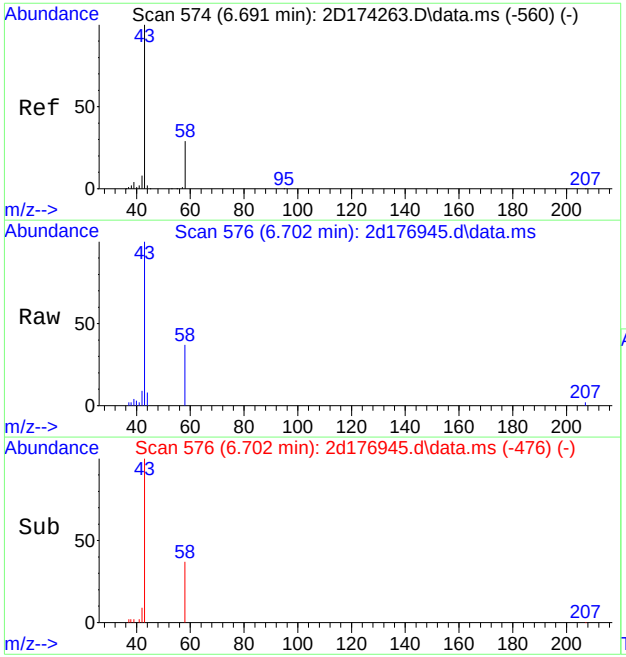
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2d7472\
Data File : 2d176945.d
Acq On : 1 Jul 2018 2:25 pm
Operator : juntaep
Sample : jc68966-1 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 17:19:22 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

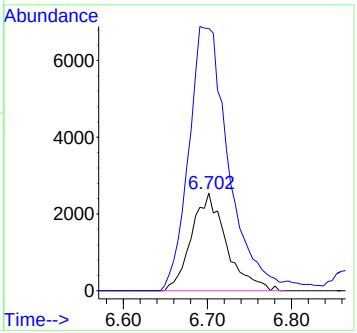


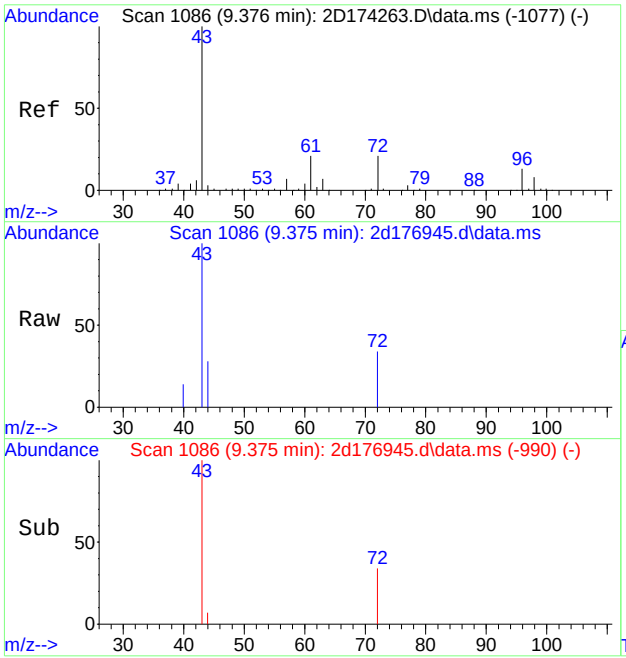


#22
acetone
Concen: 40.07 ug/L
RT: 6.702 min Scan# 576
Delta R.T. 0.026 min
Lab File: 2d176945.d
Acq: 1 Jul 2018 2:25 pm

Tgt Ion: 58 Resp: 7350

Ion	Ratio	Lower	Upper
58	100		
43	268.1	301.0	361.0#

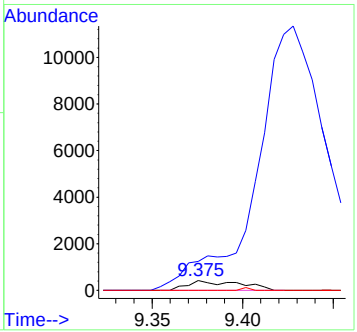


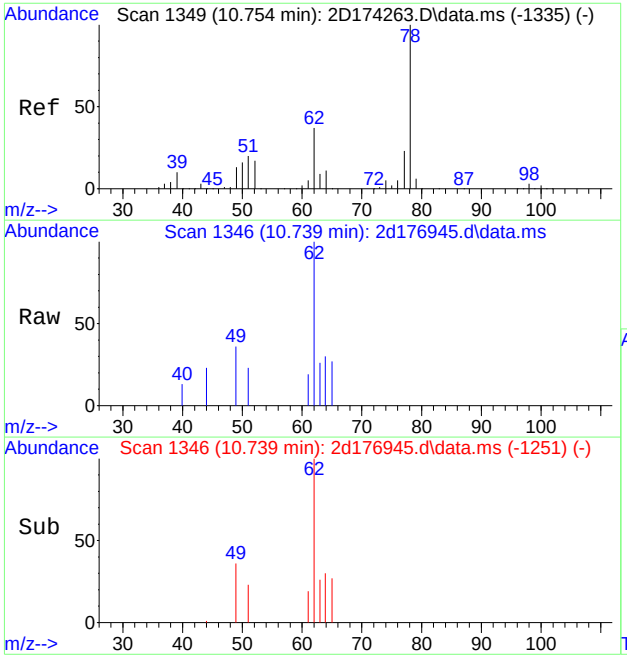


#32
2-butanone
Concen: 3.56 ug/L
RT: 9.375 min Scan# 1086
Delta R.T. 0.005 min
Lab File: 2d176945.d
Acq: 1 Jul 2018 2:25 pm

Tgt Ion: 72 Resp: 844

Ion	Ratio	Lower	Upper
72	100		
43	255.5	399.9	459.9#
57	0.0	1.8	61.8#

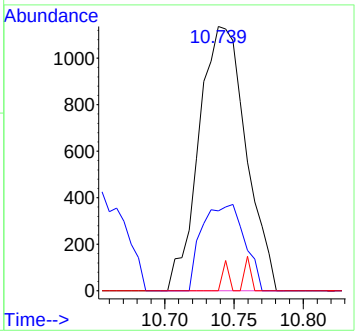




#61
1,2-dichloroethane
Concen: 0.73 ug/L
RT: 10.739 min Scan# 1346
Delta R.T. -0.000 min
Lab File: 2d176945.d
Acq: 1 Jul 2018 2:25 pm

Tgt Ion: 62 Resp: 2680

Ion	Ratio	Lower	Upper
62	100		
64	30.3	0.8	60.8
98	0.0	0.0	38.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176946.d
Acq On : 1 Jul 2018 2:57 pm
Operator : juntaep
Sample : jc68966-2 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 23:23:09 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

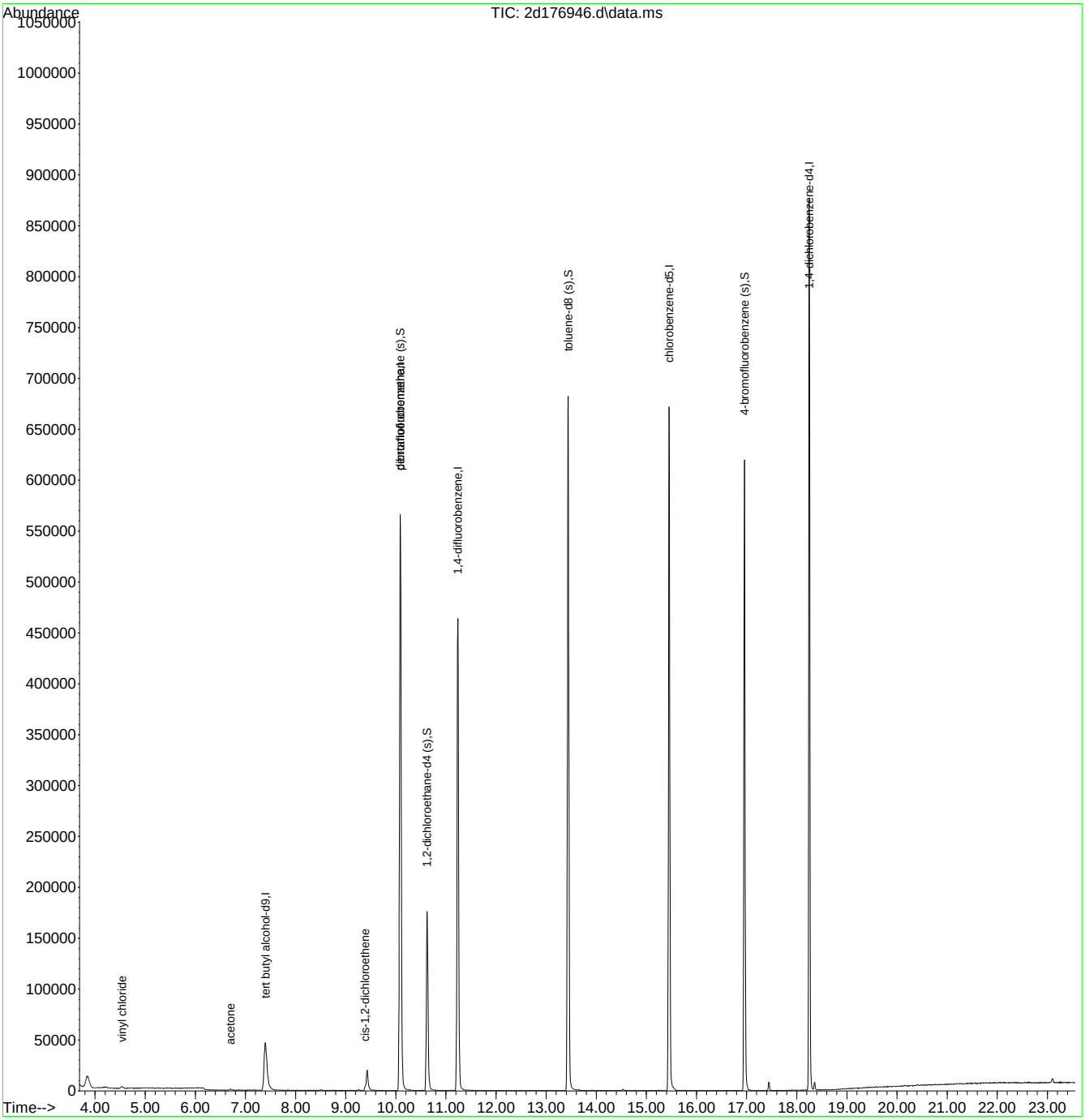
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	119732	500.00	ug/L	0.01
5) pentafluorobenzene	10.088	168	343790	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	474687	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	451355	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.247	152	233591	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	151215	51.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	145321	44.57	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.14%			
77) toluene-d8 (s)	13.439	98	547242	52.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.28%			
100) 4-bromofluorobenzene (s)	16.957	95	203834	54.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.78%			
Target Compounds						Qvalue
11) vinyl chloride	4.536	62	2995	0.79	ug/L	90
22) acetone	6.701	58	698	3.80	ug/L #	40
40) cis-1,2-dichloroethene	9.386	96	2560	0.87	ug/L #	77

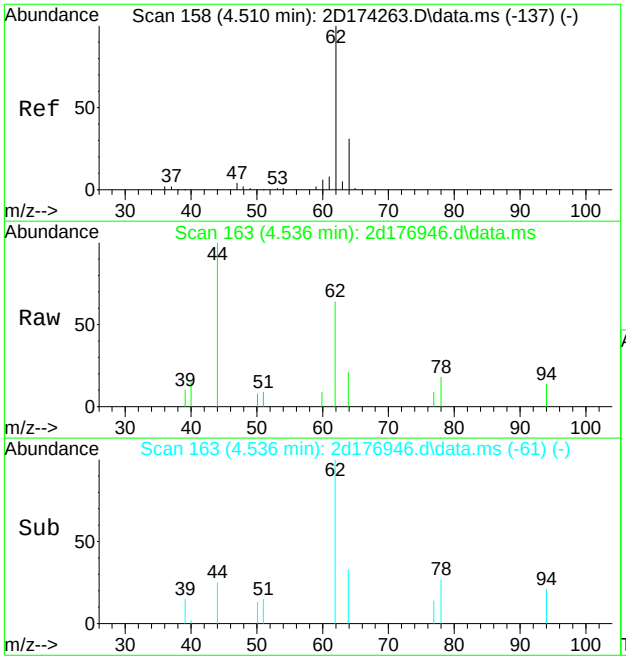
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176946.d
Acq On : 1 Jul 2018 2:57 pm
Operator : juntaep
Sample : jc68966-2 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 23:23:09 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

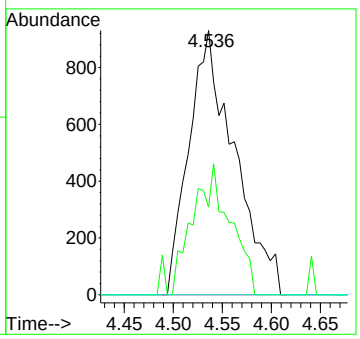


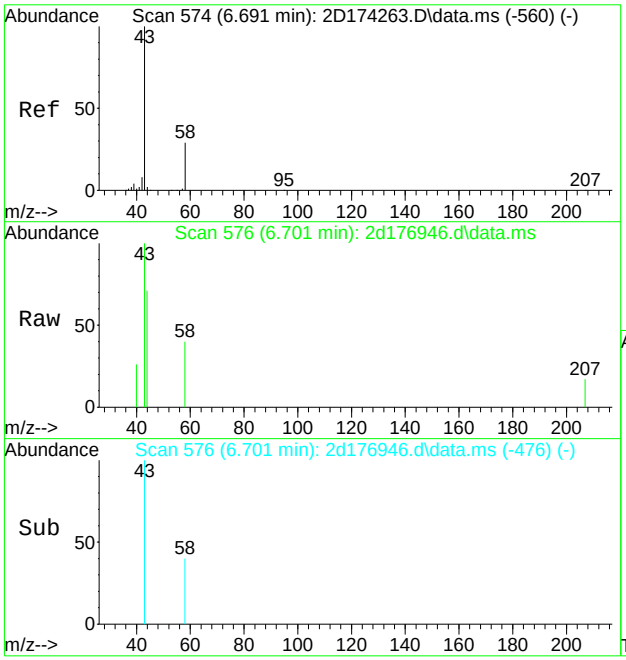


#11
vinyl chloride
Concen: 0.79 ug/L
RT: 4.536 min Scan# 163
Delta R.T. 0.037 min
Lab File: 2d176946.d
Acq: 1 Jul 2018 2:57 pm

Tgt Ion: 62 Resp: 2995

Ion	Ratio	Lower	Upper
62	100		
64	33.2	0.2	60.2
61	0.0	0.0	39.0

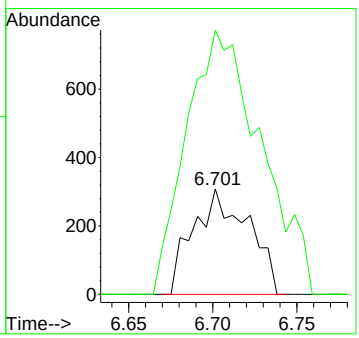


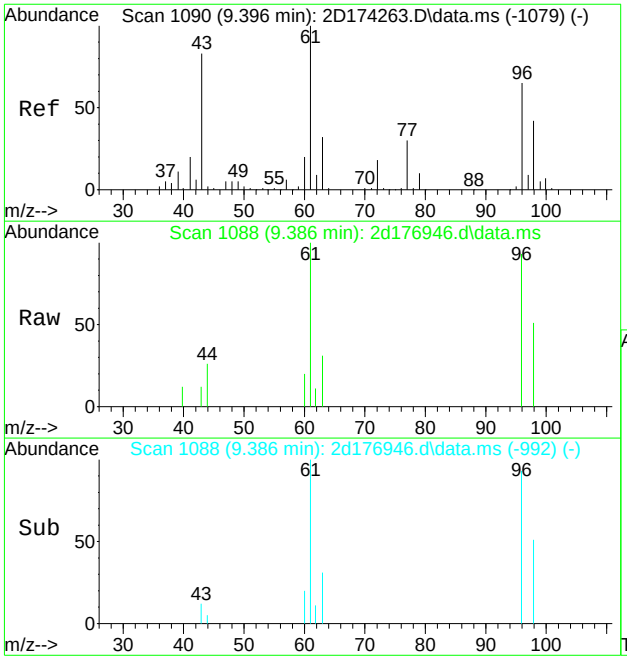


#22
acetone
Concen: 3.80 ug/L
RT: 6.701 min Scan# 576
Delta R.T. 0.026 min
Lab File: 2d176946.d
Acq: 1 Jul 2018 2:57 pm

Tgt Ion: 58 Resp: 698

Ion	Ratio	Lower	Upper
58	100		
43	205.5	301.0	361.0#

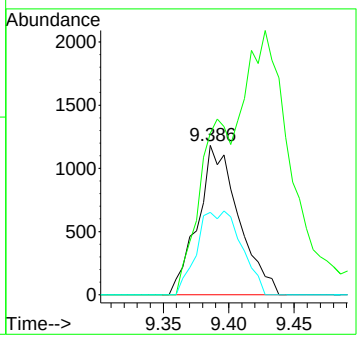




#40
cis-1,2-dichloroethene
Concen: 0.87 ug/L
RT: 9.386 min Scan# 1088
Delta R.T. 0.005 min
Lab File: 2d176946.d
Acq: 1 Jul 2018 2:57 pm

Tgt Ion: 96 Resp: 2560

Ion	Ratio	Lower	Upper
96	100		
61	107.9	112.4	172.4#
98	55.2	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2d7472\
Data File : 2d176947.d
Acq On : 1 Jul 2018 3:31 pm
Operator : juntaep
Sample : jc68966-3 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 17:20:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

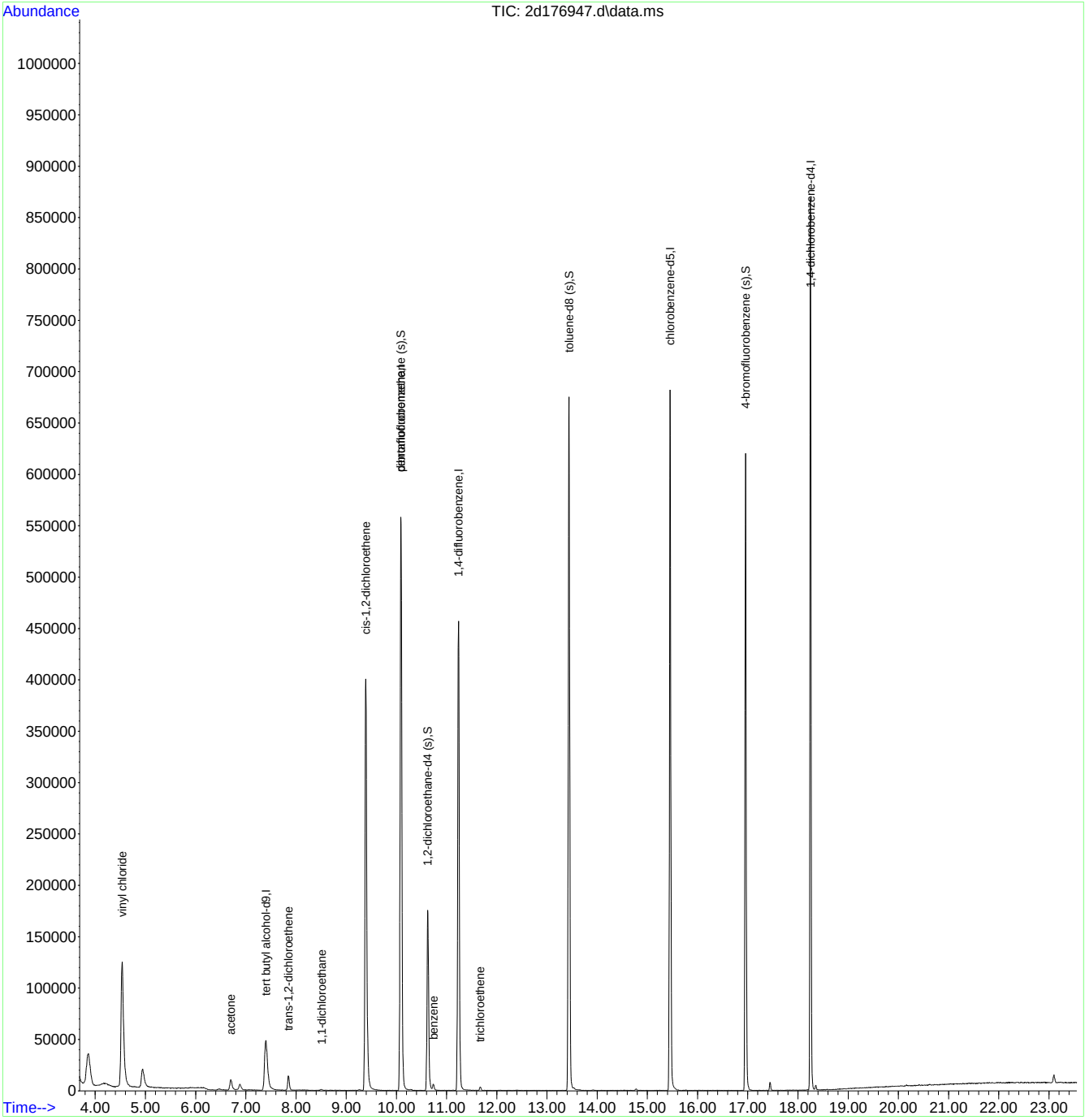
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	123956	500.00	ug/L	0.01
5) pentafluorobenzene	10.088	168	338326	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	466797	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	451404	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	233796	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	149591	51.32	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.64%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	143054	44.62	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.24%			
77) toluene-d8 (s)	13.439	98	539950	51.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.88%			
100) 4-bromofluorobenzene (s)	16.957	95	202859	54.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.16%			
Target Compounds						Qvalue
11) vinyl chloride	4.536	62	283535	75.87	ug/L	97
22) acetone	6.701	58	7299	40.35	ug/L	87
29) trans-1,2-dichloroethene	7.850	96	7767	3.00	ug/L	90
33) 1,1-dichloroethane	8.510	63	1646	0.34	ug/L	89
40) cis-1,2-dichloroethene	9.391	96	236261	81.61	ug/L	89
56) benzene	10.739	78	6136	0.59	ug/L	96
64) trichloroethene	11.667	130	1545	0.55	ug/L	93

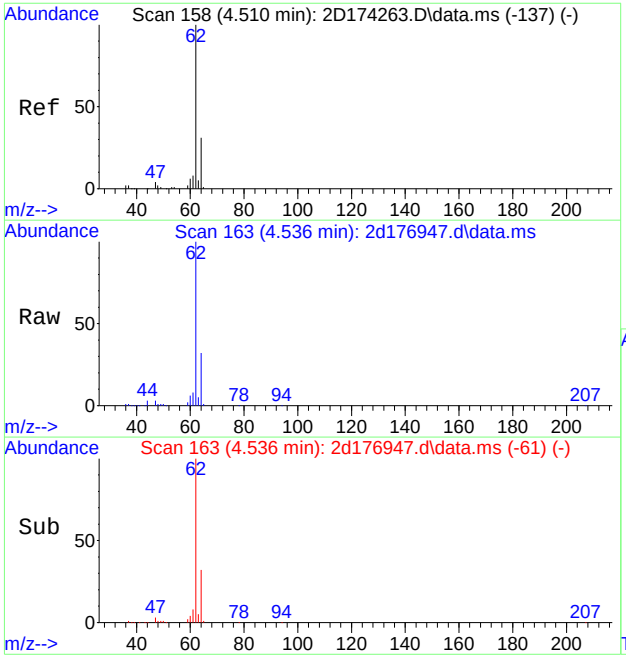
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2d7472\
Data File : 2d176947.d
Acq On : 1 Jul 2018 3:31 pm
Operator : juntaep
Sample : jc68966-3 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 17:20:13 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

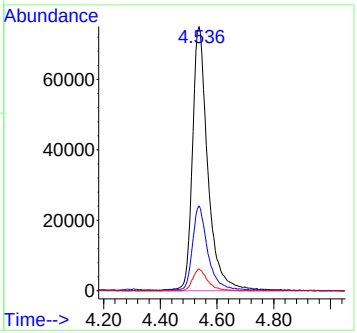


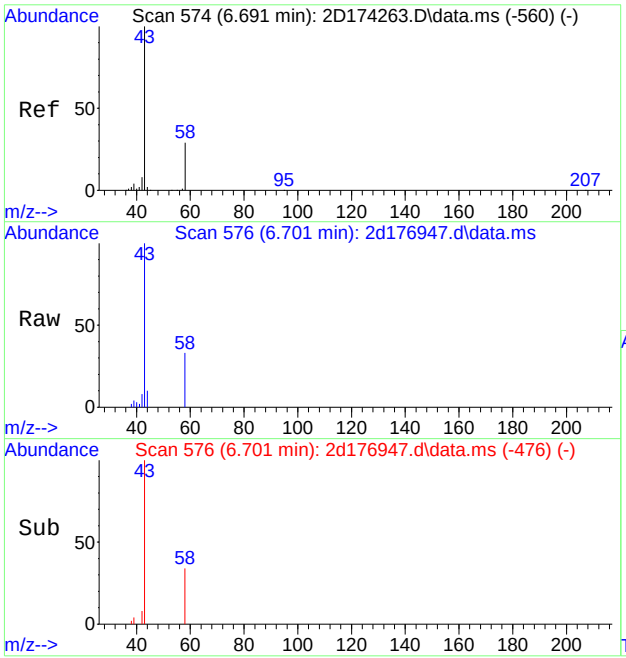


#11
vinyl chloride
Concen: 75.87 ug/L
RT: 4.536 min Scan# 163
Delta R.T. 0.037 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion: 62 Resp: 283535

Ion	Ratio	Lower	Upper
62	100		
64	31.9	0.2	60.2
61	8.3	0.0	39.0

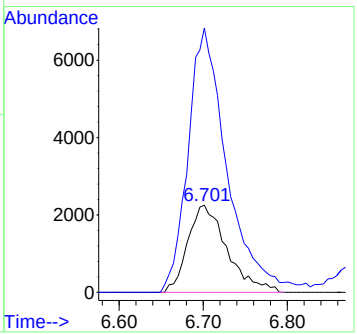


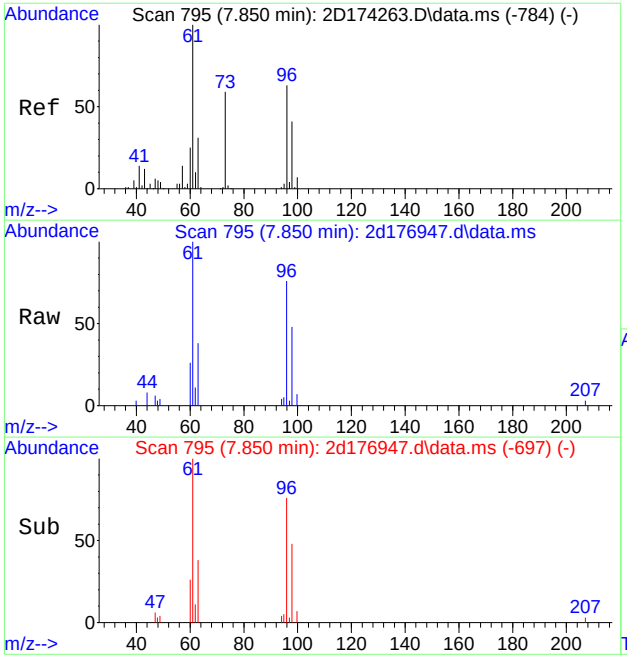


#22
acetone
Concen: 40.35 ug/L
RT: 6.701 min Scan# 576
Delta R.T. 0.026 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion: 58 Resp: 7299

Ion	Ratio	Lower	Upper
58	100		
43	303.1	301.0	361.0

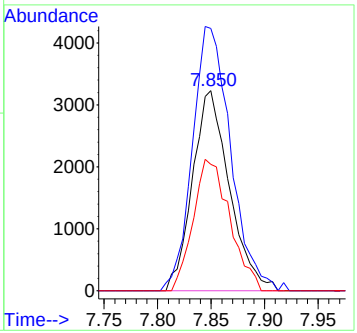


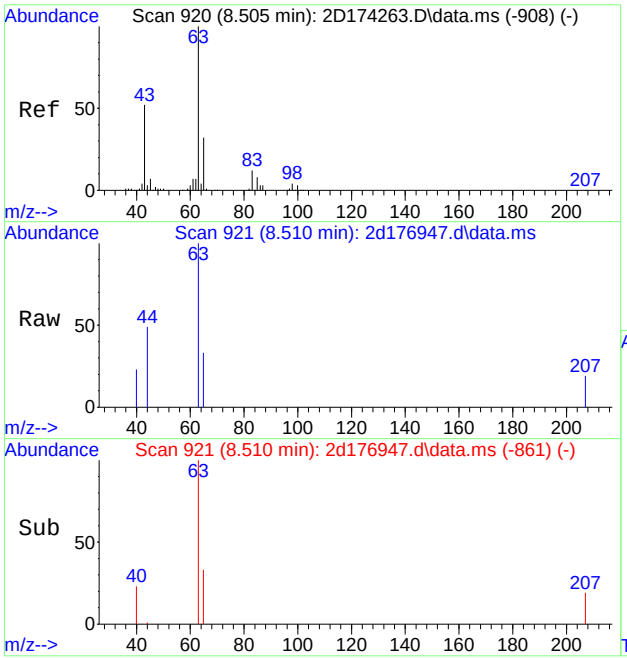


#29
trans-1,2-dichloroethene
Concen: 3.00 ug/L
RT: 7.850 min Scan# 795
Delta R.T. 0.016 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion: 96 Resp: 7767

Ion	Ratio	Lower	Upper
96	100		
61	130.9	117.8	177.8
98	63.1	31.2	91.2

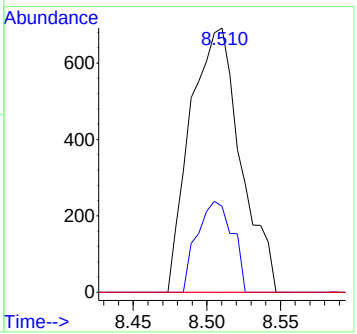


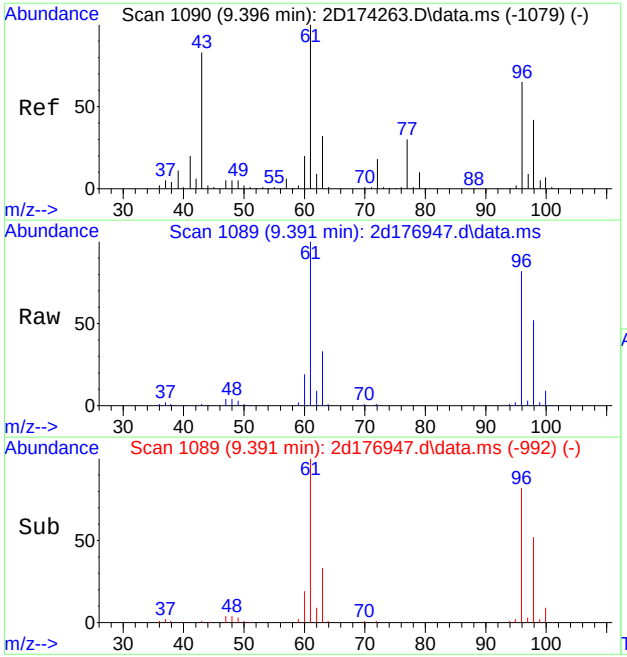


#33
1,1-dichloroethane
Concen: 0.34 ug/L
RT: 8.510 min Scan# 921
Delta R.T. 0.016 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion: 63 Resp: 1646

Ion	Ratio	Lower	Upper
63	100		
65	32.5	1.8	61.8
83	0.0	0.0	43.1

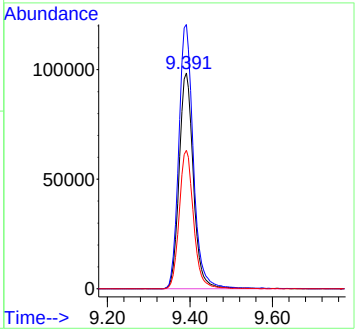


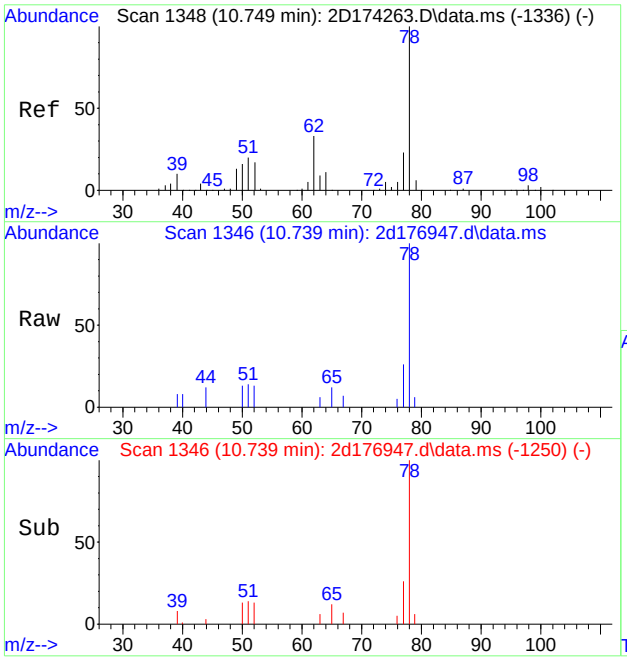


#40
cis-1,2-dichloroethene
Concen: 81.61 ug/L
RT: 9.391 min Scan# 1089
Delta R.T. 0.010 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion: 96 Resp: 236261

Ion	Ratio	Lower	Upper
96	100		
61	122.5	112.4	172.4
98	64.2	34.5	94.5

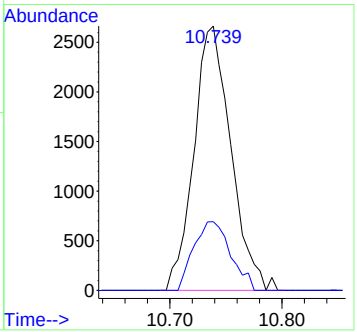


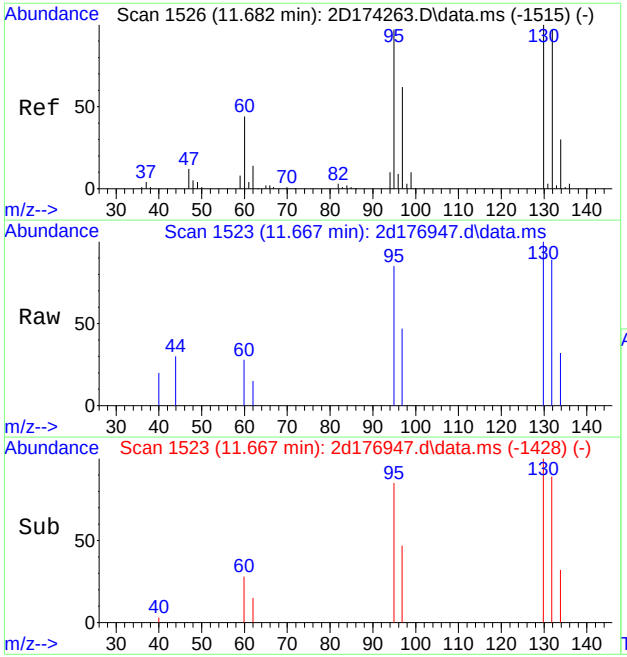


#56
benzene
Concen: 0.59 ug/L
RT: 10.739 min Scan# 1346
Delta R.T. 0.005 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion: 78 Resp: 6136

Ion	Ratio	Lower	Upper
78	100		
77	26.0	0.0	54.2

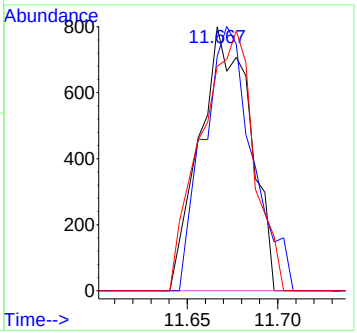




#64
trichloroethene
Concen: 0.55 ug/L
RT: 11.667 min Scan# 1523
Delta R.T. -0.000 min
Lab File: 2d176947.d
Acq: 1 Jul 2018 3:31 pm

Tgt Ion:130 Resp: 1545

Ion	Ratio	Lower	Upper
130	100		
132	88.9	65.0	125.0
95	85.0	62.6	122.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176950.d
Acq On : 1 Jul 2018 5:10 pm
Operator : juntaep
Sample : jc68966-4 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:13:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

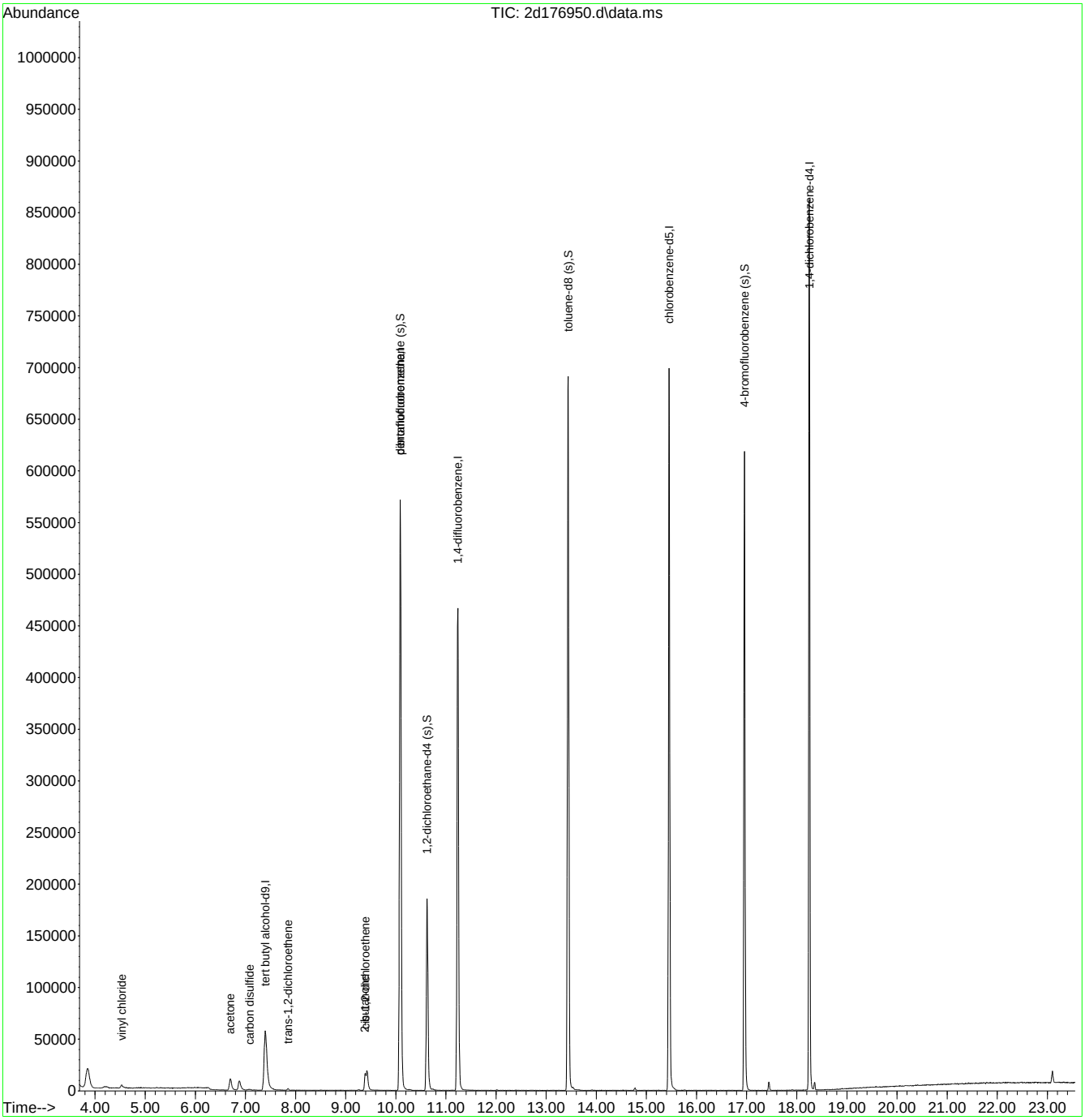
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	141735	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	341043	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	475304	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	455695	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	233029	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	152166	51.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.58%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	149951	45.93	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.86%			
77) toluene-d8 (s)	13.439	98	549622	51.87	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.74%			
100) 4-bromofluorobenzene (s)	16.957	95	204518	54.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.40%			
Target Compounds						Qvalue
11) vinyl chloride	4.531	62	6156	1.63	ug/L	79
22) acetone	6.696	58	7664	42.03	ug/L #	60
25) carbon disulfide	7.079	76	2510	0.30	ug/L	85
29) trans-1,2-dichloroethene	7.850	96	983	0.38	ug/L	80
32) 2-butanone	9.381	72	950	4.03	ug/L #	62
40) cis-1,2-dichloroethene	9.391	96	8806	3.02	ug/L	84

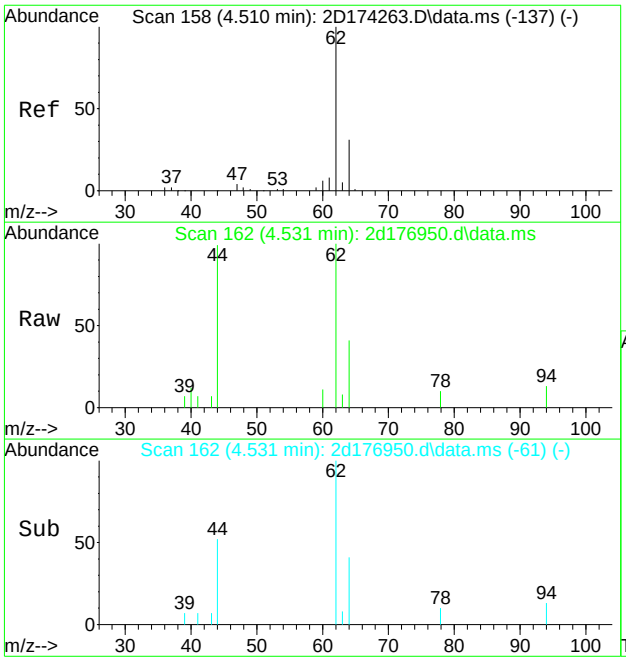
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176950.d
Acq On : 1 Jul 2018 5:10 pm
Operator : juntaep
Sample : jc68966-4 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:13:01 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

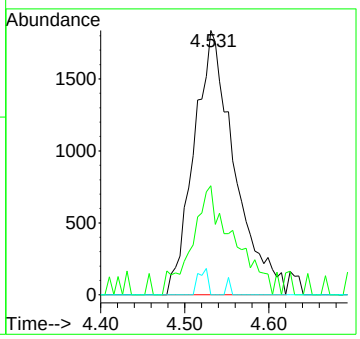


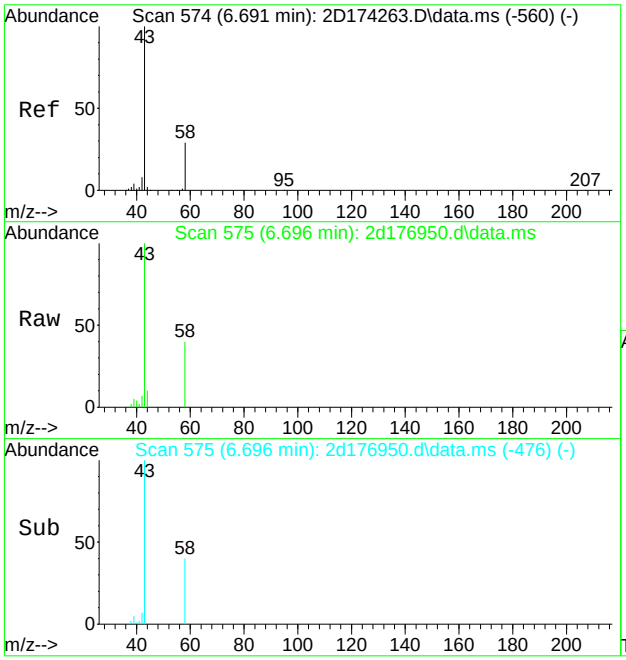


#11
vinyl chloride
Concen: 1.63 ug/L
RT: 4.531 min Scan# 162
Delta R.T. 0.032 min
Lab File: 2d176950.d
Acq: 1 Jul 2018 5:10 pm

Tgt Ion: 62 Resp: 6156

Ion	Ratio	Lower	Upper
62	100		
64	41.3	0.2	60.2
61	0.0	0.0	39.0

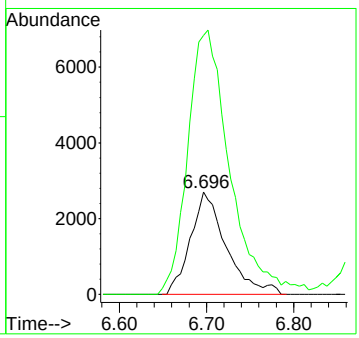


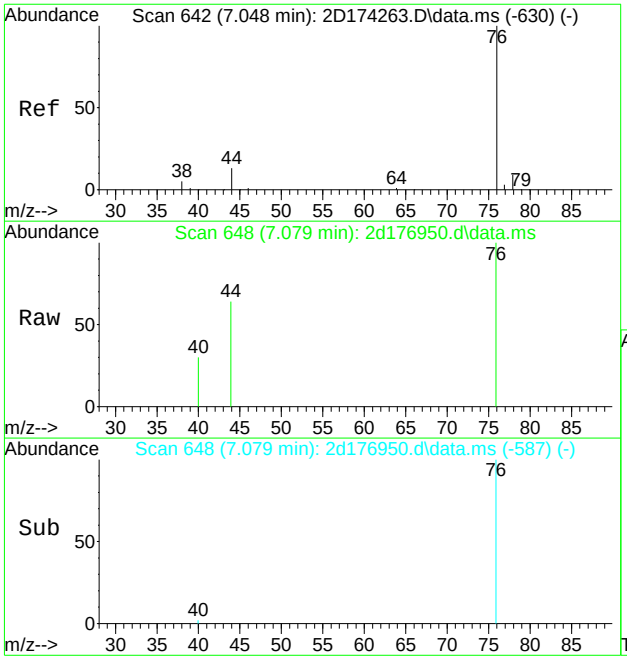


#22
acetone
Concen: 42.03 ug/L
RT: 6.696 min Scan# 575
Delta R.T. 0.021 min
Lab File: 2d176950.d
Acq: 1 Jul 2018 5:10 pm

Tgt Ion: 58 Resp: 7664

Ion	Ratio	Lower	Upper
58	100		
43	247.1	301.0	361.0#

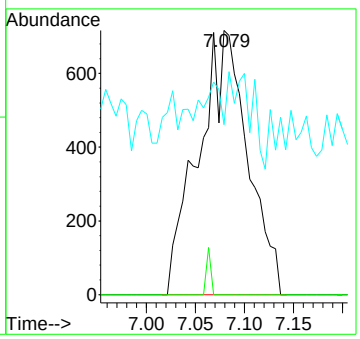


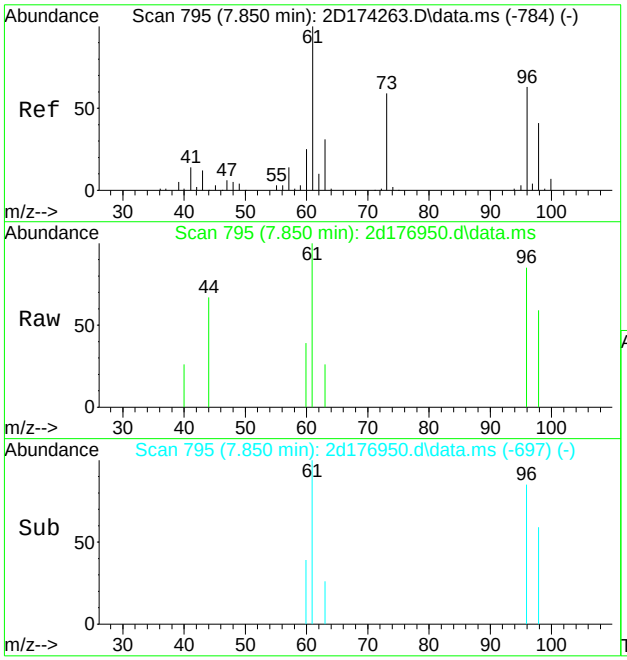


#25
carbon disulfide
Concen: 0.30 ug/L
RT: 7.079 min Scan# 648
Delta R.T. 0.021 min
Lab File: 2d176950.d
Acq: 1 Jul 2018 5:10 pm

Tgt Ion: 76 Resp: 2510

Ion	Ratio	Lower	Upper
76	100		
78	0.0	0.0	39.3
44	9.5	0.0	42.7

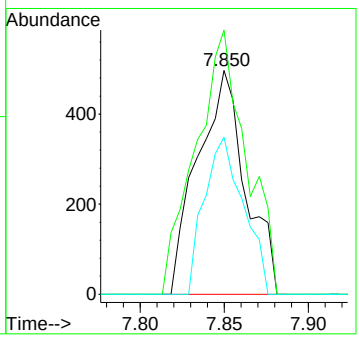


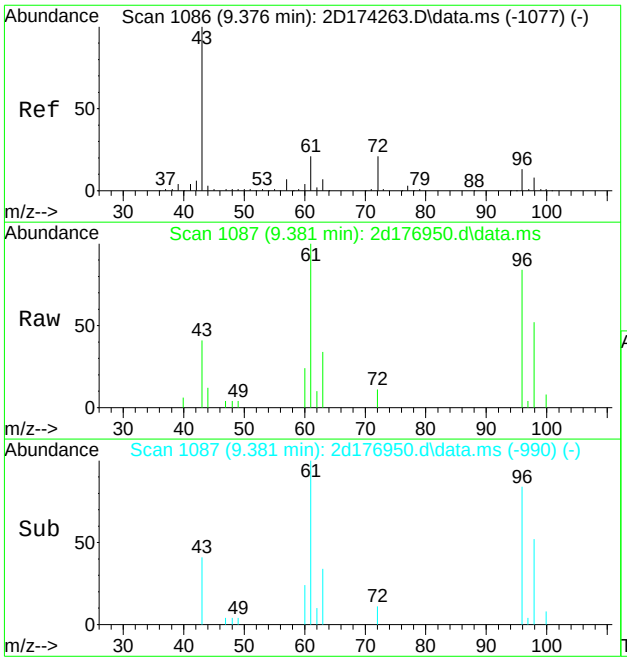


#29
trans-1,2-dichloroethene
Concen: 0.38 ug/L
RT: 7.850 min Scan# 795
Delta R.T. 0.016 min
Lab File: 2d176950.d
Acq: 1 Jul 2018 5:10 pm

Tgt Ion: 96 Resp: 983

Ion	Ratio	Lower	Upper
96	100		
61	118.1	117.8	177.8
98	70.2	31.2	91.2

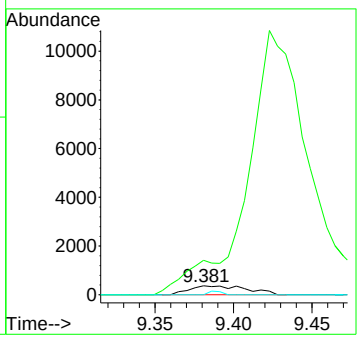


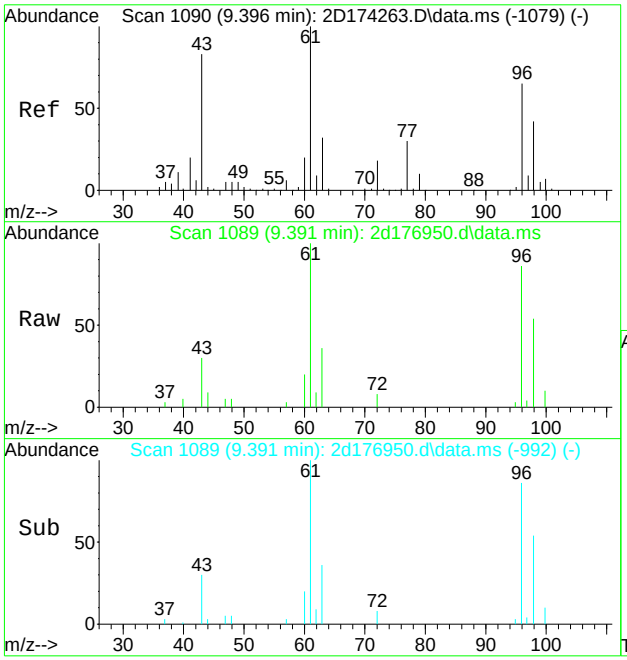


#32
2-butanone
Concen: 4.03 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. 0.011 min
Lab File: 2d176950.d
Acq: 1 Jul 2018 5:10 pm

Tgt Ion: 72 Resp: 950

Ion	Ratio	Lower	Upper
72	100		
43	337.7	399.9	459.9#
57	0.0	1.8	61.8#

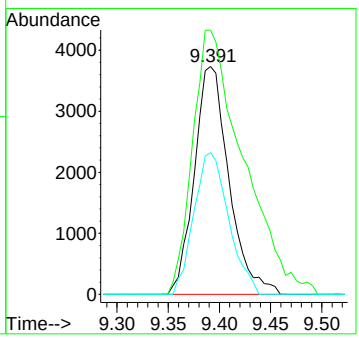




#40
cis-1,2-dichloroethene
Concen: 3.02 ug/L
RT: 9.391 min Scan# 1089
Delta R.T. 0.011 min
Lab File: 2d176950.d
Acq: 1 Jul 2018 5:10 pm

Tgt Ion: 96 Resp: 8806

Ion	Ratio	Lower	Upper
96	100		
61	116.0	112.4	172.4
98	62.3	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176948.d
Acq On : 1 Jul 2018 4:03 pm
Operator : juntaep
Sample : jc68966-5 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 23:24:32 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

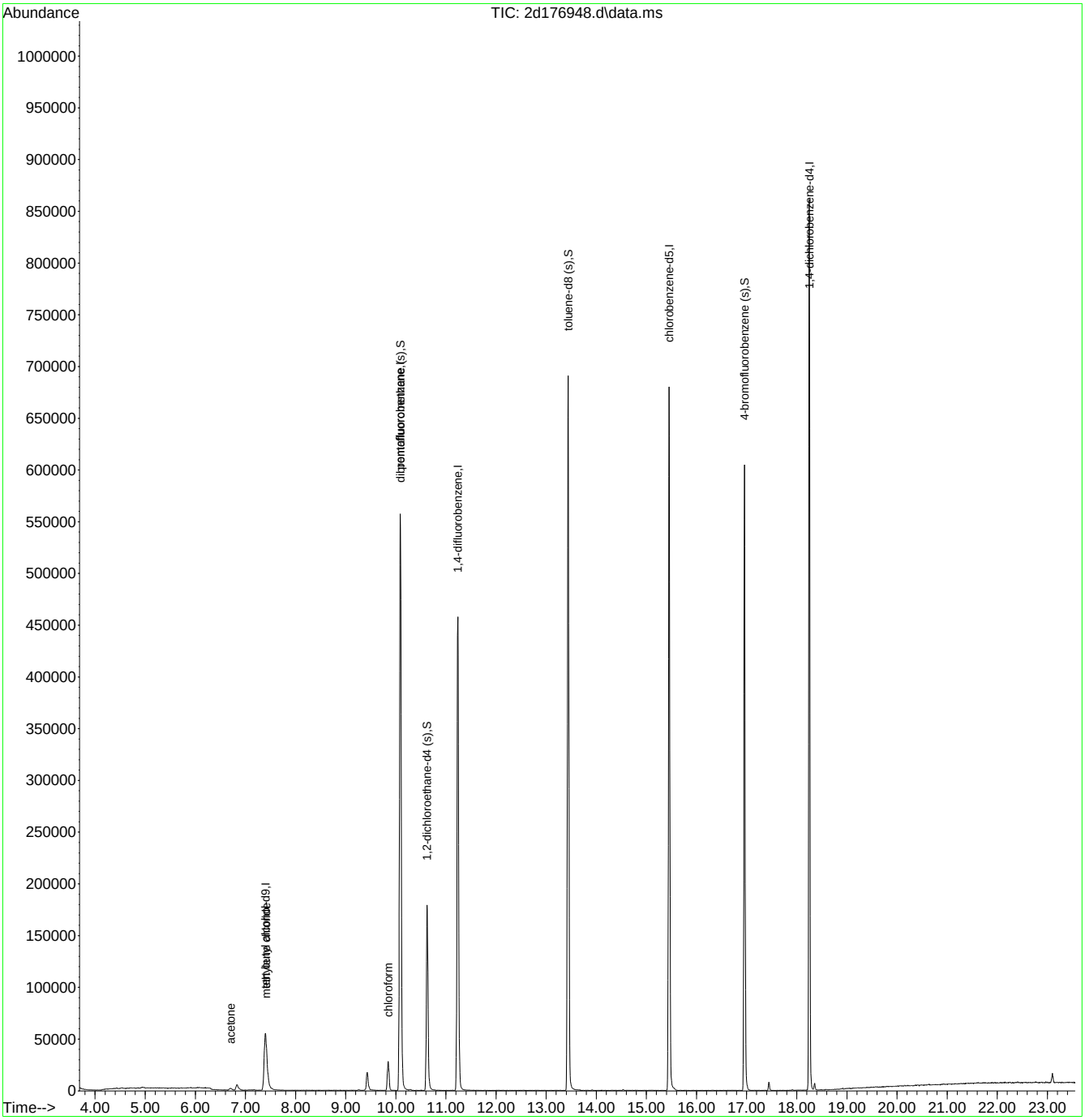
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	131488	500.00	ug/L	0.01
5) pentafluorobenzene	10.089	168	338212	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	469081	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	449954	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	232305	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.094	113	150272	51.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.14%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	146046	45.33	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.66%			
77) toluene-d8 (s)	13.439	98	539581	51.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.14%			
100) 4-bromofluorobenzene (s)	16.957	95	202844	54.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.84%			
Target Compounds						Qvalue
22) acetone	6.707	58	1314	7.27	ug/L #	39
26) methylene chloride	7.415	84	3146	1.12	ug/L	90
45) chloroform	9.847	83	28480	6.14	ug/L	98

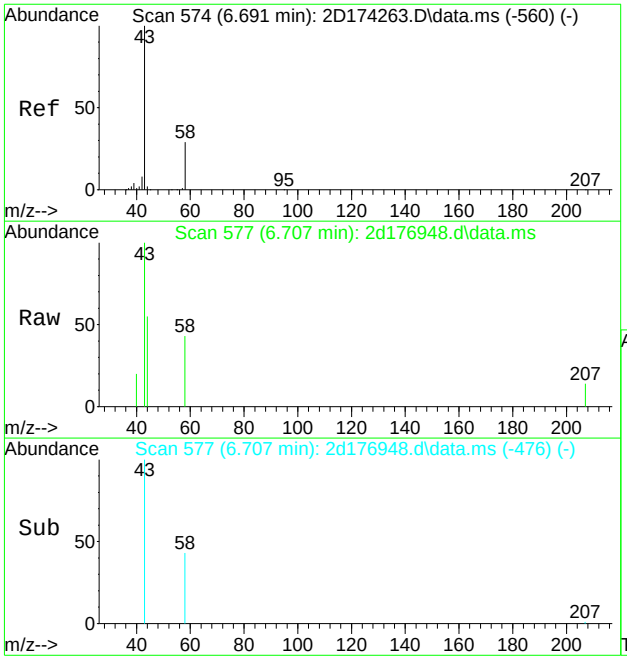
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176948.d
Acq On : 1 Jul 2018 4:03 pm
Operator : juntaep
Sample : jc68966-5 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 23:24:32 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

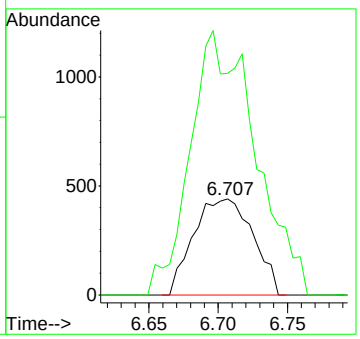


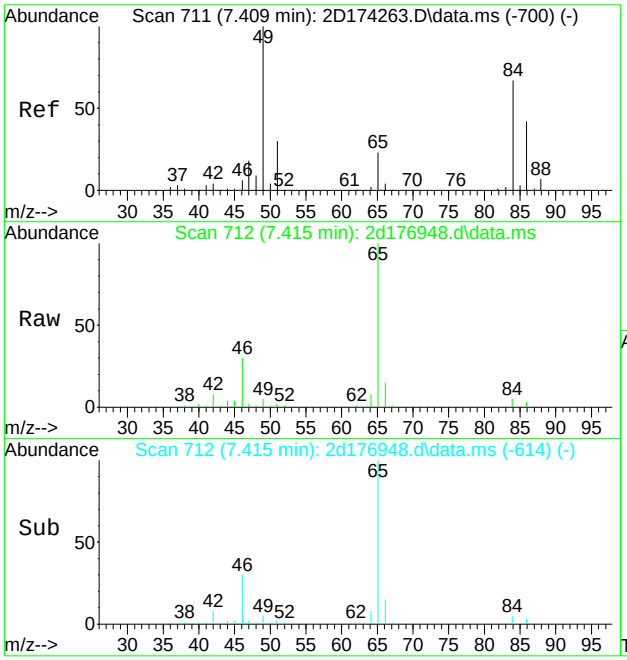


#22
acetone
Concen: 7.27 ug/L
RT: 6.707 min Scan# 577
Delta R.T. 0.031 min
Lab File: 2d176948.d
Acq: 1 Jul 2018 4:03 pm

Tgt Ion: 58 Resp: 1314

Ion	Ratio	Lower	Upper
58	100		
43	202.5	301.0	361.0#

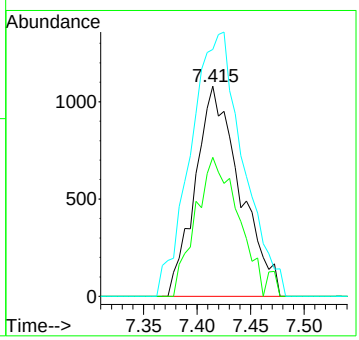


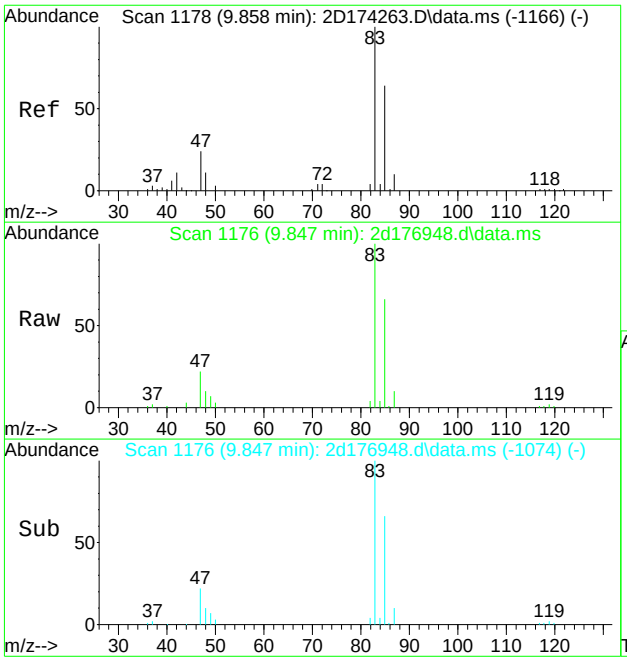


#26
methylene chloride
Concen: 1.12 ug/L
RT: 7.415 min Scan# 712
Delta R.T. 0.016 min
Lab File: 2d176948.d
Acq: 1 Jul 2018 4:03 pm

Tgt Ion: 84 Resp: 3146

Ion	Ratio	Lower	Upper
84	100		
86	66.1	34.1	94.1
49	117.4	103.3	163.3

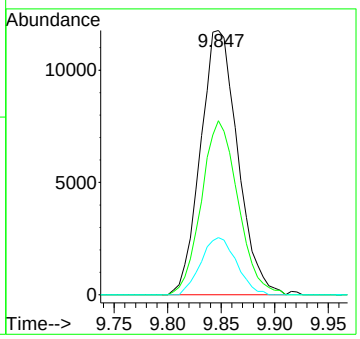




#45
chloroform
Concen: 6.14 ug/L
RT: 9.847 min Scan# 1176
Delta R.T. 0.005 min
Lab File: 2d176948.d
Acq: 1 Jul 2018 4:03 pm

Tgt Ion: 83 Resp: 28480

Ion	Ratio	Lower	Upper
83	100		
85	65.8	34.4	94.4
47	21.6	0.0	53.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176956.d
Acq On : 1 Jul 2018 8:31 pm
Operator : juntaep
Sample : jc68966-6 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:35:39 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

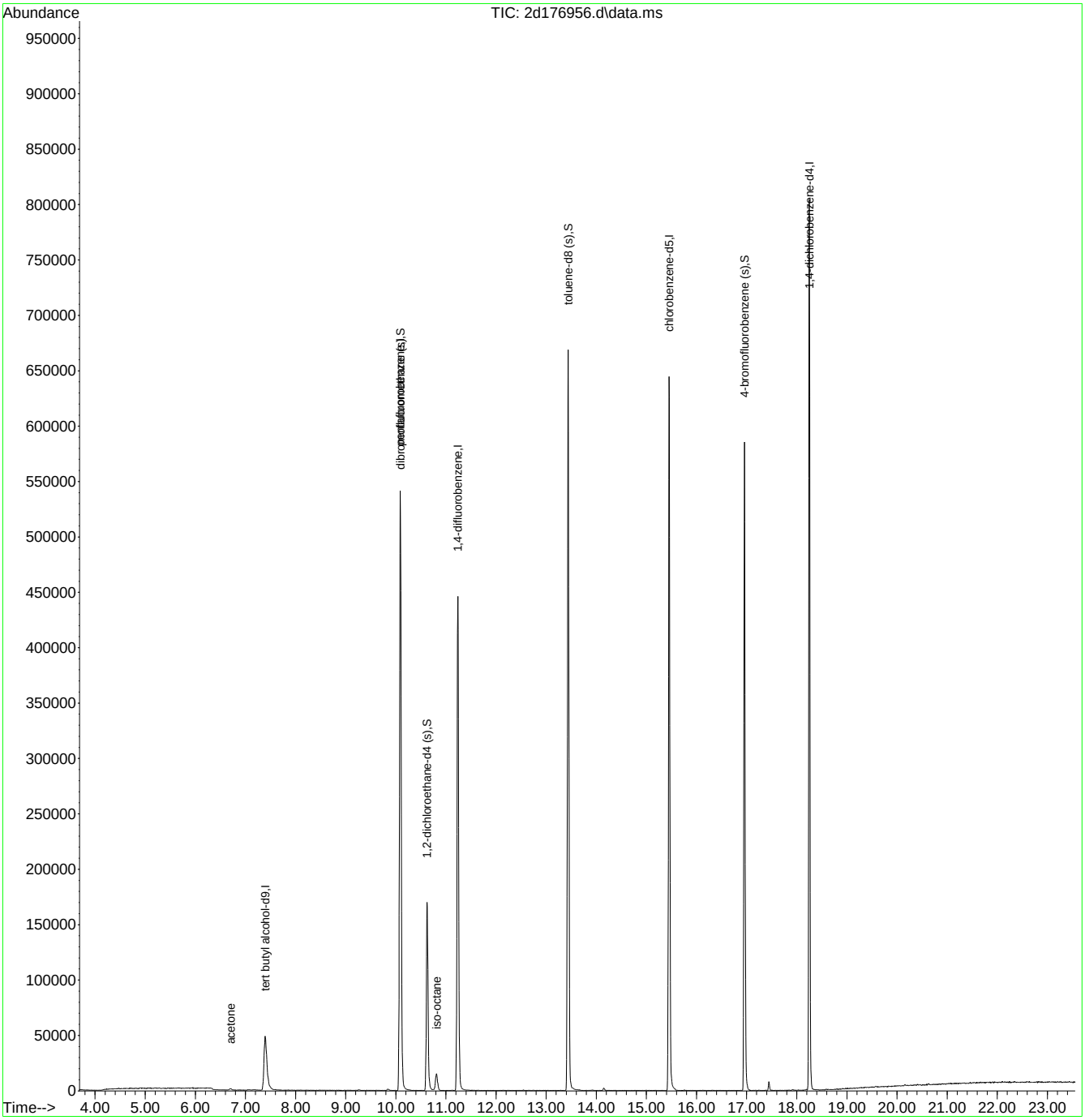
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.393	65	120795	500.00	ug/L	0.00
5) pentafluorobenzene	10.088	168	323046	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	454895	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	431476	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	216940	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.094	113	141823	50.96	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.92%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	139465	44.64	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.28%			
77) toluene-d8 (s)	13.439	98	524247	52.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.50%			
100) 4-bromofluorobenzene (s)	16.957	95	193296	55.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.08%			
Target Compounds						Qvalue
22) acetone	6.707	58	797	4.61	ug/L #	18
57) iso-octane	10.812	57	22373	2.19	ug/L	94

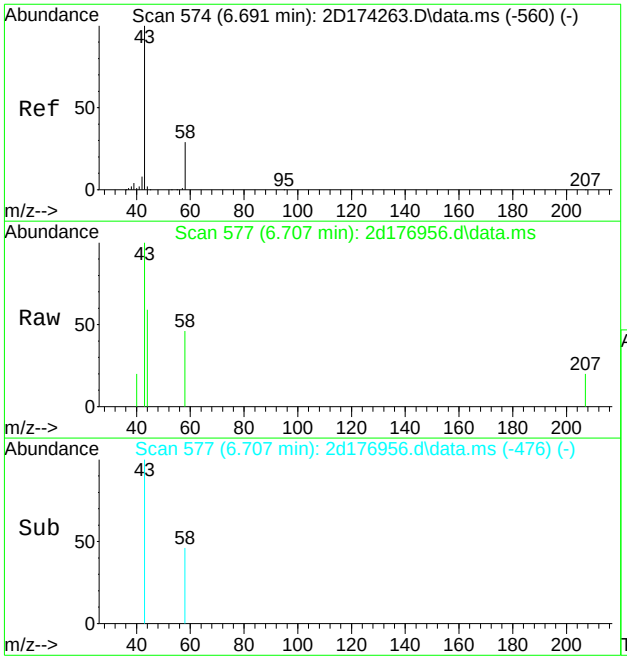
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176956.d
Acq On : 1 Jul 2018 8:31 pm
Operator : juntaep
Sample : jc68966-6 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 21 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:35:39 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

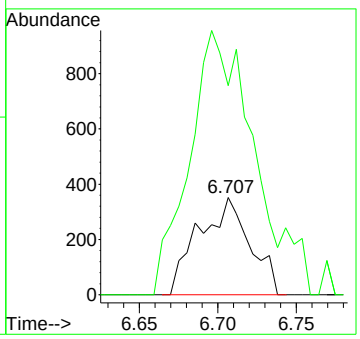


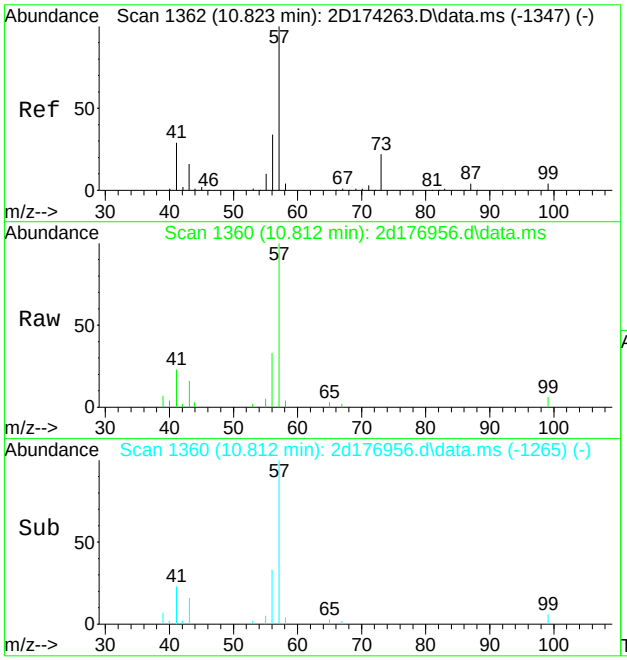


#22
acetone
Concen: 4.61 ug/L
RT: 6.707 min Scan# 577
Delta R.T. 0.031 min
Lab File: 2d176956.d
Acq: 1 Jul 2018 8:31 pm

Tgt Ion: 58 Resp: 797

Ion	Ratio	Lower	Upper
58	100		
43	158.5	301.0	361.0#

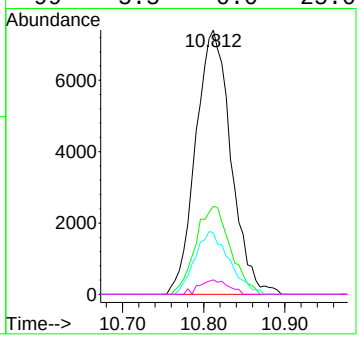




#57
iso-octane
Concen: 2.19 ug/L
RT: 10.812 min Scan# 1360
Delta R.T. -0.000 min
Lab File: 2d176956.d
Acq: 1 Jul 2018 8:31 pm

Tgt Ion: 57 Resp: 22373

Ion	Ratio	Lower	Upper
57	100		
56	33.3	13.9	53.9
41	23.3	9.7	49.7
99	5.5	0.0	25.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176949.d
Acq On : 1 Jul 2018 4:37 pm
Operator : juntaep
Sample : jc68966-7 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:09:22 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

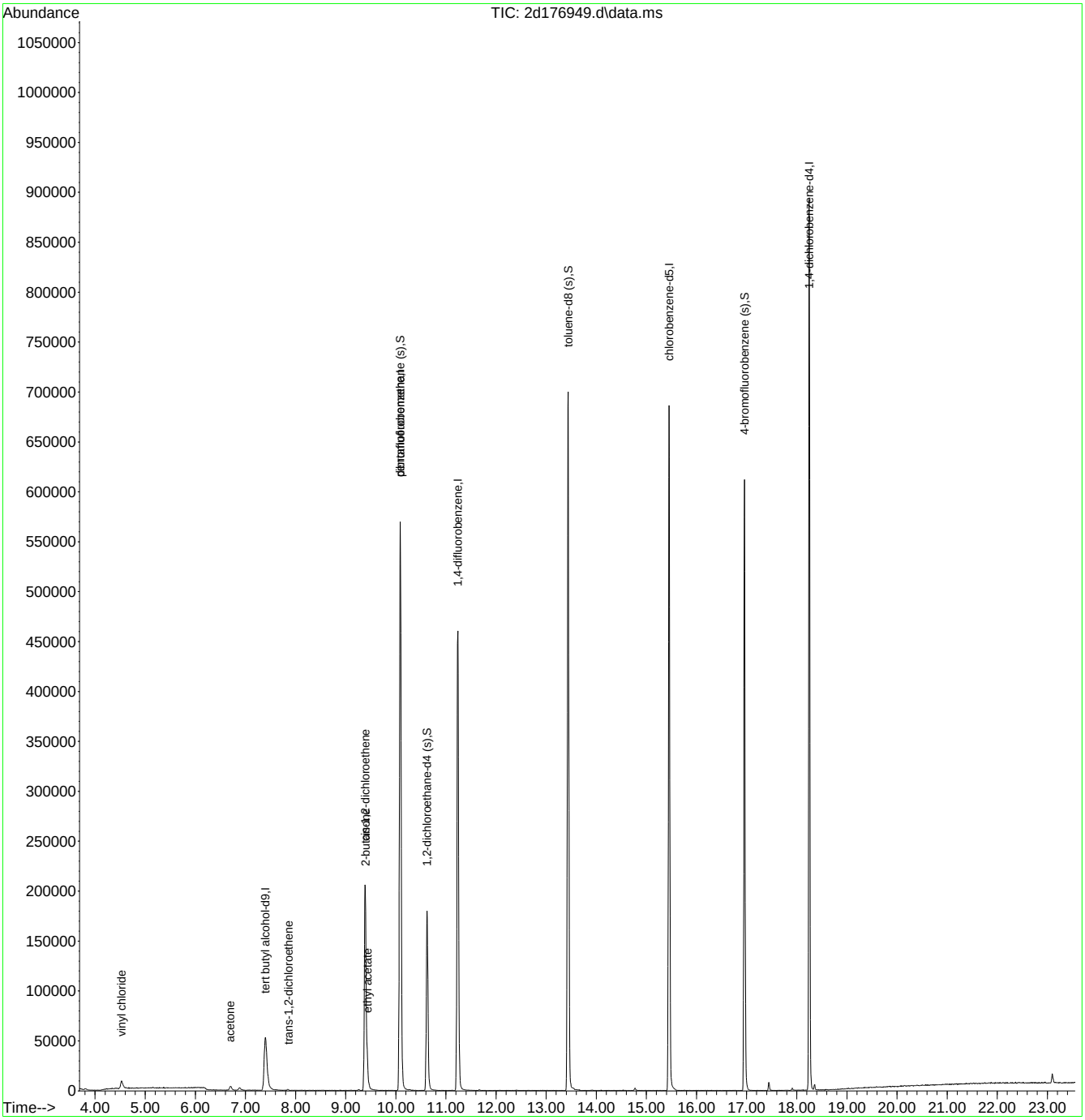
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	132355	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	344479	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	479384	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	457331	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.247	152	235842	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	152590	51.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.84%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	149122	45.29	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.58%			
77) toluene-d8 (s)	13.439	98	550379	51.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.50%			
100) 4-bromofluorobenzene (s)	16.957	95	204739	54.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.22%			
Target Compounds						Qvalue
11) vinyl chloride	4.526	62	16066	4.22	ug/L	97
22) acetone	6.696	58	2610	14.17	ug/L #	46
29) trans-1,2-dichloroethene	7.855	96	613	0.23	ug/L #	63
32) 2-butanone	9.397	72	954	4.01	ug/L #	39
38) ethyl acetate	9.433	45	5175	16.00	ug/L	89
40) cis-1,2-dichloroethene	9.391	96	122860	41.68	ug/L	87

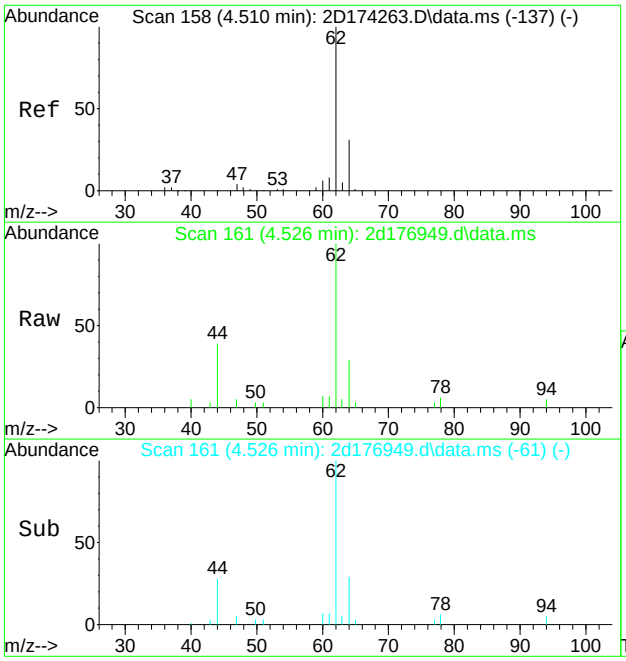
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176949.d
Acq On : 1 Jul 2018 4:37 pm
Operator : juntaep
Sample : jc68966-7 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:09:22 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

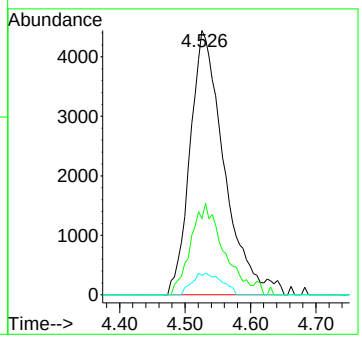


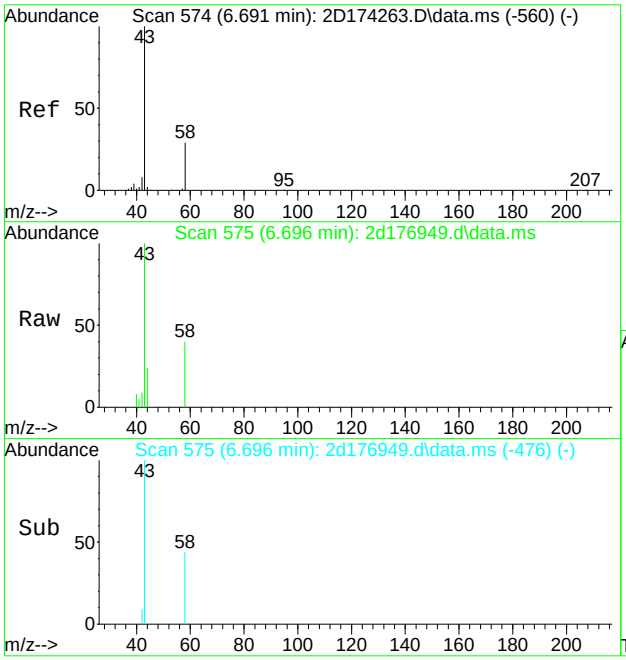


#11
vinyl chloride
Concen: 4.22 ug/L
RT: 4.526 min Scan# 161
Delta R.T. 0.026 min
Lab File: 2d176949.d
Acq: 1 Jul 2018 4:37 pm

Tgt Ion: 62 Resp: 16066

Ion	Ratio	Lower	Upper
62	100		
64	28.7	0.2	60.2
61	7.3	0.0	39.0

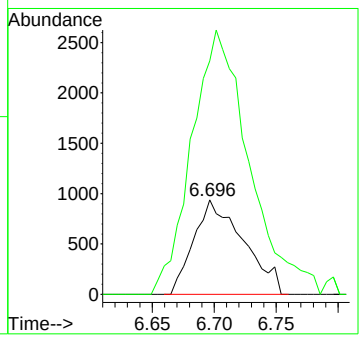


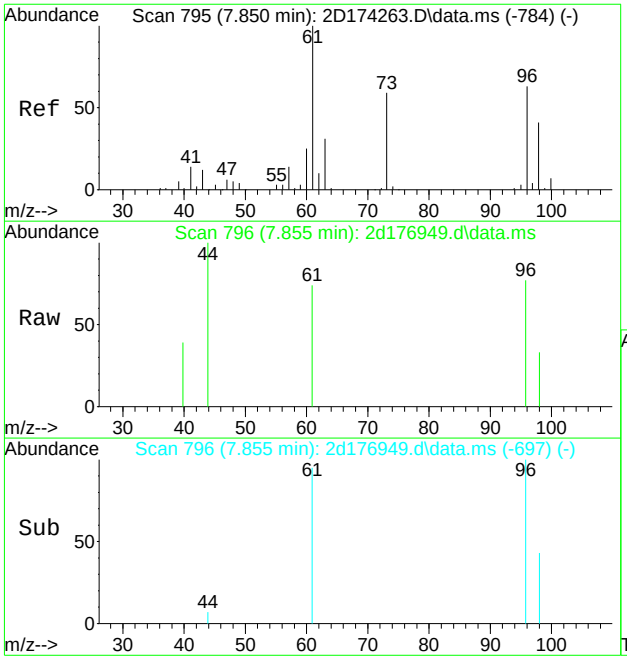


#22
acetone
Concen: 14.17 ug/L
RT: 6.696 min Scan# 575
Delta R.T. 0.021 min
Lab File: 2d176949.d
Acq: 1 Jul 2018 4:37 pm

Tgt Ion: 58 Resp: 2610

Ion	Ratio	Lower	Upper
58	100		
43	217.2	301.0	361.0#

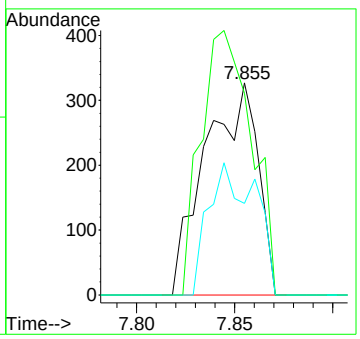


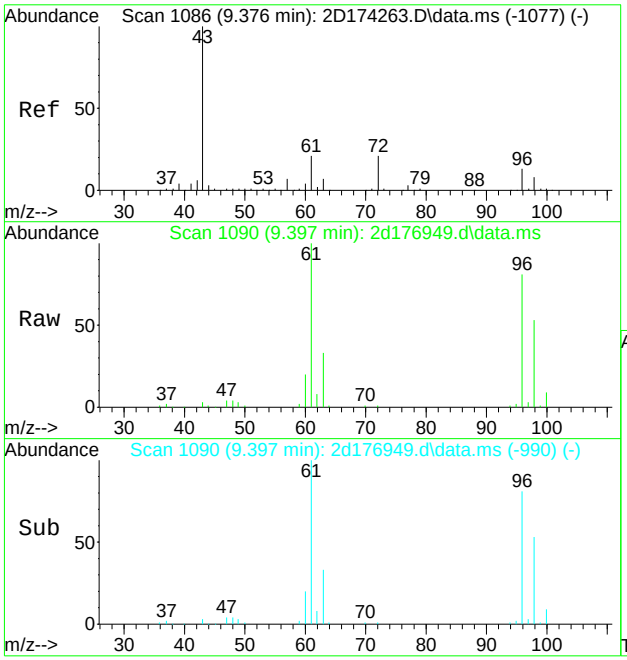


#29
trans-1,2-dichloroethene
Concen: 0.23 ug/L
RT: 7.855 min Scan# 796
Delta R.T. 0.021 min
Lab File: 2d176949.d
Acq: 1 Jul 2018 4:37 pm

Tgt Ion: 96 Resp: 613

Ion	Ratio	Lower	Upper
96	100		
61	95.1	117.8	177.8#
98	43.1	31.2	91.2

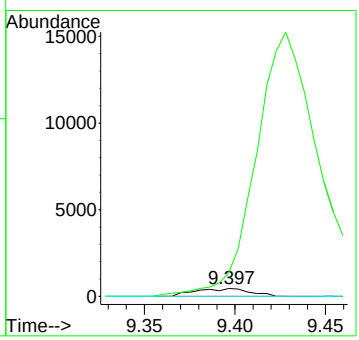


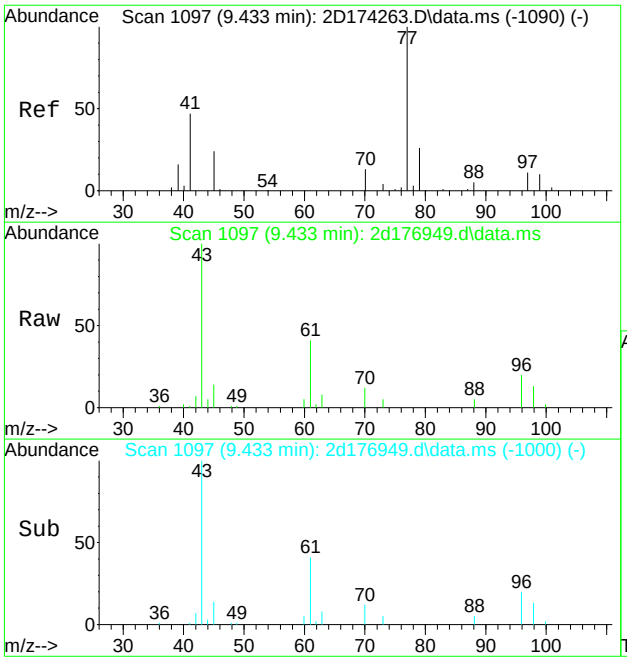


#32
2-butanone
Concen: 4.01 ug/L
RT: 9.397 min Scan# 1090
Delta R.T. 0.026 min
Lab File: 2d176949.d
Acq: 1 Jul 2018 4:37 pm

Tgt Ion: 72 Resp: 954

Ion	Ratio	Lower	Upper
72	100		
43	277.7	399.9	459.9#
57	0.0	1.8	61.8#

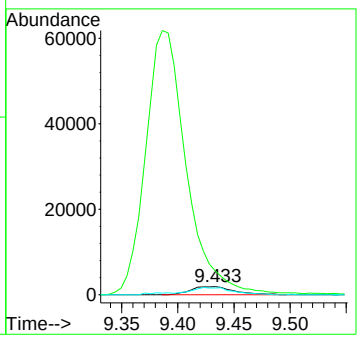


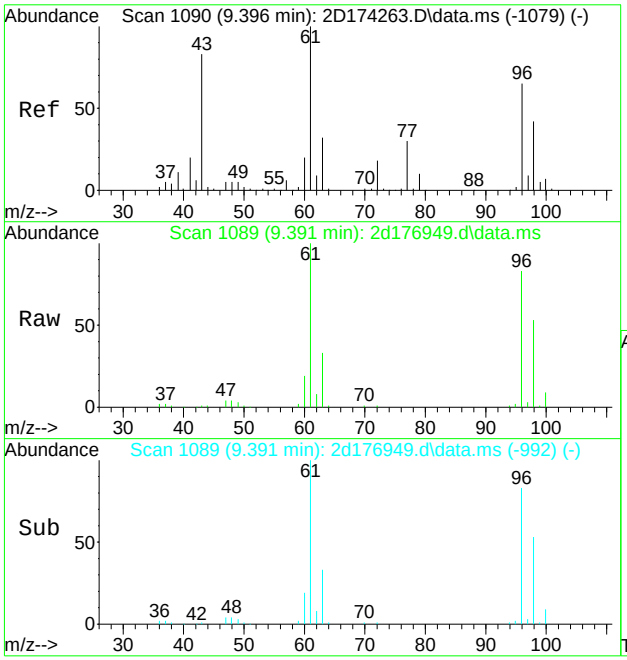


#38
ethyl acetate
Concen: 16.00 ug/L
RT: 9.433 min Scan# 1097
Delta R.T. 0.011 min
Lab File: 2d176949.d
Acq: 1 Jul 2018 4:37 pm

Tgt Ion: 45 Resp: 5175

Ion	Ratio	Lower	Upper
45	100		
61	265.1	211.6	271.6
70	83.2	50.8	110.8

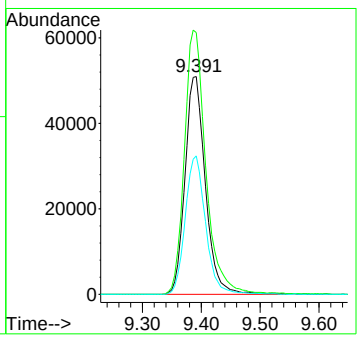




#40
cis-1,2-dichloroethene
Concen: 41.68 ug/L
RT: 9.391 min Scan# 1089
Delta R.T. 0.011 min
Lab File: 2d176949.d
Acq: 1 Jul 2018 4:37 pm

Tgt Ion: 96 Resp: 122860

Ion	Ratio	Lower	Upper
96	100		
61	120.2	112.4	172.4
98	63.5	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182811.d
Acq On : 5 Jul 2018 10:38 pm
Operator : jessicap
Sample : jc68966-8
Misc : ms27582,v1a7793,5,,,,1
ALS Vial : 62 Sample Multiplier: 1

Quant Time: Jul 06 17:24:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

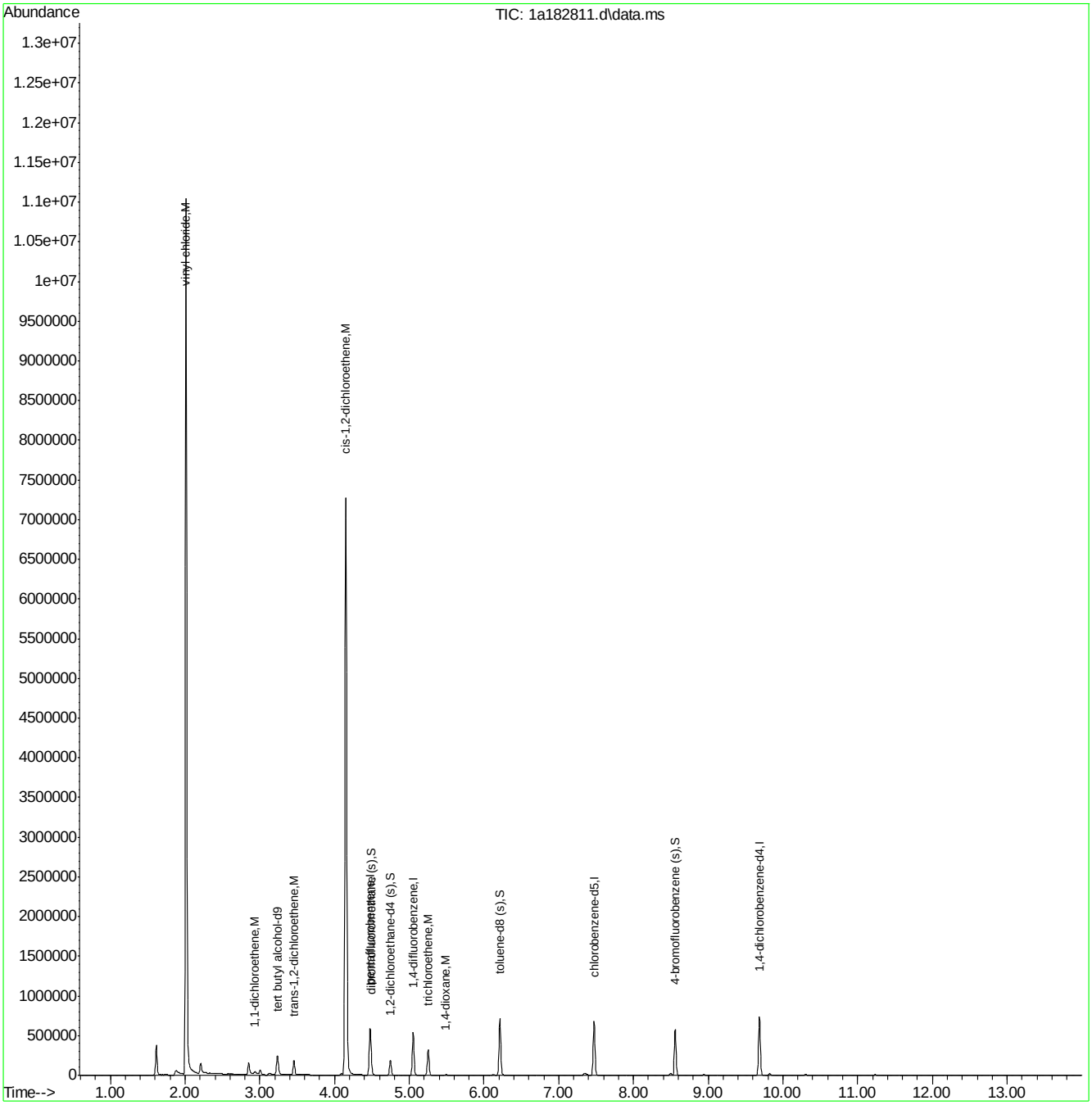
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.239	65	250828	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	299160	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	406981	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	414647	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	223684	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	111664	51.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.86%			
54) 1,2-dichloroethane-d4 (s)	4.748	65	117368	47.02	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.04%			
76) toluene-d8 (s)	6.214	98	461474	45.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.92%			
99) 4-bromofluorobenzene (s)	8.563	95	192757	53.33	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.66%			
Target Compounds						Qvalue
4) 1,4-dioxane	5.490	88	5832	104.26	ug/L	90
10) vinyl chloride	2.011	62	8826701	3762.33	ug/L	97
19) 1,1-dichloroethene	2.929	96	5636	3.15	ug/L	85
27) trans-1,2-dichloroethene	3.458	96	62641	32.83	ug/L	96
38) cis-1,2-dichloroethene	4.146	96	3041179	1393.99	ug/L	95
62) trichloroethene	5.253	130	93428	38.68	ug/L	99

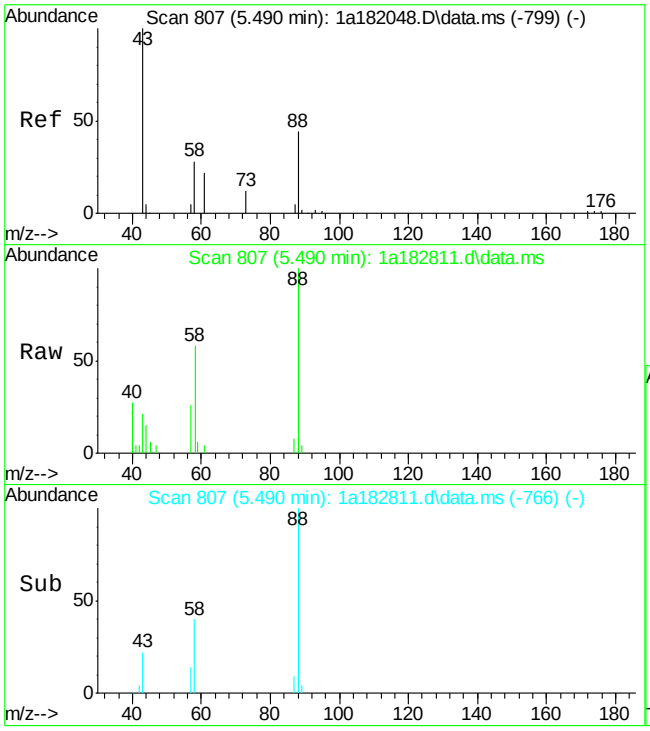
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182811.d
Acq On : 5 Jul 2018 10:38 pm
Operator : jessicap
Sample : jc68966-8
Misc : ms27582,v1a7793,5,,,,1
ALS Vial : 62 Sample Multiplier: 1

Quant Time: Jul 06 17:24:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

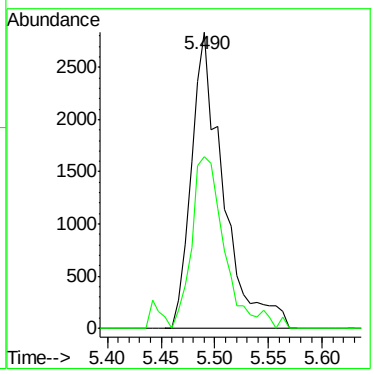


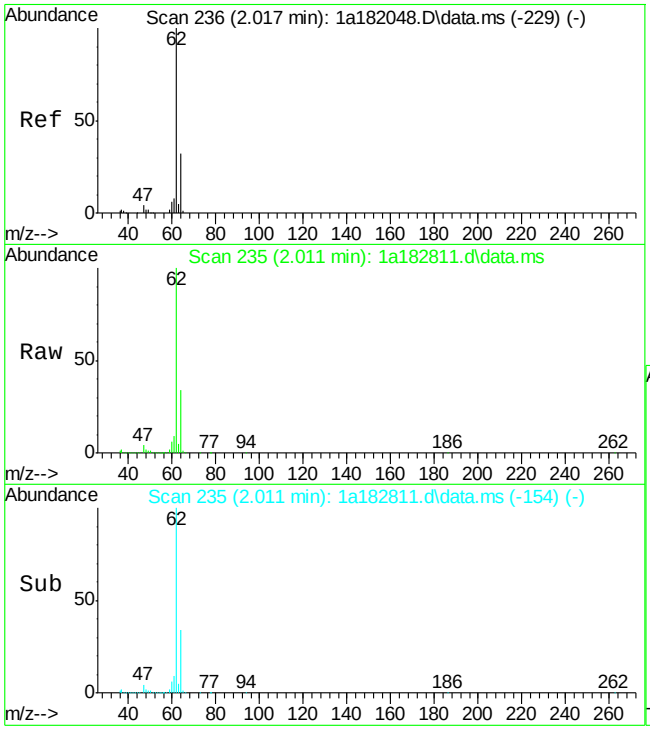


#4
1,4-dioxane
Concen: 104.26 ug/L
RT: 5.490 min Scan# 807
Delta R.T. -0.000 min
Lab File: 1a182811.d
Acq: 5 Jul 2018 10:38 pm

Tgt Ion: 88 Resp: 5832

Ion	Ratio	Lower	Upper
88	100		
58	58.1	36.5	96.5

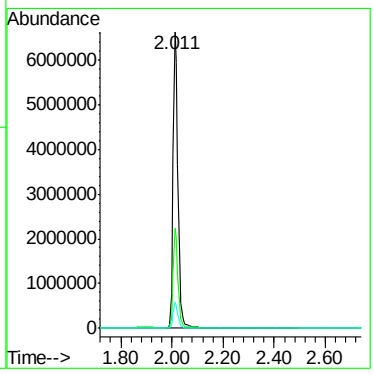


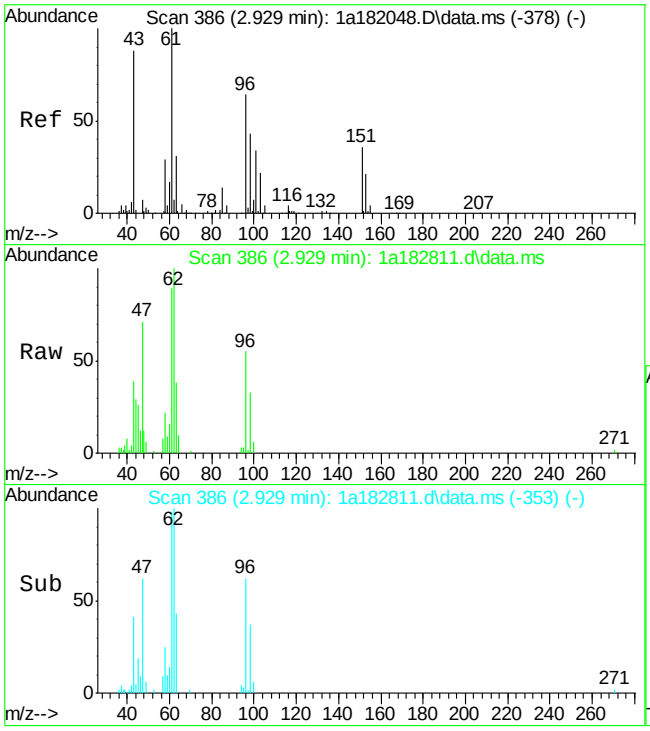


#10
vinyl chloride
Concen: 3762.33 ug/L
RT: 2.011 min Scan# 235
Delta R.T. -0.006 min
Lab File: 1a182811.d
Acq: 5 Jul 2018 10:38 pm

Tgt Ion: 62 Resp: 8826701

Ion	Ratio	Lower	Upper
62	100		
64	33.7	1.5	61.5
61	8.7	0.0	38.3

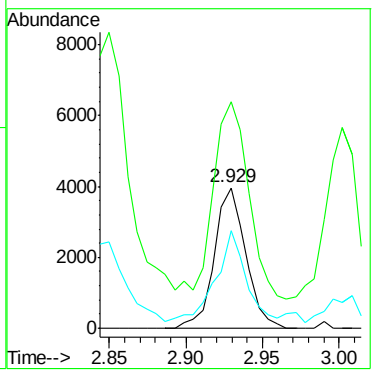


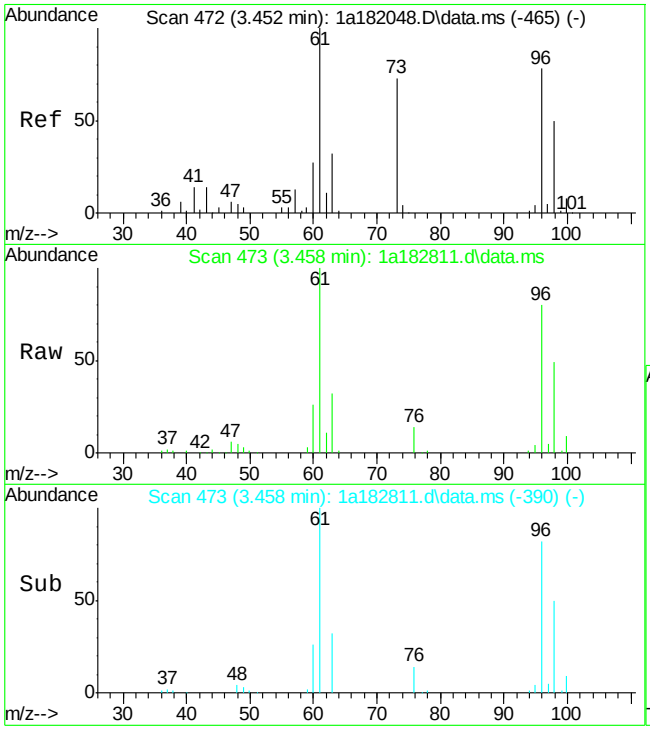


#19
1,1-dichloroethene
Concen: 3.15 ug/L
RT: 2.929 min Scan# 386
Delta R.T. -0.000 min
Lab File: 1a182811.d
Acq: 5 Jul 2018 10:38 pm

Tgt Ion: 96 Resp: 5636

Ion	Ratio	Lower	Upper
96	100		
61	138.8	125.3	185.3
63	64.2	18.2	78.2

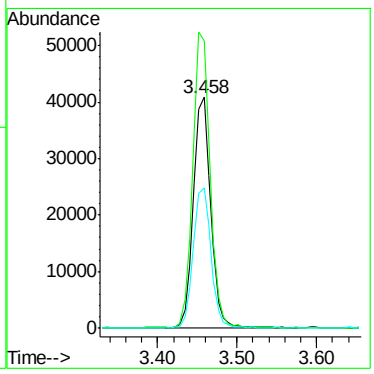


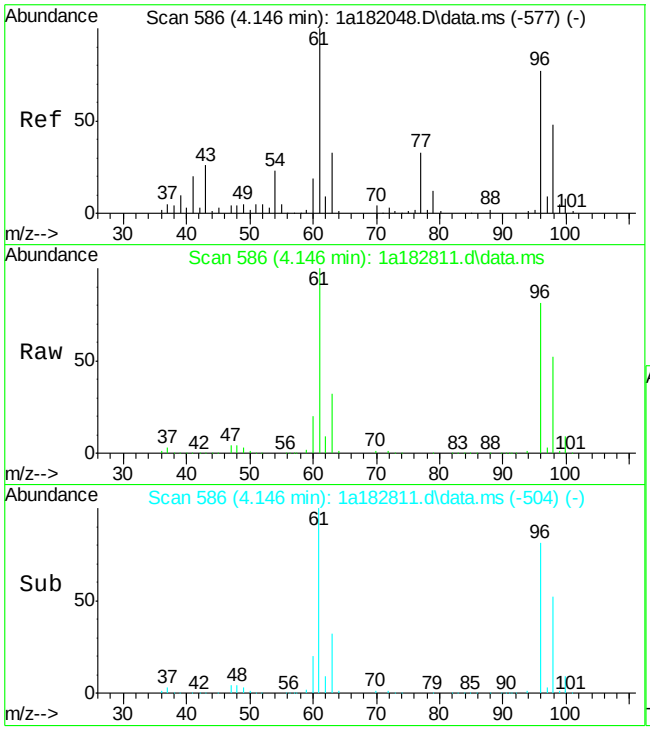


#27
trans-1,2-dichloroethene
Concen: 32.83 ug/L
RT: 3.458 min Scan# 473
Delta R.T. 0.006 min
Lab File: 1a182811.d
Acq: 5 Jul 2018 10:38 pm

Tgt Ion: 96 Resp: 62641

Ion	Ratio	Lower	Upper
96	100		
61	124.2	98.7	158.7
98	61.1	34.3	94.3

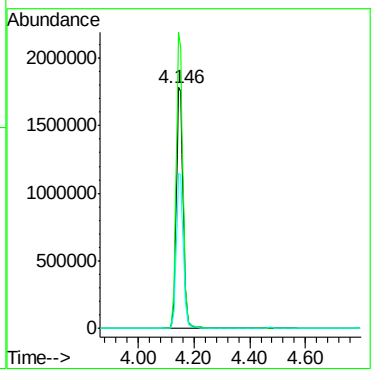


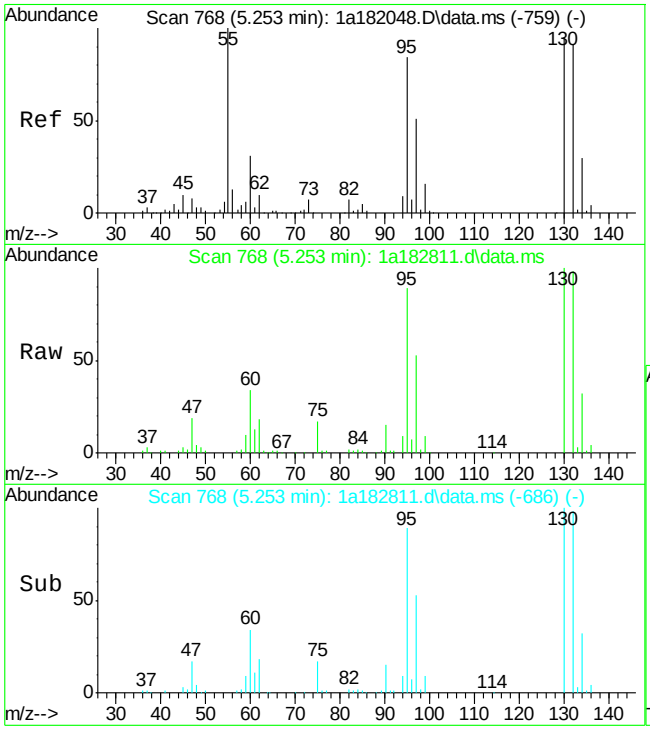


#38
cis-1,2-dichloroethene
Concen: 1393.99 ug/L
RT: 4.146 min Scan# 586
Delta R.T. -0.000 min
Lab File: 1a182811.d
Acq: 5 Jul 2018 10:38 pm

Tgt Ion: 96 Resp: 3041179

Ion	Ratio	Lower	Upper
96	100		
61	122.8	100.3	160.3
98	64.3	32.1	92.1

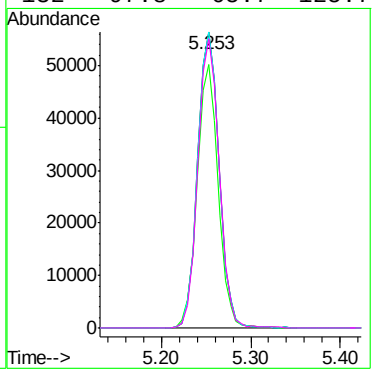




#62
trichloroethene
Concen: 38.68 ug/L
RT: 5.253 min Scan# 768
Delta R.T. -0.000 min
Lab File: 1a182811.d
Acq: 5 Jul 2018 10:38 pm

Tgt Ion:130 Resp: 93428

Ion	Ratio	Lower	Upper
130	100		
95	89.2	58.4	118.4
130	100.0	70.0	130.0
132	97.8	65.7	125.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160383.d
Acq On : 2 Jul 2018 11:08 pm
Operator : HueanhT
Sample : JC68966-8 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,20
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:54:09 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.313	65	236209	500.00	ug/L	-0.02
5) pentafluorobenzene	10.772	168	253638	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	315821	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	272304	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.859	152	157840	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	113420	51.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.34%			
52) 1,2-dichloroethane-d4 (s)	11.234	65	128306	56.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 112.12%			
75) toluene-d8 (s)	13.268	98	330997	48.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.44%			
98) 4-bromofluorobenzene (s)	15.769	95	127133	55.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.46%			
Target Compounds						Qvalue
9) vinyl chloride	5.120	62	831152	158.48	ug/L	97
27) trans-1,2-dichloroethene	8.775	96	3784	1.32	ug/L	82
38) cis-1,2-dichloroethene	10.190	96	199903	65.66	ug/L	97
62) trichloroethene	12.015	95	3774	1.61	ug/L	92

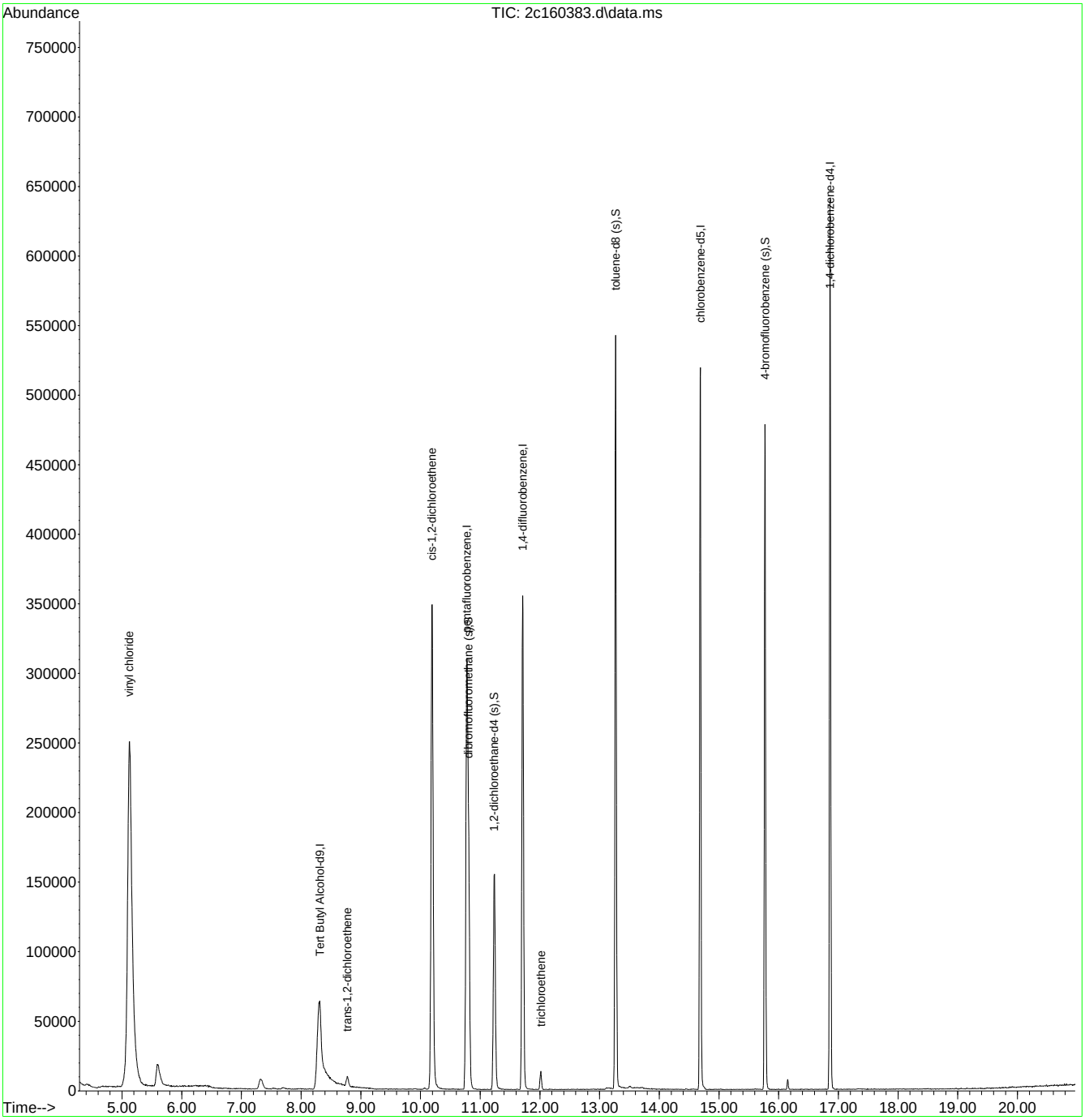
(#) = qualifier out of range (m) = manual integration (+) = signals summed

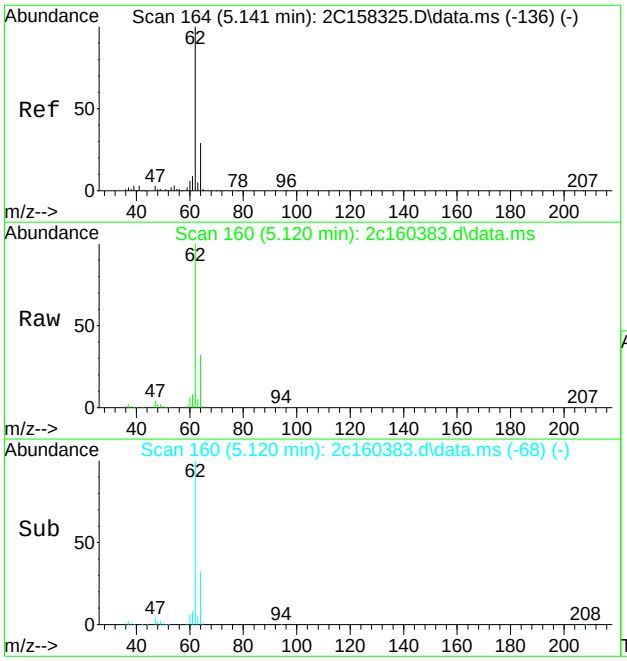
7.1.9
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160383.d
Acq On : 2 Jul 2018 11:08 pm
Operator : HueanhT
Sample : JC68966-8 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,20
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:54:09 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

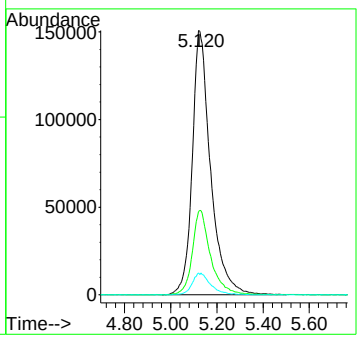


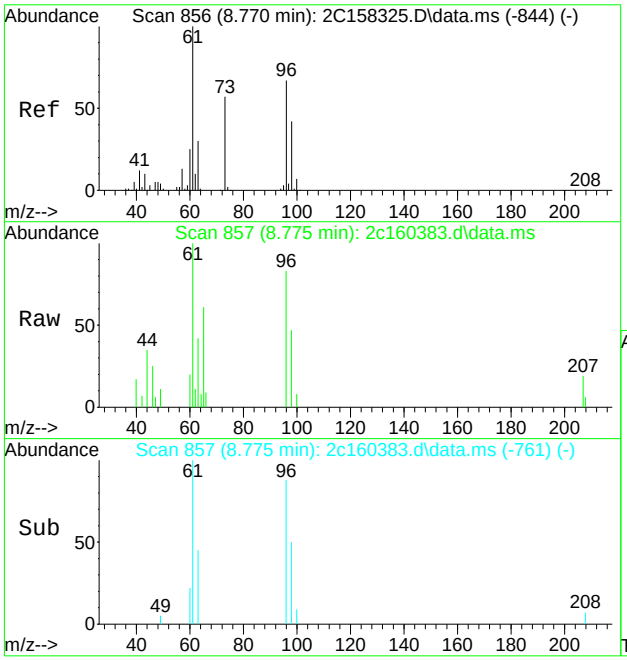


#9
vinyl chloride
Concen: 158.48 ug/L
RT: 5.120 min Scan# 160
Delta R.T. -0.016 min
Lab File: 2c160383.d
Acq: 2 Jul 2018 11:08 pm

Tgt Ion: 62 Resp: 831152

Ion	Ratio	Lower	Upper
62	100		
64	31.5	0.0	59.6
61	8.3	0.0	39.0

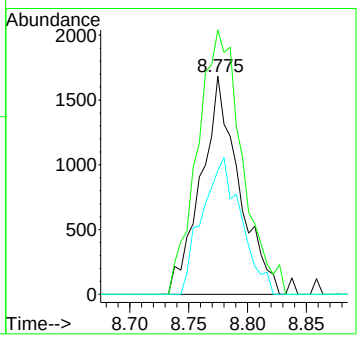


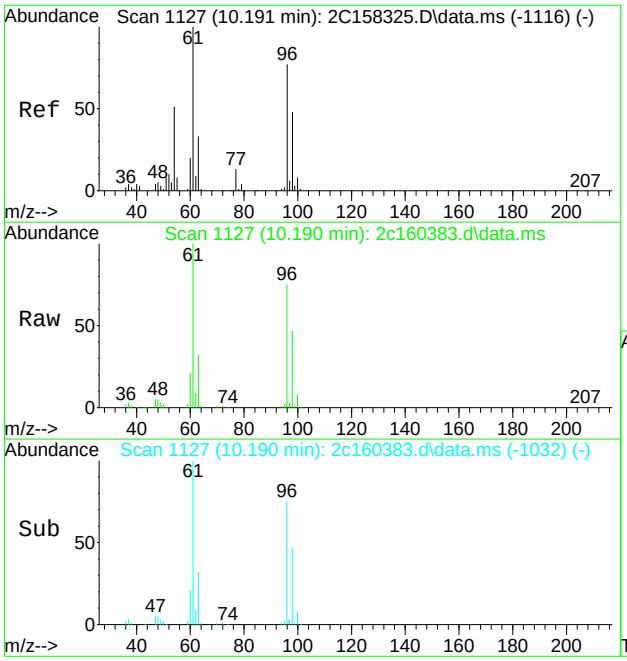


#27
trans-1,2-dichloroethene
Concen: 1.32 ug/L
RT: 8.775 min Scan# 857
Delta R.T. 0.005 min
Lab File: 2c160383.d
Acq: 2 Jul 2018 11:08 pm

Tgt Ion: 96 Resp: 3784

Ion	Ratio	Lower	Upper
96	100		
61	121.1	119.7	179.7
98	56.8	32.3	92.3

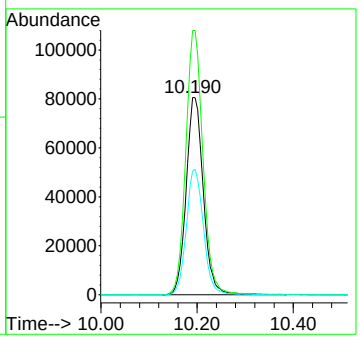


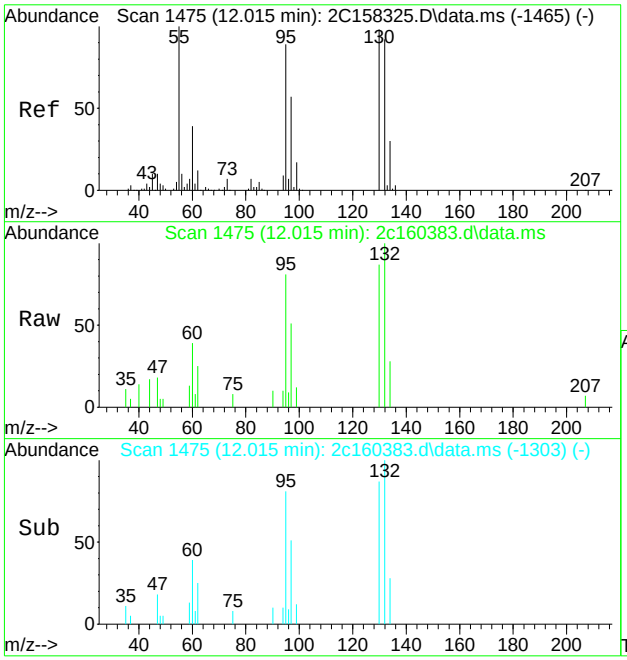


#38
cis-1,2-dichloroethene
Concen: 65.66 ug/L
RT: 10.190 min Scan# 1127
Delta R.T. -0.000 min
Lab File: 2c160383.d
Acq: 2 Jul 2018 11:08 pm

Tgt Ion: 96 Resp: 199903

Ion	Ratio	Lower	Upper
96	100		
61	134.0	109.6	169.6
98	62.7	33.0	93.0

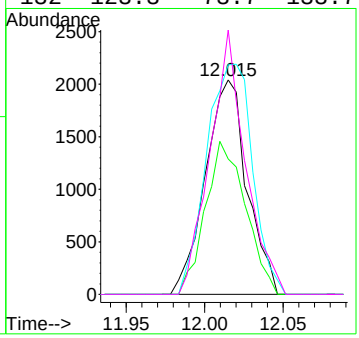




#62
trichloroethene
Concen: 1.61 ug/L
RT: 12.015 min Scan# 1475
Delta R.T. -0.000 min
Lab File: 2c160383.d
Acq: 2 Jul 2018 11:08 pm

Tgt Ion: 95 Resp: 3774

Ion	Ratio	Lower	Upper
95	100		
97	63.1	33.5	93.5
130	107.0	79.4	139.4
132	123.3	73.7	133.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176951.d
Acq On : 1 Jul 2018 5:54 pm
Operator : juntaep
Sample : jc68966-9 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:18:07 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

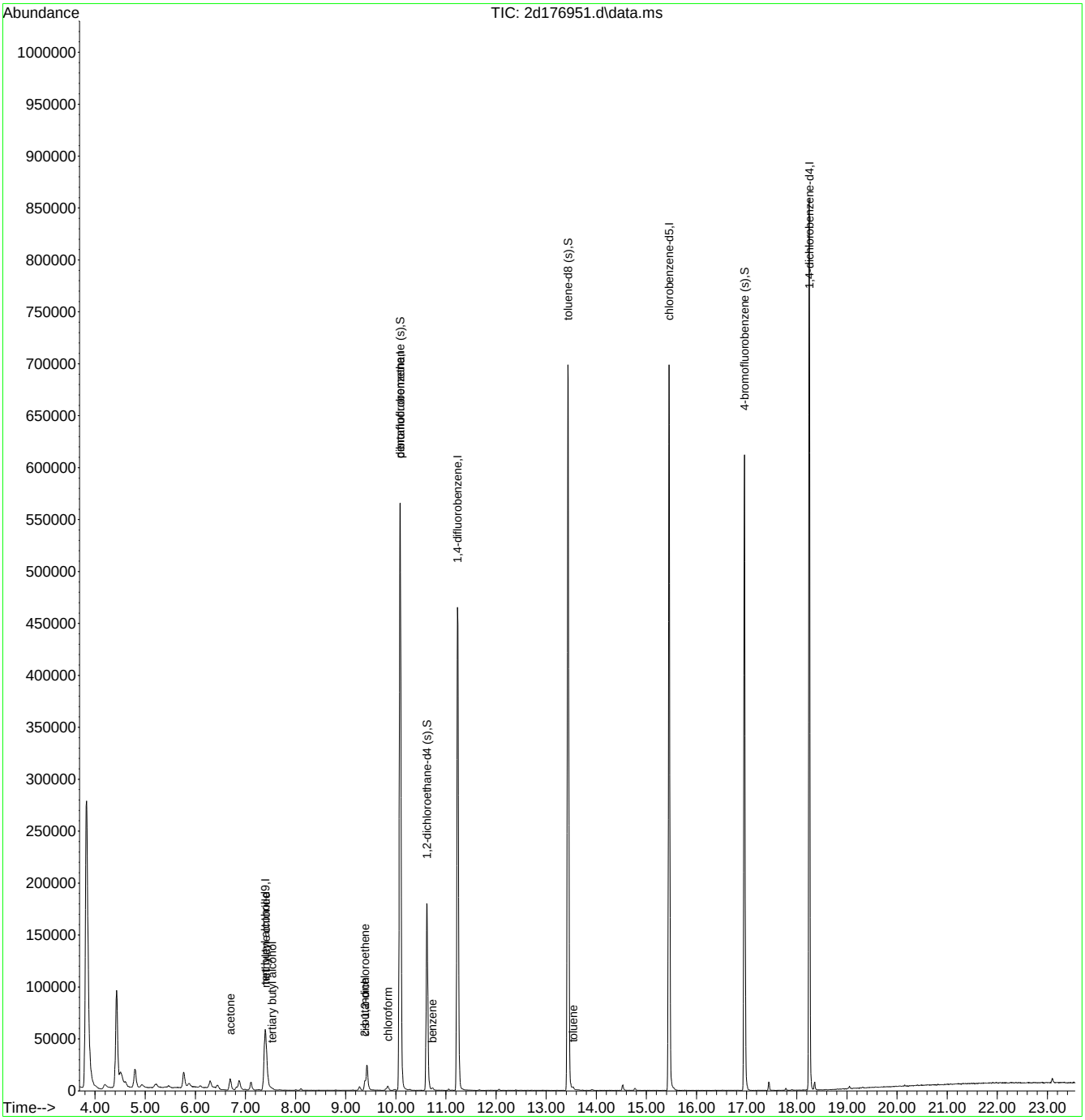
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	127995	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	342901	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	478552	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	456989	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	232702	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	151206	51.18	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.36%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	148273	45.11	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.22%			
77) toluene-d8 (s)	13.434	98	551931	51.94	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.88%			
100) 4-bromofluorobenzene (s)	16.957	95	201820	54.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.12%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.530	59	2319	9.56	ug/L	83
22) acetone	6.702	58	6636	36.20	ug/L #	54
26) methylene chloride	7.404	84	4912	1.72	ug/L	78
32) 2-butanone	9.381	72	2075	8.75	ug/L #	52
40) cis-1,2-dichloroethene	9.386	96	3272	1.12	ug/L #	82
45) chloroform	9.842	83	4177	0.89	ug/L	92
56) benzene	10.728	78	2402	0.23	ug/L	95
78) toluene	13.539	92	1346	0.21	ug/L #	74

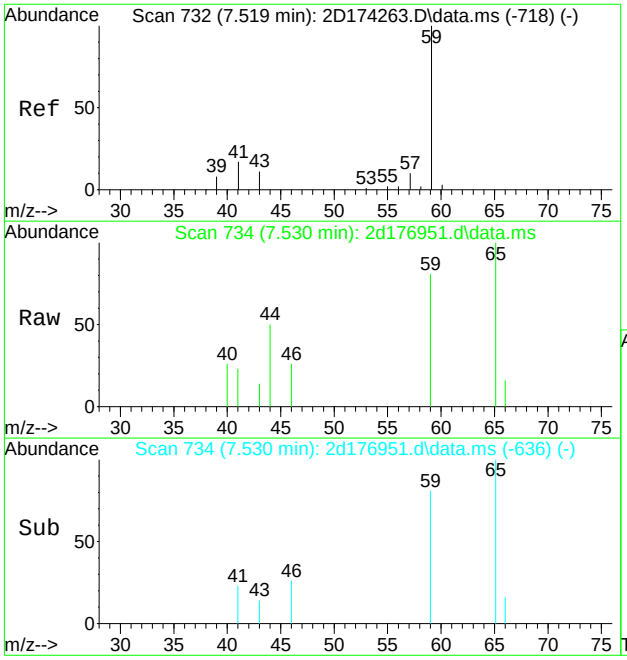
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176951.d
Acq On : 1 Jul 2018 5:54 pm
Operator : juntaep
Sample : jc68966-9 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:18:07 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

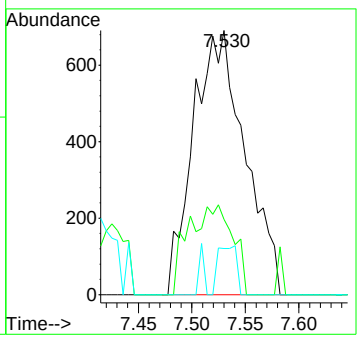


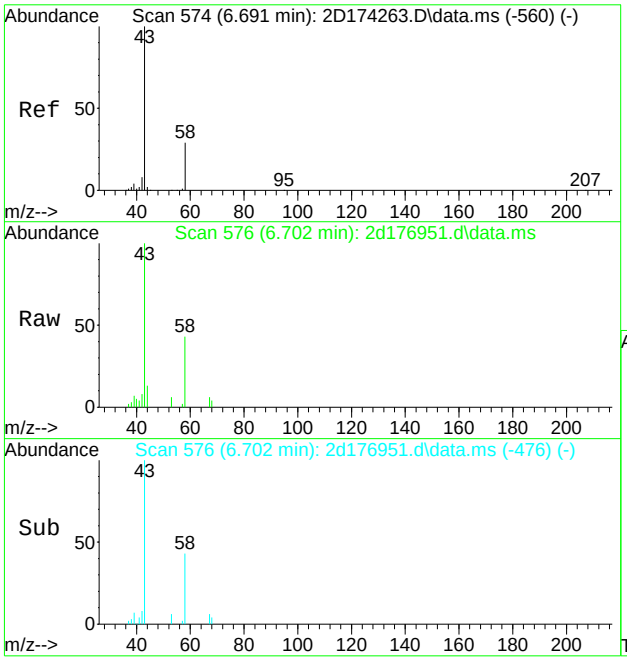


#2
tertiary butyl alcohol
Concen: 9.56 ug/L
RT: 7.530 min Scan# 734
Delta R.T. 0.016 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 59 Resp: 2319

Ion	Ratio	Lower	Upper
59	100		
41	28.5	0.0	47.4
43	17.5	0.0	44.6

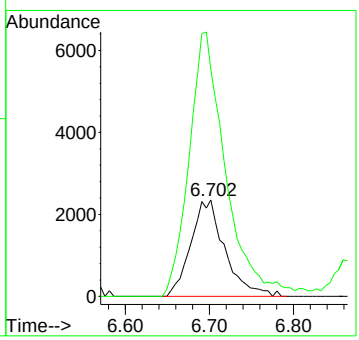


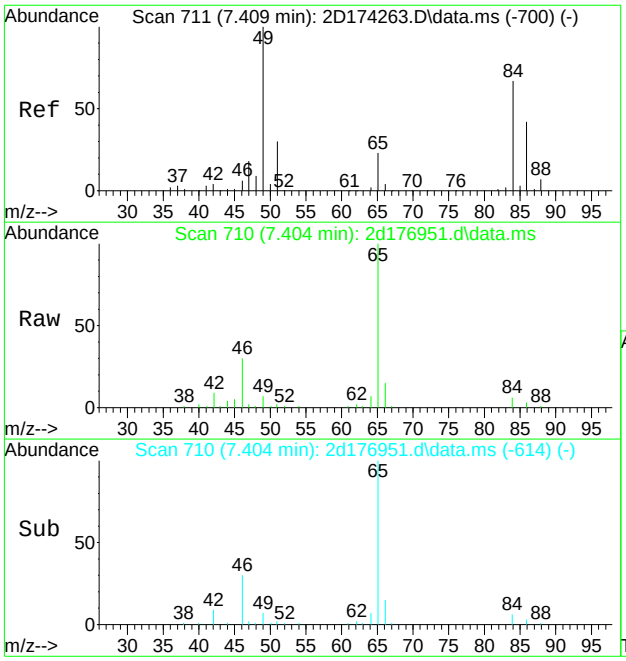


#22
acetone
Concen: 36.20 ug/L
RT: 6.702 min Scan# 576
Delta R.T. 0.026 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 58 Resp: 6636

Ion	Ratio	Lower	Upper
58	100		
43	235.2	301.0	361.0#

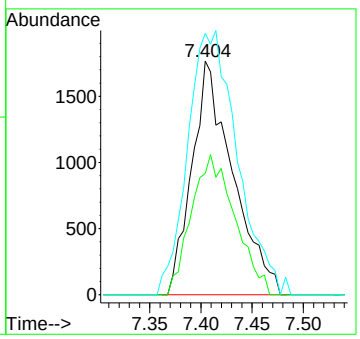


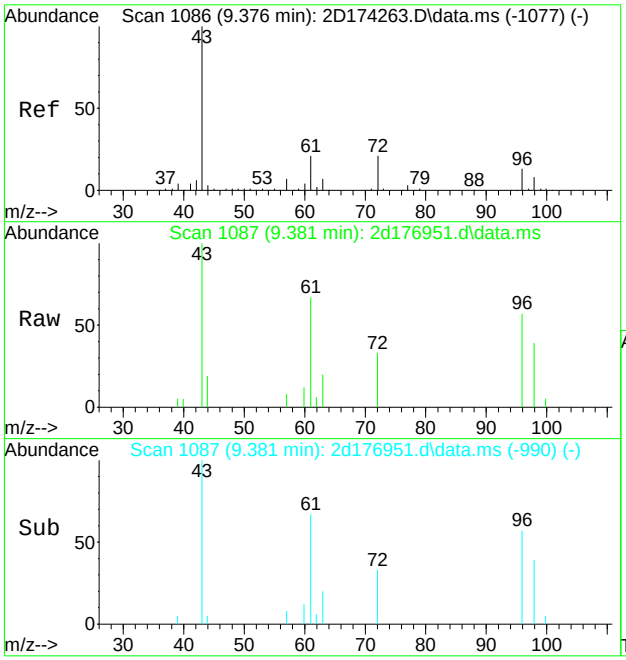


#26
methylene chloride
Concen: 1.72 ug/L
RT: 7.404 min Scan# 710
Delta R.T. 0.005 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 84 Resp: 4912

Ion	Ratio	Lower	Upper
84	100		
86	52.0	34.1	94.1
49	104.2	103.3	163.3

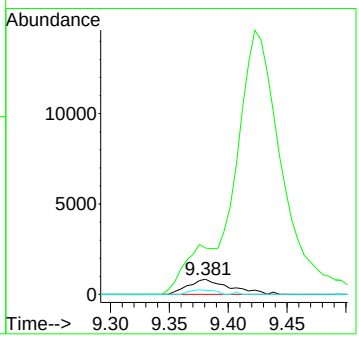


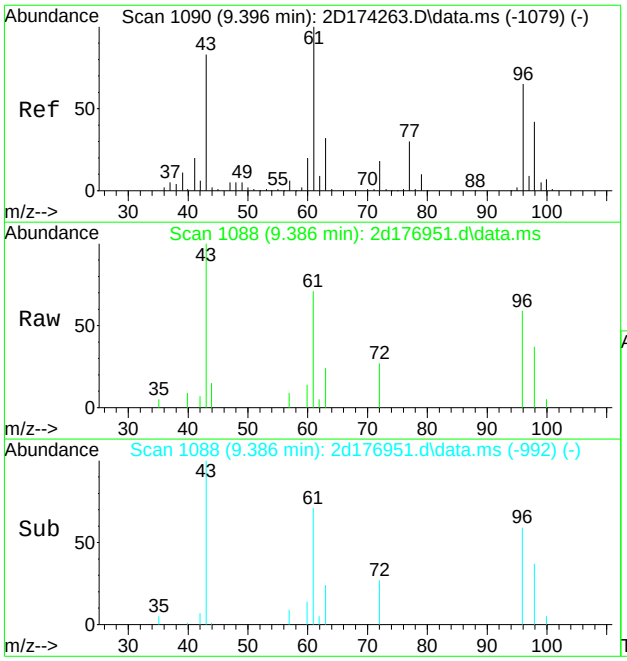


#32
2-butanone
Concen: 8.75 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. 0.010 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 72 Resp: 2075

Ion	Ratio	Lower	Upper
72	100		
43	303.4	399.9	459.9#
57	25.5	1.8	61.8

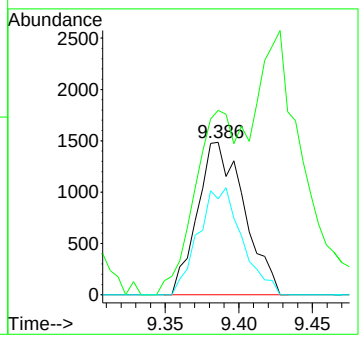


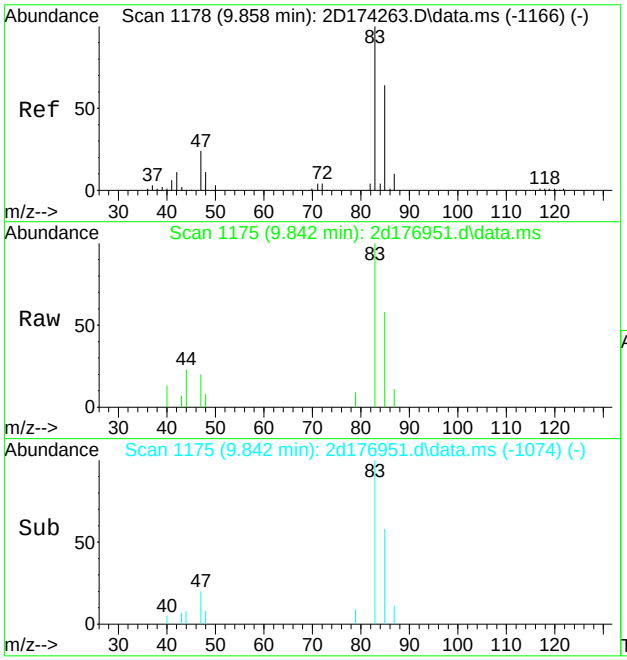


#40
cis-1,2-dichloroethene
Concen: 1.12 ug/L
RT: 9.386 min Scan# 1088
Delta R.T. 0.005 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 96 Resp: 3272

Ion	Ratio	Lower	Upper
96	100		
61	111.9	112.4	172.4#
98	62.8	34.5	94.5

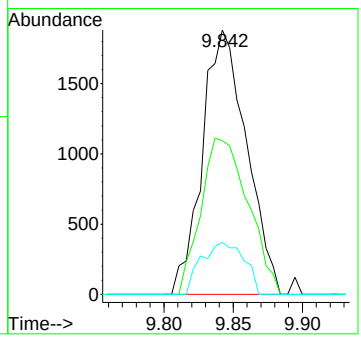


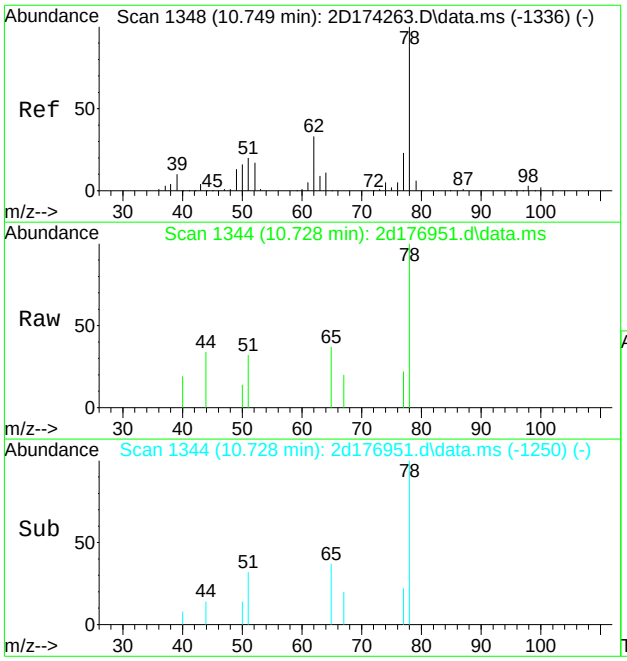


#45
chloroform
Concen: 0.89 ug/L
RT: 9.842 min Scan# 1175
Delta R.T. -0.000 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 83 Resp: 4177

Ion	Ratio	Lower	Upper
83	100		
85	58.1	34.4	94.4
47	19.8	0.0	53.4

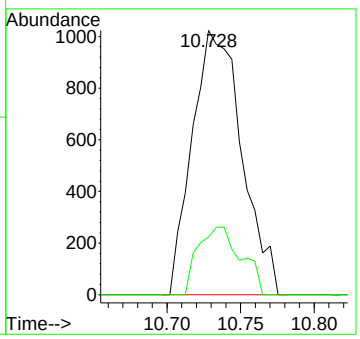


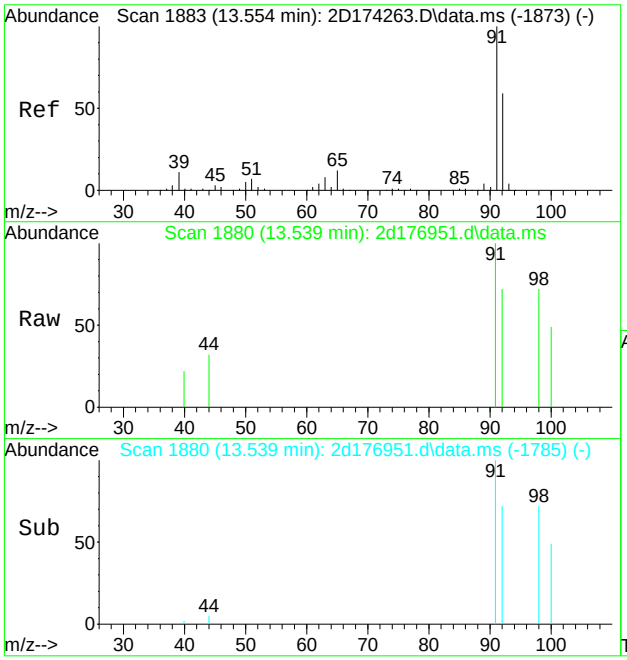


#56
benzene
Concen: 0.23 ug/L
RT: 10.728 min Scan# 1344
Delta R.T. -0.005 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 78 Resp: 2402

Ion	Ratio	Lower	Upper
78	100		
77	21.9	0.0	54.2

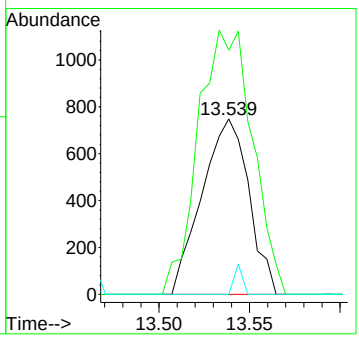




#78
toluene
Concen: 0.21 ug/L
RT: 13.539 min Scan# 1880
Delta R.T. 0.000 min
Lab File: 2d176951.d
Acq: 1 Jul 2018 5:54 pm

Tgt Ion: 92 Resp: 1346

Ion	Ratio	Lower	Upper
92	100		
91	139.2	152.9	192.9#
65	0.0	0.0	39.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182812.d
Acq On : 5 Jul 2018 11:03 pm
Operator : jessicap
Sample : jc68966-10
Misc : ms27582,v1a7793,5,,,,1
ALS Vial : 63 Sample Multiplier: 1

Quant Time: Jul 06 17:24:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

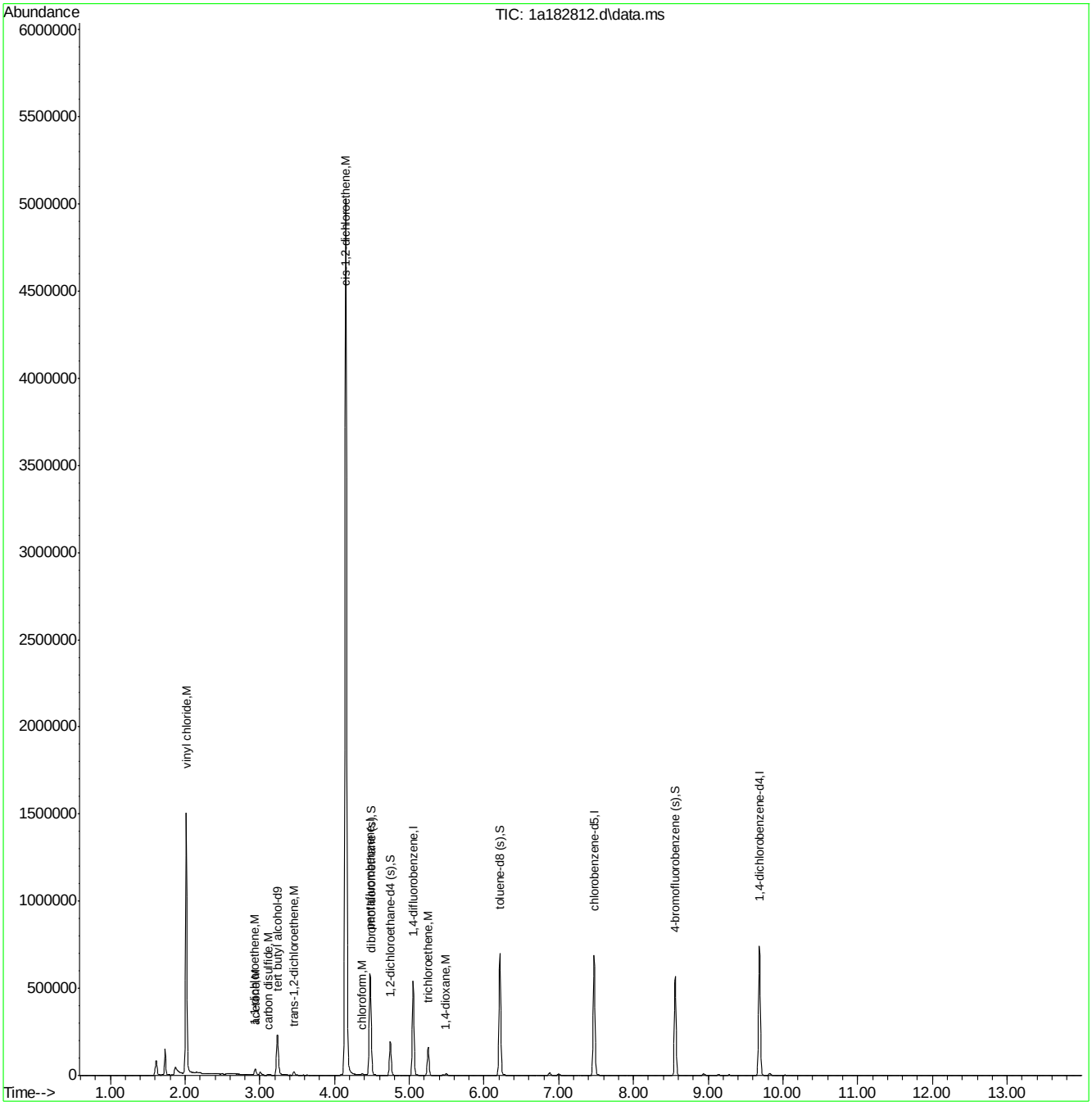
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.233	65	246763	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	296448	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	404553	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	412076	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	224482	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	111861	51.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.98%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	116552	46.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.94%			
76) toluene-d8 (s)	6.214	98	460588	45.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.32%			
99) 4-bromofluorobenzene (s)	8.563	95	190803	52.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.20%			
Target Compounds						Qvalue
4) 1,4-dioxane	5.490	88	7113	129.26	ug/L	91
10) vinyl chloride	2.017	62	1131849	486.86	ug/L	99
19) 1,1-dichloroethene	2.929	96	3472	1.96	ug/L	84
20) acetone	2.941	58	8015	30.82	ug/L	93
23) carbon disulfide	3.118	76	6475	1.51	ug/L	87
27) trans-1,2-dichloroethene	3.459	96	7445	3.94	ug/L	95
38) cis-1,2-dichloroethene	4.146	96	2074222	959.46	ug/L	95
43) chloroform	4.371	85	2888	1.32	ug/L	85
62) trichloroethene	5.253	130	52102	21.70	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

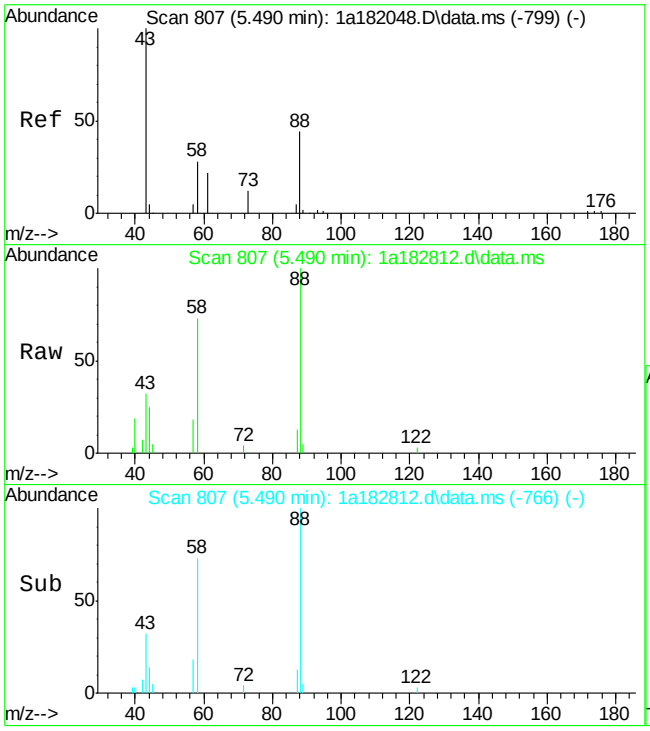
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182812.d
Acq On : 5 Jul 2018 11:03 pm
Operator : jessicap
Sample : jc68966-10
Misc : ms27582,v1a7793,5,,,,1
ALS Vial : 63 Sample Multiplier: 1

Quant Time: Jul 06 17:24:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



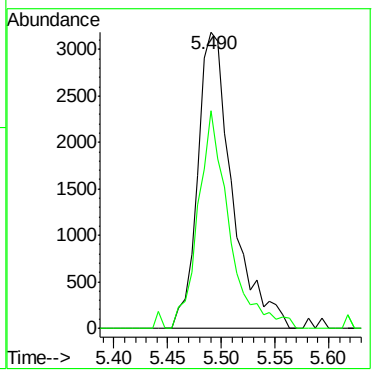
M1A7758.M Fri Jul 06 17:24:59 2018 1 Page: 2

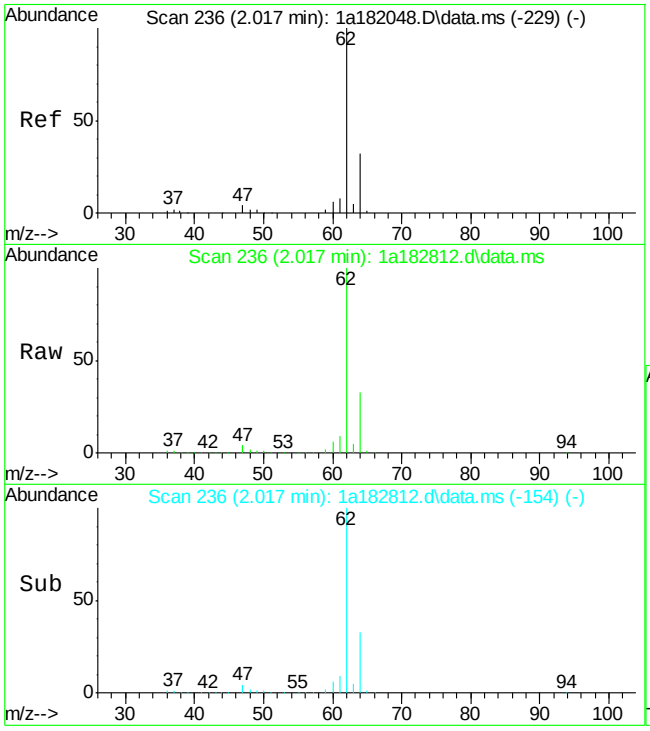


#4
1,4-dioxane
Concen: 129.26 ug/L
RT: 5.490 min Scan# 807
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 88 Resp: 7113

Ion	Ratio	Lower	Upper
88	100		
58	73.3	36.5	96.5

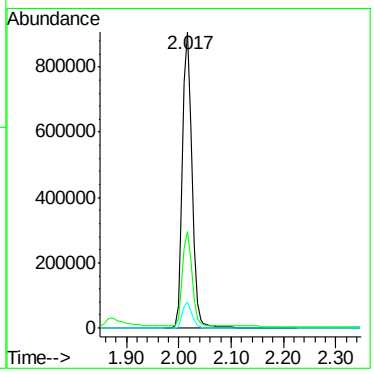


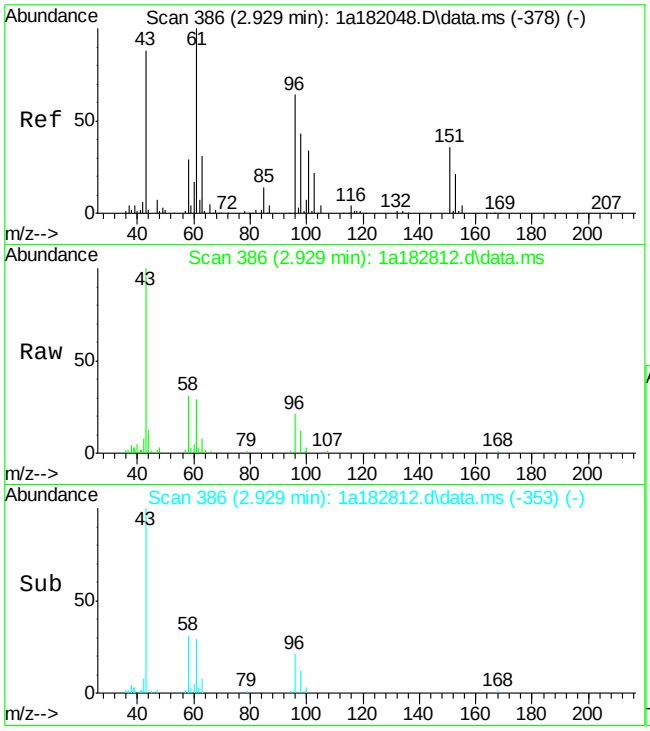


#10
vinyl chloride
Concen: 486.86 ug/L
RT: 2.017 min Scan# 236
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 62 Resp: 1131849

Ion	Ratio	Lower	Upper
62	100		
64	32.3	1.5	61.5
61	8.8	0.0	38.3

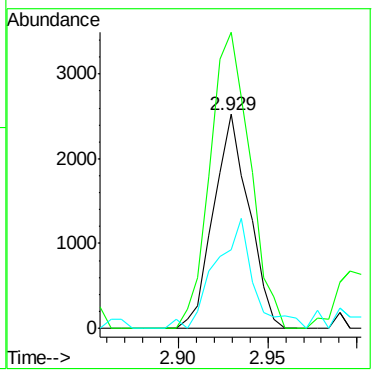


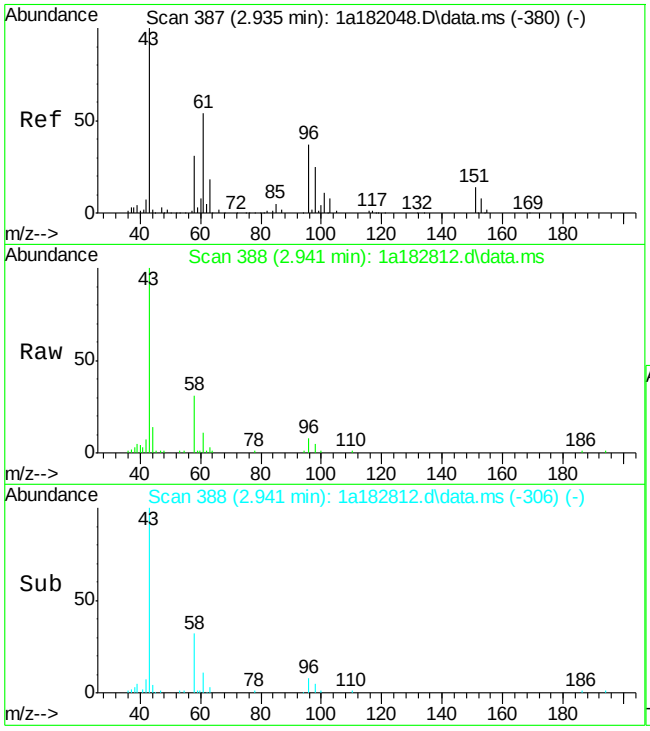


#19
1,1-dichloroethene
Concen: 1.96 ug/L
RT: 2.929 min Scan# 386
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 96 Resp: 3472

Ion	Ratio	Lower	Upper
96	100		
61	138.2	125.3	185.3
63	32.1	18.2	78.2

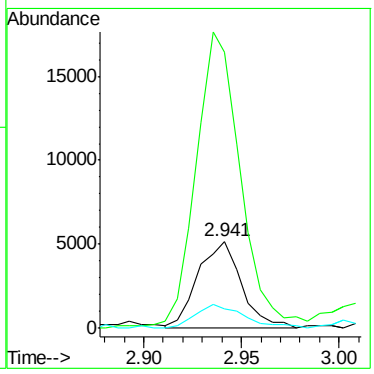


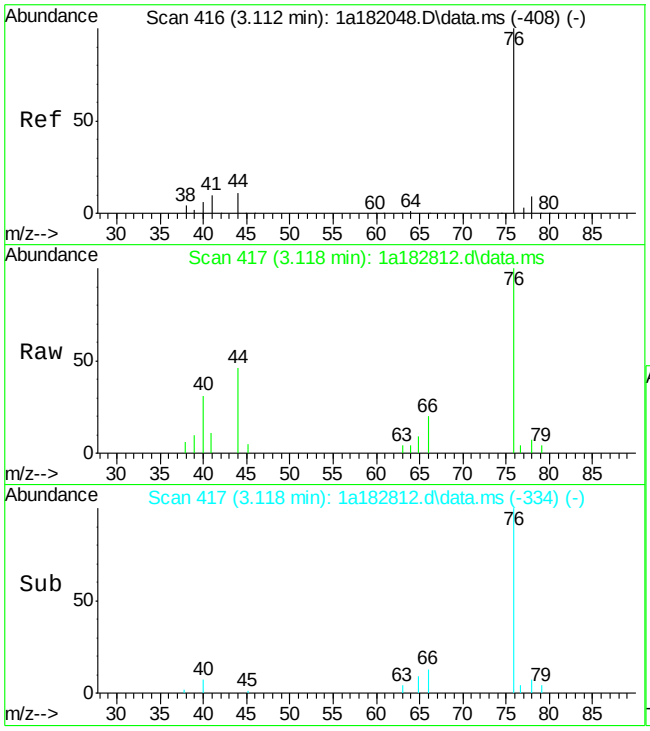


#20
acetone
Concen: 30.82 ug/L
RT: 2.941 min Scan# 388
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 58 Resp: 8015

Ion	Ratio	Lower	Upper
58	100		
43	310.8	296.8	356.8
42	22.8	0.0	53.4

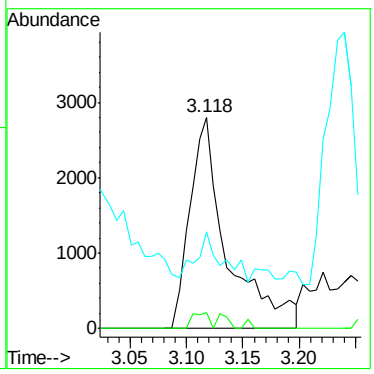


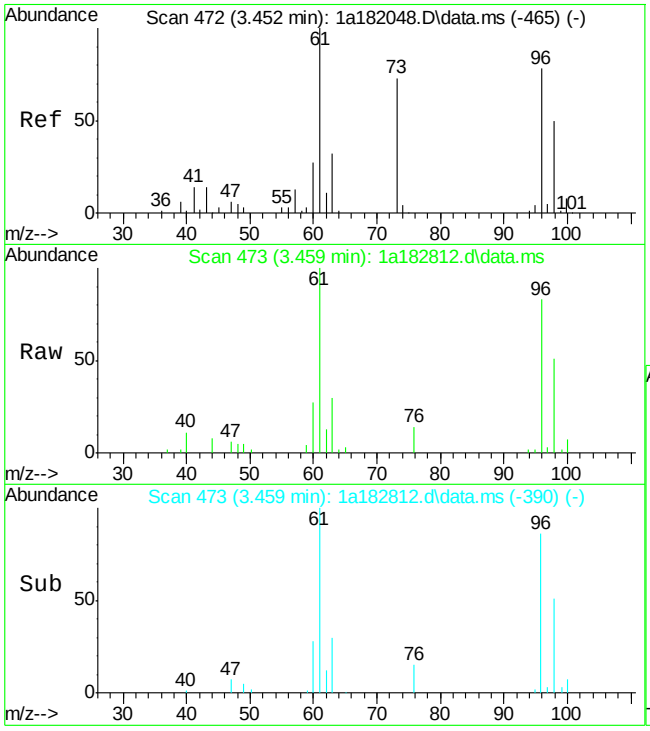


#23
carbon disulfide
Concen: 1.51 ug/L
RT: 3.118 min Scan# 417
Delta R.T. 0.006 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 76 Resp: 6475

Ion	Ratio	Lower	Upper
76	100		
78	7.1	0.0	39.2
44	18.4	0.0	41.0

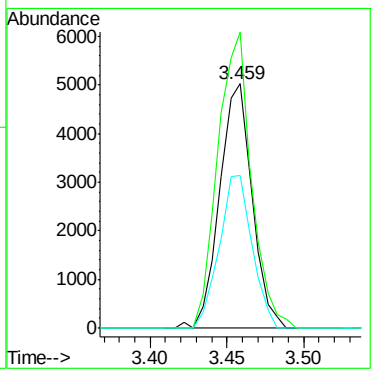


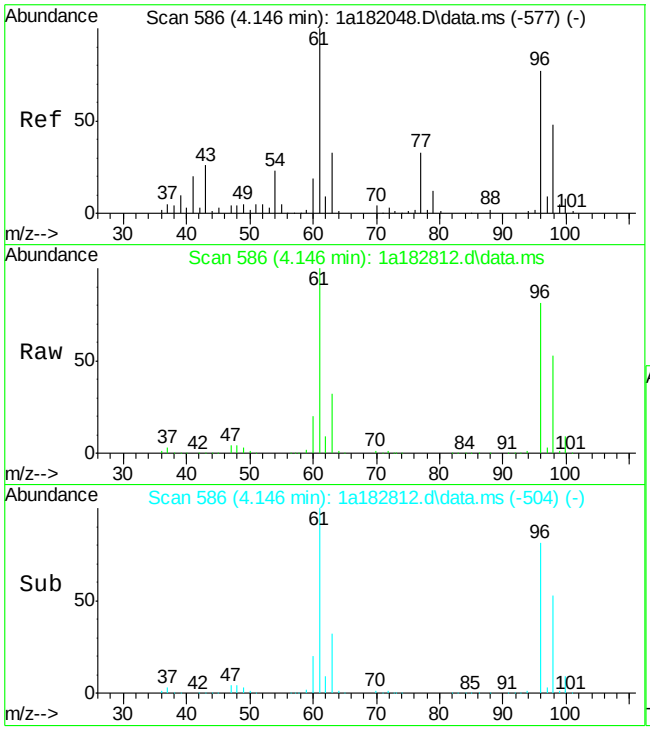


#27
trans-1,2-dichloroethene
Concen: 3.94 ug/L
RT: 3.459 min Scan# 473
Delta R.T. 0.006 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 96 Resp: 7445

Ion	Ratio	Lower	Upper
96	100		
61	121.2	98.7	158.7
98	62.4	34.3	94.3

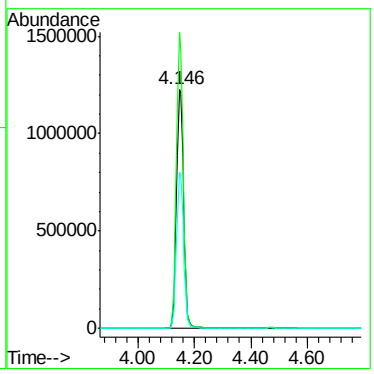


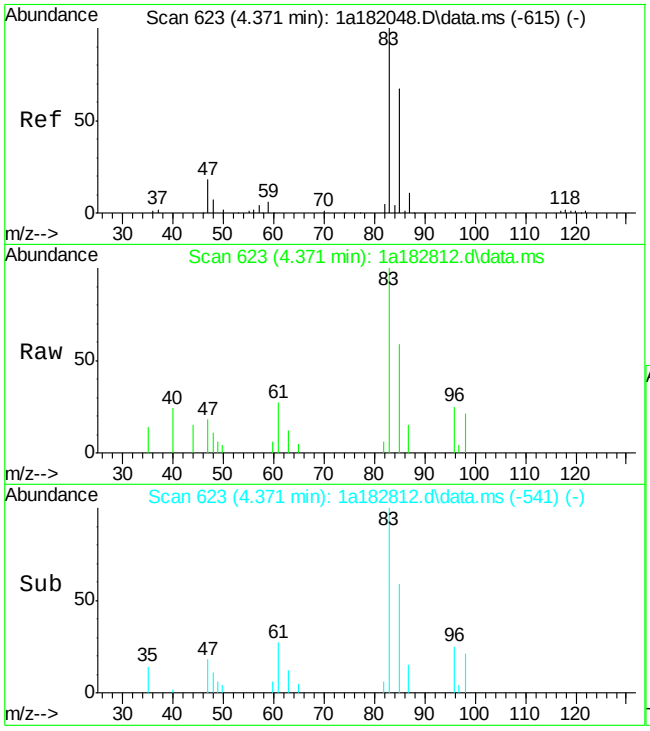


#38
cis-1,2-dichloroethene
Concen: 959.46 ug/L
RT: 4.146 min Scan# 586
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 96 Resp: 2074222

Ion	Ratio	Lower	Upper
96	100		
61	123.9	100.3	160.3
98	65.3	32.1	92.1

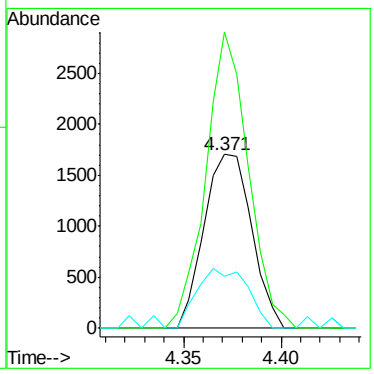


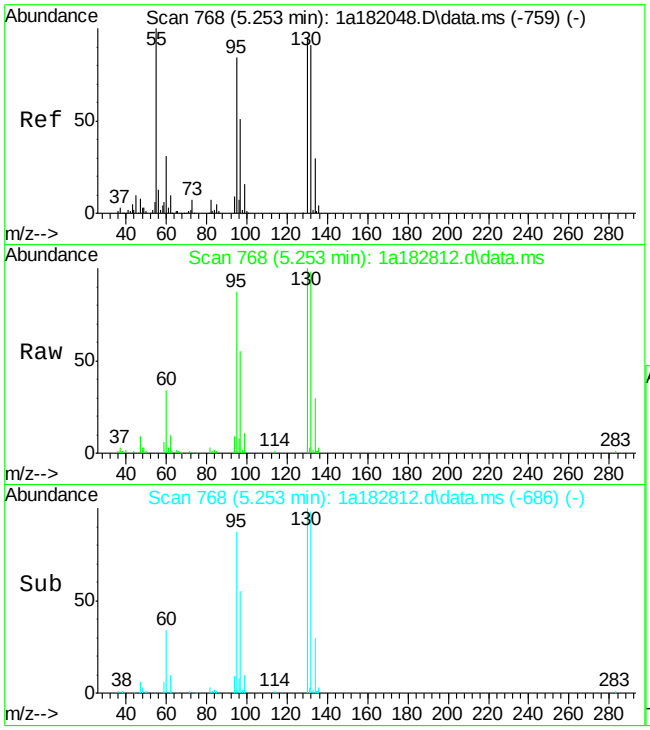


#43
chloroform
Concen: 1.32 ug/L
RT: 4.371 min Scan# 623
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion: 85 Resp: 2888

Ion	Ratio	Lower	Upper
85	100		
83	170.6	119.6	179.6
47	30.1	3.2	63.2

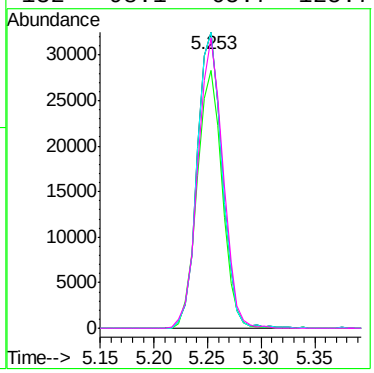




#62
trichloroethene
Concen: 21.70 ug/L
RT: 5.253 min Scan# 768
Delta R.T. -0.000 min
Lab File: 1a182812.d
Acq: 5 Jul 2018 11:03 pm

Tgt Ion:130 Resp: 52102

Ion	Ratio	Lower	Upper
130	100		
95	87.1	58.4	118.4
130	100.0	70.0	130.0
132	98.1	65.7	125.7



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160382.d
Acq On : 2 Jul 2018 10:38 pm
Operator : HueanhT
Sample : JC68966-10 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 05 15:57:55 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

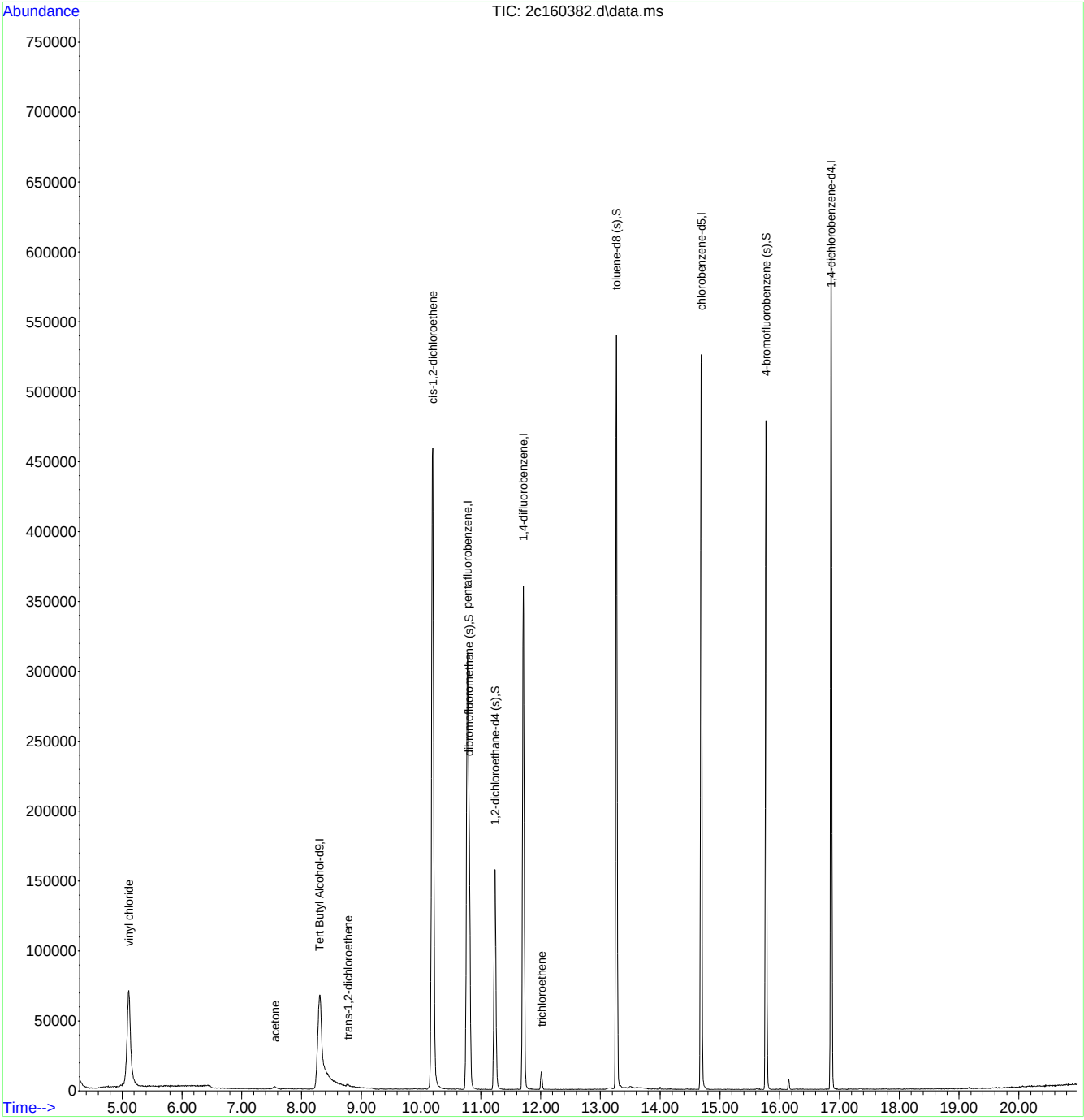
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.303	65	253209	500.00	ug/L	-0.03
5) pentafluorobenzene	10.778	168	255071	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	316112	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	276610	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.860	152	156956	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	113629	51.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.94%			
52) 1,2-dichloroethane-d4 (s)	11.239	65	129127	56.36	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 112.72%			
75) toluene-d8 (s)	13.268	98	339783	48.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.44%			
98) 4-bromofluorobenzene (s)	15.769	95	125577	54.86	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.72%			
Target Compounds						Qvalue
9) vinyl chloride	5.110	62	178003	33.75	ug/L	99
20) acetone	7.558	58	870	2.19	ug/L #	71
27) trans-1,2-dichloroethene	8.780	96	910	0.32	ug/L #	61
38) cis-1,2-dichloroethene	10.196	96	261379	85.37	ug/L	95
62) trichloroethene	12.015	95	4046	1.73	ug/L	95

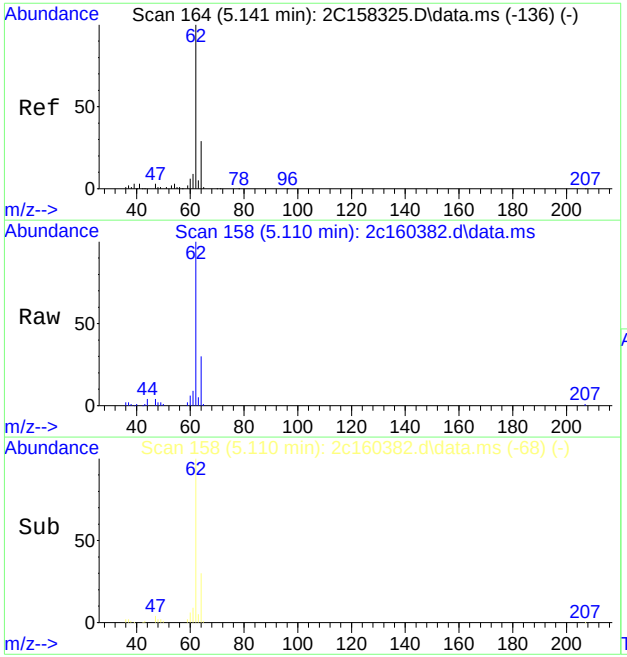
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160382.d
Acq On : 2 Jul 2018 10:38 pm
Operator : HueanhT
Sample : JC68966-10 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 05 15:57:55 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

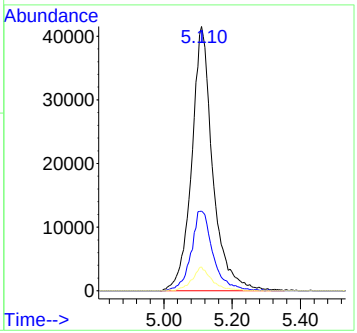


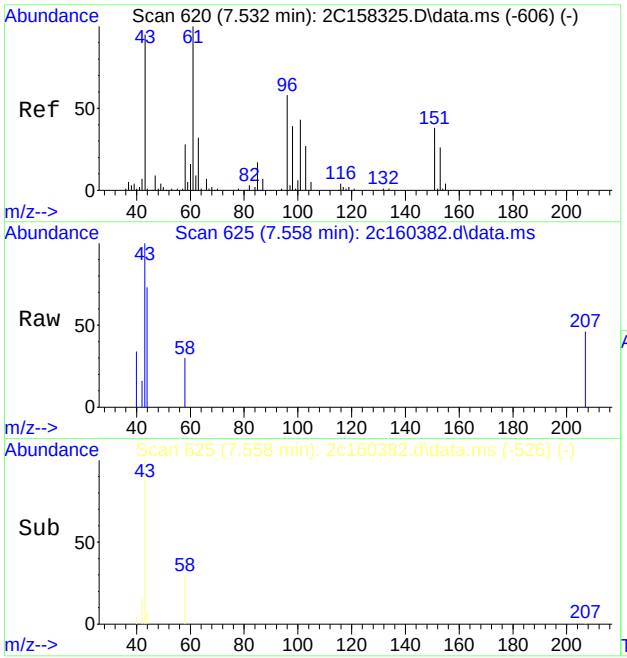


#9
vinyl chloride
Concen: 33.75 ug/L
RT: 5.110 min Scan# 158
Delta R.T. -0.026 min
Lab File: 2c160382.d
Acq: 2 Jul 2018 10:38 pm

Tgt Ion: 62 Resp: 178003

Ion	Ratio	Lower	Upper
62	100		
64	30.1	0.0	59.6
61	9.1	0.0	39.0

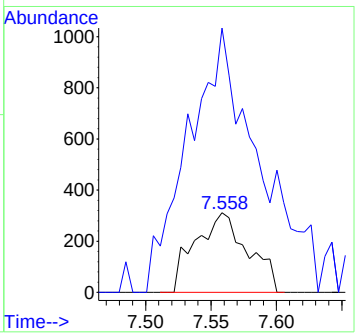


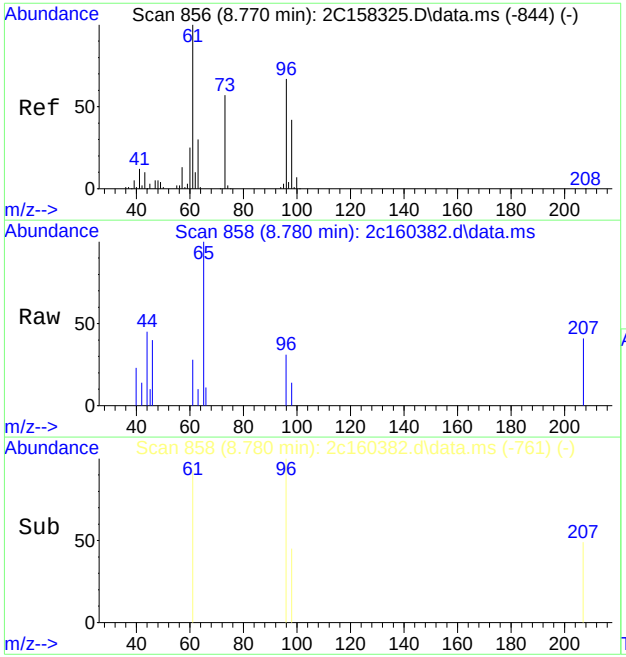


#20
acetone
Concen: 2.19 ug/L
RT: 7.558 min Scan# 625
Delta R.T. 0.021 min
Lab File: 2c160382.d
Acq: 2 Jul 2018 10:38 pm

Tgt Ion: 58 Resp: 870

Ion	Ratio	Lower	Upper
58	100		
43	274.3	304.6	364.6#

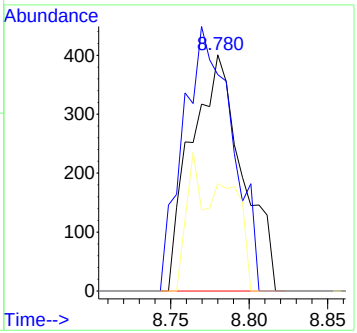


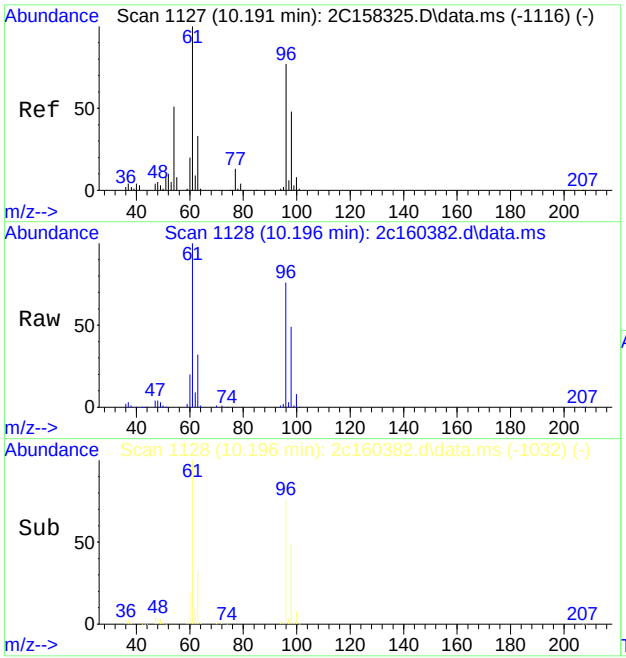


#27
trans-1,2-dichloroethene
Concen: 0.32 ug/L
RT: 8.780 min Scan# 858
Delta R.T. 0.010 min
Lab File: 2c160382.d
Acq: 2 Jul 2018 10:38 pm

Tgt Ion: 96 Resp: 910

Ion	Ratio	Lower	Upper
96	100		
61	91.5	119.7	179.7#
98	45.4	32.3	92.3

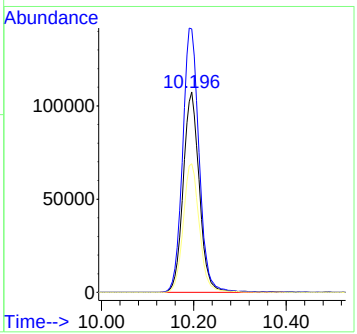


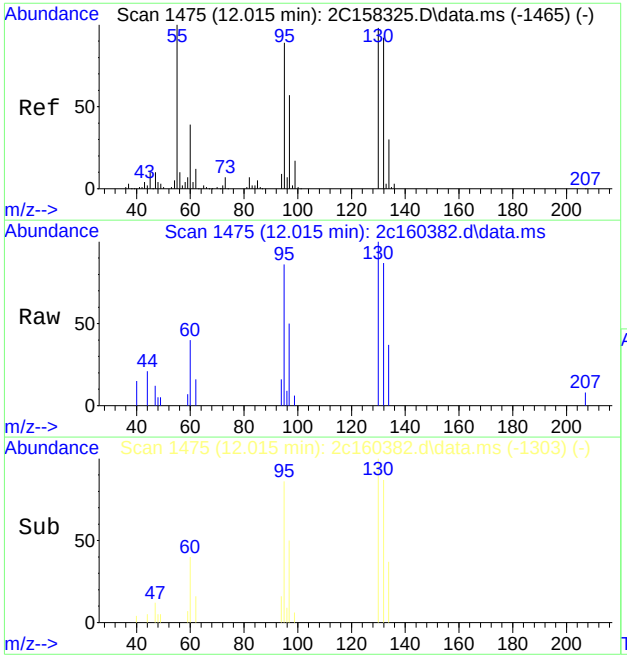


#38
cis-1,2-dichloroethene
Concen: 85.37 ug/L
RT: 10.196 min Scan# 1128
Delta R.T. 0.005 min
Lab File: 2c160382.d
Acq: 2 Jul 2018 10:38 pm

Tgt Ion: 96 Resp: 261379

Ion	Ratio	Lower	Upper
96	100		
61	131.4	109.6	169.6
98	64.2	33.0	93.0

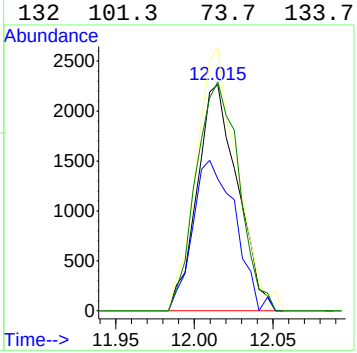




#62
trichloroethene
Concen: 1.73 ug/L
RT: 12.015 min Scan# 1475
Delta R.T. -0.000 min
Lab File: 2c160382.d
Acq: 2 Jul 2018 10:38 pm

Tgt Ion: 95 Resp: 4046

Ion	Ratio	Lower	Upper
95	100		
97	58.2	33.5	93.5
130	116.9	79.4	139.4
132	101.3	73.7	133.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176952.d
Acq On : 1 Jul 2018 6:26 pm
Operator : juntaep
Sample : jc68966-11 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:23:49 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	130692	500.00	ug/L	0.01
5) pentafluorobenzene	10.088	168	349524	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	487613	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	468213	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	238046	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	154765	51.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.80%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	151795	45.32	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.64%			
77) toluene-d8 (s)	13.439	98	561341	51.56	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.12%			
100) 4-bromofluorobenzene (s)	16.957	95	207990	54.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.92%			
Target Compounds						Qvalue
11) vinyl chloride	4.531	62	79364	20.56	ug/L	99
22) acetone	6.701	58	7669	41.04	ug/L	87
29) trans-1,2-dichloroethene	7.850	96	1267	0.47	ug/L	83
40) cis-1,2-dichloroethene	9.386	96	26039	8.71	ug/L	82
64) trichloroethene	11.677	130	938	0.32	ug/L	90
78) toluene	13.533	92	1516	0.23	ug/L	88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

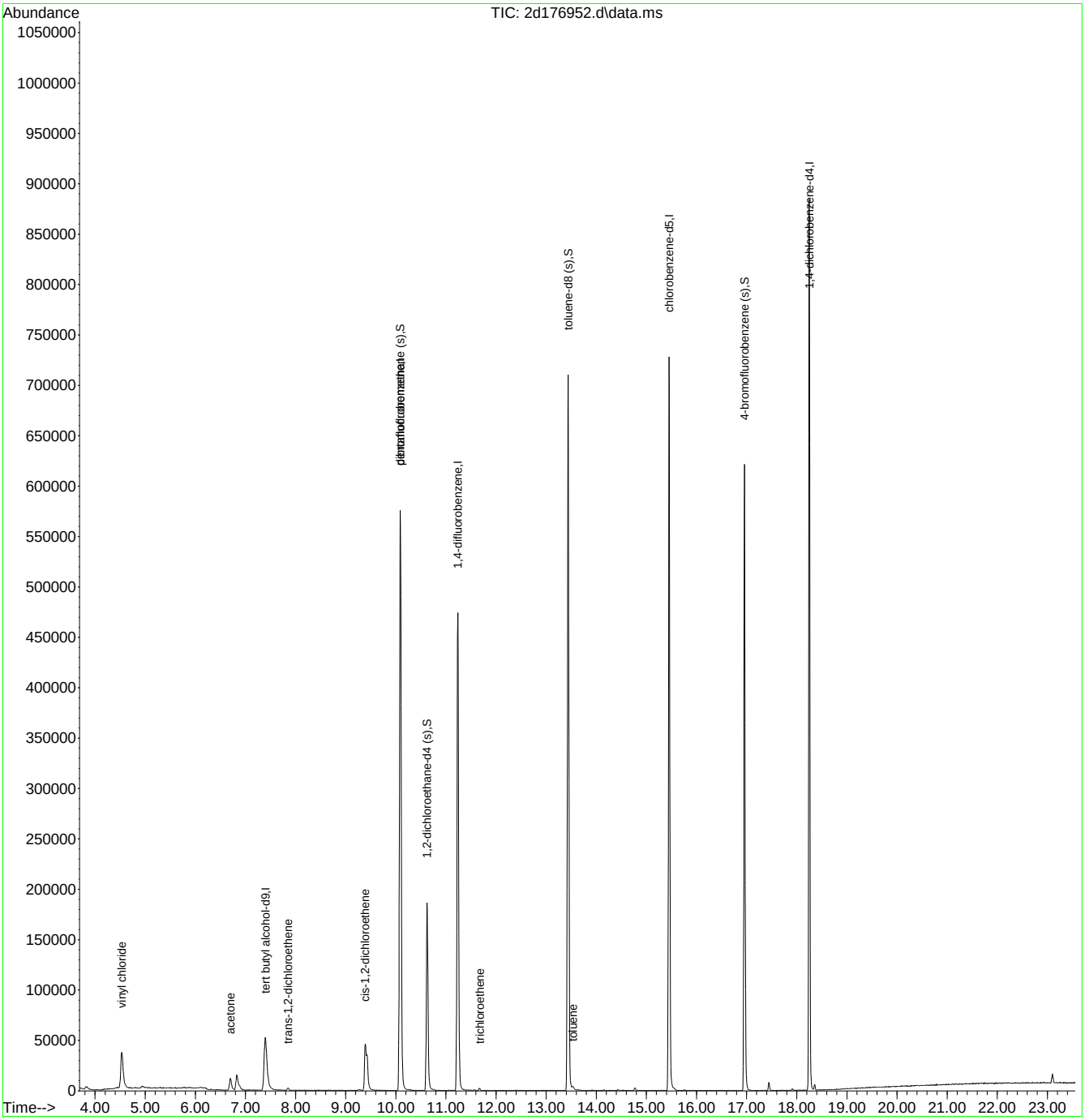
7.1.13

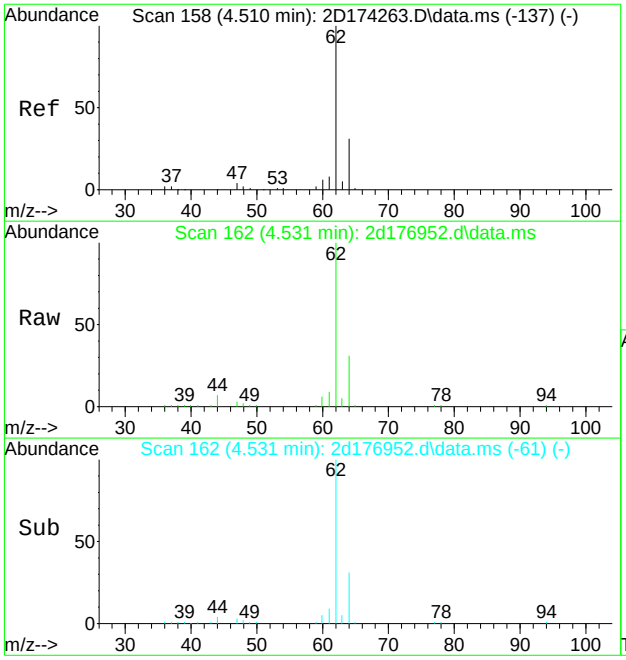
7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176952.d
Acq On : 1 Jul 2018 6:26 pm
Operator : juntaep
Sample : jc68966-11 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:23:49 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

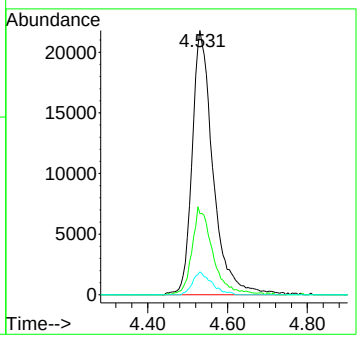


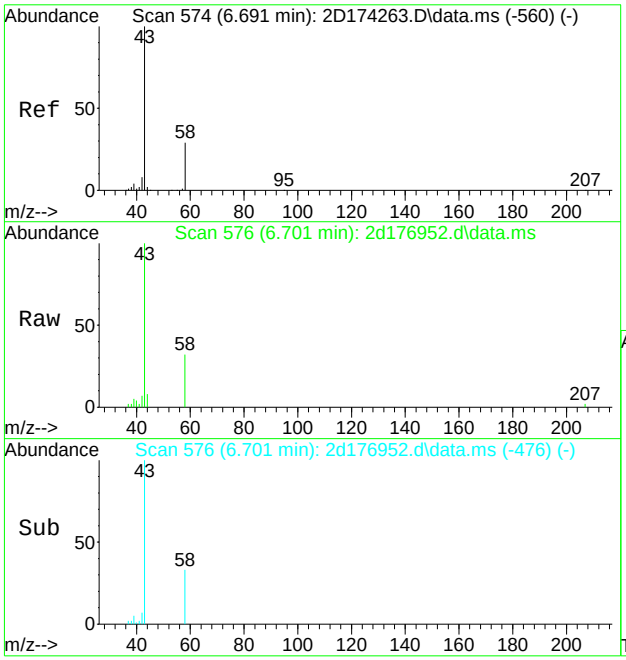


#11
vinyl chloride
Concen: 20.56 ug/L
RT: 4.531 min Scan# 162
Delta R.T. 0.031 min
Lab File: 2d176952.d
Acq: 1 Jul 2018 6:26 pm

Tgt Ion: 62 Resp: 79364

Ion	Ratio	Lower	Upper
62	100		
64	30.7	0.2	60.2
61	8.7	0.0	39.0

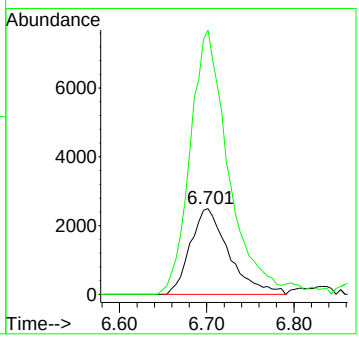


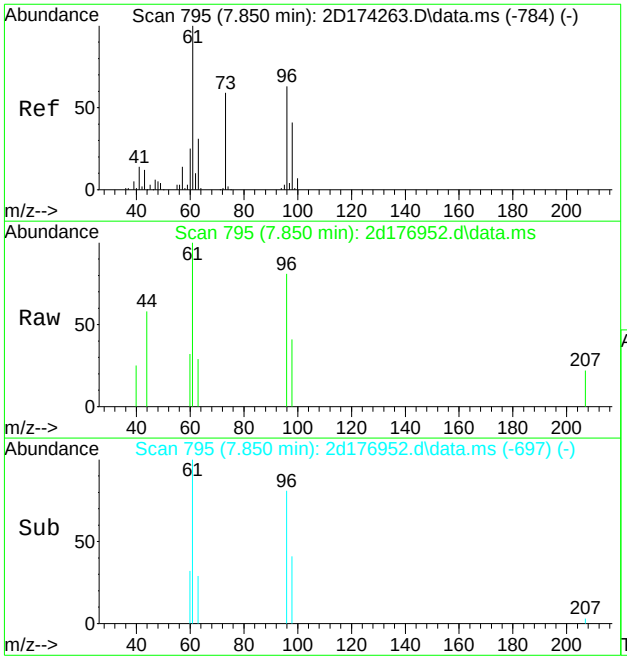


#22
acetone
Concen: 41.04 ug/L
RT: 6.701 min Scan# 576
Delta R.T. 0.026 min
Lab File: 2d176952.d
Acq: 1 Jul 2018 6:26 pm

Tgt Ion: 58 Resp: 7669

Ion	Ratio	Lower	Upper
58	100		
43	303.8	301.0	361.0

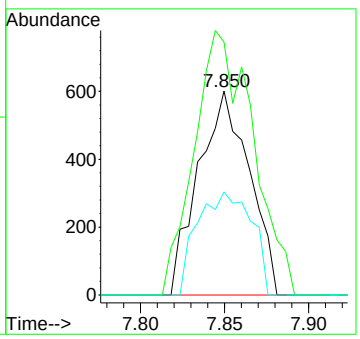


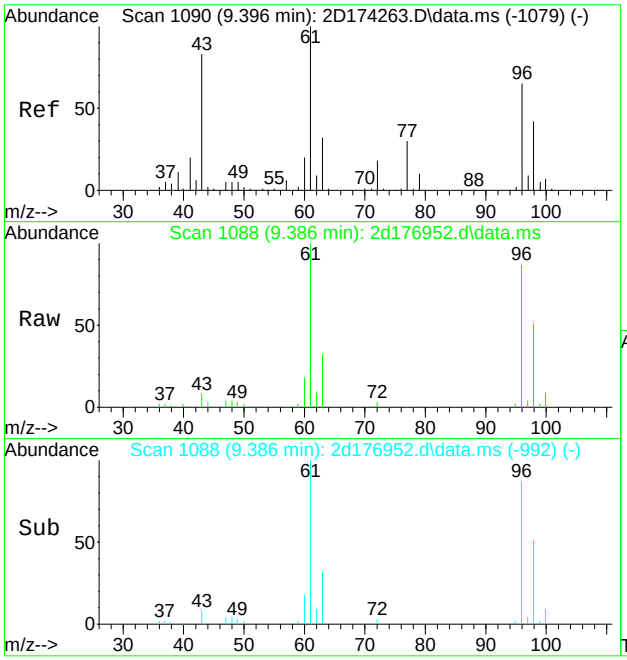


#29
trans-1,2-dichloroethene
Concen: 0.47 ug/L
RT: 7.850 min Scan# 795
Delta R.T. 0.016 min
Lab File: 2d176952.d
Acq: 1 Jul 2018 6:26 pm

Tgt Ion: 96 Resp: 1267

Ion	Ratio	Lower	Upper
96	100		
61	124.1	117.8	177.8
98	50.6	31.2	91.2

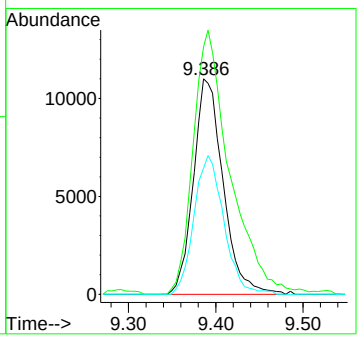


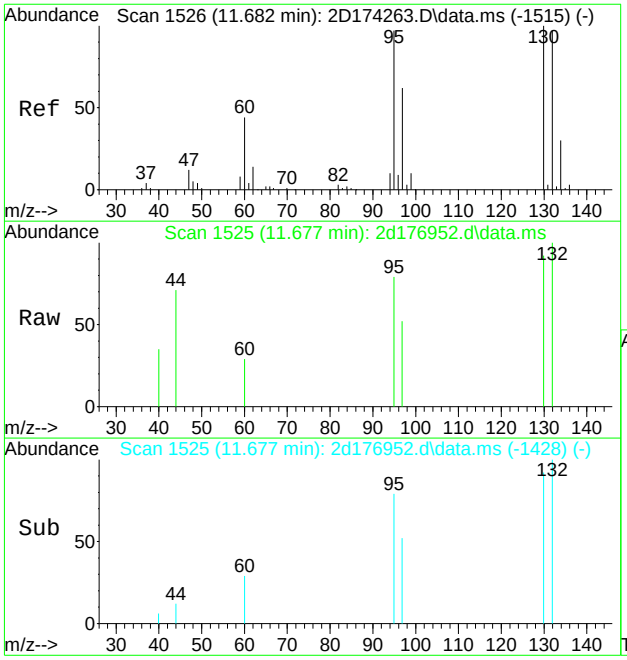


#40
cis-1,2-dichloroethene
Concen: 8.71 ug/L
RT: 9.386 min Scan# 1088
Delta R.T. 0.005 min
Lab File: 2d176952.d
Acq: 1 Jul 2018 6:26 pm

Tgt Ion: 96 Resp: 26039

Ion	Ratio	Lower	Upper
96	100		
61	114.8	112.4	172.4
98	58.5	34.5	94.5

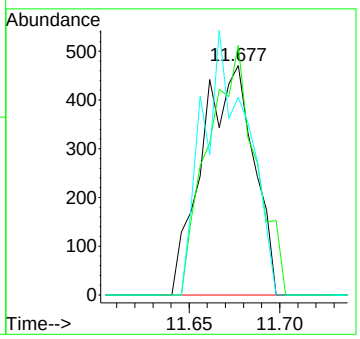


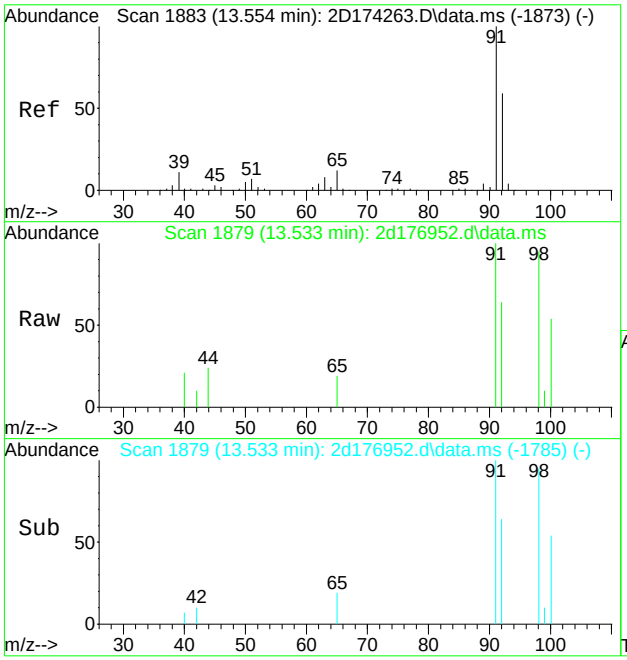


#64
trichloroethene
Concen: 0.32 ug/L
RT: 11.677 min Scan# 1525
Delta R.T. 0.010 min
Lab File: 2d176952.d
Acq: 1 Jul 2018 6:26 pm

Tgt Ion:130 Resp: 938

Ion	Ratio	Lower	Upper
130	100		
132	108.7	65.0	125.0
95	86.2	62.6	122.6

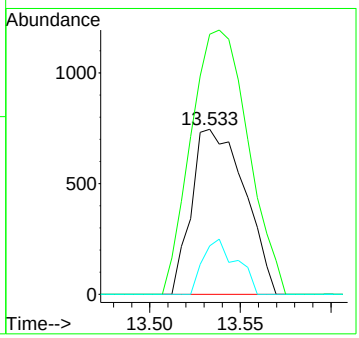




#78
toluene
Concen: 0.23 ug/L
RT: 13.533 min Scan# 1879
Delta R.T. -0.005 min
Lab File: 2d176952.d
Acq: 1 Jul 2018 6:26 pm

Tgt Ion: 92 Resp: 1516

Ion	Ratio	Lower	Upper
92	100		
91	157.4	152.9	192.9
65	29.4	0.0	39.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160395.d
Acq On : 3 Jul 2018 5:08 am
Operator : HueanhT
Sample : JC68966-12 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:04:15 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

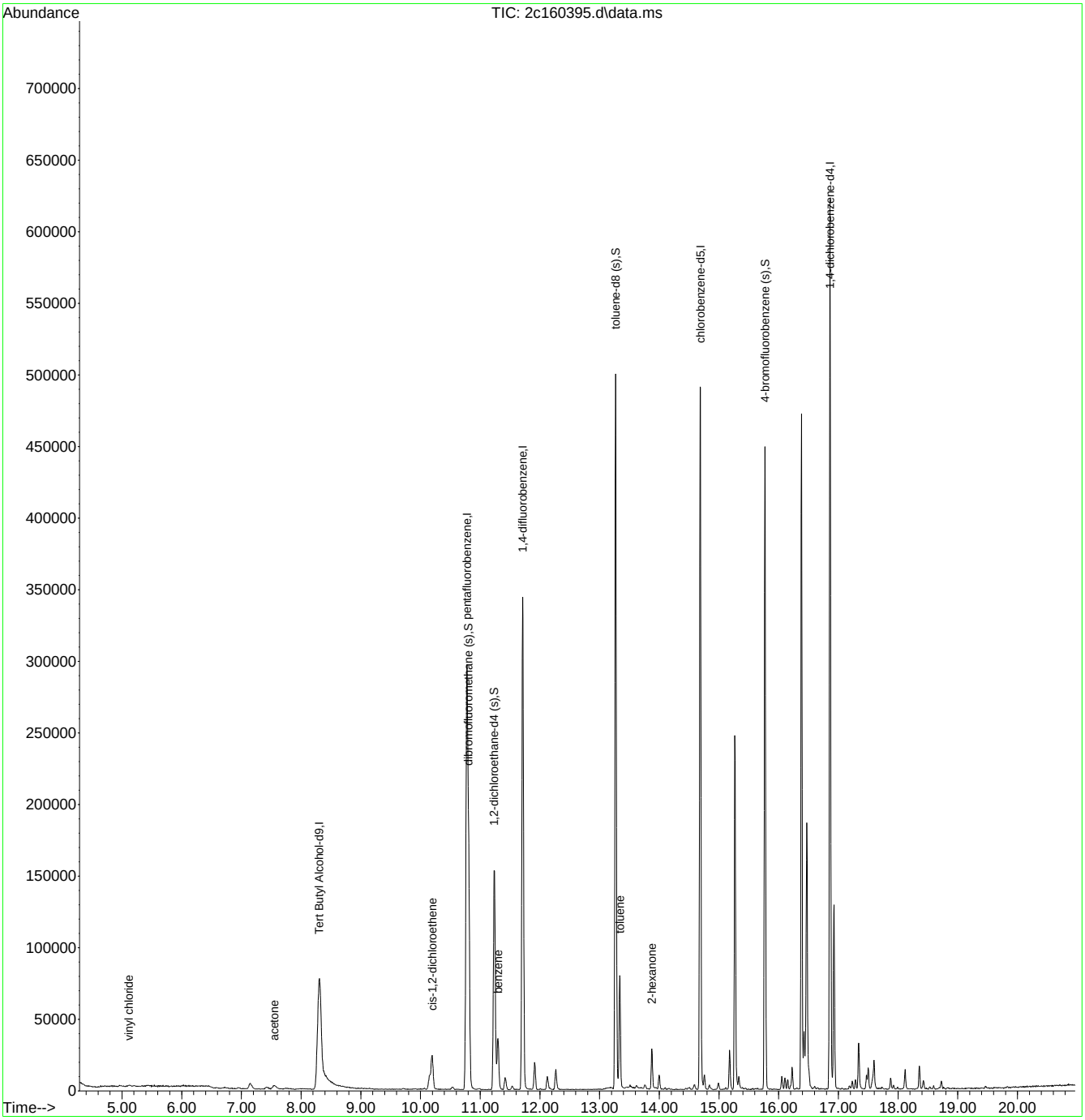
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.303	65	230660	500.00	ug/L	-0.03
5) pentafluorobenzene	10.778	168	232645	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	292530	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	252594	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.860	152	145994	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	107209	53.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.50%			
52) 1,2-dichloroethane-d4 (s)	11.234	65	124336	58.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 117.30%			
75) toluene-d8 (s)	13.268	98	304086	47.75	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.50%			
98) 4-bromofluorobenzene (s)	15.769	95	116139	54.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.08%			
Target Compounds						Qvalue
9) vinyl chloride	5.115	62	1529	0.32	ug/L	87
20) acetone	7.553	58	2361	6.51	ug/L #	69
38) cis-1,2-dichloroethene	10.196	96	12863	4.61	ug/L	91
56) benzene	11.297	78	33763	3.90	ug/L	96
76) toluene	13.342	92	30625	6.35	ug/L	97
80) 2-hexanone	13.876	58	9038	7.50	ug/L #	86

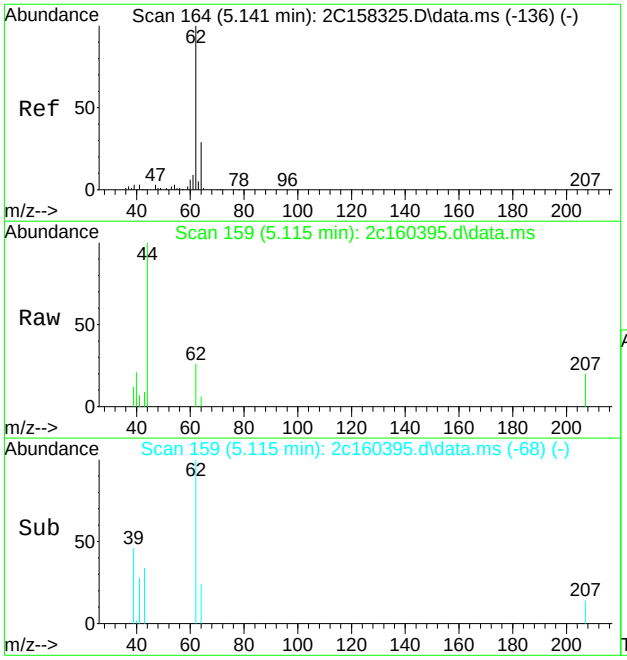
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160395.d
Acq On : 3 Jul 2018 5:08 am
Operator : HueanhT
Sample : JC68966-12 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:04:15 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

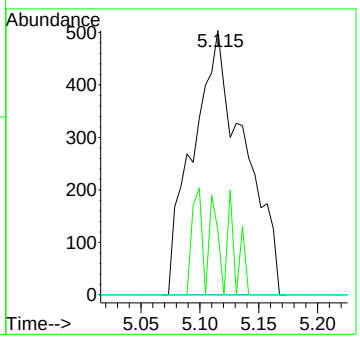


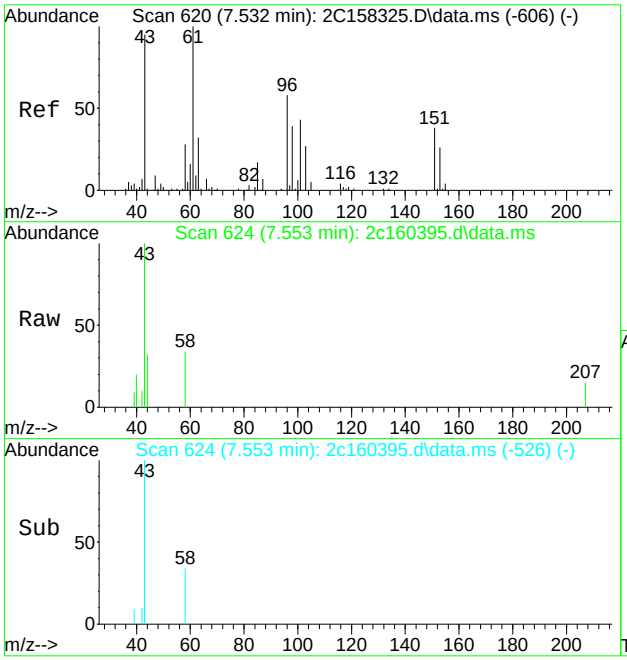


#9
vinyl chloride
Concen: 0.32 ug/L
RT: 5.115 min Scan# 159
Delta R.T. -0.021 min
Lab File: 2c160395.d
Acq: 3 Jul 2018 5:08 am

Tgt Ion: 62 Resp: 1529

Ion	Ratio	Lower	Upper
62	100		
64	24.4	0.0	59.6
61	0.0	0.0	39.0

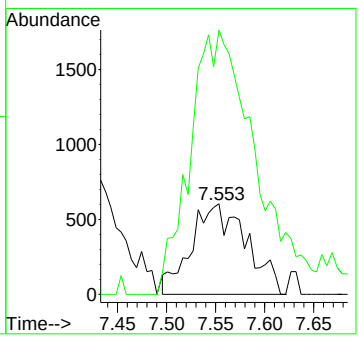


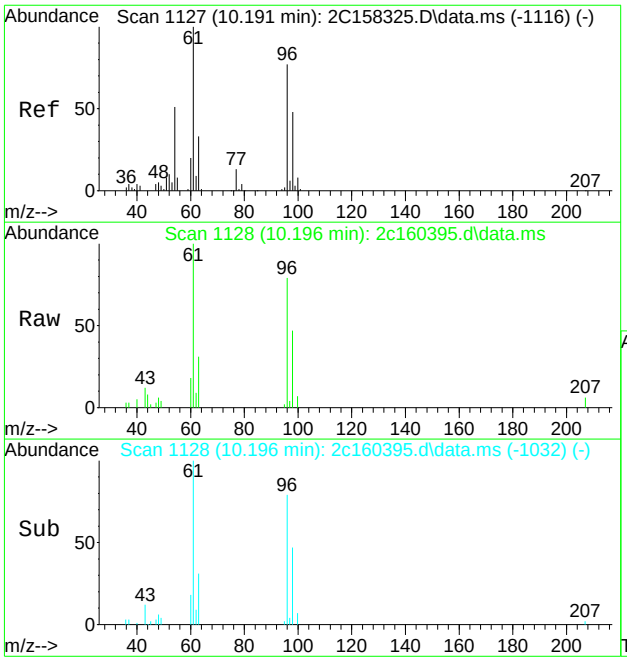


#20
acetone
Concen: 6.51 ug/L
RT: 7.553 min Scan# 624
Delta R.T. 0.016 min
Lab File: 2c160395.d
Acq: 3 Jul 2018 5:08 am

Tgt Ion: 58 Resp: 2361

Ion	Ratio	Lower	Upper
58	100		
43	269.2	304.6	364.6#

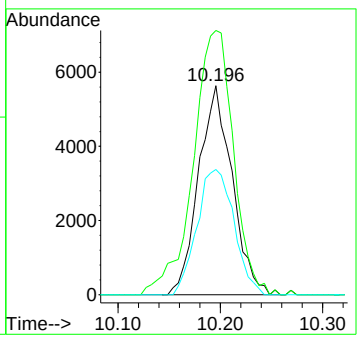


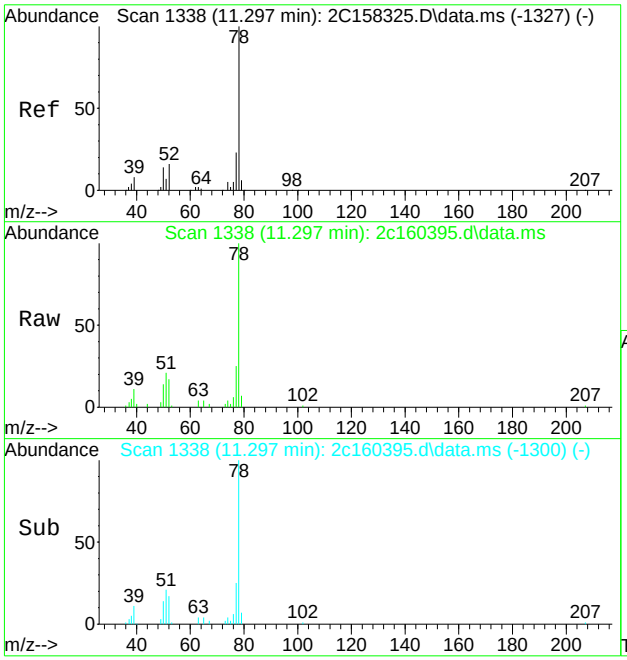


#38
cis-1,2-dichloroethene
Concen: 4.61 ug/L
RT: 10.196 min Scan# 1128
Delta R.T. 0.005 min
Lab File: 2c160395.d
Acq: 3 Jul 2018 5:08 am

Tgt Ion: 96 Resp: 12863

Ion	Ratio	Lower	Upper
96	100		
61	126.5	109.6	169.6
98	60.0	33.0	93.0

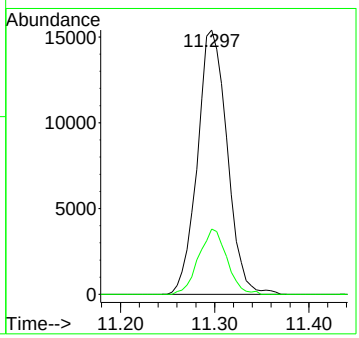


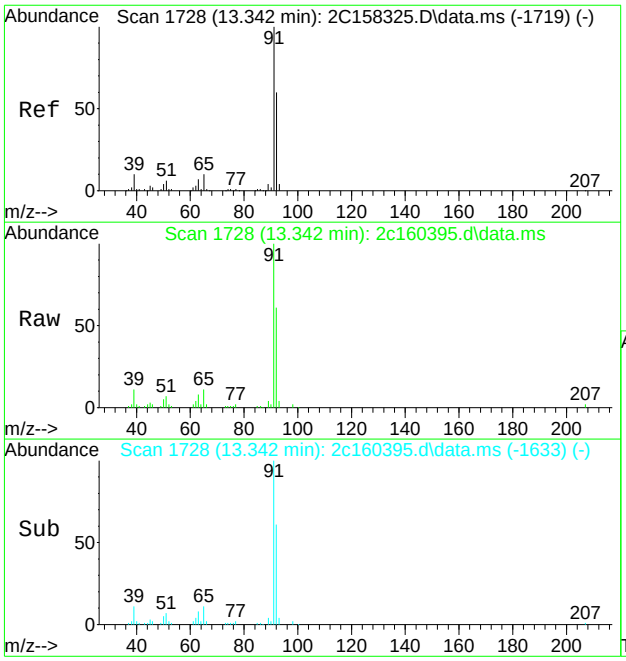


#56
benzene
Concen: 3.90 ug/L
RT: 11.297 min Scan# 1338
Delta R.T. 0.000 min
Lab File: 2c160395.d
Acq: 3 Jul 2018 5:08 am

Tgt Ion: 78 Resp: 33763

Ion	Ratio	Lower	Upper
78	100		
77	24.8	0.0	52.7

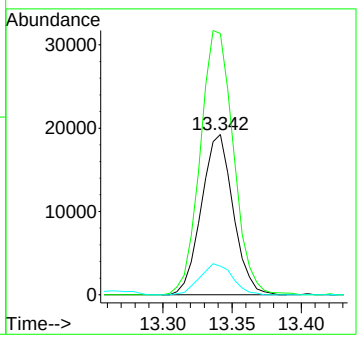


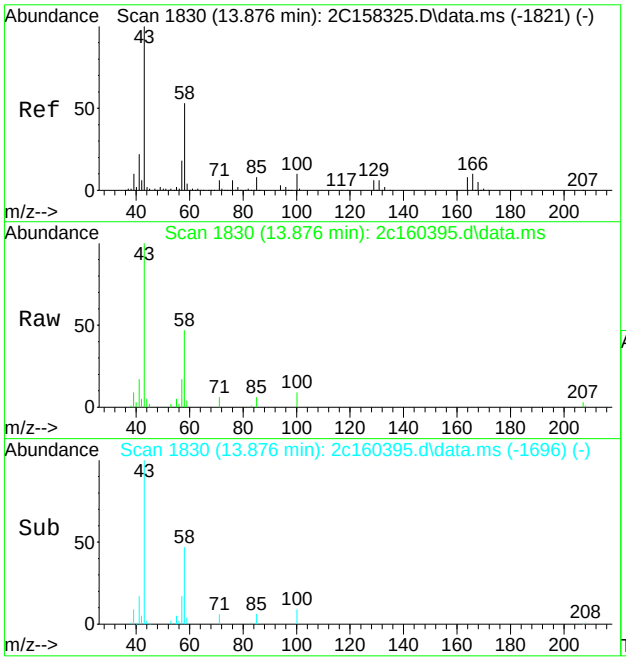


#76
toluene
Concen: 6.35 ug/L
RT: 13.342 min Scan# 1728
Delta R.T. 0.000 min
Lab File: 2c160395.d
Acq: 3 Jul 2018 5:08 am

Tgt Ion: 92 Resp: 30625

Ion	Ratio	Lower	Upper
92	100		
91	162.8	146.6	186.6
65	17.9	0.0	37.5

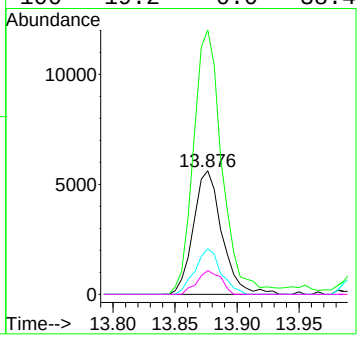




#80
2-hexanone
Concen: 7.50 ug/L
RT: 13.876 min Scan# 1830
Delta R.T. 0.000 min
Lab File: 2c160395.d
Acq: 3 Jul 2018 5:08 am

Tgt Ion: 58 Resp: 9038

Ion	Ratio	Lower	Upper
58	100		
43	214.0	169.1	209.1#
57	36.9	13.8	53.8
100	19.2	0.0	38.4



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83398.D
Acq On : 6 Jul 2018 2:58 pm
Operator : HueanhT
Sample : JC68966-13
Misc : MS27582,V4B3470,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 06 17:20:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

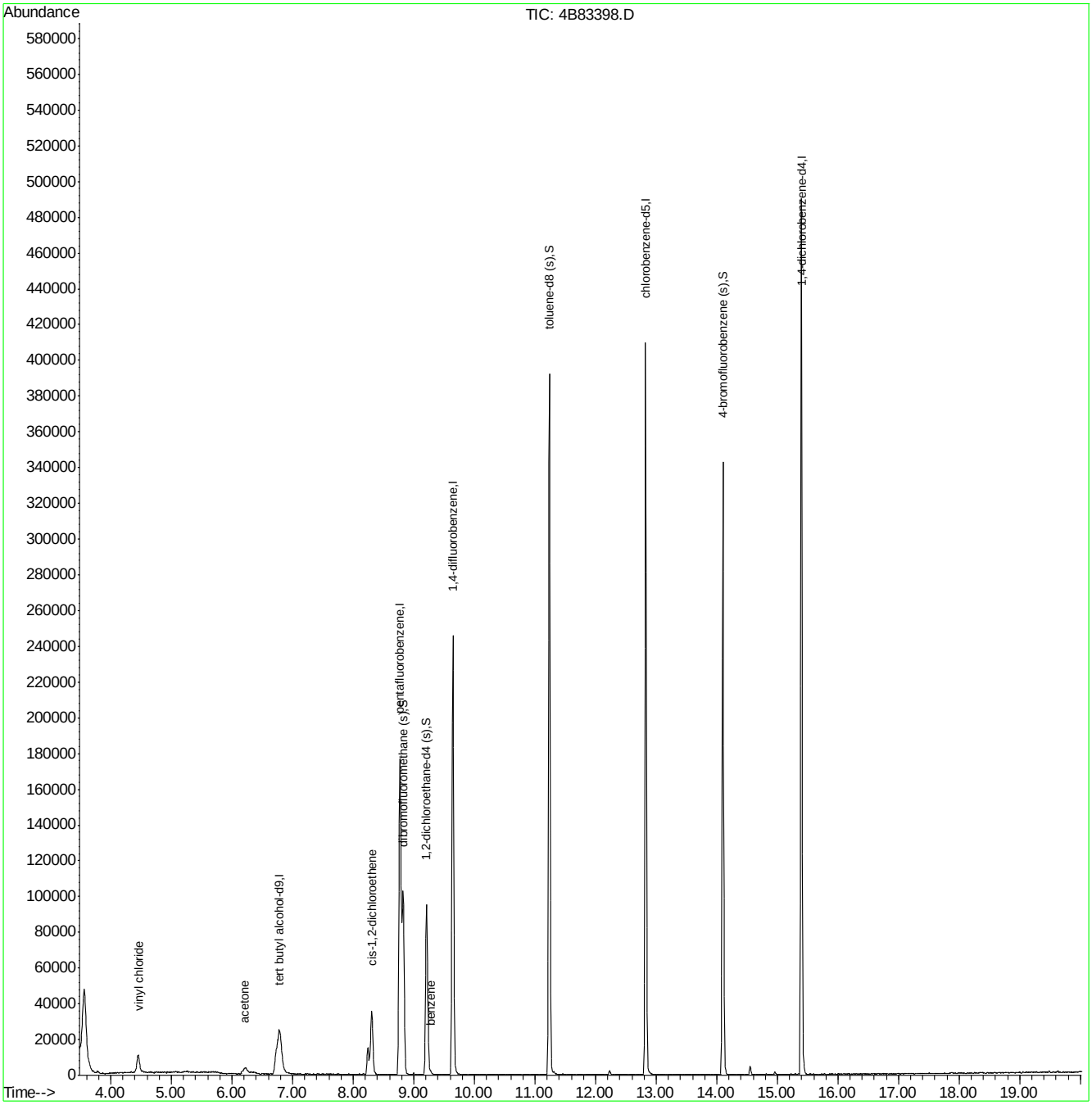
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.78	65	86329	500.00	ug/L	-0.02
5) pentafluorobenzene	8.77	168	161257	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	227851	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	224254	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	130313	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	77683	50.98	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.96%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	83264	50.94	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.88%			
76) toluene-d8 (s)	11.24	98	261751	46.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.22%			
99) 4-bromofluorobenzene (s)	14.10	95	108442	54.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.48%			
Target Compounds						Qvalue
9) vinyl chloride	4.46	62	21515	4.92	ug/L	97
20) acetone	6.21	58	3356	21.88	ug/L #	68
38) cis-1,2-dichloroethene	8.31	96	21267	9.56	ug/L	96
58) benzene	9.28	78	1705	0.21	ug/L	53

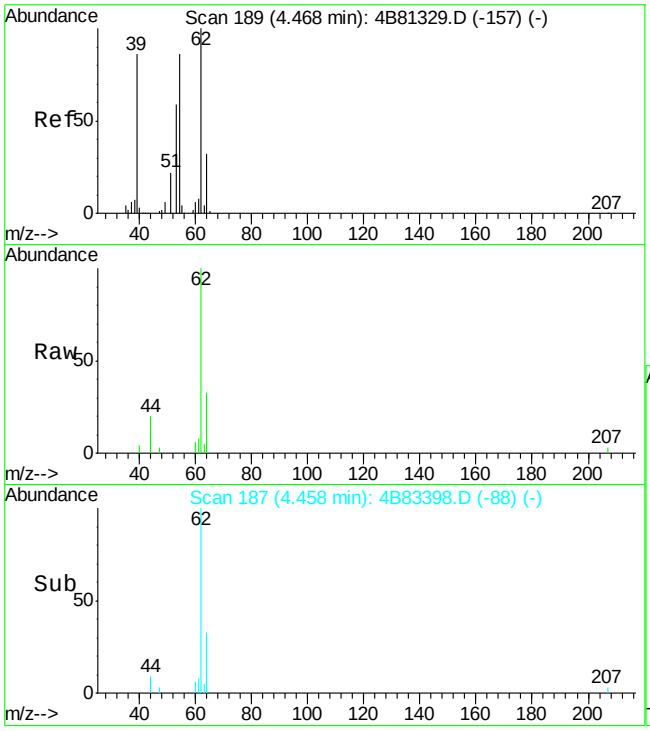
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83398.D
Acq On : 6 Jul 2018 2:58 pm
Operator : HueanhT
Sample : JC68966-13
Misc : MS27582,V4B3470,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Jul 06 17:20:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

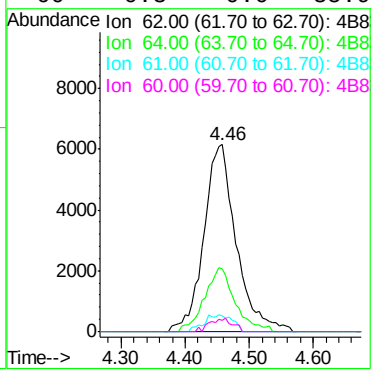


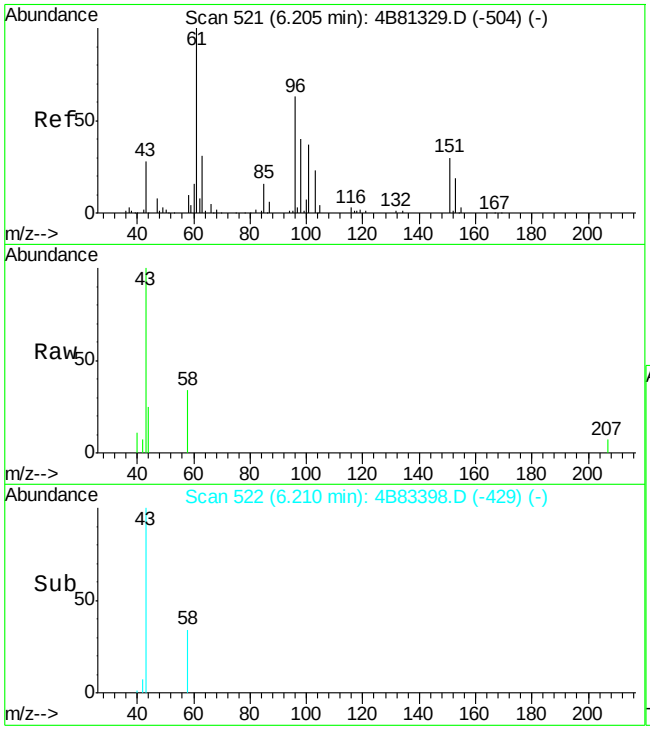


#9
vinyl chloride
Concen: 4.92 ug/L
RT: 4.46 min Scan# 187
Delta R.T. 0.02 min
Lab File: 4B83398.D
Acq: 6 Jul 2018 2:58 pm

Tgt Ion: 62 Resp: 21515

Ion	Ratio	Lower	Upper
62	100		
64	33.4	1.3	61.3
61	8.5	0.0	38.0
60	6.3	0.0	35.9

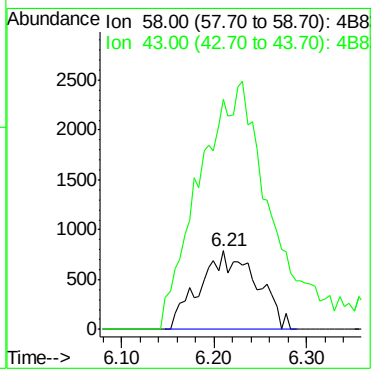


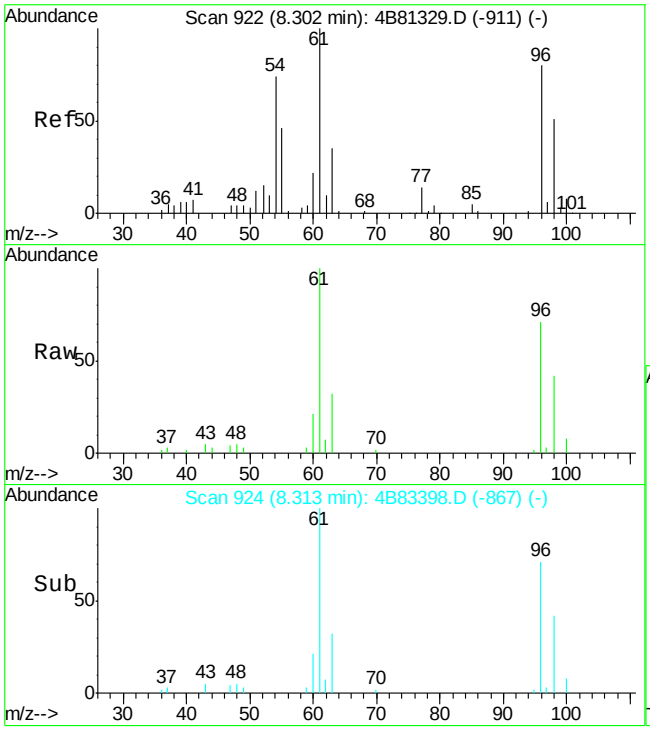


#20
acetone
Concen: 21.88 ug/L
RT: 6.21 min Scan# 522
Delta R.T. -0.02 min
Lab File: 4B83398.D
Acq: 6 Jul 2018 2:58 pm

Tgt Ion: 58 Resp: 3356

Ion	Ratio	Lower	Upper
58	100		
43	252.5	287.3	347.3#

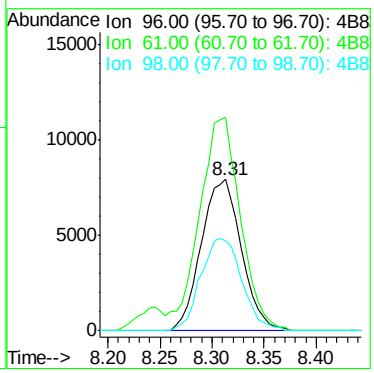


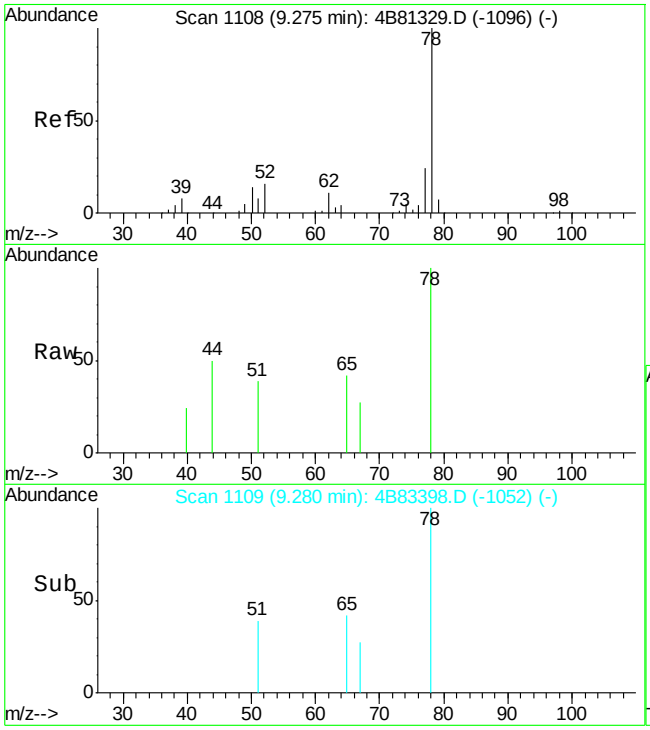


#38
cis-1,2-dichloroethene
Concen: 9.56 ug/L
RT: 8.31 min Scan# 924
Delta R.T. -0.00 min
Lab File: 4B83398.D
Acq: 6 Jul 2018 2:58 pm

Tgt Ion: 96 Resp: 21267

Ion	Ratio	Lower	Upper
96	100		
61	141.0	114.9	174.9
98	59.4	33.8	93.8

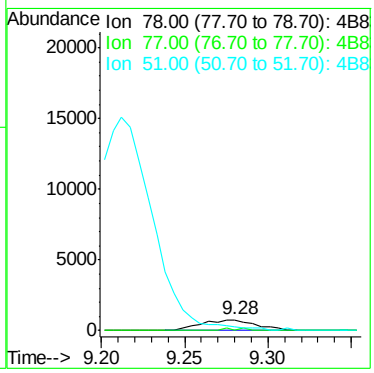




#58
benzene
Concen: 0.21 ug/L
RT: 9.28 min Scan# 1109
Delta R.T. -0.00 min
Lab File: 4B83398.D
Acq: 6 Jul 2018 2:58 pm

Tgt Ion: 78 Resp: 1705

Ion	Ratio	Lower	Upper
78	100		
77	0.0	0.0	53.4
51	38.5	0.0	48.4



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160397.d
Acq On : 3 Jul 2018 6:13 am
Operator : HueanhT
Sample : JC68966-14 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:08:14 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

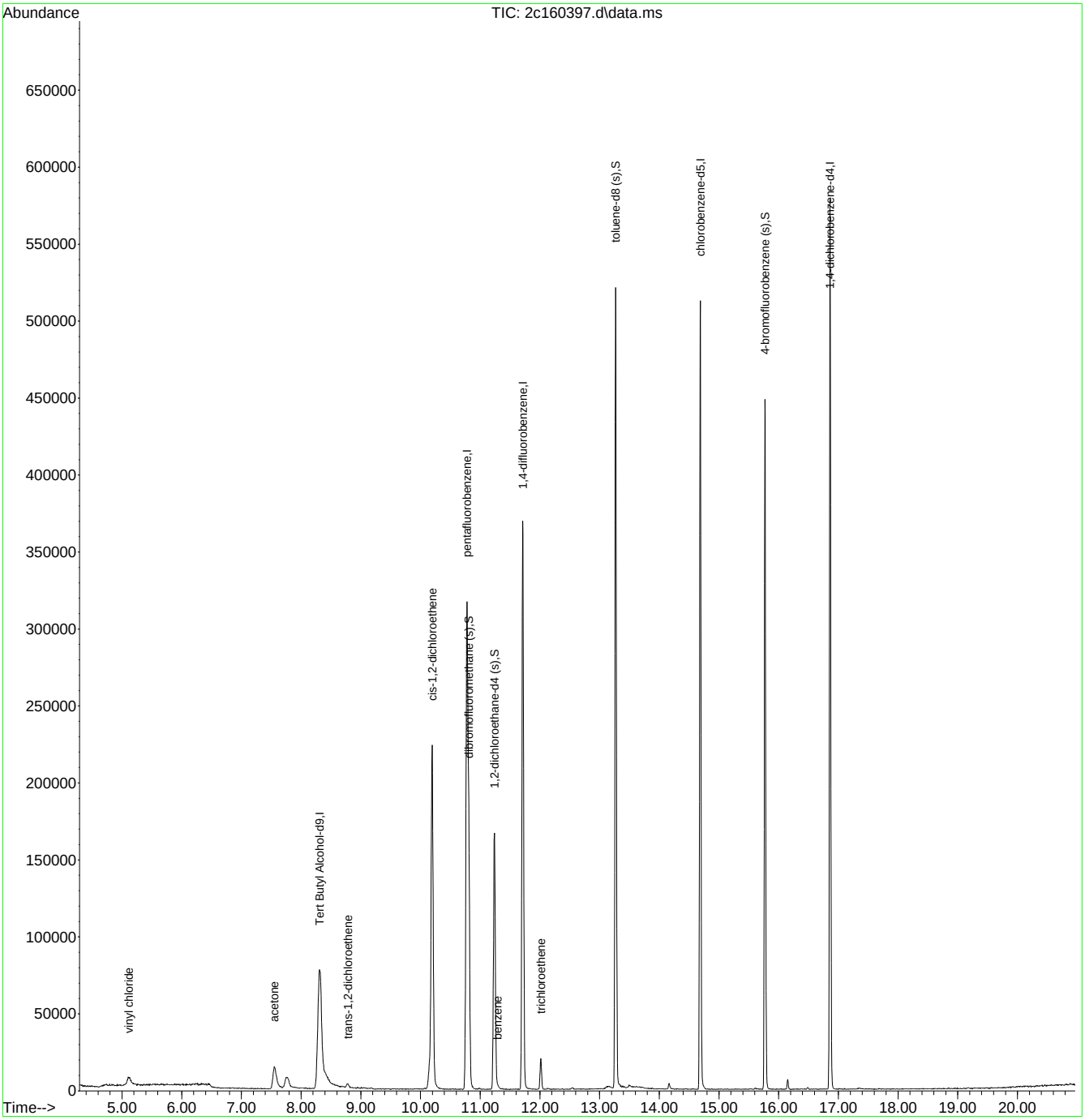
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.308	65	226394	500.00	ug/L	-0.03
5) pentafluorobenzene	10.778	168	247910	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.716	114	309273	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	262219	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.860	152	141112	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.809	113	113400	52.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.70%			
52) 1,2-dichloroethane-d4 (s)	11.239	65	131906	58.85	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 117.70%			
75) toluene-d8 (s)	13.268	98	321961	48.70	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.40%			
98) 4-bromofluorobenzene (s)	15.769	95	116183	56.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.90%			
Target Compounds						Qvalue
9) vinyl chloride	5.115	62	15644	3.05	ug/L	98
20) acetone	7.553	58	12052	31.19	ug/L	98
27) trans-1,2-dichloroethene	8.785	96	1482	0.53	ug/L #	65
38) cis-1,2-dichloroethene	10.196	96	117995	39.65	ug/L	97
56) benzene	11.291	78	1312	0.14	ug/L	88
62) trichloroethene	12.015	95	6660	2.91	ug/L	95

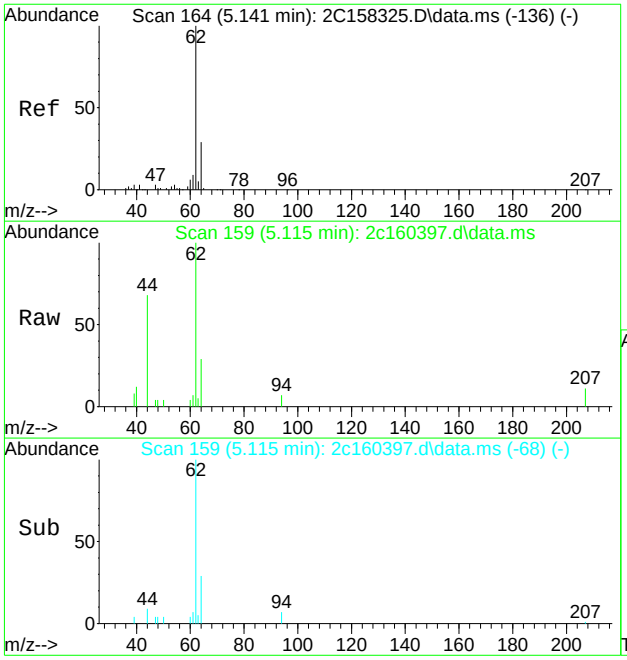
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160397.d
Acq On : 3 Jul 2018 6:13 am
Operator : HueanhT
Sample : JC68966-14 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 47 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:08:14 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

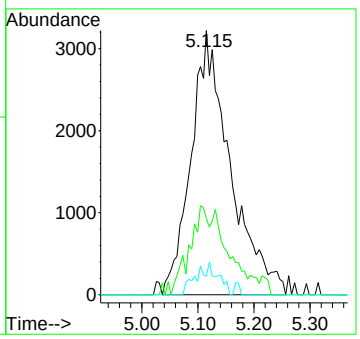


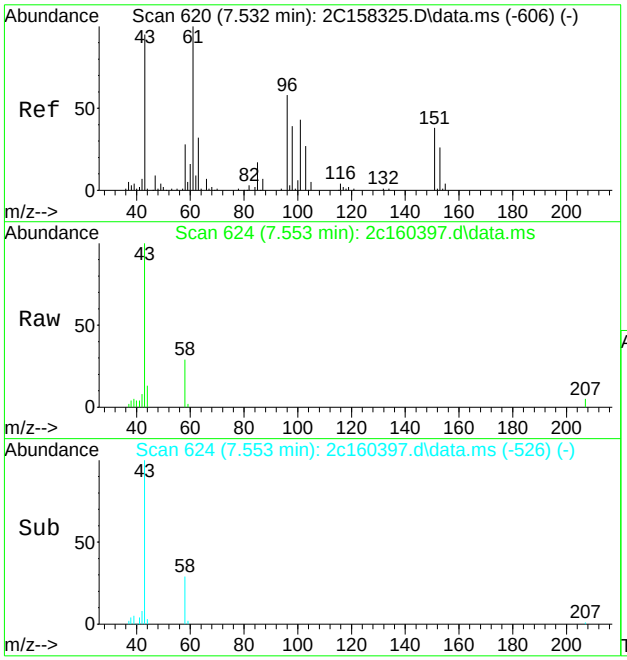


#9
vinyl chloride
Concen: 3.05 ug/L
RT: 5.115 min Scan# 159
Delta R.T. -0.021 min
Lab File: 2c160397.d
Acq: 3 Jul 2018 6:13 am

Tgt Ion: 62 Resp: 15644

Ion	Ratio	Lower	Upper
62	100		
64	28.9	0.0	59.6
61	7.0	0.0	39.0

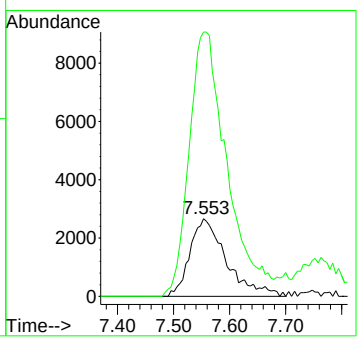


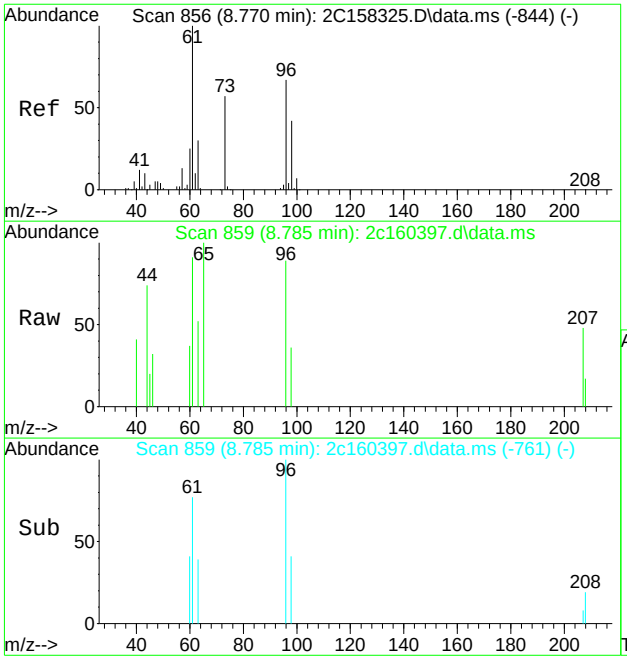


#20
acetone
Concen: 31.19 ug/L
RT: 7.553 min Scan# 624
Delta R.T. 0.016 min
Lab File: 2c160397.d
Acq: 3 Jul 2018 6:13 am

Tgt Ion: 58 Resp: 12052

Ion	Ratio	Lower	Upper
58	100		
43	339.8	304.6	364.6

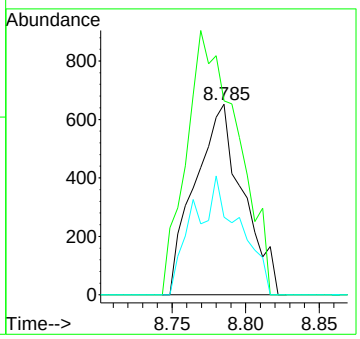


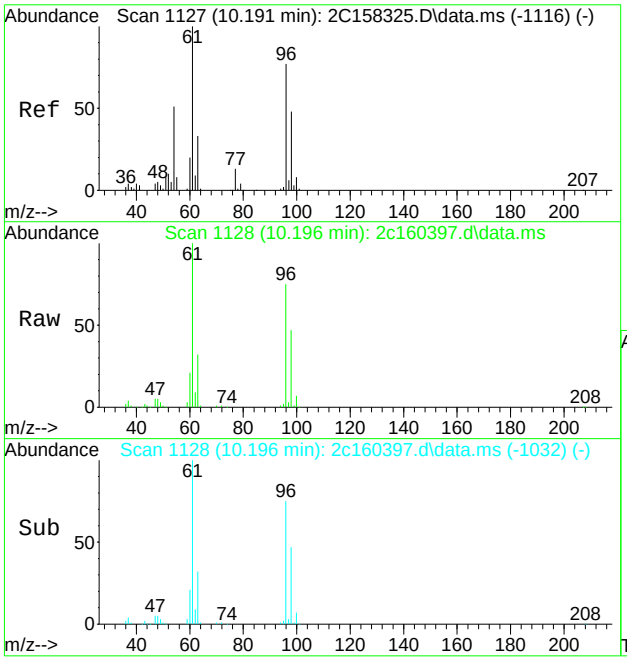


#27
trans-1,2-dichloroethene
Concen: 0.53 ug/L
RT: 8.785 min Scan# 859
Delta R.T. 0.016 min
Lab File: 2c160397.d
Acq: 3 Jul 2018 6:13 am

Tgt Ion: 96 Resp: 1482

Ion	Ratio	Lower	Upper
96	100		
61	101.8	119.7	179.7#
98	40.8	32.3	92.3

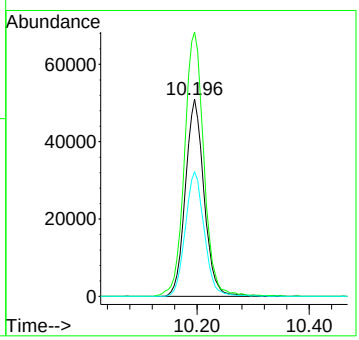


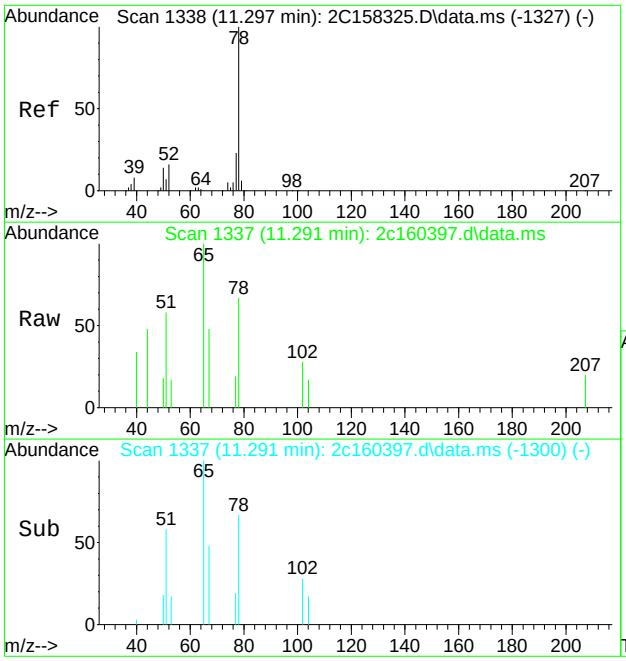


#38
cis-1,2-dichloroethene
Concen: 39.65 ug/L
RT: 10.196 min Scan# 1128
Delta R.T. 0.005 min
Lab File: 2c160397.d
Acq: 3 Jul 2018 6:13 am

Tgt Ion: 96 Resp: 117995

Ion	Ratio	Lower	Upper
96	100		
61	133.9	109.6	169.6
98	63.2	33.0	93.0

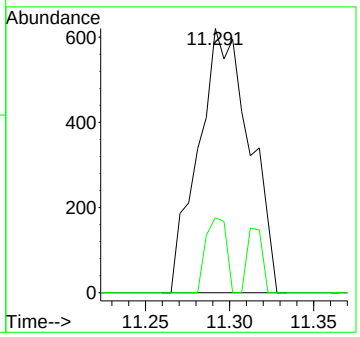


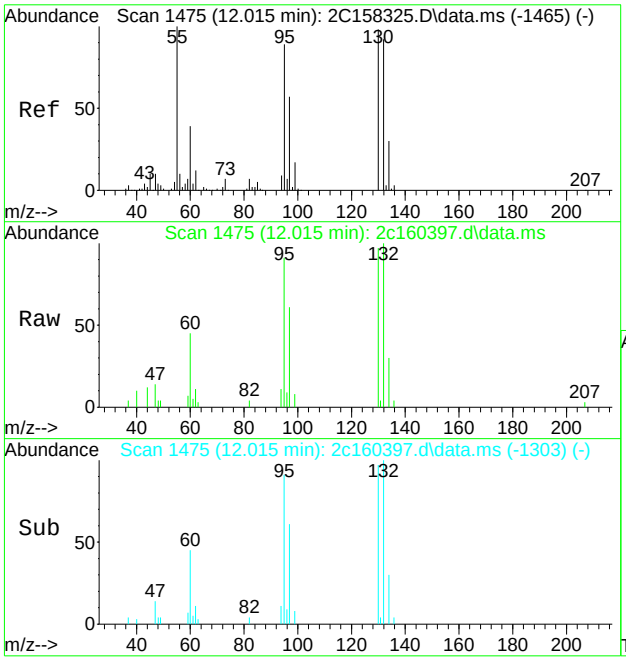


#56
benzene
Concen: 0.14 ug/L
RT: 11.291 min Scan# 1337
Delta R.T. -0.005 min
Lab File: 2c160397.d
Acq: 3 Jul 2018 6:13 am

Tgt Ion: 78 Resp: 1312

Ion	Ratio	Lower	Upper
78	100		
77	28.3	0.0	52.7

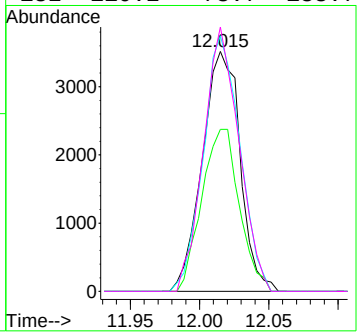




#62
trichloroethene
Concen: 2.91 ug/L
RT: 12.015 min Scan# 1475
Delta R.T. 0.000 min
Lab File: 2c160397.d
Acq: 3 Jul 2018 6:13 am

Tgt Ion: 95 Resp: 6660

Ion	Ratio	Lower	Upper
95	100		
97	67.6	33.5	93.5
130	106.5	79.4	139.4
132	110.2	73.7	133.7



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83399.D
Acq On : 6 Jul 2018 3:26 pm
Operator : HueanhT
Sample : JC68966-15
Misc : MS27582,V4B3470,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 06 17:22:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

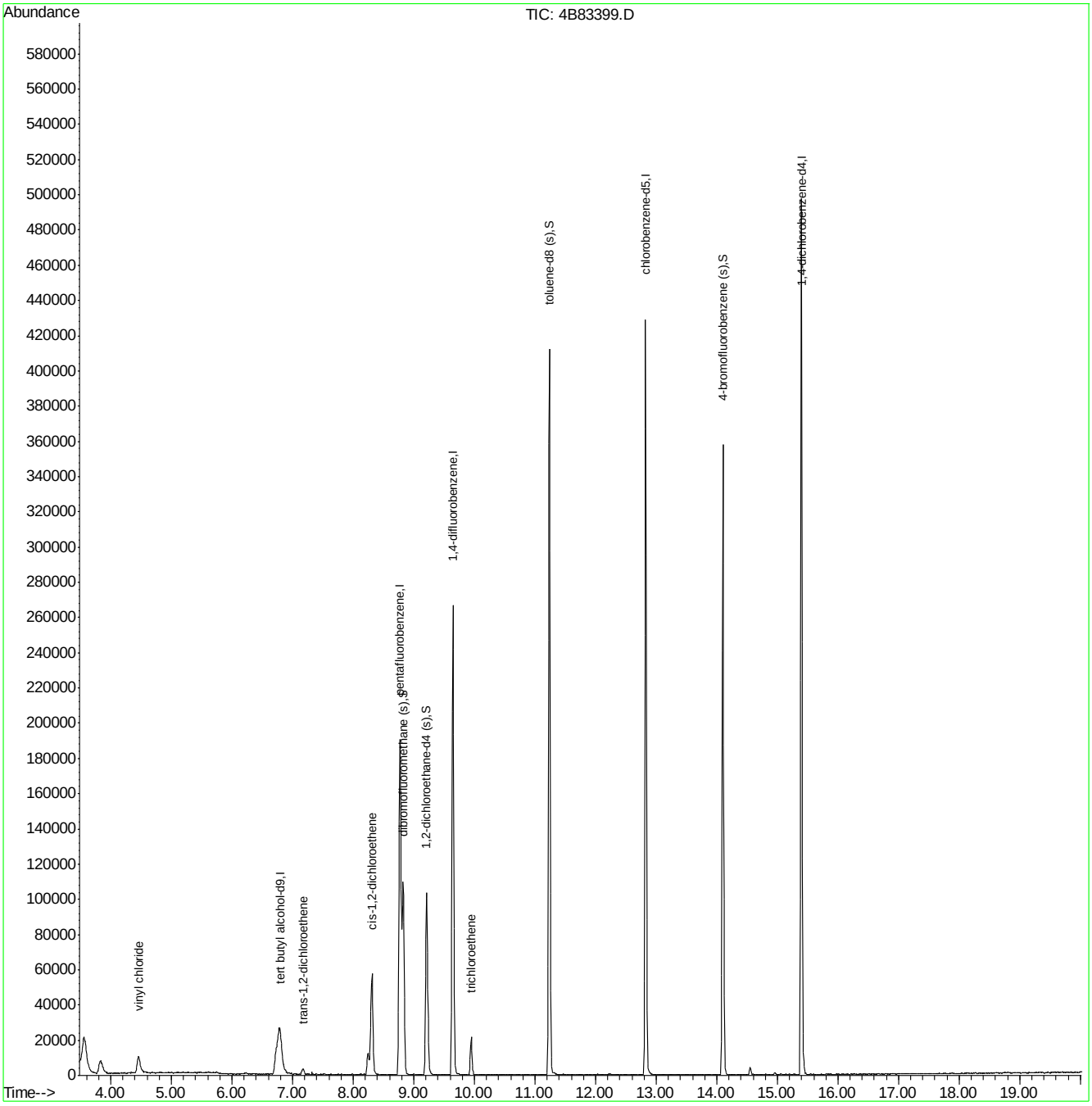
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.79	65	95305	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	169134	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	238742	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	233972	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	132726	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	81052	50.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.44%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	88616	51.74	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.48%			
76) toluene-d8 (s)	11.24	98	273013	46.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.18%			
99) 4-bromofluorobenzene (s)	14.10	95	113099	55.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.08%			
Target Compounds						Qvalue
9) vinyl chloride	4.46	62	24207	5.28	ug/L	98
27) trans-1,2-dichloroethene	7.18	61	3312	1.02	ug/L	88
38) cis-1,2-dichloroethene	8.31	96	32838	14.08	ug/L	97
63) trichloroethene	9.94	95	8314	4.22	ug/L	95

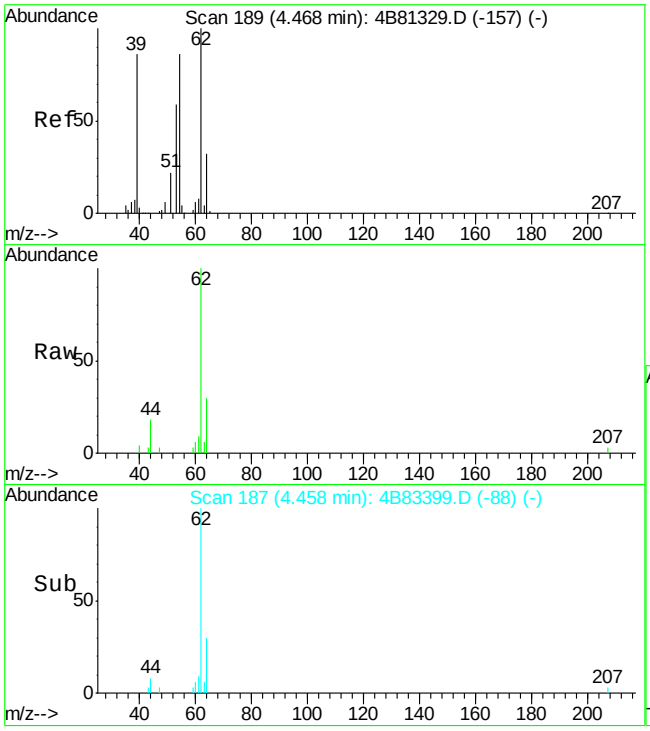
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83399.D
Acq On : 6 Jul 2018 3:26 pm
Operator : HueanhT
Sample : JC68966-15
Misc : MS27582,V4B3470,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Time: Jul 06 17:22:01 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

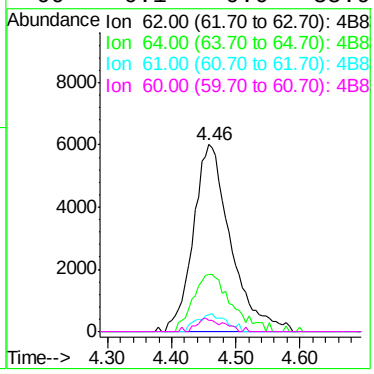


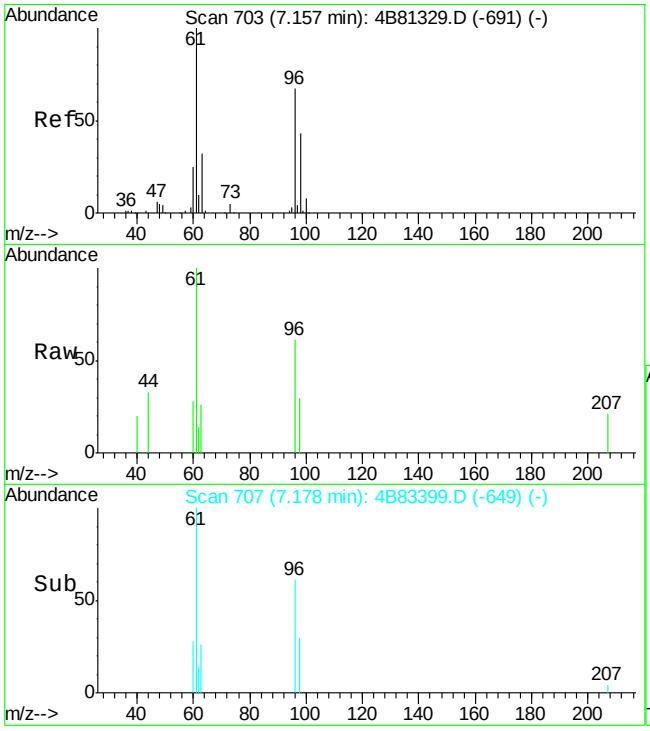


#9
vinyl chloride
Concen: 5.28 ug/L
RT: 4.46 min Scan# 187
Delta R.T. 0.02 min
Lab File: 4B83399.D
Acq: 6 Jul 2018 3:26 pm

Tgt Ion: 62 Resp: 24207

Ion	Ratio	Lower	Upper
62	100		
64	30.4	1.3	61.3
61	8.8	0.0	38.0
60	6.1	0.0	35.9

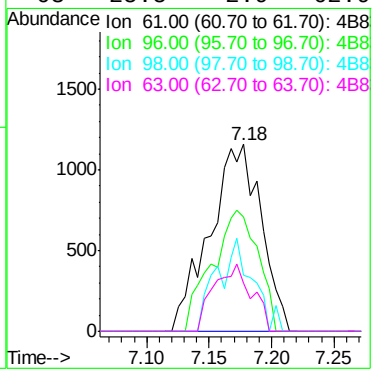


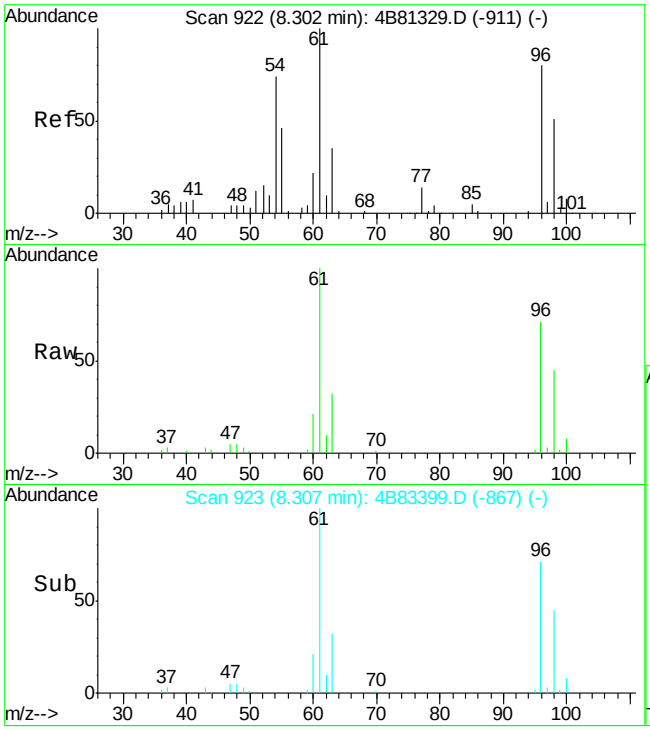


#27
trans-1,2-dichloroethene
Concen: 1.02 ug/L
RT: 7.18 min Scan# 707
Delta R.T. 0.01 min
Lab File: 4B83399.D
Acq: 6 Jul 2018 3:26 pm

Tgt Ion: 61 Resp: 3312

Ion	Ratio	Lower	Upper
61	100		
96	61.0	35.5	95.5
98	29.8	12.9	72.9
63	25.5	2.9	62.9

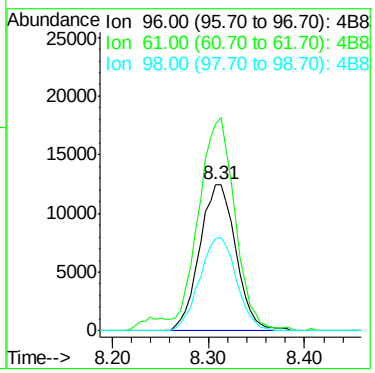


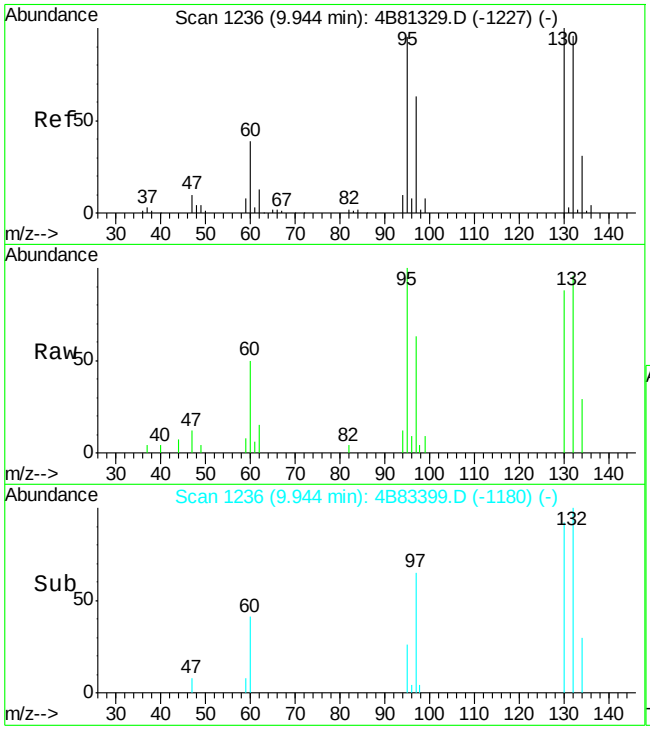


#38
cis-1,2-dichloroethene
Concen: 14.08 ug/L
RT: 8.31 min Scan# 923
Delta R.T. -0.01 min
Lab File: 4B83399.D
Acq: 6 Jul 2018 3:26 pm

Tgt Ion: 96 Resp: 32838

Ion	Ratio	Lower	Upper
96	100		
61	140.7	114.9	174.9
98	62.6	33.8	93.8

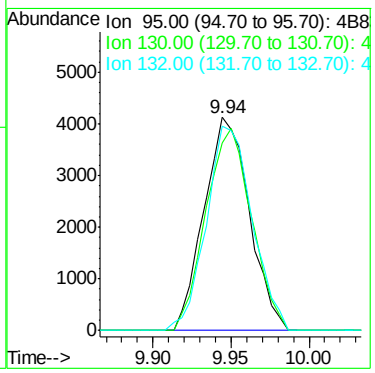




#63
trichloroethene
Concen: 4.22 ug/L
RT: 9.94 min Scan# 1236
Delta R.T. -0.01 min
Lab File: 4B83399.D
Acq: 6 Jul 2018 3:26 pm

Tgt Ion: 95 Resp: 8314

Ion	Ratio	Lower	Upper
95	100		
130	87.9	66.8	126.8
132	96.1	64.9	124.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144442.d
Acq On : 1 Jul 2018 5:30 pm
Operator : juntaep
Sample : jc68966-16 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 01:08:26 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

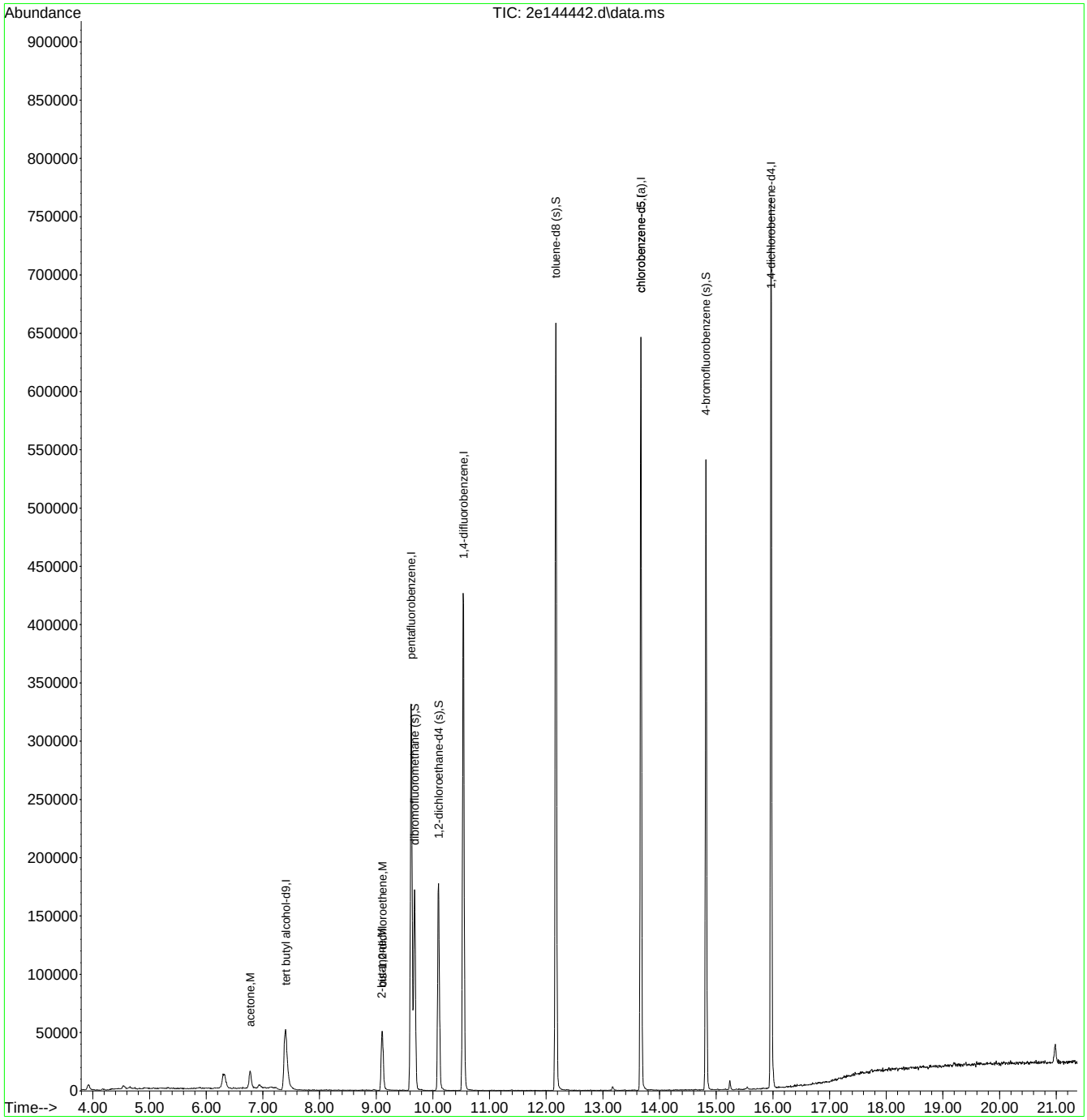
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.405	65	124554	500.00	ug/L	0.02
5) pentafluorobenzene	9.617	168	268039	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.540	114	381934	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	349646	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	186494	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	349646	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.680	113	115182	51.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.58%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	139134	59.09	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 118.18%			
78) toluene-d8 (s)	12.170	98	446402	49.26	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%			
101) 4-bromofluorobenzene (s)	14.818	95	169602	52.10	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.20%			
Target Compounds						Qvalue
22) acetone	6.775	58	8304	31.37	ug/L	93
33) 2-butanone	9.093	72	1104	3.79	ug/L #	1
40) cis-1,2-dichloroethene	9.109	96	13920	4.09	ug/L	83

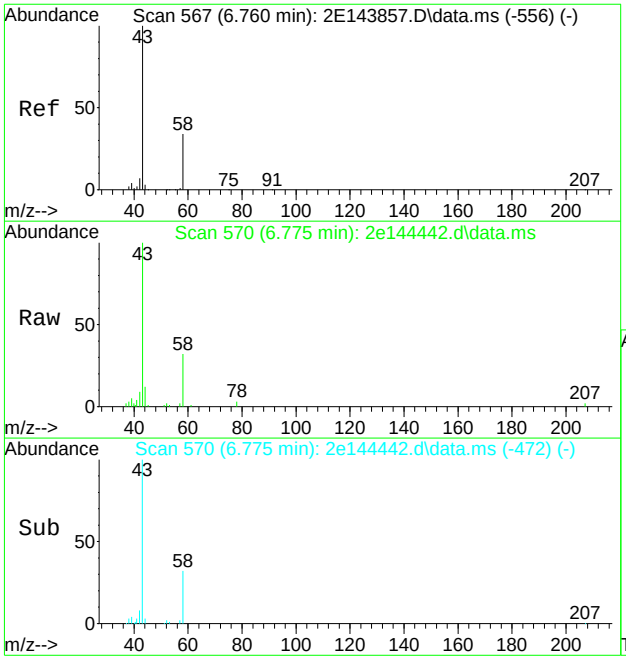
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144442.d
Acq On : 1 Jul 2018 5:30 pm
Operator : juntaep
Sample : jc68966-16 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 01:08:26 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

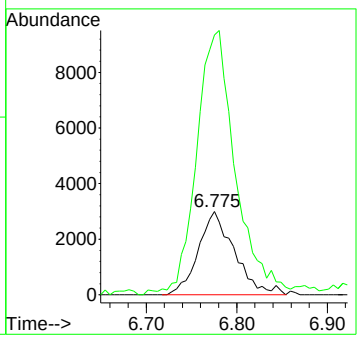


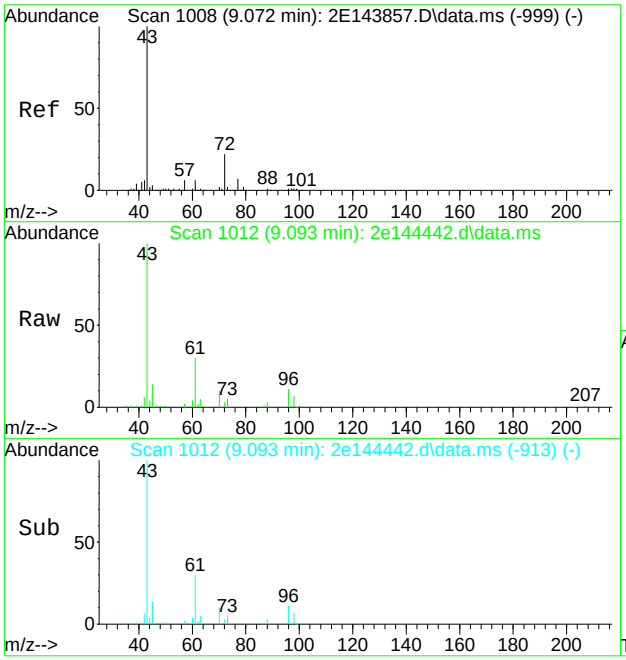


#22
acetone
Concen: 31.37 ug/L
RT: 6.775 min Scan# 570
Delta R.T. 0.015 min
Lab File: 2e144442.d
Acq: 1 Jul 2018 5:30 pm

Tgt Ion: 58 Resp: 8304

Ion	Ratio	Lower	Upper
58	100		
43	305.1	261.7	321.7

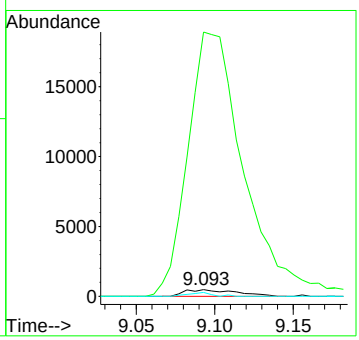


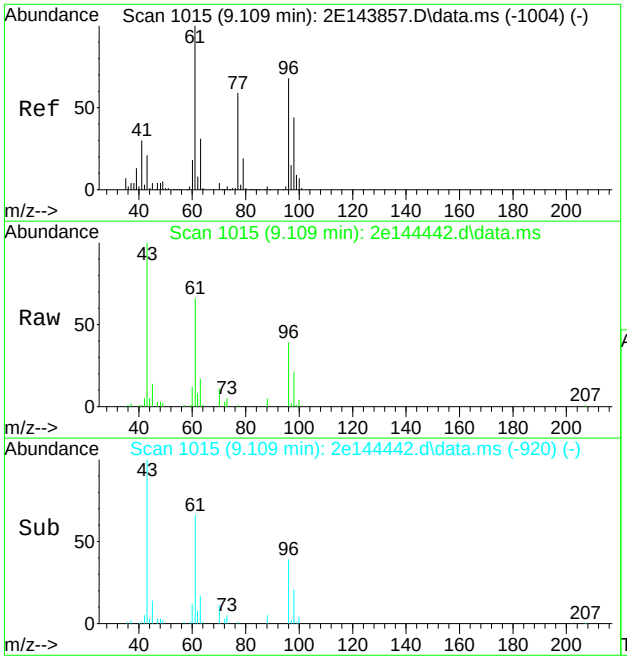


#33
2-butanone
Concen: 3.79 ug/L
RT: 9.093 min Scan# 1012
Delta R.T. 0.021 min
Lab File: 2e144442.d
Acq: 1 Jul 2018 5:30 pm

Tgt Ion: 72 Resp: 1104

Ion	Ratio	Lower	Upper
72	100		
43	3776.1	414.8	474.8#
57	61.6	0.0	56.9#

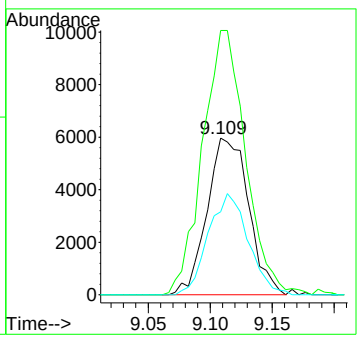




#40
cis-1,2-dichloroethene
Concen: 4.09 ug/L
RT: 9.109 min Scan# 1015
Delta R.T. -0.000 min
Lab File: 2e144442.d
Acq: 1 Jul 2018 5:30 pm

Tgt Ion: 96 Resp: 13920

Ion	Ratio	Lower	Upper
96	100		
61	168.7	116.3	176.3
98	52.9	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144443.d
Acq On : 1 Jul 2018 5:59 pm
Operator : juntaep
Sample : jc68966-17 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 01:52:01 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

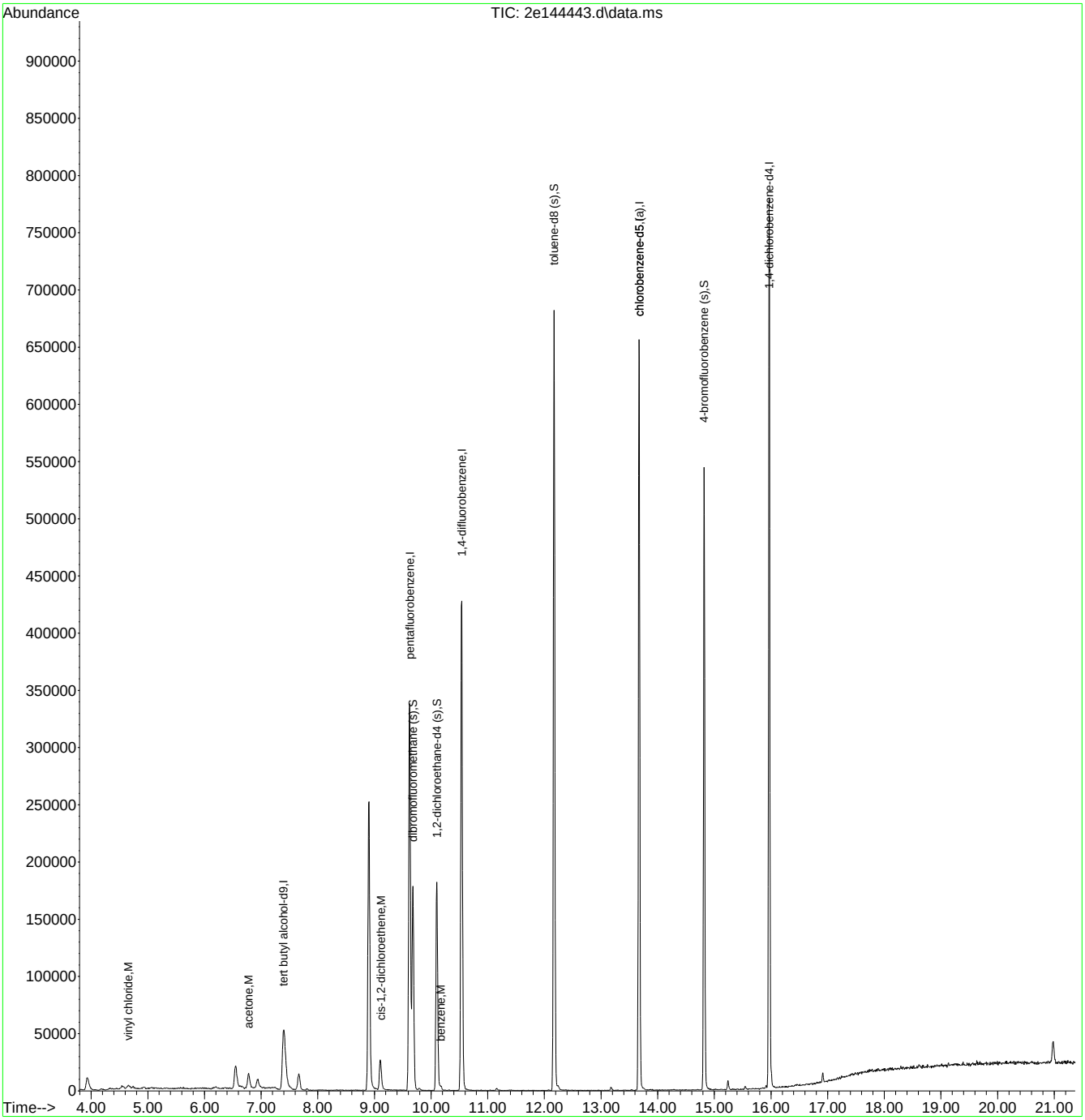
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	129363	500.00	ug/L	0.01
5) pentafluorobenzene	9.622	168	277241	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.540	114	389957	50.00	ug/L	0.00
77) chlorobenzene-d5	13.675	117	360866	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	192051	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.675	117	360866	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.680	113	117601	50.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	141943	59.05	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 118.10%			
78) toluene-d8 (s)	12.170	98	463409	49.55	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.10%			
101) 4-bromofluorobenzene (s)	14.818	95	171686	51.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.44%			
Target Compounds						Qvalue
11) vinyl chloride	4.652	62	4274	0.77	ug/L	88
22) acetone	6.781	58	7611	27.80	ug/L #	74
40) cis-1,2-dichloroethene	9.114	96	2583	0.73	ug/L #	60
60) benzene	10.168	78	3277	0.25	ug/L	91

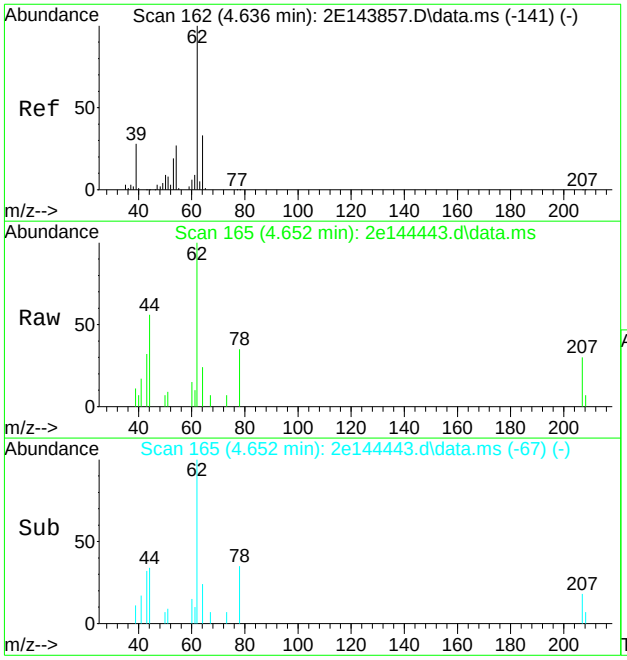
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144443.d
Acq On : 1 Jul 2018 5:59 pm
Operator : juntaep
Sample : jc68966-17 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 01:52:01 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

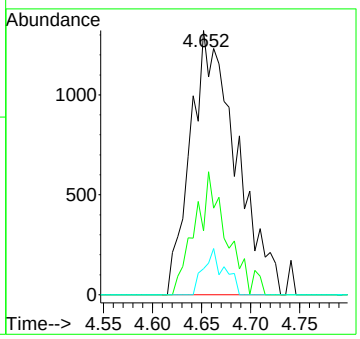


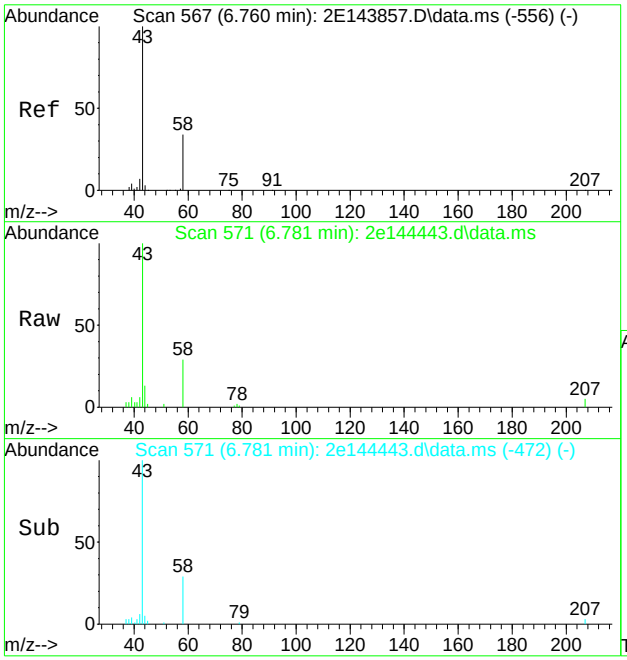


#11
vinyl chloride
Concen: 0.77 ug/L
RT: 4.652 min Scan# 165
Delta R.T. 0.016 min
Lab File: 2e144443.d
Acq: 1 Jul 2018 5:59 pm

Tgt Ion: 62 Resp: 4274

Ion	Ratio	Lower	Upper
62	100		
64	24.2	2.5	62.5
61	9.9	0.0	38.7

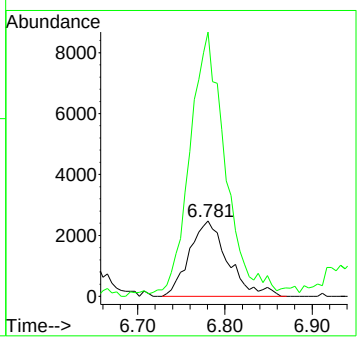


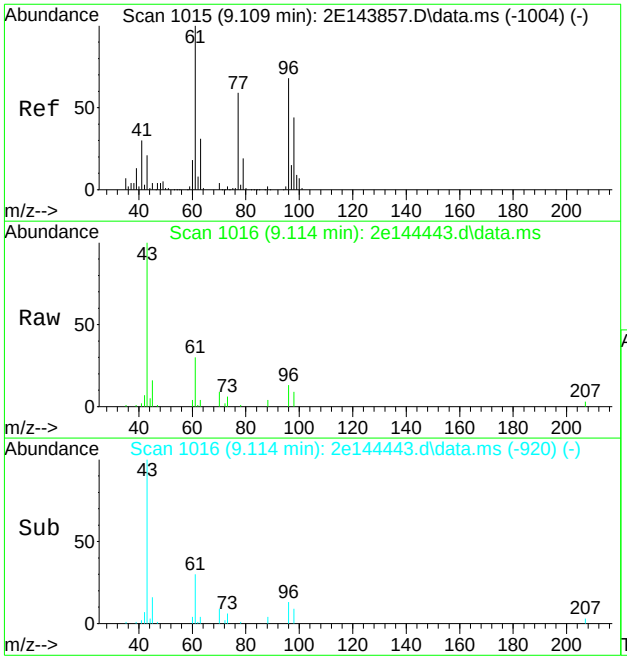


#22
acetone
Concen: 27.80 ug/L
RT: 6.781 min Scan# 571
Delta R.T. 0.021 min
Lab File: 2e144443.d
Acq: 1 Jul 2018 5:59 pm

Tgt Ion: 58 Resp: 7611

Ion	Ratio	Lower	Upper
58	100		
43	341.8	261.7	321.7#

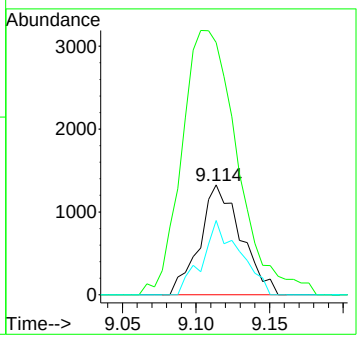


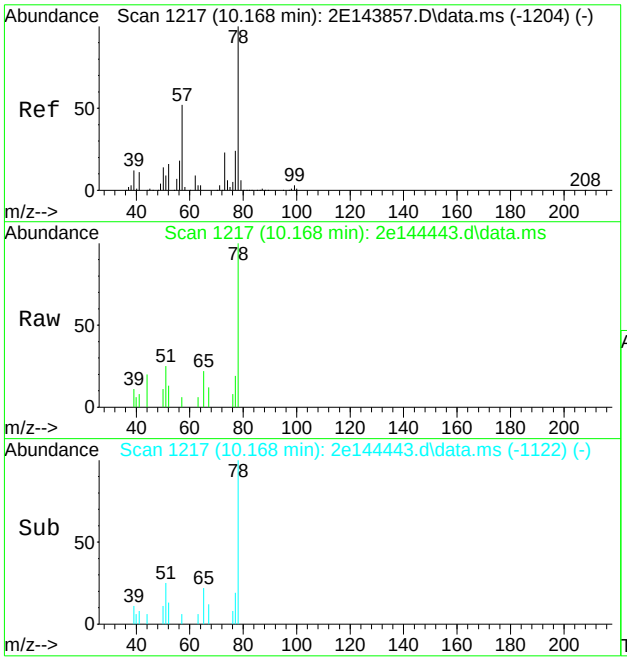


#40
cis-1,2-dichloroethene
Concen: 0.73 ug/L
RT: 9.114 min Scan# 1016
Delta R.T. 0.005 min
Lab File: 2e144443.d
Acq: 1 Jul 2018 5:59 pm

Tgt Ion: 96 Resp: 2583

Ion	Ratio	Lower	Upper
96	100		
61	215.5	116.3	176.3#
98	67.6	34.5	94.5

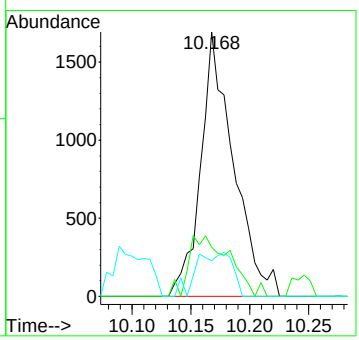




#60
benzene
Concen: 0.25 ug/L
RT: 10.168 min Scan# 1217
Delta R.T. -0.000 min
Lab File: 2e144443.d
Acq: 1 Jul 2018 5:59 pm

Tgt Ion: 78 Resp: 3277

Ion	Ratio	Lower	Upper
78	100		
77	18.6	0.0	53.8
52	13.5	0.0	45.8



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83391.D
Acq On : 6 Jul 2018 11:39 am
Operator : HueanhT
Sample : JC68966-18
Misc : MS27583,V4B3470,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 06 17:18:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

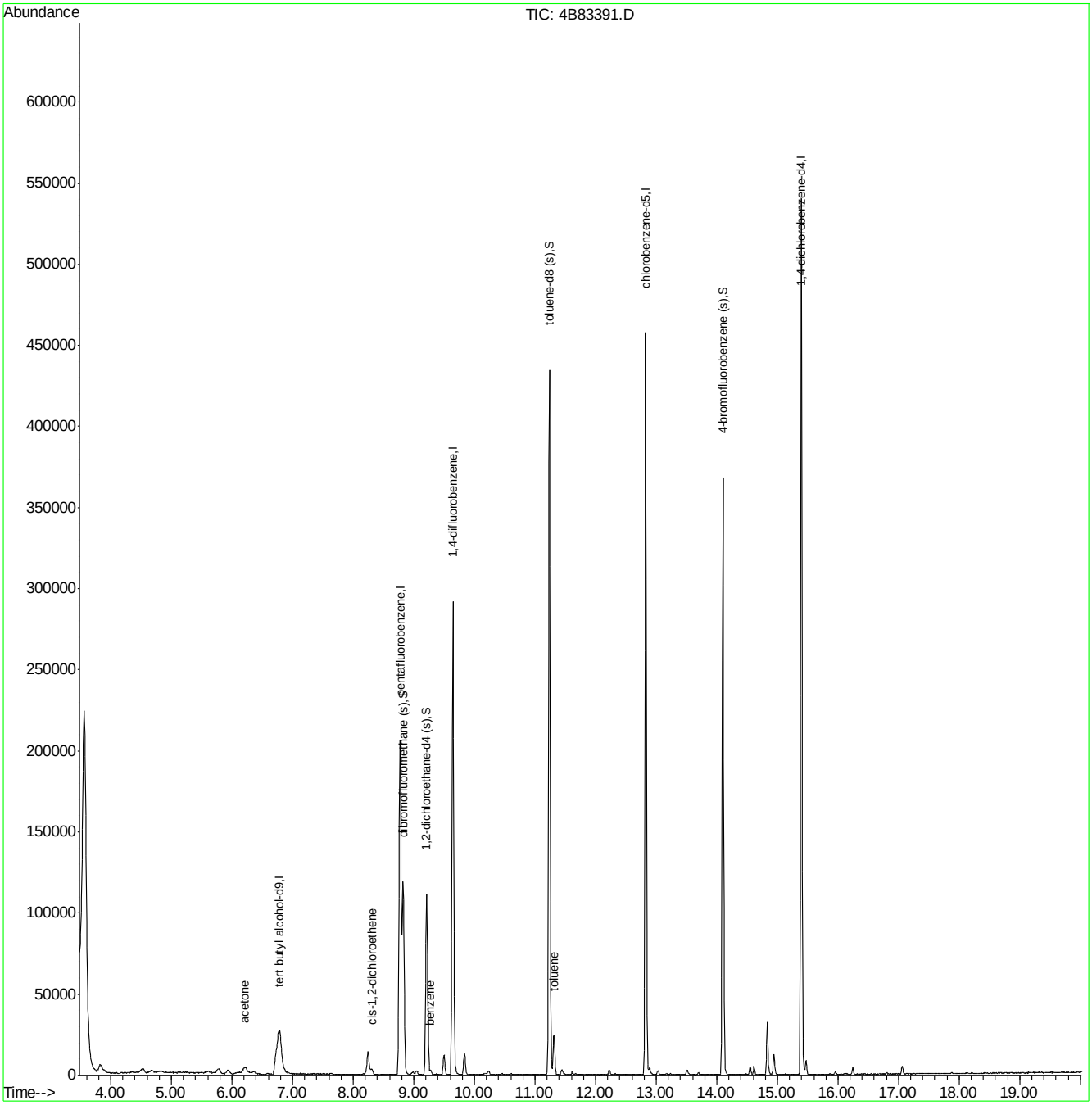
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.78	65	92130	500.00	ug/L	-0.02
5) pentafluorobenzene	8.78	168	184390	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	255923	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	246364	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	144203	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	86068	49.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.80%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	91463	49.82	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.64%			
76) toluene-d8 (s)	11.24	98	290597	46.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.18%			
99) 4-bromofluorobenzene (s)	14.10	95	117798	53.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.48%			
Target Compounds						Qvalue
20) acetone	6.20	58	6674	38.06	ug/L #	78
38) cis-1,2-dichloroethene	8.31	96	1592	0.63	ug/L	84
58) benzene	9.27	78	1921	0.21	ug/L	75
77) toluene	11.31	92	10674	2.00	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

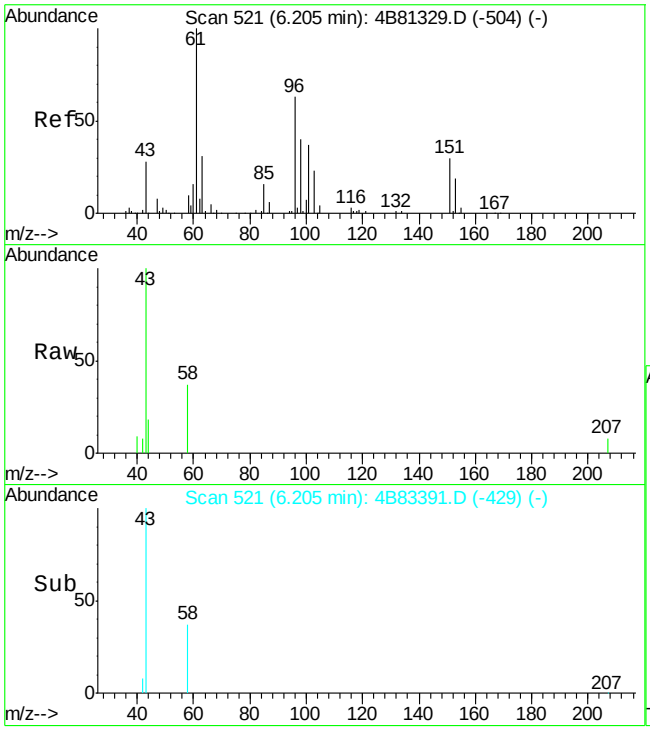
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83391.D
Acq On : 6 Jul 2018 11:39 am
Operator : HueanhT
Sample : JC68966-18
Misc : MS27583,V4B3470,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jul 06 17:18:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



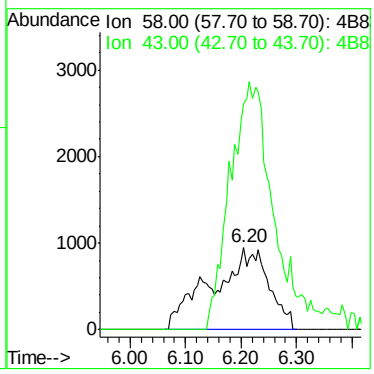
M4B3432.M Fri Jul 06 17:22:39 2018 GCMS4B Page: 2

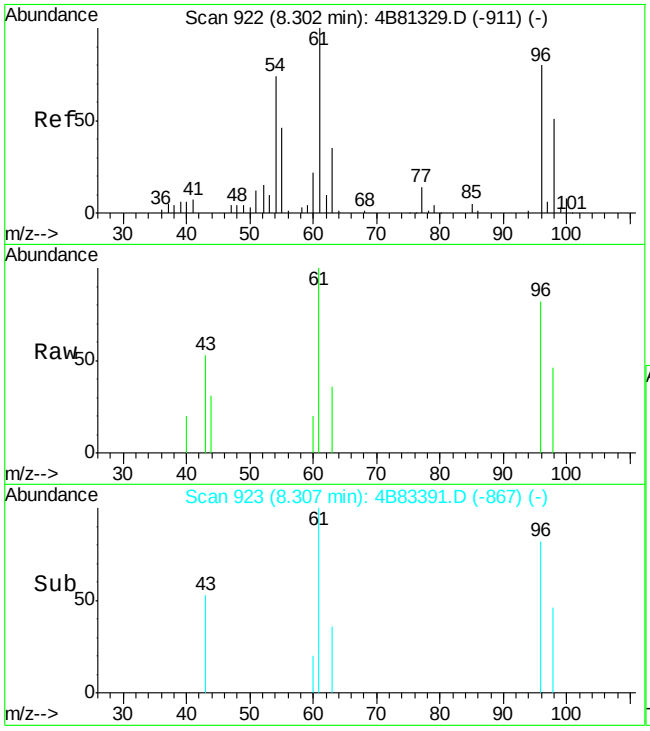


#20
acetone
Concen: 38.06 ug/L
RT: 6.20 min Scan# 521
Delta R.T. -0.02 min
Lab File: 4B83391.D
Acq: 6 Jul 2018 11:39 am

Tgt Ion: 58 Resp: 6674

Ion	Ratio	Lower	Upper
58	100		
43	272.6	287.3	347.3#

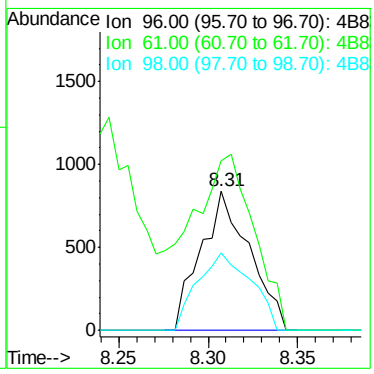


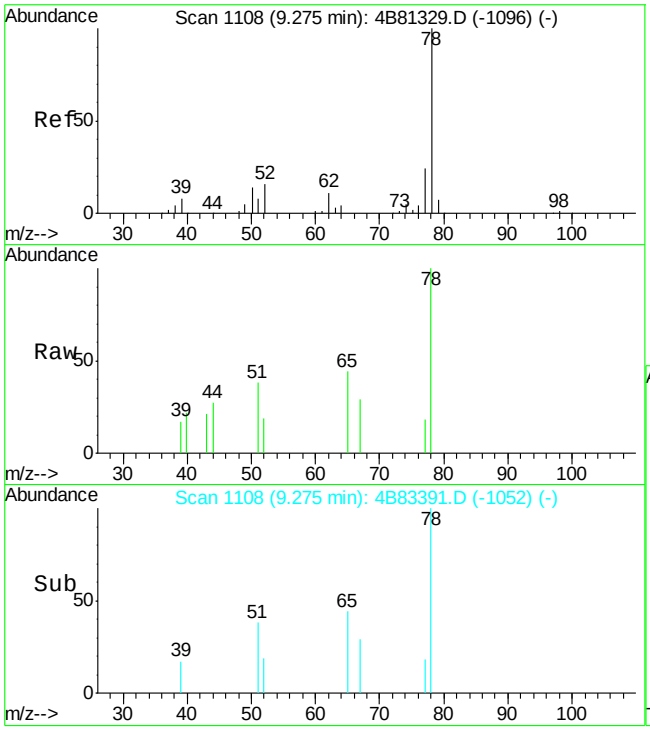


#38
cis-1,2-dichloroethene
Concen: 0.63 ug/L
RT: 8.31 min Scan# 923
Delta R.T. -0.01 min
Lab File: 4B83391.D
Acq: 6 Jul 2018 11:39 am

Tgt Ion: 96 Resp: 1592

Ion	Ratio	Lower	Upper
96	100		
61	121.7	114.9	174.9
98	56.1	33.8	93.8

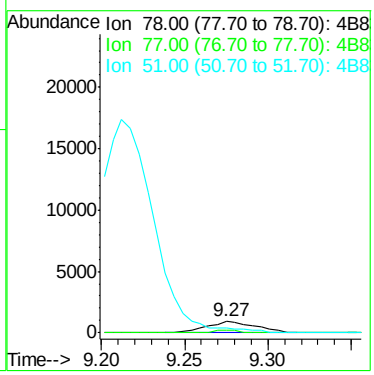


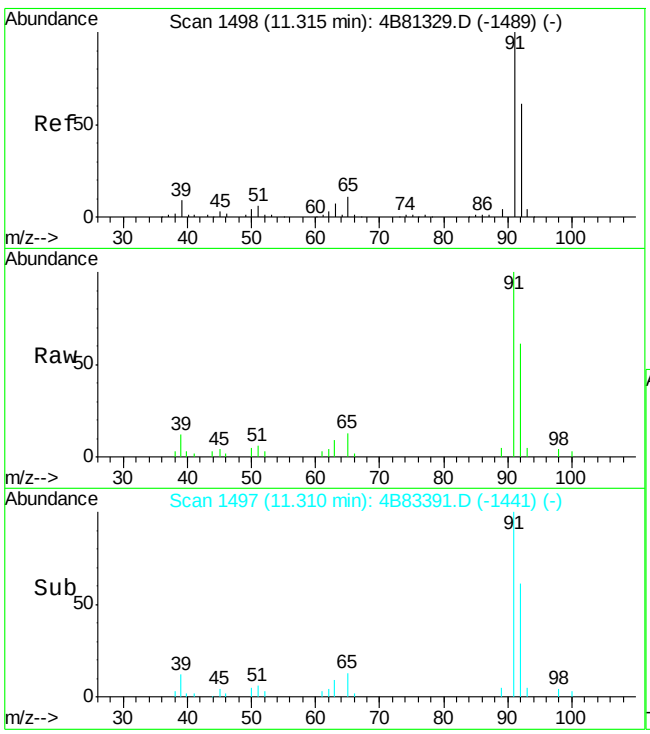


#58
benzene
Concen: 0.21 ug/L
RT: 9.27 min Scan# 1108
Delta R.T. -0.01 min
Lab File: 4B83391.D
Acq: 6 Jul 2018 11:39 am

Tgt Ion: 78 Resp: 1921

Ion	Ratio	Lower	Upper
78	100		
77	18.2	0.0	53.4
51	37.8	0.0	48.4

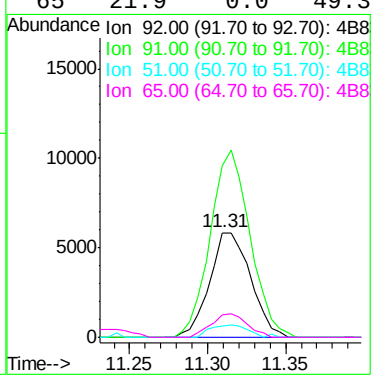




#77
toluene
Concen: 2.00 ug/L
RT: 11.31 min Scan# 1497
Delta R.T. -0.01 min
Lab File: 4B83391.D
Acq: 6 Jul 2018 11:39 am

Tgt Ion: 92 Resp: 10674

Ion	Ratio	Lower	Upper
92	100		
91	163.9	149.0	189.0
51	10.6	0.0	41.4
65	21.9	0.0	49.3



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144445.d
Acq On : 1 Jul 2018 6:57 pm
Operator : juntaep
Sample : jc68966-19 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 01:59:10 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

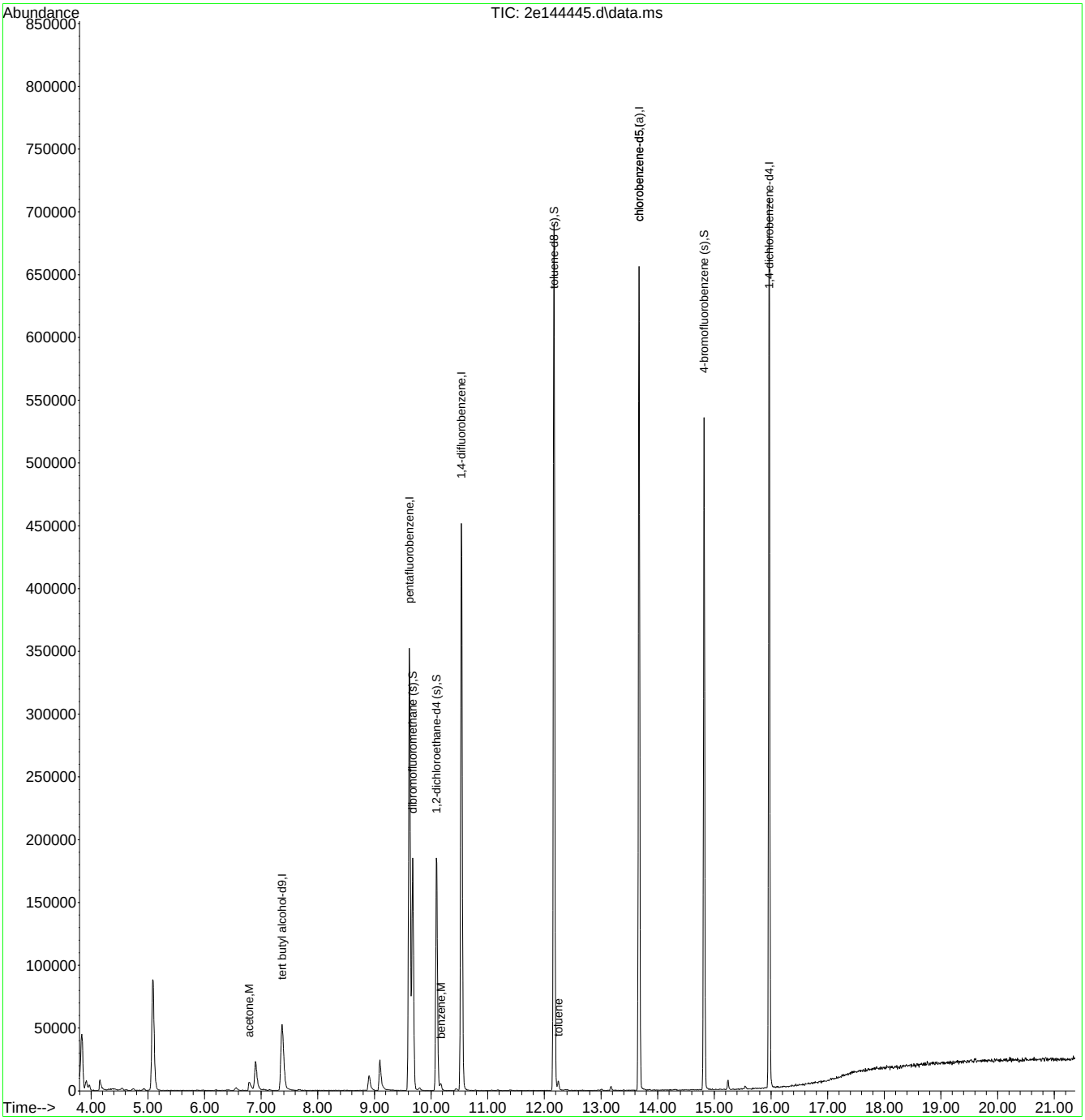
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.368	65	106665	500.00	ug/L	-0.02
5) pentafluorobenzene	9.617	168	284885	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	398577	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	355397	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	171327	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	355397	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	118735	49.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.48%			
57) 1,2-dichloroethane-d4 (s)	10.094	65	143276	58.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 116.62%			
78) toluene-d8 (s)	12.170	98	466232	50.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.24%			
101) 4-bromofluorobenzene (s)	14.818	95	166957	55.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.66%			
Target Compounds						Qvalue
22) acetone	6.786	58	4639	16.49	ug/L #	69
60) benzene	10.173	78	5458	0.41	ug/L	90
79) toluene	12.244	92	3199	0.41	ug/L	93

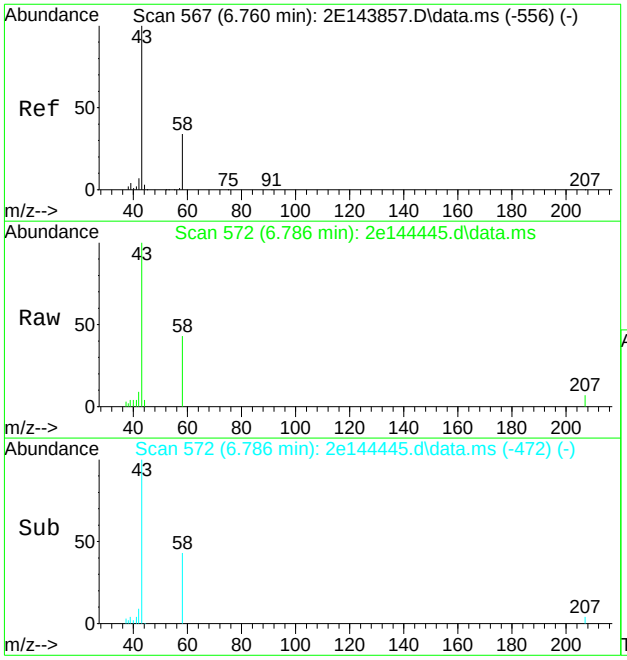
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144445.d
Acq On : 1 Jul 2018 6:57 pm
Operator : juntaep
Sample : jc68966-19 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 01:59:10 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

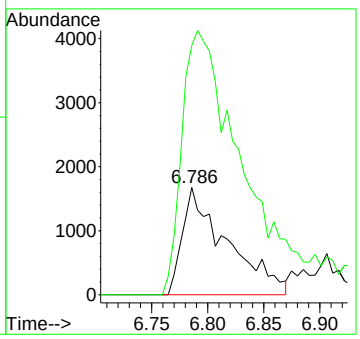


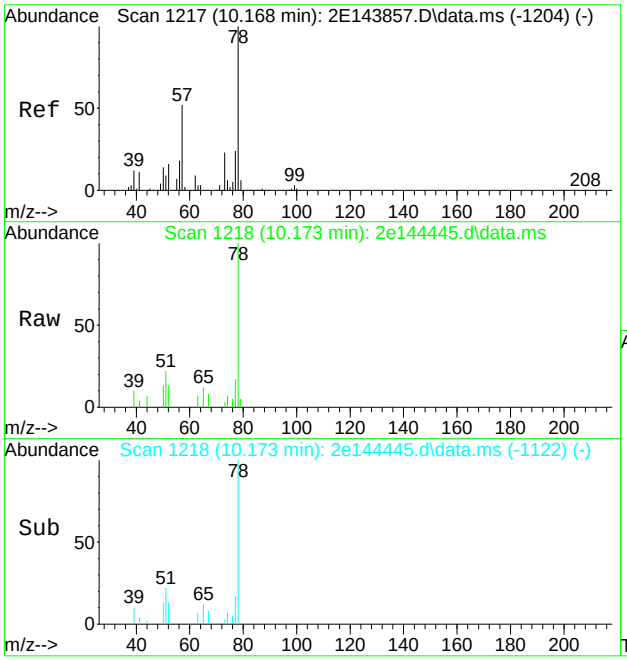


#22
acetone
Concen: 16.49 ug/L
RT: 6.786 min Scan# 572
Delta R.T. 0.026 min
Lab File: 2e144445.d
Acq: 1 Jul 2018 6:57 pm

Tgt Ion: 58 Resp: 4639

Ion	Ratio	Lower	Upper
58	100		
43	232.3	261.7	321.7#

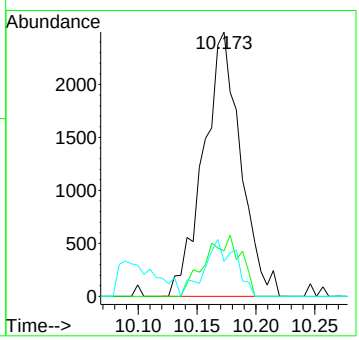


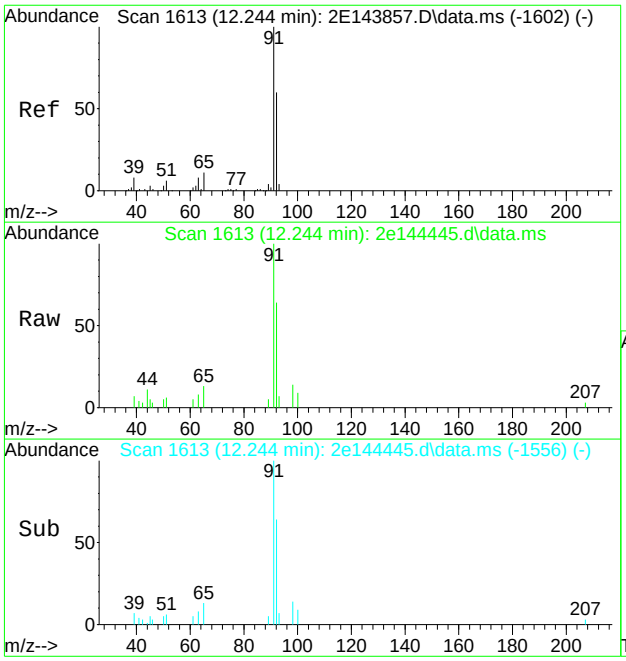


#60
benzene
Concen: 0.41 ug/L
RT: 10.173 min Scan# 1218
Delta R.T. 0.005 min
Lab File: 2e144445.d
Acq: 1 Jul 2018 6:57 pm

Tgt Ion: 78 Resp: 5458

Ion	Ratio	Lower	Upper
78	100		
77	17.2	0.0	53.8
52	13.3	0.0	45.8

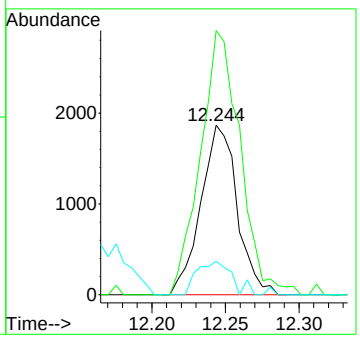




#79
toluene
Concen: 0.41 ug/L
RT: 12.244 min Scan# 1613
Delta R.T. -0.000 min
Lab File: 2e144445.d
Acq: 1 Jul 2018 6:57 pm

Tgt Ion: 92 Resp: 3199

Ion	Ratio	Lower	Upper
92	100		
91	155.9	145.4	185.4
65	19.9	0.0	38.2



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83390.D
Acq On : 6 Jul 2018 11:11 am
Operator : HueanhT
Sample : JC68966-20
Misc : MS27583,V4B3470,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 06 17:17:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

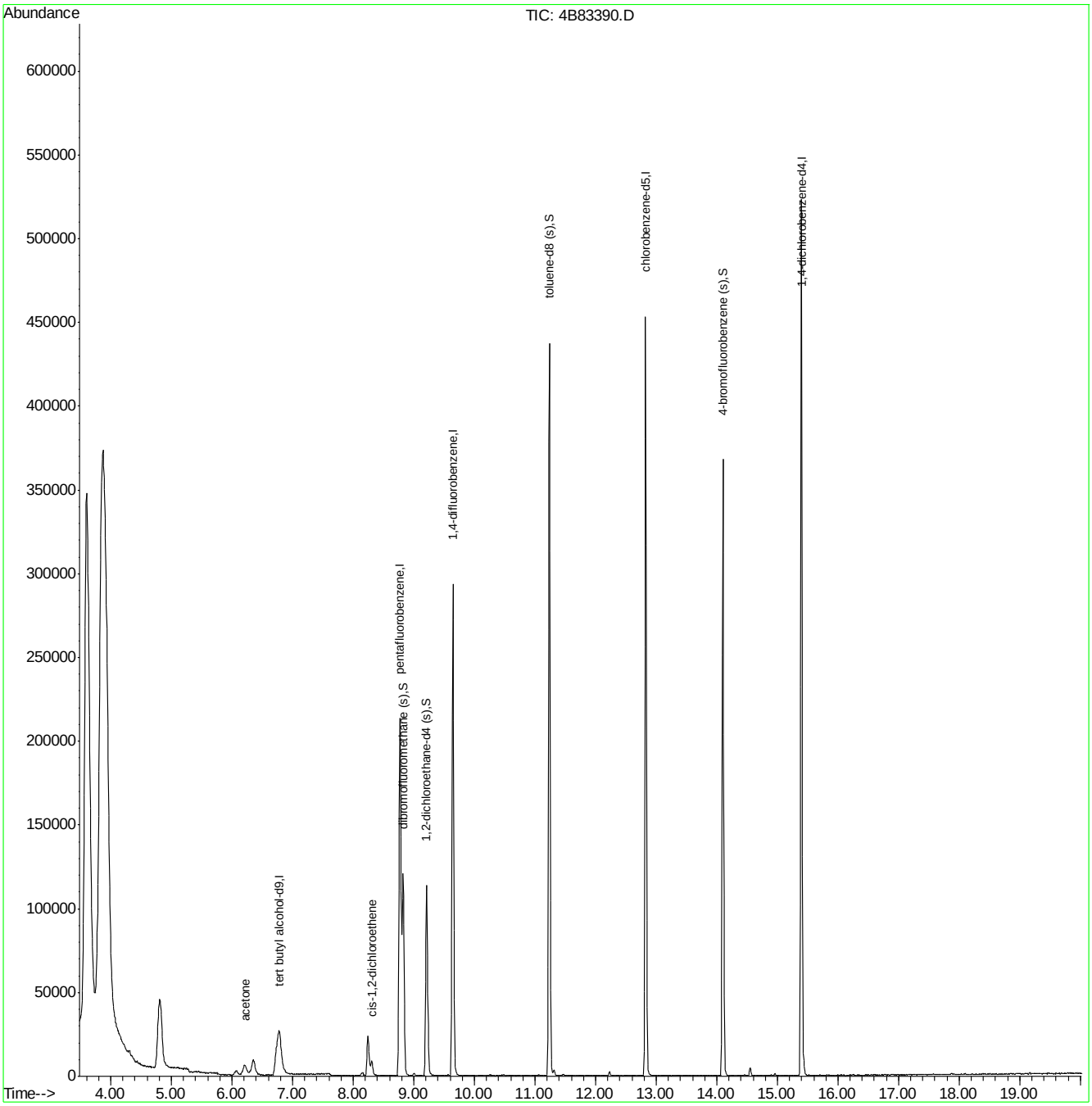
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.77	65	91796	500.00	ug/L	-0.02
5) pentafluorobenzene	8.78	168	184934	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	258539	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	250503	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	141615	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	86234	49.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.70%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	90579	48.84	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.68%			
76) toluene-d8 (s)	11.24	98	290316	45.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.56%			
99) 4-bromofluorobenzene (s)	14.10	95	118461	54.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.04%			
Target Compounds						Qvalue
20) acetone	6.21	58	5796	32.96	ug/L	86
38) cis-1,2-dichloroethene	8.31	96	4397	1.72	ug/L #	79

(#) = qualifier out of range (m) = manual integration (+) = signals summed

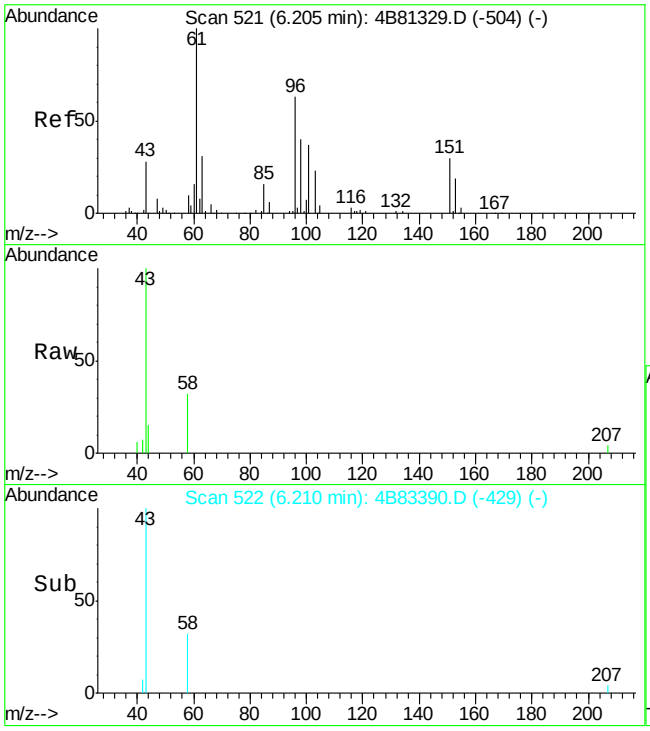
Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83390.D
Acq On : 6 Jul 2018 11:11 am
Operator : HueanhT
Sample : JC68966-20
Misc : MS27583,V4B3470,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jul 06 17:17:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



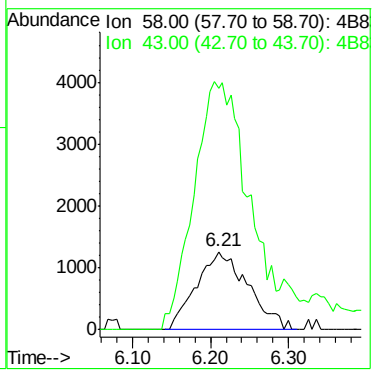
M4B3432.M Fri Jul 06 17:22:38 2018 GCMS4B Page: 2

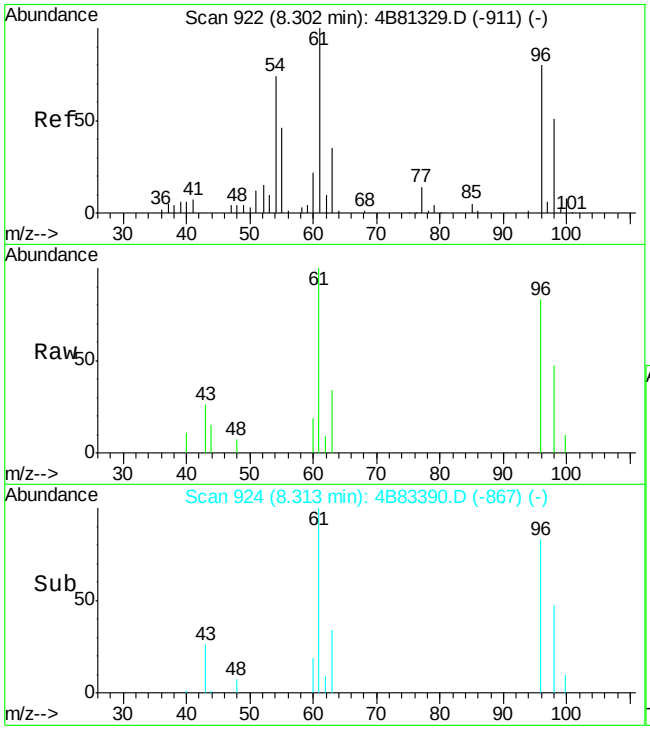


#20
acetone
Concen: 32.96 ug/L
RT: 6.21 min Scan# 522
Delta R.T. -0.02 min
Lab File: 4B83390.D
Acq: 6 Jul 2018 11:11 am

Tgt Ion: 58 Resp: 5796

Ion	Ratio	Lower	Upper
58	100		
43	288.7	287.3	347.3

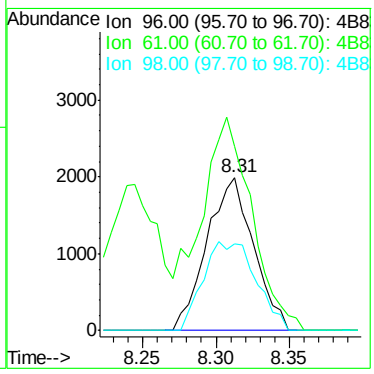




#38
cis-1,2-dichloroethene
Concen: 1.72 ug/L
RT: 8.31 min Scan# 924
Delta R.T. -0.00 min
Lab File: 4B83390.D
Acq: 6 Jul 2018 11:11 am

Tgt Ion: 96 Resp: 4397

Ion	Ratio	Lower	Upper
96	100		
61	111.9	114.9	174.9#
98	56.4	33.8	93.8



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144450.d
Acq On : 1 Jul 2018 9:52 pm
Operator : juntaep
Sample : jc68966-21 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:17:29 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

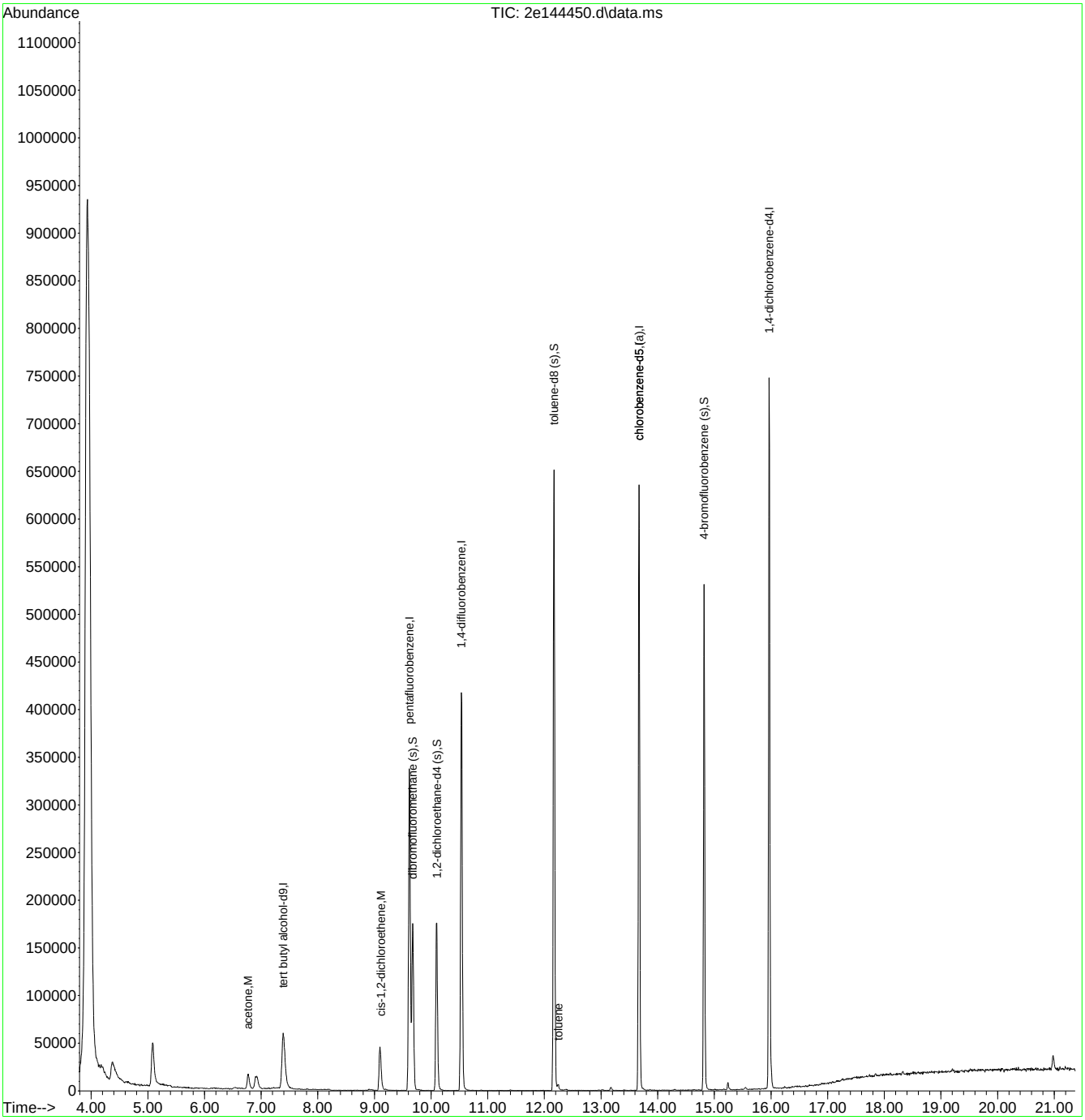
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.389	65	133490	500.00	ug/L	0.00
5) pentafluorobenzene	9.617	168	267525	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	379329	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	345569	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	183703	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	345569	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	115103	51.35	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.70%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	136987	58.58	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 117.16%			
78) toluene-d8 (s)	12.170	98	444414	49.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.24%			
101) 4-bromofluorobenzene (s)	14.818	95	164199	51.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.42%			
Target Compounds						Qvalue
22) acetone	6.765	58	8372	31.69	ug/L	# 79
40) cis-1,2-dichloroethene	9.114	96	6006	1.77	ug/L	# 76
79) toluene	12.244	92	2152	0.28	ug/L	# 83

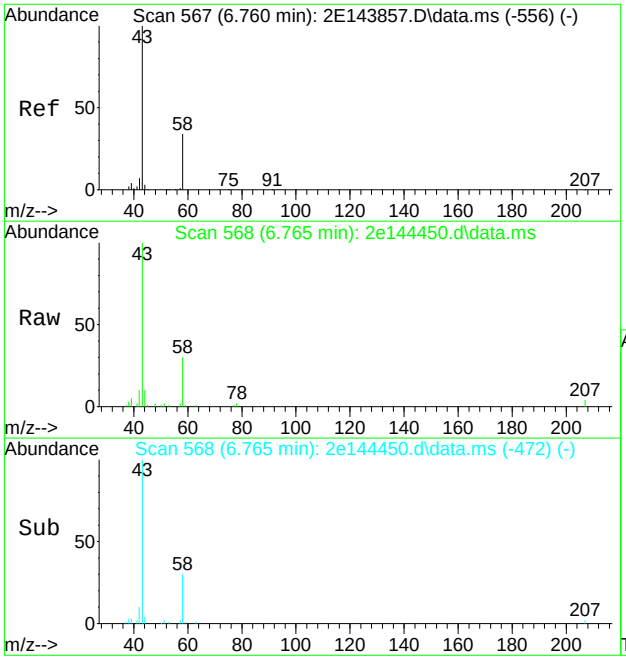
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144450.d
Acq On : 1 Jul 2018 9:52 pm
Operator : juntaep
Sample : jc68966-21 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:17:29 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

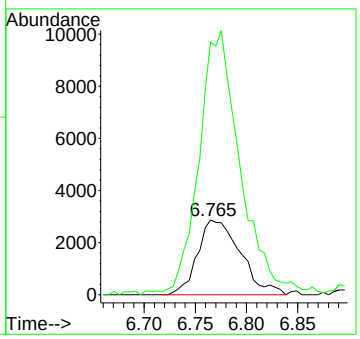


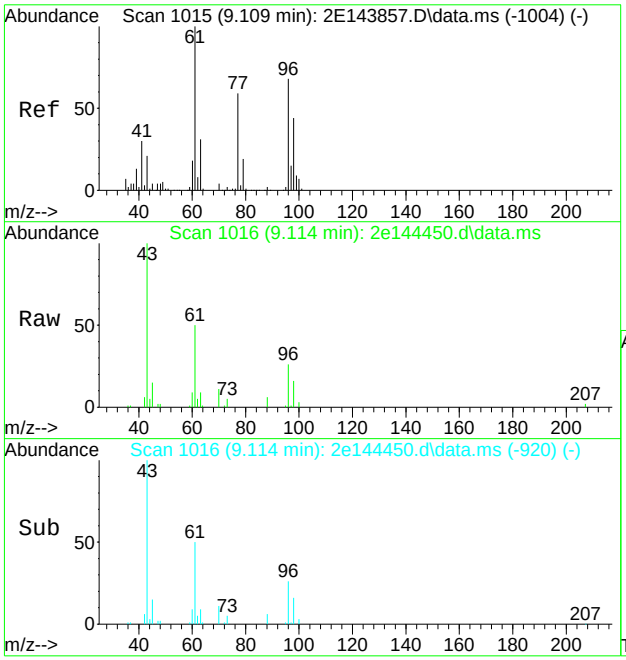


#22
acetone
Concen: 31.69 ug/L
RT: 6.765 min Scan# 568
Delta R.T. 0.005 min
Lab File: 2e144450.d
Acq: 1 Jul 2018 9:52 pm

Tgt Ion: 58 Resp: 8372

Ion	Ratio	Lower	Upper
58	100		
43	332.9	261.7	321.7#

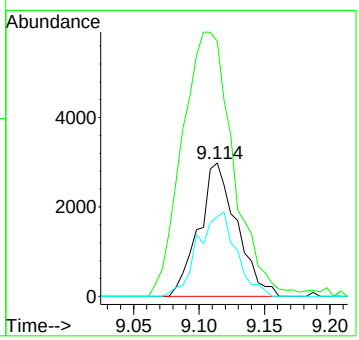


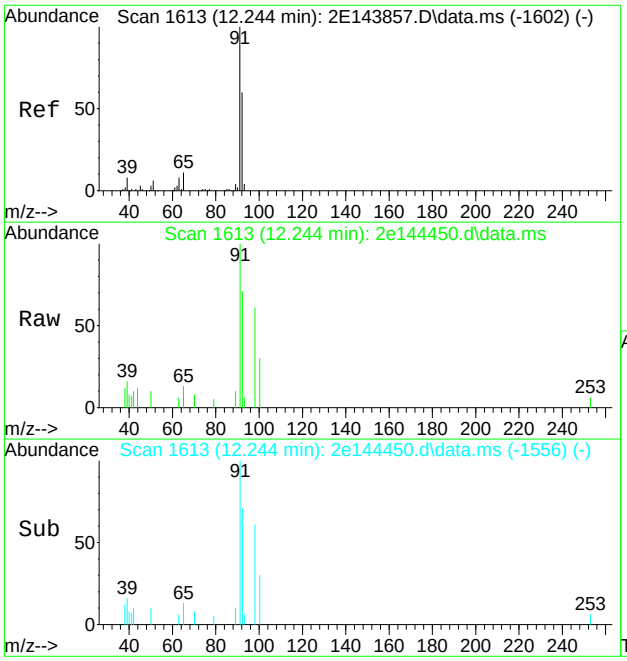


#40
cis-1,2-dichloroethene
Concen: 1.77 ug/L
RT: 9.114 min Scan# 1016
Delta R.T. 0.005 min
Lab File: 2e144450.d
Acq: 1 Jul 2018 9:52 pm

Tgt Ion: 96 Resp: 6006

Ion	Ratio	Lower	Upper
96	100		
61	186.6	116.3	176.3#
98	59.6	34.5	94.5

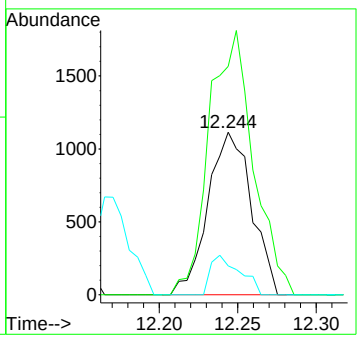




#79
toluene
Concen: 0.28 ug/L
RT: 12.244 min Scan# 1613
Delta R.T. -0.000 min
Lab File: 2e144450.d
Acq: 1 Jul 2018 9:52 pm

Tgt Ion: 92 Resp: 2152

Ion	Ratio	Lower	Upper
92	100		
91	140.6	145.4	185.4#
65	17.8	0.0	38.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144451.d
Acq On : 1 Jul 2018 10:20 pm
Operator : juntaep
Sample : jc68966-22 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:21:00 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

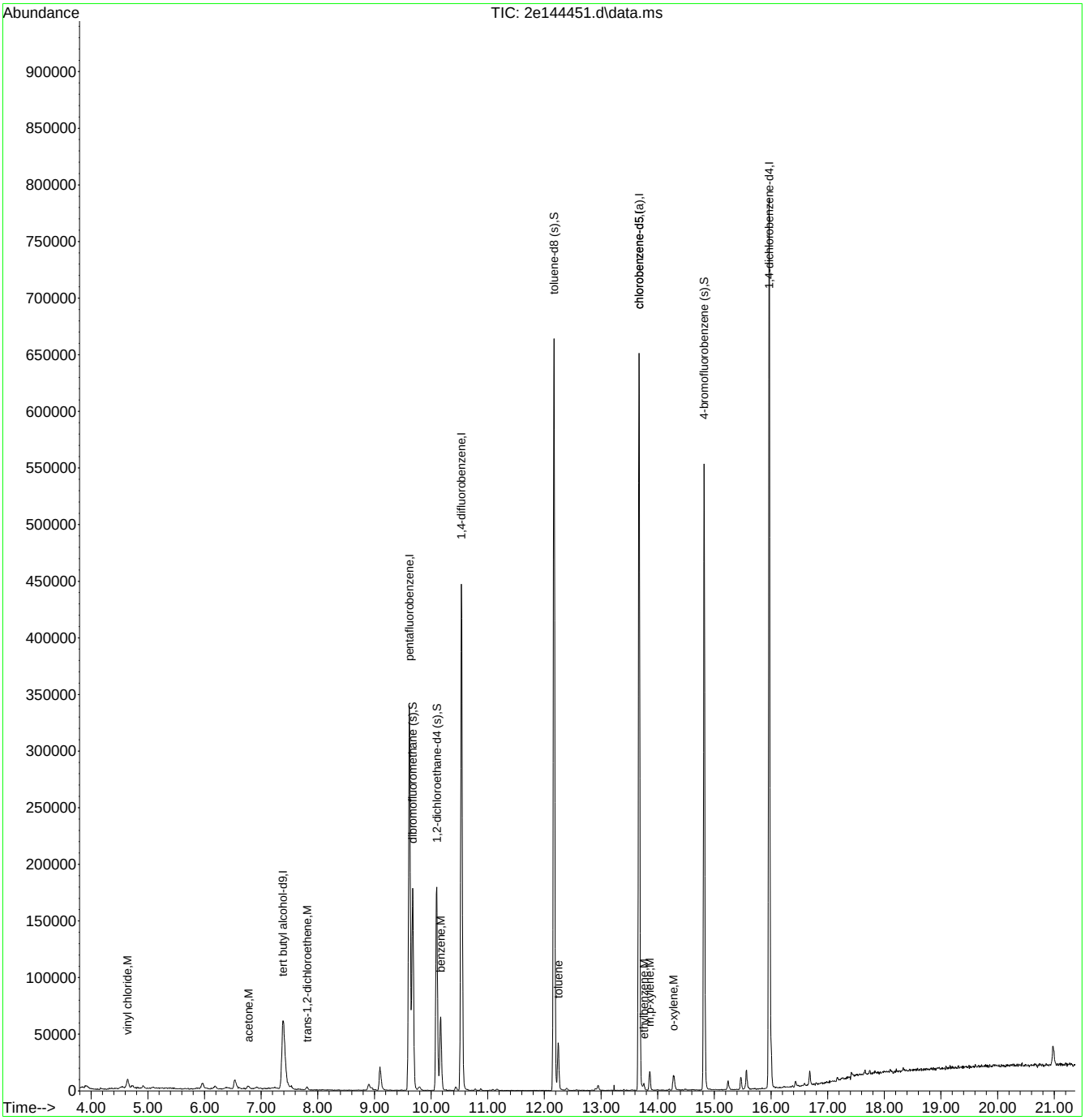
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	138515	500.00	ug/L	0.00
5) pentafluorobenzene	9.617	168	272935	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	388201	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	355949	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	189905	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	355949	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	115394	50.46	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%			
57) 1,2-dichloroethane-d4 (s)	10.100	65	138980	58.07	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 116.14%			
78) toluene-d8 (s)	12.171	98	456953	49.54	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%			
101) 4-bromofluorobenzene (s)	14.818	95	173774	52.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.86%			
Target Compounds						Qvalue
11) vinyl chloride	4.641	62	11819	2.17	ug/L	91
22) acetone	6.781	58	1306	4.85	ug/L #	30
29) trans-1,2-dichloroethene	7.808	61	1981	0.46	ug/L	76
60) benzene	10.168	78	63501	4.95	ug/L	97
79) toluene	12.244	92	17606	2.23	ug/L	99
92) ethylbenzene	13.759	91	3268	0.22	ug/L	87
93) m,p-xylene	13.859	106	4893	0.88	ug/L	87
94) o-xylene	14.278	91	6550	0.57	ug/L	99

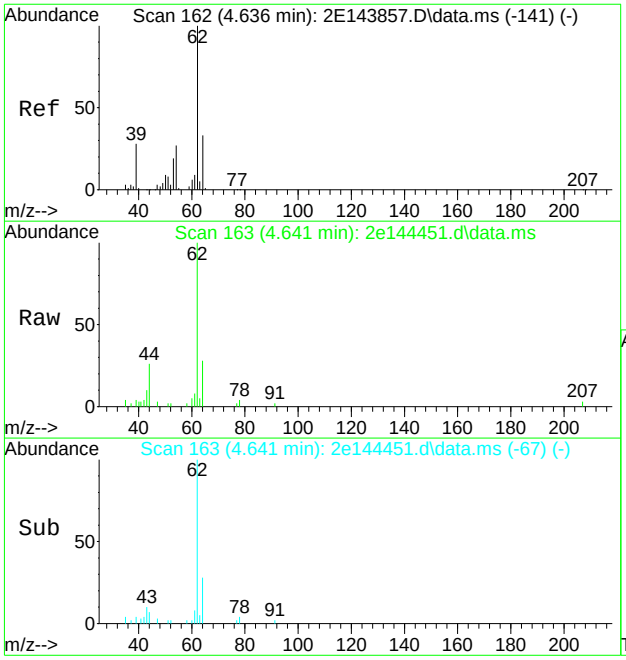
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144451.d
Acq On : 1 Jul 2018 10:20 pm
Operator : juntaep
Sample : jc68966-22 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 17 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:21:00 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

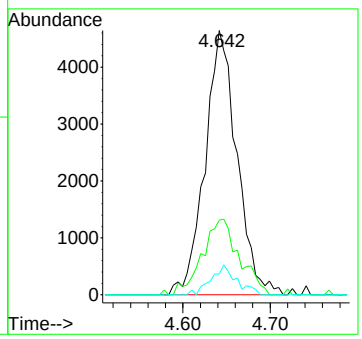


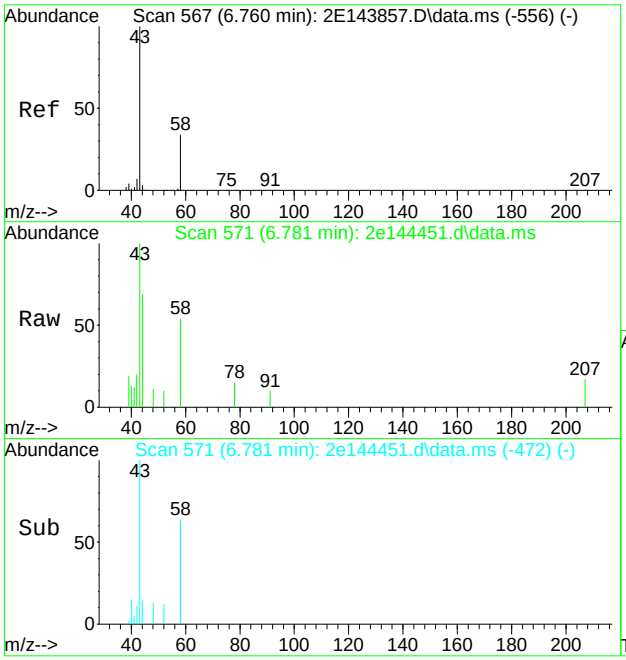


#11
vinyl chloride
Concen: 2.17 ug/L
RT: 4.641 min Scan# 163
Delta R.T. 0.005 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 62 Resp: 11819

Ion	Ratio	Lower	Upper
62	100		
64	26.4	2.5	62.5
61	7.8	0.0	38.7

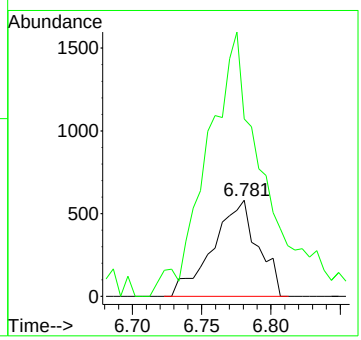


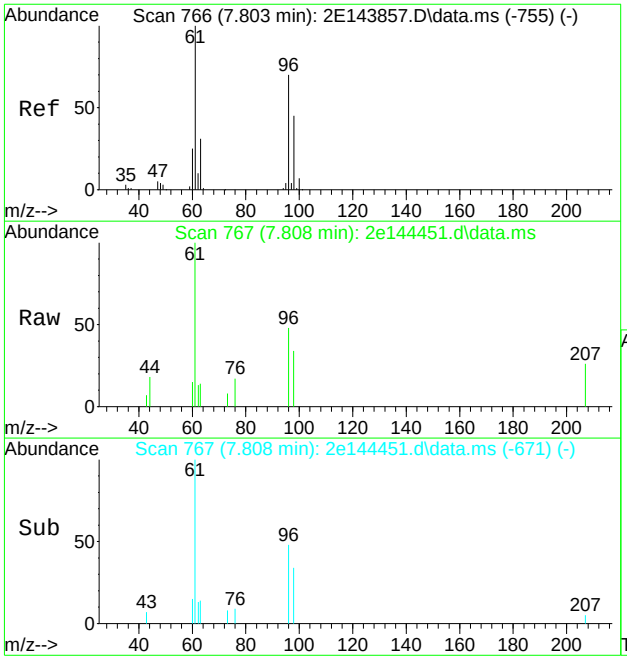


#22
acetone
Concen: 4.85 ug/L
RT: 6.781 min Scan# 571
Delta R.T. 0.021 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 58 Resp: 1306

Ion	Ratio	Lower	Upper
58	100		
43	157.4	261.7	321.7#

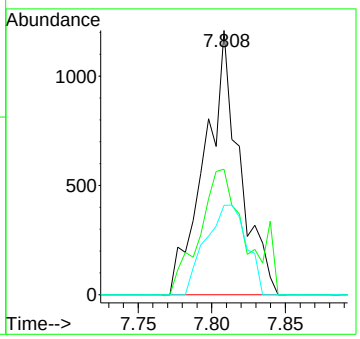


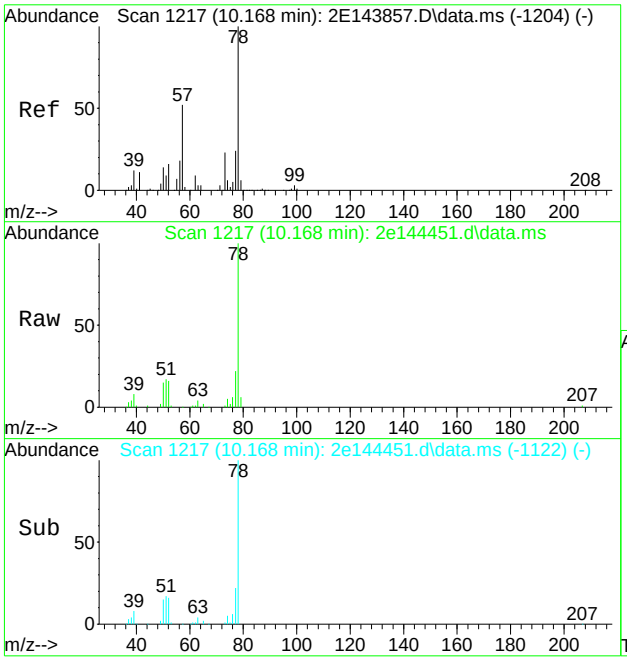


#29
trans-1,2-dichloroethene
Concen: 0.46 ug/L
RT: 7.808 min Scan# 767
Delta R.T. 0.005 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 61 Resp: 1981

Ion	Ratio	Lower	Upper
61	100		
96	47.5	40.4	100.4
98	33.8	14.8	74.8

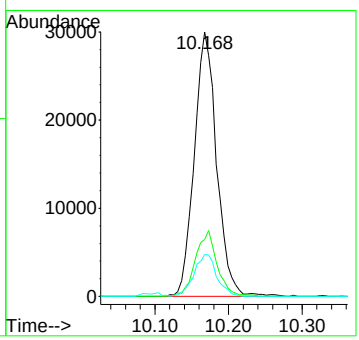


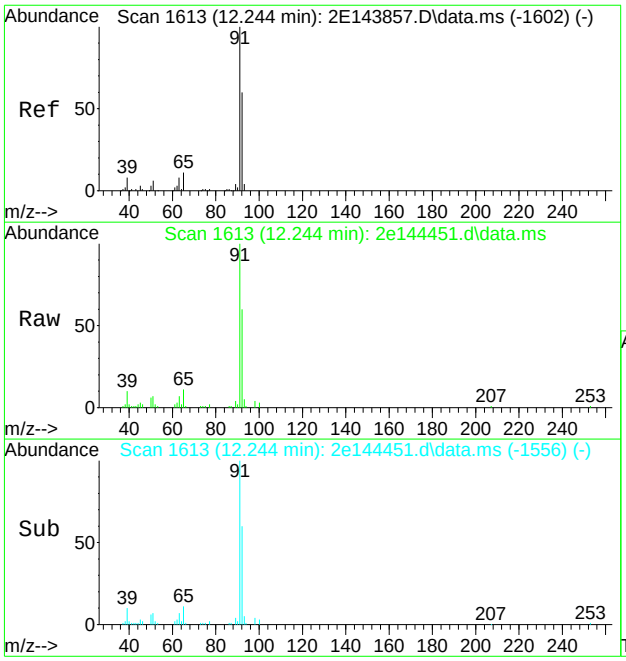


#60
benzene
Concen: 4.95 ug/L
RT: 10.168 min Scan# 1217
Delta R.T. -0.000 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 78 Resp: 63501

Ion	Ratio	Lower	Upper
78	100		
77	21.6	0.0	53.8
52	15.8	0.0	45.8

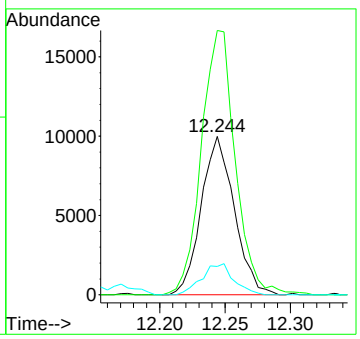


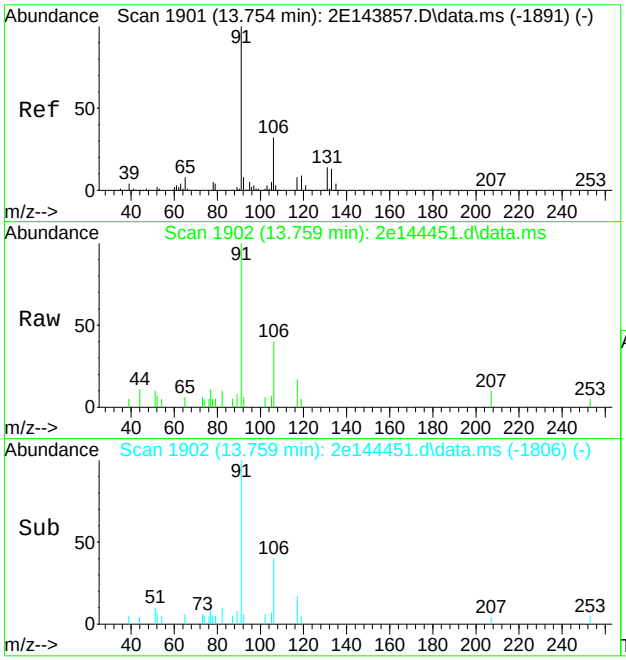


#79
toluene
Concen: 2.23 ug/L
RT: 12.244 min Scan# 1613
Delta R.T. -0.000 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 92 Resp: 17606

Ion	Ratio	Lower	Upper
92	100		
91	166.9	145.4	185.4
65	17.9	0.0	38.2

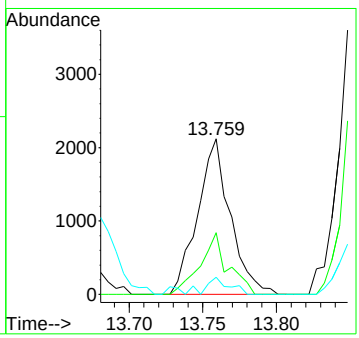


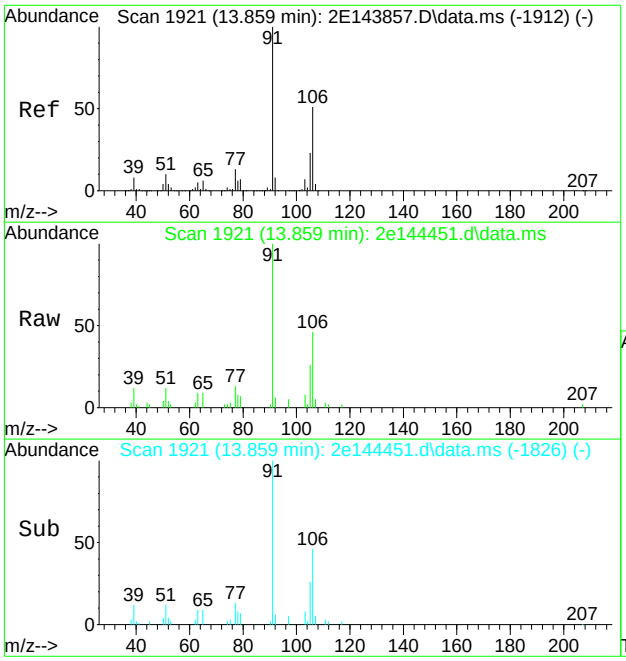


#92
ethylbenzene
Concen: 0.22 ug/L
RT: 13.759 min Scan# 1902
Delta R.T. 0.005 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 91 Resp: 3268

Ion	Ratio	Lower	Upper
91	100		
106	39.6	1.7	61.7
77	11.0	0.0	38.4

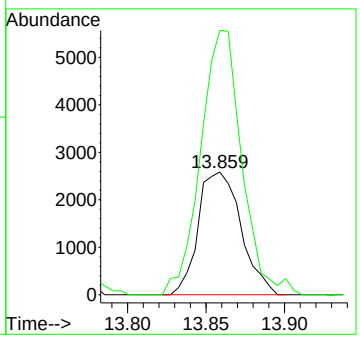


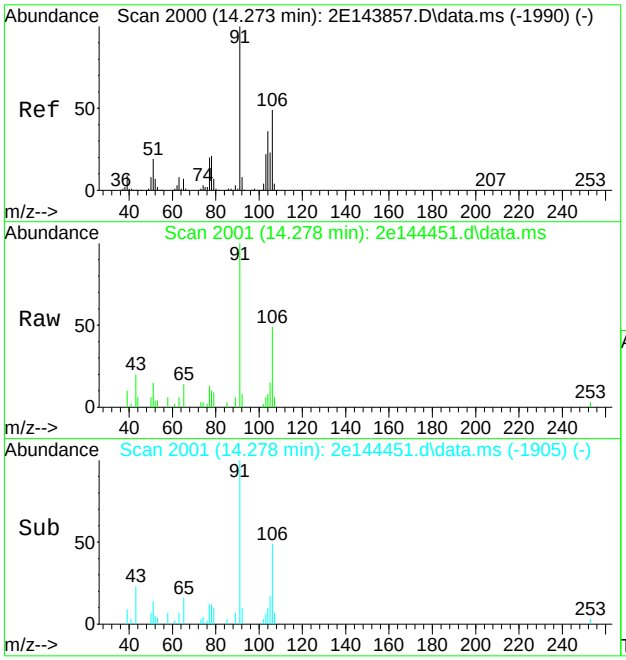


#93
m,p-xylene
Concen: 0.88 ug/L
RT: 13.859 min Scan# 1921
Delta R.T. -0.000 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion:106 Resp: 4893

Ion	Ratio	Lower	Upper
106	100		
91	215.4	166.3	226.3

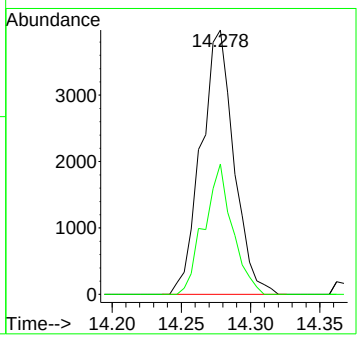




#94
o-xylene
Concen: 0.57 ug/L
RT: 14.278 min Scan# 2001
Delta R.T. 0.005 min
Lab File: 2e144451.d
Acq: 1 Jul 2018 10:20 pm

Tgt Ion: 91 Resp: 6550

Ion	Ratio	Lower	Upper
91	100		
106	49.3	28.9	68.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144452.d
Acq On : 1 Jul 2018 10:49 pm
Operator : juntaep
Sample : jc68966-23 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:23:18 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

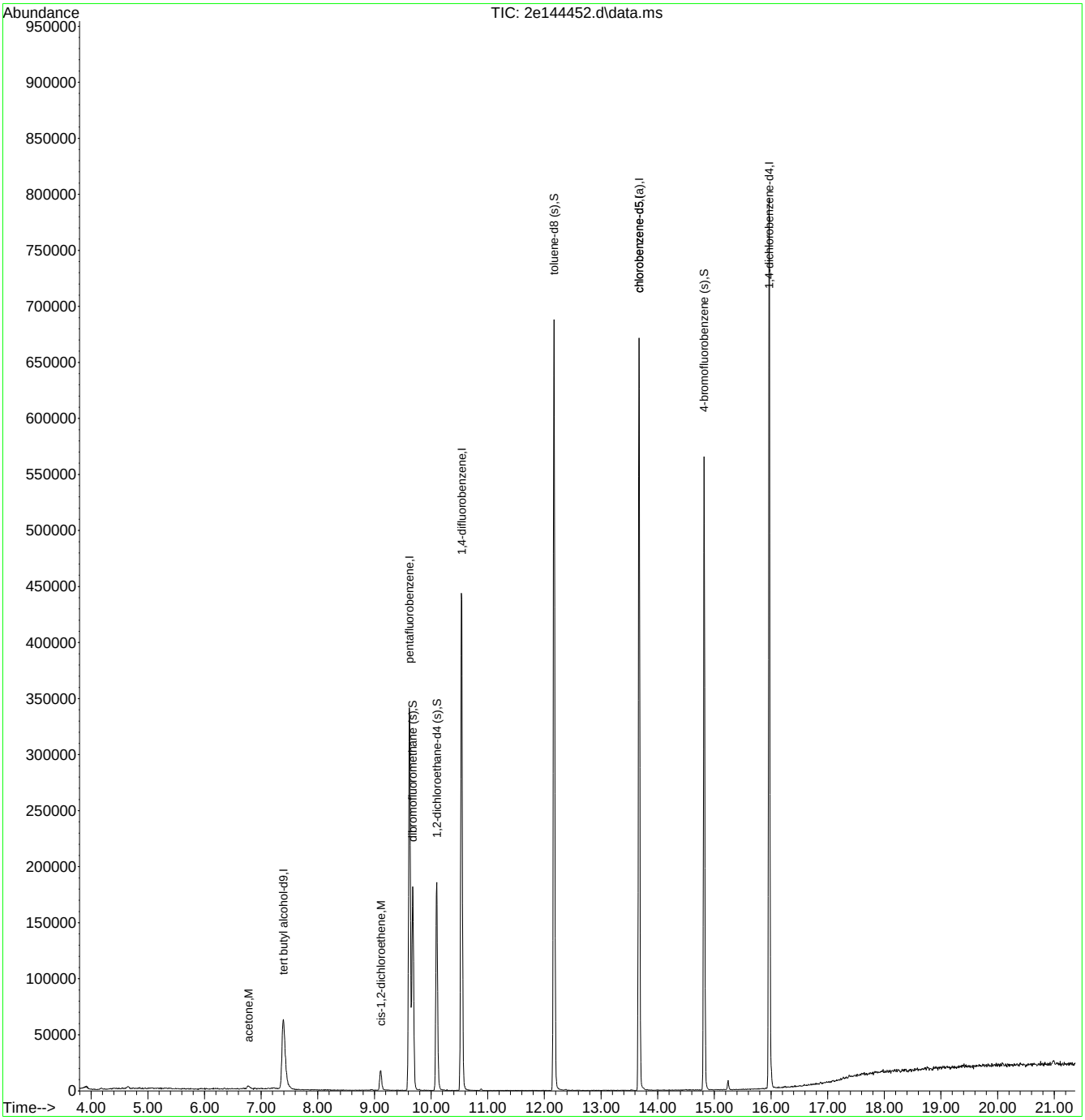
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	143465	500.00	ug/L	0.01
5) pentafluorobenzene	9.617	168	281061	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.540	114	399786	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	367016	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.967	152	195154	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	367016	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	118389	50.27	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.54%			
57) 1,2-dichloroethane-d4 (s)	10.100	65	143366	58.17	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 116.34%			
78) toluene-d8 (s)	12.171	98	466076	49.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.00%			
101) 4-bromofluorobenzene (s)	14.818	95	177702	52.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.34%			
Target Compounds						Qvalue
22) acetone	6.781	58	1472	5.30	ug/L #	73
40) cis-1,2-dichloroethene	9.114	96	5482	1.54	ug/L	94

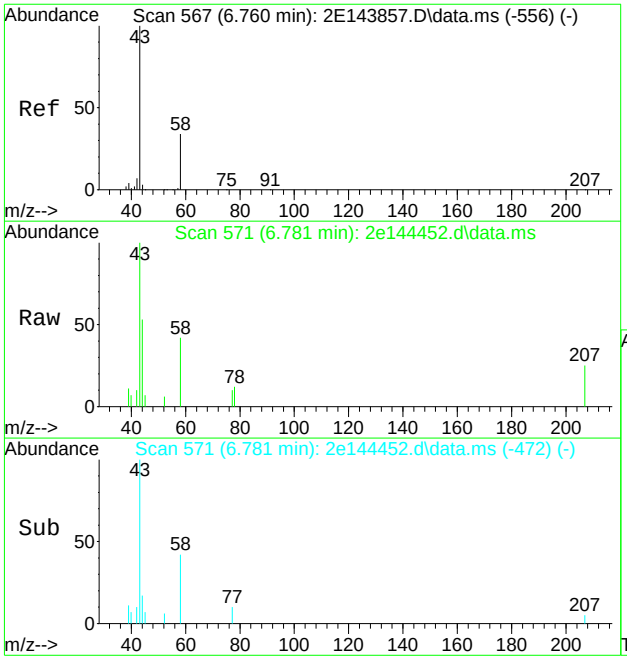
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144452.d
Acq On : 1 Jul 2018 10:49 pm
Operator : juntaep
Sample : jc68966-23 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:23:18 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

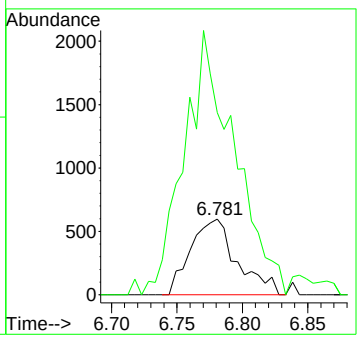


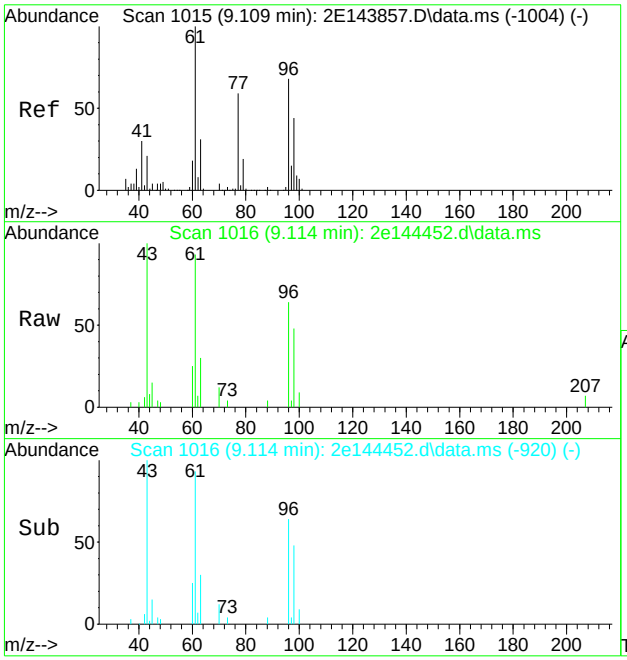


#22
acetone
Concen: 5.30 ug/L
RT: 6.781 min Scan# 571
Delta R.T. 0.021 min
Lab File: 2e144452.d
Acq: 1 Jul 2018 10:49 pm

Tgt Ion: 58 Resp: 1472

Ion	Ratio	Lower	Upper
58	100		
43	240.3	261.7	321.7#

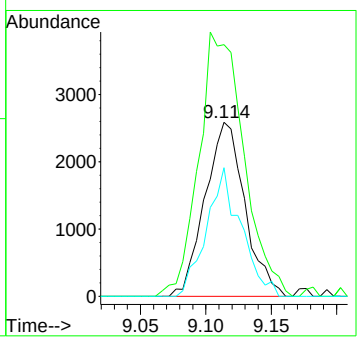




#40
cis-1,2-dichloroethene
Concen: 1.54 ug/L
RT: 9.114 min Scan# 1016
Delta R.T. 0.005 min
Lab File: 2e144452.d
Acq: 1 Jul 2018 10:49 pm

Tgt Ion: 96 Resp: 5482

Ion	Ratio	Lower	Upper
96	100		
61	141.3	116.3	176.3
98	73.9	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182804.d
Acq On : 5 Jul 2018 7:42 pm
Operator : jessicap
Sample : jc68966-24
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 55 Sample Multiplier: 1

Quant Time: Jul 06 15:45:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

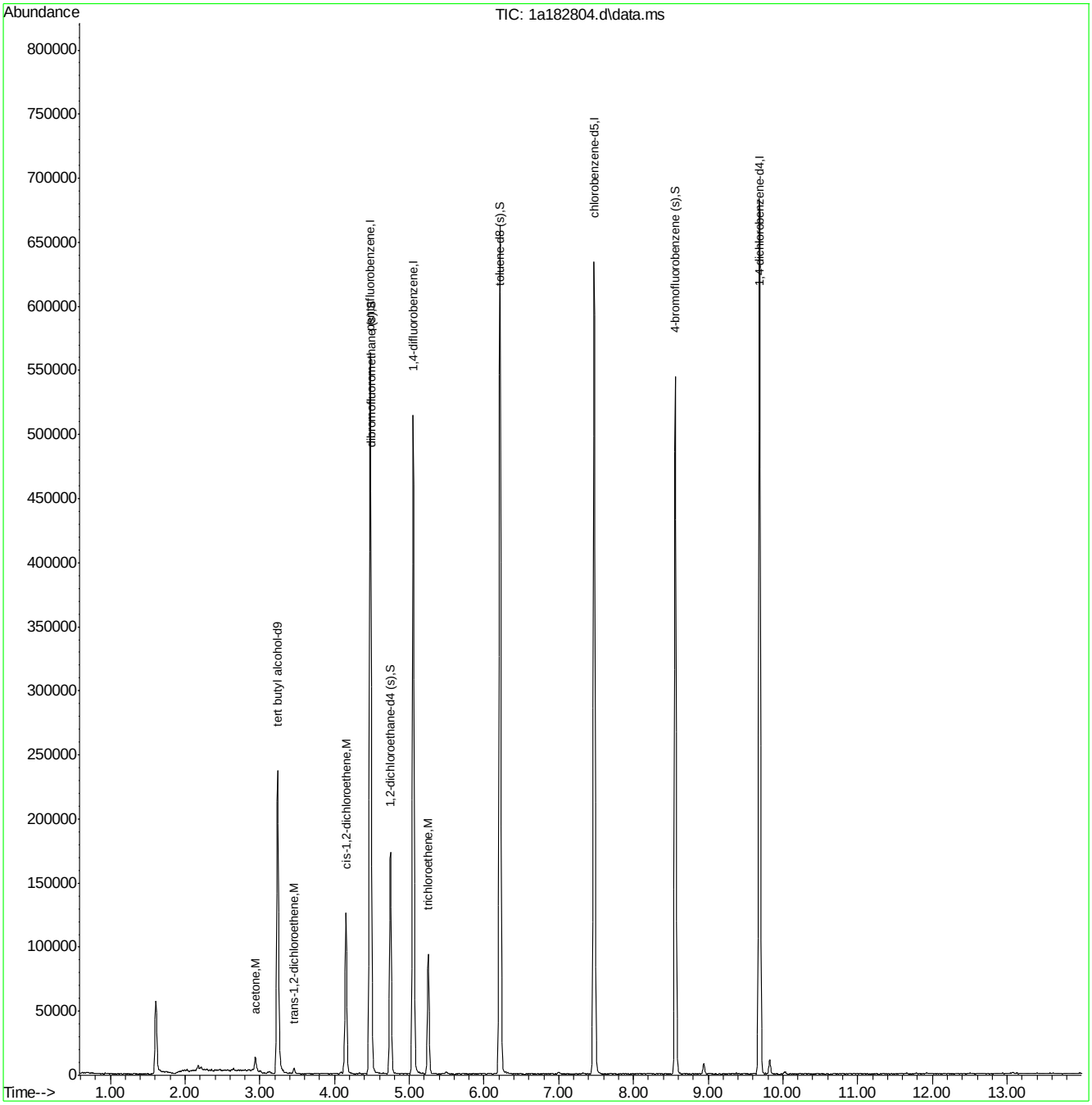
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.239	65	245240	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	287057	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	385718	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	388321	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.688	152	205938	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	106548	51.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.28%			
54) 1,2-dichloroethane-d4 (s)	4.748	65	106612	45.07	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.14%			
76) toluene-d8 (s)	6.214	98	436444	45.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.82%			
99) 4-bromofluorobenzene (s)	8.563	95	178691	53.69	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.38%			
Target Compounds						Qvalue
20) acetone	2.941	58	3202	12.72	ug/L #	76
27) trans-1,2-dichloroethene	3.458	96	1484	0.81	ug/L #	77
38) cis-1,2-dichloroethene	4.152	96	48921	23.37	ug/L	91
62) trichloroethene	5.253	130	30743	13.43	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

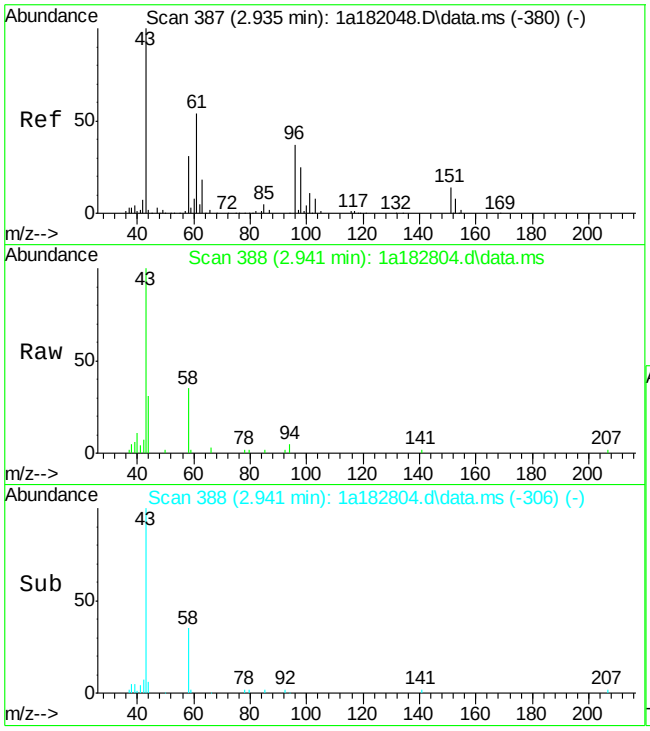
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182804.d
Acq On : 5 Jul 2018 7:42 pm
Operator : jessicap
Sample : jc68966-24
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 55 Sample Multiplier: 1

Quant Time: Jul 06 15:45:46 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



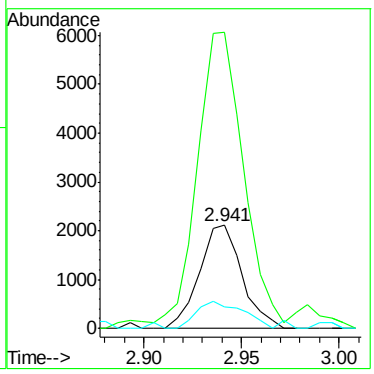
M1A7758.M Fri Jul 06 16:05:59 2018 1 Page: 2

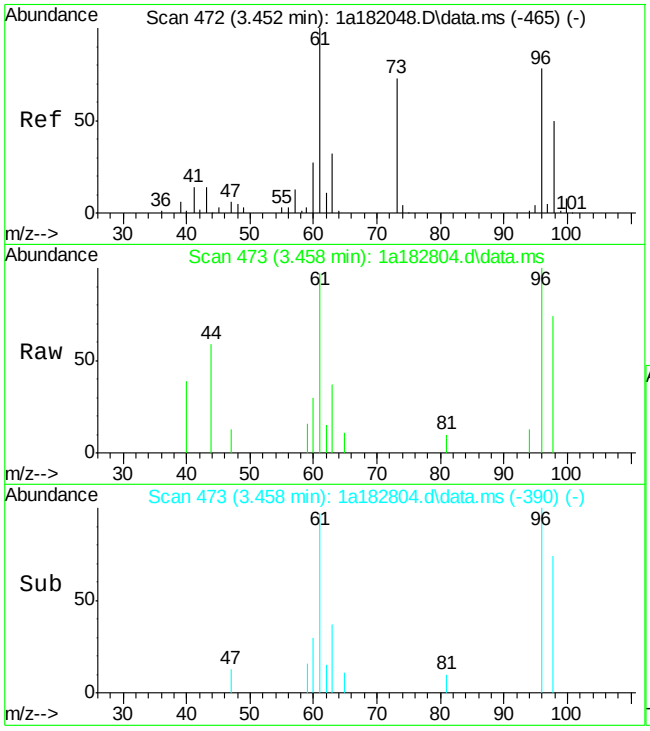


#20
acetone
Concen: 12.72 ug/L
RT: 2.941 min Scan# 388
Delta R.T. -0.000 min
Lab File: 1a182804.d
Acq: 5 Jul 2018 7:42 pm

Tgt Ion: 58 Resp: 3202

Ion	Ratio	Lower	Upper
58	100		
43	274.9	296.8	356.8#
42	20.3	0.0	53.4

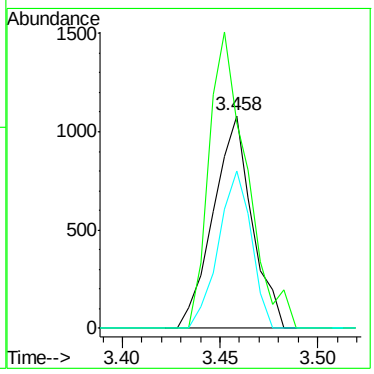


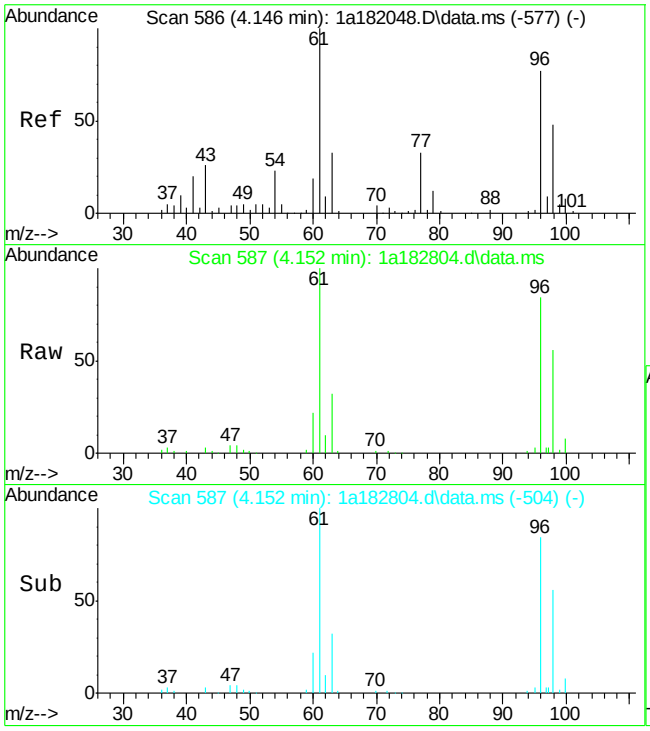


#27
trans-1,2-dichloroethene
Concen: 0.81 ug/L
RT: 3.458 min Scan# 473
Delta R.T. 0.006 min
Lab File: 1a182804.d
Acq: 5 Jul 2018 7:42 pm

Tgt Ion: 96 Resp: 1484

Ion	Ratio	Lower	Upper
96	100		
61	96.7	98.7	158.7#
98	74.2	34.3	94.3

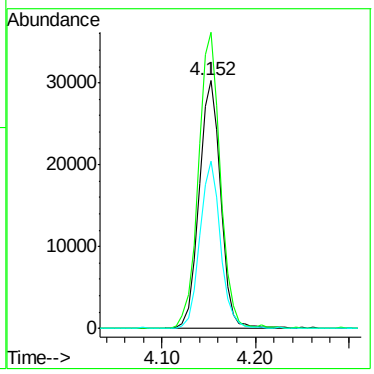


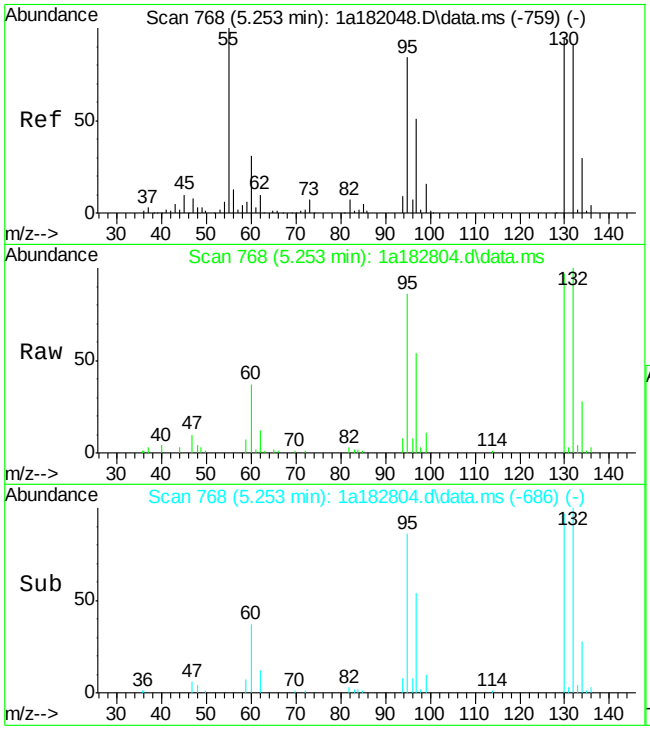


#38
cis-1,2-dichloroethene
Concen: 23.37 ug/L
RT: 4.152 min Scan# 587
Delta R.T. 0.006 min
Lab File: 1a182804.d
Acq: 5 Jul 2018 7:42 pm

Tgt Ion: 96 Resp: 48921

Ion	Ratio	Lower	Upper
96	100		
61	119.2	100.3	160.3
98	67.2	32.1	92.1

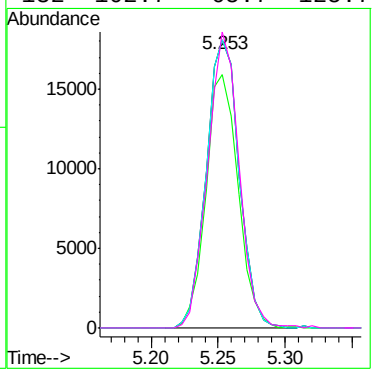




#62
trichloroethene
Concen: 13.43 ug/L
RT: 5.253 min Scan# 768
Delta R.T. -0.000 min
Lab File: 1a182804.d
Acq: 5 Jul 2018 7:42 pm

Tgt Ion:130 Resp: 30743

Ion	Ratio	Lower	Upper
130	100		
95	88.1	58.4	118.4
130	100.0	70.0	130.0
132	102.7	65.7	125.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182805.d
Acq On : 5 Jul 2018 8:07 pm
Operator : jessicap
Sample : jc68966-25
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 56 Sample Multiplier: 1

Quant Time: Jul 06 15:45:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

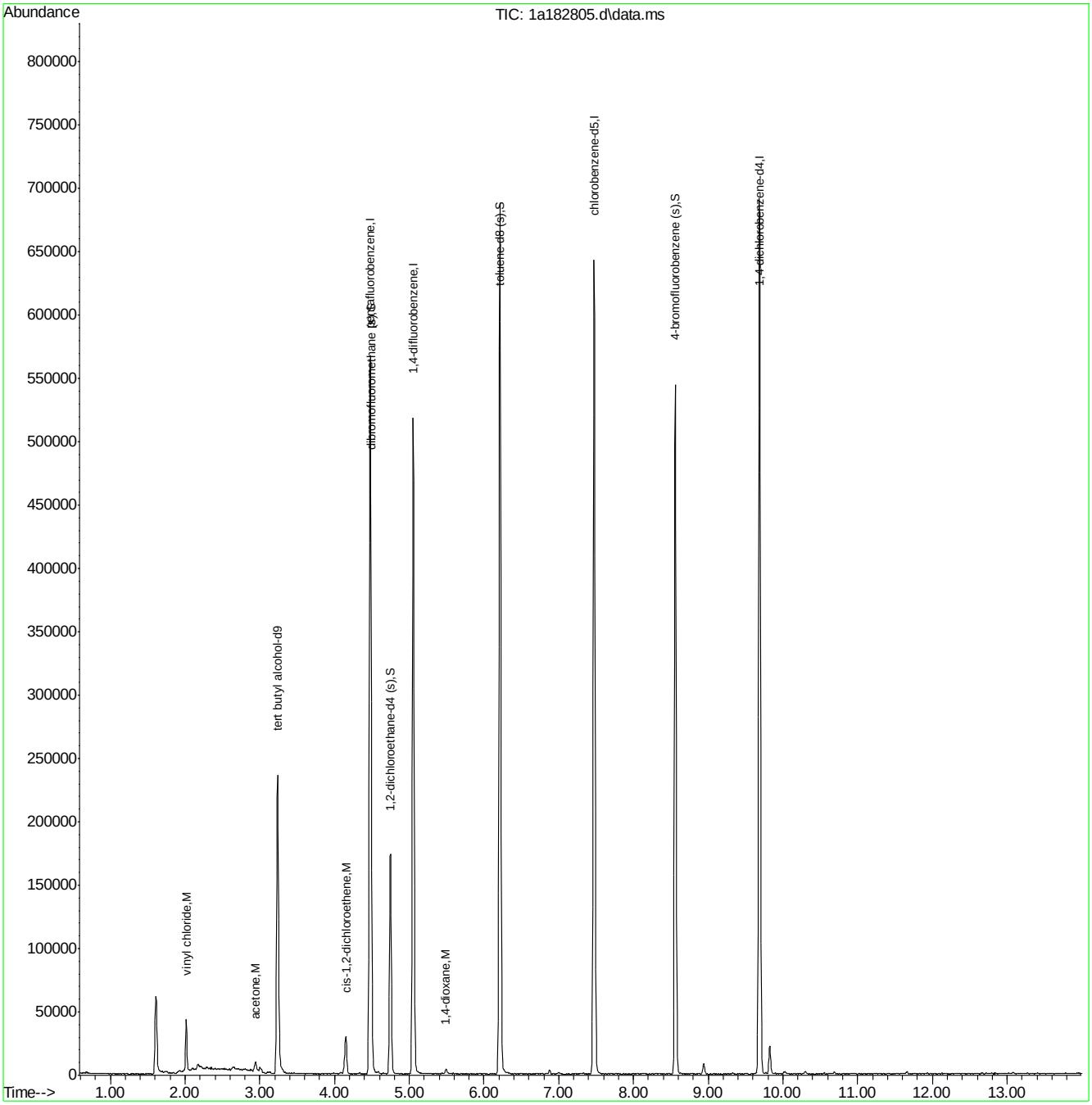
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	246538	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	291935	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	392079	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	396187	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	210064	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	108489	51.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.40%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	107159	44.56	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.12%			
76) toluene-d8 (s)	6.214	98	443946	45.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.54%			
99) 4-bromofluorobenzene (s)	8.563	95	181422	53.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.88%			
Target Compounds						Qvalue
4) 1,4-dioxane	5.490	88	3376	61.40	ug/L	74
10) vinyl chloride	2.017	62	31086	13.58	ug/L	99
20) acetone	2.935	58	1923	7.51	ug/L #	74
38) cis-1,2-dichloroethene	4.152	96	11582	5.44	ug/L	90

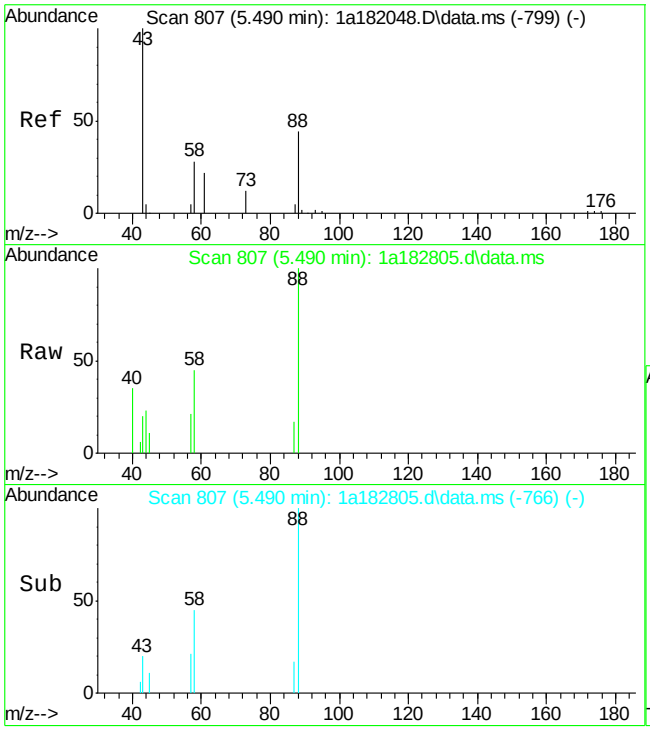
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182805.d
Acq On : 5 Jul 2018 8:07 pm
Operator : jessicap
Sample : jc68966-25
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 56 Sample Multiplier: 1

Quant Time: Jul 06 15:45:59 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

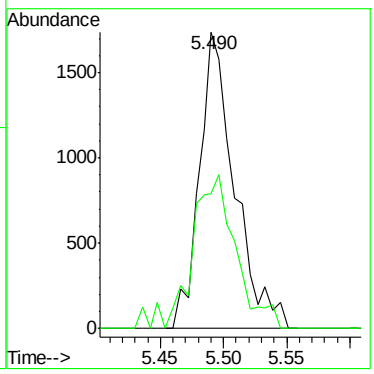


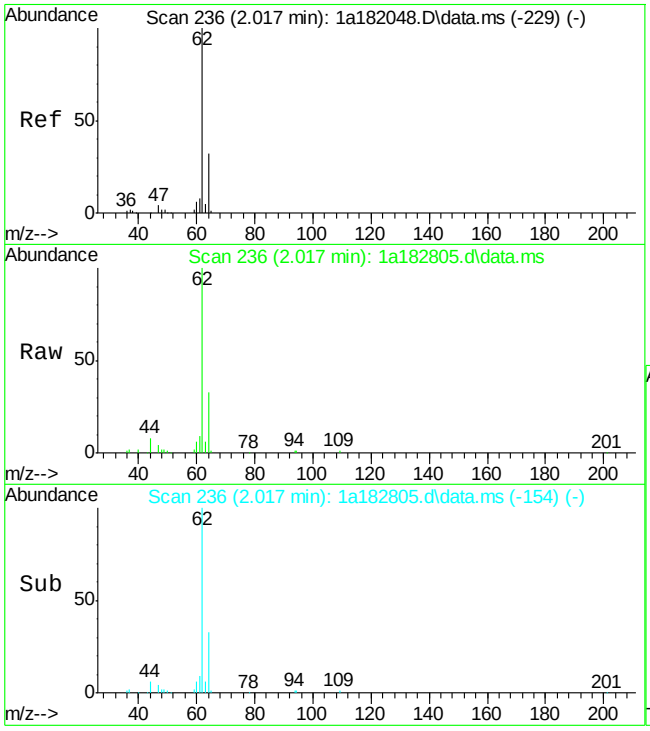


#4
1,4-dioxane
Concen: 61.40 ug/L
RT: 5.490 min Scan# 807
Delta R.T. -0.000 min
Lab File: 1a182805.d
Acq: 5 Jul 2018 8:07 pm

Tgt Ion: 88 Resp: 3376

Ion	Ratio	Lower	Upper
88	100		
58	45.4	36.5	96.5

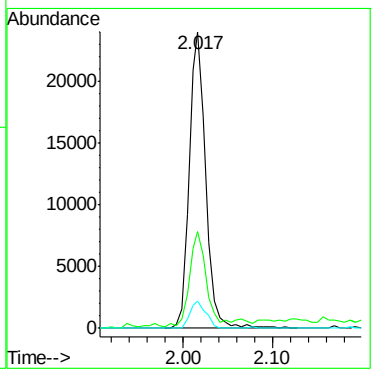


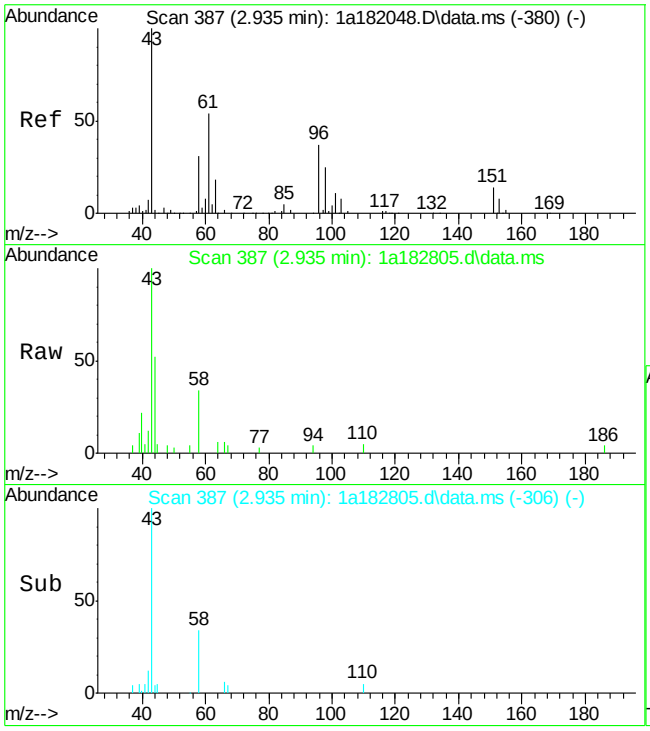


#10
vinyl chloride
Concen: 13.58 ug/L
RT: 2.017 min Scan# 236
Delta R.T. -0.000 min
Lab File: 1a182805.d
Acq: 5 Jul 2018 8:07 pm

Tgt Ion: 62 Resp: 31086

Ion	Ratio	Lower	Upper
62	100		
64	32.1	1.5	61.5
61	9.3	0.0	38.3

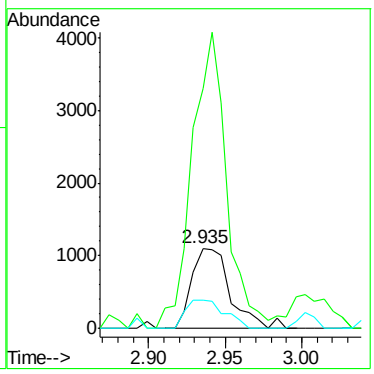


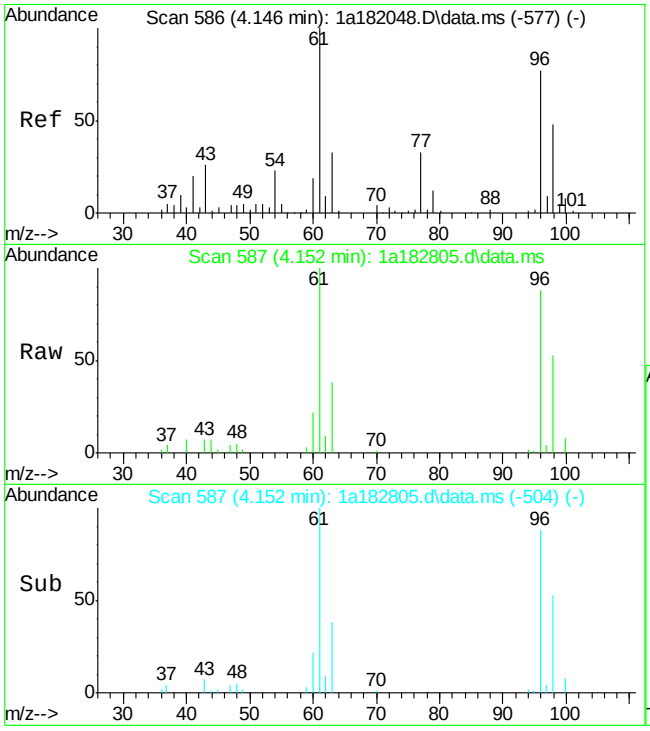


#20
acetone
Concen: 7.51 ug/L
RT: 2.935 min Scan# 387
Delta R.T. -0.006 min
Lab File: 1a182805.d
Acq: 5 Jul 2018 8:07 pm

Tgt Ion: 58 Resp: 1923

Ion	Ratio	Lower	Upper
58	100		
43	273.4	296.8	356.8#
42	34.6	0.0	53.4

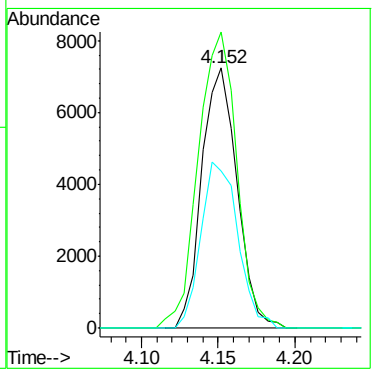




#38
cis-1,2-dichloroethene
Concen: 5.44 ug/L
RT: 4.152 min Scan# 587
Delta R.T. 0.006 min
Lab File: 1a182805.d
Acq: 5 Jul 2018 8:07 pm

Tgt Ion: 96 Resp: 11582

Ion	Ratio	Lower	Upper
96	100		
61	113.8	100.3	160.3
98	60.4	32.1	92.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182806.d
Acq On : 5 Jul 2018 8:32 pm
Operator : jessicap
Sample : jc68966-26
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 57 Sample Multiplier: 1

Quant Time: Jul 06 15:46:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

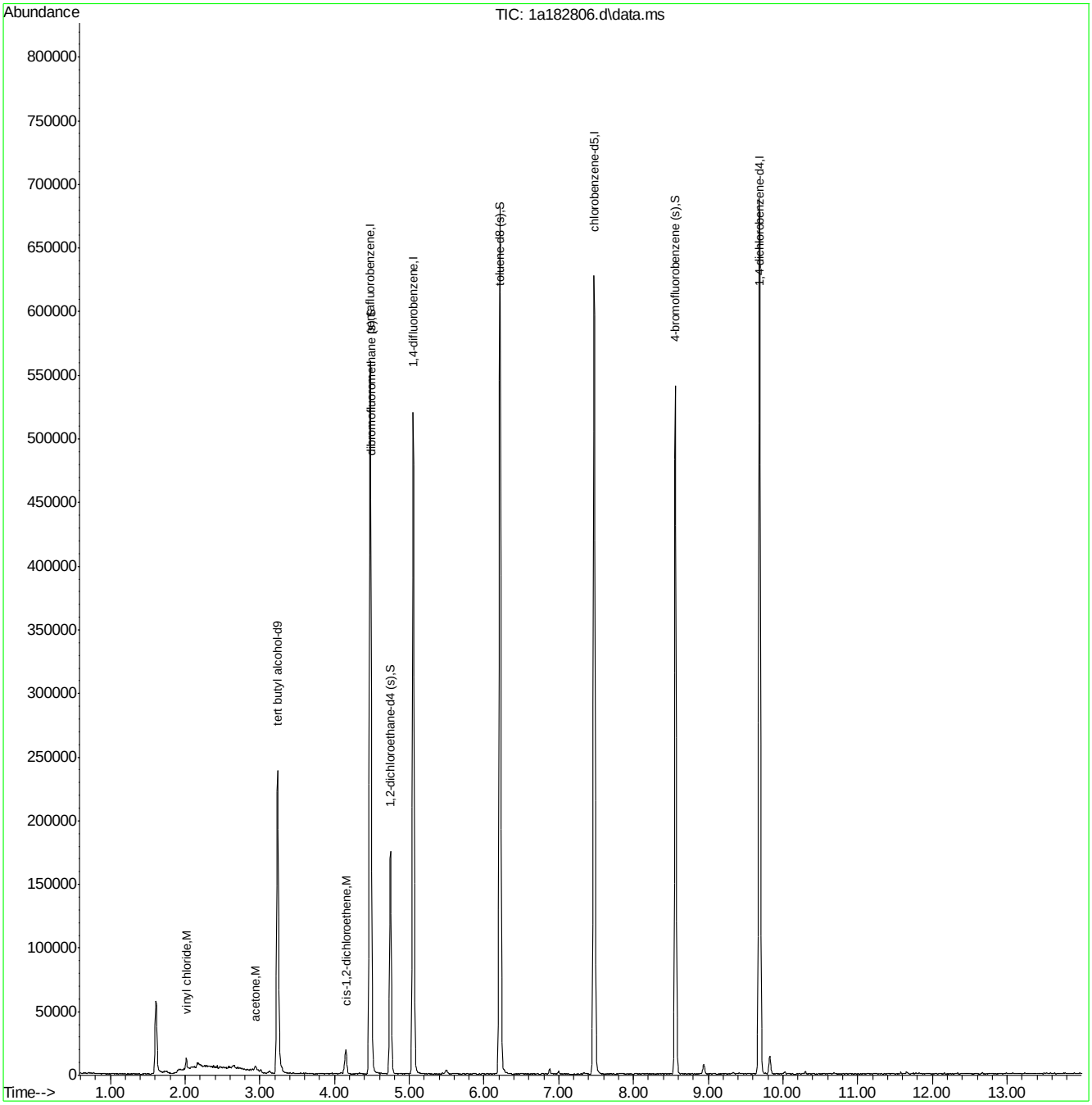
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.239	65	246488	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	288388	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	389915	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	390076	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	207754	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	106767	51.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.02%			
54) 1,2-dichloroethane-d4 (s)	4.748	65	106162	44.39	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.78%			
76) toluene-d8 (s)	6.214	98	441537	46.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.48%			
99) 4-bromofluorobenzene (s)	8.563	95	178433	53.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.30%			
Target Compounds						Qvalue
10) vinyl chloride	2.017	62	6047	2.67	ug/L	88
20) acetone	2.935	58	1280	5.06	ug/L #	64
38) cis-1,2-dichloroethene	4.152	96	7038	3.35	ug/L	92

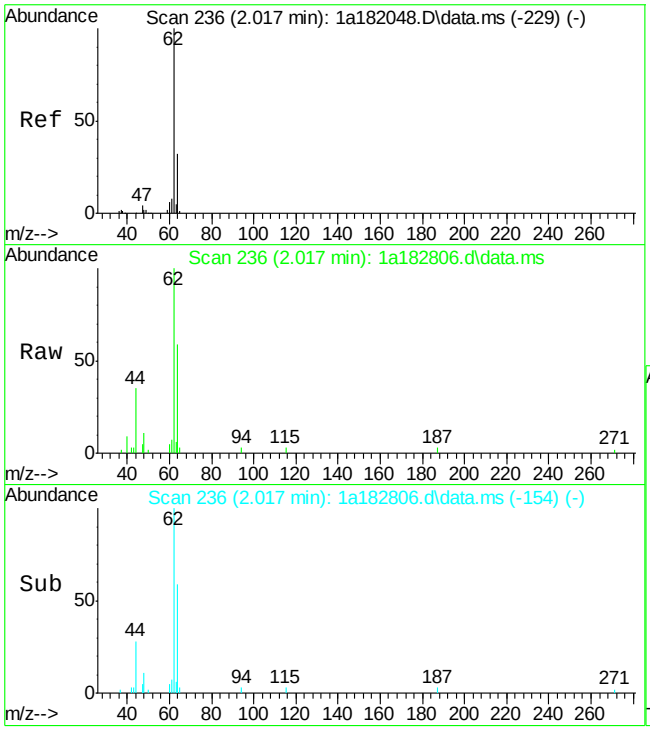
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182806.d
Acq On : 5 Jul 2018 8:32 pm
Operator : jessicap
Sample : jc68966-26
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 57 Sample Multiplier: 1

Quant Time: Jul 06 15:46:44 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

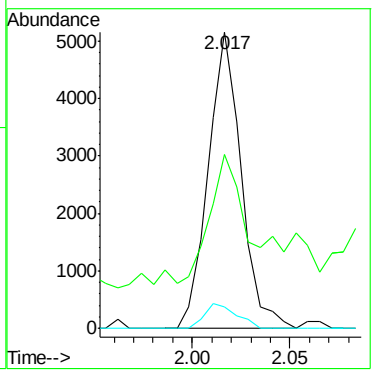


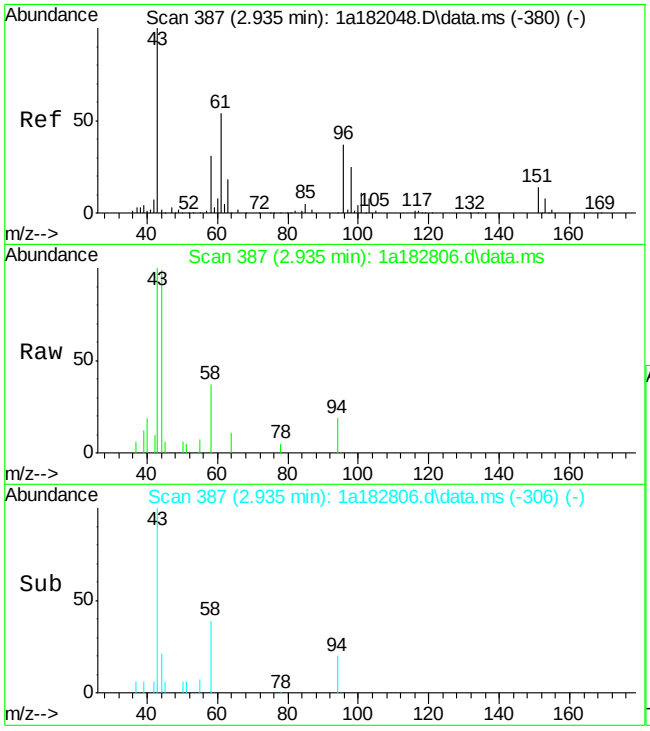


#10
vinyl chloride
Concen: 2.67 ug/L
RT: 2.017 min Scan# 236
Delta R.T. -0.000 min
Lab File: 1a182806.d
Acq: 5 Jul 2018 8:32 pm

Tgt Ion: 62 Resp: 6047

Ion	Ratio	Lower	Upper
62	100		
64	39.3	1.5	61.5
61	7.3	0.0	38.3

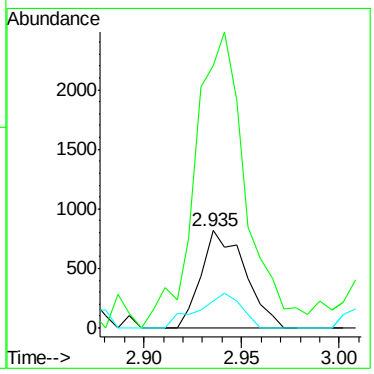


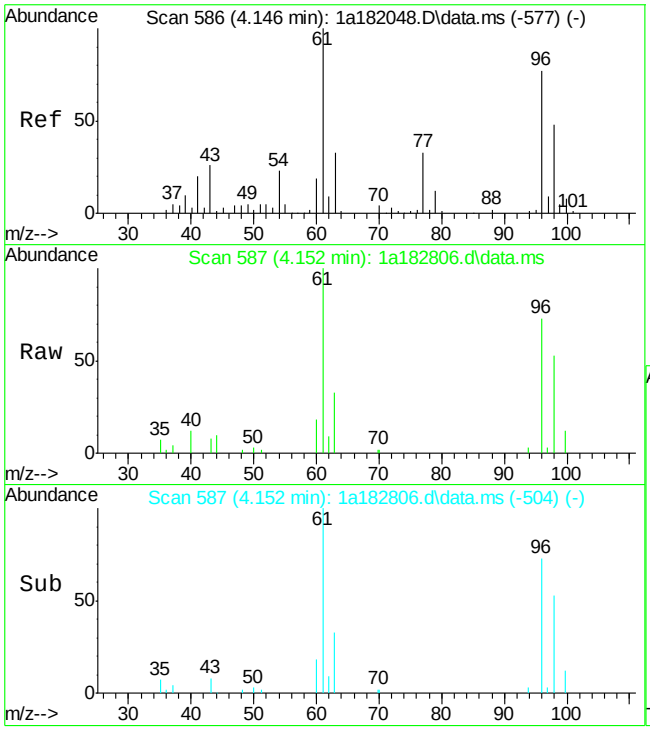


#20
acetone
Concen: 5.06 ug/L
RT: 2.935 min Scan# 387
Delta R.T. -0.006 min
Lab File: 1a182806.d
Acq: 5 Jul 2018 8:32 pm

Tgt Ion: 58 Resp: 1280

Ion	Ratio	Lower	Upper
58	100		
43	248.5	296.8	356.8#
42	27.4	0.0	53.4

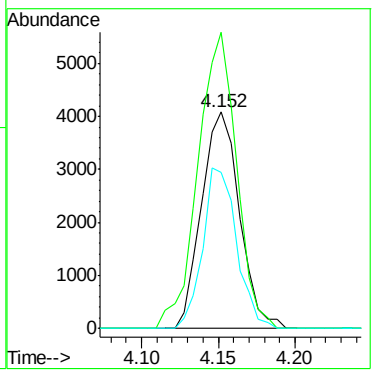




#38
cis-1,2-dichloroethene
Concen: 3.35 ug/L
RT: 4.152 min Scan# 587
Delta R.T. 0.006 min
Lab File: 1a182806.d
Acq: 5 Jul 2018 8:32 pm

Tgt Ion: 96 Resp: 7038

Ion	Ratio	Lower	Upper
96	100		
61	136.8	100.3	160.3
98	71.8	32.1	92.1



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182807.d
Acq On : 5 Jul 2018 8:57 pm
Operator : jessicap
Sample : jc68966-27
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 58 Sample Multiplier: 1

Quant Time: Jul 06 15:47:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

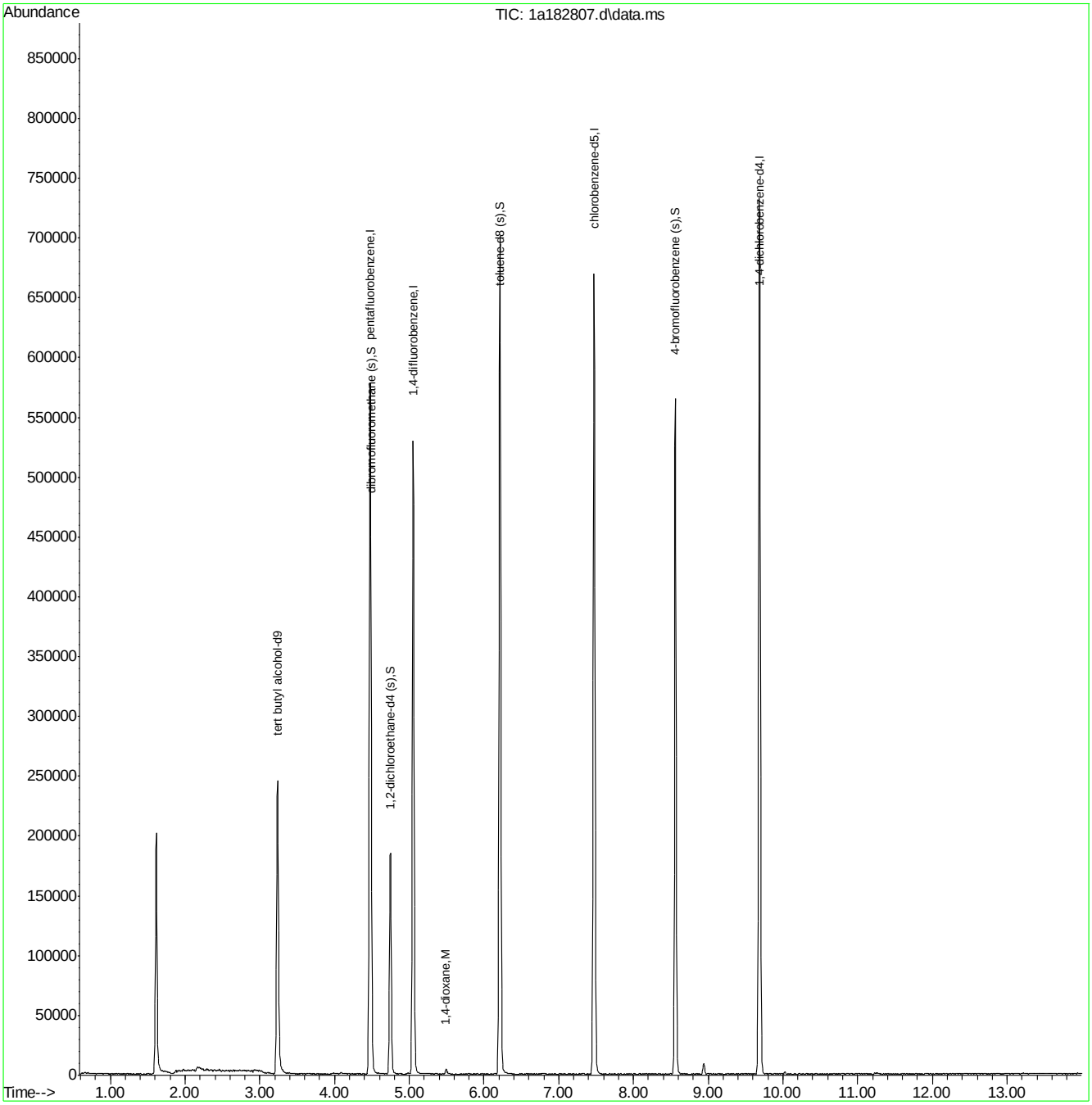
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	257357	500.00	ug/L	0.00
5) pentafluorobenzene	4.475	168	298672	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	396484	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	401954	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	220872	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	109828	50.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.34%			
54) 1,2-dichloroethane-d4 (s)	4.748	65	115265	47.40	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.80%			
76) toluene-d8 (s)	6.214	98	450599	45.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.58%			
99) 4-bromofluorobenzene (s)	8.563	95	186321	52.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.40%			
Target Compounds						Qvalue
4) 1,4-dioxane	5.490	88	3132	54.57	ug/L	77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

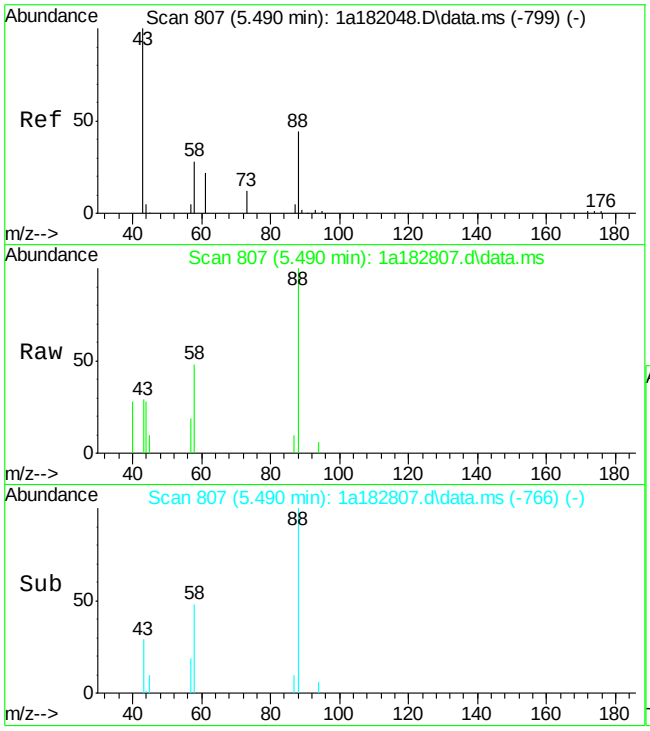
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182807.d
Acq On : 5 Jul 2018 8:57 pm
Operator : jessicap
Sample : jc68966-27
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 58 Sample Multiplier: 1

Quant Time: Jul 06 15:47:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



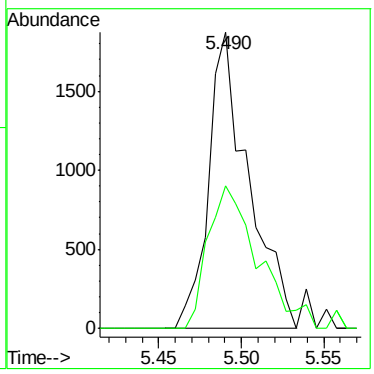
M1A7758.M Fri Jul 06 16:06:08 2018 1 Page: 2



#4
1,4-dioxane
Concen: 54.57 ug/L
RT: 5.490 min Scan# 807
Delta R.T. -0.000 min
Lab File: 1a182807.d
Acq: 5 Jul 2018 8:57 pm

Tgt Ion: 88 Resp: 3132

Ion	Ratio	Lower	Upper
88	100		
58	48.1	36.5	96.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182808.d
Acq On : 5 Jul 2018 9:22 pm
Operator : jessicap
Sample : jc68966-28
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 59 Sample Multiplier: 1

Quant Time: Jul 06 15:48:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

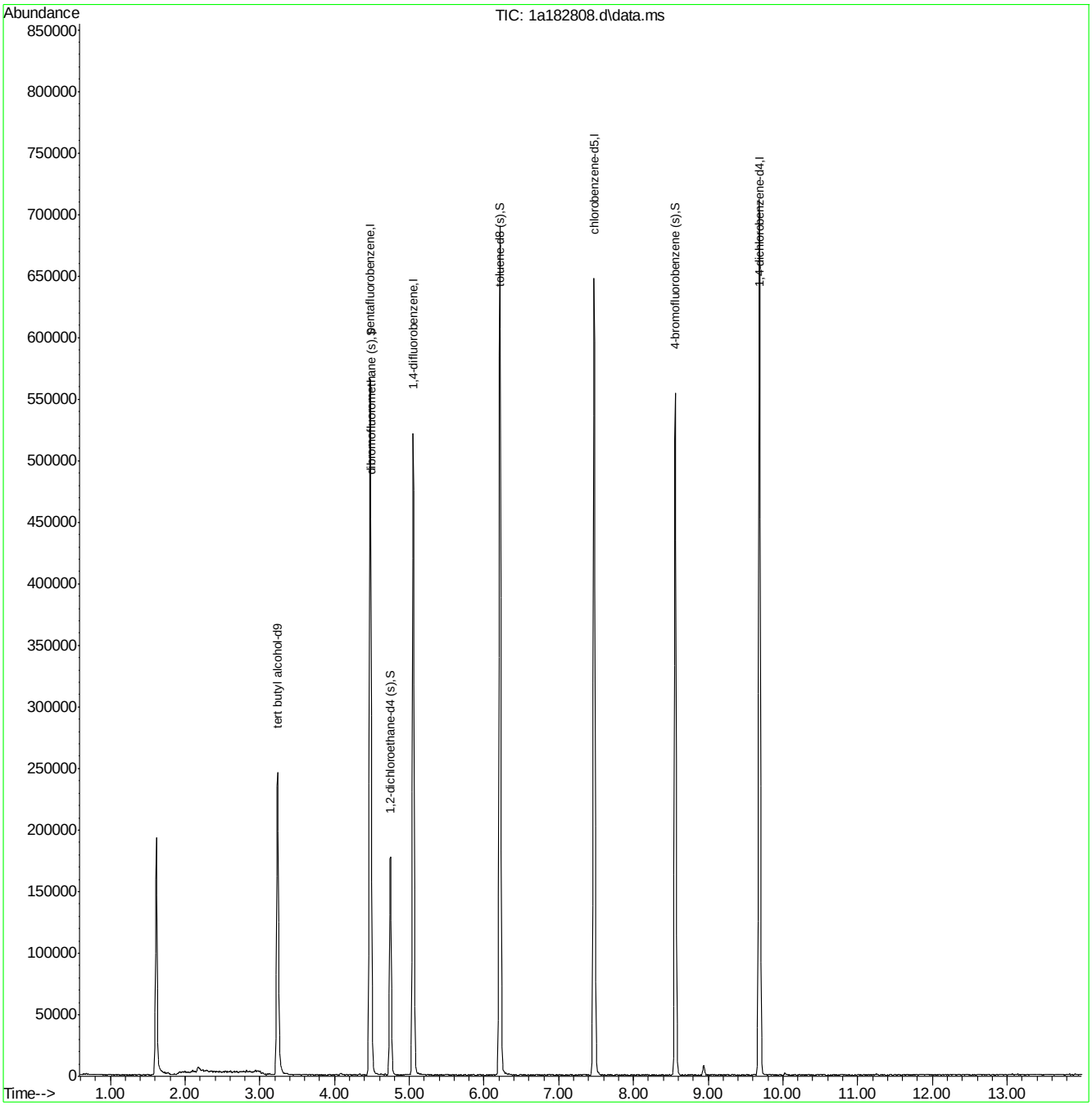
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.239	65	259108	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	294200	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	397040	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	395747	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	212652	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	107999	50.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.16%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	109644	45.03	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.06%			
76) toluene-d8 (s)	6.214	98	447600	46.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.40%			
99) 4-bromofluorobenzene (s)	8.563	95	182671	53.16	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.32%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182808.d
Acq On : 5 Jul 2018 9:22 pm
Operator : jessicap
Sample : jc68966-28
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 59 Sample Multiplier: 1

Quant Time: Jul 06 15:48:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182809.d
Acq On : 5 Jul 2018 9:48 pm
Operator : jessicap
Sample : jc68966-29
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 60 Sample Multiplier: 1

Quant Time: Jul 06 15:49:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

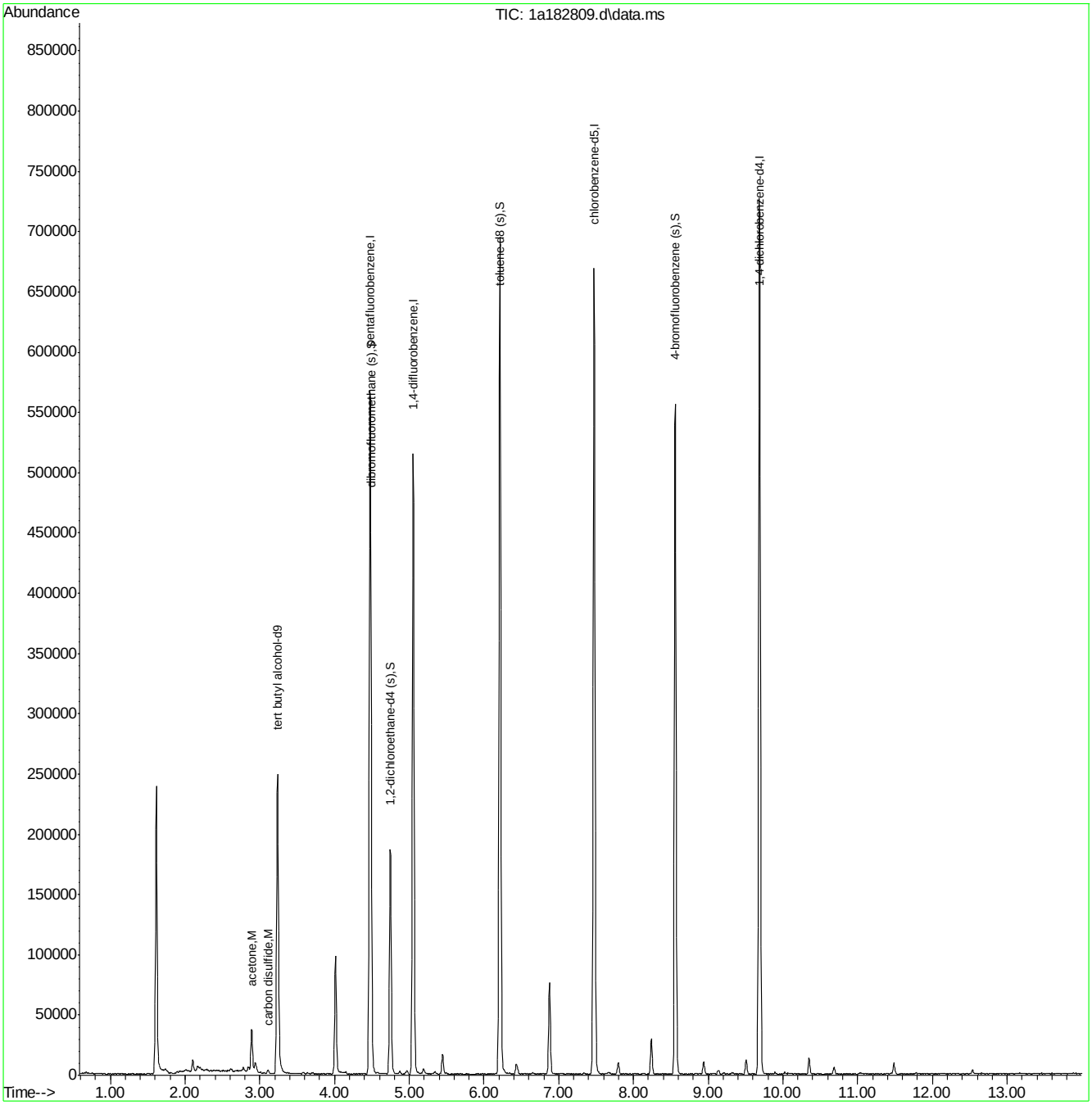
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.239	65	257655	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	293968	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	393884	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	401495	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	222380	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	109683	51.41	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.82%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	114185	47.27	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.54%			
76) toluene-d8 (s)	6.214	98	449409	45.72	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.44%			
99) 4-bromofluorobenzene (s)	8.563	95	186115	51.79	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.58%			
Target Compounds						Qvalue
20) acetone	2.893	58	34249	132.83	ug/L #	1
23) carbon disulfide	3.112	76	3257	0.76	ug/L	90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

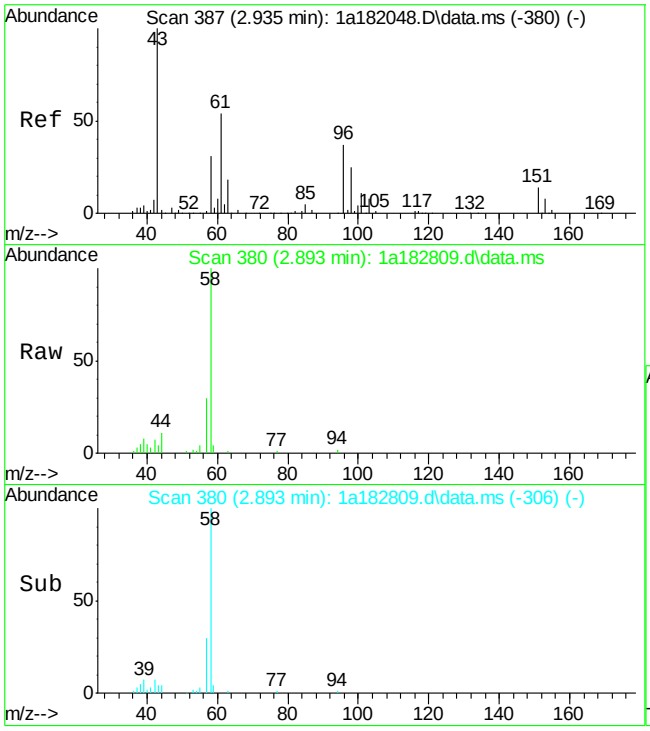
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182809.d
Acq On : 5 Jul 2018 9:48 pm
Operator : jessicap
Sample : jc68966-29
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 60 Sample Multiplier: 1

Quant Time: Jul 06 15:49:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



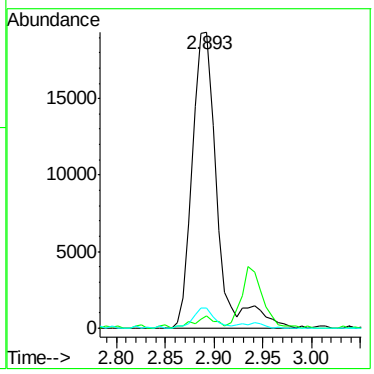
M1A7758.M Fri Jul 06 16:06:14 2018 1 Page: 2

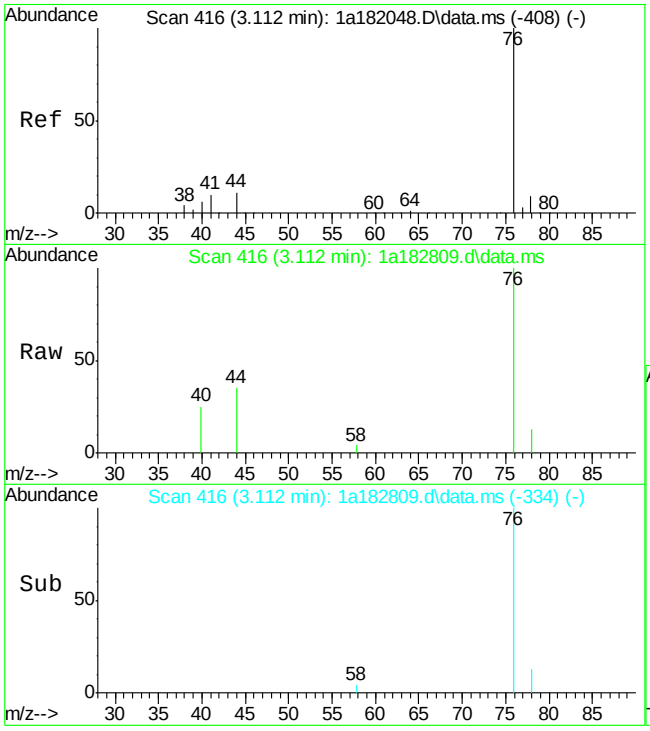


#20
acetone
Concen: 132.83 ug/L
RT: 2.893 min Scan# 380
Delta R.T. -0.049 min
Lab File: 1a182809.d
Acq: 5 Jul 2018 9:48 pm

Tgt Ion: 58 Resp: 34249

Ion	Ratio	Lower	Upper
58	100		
43	3.4	296.8	356.8#
42	6.1	0.0	53.4

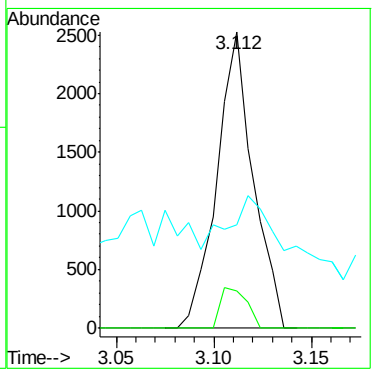




#23
carbon disulfide
Concen: 0.76 ug/L
RT: 3.112 min Scan# 416
Delta R.T. -0.000 min
Lab File: 1a182809.d
Acq: 5 Jul 2018 9:48 pm

Tgt Ion: 76 Resp: 3257

Ion	Ratio	Lower	Upper
76	100		
78	12.5	0.0	39.2
44	7.2	0.0	41.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182810.d
Acq On : 5 Jul 2018 10:13 pm
Operator : jessicap
Sample : jc68966-30
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 61 Sample Multiplier: 1

Quant Time: Jul 06 15:52:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

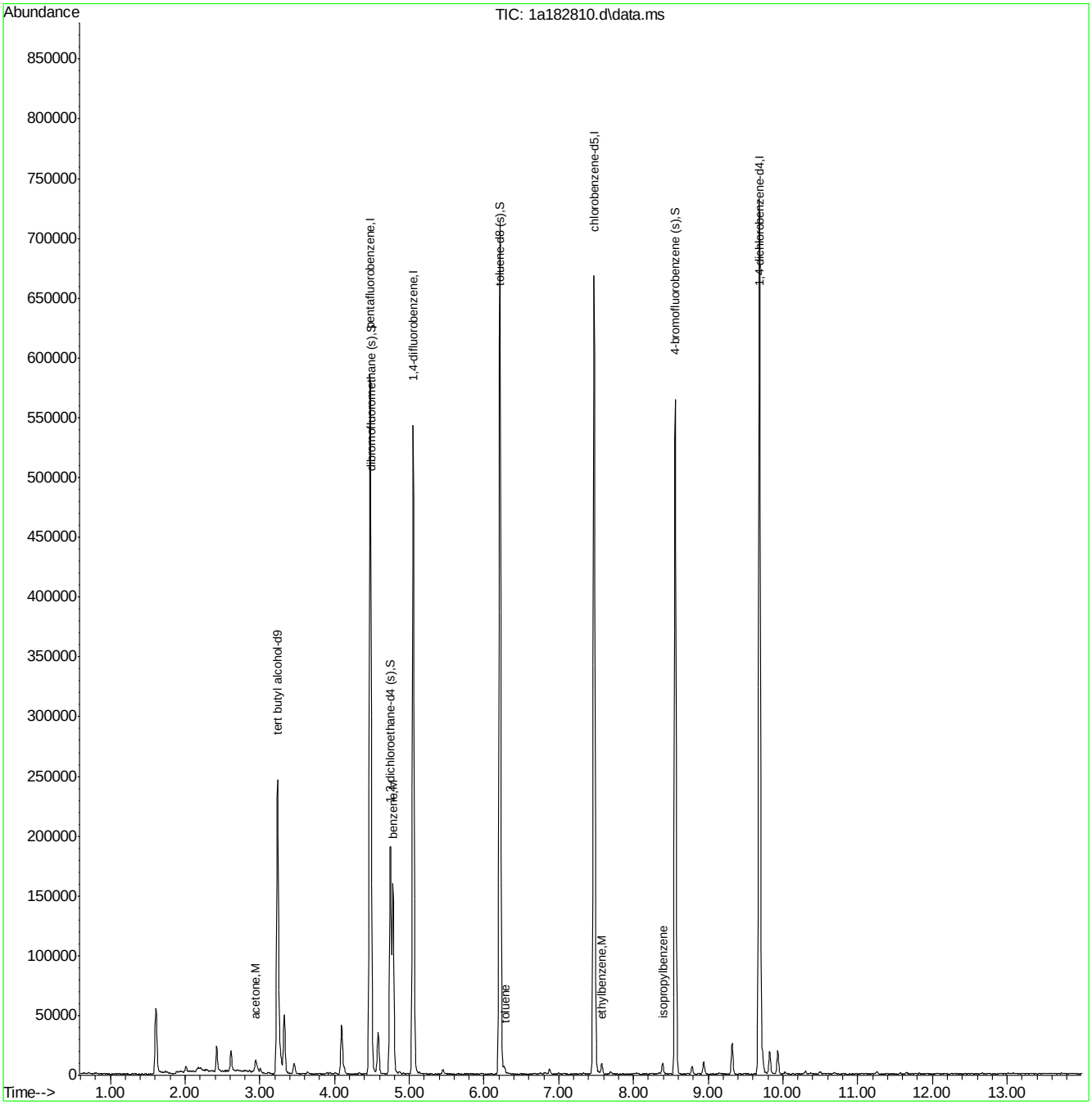
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	260615	500.00	ug/L	0.00
5) pentafluorobenzene	4.475	168	299056	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	407133	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	415523	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	224317	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	111748	51.49	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.98%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	116787	46.77	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.54%			
76) toluene-d8 (s)	6.214	98	460232	45.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.48%			
99) 4-bromofluorobenzene (s)	8.563	95	189906	52.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.78%			
Target Compounds						Qvalue
20) acetone	2.935	58	1519	5.79	ug/L	93
57) benzene	4.779	78	120449	15.16	ug/L	99
77) toluene	6.281	92	2070	0.35	ug/L	94
90) ethylbenzene	7.577	91	6050	0.54	ug/L	98
96) isopropylbenzene	8.392	105	6138	0.56	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

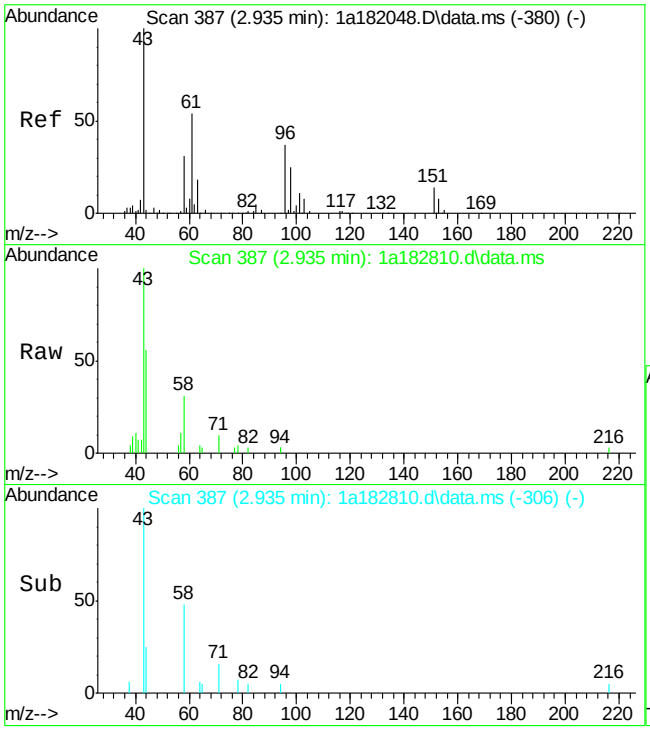
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182810.d
Acq On : 5 Jul 2018 10:13 pm
Operator : jessicap
Sample : jc68966-30
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 61 Sample Multiplier: 1

Quant Time: Jul 06 15:52:30 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



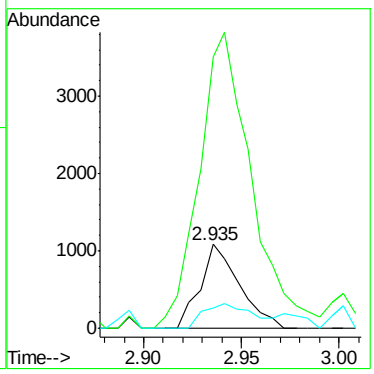
M1A7758.M Fri Jul 06 16:06:17 2018 1 Page: 2

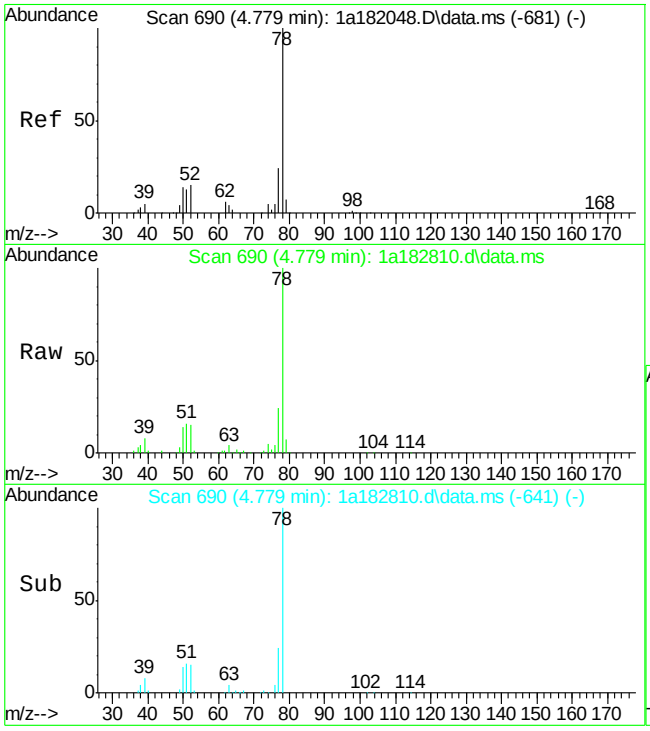


#20
acetone
Concen: 5.79 ug/L
RT: 2.935 min Scan# 387
Delta R.T. -0.006 min
Lab File: 1a182810.d
Acq: 5 Jul 2018 10:13 pm

Tgt Ion: 58 Resp: 1519

Ion	Ratio	Lower	Upper
58	100		
43	310.9	296.8	356.8
42	24.1	0.0	53.4

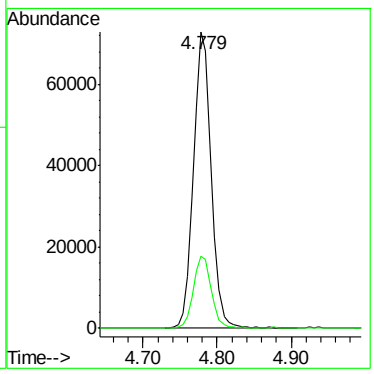


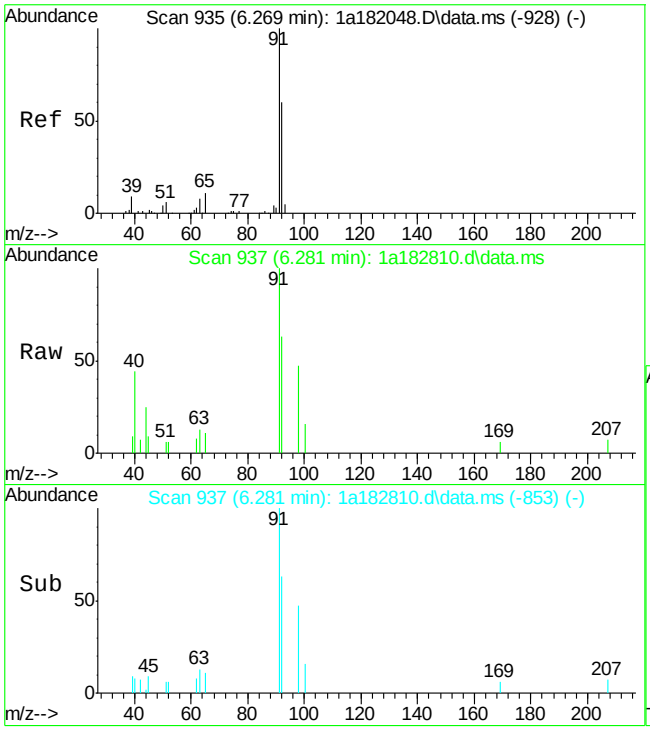


#57
benzene
Concen: 15.16 ug/L
RT: 4.779 min Scan# 690
Delta R.T. -0.000 min
Lab File: 1a182810.d
Acq: 5 Jul 2018 10:13 pm

Tgt Ion: 78 Resp: 120449

Ion	Ratio	Lower	Upper
78	100		
77	24.1	0.0	53.8

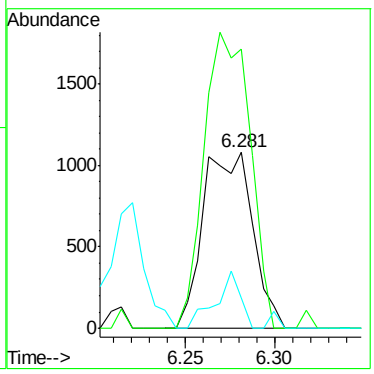


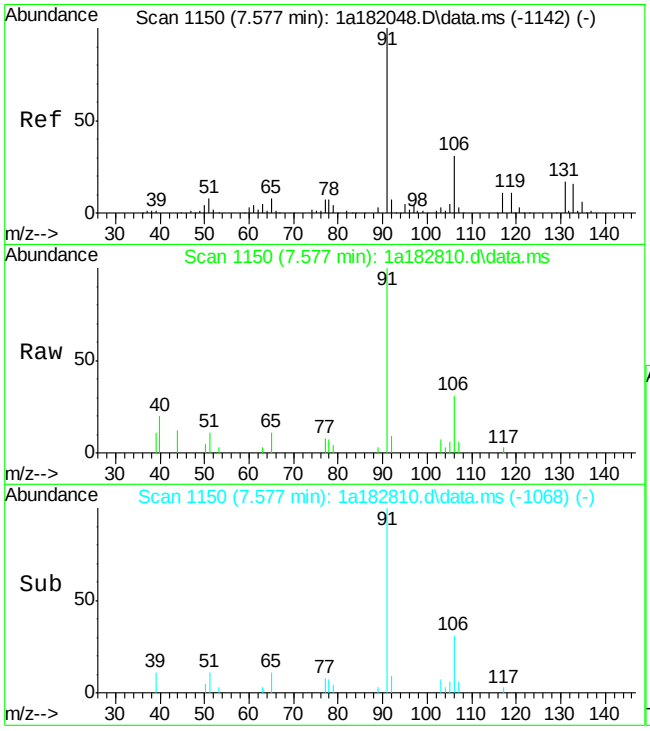


#77
toluene
Concen: 0.35 ug/L
RT: 6.281 min Scan# 937
Delta R.T. 0.012 min
Lab File: 1a182810.d
Acq: 5 Jul 2018 10:13 pm

Tgt Ion: 92 Resp: 2070

Ion	Ratio	Lower	Upper
92	100		
91	158.2	147.2	187.2
65	17.0	0.0	37.8

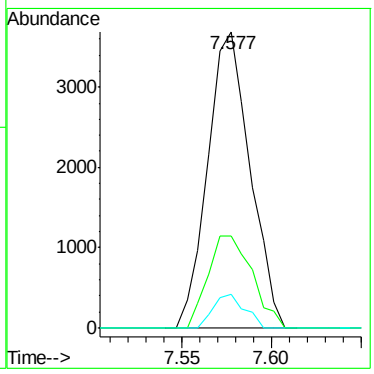


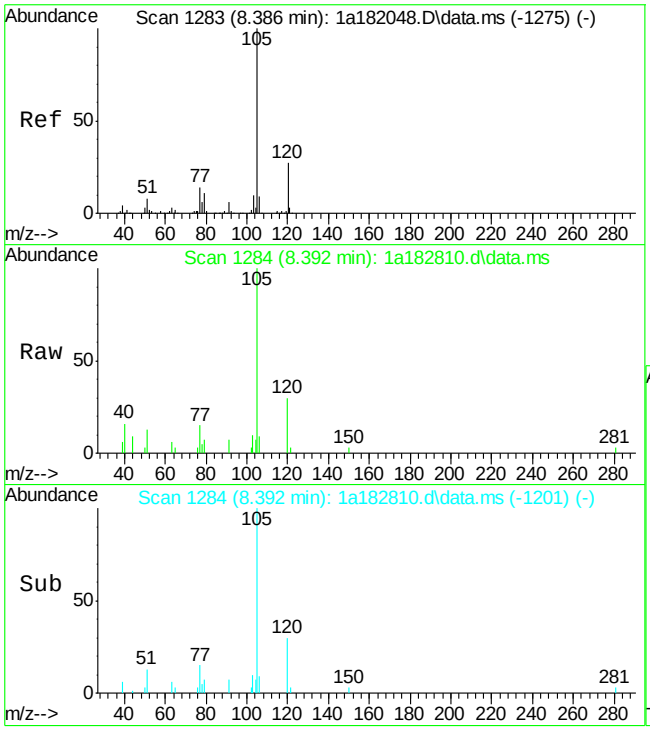


#90
ethylbenzene
Concen: 0.54 ug/L
RT: 7.577 min Scan# 1150
Delta R.T. -0.000 min
Lab File: 1a182810.d
Acq: 5 Jul 2018 10:13 pm

Tgt Ion: 91 Resp: 6050

Ion	Ratio	Lower	Upper
91	100		
106	31.1	1.5	61.5
65	11.3	0.0	37.8

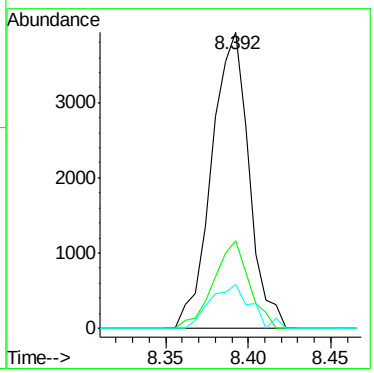




#96
isopropylbenzene
Concen: 0.56 ug/L
RT: 8.392 min Scan# 1284
Delta R.T. 0.006 min
Lab File: 1a182810.d
Acq: 5 Jul 2018 10:13 pm

Tgt Ion:105 Resp: 6138

Ion	Ratio	Lower	Upper
105	100		
120	29.6	6.6	46.6
77	14.9	0.0	33.8



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144441.d
Acq On : 1 Jul 2018 5:01 pm
Operator : juntaep
Sample : jc68966-31 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 15:20:23 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

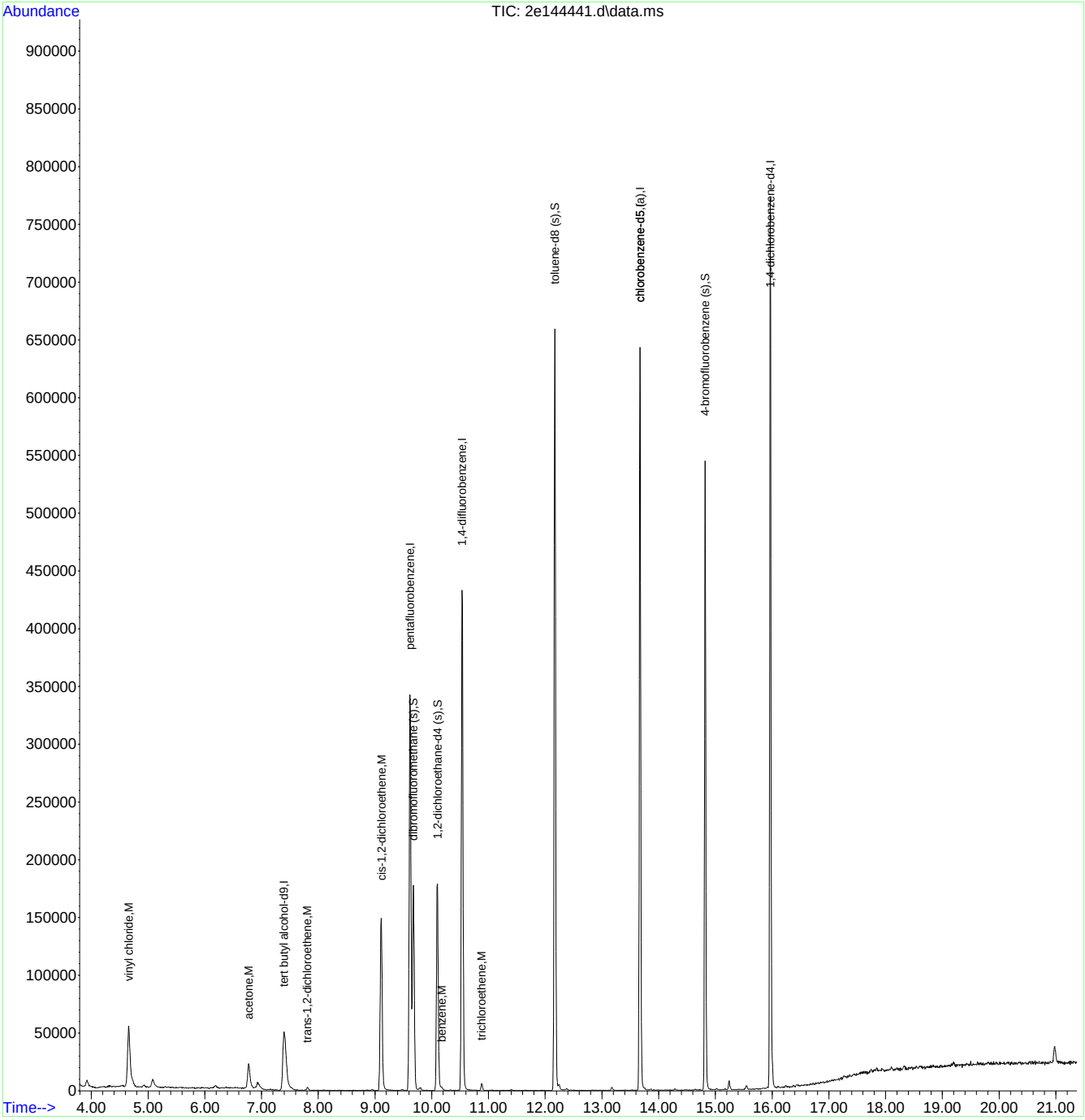
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	123451	500.00	ug/L	0.01
5) pentafluorobenzene	9.617	168	277905	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	390187	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	349229	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	187678	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	349229	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	118867	51.05	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.10%			
57) 1,2-dichloroethane-d4 (s)	10.100	65	142048	59.05	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 118.10%			
78) toluene-d8 (s)	12.171	98	448920	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%			
101) 4-bromofluorobenzene (s)	14.818	95	167051	51.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.00%			
Target Compounds						Qvalue
11) vinyl chloride	4.657	62	98728	17.79	ug/L	97
22) acetone	6.770	58	12434	45.31	ug/L	92
29) trans-1,2-dichloroethene	7.803	61	1875	0.43	ug/L	84
40) cis-1,2-dichloroethene	9.114	96	62015	17.58	ug/L	91
60) benzene	10.173	78	2530	0.20	ug/L	97
65) trichloroethene	10.875	95	1928	0.64	ug/L	73

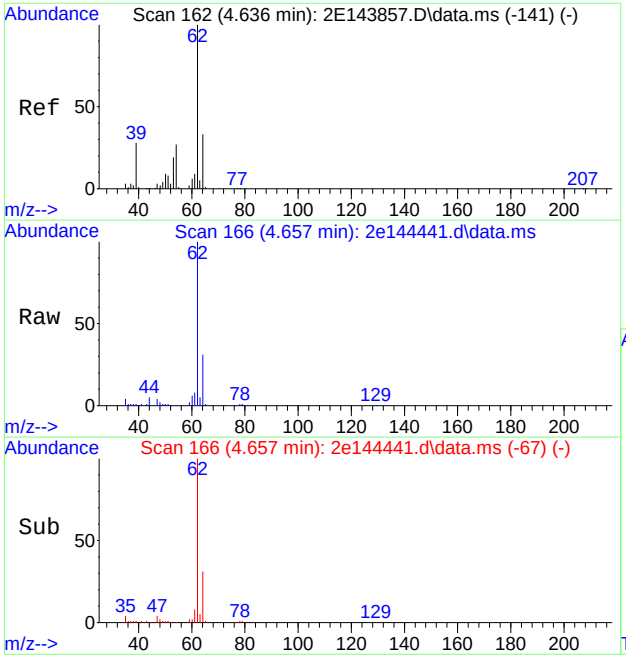
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144441.d
Acq On : 1 Jul 2018 5:01 pm
Operator : juntaep
Sample : jc68966-31 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 15:20:23 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

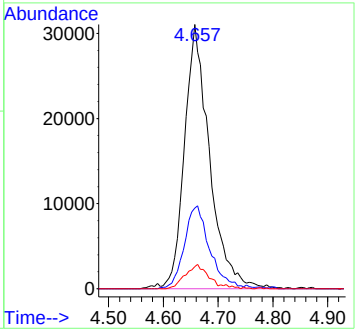


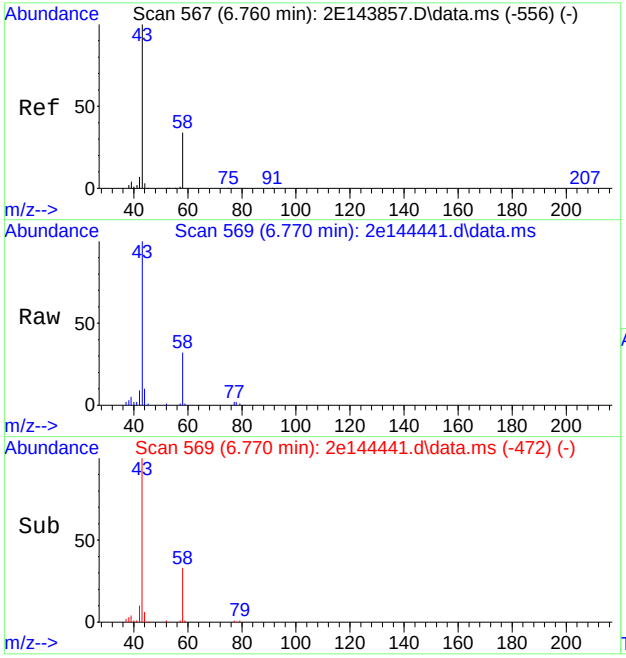


#11
vinyl chloride
Concen: 17.79 ug/L
RT: 4.657 min Scan# 166
Delta R.T. 0.021 min
Lab File: 2e144441.d
Acq: 1 Jul 2018 5:01 pm

Tgt Ion: 62 Resp: 98728

Ion	Ratio	Lower	Upper
62	100		
64	30.5	2.5	62.5
61	8.4	0.0	38.7

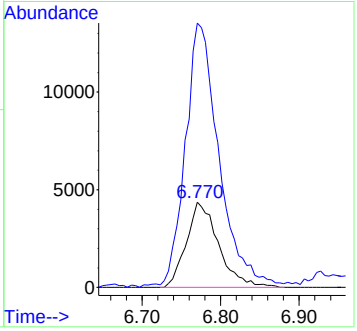


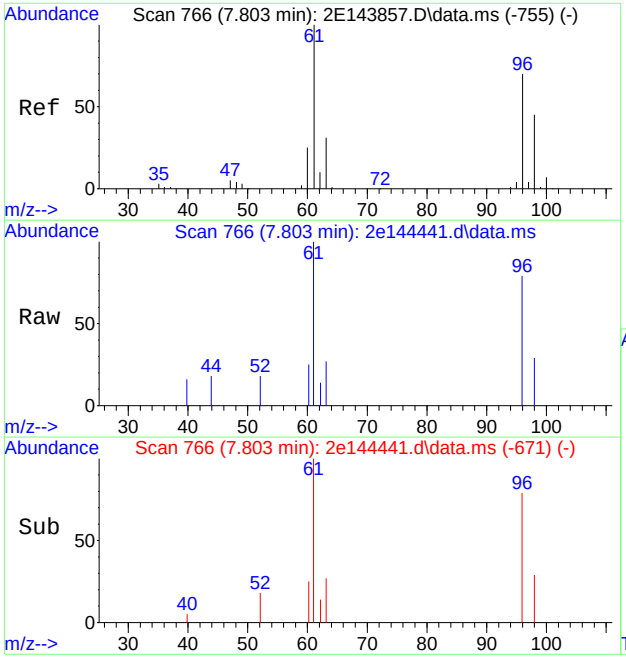


#22
acetone
Concen: 45.31 ug/L
RT: 6.770 min Scan# 569
Delta R.T. 0.010 min
Lab File: 2e144441.d
Acq: 1 Jul 2018 5:01 pm

Tgt Ion: 58 Resp: 12434

Ion	Ratio	Lower	Upper
58	100		
43	307.0	261.7	321.7

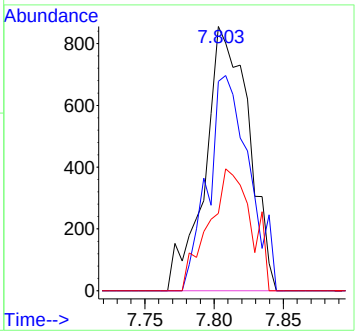


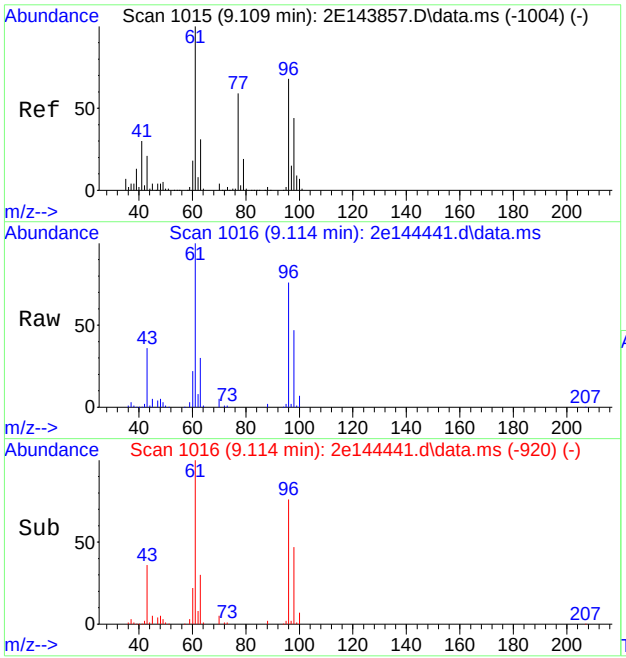


#29
trans-1,2-dichloroethene
Concen: 0.43 ug/L
RT: 7.803 min Scan# 766
Delta R.T. 0.000 min
Lab File: 2e144441.d
Acq: 1 Jul 2018 5:01 pm

Tgt Ion: 61 Resp: 1875

Ion	Ratio	Lower	Upper
61	100		
96	79.2	40.4	100.4
98	29.2	14.8	74.8

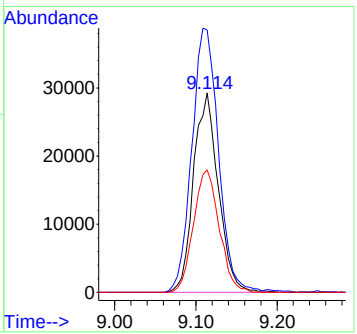


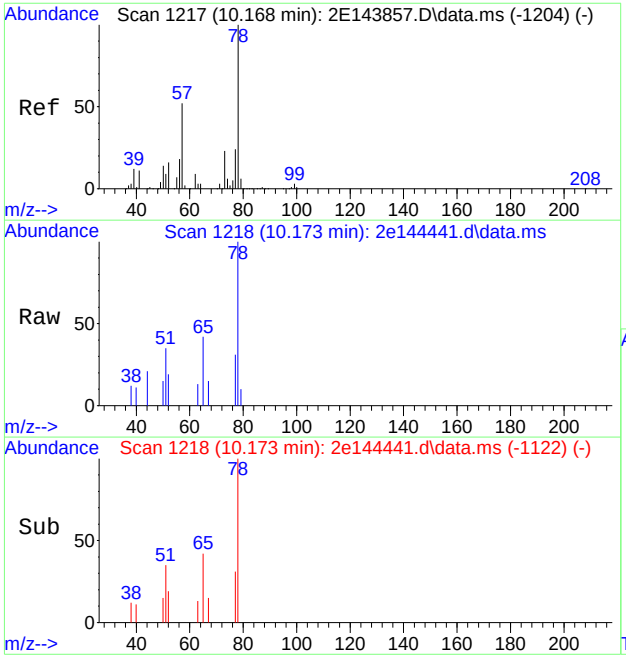


#40
cis-1,2-dichloroethene
Concen: 17.58 ug/L
RT: 9.114 min Scan# 1016
Delta R.T. 0.005 min
Lab File: 2e144441.d
Acq: 1 Jul 2018 5:01 pm

Tgt Ion: 96 Resp: 62015

Ion	Ratio	Lower	Upper
96	100		
61	131.6	116.3	176.3
98	61.4	34.5	94.5

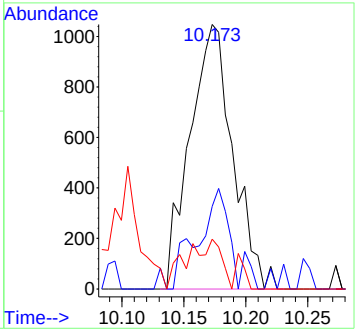


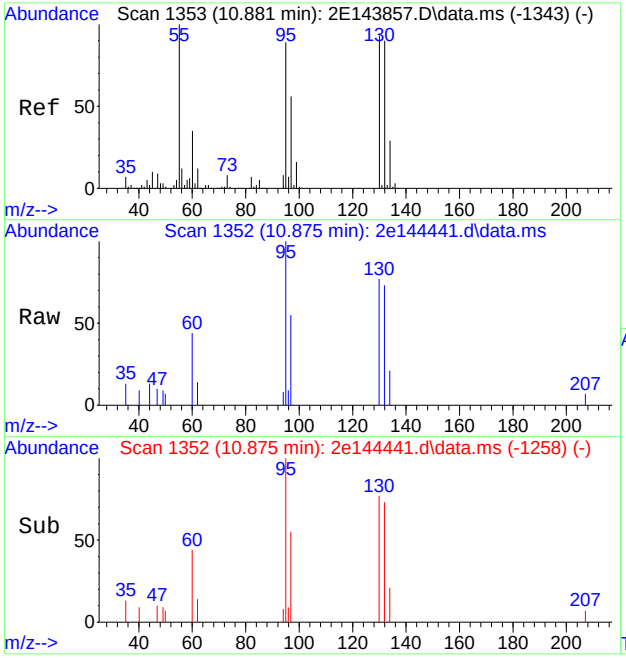


#60
benzene
Concen: 0.20 ug/L
RT: 10.173 min Scan# 1218
Delta R.T. 0.005 min
Lab File: 2e144441.d
Acq: 1 Jul 2018 5:01 pm

Tgt Ion: 78 Resp: 2530

Ion	Ratio	Lower	Upper
78	100		
77	23.3	0.0	53.8
52	18.8	0.0	45.8

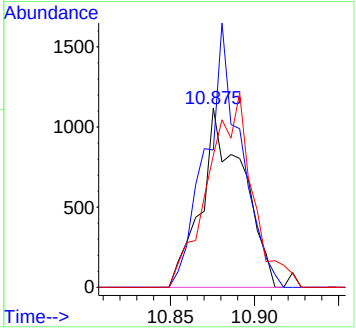




#65
trichloroethene
Concen: 0.64 ug/L
RT: 10.875 min Scan# 1352
Delta R.T. -0.006 min
Lab File: 2e144441.d
Acq: 1 Jul 2018 5:01 pm

Tgt Ion: 95 Resp: 1928

Ion	Ratio	Lower	Upper
95	100		
130	76.5	75.0	135.0
132	73.5	70.9	130.9



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176991.d
Acq On : 2 Jul 2018 11:39 pm
Operator : juntaep
Sample : JC68966-32 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:57:36 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

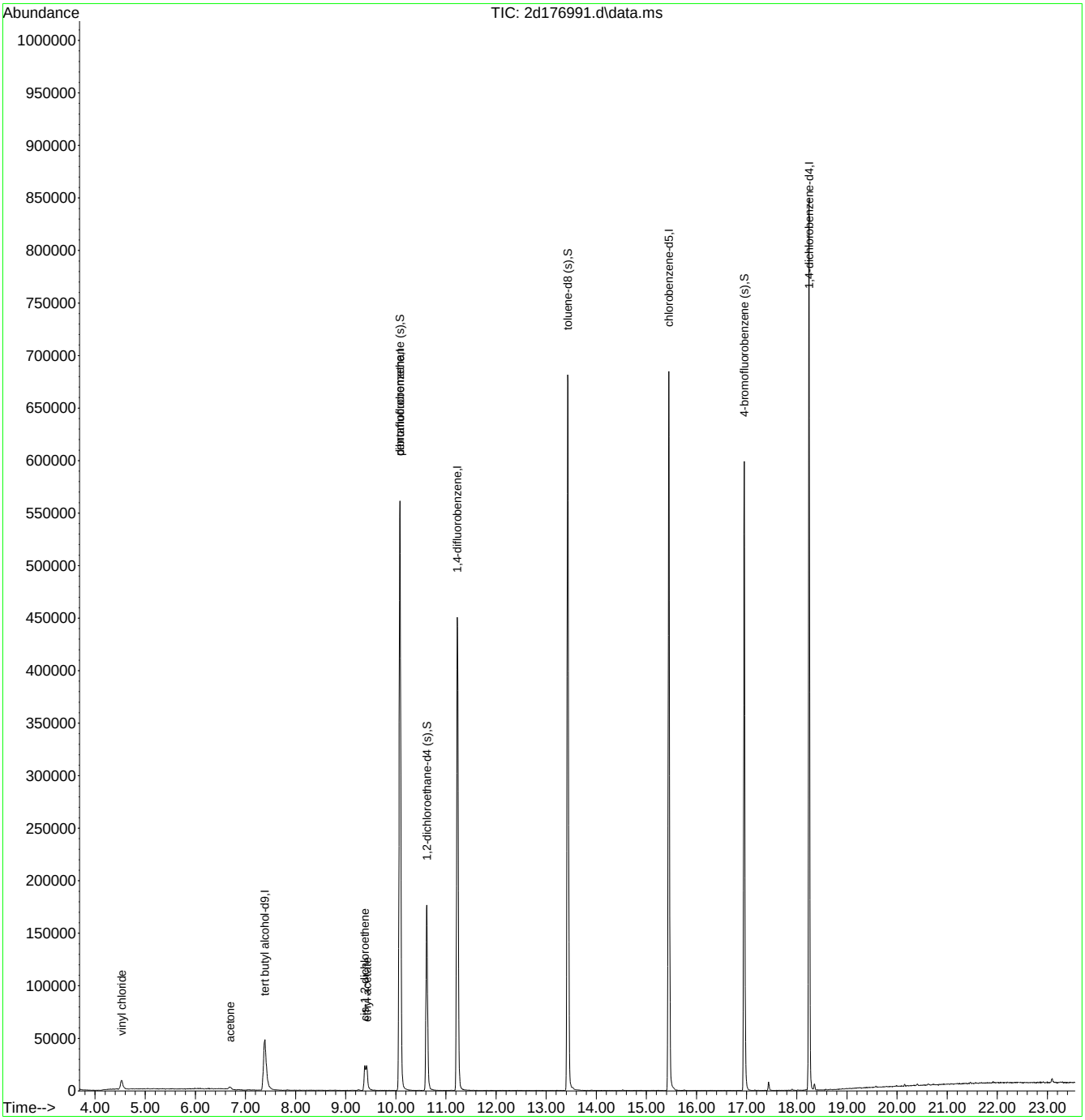
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	118322	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	339489	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.226	114	469666	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	450341	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	224946	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	149196	51.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.02%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	143514	44.49	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.98%			
77) toluene-d8 (s)	13.428	98	542425	51.80	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.60%			
100) 4-bromofluorobenzene (s)	16.952	95	198993	55.14	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.28%			
Target Compounds						Qvalue
11) vinyl chloride	4.531	62	19472	5.19	ug/L	95
22) acetone	6.691	58	860	4.74	ug/L #	63
38) ethyl acetate	9.423	45	5039	15.81	ug/L #	42
40) cis-1,2-dichloroethene	9.381	96	13660	4.70	ug/L	87

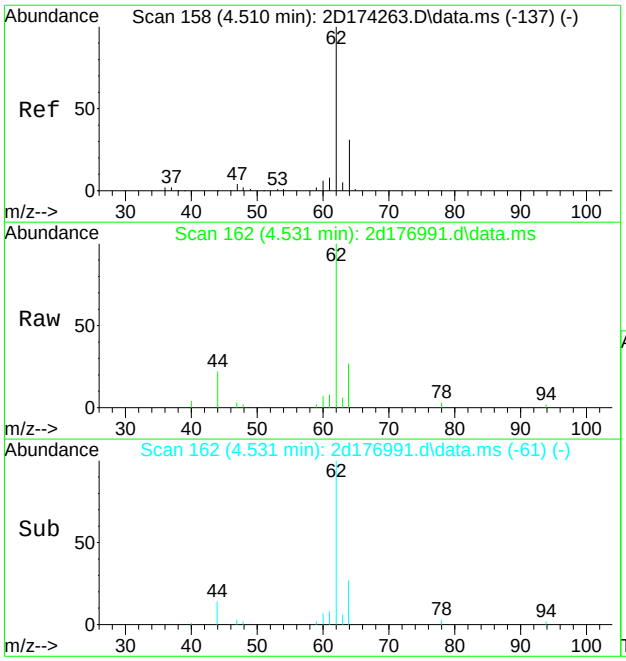
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176991.d
Acq On : 2 Jul 2018 11:39 pm
Operator : juntaep
Sample : JC68966-32 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 31 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:57:36 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

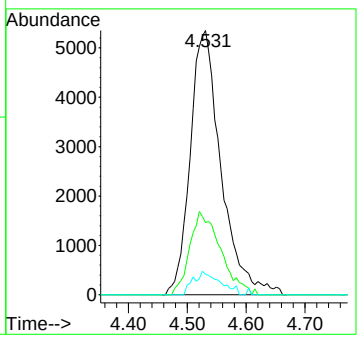


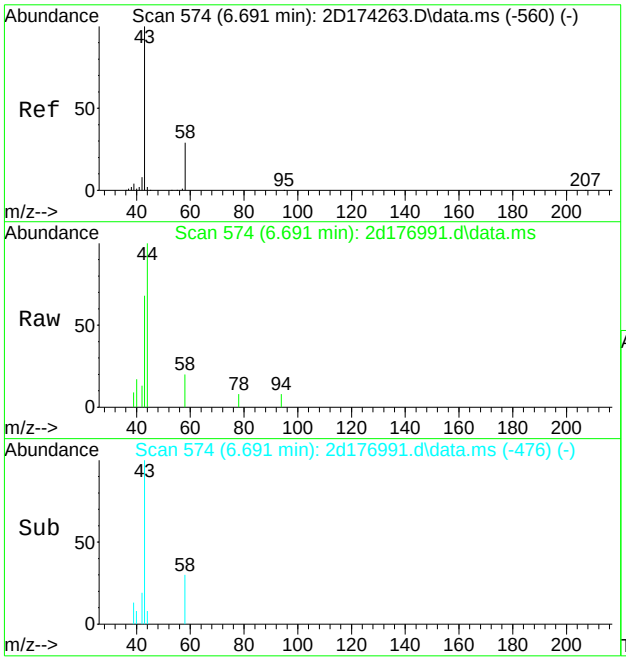


#11
vinyl chloride
Concen: 5.19 ug/L
RT: 4.531 min Scan# 162
Delta R.T. 0.031 min
Lab File: 2d176991.d
Acq: 2 Jul 2018 11:39 pm

Tgt Ion: 62 Resp: 19472

Ion	Ratio	Lower	Upper
62	100		
64	27.3	0.2	60.2
61	7.8	0.0	39.0

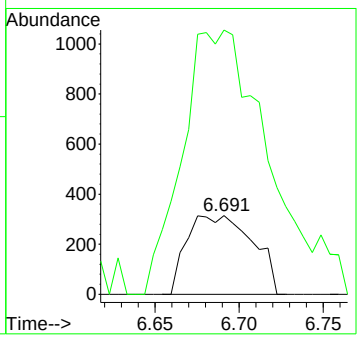


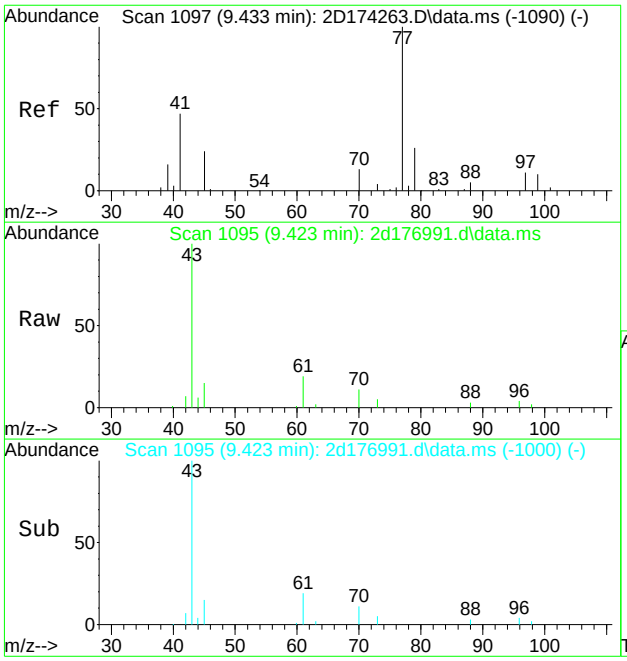


#22
acetone
Concen: 4.74 ug/L
RT: 6.691 min Scan# 574
Delta R.T. 0.016 min
Lab File: 2d176991.d
Acq: 2 Jul 2018 11:39 pm

Tgt Ion: 58 Resp: 860

Ion	Ratio	Lower	Upper
58	100		
43	254.1	301.0	361.0#

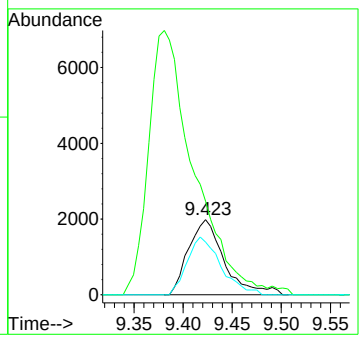


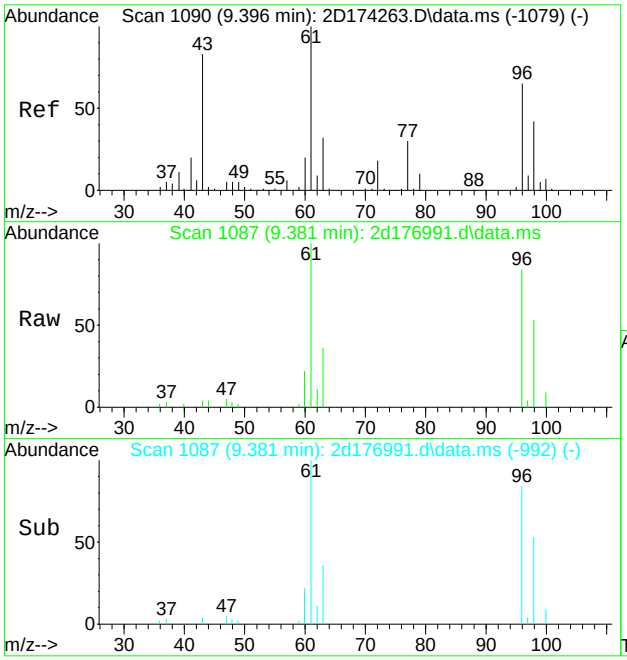


#38
ethyl acetate
Concen: 15.81 ug/L
RT: 9.423 min Scan# 1095
Delta R.T. -0.000 min
Lab File: 2d176991.d
Acq: 2 Jul 2018 11:39 pm

Tgt Ion: 45 Resp: 5039

Ion	Ratio	Lower	Upper
45	100		
61	116.8	211.6	271.6#
70	70.1	50.8	110.8

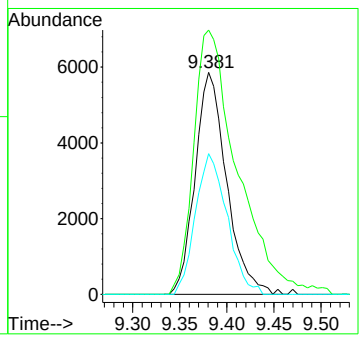




#40
cis-1,2-dichloroethene
Concen: 4.70 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. -0.000 min
Lab File: 2d176991.d
Acq: 2 Jul 2018 11:39 pm

Tgt Ion: 96 Resp: 13660

Ion	Ratio	Lower	Upper
96	100		
61	119.2	112.4	172.4
98	63.5	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176992.d
Acq On : 3 Jul 2018 12:09 am
Operator : juntaep
Sample : JC68966-33 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:01:32 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

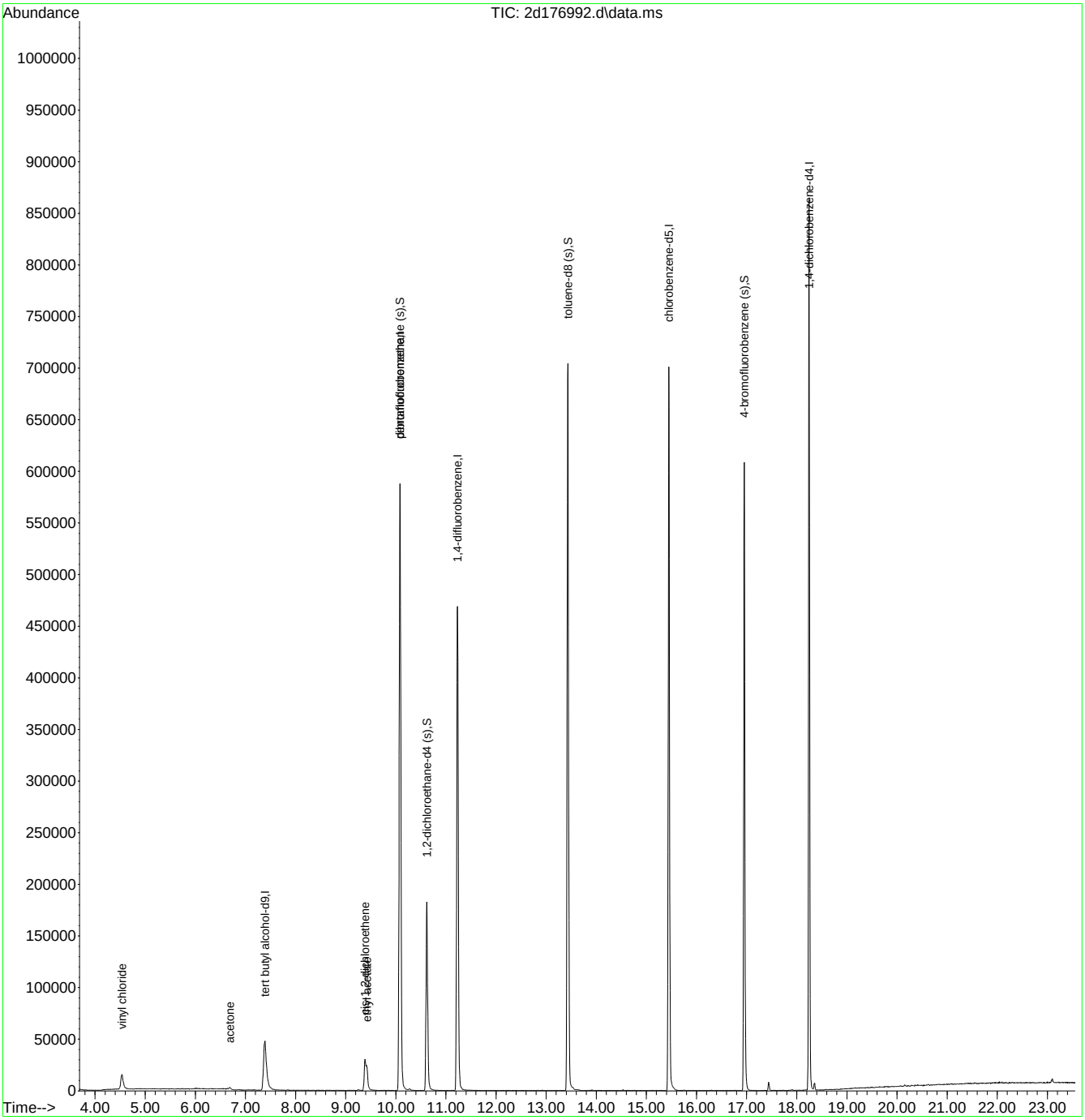
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	120886	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	355554	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	489949	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	462657	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	228134	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	154068	50.30	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.60%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	148889	44.24	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.48%			
77) toluene-d8 (s)	13.434	98	561054	52.15	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.30%			
100) 4-bromofluorobenzene (s)	16.952	95	203858	55.70	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.40%			
Target Compounds						Qvalue
11) vinyl chloride	4.536	62	32446	8.26	ug/L	97
22) acetone	6.686	58	1063	5.59	ug/L #	21
38) ethyl acetate	9.423	45	4603	13.79	ug/L #	52
40) cis-1,2-dichloroethene	9.386	96	17696	5.82	ug/L	89

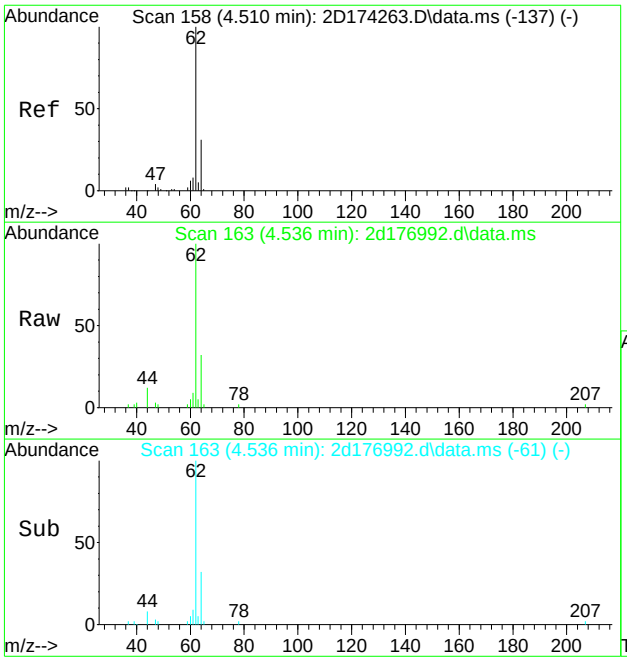
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176992.d
Acq On : 3 Jul 2018 12:09 am
Operator : juntaep
Sample : JC68966-33 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 32 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:01:32 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

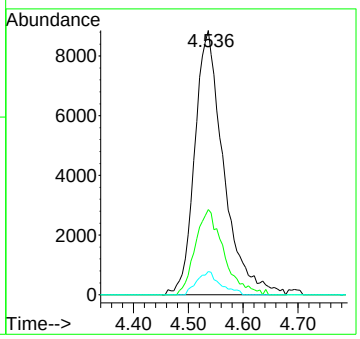


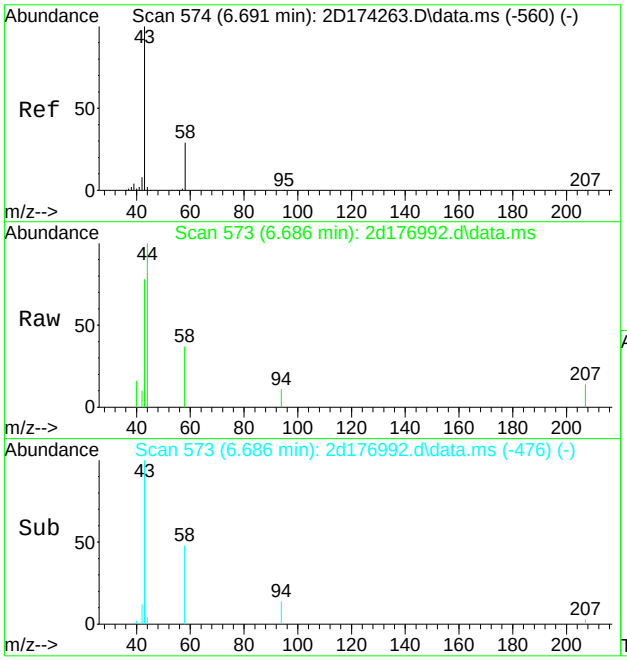


#11
vinyl chloride
Concen: 8.26 ug/L
RT: 4.536 min Scan# 163
Delta R.T. 0.037 min
Lab File: 2d176992.d
Acq: 3 Jul 2018 12:09 am

Tgt Ion: 62 Resp: 32446

Ion	Ratio	Lower	Upper
62	100		
64	32.3	0.2	60.2
61	8.9	0.0	39.0

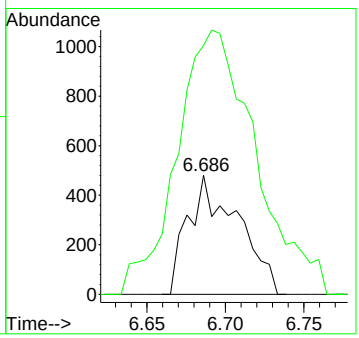


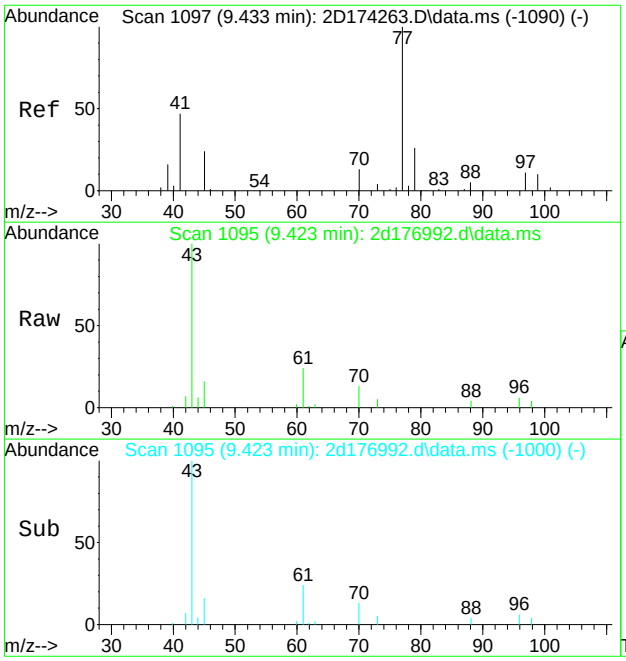


#22
acetone
Concen: 5.59 ug/L
RT: 6.686 min Scan# 573
Delta R.T. 0.011 min
Lab File: 2d176992.d
Acq: 3 Jul 2018 12:09 am

Tgt Ion: 58 Resp: 1063

Ion	Ratio	Lower	Upper
58	100		
43	166.7	301.0	361.0#

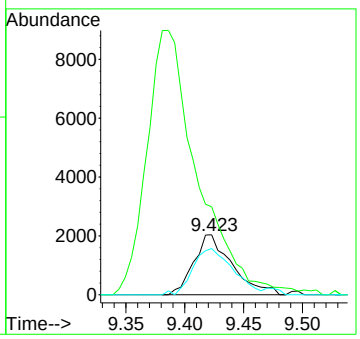


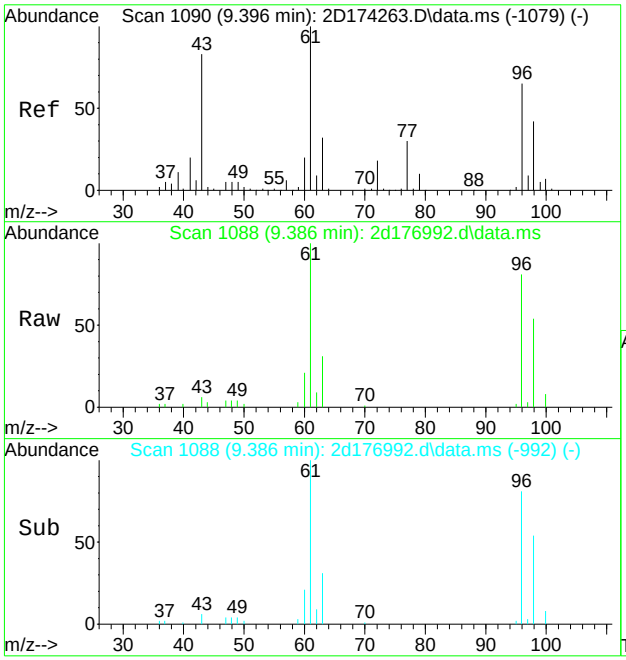


#38
ethyl acetate
Concen: 13.79 ug/L
RT: 9.423 min Scan# 1095
Delta R.T. 0.000 min
Lab File: 2d176992.d
Acq: 3 Jul 2018 12:09 am

Tgt Ion: 45 Resp: 4603

Ion	Ratio	Lower	Upper
45	100		
61	135.2	211.6	271.6#
70	77.1	50.8	110.8

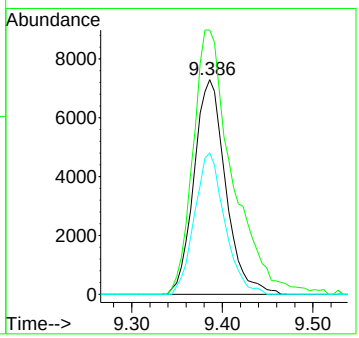




#40
cis-1,2-dichloroethene
Concen: 5.82 ug/L
RT: 9.386 min Scan# 1088
Delta R.T. 0.005 min
Lab File: 2d176992.d
Acq: 3 Jul 2018 12:09 am

Tgt Ion: 96 Resp: 17696

Ion	Ratio	Lower	Upper
96	100		
61	123.1	112.4	172.4
98	66.0	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\kenrickb\v2d7474\
Data File : 2d176987.d
Acq On : 2 Jul 2018 9:36 pm
Operator : juntaep
Sample : JC68966-34 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 05 23:53:06 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

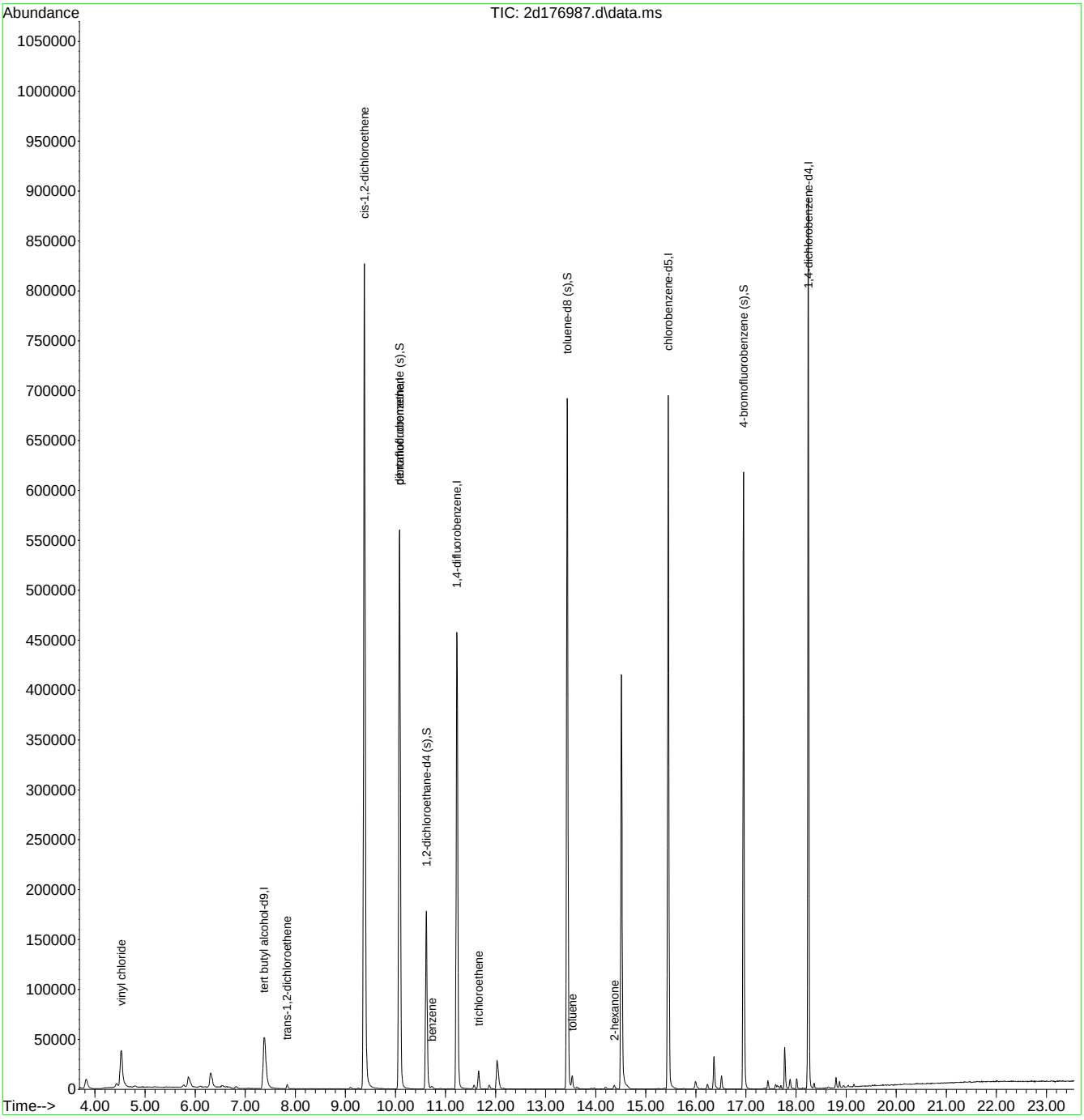
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	125643	500.00	ug/L	-0.01
5) pentafluorobenzene	10.083	168	337362	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.226	114	472774	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	447296	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	232695	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	149374	51.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.78%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	145258	44.73	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.46%			
77) toluene-d8 (s)	13.428	98	543727	52.27	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.54%			
100) 4-bromofluorobenzene (s)	16.952	95	202038	54.12	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.24%			
Target Compounds						Qvalue
11) vinyl chloride	4.526	62	79126	21.23	ug/L	95
29) trans-1,2-dichloroethene	7.834	96	2309	0.90	ug/L	78
40) cis-1,2-dichloroethene	9.381	96	479830	166.22	ug/L	89
56) benzene	10.728	78	2569	0.24	ug/L	93
64) trichloroethene	11.661	130	7983	2.81	ug/L	96
78) toluene	13.533	92	6553	1.04	ug/L	99
84) 2-hexanone	14.372	58	1639	1.90	ug/L	97

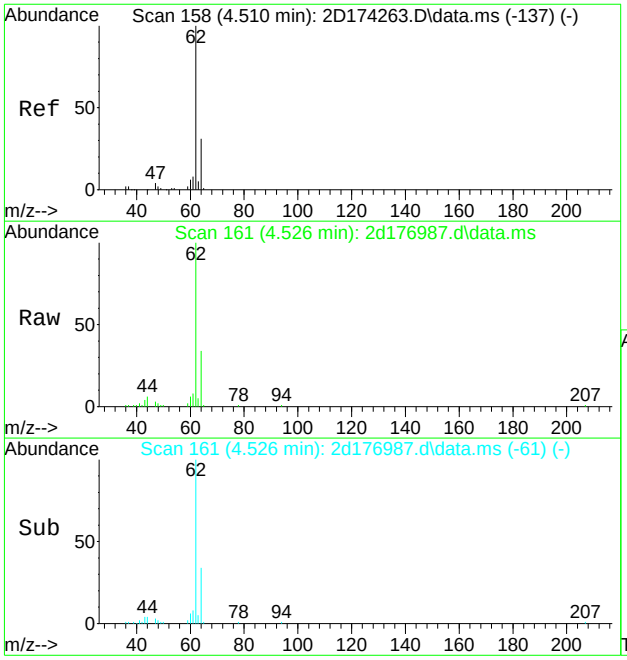
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\kenrickb\v2d7474\
Data File : 2d176987.d
Acq On : 2 Jul 2018 9:36 pm
Operator : juntaep
Sample : JC68966-34 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,10
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 05 23:53:06 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

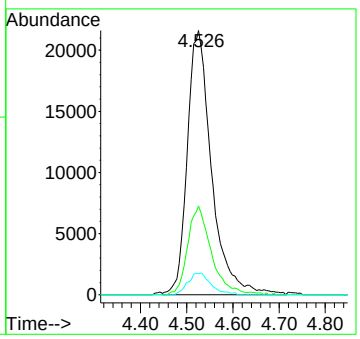


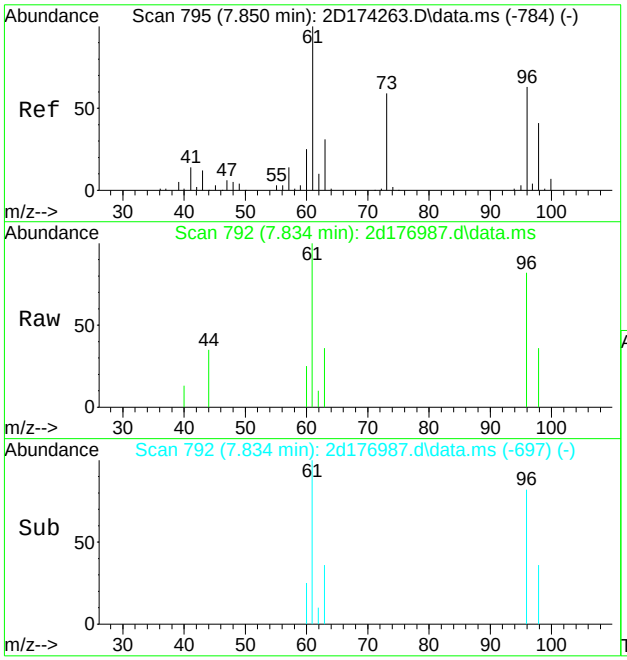


#11
vinyl chloride
Concen: 21.23 ug/L
RT: 4.526 min Scan# 161
Delta R.T. 0.026 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion: 62 Resp: 79126

Ion	Ratio	Lower	Upper
62	100		
64	33.6	0.2	60.2
61	8.0	0.0	39.0

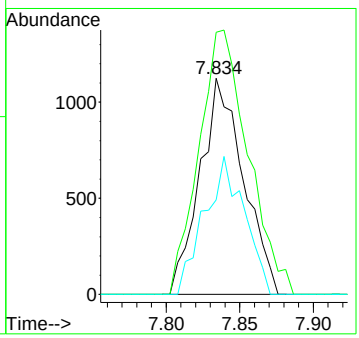


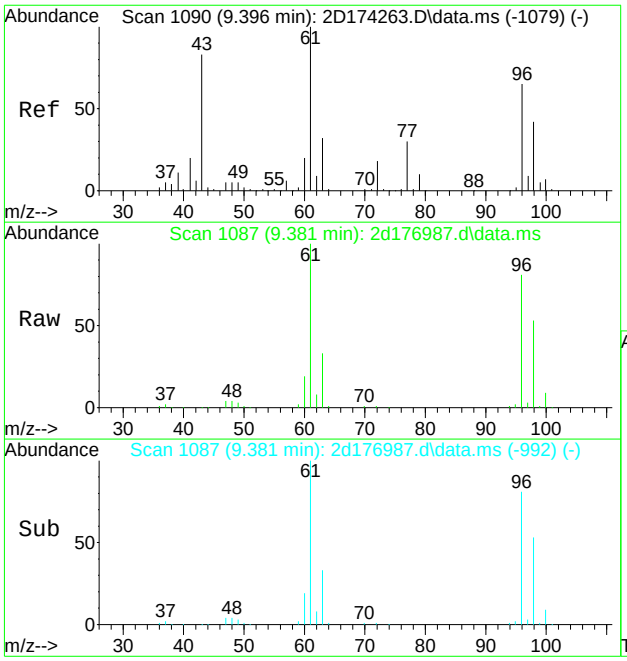


#29
trans-1,2-dichloroethene
Concen: 0.90 ug/L
RT: 7.834 min Scan# 792
Delta R.T. -0.000 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion: 96 Resp: 2309

Ion	Ratio	Lower	Upper
96	100		
61	121.4	117.8	177.8
98	43.8	31.2	91.2

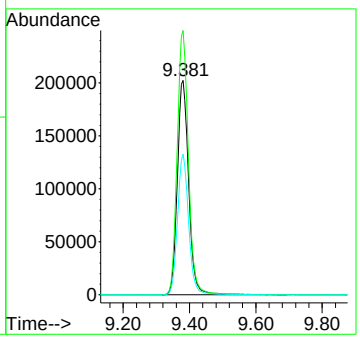


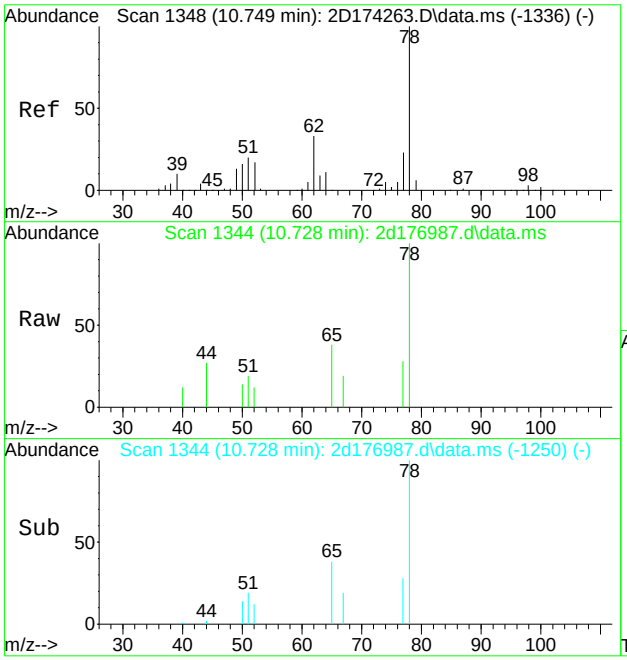


#40
cis-1,2-dichloroethene
Concen: 166.22 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. -0.000 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion: 96 Resp: 479830

Ion	Ratio	Lower	Upper
96	100		
61	123.3	112.4	172.4
98	65.6	34.5	94.5

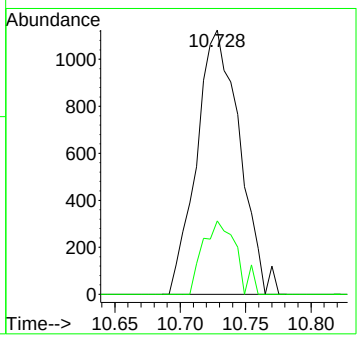


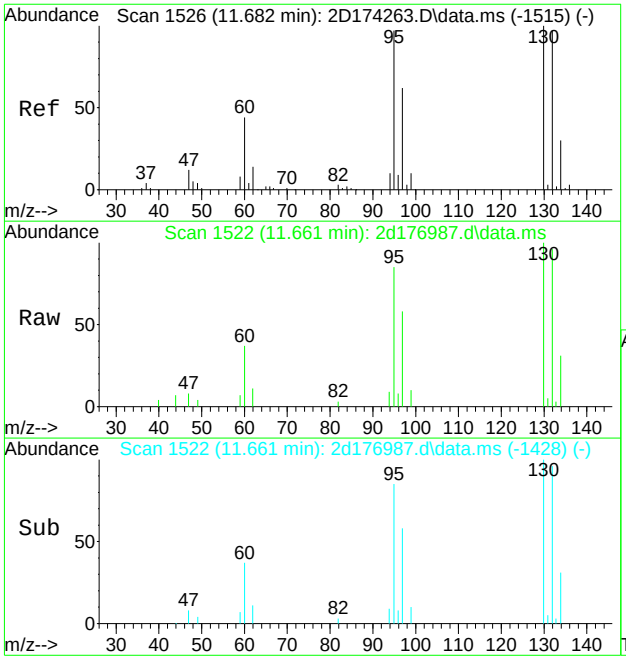


#56
benzene
Concen: 0.24 ug/L
RT: 10.728 min Scan# 1344
Delta R.T. -0.005 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion: 78 Resp: 2569

Ion	Ratio	Lower	Upper
78	100		
77	27.7	0.0	54.2

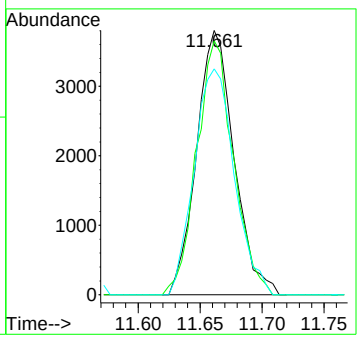


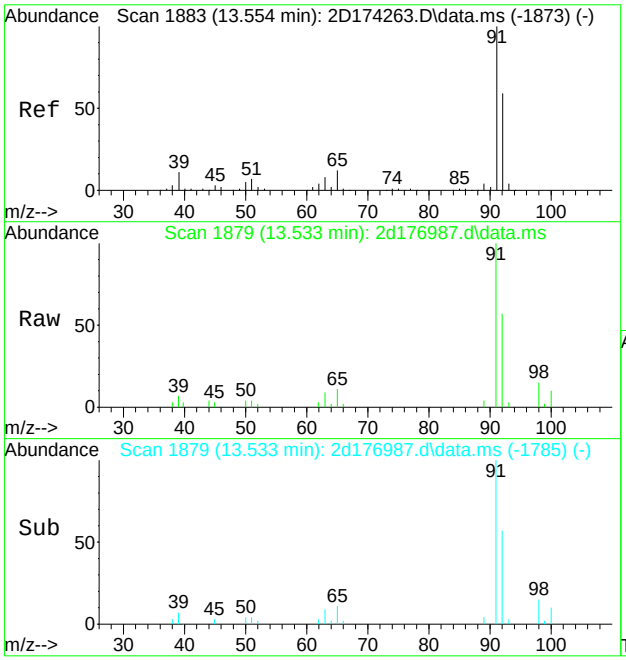


#64
trichloroethene
Concen: 2.81 ug/L
RT: 11.661 min Scan# 1522
Delta R.T. -0.005 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion:130 Resp: 7983

Ion	Ratio	Lower	Upper
130	100		
132	96.0	65.0	125.0
95	85.4	62.6	122.6

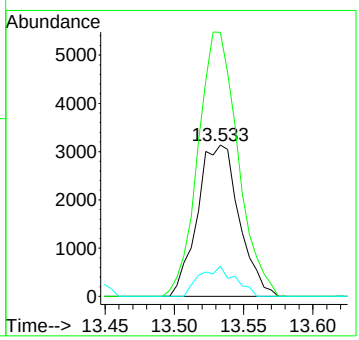


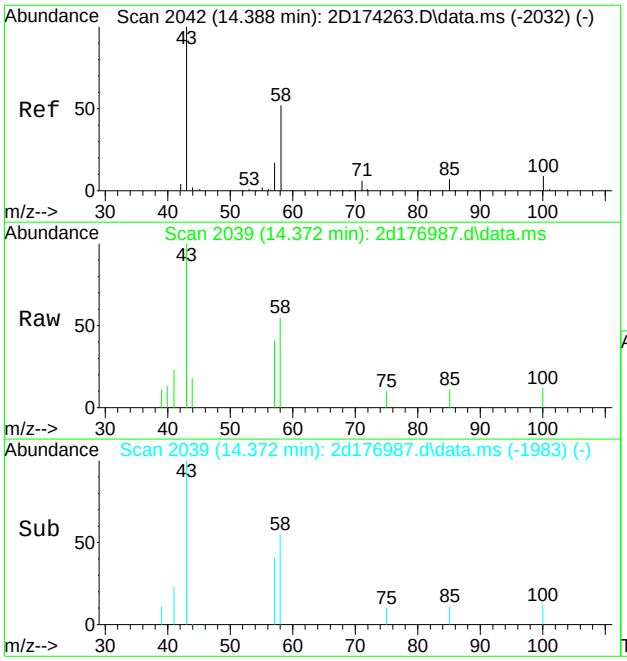


#78
toluene
Concen: 1.04 ug/L
RT: 13.533 min Scan# 1879
Delta R.T. -0.005 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion: 92 Resp: 6553

Ion	Ratio	Lower	Upper
92	100		
91	174.4	152.9	192.9
65	20.1	0.0	39.0

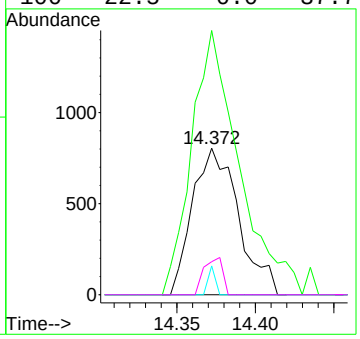




#84
2-hexanone
Concen: 1.90 ug/L
RT: 14.372 min Scan# 2039
Delta R.T. -0.005 min
Lab File: 2d176987.d
Acq: 2 Jul 2018 9:36 pm

Tgt Ion: 58 Resp: 1639

Ion	Ratio	Lower	Upper
58	100		
43	180.5	162.2	202.2
85	19.8	0.0	34.5
100	22.5	0.0	37.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176993.d
Acq On : 3 Jul 2018 12:40 am
Operator : juntaep
Sample : JC68966-35 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:02:22 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

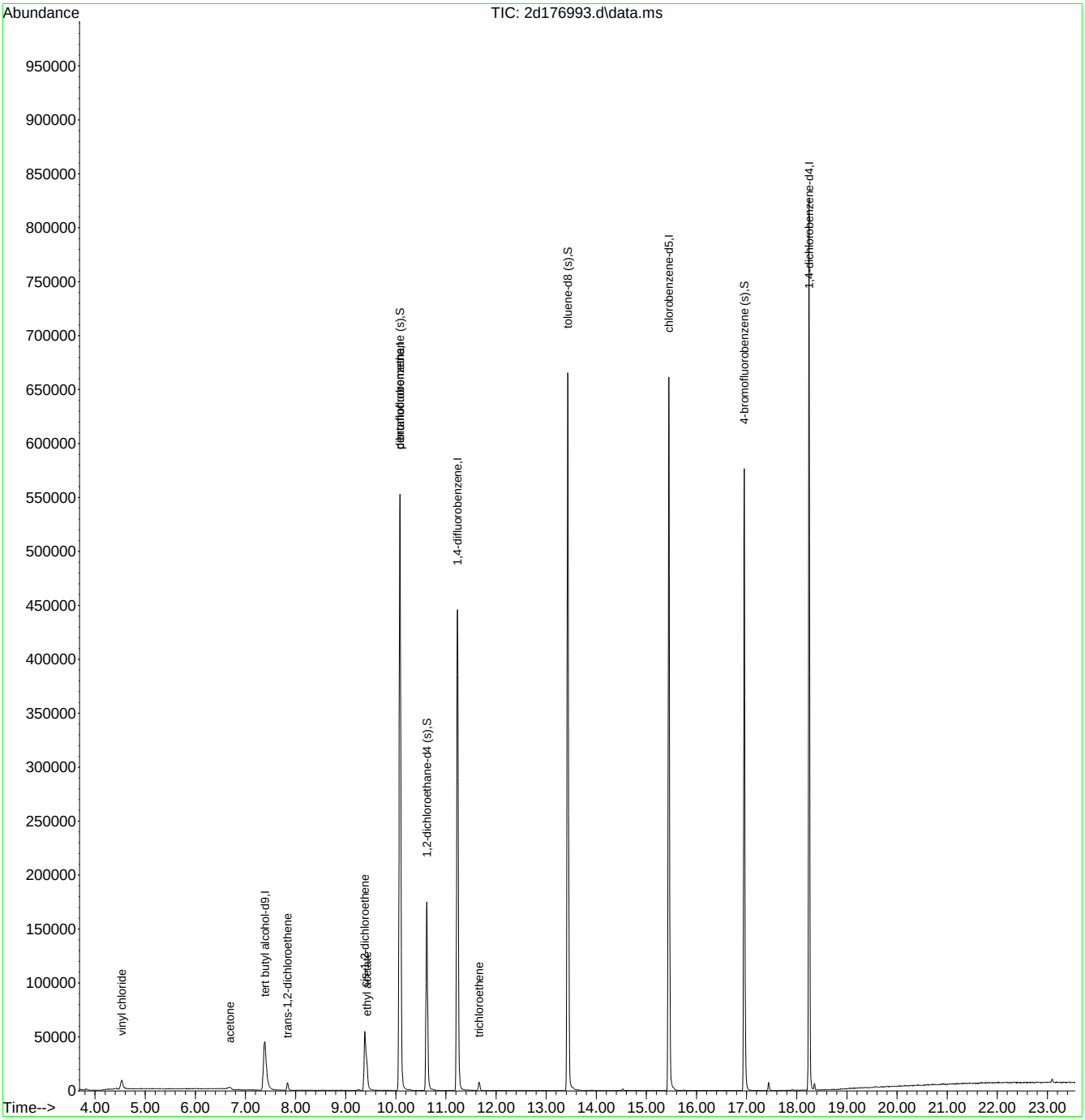
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	116229	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	333612	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.231	114	463046	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	437722	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	217806	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	146773	51.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.14%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	142511	44.81	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.62%			
77) toluene-d8 (s)	13.428	98	532261	52.29	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.58%			
100) 4-bromofluorobenzene (s)	16.952	95	193173	55.28	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.56%			
Target Compounds						Qvalue
11) vinyl chloride	4.531	62	18175	4.93	ug/L	97
22) acetone	6.686	58	773	4.33	ug/L #	21
29) trans-1,2-dichloroethene	7.839	96	3975	1.56	ug/L	89
38) ethyl acetate	9.423	45	5581	17.82	ug/L #	55
40) cis-1,2-dichloroethene	9.381	96	32327	11.32	ug/L	87
64) trichloroethene	11.661	130	3548	1.28	ug/L	95

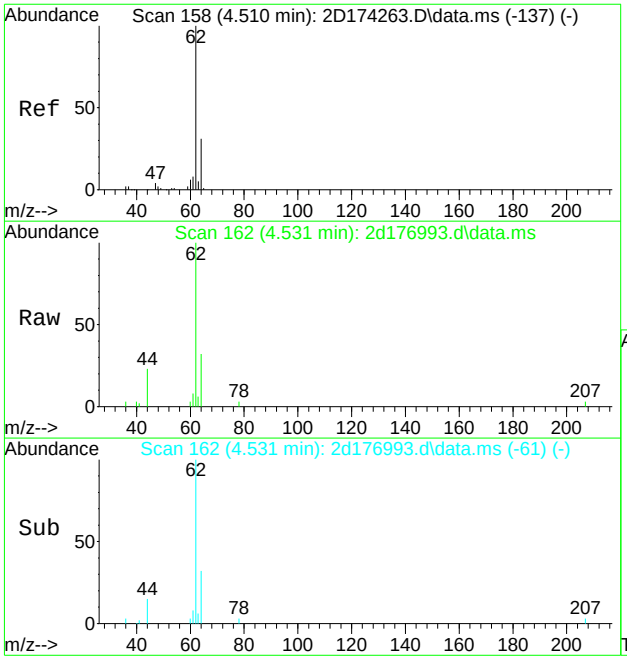
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176993.d
Acq On : 3 Jul 2018 12:40 am
Operator : juntaep
Sample : JC68966-35 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 33 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:02:22 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

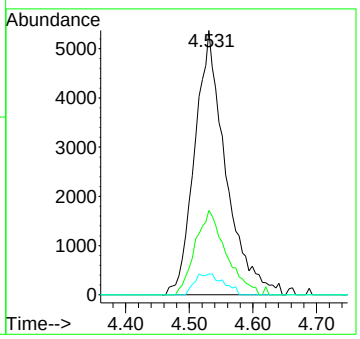


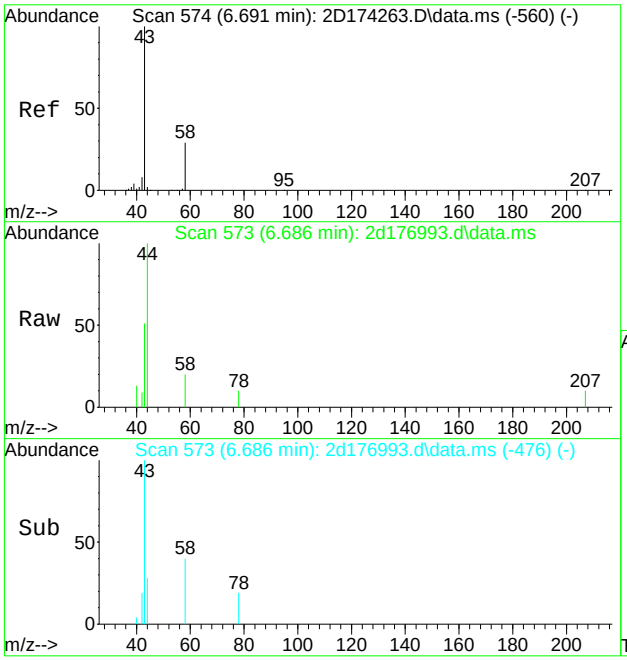


#11
vinyl chloride
Concen: 4.93 ug/L
RT: 4.531 min Scan# 162
Delta R.T. 0.031 min
Lab File: 2d176993.d
Acq: 3 Jul 2018 12:40 am

Tgt Ion: 62 Resp: 18175

Ion	Ratio	Lower	Upper
62	100		
64	32.0	0.2	60.2
61	7.9	0.0	39.0

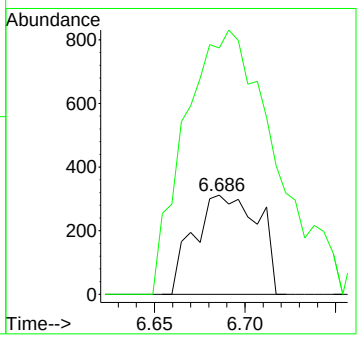


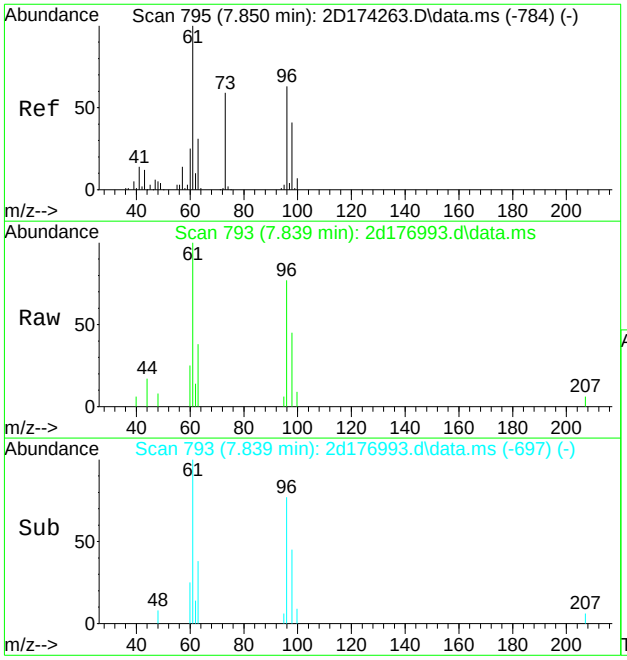


#22
acetone
Concen: 4.33 ug/L
RT: 6.686 min Scan# 573
Delta R.T. 0.010 min
Lab File: 2d176993.d
Acq: 3 Jul 2018 12:40 am

Tgt Ion: 58 Resp: 773

Ion	Ratio	Lower	Upper
58	100		
43	166.3	301.0	361.0#

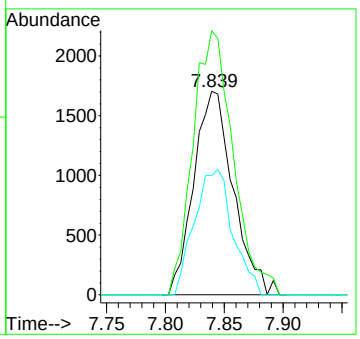


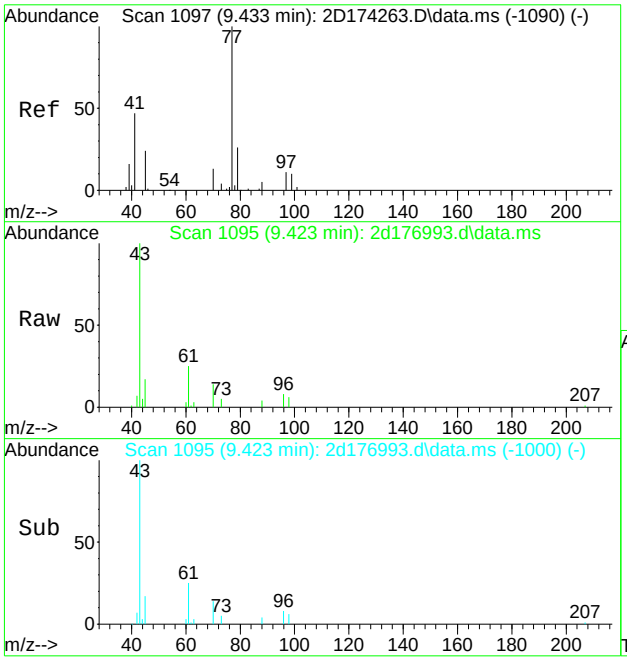


#29
trans-1,2-dichloroethene
Concen: 1.56 ug/L
RT: 7.839 min Scan# 793
Delta R.T. 0.005 min
Lab File: 2d176993.d
Acq: 3 Jul 2018 12:40 am

Tgt Ion: 96 Resp: 3975

Ion	Ratio	Lower	Upper
96	100		
61	130.0	117.8	177.8
98	58.6	31.2	91.2

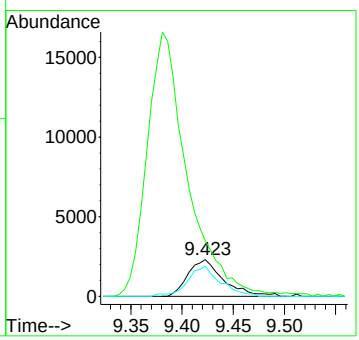


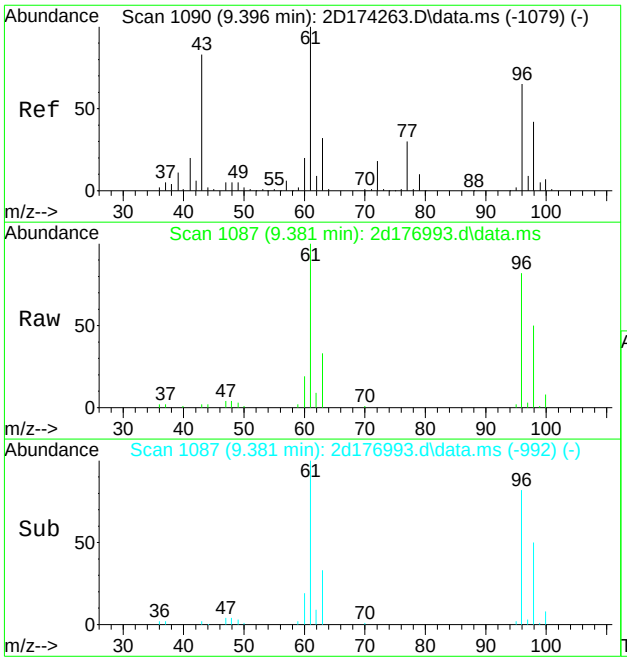


#38
ethyl acetate
Concen: 17.82 ug/L
RT: 9.423 min Scan# 1095
Delta R.T. -0.000 min
Lab File: 2d176993.d
Acq: 3 Jul 2018 12:40 am

Tgt Ion: 45 Resp: 5581

Ion	Ratio	Lower	Upper
45	100		
61	141.0	211.6	271.6#
70	82.1	50.8	110.8

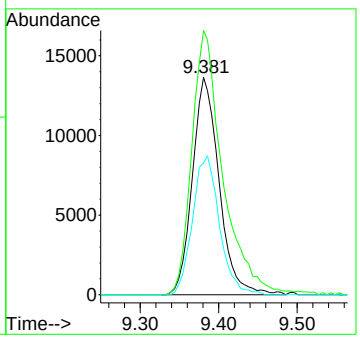


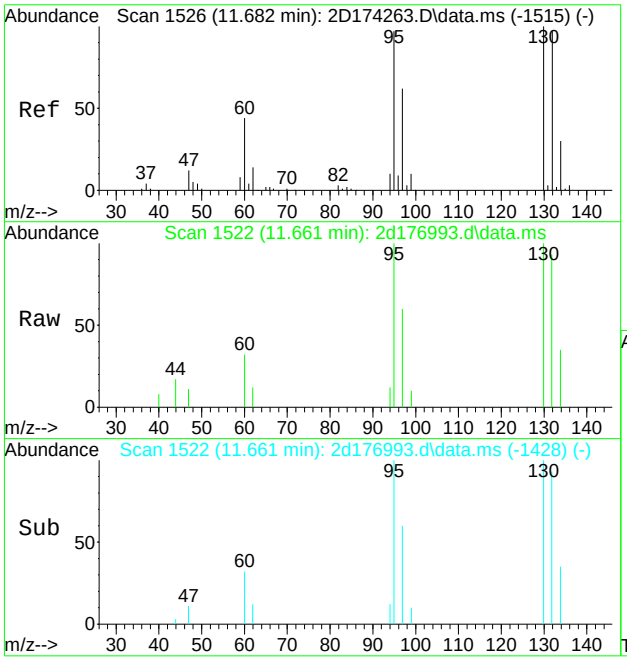


#40
cis-1,2-dichloroethene
Concen: 11.32 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. -0.000 min
Lab File: 2d176993.d
Acq: 3 Jul 2018 12:40 am

Tgt Ion: 96 Resp: 32327

Ion	Ratio	Lower	Upper
96	100		
61	121.6	112.4	172.4
98	60.6	34.5	94.5

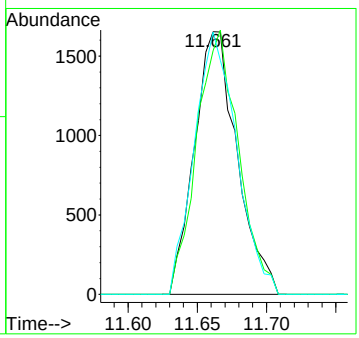




#64
trichloroethene
Concen: 1.28 ug/L
RT: 11.661 min Scan# 1522
Delta R.T. -0.005 min
Lab File: 2d176993.d
Acq: 3 Jul 2018 12:40 am

Tgt Ion:130 Resp: 3548

Ion	Ratio	Lower	Upper
130	100		
132	92.8	65.0	125.0
95	99.9	62.6	122.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176994.d
Acq On : 3 Jul 2018 1:10 am
Operator : juntaep
Sample : JC68966-36 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:03:43 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

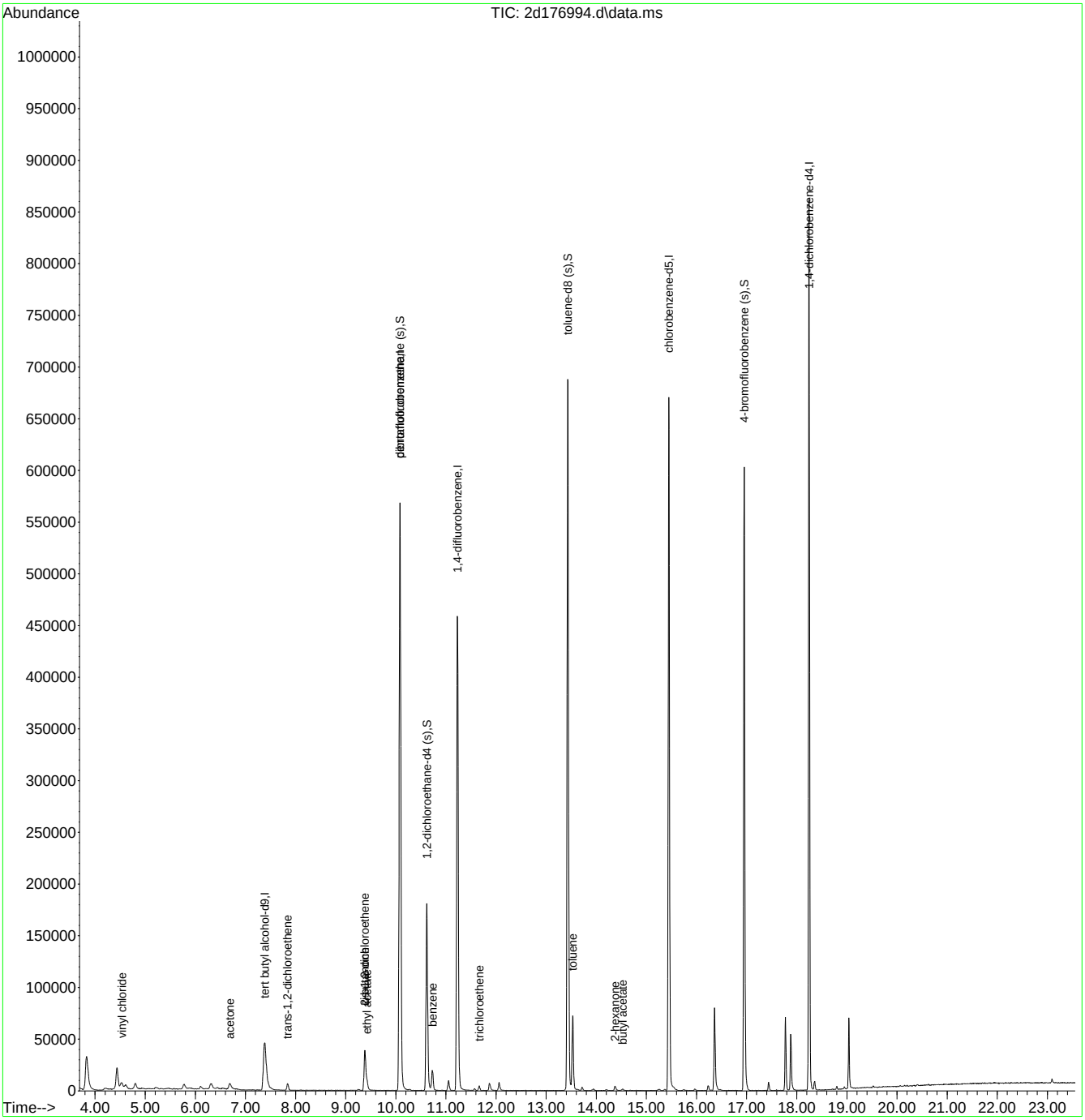
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	116458	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	342043	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.231	114	477232	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	452911	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	228271	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	151295	51.34	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.68%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	147691	45.06	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.12%			
77) toluene-d8 (s)	13.428	98	543533	51.61	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.22%			
100) 4-bromofluorobenzene (s)	16.952	95	200646	54.79	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.58%			
Target Compounds						Qvalue
11) vinyl chloride	4.536	62	9449	2.50	ug/L	97
22) acetone	6.686	58	3462	18.93	ug/L #	52
29) trans-1,2-dichloroethene	7.839	96	3748	1.43	ug/L	81
32) 2-butanone	9.381	72	1956	8.27	ug/L #	49
38) ethyl acetate	9.423	45	1718	5.35	ug/L	90
40) cis-1,2-dichloroethene	9.381	96	21085	7.20	ug/L	87
56) benzene	10.733	78	21468	2.02	ug/L	96
64) trichloroethene	11.667	130	1797	0.63	ug/L	86
78) toluene	13.528	92	36397	5.70	ug/L	97
84) 2-hexanone	14.372	58	2268	2.60	ug/L	98
85) butyl acetate	14.529	56	540	0.34	ug/L #	21

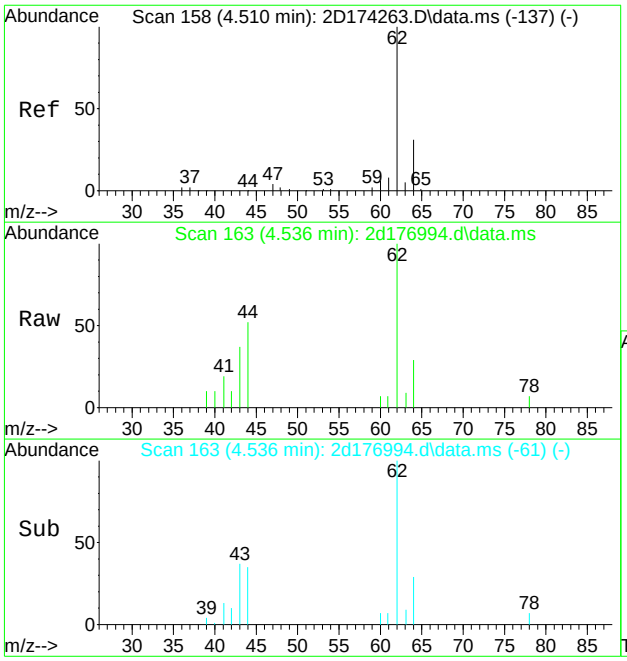
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176994.d
Acq On : 3 Jul 2018 1:10 am
Operator : juntaep
Sample : JC68966-36 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:03:43 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

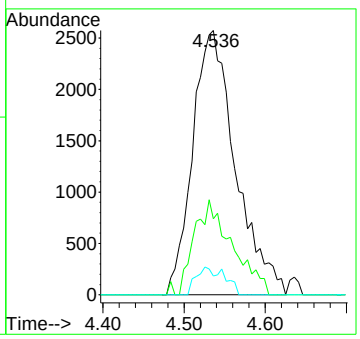


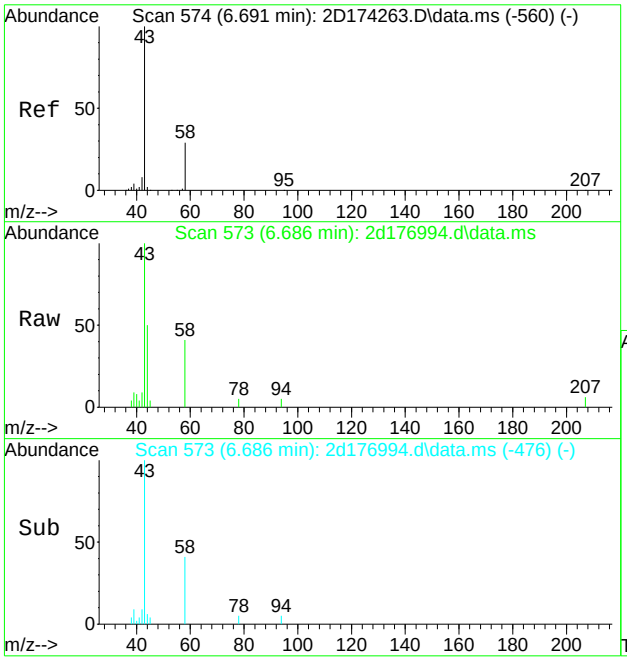


#11
vinyl chloride
Concen: 2.50 ug/L
RT: 4.536 min Scan# 163
Delta R.T. 0.037 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 62 Resp: 9449

Ion	Ratio	Lower	Upper
62	100		
64	28.7	0.2	60.2
61	7.1	0.0	39.0

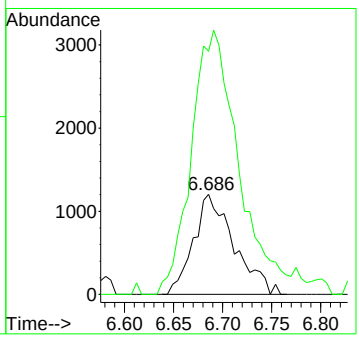


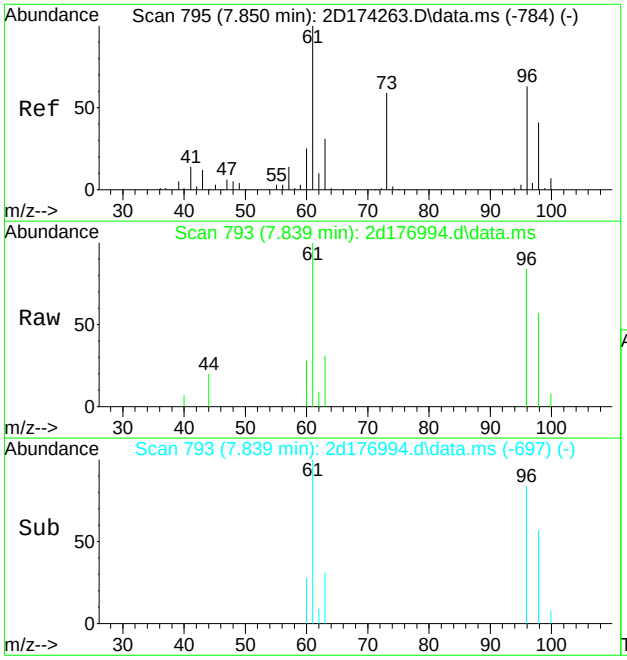


#22
acetone
Concen: 18.93 ug/L
RT: 6.686 min Scan# 573
Delta R.T. 0.010 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 58 Resp: 3462

Ion	Ratio	Lower	Upper
58	100		
43	229.8	301.0	361.0#

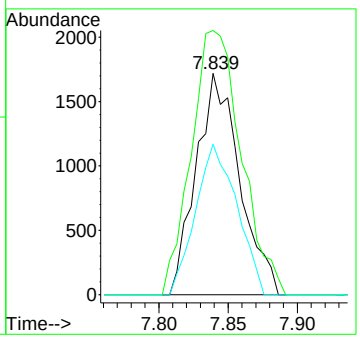


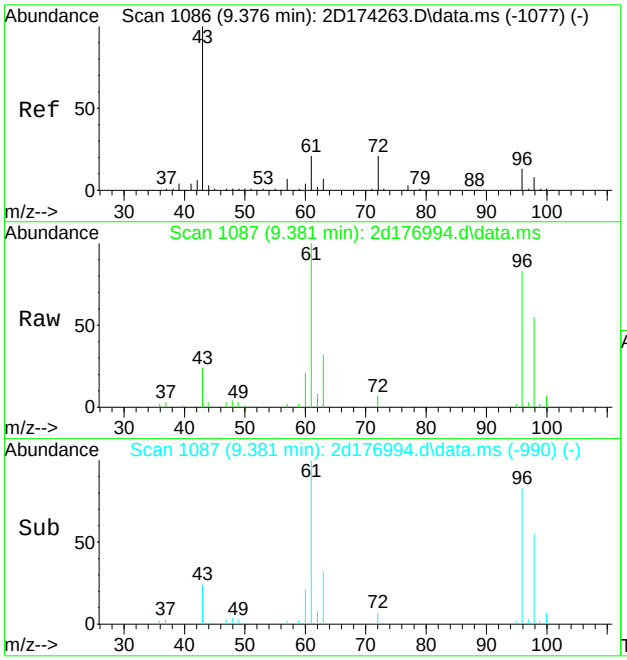


#29
trans-1,2-dichloroethene
Concen: 1.43 ug/L
RT: 7.839 min Scan# 793
Delta R.T. 0.005 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 96 Resp: 3748

Ion	Ratio	Lower	Upper
96	100		
61	119.4	117.8	177.8
98	67.9	31.2	91.2

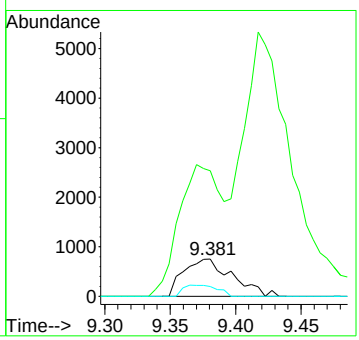


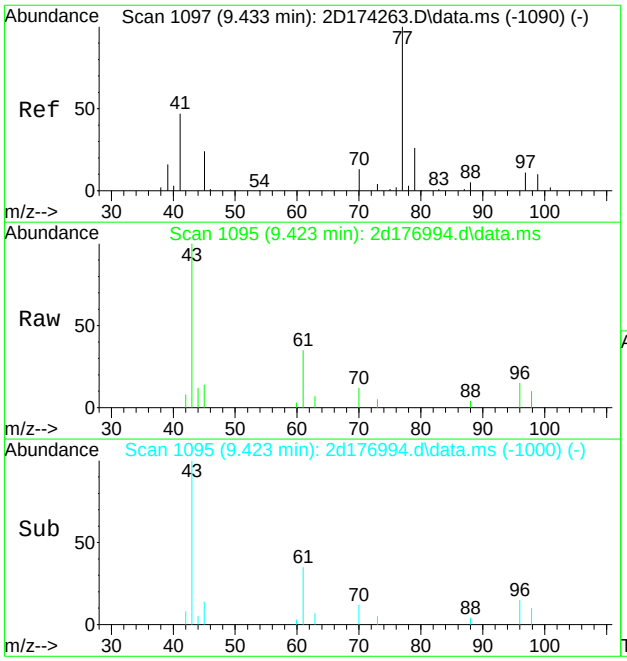


#32
2-butanone
Concen: 8.27 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. 0.010 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 72 Resp: 1956

Ion	Ratio	Lower	Upper
72	100		
43	295.2	399.9	459.9#
57	26.5	1.8	61.8

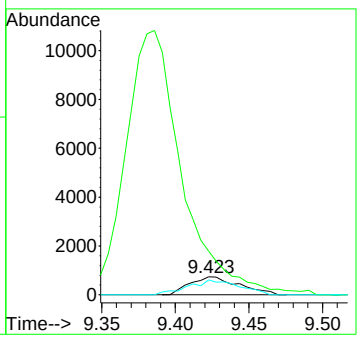


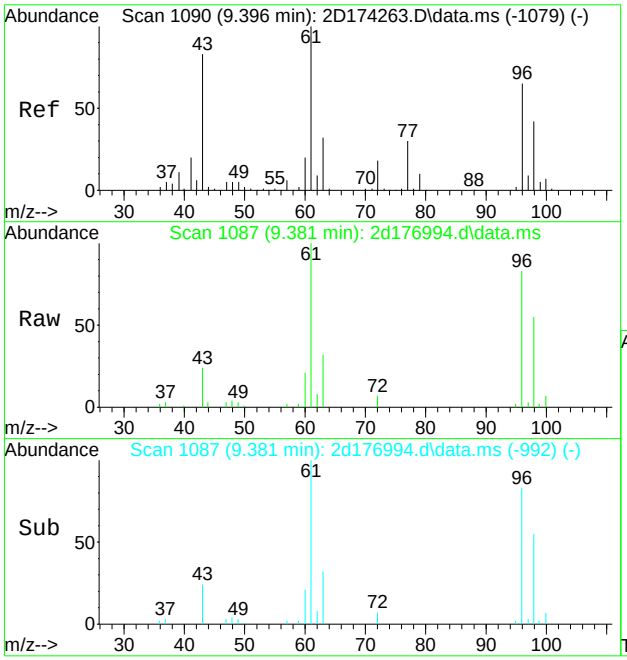


#38
ethyl acetate
Concen: 5.35 ug/L
RT: 9.423 min Scan# 1095
Delta R.T. -0.000 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 45 Resp: 1718

Ion	Ratio	Lower	Upper
45	100		
61	221.7	211.6	271.6
70	83.7	50.8	110.8

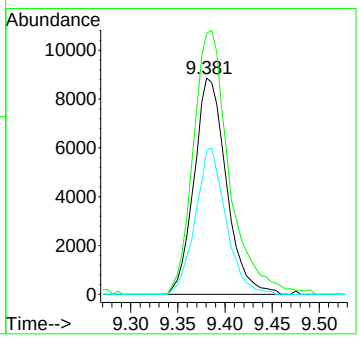


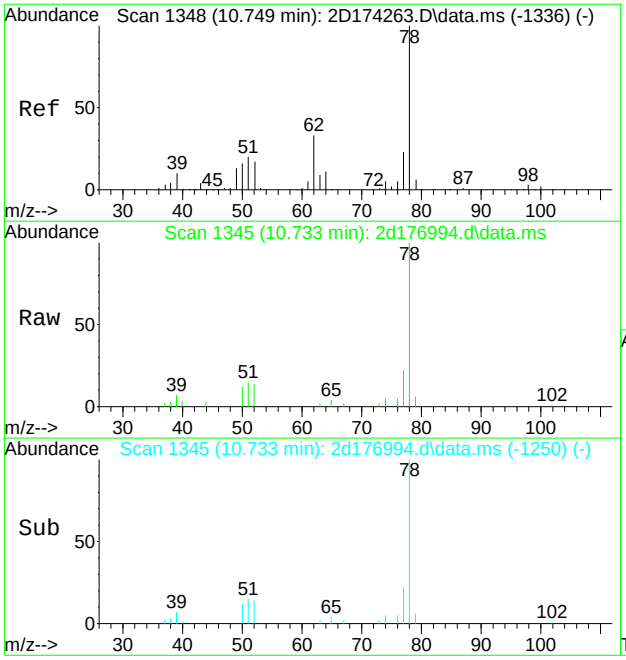


#40
cis-1,2-dichloroethene
Concen: 7.20 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. -0.000 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 96 Resp: 21085

Ion	Ratio	Lower	Upper
96	100		
61	120.6	112.4	172.4
98	66.6	34.5	94.5

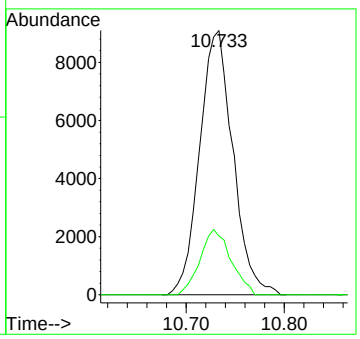


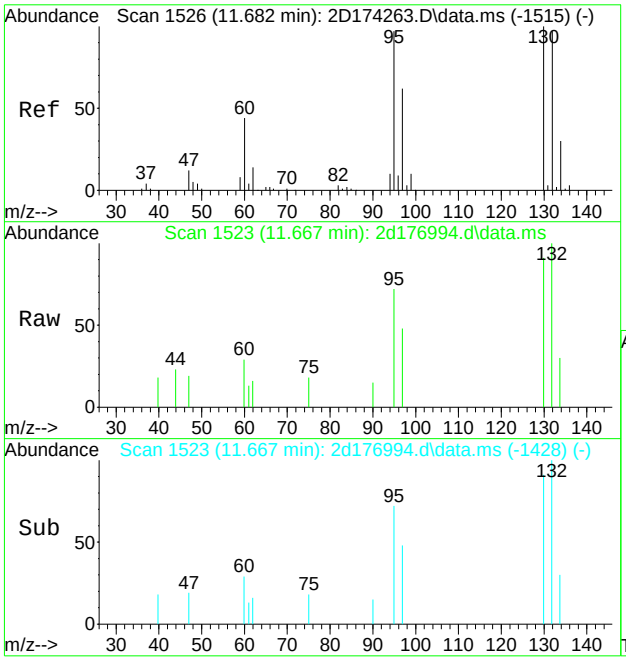


#56
benzene
Concen: 2.02 ug/L
RT: 10.733 min Scan# 1345
Delta R.T. -0.000 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 78 Resp: 21468

Ion	Ratio	Lower	Upper
78	100		
77	22.1	0.0	54.2

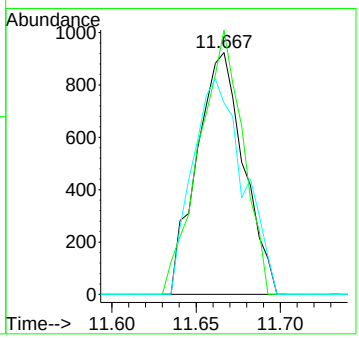


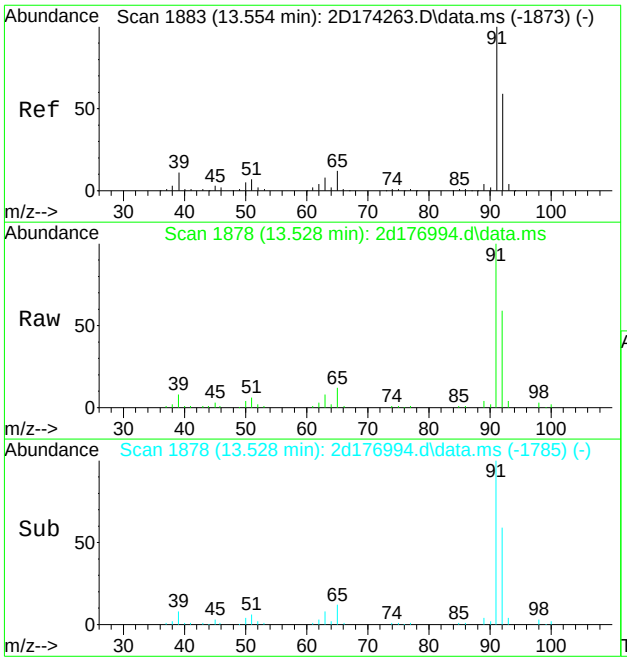


#64
trichloroethene
Concen: 0.63 ug/L
RT: 11.667 min Scan# 1523
Delta R.T. -0.000 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion:130 Resp: 1797

Ion	Ratio	Lower	Upper
130	100		
132	109.3	65.0	125.0
95	79.1	62.6	122.6

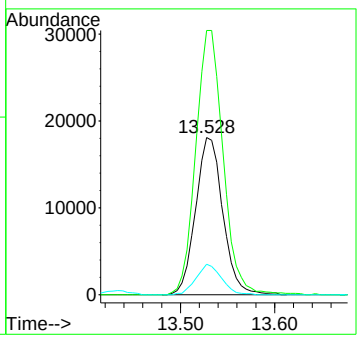


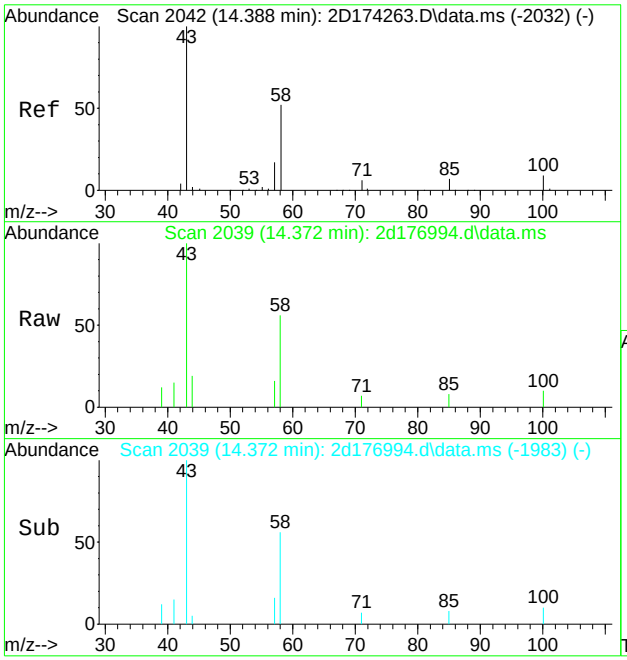


#78
toluene
Concen: 5.70 ug/L
RT: 13.528 min Scan# 1878
Delta R.T. -0.011 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 92 Resp: 36397

Ion	Ratio	Lower	Upper
92	100		
91	168.2	152.9	192.9
65	19.5	0.0	39.0

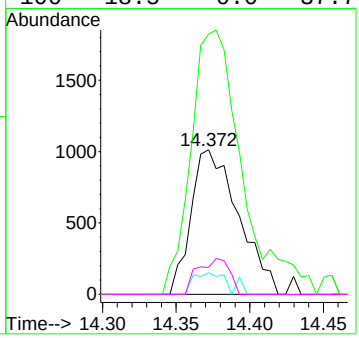


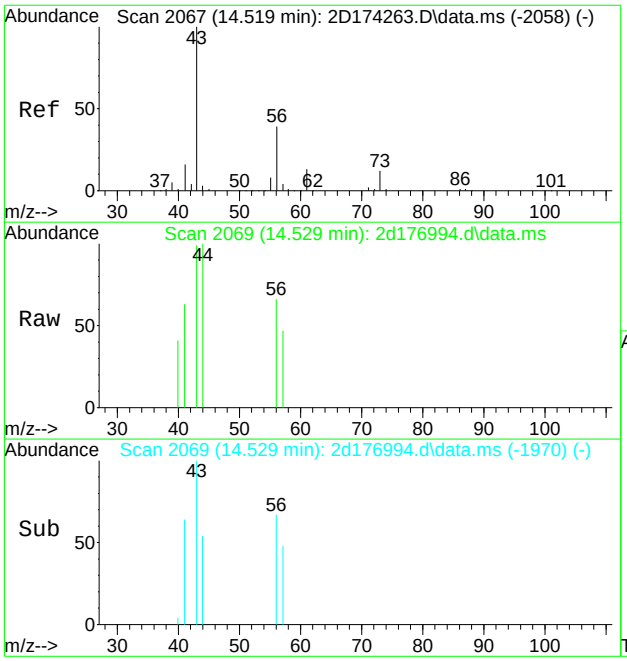


#84
2-hexanone
Concen: 2.60 ug/L
RT: 14.372 min Scan# 2039
Delta R.T. -0.005 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 58 Resp: 2268

Ion	Ratio	Lower	Upper
58	100		
43	179.7	162.2	202.2
85	15.0	0.0	34.5
100	18.5	0.0	37.7

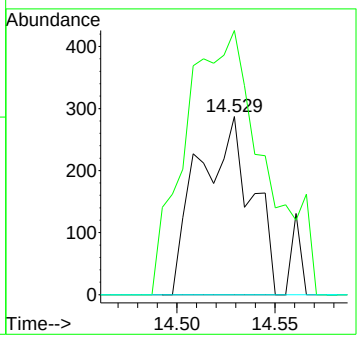




#85
butyl acetate
Concen: 0.34 ug/L
RT: 14.529 min Scan# 2069
Delta R.T. 0.021 min
Lab File: 2d176994.d
Acq: 3 Jul 2018 1:10 am

Tgt Ion: 56 Resp: 540

Ion	Ratio	Lower	Upper
56	100		
43	99.3	208.7	268.7#
73	0.0	2.4	62.4#



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176995.d
Acq On : 3 Jul 2018 1:40 am
Operator : juntaep
Sample : JC68966-37 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:05:11 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

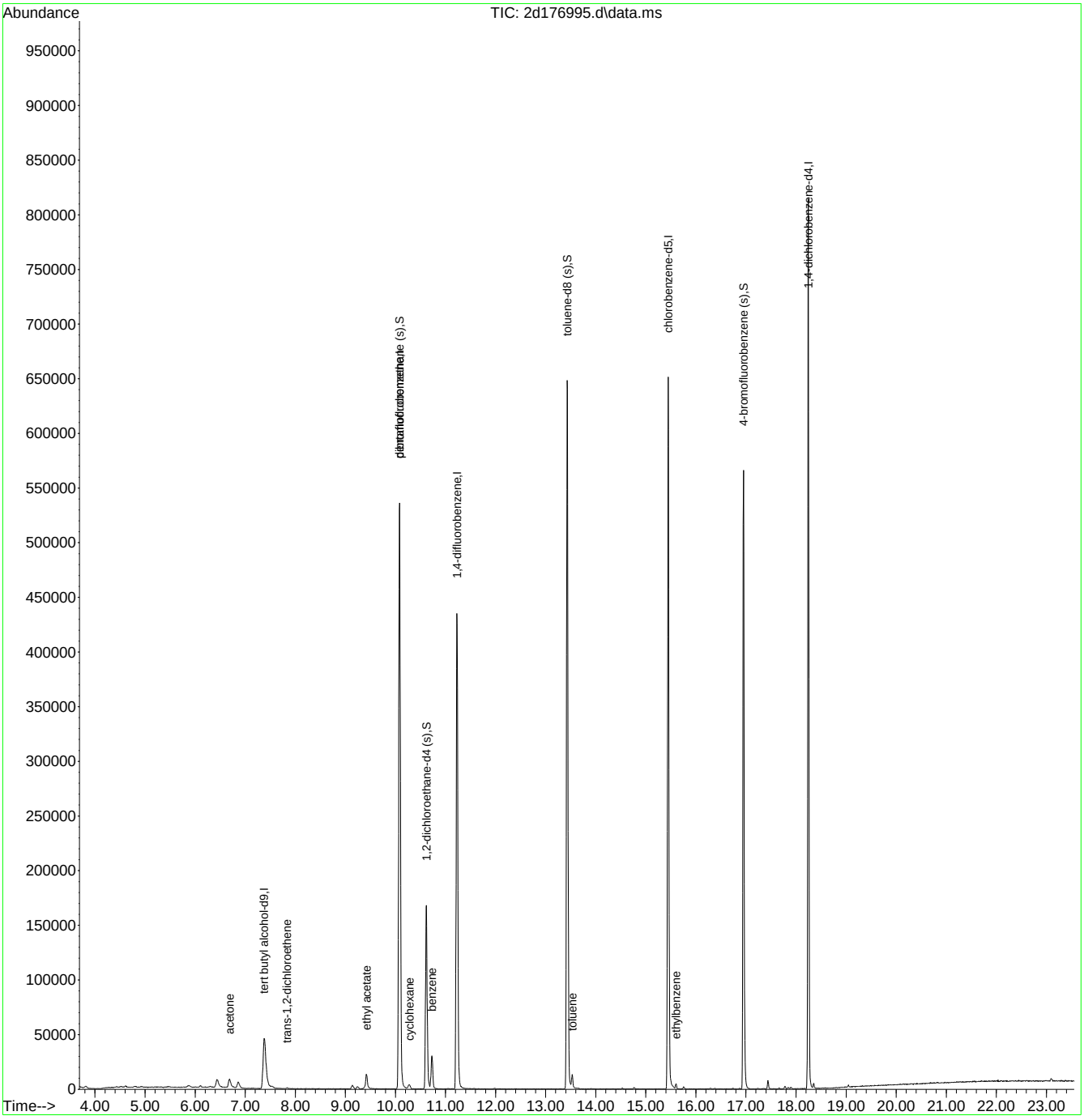
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	114748	500.00	ug/L	-0.01
5) pentafluorobenzene	10.083	168	322415	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	450712	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	429099	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	214673	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	144199	51.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.82%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	140216	45.29	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.58%			
77) toluene-d8 (s)	13.428	98	519221	52.04	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.08%			
100) 4-bromofluorobenzene (s)	16.952	95	188896	54.85	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.70%			
Target Compounds						Qvalue
22) acetone	6.686	58	4881	28.32	ug/L #	74
29) trans-1,2-dichloroethene	7.834	96	540	0.22	ug/L	82
38) ethyl acetate	9.423	45	2894	9.56	ug/L #	41
49) cyclohexane	10.283	84	2158	0.64	ug/L #	52
56) benzene	10.728	78	34257	3.41	ug/L	97
78) toluene	13.533	92	6111	1.01	ug/L #	82
91) ethylbenzene	15.604	91	4425	0.37	ug/L	95

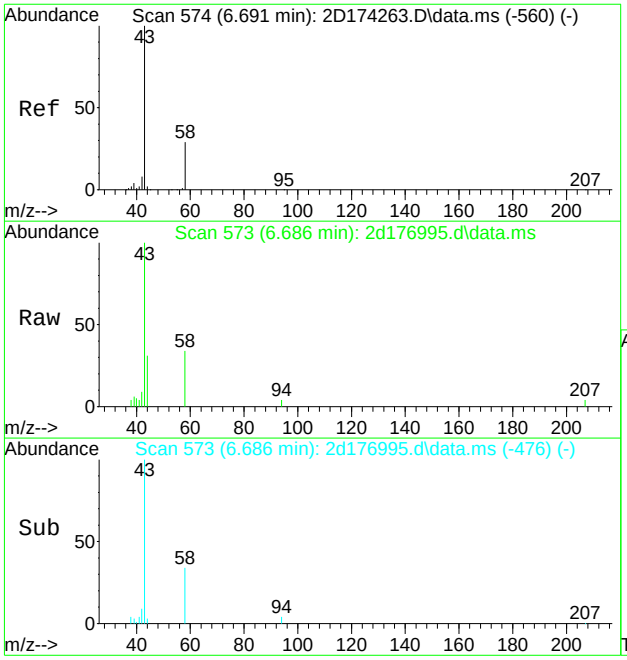
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176995.d
Acq On : 3 Jul 2018 1:40 am
Operator : juntaep
Sample : JC68966-37 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:05:11 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

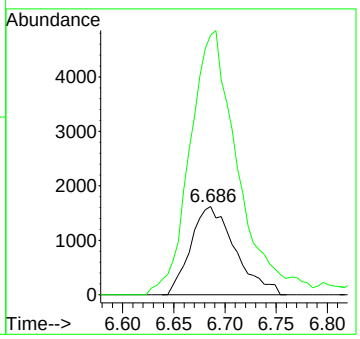


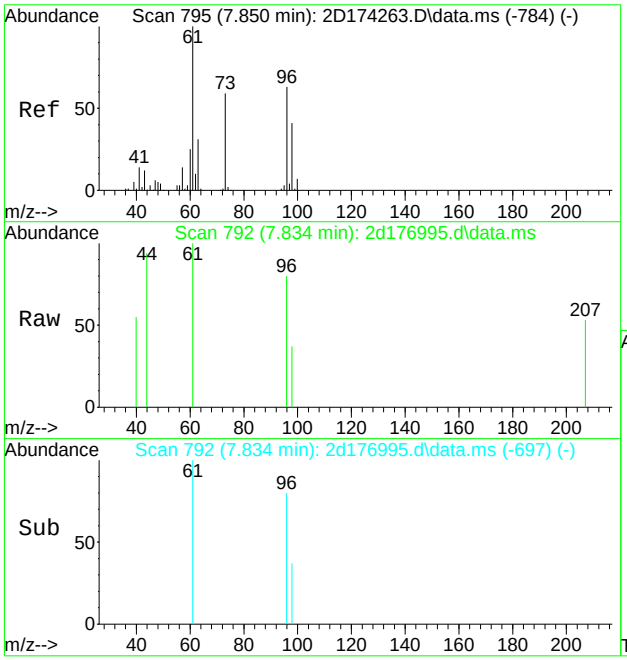


#22
acetone
Concen: 28.32 ug/L
RT: 6.686 min Scan# 573
Delta R.T. 0.011 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 58 Resp: 4881

Ion	Ratio	Lower	Upper
58	100		
43	276.8	301.0	361.0#

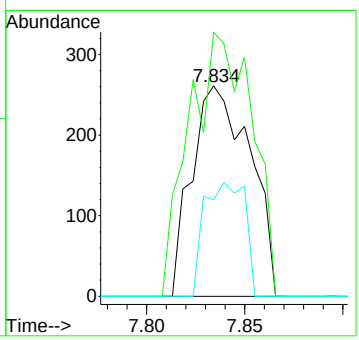


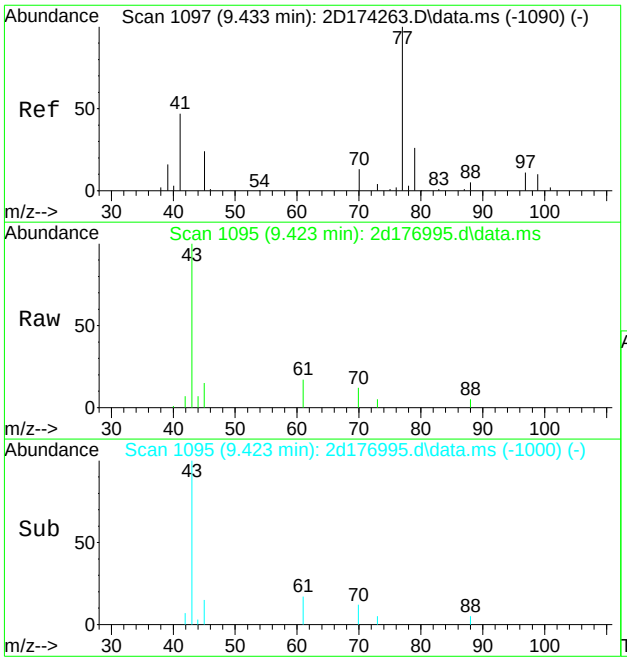


#29
trans-1,2-dichloroethene
Concen: 0.22 ug/L
RT: 7.834 min Scan# 792
Delta R.T. 0.000 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 96 Resp: 540

Ion	Ratio	Lower	Upper
96	100		
61	125.7	117.8	177.8
98	46.0	31.2	91.2

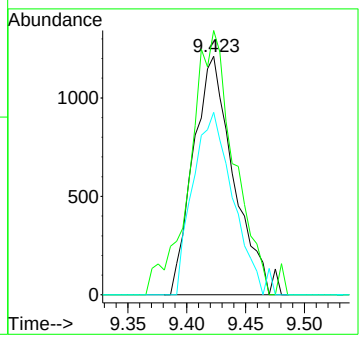


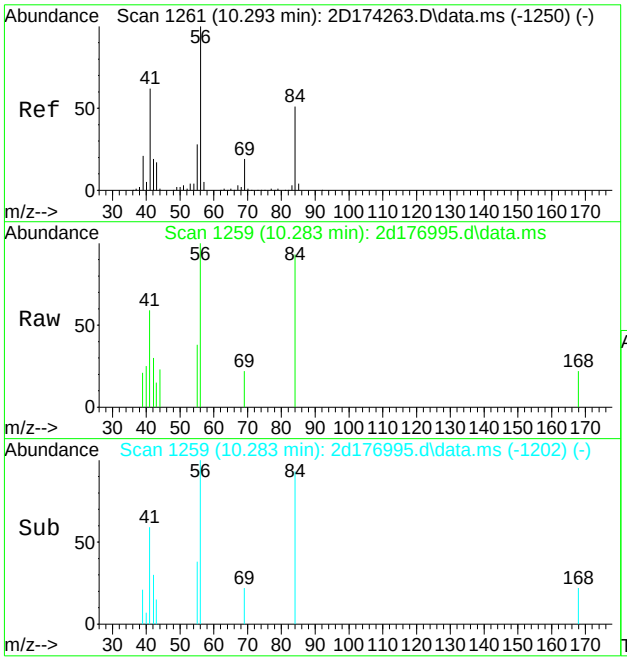


#38
ethyl acetate
Concen: 9.56 ug/L
RT: 9.423 min Scan# 1095
Delta R.T. 0.000 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 45 Resp: 2894

Ion	Ratio	Lower	Upper
45	100		
61	110.8	211.6	271.6#
70	76.5	50.8	110.8

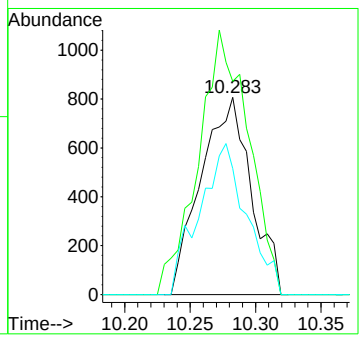


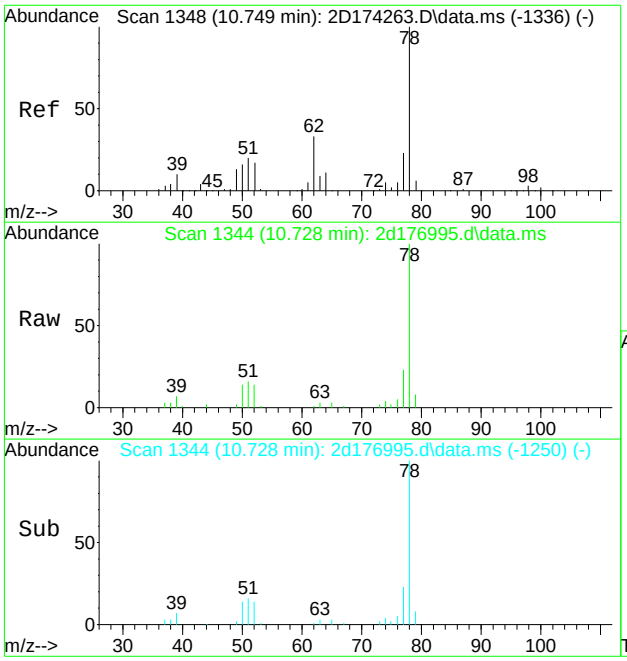


#49
cyclohexane
Concen: 0.64 ug/L
RT: 10.283 min Scan# 1259
Delta R.T. 0.000 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 84 Resp: 2158

Ion	Ratio	Lower	Upper
84	100		
56	108.1	151.4	211.4#
41	63.9	76.2	136.2#

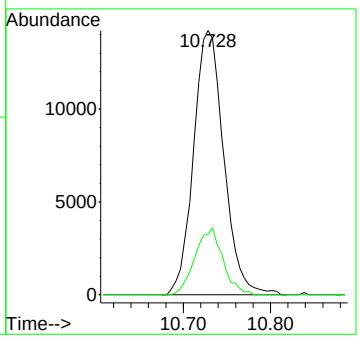


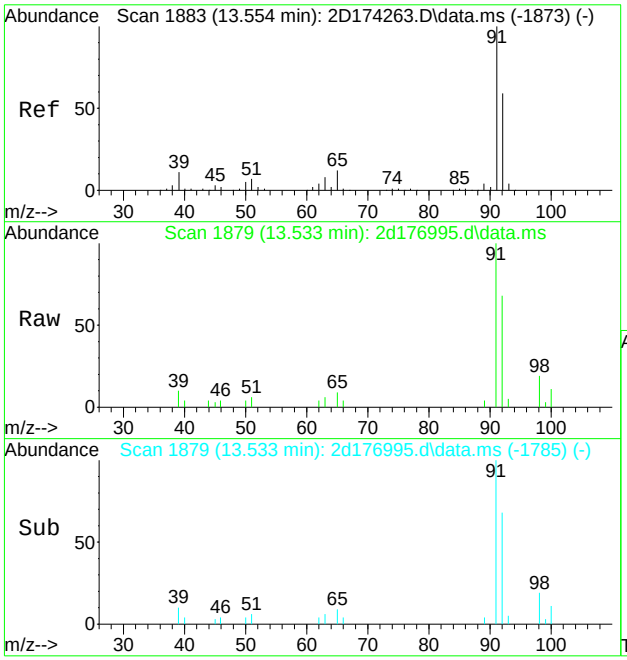


#56
benzene
Concen: 3.41 ug/L
RT: 10.728 min Scan# 1344
Delta R.T. -0.005 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 78 Resp: 34257

Ion	Ratio	Lower	Upper
78	100		
77	22.9	0.0	54.2

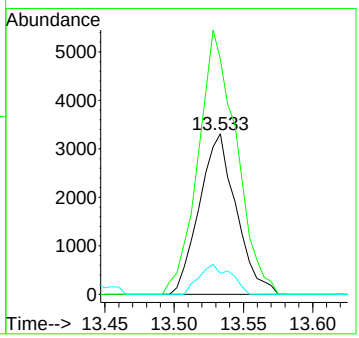


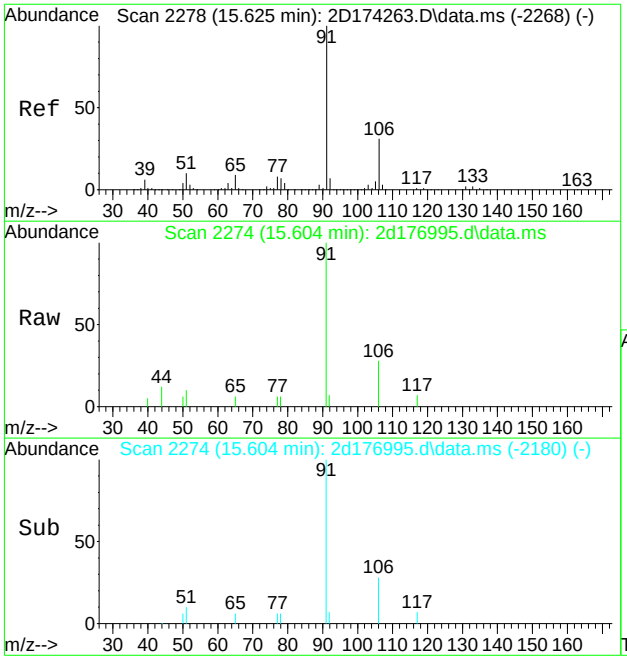


#78
toluene
Concen: 1.01 ug/L
RT: 13.533 min Scan# 1879
Delta R.T. -0.005 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 92 Resp: 6111

Ion	Ratio	Lower	Upper
92	100		
91	146.5	152.9	192.9#
65	13.0	0.0	39.0

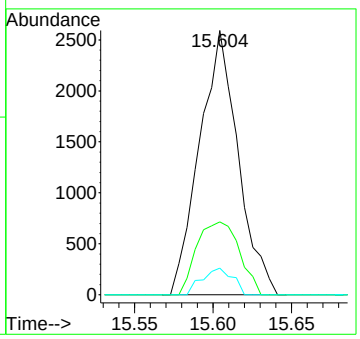




#91
ethylbenzene
Concen: 0.37 ug/L
RT: 15.604 min Scan# 2274
Delta R.T. -0.005 min
Lab File: 2d176995.d
Acq: 3 Jul 2018 1:40 am

Tgt Ion: 91 Resp: 4425

Ion	Ratio	Lower	Upper
91	100		
106	27.5	0.8	60.8
51	10.1	0.0	39.2



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176996.d
Acq On : 3 Jul 2018 2:11 am
Operator : juntaep
Sample : JC68966-38 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:06:41 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

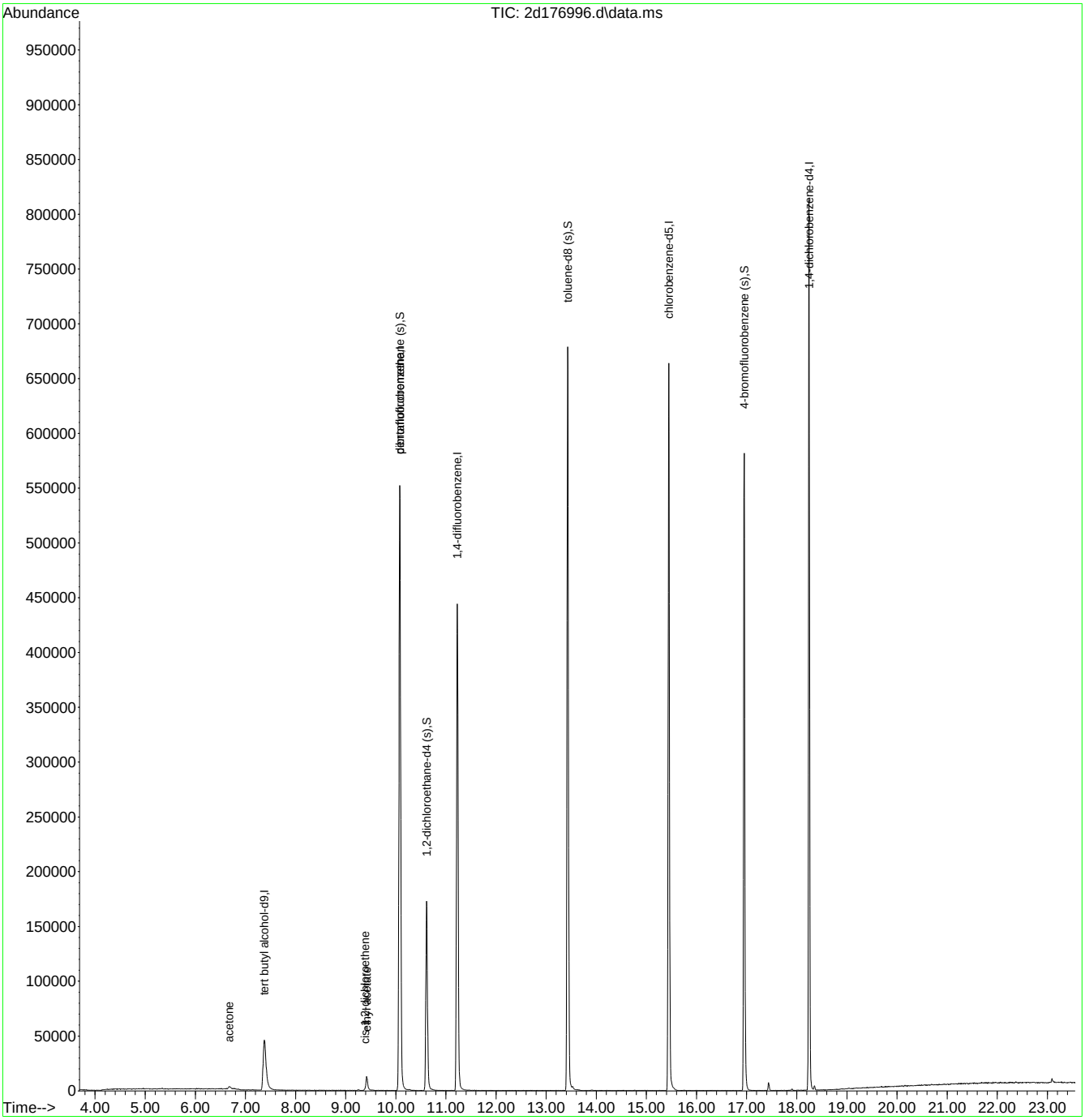
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115529	500.00	ug/L	-0.01
5) pentafluorobenzene	10.083	168	332038	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.226	114	458200	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	442130	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	217711	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	148253	51.83	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.66%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	143658	45.65	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.30%			
77) toluene-d8 (s)	13.428	98	534250	51.96	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.92%			
100) 4-bromofluorobenzene (s)	16.952	95	195688	56.02	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.04%			
Target Compounds						Qvalue
22) acetone	6.675	58	1226	6.91	ug/L #	37
38) ethyl acetate	9.417	45	2937	9.42	ug/L #	37
40) cis-1,2-dichloroethene	9.386	96	707	0.25	ug/L	96

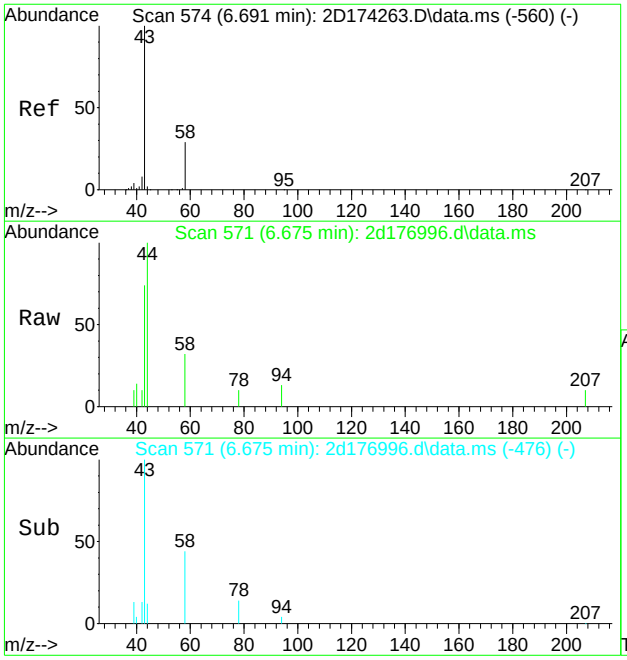
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176996.d
Acq On : 3 Jul 2018 2:11 am
Operator : juntaep
Sample : JC68966-38 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 36 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:06:41 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

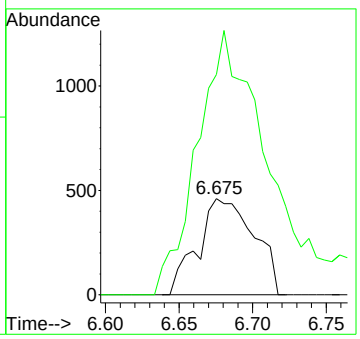


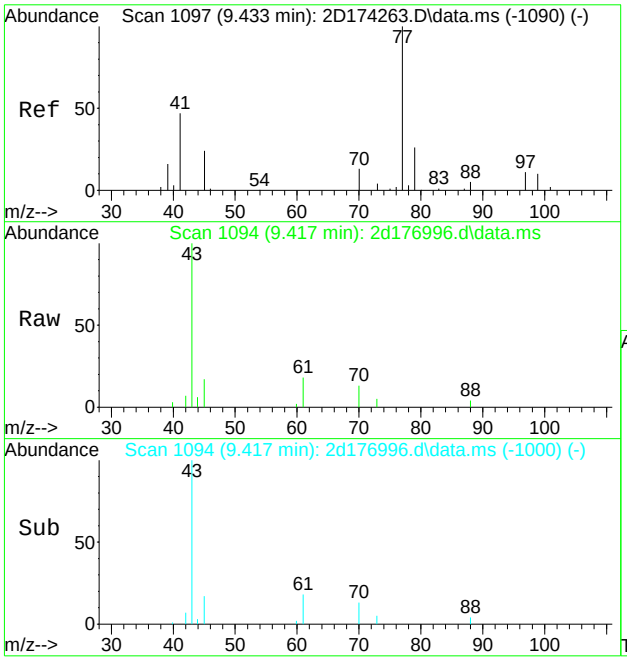


#22
acetone
Concen: 6.91 ug/L
RT: 6.675 min Scan# 571
Delta R.T. -0.000 min
Lab File: 2d176996.d
Acq: 3 Jul 2018 2:11 am

Tgt Ion: 58 Resp: 1226

Ion	Ratio	Lower	Upper
58	100		
43	199.6	301.0	361.0#

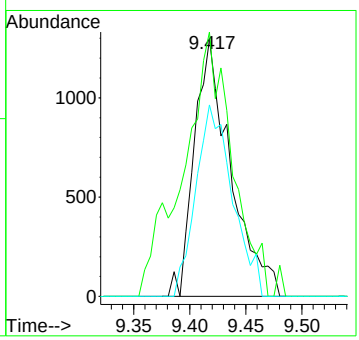


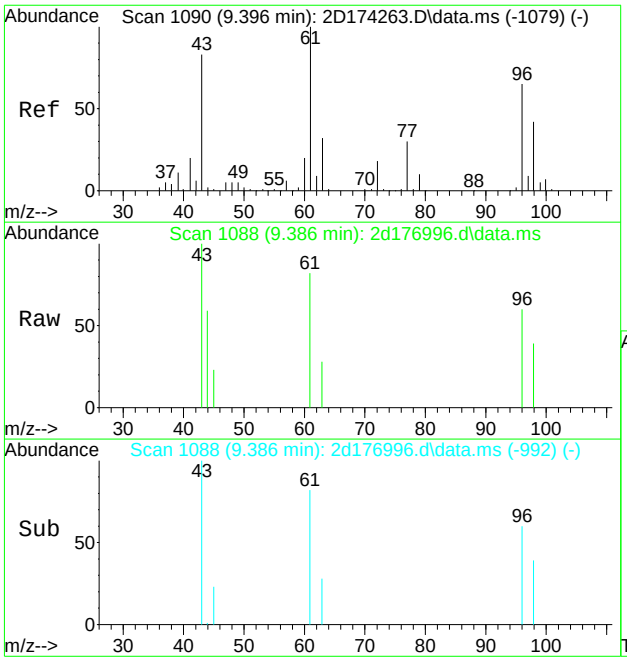


#38
ethyl acetate
Concen: 9.42 ug/L
RT: 9.417 min Scan# 1094
Delta R.T. -0.005 min
Lab File: 2d176996.d
Acq: 3 Jul 2018 2:11 am

Tgt Ion: 45 Resp: 2937

Ion	Ratio	Lower	Upper
45	100		
61	102.9	211.6	271.6#
70	74.5	50.8	110.8

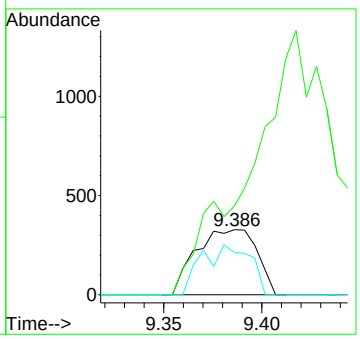




#40
cis-1,2-dichloroethene
Concen: 0.25 ug/L
RT: 9.386 min Scan# 1088
Delta R.T. 0.005 min
Lab File: 2d176996.d
Acq: 3 Jul 2018 2:11 am

Tgt Ion: 96 Resp: 707

Ion	Ratio	Lower	Upper
96	100		
61	136.0	112.4	172.4
98	64.9	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176997.d
Acq On : 3 Jul 2018 2:41 am
Operator : juntaep
Sample : JC68966-39 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:07:07 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

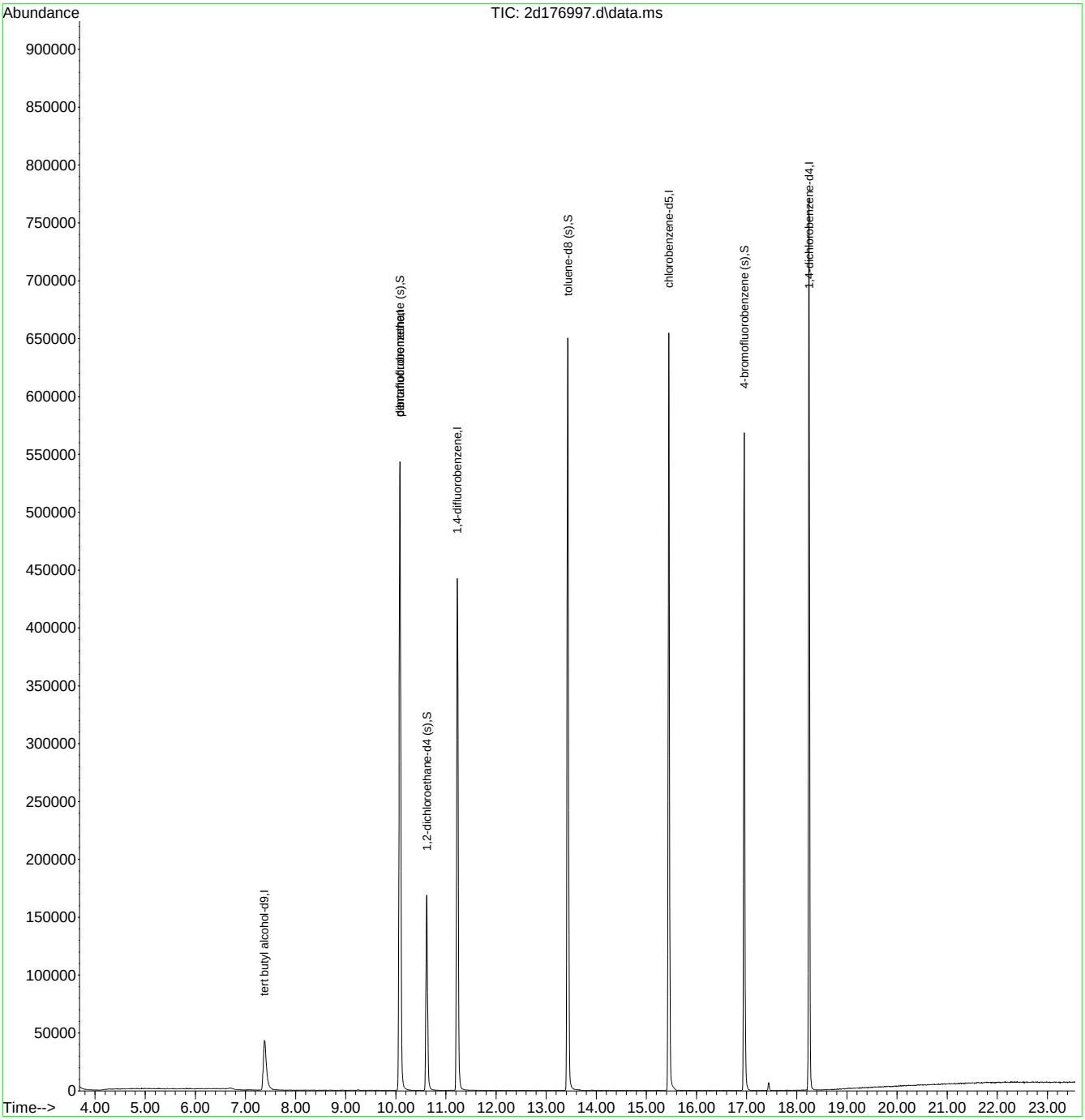
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	109805	500.00	ug/L	-0.01
5) pentafluorobenzene	10.083	168	324994	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.226	114	454986	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	428239	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	209493	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	144851	51.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.46%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	140384	44.92	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.84%			
77) toluene-d8 (s)	13.434	98	524858	52.71	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.42%			
100) 4-bromofluorobenzene (s)	16.952	95	187619	55.82	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.64%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176997.d
Acq On : 3 Jul 2018 2:41 am
Operator : juntaep
Sample : JC68966-39 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 37 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:07:07 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176998.d
Acq On : 3 Jul 2018 3:11 am
Operator : juntaep
Sample : JC68966-40 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:07:41 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

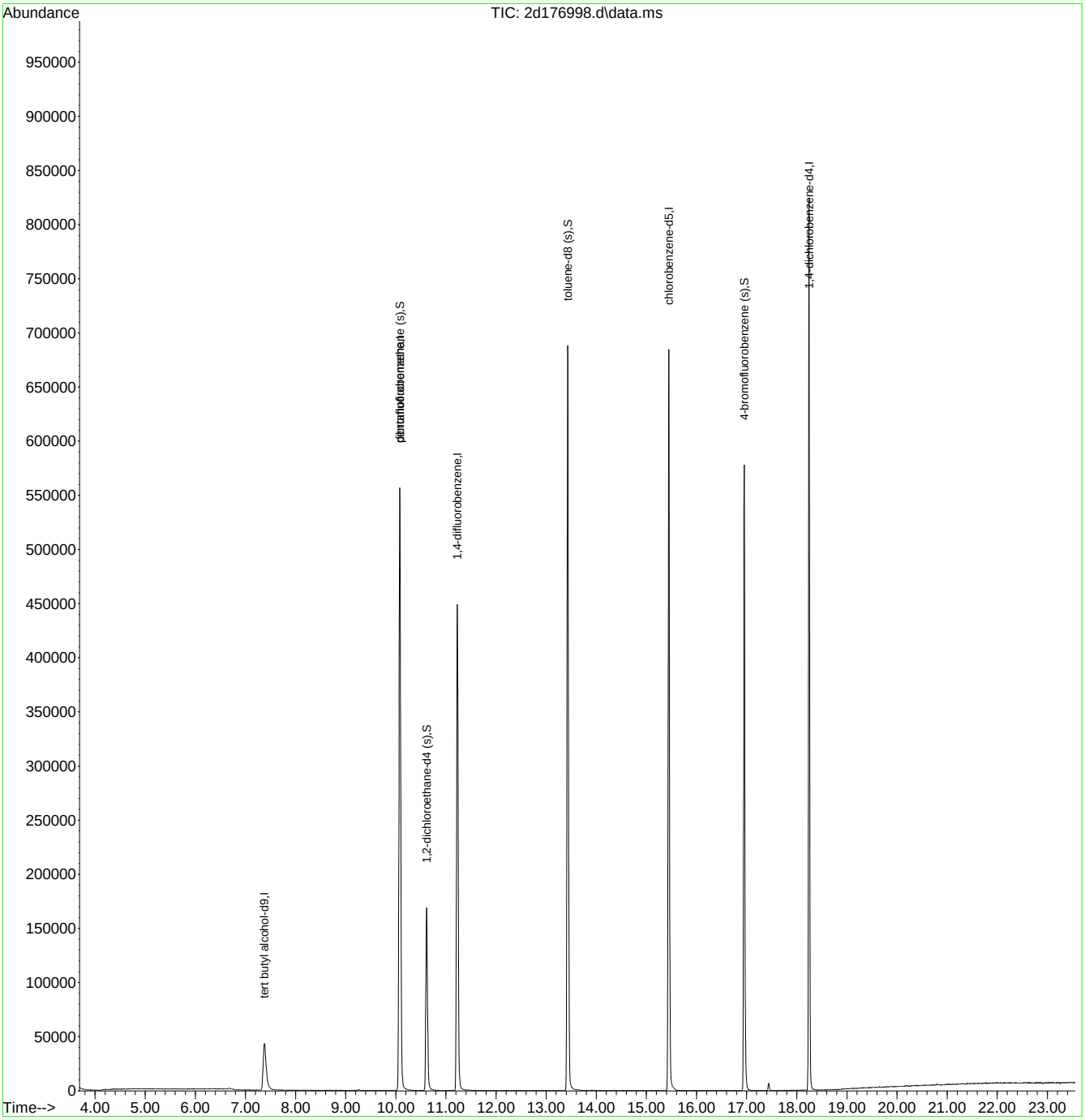
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	110028	500.00	ug/L	-0.01
5) pentafluorobenzene	10.078	168	332233	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	465294	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	444617	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	215095	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	149108	52.09	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.18%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	142408	44.56	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.12%			
77) toluene-d8 (s)	13.428	98	544262	52.64	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.28%			
100) 4-bromofluorobenzene (s)	16.952	95	192740	55.85	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.70%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176998.d
Acq On : 3 Jul 2018 3:11 am
Operator : juntaep
Sample : JC68966-40 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 38 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:07:41 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176986.d
Acq On : 2 Jul 2018 9:05 pm
Operator : juntaep
Sample : JC68966-41 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:52:08 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

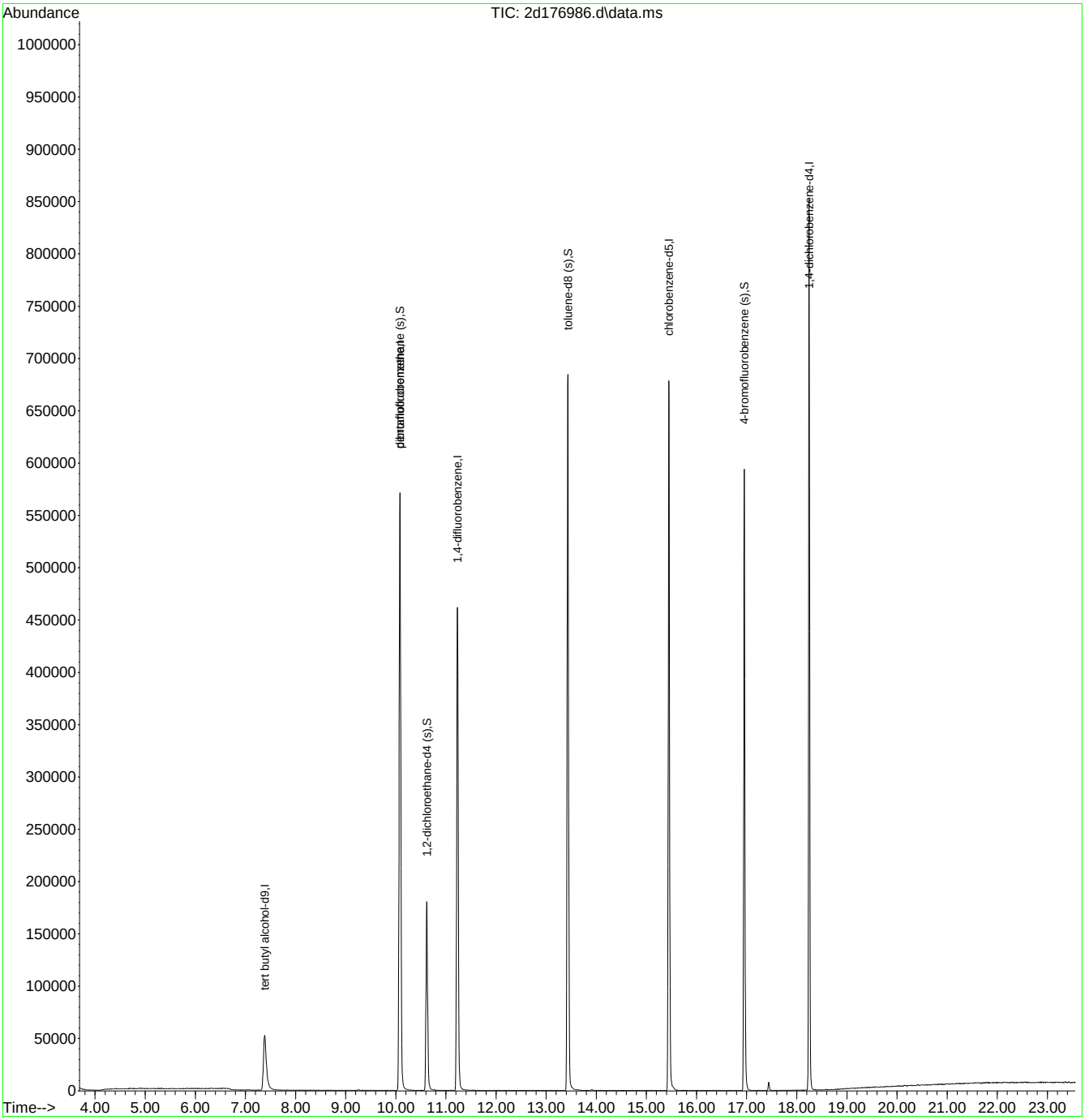
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	130372	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	344995	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.231	114	480662	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	451122	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	220399	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	151058	50.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.64%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	146821	44.47	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.94%			
77) toluene-d8 (s)	13.434	98	546524	52.10	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.20%			
100) 4-bromofluorobenzene (s)	16.952	95	197615	55.89	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.78%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176986.d
Acq On : 2 Jul 2018 9:05 pm
Operator : juntaep
Sample : JC68966-41 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 26 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:52:08 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176999.d
Acq On : 3 Jul 2018 3:41 am
Operator : juntaep
Sample : JC68966-42 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:08:49 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

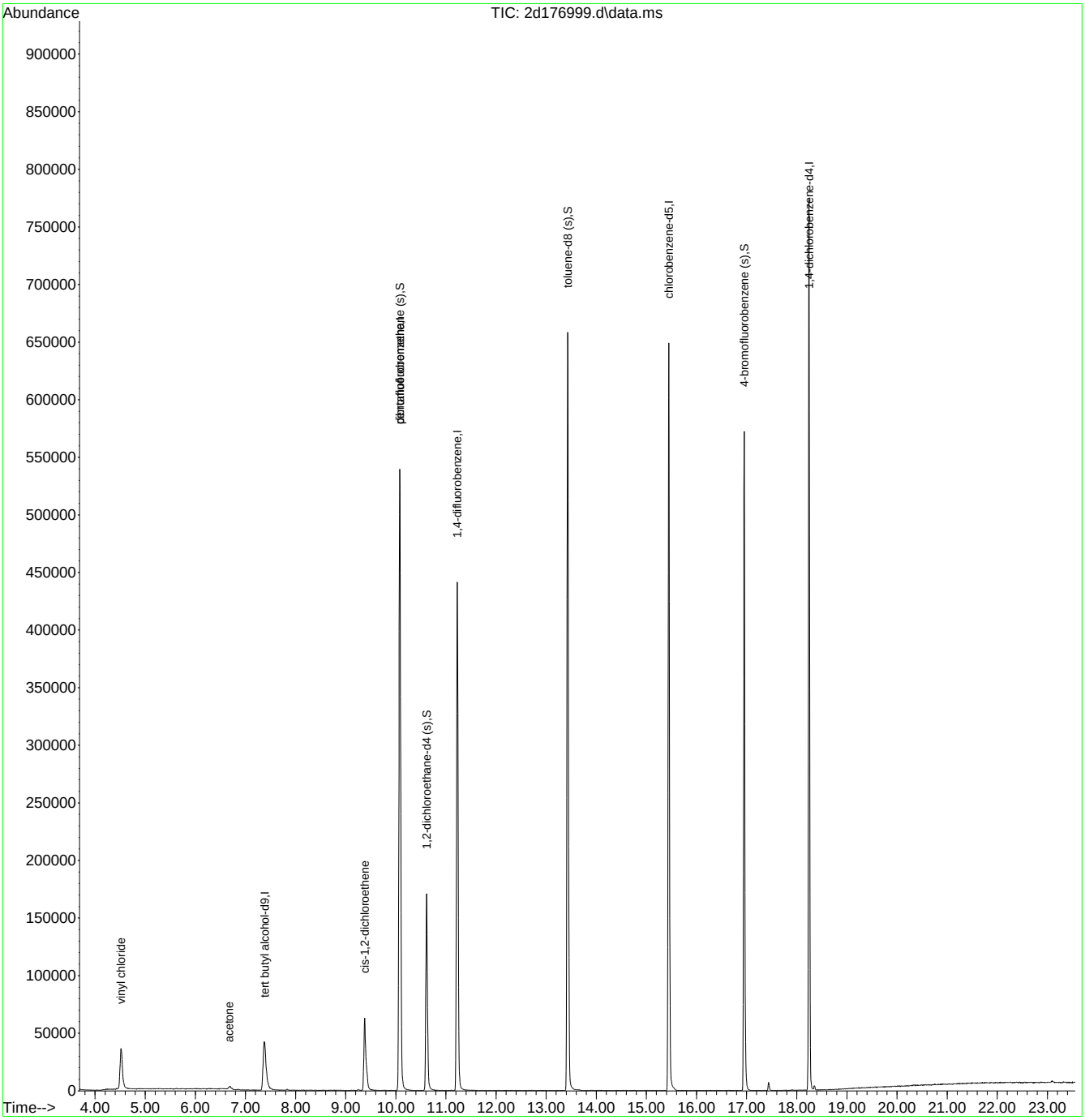
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.383	65	106572	500.00	ug/L	0.00
5) pentafluorobenzene	10.078	168	322828	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	448351	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	428693	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	210332	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	145586	52.35	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.70%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	139105	45.17	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.34%			
77) toluene-d8 (s)	13.428	98	518032	51.97	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.94%			
100) 4-bromofluorobenzene (s)	16.952	95	188186	55.77	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.54%			
Target Compounds						Qvalue
11) vinyl chloride	4.515	62	75994	21.31	ug/L	96
22) acetone	6.675	58	1012	5.86	ug/L #	71
40) cis-1,2-dichloroethene	9.381	96	36892	13.36	ug/L	88

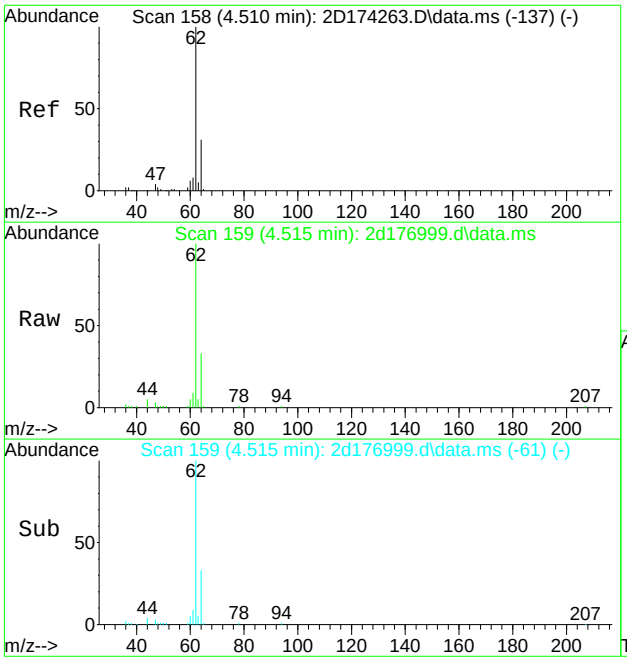
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176999.d
Acq On : 3 Jul 2018 3:41 am
Operator : juntaep
Sample : JC68966-42 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 39 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:08:49 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

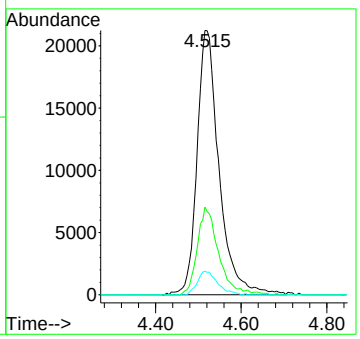


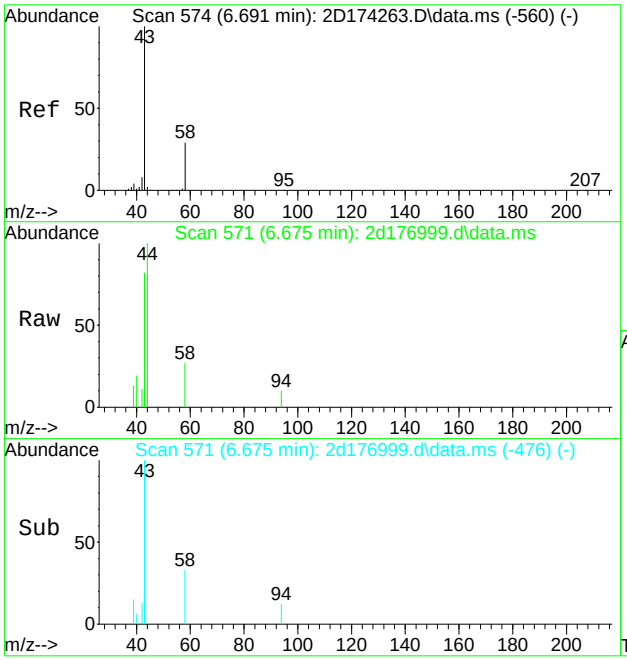


#11
vinyl chloride
Concen: 21.31 ug/L
RT: 4.515 min Scan# 159
Delta R.T. 0.016 min
Lab File: 2d176999.d
Acq: 3 Jul 2018 3:41 am

Tgt Ion: 62 Resp: 75994

Ion	Ratio	Lower	Upper
62	100		
64	33.2	0.2	60.2
61	8.9	0.0	39.0

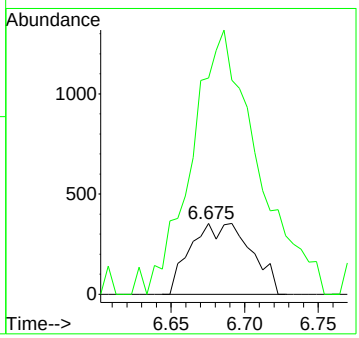


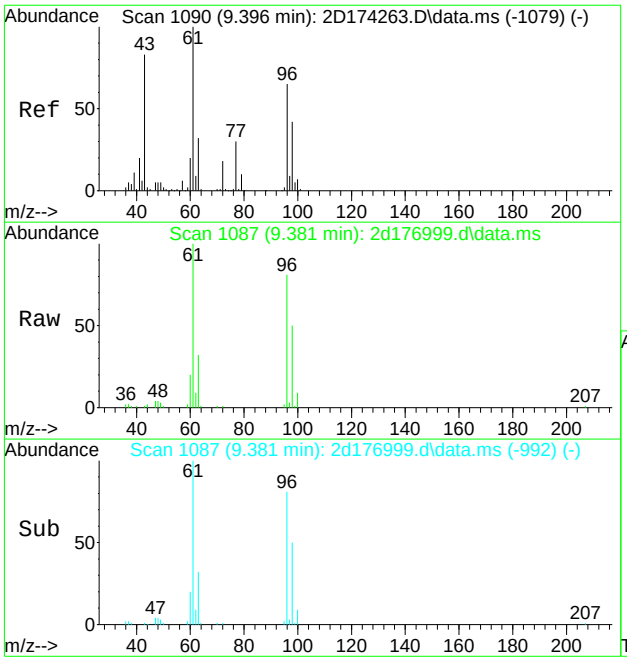


#22
acetone
Concen: 5.86 ug/L
RT: 6.675 min Scan# 571
Delta R.T. 0.000 min
Lab File: 2d176999.d
Acq: 3 Jul 2018 3:41 am

Tgt Ion: 58 Resp: 1012

Ion	Ratio	Lower	Upper
58	100		
43	270.0	301.0	361.0#

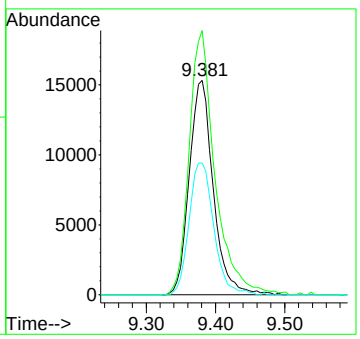




#40
cis-1,2-dichloroethene
Concen: 13.36 ug/L
RT: 9.381 min Scan# 1087
Delta R.T. 0.000 min
Lab File: 2d176999.d
Acq: 3 Jul 2018 3:41 am

Tgt Ion: 96 Resp: 36892

Ion	Ratio	Lower	Upper
96	100		
61	123.3	112.4	172.4
98	61.4	34.5	94.5



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177000.d
Acq On : 3 Jul 2018 4:11 am
Operator : juntaep
Sample : JC68966-43 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:09:30 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

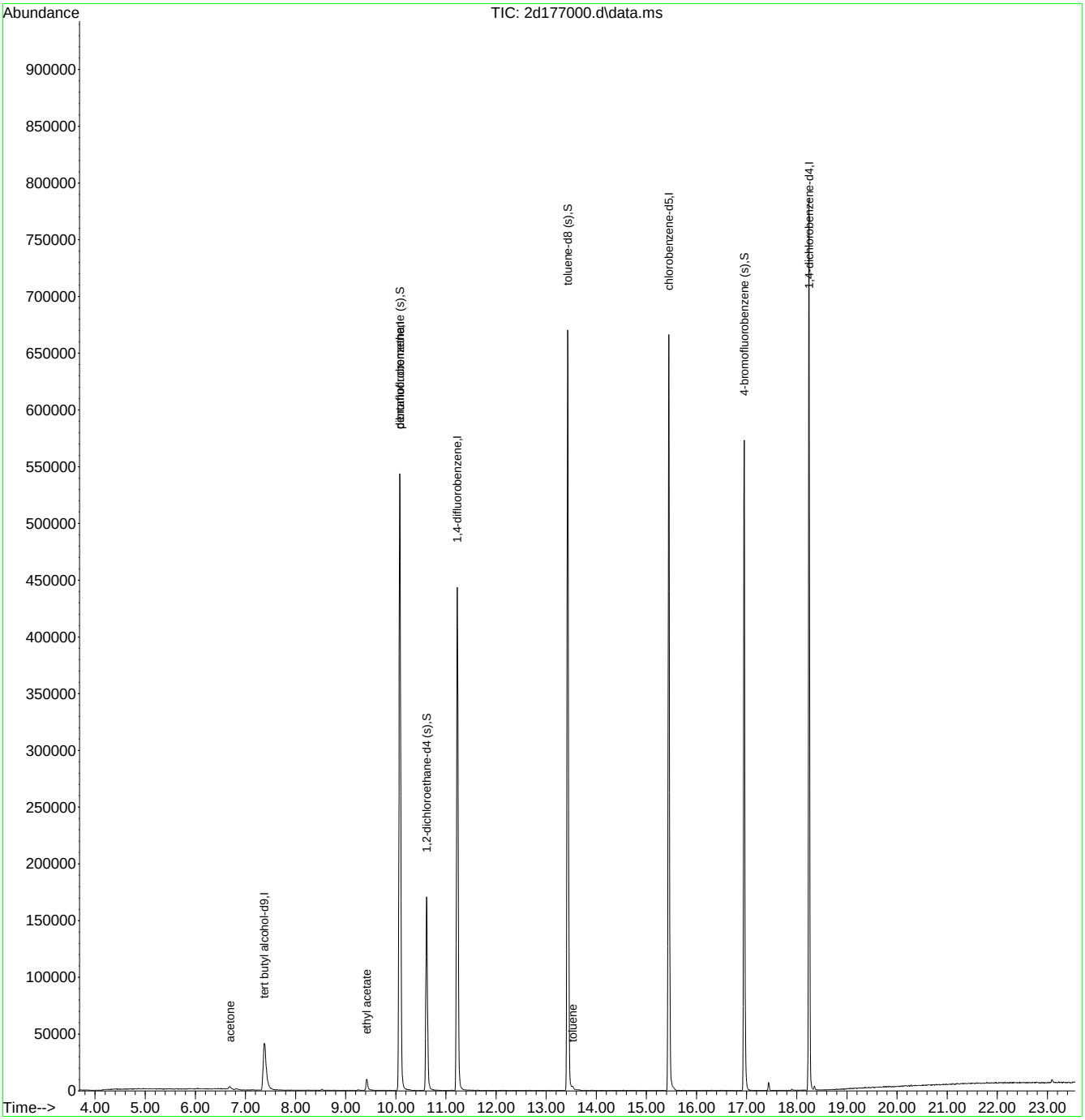
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	106189	500.00	ug/L	-0.02
5) pentafluorobenzene	10.078	168	326735	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	454642	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	434908	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	209291	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	146431	52.02	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.04%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	141626	45.35	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.70%			
77) toluene-d8 (s)	13.428	98	526291	52.04	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.08%			
100) 4-bromofluorobenzene (s)	16.952	95	187711	55.90	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.80%			
Target Compounds						Qvalue
22) acetone	6.691	58	946	5.42	ug/L #	73
38) ethyl acetate	9.418	45	2345	7.65	ug/L #	35
78) toluene	13.528	92	1414	0.23	ug/L #	75

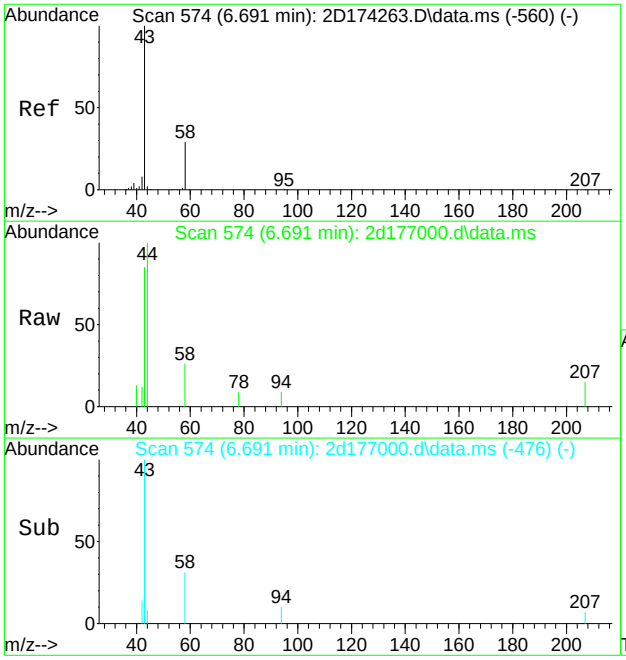
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177000.d
Acq On : 3 Jul 2018 4:11 am
Operator : juntaep
Sample : JC68966-43 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 40 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:09:30 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

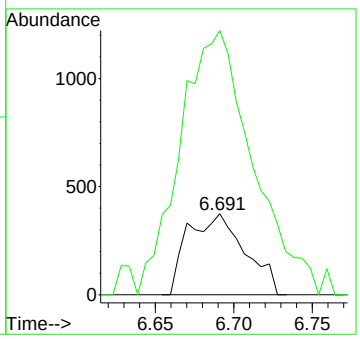


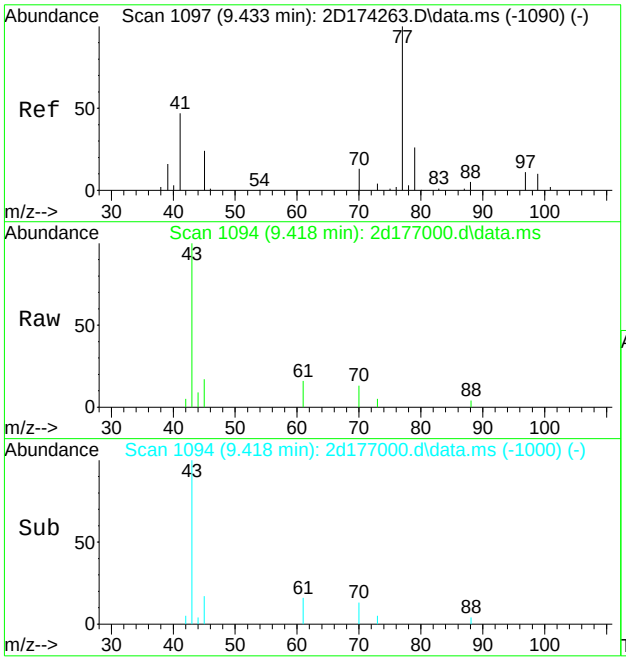


#22
acetone
Concen: 5.42 ug/L
RT: 6.691 min Scan# 574
Delta R.T. 0.016 min
Lab File: 2d177000.d
Acq: 3 Jul 2018 4:11 am

Tgt Ion: 58 Resp: 946

Ion	Ratio	Lower	Upper
58	100		
43	273.5	301.0	361.0#

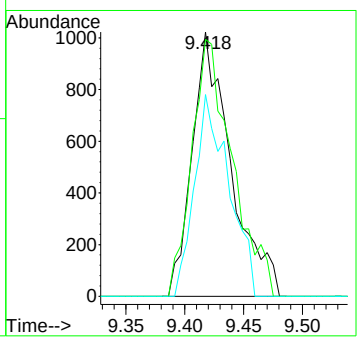


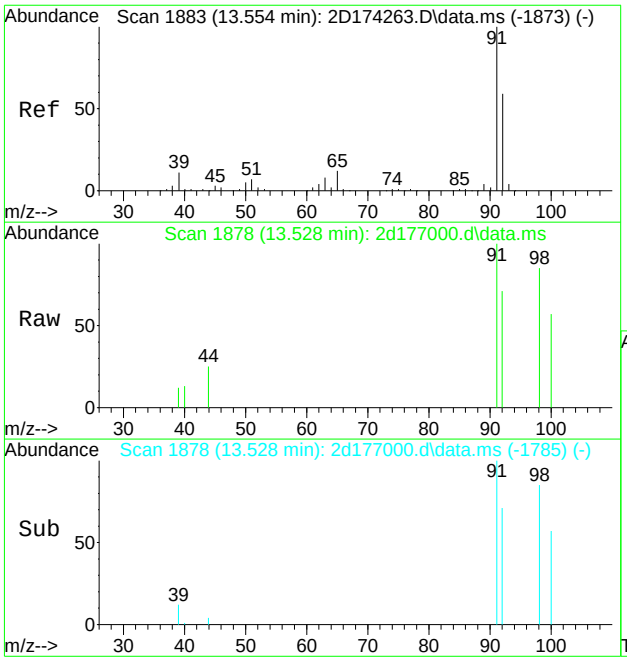


#38
ethyl acetate
Concen: 7.65 ug/L
RT: 9.418 min Scan# 1094
Delta R.T. -0.005 min
Lab File: 2d177000.d
Acq: 3 Jul 2018 4:11 am

Tgt Ion: 45 Resp: 2345

Ion	Ratio	Lower	Upper
45	100		
61	97.2	211.6	271.6#
70	76.3	50.8	110.8

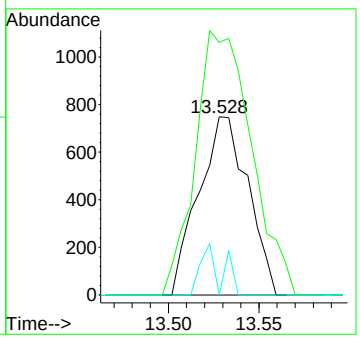




#78
toluene
Concen: 0.23 ug/L
RT: 13.528 min Scan# 1878
Delta R.T. -0.010 min
Lab File: 2d177000.d
Acq: 3 Jul 2018 4:11 am

Tgt Ion: 92 Resp: 1414

Ion	Ratio	Lower	Upper
92	100		
91	141.7	152.9	192.9#
65	0.0	0.0	39.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177001.d
Acq On : 3 Jul 2018 4:41 am
Operator : juntaep
Sample : JC68966-44 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:10:15 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

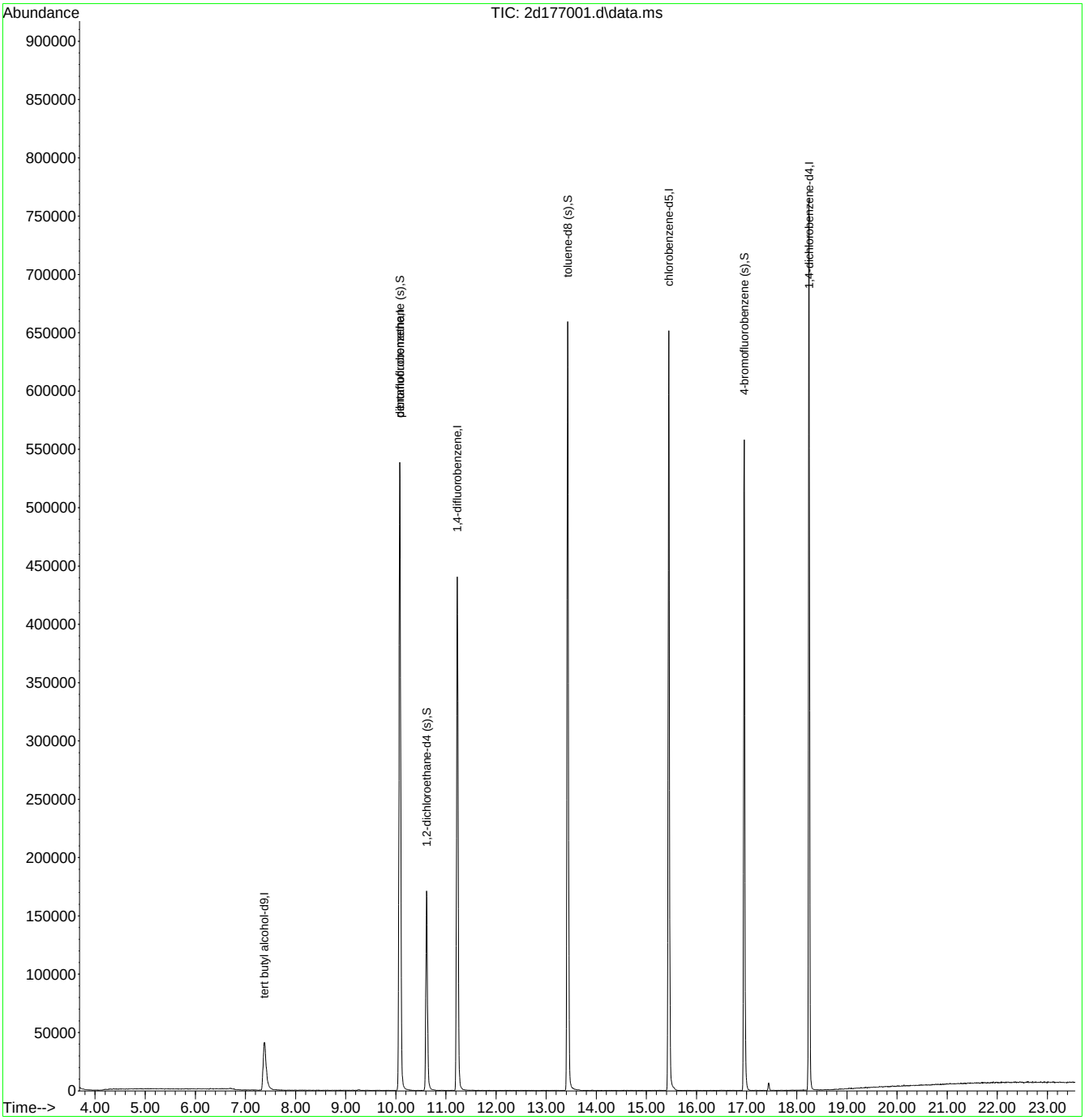
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	105101	500.00	ug/L	-0.02
5) pentafluorobenzene	10.078	168	319808	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	446565	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	426865	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	204960	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	144947	52.61	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.22%			
55) 1,2-dichloroethane-d4 (s)	10.613	65	139074	45.34	ug/L	-0.01
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.68%			
77) toluene-d8 (s)	13.428	98	515764	51.96	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.92%			
100) 4-bromofluorobenzene (s)	16.952	95	184631	56.15	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.30%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177001.d
Acq On : 3 Jul 2018 4:41 am
Operator : juntaep
Sample : JC68966-44 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 41 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:10:15 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177002.d
Acq On : 3 Jul 2018 5:13 am
Operator : juntaep
Sample : JC68966-45 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:11:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

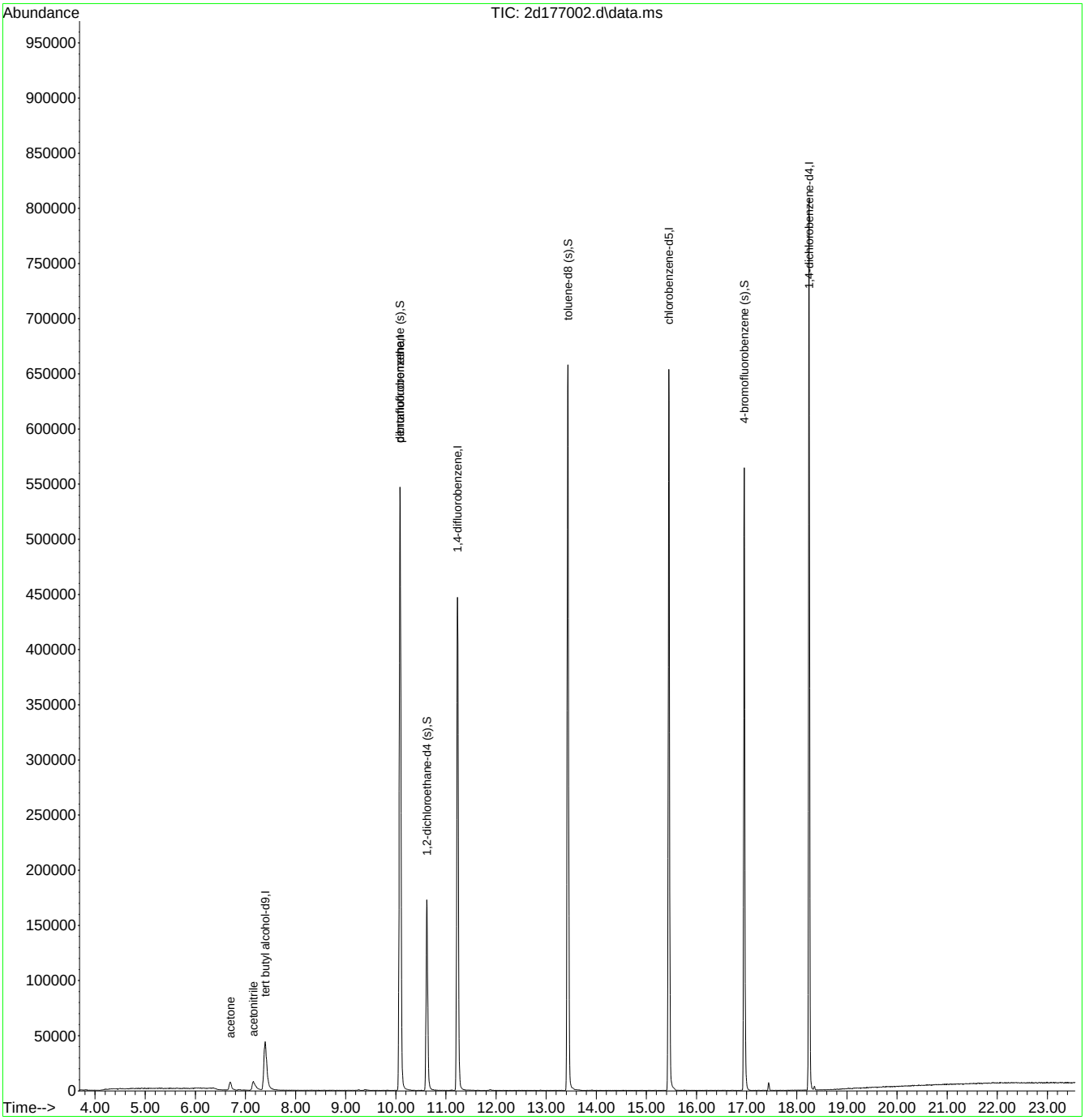
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	107713	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	320868	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.231	114	455766	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	429756	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	209229	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	147926	53.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.02%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	142907	45.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 91.30%			
77) toluene-d8 (s)	13.433	98	517336	51.77	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.54%			
100) 4-bromofluorobenzene (s)	16.952	95	186345	55.51	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.02%			
Target Compounds						Qvalue
22) acetone	6.701	58	5416	31.57	ug/L	# 64
23) acetonitrile	7.158	41	21393	74.44	ug/L	94

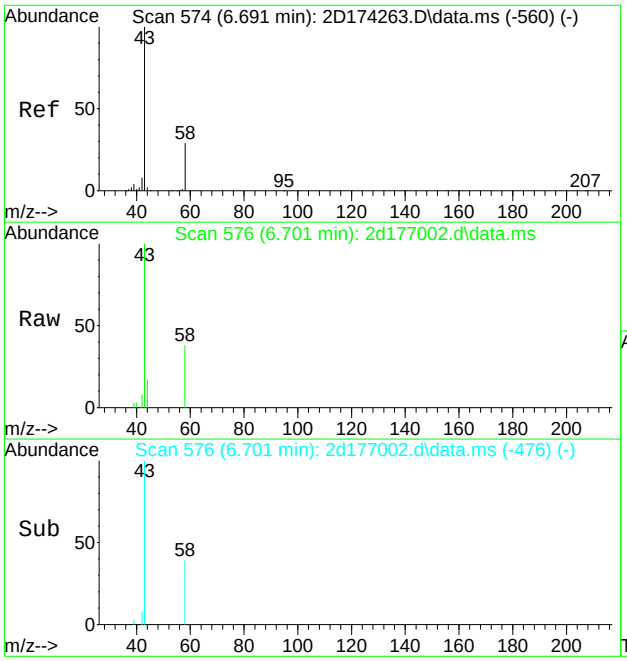
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177002.d
Acq On : 3 Jul 2018 5:13 am
Operator : juntaep
Sample : JC68966-45 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 42 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:11:02 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

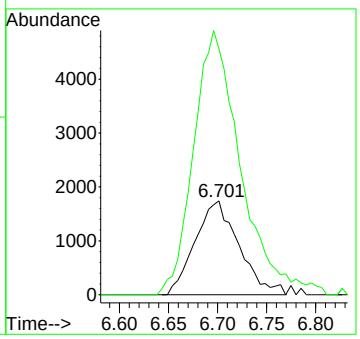


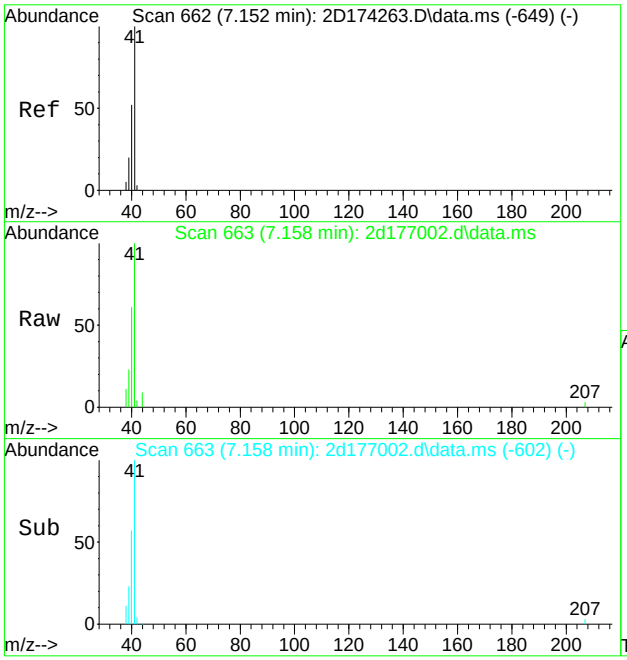


#22
acetone
Concen: 31.57 ug/L
RT: 6.701 min Scan# 576
Delta R.T. 0.026 min
Lab File: 2d177002.d
Acq: 3 Jul 2018 5:13 am

Tgt Ion: 58 Resp: 5416

Ion	Ratio	Lower	Upper
58	100		
43	255.0	301.0	361.0#

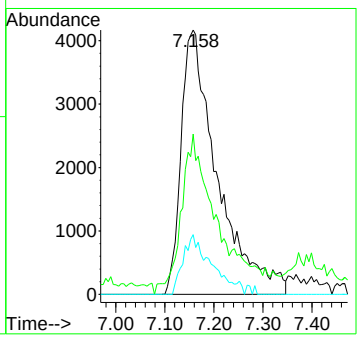




#23
acetonitrile
Concen: 74.44 ug/L
RT: 7.158 min Scan# 663
Delta R.T. 0.021 min
Lab File: 2d177002.d
Acq: 3 Jul 2018 5:13 am

Tgt Ion: 41 Resp: 21393

Ion	Ratio	Lower	Upper
41	100		
40	56.6	22.8	82.8
39	22.6	0.0	48.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177003.d
Acq On : 3 Jul 2018 5:46 am
Operator : juntaep
Sample : JC68966-46 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:12:00 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

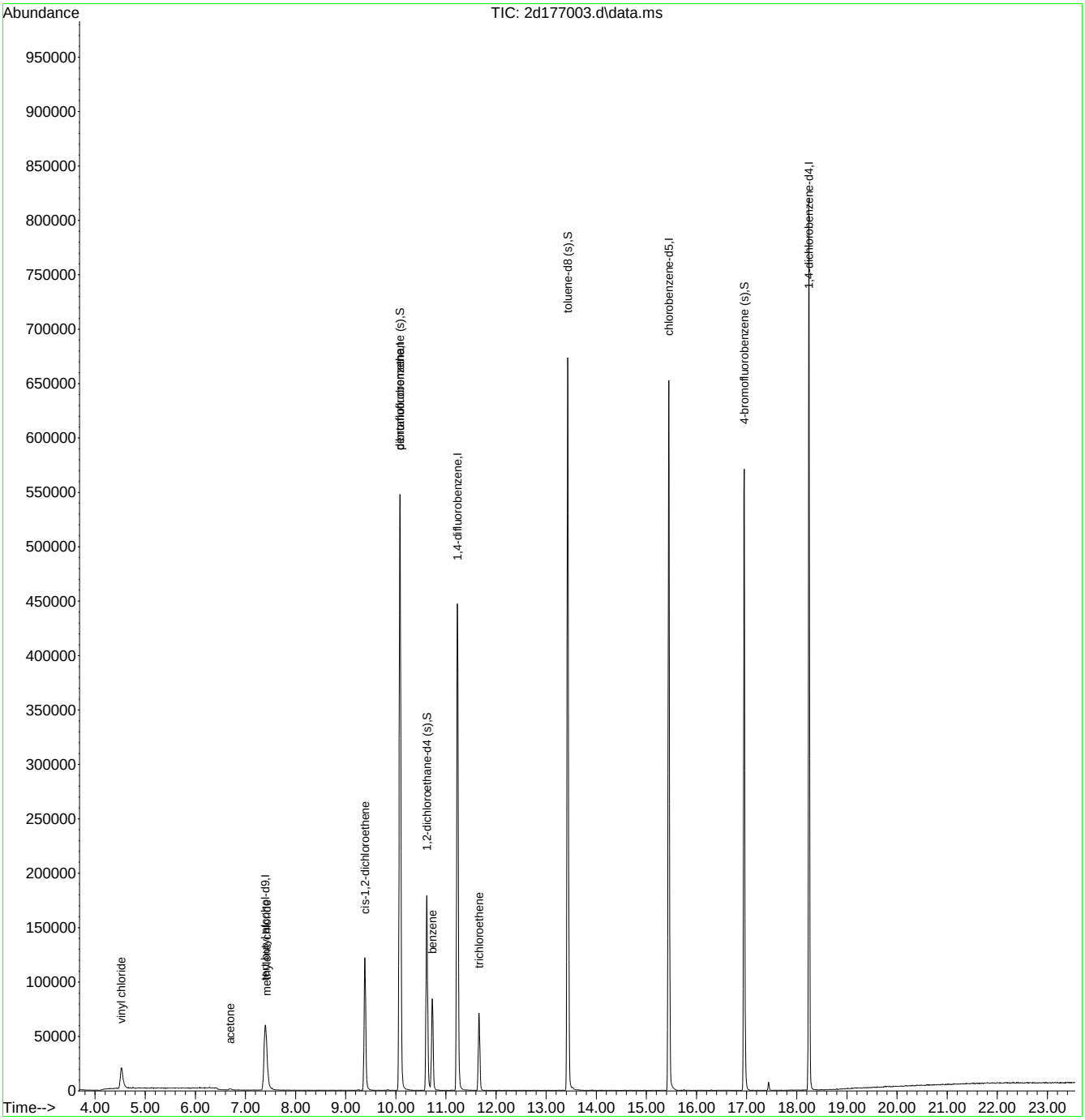
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	131592	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	325900	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	460968	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	429025	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.241	152	213703	50.00	ug/L	-0.02
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	147883	52.67	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.34%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	146615	46.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.62%			
77) toluene-d8 (s)	13.428	98	522180	52.34	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.68%			
100) 4-bromofluorobenzene (s)	16.952	95	189000	55.12	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.24%			
Target Compounds						Qvalue
11) vinyl chloride	4.520	62	46657	12.96	ug/L	97
22) acetone	6.696	58	668	3.83	ug/L #	17
26) methylene chloride	7.420	84	10062	3.70	ug/L	96
40) cis-1,2-dichloroethene	9.386	96	72036	25.83	ug/L	88
56) benzene	10.728	78	93883	9.14	ug/L	100
64) trichloroethene	11.661	130	29871	10.78	ug/L	94

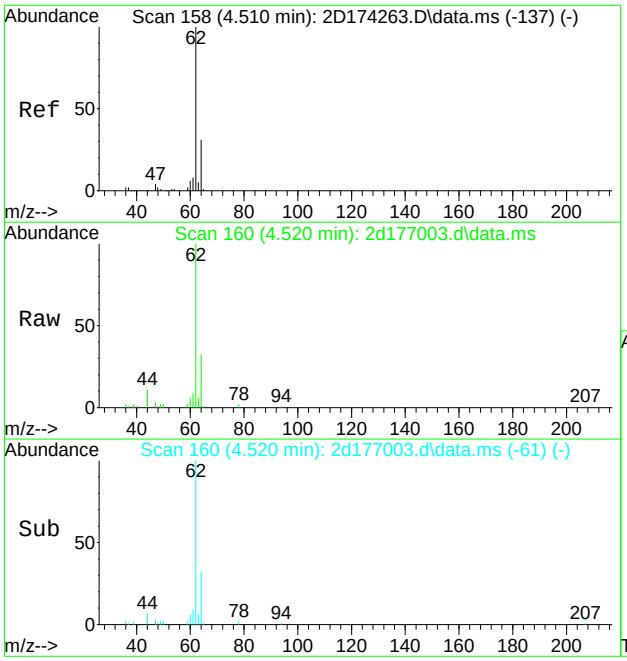
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177003.d
Acq On : 3 Jul 2018 5:46 am
Operator : juntaep
Sample : JC68966-46 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 43 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:12:00 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

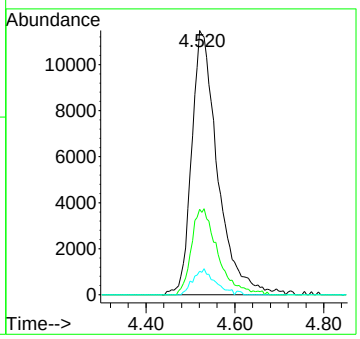


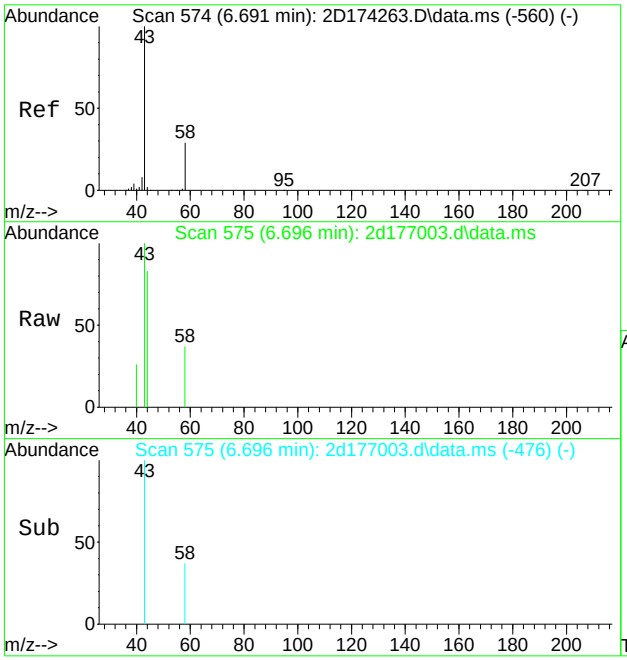


#11
vinyl chloride
Concen: 12.96 ug/L
RT: 4.520 min Scan# 160
Delta R.T. 0.021 min
Lab File: 2d177003.d
Acq: 3 Jul 2018 5:46 am

Tgt Ion: 62 Resp: 46657

Ion	Ratio	Lower	Upper
62	100		
64	32.3	0.2	60.2
61	8.9	0.0	39.0

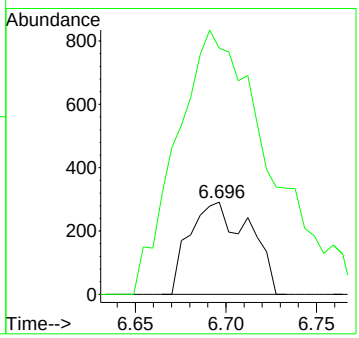


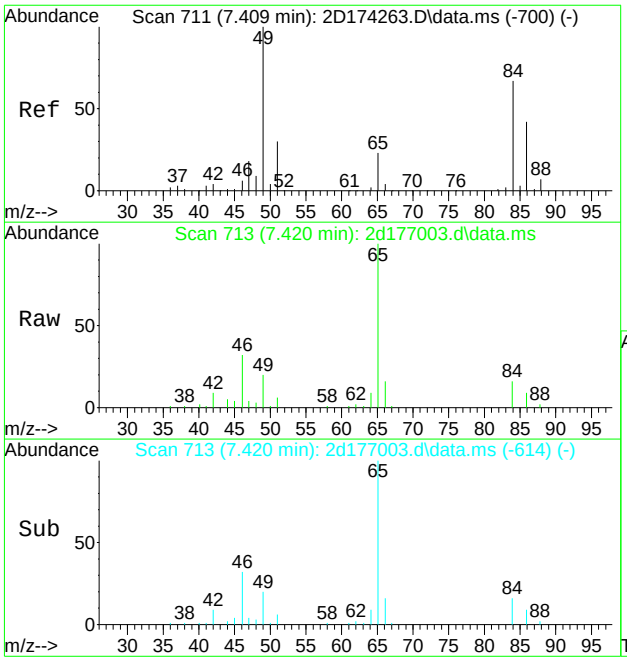


#22
acetone
Concen: 3.83 ug/L
RT: 6.696 min Scan# 575
Delta R.T. 0.021 min
Lab File: 2d177003.d
Acq: 3 Jul 2018 5:46 am

Tgt Ion: 58 Resp: 668

Ion	Ratio	Lower	Upper
58	100		
43	156.7	301.0	361.0#

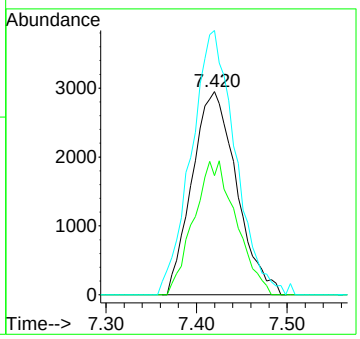


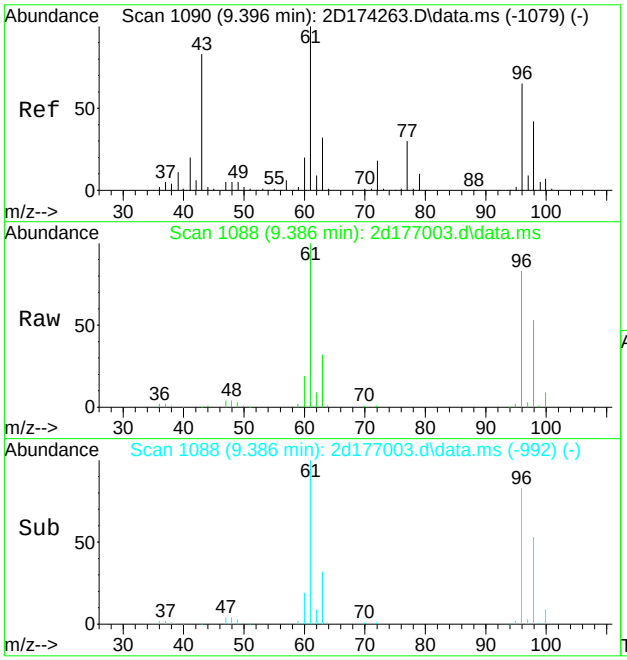


#26
methylene chloride
Concen: 3.70 ug/L
RT: 7.420 min Scan# 713
Delta R.T. 0.021 min
Lab File: 2d177003.d
Acq: 3 Jul 2018 5:46 am

Tgt Ion: 84 Resp: 10062

Ion	Ratio	Lower	Upper
84	100		
86	58.6	34.1	94.1
49	130.1	103.3	163.3

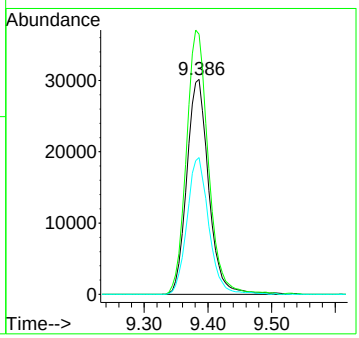


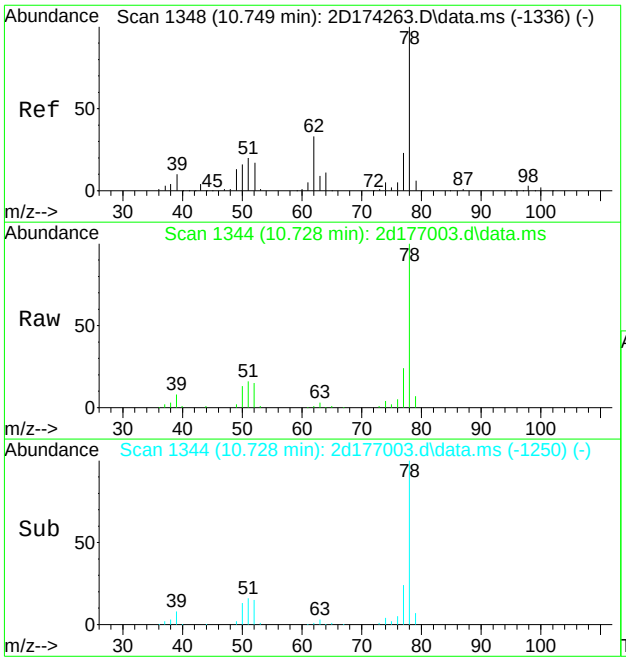


#40
cis-1,2-dichloroethene
Concen: 25.83 ug/L
RT: 9.386 min Scan# 1088
Delta R.T. 0.005 min
Lab File: 2d177003.d
Acq: 3 Jul 2018 5:46 am

Tgt Ion: 96 Resp: 72036

Ion	Ratio	Lower	Upper
96	100		
61	121.0	112.4	172.4
98	63.7	34.5	94.5

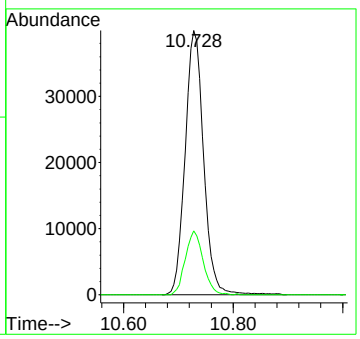


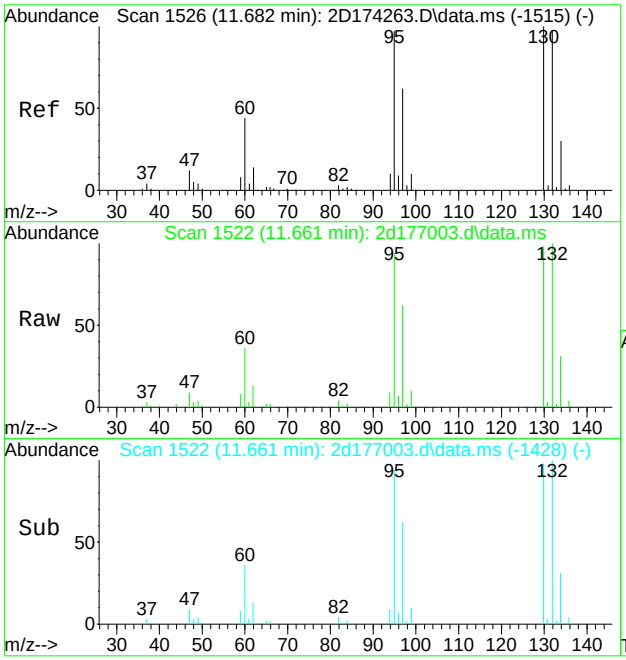


#56
benzene
Concen: 9.14 ug/L
RT: 10.728 min Scan# 1344
Delta R.T. -0.005 min
Lab File: 2d177003.d
Acq: 3 Jul 2018 5:46 am

Tgt Ion: 78 Resp: 93883

Ion	Ratio	Lower	Upper
78	100		
77	24.2	0.0	54.2

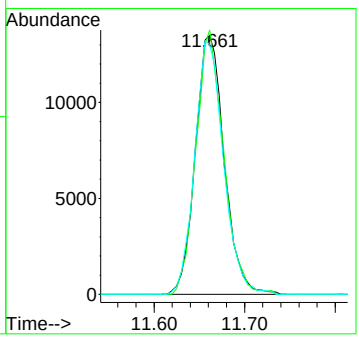




#64
trichloroethene
Concen: 10.78 ug/L
RT: 11.661 min Scan# 1522
Delta R.T. -0.005 min
Lab File: 2d177003.d
Acq: 3 Jul 2018 5:46 am

Tgt Ion:130 Resp: 29871

Ion	Ratio	Lower	Upper
130	100		
132	102.1	65.0	125.0
95	96.5	62.6	122.6



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177004.d
Acq On : 3 Jul 2018 6:21 am
Operator : juntaep
Sample : JC68966-47 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:13:07 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

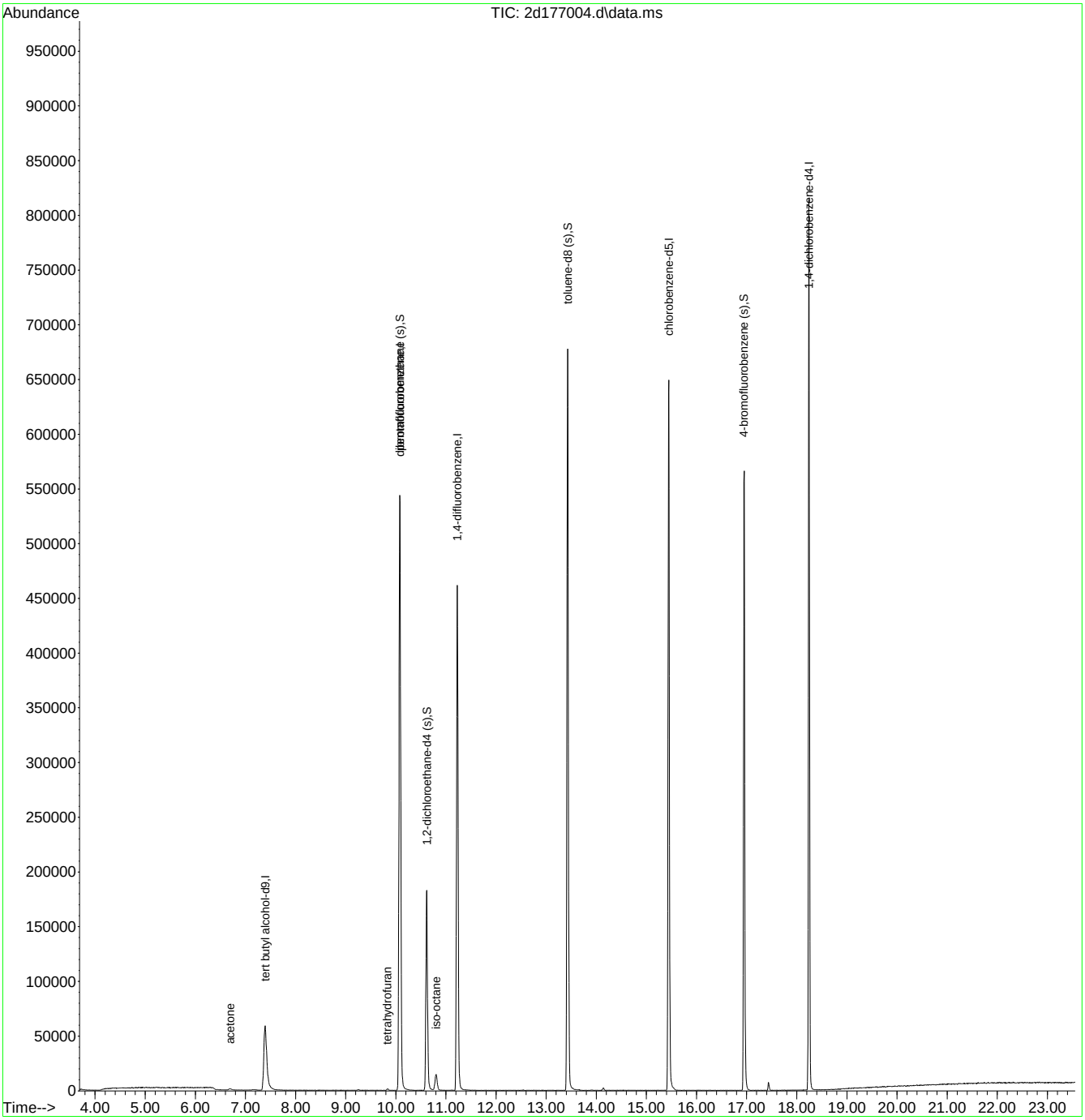
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	144176	500.00	ug/L	0.00
5) pentafluorobenzene	10.078	168	327335	50.00	ug/L	-0.01
54) 1,4-difluorobenzene	11.226	114	460053	50.00	ug/L	-0.01
76) chlorobenzene-d5	15.447	117	428807	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.241	152	215964	50.00	ug/L	-0.02
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	148100	52.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.04%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	147817	46.78	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.56%			
77) toluene-d8 (s)	13.428	98	525001	52.65	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.30%			
100) 4-bromofluorobenzene (s)	16.946	95	190026	54.84	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 109.68%			
Target Compounds						Qvalue
22) acetone	6.691	58	728	4.16	ug/L #	45
44) tetrahydrofuran	9.832	72	309	1.05	ug/L #	71
57) iso-octane	10.802	57	22066	2.14	ug/L	96

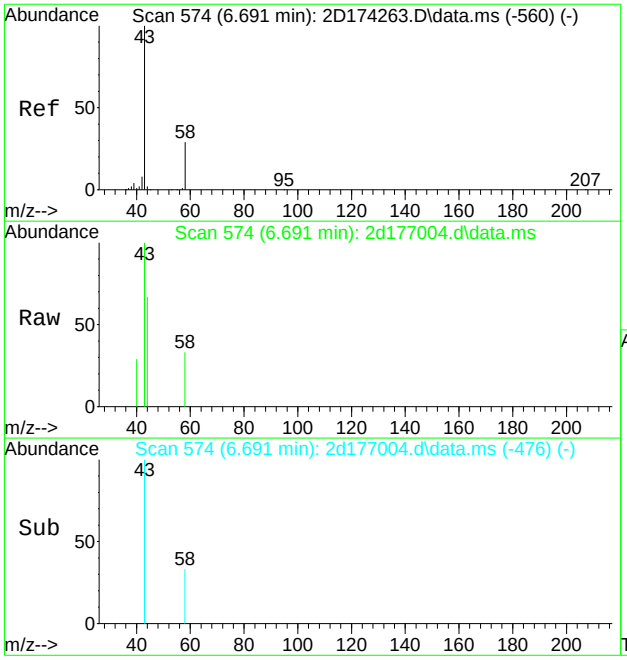
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177004.d
Acq On : 3 Jul 2018 6:21 am
Operator : juntaep
Sample : JC68966-47 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 44 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:13:07 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

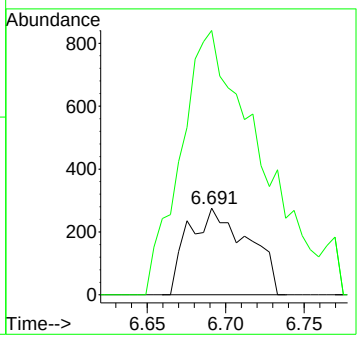


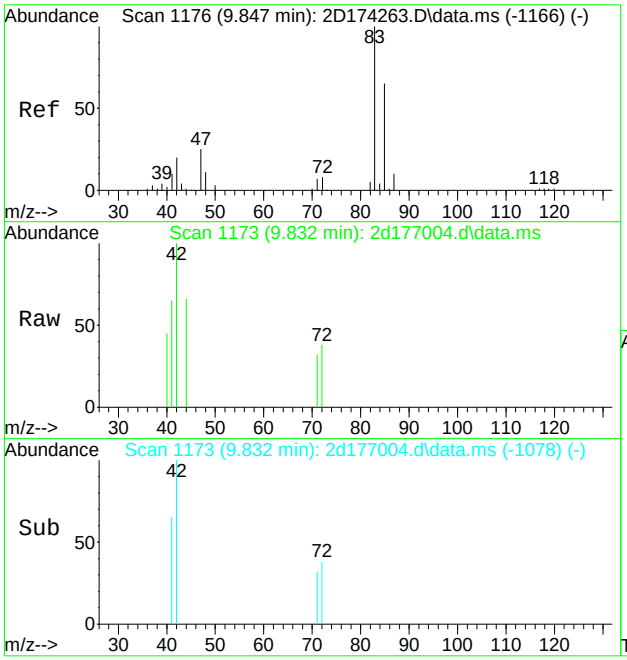


#22
acetone
Concen: 4.16 ug/L
RT: 6.691 min Scan# 574
Delta R.T. 0.016 min
Lab File: 2d177004.d
Acq: 3 Jul 2018 6:21 am

Tgt Ion: 58 Resp: 728

Ion	Ratio	Lower	Upper
58	100		
43	216.7	301.0	361.0#

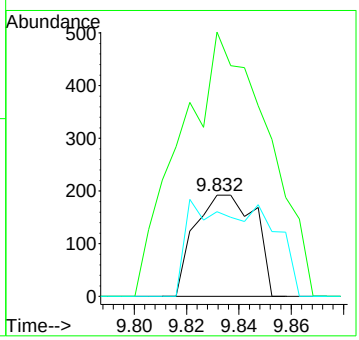


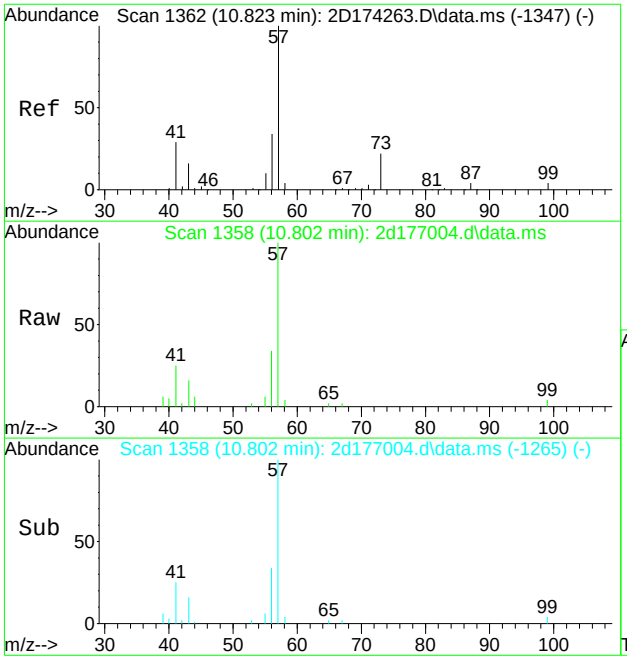


#44
tetrahydrofuran
Concen: 1.05 ug/L
RT: 9.832 min Scan# 1173
Delta R.T. -0.000 min
Lab File: 2d177004.d
Acq: 3 Jul 2018 6:21 am

Tgt Ion: 72 Resp: 309

Ion	Ratio	Lower	Upper
72	100		
42	163.5	195.3	255.3#
71	83.9	51.0	111.0

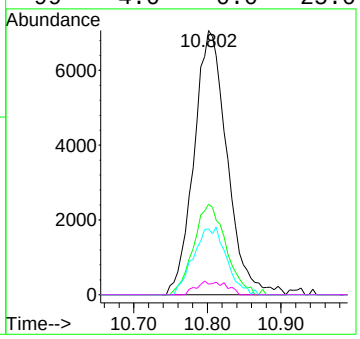




#57
iso-octane
Concen: 2.14 ug/L
RT: 10.802 min Scan# 1358
Delta R.T. -0.011 min
Lab File: 2d177004.d
Acq: 3 Jul 2018 6:21 am

Tgt Ion: 57 Resp: 22066

Ion	Ratio	Lower	Upper
57	100		
56	34.3	13.9	53.9
41	24.9	9.7	49.7
99	4.0	0.0	25.0



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176940.d
Acq On : 1 Jul 2018 11:14 am
Operator : juntaep
Sample : mb Inst : MS2D
Misc : MS27061,V2D7472,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:50:21 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

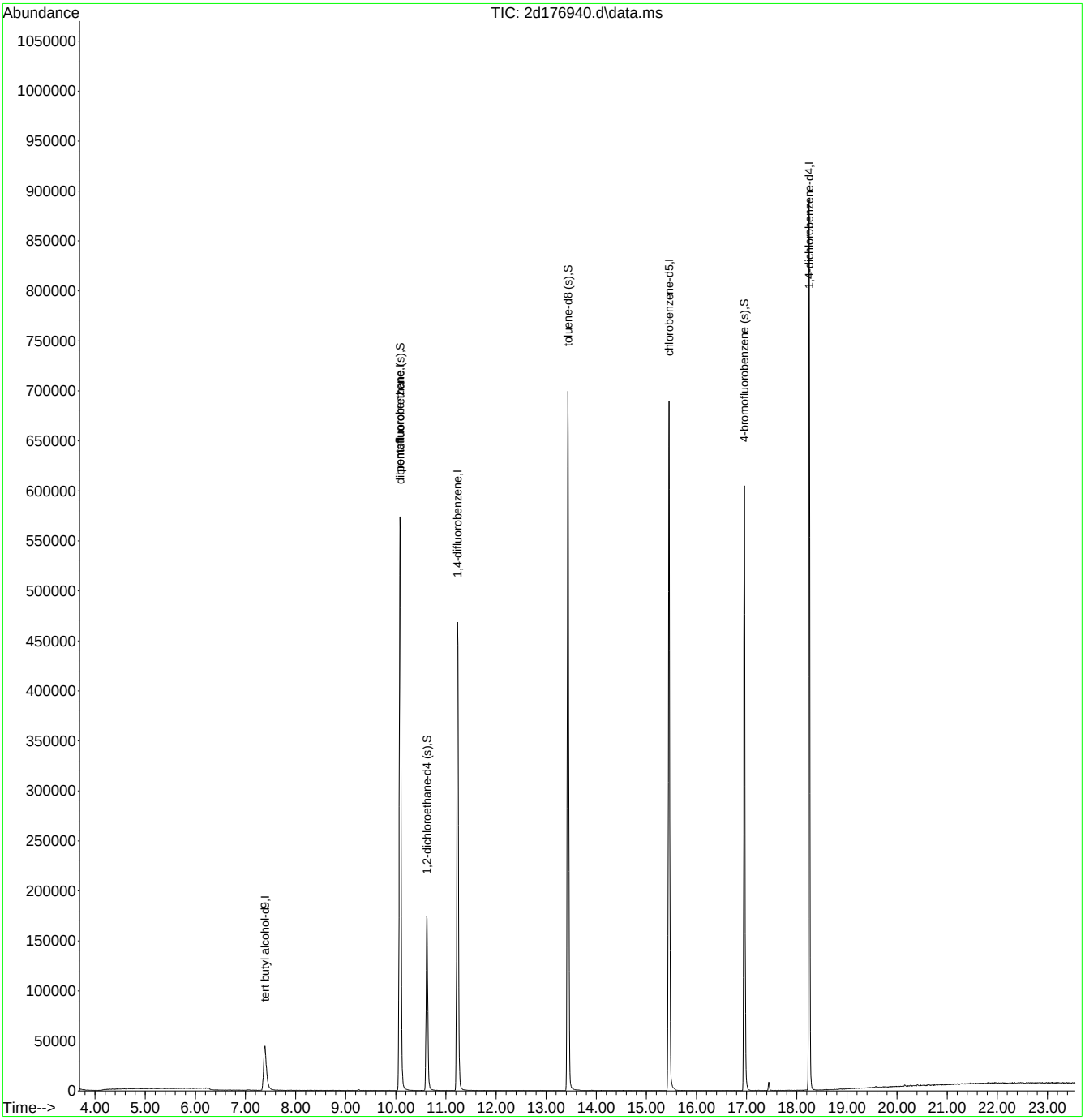
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	106899	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	351675	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	486293	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	461480	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.247	152	235789	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	149659	49.40	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.80%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	143851	43.07	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 86.14%			
77) toluene-d8 (s)	13.434	98	552920	51.52	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.04%			
100) 4-bromofluorobenzene (s)	16.952	95	204658	54.10	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.20%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176940.d
Acq On : 1 Jul 2018 11:14 am
Operator : juntaep
Sample : mb Inst : MS2D
Misc : MS27061,V2D7472,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:50:21 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144440.d
Acq On : 1 Jul 2018 3:59 pm
Operator : juntaep
Sample : mb Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:53:46 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

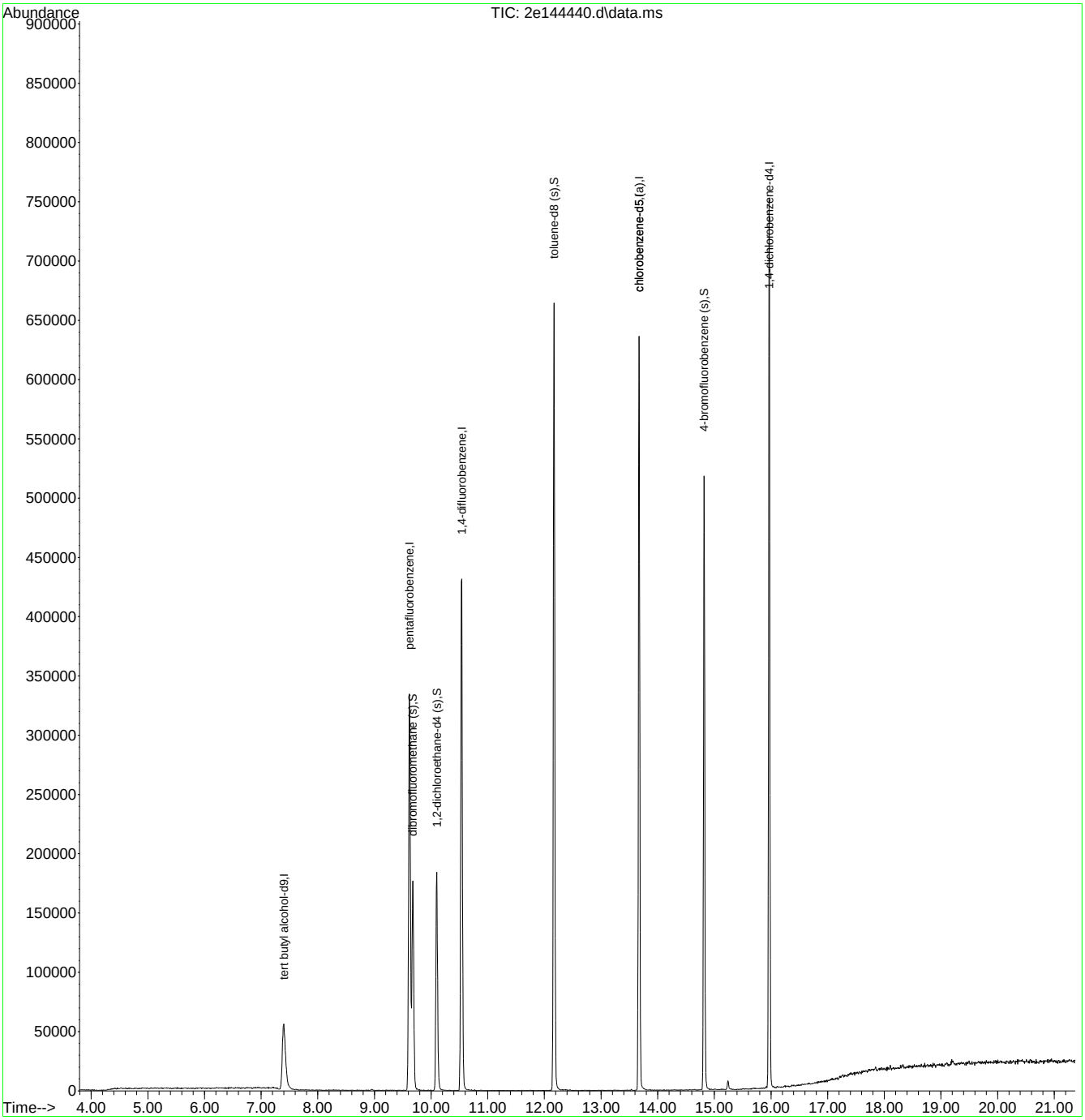
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	132524	500.00	ug/L	0.02
5) pentafluorobenzene	9.617	168	273182	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.540	114	386041	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	347209	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	186179	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	347209	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	116664	50.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.94%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	139105	58.45	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 116.90%			
78) toluene-d8 (s)	12.170	98	450197	50.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%			
101) 4-bromofluorobenzene (s)	14.818	95	165006	50.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.56%			
Target Compounds						Qvalue

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144440.d
Acq On : 1 Jul 2018 3:59 pm
Operator : juntaep
Sample : mb Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:53:46 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176985.d
Acq On : 2 Jul 2018 8:34 pm
Operator : juntaep
Sample : MB Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:50:56 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

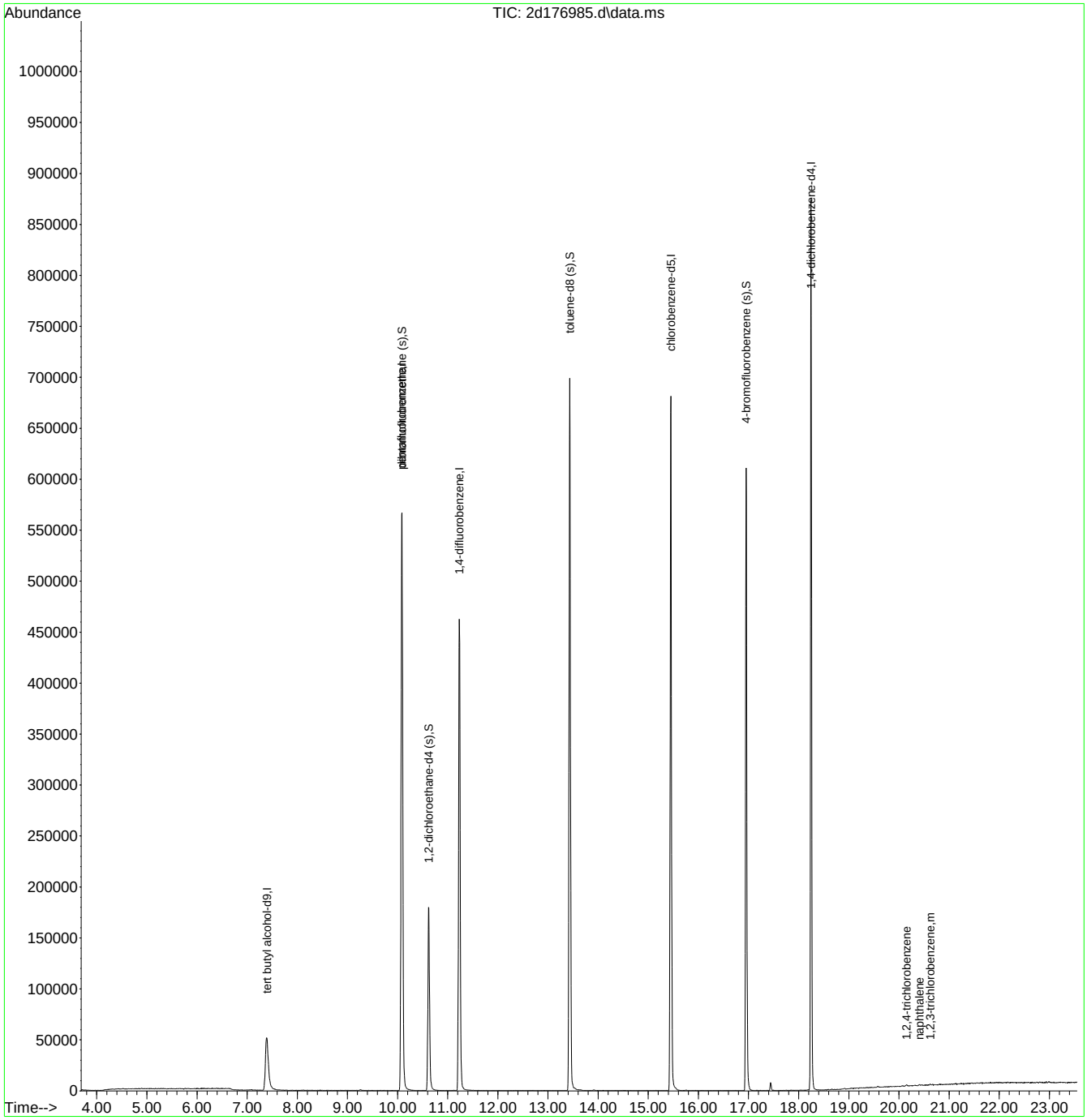
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	132168	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	347624	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.231	114	481409	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	459959	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.247	152	228061	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	152492	50.92	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.84%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	147719	44.67	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.34%			
77) toluene-d8 (s)	13.434	98	551876	51.60	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.20%			
100) 4-bromofluorobenzene (s)	16.952	95	201849	55.17	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 110.34%			
Target Compounds						Qvalue
125) naphthalene	20.407	128	1524	0.15	ug/L	80
127) 1,2,4-trichlorobenzene	20.150	180	537	0.11	ug/L	81
128) 1,2,3-trichlorobenzene	20.627	180	558	0.12	ug/L	74

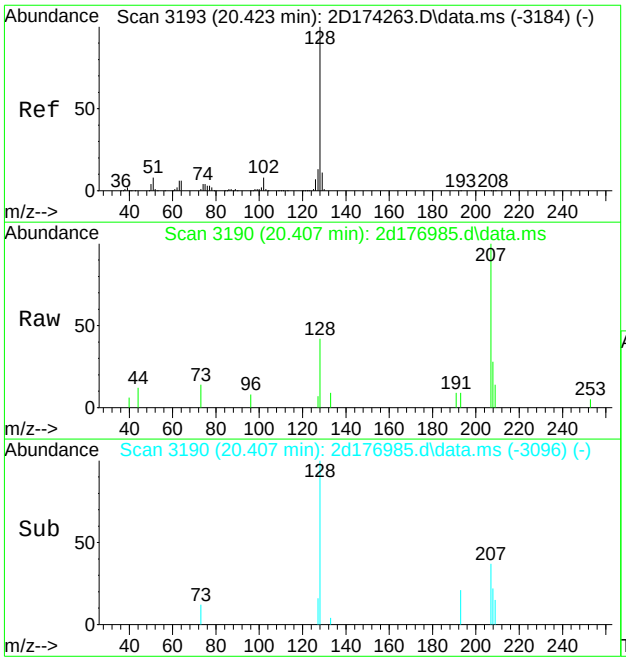
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176985.d
Acq On : 2 Jul 2018 8:34 pm
Operator : juntaep
Sample : MB Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:50:56 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

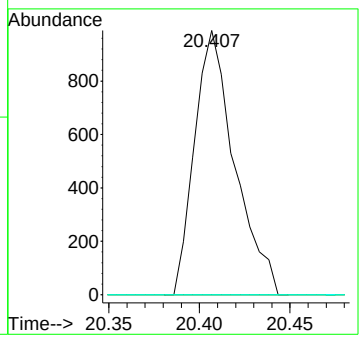


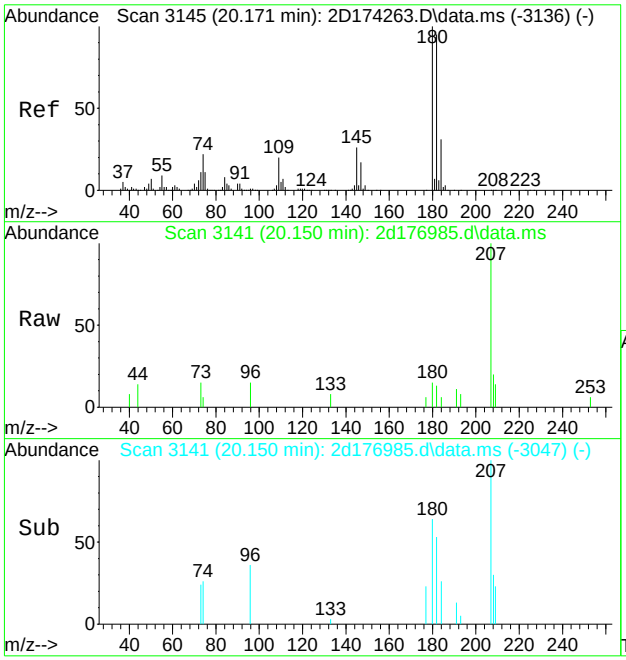


#125
naphthalene
Concen: 0.15 ug/L
RT: 20.407 min Scan# 3190
Delta R.T. -0.005 min
Lab File: 2d176985.d
Acq: 2 Jul 2018 8:34 pm

Tgt Ion:128 Resp: 1524

Ion	Ratio	Lower	Upper
128	100		
102	0.0	0.0	37.5
51	0.0	0.0	36.6

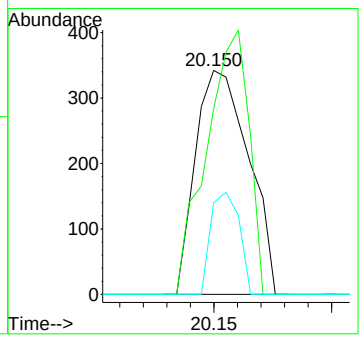


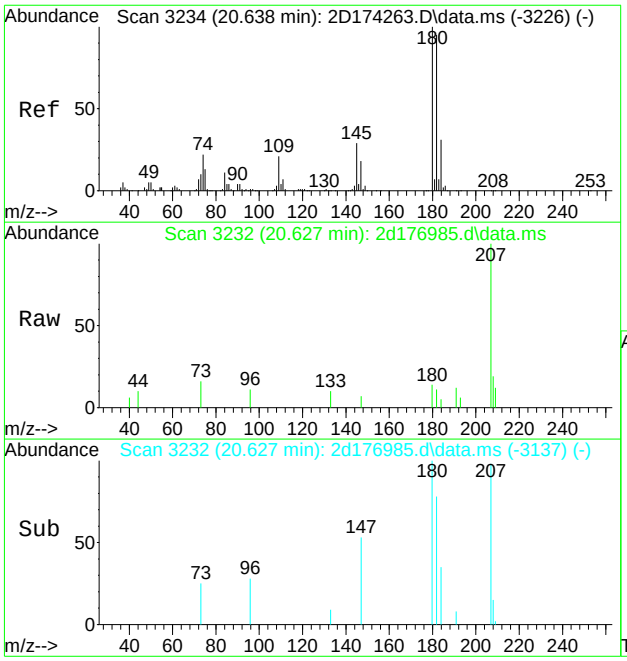


#127
1,2,4-trichlorobenzene
Concen: 0.11 ug/L
RT: 20.150 min Scan# 3141
Delta R.T. -0.005 min
Lab File: 2d176985.d
Acq: 2 Jul 2018 8:34 pm

Tgt Ion:180 Resp: 537

Ion	Ratio	Lower	Upper
180	100		
182	83.0	67.2	127.2
74	40.9	0.0	51.9

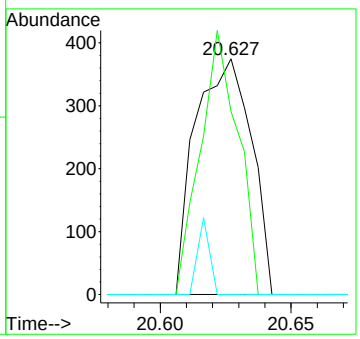




#128
1,2,3-trichlorobenzene
Concen: 0.12 ug/L
RT: 20.627 min Scan# 3232
Delta R.T. -0.000 min
Lab File: 2d176985.d
Acq: 2 Jul 2018 8:34 pm

Tgt Ion:180 Resp: 558

Ion	Ratio	Lower	Upper
180	100		
182	77.6	64.9	124.9
145	0.0	0.0	57.7



Manual Integrations APPROVED (compounds with "m" flag)
Mei Chen
07/05/18 16:19

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121
Data File : 2c160379.d
Acq On : 2 Jul 2018 8:45 pm
Operator : HueanhT
Sample : MB Inst : Instrument #1
Misc : MS27512,V2C7121,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 05 16:01:13 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

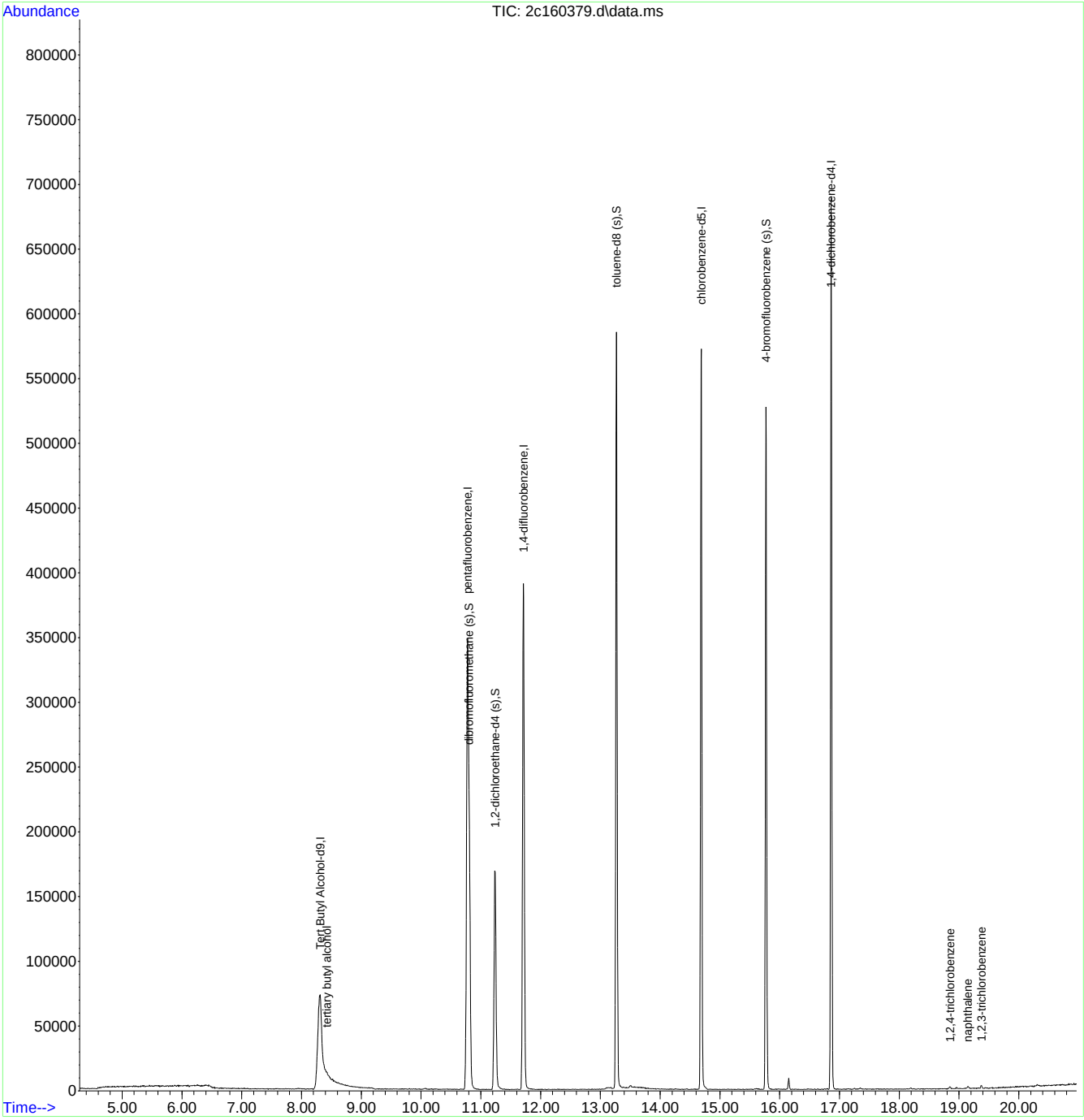
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.313	65	268247	500.00	ug/L	-0.02
5) pentafluorobenzene	10.778	168	282792	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.716	114	351523	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	303004	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.860	152	172134	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	124922	51.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.08%			
52) 1,2-dichloroethane-d4 (s)	11.239	65	139806	54.88	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 109.76%			
75) toluene-d8 (s)	13.268	98	369898	48.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.84%			
98) 4-bromofluorobenzene (s)	15.769	95	141774	56.47	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 112.94%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.424	59	783m	1.18	ug/L	
118) 1,2,4-trichlorobenzene	18.852	180	775	0.15	ug/L	88
121) naphthalene	19.146	128	1755	0.14	ug/L	89
122) 1,2,3-trichlorobenzene	19.376	180	993	0.20	ug/L	86

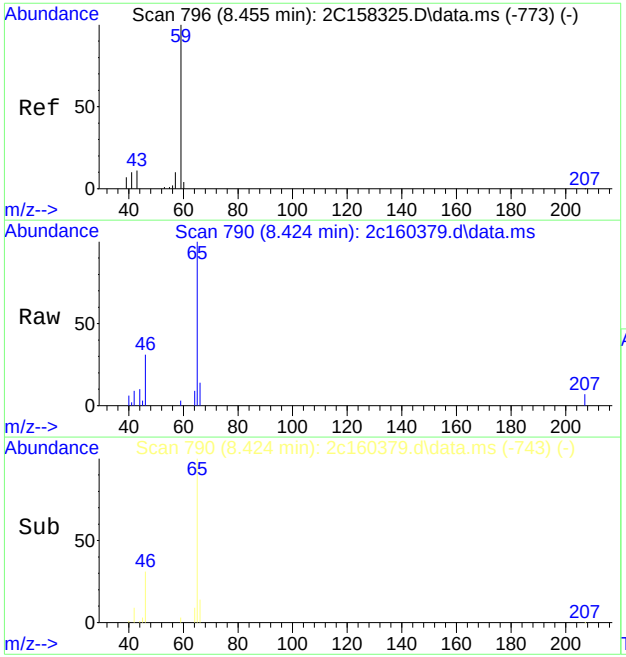
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160379.d
Acq On : 2 Jul 2018 8:45 pm
Operator : HueanhT
Sample : MB Inst : Instrument #1
Misc : MS27512,V2C7121,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 05 16:01:13 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

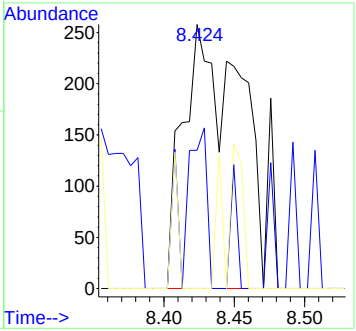


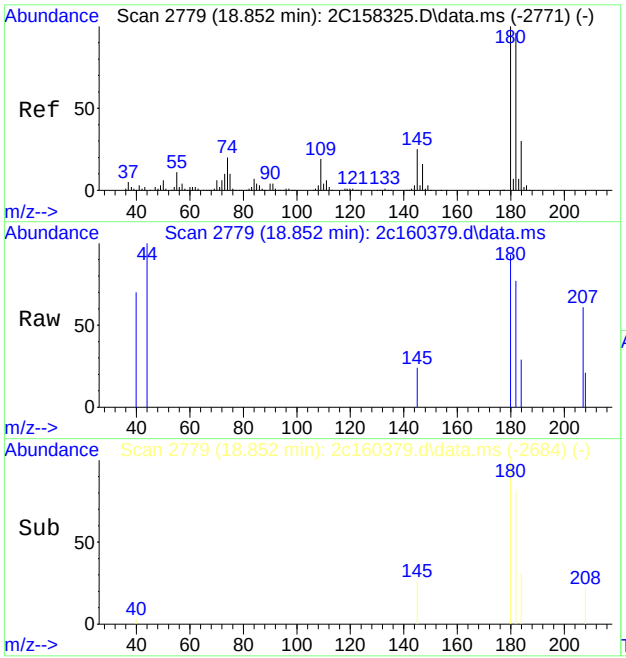


#3
tertiary butyl alcohol
Concen: 1.18 ug/L m
RT: 8.424 min Scan# 790
Delta R.T. -0.051 min
Lab File: 2c160379.d
Acq: 2 Jul 2018 8:45 pm

Tgt Ion: 59 Resp: 783

Ion	Ratio	Lower	Upper
59	100		
41	52.3	0.3	60.3
43	0.0	0.0	43.9

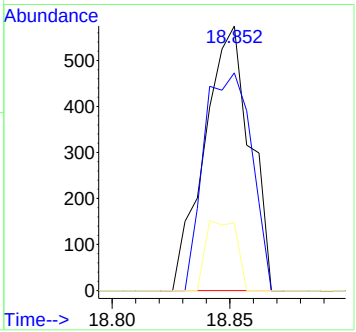


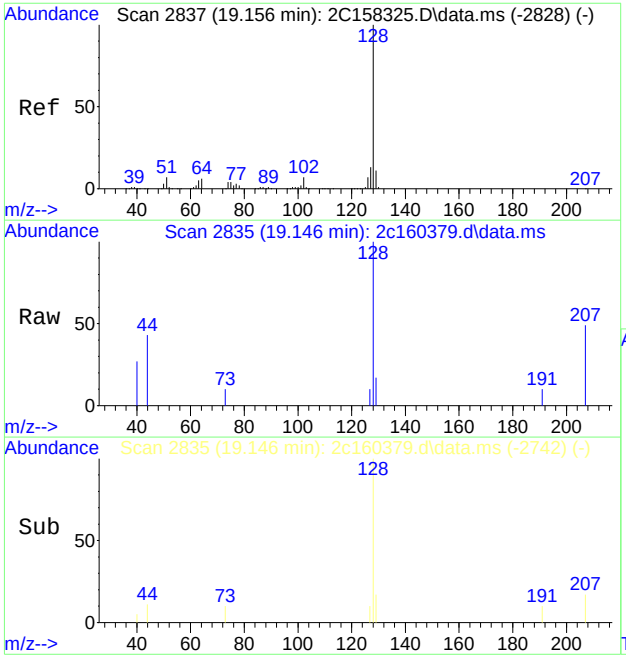


#118
1,2,4-trichlorobenzene
Concen: 0.15 ug/L
RT: 18.852 min Scan# 2779
Delta R.T. 0.000 min
Lab File: 2c160379.d
Acq: 2 Jul 2018 8:45 pm

Tgt Ion:180 Resp: 775

Ion	Ratio	Lower	Upper
180	100		
182	82.3	66.4	126.4
145	25.6	0.0	54.8

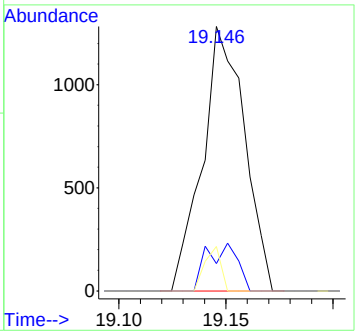


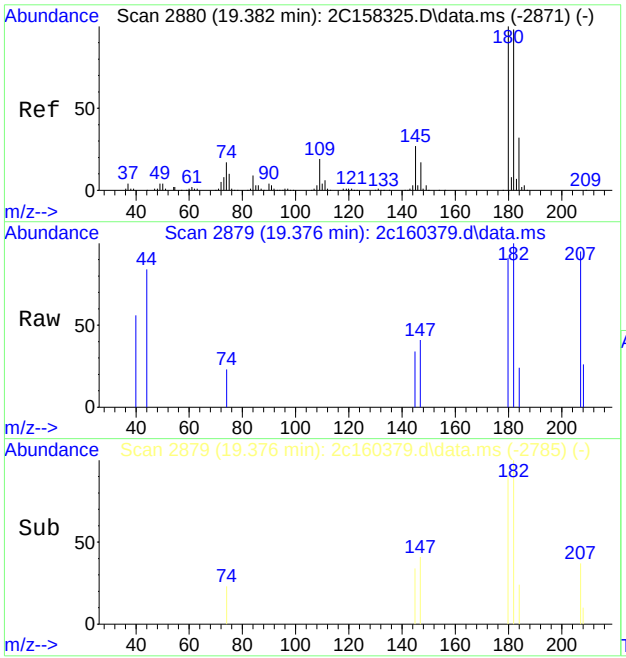


#121
naphthalene
Concen: 0.14 ug/L
RT: 19.146 min Scan# 2835
Delta R.T. -0.010 min
Lab File: 2c160379.d
Acq: 2 Jul 2018 8:45 pm

Tgt Ion:128 Resp: 1755

Ion	Ratio	Lower	Upper
128	100		
127	10.3	0.0	42.8
129	16.8	0.0	40.8

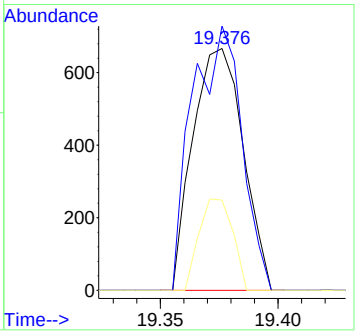




#122
1,2,3-trichlorobenzene
Concen: 0.20 ug/L
RT: 19.376 min Scan# 2879
Delta R.T. -0.005 min
Lab File: 2c160379.d
Acq: 2 Jul 2018 8:45 pm

Tgt Ion:180 Resp: 993

Ion	Ratio	Lower	Upper
180	100		
182	109.3	67.6	127.6
145	37.3	0.0	56.7



Manual Integration Approval Summary

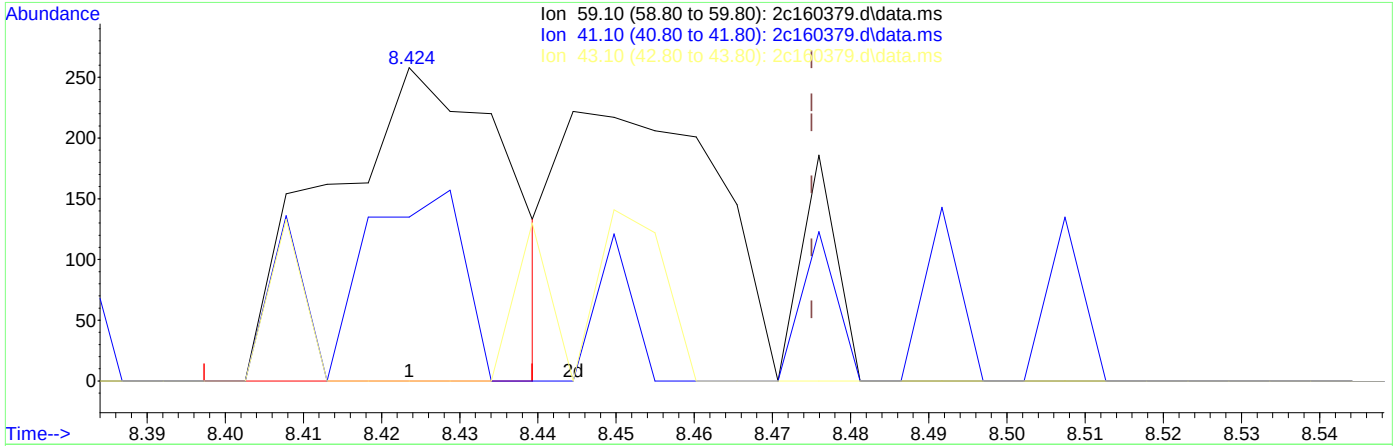
Sample Number:	V2C7121-MB	**Method:**	SW846 8260C
Lab FileID:	2C160379.D	**Analyst approved:**	07/05/18 16:07 Marianna Gonzales
Injection Time:	07/02/18 20:45	**Supervisor approved:**	07/05/18 16:19 Mei Chen

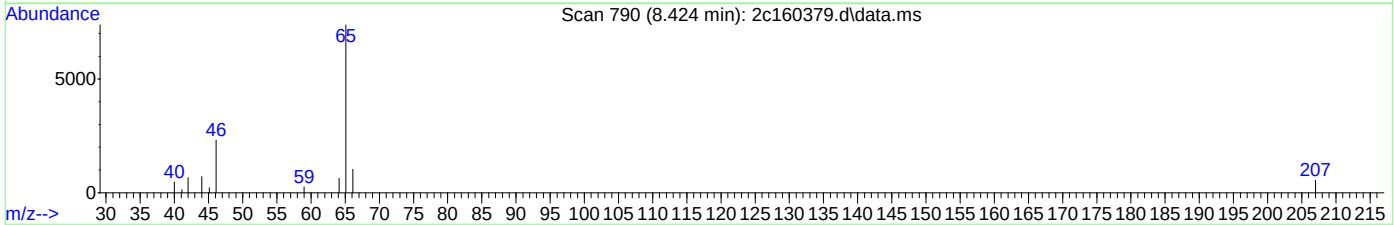
Parameter	CAS	Sig#	R.T. (min.)	Reason
Tert Butyl Alcohol	75-65-0		8.42	Poor instrument integration

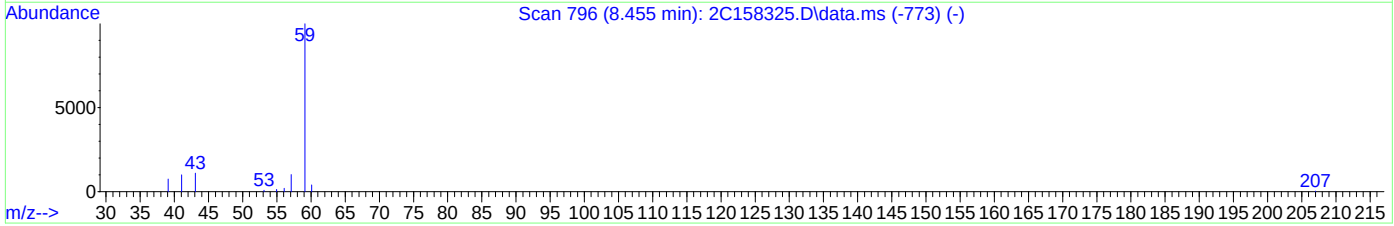
Quantitation Report (Qedit)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160379.d
Acq On : 2 Jul 2018 8:45 pm
Operator : HueanhT
Sample : MB Inst : Instrument #1
Misc : MS27512,V2C7121,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:49:47 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration







TIC: 2c160379.d\data.ms

(3) tertiary butyl alcohol

8.424min (-0.051) 0.62ug/L

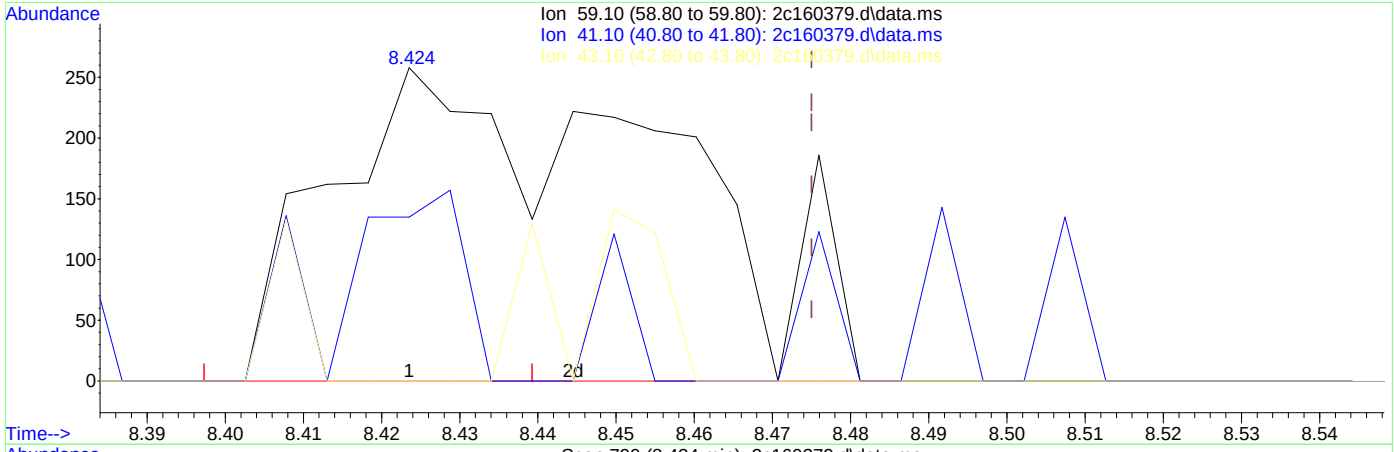
response 413

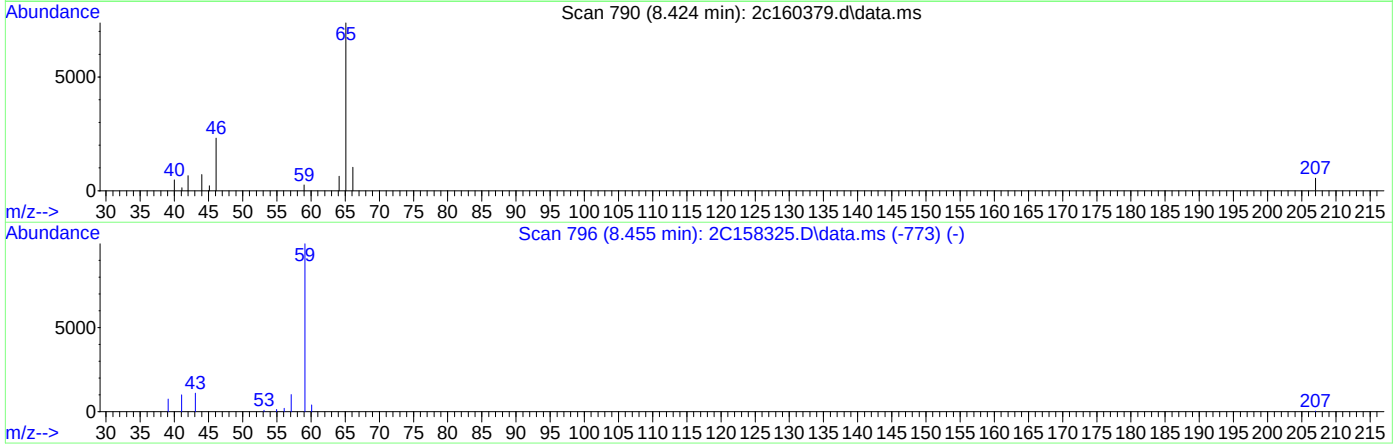
Ion	Exp%	Act%
59.10	100	100
41.10	30.30	52.33
43.10	13.90	0.00
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160379.d
Acq On : 2 Jul 2018 8:45 pm
Operator : HueanhT
Sample : MB Inst : Instrument #1
Misc : MS27512,V2C7121,w,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:49:47 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160379.d\data.ms

(3) tertiary butyl alcohol

8.424min (-0.051) 1.18ug/L m

response 783

Ion	Exp%	Act%
59.10	100	100
41.10	30.30	52.33
43.10	13.90	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182803.D
Acq On : 5 Jul 2018 7:16 pm
Operator : jessicap
Sample : mb
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 54 Sample Multiplier: 1

Quant Time: Jul 06 15:30:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration

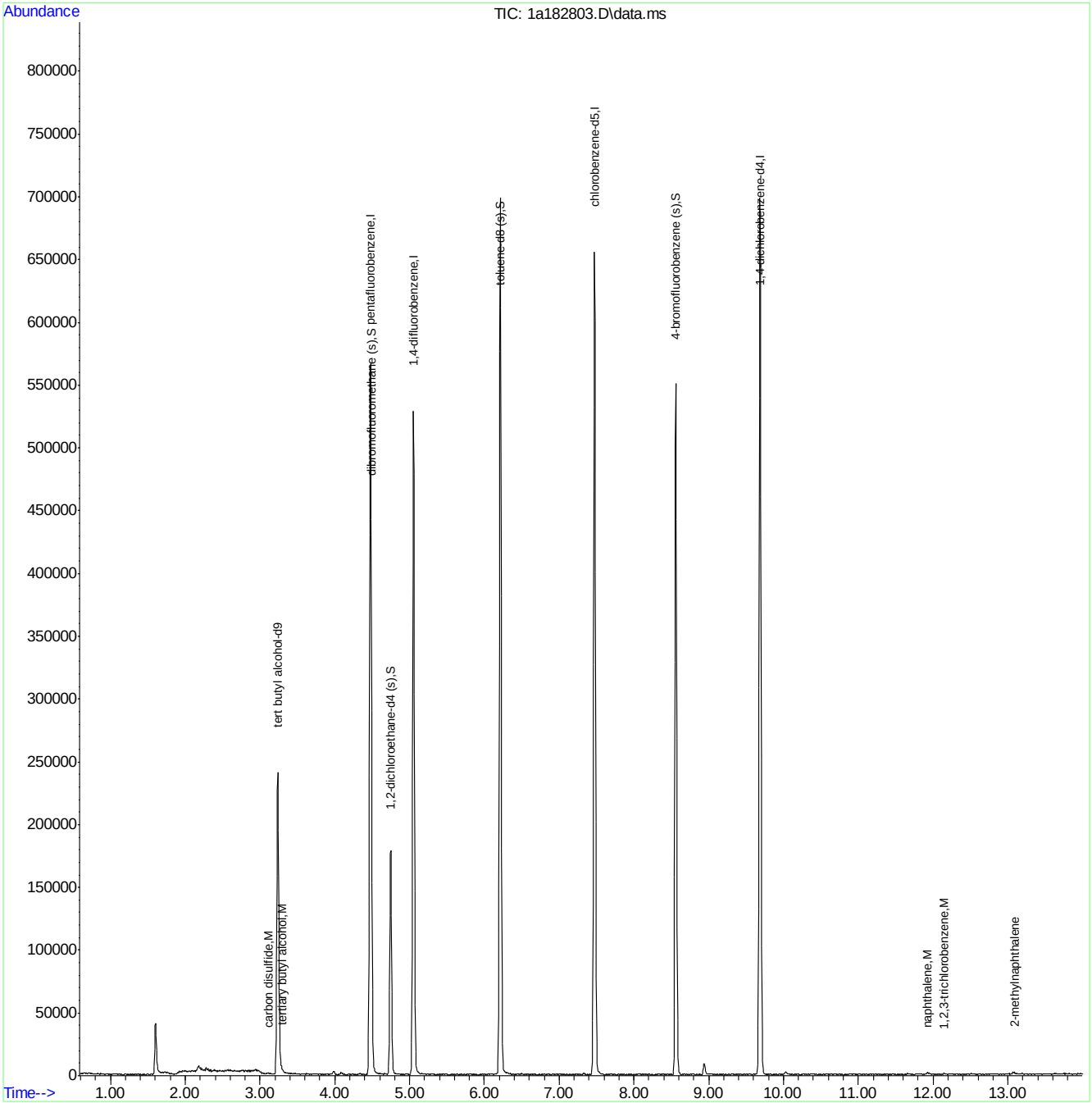
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	254769	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	288701	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	397447	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	396550	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	214571	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	108811	51.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.86%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	110094	45.16	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 90.32%			
76) toluene-d8 (s)	6.214	98	447228	46.07	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.14%			
99) 4-bromofluorobenzene (s)	8.563	95	183452	52.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.82%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.294	59	983	1.44	ug/L	48
23) carbon disulfide	3.112	76	984	0.23	ug/L	52
122) naphthalene	11.927	128	1651	0.17	ug/L	70
123) 1,2,3-trichlorobenzene	12.146	180	327	0.11	ug/L	73
125) 2-methylnaphthalene	13.089	142	979	0.21	ug/L	81

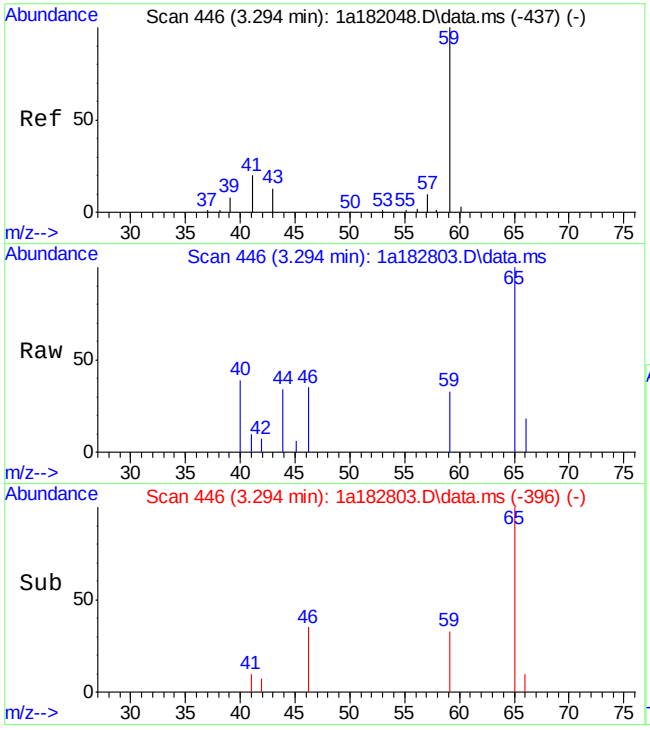
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182803.D
Acq On : 5 Jul 2018 7:16 pm
Operator : jessicap
Sample : mb
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 54 Sample Multiplier: 1

Quant Time: Jul 06 15:30:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration

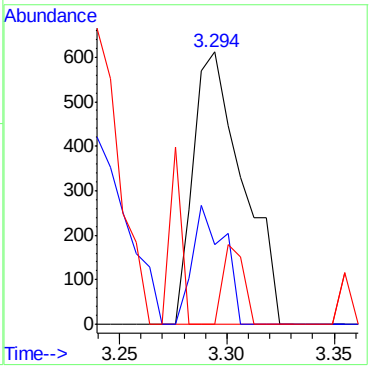


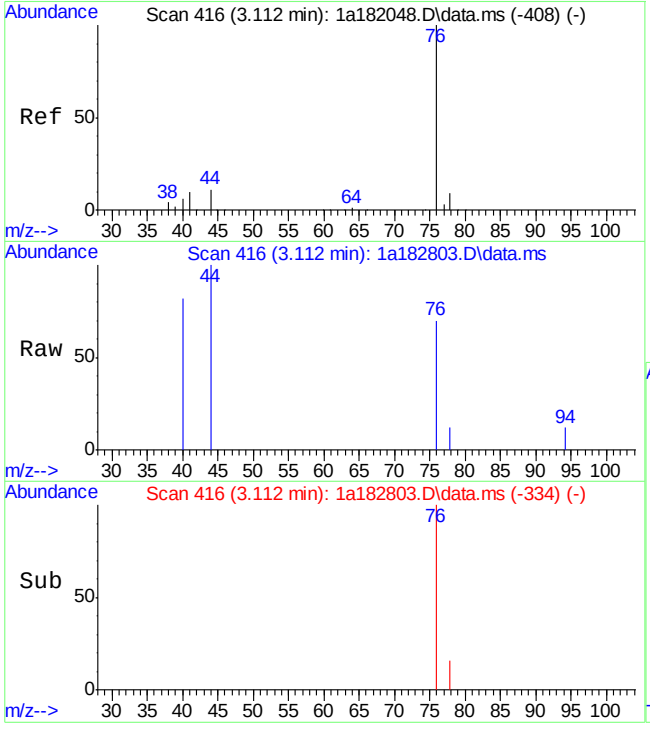


#2
tertiary butyl alcohol
Concen: 1.44 ug/L
RT: 3.294 min Scan# 446
Delta R.T. 0.006 min
Lab File: 1a182803.D
Acq: 5 Jul 2018 7:16 pm

Tgt Ion: 59 Resp: 983

Ion	Ratio	Lower	Upper
59	100		
41	49.3	0.0	49.9
43	0.0	0.0	43.4

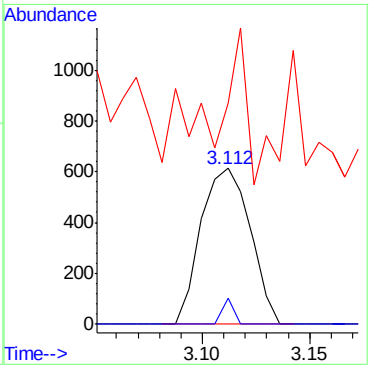


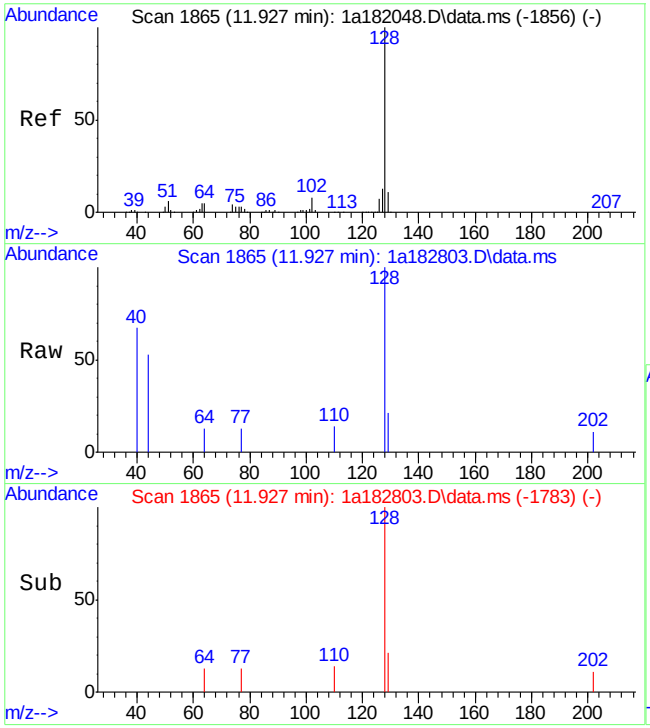


#23
carbon disulfide
Concen: 0.23 ug/L
RT: 3.112 min Scan# 416
Delta R.T. -0.000 min
Lab File: 1a182803.D
Acq: 5 Jul 2018 7:16 pm

Tgt Ion: 76 Resp: 984

Ion	Ratio	Lower	Upper
76	100		
78	16.5	0.0	39.2
44	38.2	0.0	41.0

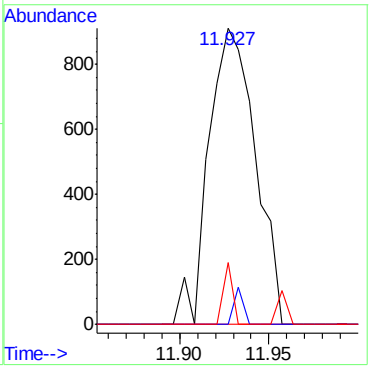


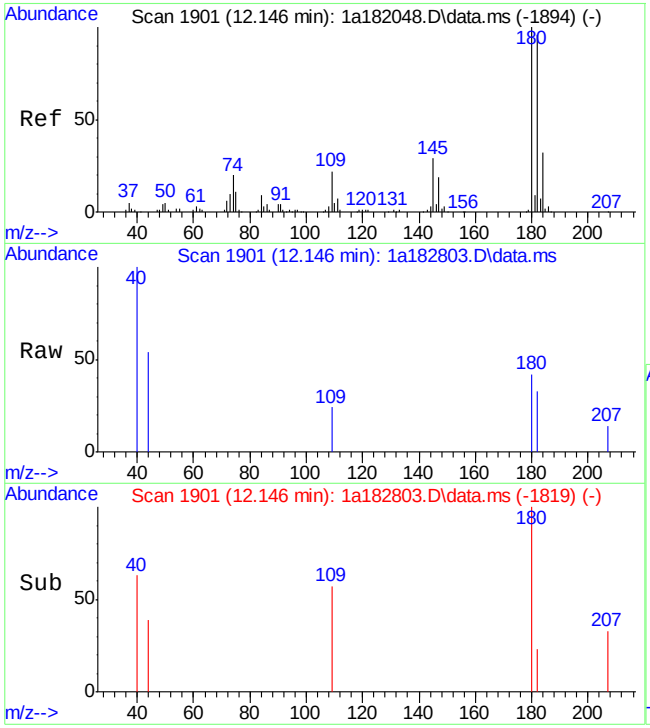


#122
naphthalene
Concen: 0.17 ug/L
RT: 11.927 min Scan# 1865
Delta R.T. -0.000 min
Lab File: 1a182803.D
Acq: 5 Jul 2018 7:16 pm

Tgt Ion:128 Resp: 1651

Ion	Ratio	Lower	Upper
128	100		
127	0.0	0.0	43.2
129	21.0	0.0	41.0

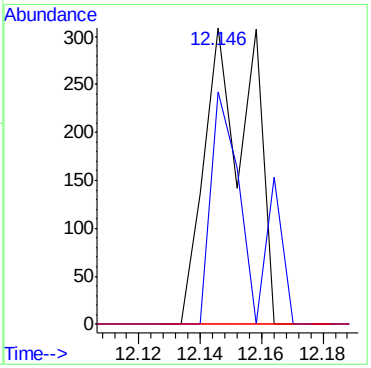


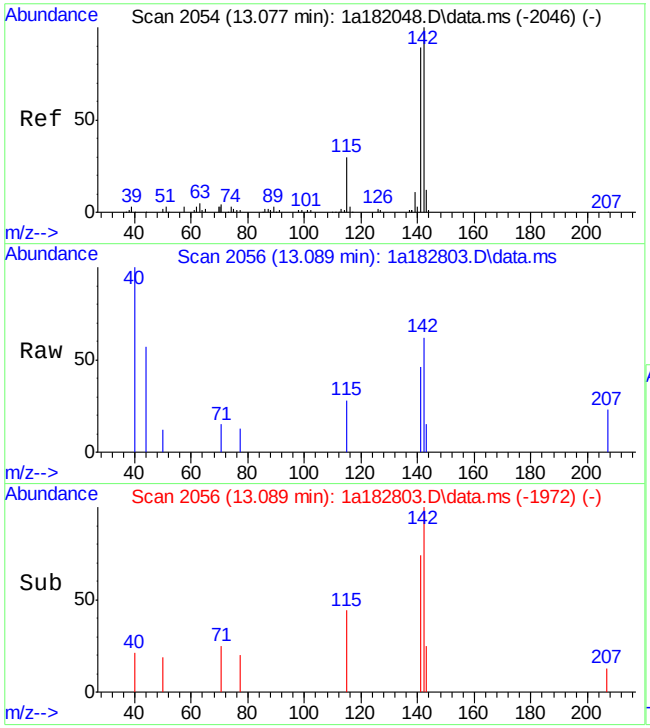


#123
1,2,3-trichlorobenzene
Concen: 0.11 ug/L
RT: 12.146 min Scan# 1901
Delta R.T. -0.000 min
Lab File: 1a182803.D
Acq: 5 Jul 2018 7:16 pm

Tgt Ion:180 Resp: 327

Ion	Ratio	Lower	Upper
180	100		
182	78.3	66.5	126.5
145	0.0	0.0	58.5

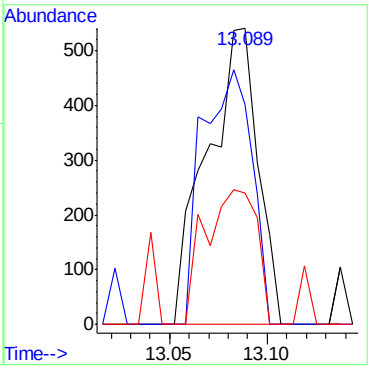




#125
2-methylnaphthalene
Concen: 0.21 ug/L
RT: 13.089 min Scan# 2056
Delta R.T. 0.012 min
Lab File: 1a182803.D
Acq: 5 Jul 2018 7:16 pm

Tgt Ion:142 Resp: 979

Ion	Ratio	Lower	Upper
142	100		
141	74.3	69.4	109.4
115	44.4	10.0	50.0



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83388.D
Acq On : 6 Jul 2018 9:57 am
Operator : HueanhT
Sample : mb
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 06 17:12:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

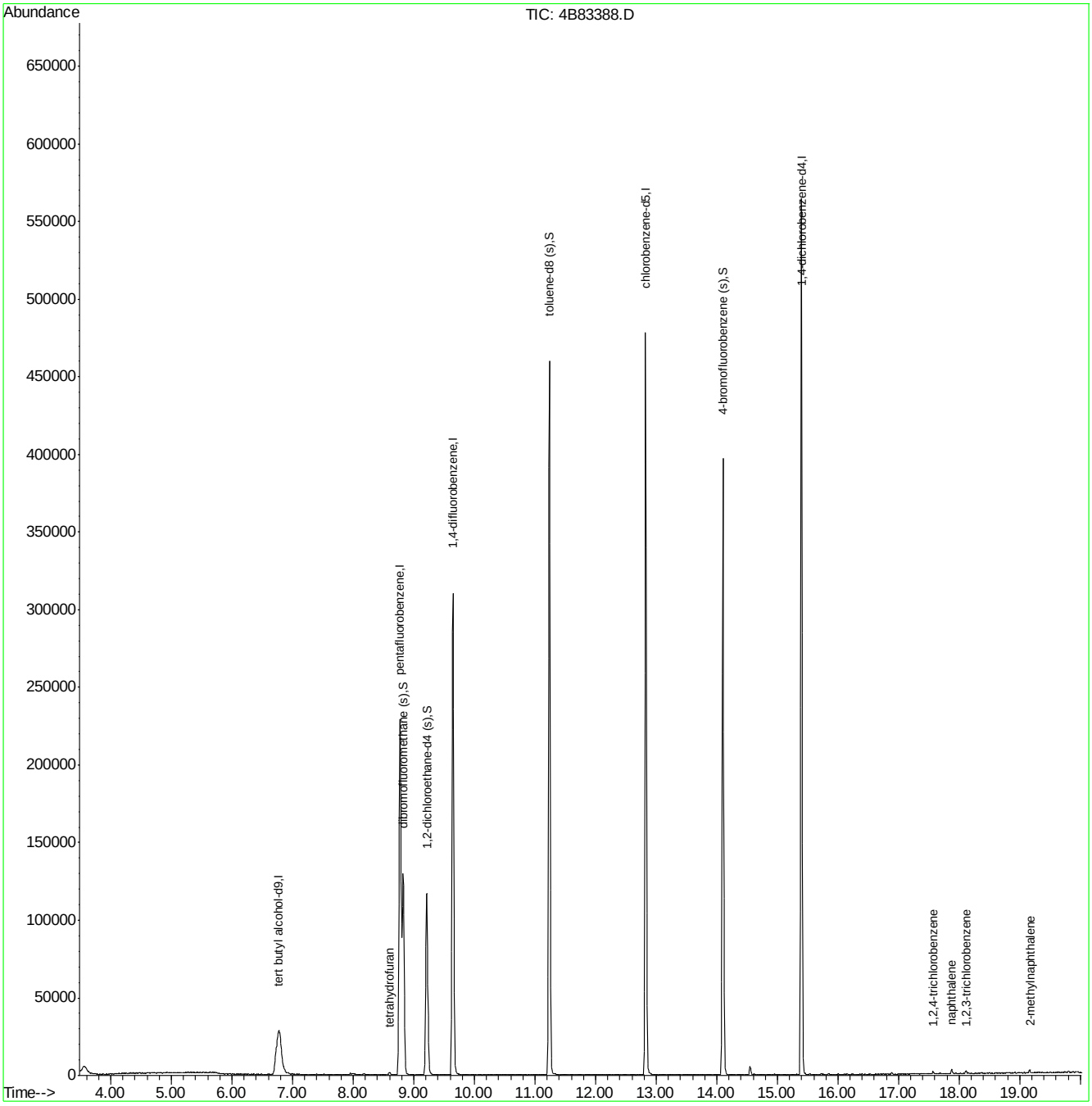
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.77	65	101546	500.00	ug/L	-0.03
5) pentafluorobenzene	8.77	168	201133	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	276636	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	264239	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	153278	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.82	113	91901	48.36	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.72%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	97308	49.03	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.06%			
76) toluene-d8 (s)	11.24	98	308139	46.06	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.12%			
99) 4-bromofluorobenzene (s)	14.10	95	125519	53.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.74%			
Target Compounds						Qvalue
43) tetrahydrofuran	8.60	72	480	1.70	ug/L #	67
120) 1,2,4-trichlorobenzene	17.57	180	837	0.17	ug/L	81
123) naphthalene	17.88	128	3169	0.33	ug/L	86
124) 1,2,3-trichlorobenzene	18.11	180	835	0.19	ug/L	76
125) 2-methylnaphthalene	19.17	142	1450	0.34	ug/L #	79

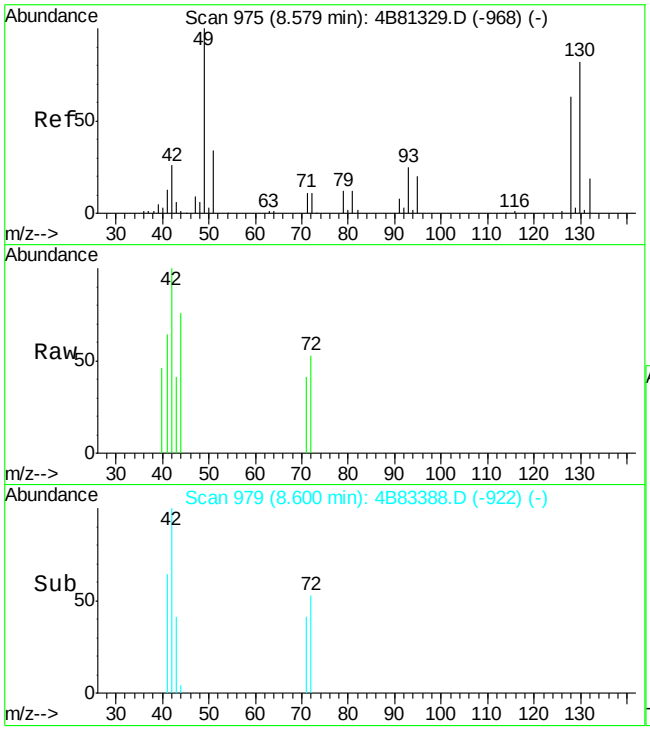
(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83388.D
Acq On : 6 Jul 2018 9:57 am
Operator : HueanhT
Sample : mb
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jul 06 17:12:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

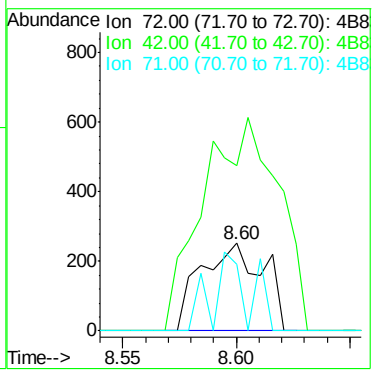


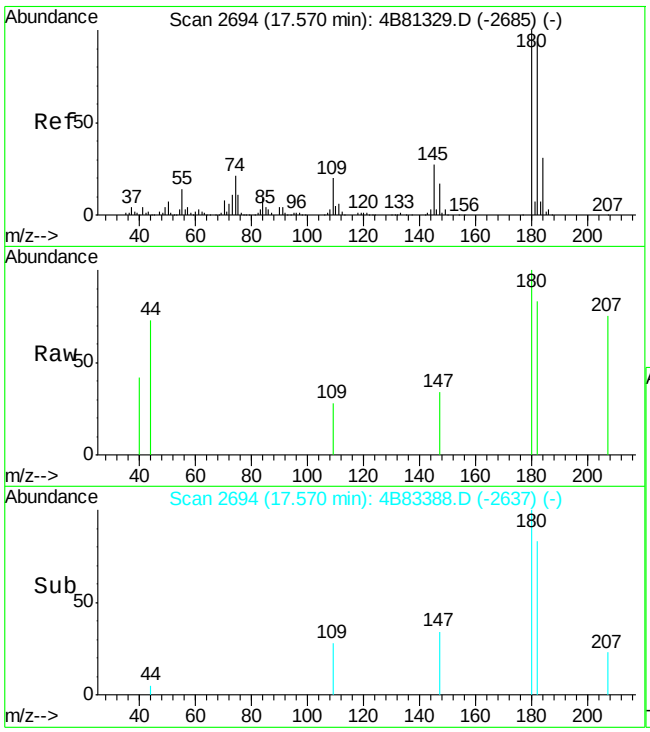


#43
tetrahydrofuran
Concen: 1.70 ug/L
RT: 8.60 min Scan# 979
Delta R.T. -0.00 min
Lab File: 4B83388.D
Acq: 6 Jul 2018 9:57 am

Tgt Ion: 72 Resp: 480

Ion	Ratio	Lower	Upper
72	100		
42	188.5	225.8	285.8#
71	76.6	67.0	127.0

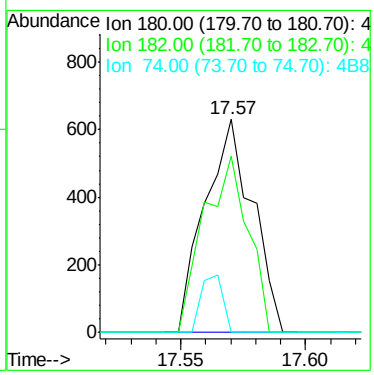


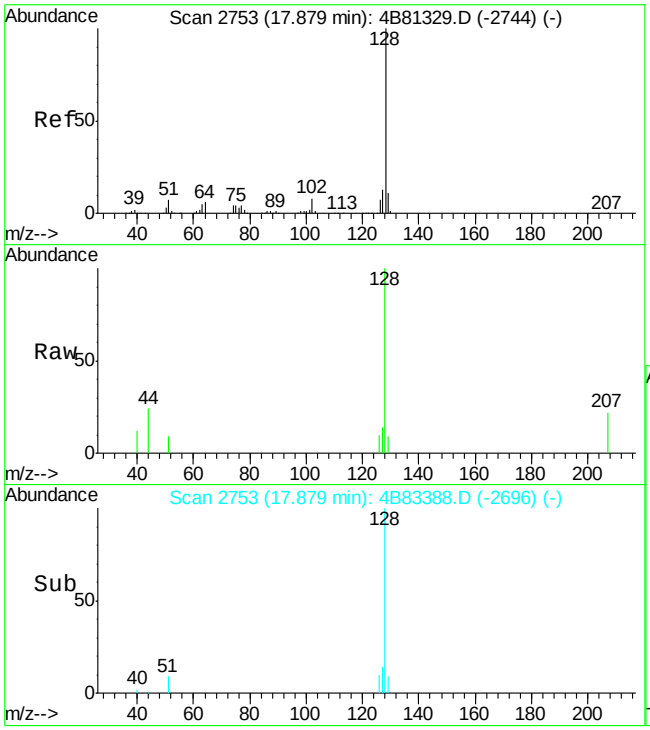


#120
1,2,4-trichlorobenzene
Concen: 0.17 ug/L
RT: 17.57 min Scan# 2694
Delta R.T. -0.00 min
Lab File: 4B83388.D
Acq: 6 Jul 2018 9:57 am

Tgt Ion:180 Resp: 837

Ion	Ratio	Lower	Upper
180	100		
182	82.7	65.2	125.2
74	0.0	0.0	52.2

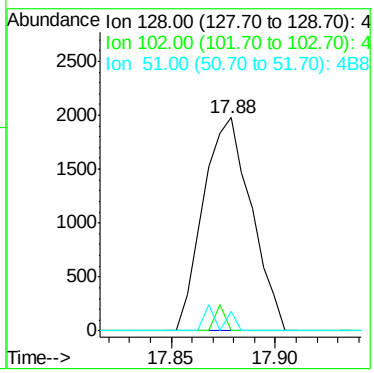


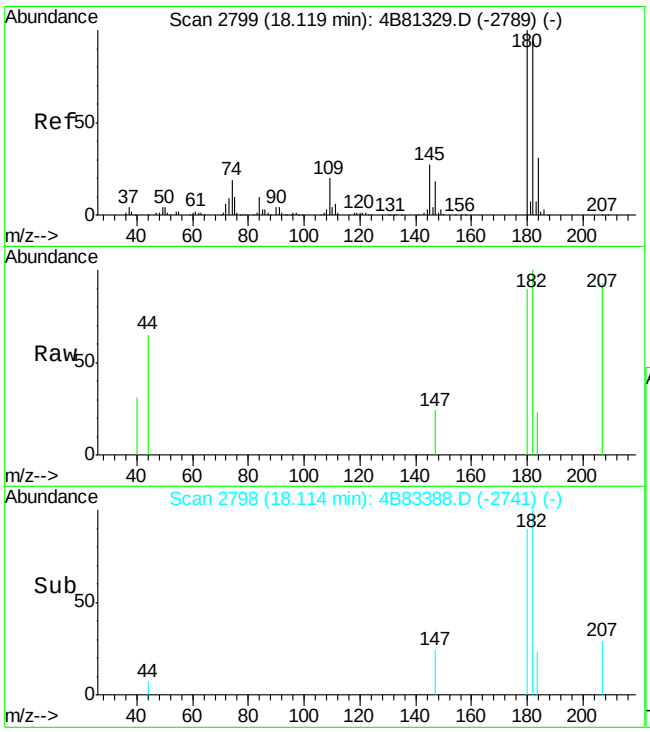


#123
naphthalene
Concen: 0.33 ug/L
RT: 17.88 min Scan# 2753
Delta R.T. -0.00 min
Lab File: 4B83388.D
Acq: 6 Jul 2018 9:57 am

Tgt Ion:128 Resp: 3169

Ion	Ratio	Lower	Upper
128	100		
102	0.0	0.0	37.8
51	9.4	0.0	37.5

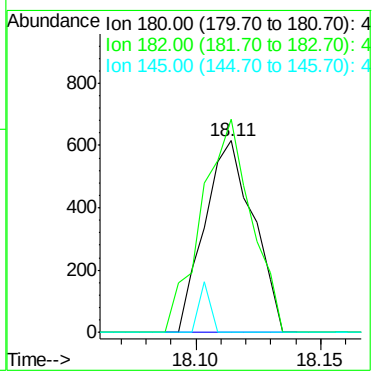


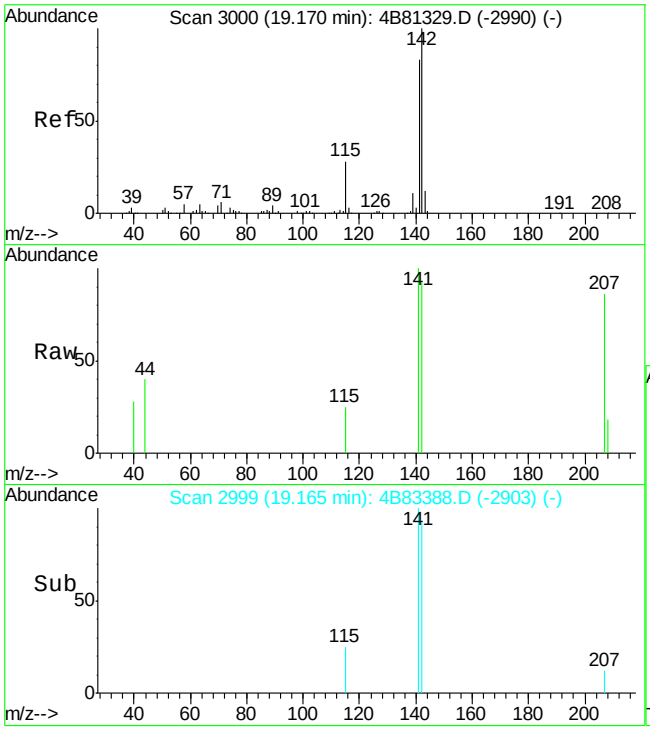


#124
1,2,3-trichlorobenzene
Concen: 0.19 ug/L
RT: 18.11 min Scan# 2798
Delta R.T. -0.00 min
Lab File: 4B83388.D
Acq: 6 Jul 2018 9:57 am

Tgt Ion:180 Resp: 835

Ion	Ratio	Lower	Upper
180	100		
182	111.0	66.6	126.6
145	0.0	0.0	59.2

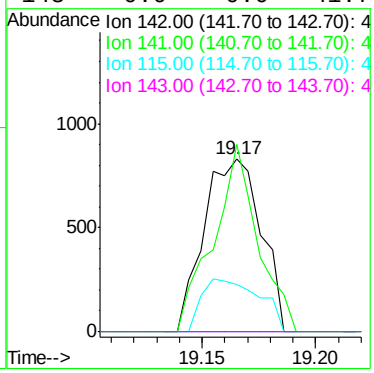




#125
2-methylnaphthalene
Concen: 0.34 ug/L
RT: 19.17 min Scan# 2999
Delta R.T. -0.00 min
Lab File: 4B83388.D
Acq: 6 Jul 2018 9:57 am

Tgt Ion:142 Resp: 1450

Ion	Ratio	Lower	Upper
142	100		
141	108.6	65.6	105.6#
115	27.6	0.8	60.8
143	0.0	0.0	41.7



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176938.d
Acq On : 1 Jul 2018 10:11 am
Operator : juntaep
Sample : bs Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:47:57 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.394	65	106182	500.00	ug/L		0.00
5) pentafluorobenzene	10.088	168	349056	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.231	114	474904	50.00	ug/L		0.00
76) chlorobenzene-d5	15.452	117	464830	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.247	152	255140	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.088	113	149715	49.79	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.58%				
55) 1,2-dichloroethane-d4 (s)	10.618	65	141202	43.29	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 86.58%				
77) toluene-d8 (s)	13.433	98	547320	50.64	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%				
100) 4-bromofluorobenzene (s)	16.952	95	210153	51.34	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.68%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.514	59	55000	273.37	ug/L		96
3) ethanol	6.025	45	126801	6981.68	ug/L		96
4) 1,4-dioxane	12.170	88	31366	1576.04	ug/L		97
6) chlorodifluoromethane	3.928	51	155077	47.14	ug/L		97
7) dichlorodifluoromethane	3.902	85	190346	49.05	ug/L		99
10) chloromethane	4.300	50	208013	47.44	ug/L		100
11) vinyl chloride	4.531	62	191084	49.56	ug/L		98
12) bromomethane	5.155	94	128899	47.58	ug/L		99
13) chloroethane	5.312	64	102815	50.83	ug/L		97
14) trichlorofluoromethane	5.794	101	205809	47.21	ug/L		99
15) vinyl bromide	5.669	106	119537	41.37	ug/L		98
17) ethyl ether	6.209	74	70237	51.81	ug/L		99
18) acrolein	6.455	56	19621	35.31	ug/L		95
19) 1,1-dichloroethene	6.639	96	131255	49.90	ug/L		93
20) freon 113	6.639	151	114607	51.89	ug/L		98
21) 2-chloropropane	6.397	43	211635	47.89	ug/L		96
22) acetone	6.696	58	36379	194.94	ug/L	#	75
23) acetonitrile	7.152	41	133505	427.03	ug/L		98
24) iodomethane	6.922	142	204692	45.92	ug/L		96
25) carbon disulfide	7.063	76	380779	45.17	ug/L		97
26) methylene chloride	7.404	84	144393	49.61	ug/L		93
27) methyl acetate	7.210	43	80621	43.55	ug/L		93
28) methyl tert butyl ether	7.829	73	322953	42.22	ug/L		99
29) trans-1,2-dichloroethene	7.839	96	139329	52.24	ug/L		92
30) hexane	8.232	57	184188	52.83	ug/L		97
31) di-isopropyl ether	8.547	45	413610	45.13	ug/L		86
32) 2-butanone	9.370	72	46703	193.50	ug/L	#	67
33) 1,1-dichloroethane	8.495	63	241389	48.68	ug/L		99
34) chloroprene	8.636	53	186750	47.32	ug/L		91
35) acrylonitrile	7.776	53	40741	45.46	ug/L		96
36) vinyl acetate	8.510	86	20881	48.45	ug/L	#	56
37) ethyl tert-butyl ether	9.108	59	385470	44.89	ug/L		98
38) ethyl acetate	9.417	45	15178	46.33	ug/L	#	40
39) 2,2-dichloropropane	9.412	77	180438	45.71	ug/L		98
40) cis-1,2-dichloroethene	9.381	96	155133	51.94	ug/L		92
41) propionitrile	9.470	54	170327	447.46	ug/L		97
42) tert-Butyl Formate	9.931	59	93110	35.34	ug/L		96
43) bromochloromethane	9.758	128	74725	49.90	ug/L		91
44) tetrahydrofuran	9.832	72	14501	46.42	ug/L	#	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176938.d
Acq On : 1 Jul 2018 10:11 am
Operator : juntaep
Sample : bs Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:47:57 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.842	83	233623	48.84	ug/L		98
47) methacrylonitrile	9.706	67	44449	45.32	ug/L		95
48) 1,1,1-trichloroethane	10.178	97	201120	45.51	ug/L		98
49) cyclohexane	10.282	84	196336	53.47	ug/L	#	76
50) 1,1-dichloropropene	10.403	75	177718	48.66	ug/L		96
51) isobutyl alcohol	10.429	43	42901	376.27	ug/L		96
52) carbon tetrachloride	10.434	117	181909	46.90	ug/L		99
53) tert-amyl alcohol	10.602	73	26414	207.02	ug/L		93
56) benzene	10.728	78	539834	51.01	ug/L		97
57) iso-octane	10.812	57	547565	51.45	ug/L		97
58) tert-amyl methyl ether	10.833	73	366661	46.23	ug/L		100
59) heptane	11.032	57	100489	52.20	ug/L		94
60) isopropyl acetate	10.702	87	22939	47.31	ug/L	#	70
61) 1,2-dichloroethane	10.739	62	154656	41.91	ug/L		98
62) n-butyl alcohol	11.404	56	146035	2269.68	ug/L		93
63) ethyl acrylate	11.724	55	131366	42.31	ug/L		97
64) trichloroethene	11.661	130	146240	51.24	ug/L		98
65) 2-nitropropane	12.705	41	20592	39.15	ug/L		91
66) 2-chloroethyl vinyl ether	12.762	63	370240	216.58	ug/L		99
67) methyl methacrylate	12.076	69	74493	45.36	ug/L		90
68) 1,2-dichloropropane	12.013	63	138170	48.69	ug/L		100
69) dibromomethane	12.196	93	80770	48.41	ug/L		97
70) methylcyclohexane	11.981	83	260458	55.26	ug/L		96
71) bromodichloromethane	12.385	83	180700	49.40	ug/L		99
72) epichlorohydrin	12.893	57	52371	215.14	ug/L		96
73) cis-1,3-dichloropropene	13.030	75	219681	47.21	ug/L		91
74) 4-methyl-2-pentanone	13.203	58	172565	178.76	ug/L		90
75) 3-methyl-1-butanol	13.229	55	96680	864.98	ug/L		91
78) toluene	13.533	92	334310	51.02	ug/L		99
79) trans-1,3-dichloropropene	13.795	75	188625	46.87	ug/L		95
80) ethyl methacrylate	13.858	69	152067	45.42	ug/L		90
81) 1,1,2-trichloroethane	14.073	83	100073	49.66	ug/L		96
82) tetrachloroethene	14.314	164	131535	53.46	ug/L		99
83) 1,3-dichloropropane	14.320	76	189345	47.71	ug/L		92
84) 2-hexanone	14.367	58	161112	179.62	ug/L		90
85) butyl acetate	14.498	56	71340	43.58	ug/L		99
86) dibromochloromethane	14.650	129	142350	50.66	ug/L		99
87) 1,2-dibromoethane	14.844	107	133738	48.84	ug/L		99
88) n-butyl ether	15.499	57	589532	47.66	ug/L		96
89) chlorobenzene	15.489	112	391946	50.50	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.578	131	149560	51.40	ug/L		98
91) ethylbenzene	15.604	91	655828	50.46	ug/L		99
92) m,p-xylene	15.751	91	997470	98.65	ug/L		98
93) o-xylene	16.291	106	257621	50.49	ug/L		93
94) styrene	16.301	104	434580	50.54	ug/L		94
95) butyl acrylate	16.128	55	235372	43.08	ug/L		99
96) bromoform	16.585	173	102667	52.90	ug/L		99
97) isopropylbenzene	16.742	105	674490	49.41	ug/L		98
98) cis-1,4-dichloro-2-butene	16.805	88	35179	31.97	ug/L		98
101) bromobenzene	17.167	156	195956	54.43	ug/L		91
102) 1,1,2,2-tetrachloroethane	17.083	83	160153	49.42	ug/L		100
103) trans-1,4-dichloro-2-b...	17.146	53	26045	34.99	ug/L	#	55
104) 1,2,3-trichloropropane	17.161	110	40866	49.54	ug/L	#	79
105) n-propylbenzene	17.229	91	802356	53.68	ug/L		99
106) 2-chlorotoluene	17.371	126	175728	55.05	ug/L		90
107) 4-chlorotoluene	17.486	91	468060	52.06	ug/L		97
109) 1,3,5-trimethylbenzene	17.413	105	574181	52.15	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176938.d
Acq On : 1 Jul 2018 10:11 am
Operator : juntaep
Sample : bs Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:47:57 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

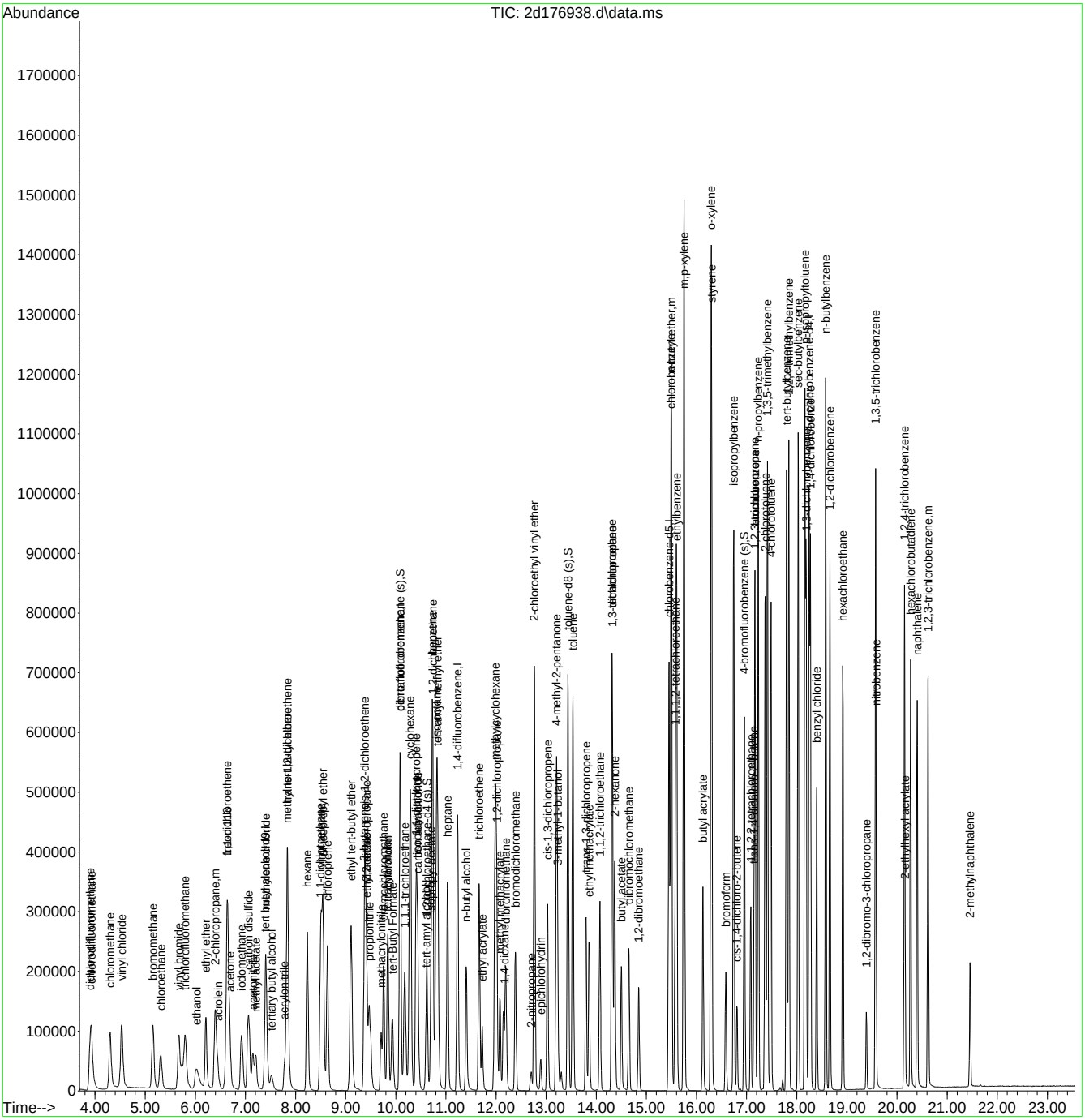
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.796	119	504697	51.68	ug/L	98
111) 1,2,4-trimethylbenzene	17.843	105	580370	51.65	ug/L	98
112) sec-butylbenzene	18.026	105	761016	52.16	ug/L	99
113) 1,3-dichlorobenzene	18.189	146	363076	53.25	ug/L	98
114) p-isopropyltoluene	18.163	119	647871	51.11	ug/L	98
115) 1,4-dichlorobenzene	18.273	146	366690	53.15	ug/L	98
116) 1,2-dichlorobenzene	18.661	146	360317	52.67	ug/L	99
117) benzyl chloride	18.399	91	337489	54.67	ug/L	99
119) n-butylbenzene	18.577	92	330476	51.97	ug/L	98
121) 1,2-dibromo-3-chloropr...	19.390	157	37558	47.38	ug/L	95
122) nitrobenzene	19.584	77	7355	73.07	ug/L	90
123) 1,3,5-trichlorobenzene	19.573	180	339204	53.04	ug/L	98
124) hexachlorobutadiene	20.270	225	162452	51.92	ug/L	98
125) naphthalene	20.401	128	509402	45.92	ug/L	99
126) 2-ethylhexyl acrylate	20.166	70	18840	5.93	ug/L	99
127) 1,2,4-trichlorobenzene	20.150	180	269636	49.62	ug/L	98
128) 1,2,3-trichlorobenzene	20.622	180	242382	48.42	ug/L	100
129) hexachloroethane	18.918	201	128937	58.57	ug/L	97
130) 2-methylnaphthalene	21.455	142	110003	18.48	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176938.d
Acq On : 1 Jul 2018 10:11 am
Operator : juntaep
Sample : bs Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:47:57 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144438.d
Acq On : 1 Jul 2018 3:01 pm
Operator : juntaep
Sample : bs Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:50:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	127396	500.00	ug/L	0.00
5) pentafluorobenzene	9.617	168	292892	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	409759	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	384421	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	216270	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	384421	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	123067	50.15	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%			
57) 1,2-dichloroethane-d4 (s)	10.094	65	149278	59.10	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 118.20%			
78) toluene-d8 (s)	12.170	98	490348	49.22	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.44%			
101) 4-bromofluorobenzene (s)	14.818	95	191126	50.63	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%			
Target Compounds						Qvalue
2) ethanol	6.136	45	167854	5489.71	ug/L	98
3) tertiary butyl alcohol	7.509	59	86378	256.19	ug/L	91
4) 1,4-dioxane	11.258	88	38195	1490.85	ug/L	93
6) chlorodifluoromethane	4.033	51	259820	61.75	ug/L	97
7) dichlorodifluoromethane	4.007	85	319454	66.60	ug/L	98
10) chloromethane	4.421	50	331613	51.94	ug/L	98
11) vinyl chloride	4.657	62	311267	53.21	ug/L	97
12) bromomethane	5.297	94	179916	50.17	ug/L	99
13) chloroethane	5.449	64	163223	47.90	ug/L	98
14) trichlorofluoromethane	5.905	101	313176	61.46	ug/L	97
16) vinyl bromide	5.805	106	159178	44.73	ug/L	94
17) ethyl ether	6.288	74	97780	42.97	ug/L	97
18) 2-chloropropane	6.492	43	292105	48.81	ug/L	88
19) acrolein	6.555	56	26127	35.73	ug/L	97
20) freon 113	6.676	151	140643	56.72	ug/L	92
21) 1,1-dichloroethene	6.718	61	269283	50.73	ug/L	98
22) acetone	6.770	58	49253	170.30	ug/L #	81
23) acetonitrile	7.216	41	175111	401.28	ug/L	97
24) iodomethane	7.006	142	220256	47.66	ug/L	92
25) carbon disulfide	7.127	76	425975	42.61	ug/L	97
26) methylene chloride	7.436	84	160303	44.39	ug/L	99
27) methyl acetate	7.231	43	102446	41.19	ug/L	96
28) methyl tert butyl ether	7.761	73	431260	47.25	ug/L	95
29) trans-1,2-dichloroethene	7.808	61	224342	49.06	ug/L	98
30) hexane	8.091	56	118845	52.24	ug/L	96
31) di-isopropyl ether	8.343	45	498539	44.83	ug/L	97
32) ethyl tert-butyl ether	8.810	59	518851	49.92	ug/L	98
33) 2-butanone	9.072	72	60776	190.97	ug/L #	79
34) 1,1-dichloroethane	8.369	63	284754	48.07	ug/L	99
35) chloroprene	8.474	53	258741	52.83	ug/L	93
36) acrylonitrile	7.766	53	51496	45.94	ug/L	94
37) vinyl acetate	8.353	86	29369	45.12	ug/L #	81
38) ethyl acetate	9.082	45	20793	48.16	ug/L #	6
39) 2,2-dichloropropane	9.108	77	232404	51.79	ug/L	99
40) cis-1,2-dichloroethene	9.108	96	173062	46.56	ug/L	100
41) propionitrile	9.177	54	221709	483.45	ug/L	97
42) methyl acrylate	9.171	85	21090	48.95	ug/L	98
43) bromochloromethane	9.423	128	80397	47.79	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144438.d
Acq On : 1 Jul 2018 3:01 pm
Operator : juntaep
Sample : bs Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:50:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tetrahydrofuran	9.465	72	18864	48.54	ug/L		98
45) chloroform	9.475	83	278170	51.07	ug/L		99
46) t-butyl formate	9.507	59	142626	59.02	ug/L		91
47) 1,1-dichloropropene	9.900	75	221156	49.58	ug/L		98
48) carbon tetrachloride	9.926	117	230679	60.29	ug/L		96
49) isopropyl acetate	10.084	87	32616	46.55	ug/L	#	91
51) methacrylonitrile	9.360	67	56332	47.78	ug/L		99
52) 1,1,1-trichloroethane	9.727	97	266060	56.24	ug/L		98
53) cyclohexane	9.795	84	260439	53.61	ug/L		88
54) iso-butyl alcohol	9.911	43	61526	491.77	ug/L		99
55) tert amyl alcohol	10.031	73	43157	256.09	ug/L		95
58) 2,2,4-trimethylpentane	10.152	57	658023	55.37	ug/L		96
59) n-butyl alcohol	10.660	56	220071	2796.68	ug/L		99
60) benzene	10.168	78	632593	46.73	ug/L		99
61) tert-amyl methyl ether	10.194	73	499201	48.65	ug/L		99
62) heptane	10.320	57	127193	54.16	ug/L		98
63) 1,2-dichloroethane	10.183	62	210919	54.25	ug/L		98
64) ethyl acrylate	10.875	55	171998	50.11	ug/L		99
65) trichloroethene	10.875	95	156903	49.24	ug/L		97
66) 2-nitropropane	11.657	41	54553	62.00	ug/L		92
67) 2-chloroethyl vinyl ether	11.662	63	453244	243.80	ug/L		100
68) methyl methacrylate	11.143	100	39294	51.74	ug/L	#	83
69) 1,2-dichloropropane	11.143	63	159403	48.12	ug/L		96
70) methylcyclohexane	11.090	83	316425	54.96	ug/L		97
71) dibromomethane	11.305	93	90671	51.03	ug/L		97
72) bromodichloromethane	11.431	83	215311	54.54	ug/L		97
73) epichlorohydrin	11.793	57	72704	258.15	ug/L		98
74) cis-1,3-dichloropropene	11.882	75	259334	49.83	ug/L		94
75) 4-methyl-2-pentanone	11.971	58	216135	198.30	ug/L		97
76) 3-methyl-1-butanol	11.992	70	95116	1149.45	ug/L		96
79) toluene	12.239	92	394466	46.21	ug/L		97
80) ethyl methacrylate	12.422	69	193021	48.74	ug/L		94
81) trans-1,3-dichloropropene	12.438	75	241356	52.18	ug/L		98
82) 1,1,2-trichloroethane	12.653	83	110967	46.64	ug/L		99
83) tetrachloroethene	12.820	164	139859	49.04	ug/L		97
84) 2-hexanone	12.815	58	204248	196.68	ug/L		93
85) 1,3-dichloropropane	12.836	76	228339	46.82	ug/L		96
86) butyl acetate	12.889	56	95003	48.58	ug/L		93
87) dibromochloromethane	13.098	129	157981	54.06	ug/L		99
88) 1,2-dibromoethane	13.250	107	148649	50.08	ug/L		98
89) n-butyl ether	13.602	57	698061	48.08	ug/L		98
90) chlorobenzene	13.701	112	430658	47.86	ug/L		99
91) 1,1,1,2-tetrachloroethane	13.759	131	163652	52.28	ug/L		97
92) ethylbenzene	13.749	91	771579	49.18	ug/L		99
93) m,p-xylene	13.853	106	590959	98.39	ug/L		95
94) o-xylene	14.273	91	618714	49.65	ug/L		97
95) styrene	14.283	104	501946	50.18	ug/L		97
96) butyl acrylate	14.095	55	290954	49.18	ug/L		98
97) bromoform	14.551	173	110135	57.66	ug/L		99
98) isopropylbenzene	14.608	105	784279	51.35	ug/L		99
99) cis-1,4-dichloro-2-butene	14.687	75	67946	55.86	ug/L		91
102) bromobenzene	15.012	156	202579	49.39	ug/L		94
103) 1,1,2,2-tetrachloroethane	14.918	83	172149	45.51	ug/L		99
104) trans-1,4-dichloro-2-b...	14.960	53	46191	53.24	ug/L		92
105) 1,2,3-trichloropropane	14.996	110	53475	52.06	ug/L		96
106) n-propylbenzene	15.017	91	930273	48.82	ug/L		100
107) 2-chlorotoluene	15.164	126	188696	49.27	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144438.d
Acq On : 1 Jul 2018 3:01 pm
Operator : juntaep
Sample : bs Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:50:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

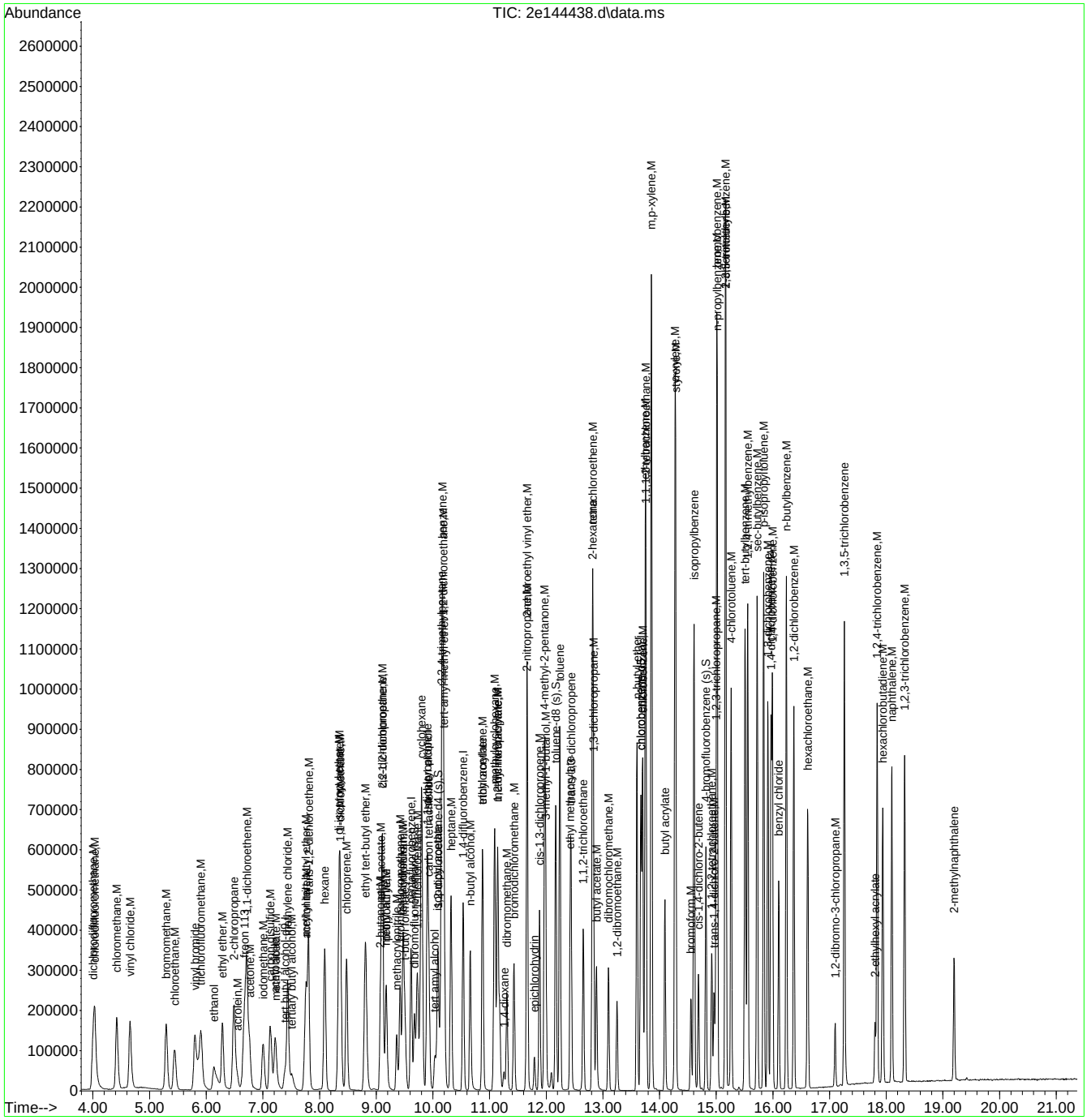
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 4-chlorotoluene	15.264	91	555887	48.86	ug/L	99
109) 1,3,5-trimethylbenzene	15.164	105	672857	49.54	ug/L	96
110) tert-butylbenzene	15.510	119	583551	49.62	ug/L	100
111) 1,2,4-trimethylbenzene	15.557	105	680001	50.47	ug/L	100
112) sec-butylbenzene	15.720	105	862205	50.05	ug/L	99
113) 1,3-dichlorobenzene	15.909	146	387855	48.59	ug/L	99
114) p-isopropyltoluene	15.835	119	733999	50.09	ug/L	98
115) 1,4-dichlorobenzene	15.993	146	392362	48.15	ug/L	100
116) 1,2-dichlorobenzene	16.370	146	379606	48.55	ug/L	98
117) n-butylbenzene	16.239	92	380747	50.51	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.099	157	41610	48.08	ug/L	92
119) 1,3,5-trichlorobenzene	17.261	180	346291	49.82	ug/L	98
120) 1,2,4-trichlorobenzene	17.838	180	287353	49.21	ug/L	98
121) 2-ethylhexyl acrylate	17.801	70	37334	8.71	ug/L	93
122) hexachlorobutadiene	17.938	225	152356	50.38	ug/L	99
123) naphthalene	18.100	128	600326	48.98	ug/L	100
124) 1,2,3-trichlorobenzene	18.326	180	253967	48.02	ug/L	99
125) hexachloroethane	16.616	201	133797	56.96	ug/L	98
126) benzyl chloride	16.103	91	360924	50.37	ug/L	98
127) 2-methylnaphthalene	19.196	142	155297	23.88	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144438.d
Acq On : 1 Jul 2018 3:01 pm
Operator : juntaep
Sample : bs Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:50:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176983.d
Acq On : 2 Jul 2018 7:31 pm
Operator : juntaep
Sample : BS Inst : MS2D
Misc : MS27437,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:50:14 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.394	65	114796	500.00	ug/L		0.00
5) pentafluorobenzene	10.083	168	322333	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.232	114	448932	50.00	ug/L		0.00
76) chlorobenzene-d5	15.452	117	434204	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.247	152	236396	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	141944	51.11	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.22%				
55) 1,2-dichloroethane-d4 (s)	10.618	65	134216	43.53	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 87.06%				
77) toluene-d8 (s)	13.434	98	515633	51.07	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.14%				
100) 4-bromofluorobenzene (s)	16.952	95	195781	51.62	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.24%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.519	59	63020	289.73	ug/L		93
3) ethanol	6.030	45	143852	7330.69	ug/L		100
4) 1,4-dioxane	12.170	88	35729	1660.56	ug/L		97
6) chlorodifluoromethane	3.928	51	170616	56.16	ug/L		99
7) dichlorodifluoromethane	3.902	85	218040	60.84	ug/L		98
10) chloromethane	4.300	50	221675	54.74	ug/L		100
11) vinyl chloride	4.531	62	214095	60.13	ug/L		97
12) bromomethane	5.160	94	140654	56.22	ug/L		99
13) chloroethane	5.312	64	113233	60.62	ug/L		98
14) trichlorofluoromethane	5.810	101	229664	57.05	ug/L		97
15) vinyl bromide	5.679	106	131780	49.39	ug/L		99
17) ethyl ether	6.214	74	75471	60.29	ug/L		96
18) acrolein	6.450	56	21587	42.07	ug/L		99
19) 1,1-dichloroethene	6.660	96	138354	56.96	ug/L		93
20) freon 113	6.639	151	119509	58.59	ug/L		96
21) 2-chloropropane	6.403	43	225388	55.23	ug/L		94
22) acetone	6.691	58	40202	233.29	ug/L	#	83
23) acetonitrile	7.147	41	148794	515.39	ug/L		99
24) iodomethane	6.932	142	207599	50.43	ug/L		98
25) carbon disulfide	7.079	76	401653	51.60	ug/L		97
26) methylene chloride	7.415	84	149967	55.79	ug/L		91
27) methyl acetate	7.210	43	91066	53.27	ug/L		98
28) methyl tert butyl ether	7.829	73	341977	48.41	ug/L		99
29) trans-1,2-dichloroethene	7.839	96	145143	58.93	ug/L		93
30) hexane	8.233	57	198891	61.77	ug/L		96
31) di-isopropyl ether	8.547	45	431941	51.03	ug/L		88
32) 2-butanone	9.365	72	52236	234.37	ug/L	#	83
33) 1,1-dichloroethane	8.500	63	251693	54.96	ug/L		99
34) chloroprene	8.636	53	198290	54.41	ug/L		92
35) acrylonitrile	7.776	53	44523	53.80	ug/L		97
36) vinyl acetate	8.516	86	22284	55.99	ug/L	#	69
37) ethyl tert-butyl ether	9.108	59	403036	50.82	ug/L		100
38) ethyl acetate	9.423	45	15621	51.63	ug/L	#	81
39) 2,2-dichloropropane	9.407	77	181737	49.85	ug/L		97
40) cis-1,2-dichloroethene	9.386	96	162988	59.10	ug/L		91
41) propionitrile	9.470	54	191668	545.27	ug/L		99
42) tert-Butyl Formate	9.931	59	97818	40.20	ug/L		98
43) bromochloromethane	9.758	128	77999	56.41	ug/L		95
44) tetrahydrofuran	9.832	72	16416	56.91	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176983.d
Acq On : 2 Jul 2018 7:31 pm
Operator : juntaep
Sample : BS Inst : MS2D
Misc : MS27437,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:50:14 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.842	83	246661	55.84	ug/L		98
47) methacrylonitrile	9.706	67	49248	54.37	ug/L		91
48) 1,1,1-trichloroethane	10.178	97	210164	51.50	ug/L		98
49) cyclohexane	10.277	84	204773	60.39	ug/L		93
50) 1,1-dichloropropene	10.403	75	187523	55.60	ug/L		97
51) isobutyl alcohol	10.435	43	49953	474.45	ug/L		96
52) carbon tetrachloride	10.429	117	188652	52.67	ug/L		99
53) tert-amyl alcohol	10.608	73	30619	259.88	ug/L		91
56) benzene	10.733	78	566401	56.61	ug/L		97
57) iso-octane	10.807	57	581912	57.85	ug/L		96
58) tert-amyl methyl ether	10.833	73	383162	51.11	ug/L		99
59) heptane	11.032	57	106831	58.70	ug/L		95
60) isopropyl acetate	10.707	87	24799	54.10	ug/L	#	59
61) 1,2-dichloroethane	10.733	62	163270	46.81	ug/L		97
62) n-butyl alcohol	11.410	56	173033	2844.87	ug/L		95
63) ethyl acrylate	11.724	55	145474	49.56	ug/L		98
64) trichloroethene	11.661	130	152435	56.50	ug/L		99
65) 2-nitropropane	12.705	41	22291	44.83	ug/L		88
66) 2-chloroethyl vinyl ether	12.763	63	376367	232.90	ug/L		99
67) methyl methacrylate	12.076	69	81764	52.66	ug/L		92
68) 1,2-dichloropropane	12.013	63	145825	54.36	ug/L		99
69) dibromomethane	12.191	93	85896	54.46	ug/L		98
70) methylcyclohexane	11.981	83	275530	61.84	ug/L		97
71) bromodichloromethane	12.385	83	187655	54.27	ug/L		96
72) epichlorohydrin	12.894	57	57851	251.40	ug/L		96
73) cis-1,3-dichloropropene	13.030	75	228769	52.01	ug/L		91
74) 4-methyl-2-pentanone	13.208	58	191788	210.17	ug/L		90
75) 3-methyl-1-butanol	13.229	55	113306	1072.37	ug/L		90
78) toluene	13.533	92	350057	57.19	ug/L		99
79) trans-1,3-dichloropropene	13.795	75	194295	51.69	ug/L		97
80) ethyl methacrylate	13.858	69	165212	52.82	ug/L		92
81) 1,1,2-trichloroethane	14.073	83	106279	56.46	ug/L		96
82) tetrachloroethene	14.314	164	137619	59.88	ug/L		99
83) 1,3-dichloropropane	14.320	76	202630	54.66	ug/L		91
84) 2-hexanone	14.367	58	182650	217.99	ug/L		91
85) butyl acetate	14.498	56	80344	52.54	ug/L		96
86) dibromochloromethane	14.650	129	147890	56.35	ug/L		100
87) 1,2-dibromoethane	14.844	107	143249	56.00	ug/L		98
88) n-butyl ether	15.499	57	613091	53.07	ug/L		96
89) chlorobenzene	15.489	112	408257	56.32	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.578	131	153778	56.57	ug/L		98
91) ethylbenzene	15.599	91	676143	55.69	ug/L		99
92) m,p-xylene	15.751	91	1031557	109.22	ug/L		98
93) o-xylene	16.291	106	268084	56.24	ug/L		94
94) styrene	16.302	104	449476	55.95	ug/L		95
95) butyl acrylate	16.129	55	254536	49.87	ug/L		98
96) bromoform	16.585	173	105331	58.10	ug/L		99
97) isopropylbenzene	16.742	105	690687	54.16	ug/L		98
98) cis-1,4-dichloro-2-butene	16.805	88	21863	21.27	ug/L		90
101) bromobenzene	17.167	156	198470	59.50	ug/L		91
102) 1,1,2,2-tetrachloroethane	17.083	83	172445	57.43	ug/L		98
103) trans-1,4-dichloro-2-b...	17.140	53	16822	24.39	ug/L	#	82
104) 1,2,3-trichloropropane	17.161	110	43628	57.08	ug/L	#	79
105) n-propylbenzene	17.230	91	818514	59.10	ug/L		99
106) 2-chlorotoluene	17.371	126	178719	60.43	ug/L		91
107) 4-chlorotoluene	17.486	91	483048	57.98	ug/L		98
109) 1,3,5-trimethylbenzene	17.413	105	583881	57.24	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176983.d
Acq On : 2 Jul 2018 7:31 pm
Operator : juntaep
Sample : BS Inst : MS2D
Misc : MS27437,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:50:14 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

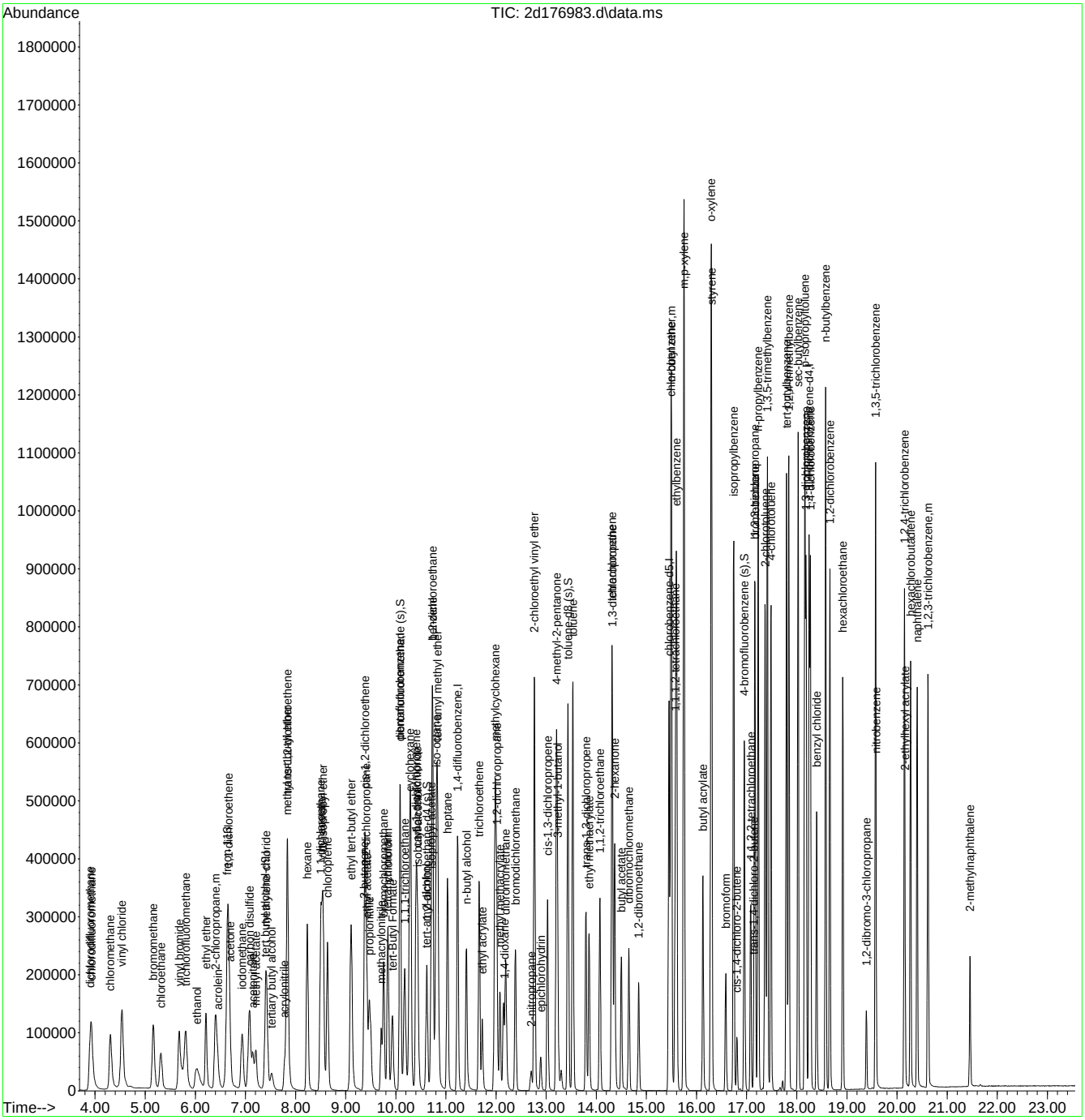
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.796	119	517115	57.15	ug/L	98
111) 1,2,4-trimethylbenzene	17.843	105	592954	56.96	ug/L	98
112) sec-butylbenzene	18.027	105	779211	57.64	ug/L	99
113) 1,3-dichlorobenzene	18.184	146	371288	58.78	ug/L	99
114) p-isopropyltoluene	18.158	119	657947	56.02	ug/L	99
115) 1,4-dichlorobenzene	18.273	146	371083	58.05	ug/L	99
116) 1,2-dichlorobenzene	18.661	146	368159	58.08	ug/L	98
117) benzyl chloride	18.394	91	337840	59.07	ug/L	99
119) n-butylbenzene	18.577	92	334521	56.78	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	40696	55.41	ug/L	94
122) nitrobenzene	19.584	77	6400	68.62	ug/L	97
123) 1,3,5-trichlorobenzene	19.573	180	342995	57.89	ug/L	99
124) hexachlorobutadiene	20.271	225	164588	56.77	ug/L	98
125) naphthalene	20.402	128	535810	52.13	ug/L	99
126) 2-ethylhexyl acrylate	20.160	70	18881	6.42	ug/L	96
127) 1,2,4-trichlorobenzene	20.150	180	275320	54.68	ug/L	98
128) 1,2,3-trichlorobenzene	20.617	180	248299	53.54	ug/L	99
129) hexachloroethane	18.918	201	128253	62.88	ug/L	97
130) 2-methylnaphthalene	21.455	142	116461	21.12	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176983.d
Acq On : 2 Jul 2018 7:31 pm
Operator : juntaep
Sample : BS Inst : MS2D
Misc : MS27437,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:50:14 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 07/04/18 21:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160377.d
Acq On : 2 Jul 2018 7:44 pm
Operator : HueanhT
Sample : BS Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:12:58 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.313	65	250967	500.00	ug/L		-0.02
5) pentafluorobenzene	10.778	168	281875	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	358320	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	296162	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.859	152	177947	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	123098	50.46	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.92%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	128521	49.49	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.98%				
75) toluene-d8 (s)	13.268	98	372775	49.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.86%				
98) 4-bromofluorobenzene (s)	15.769	95	138340	53.30	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.60%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.439	59	163282	263.33	ug/L		94
4) 1,4-dioxane	12.340	88	58120	1296.77	ug/L		95
6) chlorodifluoromethane	4.454	51	216057	43.40	ug/L		97
7) dichlorodifluoromethane	4.423	85	263794	60.05	ug/L		96
8) chloromethane	4.806	50	287416	42.35	ug/L		99
9) vinyl chloride	5.110	62	266020	45.64	ug/L		98
11) bromomethane	5.828	94	151803	40.14	ug/L		100
12) chloroethane	6.017	64	122724	40.04	ug/L		97
13) trichlorofluoromethane	6.604	101	263345	47.38	ug/L		94
14) vinyl bromide	6.442	106	145857	39.95	ug/L		98
15) ethyl ether	7.050	74	83555	51.30	ug/L	#	84
16) 2-chloropropane	7.291	43	261364	42.36	ug/L		96
17) acrolein	7.312	56	36993	35.17	ug/L		89
18) freon 113	7.548	151	142700	57.25	ug/L		98
19) 1,1-dichloroethene	7.537	96	155426	45.94	ug/L		94
20) acetone	7.548	58	79144	180.13	ug/L		94
21) iodomethane	7.810	142	248915	44.10	ug/L		96
22) acetonitrile	8.030	41	311557	413.52	ug/L		97
23) carbon disulfide	7.983	76	462151	46.20	ug/L		99
24) methylene chloride	8.350	84	165435	41.91	ug/L		98
25) methyl acetate	8.072	43	170876	45.84	ug/L		98
26) methyl tert butyl ether	8.749	73	471458	46.08	ug/L		97
27) trans-1,2-dichloroethene	8.775	96	141749	44.62	ug/L		98
28) hexane	9.168	56	98039	49.87	ug/L		98
29) di-isopropyl ether	9.420	45	496148	42.51	ug/L		99
30) 1,1-dichloroethane	9.414	63	258490	47.59	ug/L		98
31) chloroprene	9.524	53	208854	45.98	ug/L		95
32) acrylonitrile	8.680	53	85745	45.80	ug/L		99
33) vinyl acetate	9.357	86	26086	50.64	ug/L		99
34) ethyl tert-butyl ether	9.918	59	484076	45.45	ug/L		96
35) 2-butanone	10.127	72	97969	192.31	ug/L		98
36) ethyl acetate	10.148	45	29241	42.62	ug/L	#	85
37) 2,2-dichloropropane	10.232	77	204718	50.15	ug/L		95
38) cis-1,2-dichloroethene	10.196	96	154120	45.55	ug/L		98
39) propionitrile	10.217	54	379449	453.10	ug/L		94
40) bromochloromethane	10.510	128	83414	49.84	ug/L		97
41) tetrahydrofuran	10.531	42	69457	39.06	ug/L		94
42) chloroform	10.605	83	244146	45.74	ug/L		97
43) t-butyl formate	10.646	59	146403	45.49	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160377.d
Acq On : 2 Jul 2018 7:44 pm
Operator : HueanhT
Sample : BS Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:12:58 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	10.421	67	74051	47.87	ug/L		93
46) 1,1,1-trichloroethane	10.872	97	216625	42.54	ug/L		97
47) Cyclohexane	10.987	84	209490	48.67	ug/L		91
48) 1,1-dichloropropene	11.050	75	169699	46.00	ug/L		97
49) carbon tetrachloride	11.076	117	199545	51.47	ug/L		95
50) isobutyl alcohol	11.024	42	73493m	360.92	ug/L		
53) n-butyl alcohol	11.774	56	414316	2095.00	ug/L		98
54) tert-amyl alcohol	11.192	55	62548	214.09	ug/L	#	90
55) iso-octane	11.401	57	580703	50.09	ug/L		98
56) benzene	11.297	78	499225	47.02	ug/L		100
57) tert-amyl methyl ether	11.386	87	101735	48.60	ug/L		100
58) heptane	11.559	57	93130	42.16	ug/L		95
59) isopropyl acetate	11.218	87	34235	52.68	ug/L	#	93
60) 1,2-dichloroethane	11.328	62	176779	48.37	ug/L		100
61) ethyl acrylate	12.004	55	198254	49.30	ug/L		99
62) trichloroethene	12.015	95	124254	46.82	ug/L		97
63) 2-nitropropane	12.744	41	60075	48.00	ug/L		88
64) 2-chloroethyl vinyl ether	12.770	63	380325	218.02	ug/L		100
65) methyl methacrylate	12.261	100	39527	49.59	ug/L		95
66) 1,2-dichloropropane	12.293	63	127405	47.71	ug/L		99
67) dibromomethane	12.398	93	88299	48.47	ug/L		97
68) methylcyclohexane	12.303	83	249432	48.25	ug/L		97
69) bromodichloromethane	12.544	83	177093	48.82	ug/L		99
70) epichlorohydrin	12.854	57	104619	225.12	ug/L		99
71) cis-1,3-dichloropropene	12.980	75	200112	48.09	ug/L		96
72) 4-methyl-2-pentanone	13.079	58	288465	186.24	ug/L		98
73) 3-methyl-1-butanol	13.079	55	268602	877.08	ug/L		99
76) toluene	13.341	92	272533	48.16	ug/L		99
77) ethyl methacrylate	13.504	69	166368	47.11	ug/L		98
78) trans-1,3-dichloropropene	13.514	75	177011	50.07	ug/L		96
79) 1,1,2-trichloroethane	13.724	83	97237	48.43	ug/L		97
80) 2-hexanone	13.876	58	262237	185.63	ug/L		97
81) tetrachloroethene	13.860	164	119966	53.56	ug/L		98
82) 1,3-dichloropropane	13.892	76	166825	48.71	ug/L		98
83) butyl acetate	13.944	56	95380	45.41	ug/L		98
84) dibromochloromethane	14.123	129	143787	55.45	ug/L		99
85) 1,2-dibromoethane	14.269	107	141389	54.21	ug/L		100
86) n-butyl ether	14.668	57	493535	44.60	ug/L		98
87) chlorobenzene	14.715	112	306745	49.48	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.778	131	132457	50.09	ug/L		99
89) ethylbenzene	14.773	91	486761	46.96	ug/L		98
90) m,p-xylene	14.883	106	384067	94.92	ug/L		98
91) o-xylene	15.255	106	207854	48.37	ug/L		97
92) styrene	15.266	104	324571	46.45	ug/L		97
93) butyl acrylate	15.093	55	256022	44.79	ug/L		99
94) bromoform	15.486	173	122321	56.85	ug/L		99
95) isopropylbenzene	15.580	105	546214	45.91	ug/L		99
96) cis-1,4-dichloro-2-butene	15.612	75	34183	24.95	ug/L		94
99) bromobenzene	15.942	156	158253	53.05	ug/L		99
100) 1,1,2,2-tetrachloroethane	15.837	83	194049	50.00	ug/L		99
101) trans-1,4-dichloro-2-b...	15.869	88	14896	33.57	ug/L		88
102) 1,2,3-trichloropropane	15.921	110	50647	53.61	ug/L		99
103) n-propylbenzene	15.968	91	581763	49.46	ug/L		99
104) 2-chlorotoluene	16.094	126	138635	51.98	ug/L		99
105) 4-chlorotoluene	16.199	91	356029	49.48	ug/L		97
106) 1,3,5-trimethylbenzene	16.110	105	440959	47.60	ug/L		100
107) tert-butylbenzene	16.430	119	405066	50.31	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160377.d
Acq On : 2 Jul 2018 7:44 pm
Operator : HueanhT
Sample : BS Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:12:58 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

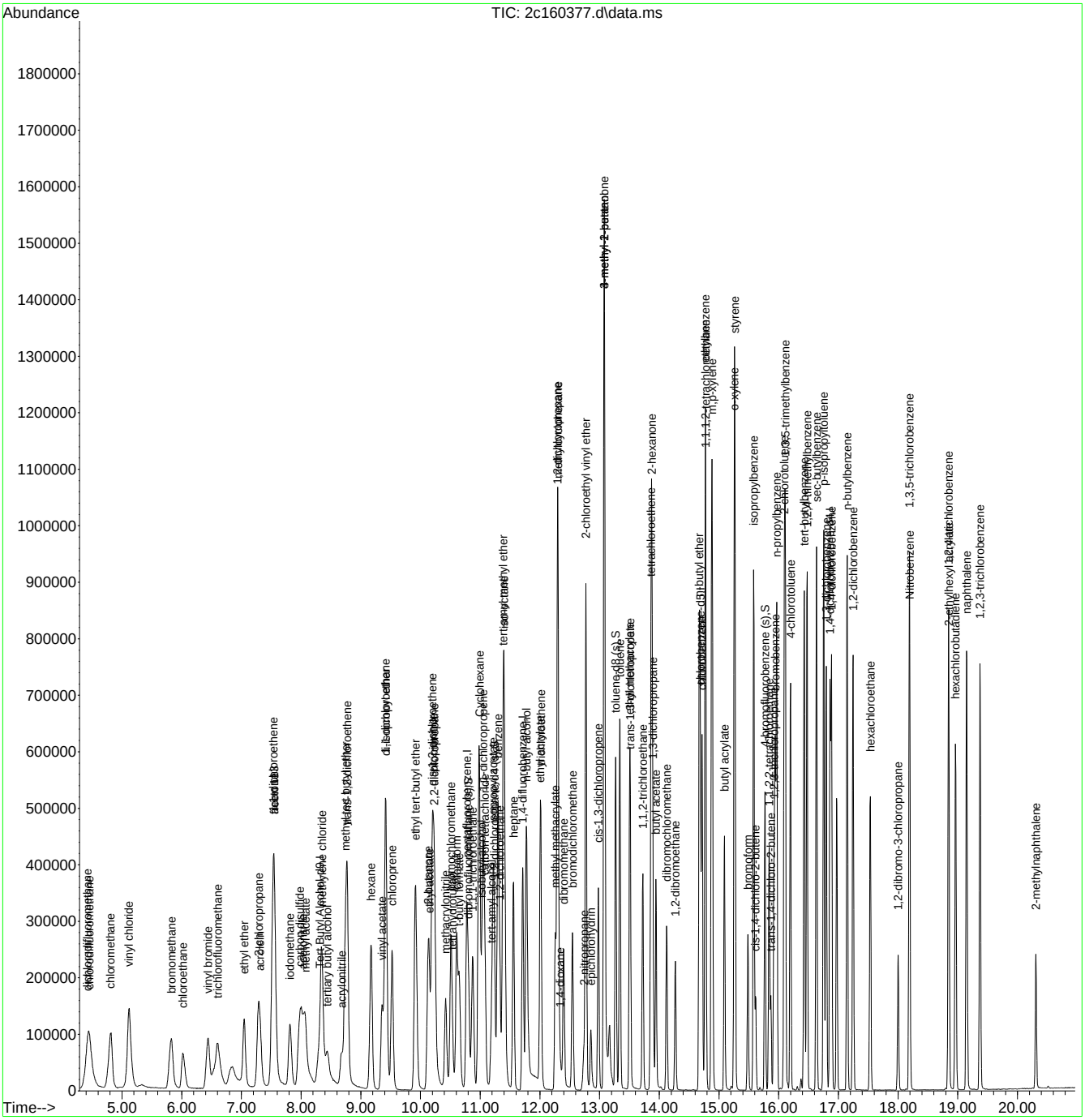
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) 1,2,4-trimethylbenzene	16.477	105	447449	47.45	ug/L		100
109) sec-butylbenzene	16.634	105	599598	48.40	ug/L		99
110) 1,3-dichlorobenzene	16.797	146	290833	49.48	ug/L		100
111) p-isopropyltoluene	16.755	119	520801	48.31	ug/L		99
112) 1,4-dichlorobenzene	16.886	146	287435	49.26	ug/L		99
113) 1,2-dichlorobenzene	17.247	146	311513	49.20	ug/L		99
114) n-butylbenzene	17.148	92	255135	45.94	ug/L		99
115) 1,2-dibromo-3-chloropr...	18.002	75	49693	51.71	ug/L		98
116) 1,3,5-trichlorobenzene	18.191	180	308466	47.71	ug/L		99
117) Nitrobenzene	18.196	77	12773	70.03	ug/L		91
118) 1,2,4-trichlorobenzene	18.847	180	262985	47.90	ug/L		98
119) 2-ethylhexyl acrylate	18.852	55	19732	4.66	ug/L	#	90
120) hexachlorobutadiene	18.962	225	142349	45.28	ug/L		98
121) naphthalene	19.151	128	599495	46.88	ug/L		99
122) 1,2,3-trichlorobenzene	19.371	180	247911	49.02	ug/L		98
123) hexachloroethane	17.536	201	100700	48.85	ug/L		97
124) 2-methylnaphthalene	20.309	142	110516	15.94	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160377.d
Acq On : 2 Jul 2018 7:44 pm
Operator : HueanhT
Sample : BS Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:12:58 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration



Manual Integration Approval Summary

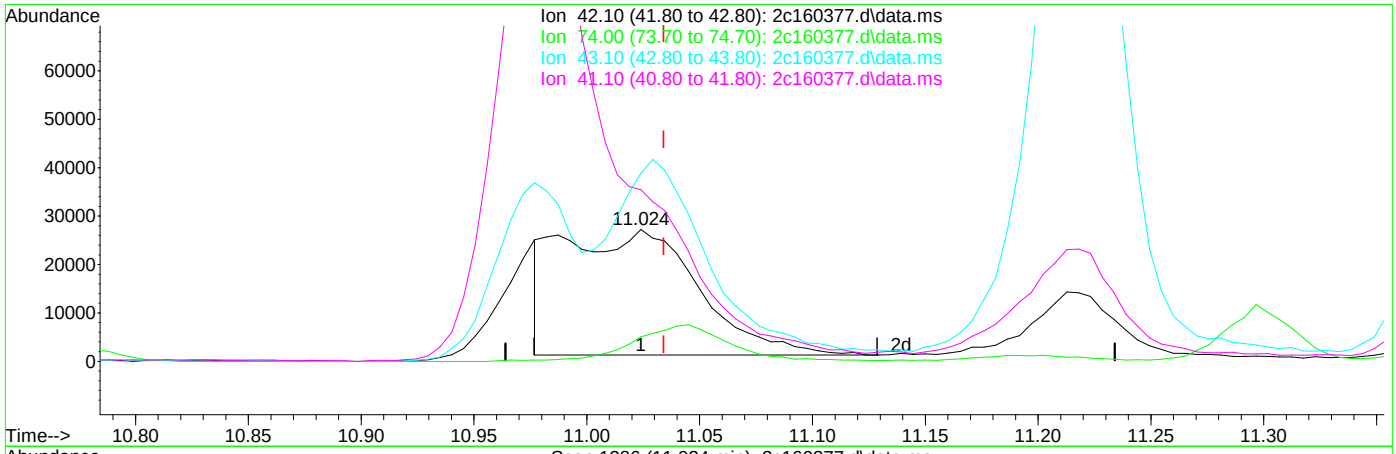
Sample Number:	V2C7121-BS	**Method:**	SW846 8260C
Lab FileID:	2C160377.D	**Analyst approved:**	07/03/18 21:25 Janelle Cordova
Injection Time:	07/02/18 19:44	**Supervisor approved:**	07/04/18 21:40 Kanya Veerawat

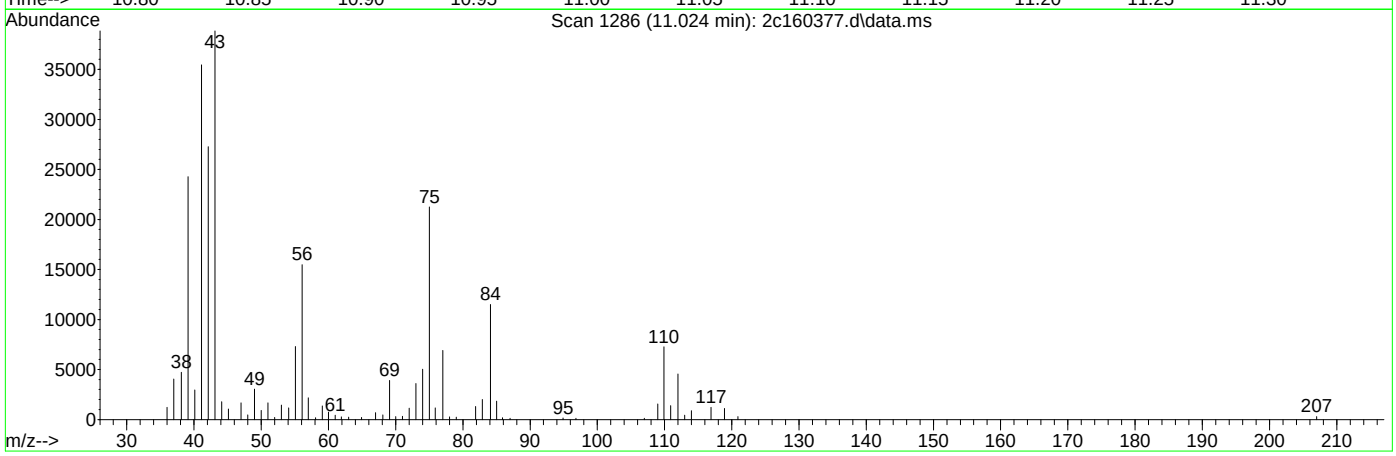
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		11.02	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160377.d
Acq On : 2 Jul 2018 7:44 pm
Operator : HueanhT
Sample : BS Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:48:55 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160377.d\data.ms

(50) isobutyl alcohol

11.024min (-0.010) 542.13ug/L

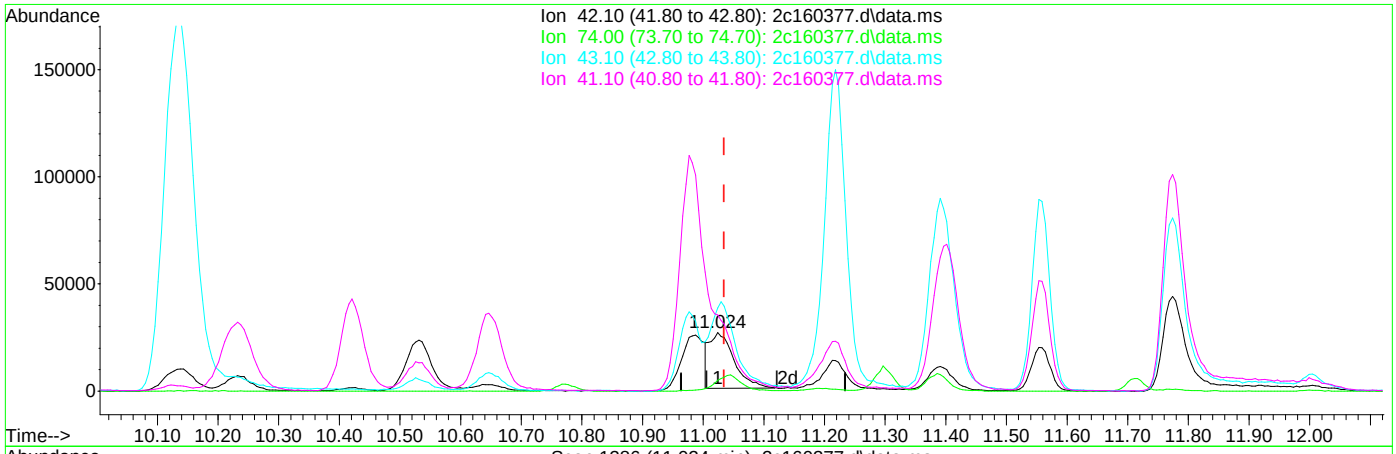
response 110392

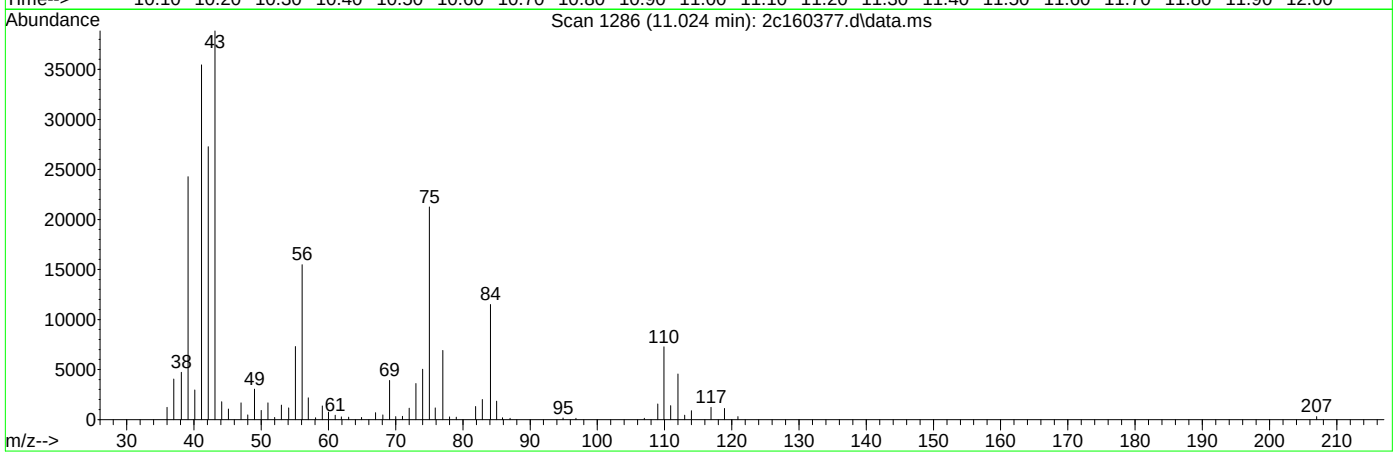
Ion	Exp%	Act%
42.10	100	100
74.00	20.10	18.77
43.10	159.80	140.36
41.10	120.10	129.18

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160377.d
Acq On : 2 Jul 2018 7:44 pm
Operator : HueanhT
Sample : BS Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 27 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:48:55 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160377.d\data.ms

(50) isobutyl alcohol

11.024min (-0.010) 360.92ug/L m

response 73493

Ion	Exp%	Act%
42.10	100	100
74.00	20.10	18.49
43.10	159.80	142.52
41.10	120.10	130.05

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182801.D
Acq On : 5 Jul 2018 6:26 pm
Operator : jessicap
Sample : bs
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Time: Jul 06 15:27:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.240	65	237600	500.00	ug/L		0.00
5) pentafluorobenzene	4.475	168	278280	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.053	114	388425	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	390821	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	207097	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	105385	52.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.36%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	106364	44.65	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.30%				
76) toluene-d8 (s)	6.215	98	430403	44.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.96%				
99) 4-bromofluorobenzene (s)	8.563	95	179095	53.51	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.02%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.294	59	138055	216.44	ug/L		95
3) ethanol	2.643	45	225245	4398.66	ug/L		97
4) 1,4-dioxane	5.491	88	61633	1163.19	ug/L		89
6) chlorodifluoromethane	1.773	51	98849	58.32	ug/L		93
7) dichlorodifluoromethane	1.761	85	151401	61.23	ug/L		99
9) chloromethane	1.920	50	117452	53.87	ug/L		97
10) vinyl chloride	2.017	62	126372	57.91	ug/L		98
12) bromomethane	2.272	94	61578	59.16	ug/L		98
13) chloroethane	2.358	64	72089	56.32	ug/L		97
14) trichlorofluoromethane	2.552	101	172685	59.69	ug/L		99
15) vinyl bromide	2.504	106	84841	52.79	ug/L		95
16) ethyl ether	2.741	74	54632	50.48	ug/L		96
17) acrolein	2.844	56	27590	53.08	ug/L		93
18) freon 113	2.917	151	80979	60.35	ug/L		91
19) 1,1-dichloroethene	2.923	96	89366	53.78	ug/L		97
20) acetone	2.942	58	56201	230.26	ug/L		100
21) acetonitrile	3.136	41	206179	598.45	ug/L		96
22) iodomethane	3.045	142	84840	60.29	ug/L		97
23) carbon disulfide	3.112	76	213253	52.81	ug/L		99
24) methylene chloride	3.264	84	94815	53.37	ug/L		98
25) methyl acetate	3.148	43	119883	63.77	ug/L		94
26) methyl tert butyl ether	3.440	73	300471	54.56	ug/L		99
27) trans-1,2-dichloroethene	3.453	96	94584	53.29	ug/L		99
28) di-isopropyl ether	3.751	45	283781	54.39	ug/L		98
29) 2-butanone	4.122	72	79955	240.41	ug/L		95
30) 1,1-dichloroethane	3.757	63	164411	52.90	ug/L		98
31) chloroprene	3.811	53	142900	54.95	ug/L		98
32) acrylonitrile	3.416	53	55435	58.62	ug/L		89
33) hexane	3.635	56	54587	57.54	ug/L		93
34) vinyl acetate	3.726	86	21737	56.38	ug/L	#	93
36) ethyl acetate	4.134	45	24230	61.75	ug/L	#	34
37) 2,2-dichloropropane	4.164	77	146929	57.53	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182801.D
Acq On : 5 Jul 2018 6:26 pm
Operator : jessicap
Sample : bs
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Time: Jul 06 15:27:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) cis-1,2-dichloroethene	4.146	96	103948	51.22	ug/L		97
39) methyl acrylate	4.176	85	23648	59.55	ug/L		98
40) propionitrile	4.170	54	264650	608.56	ug/L		96
41) bromochloromethane	4.323	128	53667	55.36	ug/L		98
42) tetrahydrofuran	4.335	71	22473	62.87	ug/L		99
43) chloroform	4.371	85	109373	53.33	ug/L		95
44) t-butyl formate	4.396	59	90621	75.52	ug/L		95
46) methacrylonitrile	4.280	67	56280	57.89	ug/L		92
47) 1,1,1-trichloroethane	4.523	97	153527	53.28	ug/L		97
48) cyclohexane	4.584	84	142080	60.00	ug/L		91
49) 1,1-dichloropropene	4.627	75	128522	52.57	ug/L		97
50) iso-butyl alcohol	4.621	42	55070	665.22	ug/L		95
51) carbon tetrachloride	4.639	117	133169	51.98	ug/L		98
52) tert amyl alcohol	4.718	55	45881	330.01	ug/L		94
55) n-butyl alcohol	5.101	56	330080	3110.01	ug/L		98
56) 2,2,4-trimethylpentane	4.840	57	219338	53.71	ug/L		98
57) benzene	4.779	78	369753	48.80	ug/L		100
58) tert-amyl methyl ether	4.840	87	74361	53.80	ug/L	#	84
59) heptane	4.949	71	53348	54.60	ug/L		95
60) isopropyl acetate	4.742	87	29721	54.53	ug/L	#	75
61) 1,2-dichloroethane	4.803	62	133614	50.62	ug/L		99
62) trichloroethene	5.253	130	114790	49.79	ug/L		99
63) ethyl acrylate	5.265	55	171153	56.10	ug/L		98
64) 2-nitropropane	5.801	41	36549	55.09	ug/L		89
65) 2-chloroethyl vinyl ether	5.831	63	382260	281.68	ug/L		98
66) methyl methacrylate	5.448	100	39905	55.01	ug/L		90
67) 1,2-dichloropropane	5.454	63	90606	50.23	ug/L		96
68) dibromomethane	5.521	93	63138	53.96	ug/L		96
69) methylcyclohexane	5.448	83	145780	54.95	ug/L		98
70) bromodichloromethane	5.637	83	137547	52.87	ug/L		99
71) epichlorohydrin	5.886	57	90312	313.54	ug/L		92
72) cis-1,3-dichloropropene	5.983	75	165975	53.19	ug/L		97
73) 4-methyl-2-pentanone	6.081	58	233401	229.30	ug/L		92
74) 3-methyl-1-butanol	6.093	55	207560	1317.96	ug/L		96
77) toluene	6.275	92	244372	43.81	ug/L		99
78) trans-1,3-dichloropropene	6.440	75	153390	47.58	ug/L		99
79) ethyl methacrylate	6.452	69	153405	48.39	ug/L		96
80) 1,1,2-trichloroethane	6.610	83	78597	49.17	ug/L		88
81) tetrachloroethene	6.713	164	98823	44.84	ug/L		96
82) 1,3-dichloropropane	6.756	76	156689	46.31	ug/L		99
83) 2-hexanone	6.774	58	248937	209.06	ug/L		99
84) butyl acetate	6.853	56	85370	48.57	ug/L		98
85) dibromochloromethane	6.951	129	118237	49.40	ug/L		95
86) 1,2-dibromoethane	7.072	107	118957	47.03	ug/L		99
87) n-butyl ether	7.541	57	390361	46.70	ug/L		100
88) chlorobenzene	7.504	112	288315	45.28	ug/L		98
89) 1,1,1,2-tetrachloroethane	7.571	131	108869	47.04	ug/L		94
90) ethylbenzene	7.577	91	456022	43.28	ug/L		98
91) m,p-xylene	7.693	106	364732	86.09	ug/L		99
92) o-xylene	8.052	106	180362	43.21	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182801.D
Acq On : 5 Jul 2018 6:26 pm
Operator : jessicap
Sample : bs
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Time: Jul 06 15:27:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration

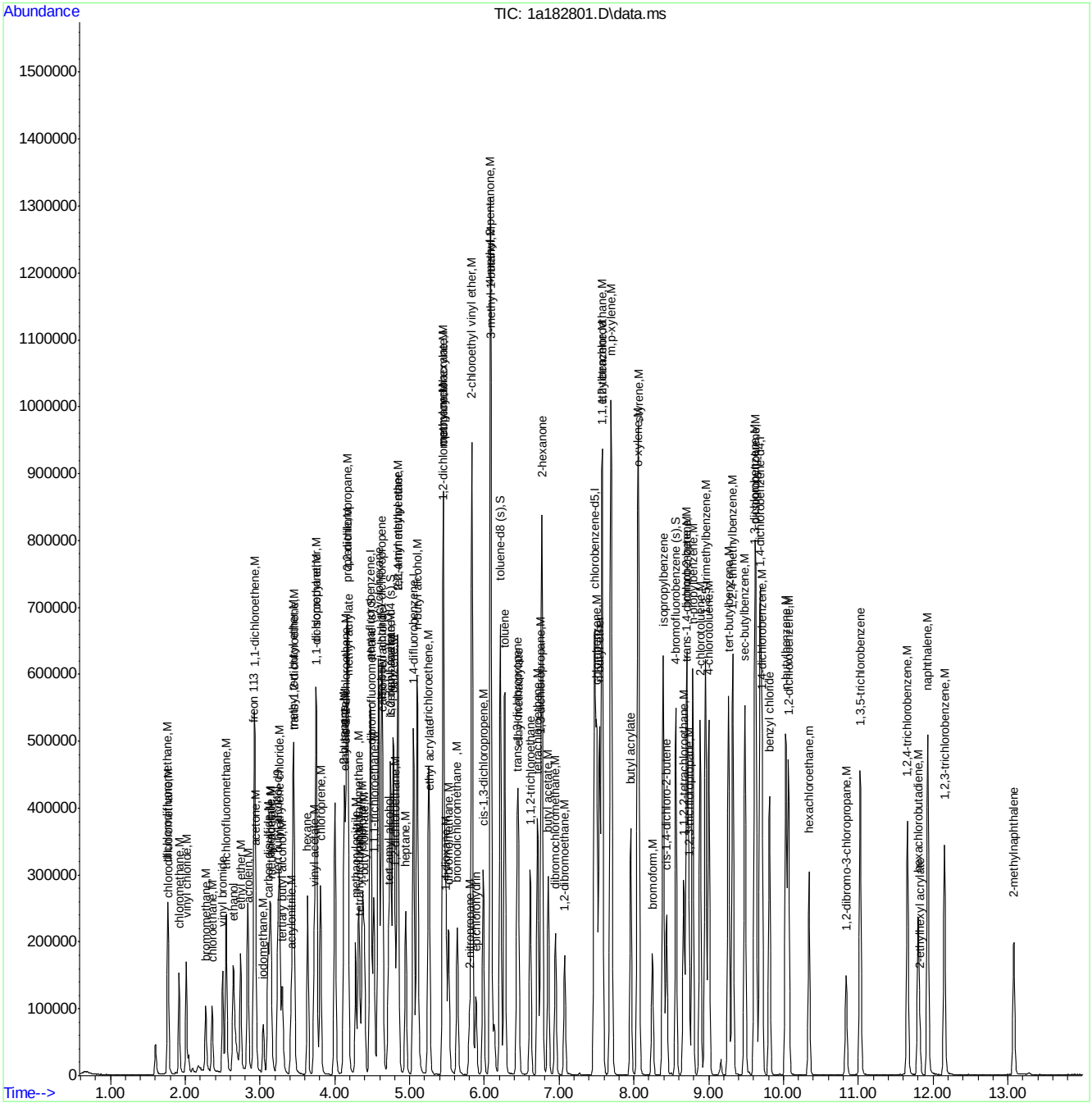
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	8.064	104	311892	44.82	ug/L	97
94) bromoform	8.246	173	94494	50.91	ug/L	97
95) butyl acrylate	7.960	55	224862	51.23	ug/L	96
96) isopropylbenzene	8.392	105	451329	43.77	ug/L	99
97) cis-1,4-dichloro-2-butene	8.435	88	61617	52.50	ug/L	96
100) bromobenzene	8.709	156	134910	47.96	ug/L	99
101) 1,1,2,2-tetrachloroethane	8.666	83	148928	51.87	ug/L	99
102) trans-1,4-dichloro-2-b...	8.703	53	42214	52.22	ug/L	95
103) 1,2,3-trichloropropane	8.739	110	49438	48.75	ug/L	97
104) n-propylbenzene	8.788	91	497349	45.39	ug/L	97
105) 2-chlorotoluene	8.885	126	118131	46.50	ug/L	99
106) 4-chlorotoluene	9.001	126	117700	47.94	ug/L	94
107) 1,3,5-trimethylbenzene	8.958	105	365580	45.48	ug/L	99
108) tert-butylbenzene	9.268	134	83272	48.15	ug/L	92
109) 1,2,4-trimethylbenzene	9.323	105	363201	44.73	ug/L	96
110) sec-butylbenzene	9.481	105	419008	44.83	ug/L	100
111) 1,3-dichlorobenzene	9.615	146	234025	46.96	ug/L	98
112) p-isopropyltoluene	9.627	119	374976	46.49	ug/L	100
113) 1,4-dichlorobenzene	9.713	146	233101	46.22	ug/L	100
114) benzyl chloride	9.816	91	318094	59.88	ug/L	99
115) 1,2-dichlorobenzene	10.065	146	222169	46.05	ug/L	97
116) n-butylbenzene	10.029	92	163374	45.92	ug/L	93
117) 1,2-dibromo-3-chloropr...	10.838	157	54008	54.27	ug/L	95
118) 1,3,5-trichlorobenzene	11.027	180	164757	49.91	ug/L	98
119) 2-ethylhexyl acrylate	11.824	70	15198	10.91	ug/L	96
120) 1,2,4-trichlorobenzene	11.659	180	143835	50.52	ug/L	95
121) hexachlorobutadiene	11.799	225	54947	48.95	ug/L	95
122) naphthalene	11.927	128	455914	48.41	ug/L	100
123) 1,2,3-trichlorobenzene	12.152	180	133354	48.58	ug/L	98
124) hexachloroethane	10.345	201	67782	50.03	ug/L	95
125) 2-methylnaphthalene	13.083	142	115906	25.44	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182801.D
Acq On : 5 Jul 2018 6:26 pm
Operator : jessicap
Sample : bs
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 52 Sample Multiplier: 1

Quant Time: Jul 06 15:27:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83386.D
Acq On : 6 Jul 2018 9:00 am
Operator : HueanhT
Sample : bs
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 06 17:11:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.77	65	95238	500.00	ug/L		-0.02
5) pentafluorobenzene	8.78	168	201391	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	272248	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	257471	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	153137	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	90670	47.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.30%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	90812	46.50	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.00%				
76) toluene-d8 (s)	11.24	98	302974	46.48	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.96%				
99) 4-bromofluorobenzene (s)	14.10	95	117900	50.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.88	59	65962	249.60	ug/L		97
4) 1,4-dioxane	10.27	88	26730	1148.22	ug/L		99
6) chlorodifluoromethane	3.92	51	214292	38.83	ug/L		98
7) dichlorodifluoromethane	3.90	85	239884	45.24	ug/L		99
8) chloromethane	4.25	50	253943	40.09	ug/L		100
9) vinyl chloride	4.46	62	229409	41.99	ug/L		98
10) 1,3-butadiene	4.48	54	136129	28.86	ug/L		99
11) bromomethane	5.00	94	146998	41.41	ug/L		98
12) chloroethane	5.13	64	113065	41.11	ug/L		97
13) trichlorofluoromethane	5.54	101	222769	47.81	ug/L		99
14) vinyl bromide	5.43	106	128882	44.51	ug/L		98
15) ethyl ether	5.83	74	61285	51.39	ug/L		88
16) 2-chloropropane	6.04	43	242423	46.68	ug/L		98
17) acrolein	6.04	56	22206	42.71	ug/L		98
18) freon 113	6.23	151	117678	51.84	ug/L		97
19) 1,1-dichloroethene	6.22	61	218592	47.12	ug/L		99
20) acetone	6.22	58	37126	193.84	ug/L		99
21) acetonitrile	6.58	41	178243	457.44	ug/L		99
22) iodomethane	6.46	142	203472	47.93	ug/L		99
23) carbon disulfide	6.59	76	409286	47.55	ug/L		97
24) methylene chloride	6.83	84	141192	47.92	ug/L		99
25) methyl acetate	6.60	43	92101	51.53	ug/L		96
26) methyl tert butyl ether	7.14	73	345030	45.52	ug/L		99
27) trans-1,2-dichloroethene	7.17	61	184667	47.62	ug/L		98
28) hexane	7.47	56	96164	48.07	ug/L		100
29) di-isopropyl ether	7.65	45	455841	45.55	ug/L		99
30) 2-butanone	8.23	72	41737	197.29	ug/L		99
31) 1,1-dichloroethane	7.67	63	229507	47.89	ug/L		99
32) chloroprene	7.76	53	183681	46.59	ug/L		99
33) acrylonitrile	7.07	53	43205	51.07	ug/L		90
34) vinyl acetate	7.60	86	15822	50.06	ug/L	#	93
35) ethyl tert-butyl ether	8.06	59	398811	46.43	ug/L		99
36) ethyl acetate	8.24	45	16015	44.20	ug/L	#	89

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83386.D
Acq On : 6 Jul 2018 9:00 am
Operator : HueanhT
Sample : bs
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 06 17:11:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.34	77	196411	47.24	ug/L		99
38) cis-1,2-dichloroethene	8.31	96	130732	47.08	ug/L		98
39) propionitrile	8.31	54	173649	465.64	ug/L		99
40) methyl acrylate	8.32	85	13892	47.08	ug/L		96
41) methacrylonitrile	8.49	67	39917	47.01	ug/L		97
42) bromochloromethane	8.58	128	62153	49.40	ug/L		98
43) tetrahydrofuran	8.60	72	14063	49.75	ug/L		97
44) chloroform	8.65	83	206111	45.92	ug/L		98
45) tert-butyl formate	8.68	59	109497	58.59	ug/L		96
47) 1,1,1-trichloroethane	8.90	97	199277	45.62	ug/L		98
48) cyclohexane	9.01	84	202800	44.46	ug/L		94
50) 1,1-dichloropropene	9.05	75	152259	45.17	ug/L		98
51) carbon tetrachloride	9.08	117	174114	49.34	ug/L		97
52) tert-amyl alcohol	9.14	73	30149	214.56	ug/L	#	76
53) isopropyl acetate	9.17	87	19524	46.84	ug/L	#	81
56) n-butyl alcohol	9.68	41	111684	2090.42	ug/L		99
57) 2,2,4-trimethylpentane	9.35	57	578614	52.30	ug/L		99
58) benzene	9.28	78	449038	47.09	ug/L		99
59) tert-amyl methyl ether	9.34	73	366153	48.38	ug/L		98
60) heptane	9.49	57	97563	49.85	ug/L		96
61) 1,2-dichloroethane	9.30	62	138471	48.00	ug/L		99
62) ethyl acrylate	9.91	55	117820	49.95	ug/L		99
63) trichloroethene	9.95	95	108197	48.14	ug/L		93
64) 2-chloroethyl vinyl ether	10.70	63	322897	260.38	ug/L		99
65) methyl methacrylate	10.17	100	23859	51.70	ug/L	#	91
66) methylcyclohexane	10.24	83	254768	48.86	ug/L		99
67) 1,2-dichloropropane	10.23	63	119688	48.37	ug/L		98
68) dibromomethane	10.33	93	66297	50.27	ug/L		99
69) bromodichloromethane	10.48	83	149678	52.16	ug/L		99
70) 2-nitropropane	10.67	41	35531	47.13	ug/L		98
71) epichlorohydrin	10.79	57	49889	229.81	ug/L		96
72) cis-1,3-dichloropropene	10.93	75	175002	51.71	ug/L		95
73) 4-methyl-2-pentanone	11.02	58	166501	198.89	ug/L		100
74) isoamyl alcohol	11.01	70	59317	952.73	ug/L	#	85
77) toluene	11.31	92	256902	45.99	ug/L		99
78) ethyl methacrylate	11.48	69	125905	50.21	ug/L		99
79) trans-1,3-dichloropropene	11.50	75	147772	51.56	ug/L		98
80) 1,1,2-trichloroethane	11.73	83	77684	50.60	ug/L		99
81) tetrachloroethene	11.89	164	98167	49.12	ug/L		97
82) 2-hexanone	11.89	58	151491	209.46	ug/L		99
83) 1,3-dichloropropane	11.92	76	146509	50.08	ug/L		95
84) butyl acetate	11.97	56	66374	51.93	ug/L		98
85) dibromochloromethane	12.18	129	110243	59.84	ug/L		98
86) 1,2-dibromoethane	12.35	107	101961	52.93	ug/L		96
87) n-butyl ether	12.81	57	520930	46.91	ug/L		100
88) chlorobenzene	12.86	112	290150	48.55	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.93	131	124047	50.69	ug/L		98
90) ethylbenzene	12.93	91	517271	47.39	ug/L		100
91) m,p-xylene	13.06	106	393626	96.08	ug/L		99
92) o-xylene	13.50	91	427317	45.51	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83386.D
Acq On : 6 Jul 2018 9:00 am
Operator : HueanhT
Sample : bs
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 06 17:11:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

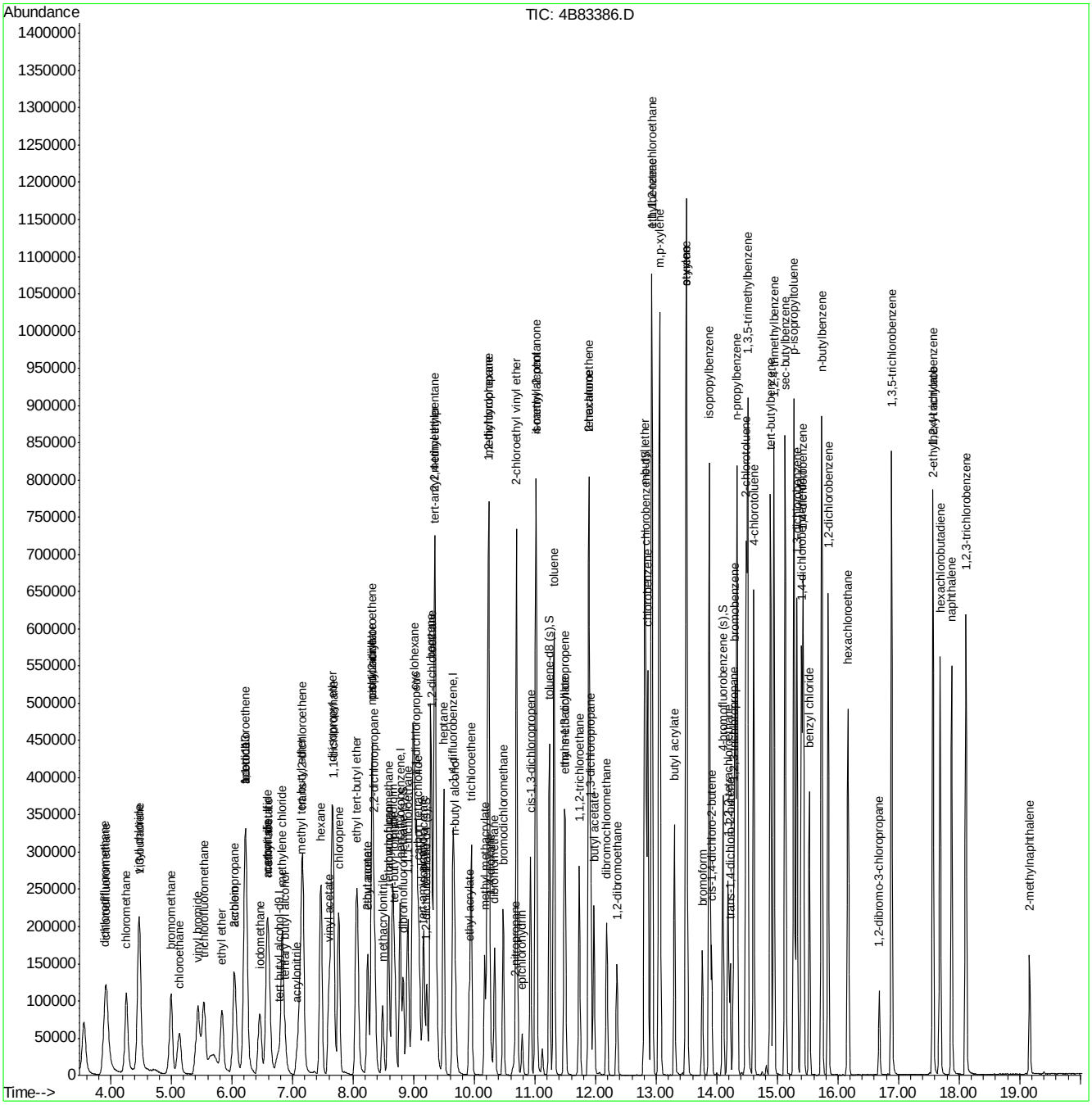
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.51	104	334760	50.03 ug/L	96
94) butyl acrylate	13.30	55	220861	50.08 ug/L	99
95) isopropylbenzene	13.88	105	557175	45.85 ug/L	99
96) bromoform	13.76	173	81182	68.65 ug/L	98
97) cis-1,4-dichloro-2-butene	13.91	88	39688	57.81 ug/L	98
100) 1,1,2,2-tetrachloroethane	14.19	83	137436	51.30 ug/L	99
101) trans-1,4-dichloro-2-buten	14.22	53	29752	52.85 ug/L	97
102) 1,2,3-trichloropropane	14.28	110	34131	52.58 ug/L	92
103) bromobenzene	14.30	156	145849	54.95 ug/L	98
104) n-propylbenzene	14.33	91	655381	49.61 ug/L	100
105) 2-chlorotoluene	14.48	126	135201	50.11 ug/L	96
106) 4-chlorotoluene	14.61	91	371217	50.34 ug/L	99
107) 1,3,5-trimethylbenzene	14.51	105	479166	47.53 ug/L	98
108) tert-butylbenzene	14.89	119	404426	47.73 ug/L	98
109) 1,2,4-trimethylbenzene	14.94	105	476877	47.14 ug/L	99
110) sec-butylbenzene	15.13	105	641500	47.41 ug/L	99
111) p-isopropyltoluene	15.27	119	545522	47.39 ug/L	99
112) 1,3-dichlorobenzene	15.32	146	281275	50.16 ug/L	99
113) 1,4-dichlorobenzene	15.43	146	281158	49.75 ug/L	100
114) 1,2-dichlorobenzene	15.84	146	282556	48.21 ug/L	99
115) benzyl chloride	15.53	91	278242	60.47 ug/L	98
116) n-butylbenzene	15.73	92	280844	46.90 ug/L	99
117) hexachloroethane	16.17	201	100319	57.69 ug/L	95
118) 1,2-dibromo-3-chloropropan	16.68	157	33902	55.84 ug/L	98
119) 1,3,5-trichlorobenzene	16.89	180	284472	47.42 ug/L	99
120) 1,2,4-trichlorobenzene	17.56	180	240394	48.59 ug/L	98
121) 2-ethylhexyl acrylate	17.58	70	20654	6.26 ug/L	93
122) hexachlorobutadiene	17.69	225	134096	47.54 ug/L	99
123) naphthalene	17.87	128	442291	45.49 ug/L	99
124) 1,2,3-trichlorobenzene	18.11	180	217687	50.52 ug/L	98
125) 2-methylnaphthalene	19.16	142	89350	21.11 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83386.D
Acq On : 6 Jul 2018 9:00 am
Operator : HueanhT
Sample : bs
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jul 06 17:11:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176953.d
Acq On : 1 Jul 2018 6:57 pm
Operator : juntaep
Sample : jc68966-2ms Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:28:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.399	65	124740	500.00	ug/L		0.01
5) pentafluorobenzene	10.094	168	329081	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	455464	50.00	ug/L		0.00
76) chlorobenzene-d5	15.452	117	440155	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.252	152	239398	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	144031	50.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.60%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	140212	44.82	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.64%				
77) toluene-d8 (s)	13.439	98	525715	51.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.72%				
100) 4-bromofluorobenzene (s)	16.957	95	198451	51.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.34%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.525	59	63568	268.95	ug/L		93
3) ethanol	6.030	45	127542	5964.56	ug/L		98
4) 1,4-dioxane	12.175	88	31519	1348.11	ug/L		97
6) chlorodifluoromethane	3.933	51	97092	31.30	ug/L		98
7) dichlorodifluoromethane	3.902	85	136173	37.22	ug/L		99
10) chloromethane	4.305	50	171635	41.52	ug/L		99
11) vinyl chloride	4.536	62	172048	47.33	ug/L		98
12) bromomethane	5.160	94	117433	45.98	ug/L		98
13) chloroethane	5.312	64	99364	52.11	ug/L		97
14) trichlorofluoromethane	5.805	101	200289	48.73	ug/L		99
15) vinyl bromide	5.679	106	114536	42.05	ug/L		99
17) ethyl ether	6.219	74	62031	48.53	ug/L		98
18) acrolein	6.455	56	17705	33.79	ug/L		88
19) 1,1-dichloroethene	6.654	96	112129	45.22	ug/L		95
20) freon 113	6.644	151	96313	46.25	ug/L		96
21) 2-chloropropane	6.403	43	180939	43.43	ug/L		97
22) acetone	6.702	58	36555	207.78	ug/L	#	85
23) acetonitrile	7.152	41	131960	447.71	ug/L		100
24) iodomethane	6.932	142	171426	40.79	ug/L		97
25) carbon disulfide	7.079	76	304887	38.36	ug/L		96
26) methylene chloride	7.415	84	129340	47.13	ug/L		93
27) methyl acetate	7.215	43	81778	46.86	ug/L		96
28) methyl tert butyl ether	7.834	73	300447	41.66	ug/L		99
29) trans-1,2-dichloroethene	7.845	96	124951	49.69	ug/L		92
30) hexane	8.243	57	159953	48.66	ug/L		98
31) di-isopropyl ether	8.547	45	386860	44.77	ug/L		93
32) 2-butanone	9.370	72	48290	212.22	ug/L	#	82
33) 1,1-dichloroethane	8.500	63	223581	47.82	ug/L		99
34) chloroprene	8.641	53	173490	46.63	ug/L		92
35) acrylonitrile	7.787	53	40272	47.67	ug/L		89
36) vinyl acetate	8.521	86	18345	45.15	ug/L	#	78
37) ethyl tert-butyl ether	9.113	59	355768	43.94	ug/L		99
38) ethyl acetate	9.423	45	21679	70.18	ug/L	#	76
39) 2,2-dichloropropane	9.412	77	168169	45.19	ug/L		98
40) cis-1,2-dichloroethene	9.391	96	145130	51.54	ug/L		92
41) propionitrile	9.475	54	177203	493.78	ug/L		98
42) tert-Butyl Formate	9.942	59	31548	12.70	ug/L		97
43) bromochloromethane	9.763	128	68640	48.62	ug/L		95
44) tetrahydrofuran	9.837	72	14316	48.61	ug/L	#	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176953.d
Acq On : 1 Jul 2018 6:57 pm
Operator : juntaep
Sample : jc68966-2ms Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:28:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.847	83	220263	48.84	ug/L		98
47) methacrylonitrile	9.716	67	44635	48.27	ug/L		89
48) 1,1,1-trichloroethane	10.183	97	189103	45.39	ug/L		99
49) cyclohexane	10.288	84	189061	54.61	ug/L	#	78
50) 1,1-dichloropropene	10.408	75	167334	48.59	ug/L		96
51) isobutyl alcohol	10.435	43	47866	445.30	ug/L		97
52) carbon tetrachloride	10.440	117	166577	45.55	ug/L		100
53) tert-amyl alcohol	10.613	73	29045	241.46	ug/L		94
56) benzene	10.739	78	503060	49.56	ug/L		98
57) iso-octane	10.817	57	519687	50.92	ug/L		96
58) tert-amyl methyl ether	10.838	73	343020	45.10	ug/L		99
59) heptane	11.038	57	98974	53.61	ug/L		96
60) isopropyl acetate	10.707	87	22669	48.75	ug/L	#	74
61) 1,2-dichloroethane	10.739	62	147316	41.63	ug/L		98
62) n-butyl alcohol	11.410	56	161041	2609.74	ug/L		94
63) ethyl acrylate	11.730	55	132675	44.55	ug/L		98
64) trichloroethene	11.667	130	136268	49.78	ug/L		99
65) 2-nitropropane	12.705	41	21129	41.88	ug/L		95
67) methyl methacrylate	12.081	69	73861	46.89	ug/L		91
68) 1,2-dichloropropane	12.018	63	131065	48.16	ug/L		99
69) dibromomethane	12.201	93	76934	48.07	ug/L		97
70) methylcyclohexane	11.986	83	239907	53.08	ug/L		97
71) bromodichloromethane	12.390	83	165802	47.27	ug/L		100
72) epichlorohydrin	12.894	57	41476	177.65	ug/L		97
73) cis-1,3-dichloropropene	13.030	75	169923	38.08	ug/L		93
74) 4-methyl-2-pentanone	13.208	58	179555	193.94	ug/L		94
75) 3-methyl-1-butanol	13.229	55	108064	1008.09	ug/L		92
78) toluene	13.533	92	315179	50.80	ug/L		98
79) trans-1,3-dichloropropene	13.795	75	123607	32.44	ug/L		97
80) ethyl methacrylate	13.858	69	152216	48.01	ug/L		93
81) 1,1,2-trichloroethane	14.073	83	96403	50.52	ug/L		94
82) tetrachloroethene	14.320	164	130164	55.87	ug/L		99
83) 1,3-dichloropropane	14.325	76	182642	48.61	ug/L		92
84) 2-hexanone	14.367	58	170016	200.17	ug/L		92
85) butyl acetate	14.503	56	73494	47.41	ug/L		96
86) dibromochloromethane	14.655	129	125565	47.19	ug/L		98
87) 1,2-dibromoethane	14.849	107	128540	49.57	ug/L		100
88) n-butyl ether	15.499	57	563787	48.14	ug/L		97
89) chlorobenzene	15.494	112	366456	49.87	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.583	131	135734	49.26	ug/L		98
91) ethylbenzene	15.604	91	615466	50.00	ug/L		99
92) m,p-xylene	15.751	91	939935	98.17	ug/L		98
93) o-xylene	16.291	106	238927	49.45	ug/L		97
94) styrene	16.302	104	399489	49.06	ug/L		98
95) butyl acrylate	16.128	55	231920	44.82	ug/L		99
96) bromoform	16.590	173	81979	44.61	ug/L		98
97) isopropylbenzene	16.742	105	626908	48.50	ug/L		99
101) bromobenzene	17.172	156	175794	52.04	ug/L		88
102) 1,1,2,2-tetrachloroethane	17.083	83	158715	52.19	ug/L		100
104) 1,2,3-trichloropropane	17.161	110	40144	51.86	ug/L	#	92
105) n-propylbenzene	17.235	91	755403	53.86	ug/L		100
106) 2-chlorotoluene	17.371	126	159026	53.10	ug/L		97
107) 4-chlorotoluene	17.486	91	433010	51.32	ug/L		99
109) 1,3,5-trimethylbenzene	17.418	105	532244	51.52	ug/L		99
110) tert-butylbenzene	17.796	119	468413	51.12	ug/L		99
111) 1,2,4-trimethylbenzene	17.843	105	535253	50.77	ug/L		100
112) sec-butylbenzene	18.032	105	718657	52.49	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176953.d
Acq On : 1 Jul 2018 6:57 pm
Operator : juntaep
Sample : jc68966-2ms Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:28:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

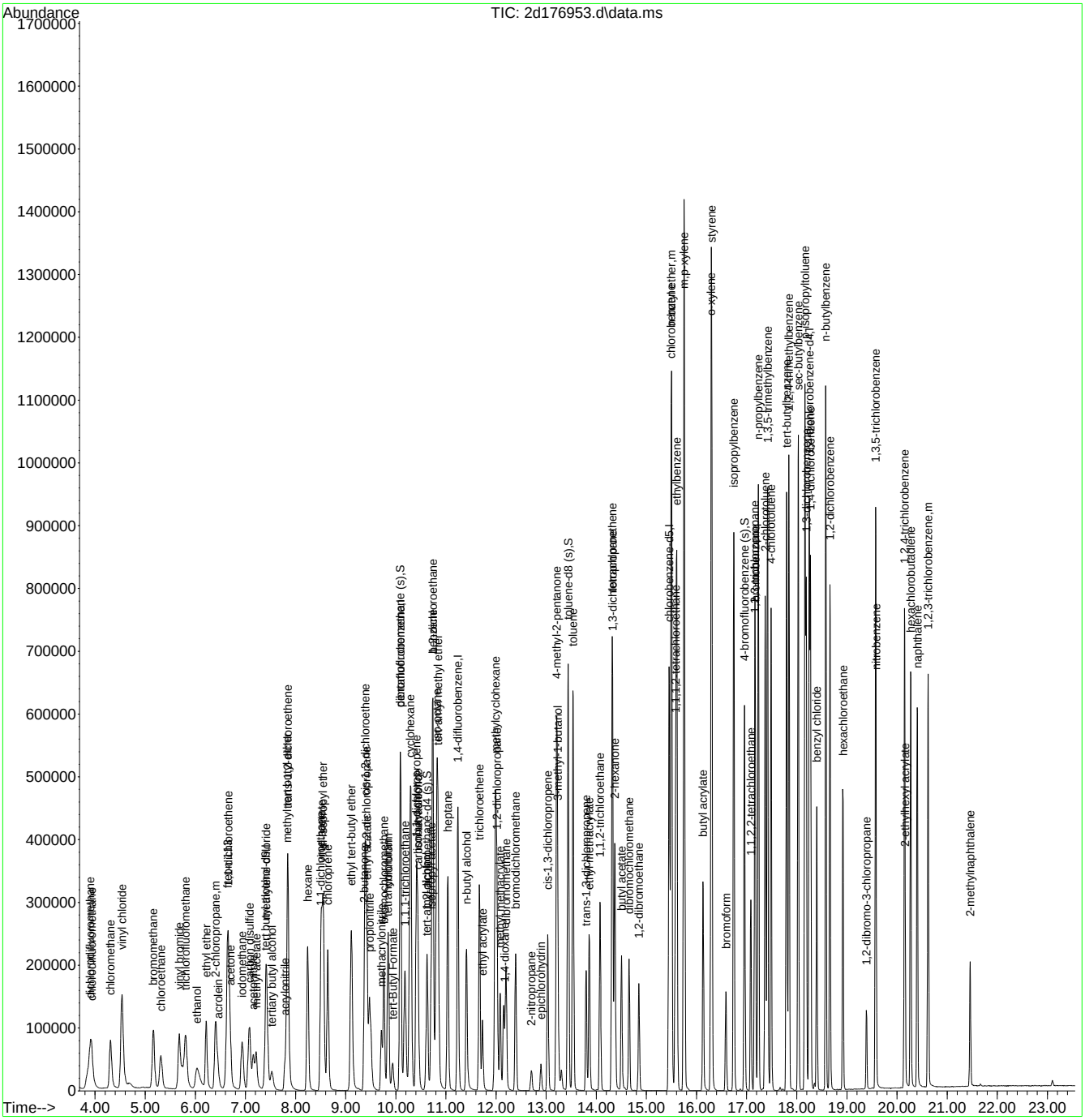
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) 1,3-dichlorobenzene	18.189	146	327097	51.13	ug/L	100
114) p-isopropyltoluene	18.163	119	599943	50.44	ug/L	99
115) 1,4-dichlorobenzene	18.273	146	331109	51.15	ug/L	99
116) 1,2-dichlorobenzene	18.661	146	327209	50.97	ug/L	99
117) benzyl chloride	18.399	91	297611	51.38	ug/L	99
119) n-butylbenzene	18.577	92	312801	52.42	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	35922	48.29	ug/L	98
122) nitrobenzene	19.584	77	4466	47.29	ug/L	98
123) 1,3,5-trichlorobenzene	19.573	180	305626	50.93	ug/L	100
124) hexachlorobutadiene	20.276	225	149658	50.97	ug/L	97
125) naphthalene	20.407	128	486514	46.74	ug/L	99
126) 2-ethylhexyl acrylate	20.166	70	17291	5.81	ug/L	93
127) 1,2,4-trichlorobenzene	20.150	180	244255	47.90	ug/L	99
128) 1,2,3-trichlorobenzene	20.622	180	221999	47.27	ug/L	99
129) hexachloroethane	18.923	201	85866	41.57	ug/L	95
130) 2-methylnaphthalene	21.461	142	103293	18.50	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176953.d
Acq On : 1 Jul 2018 6:57 pm
Operator : juntaep
Sample : jc68966-2ms Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:28:37 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176954.d
Acq On : 1 Jul 2018 7:29 pm
Operator : juntaep
Sample : jc68966-2msd Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:31:36 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.404	65	126465	500.00	ug/L		0.02
5) pentafluorobenzene	10.088	168	333487	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	465247	50.00	ug/L		0.00
76) chlorobenzene-d5	15.452	117	451250	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.252	152	247364	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	148197	51.58	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.16%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	142204	44.50	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.00%				
77) toluene-d8 (s)	13.439	98	538581	51.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.66%				
100) 4-bromofluorobenzene (s)	16.957	95	207112	52.19	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.38%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.525	59	66830	278.90	ug/L		91
3) ethanol	6.025	45	134078	6188.07	ug/L		95
4) 1,4-dioxane	12.175	88	34258	1445.28	ug/L		99
6) chlorodifluoromethane	3.928	51	100888	32.10	ug/L		99
7) dichlorodifluoromethane	3.902	85	140333	37.85	ug/L		98
10) chloromethane	4.305	50	182070	43.46	ug/L		100
11) vinyl chloride	4.536	62	182902	49.65	ug/L		97
12) bromomethane	5.165	94	125729	48.58	ug/L		95
13) chloroethane	5.312	64	102604	53.10	ug/L		96
14) trichlorofluoromethane	5.805	101	204035	48.99	ug/L		97
15) vinyl bromide	5.679	106	118465	42.92	ug/L		98
17) ethyl ether	6.219	74	65473	50.55	ug/L		97
18) acrolein	6.455	56	18451	34.75	ug/L		88
19) 1,1-dichloroethene	6.660	96	116111	46.21	ug/L		93
20) freon 113	6.644	151	98184	46.53	ug/L		98
21) 2-chloropropane	6.408	43	189271	44.83	ug/L		96
22) acetone	6.701	58	38691	217.01	ug/L	#	78
23) acetonitrile	7.158	41	136612	457.36	ug/L		100
24) iodomethane	6.937	142	176413	41.42	ug/L		96
25) carbon disulfide	7.084	76	313910	38.98	ug/L		96
26) methylene chloride	7.420	84	134573	48.39	ug/L		94
27) methyl acetate	7.215	43	85075	48.10	ug/L		96
28) methyl tert butyl ether	7.834	73	314317	43.01	ug/L		99
29) trans-1,2-dichloroethene	7.844	96	132129	51.85	ug/L		92
30) hexane	8.243	57	164952	49.52	ug/L		97
31) di-isopropyl ether	8.552	45	404245	46.16	ug/L		88
32) 2-butanone	9.370	72	49807	215.99	ug/L	#	89
33) 1,1-dichloroethane	8.500	63	235849	49.78	ug/L		99
34) chloroprene	8.641	53	182331	48.36	ug/L		94
35) acrylonitrile	7.782	53	42106	49.18	ug/L		98
36) vinyl acetate	8.516	86	19296	46.86	ug/L	#	63
37) ethyl tert-butyl ether	9.113	59	374932	45.70	ug/L		99
38) ethyl acetate	9.423	45	22255	71.10	ug/L	#	73
39) 2,2-dichloropropane	9.412	77	168750	44.74	ug/L		97
40) cis-1,2-dichloroethene	9.391	96	152993	53.62	ug/L		92
41) propionitrile	9.475	54	185577	510.28	ug/L		99
42) tert-Butyl Formate	9.936	59	18920	7.52	ug/L		96
43) bromochloromethane	9.763	128	71761	50.16	ug/L		93
44) tetrahydrofuran	9.837	72	15217	50.99	ug/L		87

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176954.d
Acq On : 1 Jul 2018 7:29 pm
Operator : juntaep
Sample : jc68966-2msd Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:31:36 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.847	83	231673	50.69	ug/L		98
47) methacrylonitrile	9.711	67	46678	49.81	ug/L		93
48) 1,1,1-trichloroethane	10.183	97	195052	46.20	ug/L		97
49) cyclohexane	10.288	84	192508	54.87	ug/L	#	76
50) 1,1-dichloropropene	10.408	75	173708	49.78	ug/L		97
51) isobutyl alcohol	10.435	43	50354	462.26	ug/L		97
52) carbon tetrachloride	10.440	117	172093	46.44	ug/L		98
53) tert-amyl alcohol	10.608	73	30689	251.76	ug/L		90
56) benzene	10.733	78	526114	50.74	ug/L		98
57) iso-octane	10.817	57	533932	51.21	ug/L		98
58) tert-amyl methyl ether	10.838	73	358243	46.11	ug/L		99
59) heptane	11.037	57	101404	53.77	ug/L		96
60) isopropyl acetate	10.707	87	23753	50.01	ug/L	#	65
61) 1,2-dichloroethane	10.739	62	154355	42.70	ug/L		98
62) n-butyl alcohol	11.410	56	172882	2742.71	ug/L		94
63) ethyl acrylate	11.730	55	140676	46.25	ug/L		97
64) trichloroethene	11.667	130	143310	51.26	ug/L		96
65) 2-nitropropane	12.710	41	22277	43.23	ug/L		94
67) methyl methacrylate	12.081	69	77791	48.35	ug/L		92
68) 1,2-dichloropropane	12.018	63	137976	49.63	ug/L		100
69) dibromomethane	12.196	93	80605	49.31	ug/L		97
70) methylcyclohexane	11.986	83	247955	53.70	ug/L		98
71) bromodichloromethane	12.390	83	174804	48.78	ug/L		97
72) epichlorohydrin	12.893	57	39524	165.73	ug/L		99
73) cis-1,3-dichloropropene	13.030	75	177949	39.04	ug/L		93
74) 4-methyl-2-pentanone	13.208	58	188461	199.28	ug/L		94
75) 3-methyl-1-butanol	13.229	55	113553	1037.02	ug/L		93
78) toluene	13.533	92	330522	51.96	ug/L		98
79) trans-1,3-dichloropropene	13.795	75	130268	33.34	ug/L		98
80) ethyl methacrylate	13.858	69	159060	48.93	ug/L		93
81) 1,1,2-trichloroethane	14.073	83	100911	51.58	ug/L		97
82) tetrachloroethene	14.320	164	136423	57.12	ug/L		97
83) 1,3-dichloropropane	14.325	76	192168	49.88	ug/L		93
84) 2-hexanone	14.372	58	179803	206.49	ug/L		90
85) butyl acetate	14.503	56	76702	48.27	ug/L		98
86) dibromochloromethane	14.655	129	131725	48.29	ug/L		99
87) 1,2-dibromoethane	14.849	107	136226	51.24	ug/L		100
88) n-butyl ether	15.499	57	595271	49.58	ug/L		97
89) chlorobenzene	15.494	112	386687	51.33	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.583	131	144004	50.98	ug/L		98
91) ethylbenzene	15.604	91	651936	51.67	ug/L		99
92) m,p-xylene	15.751	91	991341	101.00	ug/L		98
93) o-xylene	16.296	106	254550	51.39	ug/L		94
94) styrene	16.301	104	418720	50.16	ug/L		98
95) butyl acrylate	16.128	55	246662	46.50	ug/L		99
96) bromoform	16.585	173	86527	45.92	ug/L		100
97) isopropylbenzene	16.742	105	664362	50.13	ug/L		99
101) bromobenzene	17.172	156	187553	53.73	ug/L		90
102) 1,1,2,2-tetrachloroethane	17.083	83	167603	53.34	ug/L		100
104) 1,2,3-trichloropropane	17.161	110	41867	52.35	ug/L	#	90
105) n-propylbenzene	17.235	91	797588	55.04	ug/L		99
106) 2-chlorotoluene	17.371	126	171189	55.32	ug/L		93
107) 4-chlorotoluene	17.486	91	460379	52.81	ug/L		100
109) 1,3,5-trimethylbenzene	17.418	105	559432	52.41	ug/L		98
110) tert-butylbenzene	17.796	119	495201	52.30	ug/L		100
111) 1,2,4-trimethylbenzene	17.843	105	568926	52.23	ug/L		99
112) sec-butylbenzene	18.032	105	759188	53.67	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176954.d
Acq On : 1 Jul 2018 7:29 pm
Operator : juntaep
Sample : jc68966-2msd Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:31:36 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

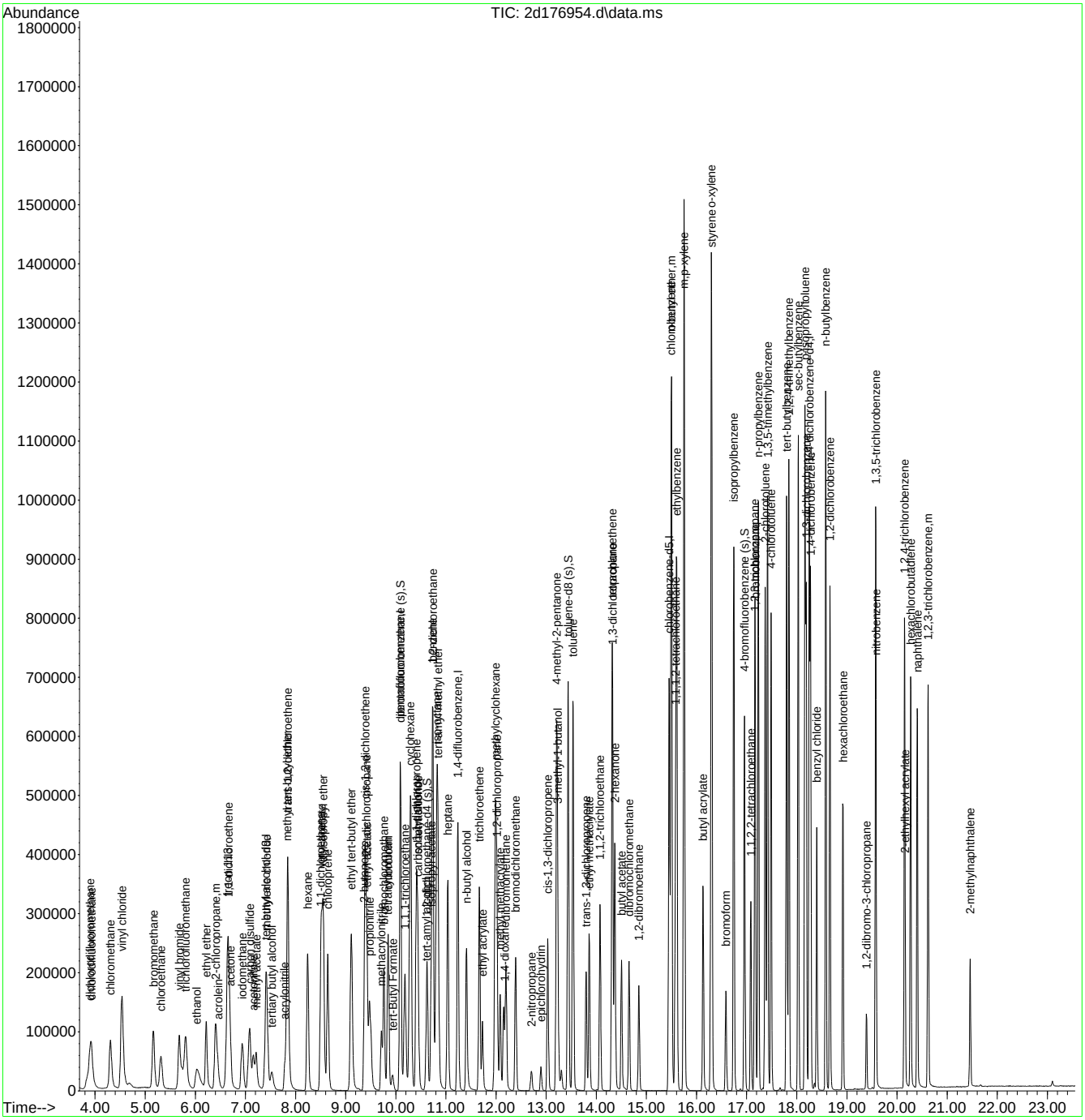
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
113) 1,3-dichlorobenzene	18.189	146	349472	52.87	ug/L	99
114) p-isopropyltoluene	18.163	119	637935	51.91	ug/L	99
115) 1,4-dichlorobenzene	18.278	146	352932	52.76	ug/L	98
116) 1,2-dichlorobenzene	18.661	146	347159	52.34	ug/L	100
117) benzyl chloride	18.399	91	298317	49.85	ug/L	100
119) n-butylbenzene	18.577	92	331687	53.80	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.390	157	37504	48.80	ug/L	98
122) nitrobenzene	19.584	77	4013	41.12	ug/L	94
123) 1,3,5-trichlorobenzene	19.578	180	322034	51.94	ug/L	98
124) hexachlorobutadiene	20.276	225	157912	52.05	ug/L	98
125) naphthalene	20.407	128	511340	47.54	ug/L	98
126) 2-ethylhexyl acrylate	20.166	70	18620	6.05	ug/L	97
127) 1,2,4-trichlorobenzene	20.150	180	257240	48.82	ug/L	98
128) 1,2,3-trichlorobenzene	20.622	180	232404	47.89	ug/L	99
129) hexachloroethane	18.923	201	89836	42.09	ug/L	97
130) 2-methylnaphthalene	21.461	142	111917	19.40	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176954.d
Acq On : 1 Jul 2018 7:29 pm
Operator : juntaep
Sample : jc68966-2msd Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:31:36 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144447.d
Acq On : 1 Jul 2018 8:25 pm
Operator : juntaep
Sample : jc68966-31ms Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:07:44 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.389	65	127045	500.00	ug/L	0.00
5) pentafluorobenzene	9.617	168	272575	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	387461	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	355363	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	204500	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	355363	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	118221	51.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.52%			
57) 1,2-dichloroethane-d4 (s)	10.094	65	143329	60.01	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 120.02%			
78) toluene-d8 (s)	12.170	98	455449	49.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%			
101) 4-bromofluorobenzene (s)	14.818	95	177932	49.85	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.70%			
Target Compounds						Qvalue
2) ethanol	6.125	45	142201	4663.57	ug/L	97
3) tertiary butyl alcohol	7.515	59	87358	259.81	ug/L	87
4) 1,4-dioxane	11.258	88	32955	1289.87	ug/L	94
6) chlorodifluoromethane	4.028	51	145057	37.04	ug/L	95
7) dichlorodifluoromethane	3.996	85	190026	42.57	ug/L	99
10) chloromethane	4.411	50	231446	38.95	ug/L	99
11) vinyl chloride	4.647	62	324907	59.68	ug/L	97
12) bromomethane	5.292	94	143975	43.14	ug/L	97
13) chloroethane	5.438	64	134503	42.42	ug/L	98
14) trichlorofluoromethane	5.894	101	277738	58.57	ug/L	97
15) 1,3-butadiene	4.657	54	63459	13.69	ug/L	94
16) vinyl bromide	5.795	106	137510	41.52	ug/L	99
17) ethyl ether	6.288	74	79679	37.63	ug/L	99
18) 2-chloropropane	6.487	43	239992	43.09	ug/L	89
19) acrolein	6.555	56	21428	31.49	ug/L	99
20) freon 113	6.676	151	105778	45.84	ug/L	96
21) 1,1-dichloroethene	6.712	61	221359	44.81	ug/L	96
22) acetone	6.765	58	55007	204.37	ug/L #	76
23) acetonitrile	7.210	41	163863	403.49	ug/L	100
24) iodomethane	7.006	142	177452	41.26	ug/L	91
25) carbon disulfide	7.121	76	362365	38.95	ug/L	97
26) methylene chloride	7.441	84	142119	42.28	ug/L	98
27) methyl acetate	7.226	43	94852	40.98	ug/L	99
28) methyl tert butyl ether	7.756	73	375833	44.25	ug/L	95
29) trans-1,2-dichloroethene	7.803	61	196094	46.08	ug/L	95
30) hexane	8.097	56	91799	43.36	ug/L	95
31) di-isopropyl ether	8.343	45	442443	42.75	ug/L	99
32) ethyl tert-butyl ether	8.810	59	450438	46.57	ug/L	98
33) 2-butanone	9.072	72	55810	188.43	ug/L #	76
34) 1,1-dichloroethane	8.374	63	249884	45.32	ug/L	98
35) chloroprene	8.479	53	230971	50.68	ug/L	93
36) acrylonitrile	7.766	53	44266	42.44	ug/L	98
37) vinyl acetate	8.359	86	23333	38.52	ug/L #	68
38) ethyl acetate	9.087	45	24412	60.76	ug/L #	47
39) 2,2-dichloropropane	9.108	77	216715	51.89	ug/L	99
40) cis-1,2-dichloroethene	9.108	96	212398	61.40	ug/L	99
41) propionitrile	9.182	54	197589	462.97	ug/L	96
42) methyl acrylate	9.171	85	17181	42.85	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144447.d
Acq On : 1 Jul 2018 8:25 pm
Operator : juntaep
Sample : jc68966-31ms Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:07:44 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) bromochloromethane	9.423	128	69856	44.62	ug/L		99
44) tetrahydrofuran	9.465	72	15932	44.05	ug/L	#	84
45) chloroform	9.475	83	247677	48.86	ug/L		99
47) 1,1-dichloropropene	9.900	75	196624	47.37	ug/L		97
48) carbon tetrachloride	9.926	117	204819	57.52	ug/L		99
49) isopropyl acetate	10.084	87	28086	43.07	ug/L	#	78
51) methacrylonitrile	9.365	67	49636	45.24	ug/L		94
52) 1,1,1-trichloroethane	9.727	97	236858	53.80	ug/L		99
53) cyclohexane	9.795	84	206896	45.76	ug/L		89
54) iso-butyl alcohol	9.911	43	56033	481.25	ug/L		97
55) tert amyl alcohol	10.036	73	38626	246.28	ug/L		95
58) 2,2,4-trimethylpentane	10.157	57	533992	47.52	ug/L		94
59) n-butyl alcohol	10.660	56	196487	2640.67	ug/L		99
60) benzene	10.168	78	561563	43.87	ug/L		99
61) tert-amyl methyl ether	10.194	73	444635	45.83	ug/L		99
62) heptane	10.320	57	105178	47.36	ug/L		98
63) 1,2-dichloroethane	10.188	62	191294	52.03	ug/L		96
64) ethyl acrylate	10.881	55	152847	47.10	ug/L		98
65) trichloroethene	10.881	95	142836	47.41	ug/L		99
66) 2-nitropropane	11.651	41	29939	35.98	ug/L	#	1
68) methyl methacrylate	11.143	100	33978	47.31	ug/L	#	73
69) 1,2-dichloropropane	11.143	63	142228	45.40	ug/L		93
70) methylcyclohexane	11.090	83	261522	48.04	ug/L		93
71) dibromomethane	11.311	93	79648	47.40	ug/L		99
72) bromodichloromethane	11.431	83	189921	50.88	ug/L		97
73) epichlorohydrin	11.798	57	34379	129.09	ug/L		92
74) cis-1,3-dichloropropene	11.882	75	224930	45.71	ug/L		91
75) 4-methyl-2-pentanone	11.976	58	192510	186.79	ug/L		92
76) 3-methyl-1-butanol	11.992	70	81388	1040.15	ug/L		98
79) toluene	12.239	92	356886	45.22	ug/L		100
80) ethyl methacrylate	12.427	69	168611	46.06	ug/L		96
81) trans-1,3-dichloropropene	12.438	75	207010	48.41	ug/L		97
82) 1,1,2-trichloroethane	12.653	83	96531	43.89	ug/L		99
83) tetrachloroethene	12.821	164	127247	48.27	ug/L		96
84) 2-hexanone	12.821	58	183755	191.41	ug/L		96
85) 1,3-dichloropropane	12.836	76	203600	45.16	ug/L		99
86) butyl acetate	12.889	56	80229	44.38	ug/L		96
87) dibromochloromethane	13.098	129	138926	51.43	ug/L		97
88) 1,2-dibromoethane	13.250	107	129001	47.01	ug/L		99
89) n-butyl ether	13.602	57	621599	46.32	ug/L		99
90) chlorobenzene	13.701	112	383147	46.06	ug/L		98
91) 1,1,1,2-tetrachloroethane	13.759	131	146849	50.75	ug/L		98
92) ethylbenzene	13.749	91	694867	47.91	ug/L		98
93) m,p-xylene	13.859	106	525244	94.60	ug/L		94
94) o-xylene	14.273	91	558266	48.46	ug/L		96
95) styrene	14.283	104	441240	47.72	ug/L		98
96) butyl acrylate	14.095	55	262694	48.04	ug/L		98
97) bromoform	14.556	173	95676	54.19	ug/L		98
98) isopropylbenzene	14.608	105	713341	50.52	ug/L		98
99) cis-1,4-dichloro-2-butene	14.687	75	19496	17.34	ug/L		85
102) bromobenzene	15.012	156	181690	46.85	ug/L		92
103) 1,1,2,2-tetrachloroethane	14.923	83	152828	42.73	ug/L		98
104) trans-1,4-dichloro-2-b...	14.965	53	15447	18.83	ug/L		94
105) 1,2,3-trichloropropane	14.996	110	47108	48.50	ug/L		93
106) n-propylbenzene	15.017	91	854281	47.41	ug/L		99
107) 2-chlorotoluene	15.164	126	170367	47.05	ug/L		92
108) 4-chlorotoluene	15.264	91	504954	46.94	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144447.d
Acq On : 1 Jul 2018 8:25 pm
Operator : juntaep
Sample : jc68966-31ms Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:07:44 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

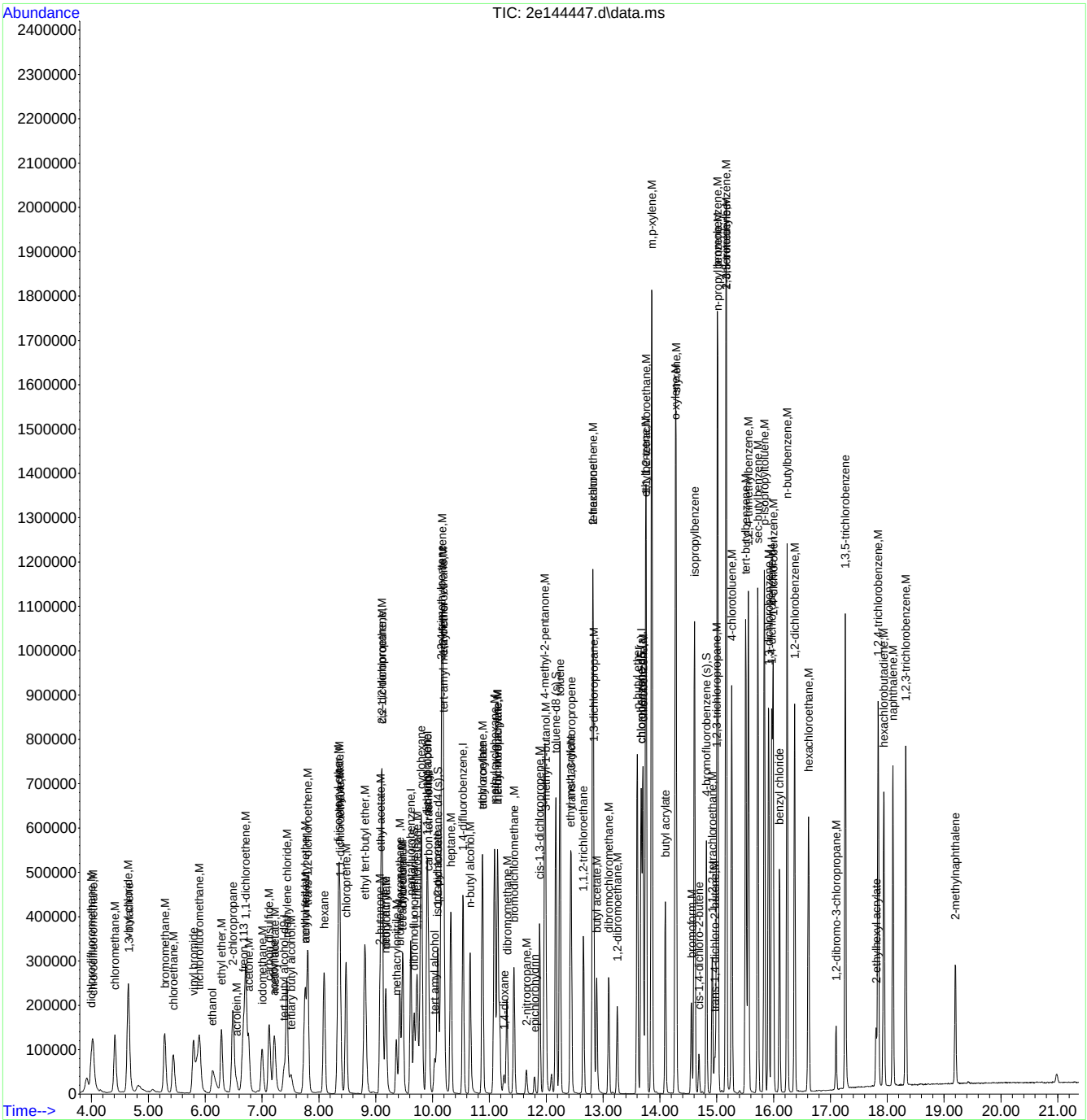
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.164	105	609547	47.46	ug/L	97
110) tert-butylbenzene	15.510	119	530600	47.71	ug/L	97
111) 1,2,4-trimethylbenzene	15.557	105	616707	48.41	ug/L	99
112) sec-butylbenzene	15.720	105	794925	48.80	ug/L	99
113) 1,3-dichlorobenzene	15.914	146	349609	46.32	ug/L	99
114) p-isopropyltoluene	15.835	119	680634	49.12	ug/L	97
115) 1,4-dichlorobenzene	15.993	146	358630	46.54	ug/L	100
116) 1,2-dichlorobenzene	16.370	146	338582	45.79	ug/L	99
117) n-butylbenzene	16.239	92	360227	50.54	ug/L	97
118) 1,2-dibromo-3-chloropr...	17.099	157	37068	45.30	ug/L	89
119) 1,3,5-trichlorobenzene	17.261	180	320646	48.79	ug/L	97
120) 1,2,4-trichlorobenzene	17.838	180	264067	47.83	ug/L	98
121) 2-ethylhexyl acrylate	17.807	70	34503	8.51	ug/L	95
122) hexachlorobutadiene	17.938	225	148479	51.92	ug/L	99
123) naphthalene	18.100	128	536299	46.27	ug/L	99
124) 1,2,3-trichlorobenzene	18.326	180	230678	46.12	ug/L	99
125) hexachloroethane	16.616	201	115750	52.12	ug/L	97
126) benzyl chloride	16.103	91	344982	50.91	ug/L	98
127) 2-methylnaphthalene	19.196	142	141757	23.05	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144447.d
Acq On : 1 Jul 2018 8:25 pm
Operator : juntaep
Sample : jc68966-31ms Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:07:44 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144448.d
Acq On : 1 Jul 2018 8:54 pm
Operator : juntaep
Sample : jc68966-31msd Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:10:34 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.399	65	129992	500.00	ug/L	0.02
5) pentafluorobenzene	9.617	168	270380	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	381787	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	356077	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	203663	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	356077	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	114770	50.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.32%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	139584	59.31	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 118.62%			
78) toluene-d8 (s)	12.170	98	451383	48.91	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.82%			
101) 4-bromofluorobenzene (s)	14.818	95	178471	50.21	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%			
Target Compounds						Qvalue
2) ethanol	6.136	45	154814	4962.12	ug/L	100
3) tertiary butyl alcohol	7.515	59	90761	263.81	ug/L	93
4) 1,4-dioxane	11.258	88	37390	1430.28	ug/L	94
6) chlorodifluoromethane	4.033	51	130078	33.49	ug/L	93
7) dichlorodifluoromethane	4.002	85	222427	50.24	ug/L	95
10) chloromethane	4.416	50	265293	45.01	ug/L	100
11) vinyl chloride	4.652	62	380776	70.51	ug/L	98
12) bromomethane	5.292	94	156605	47.30	ug/L	97
13) chloroethane	5.444	64	146512	46.58	ug/L	98
14) trichlorofluoromethane	5.900	101	293125	62.32	ug/L	98
15) 1,3-butadiene	4.652	54	70384	15.31	ug/L	96
16) vinyl bromide	5.795	106	144401	43.95	ug/L	95
17) ethyl ether	6.288	74	69247	32.97	ug/L	96
18) 2-chloropropane	6.487	43	197039	35.67	ug/L	87
19) acrolein	6.550	56	23570	34.92	ug/L	98
20) freon 113	6.681	151	94954	41.48	ug/L	90
21) 1,1-dichloroethene	6.712	61	183322	37.41	ug/L	94
22) acetone	6.765	58	53816	201.57	ug/L #	77
23) acetonitrile	7.210	41	162335	402.97	ug/L	99
24) iodomethane	7.001	142	142283	33.35	ug/L	94
25) carbon disulfide	7.127	76	290016	31.42	ug/L	95
26) methylene chloride	7.436	84	115667	34.69	ug/L	96
27) methyl acetate	7.231	43	84190	36.67	ug/L	99
28) methyl tert butyl ether	7.756	73	319019	37.86	ug/L	94
29) trans-1,2-dichloroethene	7.808	61	154853	36.68	ug/L	96
30) hexane	8.091	56	81389	38.75	ug/L	96
31) di-isopropyl ether	8.343	45	365506	35.60	ug/L	93
32) ethyl tert-butyl ether	8.815	59	380251	39.63	ug/L	97
33) 2-butanone	9.077	72	52054	177.18	ug/L #	53
34) 1,1-dichloroethane	8.374	63	196758	35.98	ug/L	100
35) chloroprene	8.479	53	181615	40.17	ug/L	93
36) acrylonitrile	7.771	53	40852	39.48	ug/L	100
37) vinyl acetate	8.359	86	19471	32.41	ug/L	98
38) ethyl acetate	9.093	45	22037	55.29	ug/L	92
39) 2,2-dichloropropane	9.108	77	172005	41.52	ug/L	99
40) cis-1,2-dichloroethene	9.108	96	182041	53.05	ug/L	98
41) propionitrile	9.182	54	188114	444.34	ug/L	90
42) methyl acrylate	9.177	85	15929	40.05	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144448.d
Acq On : 1 Jul 2018 8:54 pm
Operator : juntaep
Sample : jc68966-31msd Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:10:34 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43) bromochloromethane	9.423	128	56162	36.16	ug/L		99
44) tetrahydrofuran	9.460	72	15782	43.99	ug/L		97
45) chloroform	9.475	83	197390	39.25	ug/L		98
47) 1,1-dichloropropene	9.905	75	156515	38.01	ug/L		95
48) carbon tetrachloride	9.926	117	168047	47.58	ug/L		97
49) isopropyl acetate	10.084	87	24751	38.26	ug/L		94
51) methacrylonitrile	9.360	67	42196	38.77	ug/L		93
52) 1,1,1-trichloroethane	9.727	97	191277	43.80	ug/L		97
53) cyclohexane	9.795	84	233244	52.01	ug/L	#	90
54) iso-butyl alcohol	9.916	43	55506	480.59	ug/L		94
55) tert amyl alcohol	10.036	73	38699	248.75	ug/L		92
58) 2,2,4-trimethylpentane	10.152	57	535233	48.34	ug/L		98
59) n-butyl alcohol	10.660	56	197613	2695.27	ug/L		98
60) benzene	10.168	78	446437	35.39	ug/L		99
61) tert-amyl methyl ether	10.194	73	374316	39.16	ug/L		99
62) heptane	10.320	57	100838	46.08	ug/L		98
63) 1,2-dichloroethane	10.189	62	157038	43.35	ug/L		96
64) ethyl acrylate	10.881	55	134587	42.09	ug/L		99
65) trichloroethene	10.881	95	114912	38.71	ug/L		95
66) 2-nitropropane	11.651	41	26916	32.83	ug/L	#	1
68) methyl methacrylate	11.143	100	29008	40.99	ug/L	#	79
69) 1,2-dichloropropane	11.148	63	114632	37.14	ug/L		96
70) methylcyclohexane	11.090	83	232457	43.33	ug/L		96
71) dibromomethane	11.305	93	64880	39.19	ug/L		95
72) bromodichloromethane	11.436	83	155418	42.25	ug/L		98
73) epichlorohydrin	11.793	57	29381	111.97	ug/L		98
74) cis-1,3-dichloropropene	11.882	75	182653	37.67	ug/L		92
75) 4-methyl-2-pentanone	11.976	58	172779	170.13	ug/L		92
76) 3-methyl-1-butanol	11.992	70	83348	1081.03	ug/L		93
79) toluene	12.239	92	284277	35.95	ug/L		99
80) ethyl methacrylate	12.427	69	147337	40.16	ug/L		97
81) trans-1,3-dichloropropene	12.443	75	169004	39.44	ug/L		98
82) 1,1,2-trichloroethane	12.658	83	82004	37.21	ug/L		98
83) tetrachloroethene	12.821	164	102144	38.67	ug/L		96
84) 2-hexanone	12.821	58	169131	175.83	ug/L		93
85) 1,3-dichloropropane	12.836	76	168022	37.19	ug/L		98
86) butyl acetate	12.889	56	71721	39.59	ug/L		97
87) dibromochloromethane	13.098	129	114653	42.36	ug/L		99
88) 1,2-dibromoethane	13.250	107	110176	40.07	ug/L		99
89) n-butyl ether	13.602	57	516381	38.40	ug/L		99
90) chlorobenzene	13.701	112	310296	37.23	ug/L		98
91) 1,1,1,2-tetrachloroethane	13.759	131	116984	40.34	ug/L		98
92) ethylbenzene	13.754	91	563387	38.77	ug/L		98
93) m,p-xylene	13.859	106	428004	76.93	ug/L		94
94) o-xylene	14.273	91	457409	39.62	ug/L		99
95) styrene	14.283	104	364228	39.31	ug/L		96
96) butyl acrylate	14.095	55	229877	41.95	ug/L		98
97) bromoform	14.556	173	79304	44.83	ug/L		99
98) isopropylbenzene	14.608	105	577107	40.79	ug/L		99
99) cis-1,4-dichloro-2-butene	14.687	75	13884	12.32	ug/L	#	85
102) bromobenzene	15.012	156	149757	38.77	ug/L		90
103) 1,1,2,2-tetrachloroethane	14.923	83	134747	37.83	ug/L		100
104) trans-1,4-dichloro-2-b...	14.960	53	11903	14.57	ug/L		85
105) 1,2,3-trichloropropane	14.996	110	41438	42.84	ug/L		91
106) n-propylbenzene	15.017	91	702918	39.17	ug/L		99
107) 2-chlorotoluene	15.169	126	138222	38.33	ug/L		97
108) 4-chlorotoluene	15.264	91	417928	39.01	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144448.d
Acq On : 1 Jul 2018 8:54 pm
Operator : juntaep
Sample : jc68966-31msd Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:10:34 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

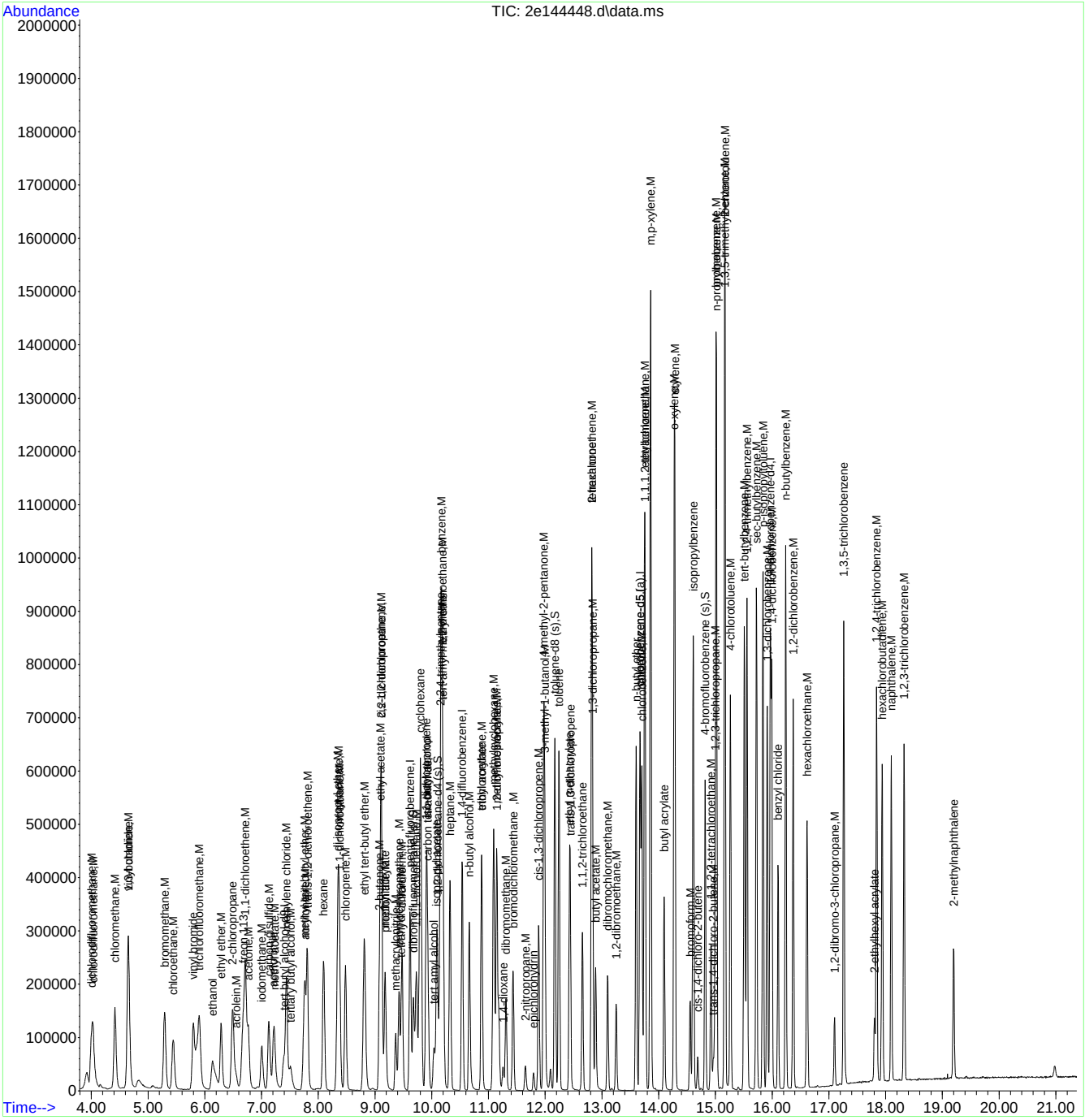
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.164	105	498738	38.99	ug/L	96
110) tert-butylbenzene	15.510	119	434302	39.21	ug/L	99
111) 1,2,4-trimethylbenzene	15.557	105	502744	39.62	ug/L	99
112) sec-butylbenzene	15.720	105	660784	40.73	ug/L	98
113) 1,3-dichlorobenzene	15.914	146	288436	38.37	ug/L	98
114) p-isopropyltoluene	15.841	119	570100	41.31	ug/L	98
115) 1,4-dichlorobenzene	15.993	146	291888	38.03	ug/L	98
116) 1,2-dichlorobenzene	16.370	146	281579	38.24	ug/L	99
117) n-butylbenzene	16.239	92	303815	42.80	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.099	157	34422	42.24	ug/L	92
119) 1,3,5-trichlorobenzene	17.261	180	261635	39.97	ug/L	100
120) 1,2,4-trichlorobenzene	17.838	180	216866	39.44	ug/L	98
121) 2-ethylhexyl acrylate	17.801	70	29673	7.35	ug/L	90
122) hexachlorobutadiene	17.938	225	130580	45.85	ug/L	98
123) naphthalene	18.100	128	460398	39.89	ug/L	99
124) 1,2,3-trichlorobenzene	18.326	180	196366	39.42	ug/L	99
125) hexachloroethane	16.616	201	95137	43.01	ug/L	98
126) benzyl chloride	16.103	91	290050	42.98	ug/L	98
127) 2-methylnaphthalene	19.201	142	125354	20.47	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-03-18\lotusa\v2e6328\
Data File : 2e144448.d
Acq On : 1 Jul 2018 8:54 pm
Operator : juntaep
Sample : jc68966-31msd Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:10:34 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176988.d
Acq On : 2 Jul 2018 10:07 pm
Operator : juntaep
Sample : JC68966-41MS Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:55:21 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	118965	500.00	ug/L	0.00
5) pentafluorobenzene	10.083	168	315806	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.232	114	436649	50.00	ug/L	0.00
76) chlorobenzene-d5	15.447	117	424666	50.00	ug/L	-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	231131	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.083	113	138876	51.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.08%			
55) 1,2-dichloroethane-d4 (s)	10.618	65	133454	44.50	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.00%			
77) toluene-d8 (s)	13.434	98	505082	51.15	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.30%			
100) 4-bromofluorobenzene (s)	16.952	95	191669	51.69	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.38%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.519	59	73338	325.35	ug/L	94
3) ethanol	6.020	45	143676	7061.83	ug/L	96
4) 1,4-dioxane	12.165	88	34482	1546.44	ug/L	99
6) chlorodifluoromethane	3.928	51	153596	51.60	ug/L	97
7) dichlorodifluoromethane	3.902	85	201448	57.37	ug/L	98
10) chloromethane	4.300	50	228026	57.48	ug/L	99
11) vinyl chloride	4.531	62	227201	65.13	ug/L	99
12) bromomethane	5.155	94	153168	62.49	ug/L	98
13) chloroethane	5.307	64	123038	67.23	ug/L	98
14) trichlorofluoromethane	5.800	101	247781	62.82	ug/L	99
15) vinyl bromide	5.669	106	141635	54.18	ug/L	99
17) ethyl ether	6.209	74	76464	62.34	ug/L	93
18) acrolein	6.450	56	20625	41.02	ug/L	90
19) 1,1-dichloroethene	6.649	96	143926	60.48	ug/L	96
20) freon 113	6.639	151	120975	60.54	ug/L	95
21) 2-chloropropane	6.403	43	235526	58.91	ug/L	94
22) acetone	6.686	58	43270	256.28	ug/L #	83
23) acetonitrile	7.147	41	153110	541.30	ug/L	99
24) iodomethane	6.927	142	215823	53.51	ug/L	96
25) carbon disulfide	7.074	76	402398	52.76	ug/L	96
26) methylene chloride	7.409	84	157596	59.84	ug/L	94
27) methyl acetate	7.205	43	91178	54.44	ug/L	95
28) methyl tert butyl ether	7.824	73	357505	51.65	ug/L	98
29) trans-1,2-dichloroethene	7.839	96	152827	63.33	ug/L	92
30) hexane	8.232	57	203152	64.40	ug/L	96
31) di-isopropyl ether	8.542	45	452637	54.58	ug/L	89
32) 2-butanone	9.365	72	55927	256.11	ug/L #	84
33) 1,1-dichloroethane	8.495	63	263939	58.83	ug/L	100
34) chloroprene	8.636	53	209421	58.66	ug/L	90
35) acrylonitrile	7.771	53	47727	58.87	ug/L	92
36) vinyl acetate	8.510	86	21200	54.37	ug/L #	71
37) ethyl tert-butyl ether	9.103	59	418423	53.85	ug/L	100
38) ethyl acetate	9.417	45	15854	53.48	ug/L #	66
39) 2,2-dichloropropane	9.402	77	179731	50.32	ug/L	97
40) cis-1,2-dichloroethene	9.381	96	170747	63.19	ug/L	92
41) propionitrile	9.465	54	204094	592.62	ug/L	99
43) bromochloromethane	9.753	128	81101	59.86	ug/L	92
44) tetrahydrofuran	9.826	72	16949	59.97	ug/L	88
45) chloroform	9.842	83	258142	59.64	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176988.d
Acq On : 2 Jul 2018 10:07 pm
Operator : juntaep
Sample : JC68966-41MS Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:55:21 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) methacrylonitrile	9.701	67	52555	59.22	ug/L		95
48) 1,1,1-trichloroethane	10.172	97	224678	56.20	ug/L		99
49) cyclohexane	10.277	84	196885	59.26	ug/L	#	79
50) 1,1-dichloropropene	10.403	75	199016	60.22	ug/L		97
51) isobutyl alcohol	10.424	43	53946	522.96	ug/L		97
52) carbon tetrachloride	10.429	117	201720	57.48	ug/L		97
53) tert-amyl alcohol	10.597	73	32507	281.60	ug/L		89
56) benzene	10.728	78	596708	61.32	ug/L		97
57) iso-octane	10.807	57	617824	63.14	ug/L		97
58) tert-amyl methyl ether	10.833	73	401330	55.04	ug/L		99
59) heptane	11.027	57	114375	64.62	ug/L		96
60) isopropyl acetate	10.702	87	25748	57.76	ug/L	#	64
61) 1,2-dichloroethane	10.733	62	174418	51.41	ug/L		97
62) n-butyl alcohol	11.399	56	179397	3032.47	ug/L		95
63) ethyl acrylate	11.719	55	156319	54.76	ug/L		98
64) trichloroethene	11.661	130	160820	61.29	ug/L		98
65) 2-nitropropane	12.700	41	24294	50.23	ug/L		95
67) methyl methacrylate	12.076	69	87499	57.94	ug/L		89
68) 1,2-dichloropropane	12.007	63	153820	58.95	ug/L		99
69) dibromomethane	12.191	93	89998	58.66	ug/L		98
70) methylcyclohexane	11.981	83	289939	66.91	ug/L		95
71) bromodichloromethane	12.385	83	194890	57.95	ug/L		98
72) epichlorohydrin	12.888	57	29811	133.19	ug/L		99
73) cis-1,3-dichloropropene	13.025	75	231078	54.01	ug/L		94
74) 4-methyl-2-pentanone	13.203	58	209401	235.92	ug/L		92
75) 3-methyl-1-butanol	13.224	55	120781	1175.28	ug/L		91
78) toluene	13.528	92	376326	62.87	ug/L		98
79) trans-1,3-dichloropropene	13.790	75	198648	54.03	ug/L		98
80) ethyl methacrylate	13.853	69	176801	57.80	ug/L		92
81) 1,1,2-trichloroethane	14.068	83	112980	61.36	ug/L		97
82) tetrachloroethene	14.309	164	145925	64.92	ug/L		99
83) 1,3-dichloropropane	14.314	76	215289	59.38	ug/L		92
84) 2-hexanone	14.362	58	197357	240.83	ug/L		92
85) butyl acetate	14.498	56	80978	54.15	ug/L		94
86) dibromochloromethane	14.650	129	152676	59.48	ug/L		99
87) 1,2-dibromoethane	14.844	107	152214	60.84	ug/L		99
88) n-butyl ether	15.494	57	651519	57.66	ug/L		97
89) chlorobenzene	15.489	112	435196	61.38	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.573	131	160834	60.50	ug/L		98
91) ethylbenzene	15.599	91	726644	61.19	ug/L		98
92) m,p-xylene	15.746	91	1106298	119.76	ug/L		99
93) o-xylene	16.286	106	284305	60.99	ug/L		94
94) styrene	16.296	104	478281	60.88	ug/L		96
95) butyl acrylate	16.123	55	270360	54.16	ug/L		99
96) bromoform	16.579	173	107981	60.90	ug/L		99
97) isopropylbenzene	16.737	105	743808	59.64	ug/L		98
98) cis-1,4-dichloro-2-butene	16.805	88	18781	18.68	ug/L		90
101) bromobenzene	17.167	156	210962	64.68	ug/L		89
102) 1,1,2,2-tetrachloroethane	17.078	83	186577	63.55	ug/L		100
103) trans-1,4-dichloro-2-b...	17.140	53	15190	22.53	ug/L	#	3
104) 1,2,3-trichloropropane	17.156	110	47045	62.95	ug/L		95
105) n-propylbenzene	17.230	91	882879	65.20	ug/L		99
106) 2-chlorotoluene	17.366	126	190464	65.87	ug/L		94
107) 4-chlorotoluene	17.481	91	511830	62.84	ug/L		99
109) 1,3,5-trimethylbenzene	17.413	105	626391	62.81	ug/L		98
110) tert-butylbenzene	17.791	119	554394	62.66	ug/L		99
111) 1,2,4-trimethylbenzene	17.838	105	630690	61.96	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176988.d
Acq On : 2 Jul 2018 10:07 pm
Operator : juntaep
Sample : JC68966-41MS Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:55:21 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

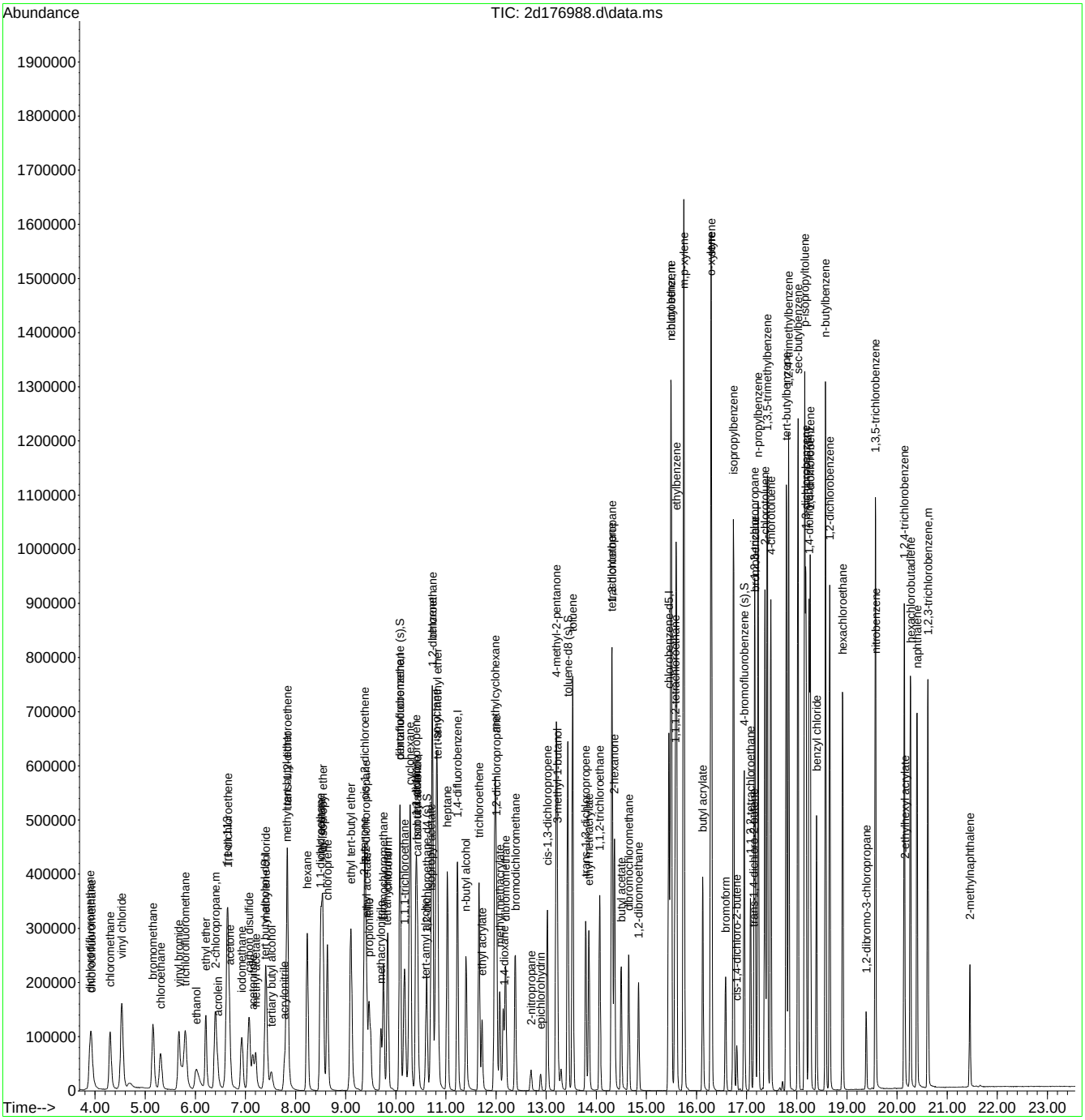
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) sec-butylbenzene	18.026	105	846342	64.03	ug/L	99
113) 1,3-dichlorobenzene	18.184	146	390686	63.25	ug/L	99
114) p-isopropyltoluene	18.158	119	710986	61.92	ug/L	99
115) 1,4-dichlorobenzene	18.268	146	391869	62.70	ug/L	99
116) 1,2-dichlorobenzene	18.656	146	385949	62.27	ug/L	99
117) benzyl chloride	18.394	91	331503	59.28	ug/L	100
119) n-butylbenzene	18.572	92	365875	63.51	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	42653	59.39	ug/L	93
122) nitrobenzene	19.578	77	5267	57.76	ug/L	89
123) 1,3,5-trichlorobenzene	19.568	180	359597	62.07	ug/L	98
124) hexachlorobutadiene	20.270	225	172830	60.97	ug/L	98
125) naphthalene	20.402	128	561850	55.90	ug/L	99
126) 2-ethylhexyl acrylate	20.160	70	18195	6.33	ug/L	97
127) 1,2,4-trichlorobenzene	20.145	180	284811	57.85	ug/L	97
128) 1,2,3-trichlorobenzene	20.617	180	257474	56.78	ug/L	99
129) hexachloroethane	18.918	201	137021	68.71	ug/L	95
130) 2-methylnaphthalene	21.455	142	116371	21.58	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176988.d
Acq On : 2 Jul 2018 10:07 pm
Operator : juntaep
Sample : JC68966-41MS Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 28 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:55:21 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176989.d
Acq On : 2 Jul 2018 10:37 pm
Operator : juntaep
Sample : JC68966-41MSD Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:56:05 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.388	65	118004	500.00	ug/L		0.00
5) pentafluorobenzene	10.083	168	324915	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.231	114	446427	50.00	ug/L		0.00
76) chlorobenzene-d5	15.447	117	431214	50.00	ug/L		-0.01
99) 1,4-dichlorobenzene-d4	18.247	152	235068	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.083	113	140503	50.19	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%				
55) 1,2-dichloroethane-d4 (s)	10.618	65	135779	44.28	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 88.56%				
77) toluene-d8 (s)	13.433	98	520032	51.86	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.72%				
100) 4-bromofluorobenzene (s)	16.952	95	196607	52.13	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.26%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.514	59	70728	316.33	ug/L		95
3) ethanol	6.025	45	141367	7004.18	ug/L		98
4) 1,4-dioxane	12.165	88	35390	1600.09	ug/L		97
6) chlorodifluoromethane	3.917	51	146151	47.73	ug/L		100
7) dichlorodifluoromethane	3.891	85	190583	52.76	ug/L		98
10) chloromethane	4.295	50	229207	56.15	ug/L		100
11) vinyl chloride	4.526	62	226372	63.07	ug/L		98
12) bromomethane	5.149	94	150400	59.64	ug/L		97
13) chloroethane	5.307	64	120869	64.20	ug/L		97
14) trichlorofluoromethane	5.794	101	236969	58.40	ug/L		96
15) vinyl bromide	5.669	106	138777	51.60	ug/L		95
17) ethyl ether	6.209	74	74011	58.65	ug/L		97
18) acrolein	6.450	56	20595	39.81	ug/L		93
19) 1,1-dichloroethene	6.638	96	136051	55.57	ug/L		93
20) freon 113	6.633	151	110803	53.89	ug/L		94
21) 2-chloropropane	6.392	43	223568	54.35	ug/L		96
22) acetone	6.686	58	42023	241.92	ug/L	#	80
23) acetonitrile	7.147	41	144496	496.52	ug/L		97
24) iodomethane	6.927	142	206659	49.80	ug/L		96
25) carbon disulfide	7.068	76	380645	48.51	ug/L		97
26) methylene chloride	7.404	84	153142	56.52	ug/L		92
27) methyl acetate	7.205	43	84875	49.26	ug/L		95
28) methyl tert butyl ether	7.823	73	344798	48.42	ug/L		99
29) trans-1,2-dichloroethene	7.839	96	148481	59.81	ug/L		93
30) hexane	8.232	57	184890	56.97	ug/L		98
31) di-isopropyl ether	8.542	45	435058	50.99	ug/L		89
32) 2-butanone	9.360	72	53699	239.01	ug/L	#	84
33) 1,1-dichloroethane	8.495	63	256908	55.66	ug/L		99
34) chloroprene	8.636	53	202466	55.12	ug/L		92
35) acrylonitrile	7.771	53	45705	54.79	ug/L		97
36) vinyl acetate	8.510	86	20127	50.17	ug/L	#	75
37) ethyl tert-butyl ether	9.103	59	404356	50.58	ug/L		99
38) ethyl acetate	9.417	45	13377	43.86	ug/L	#	56
39) 2,2-dichloropropane	9.402	77	169283	46.07	ug/L		96
40) cis-1,2-dichloroethene	9.381	96	166604	59.93	ug/L		92
41) propionitrile	9.464	54	195009	550.36	ug/L		100
43) bromochloromethane	9.753	128	79121	56.77	ug/L		92
44) tetrahydrofuran	9.826	72	16479	56.67	ug/L		87
45) chloroform	9.837	83	253872	57.01	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176989.d
Acq On : 2 Jul 2018 10:37 pm
Operator : juntaep
Sample : JC68966-41MSD Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:56:05 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47)	methacrylonitrile	9.706	67	50416	55.22	ug/L		92
48)	1,1,1-trichloroethane	10.172	97	216438	52.62	ug/L		97
49)	cyclohexane	10.277	84	195479	57.19	ug/L	#	84
50)	1,1-dichloropropene	10.403	75	193041	56.78	ug/L		97
51)	isobutyl alcohol	10.424	43	51410	484.40	ug/L		97
52)	carbon tetrachloride	10.429	117	194176	53.78	ug/L		97
53)	tert-amyl alcohol	10.602	73	31473	265.00	ug/L		96
56)	benzene	10.728	78	581816	58.48	ug/L		98
57)	iso-octane	10.807	57	564776	56.46	ug/L		97
58)	tert-amyl methyl ether	10.828	73	390748	52.41	ug/L		99
59)	heptane	11.027	57	106316	58.75	ug/L		94
60)	isopropyl acetate	10.697	87	24454	53.65	ug/L	#	65
61)	1,2-dichloroethane	10.733	62	168325	48.53	ug/L		97
62)	n-butyl alcohol	11.404	56	173830	2874.01	ug/L		93
63)	ethyl acrylate	11.719	55	151152	51.79	ug/L		97
64)	trichloroethene	11.661	130	155988	58.14	ug/L		97
65)	2-nitropropane	12.699	41	23351	47.22	ug/L		93
67)	methyl methacrylate	12.076	69	84116	54.48	ug/L		93
68)	1,2-dichloropropane	12.007	63	149687	56.11	ug/L		98
69)	dibromomethane	12.191	93	87544	55.81	ug/L		95
70)	methylcyclohexane	11.981	83	273112	61.64	ug/L		95
71)	bromodichloromethane	12.385	83	189031	54.98	ug/L		97
72)	epichlorohydrin	12.888	57	23790	103.96	ug/L		98
73)	cis-1,3-dichloropropene	13.025	75	226314	51.74	ug/L		92
74)	4-methyl-2-pentanone	13.203	58	200902	221.39	ug/L		89
75)	3-methyl-1-butanol	13.224	55	116445	1108.27	ug/L		90
78)	toluene	13.528	92	379005	62.35	ug/L		98
79)	trans-1,3-dichloropropene	13.790	75	192069	51.45	ug/L		97
80)	ethyl methacrylate	13.853	69	171670	55.27	ug/L		93
81)	1,1,2-trichloroethane	14.068	83	109849	58.76	ug/L		97
82)	tetrachloroethene	14.309	164	143054	62.67	ug/L		99
83)	1,3-dichloropropane	14.314	76	210180	57.09	ug/L		93
84)	2-hexanone	14.361	58	188831	226.93	ug/L		91
85)	butyl acetate	14.498	56	76539	50.40	ug/L		96
86)	dibromochloromethane	14.650	129	148971	57.15	ug/L		99
87)	1,2-dibromoethane	14.844	107	147157	57.93	ug/L		100
88)	n-butyl ether	15.494	57	634230	55.28	ug/L		97
89)	chlorobenzene	15.489	112	422279	58.65	ug/L		99
90)	1,1,1,2-tetrachloroethane	15.578	131	157420	58.31	ug/L		98
91)	ethylbenzene	15.599	91	704699	58.44	ug/L		99
92)	m,p-xylene	15.746	91	1077565	114.88	ug/L		98
93)	o-xylene	16.286	106	277182	58.56	ug/L		96
94)	styrene	16.296	104	464584	58.24	ug/L		97
95)	butyl acrylate	16.123	55	261384	51.57	ug/L		99
96)	bromoform	16.579	173	105042	58.34	ug/L		99
97)	isopropylbenzene	16.737	105	726002	57.33	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.805	88	17161	16.81	ug/L		90
101)	bromobenzene	17.161	156	205250	61.88	ug/L		96
102)	1,1,2,2-tetrachloroethane	17.077	83	179669	60.17	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.140	53	13591	19.82	ug/L	#	9
104)	1,2,3-trichloropropane	17.156	110	45887	60.37	ug/L		92
105)	n-propylbenzene	17.229	91	860954	62.52	ug/L		99
106)	2-chlorotoluene	17.366	126	186535	63.43	ug/L		94
107)	4-chlorotoluene	17.481	91	498575	60.18	ug/L		99
109)	1,3,5-trimethylbenzene	17.413	105	610227	60.16	ug/L		98
110)	tert-butylbenzene	17.790	119	541683	60.20	ug/L		99
111)	1,2,4-trimethylbenzene	17.838	105	615117	59.42	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176989.d
Acq On : 2 Jul 2018 10:37 pm
Operator : juntaep
Sample : JC68966-41MSD Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:56:05 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

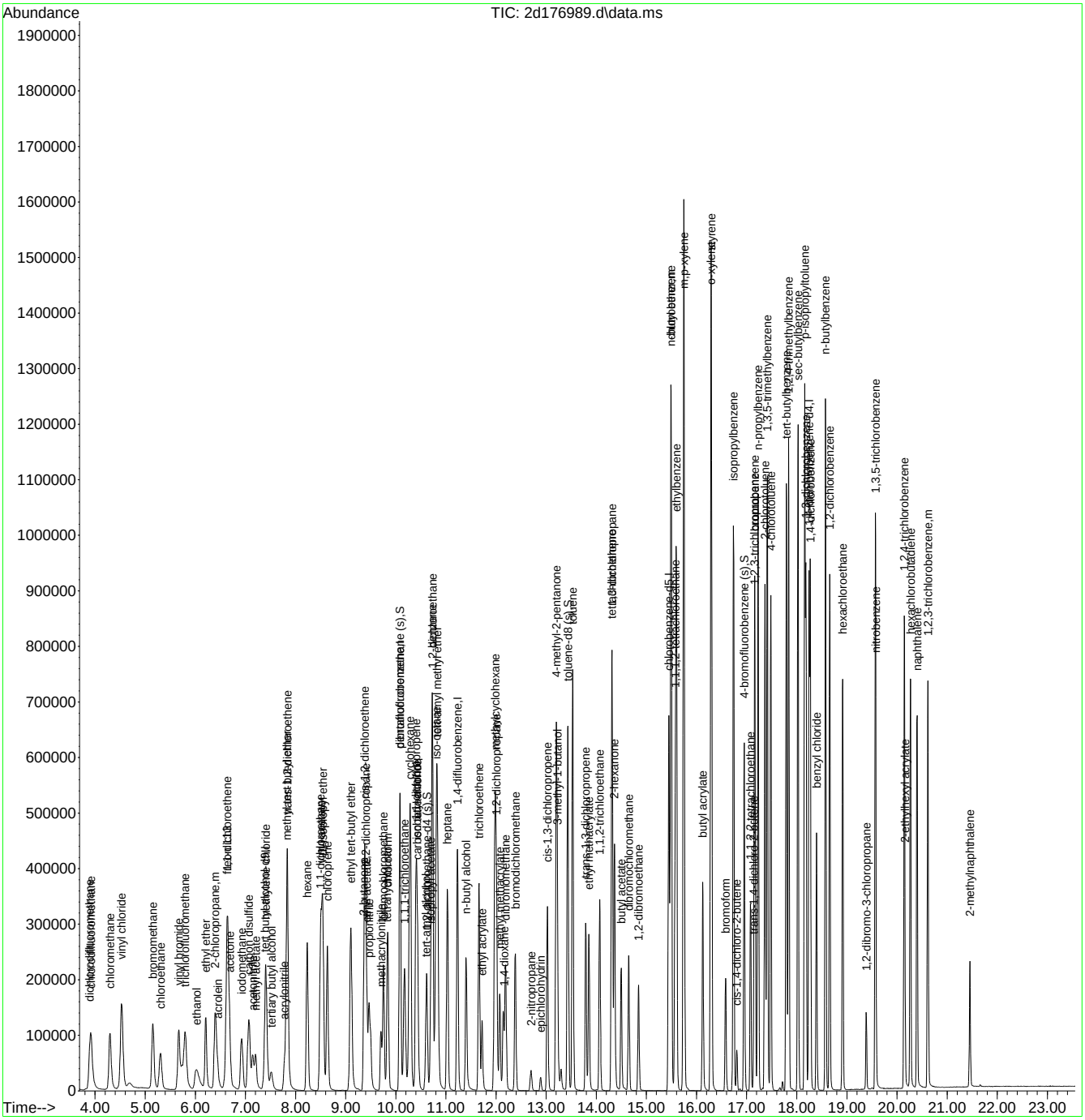
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) sec-butylbenzene	18.026	105	827108	61.53	ug/L	99
113) 1,3-dichlorobenzene	18.184	146	381871	60.79	ug/L	100
114) p-isopropyltoluene	18.157	119	691739	59.23	ug/L	99
115) 1,4-dichlorobenzene	18.273	146	386333	60.77	ug/L	98
116) 1,2-dichlorobenzene	18.656	146	378653	60.07	ug/L	100
117) benzyl chloride	18.393	91	309819	54.48	ug/L	100
119) n-butylbenzene	18.572	92	358021	61.11	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	40977	56.10	ug/L	93
122) nitrobenzene	19.578	77	5400	58.23	ug/L	99
123) 1,3,5-trichlorobenzene	19.573	180	351755	59.70	ug/L	99
124) hexachlorobutadiene	20.270	225	169712	58.87	ug/L	99
125) naphthalene	20.401	128	539674	52.80	ug/L	99
126) 2-ethylhexyl acrylate	20.160	70	17193	5.88	ug/L	96
127) 1,2,4-trichlorobenzene	20.145	180	276186	55.16	ug/L	97
128) 1,2,3-trichlorobenzene	20.616	180	249529	54.11	ug/L	100
129) hexachloroethane	18.918	201	134105	66.12	ug/L	96
130) 2-methylnaphthalene	21.455	142	112813	20.57	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176989.d
Acq On : 2 Jul 2018 10:37 pm
Operator : juntaep
Sample : JC68966-41MSD Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 29 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:56:05 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160384.d
Acq On : 2 Jul 2018 11:38 pm
Operator : HueanhT
Sample : JC68966-10MS Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:54:30 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.303	65	259061	500.00	ug/L		-0.03
5) pentafluorobenzene	10.778	168	247883	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	311337	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	262815	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.860	152	161482	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	109009	50.81	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.62%				
52) 1,2-dichloroethane-d4 (s)	11.234	65	116880	51.80	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.60%				
75) toluene-d8 (s)	13.268	98	325744	49.16	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.32%				
98) 4-bromofluorobenzene (s)	15.769	95	124696	52.95	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.90%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.439	59	143243	223.79	ug/L		96
4) 1,4-dioxane	12.335	88	54406	1175.97	ug/L		92
6) chlorodifluoromethane	4.449	51	139684	31.91	ug/L		96
7) dichlorodifluoromethane	4.423	85	195181	50.53	ug/L		94
8) chloromethane	4.811	50	211200	35.39	ug/L		98
9) vinyl chloride	5.115	62	340928	66.52	ug/L		99
11) bromomethane	5.823	94	112063	33.70	ug/L		97
12) chloroethane	6.017	64	88966	33.01	ug/L		98
13) trichlorofluoromethane	6.599	101	204311	41.80	ug/L		99
14) vinyl bromide	6.442	106	109660	34.15	ug/L		99
15) ethyl ether	7.045	74	65780	45.93	ug/L	#	84
16) 2-chloropropane	7.291	43	197168	36.34	ug/L		93
17) acrolein	7.307	56	32035	34.63	ug/L		84
18) freon 113	7.548	151	107655	49.11	ug/L		99
19) 1,1-dichloroethene	7.532	96	117943	39.64	ug/L		99
20) acetone	7.548	58	66126	171.14	ug/L		99
21) iodomethane	7.815	142	189045	38.09	ug/L		97
22) acetonitrile	8.036	41	277148	418.30	ug/L		99
23) carbon disulfide	7.983	76	337343	38.35	ug/L		99
24) methylene chloride	8.345	84	130741	37.66	ug/L		99
25) methyl acetate	8.072	43	133947	40.86	ug/L		99
26) methyl tert butyl ether	8.749	73	381085	42.35	ug/L		98
27) trans-1,2-dichloroethene	8.775	96	110200	39.44	ug/L		100
28) hexane	9.173	56	74871	43.31	ug/L		96
29) di-isopropyl ether	9.414	45	404239	39.38	ug/L		99
30) 1,1-dichloroethane	9.414	63	206929	43.32	ug/L		99
31) chloroprene	9.525	53	165626	41.47	ug/L		98
32) acrylonitrile	8.680	53	71343	43.33	ug/L		100
33) vinyl acetate	9.357	86	21358	47.14	ug/L	#	94
34) ethyl tert-butyl ether	9.912	59	393664	42.03	ug/L		97
35) 2-butanone	10.127	72	81719	182.41	ug/L		96
36) ethyl acetate	10.148	45	27456	45.50	ug/L	#	91
37) 2,2-dichloropropane	10.232	77	151182	42.11	ug/L		93
38) cis-1,2-dichloroethene	10.196	96	327718	110.15	ug/L		96
39) propionitrile	10.217	54	308517	418.92	ug/L		93
40) bromochloromethane	10.510	128	68126	46.29	ug/L		93
41) tetrahydrofuran	10.531	42	60305	38.57	ug/L		93
42) chloroform	10.605	83	202975	43.24	ug/L		99
43) t-butyl formate	10.647	59	71716	25.34	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160384.d
Acq On : 2 Jul 2018 11:38 pm
Operator : HueanhT
Sample : JC68966-10MS Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:54:30 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	10.421	67	59215	43.53	ug/L		96
46) 1,1,1-trichloroethane	10.872	97	174330	38.93	ug/L		98
47) Cyclohexane	10.987	84	163393	43.16	ug/L		91
48) 1,1-dichloropropene	11.045	75	132430	40.82	ug/L		99
49) carbon tetrachloride	11.076	117	160871	47.18	ug/L		98
50) isobutyl alcohol	11.024	42	57480	320.99	ug/L		90
53) n-butyl alcohol	11.774	56	367208	2137.00	ug/L		99
54) tert-amyl alcohol	11.192	55	55288	217.80	ug/L	#	80
55) iso-octane	11.402	57	457937	45.46	ug/L		100
56) benzene	11.297	78	396228	42.95	ug/L		99
57) tert-amyl methyl ether	11.386	87	85006	46.73	ug/L		97
58) heptane	11.554	57	74495	38.82	ug/L		97
59) isopropyl acetate	11.223	87	27786	49.21	ug/L	#	80
60) 1,2-dichloroethane	11.328	62	147941	46.59	ug/L		100
61) ethyl acrylate	12.004	55	161222	46.14	ug/L		99
62) trichloroethene	12.010	95	103223	44.77	ug/L		97
63) 2-nitropropane	12.739	41	40098	36.87	ug/L		87
65) methyl methacrylate	12.261	100	31669	45.72	ug/L		92
66) 1,2-dichloropropane	12.293	63	104078	44.86	ug/L		99
67) dibromomethane	12.398	93	72327	45.69	ug/L		98
68) methylcyclohexane	12.298	83	194241	43.25	ug/L		97
69) bromodichloromethane	12.544	83	147423	46.77	ug/L		100
70) epichlorohydrin	12.854	57	82025	203.14	ug/L		97
71) cis-1,3-dichloropropene	12.980	75	160325	44.34	ug/L		98
72) 4-methyl-2-pentanone	13.074	58	242190	179.96	ug/L		98
73) 3-methyl-1-butanol	13.079	55	232321	873.09	ug/L		97
76) toluene	13.336	92	217372	43.29	ug/L		98
77) ethyl methacrylate	13.504	69	135443	43.22	ug/L		98
78) trans-1,3-dichloropropene	13.514	75	142854	45.54	ug/L		97
79) 1,1,2-trichloroethane	13.724	83	79999	44.90	ug/L		98
80) 2-hexanone	13.876	58	221262	176.50	ug/L		100
81) tetrachloroethene	13.861	164	96372	48.48	ug/L		98
82) 1,3-dichloropropane	13.892	76	139568	45.92	ug/L		96
83) butyl acetate	13.944	56	78451	42.09	ug/L		94
84) dibromochloromethane	14.123	129	121009	52.58	ug/L		99
85) 1,2-dibromoethane	14.269	107	116023	50.13	ug/L		96
86) n-butyl ether	14.668	57	397491	40.48	ug/L		99
87) chlorobenzene	14.715	112	249401	45.34	ug/L		98
88) 1,1,1,2-tetrachloroethane	14.778	131	112519	47.95	ug/L		97
89) ethylbenzene	14.773	91	402493	43.76	ug/L		99
90) m,p-xylene	14.883	106	317073	88.31	ug/L		100
91) o-xylene	15.255	106	172942	45.36	ug/L		100
92) styrene	15.266	104	270541	43.63	ug/L		96
93) butyl acrylate	15.093	55	215520	42.49	ug/L		98
94) bromoform	15.486	173	104699	54.84	ug/L		97
95) isopropylbenzene	15.580	105	450370	42.66	ug/L		99
96) cis-1,4-dichloro-2-butene	15.612	75	21497	17.68	ug/L		88
99) bromobenzene	15.942	156	134953	49.85	ug/L		98
100) 1,1,2,2-tetrachloroethane	15.837	83	168383	47.82	ug/L		98
101) trans-1,4-dichloro-2-b...	15.869	88	9586	23.80	ug/L		84
102) 1,2,3-trichloropropane	15.921	110	44441	51.84	ug/L		98
103) n-propylbenzene	15.968	91	487150	45.64	ug/L		98
104) 2-chlorotoluene	16.094	126	117375	48.50	ug/L		98
105) 4-chlorotoluene	16.199	91	301818	46.22	ug/L		96
106) 1,3,5-trimethylbenzene	16.110	105	370353	44.06	ug/L		99
107) tert-butylbenzene	16.430	119	337907	46.25	ug/L		97
108) 1,2,4-trimethylbenzene	16.477	105	378497	44.23	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160384.d
Acq On : 2 Jul 2018 11:38 pm
Operator : HueanhT
Sample : JC68966-10MS Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:54:30 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

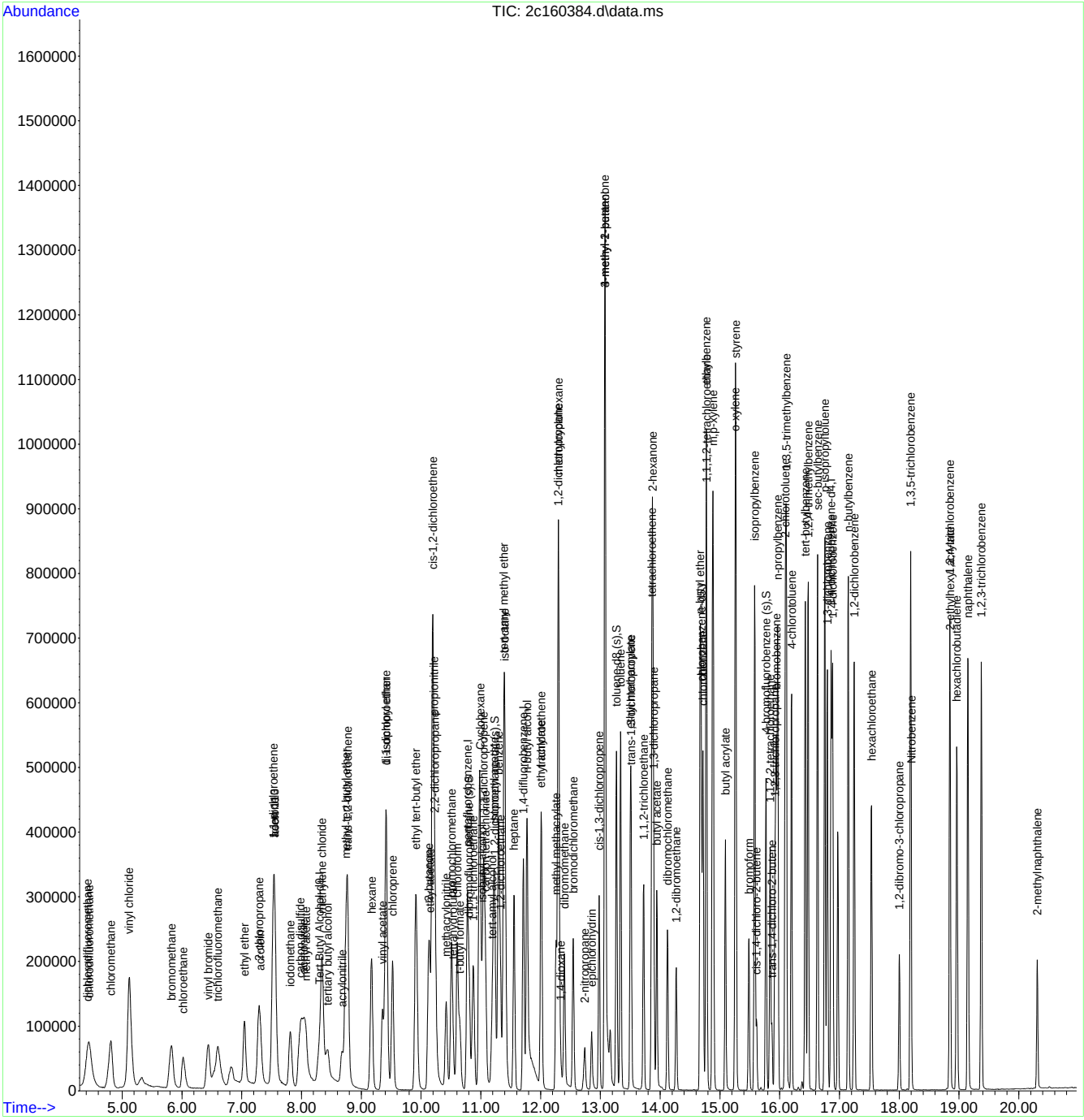
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
109) sec-butylbenzene	16.634	105	503487	44.79	ug/L		99
110) 1,3-dichlorobenzene	16.797	146	249348	46.75	ug/L		99
111) p-isopropyltoluene	16.755	119	439204	44.90	ug/L		99
112) 1,4-dichlorobenzene	16.886	146	248288	46.89	ug/L		98
113) 1,2-dichlorobenzene	17.248	146	267900	46.62	ug/L		99
114) n-butylbenzene	17.148	92	214918	42.64	ug/L		99
115) 1,2-dibromo-3-chloropr...	18.003	75	44383	50.89	ug/L		95
116) 1,3,5-trichlorobenzene	18.191	180	266488	45.42	ug/L		99
117) Nitrobenzene	18.202	77	10558	63.79	ug/L		94
118) 1,2,4-trichlorobenzene	18.847	180	226436	45.44	ug/L		99
119) 2-ethylhexyl acrylate	18.852	55	16612	4.33	ug/L	#	86
120) hexachlorobutadiene	18.962	225	122405	42.90	ug/L		99
121) naphthalene	19.151	128	512552	44.17	ug/L		100
122) 1,2,3-trichlorobenzene	19.371	180	215999	47.07	ug/L		98
123) hexachloroethane	17.536	201	83573	44.67	ug/L		97
124) 2-methylnaphthalene	20.309	142	90615	14.40	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160384.d
Acq On : 2 Jul 2018 11:38 pm
Operator : HueanhT
Sample : JC68966-10MS Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 34 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:54:30 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Mei Chen
07/05/18 16:20

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121
Data File : 2c160385.d
Acq On : 3 Jul 2018 12:08 am
Operator : HueanhT
Sample : JC68966-10MSD Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:14:31 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.308	65	224144	500.00	ug/L		-0.03
5) pentafluorobenzene	10.778	168	260431	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.716	114	328261	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	279274	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.860	152	168357	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	114347	50.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.46%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	122445	51.47	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.94%				
75) toluene-d8 (s)	13.268	98	351158	49.88	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.76%				
98) 4-bromofluorobenzene (s)	15.769	95	132596	54.00	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 108.00%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.439	59	142395	257.13	ug/L		89
4) 1,4-dioxane	12.335	88	57854	1445.30	ug/L		87
6) chlorodifluoromethane	4.455	51	149747	32.56	ug/L		97
7) dichlorodifluoromethane	4.423	85	203454	50.13	ug/L		95
8) chloromethane	4.806	50	228651	36.47	ug/L		100
9) vinyl chloride	5.110	62	362634	67.34	ug/L		98
11) bromomethane	5.823	94	116514	33.35	ug/L		96
12) chloroethane	6.022	64	93098	32.88	ug/L		97
13) trichlorofluoromethane	6.594	101	209594	40.82	ug/L		97
14) vinyl bromide	6.442	106	113373	33.61	ug/L		95
15) ethyl ether	7.050	74	67724	45.00	ug/L	#	81
16) 2-chloropropane	7.286	43	204437	35.86	ug/L		95
17) acrolein	7.317	56	32661	33.61	ug/L		94
18) freon 113	7.543	151	109313	47.46	ug/L		97
19) 1,1-dichloroethene	7.527	96	120256	38.47	ug/L		96
20) acetone	7.553	58	61721	152.04	ug/L		97
21) iodomethane	7.810	142	194008	37.20	ug/L		96
22) acetonitrile	8.030	41	274542	394.40	ug/L		96
23) carbon disulfide	7.973	76	351593	38.05	ug/L		99
24) methylene chloride	8.350	84	133347	36.56	ug/L		95
25) methyl acetate	8.072	43	139340	40.45	ug/L		98
26) methyl tert butyl ether	8.749	73	394266	41.70	ug/L		98
27) trans-1,2-dichloroethene	8.775	96	115588	39.38	ug/L		95
28) hexane	9.173	56	75442	41.54	ug/L		96
29) di-isopropyl ether	9.415	45	420294	38.98	ug/L		98
30) 1,1-dichloroethane	9.415	63	212611	42.36	ug/L		98
31) chloroprene	9.525	53	173112	41.25	ug/L		99
32) acrylonitrile	8.681	53	72856	42.12	ug/L		99
33) vinyl acetate	9.352	86	22941	48.20	ug/L	#	86
34) ethyl tert-butyl ether	9.913	59	412013	41.87	ug/L		97
35) 2-butanone	10.133	72	86986	184.81	ug/L		92
36) ethyl acetate	10.149	45	26561	41.90	ug/L	#	89
37) 2,2-dichloropropane	10.232	77	154785	41.04	ug/L		97
38) cis-1,2-dichloroethene	10.196	96	341286	109.18	ug/L		97
39) propionitrile	10.217	54	315553	407.82	ug/L		95
40) bromochloromethane	10.510	128	70395	45.53	ug/L		94
41) tetrahydrofuran	10.531	42	62201	37.86	ug/L		90
42) chloroform	10.605	83	210604	42.71	ug/L		100
43) t-butyl formate	10.647	59	68819	23.14	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160385.d
Acq On : 3 Jul 2018 12:08 am
Operator : HueanhT
Sample : JC68966-10MSD Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:14:31 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	10.421	67	61125	42.77	ug/L		98
46) 1,1,1-trichloroethane	10.877	97	182310	38.75	ug/L		99
47) Cyclohexane	10.982	84	167898	42.22	ug/L		90
48) 1,1-dichloropropene	11.045	75	141151	41.42	ug/L		99
49) carbon tetrachloride	11.077	117	167691	46.82	ug/L		96
50) isobutyl alcohol	11.029	42	52953m	281.46	ug/L		
53) n-butyl alcohol	11.774	56	383493	2116.71	ug/L		99
54) tert-amyl alcohol	11.197	55	56795	212.20	ug/L	#	84
55) iso-octane	11.402	57	461449	43.45	ug/L		99
56) benzene	11.297	78	418523	43.03	ug/L		99
57) tert-amyl methyl ether	11.386	87	88904	46.36	ug/L		96
58) heptane	11.559	57	77718	38.41	ug/L		98
59) isopropyl acetate	11.218	87	29491	49.54	ug/L	#	81
60) 1,2-dichloroethane	11.328	62	154409	46.12	ug/L		98
61) ethyl acrylate	12.005	55	172460	46.81	ug/L		100
62) trichloroethene	12.015	95	109049	44.85	ug/L		98
63) 2-nitropropane	12.739	41	41633	36.31	ug/L		90
65) methyl methacrylate	12.256	100	34103	46.70	ug/L		97
66) 1,2-dichloropropane	12.293	63	110572	45.20	ug/L		98
67) dibromomethane	12.398	93	75991	45.53	ug/L		97
68) methylcyclohexane	12.298	83	197676	41.74	ug/L		94
69) bromodichloromethane	12.545	83	155744	46.87	ug/L		98
70) epichlorohydrin	12.854	57	84899	199.42	ug/L		97
71) cis-1,3-dichloropropene	12.980	75	172537	45.26	ug/L		98
72) 4-methyl-2-pentanone	13.079	58	260485	183.58	ug/L		95
73) 3-methyl-1-butanol	13.079	55	242303	863.66	ug/L		96
76) toluene	13.342	92	238684	44.73	ug/L		97
77) ethyl methacrylate	13.504	69	150155	45.09	ug/L		97
78) trans-1,3-dichloropropene	13.515	75	154829	46.45	ug/L		98
79) 1,1,2-trichloroethane	13.724	83	86435	45.66	ug/L		96
80) 2-hexanone	13.876	58	241277	181.12	ug/L		98
81) tetrachloroethene	13.861	164	104235	49.35	ug/L		97
82) 1,3-dichloropropane	13.892	76	149869	46.41	ug/L		98
83) butyl acetate	13.945	56	84522	42.68	ug/L		100
84) dibromochloromethane	14.123	129	130835	53.50	ug/L		99
85) 1,2-dibromoethane	14.270	107	126296	51.35	ug/L		98
86) n-butyl ether	14.668	57	438255	42.00	ug/L		99
87) chlorobenzene	14.715	112	273975	46.87	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.778	131	119394	47.88	ug/L		98
89) ethylbenzene	14.773	91	436821	44.69	ug/L		99
90) m,p-xylene	14.883	106	347991	91.21	ug/L		99
91) o-xylene	15.255	106	186891	46.13	ug/L		99
92) styrene	15.266	104	295009	44.77	ug/L		95
93) butyl acrylate	15.093	55	234687	43.54	ug/L		99
94) bromoform	15.486	173	112936	55.67	ug/L		99
95) isopropylbenzene	15.580	105	486632	43.38	ug/L		99
96) cis-1,4-dichloro-2-butene	15.612	75	24926	19.29	ug/L		93
99) bromobenzene	15.942	156	145708	51.62	ug/L		99
100) 1,1,2,2-tetrachloroethane	15.837	83	178369	48.58	ug/L		98
101) trans-1,4-dichloro-2-b...	15.869	88	11764	28.02	ug/L	#	79
102) 1,2,3-trichloropropane	15.921	110	46836	52.40	ug/L		98
103) n-propylbenzene	15.968	91	528892	47.53	ug/L		98
104) 2-chlorotoluene	16.094	126	126645	50.19	ug/L		96
105) 4-chlorotoluene	16.199	91	326844	48.01	ug/L		96
106) 1,3,5-trimethylbenzene	16.110	105	396511	45.24	ug/L		99
107) tert-butylbenzene	16.430	119	363549	47.73	ug/L		98
108) 1,2,4-trimethylbenzene	16.477	105	407141	45.64	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160385.d
Acq On : 3 Jul 2018 12:08 am
Operator : HueanhT
Sample : JC68966-10MSD Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:14:31 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

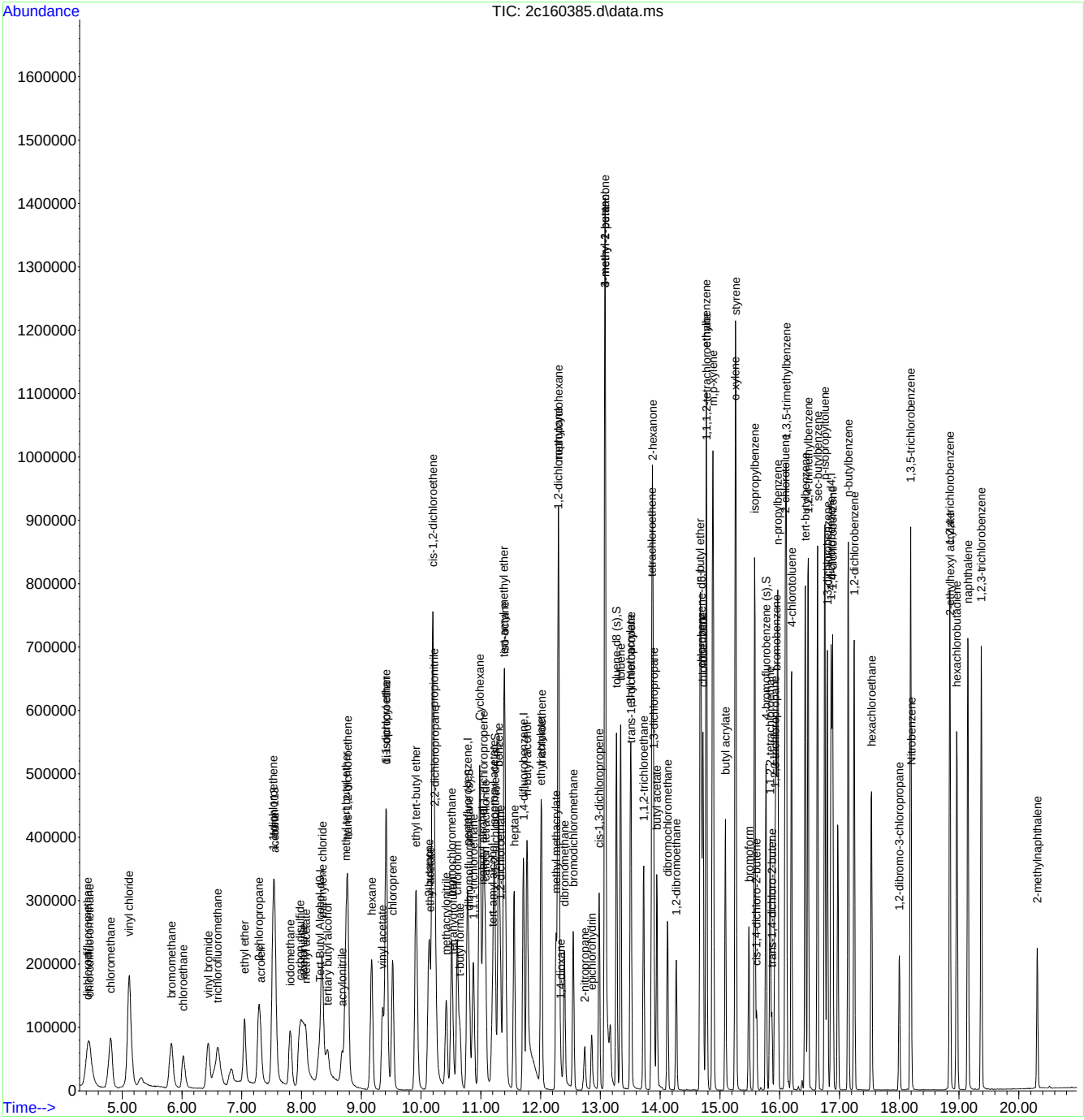
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
109) sec-butylbenzene	16.634	105	538339	45.93	ug/L		99
110) 1,3-dichlorobenzene	16.797	146	265322	47.71	ug/L		98
111) p-isopropyltoluene	16.755	119	470243	46.11	ug/L		100
112) 1,4-dichlorobenzene	16.886	146	262977	47.64	ug/L		99
113) 1,2-dichlorobenzene	17.248	146	282476	47.15	ug/L		100
114) n-butylbenzene	17.148	92	231716	44.10	ug/L		98
115) 1,2-dibromo-3-chloropr...	18.003	75	45401	49.93	ug/L		97
116) 1,3,5-trichlorobenzene	18.191	180	282381	46.16	ug/L		99
117) Nitrobenzene	18.202	77	11034	63.94	ug/L		95
118) 1,2,4-trichlorobenzene	18.847	180	242806	46.74	ug/L		97
119) 2-ethylhexyl acrylate	18.852	55	18071	4.51	ug/L	#	90
120) hexachlorobutadiene	18.962	225	128772	43.29	ug/L		98
121) naphthalene	19.151	128	542564	44.85	ug/L		100
122) 1,2,3-trichlorobenzene	19.371	180	228628	47.78	ug/L		99
123) hexachloroethane	17.536	201	90001	46.15	ug/L		97
124) 2-methylnaphthalene	20.310	142	101479	15.47	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : X:\voa-dayton\complete\2018\dayton201807\07-04-18\janellac\v2c7121\
Data File : 2c160385.d
Acq On : 3 Jul 2018 12:08 am
Operator : HueanhT
Sample : JC68966-10MSD Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:14:31 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration



Manual Integration Approval Summary

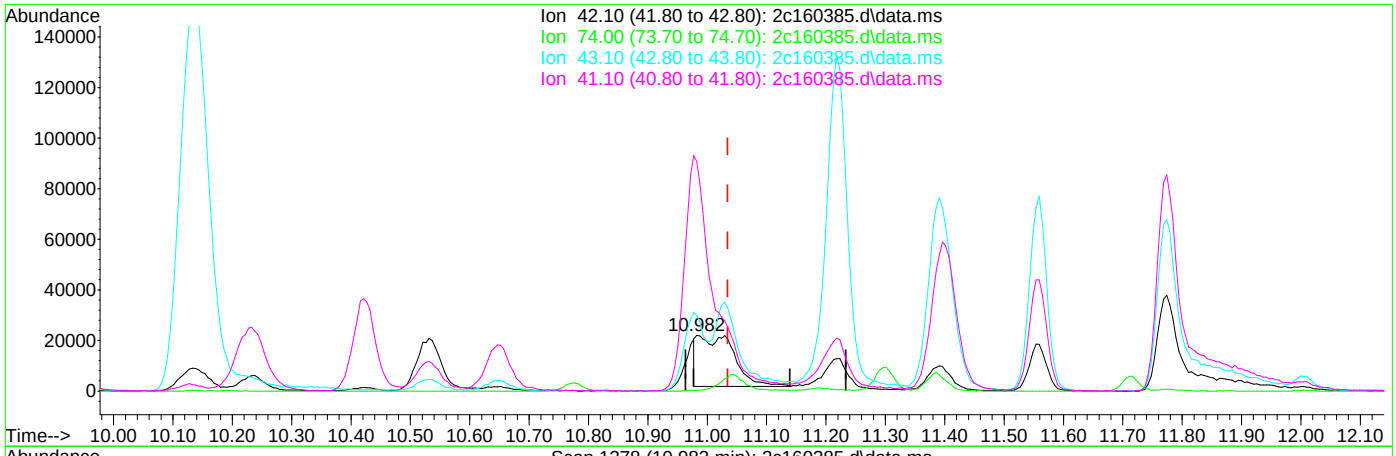
Sample Number:	JC68966-10MSD	**Method:**	SW846 8260C
Lab FileID:	2C160385.D	**Analyst approved:**	07/05/18 16:07 Marianna Gonzales
Injection Time:	07/03/18 00:08	**Supervisor approved:**	07/05/18 16:20 Mei Chen

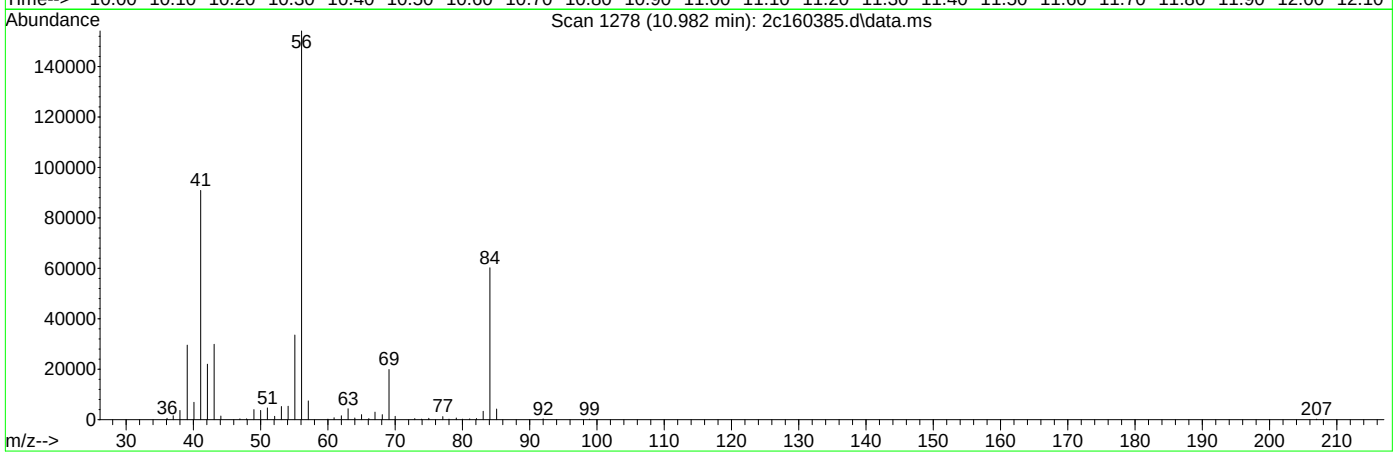
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		11.03	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160385.d
Acq On : 3 Jul 2018 12:08 am
Operator : HueanhT
Sample : JC68966-10MSD Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:55:00 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160385.d\data.ms

(50) isobutyl alcohol

10.982min (-0.052) 463.65ug/L

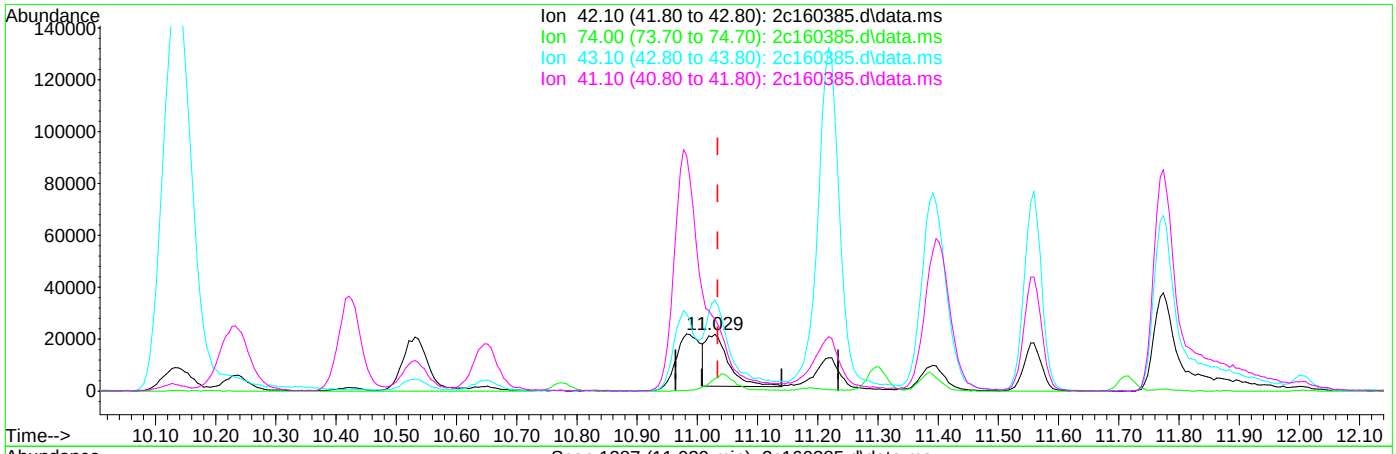
response 87228

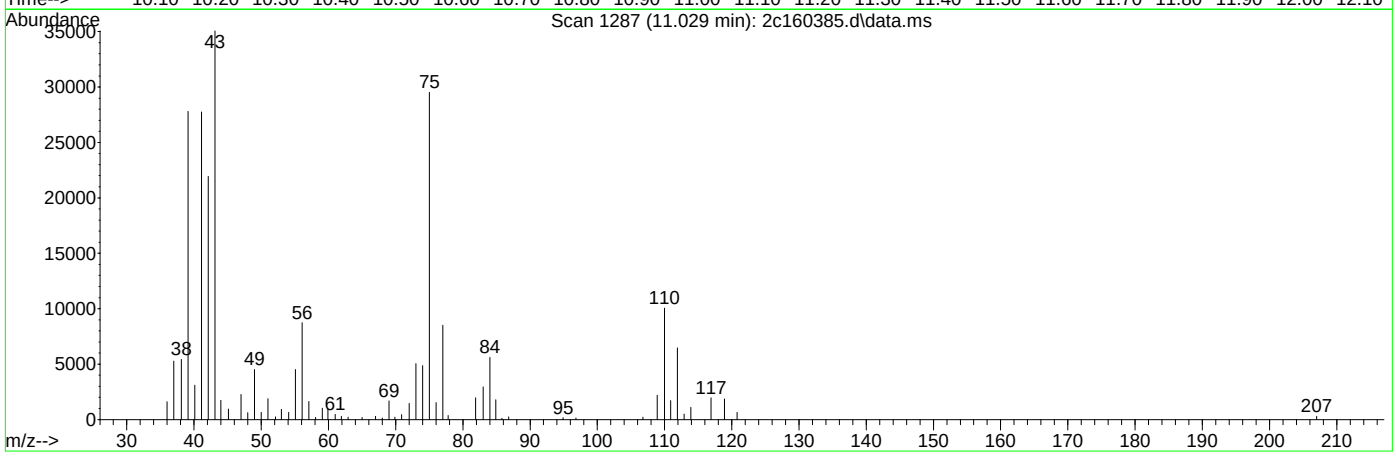
Ion	Exp%	Act%
42.10	100	100
74.00	20.10	0.00
43.10	159.80	129.27#
41.10	120.10	437.10#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160385.d
Acq On : 3 Jul 2018 12:08 am
Operator : HueanhT
Sample : JC68966-10MSD Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,10
ALS Vial : 35 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:55:00 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160385.d\data.ms

(50) isobutyl alcohol

11.029min (-0.005) 281.46ug/L m

response 52953

Ion	Exp%	Act%
42.10	100	100
74.00	20.10	22.16
43.10	159.80	159.94
41.10	120.10	126.56

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182813.d
Acq On : 5 Jul 2018 11:28 pm
Operator : jessicap
Sample : jc68966-25ms
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 64 Sample Multiplier: 1

Quant Time: Jul 06 15:57:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.240	65	249644	500.00	ug/L		0.00
5) pentafluorobenzene	4.475	168	297263	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.052	114	394265	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	405245	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	216242	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	108484	50.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	112982	46.72	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.44%				
76) toluene-d8 (s)	6.214	98	441967	44.55	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 89.10%				
99) 4-bromofluorobenzene (s)	8.563	95	185454	53.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 106.14%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.294	59	145596	217.25	ug/L		97
3) ethanol	2.643	45	232076	4313.41	ug/L		97
4) 1,4-dioxane	5.490	88	68997	1239.35	ug/L		95
6) chlorodifluoromethane	1.773	51	115022	63.52	ug/L		94
7) dichlorodifluoromethane	1.761	85	148843	56.35	ug/L		99
9) chloromethane	1.919	50	111776	47.99	ug/L		98
10) vinyl chloride	2.017	62	169424	72.68	ug/L		99
11) 1,3-butadiene	2.047	54	31451	15.15	ug/L		98
12) bromomethane	2.272	94	13460	12.11	ug/L		95
13) chloroethane	2.357	64	114728	83.91	ug/L		96
14) trichlorofluoromethane	2.552	101	176442	57.09	ug/L		99
15) vinyl bromide	2.503	106	93017	54.18	ug/L		99
16) ethyl ether	2.741	74	60073	51.96	ug/L		95
17) acrolein	2.844	56	23757	42.79	ug/L		90
18) freon 113	2.917	151	87627	61.14	ug/L		96
19) 1,1-dichloroethene	2.929	96	95994	54.08	ug/L		97
20) acetone	2.941	58	57671	221.19	ug/L		98
21) acetonitrile	3.136	41	211388	574.39	ug/L		96
22) iodomethane	3.045	142	40879	27.80	ug/L		94
23) carbon disulfide	3.112	76	262307	60.81	ug/L		100
24) methylene chloride	3.264	84	101880	53.69	ug/L		97
25) methyl acetate	3.148	43	112721	56.13	ug/L		96
26) methyl tert butyl ether	3.440	73	311695	52.99	ug/L		99
27) trans-1,2-dichloroethene	3.452	96	103814	54.76	ug/L		99
28) di-isopropyl ether	3.751	45	305144	54.75	ug/L		97
29) 2-butanone	4.122	72	83443	234.88	ug/L	#	87
30) 1,1-dichloroethane	3.757	63	180649	54.41	ug/L		99
31) chloroprene	3.811	53	163141	58.73	ug/L		98
32) acrylonitrile	3.416	53	54634	54.09	ug/L		91
33) hexane	3.635	56	63513	62.68	ug/L		97
34) vinyl acetate	3.726	86	22769	55.28	ug/L	#	90
35) ethyl tert-butyl ether	4.000	59	316188	54.98	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182813.d
Acq On : 5 Jul 2018 11:28 pm
Operator : jessicap
Sample : jc68966-25ms
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 64 Sample Multiplier: 1

Quant Time: Jul 06 15:57:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	4.128	45	27837	66.41	ug/L	#	84
37) 2,2-dichloropropane	4.164	77	150299	55.09	ug/L		99
38) cis-1,2-dichloroethene	4.152	96	127581	58.85	ug/L		97
39) methyl acrylate	4.176	85	24005	56.59	ug/L		98
40) propionitrile	4.170	54	270906	583.16	ug/L		93
41) bromochloromethane	4.316	128	56474	54.53	ug/L		96
42) tetrahydrofuran	4.335	71	22487	58.89	ug/L		96
43) chloroform	4.371	85	120019	54.78	ug/L		99
44) t-butyl formate	4.395	59	1876	1.46	ug/L	#	64
46) methacrylonitrile	4.280	67	58311	56.15	ug/L		89
47) 1,1,1-trichloroethane	4.523	97	170738	55.47	ug/L		98
48) cyclohexane	4.584	84	146872	58.06	ug/L		93
49) 1,1-dichloropropene	4.627	75	143104	54.80	ug/L		97
50) iso-butyl alcohol	4.621	42	61159	691.60	ug/L		97
51) carbon tetrachloride	4.639	117	148621	54.30	ug/L		99
52) tert amyl alcohol	4.718	55	46834	315.35	ug/L		87
55) n-butyl alcohol	5.101	56	342345	3177.79	ug/L		99
56) 2,2,4-trimethylpentane	4.840	57	240914	58.12	ug/L		98
57) benzene	4.779	78	409717	53.27	ug/L		100
58) tert-amyl methyl ether	4.840	87	79063	56.35	ug/L		91
59) heptane	4.949	71	62121	62.64	ug/L		94
60) isopropyl acetate	4.742	87	29973	54.18	ug/L	#	83
61) 1,2-dichloroethane	4.803	62	138879	51.83	ug/L		99
62) trichloroethene	5.253	130	126764	54.17	ug/L		98
63) ethyl acrylate	5.265	55	176823	57.10	ug/L		98
64) 2-nitropropane	5.801	41	35907	53.32	ug/L		96
65) 2-chloroethyl vinyl ether	5.886	63	1632	1.18	ug/L	#	57
66) methyl methacrylate	5.448	100	42022	57.07	ug/L		95
67) 1,2-dichloropropane	5.454	63	98965	54.05	ug/L		98
68) dibromomethane	5.521	93	64548	54.35	ug/L		94
69) methylcyclohexane	5.448	83	163616	60.75	ug/L		98
70) bromodichloromethane	5.636	83	143471	54.33	ug/L		96
71) epichlorohydrin	5.886	57	42213	144.38	ug/L		91
72) cis-1,3-dichloropropene	5.983	75	176908	55.85	ug/L		98
73) 4-methyl-2-pentanone	6.081	58	246141	238.24	ug/L		94
74) 3-methyl-1-butanol	6.087	55	212711	1330.66	ug/L		98
77) toluene	6.275	92	268906	46.49	ug/L		98
78) trans-1,3-dichloropropene	6.440	75	162192	48.52	ug/L		98
79) ethyl methacrylate	6.452	69	162094	49.31	ug/L		97
80) 1,1,2-trichloroethane	6.610	83	81856	49.38	ug/L		90
81) tetrachloroethene	6.713	164	114380	50.05	ug/L		96
82) 1,3-dichloropropane	6.756	76	163951	46.73	ug/L		99
83) 2-hexanone	6.774	58	260311	210.83	ug/L		98
84) butyl acetate	6.853	56	84171	46.18	ug/L		95
85) dibromochloromethane	6.951	129	125353	50.50	ug/L		97
86) 1,2-dibromoethane	7.072	107	118650	45.24	ug/L		96
87) n-butyl ether	7.541	57	430946	49.72	ug/L		99
88) chlorobenzene	7.504	112	319896	48.45	ug/L		99
89) 1,1,1,2-tetrachloroethane	7.571	131	118091	49.21	ug/L		94
90) ethylbenzene	7.577	91	508585	46.55	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182813.d
Acq On : 5 Jul 2018 11:28 pm
Operator : jessicap
Sample : jc68966-25ms
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 64 Sample Multiplier: 1

Quant Time: Jul 06 15:57:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

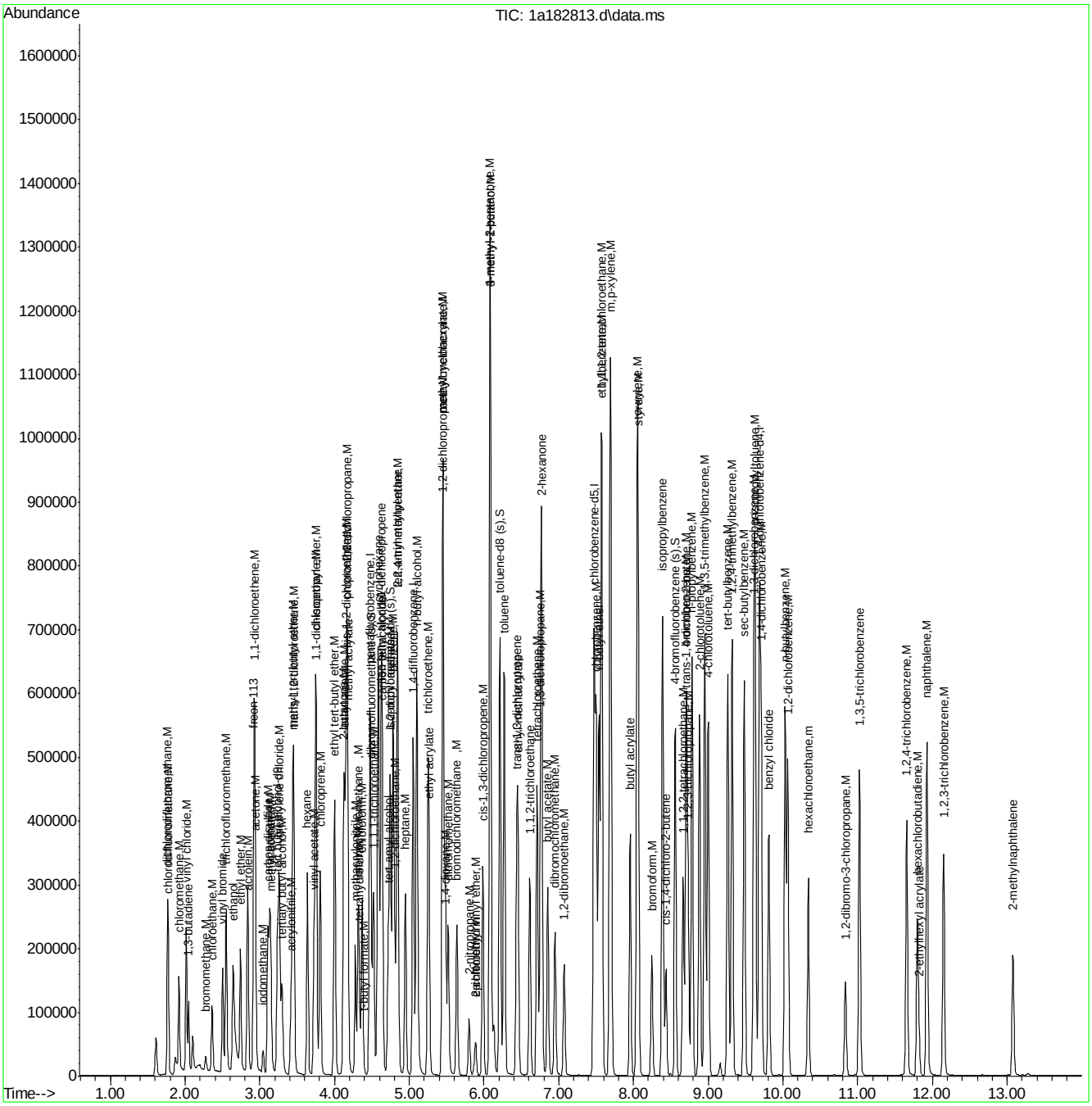
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
91) m,p-xylene	7.693	106	403640	91.89	ug/L	99
92) o-xylene	8.052	106	200771	46.39	ug/L	98
93) styrene	8.064	104	339132	47.00	ug/L	98
94) bromoform	8.246	173	98030	50.93	ug/L	98
95) butyl acrylate	7.960	55	233776	51.37	ug/L	97
96) isopropylbenzene	8.386	105	506299	47.35	ug/L	98
97) cis-1,4-dichloro-2-butene	8.435	88	44203	36.32	ug/L	93
100) bromobenzene	8.709	156	147308	50.16	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.666	83	156859	52.33	ug/L	96
102) trans-1,4-dichloro-2-b...	8.703	53	28758	34.07	ug/L	87
103) 1,2,3-trichloropropane	8.733	110	51870	48.99	ug/L	95
104) n-propylbenzene	8.782	91	557129	48.69	ug/L	99
105) 2-chlorotoluene	8.885	126	129267	48.73	ug/L	98
106) 4-chlorotoluene	9.001	126	129554	50.54	ug/L	98
107) 1,3,5-trimethylbenzene	8.952	105	402570	47.96	ug/L	99
108) tert-butylbenzene	9.262	134	91808	50.84	ug/L	96
109) 1,2,4-trimethylbenzene	9.323	105	402107	47.43	ug/L	100
110) sec-butylbenzene	9.481	105	467053	47.86	ug/L	99
111) 1,3-dichlorobenzene	9.609	146	254235	48.86	ug/L	100
112) p-isopropyltoluene	9.627	119	416504	49.45	ug/L	99
113) 1,4-dichlorobenzene	9.706	146	252433	47.94	ug/L	100
114) benzyl chloride	9.816	91	280650	50.60	ug/L	99
115) 1,2-dichlorobenzene	10.065	146	239802	47.60	ug/L	96
116) n-butylbenzene	10.029	92	184490	49.66	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.838	157	55498	53.41	ug/L	91
118) 1,3,5-trichlorobenzene	11.027	180	171954	49.89	ug/L	99
119) 2-ethylhexyl acrylate	11.823	70	14676	10.09	ug/L	88
120) 1,2,4-trichlorobenzene	11.659	180	149028	50.13	ug/L	99
121) hexachlorobutadiene	11.799	225	56823	48.48	ug/L	95
122) naphthalene	11.927	128	474529	48.25	ug/L	99
123) 1,2,3-trichlorobenzene	12.152	180	136774	47.71	ug/L	99
124) hexachloroethane	10.339	201	66576	47.06	ug/L	97
125) 2-methylnaphthalene	13.077	142	112928	23.74	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182813.d
Acq On : 5 Jul 2018 11:28 pm
Operator : jessicap
Sample : jc68966-25ms
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 64 Sample Multiplier: 1

Quant Time: Jul 06 15:57:42 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



M1A7758.M Fri Jul 06 16:07:10 2018 1 Page: 4

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83400.d
Acq On : 6 Jul 2018 3:55 pm
Operator : HueanhT
Sample : JC68932-1ms Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:26 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.780	65	87527	500.00	ug/L	-0.02
5) pentafluorobenzene	8.778	168	178515	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.646	114	249672	50.00	ug/L	0.00
75) chlorobenzene-d5	12.826	117	236405	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.400	152	143242	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.825	113	82838	49.11	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.22%			
55) 1,2-dichloroethane-d4 (s)	9.212	65	89391	49.91	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.82%			
76) toluene-d8 (s)	11.236	98	282407	47.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.38%			
99) 4-bromofluorobenzene (s)	14.102	95	112367	51.13	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.26%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.879	59	59534	245.12	ug/L	97
4) 1,4-dioxane	10.269	88	21127	987.49	ug/L	94
6) chlorodifluoromethane	3.924	51	200003	40.88	ug/L	99
7) dichlorodifluoromethane	3.909	85	222666	47.38	ug/L	99
8) chloromethane	4.259	50	252542	44.98	ug/L	99
9) vinyl chloride	4.458	62	216799	44.76	ug/L	100
11) bromomethane	4.991	94	126009	40.05	ug/L	99
12) chloroethane	5.133	64	104587	42.90	ug/L	98
13) trichlorofluoromethane	5.535	101	207751	50.30	ug/L	99
14) vinyl bromide	5.431	106	111180	43.32	ug/L	97
15) ethyl ether	5.833	74	50882	48.14	ug/L	90
16) 2-chloropropane	6.043	43	227946	49.52	ug/L	98
17) acrolein	6.037	56	16786	36.43	ug/L	97
18) freon 113	6.231	151	99827	49.61	ug/L	98
19) 1,1-dichloroethene	6.226	61	198277	48.21	ug/L	98
20) acetone	6.210	58	30671	180.66	ug/L	91
21) acetonitrile	6.581	41	149009	431.42	ug/L	99
22) iodomethane	6.456	142	166171	44.16	ug/L	97
23) carbon disulfide	6.587	76	328976	43.12	ug/L	98
24) methylene chloride	6.832	84	117459	44.97	ug/L	98
25) methyl acetate	6.597	43	77603	48.98	ug/L	99
26) methyl tert butyl ether	7.136	73	284426	42.34	ug/L	99
27) trans-1,2-dichloroethene	7.167	61	165776	48.23	ug/L	97
28) hexane	7.465	56	89121	50.26	ug/L	97
29) di-isopropyl ether	7.648	45	402521	45.38	ug/L	98
30) 2-butanone	8.234	72	35741	190.60	ug/L	99
31) 1,1-dichloroethane	7.674	63	203151	47.82	ug/L	99
32) chloroprene	7.763	53	168930	48.34	ug/L	98
33) acrylonitrile	7.073	53	35317	47.10	ug/L	89
34) vinyl acetate	7.596	86	11759	41.97	ug/L #	84
35) ethyl tert-butyl ether	8.061	59	339220	44.55	ug/L	98
36) ethyl acetate	8.245	45	14185	44.16	ug/L	99
37) 2,2-dichloropropane	8.344	77	169338	45.95	ug/L	99
38) cis-1,2-dichloroethene	8.313	96	112770	45.82	ug/L	96
39) propionitrile	8.307	54	147020	444.75	ug/L	93
40) methyl acrylate	8.323	85	11853	45.31	ug/L	99
41) methacrylonitrile	8.490	67	33310	44.26	ug/L	93
42) bromochloromethane	8.579	128	51176	45.89	ug/L	92
43) tetrahydrofuran	8.600	72	11321	45.18	ug/L	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83400.d
Acq On : 6 Jul 2018 3:55 pm
Operator : HueanhT
Sample : JC68932-1ms Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:26 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	chloroform	8.652	83	181914	45.72	ug/L		99
45)	tert-butyl formate	8.679	59	7059	4.26	ug/L	#	78
47)	1,1,1-trichloroethane	8.898	97	178537	46.11	ug/L		98
48)	cyclohexane	9.008	84	178464	44.14	ug/L		99
50)	1,1-dichloropropene	9.045	75	139557	46.71	ug/L		99
51)	carbon tetrachloride	9.081	117	153550	49.08	ug/L		98
52)	tert-amyl alcohol	9.149	73	22966	184.38	ug/L		92
53)	isopropyl acetate	9.165	87	15519	42.00	ug/L	#	83
56)	n-butyl alcohol	9.672	41	101018	2061.75	ug/L		95
57)	2,2,4-trimethylpentane	9.353	57	515411	50.80	ug/L		100
58)	benzene	9.275	78	394658	45.13	ug/L		98
59)	tert-amyl methyl ether	9.338	73	306747	44.20	ug/L		97
60)	heptane	9.495	57	89058	49.62	ug/L		99
61)	1,2-dichloroethane	9.296	62	124736	47.15	ug/L		99
62)	ethyl acrylate	9.913	55	101792	47.06	ug/L		99
63)	trichloroethene	9.944	95	111445	54.07	ug/L		97
65)	methyl methacrylate	10.164	100	19111	45.15	ug/L		98
66)	methylcyclohexane	10.237	83	223824	46.80	ug/L		97
67)	1,2-dichloropropane	10.227	63	106039	46.73	ug/L		99
68)	dibromomethane	10.337	93	56604	46.80	ug/L		99
69)	bromodichloromethane	10.478	83	129689	49.28	ug/L		99
70)	2-nitropropane	10.666	41	19727	28.53	ug/L		93
71)	epichlorohydrin	10.792	57	27510	138.18	ug/L		98
72)	cis-1,3-dichloropropene	10.922	75	147043	47.37	ug/L		99
73)	4-methyl-2-pentanone	11.017	58	144237	187.87	ug/L		93
74)	isoamyl alcohol	11.011	70	49806	872.30	ug/L		94
77)	toluene	11.315	92	230535	44.95	ug/L		98
78)	ethyl methacrylate	11.477	69	107509	46.69	ug/L		95
79)	trans-1,3-dichloropropene	11.498	75	126066	47.91	ug/L		95
80)	1,1,2-trichloroethane	11.733	83	66412	47.12	ug/L		98
81)	tetrachloroethene	11.890	164	89727	48.90	ug/L		96
82)	2-hexanone	11.890	58	131693	198.32	ug/L		94
83)	1,3-dichloropropane	11.921	76	128436	47.81	ug/L		99
84)	butyl acetate	11.974	56	56041	47.75	ug/L		98
85)	dibromochloromethane	12.183	129	90565	53.54	ug/L		99
86)	1,2-dibromoethane	12.350	107	86766	49.06	ug/L		99
87)	n-butyl ether	12.805	57	469837	46.08	ug/L		99
88)	chlorobenzene	12.863	112	250828	45.71	ug/L		99
89)	1,1,1,2-tetrachloroethane	12.931	131	105410	46.91	ug/L		100
90)	ethylbenzene	12.926	91	459772	45.87	ug/L		100
91)	m,p-xylene	13.056	106	346081	92.01	ug/L		97
92)	o-xylene	13.490	91	376457	43.67	ug/L		99
93)	styrene	13.506	104	268791	43.75	ug/L		98
94)	butyl acrylate	13.302	55	194935	48.14	ug/L		99
95)	isopropylbenzene	13.878	105	490196	43.94	ug/L		99
96)	bromoform	13.762	173	63325	58.32	ug/L		99
97)	cis-1,4-dichloro-2-butene	13.914	88	18322	29.07	ug/L		97
100)	1,1,2,2-tetrachloroethane	14.186	83	117323	46.82	ug/L		99
101)	trans-1,4-dichloro-2-b...	14.217	53	16357	31.06	ug/L		96
102)	1,2,3-trichloropropane	14.280	110	28499	46.94	ug/L		98
103)	bromobenzene	14.301	156	123989	49.94	ug/L		95
104)	n-propylbenzene	14.333	91	583504	47.22	ug/L		99
105)	2-chlorotoluene	14.484	126	117631	46.61	ug/L		97
106)	4-chlorotoluene	14.610	91	326884	47.39	ug/L		99
107)	1,3,5-trimethylbenzene	14.510	105	411420	43.63	ug/L		99
108)	tert-butylbenzene	14.882	119	350416	44.22	ug/L		99
109)	1,2,4-trimethylbenzene	14.944	105	407848	43.10	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83400.d
Acq On : 6 Jul 2018 3:55 pm
Operator : HueanhT
Sample : JC68932-1ms Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:26 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

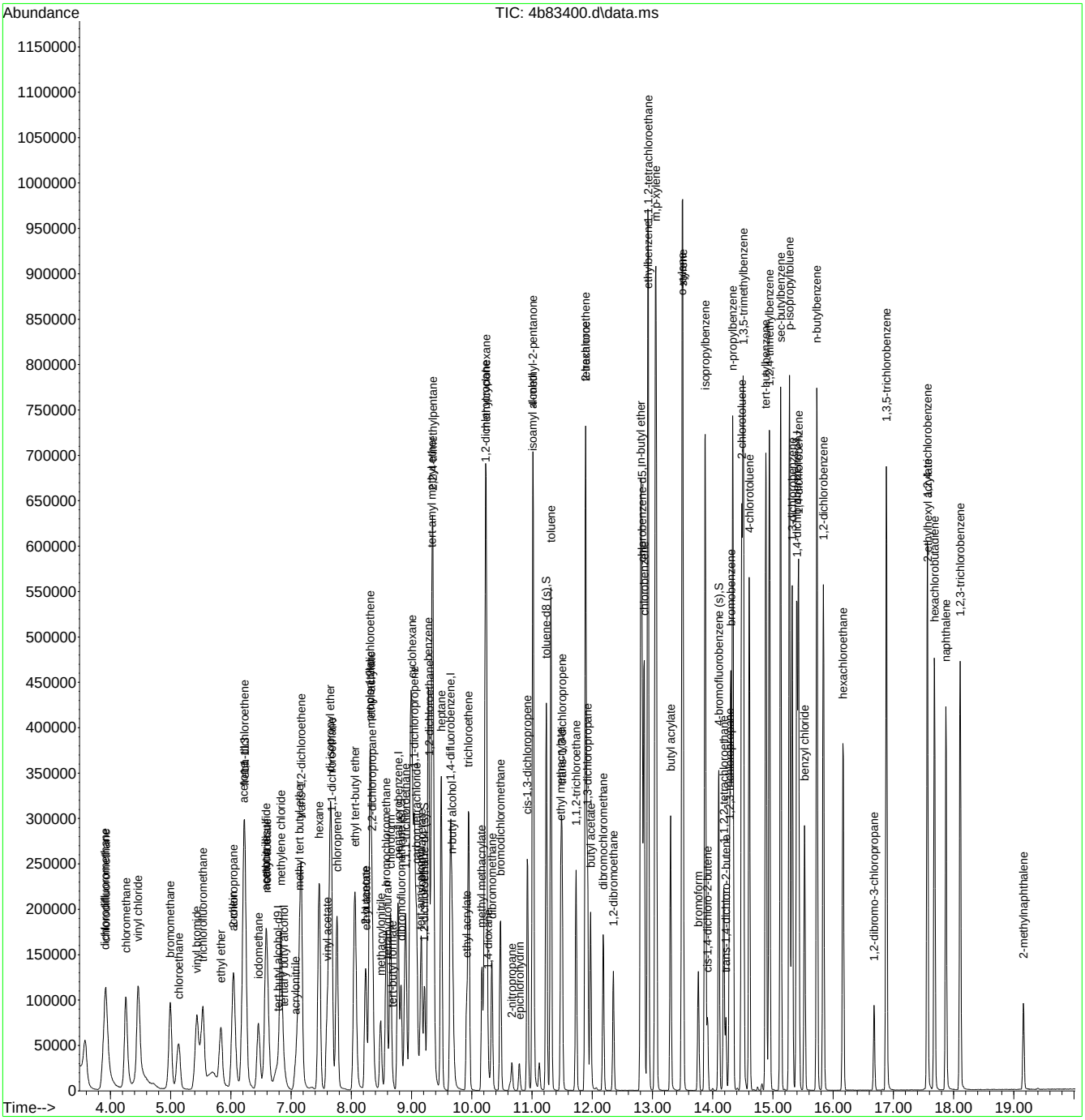
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) sec-butylbenzene	15.128	105	561428	44.36	ug/L		100
111) p-isopropyltoluene	15.274	119	471634	43.80	ug/L		100
112) 1,3-dichlorobenzene	15.321	146	239700	45.70	ug/L		99
113) 1,4-dichlorobenzene	15.426	146	238797	45.17	ug/L		99
114) 1,2-dichlorobenzene	15.839	146	237286	43.28	ug/L		99
115) benzyl chloride	15.525	91	210152	48.83	ug/L		98
116) n-butylbenzene	15.729	92	242421	43.28	ug/L		98
117) hexachloroethane	16.163	201	75627	46.49	ug/L		94
118) 1,2-dibromo-3-chloropr...	16.681	157	26815	47.22	ug/L		96
119) 1,3,5-trichlorobenzene	16.885	180	225985	40.27	ug/L		99
120) 1,2,4-trichlorobenzene	17.565	180	182537	39.44	ug/L		99
121) 2-ethylhexyl acrylate	17.570	70	11625	3.77	ug/L	#	82
122) hexachlorobutadiene	17.685	225	109644	41.56	ug/L		99
123) naphthalene	17.873	128	327192	35.97	ug/L		98
124) 1,2,3-trichlorobenzene	18.109	180	162631	40.35	ug/L		99
125) 2-methylnaphthalene	19.160	142	51230	12.94	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83400.d
Acq On : 6 Jul 2018 3:55 pm
Operator : HueanhT
Sample : JC68932-1ms Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 18 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:26 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83401.d
Acq On : 6 Jul 2018 4:23 pm
Operator : HueanhT
Sample : JC68932-1msd Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:10 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.780	65	93291	500.00	ug/L	-0.02
5) pentafluorobenzene	8.778	168	178759	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.646	114	248551	50.00	ug/L	0.00
75) chlorobenzene-d5	12.826	117	238661	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.400	152	145860	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.825	113	83292	49.31	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.62%			
55) 1,2-dichloroethane-d4 (s)	9.217	65	89105	49.97	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.94%			
76) toluene-d8 (s)	11.236	98	282043	46.68	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 93.36%			
99) 4-bromofluorobenzene (s)	14.102	95	112989	50.49	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.98%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.885	59	63171	244.03	ug/L	98
4) 1,4-dioxane	10.269	88	23710	1039.75	ug/L	93
6) chlorodifluoromethane	3.930	51	194223	39.65	ug/L	97
7) dichlorodifluoromethane	3.909	85	212388	45.13	ug/L	98
8) chloromethane	4.259	50	245979	43.75	ug/L	100
9) vinyl chloride	4.463	62	209473	43.19	ug/L	99
11) bromomethane	5.002	94	125516	39.84	ug/L	99
12) chloroethane	5.138	64	103091	42.23	ug/L	97
13) trichlorofluoromethane	5.535	101	201667	48.76	ug/L	96
14) vinyl bromide	5.436	106	111591	43.42	ug/L	97
15) ethyl ether	5.833	74	50746	47.94	ug/L	90
16) 2-chloropropane	6.043	43	220410	47.81	ug/L	99
17) acrolein	6.053	56	15908	34.47	ug/L	92
18) freon 113	6.226	151	99196	49.23	ug/L	98
19) 1,1-dichloroethene	6.226	61	195889	47.57	ug/L	99
20) acetone	6.215	58	31379	184.58	ug/L	94
21) acetonitrile	6.576	41	152048	439.62	ug/L	99
22) iodomethane	6.461	142	167776	44.53	ug/L	98
23) carbon disulfide	6.587	76	322242	42.18	ug/L	98
24) methylene chloride	6.832	84	118006	45.12	ug/L	97
25) methyl acetate	6.597	43	77587	48.91	ug/L	99
26) methyl tert butyl ether	7.141	73	287014	42.66	ug/L	99
27) trans-1,2-dichloroethene	7.172	61	160436	46.61	ug/L	99
28) hexane	7.465	56	85358	48.07	ug/L	99
29) di-isopropyl ether	7.648	45	393296	44.28	ug/L	97
30) 2-butanone	8.234	72	36092	192.21	ug/L	95
31) 1,1-dichloroethane	7.674	63	199435	46.88	ug/L	98
32) chloroprene	7.763	53	147907	42.26	ug/L	98
33) acrylonitrile	7.078	53	36002	47.94	ug/L	92
34) vinyl acetate	7.596	86	11500	40.99	ug/L	98
35) ethyl tert-butyl ether	8.062	59	338535	44.40	ug/L	98
36) ethyl acetate	8.245	45	13991	43.50	ug/L #	92
37) 2,2-dichloropropane	8.349	77	164457	44.56	ug/L	99
38) cis-1,2-dichloroethene	8.313	96	113926	46.22	ug/L	97
39) propionitrile	8.307	54	150247	453.90	ug/L	92
40) methyl acrylate	8.318	85	11911	45.47	ug/L	96
41) methacrylonitrile	8.485	67	32700	43.39	ug/L	95
42) bromochloromethane	8.585	128	51483	46.10	ug/L	98
43) tetrahydrofuran	8.595	72	11362	45.28	ug/L #	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83401.d
Acq On : 6 Jul 2018 4:23 pm
Operator : HueanhT
Sample : JC68932-1msd Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:10 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44) chloroform	8.653	83	181211	45.49	ug/L	98
45) tert-butyl formate	8.684	59	3476	2.10	ug/L #	76
47) 1,1,1-trichloroethane	8.904	97	177881	45.87	ug/L	98
48) cyclohexane	9.008	84	175020	43.23	ug/L	98
50) 1,1-dichloropropene	9.045	75	136898	45.76	ug/L	100
51) carbon tetrachloride	9.081	117	152258	48.61	ug/L	99
52) tert-amyl alcohol	9.144	73	26439	211.98	ug/L #	77
53) isopropyl acetate	9.170	87	15879	42.92	ug/L #	79
56) n-butyl alcohol	9.678	41	105876	2170.65	ug/L	95
57) 2,2,4-trimethylpentane	9.353	57	499222	49.43	ug/L	99
58) benzene	9.280	78	388925	44.68	ug/L	99
59) tert-amyl methyl ether	9.338	73	308291	44.62	ug/L	98
60) heptane	9.489	57	83609	46.79	ug/L	97
61) 1,2-dichloroethane	9.301	62	123267	46.81	ug/L	97
62) ethyl acrylate	9.913	55	103199	47.93	ug/L	99
63) trichloroethene	9.950	95	111172	54.18	ug/L	96
65) methyl methacrylate	10.169	100	18725	44.44	ug/L	86
66) methylcyclohexane	10.243	83	219359	46.08	ug/L	100
67) 1,2-dichloropropane	10.227	63	104870	46.42	ug/L	99
68) dibromomethane	10.331	93	57508	47.77	ug/L	95
69) bromodichloromethane	10.478	83	127983	48.85	ug/L	99
70) 2-nitropropane	10.666	41	20302	29.50	ug/L	99
71) epichlorohydrin	10.792	57	25617	129.25	ug/L	97
72) cis-1,3-dichloropropene	10.928	75	147411	47.71	ug/L	98
73) 4-methyl-2-pentanone	11.017	58	148154	193.85	ug/L	95
74) isoamyl alcohol	11.011	70	53863	947.61	ug/L #	86
77) toluene	11.315	92	228531	44.13	ug/L	98
78) ethyl methacrylate	11.482	69	103910	44.70	ug/L	99
79) trans-1,3-dichloropropene	11.498	75	122654	46.17	ug/L	96
80) 1,1,2-trichloroethane	11.733	83	67628	47.53	ug/L	98
81) tetrachloroethene	11.890	164	90588	48.90	ug/L	99
82) 2-hexanone	11.895	58	136270	203.27	ug/L	97
83) 1,3-dichloropropane	11.921	76	129488	47.75	ug/L	97
84) butyl acetate	11.974	56	56540	47.72	ug/L	96
85) dibromochloromethane	12.183	129	89633	52.49	ug/L	99
86) 1,2-dibromoethane	12.350	107	88826	49.75	ug/L	100
87) n-butyl ether	12.805	57	466956	45.36	ug/L	99
88) chlorobenzene	12.863	112	250558	45.23	ug/L	99
89) 1,1,1,2-tetrachloroethane	12.931	131	105275	46.41	ug/L	98
90) ethylbenzene	12.926	91	452855	44.76	ug/L	100
91) m,p-xylene	13.056	106	338183	89.06	ug/L	98
92) o-xylene	13.496	91	370517	42.57	ug/L	99
93) styrene	13.506	104	208984	33.69	ug/L	100
94) butyl acrylate	13.302	55	195762	47.89	ug/L	99
95) isopropylbenzene	13.878	105	485152	43.07	ug/L	99
96) bromoform	13.762	173	62125	56.67	ug/L	97
97) cis-1,4-dichloro-2-butene	13.914	88	14687	23.08	ug/L	96
100) 1,1,2,2-tetrachloroethane	14.186	83	119781	46.94	ug/L	99
101) trans-1,4-dichloro-2-b...	14.217	53	17835	33.26	ug/L	99
102) 1,2,3-trichloropropane	14.280	110	29093	47.05	ug/L	94
103) bromobenzene	14.301	156	125239	49.54	ug/L	97
104) n-propylbenzene	14.338	91	582508	46.29	ug/L	100
105) 2-chlorotoluene	14.484	126	119280	46.41	ug/L	93
106) 4-chlorotoluene	14.610	91	325668	46.37	ug/L	97
107) 1,3,5-trimethylbenzene	14.510	105	387197	40.32	ug/L	99
108) tert-butylbenzene	14.887	119	350011	43.37	ug/L	97
109) 1,2,4-trimethylbenzene	14.945	105	349235	36.24	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83401.d
Acq On : 6 Jul 2018 4:23 pm
Operator : HueanhT
Sample : JC68932-1msd Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:10 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

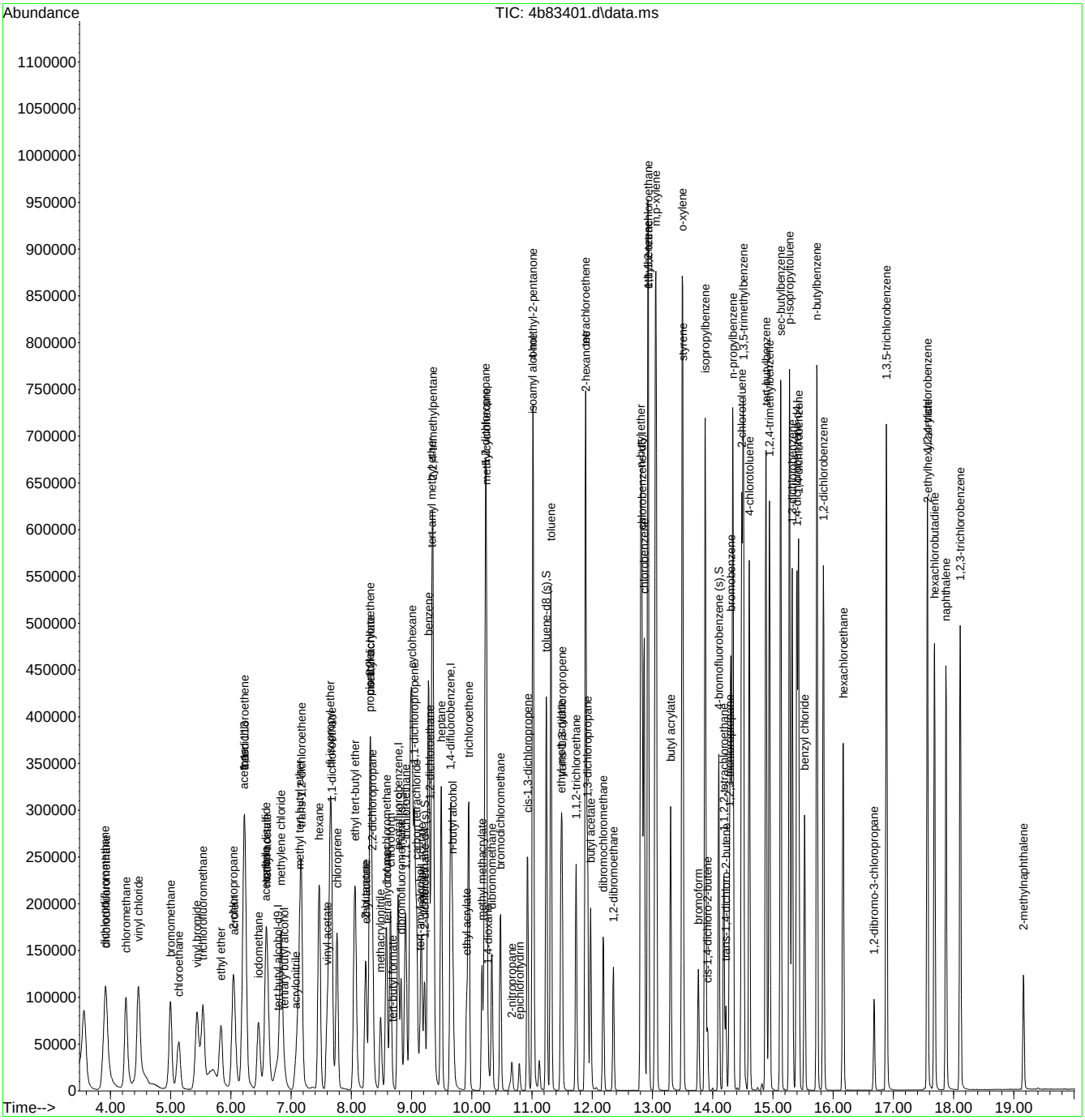
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
110) sec-butylbenzene	15.128	105	555774	43.12	ug/L		99
111) p-isopropyltoluene	15.274	119	463437	42.27	ug/L		99
112) 1,3-dichlorobenzene	15.321	146	243188	45.53	ug/L		99
113) 1,4-dichlorobenzene	15.426	146	242524	45.05	ug/L		99
114) 1,2-dichlorobenzene	15.839	146	240369	43.05	ug/L		99
115) benzyl chloride	15.525	91	213703	48.76	ug/L		98
116) n-butylbenzene	15.729	92	243250	42.65	ug/L		99
117) hexachloroethane	16.168	201	74805	45.16	ug/L		94
118) 1,2-dibromo-3-chloropr...	16.681	157	28444	49.19	ug/L		99
119) 1,3,5-trichlorobenzene	16.885	180	231332	40.48	ug/L		99
120) 1,2,4-trichlorobenzene	17.565	180	191150	40.56	ug/L		98
121) 2-ethylhexyl acrylate	17.570	70	13705	4.36	ug/L	#	86
122) hexachlorobutadiene	17.685	225	110923	41.29	ug/L		99
123) naphthalene	17.873	128	356741	38.52	ug/L		99
124) 1,2,3-trichlorobenzene	18.109	180	172088	41.93	ug/L		97
125) 2-methylnaphthalene	19.160	142	66947	16.61	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83401.d
Acq On : 6 Jul 2018 4:23 pm
Operator : HueanhT
Sample : JC68932-1msd Inst : MS4B
Misc : MS27586,V4B3470,5,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:10 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182815.d
Acq On : 6 Jul 2018 12:18 am
Operator : jessicap
Sample : jc68966-26dup
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 66 Sample Multiplier: 1

Quant Time: Jul 06 15:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

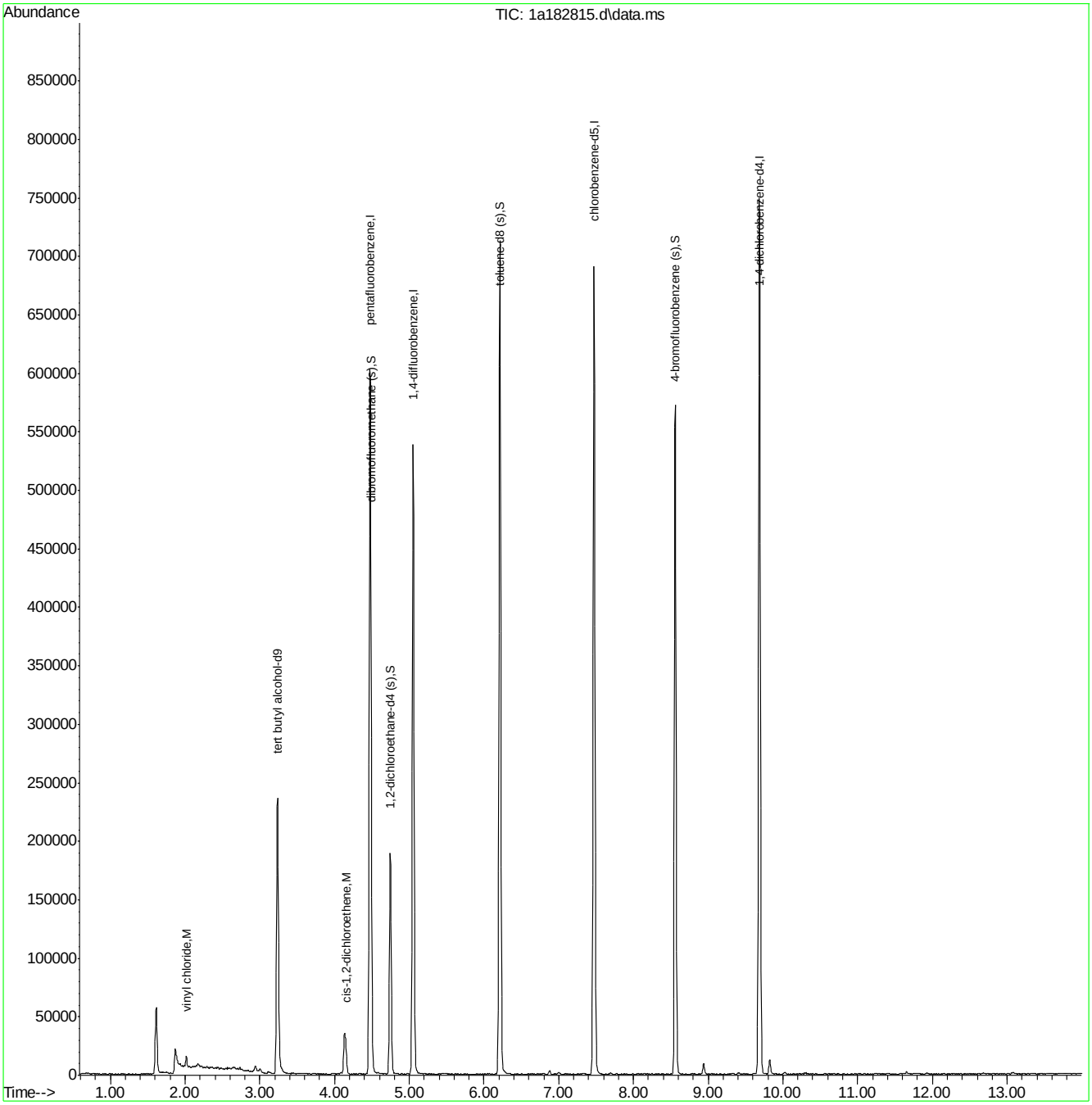
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	249206	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	305880	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	408923	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	412810	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	223570	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	113871	51.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.58%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	116278	46.36	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.72%			
76) toluene-d8 (s)	6.214	98	465792	46.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.18%			
99) 4-bromofluorobenzene (s)	8.557	95	190252	52.66	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.32%			
Target Compounds						Qvalue
10) vinyl chloride	2.017	62	6341	2.64	ug/L	86
38) cis-1,2-dichloroethene	4.152	96	8057	3.61	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

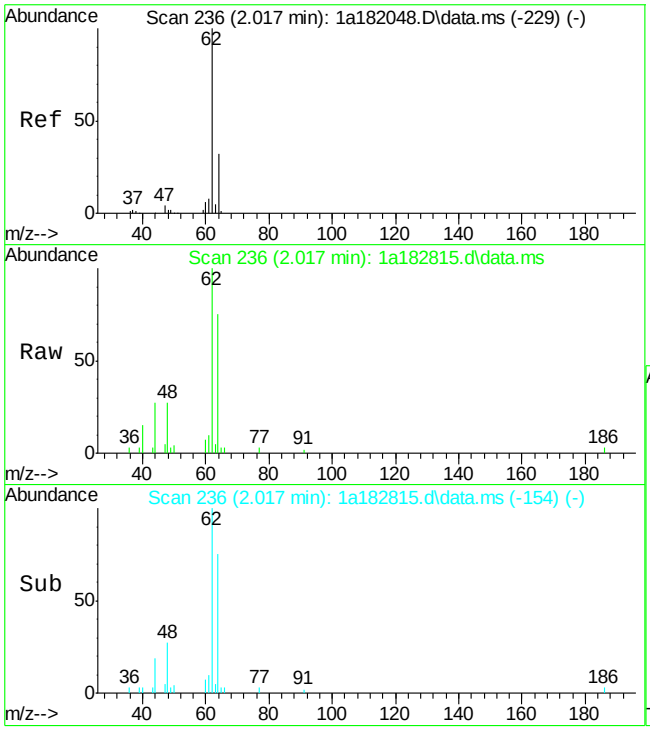
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182815.d
Acq On : 6 Jul 2018 12:18 am
Operator : jessicap
Sample : jc68966-26dup
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 66 Sample Multiplier: 1

Quant Time: Jul 06 15:59:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



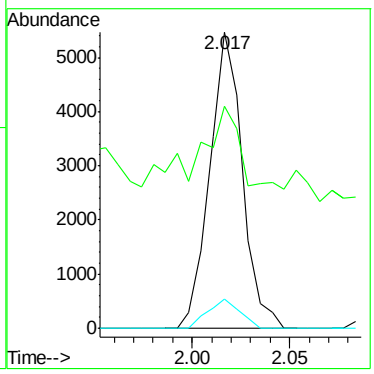
M1A7758.M Fri Jul 06 16:06:28 2018 1 Page: 2

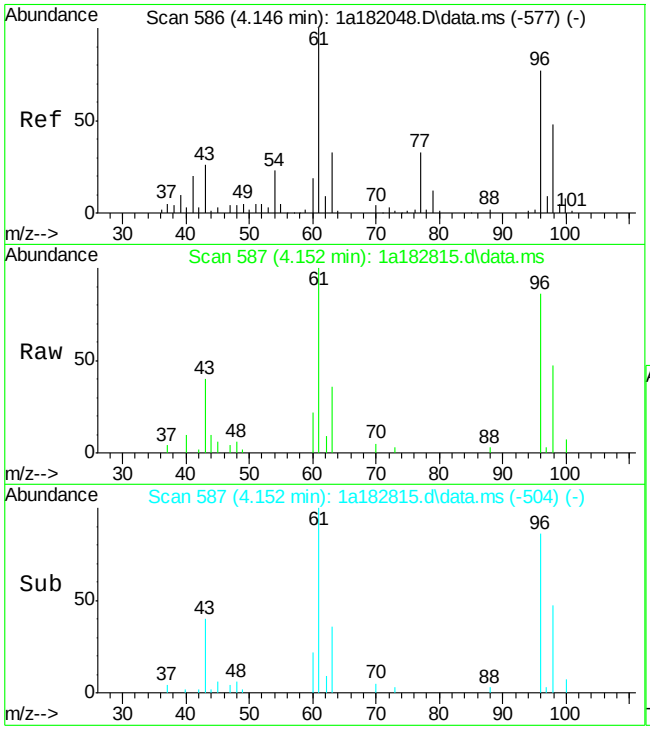


#10
vinyl chloride
Concen: 2.64 ug/L
RT: 2.017 min Scan# 236
Delta R.T. -0.000 min
Lab File: 1a182815.d
Acq: 6 Jul 2018 12:18 am

Tgt Ion: 62 Resp: 6341

Ion	Ratio	Lower	Upper
62	100		
64	22.2	1.5	61.5
61	10.0	0.0	38.3

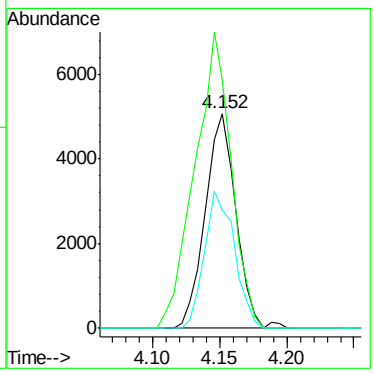




#38
cis-1,2-dichloroethene
Concen: 3.61 ug/L
RT: 4.152 min Scan# 587
Delta R.T. 0.006 min
Lab File: 1a182815.d
Acq: 6 Jul 2018 12:18 am

Tgt Ion: 96 Resp: 8057

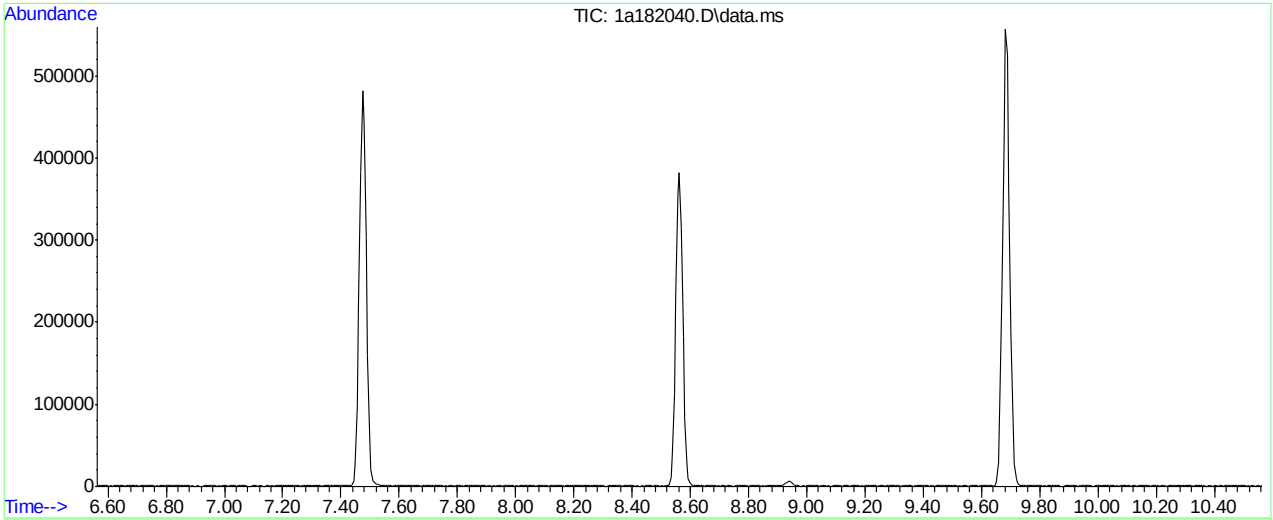
Ion	Ratio	Lower	Upper
96	100		
61	115.8	100.3	160.3
98	54.9	32.1	92.1



SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V1A7758\1a182040.D Vial: 1
Acq On : 14 Jun 2018 5:00 pm Operator: JessicaP
Sample : bfb Inst : MS1A
Misc : ms27117,v1a7758,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um



AutoFind: Scans 1311, 1312, 1313; Background Corrected with Scan 1303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.4	11323	PASS
75	95	30	60	45.7	31618	PASS
95	95	100	100	100.0	69120	PASS
96	95	5	9	6.5	4467	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	102.6	70912	PASS
175	174	5	9	7.8	5561	PASS
176	174	95	101	97.2	68893	PASS
177	176	5	9	6.7	4614	PASS

1a182040.D M1A7758.M Fri Jun 15 09:58:05 2018 MSD1A

Average of 8.557 to 8.569 min.: 1a182040.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	572	52.15	133	68.00	6207	78.00	262
37.05	2765	55.05	251	69.00	6167	78.90	1367
38.05	2438	56.00	784	70.05	431	80.05	411
39.05	1016	57.00	1594	71.95	328	80.95	1443
44.00	360	59.90	341	72.20	119	81.90	285
45.00	521	60.10	234	73.00	2709	86.00	35
47.05	703	61.00	2973	74.00	10456	87.00	2756
48.05	367	62.00	2883	75.00	31618	87.95	2614
49.05	2540	63.05	2078	76.00	2506	90.70	63
50.00	11323	63.90	192	77.00	356	90.95	172
51.00	3414	66.90	124	77.60	60	92.00	1750

Average of 8.557 to 8.569 min.: 1a182040.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	2557	115.90	223	139.80	41	156.90	157
94.05	8075	116.90	386	140.00	54	161.00	41
95.00	69120	117.90	173	140.95	740	169.95	73
96.00	4467	118.10	73	141.90	91	171.40	35
97.05	200	118.95	322	142.95	686	172.00	54
103.95	276	127.95	314	144.90	39	174.00	70912
105.00	98	128.85	94	145.95	129	175.00	5561
105.85	298	129.95	235	147.10	41	176.00	68893
107.00	33	131.05	72	147.90	243	176.95	4614
110.80	41	134.85	162	149.85	152	178.05	71
114.90	47	136.95	109	154.95	164	207.00	50

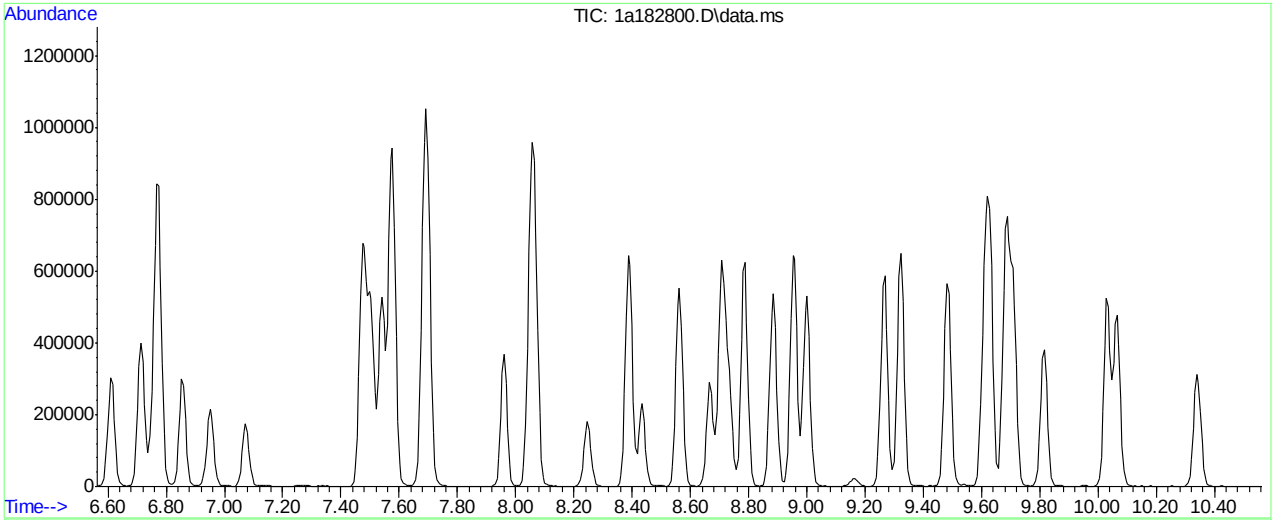
Average of 8.557 to 8.569 min.: 1a182040.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
237.60	34						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\V1A7793\1a182800.D Vial: 51
Acq On : 5 Jul 2018 5:35 pm Operator: jessicap
Sample : bfb Inst : MS1A
Misc : ms27599,v1a7793,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M1A7758.M (RTE Integrator)
Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um



AutoFind: Scans 1311, 1312, 1313; Background Corrected with Scan 1303

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.0	16002	PASS
75	95	30	60	44.6	44581	PASS
95	95	100	100	100.0	99941	PASS
96	95	5	9	6.3	6301	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	101.5	101429	PASS
175	174	5	9	8.2	8326	PASS
176	174	95	101	97.2	98584	PASS
177	176	5	9	6.8	6655	PASS

1a182800.D M1A7758.M Fri Jul 06 15:24:35 2018 MSD1A

Average of 8.557 to 8.569 min.: 1a182800.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	828	51.00	4902	66.90	87	76.80	194
37.05	4646	52.00	261	67.10	235	77.05	332
38.00	3225	54.90	127	68.00	8698	77.90	376
39.00	1433	56.05	1163	69.00	8905	78.90	1811
39.95	95	57.05	2011	70.00	647	79.95	607
44.00	365	57.80	82	71.40	34	80.90	1802
45.00	618	60.00	739	72.05	460	81.95	375
47.00	1059	61.00	3729	73.00	4014	82.90	38
48.00	621	62.00	4020	74.00	15460	86.10	54
49.00	3431	63.00	3060	75.00	44581	86.95	3928
50.00	16002	64.10	220	76.00	3864	87.95	3518

Average of 8.557 to 8.569 min.: 1a182800.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
89.10	35	104.85	99	127.00	33	140.85	1093
90.85	295	105.90	380	127.90	431	142.00	171
91.20	91	106.70	42	128.80	80	142.95	1020
92.00	2394	106.90	50	129.80	123	144.00	54
93.00	3617	112.80	33	129.95	247	145.85	153
94.00	11039	115.00	45	130.95	135	146.80	86
95.00	99941	115.95	331	134.90	106	147.90	222
96.00	6301	116.90	595	136.80	86	149.10	52
96.90	47	117.95	366	137.00	43	149.90	101
97.10	137	118.90	432	138.70	39	151.90	63
103.85	438	123.95	91	139.90	35	152.70	41

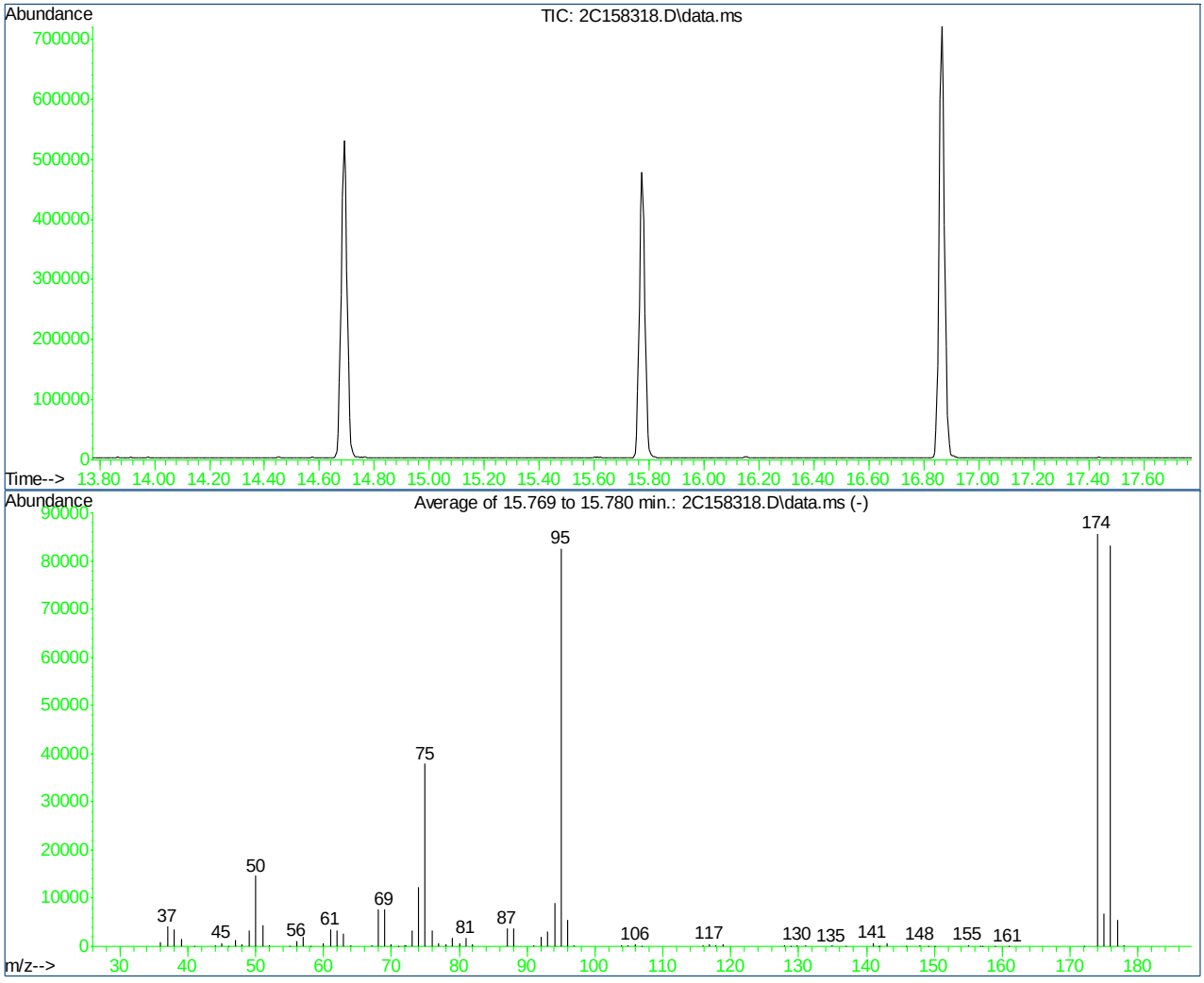
Average of 8.557 to 8.569 min.: 1a182800.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
153.20	51	171.70	53				
153.90	49	172.20	144				
154.95	377	173.95	101429				
155.70	34	175.00	8326				
157.00	228	175.95	98584				
158.60	45	177.00	6655				
158.85	132	178.00	190				
160.90	227	253.10	33				
169.60	39						
170.90	60						
171.20	65						

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\v2c7025\2C158318.D Vial: 7
Acq On : 16 Apr 2018 4:16 pm Operator: HueanhT
Sample : bfb Inst : Instrument #1
Misc : MS25516,V2C7025,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2191, 2192, 2193; Background Corrected with Scan 2182

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	14691	PASS
75	95	30	60	46.0	37965	PASS
95	95	100	100	100.0	82565	PASS
96	95	5	9	6.6	5414	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	103.8	85733	PASS
175	174	5	9	8.0	6848	PASS
176	174	95	101	97.0	83202	PASS
177	176	5	9	6.5	5410	PASS

2C158318.D M2C7025.M Tue Apr 17 15:44:05 2018 RPT1

Average of 15.769 to 15.780 min.: 2C158318.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	825	50.00	14691	64.00	272	76.00	3281
37.05	4078	51.05	4457	67.10	152	77.00	579
38.05	3497	52.05	217	68.00	7630	78.00	395
39.05	1489	55.00	106	68.95	7680	78.90	1761
41.00	56	56.00	1105	70.00	550	80.00	568
44.00	339	57.00	1991	71.10	59	80.95	1783
45.00	757	58.10	83	71.90	290	81.95	368
46.00	49	60.00	743	72.10	176	87.00	3815
47.05	1255	61.00	3542	73.00	3295	87.95	3739
48.00	481	62.00	3327	74.00	12272	90.95	320
49.05	3371	63.00	2619	75.00	37965	92.00	1954

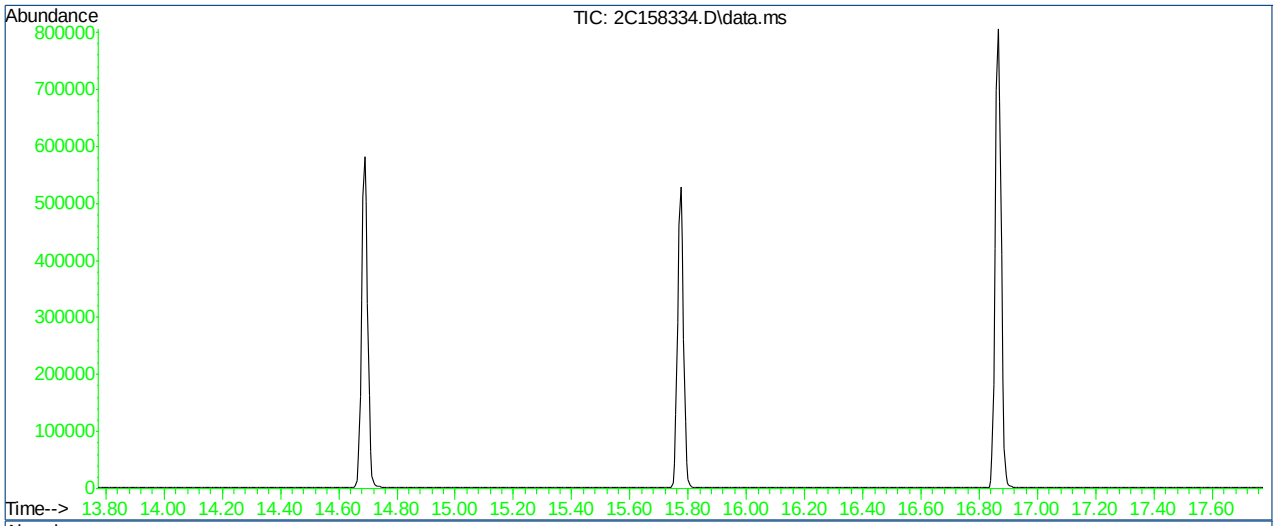
Average of 15.769 to 15.780 min.: 2C158318.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	3142	117.80	238	142.95	731	173.95	85733
94.05	8988	118.85	408	145.90	97	175.00	6848
95.00	82565	127.95	257	147.90	226	175.95	83202
96.00	5414	128.90	71	149.10	46	176.95	5410
96.95	190	129.85	315	150.00	40	177.90	151
103.85	254	130.95	138	154.95	226		
104.85	176	134.85	172	156.80	41		
105.95	368	136.90	42	157.00	51		
106.90	53	140.95	753	158.95	95		
115.85	285	141.80	47	160.90	45		
116.85	440	142.00	42	171.95	111		

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\v2c7025\2C158334.D Vial: 23
Acq On : 17 Apr 2018 3:57 pm Operator: HueanhT
Sample : BFB2 Inst : Instrument #1
Misc : MS25516,V2C7025,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2191, 2192, 2193; Background Corrected with Scan 2183

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.8	16413	PASS
75	95	30	60	45.1	41570	PASS
95	95	100	100	100.0	92157	PASS
96	95	5	9	6.6	6076	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	104.0	95880	PASS
175	174	5	9	8.0	7709	PASS
176	174	95	101	97.4	93357	PASS
177	176	5	9	6.8	6373	PASS

2C158334.D M2C7025.M Tue Apr 17 16:50:07 2018 RPT1

Average of 15.769 to 15.779 min.: 2C158334.D\data.ms
BFB2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	857	50.05	16413	67.00	297	78.95	1935
37.10	4413	51.05	5099	68.00	8528	80.00	549
38.05	3787	52.10	218	69.00	8485	80.95	1977
39.10	1605	55.05	270	70.00	669	81.95	385
40.00	65	56.05	1339	72.00	445	86.00	42
41.20	53	57.05	2173	73.00	3742	87.00	4256
44.00	456	60.05	770	74.00	13614	88.00	3989
45.00	796	61.00	3544	75.00	41570	90.95	305
47.05	1351	62.05	3482	76.00	3477	92.00	2414
48.00	524	63.05	2632	77.00	479	93.00	3495
49.05	3544	64.05	300	77.95	315	94.00	10129

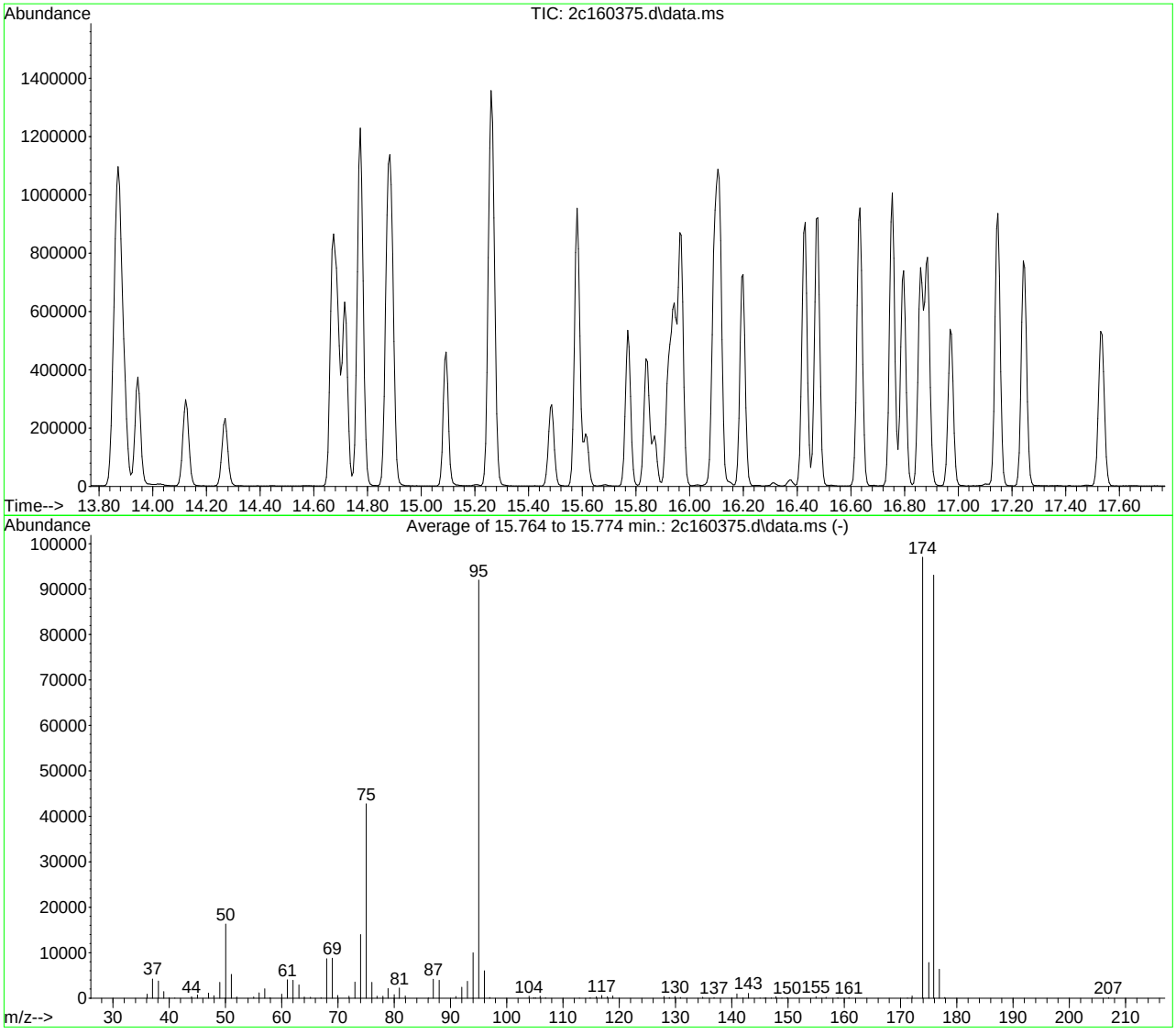
Average of 15.769 to 15.779 min.: 2C158334.D\data.ms
BFB2
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	92157	118.95	384	142.90	889	175.95	93357
96.00	6076	123.95	90	145.90	45	176.95	6373
97.00	214	127.95	342	147.85	208	177.85	117
103.95	304	128.85	98	153.00	41	178.10	49
104.95	100	130.00	312	154.90	249	232.00	42
105.95	291	130.90	49	156.90	198		
114.80	45	133.00	47	158.90	44		
115.00	43	134.90	138	160.90	57		
115.90	262	136.90	111	171.70	42		
116.85	514	140.95	870	174.00	95880		
117.90	274	142.10	60	175.00	7709		

SW-846 Method 8260

Data File : C:\msdchem\1\data\ja...18\v2c7121\2c160375.d Vial: 25
Acq On : 2 Jul 2018 6:38 pm Operator: HueanhT
Sample : bfb Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2C7025.M (RTE Integrator)
Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um



AutoFind: Scans 2190, 2191, 2192; Background Corrected with Scan 2182

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	17.7	16284	PASS
75	95	30	60	46.5	42789	PASS
95	95	100	100	100.0	91992	PASS
96	95	5	9	6.6	6041	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	105.5	97013	PASS
175	174	5	9	8.1	7817	PASS
176	174	95	101	95.9	93067	PASS
177	176	5	9	6.8	6338	PASS

2c160375.d M2C7025.M Tue Jul 03 20:44:22 2018

Average of 15.764 to 15.774 min.: 2c160375.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.05	866	50.05	16284	64.00	287	76.95	406
37.05	4241	51.05	5213	65.10	175	78.00	423
38.10	3784	52.00	239	67.00	72	78.90	2119
39.05	1428	55.00	253	68.00	8673	80.00	762
40.00	57	56.00	1190	69.00	8798	80.90	2256
41.00	46	57.00	2083	69.95	593	81.95	486
43.95	327	57.95	98	71.95	439	86.10	47
45.00	734	60.00	899	73.00	3558	86.95	4186
47.00	1131	61.00	4029	74.00	13985	88.00	3906
47.95	521	62.00	3922	75.00	42789	90.95	380
49.00	3507	63.05	2905	76.00	3491	92.00	2414

Average of 15.764 to 15.774 min.: 2c160375.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	3715	114.85	91	140.00	44	154.95	301
94.00	9987	115.95	314	140.90	924	156.75	216
95.00	91992	116.90	622	142.00	55	158.85	112
96.00	6041	117.90	321	142.95	1075	160.80	118
97.00	121	118.85	475	145.00	51	171.20	58
103.95	447	127.95	345	145.80	55	172.05	505
104.80	67	128.90	129	146.05	104	173.90	97013
105.10	101	129.90	379	147.00	42	175.00	7817
105.95	403	130.85	127	147.85	290	175.90	93067
106.90	88	134.85	189	148.90	46	176.90	6338
112.90	43	136.85	151	149.85	128	177.85	165

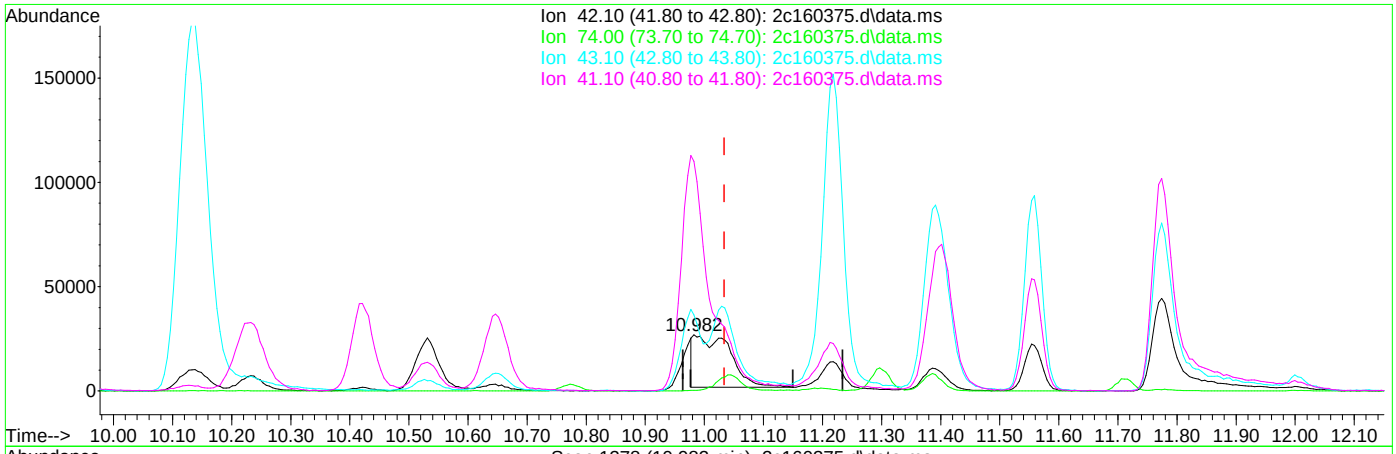
Average of 15.764 to 15.774 min.: 2c160375.d\data.ms
bfb
Modified:subtracted

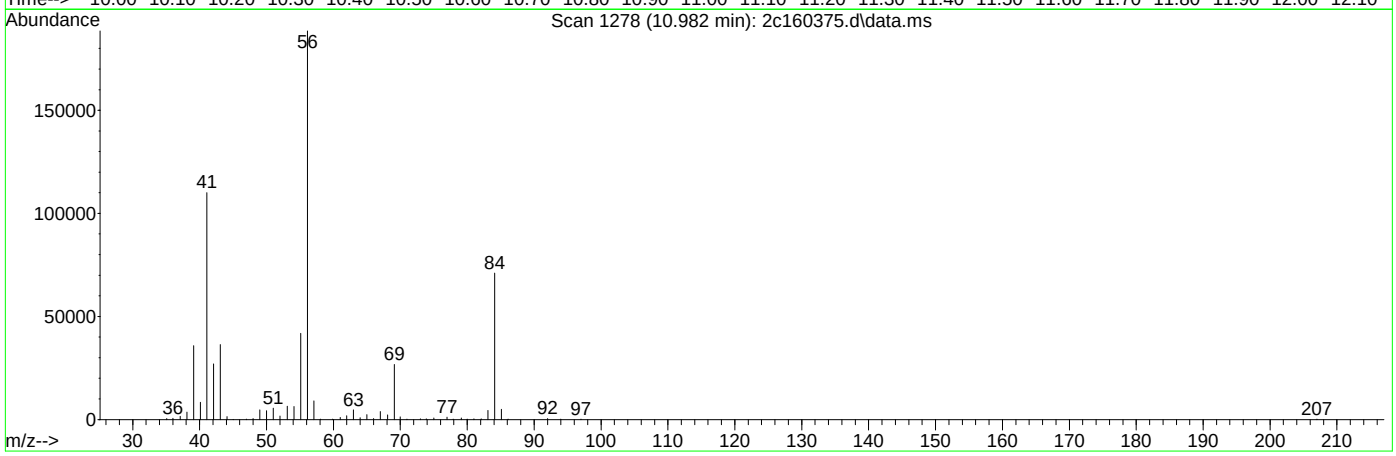
m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
206.95	111						

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:45:48 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160375.d\data.ms

(50) isobutyl alcohol

10.982min (-0.052) 531.64ug/L

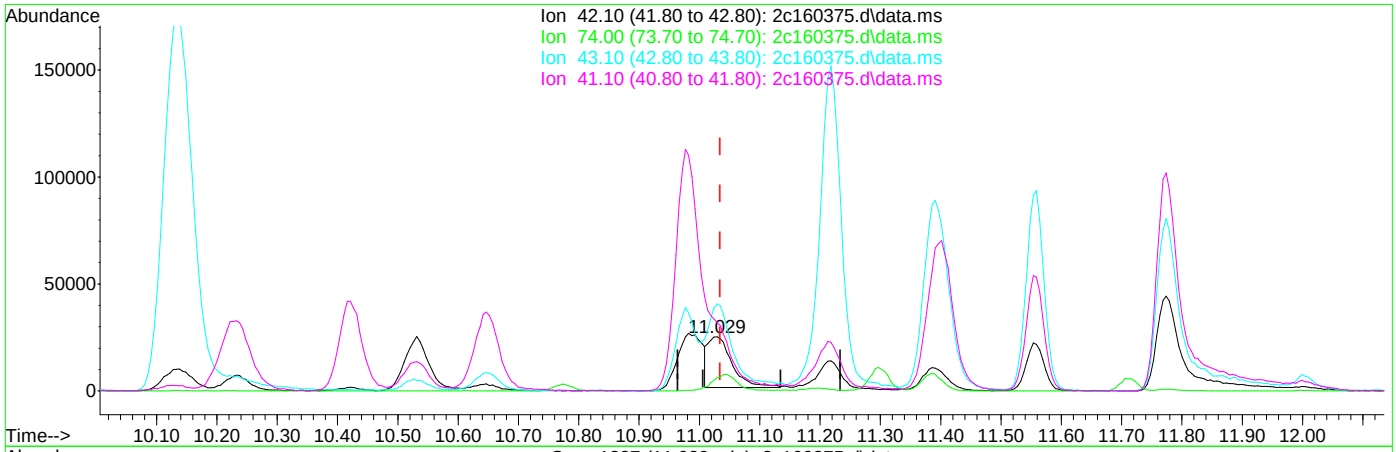
response 108071

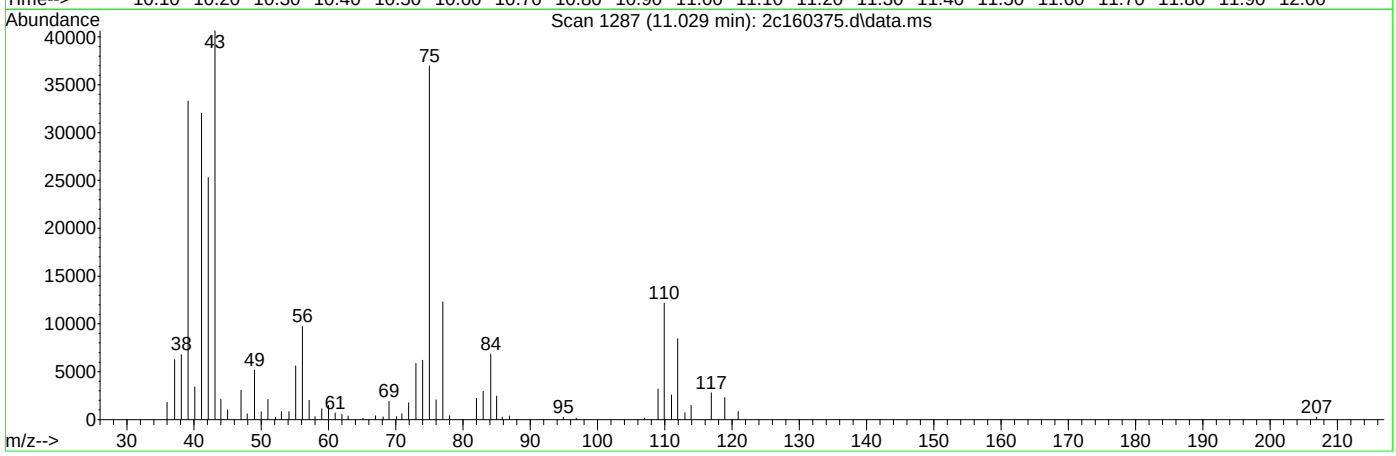
Ion	Exp%	Act%
42.10	100	100
74.00	20.10	0.00
43.10	159.80	130.71
41.10	120.10	426.93#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:45:48 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160375.d\data.ms

(50) isobutyl alcohol

11.029min (-0.005) 322.01ug/L m

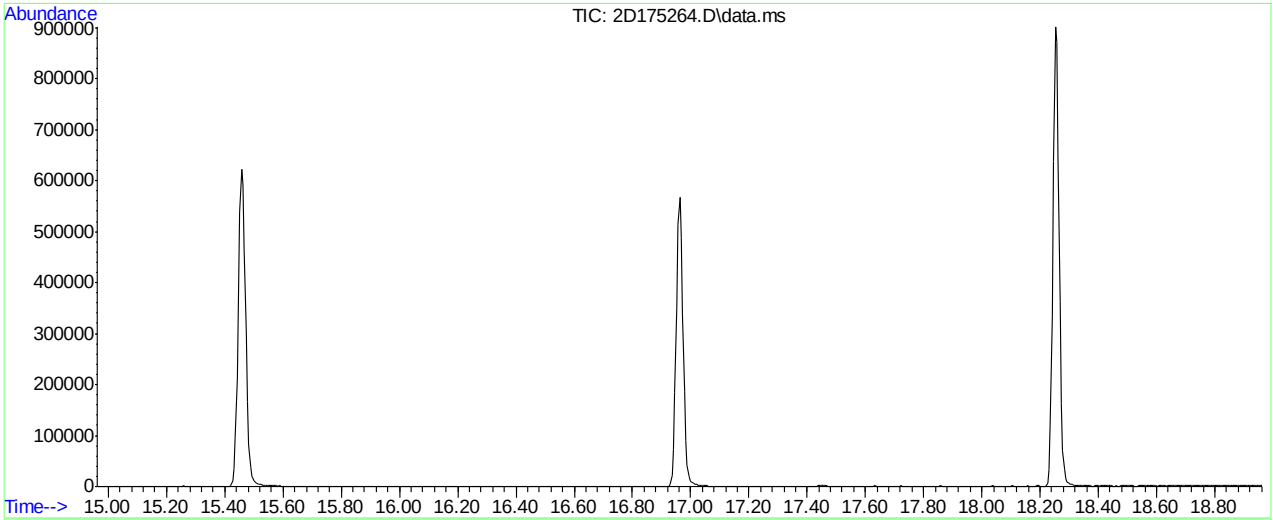
response 65459

Ion	Exp%	Act%
42.10	100	100
74.00	20.10	24.57
43.10	159.80	160.71
41.10	120.10	126.73

BFB

Data File : C:\msdchem\1\DATA\V2D7390\2D175264.D Vial: 1
Acq On : 3 May 2018 3:39 pm Operator: oyinadei
Sample : BFB Inst : MS2D
Misc : MS25995,V2D7390,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2532, 2533, 2534; Background Corrected with Scan 2523

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.8	17674	PASS
75	95	30	60	46.1	48434	PASS
95	95	100	100	100.0	105000	PASS
96	95	5	9	6.6	6978	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	97.6	102509	PASS
175	174	5	9	7.7	7907	PASS
176	174	95	101	97.3	99776	PASS
177	176	5	9	6.5	6501	PASS

2D175264.D M2D7390.M Fri May 04 11:10:17 2018 GCMS2D

Average of 16.957 to 16.967 min.: 2D175264.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	871	52.00	275	68.00	9272	79.90	668
37.00	4655	54.95	366	69.00	9877	80.90	2319
38.00	4075	56.00	1293	70.00	797	81.90	422
39.00	1567	57.00	2521	71.95	528	85.90	47
44.00	549	58.10	40	73.00	4268	86.20	45
45.00	776	60.00	868	74.00	15953	87.00	4574
47.05	1435	61.00	4153	75.00	48434	87.95	4571
47.95	568	62.00	4190	76.00	4013	90.90	350
49.00	3840	63.05	3109	77.00	609	92.00	2754
50.00	17674	64.00	323	77.90	442	93.00	3896
51.00	5620	66.95	283	78.90	2141	94.00	11553

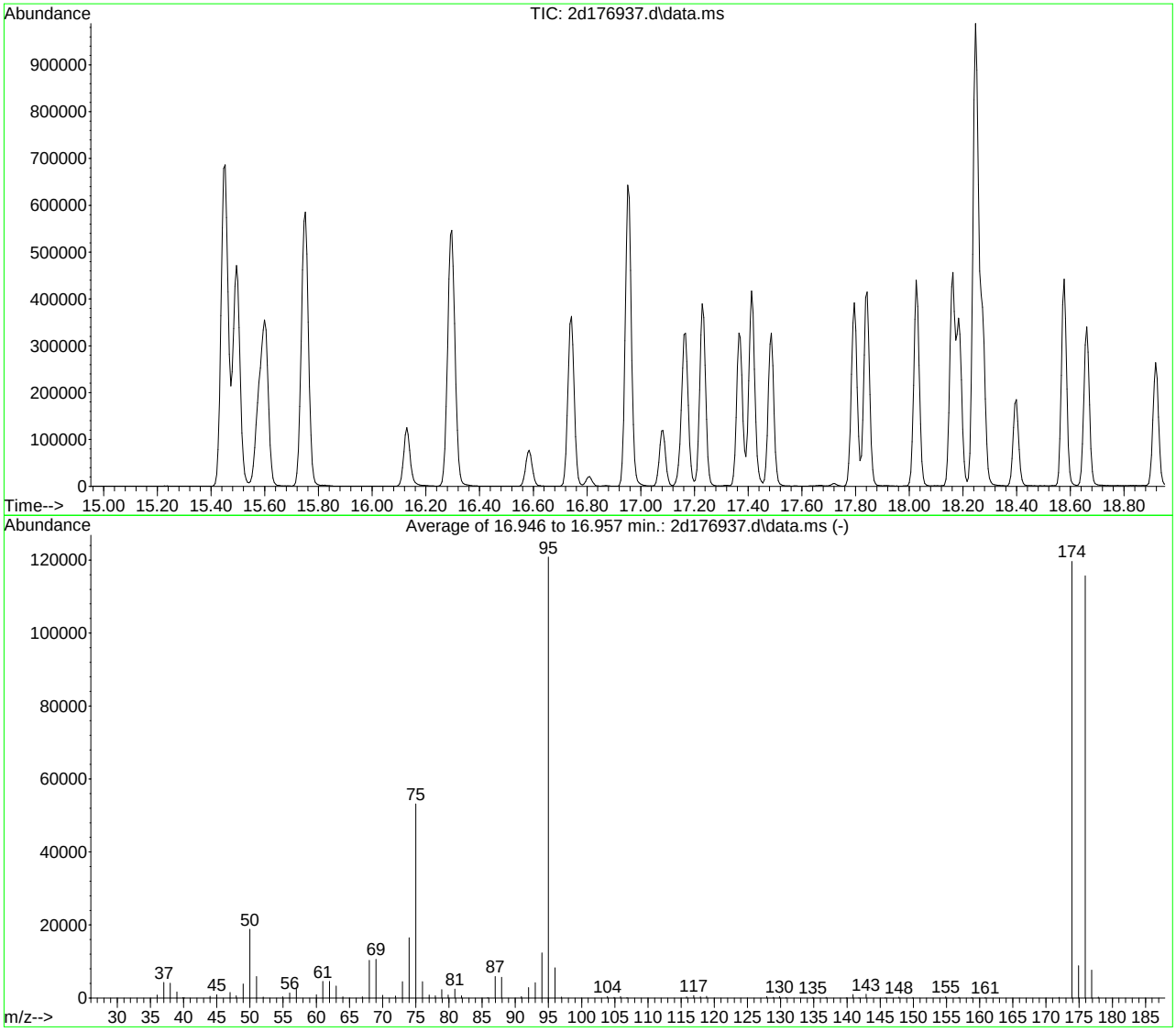
Average of 16.957 to 16.967 min.: 2D175264.D\data.ms
BFB
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	105000	127.90	399	145.85	171	175.90	99776
96.00	6978	128.85	118	147.85	217	176.90	6501
97.00	219	129.85	397	149.90	136	177.85	202
103.95	365	130.95	153	154.90	229	206.90	40
104.90	76	132.90	42	156.85	218		
105.90	314	134.85	151	158.80	118		
106.90	45	136.80	140	160.85	112		
115.85	323	140.90	979	171.60	51		
116.85	524	141.80	62	171.90	113		
117.85	339	142.90	1057	173.90	102509		
118.90	476	144.85	80	174.90	7907		

BFB

Data File : C:\msdchem\1\data\lo...OA\v2d7472\2d176937.d Vial: 2
Acq On : 1 Jul 2018 9:04 am Operator: juntaep
Sample : bfb Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2530, 2531, 2532; Background Corrected with Scan 2521

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.6	18851	PASS
75	95	30	60	44.0	53205	PASS
95	95	100	100	100.0	120811	PASS
96	95	5	9	6.8	8271	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	120	99.0	119651	PASS
175	174	5	9	7.4	8817	PASS
176	174	95	101	96.7	115693	PASS
177	176	5	9	6.6	7674	PASS

2d176937.d M2D7390.M Mon Jul 02 21:35:57 2018

Average of 16.946 to 16.957 min.: 2d176937.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	837	50.00	18851	66.95	332	78.90	2284
37.00	4290	51.00	5904	68.00	10319	79.90	812
38.00	4041	52.00	242	69.00	10591	80.90	2407
39.00	1632	54.95	297	70.00	749	81.90	594
39.90	138	56.00	1347	71.95	542	85.85	120
40.10	44	57.00	2595	73.00	4463	86.95	5885
44.00	466	60.00	852	74.00	16522	87.95	5684
45.00	864	61.00	4561	75.00	53205	90.90	363
47.00	1540	62.00	4551	76.00	4451	92.00	2872
47.95	614	63.00	3263	77.00	813	93.00	4225
49.00	3868	64.00	296	77.95	591	94.00	12367

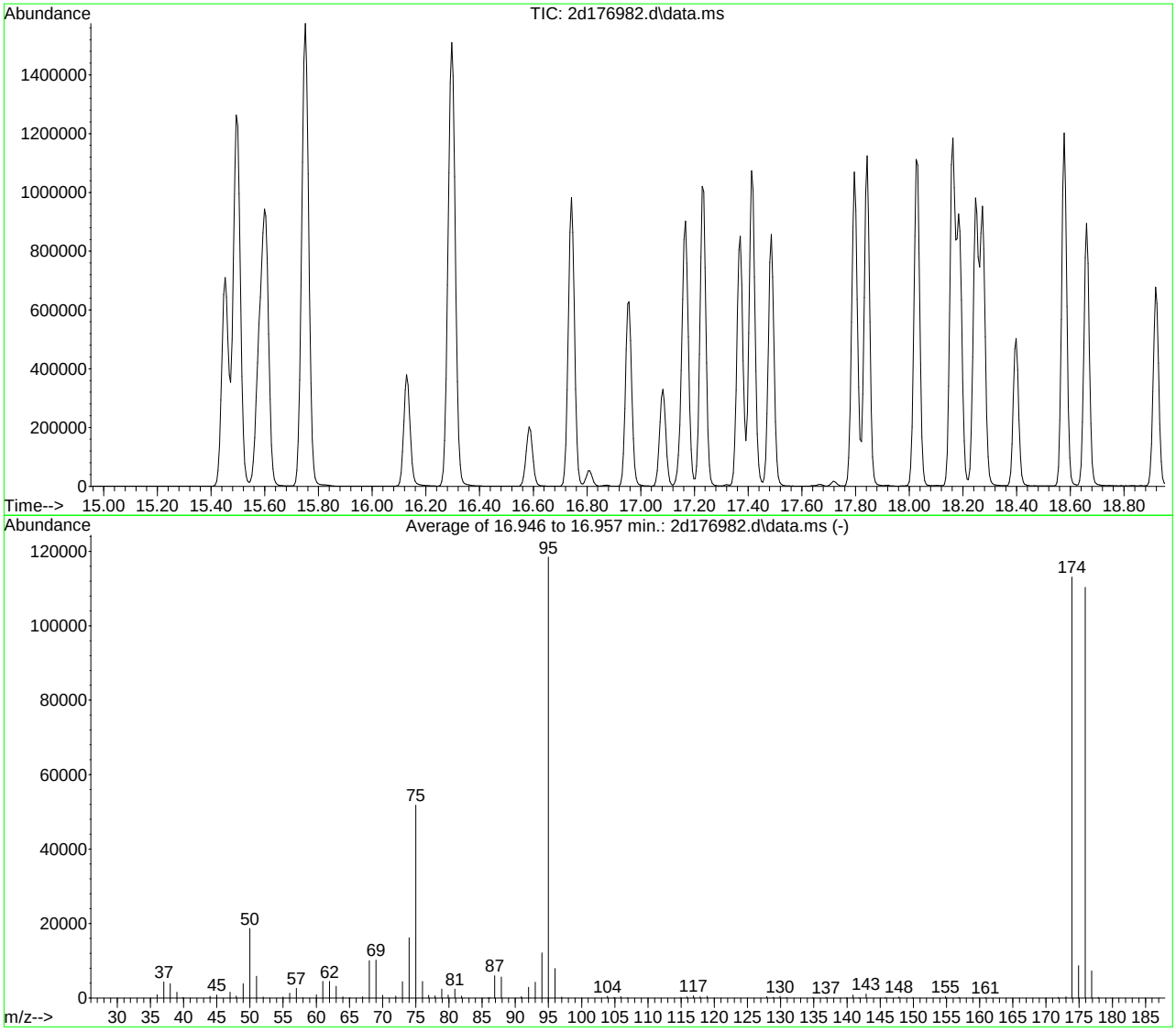
Average of 16.946 to 16.957 min.: 2d176937.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
95.00	120811	127.90	376	147.85	278	177.90	239
96.00	8271	128.90	160	149.90	41		
96.95	277	129.85	418	154.90	304		
103.90	386	130.80	114	156.85	211		
104.90	178	134.85	206	158.80	83		
105.85	378	136.85	145	160.85	113		
106.85	86	139.90	50	171.95	153		
115.80	350	140.90	937	173.90	119651		
116.90	636	141.80	40	174.90	8817		
117.90	343	142.90	1017	175.90	115693		
118.85	494	145.80	135	176.90	7674		

BFB

Data File : C:\msdchem\1\data\ke...kb\v2d7474\2d176982.d Vial: 22
Acq On : 2 Jul 2018 6:53 pm Operator: juntaep
Sample : bfb Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\msdchem\1\METHODS\M2D7390.M (RTE Integrator)
Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um



AutoFind: Scans 2530, 2531, 2532; Background Corrected with Scan 2522

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	15.8	18659	PASS
75	95	30	60	43.7	51816	PASS
95	95	100	100	100.0	118451	PASS
96	95	5	9	6.7	7896	PASS
173	174	0.00	2	0.3	308	PASS
174	95	50	120	95.5	113104	PASS
175	174	5	9	7.7	8680	PASS
176	174	95	101	97.5	110315	PASS
177	176	5	9	6.6	7256	PASS

2d176982.d M2D7390.M Tue Jul 03 23:48:16 2018

Average of 16.946 to 16.957 min.: 2d176982.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	878	51.00	5849	65.10	42	77.90	596
37.00	4331	52.00	277	67.00	307	78.90	2400
38.00	3847	55.00	235	68.00	10026	79.90	784
39.00	1582	56.00	1315	69.00	10193	80.90	2354
39.90	74	57.00	2609	70.00	712	81.90	498
44.00	451	58.00	84	72.00	495	85.95	115
45.00	782	60.00	874	73.00	4355	86.20	65
47.00	1567	61.00	4466	74.00	16158	86.90	5948
47.95	539	62.00	4482	75.00	51816	87.90	5611
49.00	3839	63.00	3170	76.00	4460	90.90	361
50.00	18659	64.00	333	76.95	712	92.00	2866

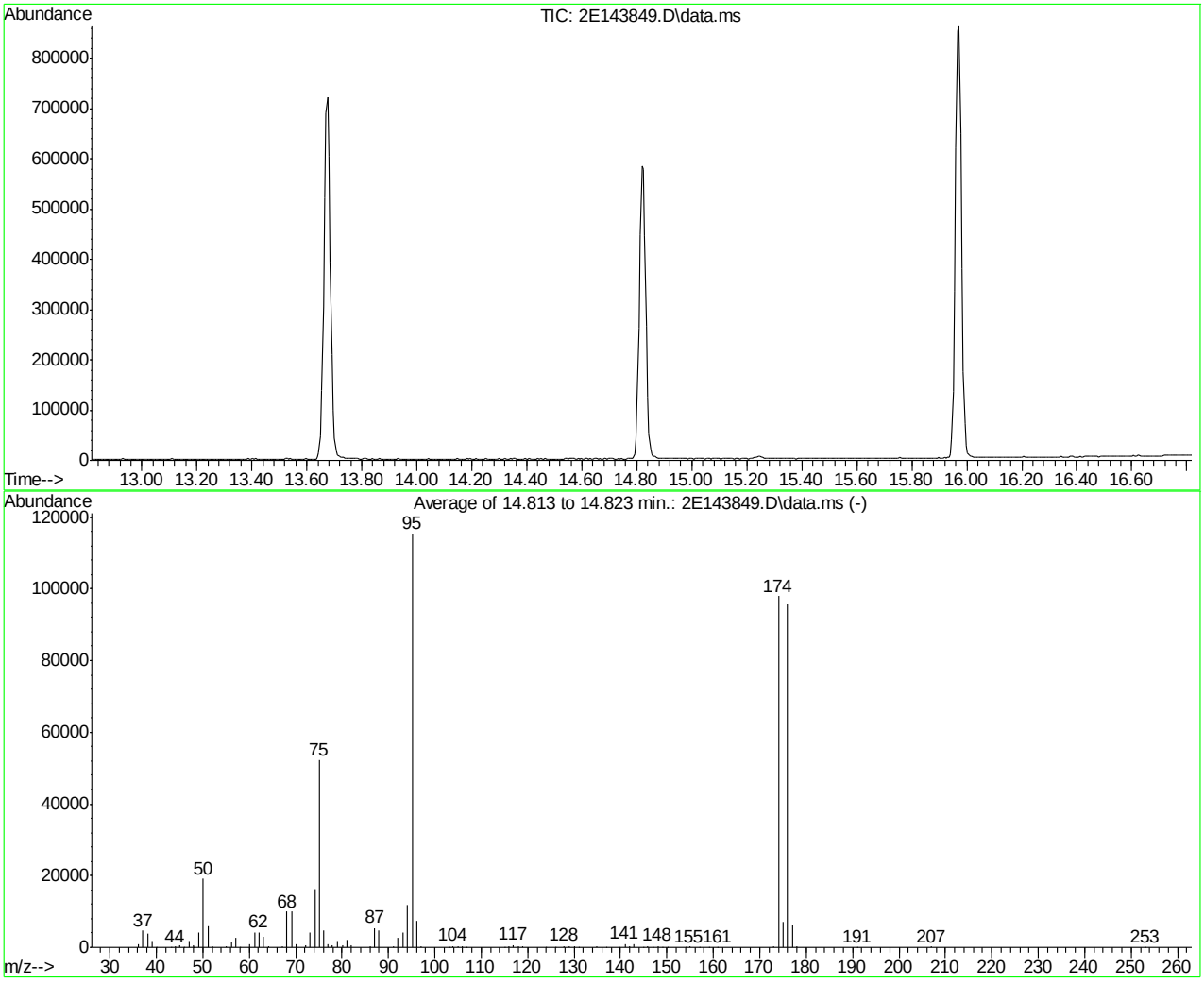
Average of 16.946 to 16.957 min.: 2d176982.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
93.00	4267	116.85	588	141.80	53	173.90	113104
94.00	12139	117.85	342	142.90	1051	174.90	8680
95.00	118451	118.90	481	145.80	146	175.90	110315
96.00	7896	127.90	386	147.85	283	176.90	7256
97.00	223	128.90	169	149.90	44	177.90	174
103.90	421	129.90	451	154.85	294		
104.90	150	130.85	140	156.85	184		
105.90	402	134.85	121	158.90	51		
106.90	48	136.85	186	160.90	101		
114.90	58	139.90	42	171.85	148		
115.85	325	140.90	808	173.00	308		

SW-846 Method 8260

Data File : C:\msdchem\1\DATA\2E143849.D Vial: 8
Acq On : 14 Jun 2018 4:33 pm Operator: sydneys
Sample : bfb Inst : VOAMS2E
Misc : MS27143,V2E6300,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM



AutoFind: Scans 2103, 2104, 2105; Background Corrected with Scan 2094

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	16.6	19125	PASS
75	95	30	60	45.3	52168	PASS
95	95	100	100	100.0	115269	PASS
96	95	5	9	6.4	7412	PASS
173	174	0.00	2	0.3	254	PASS
174	95	50	120	84.9	97888	PASS
175	174	5	9	7.4	7236	PASS
176	174	95	101	97.6	95581	PASS
177	176	5	9	6.4	6104	PASS

2E143849.D M2E6300.M Fri Jun 15 12:00:53 2018

Average of 14.813 to 14.823 min.: 2E143849.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	1016	48.05	462	62.10	4286	76.10	4658
37.10	4598	49.10	4040	63.10	3035	77.05	786
38.10	3982	50.10	19125	64.15	367	77.95	469
39.10	1762	51.10	5980	67.05	298	79.00	1794
40.00	13	52.05	198	68.10	9925	80.05	633
43.10	51	55.05	252	69.10	9991	81.00	1950
44.05	165	56.10	1349	70.10	785	82.00	461
45.05	690	57.05	2752	72.05	531	86.15	186
45.90	41	58.05	134	73.05	4125	87.05	5319
47.05	1651	60.05	955	74.10	16390	88.00	4850
47.90	115	61.10	4225	75.10	52168	91.00	370

Average of 14.813 to 14.823 min.: 2E143849.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
92.05	2741	115.00	101	134.95	177	150.10	29
93.05	4150	115.95	283	136.90	136	153.95	81
94.10	11873	116.95	640	139.70	43	154.95	238
95.10	115269	117.90	354	140.95	920	156.95	154
96.10	7412	118.95	443	141.95	174	159.00	121
97.00	232	124.00	28	142.90	847	160.90	131
103.10	31	125.95	77	144.95	62	173.00	254
103.95	391	127.90	353	145.90	227	174.00	97888
104.95	181	129.00	160	147.05	153	175.00	7236
105.95	367	130.00	339	148.00	299	176.00	95581
106.90	31	130.95	138	148.95	106	177.00	6104

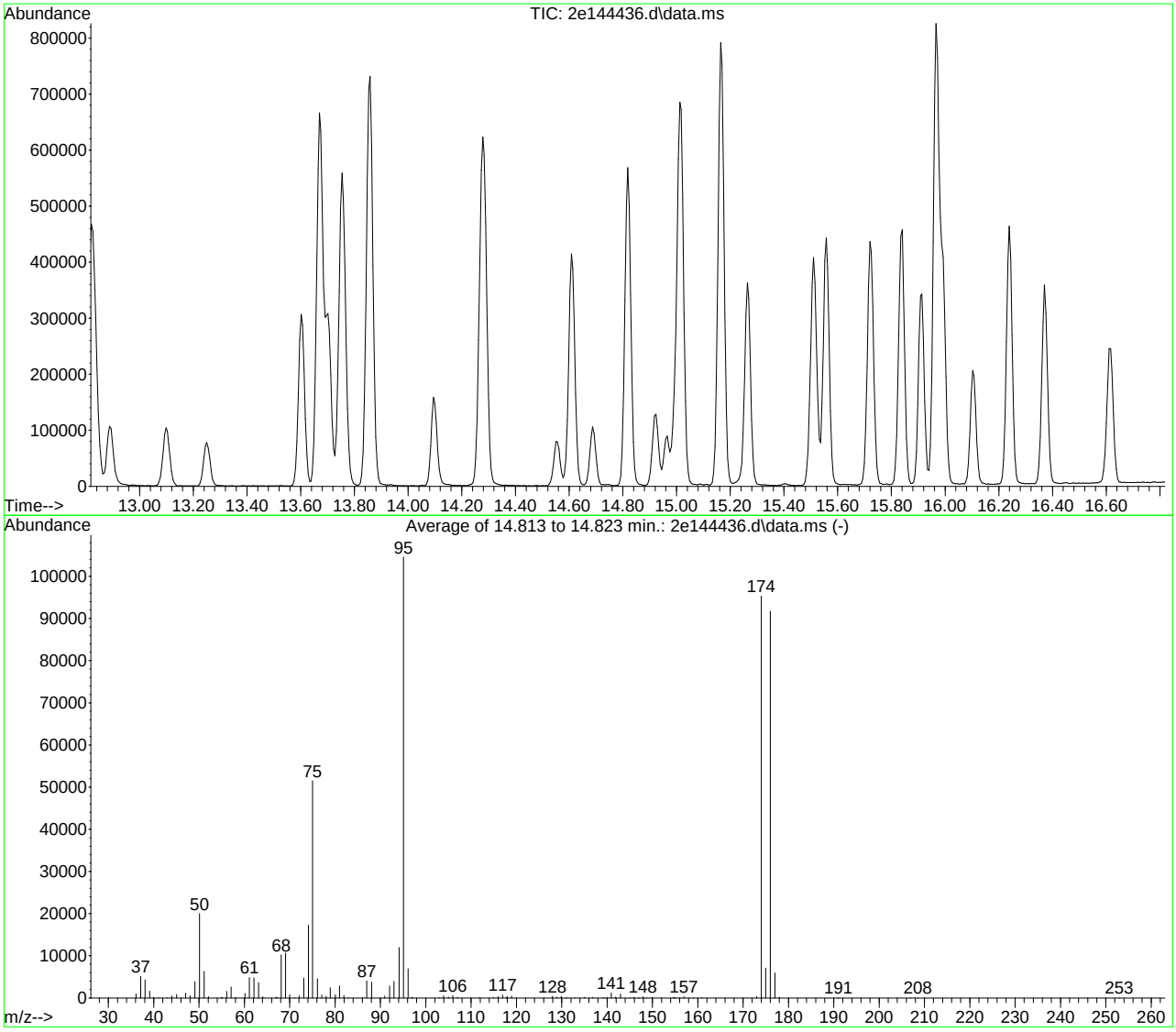
Average of 14.813 to 14.823 min.: 2E143849.D\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
177.95	235						
191.00	32						
207.00	163						
253.05	11						

SW-846 Method 8260

Data File : C:\msdchem\1\data\lo...OA\v2e6328\2e144436.d Vial: 2
Acq On : 1 Jul 2018 11:31 am Operator: juntaep
Sample : bfb Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1 Multiplr: 1.00
MS Integration Params: rteint.p

Method : C:\MSDCHEM\1\METHODS\M2E6300.M (RTE Integrator)
Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM



AutoFind: Scans 2103, 2104, 2105; Background Corrected with Scan 2094

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.2	20040	PASS
75	95	30	60	49.2	51487	PASS
95	95	100	100	100.0	104552	PASS
96	95	5	9	6.6	6946	PASS
173	174	0.00	2	0.4	343	PASS
174	95	50	120	91.2	95320	PASS
175	174	5	9	7.4	7101	PASS
176	174	95	101	96.2	91707	PASS
177	176	5	9	6.5	5927	PASS

2e144436.d M2E6300.M Tue Jul 03 00:40:49 2018

Average of 14.813 to 14.823 min.: 2e144436.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.10	937	49.10	3901	62.10	4757	74.10	17299
37.10	5078	50.10	20040	63.10	3634	75.05	51487
38.10	4271	51.10	6298	64.10	276	76.10	4528
39.10	1602	52.05	306	67.00	193	77.05	684
39.95	150	54.90	96	67.20	80	78.00	431
41.10	27	55.15	97	68.10	10211	78.95	2426
43.00	37	56.10	1532	69.10	10611	80.05	775
44.00	435	57.05	2581	70.00	745	81.00	2837
45.05	838	58.10	78	71.10	28	81.95	568
47.05	1132	60.10	1060	72.10	513	82.90	27
48.05	540	61.10	4824	73.10	4739	86.10	104

Average of 14.813 to 14.823 min.: 2e144436.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
87.00	4027	103.95	501	126.10	37	140.95	1165
88.05	3752	105.00	234	127.95	421	141.90	219
90.95	459	105.95	581	128.95	238	142.95	963
92.05	2856	107.00	174	129.90	378	145.00	27
93.00	3943	111.80	31	131.00	120	145.85	149
94.10	11958	114.90	143	132.90	39	147.00	98
95.10	104552	115.95	333	135.00	167	147.90	282
96.10	6946	116.95	679	136.85	145	148.70	35
96.90	116	117.80	88	139.00	43	149.95	126
97.05	148	117.95	364	139.50	54	154.60	29
103.05	76	118.95	478	140.00	130	154.85	167

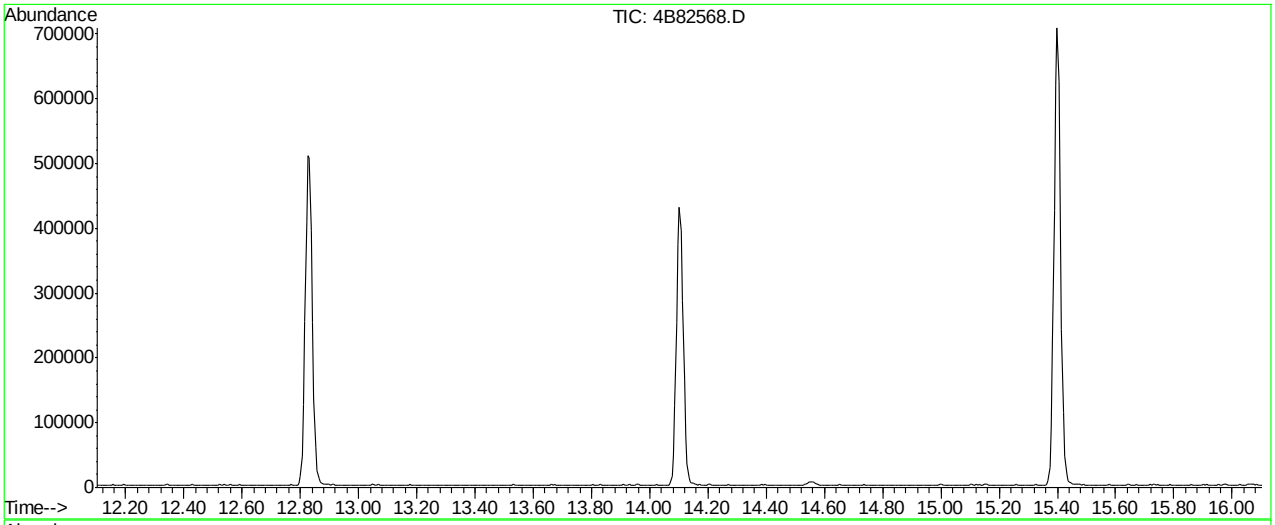
Average of 14.813 to 14.823 min.: 2e144436.d\data.ms
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
155.10	47	191.05	87				
156.00	33	206.95	30				
156.95	278	208.60	39				
159.05	101	253.00	18				
160.85	123						
173.00	343						
174.00	95320						
175.00	7101						
176.00	91707						
177.00	5927						
178.00	151						

SW-846 Method 8260

Data File : C:\MSDChem\1\DATA\V4B3431\4B82568.D Vial: 1
Acq On : 7 Jun 2018 7:12 pm Operator: HueanhT
Sample : bfb Inst : MS4B
Misc : MS26915,V4B3432,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2030, 2031, 2032; Background Corrected with Scan 2021

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	19.6	15775	PASS
75	95	30	60	47.7	38290	PASS
95	95	100	100	100.0	80320	PASS
96	95	5	9	6.7	5356	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	90.7	72850	PASS
175	174	5	9	8.1	5932	PASS
176	174	95	101	97.6	71112	PASS
177	176	5	9	6.9	4942	PASS

4B82568.D M4B3432.M Fri Jun 08 11:46:42 2018 GCMS4B

Average of 14.097 to 14.108 min.: 4B82568.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
35.95	817	50.00	15775	68.00	7863	79.95	508
37.00	4270	51.00	4817	69.00	7672	80.90	1815
38.00	3787	51.95	224	69.95	676	81.90	337
39.00	1468	54.95	351	71.95	408	86.90	3575
39.90	56	56.00	1085	72.95	3400	87.90	3435
43.00	24	57.00	2071	74.00	12824	90.90	258
44.00	575	59.95	653	75.00	38290	91.90	2059
44.95	776	60.95	3381	76.00	3263	92.95	3008
47.00	1233	62.00	3631	76.95	454	94.00	8921
47.90	505	63.00	2523	77.95	386	95.00	80320
49.00	3399	63.95	265	78.90	1779	96.00	5356

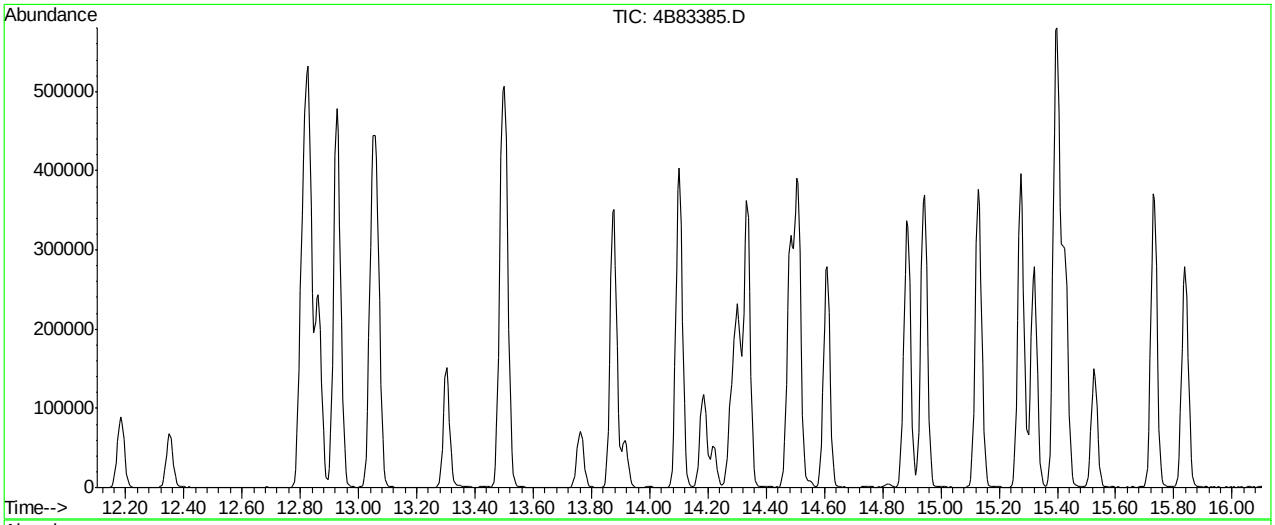
Average of 14.097 to 14.108 min.: 4B82568.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.90	126	140.85	687				
103.85	346	142.85	712				
104.80	56	145.70	56				
105.85	321	147.90	191				
115.85	280	154.80	149				
116.85	450	156.70	53				
117.85	305	173.90	72850				
118.85	358	174.90	5932				
127.80	296	175.90	71112				
129.85	309	176.90	4942				
136.90	52						

SW-846 Method 8260

Data File : C:\MSDCHEM\1\DATA\V4B3470\4B83385.D Vial: 3
Acq On : 6 Jul 2018 7:57 am Operator: HueanhT
Sample : bfb Inst : MS4B
Misc : MS27606,V4B3470,5,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P

Method : C:\MSDCHEM\1\METHODS\M4B3432.M (RTE Integrator)
Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um



AutoFind: Scans 2030, 2031, 2032; Background Corrected with Scan 2021

Target Mass	Rel. to Mass	Lower Limit%	Upper Limit%	Rel. Abn%	Raw Abn	Result Pass/Fail
50	95	15	40	18.8	13678	PASS
75	95	30	60	46.4	33762	PASS
95	95	100	100	100.0	72728	PASS
96	95	5	9	6.8	4946	PASS
173	174	0.00	2	0.0	0	PASS
174	95	50	150	98.0	71309	PASS
175	174	5	9	8.0	5740	PASS
176	174	95	101	98.6	70336	PASS
177	176	5	9	6.6	4612	PASS

4B83385.D M4B3432.M Fri Jul 06 17:09:14 2018 GCMS4B

Average of 14.097 to 14.108 min.: 4B83385.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
36.00	820	51.00	4097	68.00	6921	79.85	526
37.00	3523	51.95	187	69.00	7125	80.90	1550
38.00	3163	54.95	129	69.95	502	81.80	368
39.00	1216	56.00	1034	71.95	378	86.90	3455
39.90	74	57.00	1741	73.00	3044	87.90	3345
43.90	348	59.95	715	74.00	11512	90.90	275
44.95	584	61.00	3237	75.00	33762	91.90	1833
47.00	1058	61.95	3135	76.00	2980	93.00	2809
47.95	381	62.95	2186	76.95	431	94.00	8278
49.00	2915	63.95	129	77.90	310	95.00	72728
50.00	13678	67.00	228	78.90	1613	96.00	4946

Average of 14.097 to 14.108 min.: 4B83385.D
bfb
Modified:subtracted

m/z	abund.	m/z	abund.	m/z	abund.	m/z	abund.
96.95	152	136.70	56	175.90	70336		
103.85	282	136.90	57	176.90	4612		
105.85	277	140.90	705				
115.90	203	142.85	734				
116.95	402	147.90	133				
117.85	258	154.85	242				
118.85	336	156.90	52				
127.85	260	171.80	51				
128.90	62	172.10	50				
129.85	270	173.90	71309				
134.80	62	174.90	5740				

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182041.D
Acq On : 14 Jun 2018 5:24 pm
Operator : JessicaP
Sample : ic7758-0.2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 09:29:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.233	65	149637	500.00	ug/L		0.00
5) pentafluorobenzene	4.474	168	255471	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.052	114	331109	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	294523	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	163901	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	89357	47.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.84%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	100102	48.29	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.58%				
76) toluene-d8 (s)	6.214	98	362046	51.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.72%				
99) 4-bromofluorobenzene (s)	8.563	95	127650	47.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.80%				
Target Compounds							Qvalue
7) dichlorodifluoromethane	1.761	85	497	0.22	ug/L	#	49
8) freon 142b	1.895	65	500	0.24	ug/L		69
10) vinyl chloride	2.017	62	404	0.20	ug/L		78
15) vinyl bromide	2.503	106	283	0.19	ug/L	#	60
18) freon 113	2.935	151	226	0.18	ug/L	#	41
19) 1,1-dichloroethene	2.929	96	310	0.21	ug/L		86
26) methyl tert butyl ether	3.440	73	1164	0.24	ug/L		96
27) trans-1,2-dichloroethene	3.452	96	318	0.21	ug/L	#	66
28) di-isopropyl ether	3.750	45	1171	0.26	ug/L		93
30) 1,1-dichloroethane	3.763	63	631	0.23	ug/L		79
32) acrylonitrile	3.416	53	192	0.24	ug/L	#	14
35) ethyl tert-butyl ether	4.006	59	1206	0.26	ug/L		78
48) cyclohexane	4.578	84	427	0.21	ug/L	#	51
49) 1,1-dichloropropene	4.639	75	478	0.23	ug/L	#	38
51) carbon tetrachloride	4.639	117	549	0.24	ug/L	#	55
55) n-butyl alcohol	5.101	56	990	11.39	ug/L		89
56) 2,2,4-trimethylpentane	4.846	57	849	0.26	ug/L	#	73
58) tert-amyl methyl ether	4.839	87	185	0.16	ug/L	#	68
65) 2-chloroethyl vinyl ether	5.837	63	1393	1.25	ug/L		93
67) 1,2-dichloropropane	5.454	63	337	0.23	ug/L	#	45
68) dibromomethane	5.521	93	227	0.24	ug/L	#	58
69) methylcyclohexane	5.442	83	401	0.18	ug/L		78
70) bromodichloromethane	5.636	83	442	0.21	ug/L		75
72) cis-1,3-dichloropropene	5.983	75	573	0.22	ug/L		92
77) toluene	6.269	92	1022	0.27	ug/L		93
79) ethyl methacrylate	6.458	69	569	0.25	ug/L	#	54
81) tetrachloroethene	6.713	164	367	0.24	ug/L	#	86
85) dibromochloromethane	6.950	129	364	0.20	ug/L	#	57
86) 1,2-dibromoethane	7.072	107	499	0.29	ug/L	#	61
87) n-butyl ether	7.541	57	1378	0.23	ug/L		97
89) 1,1,1,2-tetrachloroethane	7.571	131	335	0.20	ug/L	#	67
90) ethylbenzene	7.571	91	1903	0.26	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182041.D
Acq On : 14 Jun 2018 5:24 pm
Operator : JessicaP
Sample : ic7758-0.2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 09:29:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

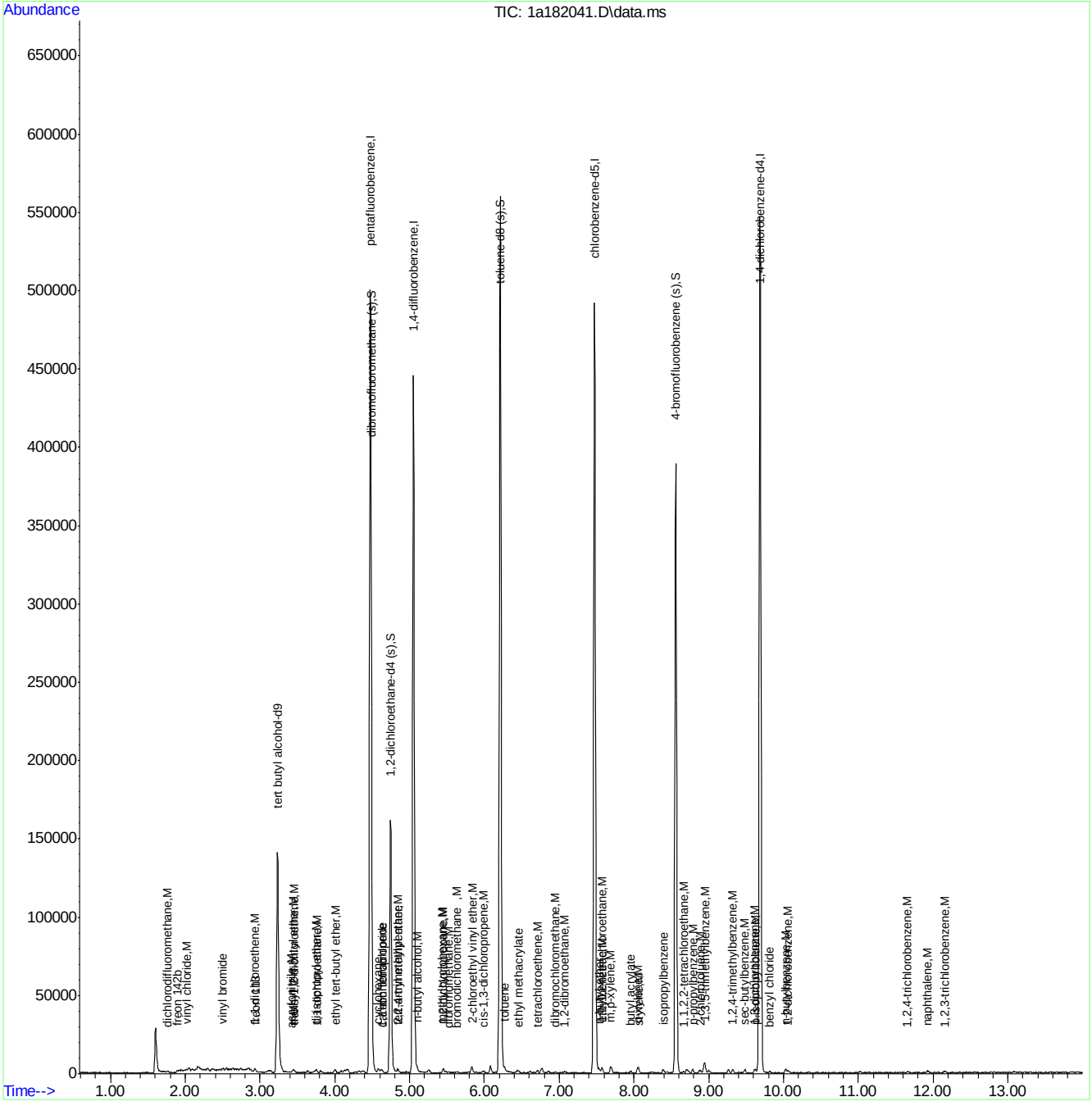
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
91) m,p-xylene	7.687	106	1549	0.53	ug/L		98
92) o-xylene	8.052	106	687	0.24	ug/L		99
93) styrene	8.070	104	1177	0.24	ug/L		79
95) butyl acrylate	7.960	55	731	0.22	ug/L		90
96) isopropylbenzene	8.392	105	1744	0.24	ug/L		79
101) 1,1,2,2-tetrachloroethane	8.672	83	444	0.20	ug/L		90
104) n-propylbenzene	8.788	91	2142	0.26	ug/L		82
105) 2-chlorotoluene	8.891	126	467	0.24	ug/L	#	72
107) 1,3,5-trimethylbenzene	8.952	105	1463	0.24	ug/L		92
109) 1,2,4-trimethylbenzene	9.317	105	1337	0.22	ug/L		81
110) sec-butylbenzene	9.481	105	1780	0.25	ug/L		94
111) 1,3-dichlorobenzene	9.609	146	830	0.22	ug/L		83
112) p-isopropyltoluene	9.627	119	1374	0.22	ug/L		93
114) benzyl chloride	9.816	91	981	0.24	ug/L		92
115) 1,2-dichlorobenzene	10.059	146	788	0.22	ug/L	#	74
116) n-butylbenzene	10.035	92	720	0.26	ug/L		92
120) 1,2,4-trichlorobenzene	11.659	180	426	0.19	ug/L		69
122) naphthalene	11.927	128	1542	0.21	ug/L		64
123) 1,2,3-trichlorobenzene	12.158	180	497	0.24	ug/L	#	49

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182041.D
Acq On : 14 Jun 2018 5:24 pm
Operator : JessicaP
Sample : ic7758-0.2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 09:29:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182042.D
Acq On : 14 Jun 2018 5:49 pm
Operator : JessicaP
Sample : ic7758-0.5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 09:29:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.233	65	152206	500.00	ug/L		0.00
5) pentafluorobenzene	4.474	168	256810	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.052	114	329321	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	294401	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	163413	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	93282	49.24	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.48%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	99776	48.39	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.78%				
76) toluene-d8 (s)	6.214	98	363987	51.65	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.30%				
99) 4-bromofluorobenzene (s)	8.563	95	128213	48.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.50%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.294	59	1078	2.71	ug/L		66
4) 1,4-dioxane	5.490	88	390	11.70	ug/L	#	51
6) chlorodifluoromethane	1.767	51	781	0.50	ug/L		76
7) dichlorodifluoromethane	1.761	85	1328	0.58	ug/L		91
8) freon 142b	1.895	65	1265	0.60	ug/L		69
9) chloromethane	1.919	50	1184	0.61	ug/L		87
10) vinyl chloride	2.017	62	1148	0.57	ug/L		88
11) 1,3-butadiene	2.047	54	1075	0.63	ug/L		81
14) trichlorofluoromethane	2.552	101	1679	0.64	ug/L		93
15) vinyl bromide	2.510	106	902	0.61	ug/L		82
16) ethyl ether	2.741	74	623	0.65	ug/L	#	67
18) freon 113	2.923	151	580	0.45	ug/L	#	57
19) 1,1-dichloroethene	2.929	96	796	0.55	ug/L		95
21) acetonitrile	3.130	41	1767	5.87	ug/L		77
23) carbon disulfide	3.118	76	2154	0.61	ug/L		88
24) methylene chloride	3.264	84	974	0.64	ug/L		84
26) methyl tert butyl ether	3.440	73	2463	0.51	ug/L		97
27) trans-1,2-dichloroethene	3.452	96	960	0.62	ug/L	#	80
28) di-isopropyl ether	3.751	45	2529	0.55	ug/L		84
29) 2-butanone	4.122	72	652	2.22	ug/L	#	74
30) 1,1-dichloroethane	3.757	63	1561	0.57	ug/L		87
31) chloroprene	3.805	53	1276	0.55	ug/L		77
32) acrylonitrile	3.410	53	472	0.59	ug/L	#	56
33) hexane	3.635	56	461	0.53	ug/L	#	76
35) ethyl tert-butyl ether	4.000	59	2528	0.54	ug/L		97
37) 2,2-dichloropropane	4.164	77	1339	0.60	ug/L		89
38) cis-1,2-dichloroethene	4.152	96	1149	0.66	ug/L		75
40) propionitrile	4.164	54	2259	5.94	ug/L		77
41) bromochloromethane	4.328	128	451	0.52	ug/L	#	74
43) chloroform	4.365	85	1106	0.61	ug/L	#	71
44) t-butyl formate	4.395	59	540	0.49	ug/L		92
47) 1,1,1-trichloroethane	4.529	97	1396	0.54	ug/L		78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182042.D
Acq On : 14 Jun 2018 5:49 pm
Operator : JessicaP
Sample : ic7758-0.5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 09:29:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48) cyclohexane	4.578	84	1045	0.51	ug/L	#	65
49) 1,1-dichloropropene	4.620	75	1356	0.65	ug/L	#	65
51) carbon tetrachloride	4.645	117	1290	0.57	ug/L	#	54
55) n-butyl alcohol	5.101	56	2564	29.66	ug/L		73
56) 2,2,4-trimethylpentane	4.846	57	1909	0.59	ug/L		95
57) benzene	4.779	78	3825	0.64	ug/L		91
58) tert-amyl methyl ether	4.833	87	640	0.56	ug/L	#	77
61) 1,2-dichloroethane	4.797	62	1218	0.57	ug/L		81
62) trichloroethene	5.253	130	1127	0.62	ug/L		96
63) ethyl acrylate	5.265	55	1429	0.58	ug/L		72
65) 2-chloroethyl vinyl ether	5.837	63	2804	2.52	ug/L		87
67) 1,2-dichloropropane	5.448	63	786	0.55	ug/L		96
68) dibromomethane	5.527	93	460	0.48	ug/L	#	73
69) methylcyclohexane	5.448	83	1212	0.55	ug/L		71
70) bromodichloromethane	5.643	83	1052	0.49	ug/L		93
72) cis-1,3-dichloropropene	5.983	75	1306	0.51	ug/L		98
73) 4-methyl-2-pentanone	6.074	58	1706	2.06	ug/L		95
74) 3-methyl-1-butanol	6.093	55	1378	10.55	ug/L		86
77) toluene	6.275	92	2146	0.57	ug/L		89
78) trans-1,3-dichloropropene	6.433	75	1337	0.57	ug/L		93
79) ethyl methacrylate	6.452	69	1349	0.60	ug/L		86
80) 1,1,2-trichloroethane	6.616	83	514	0.45	ug/L	#	81
81) tetrachloroethene	6.713	164	754	0.49	ug/L	#	81
82) 1,3-dichloropropane	6.756	76	1244	0.51	ug/L		79
83) 2-hexanone	6.774	58	1844	2.15	ug/L	#	82
84) butyl acetate	6.853	56	721	0.57	ug/L		96
85) dibromochloromethane	6.944	129	894	0.49	ug/L		87
86) 1,2-dibromoethane	7.072	107	910	0.53	ug/L		92
87) n-butyl ether	7.541	57	3030	0.50	ug/L		97
88) chlorobenzene	7.498	112	2430	0.53	ug/L		94
89) 1,1,1,2-tetrachloroethane	7.565	131	877	0.52	ug/L		79
90) ethylbenzene	7.577	91	4116	0.56	ug/L		95
91) m,p-xylene	7.693	106	3410	1.17	ug/L	#	78
92) o-xylene	8.046	106	1783	0.62	ug/L		82
93) styrene	8.064	104	2815	0.57	ug/L		82
94) bromoform	8.234	173	668	0.49	ug/L		83
95) butyl acrylate	7.954	55	1632	0.50	ug/L		93
96) isopropylbenzene	8.392	105	3971	0.54	ug/L		94
100) bromobenzene	8.703	156	1041	0.48	ug/L		82
101) 1,1,2,2-tetrachloroethane	8.666	83	1063	0.48	ug/L		73
104) n-propylbenzene	8.788	91	4183	0.51	ug/L		96
105) 2-chlorotoluene	8.879	126	992	0.52	ug/L	#	76
106) 4-chlorotoluene	8.995	126	953	0.50	ug/L		92
107) 1,3,5-trimethylbenzene	8.952	105	2965	0.49	ug/L		97
108) tert-butylbenzene	9.262	134	604	0.44	ug/L	#	77
109) 1,2,4-trimethylbenzene	9.329	105	3324	0.54	ug/L		95
110) sec-butylbenzene	9.481	105	3775	0.53	ug/L		88
111) 1,3-dichlorobenzene	9.615	146	1981	0.52	ug/L		98
112) p-isopropyltoluene	9.627	119	3025	0.48	ug/L		89
113) 1,4-dichlorobenzene	9.706	146	2043	0.53	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182042.D
Acq On : 14 Jun 2018 5:49 pm
Operator : JessicaP
Sample : ic7758-0.5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 09:29:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

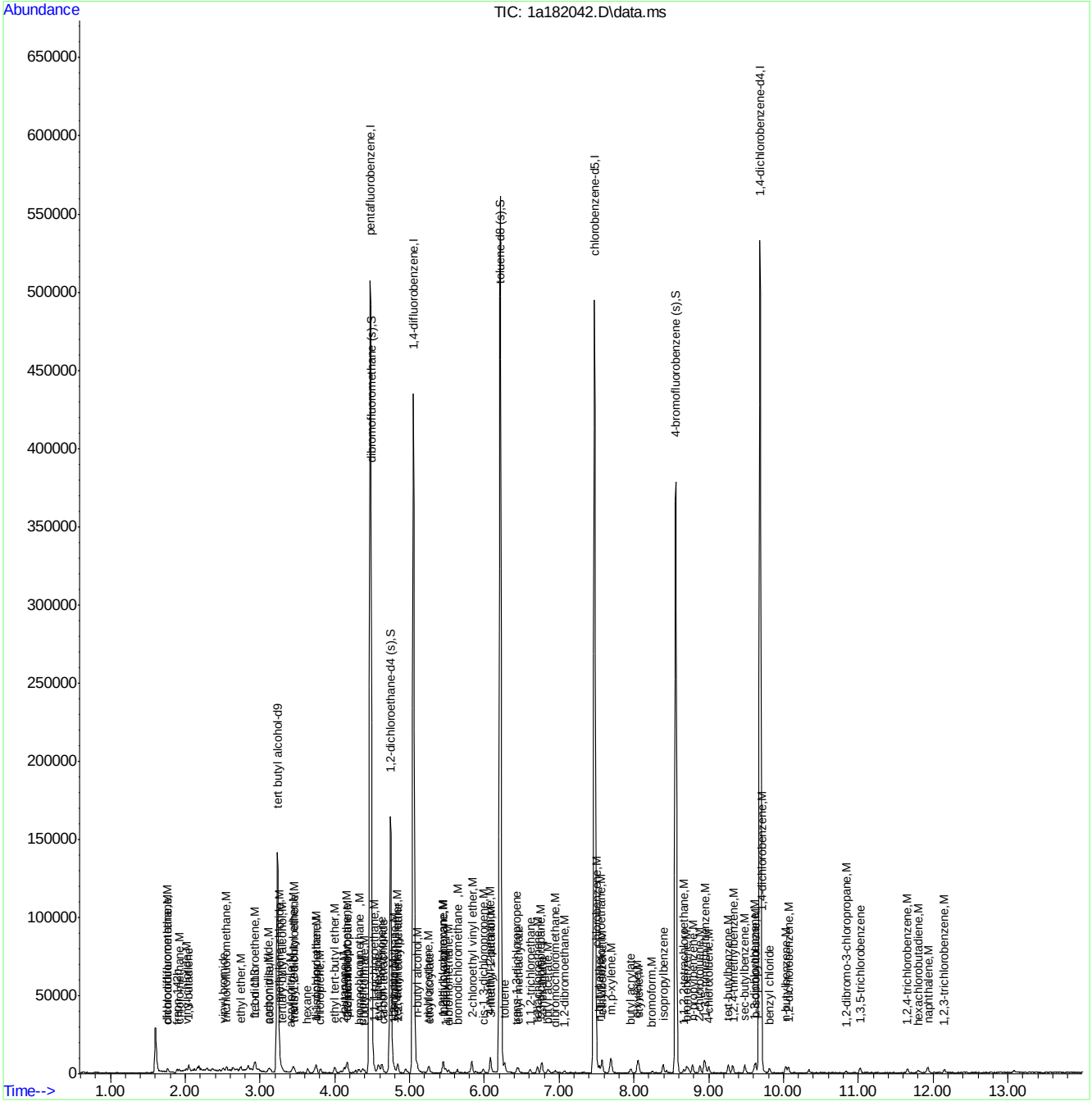
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
114) benzyl chloride	9.816	91	2355	0.58	ug/L	79
115) 1,2-dichlorobenzene	10.065	146	2202	0.61	ug/L	89
116) n-butylbenzene	10.029	92	1271	0.46	ug/L	87
117) 1,2-dibromo-3-chloropr...	10.838	157	339	0.44	ug/L	92
118) 1,3,5-trichlorobenzene	11.027	180	1419	0.54	ug/L	80
120) 1,2,4-trichlorobenzene	11.659	180	1211	0.53	ug/L	79
121) hexachlorobutadiene	11.799	225	404	0.47	ug/L	81
122) naphthalene	11.933	128	3900	0.54	ug/L	92
123) 1,2,3-trichlorobenzene	12.140	180	1057	0.51	ug/L	84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182042.D
Acq On : 14 Jun 2018 5:49 pm
Operator : JessicaP
Sample : ic7758-0.5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 09:29:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182043.D
Acq On : 14 Jun 2018 6:14 pm
Operator : JessicaP
Sample : ic7758-1
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 09:33:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.234	65	158803	500.00	ug/L		0.00
5) pentafluorobenzene	4.475	168	260106	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.053	114	336490	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	297139	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	165645	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	93975	48.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.96%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	103890	49.32	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.64%				
76) toluene-d8 (s)	6.214	98	369351	51.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.86%				
99) 4-bromofluorobenzene (s)	8.563	95	131815	48.94	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.88%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.294	59	2064	4.98	ug/L		93
3) ethanol	2.637	45	4108	128.82	ug/L		97
4) 1,4-dioxane	5.484	88	749	21.54	ug/L		78
6) chlorodifluoromethane	1.767	51	1563	0.99	ug/L		91
7) dichlorodifluoromethane	1.761	85	2301	1.00	ug/L		96
8) freon 142b	1.889	65	2012	0.94	ug/L		94
9) chloromethane	1.919	50	1982	1.01	ug/L		79
10) vinyl chloride	2.017	62	1799	0.88	ug/L		92
11) 1,3-butadiene	2.047	54	1897	1.10	ug/L		92
13) chloroethane	2.364	64	1266	1.10	ug/L		80
14) trichlorofluoromethane	2.558	101	2632	0.99	ug/L		81
15) vinyl bromide	2.510	106	1478	0.98	ug/L		92
16) ethyl ether	2.741	74	897	0.92	ug/L	#	74
17) acrolein	2.844	56	567	1.22	ug/L	#	63
18) freon 113	2.917	151	1198	0.91	ug/L	#	84
19) 1,1-dichloroethene	2.929	96	1496	1.01	ug/L		87
20) acetone	2.935	58	1001	4.62	ug/L	#	81
21) acetonitrile	3.130	41	3283	10.76	ug/L		88
23) carbon disulfide	3.112	76	3805	1.07	ug/L		98
24) methylene chloride	3.264	84	1688	1.10	ug/L		82
26) methyl tert butyl ether	3.446	73	4935	1.00	ug/L		72
27) trans-1,2-dichloroethene	3.453	96	1706	1.08	ug/L		85
28) di-isopropyl ether	3.745	45	4581	0.99	ug/L		83
29) 2-butanone	4.128	72	1202	4.04	ug/L	#	56
30) 1,1-dichloroethane	3.751	63	2644	0.96	ug/L		96
31) chloroprene	3.811	53	2186	0.92	ug/L		89
32) acrylonitrile	3.410	53	885	1.10	ug/L		84
33) hexane	3.641	56	797	0.91	ug/L		81
35) ethyl tert-butyl ether	4.000	59	4680	0.98	ug/L		92
37) 2,2-dichloropropane	4.170	77	2255	1.00	ug/L		92
38) cis-1,2-dichloroethene	4.146	96	1818	1.02	ug/L		93
40) propionitrile	4.170	54	3975	10.31	ug/L		85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182043.D
Acq On : 14 Jun 2018 6:14 pm
Operator : JessicaP
Sample : ic7758-1
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 09:33:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41)	bromochloromethane	4.322	128	790	0.89	ug/L	#	84
43)	chloroform	4.377	85	1856	1.02	ug/L		86
44)	t-butyl formate	4.389	59	1063	0.95	ug/L		85
46)	methacrylonitrile	4.280	67	956	1.13	ug/L		84
47)	1,1,1-trichloroethane	4.517	97	2786	1.07	ug/L		83
48)	cyclohexane	4.584	84	2734	1.31	ug/L	#	90
49)	1,1-dichloropropene	4.627	75	2350	1.11	ug/L		91
51)	carbon tetrachloride	4.633	117	2207	0.96	ug/L	#	74
52)	tert amyl alcohol	4.718	55	635	4.90	ug/L	#	66
55)	n-butyl alcohol	5.095	56	3886	44.00	ug/L		91
56)	2,2,4-trimethylpentane	4.846	57	3314	1.00	ug/L		82
57)	benzene	4.779	78	6476	1.06	ug/L		96
58)	tert-amyl methyl ether	4.834	87	1233	1.05	ug/L	#	38
59)	heptane	4.949	71	865	1.05	ug/L		90
61)	1,2-dichloroethane	4.797	62	2314	1.07	ug/L		71
62)	trichloroethene	5.247	130	2075	1.12	ug/L		97
63)	ethyl acrylate	5.265	55	2820	1.12	ug/L		91
65)	2-chloroethyl vinyl ether	5.825	63	5390	4.74	ug/L		83
66)	methyl methacrylate	5.442	100	615	1.02	ug/L	#	83
67)	1,2-dichloropropane	5.454	63	1478	1.01	ug/L		95
68)	dibromomethane	5.515	93	872	0.89	ug/L		95
69)	methylcyclohexane	5.442	83	2384	1.06	ug/L		97
70)	bromodichloromethane	5.643	83	2255	1.03	ug/L		93
71)	epichlorohydrin	5.886	57	1225	5.03	ug/L		93
72)	cis-1,3-dichloropropene	5.977	75	2664	1.02	ug/L		89
73)	4-methyl-2-pentanone	6.081	58	3829	4.53	ug/L	#	79
74)	3-methyl-1-butanol	6.087	55	2436	18.26	ug/L		86
77)	toluene	6.275	92	4439	1.16	ug/L	#	79
78)	trans-1,3-dichloropropene	6.433	75	2338	0.99	ug/L		82
79)	ethyl methacrylate	6.452	69	2123	0.94	ug/L		85
80)	1,1,2-trichloroethane	6.610	83	1232	1.06	ug/L	#	77
81)	tetrachloroethene	6.713	164	1848	1.18	ug/L		84
82)	1,3-dichloropropane	6.756	76	2721	1.11	ug/L		96
83)	2-hexanone	6.774	58	3539	4.09	ug/L		87
84)	butyl acetate	6.859	56	1364	1.07	ug/L	#	74
85)	dibromochloromethane	6.951	129	1782	0.97	ug/L		88
86)	1,2-dibromoethane	7.072	107	1983	1.14	ug/L		99
87)	n-butyl ether	7.541	57	6046	1.00	ug/L		94
88)	chlorobenzene	7.498	112	5022	1.09	ug/L		94
89)	1,1,1,2-tetrachloroethane	7.571	131	1772	1.05	ug/L		86
90)	ethylbenzene	7.577	91	7814	1.05	ug/L		95
91)	m,p-xylene	7.693	106	6103	2.07	ug/L		97
92)	o-xylene	8.046	106	3359	1.16	ug/L		92
93)	styrene	8.070	104	5198	1.04	ug/L		87
94)	bromoform	8.246	173	1306	0.94	ug/L		86
95)	butyl acrylate	7.954	55	3340	1.02	ug/L		92
96)	isopropylbenzene	8.392	105	7943	1.06	ug/L		92
100)	bromobenzene	8.709	156	2014	0.91	ug/L		84
101)	1,1,2,2-tetrachloroethane	8.666	83	2345	1.04	ug/L		84
103)	1,2,3-trichloropropane	8.733	110	833	1.08	ug/L		88

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182043.D
Acq On : 14 Jun 2018 6:14 pm
Operator : JessicaP
Sample : ic7758-1
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 09:33:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

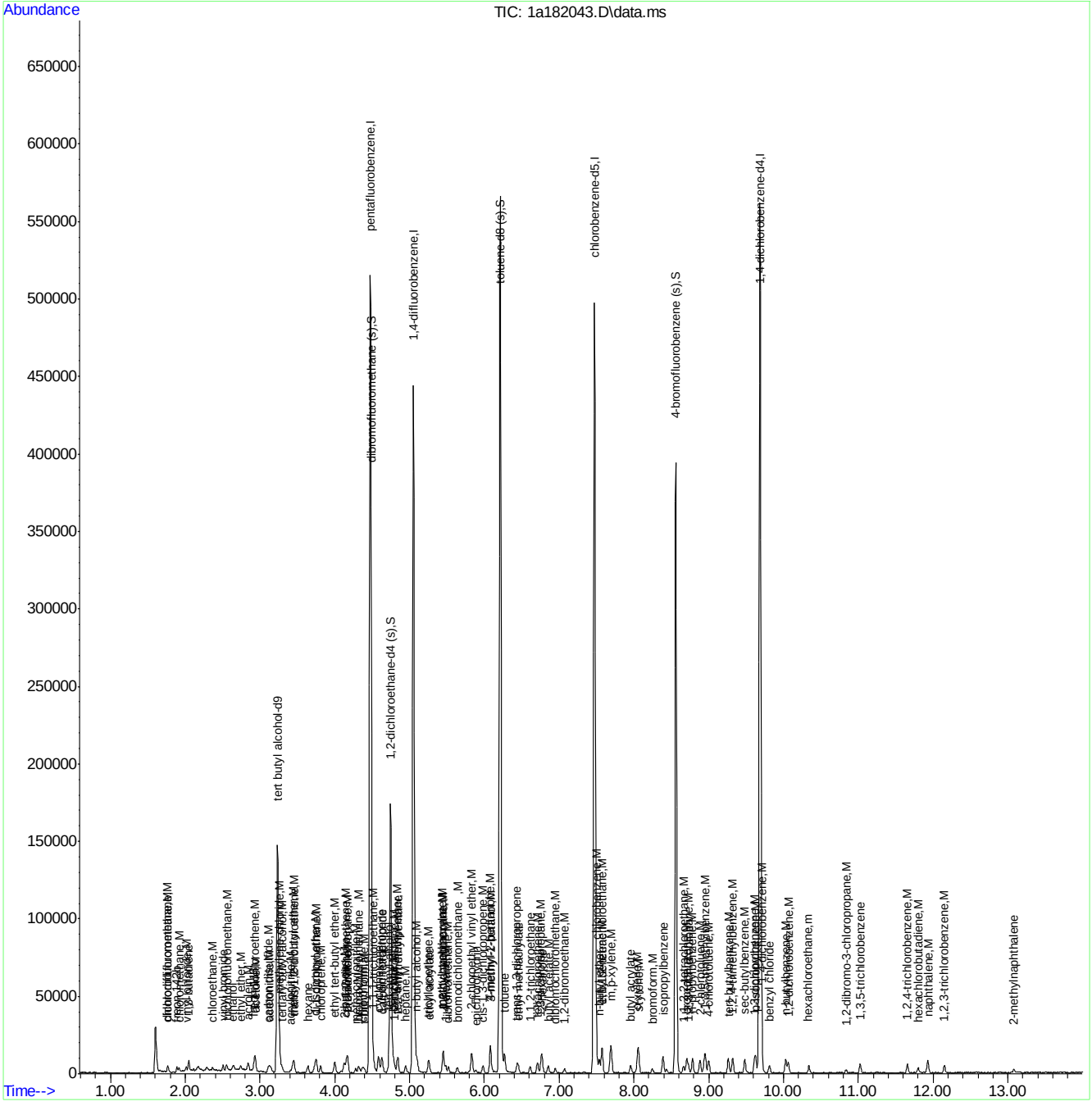
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
104) n-propylbenzene	8.782	91	8191	0.99	ug/L		93
105) 2-chlorotoluene	8.885	126	1827	0.94	ug/L		91
106) 4-chlorotoluene	8.995	126	1589	0.82	ug/L	#	55
107) 1,3,5-trimethylbenzene	8.952	105	6031	0.97	ug/L		93
108) tert-butylbenzene	9.268	134	1296	0.93	ug/L	#	71
109) 1,2,4-trimethylbenzene	9.323	105	6214	1.00	ug/L		95
110) sec-butylbenzene	9.481	105	6544	0.91	ug/L		93
111) 1,3-dichlorobenzene	9.609	146	3847	0.99	ug/L		89
112) p-isopropyltoluene	9.627	119	5799	0.90	ug/L		97
113) 1,4-dichlorobenzene	9.713	146	4047	1.04	ug/L		90
114) benzyl chloride	9.816	91	3898	0.94	ug/L		94
115) 1,2-dichlorobenzene	10.065	146	3745	1.02	ug/L		91
116) n-butylbenzene	10.029	92	2683	0.95	ug/L		95
117) 1,2-dibromo-3-chloropr...	10.838	157	783	1.01	ug/L		81
118) 1,3,5-trichlorobenzene	11.027	180	2306	0.87	ug/L		97
120) 1,2,4-trichlorobenzene	11.659	180	1957	0.84	ug/L		96
121) hexachlorobutadiene	11.805	225	881	1.01	ug/L		69
122) naphthalene	11.933	128	7490	1.03	ug/L		98
123) 1,2,3-trichlorobenzene	12.146	180	2036	0.96	ug/L		94
124) hexachloroethane	10.333	201	1064	0.97	ug/L		79
125) 2-methylnaphthalene	13.083	142	1638	0.45	ug/L		84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182043.D
Acq On : 14 Jun 2018 6:14 pm
Operator : JessicaP
Sample : ic7758-1
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 09:33:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182044.D
Acq On : 14 Jun 2018 6:39 pm
Operator : JessicaP
Sample : ic7758-2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 09:33:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.233	65	158251	500.00	ug/L		0.00
5) pentafluorobenzene	4.474	168	263023	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.052	114	336184	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	299501	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	167560	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	95925	49.44	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.88%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	104364	49.59	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.18%				
76) toluene-d8 (s)	6.214	98	368008	51.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.66%				
99) 4-bromofluorobenzene (s)	8.556	95	131401	48.23	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.46%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.288	59	4415	10.68	ug/L		99
3) ethanol	2.643	45	8179	257.38	ug/L		92
4) 1,4-dioxane	5.490	88	1845	53.24	ug/L		89
6) chlorodifluoromethane	1.767	51	3343	2.08	ug/L		84
7) dichlorodifluoromethane	1.761	85	4271	1.83	ug/L		99
8) freon 142b	1.889	65	4105	1.90	ug/L		96
9) chloromethane	1.919	50	4047	2.03	ug/L		99
10) vinyl chloride	2.017	62	3539	1.71	ug/L		93
11) 1,3-butadiene	2.047	54	3745	2.15	ug/L		96
12) bromomethane	2.278	94	2250	2.40	ug/L		80
13) chloroethane	2.363	64	2711	2.33	ug/L		95
14) trichlorofluoromethane	2.552	101	5292	1.97	ug/L		96
15) vinyl bromide	2.509	106	2773	1.82	ug/L		99
16) ethyl ether	2.741	74	2238	2.28	ug/L		82
17) acrolein	2.844	56	953	2.03	ug/L		86
18) freon 113	2.923	151	2856	2.15	ug/L	#	82
19) 1,1-dichloroethene	2.929	96	3503	2.34	ug/L		93
20) acetone	2.935	58	2039	9.31	ug/L		98
21) acetonitrile	3.130	41	6736	21.83	ug/L		99
22) iodomethane	3.045	142	1284	0.95	ug/L		78
23) carbon disulfide	3.112	76	8036	2.24	ug/L		91
24) methylene chloride	3.258	84	3305	2.12	ug/L		96
25) methyl acetate	3.148	43	3770	2.17	ug/L		98
26) methyl tert butyl ether	3.434	73	11046	2.22	ug/L		88
27) trans-1,2-dichloroethene	3.458	96	3552	2.23	ug/L		89
28) di-isopropyl ether	3.750	45	10410	2.23	ug/L		99
29) 2-butanone	4.122	72	2790	9.26	ug/L	#	84
30) 1,1-dichloroethane	3.757	63	6237	2.24	ug/L		96
31) chloroprene	3.811	53	5091	2.12	ug/L		96
32) acrylonitrile	3.410	53	2006	2.46	ug/L		88
33) hexane	3.635	56	1949	2.20	ug/L		86
35) ethyl tert-butyl ether	4.000	59	10519	2.18	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182044.D
Acq On : 14 Jun 2018 6:39 pm
Operator : JessicaP
Sample : ic7758-2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 09:33:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	4.164	77	5330	2.34	ug/L		88
38) cis-1,2-dichloroethene	4.146	96	4214	2.35	ug/L		83
39) methyl acrylate	4.176	85	938	2.61	ug/L	#	17
40) propionitrile	4.164	54	8666	22.24	ug/L		93
41) bromochloromethane	4.322	128	2016	2.25	ug/L		93
42) tetrahydrofuran	4.334	71	783	2.50	ug/L	#	74
43) chloroform	4.371	85	4009	2.17	ug/L		89
44) t-butyl formate	4.395	59	2312	2.04	ug/L		81
46) methacrylonitrile	4.274	67	1969	2.30	ug/L	#	71
47) 1,1,1-trichloroethane	4.523	97	5661	2.15	ug/L		97
48) cyclohexane	4.584	84	4604	2.19	ug/L		95
49) 1,1-dichloropropene	4.626	75	4645	2.17	ug/L		96
51) carbon tetrachloride	4.633	117	4798	2.06	ug/L	#	81
52) tert amyl alcohol	4.712	55	1294	9.88	ug/L	#	80
55) n-butyl alcohol	5.101	56	9562	108.37	ug/L		96
56) 2,2,4-trimethylpentane	4.839	57	7233	2.19	ug/L		92
57) benzene	4.779	78	14381	2.37	ug/L		98
58) tert-amyl methyl ether	4.845	87	2494	2.13	ug/L		93
59) heptane	4.949	71	1851	2.26	ug/L		94
61) 1,2-dichloroethane	4.803	62	4867	2.25	ug/L		97
62) trichloroethene	5.253	130	4405	2.39	ug/L		96
63) ethyl acrylate	5.259	55	5709	2.28	ug/L		97
65) 2-chloroethyl vinyl ether	5.831	63	12003	10.57	ug/L		93
66) methyl methacrylate	5.448	100	1394	2.30	ug/L	#	91
67) 1,2-dichloropropane	5.454	63	3509	2.41	ug/L		94
68) dibromomethane	5.527	93	2377	2.44	ug/L		96
69) methylcyclohexane	5.442	83	4823	2.15	ug/L		85
70) bromodichloromethane	5.636	83	4901	2.24	ug/L		92
71) epichlorohydrin	5.886	57	2583	10.61	ug/L		94
72) cis-1,3-dichloropropene	5.977	75	5685	2.18	ug/L		91
73) 4-methyl-2-pentanone	6.080	58	7197	8.52	ug/L		99
74) 3-methyl-1-butanol	6.087	55	5595	41.98	ug/L		88
77) toluene	6.269	92	9262	2.40	ug/L		96
78) trans-1,3-dichloropropene	6.439	75	5259	2.22	ug/L		95
79) ethyl methacrylate	6.452	69	5128	2.26	ug/L		88
80) 1,1,2-trichloroethane	6.610	83	2876	2.46	ug/L		88
81) tetrachloroethene	6.713	164	3839	2.43	ug/L		85
82) 1,3-dichloropropane	6.762	76	5778	2.34	ug/L		82
83) 2-hexanone	6.768	58	8035	9.20	ug/L		92
84) butyl acetate	6.853	56	2966	2.32	ug/L		84
85) dibromochloromethane	6.950	129	3759	2.04	ug/L		89
86) 1,2-dibromoethane	7.066	107	3907	2.22	ug/L		95
87) n-butyl ether	7.541	57	13859	2.27	ug/L		93
88) chlorobenzene	7.498	112	10446	2.25	ug/L		97
89) 1,1,1,2-tetrachloroethane	7.571	131	3892	2.28	ug/L		81
90) ethylbenzene	7.577	91	17296	2.30	ug/L		98
91) m,p-xylene	7.693	106	13656	4.60	ug/L		95
92) o-xylene	8.052	106	6927	2.37	ug/L		84
93) styrene	8.070	104	11284	2.24	ug/L		96
94) bromoform	8.246	173	3051	2.18	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182044.D
Acq On : 14 Jun 2018 6:39 pm
Operator : JessicaP
Sample : ic7758-2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 09:33:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

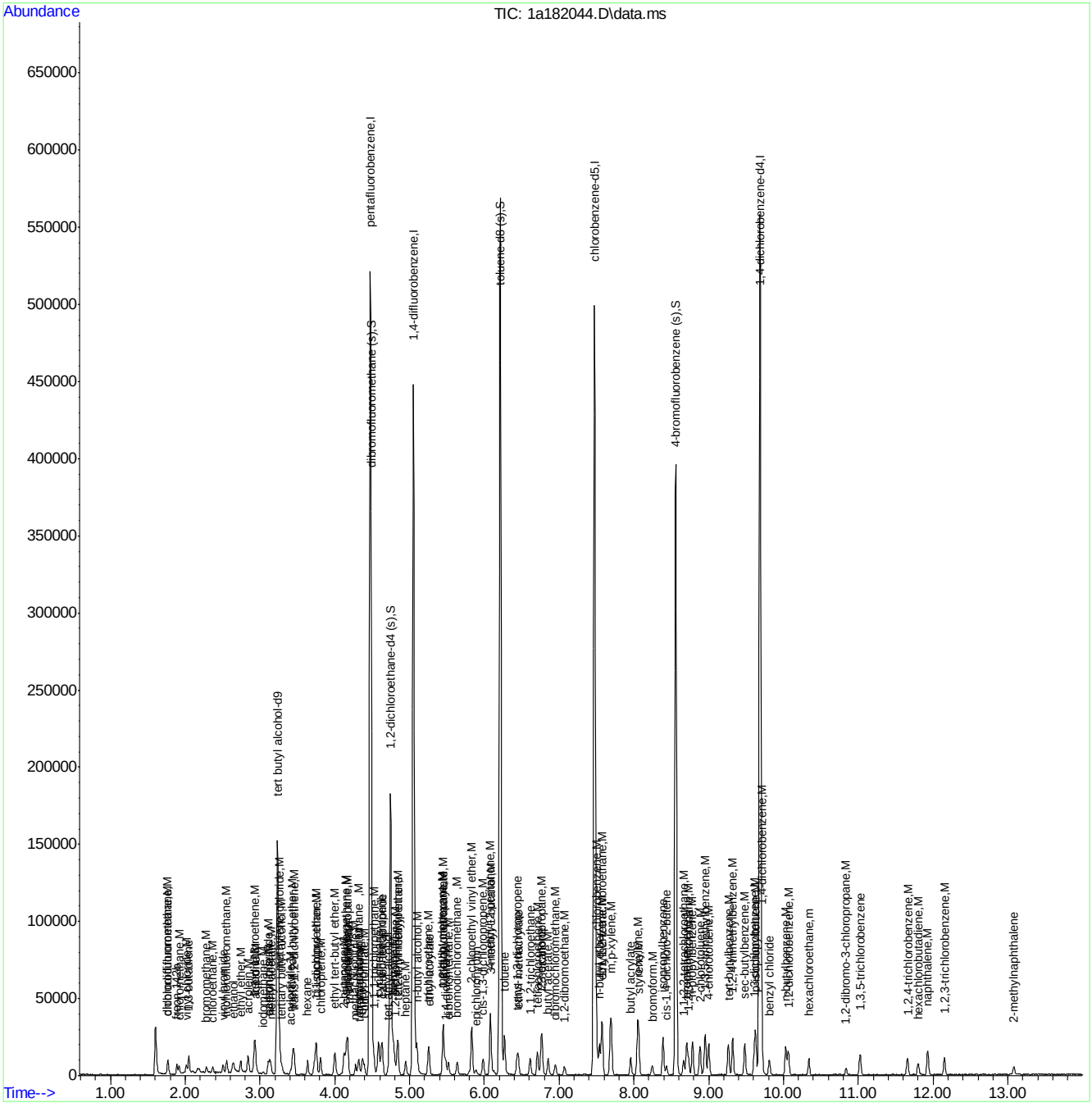
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95) butyl acrylate	7.960	55	6839	2.07	ug/L		91
96) isopropylbenzene	8.386	105	15561	2.06	ug/L		95
97) cis-1,4-dichloro-2-butene	8.435	88	1686	1.83	ug/L	#	77
100) bromobenzene	8.709	156	4774	2.13	ug/L		86
101) 1,1,2,2-tetrachloroethane	8.666	83	4563	1.99	ug/L		88
103) 1,2,3-trichloropropane	8.727	110	1798	2.31	ug/L		89
104) n-propylbenzene	8.782	91	17446	2.08	ug/L		96
105) 2-chlorotoluene	8.885	126	4005	2.03	ug/L		87
106) 4-chlorotoluene	9.001	126	4243	2.18	ug/L		96
107) 1,3,5-trimethylbenzene	8.952	105	13203	2.11	ug/L		93
108) tert-butylbenzene	9.268	134	2774	1.97	ug/L		92
109) 1,2,4-trimethylbenzene	9.323	105	13169	2.09	ug/L		95
110) sec-butylbenzene	9.481	105	15021	2.06	ug/L		100
111) 1,3-dichlorobenzene	9.609	146	8050	2.06	ug/L		91
112) p-isopropyltoluene	9.627	119	12916	1.99	ug/L		98
113) 1,4-dichlorobenzene	9.706	146	8496	2.16	ug/L		96
114) benzyl chloride	9.810	91	7756	1.85	ug/L		92
115) 1,2-dichlorobenzene	10.065	146	7634	2.05	ug/L		95
116) n-butylbenzene	10.029	92	5489	1.92	ug/L		82
117) 1,2-dibromo-3-chloropr...	10.832	157	1710	2.17	ug/L		89
118) 1,3,5-trichlorobenzene	11.032	180	5317	1.98	ug/L		77
120) 1,2,4-trichlorobenzene	11.665	180	4266	1.82	ug/L		88
121) hexachlorobutadiene	11.805	225	1936	2.19	ug/L		91
122) naphthalene	11.927	128	14568	1.98	ug/L		93
123) 1,2,3-trichlorobenzene	12.152	180	4331	2.03	ug/L		92
124) hexachloroethane	10.345	201	1975	1.78	ug/L		87
125) 2-methylnaphthalene	13.083	142	3259	0.88	ug/L		84

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182044.D
Acq On : 14 Jun 2018 6:39 pm
Operator : JessicaP
Sample : ic7758-2
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 09:33:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182045.D
Acq On : 14 Jun 2018 7:04 pm
Operator : JessicaP
Sample : ic7758-5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 08:54:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.233	65	154307	500.00	ug/L		0.00
5) pentafluorobenzene	4.474	168	260423	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.052	114	340982	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	301782	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	165881	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	95979	49.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	103204	48.34	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.68%				
76) toluene-d8 (s)	6.214	98	373489	51.70	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.40%				
99) 4-bromofluorobenzene (s)	8.556	95	131822	48.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.74%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.288	59	10866	26.96	ug/L		98
3) ethanol	2.637	45	18821	607.41	ug/L		96
4) 1,4-dioxane	5.490	88	4833	143.03	ug/L		76
6) chlorodifluoromethane	1.773	51	7784	4.90	ug/L		93
7) dichlorodifluoromethane	1.761	85	9834	4.25	ug/L		98
8) freon 142b	1.889	65	10360	4.84	ug/L		97
9) chloromethane	1.919	50	10254	5.20	ug/L		99
10) vinyl chloride	2.017	62	10182	4.98	ug/L		94
11) 1,3-butadiene	2.047	54	9395	5.45	ug/L		96
12) bromomethane	2.284	94	4995	5.38	ug/L		92
13) chloroethane	2.363	64	6488	5.63	ug/L		99
14) trichlorofluoromethane	2.558	101	12095	4.55	ug/L		92
15) vinyl bromide	2.509	106	7622	5.05	ug/L		92
16) ethyl ether	2.741	74	4944	5.09	ug/L		92
17) acrolein	2.844	56	2540	5.48	ug/L		89
18) freon 113	2.923	151	5998	4.56	ug/L		96
19) 1,1-dichloroethene	2.929	96	8183	5.53	ug/L		86
20) acetone	2.935	58	4738	21.85	ug/L		93
21) acetonitrile	3.130	41	17148	56.14	ug/L		96
22) iodomethane	3.051	142	3827	2.86	ug/L		87
23) carbon disulfide	3.112	76	19053	5.35	ug/L		94
24) methylene chloride	3.264	84	8909	5.78	ug/L		91
25) methyl acetate	3.148	43	9230	5.36	ug/L		96
26) methyl tert butyl ether	3.440	73	26782	5.44	ug/L		95
27) trans-1,2-dichloroethene	3.452	96	8132	5.16	ug/L		84
28) di-isopropyl ether	3.750	45	24137	5.21	ug/L		96
29) 2-butanone	4.122	72	6473	21.71	ug/L	#	79
30) 1,1-dichloroethane	3.757	63	15323	5.56	ug/L		95
31) chloroprene	3.811	53	12664	5.34	ug/L		96
32) acrylonitrile	3.410	53	4277	5.30	ug/L		95
33) hexane	3.641	56	4187	4.76	ug/L		88
34) vinyl acetate	3.726	86	1919	5.30	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182045.D
Acq On : 14 Jun 2018 7:04 pm
Operator : JessicaP
Sample : ic7758-5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 08:54:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) ethyl tert-butyl ether	4.000	59	25401	5.31	ug/L		97
36) ethyl acetate	4.128	45	1828	5.19	ug/L	#	39
37) 2,2-dichloropropane	4.164	77	12176	5.40	ug/L		94
38) cis-1,2-dichloroethene	4.146	96	9714	5.46	ug/L		100
39) methyl acrylate	4.176	85	1758	4.93	ug/L	#	87
40) propionitrile	4.164	54	21063	54.59	ug/L		97
41) bromochloromethane	4.322	128	4948	5.58	ug/L	#	78
42) tetrahydrofuran	4.334	71	1729	5.58	ug/L	#	64
43) chloroform	4.371	85	9697	5.30	ug/L		86
44) t-butyl formate	4.395	59	5672	5.06	ug/L		90
46) methacrylonitrile	4.280	67	4881	5.76	ug/L		85
47) 1,1,1-trichloroethane	4.523	97	13587	5.20	ug/L		91
48) cyclohexane	4.578	84	10832	5.20	ug/L	#	71
49) 1,1-dichloropropene	4.626	75	10884	5.13	ug/L		96
50) iso-butyl alcohol	4.614	42	3800	47.76	ug/L		93
51) carbon tetrachloride	4.639	117	12068	5.24	ug/L		91
52) tert amyl alcohol	4.718	55	3348	25.82	ug/L		91
55) n-butyl alcohol	5.095	56	23268	259.99	ug/L		98
56) 2,2,4-trimethylpentane	4.839	57	16967	5.07	ug/L		93
57) benzene	4.779	78	33949	5.51	ug/L		98
58) tert-amyl methyl ether	4.839	87	6553	5.53	ug/L		92
59) heptane	4.949	71	4097	4.93	ug/L		86
60) isopropyl acetate	4.742	87	2598	5.52	ug/L	#	77
61) 1,2-dichloroethane	4.797	62	11804	5.37	ug/L		97
62) trichloroethene	5.247	130	10355	5.54	ug/L		94
63) ethyl acrylate	5.265	55	12778	5.03	ug/L		99
64) 2-nitropropane	5.801	41	2962	5.07	ug/L	#	81
65) 2-chloroethyl vinyl ether	5.831	63	30012	26.06	ug/L		96
66) methyl methacrylate	5.442	100	3166	5.16	ug/L	#	84
67) 1,2-dichloropropane	5.454	63	8314	5.62	ug/L		93
68) dibromomethane	5.527	93	5362	5.42	ug/L		93
69) methylcyclohexane	5.448	83	11318	4.97	ug/L		97
70) bromodichloromethane	5.636	83	12190	5.49	ug/L		97
71) epichlorohydrin	5.886	57	6383	25.84	ug/L		85
72) cis-1,3-dichloropropene	5.983	75	14285	5.39	ug/L		99
73) 4-methyl-2-pentanone	6.080	58	18309	21.36	ug/L		99
74) 3-methyl-1-butanol	6.087	55	13831	102.31	ug/L		96
77) toluene	6.269	92	21811	5.61	ug/L		100
78) trans-1,3-dichloropropene	6.433	75	12764	5.34	ug/L		97
79) ethyl methacrylate	6.452	69	12065	5.27	ug/L		97
80) 1,1,2-trichloroethane	6.610	83	6605	5.60	ug/L		95
81) tetrachloroethene	6.713	164	8655	5.45	ug/L		91
82) 1,3-dichloropropane	6.756	76	13876	5.57	ug/L		93
83) 2-hexanone	6.774	58	19411	22.07	ug/L		95
84) butyl acetate	6.853	56	6900	5.35	ug/L		94
85) dibromochloromethane	6.950	129	9276	4.99	ug/L		92
86) 1,2-dibromoethane	7.072	107	9689	5.47	ug/L		99
87) n-butyl ether	7.534	57	33642	5.46	ug/L		96
88) chlorobenzene	7.504	112	25004	5.34	ug/L		96
89) 1,1,1,2-tetrachloroethane	7.565	131	9072	5.27	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182045.D
Acq On : 14 Jun 2018 7:04 pm
Operator : JessicaP
Sample : ic7758-5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 08:54:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

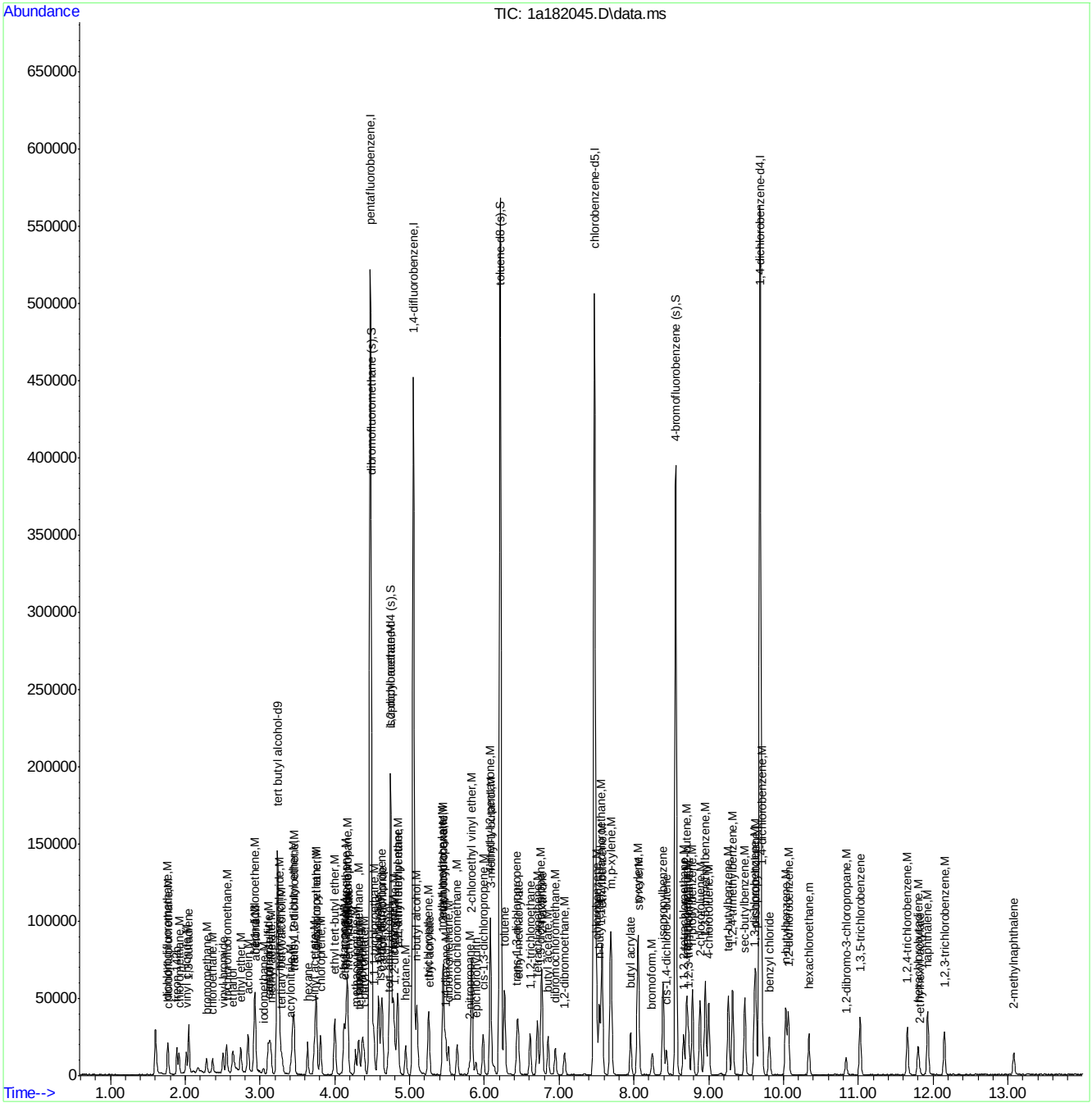
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) ethylbenzene	7.577	91	41094	5.43	ug/L	91
91) m,p-xylene	7.693	106	34201	11.44	ug/L	90
92) o-xylene	8.052	106	16310	5.53	ug/L	97
93) styrene	8.064	104	27228	5.38	ug/L	97
94) bromoform	8.240	173	7633	5.41	ug/L	96
95) butyl acrylate	7.960	55	17160	5.15	ug/L	98
96) isopropylbenzene	8.386	105	42053	5.53	ug/L	97
97) cis-1,4-dichloro-2-butene	8.429	88	4478	4.82	ug/L	96
100) bromobenzene	8.709	156	11764	5.31	ug/L	100
101) 1,1,2,2-tetrachloroethane	8.666	83	12219	5.39	ug/L	94
102) trans-1,4-dichloro-2-b...	8.702	53	3017	4.77	ug/L	92
103) 1,2,3-trichloropropane	8.733	110	4079	5.30	ug/L	93
104) n-propylbenzene	8.782	91	44220	5.32	ug/L	98
105) 2-chlorotoluene	8.885	126	10776	5.52	ug/L	86
106) 4-chlorotoluene	9.001	126	10453	5.42	ug/L	97
107) 1,3,5-trimethylbenzene	8.952	105	32632	5.26	ug/L	97
108) tert-butylbenzene	9.262	134	7055	5.07	ug/L	91
109) 1,2,4-trimethylbenzene	9.317	105	33272	5.33	ug/L	99
110) sec-butylbenzene	9.481	105	37910	5.26	ug/L	98
111) 1,3-dichlorobenzene	9.609	146	20183	5.21	ug/L	94
112) p-isopropyltoluene	9.627	119	32750	5.09	ug/L	99
113) 1,4-dichlorobenzene	9.706	146	20563	5.28	ug/L	98
114) benzyl chloride	9.810	91	19955	4.82	ug/L	98
115) 1,2-dichlorobenzene	10.065	146	19552	5.31	ug/L	93
116) n-butylbenzene	10.029	92	14097	4.99	ug/L	95
117) 1,2-dibromo-3-chloropr...	10.838	157	4093	5.26	ug/L	88
118) 1,3,5-trichlorobenzene	11.026	180	12832	4.84	ug/L	98
119) 2-ethylhexyl acrylate	11.823	70	985	0.88	ug/L	87
120) 1,2,4-trichlorobenzene	11.659	180	11332	4.88	ug/L	92
121) hexachlorobutadiene	11.805	225	4587	5.24	ug/L	89
122) naphthalene	11.927	128	36369	5.00	ug/L	98
123) 1,2,3-trichlorobenzene	12.152	180	10440	4.94	ug/L	98
124) hexachloroethane	10.339	201	5182	4.72	ug/L	96
125) 2-methylnaphthalene	13.083	142	8725	2.38	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182045.D
Acq On : 14 Jun 2018 7:04 pm
Operator : JessicaP
Sample : ic7758-5
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 08:54:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182046.D
Acq On : 14 Jun 2018 7:28 pm
Operator : JessicaP
Sample : ic7758-10
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 09:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:21:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.234	65	157851	500.00	ug/L	-0.02
5) pentafluorobenzene	4.475	168	255672	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.053	114	336251	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	294771	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	162111	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.481	113	92726	49.97	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	104916	50.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.74%			
76) toluene-d8 (s)	6.215	98	367966	50.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.98%			
99) 4-bromofluorobenzene (s)	8.563	95	131044	50.02	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.04%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.288	59	20630	48.68	ug/L	94
3) ethanol	2.638	45	35912	1055.61	ug/L	99
4) 1,4-dioxane	5.491	88	9246	262.66	ug/L	86
6) chlorodifluoromethane	1.774	51	15591	10.01	ug/L	90
7) dichlorodifluoromethane	1.761	85	22687	9.99	ug/L	95
8) freon 142b	1.889	65	21362	10.96	ug/L	98
9) chloromethane	1.920	50	19589	9.78	ug/L	96
10) vinyl chloride	2.017	62	20558	10.25	ug/L	98
11) 1,3-butadiene	2.047	54	17749	9.93	ug/L	98
12) bromomethane	2.285	94	10387	9.44	ug/L	88
13) chloroethane	2.364	64	11731	9.51	ug/L	95
14) trichlorofluoromethane	2.552	101	26204	9.74	ug/L	95
15) vinyl bromide	2.510	106	14792	10.02	ug/L	97
16) ethyl ether	2.741	74	9798	9.85	ug/L	94
17) acrolein	2.844	56	4868	8.92	ug/L	84
18) freon 113	2.923	151	12583	10.21	ug/L	93
19) 1,1-dichloroethene	2.930	96	15235	9.98	ug/L	99
20) acetone	2.942	58	8985	40.07	ug/L	95
21) acetonitrile	3.136	41	32350	102.20	ug/L	97
22) iodomethane	3.045	142	7953	7.67	ug/L	88
23) carbon disulfide	3.112	76	36147	9.74	ug/L	96
24) methylene chloride	3.264	84	15902	9.74	ug/L	96
25) methyl acetate	3.149	43	17411	10.08	ug/L	97
26) methyl tert butyl ether	3.441	73	50590	10.00	ug/L	96
27) trans-1,2-dichloroethene	3.453	96	16194	9.93	ug/L	97
28) di-isopropyl ether	3.751	45	47023	9.81	ug/L	97
29) 2-butanone	4.122	72	12185	39.88	ug/L	92
30) 1,1-dichloroethane	3.757	63	28166	9.86	ug/L	96
31) chloroprene	3.812	53	24294	10.17	ug/L	92
32) acrylonitrile	3.410	53	8959	10.31	ug/L	86
33) hexane	3.641	56	8897	10.21	ug/L	90
34) vinyl acetate	3.726	86	3471	9.80	ug/L #	85

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182046.D
Acq On : 14 Jun 2018 7:28 pm
Operator : JessicaP
Sample : ic7758-10
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 09:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:21:31 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) ethyl tert-butyl ether	4.000	59	48241	9.75	ug/L		99
36) ethyl acetate	4.128	45	3997	11.09	ug/L	#	60
37) 2,2-dichloropropane	4.164	77	23397	9.97	ug/L		98
38) cis-1,2-dichloroethene	4.146	96	17962	9.63	ug/L		98
39) methyl acrylate	4.171	85	3669	10.06	ug/L		99
40) propionitrile	4.171	54	40853	102.25	ug/L		86
41) bromochloromethane	4.317	128	9383	10.53	ug/L		88
42) tetrahydrofuran	4.329	71	3404	10.04	ug/L		96
43) chloroform	4.371	85	18836	10.00	ug/L		91
44) t-butyl formate	4.396	59	11034	10.01	ug/L		96
46) methacrylonitrile	4.280	67	9034	10.11	ug/L		88
47) 1,1,1-trichloroethane	4.517	97	26244	9.91	ug/L		93
48) cyclohexane	4.584	84	22194	10.20	ug/L		95
49) 1,1-dichloropropene	4.627	75	21649	9.64	ug/L		98
50) iso-butyl alcohol	4.615	42	8460	111.23	ug/L		97
51) carbon tetrachloride	4.633	117	22477	9.55	ug/L		94
52) tert amyl alcohol	4.718	55	6913	54.12	ug/L		91
55) n-butyl alcohol	5.101	56	46112	501.88	ug/L		97
56) 2,2,4-trimethylpentane	4.840	57	34805	9.85	ug/L		95
57) benzene	4.779	78	64202	9.79	ug/L		96
58) tert-amyl methyl ether	4.834	87	11907	9.95	ug/L	#	84
59) heptane	4.949	71	8312	9.52	ug/L		98
60) isopropyl acetate	4.742	87	4742	10.05	ug/L		94
61) 1,2-dichloroethane	4.797	62	23460	10.27	ug/L		96
62) trichloroethene	5.253	130	18925	9.48	ug/L		98
63) ethyl acrylate	5.260	55	26190	9.92	ug/L		94
64) 2-nitropropane	5.795	41	5344	9.30	ug/L		96
65) 2-chloroethyl vinyl ether	5.831	63	58057	49.42	ug/L		98
66) methyl methacrylate	5.442	100	6502	10.35	ug/L	#	85
67) 1,2-dichloropropane	5.454	63	15015	9.61	ug/L		95
68) dibromomethane	5.521	93	10262	10.13	ug/L		96
69) methylcyclohexane	5.448	83	23027	10.03	ug/L		89
70) bromodichloromethane	5.637	83	22599	10.04	ug/L		98
71) epichlorohydrin	5.886	57	12346	49.51	ug/L		89
72) cis-1,3-dichloropropene	5.983	75	26532	9.82	ug/L		99
73) 4-methyl-2-pentanone	6.081	58	37017	42.01	ug/L		94
74) 3-methyl-1-butanol	6.087	55	28808	211.31	ug/L		97
77) toluene	6.269	92	39780	9.46	ug/L		99
78) trans-1,3-dichloropropene	6.434	75	24152	9.63	ug/L		95
79) ethyl methacrylate	6.452	69	23735	9.93	ug/L		100
80) 1,1,2-trichloroethane	6.610	83	12418	10.09	ug/L		98
81) tetrachloroethene	6.707	164	16401	9.87	ug/L		88
82) 1,3-dichloropropane	6.756	76	26379	10.34	ug/L		97
83) 2-hexanone	6.768	58	37274	41.50	ug/L		94
84) butyl acetate	6.853	56	13465	10.16	ug/L		93
85) dibromochloromethane	6.951	129	18197	10.08	ug/L		98
86) 1,2-dibromoethane	7.072	107	18699	9.80	ug/L		93
87) n-butyl ether	7.541	57	63380	10.05	ug/L		100
88) chlorobenzene	7.504	112	49078	9.89	ug/L		93
89) 1,1,1,2-tetrachloroethane	7.571	131	17926	10.27	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182046.D
Acq On : 14 Jun 2018 7:28 pm
Operator : JessicaP
Sample : ic7758-10
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 09:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:21:31 2018
Response via : Initial Calibration

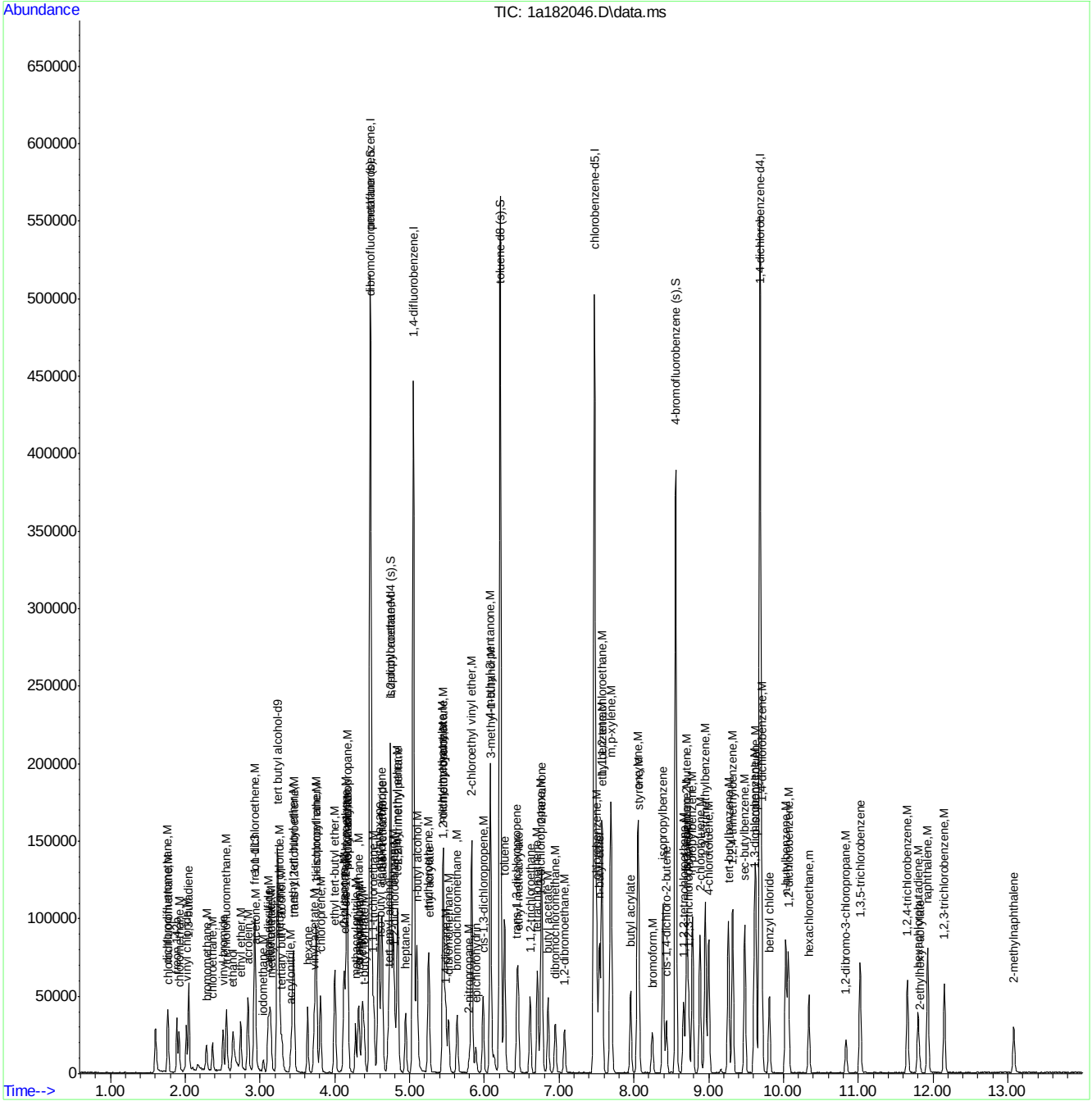
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
90) ethylbenzene	7.577	91	79684	10.03	ug/L		97
91) m,p-xylene	7.693	106	63285	19.81	ug/L		99
92) o-xylene	8.052	106	30706	9.75	ug/L		92
93) styrene	8.064	104	52746	10.05	ug/L		97
94) bromoform	8.247	173	13942	9.96	ug/L		92
95) butyl acrylate	7.961	55	32555	9.83	ug/L		95
96) isopropylbenzene	8.386	105	77246	9.93	ug/L		97
97) cis-1,4-dichloro-2-butene	8.435	88	8278	9.79	ug/L		99
100) bromobenzene	8.709	156	22781	10.35	ug/L		95
101) 1,1,2,2-tetrachloroethane	8.666	83	22735	10.12	ug/L		94
102) trans-1,4-dichloro-2-b...	8.703	53	6381	10.45	ug/L		98
103) 1,2,3-trichloropropane	8.733	110	7921	9.98	ug/L		95
104) n-propylbenzene	8.782	91	82571	9.63	ug/L		98
105) 2-chlorotoluene	8.885	126	19391	9.75	ug/L		99
106) 4-chlorotoluene	9.001	126	19459	9.72	ug/L		99
107) 1,3,5-trimethylbenzene	8.952	105	61665	9.80	ug/L		99
108) tert-butylbenzene	9.269	134	14377	10.62	ug/L	#	88
109) 1,2,4-trimethylbenzene	9.323	105	63403	9.98	ug/L		100
110) sec-butylbenzene	9.482	105	71040	9.71	ug/L		99
111) 1,3-dichlorobenzene	9.609	146	39020	10.00	ug/L		98
112) p-isopropyltoluene	9.628	119	64217	10.17	ug/L		99
113) 1,4-dichlorobenzene	9.707	146	38778	9.82	ug/L		95
114) benzyl chloride	9.816	91	38963	9.37	ug/L		98
115) 1,2-dichlorobenzene	10.066	146	36837	9.75	ug/L		99
116) n-butylbenzene	10.029	92	26244	9.42	ug/L		81
117) 1,2-dibromo-3-chloropr...	10.832	157	7619	9.78	ug/L		93
118) 1,3,5-trichlorobenzene	11.027	180	25937	9.71	ug/L		96
119) 2-ethylhexyl acrylate	11.824	70	1819	1.67	ug/L	#	85
120) 1,2,4-trichlorobenzene	11.659	180	22208	9.96	ug/L		91
121) hexachlorobutadiene	11.799	225	8490	9.66	ug/L		92
122) naphthalene	11.927	128	70743	9.60	ug/L		98
123) 1,2,3-trichlorobenzene	12.146	180	21053	9.80	ug/L		92
124) hexachloroethane	10.345	201	10679	10.38	ug/L		94
125) 2-methylnaphthalene	13.077	142	17037	4.78	ug/L		92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182046.D
Acq On : 14 Jun 2018 7:28 pm
Operator : JessicaP
Sample : ic7758-10
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 09:22:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:21:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182047.D
Acq On : 14 Jun 2018 7:53 pm
Operator : JessicaP
Sample : ic7758-20
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 08:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.233	65	158609	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	253448	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	327869	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	298271	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	160094	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	91684	49.04	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.08%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	102533	49.95	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.90%			
76) toluene-d8 (s)	6.214	98	362500	50.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.54%			
99) 4-bromofluorobenzene (s)	8.557	95	130357	50.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.16%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.294	59	40841	98.57	ug/L	98
3) ethanol	2.637	45	67217	2110.46	ug/L	96
4) 1,4-dioxane	5.490	88	17908	515.61	ug/L	91
6) chlorodifluoromethane	1.773	51	30984	20.04	ug/L	91
7) dichlorodifluoromethane	1.761	85	43914	19.49	ug/L	98
8) freon 142b	1.889	65	41385	19.85	ug/L	98
9) chloromethane	1.919	50	38424	20.03	ug/L	99
10) vinyl chloride	2.017	62	40784	20.50	ug/L	95
11) 1,3-butadiene	2.047	54	32762	19.51	ug/L	98
12) bromomethane	2.278	94	18753	20.75	ug/L	99
13) chloroethane	2.363	64	23771	21.20	ug/L	95
14) trichlorofluoromethane	2.552	101	52400	20.24	ug/L	97
15) vinyl bromide	2.509	106	28090	19.11	ug/L	97
16) ethyl ether	2.741	74	18872	19.97	ug/L	98
17) acrolein	2.844	56	8829	19.56	ug/L	84
18) freon 113	2.923	151	25108	19.63	ug/L	90
19) 1,1-dichloroethene	2.929	96	29296	20.35	ug/L	98
20) acetone	2.935	58	17536	83.09	ug/L	89
21) acetonitrile	3.130	41	59957	201.68	ug/L	97
22) iodomethane	3.045	142	20294	15.56	ug/L	93
23) carbon disulfide	3.112	76	68815	19.86	ug/L	97
24) methylene chloride	3.264	84	30787	20.54	ug/L	99
25) methyl acetate	3.148	43	33663	20.09	ug/L	97
26) methyl tert butyl ether	3.440	73	94776	19.78	ug/L	99
27) trans-1,2-dichloroethene	3.452	96	30929	20.18	ug/L	97
28) di-isopropyl ether	3.751	45	89422	19.85	ug/L	98
29) 2-butanone	4.122	72	23797	82.01	ug/L	93
30) 1,1-dichloroethane	3.757	63	54664	20.37	ug/L	97
31) chloroprene	3.805	53	47554	20.60	ug/L	95
32) acrylonitrile	3.410	53	15846	20.16	ug/L	97
33) hexane	3.635	56	17573	20.54	ug/L	94
34) vinyl acetate	3.726	86	6928	19.67	ug/L #	86

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182047.D
Acq On : 14 Jun 2018 7:53 pm
Operator : JessicaP
Sample : ic7758-20
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 08:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) ethyl tert-butyl ether	4.000	59	92744	19.91	ug/L		94
36) ethyl acetate	4.128	45	7115	20.75	ug/L	#	69
37) 2,2-dichloropropane	4.158	77	44071	20.09	ug/L		96
38) cis-1,2-dichloroethene	4.146	96	35206	20.34	ug/L		94
39) methyl acrylate	4.170	85	6780	19.55	ug/L		92
40) propionitrile	4.164	54	77279	205.80	ug/L		95
41) bromochloromethane	4.316	128	17843	20.67	ug/L		93
42) tetrahydrofuran	4.335	71	6336	21.01	ug/L		85
43) chloroform	4.371	85	36013	20.23	ug/L		98
44) t-butyl formate	4.389	59	21381	19.58	ug/L		94
46) methacrylonitrile	4.274	67	16634	20.18	ug/L		92
47) 1,1,1-trichloroethane	4.523	97	50328	19.80	ug/L		97
48) cyclohexane	4.584	84	42102	20.77	ug/L		92
49) 1,1-dichloropropene	4.627	75	41956	20.32	ug/L		98
50) iso-butyl alcohol	4.620	42	15496	200.14	ug/L		98
51) carbon tetrachloride	4.633	117	44520	19.85	ug/L		97
52) tert amyl alcohol	4.712	55	13363	105.88	ug/L		88
55) n-butyl alcohol	5.095	56	90203	1048.20	ug/L		99
56) 2,2,4-trimethylpentane	4.839	57	68121	21.17	ug/L		97
57) benzene	4.779	78	122113	20.61	ug/L		100
58) tert-amyl methyl ether	4.833	87	23572	20.68	ug/L		97
59) heptane	4.949	71	16462	20.60	ug/L		93
60) isopropyl acetate	4.736	87	8730	19.28	ug/L	#	81
61) 1,2-dichloroethane	4.797	62	42397	20.08	ug/L		100
62) trichloroethene	5.247	130	37784	21.01	ug/L		98
63) ethyl acrylate	5.259	55	50128	20.50	ug/L		100
64) 2-nitropropane	5.801	41	10888	19.40	ug/L		92
65) 2-chloroethyl vinyl ether	5.831	63	112256	101.35	ug/L		97
66) methyl methacrylate	5.442	100	12034	20.40	ug/L		94
67) 1,2-dichloropropane	5.448	63	29992	21.08	ug/L		96
68) dibromomethane	5.521	93	19192	20.19	ug/L		99
69) methylcyclohexane	5.448	83	45947	20.96	ug/L		99
70) bromodichloromethane	5.636	83	41884	19.63	ug/L		99
71) epichlorohydrin	5.886	57	24802	104.42	ug/L		96
72) cis-1,3-dichloropropene	5.983	75	50615	19.87	ug/L		99
73) 4-methyl-2-pentanone	6.074	58	68759	83.42	ug/L		97
74) 3-methyl-1-butanol	6.087	55	55906	430.07	ug/L		97
77) toluene	6.269	92	79621	20.72	ug/L		98
78) trans-1,3-dichloropropene	6.433	75	46187	19.56	ug/L		98
79) ethyl methacrylate	6.452	69	45555	20.13	ug/L		98
80) 1,1,2-trichloroethane	6.610	83	23649	20.29	ug/L		88
81) tetrachloroethene	6.713	164	31809	20.25	ug/L		98
82) 1,3-dichloropropane	6.756	76	48692	19.78	ug/L		99
83) 2-hexanone	6.768	58	72323	83.19	ug/L		97
84) butyl acetate	6.853	56	25651	20.13	ug/L		92
85) dibromochloromethane	6.950	129	35407	19.26	ug/L		97
86) 1,2-dibromoethane	7.072	107	36881	21.05	ug/L		96
87) n-butyl ether	7.541	57	123881	20.34	ug/L		99
88) chlorobenzene	7.504	112	93167	20.15	ug/L		94
89) 1,1,1,2-tetrachloroethane	7.571	131	34687	20.39	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182047.D
Acq On : 14 Jun 2018 7:53 pm
Operator : JessicaP
Sample : ic7758-20
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 08:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

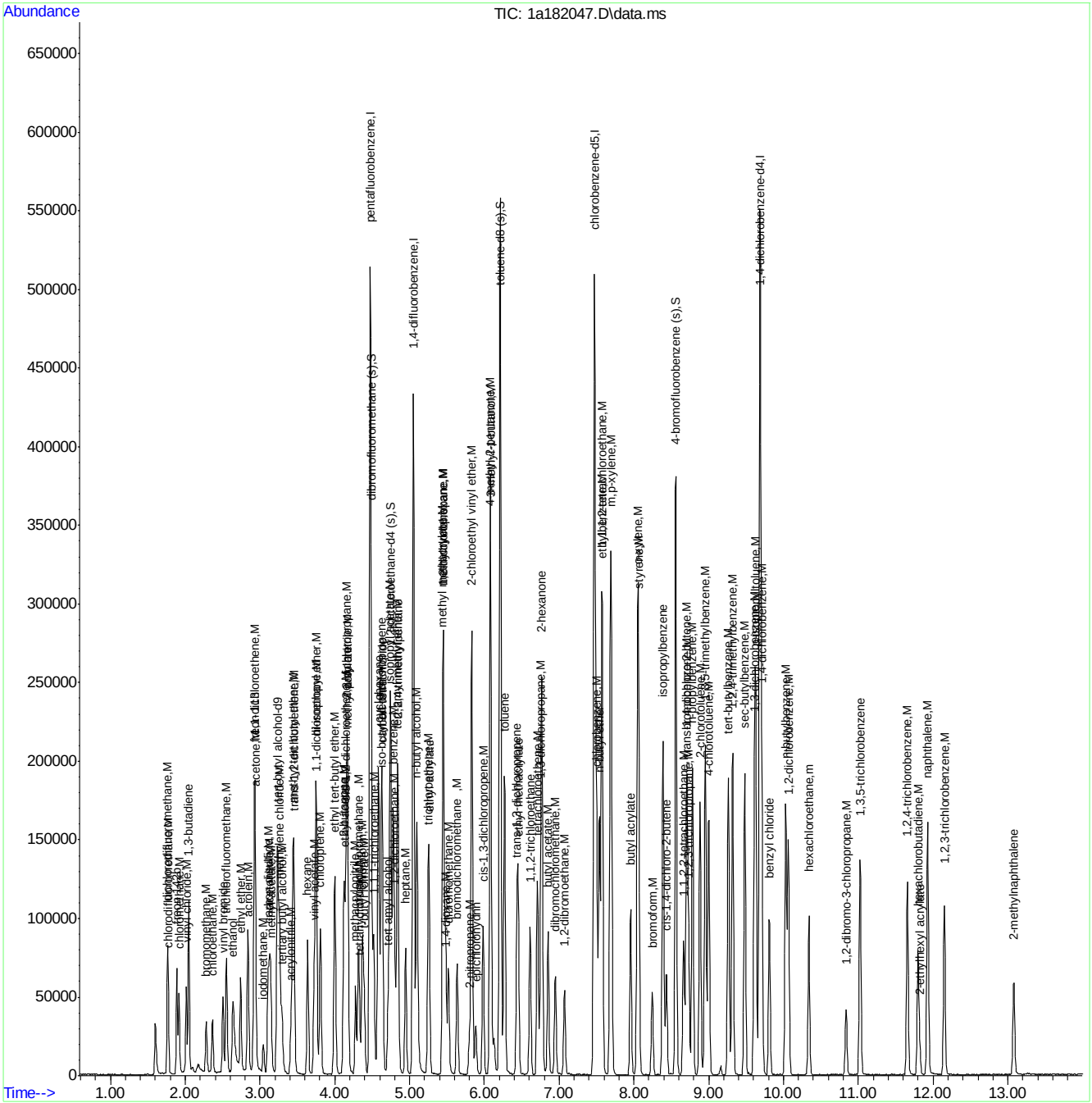
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) ethylbenzene	7.577	91	150940	20.17	ug/L	95
91) m,p-xylene	7.693	106	121912	41.25	ug/L	96
92) o-xylene	8.052	106	58716	20.15	ug/L	97
93) styrene	8.064	104	101273	20.23	ug/L	99
94) bromoform	8.246	173	27767	19.92	ug/L	95
95) butyl acrylate	7.960	55	65068	19.76	ug/L	95
96) isopropylbenzene	8.386	105	150918	20.09	ug/L	100
97) cis-1,4-dichloro-2-butene	8.435	88	17229	18.77	ug/L	88
100) bromobenzene	8.709	156	43807	20.49	ug/L	94
101) 1,1,2,2-tetrachloroethane	8.666	83	44135	20.19	ug/L	97
102) trans-1,4-dichloro-2-b...	8.703	53	12180	19.97	ug/L	97
103) 1,2,3-trichloropropane	8.733	110	15047	20.28	ug/L	98
104) n-propylbenzene	8.782	91	160916	20.06	ug/L	99
105) 2-chlorotoluene	8.885	126	37411	19.87	ug/L	94
106) 4-chlorotoluene	9.001	126	38666	20.77	ug/L	98
107) 1,3,5-trimethylbenzene	8.952	105	120879	20.19	ug/L	99
108) tert-butylbenzene	9.262	134	27148	20.23	ug/L	94
109) 1,2,4-trimethylbenzene	9.323	105	123057	20.42	ug/L	98
110) sec-butylbenzene	9.481	105	139017	19.98	ug/L	98
111) 1,3-dichlorobenzene	9.609	146	75345	20.14	ug/L	98
112) p-isopropyltoluene	9.627	119	125675	20.26	ug/L	98
113) 1,4-dichlorobenzene	9.706	146	75315	20.02	ug/L	99
114) benzyl chloride	9.816	91	77747	19.46	ug/L	96
115) 1,2-dichlorobenzene	10.065	146	71952	20.26	ug/L	97
116) n-butylbenzene	10.029	92	53431	19.61	ug/L	97
117) 1,2-dibromo-3-chloropr...	10.838	157	15072	20.06	ug/L	96
118) 1,3,5-trichlorobenzene	11.026	180	49571	19.37	ug/L	94
119) 2-ethylhexyl acrylate	11.823	70	3912	3.62	ug/L	95
120) 1,2,4-trichlorobenzene	11.659	180	44127	19.68	ug/L	94
121) hexachlorobutadiene	11.799	225	17273	20.44	ug/L	95
122) naphthalene	11.927	128	140084	19.94	ug/L	98
123) 1,2,3-trichlorobenzene	12.152	180	41436	20.32	ug/L	94
124) hexachloroethane	10.339	201	20606	19.44	ug/L	92
125) 2-methylnaphthalene	13.077	142	35594	10.07	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182047.D
Acq On : 14 Jun 2018 7:53 pm
Operator : JessicaP
Sample : ic7758-20
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 08:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182048.D
Acq On : 14 Jun 2018 8:18 pm
Operator : JessicaP
Sample : icc7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 08:48:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.233	65	153153	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	249404	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	329967	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	299004	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	161431	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	91982	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	103290	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
76) toluene-d8 (s)	6.214	98	357849	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
99) 4-bromofluorobenzene (s)	8.563	95	131241	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.294	59	100024	250.00	ug/L	100
3) ethanol	2.643	45	153769	5000.00	ug/L	100
4) 1,4-dioxane	5.490	88	41921	1250.00	ug/L	100
6) chlorodifluoromethane	1.767	51	76069	50.00	ug/L	100
7) dichlorodifluoromethane	1.761	85	110860	50.00	ug/L	100
8) freon 142b	1.889	65	102646	50.02	ug/L	100
9) chloromethane	1.919	50	94367	50.00	ug/L	100
10) vinyl chloride	2.017	62	97871	50.00	ug/L	100
11) 1,3-butadiene	2.047	54	82668	50.04	ug/L	100
12) bromomethane	2.272	94	44457	50.00	ug/L	100
13) chloroethane	2.357	64	55180	50.00	ug/L	100
14) trichlorofluoromethane	2.552	101	127373	50.00	ug/L	100
15) vinyl bromide	2.503	106	72327	50.00	ug/L	100
16) ethyl ether	2.741	74	46493	50.00	ug/L	100
17) acrolein	2.844	56	22214	50.00	ug/L	100
18) freon 113	2.917	151	62946	50.00	ug/L	100
19) 1,1-dichloroethene	2.929	96	70843	50.00	ug/L	100
20) acetone	2.935	58	41537	200.00	ug/L	100
21) acetonitrile	3.130	41	146274	500.00	ug/L	100
22) iodomethane	3.045	142	64178	50.00	ug/L	100
23) carbon disulfide	3.112	76	170446	50.00	ug/L	100
24) methylene chloride	3.258	84	73757	50.00	ug/L	100
25) methyl acetate	3.148	43	82462	50.00	ug/L	100
26) methyl tert butyl ether	3.434	73	235769	50.00	ug/L	100
27) trans-1,2-dichloroethene	3.452	96	75418	50.00	ug/L	100
28) di-isopropyl ether	3.750	45	221688	50.00	ug/L	100
29) 2-butanone	4.122	72	57110	200.00	ug/L	100
30) 1,1-dichloroethane	3.757	63	132063	50.00	ug/L	100
31) chloroprene	3.811	53	113602	50.00	ug/L	100
32) acrylonitrile	3.410	53	38676	50.00	ug/L	100
33) hexane	3.635	56	42089	50.00	ug/L	100
34) vinyl acetate	3.726	86	17332	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182048.D
Acq On : 14 Jun 2018 8:18 pm
Operator : JessicaP
Sample : icc7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 08:48:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
35) ethyl tert-butyl ether	4.000	59	229234	50.00	ug/L	100
36) ethyl acetate	4.128	45	16873	50.00	ug/L	100
37) 2,2-dichloropropane	4.164	77	107908	50.00	ug/L	100
38) cis-1,2-dichloroethene	4.146	96	85167	50.00	ug/L	100
39) methyl acrylate	4.170	85	17062	50.00	ug/L	100
40) propionitrile	4.164	54	184758	500.00	ug/L	100
41) bromochloromethane	4.316	128	42475	50.00	ug/L	100
42) tetrahydrofuran	4.328	71	14835	50.00	ug/L	100
43) chloroform	4.371	85	87589	50.00	ug/L	100
44) t-butyl formate	4.395	59	53723	50.00	ug/L	100
46) methacrylonitrile	4.280	67	40564	50.00	ug/L	100
47) 1,1,1-trichloroethane	4.517	97	125063	50.00	ug/L	100
48) cyclohexane	4.584	84	99748	50.00	ug/L	100
49) 1,1-dichloropropene	4.627	75	101598	50.00	ug/L	100
50) iso-butyl alcohol	4.620	42	38007	498.83	ug/L	100
51) carbon tetrachloride	4.633	117	110330	50.00	ug/L	100
52) tert amyl alcohol	4.718	55	31049	250.00	ug/L	100
55) n-butyl alcohol	5.101	56	216514	2500.00	ug/L	100
56) 2,2,4-trimethylpentane	4.839	57	161919	50.00	ug/L	100
57) benzene	4.779	78	298206	50.00	ug/L	100
58) tert-amyl methyl ether	4.839	87	57355	50.00	ug/L	100
59) heptane	4.949	71	40217	50.00	ug/L	100
60) isopropyl acetate	4.742	87	22781	50.00	ug/L	100
61) 1,2-dichloroethane	4.797	62	106263	50.00	ug/L	100
62) trichloroethene	5.253	130	90474	50.00	ug/L	100
63) ethyl acrylate	5.259	55	123023	50.00	ug/L	100
64) 2-nitropropane	5.801	41	28242	50.00	ug/L	100
65) 2-chloroethyl vinyl ether	5.831	63	278665	250.00	ug/L	100
66) methyl methacrylate	5.442	100	29688	50.00	ug/L	100
67) 1,2-dichloropropane	5.448	63	71594	50.00	ug/L	100
68) dibromomethane	5.521	93	47826	50.00	ug/L	100
69) methylcyclohexane	5.448	83	110293	50.00	ug/L	100
70) bromodichloromethane	5.636	83	107380	50.00	ug/L	100
71) epichlorohydrin	5.886	57	59760	250.00	ug/L	100
72) cis-1,3-dichloropropene	5.983	75	128202	50.00	ug/L	100
73) 4-methyl-2-pentanone	6.074	58	165913	200.00	ug/L	100
74) 3-methyl-1-butanol	6.087	55	130826	1000.00	ug/L	100
77) toluene	6.269	92	192582	50.00	ug/L	100
78) trans-1,3-dichloropropene	6.433	75	118340	50.00	ug/L	100
79) ethyl methacrylate	6.452	69	113410	50.00	ug/L	100
80) 1,1,2-trichloroethane	6.610	83	58434	50.00	ug/L	100
81) tetrachloroethene	6.713	164	78725	50.00	ug/L	100
82) 1,3-dichloropropane	6.756	76	123407	50.00	ug/L	100
83) 2-hexanone	6.774	58	174304	200.00	ug/L	100
84) butyl acetate	6.853	56	63866	50.00	ug/L	100
85) dibromochloromethane	6.950	129	92153	50.00	ug/L	100
86) 1,2-dibromoethane	7.072	107	87799	50.00	ug/L	100
87) n-butyl ether	7.541	57	305276	50.00	ug/L	100
88) chlorobenzene	7.498	112	231805	50.00	ug/L	100
89) 1,1,1,2-tetrachloroethane	7.571	131	85265	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182048.D
Acq On : 14 Jun 2018 8:18 pm
Operator : JessicaP
Sample : icc7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 08:48:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

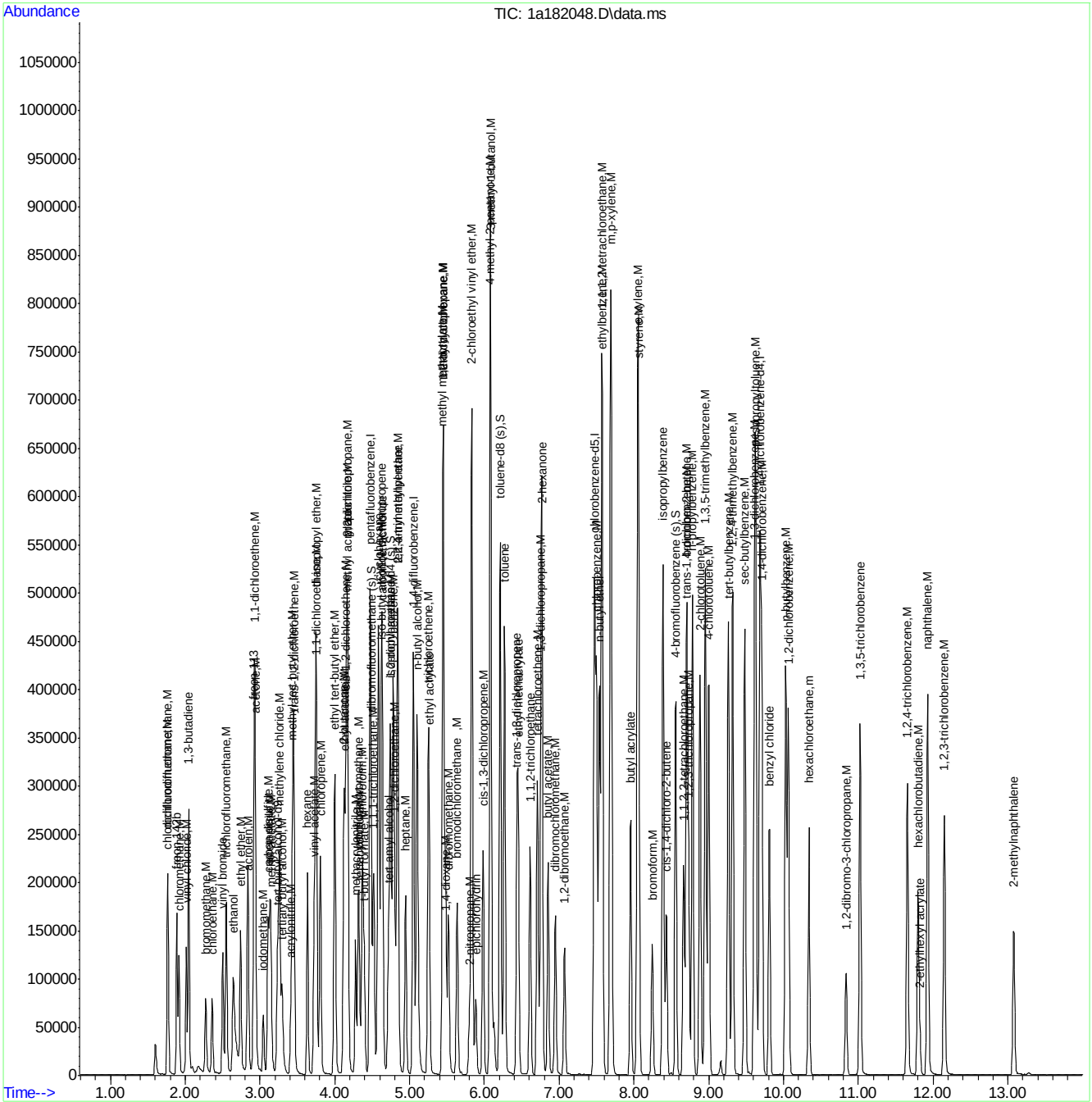
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) ethylbenzene	7.577	91	375023	50.00	ug/L	100
91) m,p-xylene	7.693	106	296243	100.00	ug/L	100
92) o-xylene	8.052	106	146070	50.00	ug/L	100
93) styrene	8.064	104	250900	50.00	ug/L	100
94) bromoform	8.246	173	69867	50.00	ug/L	100
95) butyl acrylate	7.954	55	165019	50.00	ug/L	100
96) isopropylbenzene	8.386	105	376551	50.00	ug/L	100
97) cis-1,4-dichloro-2-butene	8.435	88	46004	50.00	ug/L	100
100) bromobenzene	8.709	156	107773	50.00	ug/L	100
101) 1,1,2,2-tetrachloroethane	8.666	83	110221	50.00	ug/L	100
102) trans-1,4-dichloro-2-b...	8.703	53	30747	50.00	ug/L	100
103) 1,2,3-trichloropropane	8.733	110	37417	50.00	ug/L	100
104) n-propylbenzene	8.782	91	404485	50.00	ug/L	100
105) 2-chlorotoluene	8.885	126	94912	50.00	ug/L	100
106) 4-chlorotoluene	9.001	126	93880	50.00	ug/L	100
107) 1,3,5-trimethylbenzene	8.952	105	301846	50.00	ug/L	100
108) tert-butylbenzene	9.268	134	67674	50.00	ug/L	100
109) 1,2,4-trimethylbenzene	9.323	105	303764	50.00	ug/L	100
110) sec-butylbenzene	9.481	105	350791	50.00	ug/L	100
111) 1,3-dichlorobenzene	9.609	146	188622	50.00	ug/L	100
112) p-isopropyltoluene	9.627	119	312794	50.00	ug/L	100
113) 1,4-dichlorobenzene	9.706	146	189627	50.00	ug/L	100
114) benzyl chloride	9.810	91	201459	50.00	ug/L	100
115) 1,2-dichlorobenzene	10.065	146	179053	50.00	ug/L	100
116) n-butylbenzene	10.029	92	137365	50.00	ug/L	100
117) 1,2-dibromo-3-chloropr...	10.838	157	37883	50.00	ug/L	100
118) 1,3,5-trichlorobenzene	11.026	180	129048	50.00	ug/L	100
119) 2-ethylhexyl acrylate	11.829	70	10890	10.00	ug/L	100
120) 1,2,4-trichlorobenzene	11.659	180	113025	50.00	ug/L	100
121) hexachlorobutadiene	11.799	225	42609	50.00	ug/L	100
122) naphthalene	11.927	128	354216	50.00	ug/L	100
123) 1,2,3-trichlorobenzene	12.146	180	102825	50.00	ug/L	100
124) hexachloroethane	10.339	201	53441	50.00	ug/L	100
125) 2-methylnaphthalene	13.077	142	89104	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182048.D
Acq On : 14 Jun 2018 8:18 pm
Operator : JessicaP
Sample : icc7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 08:48:53 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182049.D
Acq On : 14 Jun 2018 8:43 pm
Operator : JessicaP
Sample : ic7758-100
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 08:49:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	147919	500.00	ug/L	0.00
5) pentafluorobenzene	4.474	168	246171	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	325593	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	295759	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	152424	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.481	113	88187	48.57	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.14%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	98235	48.19	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 96.38%			
76) toluene-d8 (s)	6.214	98	354046	50.01	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%			
99) 4-bromofluorobenzene (s)	8.557	95	126879	51.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.38%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.300	59	198968	514.90	ug/L	98
3) ethanol	2.649	45	274638	9246.20	ug/L	98
4) 1,4-dioxane	5.490	88	82752	2554.81	ug/L	92
6) chlorodifluoromethane	1.767	51	149530	99.58	ug/L	96
7) dichlorodifluoromethane	1.761	85	218236	99.72	ug/L	99
8) freon 142b	1.889	65	202465	99.97	ug/L	99
9) chloromethane	1.919	50	185143	99.39	ug/L	98
10) vinyl chloride	2.017	62	199184	103.09	ug/L	100
11) 1,3-butadiene	2.047	54	159725	97.95	ug/L	97
12) bromomethane	2.260	94	85472	97.39	ug/L	98
13) chloroethane	2.351	64	103913	95.39	ug/L	99
14) trichlorofluoromethane	2.546	101	249811	99.35	ug/L	99
15) vinyl bromide	2.497	106	139976	98.04	ug/L	98
16) ethyl ether	2.741	74	91503	99.70	ug/L	93
17) acrolein	2.844	56	44695	101.92	ug/L	88
18) freon 113	2.917	151	121447	97.74	ug/L	97
19) 1,1-dichloroethene	2.923	96	141250	101.00	ug/L	98
20) acetone	2.935	58	79791	389.24	ug/L	96
21) acetonitrile	3.136	41	287617	996.06	ug/L	100
22) iodomethane	3.045	142	136045	107.38	ug/L	97
23) carbon disulfide	3.106	76	341274	101.43	ug/L	98
24) methylene chloride	3.258	84	148486	101.98	ug/L	98
25) methyl acetate	3.148	43	162037	99.54	ug/L	96
26) methyl tert butyl ether	3.434	73	468177	100.59	ug/L	98
27) trans-1,2-dichloroethene	3.452	96	149284	100.27	ug/L	100
28) di-isopropyl ether	3.744	45	433088	98.96	ug/L	94
29) 2-butanone	4.122	72	112006	397.40	ug/L	90
30) 1,1-dichloroethane	3.751	63	260232	99.82	ug/L	97
31) chloroprene	3.805	53	225452	100.53	ug/L	98
32) acrylonitrile	3.410	53	78545	102.88	ug/L	93
33) hexane	3.635	56	84159	101.29	ug/L	94
34) vinyl acetate	3.726	86	33002	96.46	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182049.D
Acq On : 14 Jun 2018 8:43 pm
Operator : JessicaP
Sample : ic7758-100
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 08:49:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) ethyl tert-butyl ether	4.000	59	455794	100.72	ug/L		96
36) ethyl acetate	4.128	45	34160	102.56	ug/L	#	92
37) 2,2-dichloropropane	4.158	77	214645	100.76	ug/L		100
38) cis-1,2-dichloroethene	4.146	96	165456	98.41	ug/L		97
39) methyl acrylate	4.170	85	33628	99.84	ug/L		93
40) propionitrile	4.170	54	363917	997.78	ug/L		86
41) bromochloromethane	4.316	128	81596	97.31	ug/L		97
42) tetrahydrofuran	4.335	71	29551	100.91	ug/L		94
43) chloroform	4.371	85	171560	99.22	ug/L		95
44) t-butyl formate	4.395	59	106345	100.28	ug/L		97
46) methacrylonitrile	4.280	67	83110	103.79	ug/L		89
47) 1,1,1-trichloroethane	4.517	97	247128	100.10	ug/L		98
48) cyclohexane	4.578	84	191762	97.39	ug/L		92
49) 1,1-dichloropropene	4.627	75	207164	103.29	ug/L		99
50) iso-butyl alcohol	4.620	42	70329	935.17	ug/L		97
51) carbon tetrachloride	4.633	117	220822	101.39	ug/L		97
52) tert amyl alcohol	4.718	55	59575	485.99	ug/L		91
55) n-butyl alcohol	5.107	56	435057	5090.91	ug/L		99
56) 2,2,4-trimethylpentane	4.840	57	320774	100.38	ug/L		99
57) benzene	4.779	78	589330	100.14	ug/L		99
58) tert-amyl methyl ether	4.840	87	114919	101.53	ug/L		98
59) heptane	4.949	71	80998	102.05	ug/L		95
60) isopropyl acetate	4.742	87	45463	101.12	ug/L	#	82
61) 1,2-dichloroethane	4.797	62	210310	100.29	ug/L		98
62) trichloroethene	5.247	130	179289	100.41	ug/L		99
63) ethyl acrylate	5.259	55	243529	100.31	ug/L		98
64) 2-nitropropane	5.801	41	58937	105.74	ug/L		92
65) 2-chloroethyl vinyl ether	5.831	63	554624	504.26	ug/L		97
66) methyl methacrylate	5.442	100	59663	101.83	ug/L		96
67) 1,2-dichloropropane	5.448	63	143644	101.67	ug/L		96
68) dibromomethane	5.521	93	94167	99.77	ug/L		99
69) methylcyclohexane	5.448	83	221018	101.54	ug/L		95
70) bromodichloromethane	5.636	83	214454	101.20	ug/L		99
71) epichlorohydrin	5.886	57	121989	517.18	ug/L		94
72) cis-1,3-dichloropropene	5.983	75	253886	100.35	ug/L		98
73) 4-methyl-2-pentanone	6.081	58	326571	398.95	ug/L		97
74) 3-methyl-1-butanol	6.093	55	265686	2058.12	ug/L		96
77) toluene	6.269	92	386824	101.53	ug/L		100
78) trans-1,3-dichloropropene	6.433	75	237997	101.66	ug/L		99
79) ethyl methacrylate	6.452	69	227534	101.42	ug/L		99
80) 1,1,2-trichloroethane	6.610	83	117349	101.51	ug/L		94
81) tetrachloroethene	6.713	164	157477	101.11	ug/L		97
82) 1,3-dichloropropane	6.756	76	238685	97.77	ug/L		99
83) 2-hexanone	6.774	58	340817	395.35	ug/L		98
84) butyl acetate	6.853	56	124434	98.49	ug/L		96
85) dibromochloromethane	6.950	129	182030	99.85	ug/L		96
86) 1,2-dibromoethane	7.072	107	177614	102.26	ug/L		98
87) n-butyl ether	7.535	57	614346	101.73	ug/L		100
88) chlorobenzene	7.504	112	466142	101.65	ug/L		98
89) 1,1,1,2-tetrachloroethane	7.571	131	171829	101.87	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182049.D
Acq On : 14 Jun 2018 8:43 pm
Operator : JessicaP
Sample : ic7758-100
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 08:49:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration

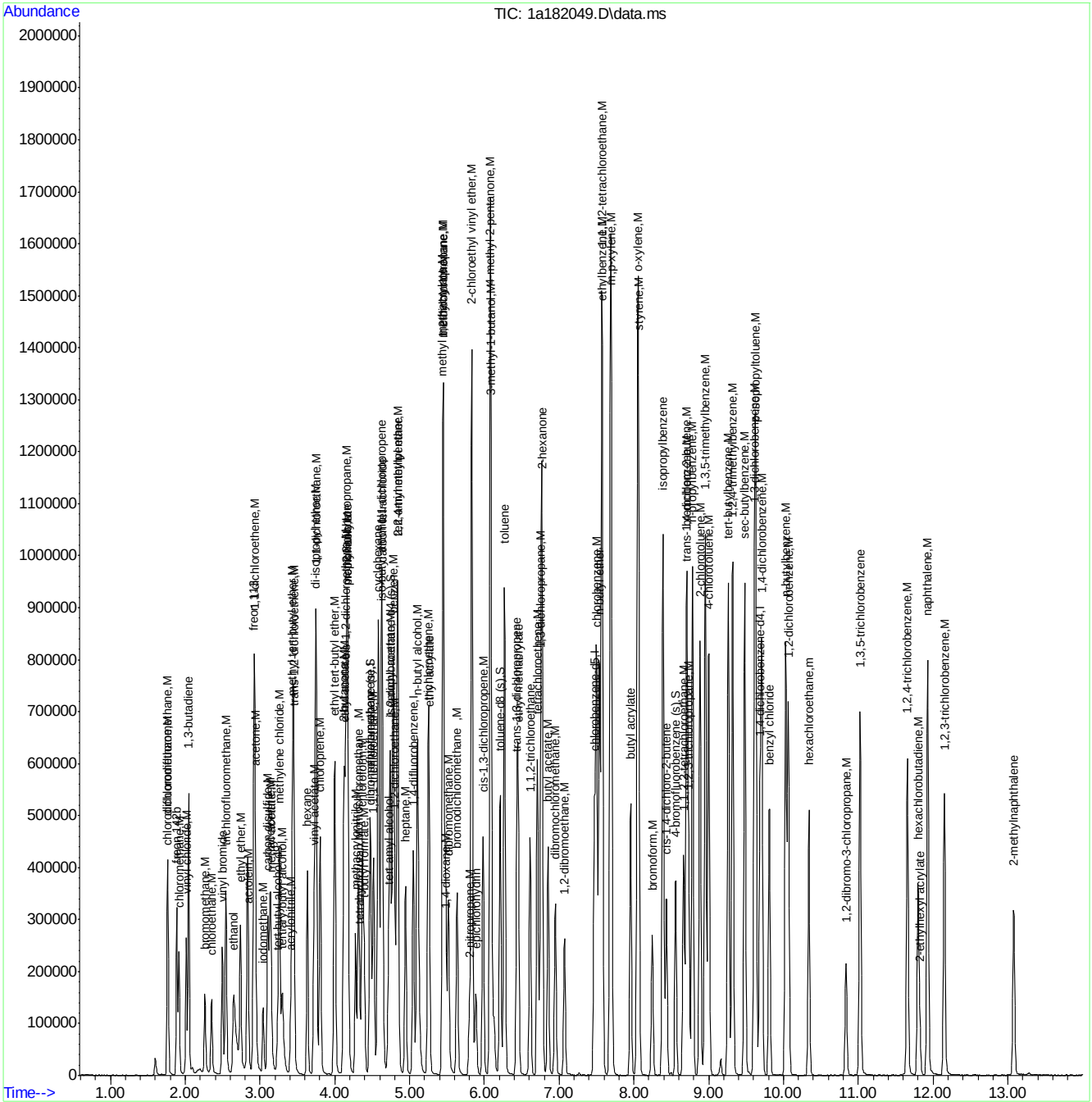
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) ethylbenzene	7.577	91	738279	99.51	ug/L	98
91) m,p-xylene	7.693	106	587489	200.49	ug/L	99
92) o-xylene	8.052	106	288742	99.92	ug/L	99
93) styrene	8.064	104	494678	99.66	ug/L	99
94) bromoform	8.246	173	141972	102.72	ug/L	97
95) butyl acrylate	7.960	55	324143	99.29	ug/L	95
96) isopropylbenzene	8.386	105	744418	99.93	ug/L	98
97) cis-1,4-dichloro-2-butene	8.435	88	95068	104.46	ug/L	98
100) bromobenzene	8.709	156	213273	104.79	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.666	83	213174	102.42	ug/L	99
102) trans-1,4-dichloro-2-b...	8.703	53	62176	107.08	ug/L	99
103) 1,2,3-trichloropropane	8.733	110	74037	104.78	ug/L	97
104) n-propylbenzene	8.782	91	807022	105.65	ug/L	99
105) 2-chlorotoluene	8.885	126	189133	105.52	ug/L	97
106) 4-chlorotoluene	9.001	126	185771	104.79	ug/L	98
107) 1,3,5-trimethylbenzene	8.952	105	600998	105.44	ug/L	99
108) tert-butylbenzene	9.262	134	133659	104.59	ug/L	96
109) 1,2,4-trimethylbenzene	9.323	105	598132	104.27	ug/L	99
110) sec-butylbenzene	9.481	105	684840	103.38	ug/L	99
111) 1,3-dichlorobenzene	9.609	146	367489	103.17	ug/L	99
112) p-isopropyltoluene	9.627	119	611376	103.50	ug/L	99
113) 1,4-dichlorobenzene	9.706	146	369656	103.23	ug/L	97
114) benzyl chloride	9.816	91	400394	105.25	ug/L	99
115) 1,2-dichlorobenzene	10.065	146	344467	101.88	ug/L	98
116) n-butylbenzene	10.029	92	267080	102.96	ug/L	98
117) 1,2-dibromo-3-chloropr...	10.838	157	76407	106.81	ug/L	94
118) 1,3,5-trichlorobenzene	11.027	180	254061	104.25	ug/L	99
119) 2-ethylhexyl acrylate	11.823	70	23677	23.03	ug/L	95
120) 1,2,4-trichlorobenzene	11.659	180	226234	106.00	ug/L	97
121) hexachlorobutadiene	11.799	225	85557	106.33	ug/L	98
122) naphthalene	11.927	128	724837	108.36	ug/L	99
123) 1,2,3-trichlorobenzene	12.152	180	211090	108.71	ug/L	99
124) hexachloroethane	10.339	201	107781	106.80	ug/L	97
125) 2-methylnaphthalene	13.077	142	191797	56.99	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182049.D
Acq On : 14 Jun 2018 8:43 pm
Operator : JessicaP
Sample : ic7758-100
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 08:49:05 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:48:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182050.D
Acq On : 14 Jun 2018 9:08 pm
Operator : JessicaP
Sample : ic7758-200
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 08:50:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.252	65	136188	500.00	ug/L	0.02
5) pentafluorobenzene	4.468	168	235112	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	317053	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	287427	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	144017	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.481	113	86948	50.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	95108	47.91	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.82%			
76) toluene-d8 (s)	6.214	98	347268	50.48	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.96%			
99) 4-bromofluorobenzene (s)	8.557	95	125851	53.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.48%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.313	59	358290	1007.06	ug/L	89
3) ethanol	2.662	45	373818	13669.36	ug/L	97
4) 1,4-dioxane	5.503	88	154441	5178.78	ug/L	91
6) chlorodifluoromethane	1.767	51	282722	197.13	ug/L	96
7) dichlorodifluoromethane	1.761	85	422173	201.98	ug/L	99
8) freon 142b	1.889	65	392334	202.82	ug/L	100
9) chloromethane	1.913	50	365550	205.46	ug/L	98
10) vinyl chloride	2.017	62	380167	206.02	ug/L	99
11) 1,3-butadiene	2.047	54	298349	191.57	ug/L	99
12) bromomethane	2.248	94	153799	183.49	ug/L	99
13) chloroethane	2.339	64	182000	174.94	ug/L	99
14) trichlorofluoromethane	2.534	101	473985	197.37	ug/L	99
15) vinyl bromide	2.491	106	262105	192.21	ug/L	99
16) ethyl ether	2.735	74	171755	195.94	ug/L	89
17) acrolein	2.838	56	82678	197.41	ug/L	89
18) freon 113	2.911	151	224761	189.39	ug/L	96
19) 1,1-dichloroethene	2.917	96	263238	197.08	ug/L	97
20) acetone	2.941	58	148510	758.54	ug/L	96
21) acetonitrile	3.136	41	525305	1904.77	ug/L	98
22) iodomethane	3.039	142	259889	214.78	ug/L	97
23) carbon disulfide	3.100	76	660556	205.55	ug/L	98
24) methylene chloride	3.258	84	282862	203.41	ug/L	97
25) methyl acetate	3.148	43	300525	193.30	ug/L	100
26) methyl tert butyl ether	3.434	73	892130	200.70	ug/L	98
27) trans-1,2-dichloroethene	3.446	96	280912	197.56	ug/L	95
28) di-isopropyl ether	3.744	45	824002	197.14	ug/L	94
29) 2-butanone	4.122	72	209728	779.12	ug/L #	88
30) 1,1-dichloroethane	3.751	63	490544	197.01	ug/L	98
31) chloroprene	3.805	53	433041	202.18	ug/L	98
32) acrylonitrile	3.410	53	146915	201.48	ug/L	92
33) hexane	3.629	56	158256	199.43	ug/L	95
34) vinyl acetate	3.720	86	65104	199.23	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182050.D
Acq On : 14 Jun 2018 9:08 pm
Operator : JessicaP
Sample : ic7758-200
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 08:50:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
35) ethyl tert-butyl ether	4.000	59	875796	202.64	ug/L		97
36) ethyl acetate	4.128	45	63415	199.34	ug/L	#	95
37) 2,2-dichloropropane	4.158	77	414099	203.54	ug/L		99
38) cis-1,2-dichloroethene	4.146	96	315171	196.28	ug/L		96
39) methyl acrylate	4.170	85	63459	197.27	ug/L		99
40) propionitrile	4.170	54	672345	1930.13	ug/L		77
41) bromochloromethane	4.316	128	153345	191.49	ug/L		96
42) tetrahydrofuran	4.335	71	56597	202.35	ug/L		98
43) chloroform	4.371	85	331445	200.71	ug/L		97
44) t-butyl formate	4.395	59	216556	213.80	ug/L		99
46) methacrylonitrile	4.280	67	156908	205.16	ug/L		91
47) 1,1,1-trichloroethane	4.517	97	477709	202.60	ug/L		98
48) cyclohexane	4.578	84	387673	206.14	ug/L		91
49) 1,1-dichloropropene	4.627	75	395278	206.36	ug/L		98
50) iso-butyl alcohol	4.633	42	125082	1741.46	ug/L		99
51) carbon tetrachloride	4.633	117	423795	203.73	ug/L		98
52) tert amyl alcohol	4.730	55	106353	908.39	ug/L	#	75
55) n-butyl alcohol	5.119	56	807100	9698.84	ug/L		99
56) 2,2,4-trimethylpentane	4.839	57	618838	198.88	ug/L		100
57) benzene	4.779	78	1135688	198.18	ug/L		98
58) tert-amyl methyl ether	4.833	87	224858	204.01	ug/L		93
59) heptane	4.949	71	157754	204.12	ug/L		95
60) isopropyl acetate	4.742	87	87279	199.36	ug/L	#	86
61) 1,2-dichloroethane	4.797	62	404909	198.28	ug/L		99
62) trichloroethene	5.247	130	342496	196.99	ug/L		100
63) ethyl acrylate	5.265	55	461265	195.11	ug/L		97
64) 2-nitropropane	5.801	41	110329	203.28	ug/L		90
65) 2-chloroethyl vinyl ether	5.831	63	1067915	997.09	ug/L		98
66) methyl methacrylate	5.442	100	113009	198.08	ug/L		92
67) 1,2-dichloropropane	5.448	63	272856	198.32	ug/L		99
68) dibromomethane	5.521	93	181401	197.37	ug/L		97
69) methylcyclohexane	5.442	83	422612	199.39	ug/L		98
70) bromodichloromethane	5.636	83	416398	201.79	ug/L		100
71) epichlorohydrin	5.892	57	229146	997.65	ug/L		95
72) cis-1,3-dichloropropene	5.983	75	496476	201.52	ug/L		99
73) 4-methyl-2-pentanone	6.081	58	607103	761.64	ug/L		97
74) 3-methyl-1-butanol	6.099	55	491814	3912.42	ug/L		92
77) toluene	6.269	92	755149	203.96	ug/L		100
78) trans-1,3-dichloropropene	6.433	75	468470	205.91	ug/L		99
79) ethyl methacrylate	6.452	69	438173	200.96	ug/L		99
80) 1,1,2-trichloroethane	6.610	83	226641	201.74	ug/L		95
81) tetrachloroethene	6.713	164	298341	197.12	ug/L		98
82) 1,3-dichloropropane	6.756	76	462021	194.73	ug/L		96
83) 2-hexanone	6.774	58	633409	756.06	ug/L		96
84) butyl acetate	6.853	56	236870	192.91	ug/L		99
85) dibromochloromethane	6.950	129	353392	199.46	ug/L		96
86) 1,2-dibromoethane	7.072	107	347527	205.88	ug/L		100
87) n-butyl ether	7.541	57	1188069	202.43	ug/L		99
88) chlorobenzene	7.498	112	901027	202.18	ug/L		99
89) 1,1,1,2-tetrachloroethane	7.571	131	327349	199.69	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182050.D
Acq On : 14 Jun 2018 9:08 pm
Operator : JessicaP
Sample : ic7758-200
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 08:50:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration

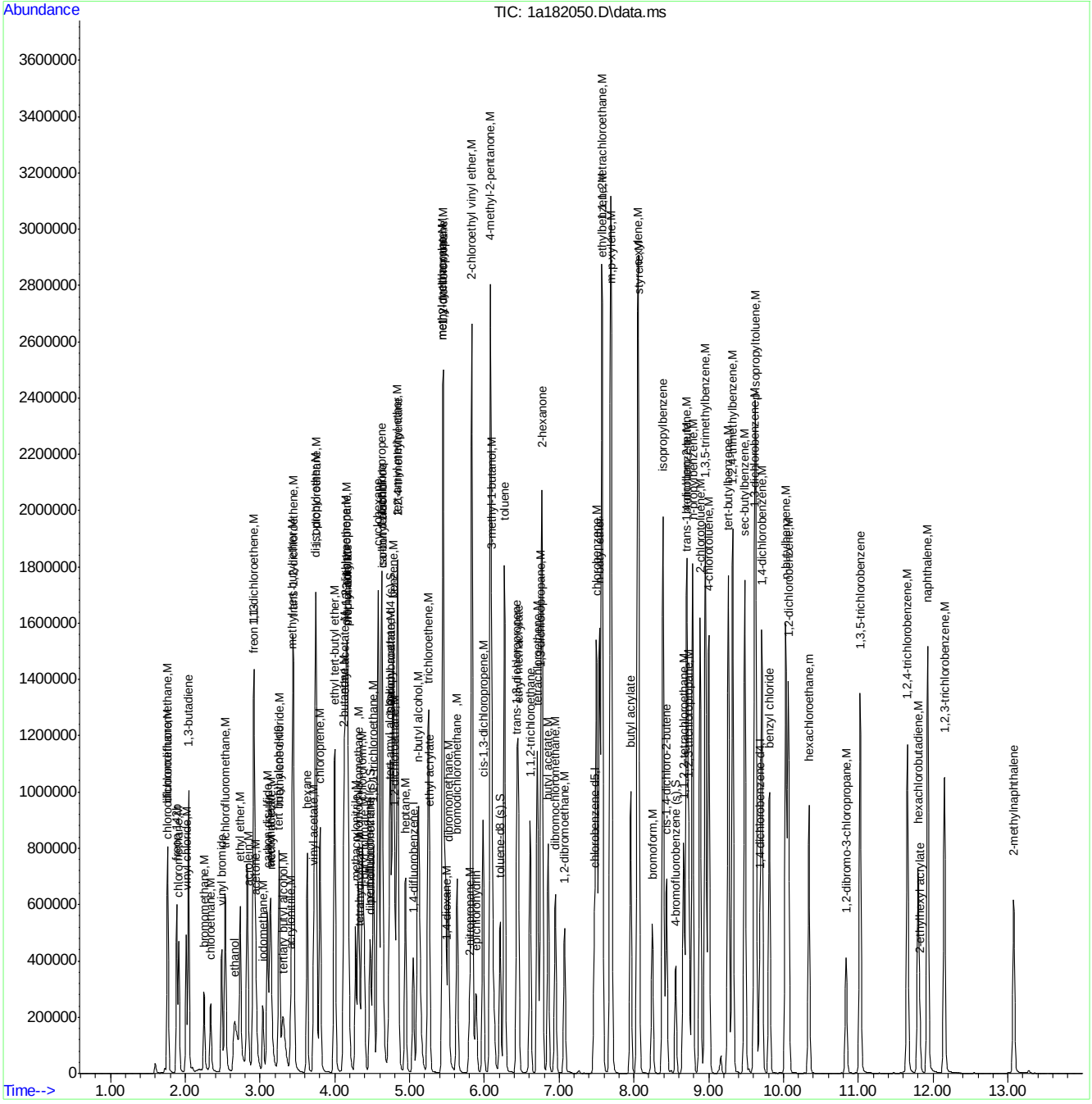
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
90) ethylbenzene	7.577	91	1410609	195.64	ug/L	98
91) m,p-xylene	7.693	106	1135132	398.61	ug/L	98
92) o-xylene	8.052	106	548894	195.46	ug/L	96
93) styrene	8.064	104	931365	193.08	ug/L	99
94) bromoform	8.246	173	275971	205.45	ug/L	100
95) butyl acrylate	7.960	55	622309	196.15	ug/L	97
96) isopropylbenzene	8.386	105	1427047	197.12	ug/L	99
97) cis-1,4-dichloro-2-butene	8.435	88	186835	211.24	ug/L	97
100) bromobenzene	8.709	156	398239	207.10	ug/L	98
101) 1,1,2,2-tetrachloroethane	8.666	83	406620	206.76	ug/L	99
102) trans-1,4-dichloro-2-b...	8.703	53	119704	218.20	ug/L	99
103) 1,2,3-trichloropropane	8.733	110	137782	206.38	ug/L	98
104) n-propylbenzene	8.788	91	1541153	213.54	ug/L	98
105) 2-chlorotoluene	8.885	126	359908	212.53	ug/L	96
106) 4-chlorotoluene	9.001	126	353375	210.96	ug/L	96
107) 1,3,5-trimethylbenzene	8.952	105	1137224	211.16	ug/L	98
108) tert-butylbenzene	9.262	134	249569	206.69	ug/L	91
109) 1,2,4-trimethylbenzene	9.323	105	1130833	208.64	ug/L	99
110) sec-butylbenzene	9.481	105	1299131	207.56	ug/L	99
111) 1,3-dichlorobenzene	9.609	146	702633	208.78	ug/L	98
112) p-isopropyltoluene	9.627	119	1146133	205.36	ug/L	99
113) 1,4-dichlorobenzene	9.706	146	702582	207.65	ug/L	97
114) benzyl chloride	9.816	91	791673	220.24	ug/L	100
115) 1,2-dichlorobenzene	10.065	146	663059	207.55	ug/L	97
116) n-butylbenzene	10.029	92	498233	203.28	ug/L	94
117) 1,2-dibromo-3-chloropr...	10.838	157	150386	222.49	ug/L	95
118) 1,3,5-trichlorobenzene	11.026	180	480802	208.81	ug/L	99
119) 2-ethylhexyl acrylate	11.823	70	47132	48.51	ug/L	97
120) 1,2,4-trichlorobenzene	11.659	180	435638	216.02	ug/L	97
121) hexachlorobutadiene	11.799	225	163915	215.61	ug/L	95
122) naphthalene	11.927	128	1401081	221.69	ug/L	99
123) 1,2,3-trichlorobenzene	12.152	180	407377	222.04	ug/L	98
124) hexachloroethane	10.339	201	203174	213.08	ug/L	98
125) 2-methylnaphthalene	13.077	142	362919	114.14	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182050.D
Acq On : 14 Jun 2018 9:08 pm
Operator : JessicaP
Sample : ic7758-200
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Jun 15 08:50:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 08:50:09 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182053.D
Acq On : 14 Jun 2018 10:22 pm
Operator : JessicaP
Sample : icv7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 15 09:39:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.240	65	155167	500.00	ug/L		0.00
5) pentafluorobenzene	4.475	168	254979	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.053	114	335233	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	304015	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	157167	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	93864	50.72	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.44%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	100366	48.81	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.62%				
76) toluene-d8 (s)	6.214	98	367144	49.33	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.66%				
99) 4-bromofluorobenzene (s)	8.557	95	131564	51.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.60%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.294	59	97541	234.16	ug/L		98
3) ethanol	2.643	45	160850	4809.87	ug/L		99
4) 1,4-dioxane	5.491	88	44735	1292.80	ug/L		93
6) chlorodifluoromethane	1.773	51	80079	51.56	ug/L		93
7) dichlorodifluoromethane	1.761	85	108265	47.78	ug/L		99
8) freon 142b	1.889	65	99941	46.41	ug/L		99
9) chloromethane	1.919	50	116290	58.21	ug/L		95
10) vinyl chloride	2.017	62	107426	53.72	ug/L		98
11) 1,3-butadiene	2.047	54	81561	45.79	ug/L		96
12) bromomethane	2.272	94	56106	58.83	ug/L		98
13) chloroethane	2.357	64	57259	48.82	ug/L		97
14) trichlorofluoromethane	2.552	101	128973	48.65	ug/L		99
15) vinyl bromide	2.503	106	80493	54.66	ug/L		98
16) ethyl ether	2.741	74	47827	48.23	ug/L		95
17) acrolein	2.844	56	25379	53.29	ug/L		89
18) freon 113	2.923	151	63464	51.62	ug/L		96
19) 1,1-dichloroethene	2.929	96	69320	45.53	ug/L		98
20) acetone	2.935	58	45484	203.38	ug/L		98
22) iodomethane	3.045	142	72343	53.72	ug/L		96
23) carbon disulfide	3.112	76	205634	55.57	ug/L		99
24) methylene chloride	3.264	84	77434	47.57	ug/L		99
25) methyl acetate	3.148	43	83369	48.40	ug/L		97
26) methyl tert butyl ether	3.434	73	497375	98.58	ug/L		98
27) trans-1,2-dichloroethene	3.453	96	77040	47.37	ug/L		97
28) di-isopropyl ether	3.751	45	235638	49.29	ug/L		99
29) 2-butanone	4.122	72	61950	203.30	ug/L		96
30) 1,1-dichloroethane	3.757	63	137065	48.13	ug/L		99
31) chloroprene	3.805	53	122091	51.24	ug/L		96
32) acrylonitrile	3.410	53	46118	53.23	ug/L		93
33) hexane	3.635	56	38921	44.78	ug/L		97
34) vinyl acetate	3.726	86	19501	55.20	ug/L	#	92
35) ethyl tert-butyl ether	4.000	59	245084	49.68	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182053.D
Acq On : 14 Jun 2018 10:22 pm
Operator : JessicaP
Sample : icv7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 15 09:39:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
36) ethyl acetate	4.128	45	18591	51.71	ug/L	#	82
37) 2,2-dichloropropane	4.164	77	111008	47.43	ug/L		96
38) cis-1,2-dichloroethene	4.146	96	88840	47.78	ug/L		96
39) methyl acrylate	4.170	85	17214	47.31	ug/L	#	88
40) propionitrile	4.164	54	194738	488.72	ug/L		99
41) bromochloromethane	4.316	128	45617	51.35	ug/L		99
42) tetrahydrofuran	4.335	71	15412	47.06	ug/L		91
43) chloroform	4.371	85	90183	47.99	ug/L		94
44) t-butyl formate	4.389	59	51157	46.53	ug/L		94
46) methacrylonitrile	4.280	67	43897	49.28	ug/L		94
47) 1,1,1-trichloroethane	4.517	97	125350	47.47	ug/L		96
48) cyclohexane	4.584	84	103752	47.82	ug/L		98
49) 1,1-dichloropropene	4.627	75	109046	48.68	ug/L		95
50) iso-butyl alcohol	4.621	42	41406	545.88	ug/L		94
51) carbon tetrachloride	4.633	117	111921	47.67	ug/L		98
52) tert amyl alcohol	4.718	55	32529	255.35	ug/L		91
55) n-butyl alcohol	5.101	56	234211	2556.88	ug/L		99
56) 2,2,4-trimethylpentane	4.840	57	161814	45.91	ug/L		97
57) benzene	4.779	78	311631	47.65	ug/L		99
58) tert-amyl methyl ether	4.833	87	61090	51.21	ug/L		91
59) heptane	4.949	71	46078	54.65	ug/L		93
60) isopropyl acetate	4.742	87	24270	51.60	ug/L		96
61) 1,2-dichloroethane	4.797	62	111409	48.90	ug/L		100
62) trichloroethene	5.247	130	95984	48.24	ug/L		99
63) ethyl acrylate	5.259	55	134119	50.94	ug/L		98
64) 2-nitropropane	5.801	41	29107	50.83	ug/L		88
65) 2-chloroethyl vinyl ether	5.831	63	329584	281.40	ug/L		100
66) methyl methacrylate	5.442	100	32044	51.18	ug/L	#	92
67) 1,2-dichloropropane	5.454	63	74703	47.98	ug/L		97
68) dibromomethane	5.521	93	50670	50.18	ug/L		97
69) methylcyclohexane	5.442	83	108077	47.20	ug/L		97
70) bromodichloromethane	5.637	83	111491	49.66	ug/L		98
71) epichlorohydrin	5.886	57	62802	252.63	ug/L		96
72) cis-1,3-dichloropropene	5.983	75	135239	50.21	ug/L		99
73) 4-methyl-2-pentanone	6.081	58	177029	201.52	ug/L		95
74) 3-methyl-1-butanol	6.087	55	142517	1048.54	ug/L		98
77) toluene	6.269	92	206260	47.54	ug/L		96
78) trans-1,3-dichloropropene	6.433	75	118972	47.44	ug/L		99
79) ethyl methacrylate	6.452	69	119092	48.29	ug/L		99
80) 1,1,2-trichloroethane	6.610	83	63198	50.82	ug/L		94
82) 1,3-dichloropropane	6.756	76	131372	49.91	ug/L		97
83) 2-hexanone	6.768	58	183809	198.44	ug/L		97
84) butyl acetate	6.853	56	71737	52.46	ug/L		97
85) dibromochloromethane	6.951	129	99196	53.27	ug/L		94
86) 1,2-dibromoethane	7.072	107	96394	48.99	ug/L		97
87) n-butyl ether	7.535	57	321622	49.46	ug/L		99
88) chlorobenzene	7.504	112	245249	49.52	ug/L		96
89) 1,1,1,2-tetrachloroethane	7.571	131	92216	51.22	ug/L		88
90) ethylbenzene	7.577	91	396837	48.42	ug/L		96
91) m,p-xylene	7.687	106	319857	97.06	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182053.D
Acq On : 14 Jun 2018 10:22 pm
Operator : JessicaP
Sample : icv7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 15 09:39:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration

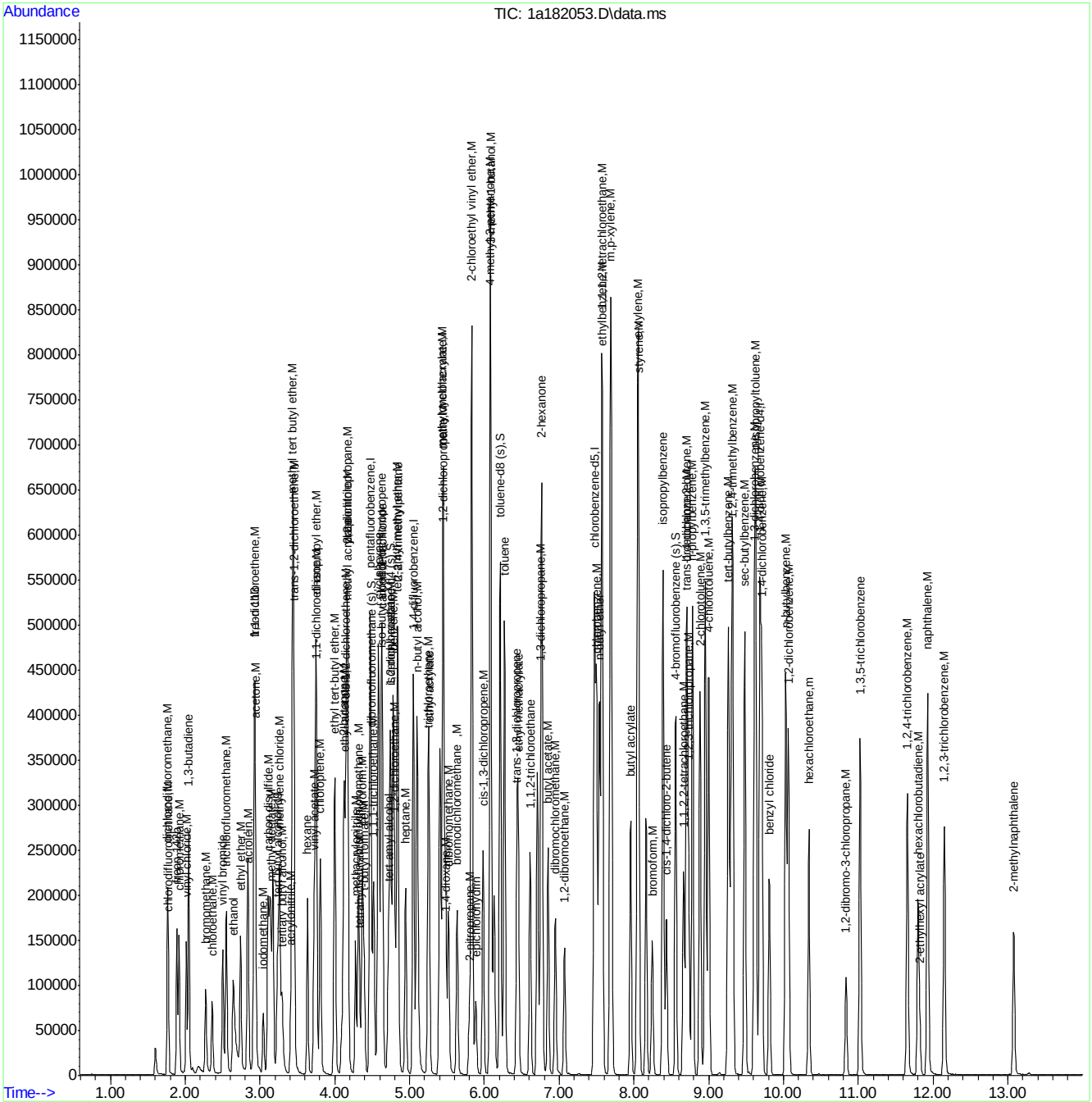
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) o-xylene	8.052	106	155103	47.77	ug/L	94
93) styrene	8.064	104	265233	49.00	ug/L	98
94) bromoform	8.246	173	78137	54.12	ug/L	98
95) butyl acrylate	7.960	55	177212	51.91	ug/L	97
96) isopropylbenzene	8.386	105	395036	49.25	ug/L	98
97) cis-1,4-dichloro-2-butene	8.435	88	48041	52.62	ug/L	94
100) bromobenzene	8.709	156	112963	52.92	ug/L	99
101) 1,1,2,2-tetrachloroethane	8.666	83	112890	51.81	ug/L	97
102) trans-1,4-dichloro-2-b...	8.703	53	35762	58.29	ug/L	97
103) 1,2,3-trichloropropane	8.727	110	38218	49.66	ug/L	97
104) n-propylbenzene	8.782	91	426490	51.29	ug/L	99
105) 2-chlorotoluene	8.885	126	97121	50.38	ug/L	99
106) 4-chlorotoluene	9.001	126	100374	53.88	ug/L	99
107) 1,3,5-trimethylbenzene	8.952	105	312796	51.27	ug/L	99
108) tert-butylbenzene	9.262	134	77725	59.21	ug/L	98
109) 1,2,4-trimethylbenzene	9.323	105	319533	51.85	ug/L	98
110) sec-butylbenzene	9.481	105	366189	51.63	ug/L	99
111) 1,3-dichlorobenzene	9.609	146	198277	52.43	ug/L	97
112) p-isopropyltoluene	9.627	119	328489	53.66	ug/L	99
113) 1,4-dichlorobenzene	9.706	146	197481	51.60	ug/L	98
114) benzyl chloride	9.810	91	168472	41.79	ug/L	98
115) 1,2-dichlorobenzene	10.065	146	185194	50.58	ug/L	97
116) n-butylbenzene	10.029	92	140808	52.15	ug/L	96
117) 1,2-dibromo-3-chloropr...	10.832	157	37935	50.23	ug/L	97
118) 1,3,5-trichlorobenzene	11.027	180	133472	53.28	ug/L	99
119) 2-ethylhexyl acrylate	11.824	70	13161	12.45	ug/L	93
120) 1,2,4-trichlorobenzene	11.659	180	117635	54.44	ug/L	95
121) hexachlorobutadiene	11.799	225	44465	52.19	ug/L	98
122) naphthalene	11.927	128	379306	53.07	ug/L	100
123) 1,2,3-trichlorobenzene	12.146	180	107848	51.77	ug/L	98
124) hexachloroethane	10.339	201	56762	55.21	ug/L	98
125) 2-methylnaphthalene	13.083	142	93293	26.99	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182053.D
Acq On : 14 Jun 2018 10:22 pm
Operator : JessicaP
Sample : icv7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 15 09:39:21 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:38:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182054.D
Acq On : 14 Jun 2018 10:46 pm
Operator : JessicaP
Sample : icv7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 15 09:31:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:29:31 2018
Response via : Initial Calibration

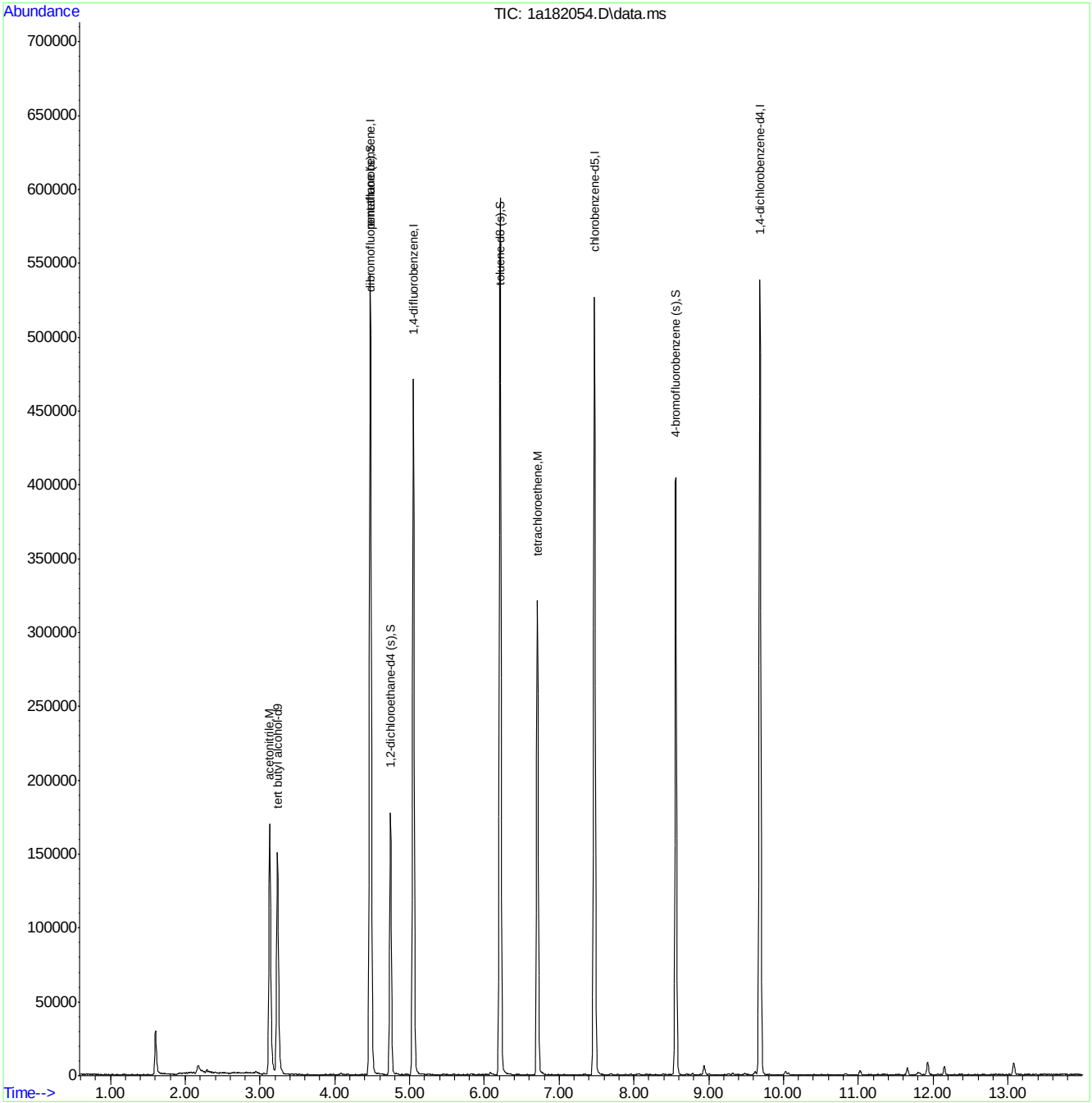
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.234	65	160093	500.00	ug/L	0.00
5) pentafluorobenzene	4.475	168	269903	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.053	114	352600	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	311624	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	165127	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.481	113	97737	49.89	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.78%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	107294	49.61	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.22%			
76) toluene-d8 (s)	6.215	98	389117	51.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.00%			
99) 4-bromofluorobenzene (s)	8.557	95	137300	51.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.90%			
Target Compounds						Qvalue
21) acetonitrile	3.130	41	159712	477.97	ug/L	98
81) tetrachloroethene	6.713	164	83531	47.53	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7758\
Data File : 1a182054.D
Acq On : 14 Jun 2018 10:46 pm
Operator : JessicaP
Sample : icv7758-50
Misc : ms27117,v1a7758,5,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Jun 15 09:31:37 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jun 15 09:29:31 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182800.D
Acq On : 5 Jul 2018 5:35 pm
Operator : jessicap
Sample : CC7758-50
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 06 15:26:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	3.240	65	248537	500.00	ug/L	0.00
5) pentafluorobenzene	4.475	168	282251	50.00	ug/L	0.00
53) 1,4-difluorobenzene	5.052	114	380712	50.00	ug/L	0.00
75) chlorobenzene-d5	7.474	117	400038	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	9.682	152	211744	50.00	ug/L	0.00
System Monitoring Compounds						
45) dibromofluoromethane (s)	4.487	113	104364	50.95	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.90%			
54) 1,2-dichloroethane-d4 (s)	4.742	65	108069	46.28	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 92.56%			
76) toluene-d8 (s)	6.214	98	430854	43.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 87.98%			
99) 4-bromofluorobenzene (s)	8.563	95	183900	53.74	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.48%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	3.294	59	133916	200.71	ug/L	98
3) ethanol	2.643	45	227066	4239.09	ug/L	98
4) 1,4-dioxane	5.490	88	62697	1131.20	ug/L	88
6) chlorodifluoromethane	1.773	51	103711	60.32	ug/L	94
7) dichlorodifluoromethane	1.761	85	146879	58.56	ug/L	99
9) chloromethane	1.919	50	114144	51.62	ug/L	97
10) vinyl chloride	2.017	62	125662	56.77	ug/L	99
12) bromomethane	2.272	94	50095	47.45	ug/L	99
13) chloroethane	2.357	64	72046	55.49	ug/L	99
14) trichlorofluoromethane	2.552	101	162775	55.47	ug/L	99
15) vinyl bromide	2.503	106	84411	51.78	ug/L	98
16) ethyl ether	2.741	74	56862	51.80	ug/L	94
17) acrolein	2.844	56	25519	48.40	ug/L	93
18) freon 113	2.917	151	77562	56.99	ug/L	95
19) 1,1-dichloroethene	2.923	96	86136	51.10	ug/L	97
20) acetone	2.935	58	54358	219.57	ug/L	96
21) acetonitrile	3.136	41	208315	596.14	ug/L	97
22) iodomethane	3.045	142	85504	59.94	ug/L	97
23) carbon disulfide	3.106	76	213373	52.09	ug/L	98
24) methylene chloride	3.264	84	94860	52.65	ug/L	96
25) methyl acetate	3.148	43	116216	60.95	ug/L	95
26) methyl tert butyl ether	3.440	73	300221	53.75	ug/L	96
27) trans-1,2-dichloroethene	3.452	96	94655	52.58	ug/L	98
28) di-isopropyl ether	3.751	45	290209	54.84	ug/L	98
29) 2-butanone	4.122	72	80435	238.45	ug/L	99
30) 1,1-dichloroethane	3.757	63	167246	53.05	ug/L	99
31) chloroprene	3.811	53	144232	54.68	ug/L	97
32) acrylonitrile	3.410	53	54369	56.69	ug/L	92
33) hexane	3.635	56	55585	57.77	ug/L	95
34) vinyl acetate	3.726	86	22441	57.38	ug/L	97
35) ethyl tert-butyl ether	4.000	59	300722	55.07	ug/L	94
36) ethyl acetate	4.128	45	24087	60.52	ug/L #	83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182800.D
Acq On : 5 Jul 2018 5:35 pm
Operator : jessicap
Sample : CC7758-50
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 06 15:26:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	4.164	77	141033	54.44	ug/L		95
38) cis-1,2-dichloroethene	4.152	96	106724	51.85	ug/L		97
39) methyl acrylate	4.176	85	23855	59.22	ug/L		95
40) propionitrile	4.170	54	266530	604.26	ug/L		93
41) bromochloromethane	4.316	128	55202	56.14	ug/L		96
42) tetrahydrofuran	4.335	71	22258	61.39	ug/L		91
43) chloroform	4.371	85	109992	52.88	ug/L		96
44) t-butyl formate	4.395	59	88352	72.59	ug/L		95
46) methacrylonitrile	4.280	67	57086	57.89	ug/L		92
47) 1,1,1-trichloroethane	4.523	97	151257	51.75	ug/L		99
48) cyclohexane	4.584	84	137628	57.30	ug/L		90
49) 1,1-dichloropropene	4.627	75	130109	52.47	ug/L		94
50) iso-butyl alcohol	4.621	42	55142	656.72	ug/L		97
51) carbon tetrachloride	4.639	117	132347	50.93	ug/L		99
52) tert amyl alcohol	4.718	55	44982	318.99	ug/L	#	80
55) n-butyl alcohol	5.101	56	328651	3159.28	ug/L		99
56) 2,2,4-trimethylpentane	4.840	57	217522	54.34	ug/L		97
57) benzene	4.779	78	378621	50.98	ug/L		99
58) tert-amyl methyl ether	4.840	87	74373	54.90	ug/L		99
59) heptane	4.949	71	55989	58.47	ug/L		95
60) isopropyl acetate	4.742	87	30273	56.67	ug/L		94
61) 1,2-dichloroethane	4.803	62	130955	50.61	ug/L		100
62) trichloroethene	5.253	130	117152	51.85	ug/L		98
63) ethyl acrylate	5.265	55	168255	56.27	ug/L		97
64) 2-nitropropane	5.801	41	35431	54.48	ug/L		95
65) 2-chloroethyl vinyl ether	5.831	63	377520	283.82	ug/L		98
66) methyl methacrylate	5.448	100	39496	55.55	ug/L		99
67) 1,2-dichloropropane	5.454	63	93603	52.94	ug/L		93
68) dibromomethane	5.521	93	62405	54.41	ug/L		99
69) methylcyclohexane	5.448	83	146635	56.39	ug/L		94
70) bromodichloromethane	5.643	83	136757	53.63	ug/L		99
71) epichlorohydrin	5.886	57	89446	316.82	ug/L		98
72) cis-1,3-dichloropropene	5.983	75	162885	53.25	ug/L		98
73) 4-methyl-2-pentanone	6.081	58	227606	228.14	ug/L		95
74) 3-methyl-1-butanol	6.093	55	202777	1313.67	ug/L		96
77) toluene	6.275	92	247939	43.43	ug/L		97
78) trans-1,3-dichloropropene	6.440	75	152716	46.28	ug/L		98
79) ethyl methacrylate	6.458	69	153190	47.21	ug/L		95
80) 1,1,2-trichloroethane	6.610	83	77137	47.14	ug/L		95
81) tetrachloroethene	6.713	164	100075	44.36	ug/L		97
82) 1,3-dichloropropane	6.762	76	155975	45.03	ug/L		89
83) 2-hexanone	6.774	58	248471	203.86	ug/L		95
84) butyl acetate	6.853	56	83987	46.68	ug/L		91
85) dibromochloromethane	6.951	129	118731	48.46	ug/L		96
86) 1,2-dibromoethane	7.072	107	119489	46.15	ug/L		99
87) n-butyl ether	7.541	57	399359	46.67	ug/L		99
88) chlorobenzene	7.504	112	290585	44.59	ug/L		98
89) 1,1,1,2-tetrachloroethane	7.571	131	110116	46.48	ug/L		92
90) ethylbenzene	7.577	91	462453	42.88	ug/L		98
91) m,p-xylene	7.693	106	373482	86.13	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182800.D
Acq On : 5 Jul 2018 5:35 pm
Operator : jessicap
Sample : CC7758-50
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 06 15:26:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration

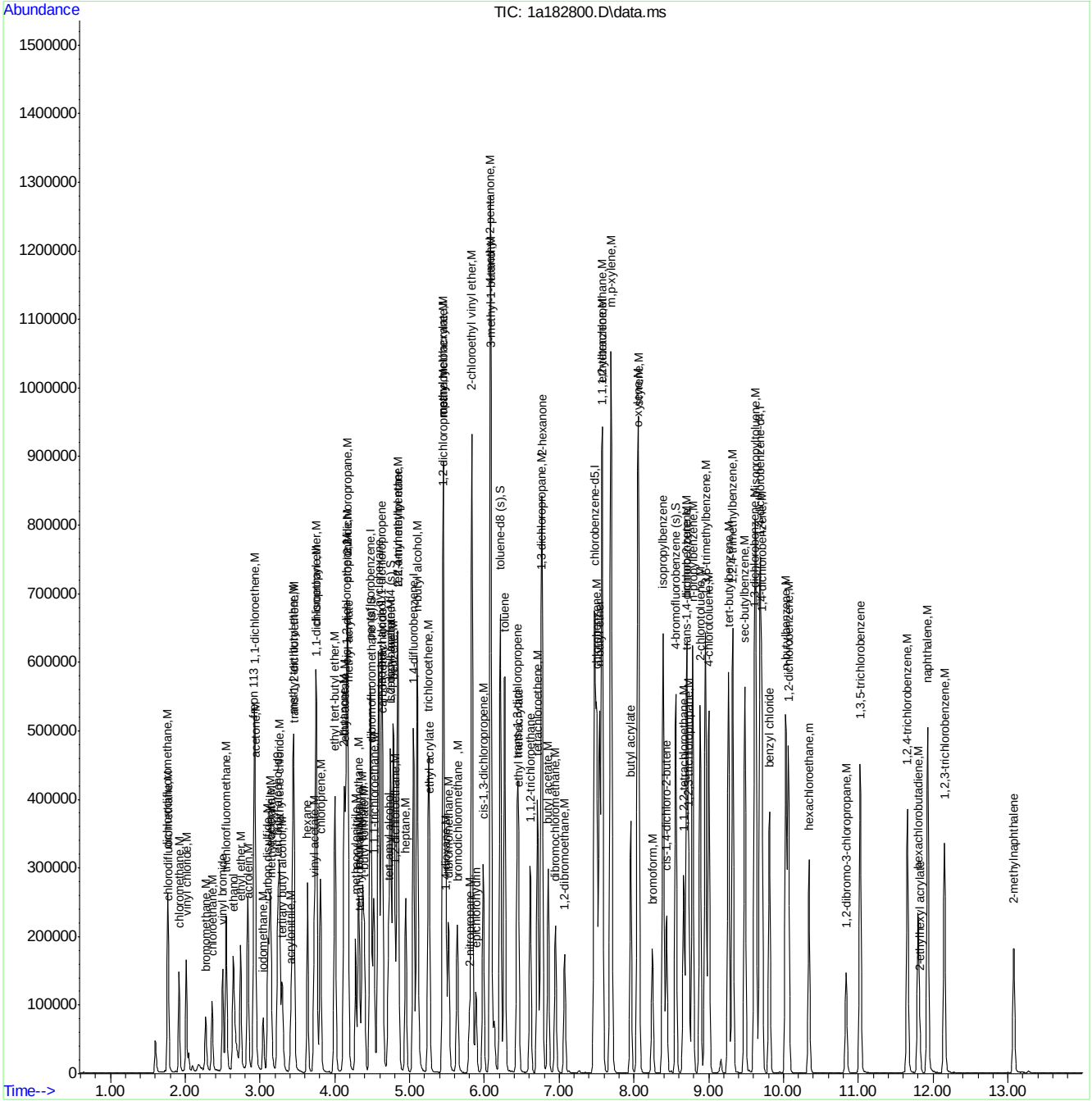
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) o-xylene	8.052	106	185276	43.37	ug/L	99
93) styrene	8.064	104	318109	44.66	ug/L	97
94) bromoform	8.246	173	93177	49.04	ug/L	96
95) butyl acrylate	7.960	55	222024	49.42	ug/L	98
96) isopropylbenzene	8.386	105	462281	43.80	ug/L	97
97) cis-1,4-dichloro-2-butene	8.435	88	59660	49.66	ug/L	93
100) bromobenzene	8.709	156	140379	48.81	ug/L	97
101) 1,1,2,2-tetrachloroethane	8.666	83	145821	49.68	ug/L	97
102) trans-1,4-dichloro-2-b...	8.703	53	39785	48.13	ug/L	95
103) 1,2,3-trichloropropane	8.733	110	48373	46.65	ug/L	99
104) n-propylbenzene	8.788	91	507063	45.26	ug/L	98
105) 2-chlorotoluene	8.885	126	119260	45.91	ug/L	97
106) 4-chlorotoluene	9.001	126	119070	47.44	ug/L	95
107) 1,3,5-trimethylbenzene	8.958	105	371839	45.24	ug/L	99
108) tert-butylbenzene	9.268	134	83231	47.07	ug/L	99
109) 1,2,4-trimethylbenzene	9.323	105	377084	45.42	ug/L	97
110) sec-butylbenzene	9.481	105	430214	45.02	ug/L	100
111) 1,3-dichlorobenzene	9.609	146	239694	47.05	ug/L	98
112) p-isopropyltoluene	9.627	119	380294	46.11	ug/L	99
113) 1,4-dichlorobenzene	9.706	146	239312	46.41	ug/L	98
114) benzyl chloride	9.816	91	291532	53.67	ug/L	99
115) 1,2-dichlorobenzene	10.065	146	230452	46.72	ug/L	98
116) n-butylbenzene	10.029	92	167155	45.95	ug/L	95
117) 1,2-dibromo-3-chloropr...	10.838	157	53436	52.52	ug/L	93
118) 1,3,5-trichlorobenzene	11.027	180	164585	48.76	ug/L	96
119) 2-ethylhexyl acrylate	11.823	70	14495	10.18	ug/L	95
120) 1,2,4-trichlorobenzene	11.659	180	141413	48.58	ug/L	96
121) hexachlorobutadiene	11.799	225	52897	46.09	ug/L	93
122) naphthalene	11.927	128	455212	47.27	ug/L	99
123) 1,2,3-trichlorobenzene	12.152	180	132685	47.27	ug/L	99
124) hexachloroethane	10.345	201	68095	49.16	ug/L	95
125) 2-methylnaphthalene	13.083	142	109907	23.60	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V1A7793\
Data File : 1a182800.D
Acq On : 5 Jul 2018 5:35 pm
Operator : jessicap
Sample : CC7758-50
Misc : ms27583,v1a7793,5,,,,1
ALS Vial : 51 Sample Multiplier: 1

Quant Time: Jul 06 15:26:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 09:55:11 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182818.d
Acq On : 6 Jul 2018 1:33 am
Operator : jessicap
Sample : ecc7758-20
Misc : ms27608,v1a7793,5,,,,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Jul 06 16:02:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	3.240	65	245312	500.00	ug/L		0.00
5) pentafluorobenzene	4.475	168	296080	50.00	ug/L		0.00
53) 1,4-difluorobenzene	5.053	114	404433	50.00	ug/L		0.00
75) chlorobenzene-d5	7.474	117	403803	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	9.682	152	216777	50.00	ug/L		0.00
System Monitoring Compounds							
45) dibromofluoromethane (s)	4.487	113	108735	50.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.20%				
54) 1,2-dichloroethane-d4 (s)	4.742	65	108875	43.89	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 87.78%				
76) toluene-d8 (s)	6.215	98	445536	45.07	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 90.14%				
99) 4-bromofluorobenzene (s)	8.557	95	185055	52.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.66%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	3.294	59	56530	85.84	ug/L		95
3) ethanol	2.643	45	102358	1936.04	ug/L		97
4) 1,4-dioxane	5.491	88	27722	506.74	ug/L		87
6) chlorodifluoromethane	1.773	51	42835	23.75	ug/L		92
7) dichlorodifluoromethane	1.761	85	51547	19.59	ug/L		98
9) chloromethane	1.920	50	40899	17.63	ug/L		99
10) vinyl chloride	2.017	62	47592	20.50	ug/L		100
12) bromomethane	2.278	94	9363	8.45	ug/L		97
13) chloroethane	2.364	64	29318	21.53	ug/L		96
14) trichlorofluoromethane	2.552	101	65389	21.24	ug/L		98
15) vinyl bromide	2.510	106	33080	19.34	ug/L		95
16) ethyl ether	2.741	74	24858	21.59	ug/L		96
17) acrolein	2.844	56	10493	18.97	ug/L		95
18) freon 113	2.917	151	33751	23.64	ug/L		97
19) 1,1-dichloroethene	2.929	96	37015	20.94	ug/L		94
20) acetone	2.942	58	24319	93.64	ug/L		96
21) acetonitrile	3.136	41	92575	252.55	ug/L		98
22) iodomethane	3.045	142	15203	12.48	ug/L		96
23) carbon disulfide	3.112	76	96468	22.45	ug/L		98
24) methylene chloride	3.264	84	43608	23.07	ug/L		97
25) methyl acetate	3.148	43	51943	25.97	ug/L		93
26) methyl tert butyl ether	3.440	73	135869	23.19	ug/L		98
27) trans-1,2-dichloroethene	3.459	96	42273	22.39	ug/L		96
28) di-isopropyl ether	3.751	45	131706	23.73	ug/L		97
29) 2-butanone	4.122	72	36204	102.31	ug/L		96
30) 1,1-dichloroethane	3.757	63	73778	22.31	ug/L		100
31) chloroprene	3.811	53	63105	22.81	ug/L		97
32) acrylonitrile	3.410	53	23896	23.75	ug/L		89
33) hexane	3.635	56	22179	21.97	ug/L		94
34) vinyl acetate	3.726	86	9290	22.65	ug/L	#	91
35) ethyl tert-butyl ether	4.000	59	133579	23.32	ug/L		96
36) ethyl acetate	4.128	45	10663	25.54	ug/L	#	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182818.d
Acq On : 6 Jul 2018 1:33 am
Operator : jessicap
Sample : ecc7758-20
Misc : ms27608,v1a7793,5,,,,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Jul 06 16:02:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	4.164	77	56344	20.73	ug/L		99
38) cis-1,2-dichloroethene	4.152	96	49433	22.89	ug/L		95
39) methyl acrylate	4.176	85	10764	25.47	ug/L		93
40) propionitrile	4.164	54	118383	255.85	ug/L		90
41) bromochloromethane	4.323	128	25085	24.32	ug/L		93
42) tetrahydrofuran	4.335	71	9366	24.63	ug/L		96
43) chloroform	4.371	85	49625	22.74	ug/L		98
44) t-butyl formate	4.396	59	38481	30.14	ug/L		98
46) methacrylonitrile	4.280	67	25949	25.09	ug/L		93
47) 1,1,1-trichloroethane	4.523	97	67387	21.98	ug/L		99
48) cyclohexane	4.584	84	51524	20.45	ug/L		95
49) 1,1-dichloropropene	4.627	75	57432	22.08	ug/L		97
50) iso-butyl alcohol	4.615	42	24028	272.80	ug/L		94
51) carbon tetrachloride	4.639	117	58471	21.45	ug/L		96
52) tert amyl alcohol	4.712	55	19649	132.83	ug/L		93
55) n-butyl alcohol	5.101	56	144317	1305.93	ug/L		97
56) 2,2,4-trimethylpentane	4.840	57	87862	20.66	ug/L		93
57) benzene	4.779	78	171384	21.72	ug/L		100
58) tert-amyl methyl ether	4.840	87	34496	23.97	ug/L		99
59) heptane	4.949	71	23026	22.64	ug/L		95
60) isopropyl acetate	4.742	87	13474	23.74	ug/L	#	71
61) 1,2-dichloroethane	4.803	62	59834	21.77	ug/L		97
62) trichloroethene	5.253	130	50442	21.01	ug/L		98
63) ethyl acrylate	5.265	55	74208	23.36	ug/L		100
64) 2-nitropropane	5.801	41	15342	22.21	ug/L		91
65) 2-chloroethyl vinyl ether	5.831	63	164754	116.60	ug/L		100
66) methyl methacrylate	5.448	100	17895	23.69	ug/L		96
67) 1,2-dichloropropane	5.454	63	42182	22.46	ug/L		98
68) dibromomethane	5.521	93	27670	22.71	ug/L		98
69) methylcyclohexane	5.448	83	61041	22.10	ug/L		96
70) bromodichloromethane	5.643	83	60533	22.35	ug/L		96
71) epichlorohydrin	5.886	57	36669	122.27	ug/L		97
72) cis-1,3-dichloropropene	5.983	75	73291	22.56	ug/L		99
73) 4-methyl-2-pentanone	6.081	58	101710	95.97	ug/L		90
74) 3-methyl-1-butanol	6.087	55	86705	528.76	ug/L		95
77) toluene	6.275	92	110655	19.20	ug/L		95
78) trans-1,3-dichloropropene	6.434	75	66973	20.11	ug/L		99
79) ethyl methacrylate	6.452	69	66431	20.28	ug/L		99
80) 1,1,2-trichloroethane	6.610	83	34685	21.00	ug/L		93
81) tetrachloroethene	6.713	164	44930	19.73	ug/L		93
82) 1,3-dichloropropane	6.756	76	70987	20.30	ug/L		98
83) 2-hexanone	6.774	58	109167	88.73	ug/L		97
84) butyl acetate	6.853	56	37941	20.89	ug/L		93
85) dibromochloromethane	6.951	129	51837	20.96	ug/L		96
86) 1,2-dibromoethane	7.072	107	50709	19.40	ug/L		100
87) n-butyl ether	7.541	57	174956	20.26	ug/L		100
88) chlorobenzene	7.504	112	129967	19.76	ug/L		93
89) 1,1,1,2-tetrachloroethane	7.571	131	48448	20.26	ug/L		94
90) ethylbenzene	7.577	91	205102	18.84	ug/L		96
91) m,p-xylene	7.693	106	163866	37.44	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182818.d
Acq On : 6 Jul 2018 1:33 am
Operator : jessicap
Sample : ecc7758-20
Misc : ms27608,v1a7793,5,,,,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Jul 06 16:02:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration

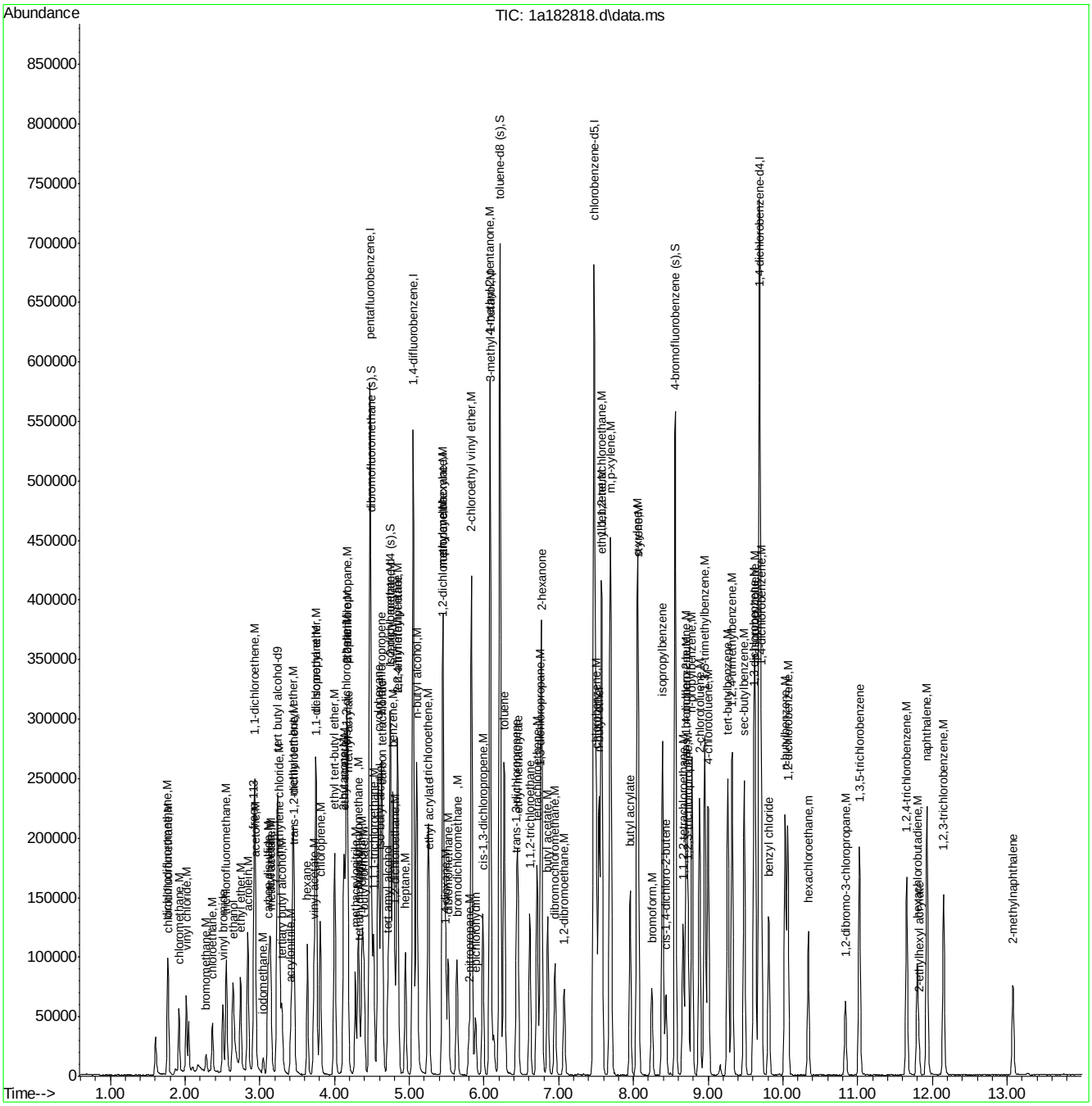
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	o-xylene	8.052	106	81161	18.82	ug/L	97
93)	styrene	8.064	104	143251	19.92	ug/L	98
94)	bromoform	8.246	173	39819	20.76	ug/L	98
95)	butyl acrylate	7.960	55	95907	21.15	ug/L	98
96)	isopropylbenzene	8.386	105	201667	18.93	ug/L	100
97)	cis-1,4-dichloro-2-butene	8.435	88	18499	15.26	ug/L	93
100)	bromobenzene	8.709	156	62296	21.16	ug/L	91
101)	1,1,2,2-tetrachloroethane	8.666	83	63496	21.13	ug/L	98
102)	trans-1,4-dichloro-2-b...	8.703	53	12605	14.90	ug/L	96
103)	1,2,3-trichloropropane	8.733	110	22362	21.07	ug/L	95
104)	n-propylbenzene	8.782	91	216007	18.83	ug/L	99
105)	2-chlorotoluene	8.885	126	51595	19.40	ug/L	99
106)	4-chlorotoluene	9.001	126	52598	20.47	ug/L	98
107)	1,3,5-trimethylbenzene	8.952	105	162278	19.29	ug/L	98
108)	tert-butylbenzene	9.262	134	35662	19.70	ug/L	92
109)	1,2,4-trimethylbenzene	9.323	105	165254	19.44	ug/L	96
110)	sec-butylbenzene	9.481	105	181819	18.59	ug/L	98
111)	1,3-dichlorobenzene	9.609	146	103777	19.90	ug/L	99
112)	p-isopropyltoluene	9.627	119	163049	19.31	ug/L	98
113)	1,4-dichlorobenzene	9.706	146	104349	19.77	ug/L	98
114)	benzyl chloride	9.816	91	102723	18.47	ug/L	99
115)	1,2-dichlorobenzene	10.065	146	102022	20.20	ug/L	96
116)	n-butylbenzene	10.029	92	68848	18.49	ug/L	93
117)	1,2-dibromo-3-chloropr...	10.838	157	21538	20.68	ug/L	93
118)	1,3,5-trichlorobenzene	11.027	180	68502	19.83	ug/L	96
119)	2-ethylhexyl acrylate	11.824	70	5721	3.92	ug/L	96
120)	1,2,4-trichlorobenzene	11.659	180	62214	20.88	ug/L	93
121)	hexachlorobutadiene	11.799	225	21676	18.45	ug/L	90
122)	naphthalene	11.927	128	200476	20.34	ug/L	99
123)	1,2,3-trichlorobenzene	12.146	180	57555	20.03	ug/L	98
124)	hexachloroethane	10.345	201	24989	17.62	ug/L	98
125)	2-methylnaphthalene	13.083	142	45156	9.47	ug/L	89

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v1a7793\
Data File : 1a182818.d
Acq On : 6 Jul 2018 1:33 am
Operator : jessicap
Sample : ecc7758-20
Misc : ms27608,v1a7793,5,,,,1
ALS Vial : 69 Sample Multiplier: 1

Quant Time: Jul 06 16:02:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M1A7758.M
Quant Title : SW846 8260C, Rxi-624 30 m x 0.25 mm x 1.4 um
QLast Update : Fri Jul 06 14:44:09 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 04/23/18 12:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158319.D
Acq On : 16 Apr 2018 4:59 pm
Operator : HueanhT
Sample : ic7025-0.5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 17 15:46:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:44 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.350	65	290923	500.00	ug/L		0.03
5) pentafluorobenzene	10.778	168	199954	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.716	114	243918	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	211830	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	151190	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.809	113	92237	53.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.96%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	97744	56.88	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 113.76%				
75) toluene-d8 (s)	13.273	98	264859	50.27	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.54%				
98) 4-bromofluorobenzene (s)	15.774	95	104117	45.95	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 91.90%				
Target Compounds							Qvalue
9) vinyl chloride	5.152	62	2285	0.58	ug/L		88
13) trichlorofluoromethane	6.599	101	2075	0.54	ug/L		87
14) vinyl bromide	6.447	106	1574	0.65	ug/L	#	80
15) ethyl ether	7.039	74	597	0.51	ug/L	#	28
16) 2-chloropropane	7.280	43	2890	0.71	ug/L		86
18) freon 113	7.548	151	761m	0.42	ug/L		
21) iodomethane	7.836	142	2375	0.61	ug/L		76
24) methylene chloride	8.350	84	1876	0.74	ug/L	#	72
25) methyl acetate	8.083	43	1642	0.65	ug/L		63
26) methyl tert butyl ether	8.759	73	4504	0.66	ug/L		75
27) trans-1,2-dichloroethene	8.775	96	1394	0.67	ug/L	#	70
29) di-isopropyl ether	9.414	45	5425	0.72	ug/L		87
30) 1,1-dichloroethane	9.430	63	2239	0.61	ug/L		86
31) chloroprene	9.519	53	2097	0.69	ug/L		89
32) acrylonitrile	8.696	53	785	0.62	ug/L	#	17
34) ethyl tert-butyl ether	9.928	59	4393	0.61	ug/L		97
35) 2-butanone	10.138	72	712	1.91	ug/L		94
38) cis-1,2-dichloroethene	10.196	96	1547	0.70	ug/L	#	74
39) propionitrile	10.217	54	3288	5.74	ug/L		90
40) bromochloromethane	10.510	128	657	0.56	ug/L		89
42) chloroform	10.605	83	2578	0.75	ug/L		84
45) methacrylonitrile	10.416	67	460	0.41	ug/L	#	34
46) 1,1,1-trichloroethane	10.882	97	2341	0.70	ug/L		97
47) Cyclohexane	10.977	84	1619	0.55	ug/L	#	80
48) 1,1-dichloropropene	11.050	75	1546	0.63	ug/L		92
56) benzene	11.297	78	4353	0.63	ug/L		97
62) trichloroethene	12.015	95	1106	0.65	ug/L		82
64) 2-chloroethyl vinyl ether	12.775	63	3011	2.50	ug/L		94
66) 1,2-dichloropropane	12.303	63	918	0.52	ug/L		93
67) dibromomethane	12.392	93	702	0.60	ug/L	#	74
69) bromodichloromethane	12.544	83	1526	0.64	ug/L		94
71) cis-1,3-dichloropropene	12.980	75	1455	0.51	ug/L	#	66

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158319.D
Acq On : 16 Apr 2018 4:59 pm
Operator : HueanhT
Sample : ic7025-0.5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 17 15:46:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:44 2018
Response via : Initial Calibration

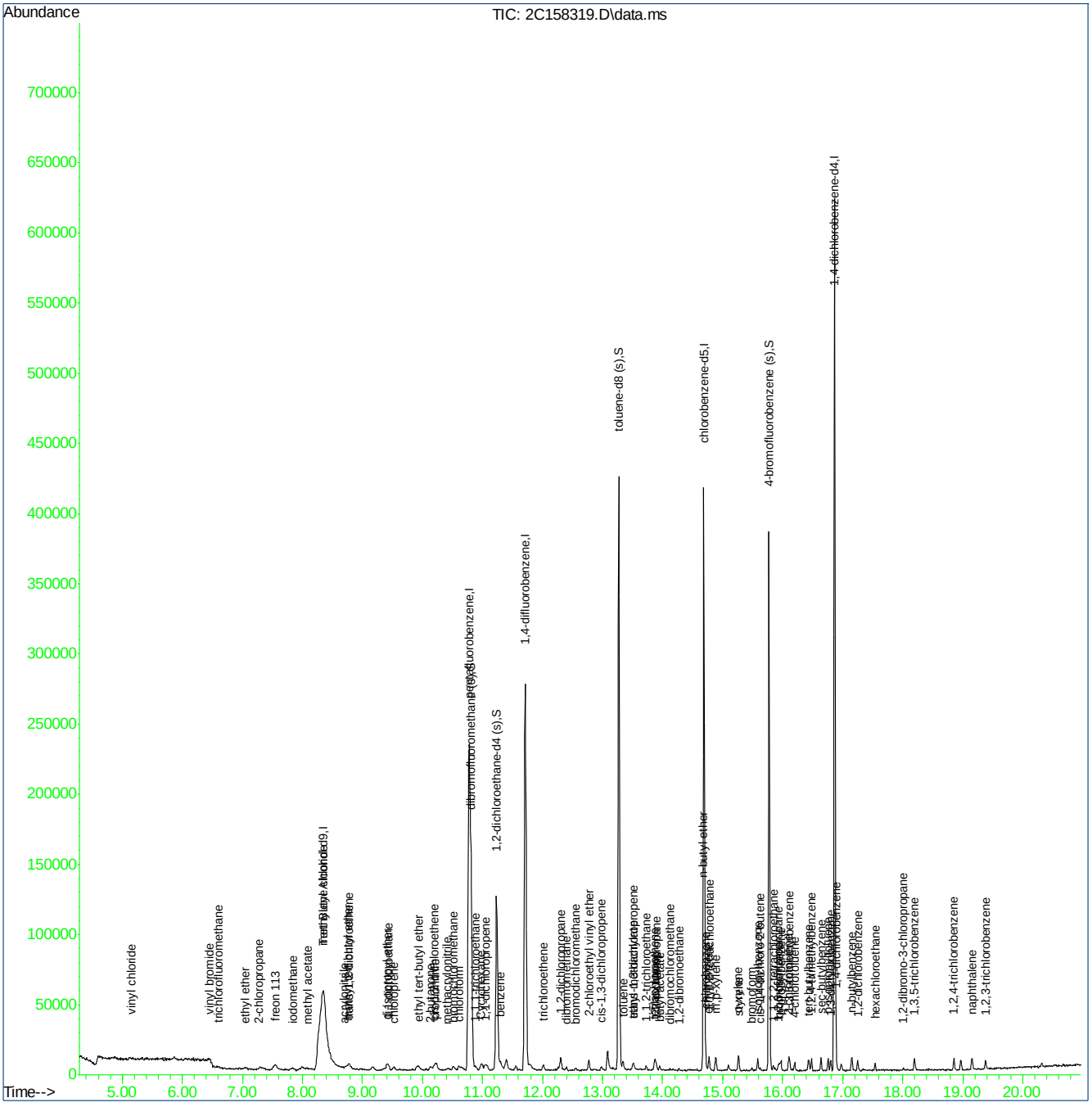
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
76) toluene	13.341	92	2201	0.56	ug/L		98
77) ethyl methacrylate	13.509	69	1543	0.66	ug/L		94
78) trans-1,3-dichloropropene	13.520	75	1283	0.51	ug/L		88
79) 1,1,2-trichloroethane	13.729	83	922	0.69	ug/L		93
80) 2-hexanone	13.876	58	2253	2.43	ug/L		90
81) tetrachloroethene	13.861	164	847	0.54	ug/L		90
82) 1,3-dichloropropane	13.897	76	1273	0.54	ug/L		75
83) butyl acetate	13.950	56	856	0.63	ug/L		96
84) dibromochloromethane	14.123	129	966	0.51	ug/L		83
85) 1,2-dibromoethane	14.269	107	891	0.48	ug/L		87
86) n-butyl ether	14.673	57	4899	0.67	ug/L	#	50
87) chlorobenzene	14.720	112	2337	0.54	ug/L		82
88) 1,1,1,2-tetrachloroethane	14.778	131	1074	0.60	ug/L		91
89) ethylbenzene	14.773	91	4460	0.64	ug/L		94
90) m,p-xylene	14.888	106	3353	1.22	ug/L		89
91) o-xylene	15.260	106	1704	0.57	ug/L		90
92) styrene	15.276	104	2755	0.58	ug/L		89
94) bromoform	15.486	173	749	0.48	ug/L		82
95) isopropylbenzene	15.585	105	5024	0.62	ug/L		94
96) cis-1,4-dichloro-2-butene	15.622	75	476	0.48	ug/L		92
99) bromobenzene	15.942	156	1296	0.52	ug/L		93
100) 1,1,2,2-tetrachloroethane	15.848	83	1892	0.58	ug/L		90
102) 1,2,3-trichloropropane	15.926	110	420	0.53	ug/L		79
103) n-propylbenzene	15.968	91	5791	0.60	ug/L		95
104) 2-chlorotoluene	16.099	126	1117	0.49	ug/L		96
105) 4-chlorotoluene	16.199	91	3491	0.59	ug/L		94
106) 1,3,5-trimethylbenzene	16.115	105	4351	0.57	ug/L		98
107) tert-butylbenzene	16.435	119	3548	0.50	ug/L		89
108) 1,2,4-trimethylbenzene	16.482	105	4525	0.58	ug/L		97
109) sec-butylbenzene	16.639	105	5732	0.54	ug/L		96
110) 1,3-dichlorobenzene	16.802	146	2743	0.56	ug/L		98
111) p-isopropyltoluene	16.755	119	4994	0.55	ug/L		88
112) 1,4-dichlorobenzene	16.891	146	2695	0.55	ug/L		93
113) 1,2-dichlorobenzene	17.253	146	2960	0.56	ug/L		96
114) n-butylbenzene	17.153	92	2732	0.59	ug/L		82
115) 1,2-dibromo-3-chloropr...	18.013	75	378	0.45	ug/L	#	80
116) 1,3,5-trichlorobenzene	18.191	180	3066	0.56	ug/L		95
118) 1,2,4-trichlorobenzene	18.852	180	2700	0.57	ug/L		93
121) naphthalene	19.156	128	5976	0.53	ug/L		99
122) 1,2,3-trichlorobenzene	19.381	180	2301	0.53	ug/L		96
123) hexachloroethane	17.541	201	867	0.46	ug/L		91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158319.D
Acq On : 16 Apr 2018 4:59 pm
Operator : HueanhT
Sample : ic7025-0.5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 17 15:46:15 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:44 2018
Response via : Initial Calibration



Manual Integration Approval Summary

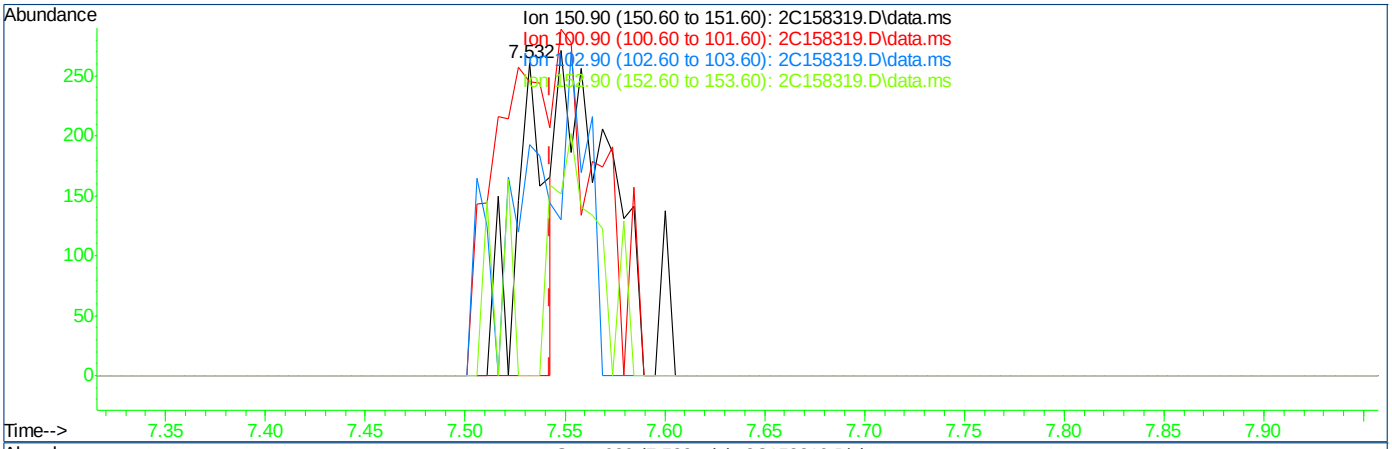
Sample Number:	V2C7025-IC7025	**Method:**	SW846 8260C
Lab FileID:	2C158319.D	**Analyst approved:**	04/17/18 16:53 Bridget Kelly
Injection Time:	04/16/18 16:59	**Supervisor approved:**	04/23/18 12:18 Kanya Veerawat

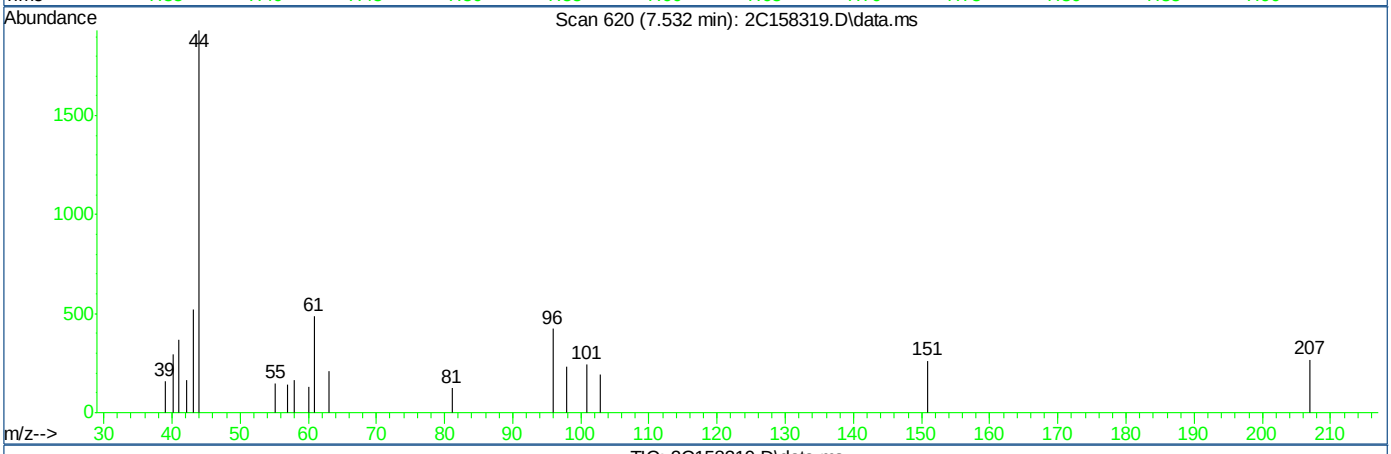
Parameter	CAS	Sig#	R.T. (min.)	Reason
Freon 113	76-13-1		7.55	Split peak

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158319.D
Acq On : 16 Apr 2018 4:59 pm
Operator : HueanhT
Sample : ic7025-0.5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 17 14:52:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:44 2018
Response via : Initial Calibration





TIC: 2C158319.D\data.ms

(18) freon 113

7.532min (-0.011) 0.15ug/L

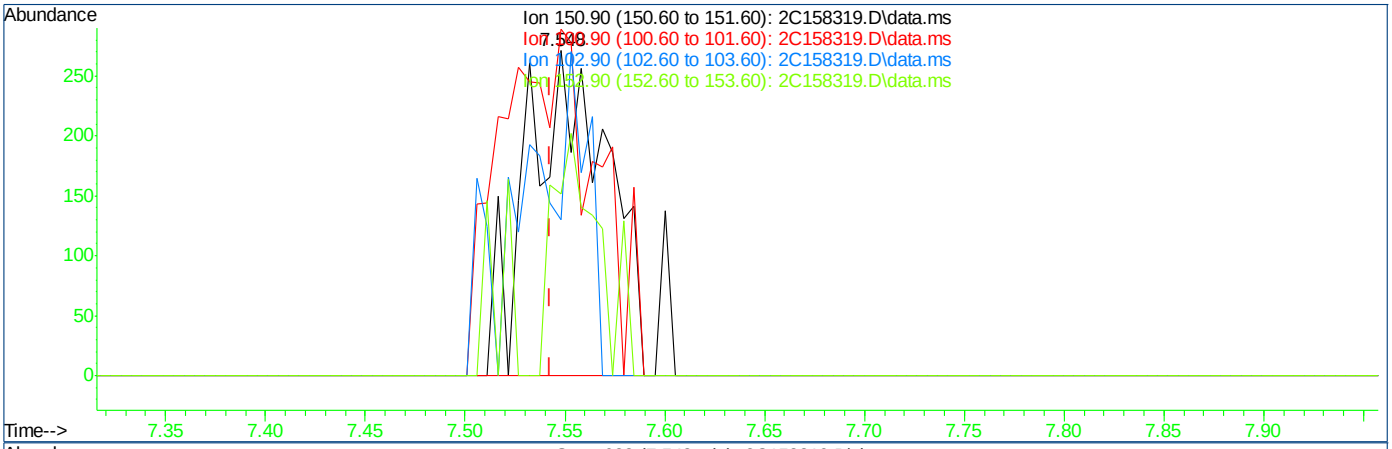
response 277

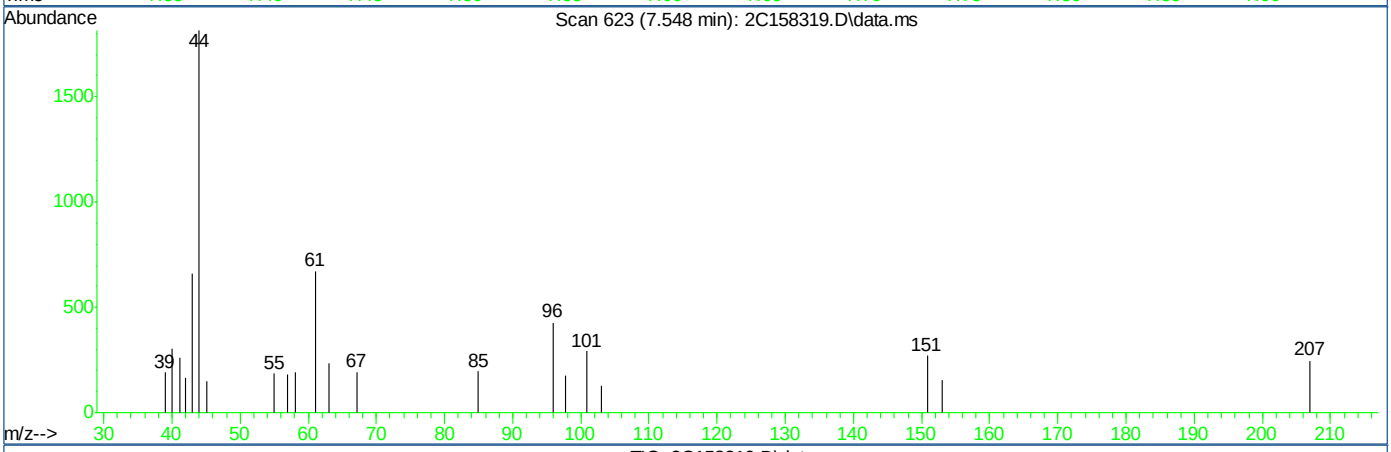
Ion	Exp%	Act%
150.90	100	100
100.90	111.80	39.08#
102.90	73.10	18.77#
152.90	63.00	0.00#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158319.D
Acq On : 16 Apr 2018 4:59 pm
Operator : HueanhT
Sample : ic7025-0.5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Apr 17 14:52:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:44 2018
Response via : Initial Calibration





TIC: 2C158319.D\data.ms

(18) freon 113

7.548min (+0.005) 0.42ug/L m

response 761

Ion	Exp%	Act%
150.90	100	100
100.90	111.80	107.38
102.90	73.10	47.97#
152.90	63.00	56.09

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158320.D
Acq On : 16 Apr 2018 5:28 pm
Operator : HueanhT
Sample : ic7025-1
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 17 15:47:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.324	65	278318	500.00	ug/L		0.00
5) pentafluorobenzene	10.778	168	241365	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.716	114	321645	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	268760	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	178135	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.809	113	103969	50.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.82%				
52) 1,2-dichloroethane-d4 (s)	11.234	65	121006	53.40	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.80%				
75) toluene-d8 (s)	13.273	98	340477	50.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.86%				
98) 4-bromofluorobenzene (s)	15.774	95	128126	47.99	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.98%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.465	59	3436	5.03	ug/L	#	58
4) 1,4-dioxane	12.356	88	1101	22.43	ug/L	#	60
8) chloromethane	4.869	50	7050	1.38	ug/L		96
9) vinyl chloride	5.141	62	4721	1.00	ug/L		88
11) bromomethane	5.854	94	3940	1.34	ug/L		81
12) chloroethane	6.075	64	3198	1.32	ug/L		96
13) trichlorofluoromethane	6.594	101	4496	0.96	ug/L		92
14) vinyl bromide	6.452	106	3203	1.09	ug/L		82
15) ethyl ether	7.039	74	1355	0.95	ug/L	#	77
16) 2-chloropropane	7.301	43	5212	1.06	ug/L		81
18) freon 113	7.553	151	1968	0.89	ug/L	#	84
19) 1,1-dichloroethene	7.558	96	3345	1.24	ug/L	#	65
20) acetone	7.558	58	1580	4.40	ug/L	#	25
21) iodomethane	7.821	142	4585	0.98	ug/L		89
23) carbon disulfide	7.983	76	8564	1.02	ug/L		82
24) methylene chloride	8.361	84	3565	1.16	ug/L		91
25) methyl acetate	8.067	43	3131	1.02	ug/L		91
26) methyl tert butyl ether	8.743	73	8788	1.07	ug/L		88
27) trans-1,2-dichloroethene	8.785	96	2902	1.16	ug/L		83
28) hexane	9.168	56	2028	1.29	ug/L	#	66
29) di-isopropyl ether	9.414	45	10604	1.16	ug/L		91
30) 1,1-dichloroethane	9.414	63	4886	1.10	ug/L		92
31) chloroprene	9.525	53	3989	1.09	ug/L		97
32) acrylonitrile	8.680	53	1585	1.04	ug/L		77
33) vinyl acetate	9.346	86	338	0.74	ug/L	#	1
34) ethyl tert-butyl ether	9.912	59	9065	1.04	ug/L		93
35) 2-butanone	10.133	72	1712	3.80	ug/L	#	85
37) 2,2-dichloropropane	10.232	77	3868	1.21	ug/L		85
38) cis-1,2-dichloroethene	10.196	96	3172	1.19	ug/L		89
39) propionitrile	10.227	54	7679	11.10	ug/L		91
40) bromochloromethane	10.510	128	1530	1.09	ug/L		87
42) chloroform	10.605	83	5087	1.22	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158320.D
Acq On : 16 Apr 2018 5:28 pm
Operator : HueanhT
Sample : ic7025-1
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 17 15:47:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
43)	t-butyl formate	10.641	59	2822	1.07	ug/L		85
45)	methacrylonitrile	10.426	67	1432	1.07	ug/L		84
46)	1,1,1-trichloroethane	10.867	97	4430	1.10	ug/L		96
47)	Cyclohexane	10.987	84	3839	1.08	ug/L		98
48)	1,1-dichloropropene	11.055	75	3392	1.14	ug/L		93
49)	carbon tetrachloride	11.076	117	3305	1.03	ug/L		94
53)	n-butyl alcohol	11.790	56	10094	60.12	ug/L		92
55)	iso-octane	11.402	57	11071	1.12	ug/L		97
56)	benzene	11.297	78	9933	1.10	ug/L		91
57)	tert-amyl methyl ether	11.386	87	1979	1.08	ug/L	#	73
59)	isopropyl acetate	11.223	87	459	0.76	ug/L	#	31
60)	1,2-dichloroethane	11.333	62	3898	1.27	ug/L		87
62)	trichloroethene	12.015	95	2546	1.14	ug/L		92
64)	2-chloroethyl vinyl ether	12.775	63	8072	5.08	ug/L		93
65)	methyl methacrylate	12.267	100	695	0.95	ug/L	#	81
66)	1,2-dichloropropane	12.298	63	2564	1.09	ug/L		98
67)	dibromomethane	12.398	93	1753	1.13	ug/L		83
68)	methylcyclohexane	12.298	83	4922	1.11	ug/L		86
69)	bromodichloromethane	12.544	83	3295	1.04	ug/L		88
70)	epichlorohydrin	12.859	57	2332	5.76	ug/L		94
71)	cis-1,3-dichloropropene	12.980	75	3873	1.03	ug/L		99
72)	4-methyl-2-pentanone	13.085	58	5937	4.35	ug/L		91
76)	toluene	13.341	92	5325	1.07	ug/L		96
77)	ethyl methacrylate	13.509	69	3579	1.21	ug/L		87
78)	trans-1,3-dichloropropene	13.514	75	3329	1.05	ug/L		89
79)	1,1,2-trichloroethane	13.729	83	1840	1.08	ug/L		90
80)	2-hexanone	13.881	58	5567	4.74	ug/L		91
81)	tetrachloroethene	13.861	164	2031	1.01	ug/L		97
82)	1,3-dichloropropane	13.897	76	3304	1.10	ug/L		88
83)	butyl acetate	13.950	56	2233	1.30	ug/L		95
84)	dibromochloromethane	14.128	129	2234	0.93	ug/L		91
85)	1,2-dibromoethane	14.275	107	2363	1.00	ug/L		99
86)	n-butyl ether	14.673	57	10710	1.16	ug/L	#	72
87)	chlorobenzene	14.720	112	5896	1.07	ug/L		92
88)	1,1,1,2-tetrachloroethane	14.778	131	2355	1.03	ug/L		86
89)	ethylbenzene	14.773	91	9752	1.10	ug/L		97
90)	m,p-xylene	14.888	106	7262	2.08	ug/L		97
91)	o-xylene	15.260	106	3838	1.02	ug/L		91
92)	styrene	15.271	104	6562	1.09	ug/L		94
93)	butyl acrylate	15.098	55	5824	1.22	ug/L		97
94)	bromoform	15.491	173	1826	0.92	ug/L		99
95)	isopropylbenzene	15.585	105	10927	1.06	ug/L		95
96)	cis-1,4-dichloro-2-butene	15.617	75	1121	0.90	ug/L	#	80
99)	bromobenzene	15.947	156	3146	1.06	ug/L		86
100)	1,1,2,2-tetrachloroethane	15.842	83	3912	1.02	ug/L		96
102)	1,2,3-trichloropropane	15.926	110	958	1.03	ug/L		84
103)	n-propylbenzene	15.973	91	12595	1.11	ug/L		96
104)	2-chlorotoluene	16.099	126	2781	1.04	ug/L	#	80
105)	4-chlorotoluene	16.204	91	7592	1.09	ug/L		98
106)	1,3,5-trimethylbenzene	16.115	105	9725	1.07	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158320.D
Acq On : 16 Apr 2018 5:28 pm
Operator : HueanhT
Sample : ic7025-1
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 17 15:47:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration

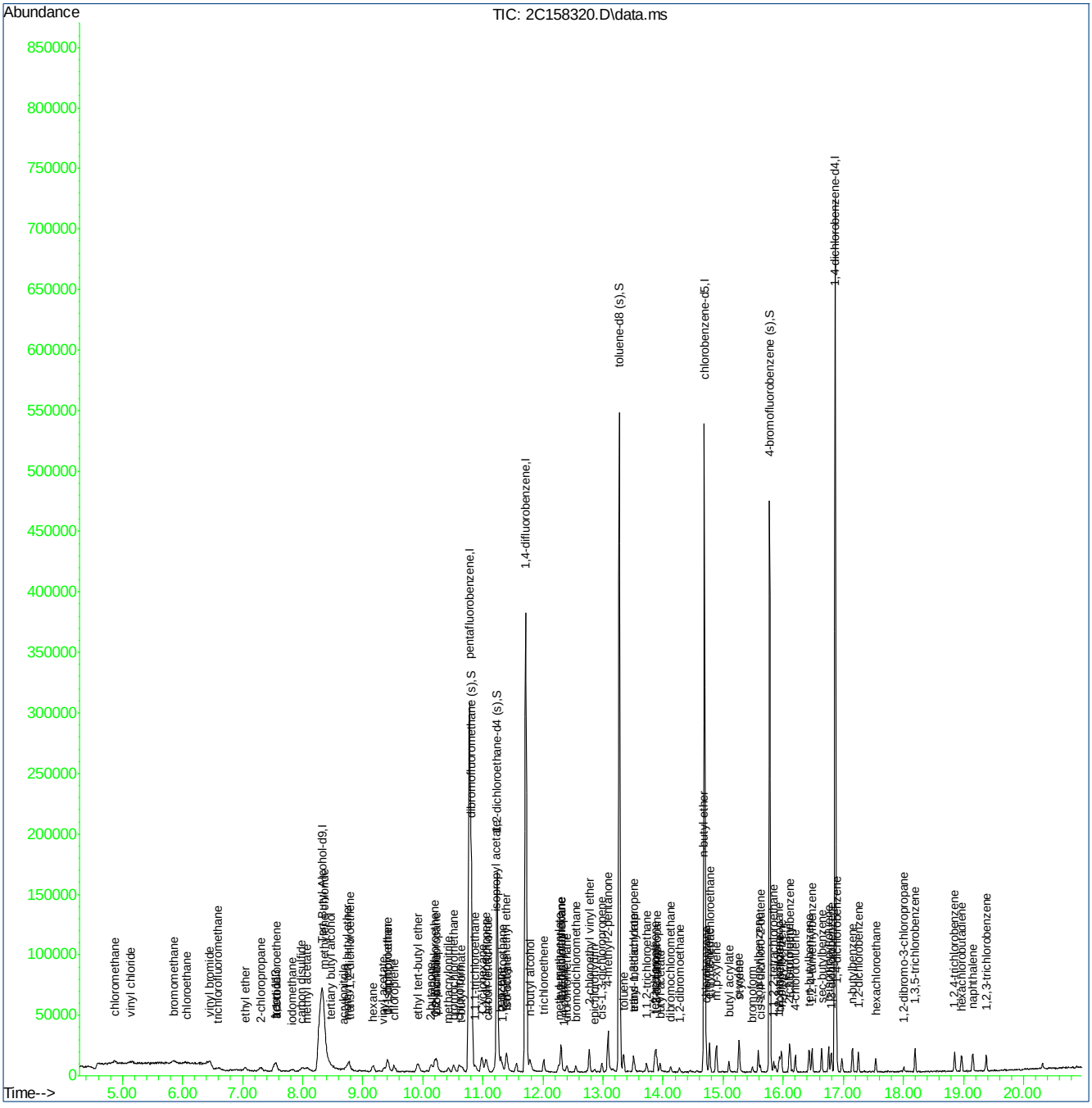
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
107) tert-butylbenzene	16.430	119	7782	0.93	ug/L	98
108) 1,2,4-trimethylbenzene	16.482	105	10103	1.11	ug/L	95
109) sec-butylbenzene	16.639	105	12225	0.98	ug/L	99
110) 1,3-dichlorobenzene	16.802	146	5858	1.02	ug/L	92
111) p-isopropyltoluene	16.760	119	10536	0.98	ug/L	91
112) 1,4-dichlorobenzene	16.891	146	6062	1.05	ug/L	96
113) 1,2-dichlorobenzene	17.253	146	6460	1.03	ug/L	98
114) n-butylbenzene	17.153	92	5551	1.01	ug/L	96
115) 1,2-dibromo-3-chloropr...	18.008	75	886	0.90	ug/L	83
116) 1,3,5-trichlorobenzene	18.197	180	6312	0.97	ug/L	91
118) 1,2,4-trichlorobenzene	18.852	180	5021	0.89	ug/L	95
120) hexachlorobutadiene	18.972	225	3147	1.00	ug/L	90
121) naphthalene	19.156	128	11151	0.83	ug/L	99
122) 1,2,3-trichlorobenzene	19.381	180	4558	0.88	ug/L	94
123) hexachloroethane	17.541	201	1867	0.83	ug/L	91

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158320.D
Acq On : 16 Apr 2018 5:28 pm
Operator : HueanhT
Sample : ic7025-1
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Apr 17 15:47:56 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158321.D
Acq On : 16 Apr 2018 5:57 pm
Operator : HueanhT
Sample : ic7025-2
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 17 15:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.334	65	291151	500.00	ug/L		0.02
5) pentafluorobenzene	10.778	168	244906	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.716	114	326379	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	271439	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	176846	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.809	113	104903	50.13	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	121994	53.05	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 106.10%				
75) toluene-d8 (s)	13.273	98	341839	50.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.26%				
98) 4-bromofluorobenzene (s)	15.774	95	128735	48.57	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.14%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.450	59	7307	10.22	ug/L		81
4) 1,4-dioxane	12.361	88	2752	53.58	ug/L		86
7) dichlorodifluoromethane	4.413	85	8476	2.39	ug/L		87
8) chloromethane	4.879	50	12565	2.42	ug/L		93
9) vinyl chloride	5.141	62	9731	2.02	ug/L		91
11) bromomethane	5.849	94	7061	2.37	ug/L		89
12) chloroethane	6.069	64	5649	2.30	ug/L		86
13) trichlorofluoromethane	6.588	101	9018	1.90	ug/L		91
14) vinyl bromide	6.452	106	6005	2.02	ug/L		100
15) ethyl ether	7.055	74	2652	1.84	ug/L	#	66
16) 2-chloropropane	7.302	43	10466	2.09	ug/L		93
18) freon 113	7.548	151	4054	1.81	ug/L		90
19) 1,1-dichloroethene	7.537	96	5977	2.18	ug/L		99
20) acetone	7.543	58	3066	8.41	ug/L	#	42
21) iodomethane	7.831	142	9119	1.92	ug/L		98
23) carbon disulfide	7.988	76	16727	1.96	ug/L		97
24) methylene chloride	8.350	84	6548	2.10	ug/L		88
25) methyl acetate	8.067	43	6809	2.19	ug/L		91
26) methyl tert butyl ether	8.759	73	17229	2.07	ug/L		93
27) trans-1,2-dichloroethene	8.775	96	5728	2.26	ug/L		99
28) hexane	9.168	56	3582	2.25	ug/L		93
29) di-isopropyl ether	9.420	45	19771	2.13	ug/L		95
30) 1,1-dichloroethane	9.414	63	9299	2.06	ug/L		97
31) chloroprene	9.530	53	7909	2.13	ug/L		93
32) acrylonitrile	8.675	53	3056	1.98	ug/L		85
33) vinyl acetate	9.362	86	795	1.71	ug/L		97
34) ethyl tert-butyl ether	9.918	59	17483	1.97	ug/L		93
35) 2-butanone	10.128	72	3570	7.81	ug/L	#	63
37) 2,2-dichloropropane	10.227	77	7294	2.25	ug/L		95
38) cis-1,2-dichloroethene	10.196	96	6003	2.22	ug/L		96
39) propionitrile	10.227	54	14943	21.30	ug/L		88
40) bromochloromethane	10.510	128	2644	1.85	ug/L		83

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158321.D
Acq On : 16 Apr 2018 5:57 pm
Operator : HueanhT
Sample : ic7025-2
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 17 15:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
41) tetrahydrofuran	10.536	42	3778	2.61	ug/L		93
42) chloroform	10.605	83	8959	2.12	ug/L		94
43) t-butyl formate	10.647	59	5539	2.07	ug/L		89
45) methacrylonitrile	10.421	67	2836	2.09	ug/L		90
46) 1,1,1-trichloroethane	10.877	97	8341	2.04	ug/L		95
47) Cyclohexane	10.987	84	7111	1.97	ug/L		87
48) 1,1-dichloropropene	11.050	75	6624	2.19	ug/L		98
49) carbon tetrachloride	11.076	117	6720	2.06	ug/L		92
53) n-butyl alcohol	11.784	56	18989	111.46	ug/L		98
54) tert-amyl alcohol	11.202	55	3313	13.91	ug/L	#	67
55) iso-octane	11.402	57	21174	2.10	ug/L		97
56) benzene	11.302	78	19753	2.15	ug/L		96
57) tert-amyl methyl ether	11.386	87	3680	1.98	ug/L	#	72
58) heptane	11.554	57	4373	2.25	ug/L		87
59) isopropyl acetate	11.223	87	1193	1.94	ug/L	#	41
60) 1,2-dichloroethane	11.328	62	7214	2.32	ug/L		93
61) ethyl acrylate	12.005	55	7704	2.10	ug/L		98
62) trichloroethene	12.015	95	4912	2.16	ug/L		97
63) 2-nitropropane	12.744	41	2492	2.32	ug/L		90
64) 2-chloroethyl vinyl ether	12.775	63	15567	9.65	ug/L		98
65) methyl methacrylate	12.261	100	1335	1.81	ug/L	#	81
66) 1,2-dichloropropane	12.298	63	5054	2.13	ug/L		94
67) dibromomethane	12.398	93	3151	2.00	ug/L		93
68) methylcyclohexane	12.303	83	9490	2.11	ug/L		90
69) bromodichloromethane	12.550	83	6547	2.04	ug/L		97
70) epichlorohydrin	12.859	57	4393	10.70	ug/L		88
71) cis-1,3-dichloropropene	12.980	75	7271	1.91	ug/L		91
72) 4-methyl-2-pentanone	13.079	58	11230	8.11	ug/L		98
73) 3-methyl-1-butanol	13.085	55	12719	48.34	ug/L		96
76) toluene	13.341	92	10524	2.09	ug/L		95
77) ethyl methacrylate	13.504	69	6512	2.18	ug/L		95
78) trans-1,3-dichloropropene	13.520	75	6682	2.09	ug/L		92
79) 1,1,2-trichloroethane	13.729	83	3610	2.10	ug/L		90
80) 2-hexanone	13.876	58	11014	9.28	ug/L		97
81) tetrachloroethene	13.861	164	4121	2.04	ug/L		95
82) 1,3-dichloropropane	13.897	76	6488	2.15	ug/L		98
83) butyl acetate	13.950	56	3795	2.19	ug/L		95
84) dibromochloromethane	14.123	129	4363	1.80	ug/L		92
85) 1,2-dibromoethane	14.270	107	4788	2.01	ug/L		96
86) n-butyl ether	14.673	57	20039	2.15	ug/L		91
87) chlorobenzene	14.720	112	10844	1.95	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.778	131	4631	2.00	ug/L		94
89) ethylbenzene	14.773	91	18594	2.07	ug/L		97
90) m,p-xylene	14.883	106	14629	4.15	ug/L		97
91) o-xylene	15.260	106	7389	1.94	ug/L		85
92) styrene	15.271	104	12786	2.11	ug/L		94
93) butyl acrylate	15.098	55	10796	2.24	ug/L		98
94) bromoform	15.491	173	3710	1.86	ug/L		94
95) isopropylbenzene	15.586	105	20914	2.02	ug/L		98
96) cis-1,4-dichloro-2-butene	15.617	75	2504	1.99	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158321.D
Acq On : 16 Apr 2018 5:57 pm
Operator : HueanhT
Sample : ic7025-2
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 17 15:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

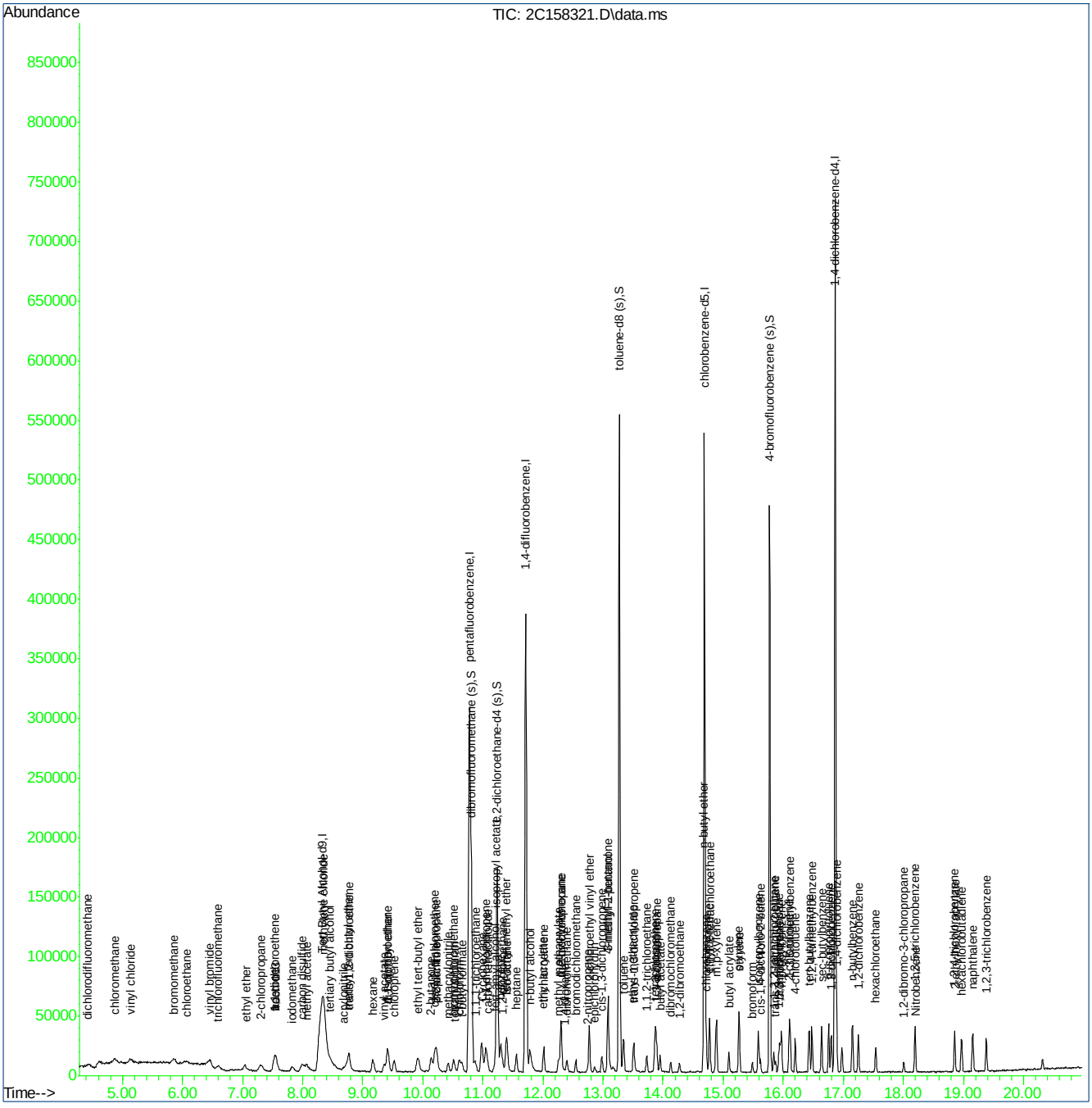
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
99) bromobenzene	15.947	156	6105	2.07	ug/L		96
100) 1,1,2,2-tetrachloroethane	15.848	83	7791	2.04	ug/L		98
101) trans-1,4-dichloro-2-b...	15.874	88	867	1.95	ug/L	#	87
102) 1,2,3-trichloropropane	15.926	110	1892	2.05	ug/L		72
103) n-propylbenzene	15.974	91	23682	2.11	ug/L		97
104) 2-chlorotoluene	16.099	126	5532	2.08	ug/L		90
105) 4-chlorotoluene	16.199	91	14609	2.11	ug/L		98
106) 1,3,5-trimethylbenzene	16.115	105	18983	2.11	ug/L		98
107) tert-butylbenzene	16.435	119	15812	1.91	ug/L		95
108) 1,2,4-trimethylbenzene	16.482	105	18544	2.04	ug/L		94
109) sec-butylbenzene	16.639	105	24211	1.96	ug/L		99
110) 1,3-dichlorobenzene	16.802	146	11842	2.08	ug/L		97
111) p-isopropyltoluene	16.760	119	21176	1.98	ug/L		98
112) 1,4-dichlorobenzene	16.891	146	11629	2.02	ug/L		97
113) 1,2-dichlorobenzene	17.253	146	12467	2.00	ug/L		96
114) n-butylbenzene	17.153	92	10673	1.96	ug/L		97
115) 1,2-dibromo-3-chloropr...	18.008	75	1884	1.93	ug/L		94
116) 1,3,5-trichlorobenzene	18.197	180	12439	1.93	ug/L		99
117) Nitrobenzene	18.212	77	326	1.79	ug/L	#	21
118) 1,2,4-trichlorobenzene	18.852	180	10256	1.84	ug/L		98
119) 2-ethylhexyl acrylate	18.857	55	1713	0.41	ug/L	#	82
120) hexachlorobutadiene	18.973	225	6370	2.03	ug/L		92
121) naphthalene	19.156	128	22783	1.72	ug/L		99
122) 1,2,3-trichlorobenzene	19.381	180	9788	1.91	ug/L		91
123) hexachloroethane	17.536	201	3685	1.66	ug/L		88

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158321.D
Acq On : 16 Apr 2018 5:57 pm
Operator : HueanhT
Sample : ic7025-2
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Apr 17 15:48:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158322.D
Acq On : 16 Apr 2018 6:26 pm
Operator : HueanhT
Sample : ic7025-5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 17 15:48:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.334	65	277824	500.00	ug/L		0.02
5) pentafluorobenzene	10.778	168	235963	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	311989	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	265163	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	175223	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	99043	49.12	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.24%				
52) 1,2-dichloroethane-d4 (s)	11.234	65	114751	52.21	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.42%				
75) toluene-d8 (s)	13.273	98	330753	50.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%				
98) 4-bromofluorobenzene (s)	15.774	95	127031	48.37	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 96.74%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.444	59	16434	24.10	ug/L		90
4) 1,4-dioxane	12.350	88	6131	125.10	ug/L		88
6) chlorodifluoromethane	4.454	51	23200	5.85	ug/L		98
7) dichlorodifluoromethane	4.428	85	20893	6.11	ug/L		91
8) chloromethane	4.863	50	30028	6.01	ug/L		95
9) vinyl chloride	5.131	62	24746	5.34	ug/L		94
11) bromomethane	5.860	94	16267	5.66	ug/L		94
12) chloroethane	6.059	64	12905	5.44	ug/L		98
13) trichlorofluoromethane	6.594	101	23636	5.17	ug/L		93
14) vinyl bromide	6.457	106	15030	5.24	ug/L		99
15) ethyl ether	7.034	74	6785	4.88	ug/L	#	74
16) 2-chloropropane	7.307	43	25928	5.38	ug/L		96
17) acrolein	7.296	56	4430	5.03	ug/L		84
18) freon 113	7.548	151	10830	5.03	ug/L		93
19) 1,1-dichloroethene	7.537	96	14614	5.52	ug/L		97
20) acetone	7.532	58	7199	20.49	ug/L		87
21) iodomethane	7.820	142	23346	5.10	ug/L		100
22) acetonitrile	8.056	41	28988	48.62	ug/L		98
23) carbon disulfide	7.983	76	42614	5.18	ug/L		97
24) methylene chloride	8.360	84	15389	5.12	ug/L		91
25) methyl acetate	8.062	43	14578	4.86	ug/L		100
26) methyl tert butyl ether	8.748	73	41961	5.24	ug/L		99
27) trans-1,2-dichloroethene	8.775	96	13161	5.38	ug/L		91
28) hexane	9.168	56	8710	5.69	ug/L	#	85
29) di-isopropyl ether	9.414	45	47615	5.34	ug/L		98
30) 1,1-dichloroethane	9.409	63	22133	5.10	ug/L		98
31) chloroprene	9.524	53	18414	5.14	ug/L		94
32) acrylonitrile	8.675	53	7466	5.03	ug/L		95
33) vinyl acetate	9.351	86	2228	4.98	ug/L	#	63
34) ethyl tert-butyl ether	9.918	59	43483	5.10	ug/L		99
35) 2-butanone	10.127	72	8504	19.31	ug/L	#	77
36) ethyl acetate	10.143	45	3286	5.97	ug/L	#	82

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158322.D
Acq On : 16 Apr 2018 6:26 pm
Operator : HueanhT
Sample : ic7025-5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 17 15:48:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	10.232	77	18196	5.82	ug/L		95
38) cis-1,2-dichloroethene	10.190	96	13446	5.15	ug/L		92
39) propionitrile	10.217	54	34585	51.16	ug/L		98
40) bromochloromethane	10.510	128	6593	4.78	ug/L		95
41) tetrahydrofuran	10.526	42	7485	5.38	ug/L		92
42) chloroform	10.604	83	21469	5.26	ug/L		99
43) t-butyl formate	10.641	59	13684	5.32	ug/L		93
45) methacrylonitrile	10.421	67	6198	4.73	ug/L		88
46) 1,1,1-trichloroethane	10.877	97	20439	5.19	ug/L		91
47) Cyclohexane	10.987	84	18456	5.31	ug/L		98
48) 1,1-dichloropropene	11.045	75	15684	5.38	ug/L		98
49) carbon tetrachloride	11.071	117	16693	5.31	ug/L		99
50) isobutyl alcohol	11.024	42	8008	50.55	ug/L		89
53) n-butyl alcohol	11.784	56	41713	256.14	ug/L		98
54) tert-amyl alcohol	11.202	55	6356	27.91	ug/L	#	82
55) iso-octane	11.401	57	52086	5.41	ug/L		95
56) benzene	11.297	78	45390	5.17	ug/L		98
57) tert-amyl methyl ether	11.386	87	9275	5.21	ug/L		93
58) heptane	11.553	57	10357	5.59	ug/L		96
59) isopropyl acetate	11.218	87	2864	4.88	ug/L		94
60) 1,2-dichloroethane	11.328	62	16076	5.41	ug/L		97
61) ethyl acrylate	12.004	55	17260	4.91	ug/L		99
62) trichloroethene	12.015	95	11429	5.26	ug/L		97
63) 2-nitropropane	12.749	41	6408	6.24	ug/L		87
64) 2-chloroethyl vinyl ether	12.775	63	37431	24.28	ug/L		98
65) methyl methacrylate	12.267	100	3368	4.77	ug/L	#	78
66) 1,2-dichloropropane	12.298	63	11780	5.18	ug/L		96
67) dibromomethane	12.398	93	7873	5.23	ug/L		91
68) methylcyclohexane	12.303	83	22920	5.33	ug/L		99
69) bromodichloromethane	12.550	83	14763	4.82	ug/L		99
70) epichlorohydrin	12.859	57	9515	24.25	ug/L		95
71) cis-1,3-dichloropropene	12.980	75	17932	4.93	ug/L		97
72) 4-methyl-2-pentanone	13.079	58	27381	20.68	ug/L		99
73) 3-methyl-1-butanol	13.084	55	28508	113.33	ug/L		96
76) toluene	13.341	92	24902	5.07	ug/L		95
77) ethyl methacrylate	13.504	69	15053	5.15	ug/L		97
78) trans-1,3-dichloropropene	13.520	75	15763	5.05	ug/L		93
79) 1,1,2-trichloroethane	13.729	83	8422	5.01	ug/L		96
80) 2-hexanone	13.876	58	25635	22.11	ug/L		99
81) tetrachloroethene	13.866	164	10060	5.09	ug/L		96
82) 1,3-dichloropropane	13.892	76	15199	5.15	ug/L		82
83) butyl acetate	13.950	56	9526	5.64	ug/L		99
84) dibromochloromethane	14.128	129	10804	4.57	ug/L		97
85) 1,2-dibromoethane	14.269	107	11433	4.91	ug/L		96
86) n-butyl ether	14.673	57	48932	5.38	ug/L		97
87) chlorobenzene	14.720	112	27750	5.10	ug/L		93
88) 1,1,1,2-tetrachloroethane	14.778	131	11908	5.27	ug/L		99
89) ethylbenzene	14.773	91	45940	5.25	ug/L		100
90) m,p-xylene	14.888	106	36197	10.50	ug/L		99
91) o-xylene	15.260	106	19007	5.10	ug/L		90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158322.D
Acq On : 16 Apr 2018 6:26 pm
Operator : HueanhT
Sample : ic7025-5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 17 15:48:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

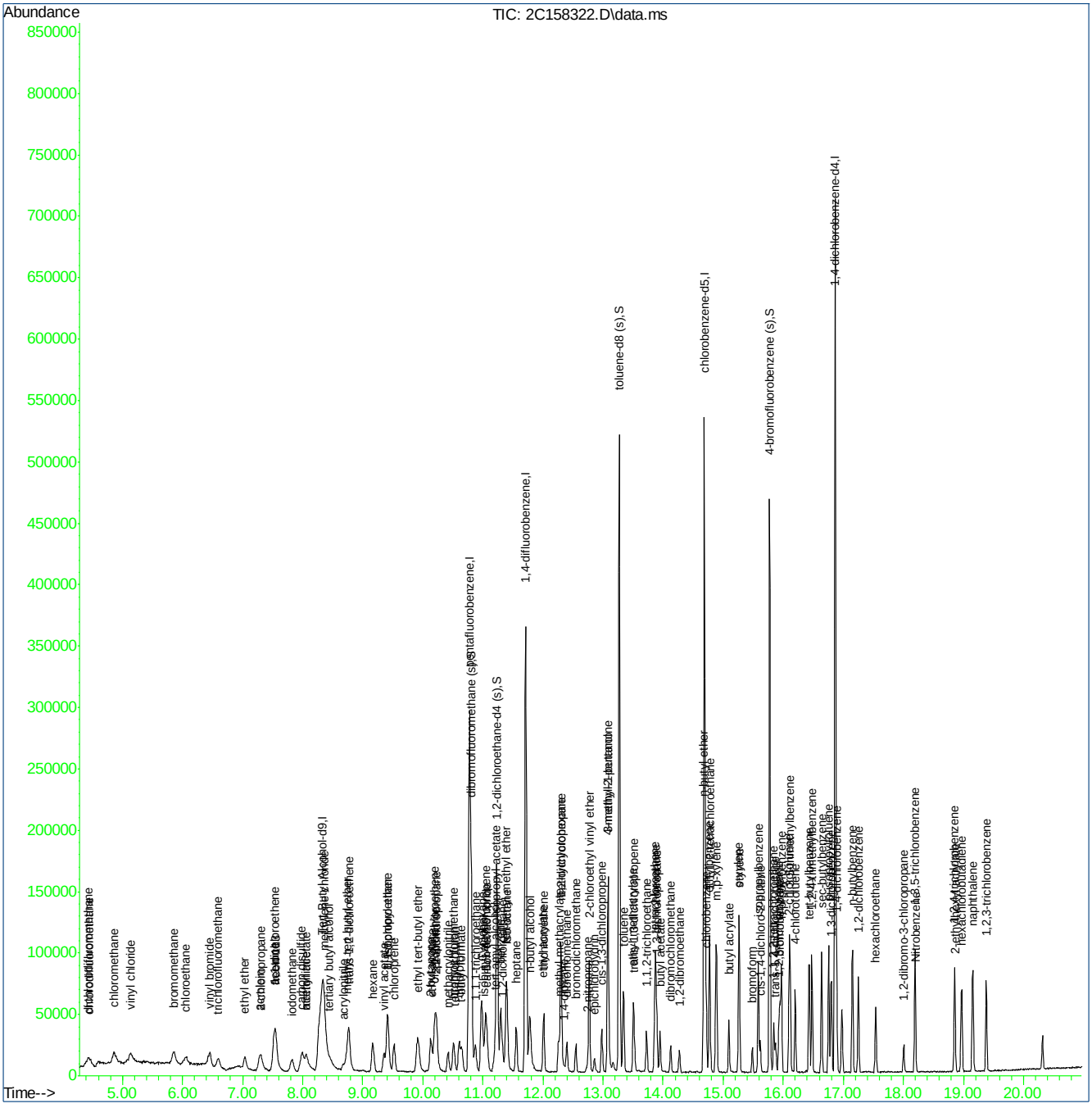
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92) styrene	15.271	104	31687	5.34	ug/L	98
93) butyl acrylate	15.098	55	26227	5.57	ug/L	98
94) bromoform	15.486	173	9086	4.65	ug/L	97
95) isopropylbenzene	15.585	105	52585	5.19	ug/L	100
96) cis-1,4-dichloro-2-butene	15.617	75	5953	4.84	ug/L	95
99) bromobenzene	15.947	156	14984	5.14	ug/L	98
100) 1,1,2,2-tetrachloroethane	15.842	83	18716	4.95	ug/L	98
101) trans-1,4-dichloro-2-b...	15.874	88	2204	5.01	ug/L	96
102) 1,2,3-trichloropropane	15.926	110	4789	5.23	ug/L	99
103) n-propylbenzene	15.968	91	58008	5.21	ug/L	98
104) 2-chlorotoluene	16.099	126	13214	5.03	ug/L	99
105) 4-chlorotoluene	16.199	91	34632	5.05	ug/L	95
106) 1,3,5-trimethylbenzene	16.115	105	45512	5.11	ug/L	97
107) tert-butylbenzene	16.435	119	38718	4.73	ug/L	99
108) 1,2,4-trimethylbenzene	16.477	105	47133	5.24	ug/L	98
109) sec-butylbenzene	16.639	105	61367	5.00	ug/L	98
110) 1,3-dichlorobenzene	16.802	146	29330	5.20	ug/L	98
111) p-isopropyltoluene	16.760	119	52910	4.99	ug/L	99
112) 1,4-dichlorobenzene	16.891	146	28263	4.96	ug/L	98
113) 1,2-dichlorobenzene	17.253	146	31258	5.07	ug/L	98
114) n-butylbenzene	17.153	92	27380	5.06	ug/L	98
115) 1,2-dibromo-3-chloropr...	18.008	75	4740	4.91	ug/L	93
116) 1,3,5-trichlorobenzene	18.196	180	31863	4.99	ug/L	100
117) Nitrobenzene	18.207	77	854	4.72	ug/L	94
118) 1,2,4-trichlorobenzene	18.852	180	26338	4.76	ug/L	96
119) 2-ethylhexyl acrylate	18.862	55	3954	0.96	ug/L	92
120) hexachlorobutadiene	18.972	225	15992	5.14	ug/L	96
121) naphthalene	19.156	128	62871	4.78	ug/L	99
122) 1,2,3-trichlorobenzene	19.381	180	24454	4.82	ug/L	99
123) hexachloroethane	17.536	201	9613	4.36	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158322.D
Acq On : 16 Apr 2018 6:26 pm
Operator : HueanhT
Sample : ic7025-5
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 11 Sample Multiplier: 1

Quant Time: Apr 17 15:48:49 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 04/23/18 12:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158323.D
Acq On : 16 Apr 2018 6:55 pm
Operator : HueanhT
Sample : ic7025-10
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:58:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.329	65	283391	500.00	ug/L		0.01
5) pentafluorobenzene	10.778	168	228896	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	305870	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	258548	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	174083	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	99617	50.93	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.86%				
52) 1,2-dichloroethane-d4 (s)	11.234	65	110515	51.28	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.56%				
75) toluene-d8 (s)	13.268	98	325928	50.68	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.36%				
98) 4-bromofluorobenzene (s)	15.774	95	125093	47.94	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.88%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.471	59	34138	49.07	ug/L		92
4) 1,4-dioxane	12.340	88	13077	261.59	ug/L		97
6) chlorodifluoromethane	4.444	51	44359	11.53	ug/L		94
7) dichlorodifluoromethane	4.413	85	36979	11.16	ug/L		99
8) chloromethane	4.858	50	56792	11.71	ug/L		98
9) vinyl chloride	5.131	62	50283	11.18	ug/L		98
11) bromomethane	5.849	94	32126	11.53	ug/L		95
12) chloroethane	6.054	64	25336	11.02	ug/L		98
13) trichlorofluoromethane	6.599	101	47455	10.70	ug/L		93
14) vinyl bromide	6.452	106	29768	10.70	ug/L		99
15) ethyl ether	7.034	74	13372	9.91	ug/L		95
16) 2-chloropropane	7.291	43	49624	10.62	ug/L		98
17) acrolein	7.307	56	8875	10.39	ug/L		92
18) freon 113	7.537	151	21979	10.53	ug/L		94
19) 1,1-dichloroethene	7.532	96	28403	11.07	ug/L		96
20) acetone	7.543	58	14804	43.43	ug/L		86
21) iodomethane	7.821	142	46660	10.50	ug/L		99
22) acetonitrile	8.067	41	68978	119.27	ug/L		96
23) carbon disulfide	7.988	76	84893	10.64	ug/L		99
24) methylene chloride	8.350	84	31120	10.68	ug/L		99
25) methyl acetate	8.067	43	29327	10.07	ug/L		100
26) methyl tert butyl ether	8.749	73	82343	10.60	ug/L		99
27) trans-1,2-dichloroethene	8.770	96	25121	10.58	ug/L		95
28) hexane	9.163	56	15527	10.45	ug/L		92
29) di-isopropyl ether	9.415	45	93768	10.83	ug/L		99
30) 1,1-dichloroethane	9.409	63	43961	10.44	ug/L		98
31) chloroprene	9.519	53	36310	10.46	ug/L		98
32) acrylonitrile	8.670	53	15318	10.63	ug/L		92
33) vinyl acetate	9.357	86	4540	10.46	ug/L	#	82
34) ethyl tert-butyl ether	9.918	59	85348	10.31	ug/L		95
35) 2-butanone	10.122	72	15999	37.45	ug/L	#	81
36) ethyl acetate	10.154	45	6068	11.36	ug/L	#	48

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158323.D
Acq On : 16 Apr 2018 6:55 pm
Operator : HueanhT
Sample : ic7025-10
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:58:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	10.227	77	35155	11.60	ug/L		96
38) cis-1,2-dichloroethene	10.196	96	27043	10.68	ug/L		92
39) propionitrile	10.217	54	68226	104.04	ug/L		97
40) bromochloromethane	10.510	128	13881	10.38	ug/L		93
41) tetrahydrofuran	10.526	42	15137	11.21	ug/L		93
42) chloroform	10.605	83	40814	10.31	ug/L		98
43) t-butyl formate	10.641	59	27640	11.07	ug/L		96
45) methacrylonitrile	10.416	67	12786	10.07	ug/L		91
46) 1,1,1-trichloroethane	10.872	97	41010	10.73	ug/L		99
47) Cyclohexane	10.993	84	35327	10.48	ug/L	#	76
48) 1,1-dichloropropene	11.045	75	29676	10.49	ug/L		99
49) carbon tetrachloride	11.071	117	32362	10.62	ug/L		92
50) isobutyl alcohol	11.029	42	19851m	129.18	ug/L		
53) n-butyl alcohol	11.774	56	85372	534.72	ug/L		98
54) tert-amyl alcohol	11.192	55	12840	57.51	ug/L	#	85
55) iso-octane	11.402	57	101941	10.81	ug/L		99
56) benzene	11.297	78	89560	10.41	ug/L		97
57) tert-amyl methyl ether	11.391	87	18160	10.41	ug/L		97
58) heptane	11.554	57	18327	10.08	ug/L		92
59) isopropyl acetate	11.218	87	5869	10.19	ug/L	#	92
60) 1,2-dichloroethane	11.328	62	30781	10.56	ug/L		98
61) ethyl acrylate	12.005	55	34043	9.89	ug/L		99
62) trichloroethene	12.015	95	22331	10.48	ug/L		98
63) 2-nitropropane	12.744	41	9677	9.61	ug/L		94
64) 2-chloroethyl vinyl ether	12.770	63	74765	49.46	ug/L		99
65) methyl methacrylate	12.261	100	6915	9.99	ug/L		92
66) 1,2-dichloropropane	12.293	63	23042	10.34	ug/L		99
67) dibromomethane	12.398	93	15540	10.53	ug/L		91
68) methylcyclohexane	12.303	83	45102	10.70	ug/L		97
69) bromodichloromethane	12.545	83	29166	9.71	ug/L		97
70) epichlorohydrin	12.854	57	19667	51.12	ug/L		96
71) cis-1,3-dichloropropene	12.980	75	34665	9.71	ug/L		97
72) 4-methyl-2-pentanone	13.079	58	54430	41.93	ug/L		97
73) 3-methyl-1-butanol	13.085	55	56454	228.93	ug/L		96
76) toluene	13.342	92	48746	10.17	ug/L		95
77) ethyl methacrylate	13.504	69	29622	10.40	ug/L		99
78) trans-1,3-dichloropropene	13.515	75	30665	10.07	ug/L		95
79) 1,1,2-trichloroethane	13.724	83	17385	10.60	ug/L		99
80) 2-hexanone	13.876	58	50117	44.33	ug/L		97
81) tetrachloroethene	13.861	164	19983	10.37	ug/L		99
82) 1,3-dichloropropane	13.897	76	30063	10.45	ug/L		99
83) butyl acetate	13.945	56	18656	11.33	ug/L		97
84) dibromochloromethane	14.128	129	21544	9.34	ug/L		98
85) 1,2-dibromoethane	14.270	107	22417	9.87	ug/L		99
86) n-butyl ether	14.673	57	96392	10.88	ug/L		98
87) chlorobenzene	14.720	112	53222	10.03	ug/L		97
88) 1,1,1,2-tetrachloroethane	14.778	131	23514	10.68	ug/L		97
89) ethylbenzene	14.773	91	89635	10.50	ug/L		98
90) m,p-xylene	14.883	106	69945	20.82	ug/L		93
91) o-xylene	15.261	106	37478	10.30	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158323.D
Acq On : 16 Apr 2018 6:55 pm
Operator : HueanhT
Sample : ic7025-10
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:58:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration

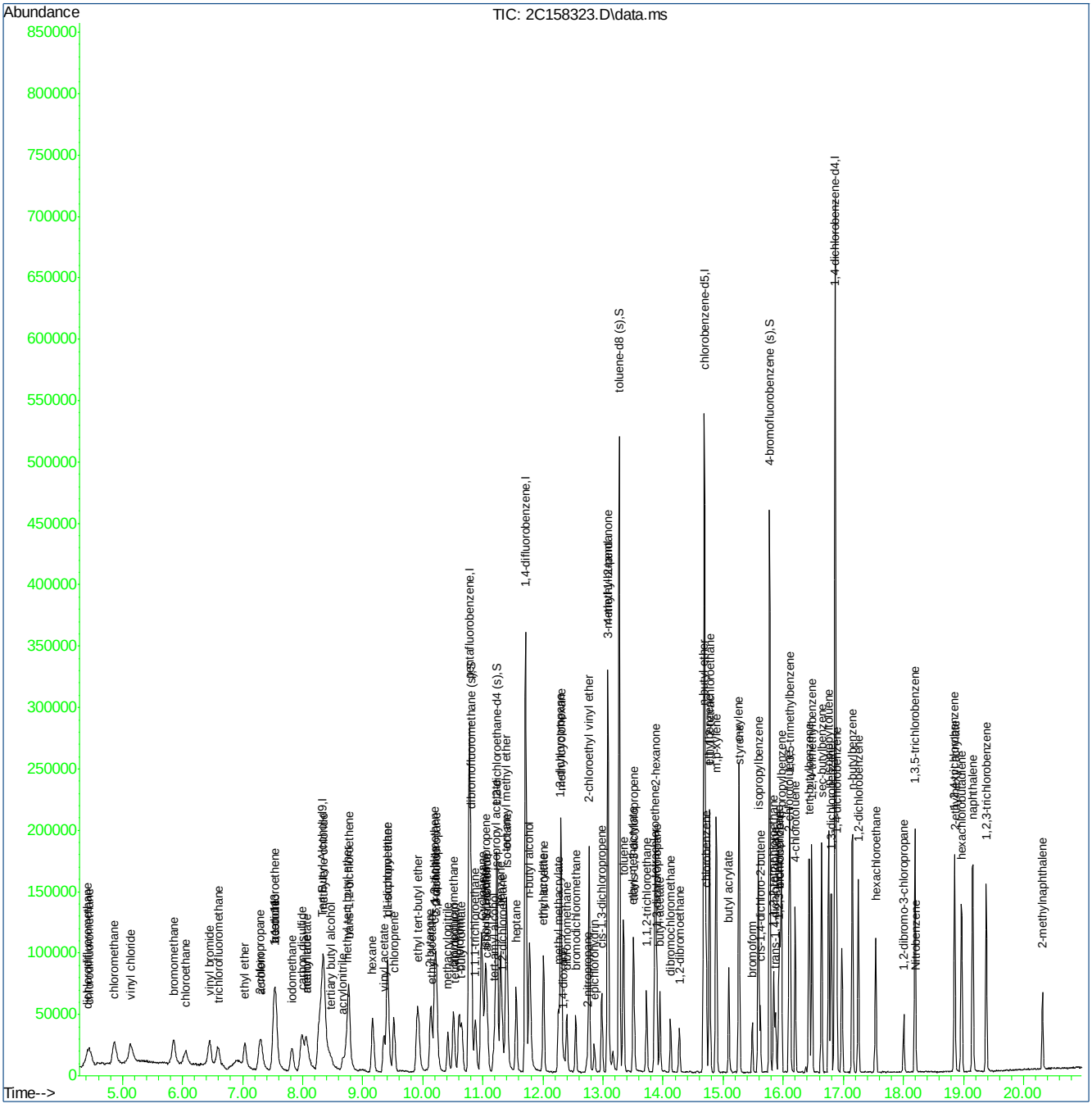
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.271	104	61035	10.56	ug/L	99
93)	butyl acrylate	15.093	55	51545	11.24	ug/L	99
94)	bromoform	15.486	173	18100	9.51	ug/L	97
95)	isopropylbenzene	15.586	105	104895	10.62	ug/L	98
96)	cis-1,4-dichloro-2-butene	15.617	75	12446	10.38	ug/L	98
99)	bromobenzene	15.947	156	28897	9.97	ug/L	99
100)	1,1,2,2-tetrachloroethane	15.842	83	36833	9.81	ug/L	99
101)	trans-1,4-dichloro-2-b...	15.874	88	4179	9.55	ug/L	98
102)	1,2,3-trichloropropane	15.926	110	9375	10.31	ug/L	95
103)	n-propylbenzene	15.968	91	115131	10.41	ug/L	99
104)	2-chlorotoluene	16.094	126	25798	9.88	ug/L	100
105)	4-chlorotoluene	16.199	91	68165	10.00	ug/L	99
106)	1,3,5-trimethylbenzene	16.115	105	91008	10.28	ug/L	100
107)	tert-butylbenzene	16.435	119	77688	9.55	ug/L	97
108)	1,2,4-trimethylbenzene	16.477	105	92151	10.32	ug/L	99
109)	sec-butylbenzene	16.639	105	121295	9.96	ug/L	100
110)	1,3-dichlorobenzene	16.802	146	58980	10.52	ug/L	96
111)	p-isopropyltoluene	16.760	119	107757	10.22	ug/L	98
112)	1,4-dichlorobenzene	16.891	146	55850	9.87	ug/L	99
113)	1,2-dichlorobenzene	17.253	146	62300	10.17	ug/L	98
114)	n-butylbenzene	17.153	92	53952	10.04	ug/L	96
115)	1,2-dibromo-3-chloropr...	18.008	75	9885	10.30	ug/L	91
116)	1,3,5-trichlorobenzene	18.197	180	64696	10.19	ug/L	98
117)	Nitrobenzene	18.212	77	1486	8.27	ug/L	90
118)	1,2,4-trichlorobenzene	18.852	180	53924	9.82	ug/L	97
119)	2-ethylhexyl acrylate	18.857	55	7474	1.83	ug/L	93
120)	hexachlorobutadiene	18.967	225	31865	10.31	ug/L	99
121)	naphthalene	19.156	128	130647	9.99	ug/L	99
122)	1,2,3-trichlorobenzene	19.376	180	50800	10.08	ug/L	98
123)	hexachloroethane	17.541	201	19427	8.87	ug/L	95
124)	2-methylnaphthalene	20.315	142	28912	4.08	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158323.D
Acq On : 16 Apr 2018 6:55 pm
Operator : HueanhT
Sample : ic7025-10
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 23 10:58:28 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration



Manual Integration Approval Summary

Sample Number: V2C7025-IC7025
Lab FileID: 2C158323.D
Injection Time: 04/16/18 18:55

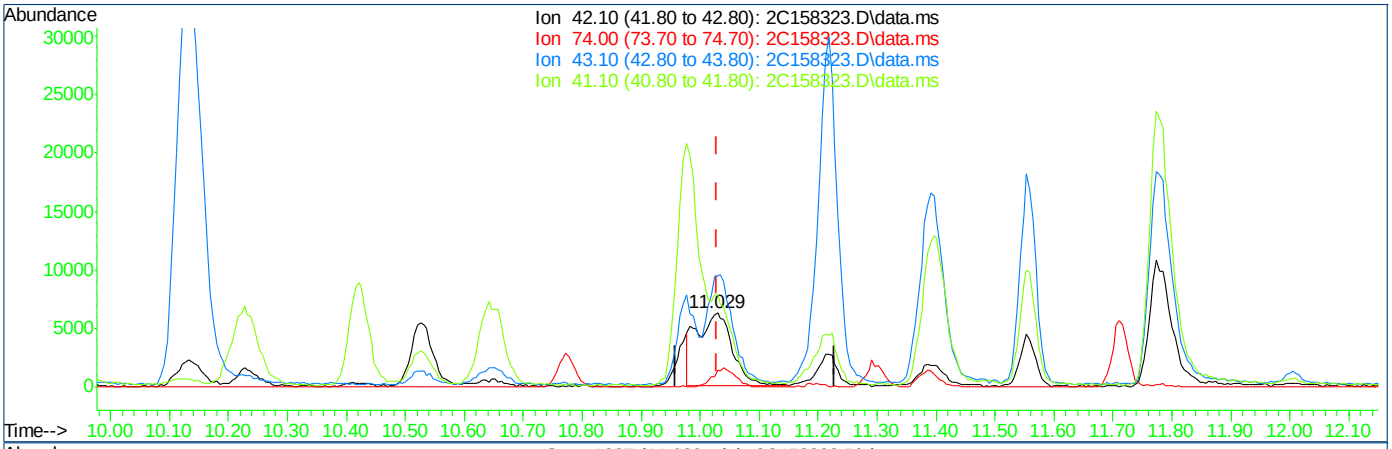
Method: SW846 8260C
Analyst approved: 04/23/18 11:43 Bridget Kelly
Supervisor approved: 04/23/18 12:18 Kanya Veerawat

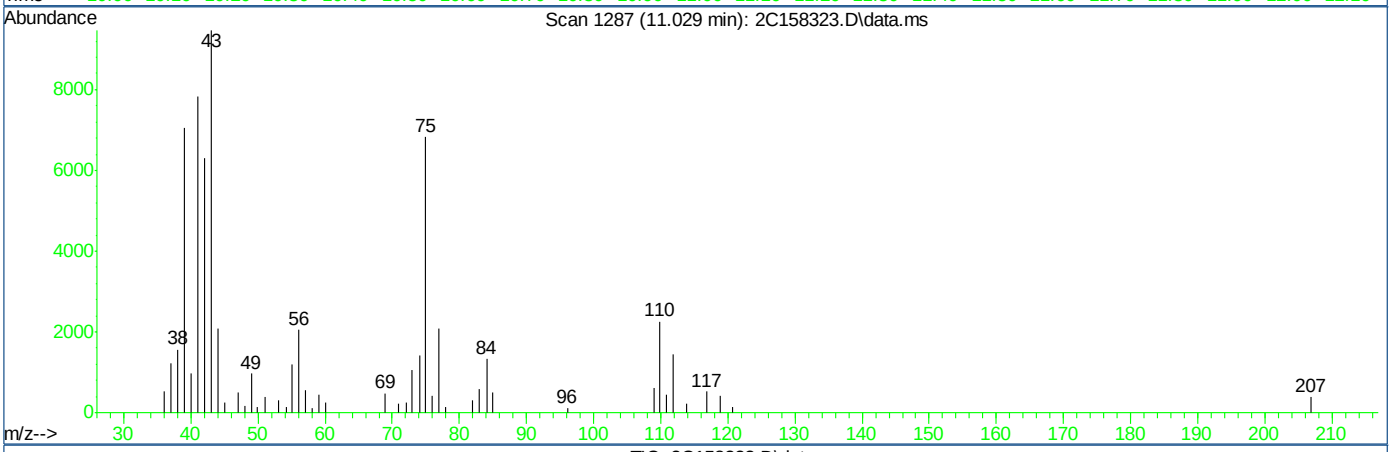
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		11.03	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158323.D
Acq On : 16 Apr 2018 6:55 pm
Operator : HueanhT
Sample : ic7025-10
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 17 15:05:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration





TIC: 2C158323.D\data.ms

(50) isobutyl alcohol

11.029min (-0.000) 168.22ug/L

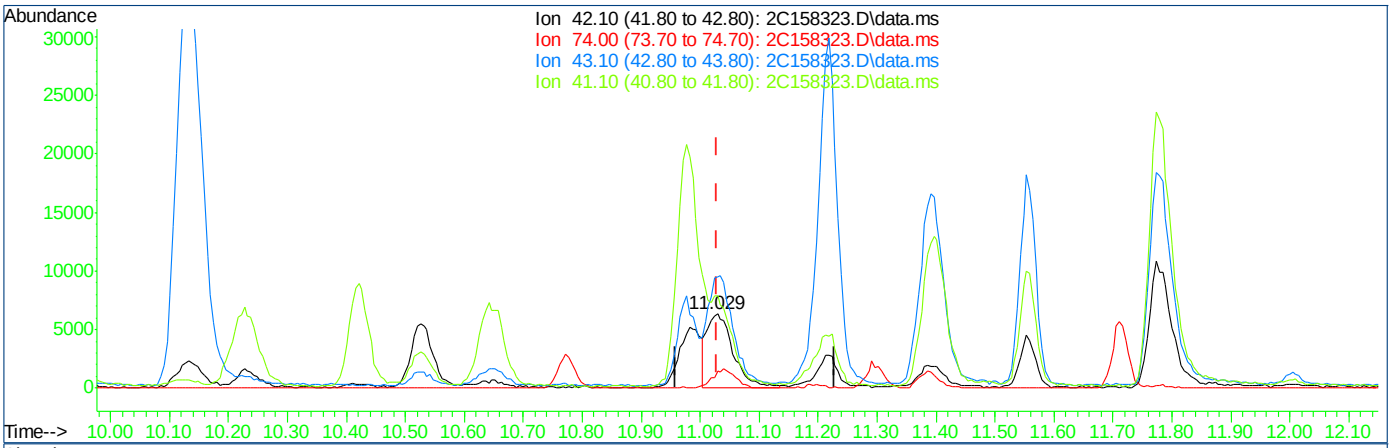
response 25851

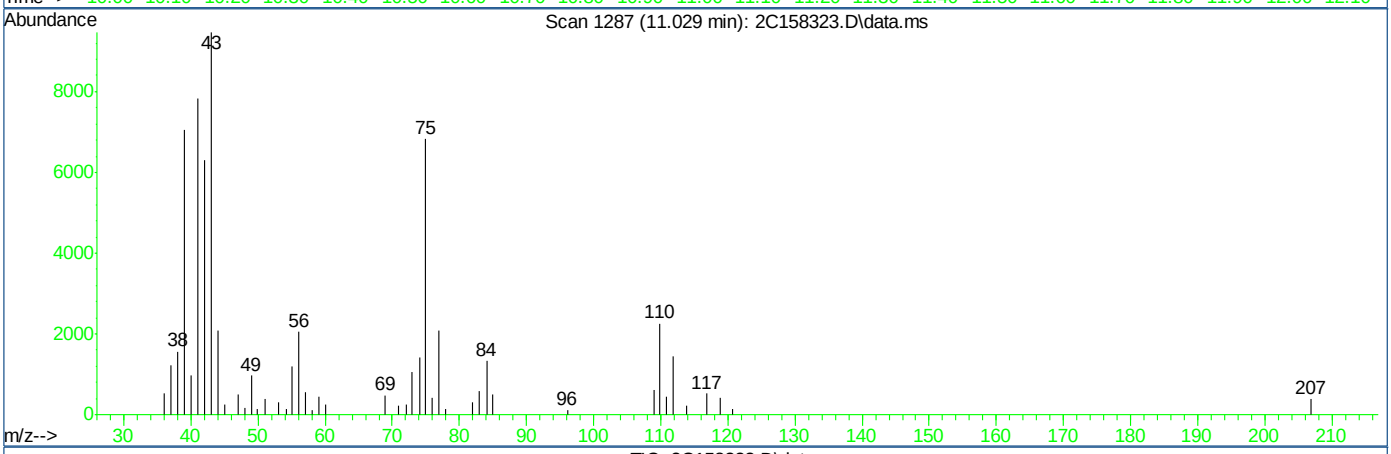
Ion	Exp%	Act%
42.10	100	100
74.00	20.10	23.26
43.10	159.80	146.60
41.10	120.10	120.75

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158323.D
Acq On : 16 Apr 2018 6:55 pm
Operator : HueanhT
Sample : ic7025-10
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 12 Sample Multiplier: 1

Quant Time: Apr 17 15:05:07 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:03:02 2018
Response via : Initial Calibration





TIC: 2C158323.D\data.ms

(50) isobutyl alcohol

11.029min (-0.000) 129.18ug/L m

response 19851

Ion	Exp%	Act%
42.10	100	100
74.00	20.10	22.65
43.10	159.80	149.98
41.10	120.10	124.20

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158324.D
Acq On : 16 Apr 2018 7:24 pm
Operator : HueanhT
Sample : ic7025-20
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 17 15:07:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:43 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.329	65	282290	500.00	ug/L		0.01
5) pentafluorobenzene	10.772	168	231088	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	304001	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	261595	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	176022	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	97944	49.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	109628	51.19	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.38%				
75) toluene-d8 (s)	13.273	98	327911	50.39	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.78%				
98) 4-bromofluorobenzene (s)	15.774	95	126282	47.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.74%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.444	59	69279	99.97	ug/L		98
4) 1,4-dioxane	12.345	88	25925	520.62	ug/L		93
6) chlorodifluoromethane	4.444	51	84959	21.87	ug/L		94
7) dichlorodifluoromethane	4.423	85	70563	21.09	ug/L		97
8) chloromethane	4.863	50	103821	21.21	ug/L		99
9) vinyl chloride	5.136	62	96113	21.16	ug/L		97
11) bromomethane	5.854	94	60679	21.57	ug/L		98
12) chloroethane	6.048	64	48743	20.99	ug/L		94
13) trichlorofluoromethane	6.588	101	93429	20.86	ug/L		97
14) vinyl bromide	6.452	106	58654	20.88	ug/L		100
15) ethyl ether	7.039	74	26695	19.60	ug/L		99
16) 2-chloropropane	7.307	43	97715	20.70	ug/L		97
17) acrolein	7.312	56	17902	20.76	ug/L		91
18) freon 113	7.548	151	44901	21.30	ug/L		96
19) 1,1-dichloroethene	7.537	96	55855	21.56	ug/L		99
20) acetone	7.537	58	29770	86.50	ug/L		89
21) iodomethane	7.820	142	92689	20.66	ug/L		98
22) acetonitrile	8.046	41	128339	219.81	ug/L		99
23) carbon disulfide	7.988	76	170074	21.12	ug/L		97
24) methylene chloride	8.355	84	62487	21.23	ug/L		93
25) methyl acetate	8.056	43	58311	19.84	ug/L		100
26) methyl tert butyl ether	8.748	73	165338	21.08	ug/L		100
27) trans-1,2-dichloroethene	8.775	96	49443	20.63	ug/L		96
28) hexane	9.163	56	30889	20.59	ug/L		99
29) di-isopropyl ether	9.414	45	185637	21.24	ug/L		97
30) 1,1-dichloroethane	9.414	63	87221	20.51	ug/L		98
31) chloroprene	9.519	53	69150	19.73	ug/L		98
32) acrylonitrile	8.670	53	30351	20.86	ug/L		98
33) vinyl acetate	9.357	86	8763	20.00	ug/L	#	78
34) ethyl tert-butyl ether	9.918	59	172666	20.67	ug/L		99
35) 2-butanone	10.122	72	33401	77.44	ug/L	#	88
36) ethyl acetate	10.148	45	11061	20.51	ug/L	#	77

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158324.D
Acq On : 16 Apr 2018 7:24 pm
Operator : HueanhT
Sample : ic7025-20
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 17 15:07:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:43 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	2,2-dichloropropane	10.222	77	67718	22.13	ug/L		100
38)	cis-1,2-dichloroethene	10.190	96	51619	20.20	ug/L		98
39)	propionitrile	10.211	54	135772	205.07	ug/L		92
40)	bromochloromethane	10.510	128	26770	19.84	ug/L		96
41)	tetrahydrofuran	10.526	42	28308	20.76	ug/L		99
42)	chloroform	10.604	83	80490	20.14	ug/L		97
43)	t-butyl formate	10.641	59	53752	21.33	ug/L		98
45)	methacrylonitrile	10.421	67	25319	19.75	ug/L		99
46)	1,1,1-trichloroethane	10.877	97	79453	20.59	ug/L		99
47)	Cyclohexane	10.982	84	74410	21.87	ug/L		88
48)	1,1-dichloropropene	11.045	75	57265	20.06	ug/L		99
49)	carbon tetrachloride	11.071	117	63377	20.60	ug/L		99
50)	isobutyl alcohol	11.029	42	33992	219.10	ug/L		96
53)	n-butyl alcohol	11.779	56	174750	1101.27	ug/L		99
54)	tert-amyl alcohol	11.192	55	26818	120.86	ug/L	#	87
55)	iso-octane	11.401	57	203901	21.75	ug/L		98
56)	benzene	11.297	78	174436	20.40	ug/L		98
57)	tert-amyl methyl ether	11.386	87	36343	20.96	ug/L		91
58)	heptane	11.553	57	37364	20.68	ug/L		97
59)	isopropyl acetate	11.218	87	11509	20.11	ug/L		98
60)	1,2-dichloroethane	11.328	62	61326	21.16	ug/L		99
61)	ethyl acrylate	12.004	55	67736	19.79	ug/L		100
62)	trichloroethene	12.015	95	43036	20.32	ug/L		99
63)	2-nitropropane	12.744	41	19806	19.79	ug/L		97
64)	2-chloroethyl vinyl ether	12.770	63	150934	100.46	ug/L		98
65)	methyl methacrylate	12.261	100	13654	19.84	ug/L		95
66)	1,2-dichloropropane	12.293	63	45715	20.65	ug/L		100
67)	dibromomethane	12.398	93	30511	20.80	ug/L		98
68)	methylcyclohexane	12.303	83	90933	21.70	ug/L		99
69)	bromodichloromethane	12.544	83	58807	19.70	ug/L		99
70)	epichlorohydrin	12.854	57	39038	102.10	ug/L		99
71)	cis-1,3-dichloropropene	12.980	75	69290	19.54	ug/L		98
72)	4-methyl-2-pentanone	13.079	58	108120	83.79	ug/L		97
73)	3-methyl-1-butanol	13.084	55	109390	446.31	ug/L		98
76)	toluene	13.341	92	96589	19.92	ug/L		95
77)	ethyl methacrylate	13.504	69	58497	20.29	ug/L		97
78)	trans-1,3-dichloropropene	13.520	75	60945	19.78	ug/L		90
79)	1,1,2-trichloroethane	13.724	83	33332	20.08	ug/L		97
80)	2-hexanone	13.876	58	98643	86.23	ug/L		100
81)	tetrachloroethene	13.860	164	38503	19.75	ug/L		99
82)	1,3-dichloropropane	13.897	76	60184	20.67	ug/L		97
83)	butyl acetate	13.950	56	35881	21.53	ug/L		98
84)	dibromochloromethane	14.128	129	45360	19.44	ug/L		97
85)	1,2-dibromoethane	14.269	107	45991	20.01	ug/L		98
86)	n-butyl ether	14.673	57	188699	21.04	ug/L		99
87)	chlorobenzene	14.720	112	106978	19.93	ug/L		97
88)	1,1,1,2-tetrachloroethane	14.778	131	46583	20.90	ug/L		96
89)	ethylbenzene	14.773	91	179585	20.79	ug/L		99
90)	m,p-xylene	14.883	106	138787	40.82	ug/L		99
91)	o-xylene	15.260	106	76546	20.80	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158324.D
Acq On : 16 Apr 2018 7:24 pm
Operator : HueanhT
Sample : ic7025-20
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 17 15:07:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:43 2018
Response via : Initial Calibration

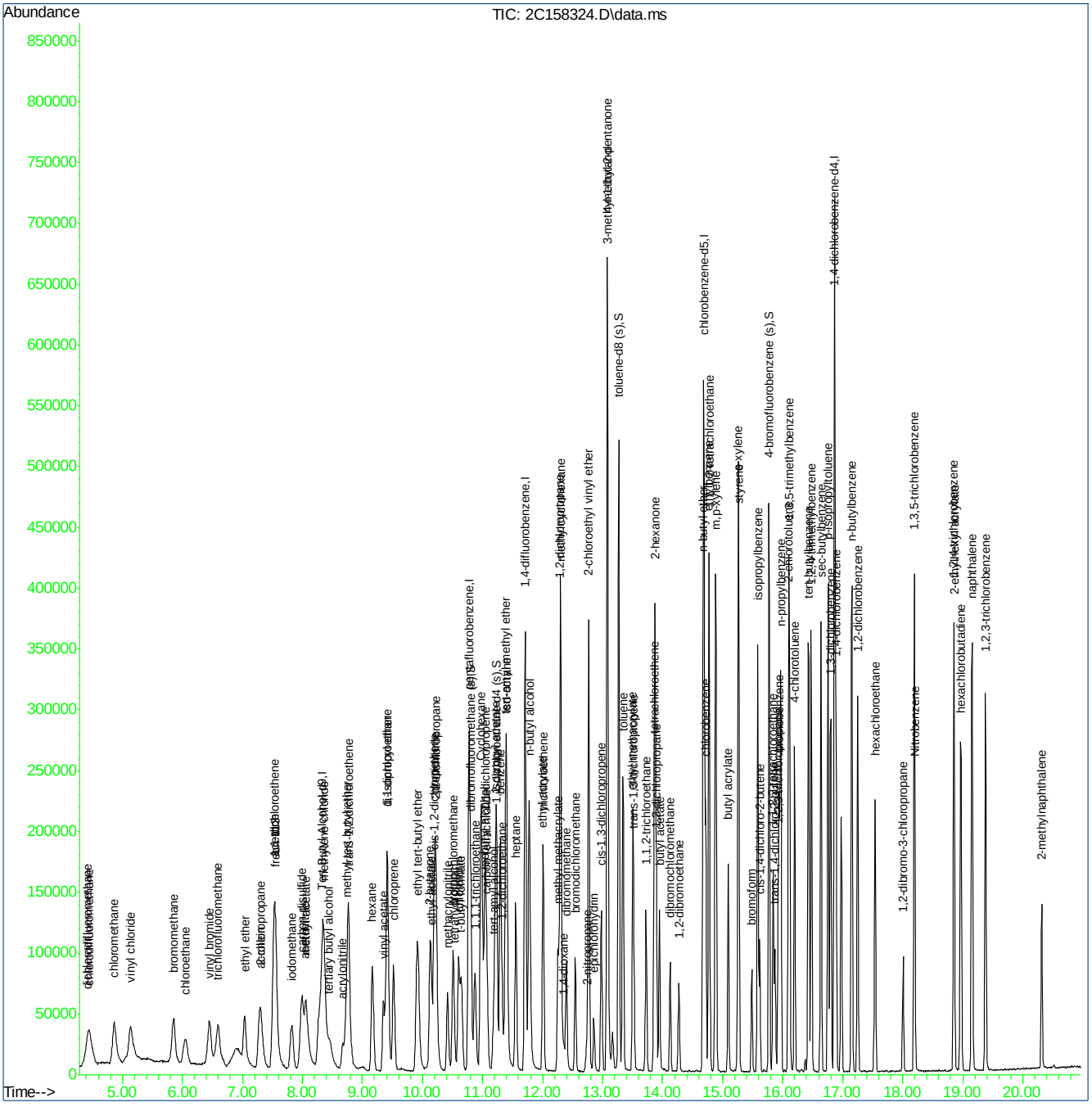
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.271	104	120315	20.57	ug/L	99
93)	butyl acrylate	15.093	55	100726	21.70	ug/L	99
94)	bromoform	15.491	173	37512	19.47	ug/L	97
95)	isopropylbenzene	15.585	105	208645	20.89	ug/L	99
96)	cis-1,4-dichloro-2-butene	15.617	75	24976	20.60	ug/L	95
99)	bromobenzene	15.947	156	57079	19.49	ug/L	98
100)	1,1,2,2-tetrachloroethane	15.842	83	75246	19.83	ug/L	100
101)	trans-1,4-dichloro-2-b...	15.874	88	8626	19.50	ug/L	87
102)	1,2,3-trichloropropane	15.926	110	18385	19.99	ug/L	100
103)	n-propylbenzene	15.968	91	224488	20.07	ug/L	100
104)	2-chlorotoluene	16.099	126	51508	19.50	ug/L	95
105)	4-chlorotoluene	16.199	91	136570	19.81	ug/L	98
106)	1,3,5-trimethylbenzene	16.115	105	180382	20.15	ug/L	99
107)	tert-butylbenzene	16.430	119	157649	19.17	ug/L	99
108)	1,2,4-trimethylbenzene	16.477	105	182580	20.22	ug/L	100
109)	sec-butylbenzene	16.639	105	244426	19.84	ug/L	99
110)	1,3-dichlorobenzene	16.802	146	115503	20.37	ug/L	99
111)	p-isopropyltoluene	16.760	119	213115	19.99	ug/L	99
112)	1,4-dichlorobenzene	16.891	146	113556	19.85	ug/L	99
113)	1,2-dichlorobenzene	17.253	146	125682	20.29	ug/L	99
114)	n-butylbenzene	17.153	92	108754	20.02	ug/L	100
115)	1,2-dibromo-3-chloropr...	18.008	75	18929	19.50	ug/L	99
116)	1,3,5-trichlorobenzene	18.196	180	132360	20.62	ug/L	98
117)	Nitrobenzene	18.207	77	3641	20.05	ug/L	96
118)	1,2,4-trichlorobenzene	18.852	180	113676	20.46	ug/L	98
119)	2-ethylhexyl acrylate	18.857	55	16119	3.90	ug/L	94
120)	hexachlorobutadiene	18.972	225	64849	20.75	ug/L	98
121)	naphthalene	19.156	128	272465	20.61	ug/L	99
122)	1,2,3-trichlorobenzene	19.381	180	104739	20.55	ug/L	100
123)	hexachloroethane	17.541	201	40097	18.10	ug/L	96
124)	2-methylnaphthalene	20.315	142	66119	9.22	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158324.D
Acq On : 16 Apr 2018 7:24 pm
Operator : HueanhT
Sample : ic7025-20
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Apr 17 15:07:52 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:43 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158325.D
Acq On : 16 Apr 2018 7:52 pm
Operator : HueanhT
Sample : icc7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 17 15:49:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.319	65	273363	500.00	ug/L	0.00
5) pentafluorobenzene	10.773	168	247539	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	329266	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	288022	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.865	152	182551	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	105764	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
52) 1,2-dichloroethane-d4 (s)	11.239	65	115988	50.00	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.00%			
75) toluene-d8 (s)	13.273	98	358214	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
98) 4-bromofluorobenzene (s)	15.774	95	136803	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.455	59	167774	250.00	ug/L	100
4) 1,4-dioxane	12.340	88	60277	1250.00	ug/L	100
6) chlorodifluoromethane	4.449	51	208062	50.00	ug/L	100
7) dichlorodifluoromethane	4.407	85	179268	50.01	ug/L	100
8) chloromethane	4.864	50	262159	50.00	ug/L	100
9) vinyl chloride	5.141	62	243222	50.00	ug/L	100
11) bromomethane	5.855	94	150632	49.98	ug/L	100
12) chloroethane	6.054	64	124493	50.05	ug/L	100
13) trichlorofluoromethane	6.594	101	239837	50.00	ug/L	100
14) vinyl bromide	6.452	106	150448	50.00	ug/L	100
15) ethyl ether	7.034	74	72962	50.00	ug/L	100
16) 2-chloropropane	7.286	43	252778	50.00	ug/L	100
17) acrolein	7.307	56	46192	50.00	ug/L	100
18) freon 113	7.543	151	112911	50.00	ug/L	100
19) 1,1-dichloroethene	7.543	96	138637	49.95	ug/L	100
20) acetone	7.532	58	74328	201.62	ug/L	100
21) iodomethane	7.821	142	240300	50.00	ug/L	100
22) acetonitrile	8.030	41	312713	500.00	ug/L	100
23) carbon disulfide	7.988	76	431363	50.00	ug/L	100
24) methylene chloride	8.361	84	157612	50.00	ug/L	100
25) methyl acetate	8.062	43	157406	50.00	ug/L	100
26) methyl tert butyl ether	8.749	73	420114	50.00	ug/L	100
27) trans-1,2-dichloroethene	8.770	96	128347	50.00	ug/L	100
28) hexane	9.168	56	80361	50.00	ug/L	100
29) di-isopropyl ether	9.415	45	468010	50.00	ug/L	100
30) 1,1-dichloroethane	9.415	63	227767	50.00	ug/L	100
31) chloroprene	9.519	53	187755	50.00	ug/L	100
32) acrylonitrile	8.670	53	78833	50.58	ug/L	100
33) vinyl acetate	9.352	86	23470	50.00	ug/L	100
34) ethyl tert-butyl ether	9.918	59	447461	50.00	ug/L	100
35) 2-butanone	10.128	72	92409	200.00	ug/L	100
36) ethyl acetate	10.149	45	28678	49.64	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158325.D
Acq On : 16 Apr 2018 7:52 pm
Operator : HueanhT
Sample : icc7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 17 15:49:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	10.227	77	163872	50.00	ug/L	100
38) cis-1,2-dichloroethene	10.191	96	136884	50.00	ug/L	100
39) propionitrile	10.217	54	354599	500.00	ug/L	100
40) bromochloromethane	10.505	128	72276	50.00	ug/L	100
41) tetrahydrofuran	10.526	42	73017	50.00	ug/L	100
42) chloroform	10.605	83	214044	50.00	ug/L	100
43) t-butyl formate	10.647	59	134977	50.00	ug/L	100
45) methacrylonitrile	10.421	67	68672	50.00	ug/L	100
46) 1,1,1-trichloroethane	10.872	97	206636	50.00	ug/L	100
47) Cyclohexane	10.987	84	182221	50.00	ug/L	100
48) 1,1-dichloropropene	11.045	75	152922	50.00	ug/L	100
49) carbon tetrachloride	11.071	117	164817	50.00	ug/L	100
50) isobutyl alcohol	11.029	42	83094	500.00	ug/L	100
53) n-butyl alcohol	11.774	56	429672	2500.00	ug/L	100
54) tert-amyl alcohol	11.197	55	60084	250.00	ug/L	100
55) iso-octane	11.402	57	507767	50.00	ug/L	100
56) benzene	11.297	78	462998	50.00	ug/L	100
57) tert-amyl methyl ether	11.391	87	93895	50.00	ug/L	100
58) heptane	11.554	57	97082	49.61	ug/L	100
59) isopropyl acetate	11.218	87	31000	50.00	ug/L	100
60) 1,2-dichloroethane	11.328	62	156927	50.00	ug/L	100
61) ethyl acrylate	12.005	55	185329	50.00	ug/L	100
62) trichloroethene	12.015	95	114720	50.00	ug/L	100
63) 2-nitropropane	12.744	41	54193	50.00	ug/L	100
64) 2-chloroethyl vinyl ether	12.775	63	406828	250.00	ug/L	100
65) methyl methacrylate	12.262	100	37275	50.00	ug/L	100
66) 1,2-dichloropropane	12.293	63	119913	50.00	ug/L	100
67) dibromomethane	12.398	93	79445	50.00	ug/L	100
68) methylcyclohexane	12.303	83	226903	50.00	ug/L	100
69) bromodichloromethane	12.545	83	161667	50.00	ug/L	100
70) epichlorohydrin	12.859	57	103533	250.00	ug/L	100
71) cis-1,3-dichloropropene	12.980	75	192059	50.00	ug/L	100
72) 4-methyl-2-pentanone	13.079	58	279512	200.00	ug/L	100
73) 3-methyl-1-butanol	13.085	55	265467	1000.00	ug/L	100
76) toluene	13.342	92	266903	50.00	ug/L	100
77) ethyl methacrylate	13.504	69	158692	50.00	ug/L	100
78) trans-1,3-dichloropropene	13.515	75	169638	50.00	ug/L	100
79) 1,1,2-trichloroethane	13.724	83	91364	50.00	ug/L	100
80) 2-hexanone	13.876	58	251890	200.00	ug/L	100
81) tetrachloroethene	13.861	164	107339	50.00	ug/L	100
82) 1,3-dichloropropane	13.897	76	160284	50.00	ug/L	100
83) butyl acetate	13.945	56	91733	50.00	ug/L	100
84) dibromochloromethane	14.128	129	128428	50.00	ug/L	100
85) 1,2-dibromoethane	14.270	107	126543	50.00	ug/L	100
86) n-butyl ether	14.673	57	493624	50.00	ug/L	100
87) chlorobenzene	14.721	112	295510	50.00	ug/L	100
88) 1,1,1,2-tetrachloroethane	14.778	131	122689	50.00	ug/L	100
89) ethylbenzene	14.773	91	475560	50.00	ug/L	100
90) m,p-xylene	14.883	106	374332	100.00	ug/L	100
91) o-xylene	15.261	106	202579	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158325.D
Acq On : 16 Apr 2018 7:52 pm
Operator : HueanhT
Sample : icc7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 17 15:49:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration

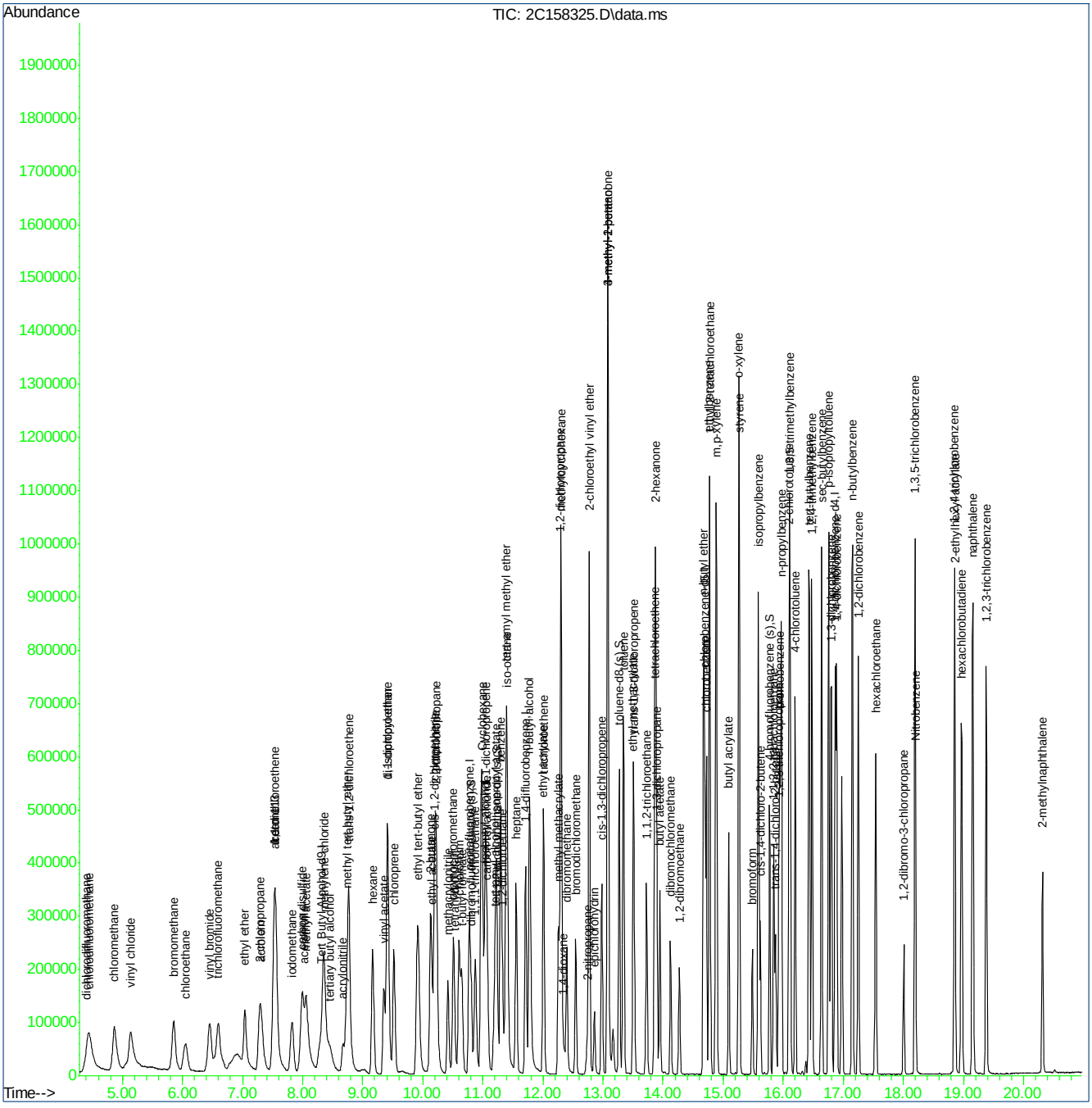
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.271	104	322002	50.00	ug/L	100
93)	butyl acrylate	15.093	55	255540	50.00	ug/L	100
94)	bromoform	15.486	173	106063	50.00	ug/L	100
95)	isopropylbenzene	15.586	105	549922	50.00	ug/L	100
96)	cis-1,4-dichloro-2-butene	15.617	75	66759	50.00	ug/L	100
99)	bromobenzene	15.947	156	151895	50.00	ug/L	100
100)	1,1,2,2-tetrachloroethane	15.843	83	196786	50.00	ug/L	100
101)	trans-1,4-dichloro-2-b...	15.874	88	22936	50.00	ug/L	100
102)	1,2,3-trichloropropane	15.926	110	47683	50.00	ug/L	100
103)	n-propylbenzene	15.968	91	580124	50.00	ug/L	100
104)	2-chlorotoluene	16.099	126	136955	50.00	ug/L	100
105)	4-chlorotoluene	16.199	91	357573	50.00	ug/L	100
106)	1,3,5-trimethylbenzene	16.115	105	464243	50.00	ug/L	100
107)	tert-butylbenzene	16.430	119	424886	49.81	ug/L	100
108)	1,2,4-trimethylbenzene	16.477	105	468156	50.00	ug/L	100
109)	sec-butylbenzene	16.639	105	638814	50.00	ug/L	100
110)	1,3-dichlorobenzene	16.802	146	294083	50.00	ug/L	100
111)	p-isopropyltoluene	16.760	119	552817	50.00	ug/L	100
112)	1,4-dichlorobenzene	16.891	146	296582	50.00	ug/L	100
113)	1,2-dichlorobenzene	17.253	146	321198	50.00	ug/L	100
114)	n-butylbenzene	17.153	92	281697	50.00	ug/L	100
115)	1,2-dibromo-3-chloropr...	18.008	75	50333	50.00	ug/L	100
116)	1,3,5-trichlorobenzene	18.197	180	332865	50.00	ug/L	100
117)	Nitrobenzene	18.207	77	9416	50.00	ug/L	100
118)	1,2,4-trichlorobenzene	18.852	180	288058	50.00	ug/L	100
119)	2-ethylhexyl acrylate	18.857	55	42891	10.00	ug/L	100
120)	hexachlorobutadiene	18.967	225	162047	50.00	ug/L	100
121)	naphthalene	19.156	128	685494	50.00	ug/L	100
122)	1,2,3-trichlorobenzene	19.382	180	264278	50.00	ug/L	100
123)	hexachloroethane	17.541	201	114876	50.00	ug/L	100
124)	2-methylnaphthalene	20.315	142	185942	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158325.D
Acq On : 16 Apr 2018 7:52 pm
Operator : HueanhT
Sample : icc7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Apr 17 15:49:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 14:51:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158326.D
Acq On : 16 Apr 2018 8:21 pm
Operator : HueanhT
Sample : ic7025-100
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 17 15:06:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:05:39 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.334	65	259842	500.00	ug/L		0.02
5) pentafluorobenzene	10.778	168	248419	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.716	114	336626	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	280089	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	178890	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.809	113	106093	49.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	113112	47.69	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.38%				
75) toluene-d8 (s)	13.273	98	363101	52.12	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.24%				
98) 4-bromofluorobenzene (s)	15.774	95	135240	50.44	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.88%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.460	59	335344	525.70	ug/L		100
4) 1,4-dioxane	12.345	88	116750	2547.10	ug/L		96
6) chlorodifluoromethane	4.444	51	385378	92.28	ug/L		98
7) dichlorodifluoromethane	4.423	85	325400	90.45	ug/L		99
8) chloromethane	4.858	50	518126	98.47	ug/L		99
9) vinyl chloride	5.136	62	476553	97.62	ug/L		97
11) bromomethane	5.849	94	282695	93.47	ug/L		99
12) chloroethane	6.054	64	234420	93.91	ug/L		97
13) trichlorofluoromethane	6.599	101	462172	96.01	ug/L		98
14) vinyl bromide	6.452	106	292137	96.75	ug/L		99
15) ethyl ether	7.044	74	145313	99.23	ug/L		96
16) 2-chloropropane	7.291	43	478099	94.23	ug/L		97
17) acrolein	7.301	56	86473	93.27	ug/L		94
18) freon 113	7.537	151	210443	92.86	ug/L		97
19) 1,1-dichloroethene	7.543	96	261063	93.73	ug/L		99
20) acetone	7.537	58	146566	396.16	ug/L		97
21) iodomethane	7.820	142	464899	96.39	ug/L		100
22) acetonitrile	8.030	41	631366	1005.92	ug/L		99
23) carbon disulfide	7.988	76	818540	94.54	ug/L		99
24) methylene chloride	8.355	84	312687	98.84	ug/L		98
25) methyl acetate	8.067	43	314251	99.47	ug/L		100
26) methyl tert butyl ether	8.748	73	868471	103.00	ug/L		99
27) trans-1,2-dichloroethene	8.769	96	249578	96.88	ug/L		97
28) hexane	9.168	56	154847	96.00	ug/L		96
29) di-isopropyl ether	9.414	45	911585	97.04	ug/L		99
30) 1,1-dichloroethane	9.414	63	449947	98.42	ug/L		99
31) chloroprene	9.519	53	368090	97.68	ug/L		99
32) acrylonitrile	8.675	53	160223	102.44	ug/L		99
33) vinyl acetate	9.357	86	49363	104.79	ug/L		99
34) ethyl tert-butyl ether	9.918	59	904107	100.67	ug/L		98
35) 2-butanone	10.127	72	184172	397.19	ug/L	#	87
36) ethyl acetate	10.148	45	57432	99.06	ug/L	#	78

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158326.D
Acq On : 16 Apr 2018 8:21 pm
Operator : HueanhT
Sample : ic7025-100
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 17 15:06:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:05:39 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) 2,2-dichloropropane	10.232	77	313038	95.17	ug/L	94
38) cis-1,2-dichloroethene	10.190	96	267944	97.53	ug/L	99
39) propionitrile	10.217	54	687127	965.45	ug/L	98
40) bromochloromethane	10.510	128	145798	100.50	ug/L	96
41) tetrahydrofuran	10.531	42	142275	97.08	ug/L	98
42) chloroform	10.605	83	425838	99.12	ug/L	99
43) t-butyl formate	10.652	59	272276	100.50	ug/L	99
45) methacrylonitrile	10.426	67	139813	101.44	ug/L	97
46) 1,1,1-trichloroethane	10.877	97	407274	98.20	ug/L	99
47) Cyclohexane	10.987	84	335499	91.73	ug/L	91
48) 1,1-dichloropropene	11.045	75	296793	96.70	ug/L	98
49) carbon tetrachloride	11.076	117	321763	97.27	ug/L	97
50) isobutyl alcohol	11.034	42	168212	1008.59	ug/L	95
53) n-butyl alcohol	11.779	56	833189	4741.83	ug/L	99
54) tert-amyl alcohol	11.202	55	117475	478.11	ug/L	94
55) iso-octane	11.401	57	952845	91.78	ug/L	99
56) benzene	11.297	78	922112	97.40	ug/L	99
57) tert-amyl methyl ether	11.391	87	185609	96.68	ug/L	94
58) heptane	11.559	57	193019	96.48	ug/L	99
59) isopropyl acetate	11.218	87	62664	98.86	ug/L	97
60) 1,2-dichloroethane	11.328	62	315470	98.32	ug/L	99
61) ethyl acrylate	12.004	55	374820	98.91	ug/L	99
62) trichloroethene	12.015	95	227843	97.13	ug/L	99
63) 2-nitropropane	12.744	41	113229	102.18	ug/L	98
64) 2-chloroethyl vinyl ether	12.775	63	803900	483.20	ug/L	100
65) methyl methacrylate	12.261	100	77790	102.06	ug/L	91
66) 1,2-dichloropropane	12.298	63	236110	96.30	ug/L	98
67) dibromomethane	12.398	93	163315	100.54	ug/L	99
68) methylcyclohexane	12.303	83	430999	92.90	ug/L	95
69) bromodichloromethane	12.550	83	330624	100.02	ug/L	99
70) epichlorohydrin	12.859	57	207111	489.17	ug/L	99
71) cis-1,3-dichloropropene	12.980	75	393117	100.11	ug/L	98
72) 4-methyl-2-pentanone	13.079	58	542315	379.56	ug/L	95
73) 3-methyl-1-butanol	13.084	55	486305	1791.83	ug/L	100
76) toluene	13.341	92	534996	103.06	ug/L	99
77) ethyl methacrylate	13.504	69	321233	104.08	ug/L	99
78) trans-1,3-dichloropropene	13.514	75	340383	103.17	ug/L	97
79) 1,1,2-trichloroethane	13.724	83	186627	105.03	ug/L	96
80) 2-hexanone	13.876	58	493233	402.72	ug/L	98
81) tetrachloroethene	13.860	164	211863	101.48	ug/L	98
82) 1,3-dichloropropane	13.897	76	316840	101.64	ug/L	98
83) butyl acetate	13.950	56	180423	101.13	ug/L	98
84) dibromochloromethane	14.128	129	269784	108.01	ug/L	99
85) 1,2-dibromoethane	14.269	107	256915	104.39	ug/L	96
86) n-butyl ether	14.673	57	965537	100.57	ug/L	99
87) chlorobenzene	14.720	112	585263	101.83	ug/L	100
88) 1,1,1,2-tetrachloroethane	14.778	131	244581	102.50	ug/L	99
89) ethylbenzene	14.773	91	921418	99.62	ug/L	100
90) m,p-xylene	14.888	106	738579	202.89	ug/L	97
91) o-xylene	15.260	106	400813	101.73	ug/L	98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158326.D
Acq On : 16 Apr 2018 8:21 pm
Operator : HueanhT
Sample : ic7025-100
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 17 15:06:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:05:39 2018
Response via : Initial Calibration

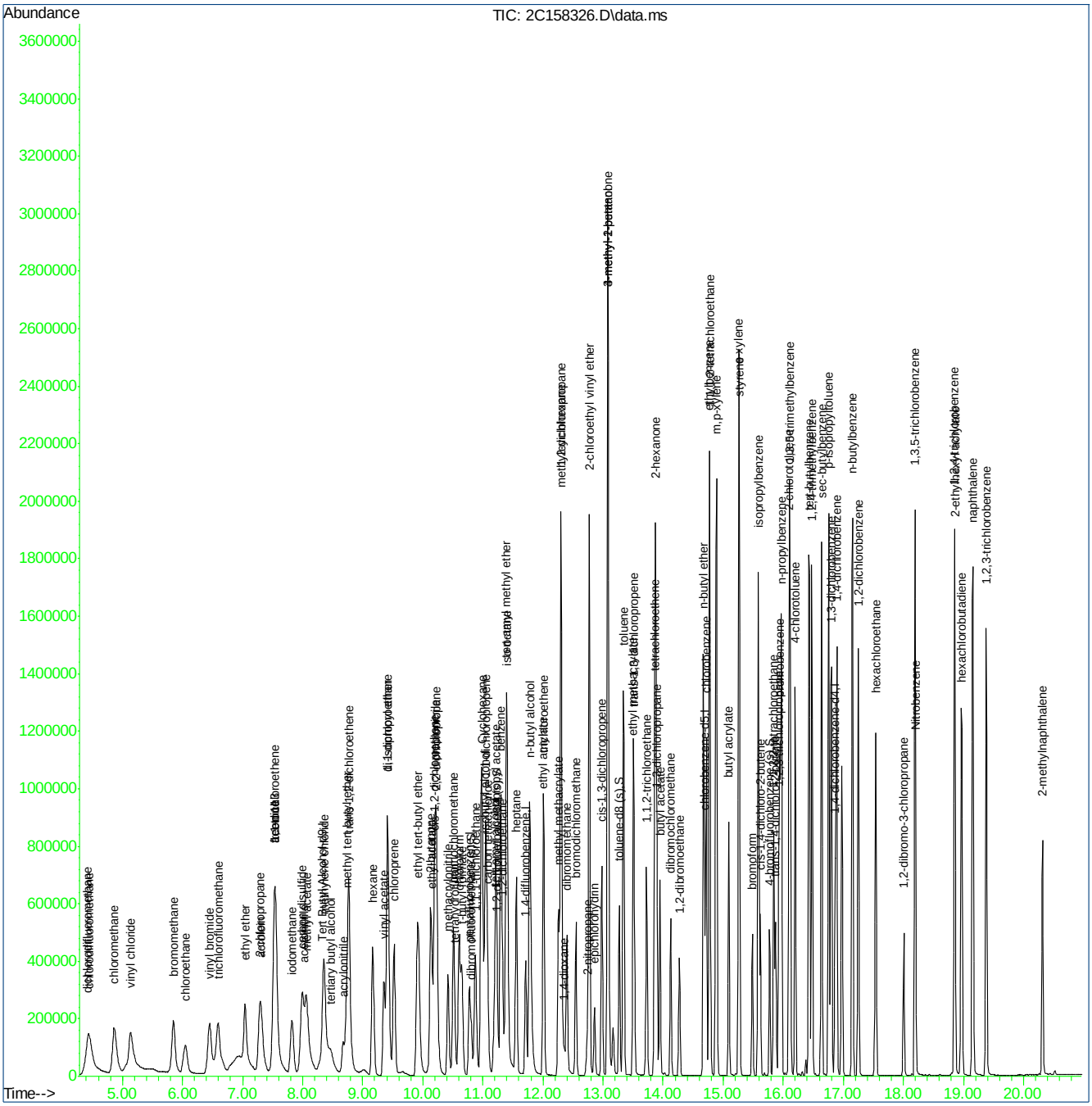
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.271	104	625598	99.89	ug/L	99
93)	butyl acrylate	15.093	55	503097	101.23	ug/L	99
94)	bromoform	15.486	173	219886	106.59	ug/L	98
95)	isopropylbenzene	15.585	105	1059715	99.08	ug/L	100
96)	cis-1,4-dichloro-2-butene	15.617	75	131245	101.08	ug/L	97
99)	bromobenzene	15.947	156	294258	98.84	ug/L	98
100)	1,1,2,2-tetrachloroethane	15.842	83	386351	100.17	ug/L	99
101)	trans-1,4-dichloro-2-b...	15.874	88	46903	104.34	ug/L	96
102)	1,2,3-trichloropropane	15.926	110	94248	100.85	ug/L	98
103)	n-propylbenzene	15.973	91	1105604	97.24	ug/L	98
104)	2-chlorotoluene	16.099	126	267047	99.49	ug/L	99
105)	4-chlorotoluene	16.199	91	699294	99.78	ug/L	100
106)	1,3,5-trimethylbenzene	16.115	105	881967	96.93	ug/L	99
107)	tert-butylbenzene	16.430	119	849276	101.60	ug/L	98
108)	1,2,4-trimethylbenzene	16.477	105	895286	97.58	ug/L	99
109)	sec-butylbenzene	16.639	105	1226635	97.97	ug/L	99
110)	1,3-dichlorobenzene	16.802	146	566061	98.21	ug/L	99
111)	p-isopropyltoluene	16.760	119	1062556	98.07	ug/L	100
112)	1,4-dichlorobenzene	16.891	146	577030	99.27	ug/L	100
113)	1,2-dichlorobenzene	17.253	146	621597	98.74	ug/L	100
114)	n-butylbenzene	17.153	92	536742	97.22	ug/L	97
115)	1,2-dibromo-3-chloropr...	18.008	75	104514	105.95	ug/L	97
116)	1,3,5-trichlorobenzene	18.196	180	647214	99.21	ug/L	100
117)	Nitrobenzene	18.207	77	20205	109.49	ug/L	99
118)	1,2,4-trichlorobenzene	18.852	180	574507	101.76	ug/L	98
119)	2-ethylhexyl acrylate	18.857	55	95697	22.77	ug/L	99
120)	hexachlorobutadiene	18.972	225	309361	97.41	ug/L	99
121)	naphthalene	19.156	128	1371716	102.10	ug/L	100
122)	1,2,3-trichlorobenzene	19.381	180	535002	103.29	ug/L	98
123)	hexachloroethane	17.541	201	235231	104.48	ug/L	98
124)	2-methylnaphthalene	20.315	142	397044	54.48	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158326.D
Acq On : 16 Apr 2018 8:21 pm
Operator : HueanhT
Sample : ic7025-100
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 15 Sample Multiplier: 1

Quant Time: Apr 17 15:06:16 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:05:39 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158327.D
Acq On : 16 Apr 2018 8:50 pm
Operator : HueanhT
Sample : ic7025-200
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 17 15:07:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:08 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.334	65	258530	500.00	ug/L	0.02
5) pentafluorobenzene	10.778	168	222283	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	301802	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	273193	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.865	152	192430	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	98043	51.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.24%			
52) 1,2-dichloroethane-d4 (s)	11.239	65	100357	47.20	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.40%			
75) toluene-d8 (s)	13.273	98	346071	50.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.86%			
98) 4-bromofluorobenzene (s)	15.774	95	146406	50.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.52%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	8.476	59	651829	1027.02	ug/L	98
4) 1,4-dioxane	12.351	88	233304	5115.75	ug/L	93
6) chlorodifluoromethane	4.444	51	720805	192.90	ug/L	99
7) dichlorodifluoromethane	4.413	85	669814	208.08	ug/L	99
8) chloromethane	4.858	50	1021533	216.97	ug/L	100
9) vinyl chloride	5.136	62	944078	216.13	ug/L	97
11) bromomethane	5.839	94	537141	198.47	ug/L	99
12) chloroethane	6.043	64	451392	202.10	ug/L	97
13) trichlorofluoromethane	6.588	101	920464	213.70	ug/L	99
14) vinyl bromide	6.442	106	576093	213.22	ug/L	99
15) ethyl ether	7.039	74	261886	199.86	ug/L	93
16) 2-chloropropane	7.291	43	919438	202.53	ug/L	99
17) acrolein	7.301	56	163158	196.67	ug/L	99
18) freon 113	7.537	151	420532	207.38	ug/L	98
19) 1,1-dichloroethene	7.537	96	505571	202.87	ug/L	98
20) acetone	7.537	58	273822	827.14	ug/L	99
21) iodomethane	7.821	142	910533	210.98	ug/L	100
22) acetonitrile	8.041	41	1210071	2154.63	ug/L	99
23) carbon disulfide	7.978	76	1620013	209.11	ug/L	99
24) methylene chloride	8.350	84	607355	214.57	ug/L	99
25) methyl acetate	8.062	43	559284	197.84	ug/L	99
26) methyl tert butyl ether	8.749	73	1505242	199.50	ug/L	99
27) trans-1,2-dichloroethene	8.770	96	468454	203.23	ug/L	97
28) hexane	9.163	56	289124	200.33	ug/L	98
29) di-isopropyl ether	9.414	45	1693692	201.51	ug/L	99
30) 1,1-dichloroethane	9.414	63	820666	200.62	ug/L	98
31) chloroprene	9.519	53	664625	197.10	ug/L	98
32) acrylonitrile	8.670	53	298314	213.16	ug/L	100
33) vinyl acetate	9.352	86	86541	205.31	ug/L	97
34) ethyl tert-butyl ether	9.918	59	1725247	214.69	ug/L	98
35) 2-butanone	10.128	72	322548	777.41	ug/L	91
36) ethyl acetate	10.148	45	95414	183.93	ug/L #	94

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158327.D
Acq On : 16 Apr 2018 8:50 pm
Operator : HueanhT
Sample : ic7025-200
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 17 15:07:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:08 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
37)	2,2-dichloropropane	10.232	77	607925	206.56	ug/L	93
38)	cis-1,2-dichloroethene	10.190	96	485810	197.62	ug/L	98
39)	propionitrile	10.217	54	1217002	1911.00	ug/L	97
40)	bromochloromethane	10.505	128	265434	204.49	ug/L	97
41)	tetrahydrofuran	10.526	42	254928	194.40	ug/L	98
42)	chloroform	10.605	83	773095	201.11	ug/L	99
43)	t-butyl formate	10.647	59	496891	204.98	ug/L	99
45)	methacrylonitrile	10.421	67	247717	200.86	ug/L	98
46)	1,1,1-trichloroethane	10.877	97	811720	218.73	ug/L	99
47)	Cyclohexane	10.987	84	685637	209.51	ug/L	90
48)	1,1-dichloropropene	11.045	75	523967	190.78	ug/L	96
49)	carbon tetrachloride	11.076	117	638004	215.54	ug/L	96
50)	isobutyl alcohol	11.035	42	313154	2098.44	ug/L	96
53)	n-butyl alcohol	11.779	56	1572551	9982.34	ug/L	97
54)	tert-amyl alcohol	11.197	55	219689	997.27	ug/L	98
55)	iso-octane	11.402	57	1965739	211.18	ug/L	99
56)	benzene	11.297	78	1645668	193.89	ug/L	99
57)	tert-amyl methyl ether	11.391	87	354317	205.85	ug/L	94
58)	heptane	11.554	57	364699	203.32	ug/L	99
59)	isopropyl acetate	11.218	87	112380	197.75	ug/L	95
60)	1,2-dichloroethane	11.328	62	547171	190.20	ug/L	99
61)	ethyl acrylate	12.005	55	665941	196.01	ug/L	100
62)	trichloroethene	12.015	95	404759	192.47	ug/L	98
63)	2-nitropropane	12.744	41	208266	209.64	ug/L	99
64)	2-chloroethyl vinyl ether	12.775	63	1424145	954.79	ug/L	99
65)	methyl methacrylate	12.261	100	141914	207.68	ug/L	94
66)	1,2-dichloropropane	12.293	63	418185	190.24	ug/L	100
67)	dibromomethane	12.398	93	295729	203.06	ug/L	99
68)	methylcyclohexane	12.303	83	880703	211.73	ug/L	96
69)	bromodichloromethane	12.545	83	604444	203.95	ug/L	98
70)	epichlorohydrin	12.859	57	392717	1034.58	ug/L	100
71)	cis-1,3-dichloropropene	12.980	75	714671	202.99	ug/L	98
72)	4-methyl-2-pentanone	13.079	58	992456	774.76	ug/L	92
73)	3-methyl-1-butanol	13.085	55	897773	3689.61	ug/L	98
76)	toluene	13.341	92	997492	197.01	ug/L	99
77)	ethyl methacrylate	13.504	69	598050	198.66	ug/L	98
78)	trans-1,3-dichloropropene	13.515	75	616894	191.70	ug/L	97
79)	1,1,2-trichloroethane	13.724	83	347147	200.29	ug/L	98
80)	2-hexanone	13.876	58	916342	767.07	ug/L	96
81)	tetrachloroethene	13.861	164	395076	194.02	ug/L	98
82)	1,3-dichloropropane	13.897	76	588747	193.63	ug/L	98
83)	butyl acetate	13.950	56	348094	200.03	ug/L	97
84)	dibromochloromethane	14.128	129	526499	216.10	ug/L	99
85)	1,2-dibromoethane	14.270	107	502462	209.31	ug/L	97
86)	n-butyl ether	14.673	57	1870025	199.70	ug/L	99
87)	chlorobenzene	14.720	112	1148966	204.96	ug/L	99
88)	1,1,1,2-tetrachloroethane	14.778	131	475268	204.20	ug/L	99
89)	ethylbenzene	14.773	91	1790969	198.52	ug/L	99
90)	m,p-xylene	14.888	106	1477259	416.06	ug/L	95
91)	o-xylene	15.260	106	806127	209.77	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158327.D
Acq On : 16 Apr 2018 8:50 pm
Operator : HueanhT
Sample : ic7025-200
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 17 15:07:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:08 2018
Response via : Initial Calibration

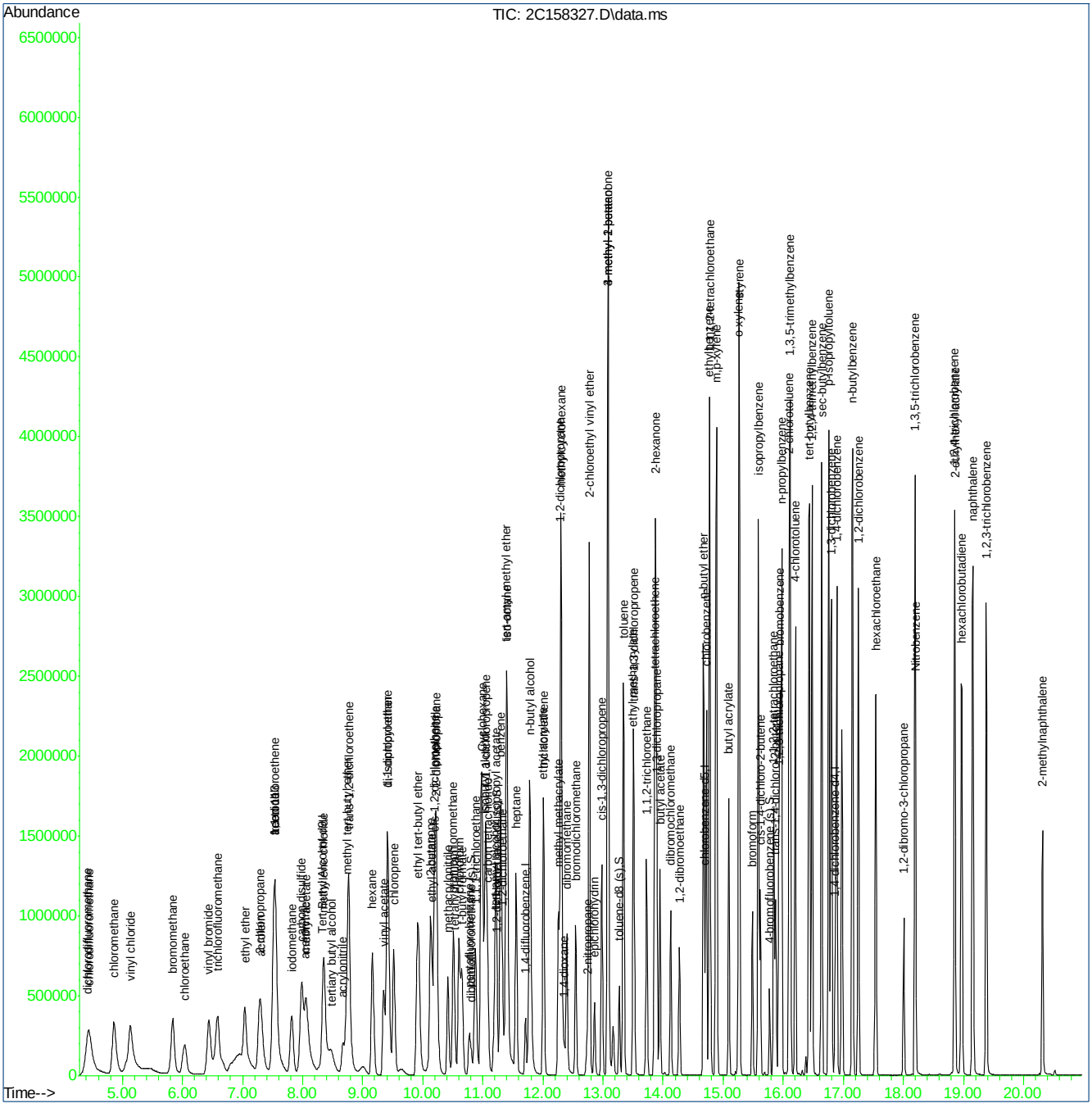
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.271	104	1266304	207.30	ug/L	99
93)	butyl acrylate	15.093	55	991911	204.62	ug/L	98
94)	bromoform	15.486	173	461314	229.28	ug/L	99
95)	isopropylbenzene	15.586	105	2119764	203.19	ug/L	99
96)	cis-1,4-dichloro-2-butene	15.617	75	271027	214.01	ug/L	96
99)	bromobenzene	15.947	156	608620	190.06	ug/L	98
100)	1,1,2,2-tetrachloroethane	15.842	83	777430	187.39	ug/L	99
101)	trans-1,4-dichloro-2-b...	15.874	88	96354	199.27	ug/L	97
102)	1,2,3-trichloropropane	15.926	110	189800	188.81	ug/L	99
103)	n-propylbenzene	15.973	91	2274706	185.99	ug/L	97
104)	2-chlorotoluene	16.099	126	553674	191.76	ug/L	98
105)	4-chlorotoluene	16.204	91	1465873	194.45	ug/L	96
106)	1,3,5-trimethylbenzene	16.115	105	1811738	185.11	ug/L	98
107)	tert-butylbenzene	16.435	119	1702476	189.33	ug/L	97
108)	1,2,4-trimethylbenzene	16.482	105	1846316	187.07	ug/L	97
109)	sec-butylbenzene	16.639	105	2536849	188.37	ug/L	98
110)	1,3-dichlorobenzene	16.802	146	1177039	189.85	ug/L	98
111)	p-isopropyltoluene	16.760	119	2207519	189.41	ug/L	99
112)	1,4-dichlorobenzene	16.891	146	1200566	192.01	ug/L	99
113)	1,2-dichlorobenzene	17.253	146	1249720	184.55	ug/L	99
114)	n-butylbenzene	17.153	92	1131841	190.58	ug/L	95
115)	1,2-dibromo-3-chloropr...	18.008	75	211101	198.94	ug/L	99
116)	1,3,5-trichlorobenzene	18.197	180	1235184	176.01	ug/L	98
117)	Nitrobenzene	18.207	77	47319	238.37	ug/L	95
118)	1,2,4-trichlorobenzene	18.852	180	1070205	176.23	ug/L	97
119)	2-ethylhexyl acrylate	18.857	55	193254	42.74	ug/L	98
120)	hexachlorobutadiene	18.973	225	602058	176.23	ug/L	99
121)	naphthalene	19.156	128	2489763	172.28	ug/L	99
122)	1,2,3-trichlorobenzene	19.381	180	1014699	182.12	ug/L	99
123)	hexachloroethane	17.541	201	486345	200.82	ug/L	97
124)	2-methylnaphthalene	20.315	142	748362	95.45	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158327.D
Acq On : 16 Apr 2018 8:50 pm
Operator : HueanhT
Sample : ic7025-200
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 16 Sample Multiplier: 1

Quant Time: Apr 17 15:07:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:07:08 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 04/23/18 12:18

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158330.D
Acq On : 16 Apr 2018 10:16 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 23 10:59:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.329	65	273763	500.00	ug/L		0.00
5) pentafluorobenzene	10.778	168	255657	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.716	114	341905	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	294653	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.865	152	187173	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	110565	49.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	117961	47.61	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.22%				
75) toluene-d8 (s)	13.273	98	362914	48.85	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.70%				
98) 4-bromofluorobenzene (s)	15.774	95	139944	51.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.52%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.455	59	175461	259.41	ug/L		99
4) 1,4-dioxane	12.345	88	49769	1017.97	ug/L		98
6) chlorodifluoromethane	4.455	51	144632	32.03	ug/L		97
7) dichlorodifluoromethane	4.418	85	177079	44.45	ug/L		98
8) chloromethane	4.869	50	286167	46.49	ug/L		99
9) vinyl chloride	5.141	62	250137	47.32	ug/L		97
11) bromomethane	5.860	94	164043	47.83	ug/L		99
12) chloroethane	6.054	64	132896	47.81	ug/L		97
13) trichlorofluoromethane	6.599	101	240861	47.78	ug/L		99
14) vinyl bromide	6.457	106	182247	55.03	ug/L		99
15) ethyl ether	7.045	74	73186	49.54	ug/L		95
16) 2-chloropropane	7.296	43	264241	47.22	ug/L		95
17) acrolein	7.307	56	65068	68.21	ug/L		88
18) freon 113	7.548	151	129516	57.28	ug/L		98
19) 1,1-dichloroethene	7.543	96	127858	41.67	ug/L		98
20) acetone	7.532	58	76662	192.37	ug/L		95
21) iodomethane	7.826	142	274512	53.63	ug/L		100
22) acetonitrile	8.036	41	201382	294.70	ug/L		97
23) carbon disulfide	7.988	76	424566	46.80	ug/L		99
24) methylene chloride	8.361	84	163400	45.64	ug/L		95
25) methyl acetate	8.062	43	151709	44.87	ug/L		96
26) methyl tert butyl ether	8.754	73	934388	100.68	ug/L		97
27) trans-1,2-dichloroethene	8.775	96	128026	44.43	ug/L		98
28) hexane	9.173	56	74587	41.83	ug/L		97
29) di-isopropyl ether	9.414	45	515660	48.71	ug/L		99
30) 1,1-dichloroethane	9.414	63	238562	48.42	ug/L		99
31) chloroprene	9.519	53	201366	48.88	ug/L		97
32) acrylonitrile	8.675	53	90982	53.58	ug/L		99
33) vinyl acetate	9.357	86	28102	60.14	ug/L	#	90
34) ethyl tert-butyl ether	9.918	59	498480	51.61	ug/L		98
35) 2-butanone	10.127	72	95592	206.89	ug/L		91
36) ethyl acetate	10.148	45	30764	49.44	ug/L	#	92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158330.D
Acq On : 16 Apr 2018 10:16 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 23 10:59:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
37)	2,2-dichloropropane	10.227	77	173085	46.75	ug/L		96
38)	cis-1,2-dichloroethene	10.190	96	148666	48.45	ug/L		99
39)	propionitrile	10.217	54	358556	472.06	ug/L		97
40)	bromochloromethane	10.510	128	79181	52.17	ug/L		98
41)	tetrahydrofuran	10.526	42	75286	46.68	ug/L		99
42)	chloroform	10.605	83	234883	48.52	ug/L		99
43)	t-butyl formate	10.647	59	102365	35.07	ug/L		99
45)	methacrylonitrile	10.421	67	74427	53.05	ug/L		100
46)	1,1,1-trichloroethane	10.877	97	215348	46.63	ug/L		98
47)	Cyclohexane	10.987	84	275090	70.46	ug/L		89
48)	1,1-dichloropropene	11.045	75	161476	48.26	ug/L		98
49)	carbon tetrachloride	11.076	117	173556	49.36	ug/L		97
50)	isobutyl alcohol	11.029	42	100754m	545.54	ug/L		
53)	n-butyl alcohol	11.774	56	405342	2148.02	ug/L		99
54)	tert-amyl alcohol	11.197	55	61794	221.66	ug/L		95
55)	iso-octane	11.402	57	497825	45.00	ug/L		99
56)	benzene	11.297	78	499556	49.31	ug/L		98
57)	tert-amyl methyl ether	11.391	87	102636	51.38	ug/L		97
58)	heptane	11.554	57	105027	49.83	ug/L		99
59)	isopropyl acetate	11.218	87	33989	54.81	ug/L		94
60)	1,2-dichloroethane	11.328	62	171498	49.18	ug/L		99
61)	ethyl acrylate	12.004	55	206670	53.86	ug/L		100
62)	trichloroethene	12.015	95	127535	50.36	ug/L		98
63)	2-nitropropane	12.744	41	61442	51.44	ug/L		98
64)	2-chloroethyl vinyl ether	12.775	63	467154	280.65	ug/L		99
65)	methyl methacrylate	12.261	100	41248	54.23	ug/L	#	90
66)	1,2-dichloropropane	12.293	63	126641	49.70	ug/L		100
67)	dibromomethane	12.398	93	89977	51.76	ug/L		99
68)	methylcyclohexane	12.303	83	216445	43.88	ug/L		98
69)	bromodichloromethane	12.550	83	176531	51.00	ug/L		99
70)	epichlorohydrin	12.859	57	108533	244.76	ug/L		99
71)	cis-1,3-dichloropropene	12.980	75	213661	53.81	ug/L		99
72)	4-methyl-2-pentanone	13.079	58	302561	204.72	ug/L		99
73)	3-methyl-1-butanol	13.085	55	267992	917.11	ug/L		98
76)	toluene	13.341	92	292518	51.96	ug/L		97
77)	ethyl methacrylate	13.504	69	175909	50.07	ug/L		99
78)	trans-1,3-dichloropropene	13.514	75	179743	51.10	ug/L		96
79)	1,1,2-trichloroethane	13.724	83	102783	51.46	ug/L		98
80)	2-hexanone	13.876	58	278230	197.96	ug/L		99
81)	tetrachloroethene	13.861	164	118948	53.37	ug/L		99
82)	1,3-dichloropropane	13.897	76	181623	53.30	ug/L		100
83)	butyl acetate	13.950	56	107417	51.41	ug/L		100
84)	dibromochloromethane	14.128	129	150838	58.46	ug/L		99
85)	1,2-dibromoethane	14.269	107	144862	55.82	ug/L		99
86)	n-butyl ether	14.673	57	543879	49.41	ug/L		99
87)	chlorobenzene	14.720	112	331914	53.82	ug/L		99
88)	1,1,1,2-tetrachloroethane	14.778	131	138928	52.80	ug/L		99
89)	ethylbenzene	14.773	91	537463	52.12	ug/L		99
90)	m,p-xylene	14.883	106	423887	105.30	ug/L		98
91)	o-xylene	15.260	106	230245	53.86	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158330.D
Acq On : 16 Apr 2018 10:16 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 23 10:59:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration

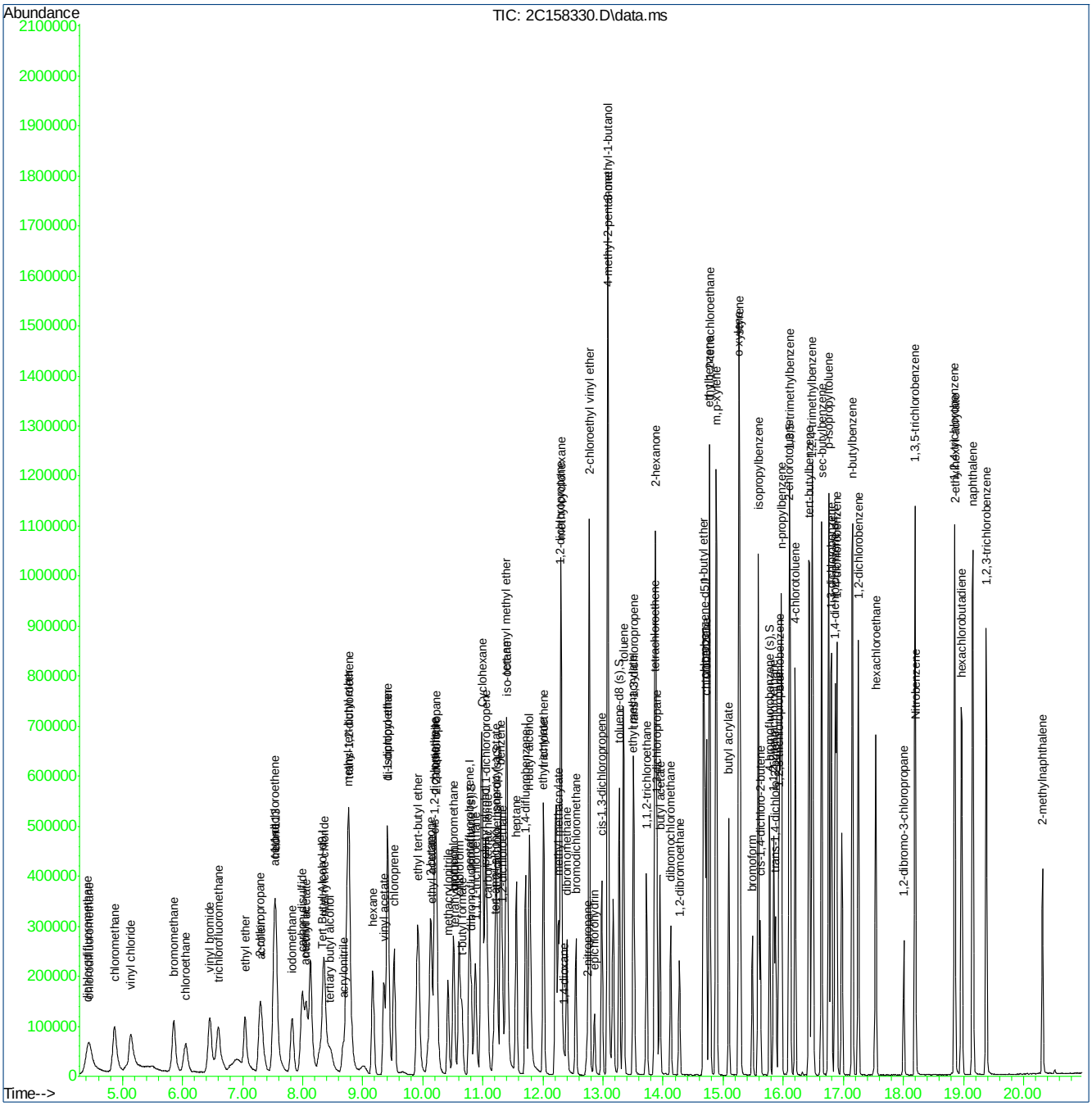
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
92)	styrene	15.271	104	367235	52.82	ug/L	99
93)	butyl acrylate	15.093	55	295421	51.95	ug/L	99
94)	bromoform	15.491	173	127114	59.38	ug/L	99
95)	isopropylbenzene	15.585	105	616440	52.08	ug/L	99
96)	cis-1,4-dichloro-2-butene	15.617	75	71386	52.37	ug/L	97
99)	bromobenzene	15.947	156	174159	55.50	ug/L	97
100)	1,1,2,2-tetrachloroethane	15.842	83	219875	53.87	ug/L	100
101)	trans-1,4-dichloro-2-b...	15.874	88	27683	59.31	ug/L	99
102)	1,2,3-trichloropropane	15.926	110	52764	53.10	ug/L	97
103)	n-propylbenzene	15.968	91	656030	53.03	ug/L	100
104)	2-chlorotoluene	16.099	126	151928	54.16	ug/L	99
105)	4-chlorotoluene	16.199	91	414336	54.74	ug/L	99
106)	1,3,5-trimethylbenzene	16.115	105	509154	52.25	ug/L	99
107)	tert-butylbenzene	16.435	119	477205	56.35	ug/L	98
108)	1,2,4-trimethylbenzene	16.477	105	534217	53.86	ug/L	100
109)	sec-butylbenzene	16.639	105	716178	54.96	ug/L	99
110)	1,3-dichlorobenzene	16.802	146	332049	53.71	ug/L	100
111)	p-isopropyltoluene	16.760	119	622267	54.88	ug/L	99
112)	1,4-dichlorobenzene	16.891	146	334169	54.45	ug/L	99
113)	1,2-dichlorobenzene	17.253	146	360861	54.18	ug/L	98
114)	n-butylbenzene	17.153	92	314490	53.84	ug/L	100
115)	1,2-dibromo-3-chloropr...	18.008	75	55947	55.34	ug/L	99
116)	1,3,5-trichlorobenzene	18.197	180	377692	55.53	ug/L	99
117)	Nitrobenzene	18.207	77	9153	47.71	ug/L	96
118)	1,2,4-trichlorobenzene	18.852	180	336505	58.26	ug/L	99
119)	2-ethylhexyl acrylate	18.857	55	52100	11.70	ug/L	97
120)	hexachlorobutadiene	18.972	225	175983	53.22	ug/L	99
121)	naphthalene	19.156	128	801627	59.60	ug/L	99
122)	1,2,3-trichlorobenzene	19.381	180	306817	57.68	ug/L	99
123)	hexachloroethane	17.541	201	131759	60.76	ug/L	99
124)	2-methylnaphthalene	20.315	142	196975	27.01	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158330.D
Acq On : 16 Apr 2018 10:16 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 23 10:59:47 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration



Manual Integration Approval Summary

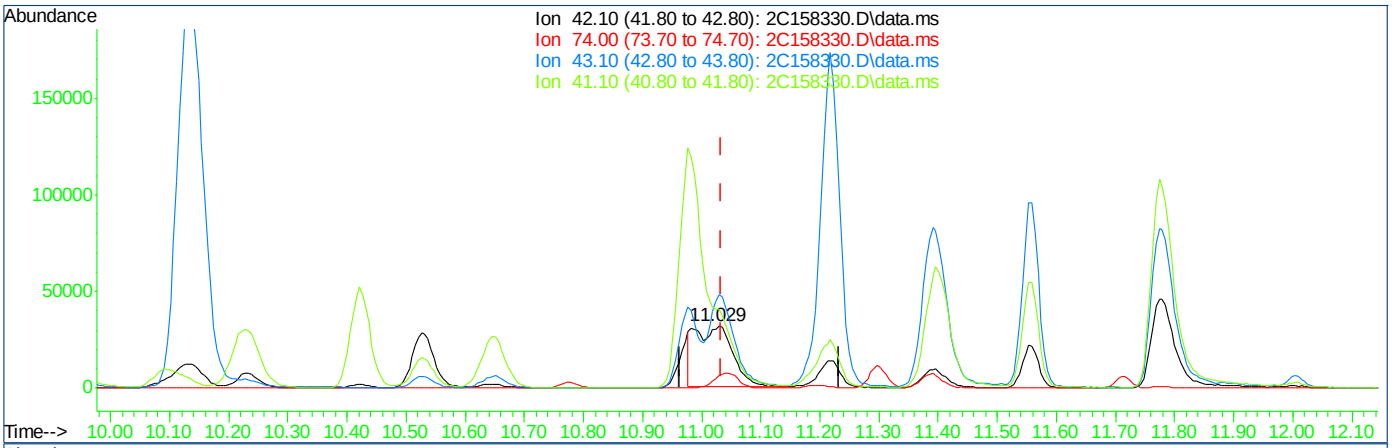
Sample Number: V2C7025-ICV7025 **Method:** SW846 8260C
Lab FileID: 2C158330.D **Analyst approved:** 04/23/18 11:43 Bridget Kelly
Injection Time: 04/16/18 22:16 **Supervisor approved:** 04/23/18 12:18 Kanya Veerawat

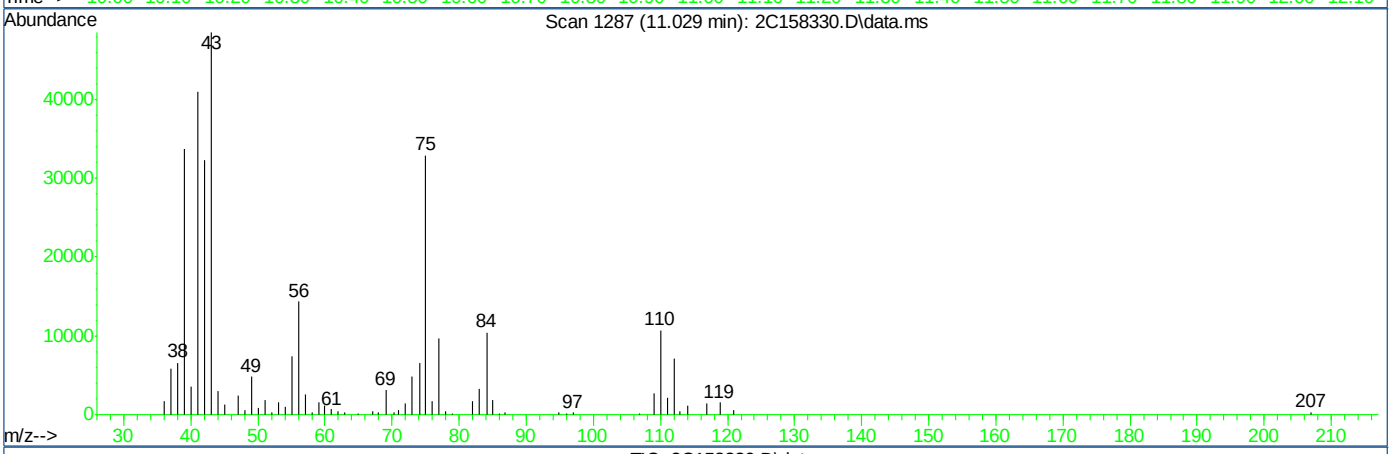
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		11.03	Poorly defined baseline

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158330.D
Acq On : 16 Apr 2018 10:16 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 23 10:59:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration





TIC: 2C158330.D\data.ms

(50) isobutyl alcohol

11.029min (-0.005) 755.29ug/L

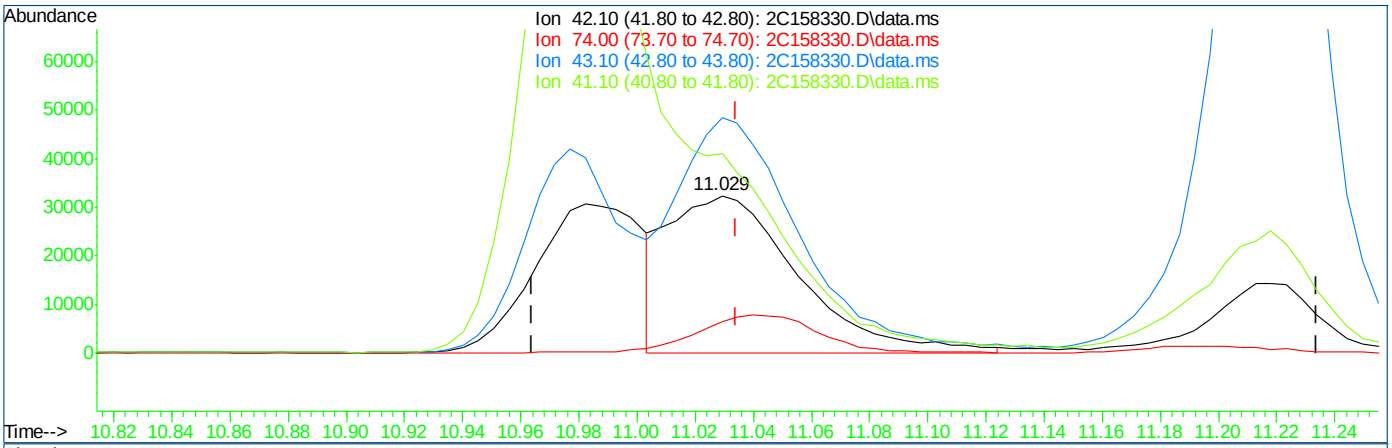
response 139491

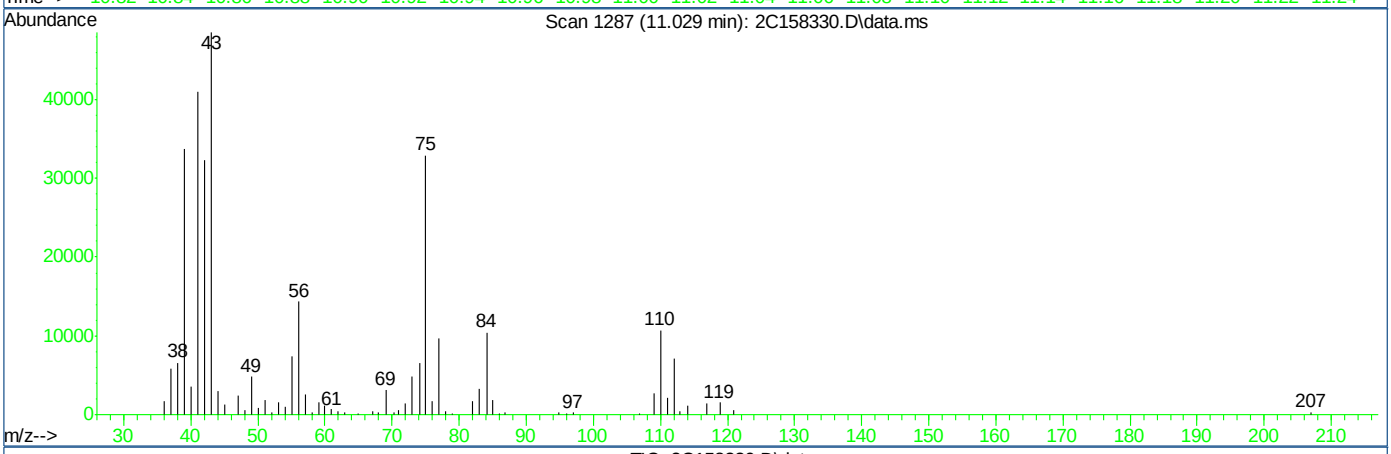
Ion	Exp%	Act%
42.10	100	100
74.00	20.10	20.54
43.10	159.80	149.68
41.10	120.10	126.11

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158330.D
Acq On : 16 Apr 2018 10:16 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 19 Sample Multiplier: 1

Quant Time: Apr 23 10:59:31 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Mon Apr 23 10:59:15 2018
Response via : Initial Calibration





TIC: 2C158330.D\data.ms

(50) isobutyl alcohol

11.029min (-0.005) 545.54ug/L m

response 100754

Ion	Exp%	Act%
42.10	100	100
74.00	20.10	20.06
43.10	159.80	150.00
41.10	120.10	126.90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158331.D
Acq On : 16 Apr 2018 10:45 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 17 15:51:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:50:34 2018
Response via : Initial Calibration

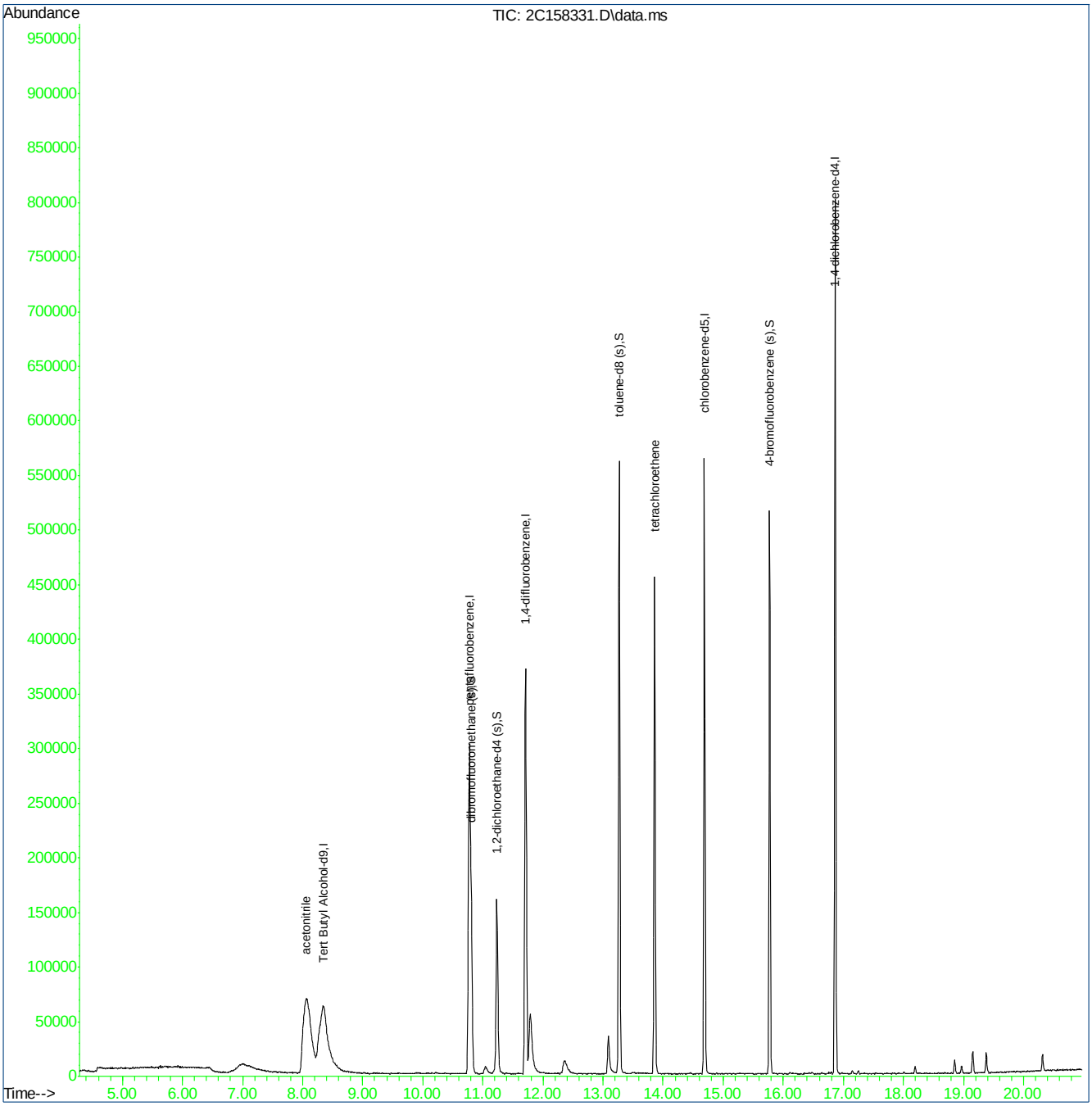
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.345	65	313648	500.00	ug/L	0.01
5) pentafluorobenzene	10.772	168	247382	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	324207	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	290224	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.865	152	196567	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	105698	49.37	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.74%			
52) 1,2-dichloroethane-d4 (s)	11.234	65	120943	51.47	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.94%			
75) toluene-d8 (s)	13.268	98	358445	48.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.98%			
98) 4-bromofluorobenzene (s)	15.774	95	139110	48.52	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.04%			
Target Compounds						Qvalue
22) acetonitrile	8.062	41	381806	577.42	ug/L	96
81) tetrachloroethene	13.860	164	105502	48.06	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158331.D
Acq On : 16 Apr 2018 10:45 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Time: Apr 17 15:51:33 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:50:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158335.D
Acq On : 17 Apr 2018 4:26 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 17 16:51:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:50:34 2018
Response via : Initial Calibration

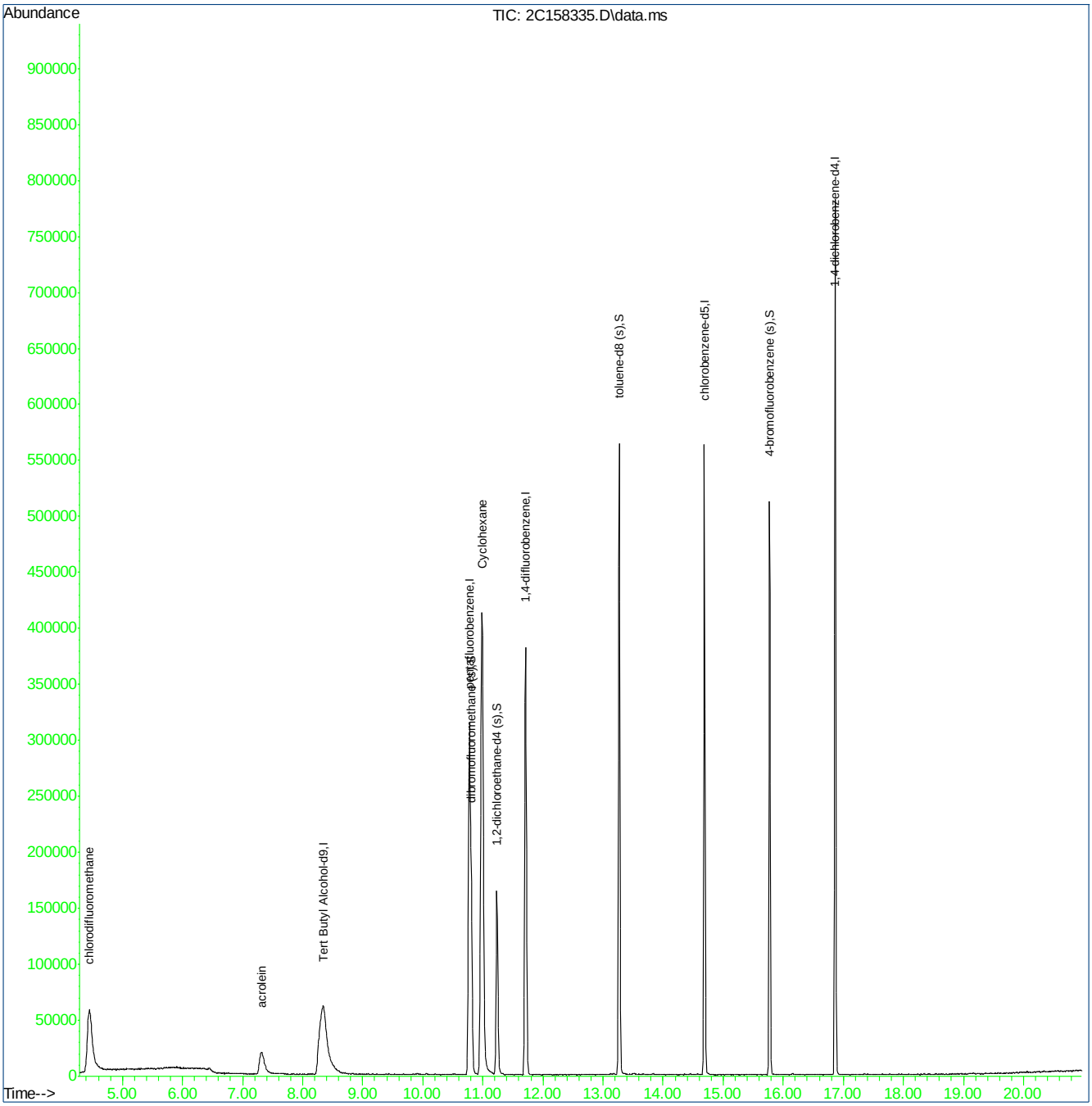
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) Tert Butyl Alcohol-d9	8.340	65	333016	500.00	ug/L	0.00
5) pentafluorobenzene	10.772	168	258989	50.00	ug/L	0.00
51) 1,4-difluorobenzene	11.711	114	332682	50.00	ug/L	0.00
74) chlorobenzene-d5	14.689	117	286973	50.00	ug/L	0.00
97) 1,4-dichlorobenzene-d4	16.865	152	193463	50.00	ug/L	0.00
System Monitoring Compounds						
44) dibromofluoromethane (s)	10.804	113	111172	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%			
52) 1,2-dichloroethane-d4 (s)	11.234	65	125396	52.01	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.02%			
75) toluene-d8 (s)	13.268	98	357778	49.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%			
98) 4-bromofluorobenzene (s)	15.774	95	138498	49.09	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.18%			
Target Compounds						Qvalue
6) chlorodifluoromethane	4.449	51	239849	52.44	ug/L	94
17) acrolein	7.317	56	53712	55.58	ug/L	88
47) Cyclohexane	10.987	84	227252	57.46	ug/L #	40

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\v2c7025\
Data File : 2C158335.D
Acq On : 17 Apr 2018 4:26 pm
Operator : HueanhT
Sample : icv7025-50
Misc : MS25516,V2C7025,w,,,,1
ALS Vial : 24 Sample Multiplier: 1

Quant Time: Apr 17 16:51:27 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Tue Apr 17 15:50:34 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 07/04/18 21:40

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:11:54 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.313	65	273545	500.00	ug/L		-0.02
5) pentafluorobenzene	10.778	168	281397	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	355645	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	296902	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.860	152	177662	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	123645	50.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.54%				
52) 1,2-dichloroethane-d4 (s)	11.239	65	130146	50.49	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.98%				
75) toluene-d8 (s)	13.268	98	375266	50.13	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.26%				
98) 4-bromofluorobenzene (s)	15.769	95	139494	53.84	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 107.68%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.450	59	166382	246.18	ug/L		99
4) 1,4-dioxane	12.335	88	62779	1285.10	ug/L		89
6) chlorodifluoromethane	4.460	51	203841	41.02	ug/L		98
7) dichlorodifluoromethane	4.434	85	261560	59.65	ug/L		98
8) chloromethane	4.806	50	281799	41.60	ug/L		99
9) vinyl chloride	5.110	62	264315	45.43	ug/L		97
11) bromomethane	5.823	94	151214	40.06	ug/L		100
12) chloroethane	6.017	64	119738	39.13	ug/L		97
13) trichlorofluoromethane	6.594	101	266558	48.04	ug/L		96
14) vinyl bromide	6.436	106	146070	40.07	ug/L		95
15) ethyl ether	7.050	74	82777	50.91	ug/L	#	83
16) 2-chloropropane	7.291	43	259330	42.10	ug/L		95
17) acrolein	7.307	56	36375	34.64	ug/L		92
18) freon 113	7.553	151	143696	57.74	ug/L		98
19) 1,1-dichloroethene	7.532	96	155140	45.93	ug/L		96
20) acetone	7.548	58	83064	189.37	ug/L		92
21) iodomethane	7.815	142	247560	43.94	ug/L		97
22) acetonitrile	8.036	41	348146	462.87	ug/L		98
23) carbon disulfide	7.983	76	458787	45.95	ug/L		98
24) methylene chloride	8.350	84	162935	41.34	ug/L		97
25) methyl acetate	8.072	43	164729	44.26	ug/L		95
26) methyl tert butyl ether	8.749	73	467901	45.81	ug/L		97
27) trans-1,2-dichloroethene	8.775	96	142566	44.95	ug/L		96
28) hexane	9.173	56	101131	51.53	ug/L		98
29) di-isopropyl ether	9.415	45	494292	42.42	ug/L		97
30) 1,1-dichloroethane	9.415	63	257521	47.49	ug/L		99
31) chloroprene	9.525	53	214382	47.28	ug/L		98
32) acrylonitrile	8.675	53	85446	45.72	ug/L		99
33) vinyl acetate	9.357	86	26819	52.15	ug/L	#	91
34) ethyl tert-butyl ether	9.918	59	484522	45.57	ug/L		98
35) 2-butanone	10.128	72	98746	194.16	ug/L		95
36) ethyl acetate	10.149	45	29582	43.19	ug/L	#	75
37) 2,2-dichloropropane	10.232	77	209426	51.39	ug/L		93
38) cis-1,2-dichloroethene	10.190	96	154977	45.88	ug/L		99
39) propionitrile	10.217	54	376687	450.56	ug/L		92
40) bromochloromethane	10.510	128	82995	49.68	ug/L		94
41) tetrahydrofuran	10.531	42	71736	40.41	ug/L		95
42) chloroform	10.605	83	246302	46.22	ug/L		98
43) t-butyl formate	10.647	59	147082	45.78	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:11:54 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) methacrylonitrile	10.421	67	73125	47.35	ug/L		90
46) 1,1,1-trichloroethane	10.872	97	220831	43.44	ug/L		99
47) Cyclohexane	10.987	84	213777	49.75	ug/L		91
48) 1,1-dichloropropene	11.045	75	174980	47.52	ug/L		100
49) carbon tetrachloride	11.077	117	204278	52.78	ug/L		95
50) isobutyl alcohol	11.029	42	65459m	322.01	ug/L		
53) n-butyl alcohol	11.774	56	426157	2171.08	ug/L		99
54) tert-amyl alcohol	11.192	55	63833	220.13	ug/L	#	87
55) iso-octane	11.402	57	598671	52.03	ug/L		98
56) benzene	11.297	78	505649	47.98	ug/L		99
57) tert-amyl methyl ether	11.386	87	103511	49.82	ug/L		95
58) heptane	11.559	57	97993	44.70	ug/L		97
59) isopropyl acetate	11.218	87	34504	53.50	ug/L	#	81
60) 1,2-dichloroethane	11.328	62	177275	48.87	ug/L		99
61) ethyl acrylate	12.005	55	198122	49.64	ug/L		99
62) trichloroethene	12.015	95	126640	48.08	ug/L		98
63) 2-nitropropane	12.739	41	59311	47.74	ug/L		92
64) 2-chloroethyl vinyl ether	12.770	63	344258	198.83	ug/L		99
65) methyl methacrylate	12.261	100	39724	50.21	ug/L		94
66) 1,2-dichloropropane	12.293	63	128726	48.57	ug/L		100
67) dibromomethane	12.398	93	88517	48.96	ug/L		100
68) methylcyclohexane	12.298	83	255635	49.82	ug/L		97
69) bromodichloromethane	12.545	83	177632	49.34	ug/L		99
70) epichlorohydrin	12.854	57	104697	226.98	ug/L		99
71) cis-1,3-dichloropropene	12.980	75	200505	48.55	ug/L		97
72) 4-methyl-2-pentanone	13.074	58	291517	189.63	ug/L		95
73) 3-methyl-1-butanol	13.079	55	268656	883.86	ug/L		100
76) toluene	13.336	92	276887	48.81	ug/L		99
77) ethyl methacrylate	13.504	69	168149	47.50	ug/L		96
78) trans-1,3-dichloropropene	13.515	75	178109	50.26	ug/L		93
79) 1,1,2-trichloroethane	13.724	83	97077	48.23	ug/L		98
80) 2-hexanone	13.876	58	267282	188.73	ug/L		97
81) tetrachloroethene	13.861	164	120946	53.86	ug/L		97
82) 1,3-dichloropropane	13.892	76	167332	48.74	ug/L		99
83) butyl acetate	13.945	56	95524	45.37	ug/L		97
84) dibromochloromethane	14.123	129	145192	55.85	ug/L		98
85) 1,2-dibromoethane	14.270	107	141177	53.99	ug/L		96
86) n-butyl ether	14.668	57	500114	45.09	ug/L		100
87) chlorobenzene	14.715	112	309217	49.76	ug/L		99
88) 1,1,1,2-tetrachloroethane	14.778	131	133616	50.40	ug/L		99
89) ethylbenzene	14.773	91	500092	48.13	ug/L		99
90) m,p-xylene	14.883	106	394878	97.35	ug/L		98
91) o-xylene	15.255	106	209993	48.75	ug/L		98
92) styrene	15.266	104	329756	47.07	ug/L		97
93) butyl acrylate	15.093	55	259284	45.25	ug/L		99
94) bromoform	15.486	173	122898	56.98	ug/L		98
95) isopropylbenzene	15.580	105	551702	46.26	ug/L		99
96) cis-1,4-dichloro-2-butene	15.612	75	42276	30.78	ug/L		95
99) bromobenzene	15.942	156	159966	53.71	ug/L		99
100) 1,1,2,2-tetrachloroethane	15.837	83	196524	50.72	ug/L		99
101) trans-1,4-dichloro-2-b...	15.869	88	15423	34.81	ug/L	#	83
102) 1,2,3-trichloropropane	15.921	110	50479	53.52	ug/L		99
103) n-propylbenzene	15.968	91	592821	50.49	ug/L		98
104) 2-chlorotoluene	16.094	126	140429	52.74	ug/L		98
105) 4-chlorotoluene	16.199	91	361738	50.35	ug/L		95
106) 1,3,5-trimethylbenzene	16.110	105	450557	48.72	ug/L		100
107) tert-butylbenzene	16.430	119	408308	50.80	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:11:54 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

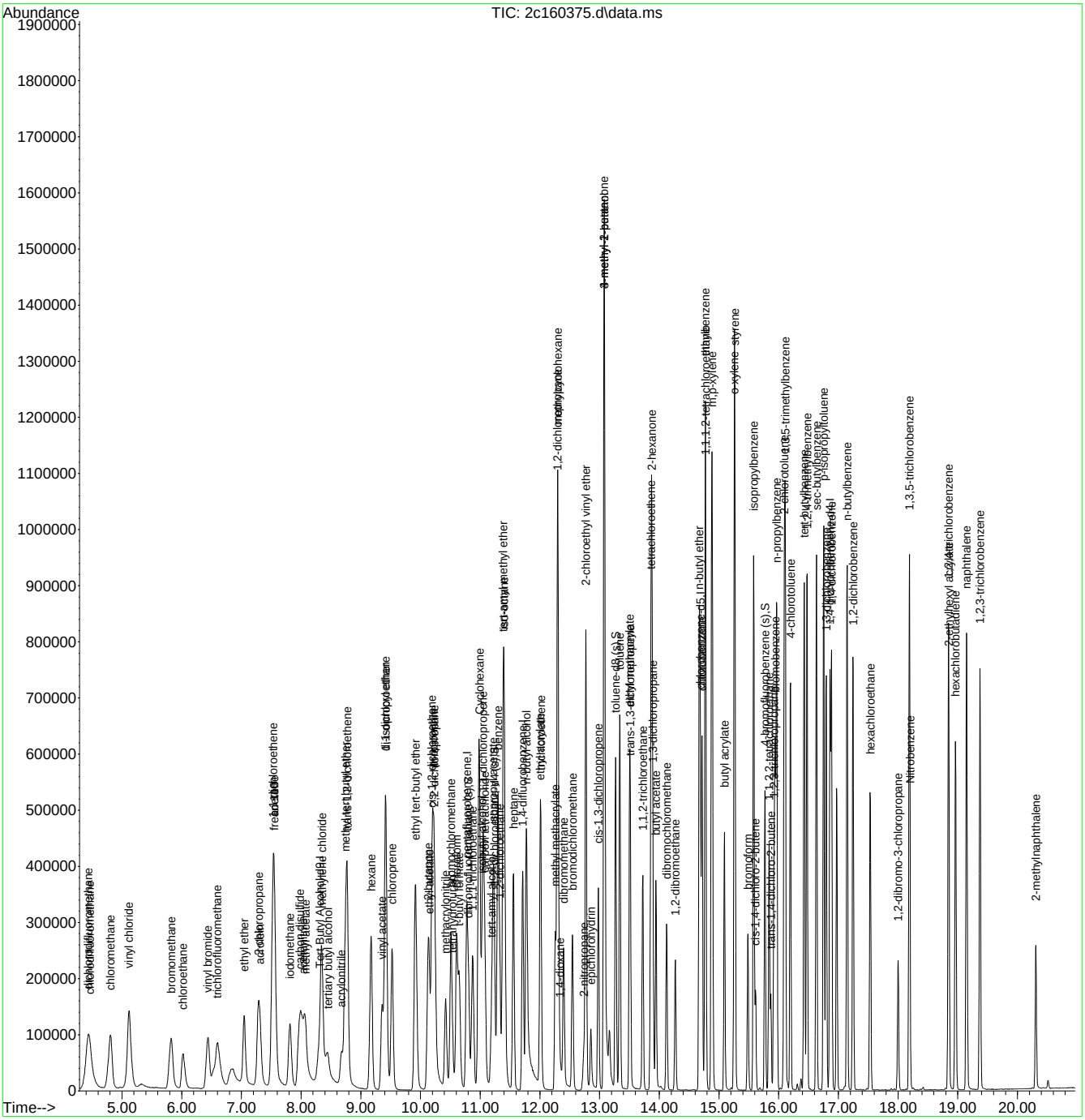
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) 1,2,4-trimethylbenzene	16.477	105	455425	48.38	ug/L		98
109) sec-butylbenzene	16.634	105	608054	49.16	ug/L		99
110) 1,3-dichlorobenzene	16.797	146	291334	49.65	ug/L		99
111) p-isopropyltoluene	16.755	119	524248	48.71	ug/L		100
112) 1,4-dichlorobenzene	16.886	146	291848	50.10	ug/L		100
113) 1,2-dichlorobenzene	17.248	146	308640	48.82	ug/L		100
114) n-butylbenzene	17.148	92	258046	46.54	ug/L		100
115) 1,2-dibromo-3-chloropr...	17.997	75	49076	51.15	ug/L		90
116) 1,3,5-trichlorobenzene	18.191	180	310694	48.13	ug/L		100
117) Nitrobenzene	18.202	77	12099	66.44	ug/L		94
118) 1,2,4-trichlorobenzene	18.847	180	264277	48.21	ug/L		98
119) 2-ethylhexyl acrylate	18.852	55	20247	4.79	ug/L	#	91
120) hexachlorobutadiene	18.962	225	144016	45.88	ug/L		99
121) naphthalene	19.146	128	629280	49.29	ug/L		99
122) 1,2,3-trichlorobenzene	19.371	180	247236	48.97	ug/L		99
123) hexachloroethane	17.536	201	102559	49.83	ug/L		97
124) 2-methylnaphthalene	20.310	142	122172	17.65	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:11:54 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration



Manual Integration Approval Summary

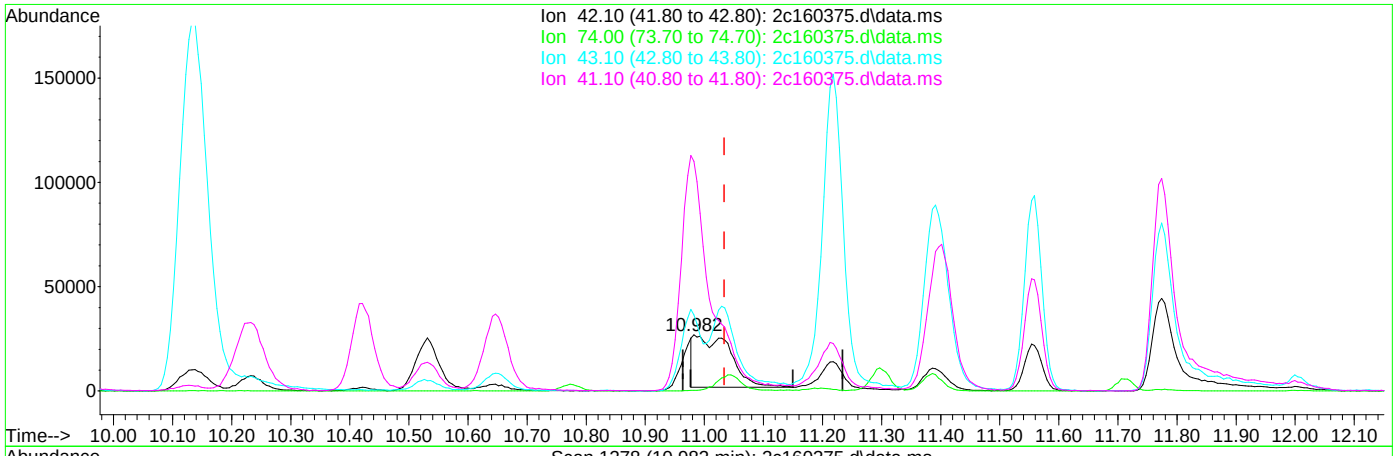
Sample Number:	V2C7121-CC7025	**Method:**	SW846 8260C
Lab FileID:	2C160375.D	**Analyst approved:**	07/03/18 21:25 Janelle Cordova
Injection Time:	07/02/18 18:38	**Supervisor approved:**	07/04/18 21:40 Kanya Veerawat

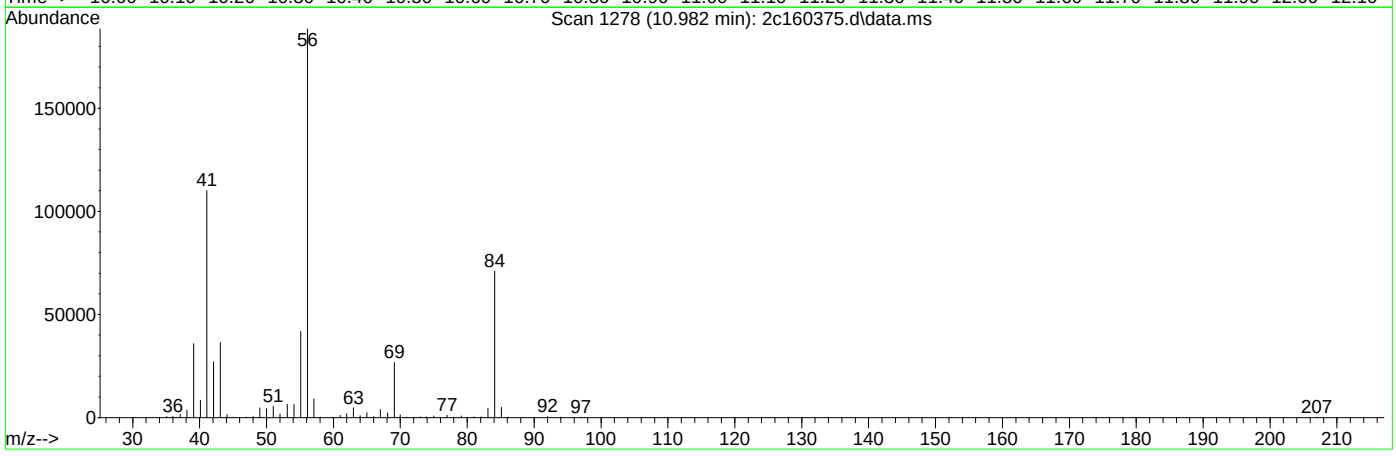
Parameter	CAS	Sig#	R.T. (min.)	Reason
Isobutyl alcohol	78-83-1		11.03	Poor instrument integration

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:45:48 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160375.d\data.ms

(50) isobutyl alcohol

10.982min (-0.052) 531.64ug/L

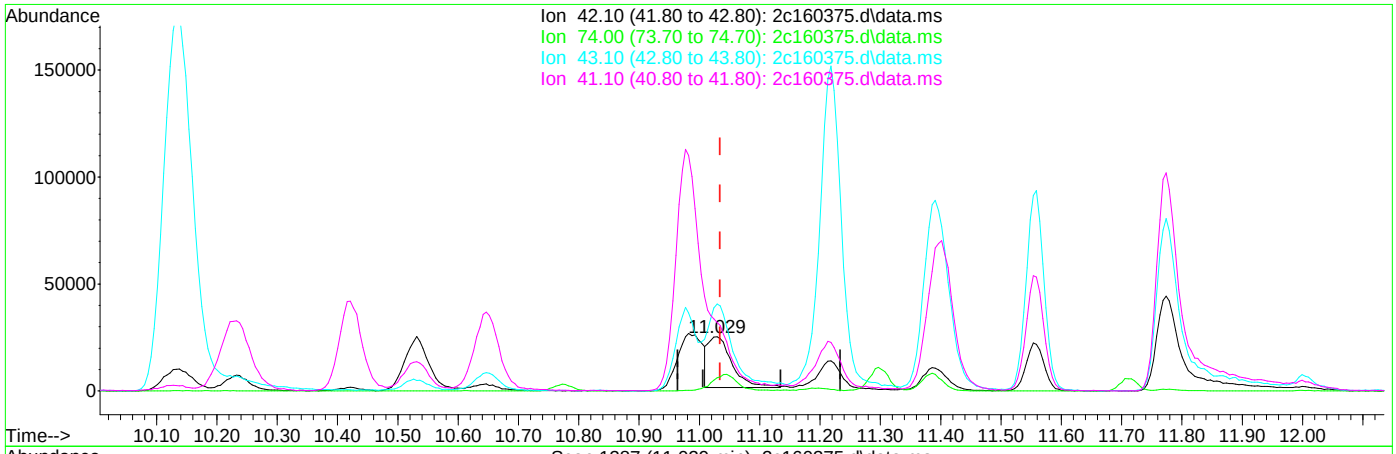
response 108071

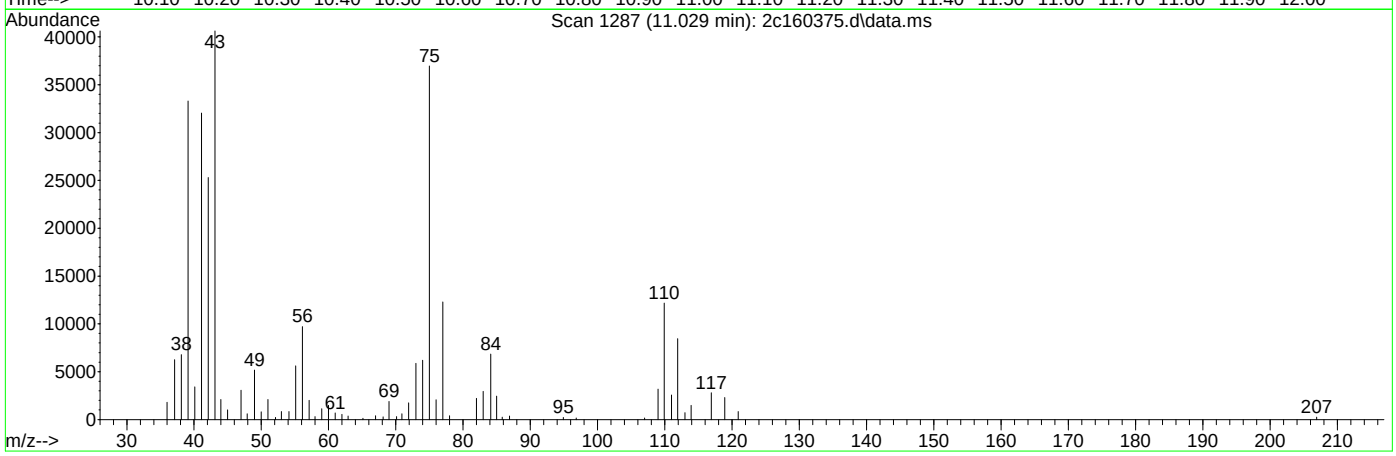
Ion	Exp%	Act%
42.10	100	100
74.00	20.10	0.00
43.10	159.80	130.71
41.10	120.10	426.93#

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160375.d
Acq On : 2 Jul 2018 6:38 pm
Operator : HueanhT
Sample : cc7025-50 Inst : Instrument #1
Misc : MS27540,V2C7121,w,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 20:45:48 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration





TIC: 2c160375.d\data.ms

(50) isobutyl alcohol

11.029min (-0.005) 322.01ug/L m

response 65459

Ion	Exp%	Act%
42.10	100	100
74.00	20.10	24.57
43.10	159.80	160.71
41.10	120.10	126.73

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160399.d
Acq On : 3 Jul 2018 7:25 am
Operator : HueanhT
Sample : ECC7025-50 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:09:14 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) Tert Butyl Alcohol-d9	8.314	65	219422	500.00	ug/L		-0.02
5) pentafluorobenzene	10.773	168	260751	50.00	ug/L		0.00
51) 1,4-difluorobenzene	11.711	114	331720	50.00	ug/L		0.00
74) chlorobenzene-d5	14.689	117	275714	50.00	ug/L		0.00
97) 1,4-dichlorobenzene-d4	16.860	152	161762	50.00	ug/L		0.00
System Monitoring Compounds							
44) dibromofluoromethane (s)	10.804	113	116751	51.74	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.48%				
52) 1,2-dichloroethane-d4 (s)	11.234	65	130818	54.42	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 108.84%				
75) toluene-d8 (s)	13.268	98	339927	48.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.80%				
98) 4-bromofluorobenzene (s)	15.769	95	131811	55.87	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 111.74%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	8.450	59	146050	269.40	ug/L		95
4) 1,4-dioxane	12.335	88	49983	1275.54	ug/L		94
6) chlorodifluoromethane	4.470	51	177389	38.52	ug/L		98
7) dichlorodifluoromethane	4.418	85	215570	53.05	ug/L		97
8) chloromethane	4.822	50	227966	36.31	ug/L		98
9) vinyl chloride	5.131	62	201989	37.46	ug/L		94
11) bromomethane	5.839	94	119061	34.04	ug/L		97
12) chloroethane	6.033	64	101019	35.63	ug/L		96
13) trichlorofluoromethane	6.610	101	234981	45.70	ug/L		98
14) vinyl bromide	6.452	106	120364	35.64	ug/L		99
15) ethyl ether	7.055	74	81210	53.90	ug/L	#	83
16) 2-chloropropane	7.302	43	196320	34.39	ug/L		92
17) acrolein	7.317	56	25903	26.62	ug/L		93
18) freon 113	7.559	151	119212	51.70	ug/L		98
19) 1,1-dichloroethene	7.553	96	144615	46.21	ug/L		97
20) acetone	7.548	58	70223	172.77	ug/L		98
21) iodomethane	7.821	142	210796	40.37	ug/L		95
22) acetonitrile	8.041	41	263092	377.48	ug/L		99
23) carbon disulfide	8.009	76	377269	40.77	ug/L		99
24) methylene chloride	8.350	84	146853	40.21	ug/L		99
25) methyl acetate	8.072	43	160520	46.55	ug/L		99
26) methyl tert butyl ether	8.749	73	428182	45.24	ug/L		100
27) trans-1,2-dichloroethene	8.775	96	135539	46.12	ug/L		96
28) hexane	9.168	56	85301	46.91	ug/L		98
29) di-isopropyl ether	9.415	45	452675	41.93	ug/L		97
30) 1,1-dichloroethane	9.415	63	253199	50.39	ug/L		98
31) chloroprene	9.525	53	211336	50.30	ug/L		99
32) acrylonitrile	8.675	53	76114	43.95	ug/L		96
33) vinyl acetate	9.357	86	19368	40.64	ug/L	#	88
34) ethyl tert-butyl ether	9.918	59	444181	45.09	ug/L		98
35) 2-butanone	10.128	72	87468	185.61	ug/L		93
36) ethyl acetate	10.149	45	30576	48.17	ug/L	#	92
37) 2,2-dichloropropane	10.222	77	110318	29.21	ug/L		99
38) cis-1,2-dichloroethene	10.191	96	145580	46.52	ug/L		99
39) propionitrile	10.211	54	325637	420.34	ug/L		92
40) bromochloromethane	10.510	128	77680	50.18	ug/L		97
41) tetrahydrofuran	10.531	42	65227	39.66	ug/L		97
42) chloroform	10.605	83	242577	49.13	ug/L		99
43) t-butyl formate	10.647	59	108492	36.44	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160399.d
Acq On : 3 Jul 2018 7:25 am
Operator : HueanhT
Sample : ECC7025-50 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:09:14 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	methacrylonitrile	10.421	67	69096	48.29	ug/L		93
46)	1,1,1-trichloroethane	10.867	97	185716	39.43	ug/L		98
47)	Cyclohexane	10.982	84	179781	45.15	ug/L	#	74
48)	1,1-dichloropropene	11.045	75	169487	49.67	ug/L		100
49)	carbon tetrachloride	11.071	117	184621	51.48	ug/L		97
50)	isobutyl alcohol	11.029	42	65731	348.95	ug/L		93
53)	n-butyl alcohol	11.774	56	361861	1976.48	ug/L		100
54)	tert-amyl alcohol	11.197	55	55394	204.81	ug/L	#	87
55)	iso-octane	11.407	57	465452	43.37	ug/L		98
56)	benzene	11.297	78	476558	48.48	ug/L		98
57)	tert-amyl methyl ether	11.386	87	93405	48.20	ug/L		94
58)	heptane	11.554	57	81142	39.68	ug/L		97
59)	isopropyl acetate	11.218	87	31487	52.34	ug/L	#	78
60)	1,2-dichloroethane	11.328	62	179643	53.10	ug/L		97
61)	ethyl acrylate	12.005	55	188538	50.64	ug/L		99
62)	trichloroethene	12.010	95	127156	51.76	ug/L		98
63)	2-nitropropane	12.739	41	56400	48.67	ug/L		93
64)	2-chloroethyl vinyl ether	12.770	63	316462	195.95	ug/L		100
65)	methyl methacrylate	12.256	100	36149	48.98	ug/L		96
66)	1,2-dichloropropane	12.293	63	121881	49.30	ug/L		99
67)	dibromomethane	12.398	93	84209	49.93	ug/L		99
68)	methylcyclohexane	12.298	83	213864	44.69	ug/L		99
69)	bromodichloromethane	12.545	83	176650	52.60	ug/L		98
70)	epichlorohydrin	12.854	57	85386	198.47	ug/L		99
71)	cis-1,3-dichloropropene	12.980	75	181663	47.16	ug/L		99
72)	4-methyl-2-pentanone	13.074	58	250496	174.70	ug/L		99
73)	3-methyl-1-butanol	13.079	55	221529	781.38	ug/L		97
76)	toluene	13.336	92	255684	48.53	ug/L		99
77)	ethyl methacrylate	13.504	69	153737	46.77	ug/L		98
78)	trans-1,3-dichloropropene	13.515	75	163914	49.81	ug/L		98
79)	1,1,2-trichloroethane	13.724	83	91779	49.11	ug/L		97
80)	2-hexanone	13.876	58	236220	179.61	ug/L		98
81)	tetrachloroethene	13.861	164	112567	53.98	ug/L		97
82)	1,3-dichloropropane	13.892	76	160174	50.24	ug/L		96
83)	butyl acetate	13.945	56	88176	45.10	ug/L		95
84)	dibromochloromethane	14.123	129	138725	57.46	ug/L		98
85)	1,2-dibromoethane	14.270	107	134883	55.55	ug/L		97
86)	n-butyl ether	14.668	57	448985	43.59	ug/L		100
87)	chlorobenzene	14.715	112	286964	49.72	ug/L		97
88)	1,1,1,2-tetrachloroethane	14.778	131	122348	49.70	ug/L		98
89)	ethylbenzene	14.768	91	462532	47.93	ug/L		99
90)	m,p-xylene	14.883	106	360932	95.82	ug/L		98
91)	o-xylene	15.255	106	189519	47.38	ug/L		95
92)	styrene	15.266	104	309728	47.61	ug/L		95
93)	butyl acrylate	15.093	55	241923	45.47	ug/L		99
94)	bromoform	15.486	173	117124	58.48	ug/L		98
95)	isopropylbenzene	15.580	105	493951	44.60	ug/L		98
96)	cis-1,4-dichloro-2-butene	15.612	75	37439	29.35	ug/L		87
99)	bromobenzene	15.942	156	153935	56.76	ug/L		98
100)	1,1,2,2-tetrachloroethane	15.837	83	165084	46.80	ug/L		99
101)	trans-1,4-dichloro-2-b...	15.869	88	16631	41.23	ug/L	#	81
102)	1,2,3-trichloropropane	15.921	110	46393	54.02	ug/L		98
103)	n-propylbenzene	15.968	91	542394	50.73	ug/L		98
104)	2-chlorotoluene	16.094	126	128450	52.98	ug/L		100
105)	4-chlorotoluene	16.199	91	340758	52.09	ug/L		97
106)	1,3,5-trimethylbenzene	16.110	105	404163	47.99	ug/L		98
107)	tert-butylbenzene	16.430	119	375124	51.26	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160399.d
Acq On : 3 Jul 2018 7:25 am
Operator : HueanhT
Sample : ECC7025-50 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:09:14 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration

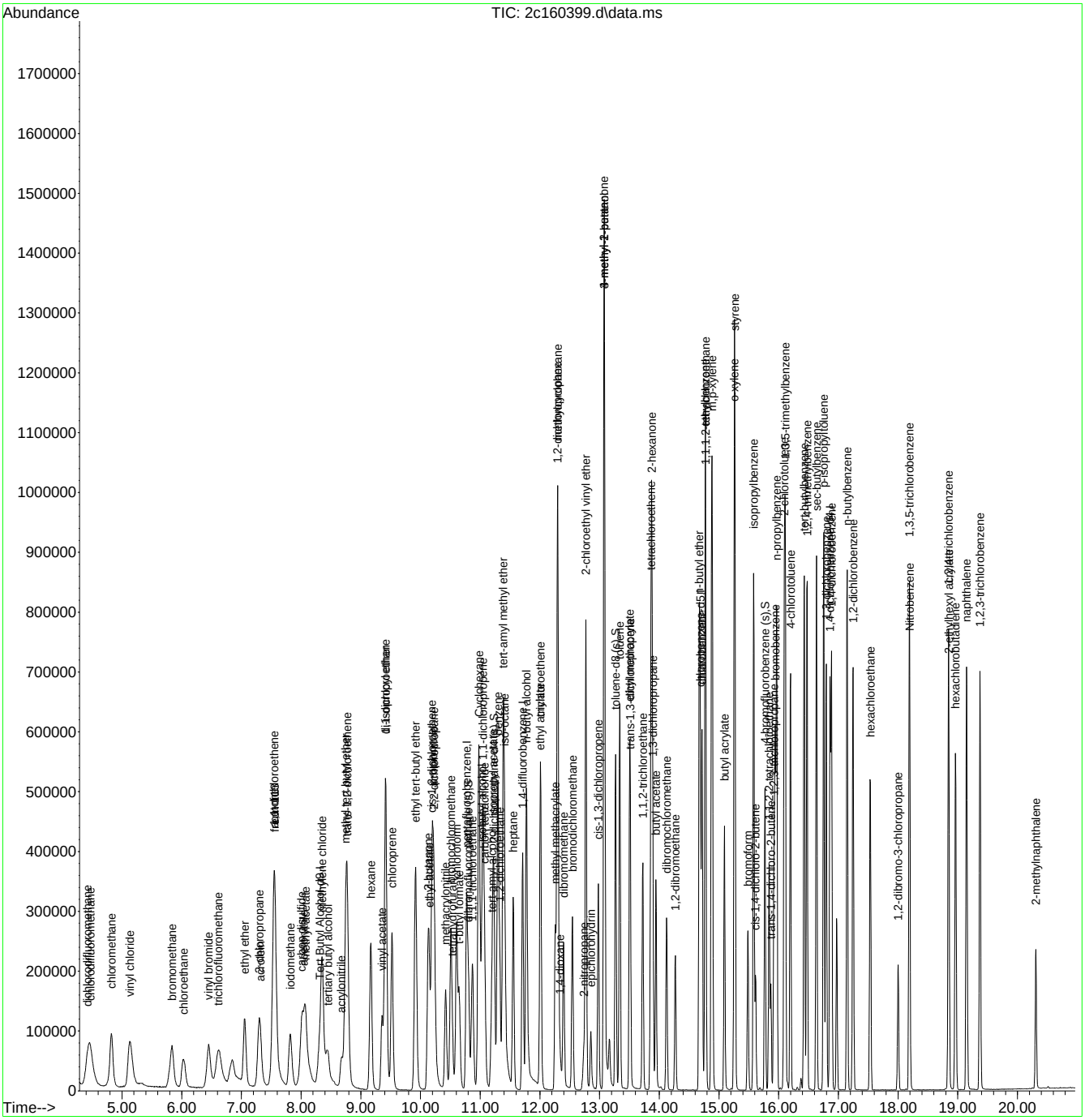
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
108) 1,2,4-trimethylbenzene	16.477	105	409747	47.80	ug/L		99
109) sec-butylbenzene	16.634	105	542621	48.19	ug/L		100
110) 1,3-dichlorobenzene	16.797	146	268014	50.16	ug/L		99
111) p-isopropyltoluene	16.755	119	466594	47.61	ug/L		99
112) 1,4-dichlorobenzene	16.886	146	267608	50.45	ug/L		100
113) 1,2-dichlorobenzene	17.248	146	285041	49.52	ug/L		99
114) n-butylbenzene	17.148	92	229486	45.46	ug/L		97
115) 1,2-dibromo-3-chloropr...	18.003	75	44743	51.21	ug/L		94
116) 1,3,5-trichlorobenzene	18.191	180	268441	45.67	ug/L		98
117) Nitrobenzene	18.197	77	11275	68.00	ug/L		95
118) 1,2,4-trichlorobenzene	18.847	180	234695	47.02	ug/L		99
119) 2-ethylhexyl acrylate	18.852	55	20318	5.28	ug/L	#	91
120) hexachlorobutadiene	18.962	225	129810	45.42	ug/L		99
121) naphthalene	19.146	128	534693	46.00	ug/L		100
122) 1,2,3-trichlorobenzene	19.371	180	226067	49.18	ug/L		99
123) hexachloroethane	17.536	201	99944	53.33	ug/L		98
124) 2-methylnaphthalene	20.310	142	105878	16.80	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-04-18\v2c7121\
Data File : 2c160399.d
Acq On : 3 Jul 2018 7:25 am
Operator : HueanhT
Sample : ECC7025-50 Inst : Instrument #1
Misc : MS27582,V2C7121,w,,,,1
ALS Vial : 49 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2C7025.M
Quant Results File: M2C7025.RES
Quant Time: Jul 03 21:09:14 2018
Quant Title : SW846 8260C, Column ZB624 60mX0.25mmX1.4um
QLast Update : Fri May 18 09:36:02 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	112373	500.00	ug/L		-0.01
5) pentafluorobenzene	10.089	168	292006	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.242	114	400871	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	395637	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	234951	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	125037	49.70	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.40%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	137500	49.94	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.88%				
77) toluene-d8 (s)	13.444	98	465100	50.55	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.10%				
100) 4-bromofluorobenzene (s)	16.962	95	190452	50.52	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.04%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	1026	4.85	ug/L	#	32
3) ethanol	5.999	45	3456	159.34	ug/L		98
6) chlorodifluoromethane	3.897	51	2802	1.02	ug/L		94
7) dichlorodifluoromethane	3.876	85	2935	0.96	ug/L		87
10) chloromethane	4.274	50	4268	1.16	ug/L		93
11) vinyl chloride	4.499	62	3481	1.08	ug/L		93
13) chloroethane	5.296	64	2100	1.24	ug/L		92
14) trichlorofluoromethane	5.779	101	4060	1.18	ug/L		87
15) vinyl bromide	5.653	106	2657	1.10	ug/L		89
17) ethyl ether	6.198	74	1184	1.04	ug/L	#	79
18) acrolein	6.439	56	537	1.16	ug/L	#	36
19) 1,1-dichloroethene	6.639	96	2188	0.99	ug/L	#	80
20) freon 113	6.628	151	1575	0.89	ug/L	#	79
22) acetone	6.686	58	536	3.59	ug/L	#	52
24) iodomethane	6.911	142	3847	1.03	ug/L		96
25) carbon disulfide	7.063	76	7517	1.07	ug/L		96
26) methylene chloride	7.404	84	2553	1.01	ug/L		87
28) methyl tert butyl ether	7.818	73	6463	1.01	ug/L		98
29) trans-1,2-dichloroethene	7.834	96	2233	1.00	ug/L		90
30) hexane	8.238	57	2907	1.00	ug/L		94
31) di-isopropyl ether	8.547	45	7774	1.01	ug/L		80
32) 2-butanone	9.396	72	680	3.44	ug/L	#	15
33) 1,1-dichloroethane	8.500	63	4185	1.01	ug/L		92
34) chloroprene	8.647	53	3368	1.02	ug/L		85
35) acrylonitrile	7.787	53	648	0.86	ug/L		96
37) ethyl tert-butyl ether	9.113	59	7278	1.01	ug/L		91
39) 2,2-dichloropropane	9.412	77	3727	1.13	ug/L		88
40) cis-1,2-dichloroethene	9.391	96	2416	0.97	ug/L		91
41) propionitrile	9.486	54	3076	9.66	ug/L		95
42) tert-Butyl Formate	9.931	59	2348	1.07	ug/L		91
43) bromochloromethane	9.758	128	1187	0.95	ug/L		99
45) chloroform	9.847	83	4212	1.02	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) methacrylonitrile	9.727	67	817	1.00	ug/L	#	66
48) 1,1,1-trichloroethane	10.178	97	3673	0.99	ug/L		98
49) cyclohexane	10.283	84	2748	0.89	ug/L		90
50) 1,1-dichloropropene	10.419	75	3085	1.01	ug/L		95
52) carbon tetrachloride	10.435	117	3169	0.98	ug/L		98
56) benzene	10.739	78	9204	1.03	ug/L		94
57) iso-octane	10.807	57	8475	0.94	ug/L		94
58) tert-amyl methyl ether	10.838	73	7020	1.01	ug/L		94
59) heptane	11.038	57	1531	0.94	ug/L		92
61) 1,2-dichloroethane	10.744	62	3450	1.05	ug/L		93
62) n-butyl alcohol	11.426	56	2219	40.86	ug/L		86
63) ethyl acrylate	11.751	55	2575	0.98	ug/L		79
64) trichloroethene	11.672	130	2471	1.03	ug/L		91
65) 2-nitropropane	12.710	41	521	1.18	ug/L	#	74
66) 2-chloroethyl vinyl ether	12.773	63	6895	4.78	ug/L		94
67) methyl methacrylate	12.086	69	1260	0.91	ug/L	#	63
68) 1,2-dichloropropane	12.023	63	2444	1.02	ug/L		95
69) dibromomethane	12.196	93	1424	1.01	ug/L	#	80
70) methylcyclohexane	11.987	83	3772	0.95	ug/L		88
71) bromodichloromethane	12.401	83	3072	1.00	ug/L		96
72) epichlorohydrin	12.904	57	1069	5.17	ug/L	#	58
73) cis-1,3-dichloropropene	13.035	75	3789	0.96	ug/L		96
74) 4-methyl-2-pentanone	13.224	58	3238	3.84	ug/L		92
75) 3-methyl-1-butanol	13.250	55	1975	20.40	ug/L		88
78) toluene	13.544	92	5889	1.06	ug/L	#	83
79) trans-1,3-dichloropropene	13.811	75	3340	0.98	ug/L		88
80) ethyl methacrylate	13.874	69	2734	0.96	ug/L		96
81) 1,1,2-trichloroethane	14.089	83	1831	1.07	ug/L		90
82) tetrachloroethene	14.325	164	2020	0.96	ug/L		83
83) 1,3-dichloropropane	14.330	76	3448	1.02	ug/L		96
84) 2-hexanone	14.383	58	2877	3.77	ug/L	#	87
85) butyl acetate	14.524	56	1347	0.97	ug/L	#	78
86) dibromochloromethane	14.660	129	2376	0.99	ug/L		96
87) 1,2-dibromoethane	14.865	107	2236	0.96	ug/L		85
88) n-butyl ether	15.510	57	11040	1.05	ug/L		98
89) chlorobenzene	15.499	112	6656	1.01	ug/L		93
90) 1,1,1,2-tetrachloroethane	15.588	131	2429	0.98	ug/L		85
91) ethylbenzene	15.615	91	11378	1.03	ug/L		98
92) m,p-xylene	15.762	91	17850	2.07	ug/L		95
93) o-xylene	16.302	106	4287	0.99	ug/L		89
94) styrene	16.317	104	7121	0.97	ug/L		98
95) butyl acrylate	16.149	55	4556	0.98	ug/L		95
96) bromoform	16.595	173	1542	0.93	ug/L		93
97) isopropylbenzene	16.752	105	12040	1.04	ug/L		94
98) cis-1,4-dichloro-2-butene	16.821	88	803	0.86	ug/L	#	76
101) bromobenzene	17.177	156	3487	1.05	ug/L	#	80
102) 1,1,2,2-tetrachloroethane	17.088	83	3004	1.01	ug/L		86
103) trans-1,4-dichloro-2-b...	17.156	53	702	1.04	ug/L		95
104) 1,2,3-trichloropropane	17.172	110	758	1.00	ug/L	#	72
105) n-propylbenzene	17.240	91	14132	1.03	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

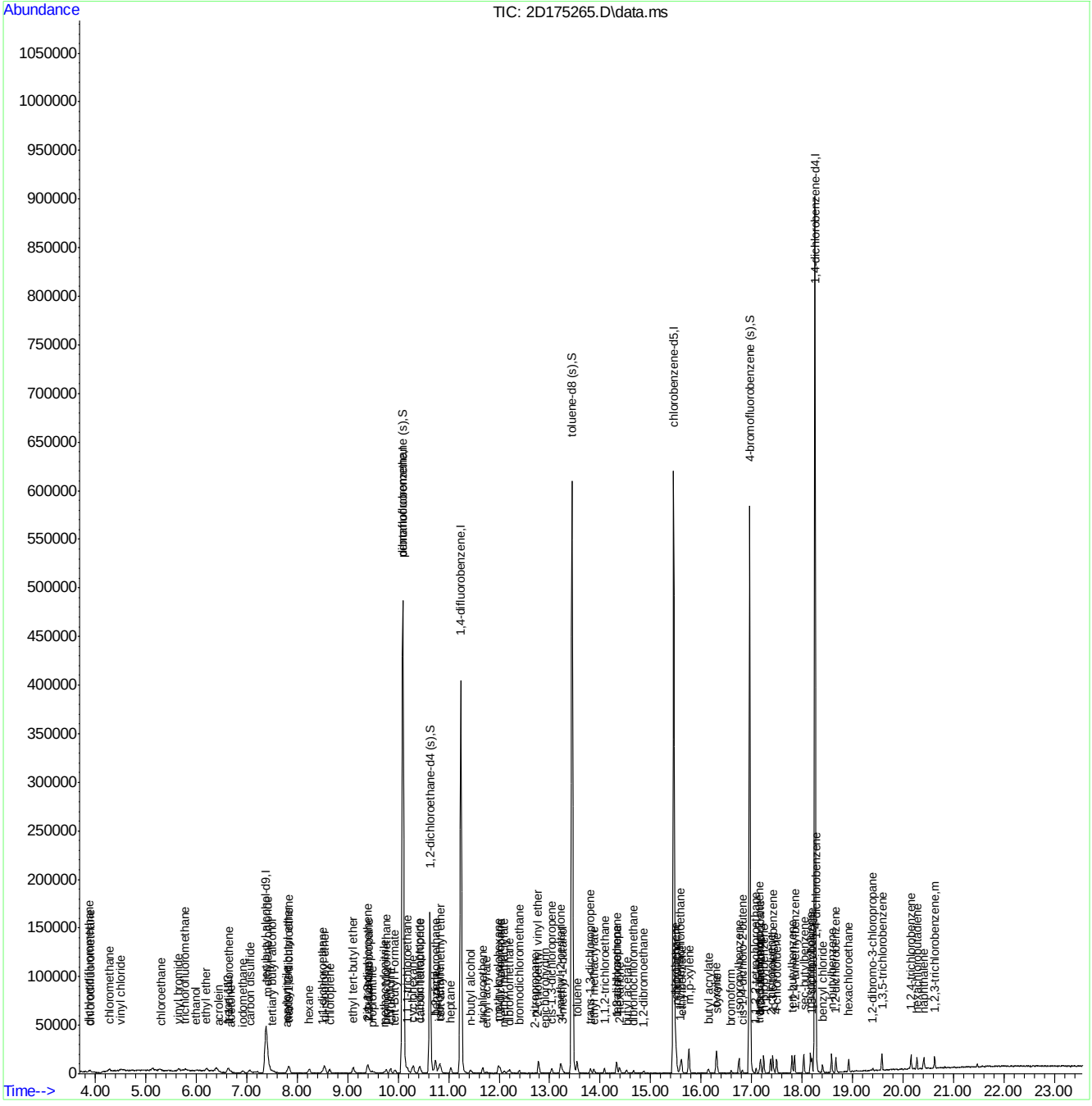
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
106) 2-chlorotoluene	17.382	126	2895	0.98	ug/L	90
107) 4-chlorotoluene	17.497	91	8676	1.05	ug/L	97
109) 1,3,5-trimethylbenzene	17.424	105	10138	1.00	ug/L	91
110) tert-butylbenzene	17.806	119	9050	1.01	ug/L	99
111) 1,2,4-trimethylbenzene	17.853	105	10577	1.02	ug/L	97
112) sec-butylbenzene	18.037	105	14018	1.04	ug/L	94
113) 1,3-dichlorobenzene	18.194	146	6239	0.99	ug/L	99
114) p-isopropyltoluene	18.168	119	11598	0.99	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	6538	1.03	ug/L	96
116) 1,2-dichlorobenzene	18.671	146	6448	1.02	ug/L	94
117) benzyl chloride	18.409	91	6005	1.02	ug/L	97
119) n-butylbenzene	18.582	92	5906	1.01	ug/L	86
121) 1,2-dibromo-3-chloropr...	19.400	157	728	1.00	ug/L	81
123) 1,3,5-trichlorobenzene	19.584	180	5506	0.93	ug/L	96
124) hexachlorobutadiene	20.281	225	2789	0.97	ug/L	93
125) naphthalene	20.412	128	9059	0.89	ug/L	98
127) 1,2,4-trichlorobenzene	20.160	180	4647	0.93	ug/L	99
128) 1,2,3-trichlorobenzene	20.627	180	4076	0.88	ug/L	93
129) hexachloroethane	18.928	201	1877	0.91	ug/L	94

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175265.D
Acq On : 3 May 2018 4:10 pm
Operator : oyinadei
Sample : IC7390-1
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: May 04 11:15:06 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.373	65	112244	500.00	ug/L		-0.02
5) pentafluorobenzene	10.088	168	286766	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.242	114	393444	50.00	ug/L		0.00
76) chlorobenzene-d5	15.463	117	390400	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	229345	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.088	113	123505	49.99	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	138006	51.07	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.14%				
77) toluene-d8 (s)	13.444	98	457394	50.38	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.76%				
100) 4-bromofluorobenzene (s)	16.962	95	186201	50.60	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.20%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.886	51	1522	0.56	ug/L		69
10) chloromethane	4.258	50	1980	0.55	ug/L		89
11) vinyl chloride	4.494	62	1359	0.43	ug/L		91
13) chloroethane	5.291	64	894	0.54	ug/L		75
14) trichlorofluoromethane	5.800	101	1378	0.41	ug/L		85
15) vinyl bromide	5.663	106	1325	0.56	ug/L	#	71
17) ethyl ether	6.203	74	605	0.54	ug/L	#	79
19) 1,1-dichloroethene	6.639	96	1230	0.57	ug/L	#	69
24) iodomethane	6.911	142	2016	0.55	ug/L		86
25) carbon disulfide	7.068	76	4123	0.60	ug/L		90
28) methyl tert butyl ether	7.818	73	3688	0.59	ug/L		88
29) trans-1,2-dichloroethene	7.834	96	1266	0.58	ug/L		93
30) hexane	8.243	57	1262	0.44	ug/L		85
31) di-isopropyl ether	8.547	45	4452	0.59	ug/L		86
33) 1,1-dichloroethane	8.495	63	2378	0.58	ug/L		95
34) chloroprene	8.641	53	1827	0.56	ug/L		86
37) ethyl tert-butyl ether	9.113	59	4327	0.61	ug/L		85
39) 2,2-dichloropropane	9.407	77	1901	0.59	ug/L		92
40) cis-1,2-dichloroethene	9.386	96	1508	0.61	ug/L		80
41) propionitrile	9.496	54	1683	5.38	ug/L		91
42) tert-Butyl Formate	9.936	59	1155	0.53	ug/L		87
43) bromochloromethane	9.769	128	734	0.60	ug/L	#	53
47) methacrylonitrile	9.727	67	372	0.46	ug/L	#	73
48) 1,1,1-trichloroethane	10.172	97	2013	0.55	ug/L		95
49) cyclohexane	10.277	84	1472	0.49	ug/L	#	74
50) 1,1-dichloropropene	10.408	75	1699	0.57	ug/L		91
52) carbon tetrachloride	10.435	117	1757	0.55	ug/L		88
56) benzene	10.744	78	5252	0.60	ug/L		99
57) iso-octane	10.807	57	3947	0.45	ug/L		93
59) heptane	11.043	57	677	0.42	ug/L		81
62) n-butyl alcohol	11.436	56	1310	24.58	ug/L		90
63) ethyl acrylate	11.751	55	1453	0.56	ug/L		79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
64)	trichloroethene	11.677	130	1381	0.58	ug/L		90
66)	2-chloroethyl vinyl ether	12.778	63	4075	2.88	ug/L		97
67)	methyl methacrylate	12.102	69	641	0.47	ug/L	#	78
68)	1,2-dichloropropane	12.023	63	1388	0.59	ug/L		96
69)	dibromomethane	12.201	93	698	0.50	ug/L		77
70)	methylcyclohexane	11.986	83	1725	0.44	ug/L		87
71)	bromodichloromethane	12.395	83	1702	0.56	ug/L		86
73)	cis-1,3-dichloropropene	13.040	75	2376	0.62	ug/L		97
78)	toluene	13.549	92	3231	0.59	ug/L		91
79)	trans-1,3-dichloropropene	13.811	75	1997	0.59	ug/L		93
80)	ethyl methacrylate	13.879	69	1573	0.56	ug/L		83
81)	1,1,2-trichloroethane	14.084	83	927	0.55	ug/L	#	81
82)	tetrachloroethene	14.320	164	1211	0.59	ug/L		98
83)	1,3-dichloropropane	14.335	76	1894	0.57	ug/L		90
84)	2-hexanone	14.388	58	1698	2.25	ug/L		99
85)	butyl acetate	14.519	56	644	0.47	ug/L	#	36
86)	dibromochloromethane	14.660	129	1333	0.56	ug/L		86
87)	1,2-dibromoethane	14.849	107	1388	0.60	ug/L	#	68
88)	n-butyl ether	15.505	57	6061	0.58	ug/L		97
89)	chlorobenzene	15.505	112	4023	0.62	ug/L		92
90)	1,1,1,2-tetrachloroethane	15.588	131	1357	0.56	ug/L		96
91)	ethylbenzene	15.615	91	6431	0.59	ug/L		94
92)	m,p-xylene	15.767	91	10279	1.21	ug/L		98
93)	o-xylene	16.301	106	2474	0.58	ug/L		93
94)	styrene	16.312	104	4198	0.58	ug/L		91
95)	butyl acrylate	16.155	55	2651	0.58	ug/L		87
96)	bromoform	16.595	173	849	0.52	ug/L		79
97)	isopropylbenzene	16.752	105	6575	0.57	ug/L		94
98)	cis-1,4-dichloro-2-butene	16.821	88	513	0.56	ug/L		91
101)	bromobenzene	17.182	156	1900	0.59	ug/L		89
102)	1,1,2,2-tetrachloroethane	17.093	83	1773	0.61	ug/L		88
105)	n-propylbenzene	17.240	91	8007	0.60	ug/L		98
106)	2-chlorotoluene	17.382	126	1646	0.57	ug/L		90
107)	4-chlorotoluene	17.497	91	4766	0.59	ug/L		95
109)	1,3,5-trimethylbenzene	17.423	105	5855	0.59	ug/L		98
110)	tert-butylbenzene	17.806	119	5097	0.58	ug/L		90
111)	1,2,4-trimethylbenzene	17.853	105	5928	0.59	ug/L		97
112)	sec-butylbenzene	18.037	105	7526	0.57	ug/L		98
113)	1,3-dichlorobenzene	18.199	146	3766	0.61	ug/L		93
114)	p-isopropyltoluene	18.173	119	6692	0.59	ug/L		97
115)	1,4-dichlorobenzene	18.278	146	3603	0.58	ug/L		96
116)	1,2-dichlorobenzene	18.671	146	3505	0.57	ug/L		94
119)	n-butylbenzene	18.587	92	3201	0.56	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.400	157	340	0.48	ug/L	#	69
123)	1,3,5-trichlorobenzene	19.584	180	3148	0.55	ug/L		95
124)	hexachlorobutadiene	20.281	225	1566	0.56	ug/L		95
125)	naphthalene	20.417	128	5077	0.51	ug/L		96
127)	1,2,4-trichlorobenzene	20.166	180	2521	0.52	ug/L		96
128)	1,2,3-trichlorobenzene	20.632	180	2467	0.55	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration

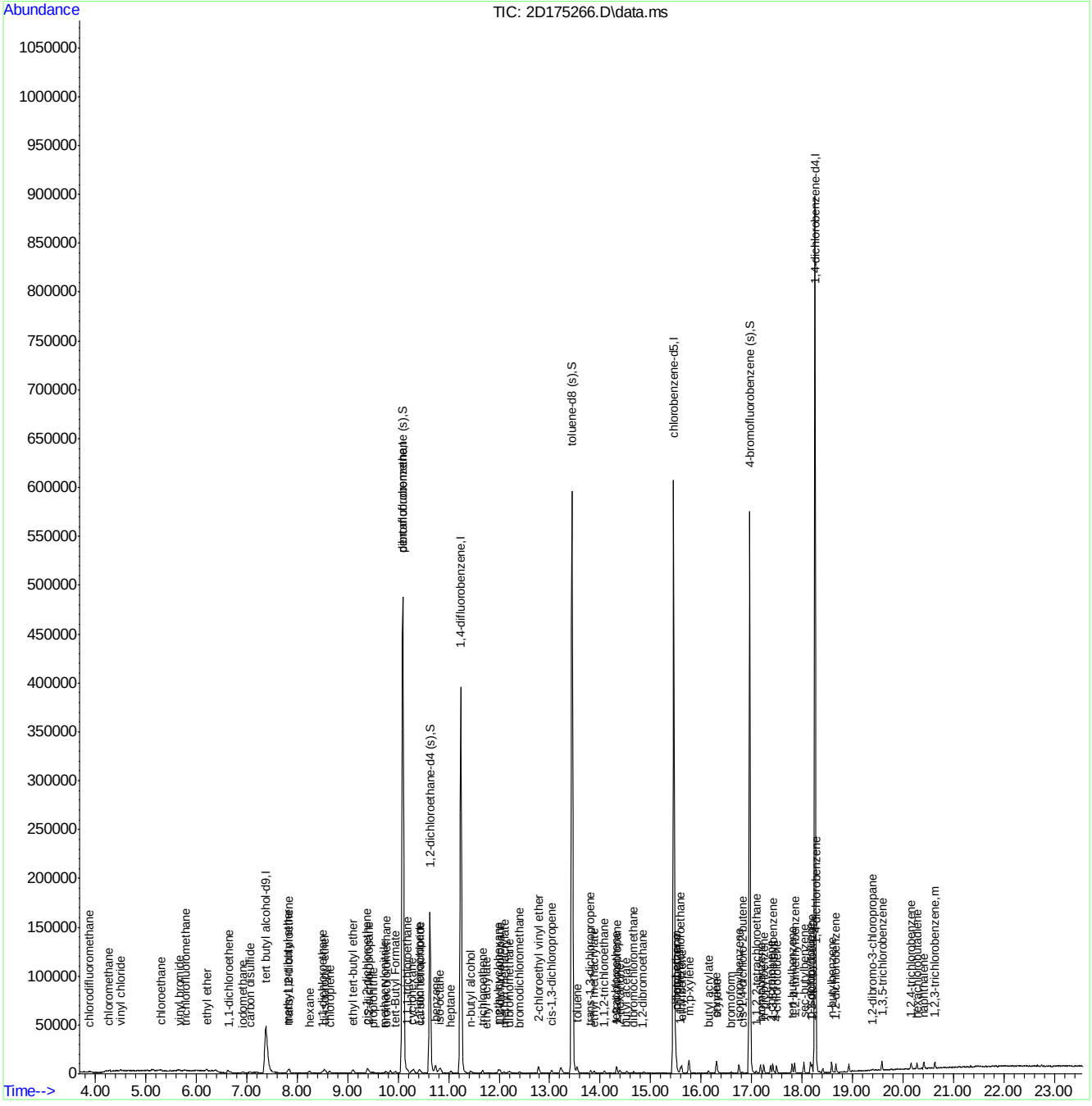
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175266.D
Acq On : 3 May 2018 4:41 pm
Operator : oyinadei
Sample : IC7390-0.5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: May 04 11:18:23 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 09:51:19 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	113895	500.00	ug/L		0.00
5) pentafluorobenzene	10.094	168	299087	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.242	114	413677	50.00	ug/L		0.00
76) chlorobenzene-d5	15.458	117	406046	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	239304	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.094	113	130215	50.54	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.08%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	144166	50.74	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.48%				
77) toluene-d8 (s)	13.444	98	477481	50.57	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.14%				
100) 4-bromofluorobenzene (s)	16.962	95	191877	49.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	2017	9.40	ug/L		74
3) ethanol	5.994	45	5802	258.73	ug/L		96
4) 1,4-dioxane	12.191	88	947	44.36	ug/L		83
6) chlorodifluoromethane	3.891	51	5733	2.03	ug/L		97
7) dichlorodifluoromethane	3.886	85	6374	1.92	ug/L		82
10) chloromethane	4.274	50	7570	2.01	ug/L		97
11) vinyl chloride	4.500	62	6656	2.01	ug/L		99
12) bromomethane	5.134	94	5367	2.31	ug/L		87
13) chloroethane	5.291	64	3336	1.92	ug/L		94
14) trichlorofluoromethane	5.774	101	7499	2.01	ug/L		89
15) vinyl bromide	5.653	106	4779	1.93	ug/L		95
17) ethyl ether	6.204	74	2388	2.06	ug/L		89
18) acrolein	6.434	56	934	1.96	ug/L		81
19) 1,1-dichloroethene	6.639	96	4508	2.00	ug/L		83
20) freon 113	6.628	151	4078	2.15	ug/L		86
22) acetone	6.681	58	1297	8.11	ug/L	#	52
24) iodomethane	6.917	142	7407	1.94	ug/L		90
25) carbon disulfide	7.063	76	14098	1.95	ug/L		97
26) methylene chloride	7.404	84	5135	2.06	ug/L		97
27) methyl acetate	7.205	43	3298	2.08	ug/L		83
28) methyl tert butyl ether	7.824	73	13087	2.00	ug/L		96
29) trans-1,2-dichloroethene	7.839	96	4755	2.08	ug/L		98
30) hexane	8.233	57	6420	2.15	ug/L		100
31) di-isopropyl ether	8.537	45	16161	2.06	ug/L		76
32) 2-butanone	9.386	72	1434	6.93	ug/L		98
33) 1,1-dichloroethane	8.495	63	8573	2.02	ug/L		96
34) chloroprene	8.636	53	6957	2.06	ug/L		96
35) acrylonitrile	7.782	53	1399	1.82	ug/L		90
37) ethyl tert-butyl ether	9.103	59	14395	1.96	ug/L		93
39) 2,2-dichloropropane	9.407	77	6877	2.03	ug/L		94
40) cis-1,2-dichloroethene	9.386	96	5169	2.02	ug/L		88
41) propionitrile	9.486	54	6146	18.84	ug/L		95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
42) tert-Butyl Formate	9.942	59	4621	2.05	ug/L		95
43) bromochloromethane	9.764	128	2543	1.98	ug/L		94
44) tetrahydrofuran	9.837	72	505	1.89	ug/L		97
45) chloroform	9.847	83	8676	2.12	ug/L		95
47) methacrylonitrile	9.727	67	1581	1.88	ug/L		86
48) 1,1,1-trichloroethane	10.183	97	7801	2.06	ug/L		99
49) cyclohexane	10.283	84	5903	1.88	ug/L		94
50) 1,1-dichloropropene	10.408	75	6330	2.02	ug/L		97
52) carbon tetrachloride	10.435	117	6777	2.04	ug/L		95
53) tert-amyl alcohol	10.618	73	1101	10.07	ug/L	#	69
56) benzene	10.744	78	18254	1.98	ug/L		97
57) iso-octane	10.812	57	19572	2.11	ug/L		98
58) tert-amyl methyl ether	10.838	73	13921	2.02	ug/L		98
59) heptane	11.043	57	3735	2.23	ug/L		90
61) 1,2-dichloroethane	10.749	62	6983	2.17	ug/L		97
62) n-butyl alcohol	11.415	56	5452	97.28	ug/L		91
63) ethyl acrylate	11.745	55	5251	1.94	ug/L		99
64) trichloroethene	11.672	130	5005	2.01	ug/L		91
65) 2-nitropropane	12.715	41	910	2.00	ug/L		92
66) 2-chloroethyl vinyl ether	12.773	63	14443	9.70	ug/L		96
67) methyl methacrylate	12.092	69	2882	2.01	ug/L		81
68) 1,2-dichloropropane	12.023	63	4857	1.96	ug/L		98
69) dibromomethane	12.207	93	2825	1.94	ug/L		97
70) methylcyclohexane	11.992	83	8516	2.07	ug/L		96
71) bromodichloromethane	12.396	83	6311	1.98	ug/L		93
72) epichlorohydrin	12.909	57	2104	9.86	ug/L		96
73) cis-1,3-dichloropropene	13.041	75	8066	1.99	ug/L		98
74) 4-methyl-2-pentanone	13.214	58	6891	8.19	ug/L		92
75) 3-methyl-1-butanol	13.245	55	3748	38.50	ug/L		79
78) toluene	13.539	92	11463	2.00	ug/L		99
79) trans-1,3-dichloropropene	13.811	75	6648	1.89	ug/L		96
80) ethyl methacrylate	13.869	69	5573	1.91	ug/L		95
81) 1,1,2-trichloroethane	14.089	83	3311	1.88	ug/L		95
82) tetrachloroethene	14.325	164	4532	2.11	ug/L		85
83) 1,3-dichloropropane	14.330	76	6827	1.97	ug/L		96
84) 2-hexanone	14.383	58	6242	7.97	ug/L		91
85) butyl acetate	14.514	56	3022	2.11	ug/L	#	82
86) dibromochloromethane	14.666	129	4741	1.93	ug/L		86
87) 1,2-dibromoethane	14.865	107	4642	1.94	ug/L		99
88) n-butyl ether	15.510	57	21744	2.01	ug/L		96
89) chlorobenzene	15.499	112	13473	1.99	ug/L		94
90) 1,1,1,2-tetrachloroethane	15.594	131	4911	1.93	ug/L		93
91) ethylbenzene	15.615	91	22941	2.02	ug/L		99
92) m,p-xylene	15.762	91	35331	4.00	ug/L		99
93) o-xylene	16.302	106	9009	2.02	ug/L		99
94) styrene	16.312	104	14821	1.97	ug/L		93
95) butyl acrylate	16.139	55	9281	1.94	ug/L		97
96) bromoform	16.595	173	3176	1.87	ug/L		94
97) isopropylbenzene	16.753	105	23748	1.99	ug/L		100
98) cis-1,4-dichloro-2-butene	16.821	88	1829	1.90	ug/L		91

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration

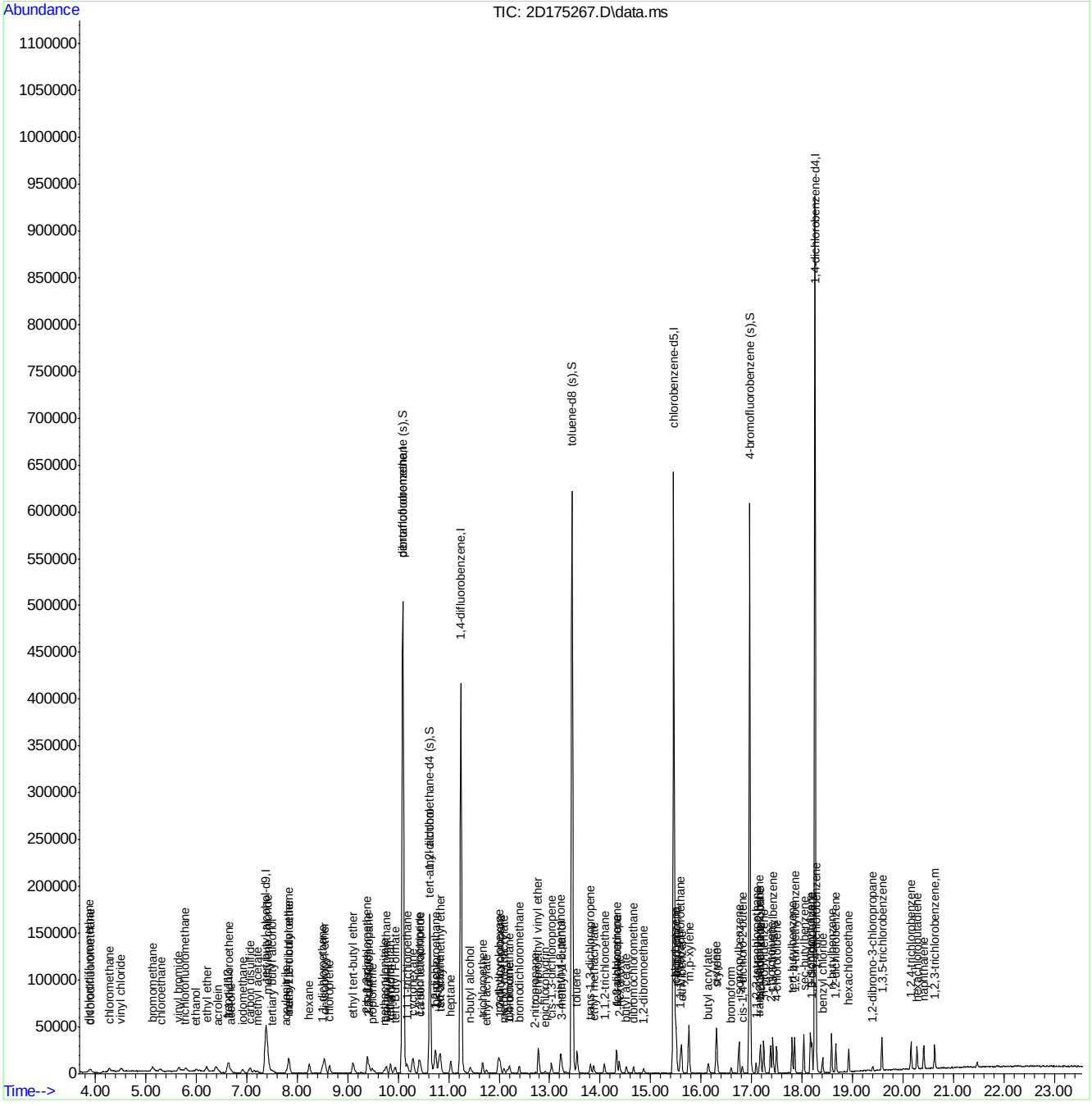
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
101) bromobenzene	17.177	156	6837	2.02	ug/L		93
102) 1,1,2,2-tetrachloroethane	17.093	83	5937	1.95	ug/L		93
103) trans-1,4-dichloro-2-b...	17.156	53	1362	1.98	ug/L		97
104) 1,2,3-trichloropropane	17.172	110	1559	2.01	ug/L	#	91
105) n-propylbenzene	17.240	91	28124	2.01	ug/L		99
106) 2-chlorotoluene	17.382	126	6104	2.04	ug/L		91
107) 4-chlorotoluene	17.497	91	17070	2.02	ug/L		99
109) 1,3,5-trimethylbenzene	17.424	105	20914	2.03	ug/L		97
110) tert-butylbenzene	17.806	119	18340	2.00	ug/L		99
111) 1,2,4-trimethylbenzene	17.854	105	21014	1.99	ug/L		98
112) sec-butylbenzene	18.037	105	27011	1.97	ug/L		98
113) 1,3-dichlorobenzene	18.194	146	13057	2.04	ug/L		97
114) p-isopropyltoluene	18.168	119	23595	1.98	ug/L		96
115) 1,4-dichlorobenzene	18.284	146	13116	2.03	ug/L		98
116) 1,2-dichlorobenzene	18.672	146	12737	1.98	ug/L		98
117) benzyl chloride	18.409	91	11526	2.01	ug/L		95
119) n-butylbenzene	18.588	92	11935	2.00	ug/L		100
121) 1,2-dibromo-3-chloropr...	19.400	157	1347	1.81	ug/L		92
123) 1,3,5-trichlorobenzene	19.584	180	11542	1.92	ug/L		91
124) hexachlorobutadiene	20.281	225	5704	1.94	ug/L		89
125) naphthalene	20.412	128	18785	1.81	ug/L		97
127) 1,2,4-trichlorobenzene	20.161	180	9393	1.84	ug/L		95
128) 1,2,3-trichlorobenzene	20.627	180	8621	1.84	ug/L		98
129) hexachloroethane	18.928	201	3739	1.79	ug/L		93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175267.D
Acq On : 3 May 2018 5:12 pm
Operator : oyinadei
Sample : IC7390-2
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: May 04 11:19:31 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:04:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	112814	500.00	ug/L		0.00
5) pentafluorobenzene	10.089	168	297138	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	408475	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	407059	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	242356	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	127738	49.90	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.80%				
55) 1,2-dichloroethane-d4 (s)	10.629	65	143955	51.31	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.62%				
77) toluene-d8 (s)	13.444	98	475194	50.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%				
100) 4-bromofluorobenzene (s)	16.962	95	196906	50.64	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.28%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	5293	24.91	ug/L		82
3) ethanol	5.999	45	11501	511.63	ug/L		93
4) 1,4-dioxane	12.181	88	2458	116.25	ug/L		97
6) chlorodifluoromethane	3.891	51	13378	4.78	ug/L		97
7) dichlorodifluoromethane	3.865	85	15674	4.75	ug/L		98
10) chloromethane	4.264	50	18300	4.90	ug/L		98
11) vinyl chloride	4.500	62	15847	4.83	ug/L		96
12) bromomethane	5.129	94	11487	4.98	ug/L		98
13) chloroethane	5.281	64	8481	4.93	ug/L		98
14) trichlorofluoromethane	5.795	101	17991	4.85	ug/L		90
15) vinyl bromide	5.653	106	11682	4.75	ug/L		97
17) ethyl ether	6.198	74	5346	4.63	ug/L		98
18) acrolein	6.439	56	2501	5.29	ug/L	#	54
19) 1,1-dichloroethene	6.639	96	10690	4.77	ug/L		94
20) freon 113	6.612	151	9034	4.80	ug/L		91
21) 2-chloropropane	6.382	43	20365	5.16	ug/L		95
22) acetone	6.681	58	3108	19.56	ug/L		97
23) acetonitrile	7.142	41	13690	50.25	ug/L		88
24) iodomethane	6.911	142	17740	4.67	ug/L		96
25) carbon disulfide	7.058	76	33559	4.68	ug/L		97
26) methylene chloride	7.404	84	11999	4.84	ug/L		94
27) methyl acetate	7.205	43	8003	5.08	ug/L		97
28) methyl tert butyl ether	7.818	73	31147	4.78	ug/L		99
29) trans-1,2-dichloroethene	7.829	96	10715	4.72	ug/L		96
30) hexane	8.238	57	14307	4.82	ug/L		97
31) di-isopropyl ether	8.542	45	37224	4.77	ug/L		95
32) 2-butanone	9.376	72	3937	19.16	ug/L	#	75
33) 1,1-dichloroethane	8.495	63	20554	4.87	ug/L		96
34) chloroprene	8.631	53	16166	4.81	ug/L		97
35) acrylonitrile	7.776	53	3656	4.79	ug/L		87
36) vinyl acetate	8.516	86	1557	4.43	ug/L	#	91
37) ethyl tert-butyl ether	9.098	59	34693	4.75	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	1351	4.85	ug/L		91
39) 2,2-dichloropropane	9.407	77	16429	4.89	ug/L		97
40) cis-1,2-dichloroethene	9.381	96	11999	4.72	ug/L		91
41) propionitrile	9.475	54	15655	48.31	ug/L		95
42) tert-Butyl Formate	9.937	59	10976	4.89	ug/L		96
43) bromochloromethane	9.764	128	6069	4.76	ug/L		85
44) tetrahydrofuran	9.837	72	1287	4.84	ug/L	#	60
45) chloroform	9.847	83	19687	4.83	ug/L		98
47) methacrylonitrile	9.716	67	4052	4.85	ug/L		89
48) 1,1,1-trichloroethane	10.172	97	18376	4.89	ug/L		99
49) cyclohexane	10.277	84	16165	5.17	ug/L		89
50) 1,1-dichloropropene	10.408	75	14820	4.77	ug/L		97
51) isobutyl alcohol	10.435	43	5053	51.52	ug/L		92
52) carbon tetrachloride	10.435	117	15766	4.77	ug/L		95
53) tert-amyl alcohol	10.602	73	2510	23.11	ug/L		85
56) benzene	10.739	78	43983	4.83	ug/L		97
57) iso-octane	10.812	57	45567	4.98	ug/L		98
58) tert-amyl methyl ether	10.838	73	34659	5.08	ug/L		98
59) heptane	11.043	57	8476	5.12	ug/L		90
60) isopropyl acetate	10.713	87	1977	4.91	ug/L	#	76
61) 1,2-dichloroethane	10.739	62	15909	5.01	ug/L		99
62) n-butyl alcohol	11.420	56	13223	238.93	ug/L		96
63) ethyl acrylate	11.740	55	12623	4.73	ug/L		97
64) trichloroethene	11.667	130	11356	4.63	ug/L		96
65) 2-nitropropane	12.721	41	2197	4.89	ug/L		86
66) 2-chloroethyl vinyl ether	12.778	63	35271	23.99	ug/L		97
67) methyl methacrylate	12.091	69	7051	4.99	ug/L		87
68) 1,2-dichloropropane	12.023	63	11683	4.79	ug/L		98
69) dibromomethane	12.202	93	7209	5.02	ug/L		94
70) methylcyclohexane	11.987	83	19879	4.90	ug/L		99
71) bromodichloromethane	12.396	83	14979	4.76	ug/L		94
72) epichlorohydrin	12.904	57	4949	23.48	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	19294	4.82	ug/L		97
74) 4-methyl-2-pentanone	13.213	58	16149	19.45	ug/L		97
75) 3-methyl-1-butanol	13.240	55	9407	97.85	ug/L		96
78) toluene	13.544	92	27459	4.79	ug/L		93
79) trans-1,3-dichloropropene	13.806	75	16857	4.78	ug/L		98
80) ethyl methacrylate	13.869	69	14386	4.91	ug/L		97
81) 1,1,2-trichloroethane	14.084	83	8812	4.99	ug/L		91
82) tetrachloroethene	14.325	164	10002	4.64	ug/L		98
83) 1,3-dichloropropane	14.330	76	17014	4.90	ug/L		98
84) 2-hexanone	14.377	58	15159	19.30	ug/L		93
85) butyl acetate	14.514	56	7137	4.98	ug/L		91
86) dibromochloromethane	14.661	129	11115	4.52	ug/L		94
87) 1,2-dibromoethane	14.855	107	11608	4.84	ug/L		100
88) n-butyl ether	15.510	57	51582	4.76	ug/L		97
89) chlorobenzene	15.499	112	31868	4.69	ug/L		96
90) 1,1,1,2-tetrachloroethane	15.589	131	12000	4.71	ug/L		94
91) ethylbenzene	15.615	91	54016	4.75	ug/L		98
92) m,p-xylene	15.762	91	83840	9.47	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration

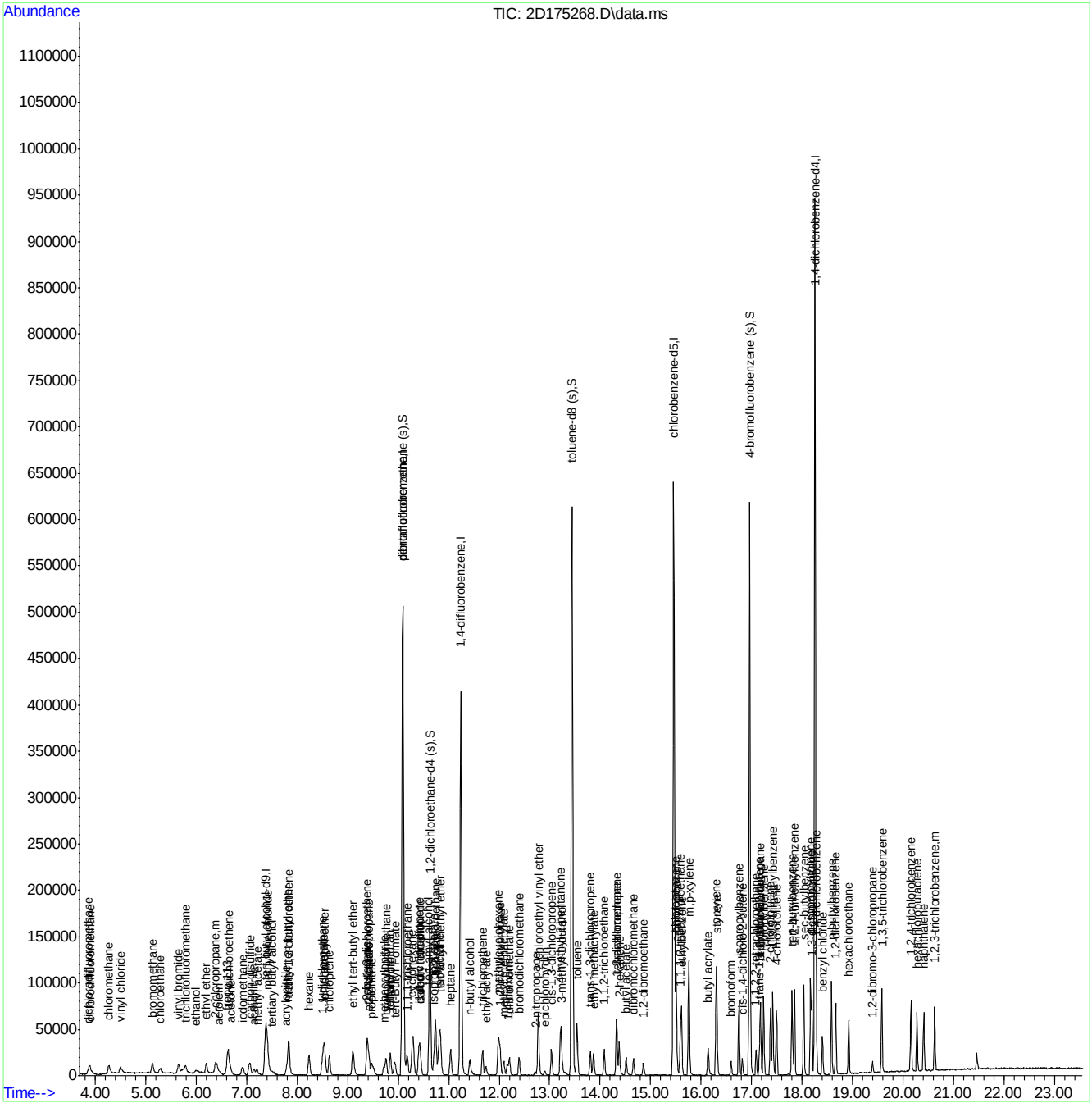
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) o-xylene	16.302	106	21994	4.92	ug/L		94
94) styrene	16.312	104	35777	4.75	ug/L		100
95) butyl acrylate	16.139	55	22902	4.79	ug/L		99
96) bromoform	16.595	173	7778	4.58	ug/L		98
97) isopropylbenzene	16.753	105	57168	4.78	ug/L		98
98) cis-1,4-dichloro-2-butene	16.821	88	4420	4.59	ug/L		90
101) bromobenzene	17.177	156	16133	4.72	ug/L		90
102) 1,1,2,2-tetrachloroethane	17.088	83	14868	4.83	ug/L		97
103) trans-1,4-dichloro-2-b...	17.156	53	3433	4.92	ug/L		88
104) 1,2,3-trichloropropane	17.172	110	3872	4.93	ug/L	#	84
105) n-propylbenzene	17.240	91	66827	4.71	ug/L		99
106) 2-chlorotoluene	17.376	126	14496	4.78	ug/L		98
107) 4-chlorotoluene	17.497	91	40936	4.79	ug/L		95
109) 1,3,5-trimethylbenzene	17.424	105	49425	4.73	ug/L		100
110) tert-butylbenzene	17.801	119	43187	4.66	ug/L		98
111) 1,2,4-trimethylbenzene	17.848	105	50894	4.77	ug/L		98
112) sec-butylbenzene	18.037	105	65095	4.70	ug/L		99
113) 1,3-dichlorobenzene	18.194	146	30766	4.75	ug/L		98
114) p-isopropyltoluene	18.168	119	56137	4.66	ug/L		100
115) 1,4-dichlorobenzene	18.283	146	31226	4.76	ug/L		99
116) 1,2-dichlorobenzene	18.666	146	30404	4.68	ug/L		99
117) benzyl chloride	18.404	91	27852	4.79	ug/L		95
119) n-butylbenzene	18.588	92	28039	4.64	ug/L		100
121) 1,2-dibromo-3-chloropr...	19.400	157	3699	4.91	ug/L		90
123) 1,3,5-trichlorobenzene	19.584	180	27998	4.61	ug/L		98
124) hexachlorobutadiene	20.276	225	13997	4.71	ug/L		94
125) naphthalene	20.412	128	48102	4.56	ug/L		100
127) 1,2,4-trichlorobenzene	20.160	180	23737	4.60	ug/L		94
128) 1,2,3-trichlorobenzene	20.627	180	21577	4.54	ug/L		99
129) hexachloroethane	18.928	201	9540	4.50	ug/L		90

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175268.D
Acq On : 3 May 2018 5:43 pm
Operator : oyinadei
Sample : IC7390-5
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: May 04 11:21:01 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:26 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	115185	500.00	ug/L		0.00
5) pentafluorobenzene	10.089	168	297365	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	406404	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	404696	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	241845	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	127581	49.80	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.60%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	142867	51.18	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.36%				
77) toluene-d8 (s)	13.444	98	472374	50.20	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%				
100) 4-bromofluorobenzene (s)	16.962	95	192976	49.73	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.46%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	10765	49.61	ug/L		96
3) ethanol	5.999	45	21151	915.20	ug/L		96
4) 1,4-dioxane	12.191	88	5283	244.71	ug/L		98
6) chlorodifluoromethane	3.891	51	28016	10.00	ug/L		96
7) dichlorodifluoromethane	3.876	85	35122	10.63	ug/L		97
10) chloromethane	4.269	50	35178	9.42	ug/L		98
11) vinyl chloride	4.494	62	32490	9.89	ug/L		94
12) bromomethane	5.129	94	23018	9.97	ug/L		97
13) chloroethane	5.281	64	16708	9.70	ug/L		98
14) trichlorofluoromethane	5.774	101	38431	10.06	ug/L		99
15) vinyl bromide	5.648	106	23341	9.48	ug/L		96
17) ethyl ether	6.193	74	11318	9.80	ug/L		94
18) acrolein	6.439	56	4432	9.36	ug/L		99
19) 1,1-dichloroethene	6.633	96	22098	9.86	ug/L		93
20) freon 113	6.623	151	19307	10.26	ug/L		98
21) 2-chloropropane	6.382	43	38799	9.83	ug/L		98
22) acetone	6.681	58	6586	41.43	ug/L	#	80
23) acetonitrile	7.137	41	28048	102.87	ug/L		97
24) iodomethane	6.917	142	37119	9.77	ug/L		98
25) carbon disulfide	7.058	76	68383	9.52	ug/L		98
26) methylene chloride	7.404	84	24589	9.92	ug/L		90
27) methyl acetate	7.200	43	15905	10.09	ug/L		97
28) methyl tert butyl ether	7.813	73	63062	9.68	ug/L		92
29) trans-1,2-dichloroethene	7.834	96	22180	9.76	ug/L		99
30) hexane	8.233	57	30218	10.17	ug/L		98
31) di-isopropyl ether	8.537	45	75995	9.73	ug/L		92
32) 2-butanone	9.376	72	8522	41.45	ug/L		93
33) 1,1-dichloroethane	8.495	63	40908	9.68	ug/L		97
34) chloroprene	8.636	53	32087	9.54	ug/L		99
35) acrylonitrile	7.771	53	7925	10.38	ug/L		98
36) vinyl acetate	8.510	86	3745	10.65	ug/L	#	86
37) ethyl tert-butyl ether	9.103	59	71027	9.71	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.428	45	2924	10.49	ug/L		90
39) 2,2-dichloropropane	9.402	77	33203	9.87	ug/L		98
40) cis-1,2-dichloroethene	9.386	96	24254	9.53	ug/L		96
41) propionitrile	9.470	54	32695	100.82	ug/L		98
42) tert-Butyl Formate	9.926	59	22589	10.06	ug/L		97
43) bromochloromethane	9.758	128	12558	9.84	ug/L		98
44) tetrahydrofuran	9.832	72	2712	10.19	ug/L		87
45) chloroform	9.842	83	40599	9.96	ug/L		99
47) methacrylonitrile	9.711	67	8454	10.12	ug/L		90
48) 1,1,1-trichloroethane	10.178	97	36725	9.76	ug/L		93
49) cyclohexane	10.277	84	32862	10.50	ug/L		89
50) 1,1-dichloropropene	10.408	75	30754	9.88	ug/L		98
51) isobutyl alcohol	10.435	43	10698	108.98	ug/L		97
52) carbon tetrachloride	10.429	117	32967	9.98	ug/L		98
53) tert-amyl alcohol	10.608	73	5779	53.17	ug/L		90
56) benzene	10.739	78	87167	9.62	ug/L		97
57) iso-octane	10.812	57	95207	10.45	ug/L		99
58) tert-amyl methyl ether	10.833	73	68770	10.13	ug/L		97
59) heptane	11.038	57	17892	10.86	ug/L		97
60) isopropyl acetate	10.713	87	4270	10.65	ug/L	#	69
61) 1,2-dichloroethane	10.739	62	31176	9.87	ug/L		98
62) n-butyl alcohol	11.415	56	29103	528.56	ug/L		98
63) ethyl acrylate	11.735	55	26655	10.03	ug/L		97
64) trichloroethene	11.672	130	23918	9.79	ug/L		96
65) 2-nitropropane	12.715	41	4349	9.69	ug/L		94
66) 2-chloroethyl vinyl ether	12.773	63	72593	49.62	ug/L		96
67) methyl methacrylate	12.086	69	14512	10.32	ug/L		92
68) 1,2-dichloropropane	12.018	63	24113	9.93	ug/L		97
69) dibromomethane	12.202	93	14274	10.00	ug/L		97
70) methylcyclohexane	11.987	83	41983	10.41	ug/L		95
71) bromodichloromethane	12.396	83	30799	9.84	ug/L		93
72) epichlorohydrin	12.904	57	10390	49.55	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	37987	9.54	ug/L		99
74) 4-methyl-2-pentanone	13.213	58	32940	39.87	ug/L		88
75) 3-methyl-1-butanol	13.240	55	19697	205.93	ug/L		95
78) toluene	13.539	92	54416	9.54	ug/L		100
79) trans-1,3-dichloropropene	13.806	75	34488	9.84	ug/L		97
80) ethyl methacrylate	13.869	69	28762	9.87	ug/L		99
81) 1,1,2-trichloroethane	14.079	83	17252	9.83	ug/L		98
82) tetrachloroethene	14.320	164	21207	9.90	ug/L		98
83) 1,3-dichloropropane	14.330	76	34014	9.85	ug/L		96
84) 2-hexanone	14.377	58	31506	40.34	ug/L		95
85) butyl acetate	14.508	56	14915	10.47	ug/L		96
86) dibromochloromethane	14.661	129	23920	9.78	ug/L		99
87) 1,2-dibromoethane	14.855	107	23076	9.68	ug/L		99
88) n-butyl ether	15.505	57	103890	9.65	ug/L		100
89) chlorobenzene	15.499	112	64977	9.62	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.589	131	25084	9.90	ug/L		97
91) ethylbenzene	15.610	91	109578	9.68	ug/L		96
92) m,p-xylene	15.756	91	169919	19.30	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration

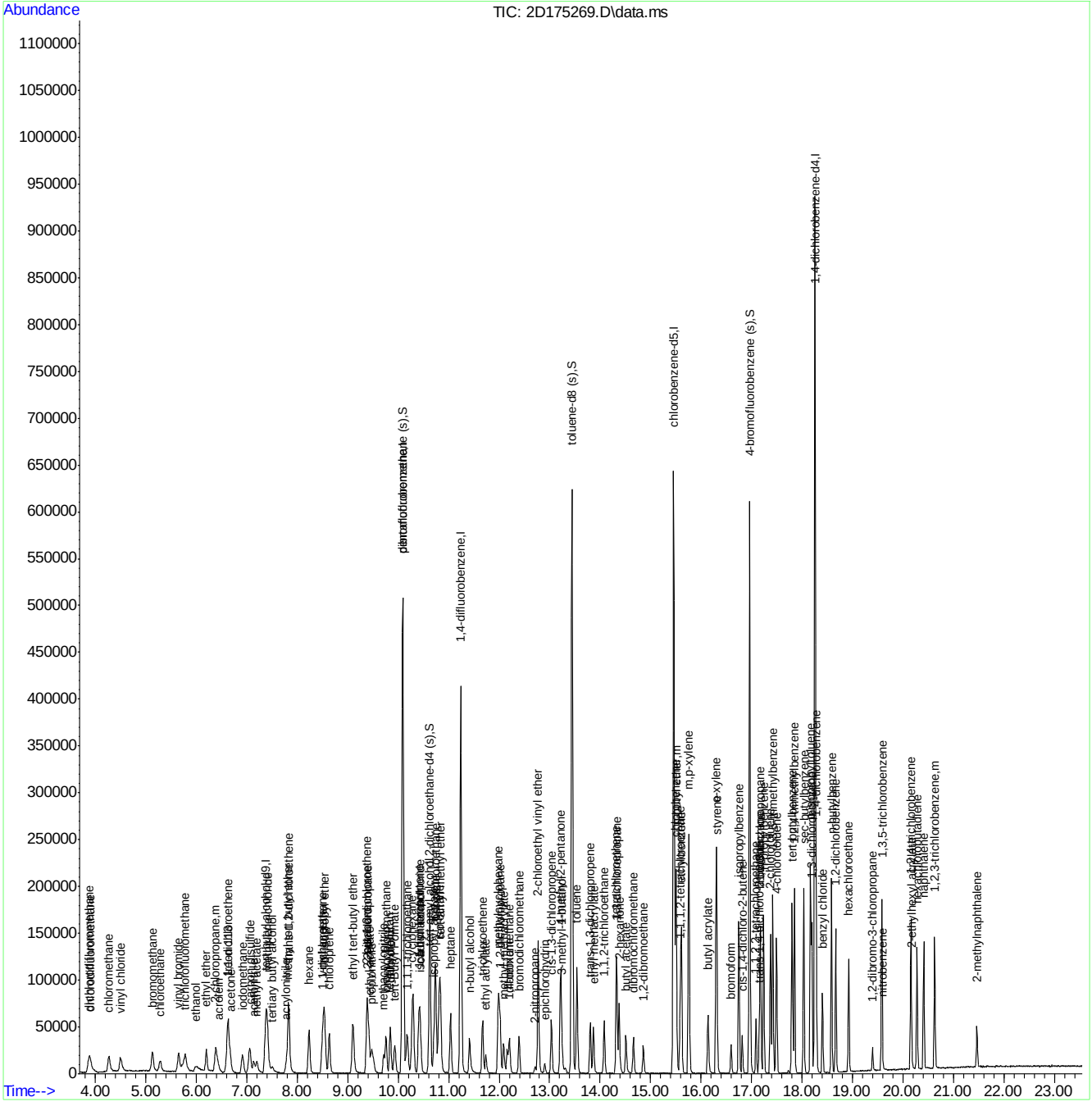
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.302	106	43335	9.75	ug/L		99
94)	styrene	16.312	104	74247	9.92	ug/L		98
95)	butyl acrylate	16.139	55	46217	9.72	ug/L		97
96)	bromoform	16.595	173	16265	9.63	ug/L		98
97)	isopropylbenzene	16.752	105	115246	9.70	ug/L		98
98)	cis-1,4-dichloro-2-butene	16.815	88	9376	9.79	ug/L		87
101)	bromobenzene	17.177	156	32966	9.66	ug/L		92
102)	1,1,2,2-tetrachloroethane	17.088	83	29779	9.69	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.151	53	6968	10.00	ug/L		86
104)	1,2,3-trichloropropane	17.172	110	7921	10.11	ug/L	#	82
105)	n-propylbenzene	17.240	91	136459	9.63	ug/L		99
106)	2-chlorotoluene	17.376	126	29574	9.77	ug/L		93
107)	4-chlorotoluene	17.492	91	81522	9.57	ug/L		99
109)	1,3,5-trimethylbenzene	17.424	105	100477	9.63	ug/L		98
110)	tert-butylbenzene	17.806	119	88577	9.57	ug/L		98
111)	1,2,4-trimethylbenzene	17.848	105	102746	9.65	ug/L		97
112)	sec-butylbenzene	18.037	105	132776	9.60	ug/L		98
113)	1,3-dichlorobenzene	18.194	146	61331	9.49	ug/L		98
114)	p-isopropyltoluene	18.168	119	116683	9.71	ug/L		98
115)	1,4-dichlorobenzene	18.278	146	61807	9.45	ug/L		100
116)	1,2-dichlorobenzene	18.671	146	62658	9.66	ug/L		98
117)	benzyl chloride	18.404	91	57894	9.97	ug/L		99
119)	n-butylbenzene	18.582	92	57991	9.62	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.400	157	7228	9.62	ug/L		92
122)	nitrobenzene	19.599	77	747	5.77	ug/L		95
123)	1,3,5-trichlorobenzene	19.584	180	58732	9.69	ug/L		99
124)	hexachlorobutadiene	20.281	225	28967	9.77	ug/L		96
125)	naphthalene	20.412	128	103018	9.80	ug/L		99
126)	2-ethylhexyl acrylate	20.171	70	4849	1.69	ug/L		96
127)	1,2,4-trichlorobenzene	20.160	180	49009	9.51	ug/L		100
128)	1,2,3-trichlorobenzene	20.627	180	46038	9.70	ug/L		99
129)	hexachloroethane	18.928	201	19749	9.34	ug/L		90
130)	2-methylnaphthalene	21.466	142	22118	4.15	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175269.D
Acq On : 3 May 2018 6:14 pm
Operator : oyinadei
Sample : IC7390-10
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: May 04 11:21:27 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:05:51 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	115841	500.00	ug/L		0.00
5) pentafluorobenzene	10.088	168	297419	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	409439	50.00	ug/L		0.00
76) chlorobenzene-d5	15.463	117	404704	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.257	152	242919	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.088	113	127280	49.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.34%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	139719	49.68	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.36%				
77) toluene-d8 (s)	13.444	98	471990	50.15	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.30%				
100) 4-bromofluorobenzene (s)	16.962	95	193277	49.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.504	59	22111	101.32	ug/L		90
3) ethanol	5.999	45	41743	1787.48	ug/L		99
4) 1,4-dioxane	12.186	88	10837	499.12	ug/L		98
6) chlorodifluoromethane	3.886	51	55384	19.76	ug/L		96
7) dichlorodifluoromethane	3.870	85	71761	21.71	ug/L		95
10) chloromethane	4.263	50	72484	19.40	ug/L		97
11) vinyl chloride	4.499	62	66918	20.37	ug/L		99
12) bromomethane	5.123	94	45640	19.77	ug/L		95
13) chloroethane	5.281	64	33179	19.25	ug/L		99
14) trichlorofluoromethane	5.779	101	78176	20.46	ug/L		97
15) vinyl bromide	5.653	106	48753	19.80	ug/L		97
17) ethyl ether	6.198	74	22467	19.45	ug/L		91
18) acrolein	6.434	56	9049	19.11	ug/L		88
19) 1,1-dichloroethene	6.633	96	43550	19.43	ug/L		95
20) freon 113	6.618	151	38551	20.48	ug/L		97
21) 2-chloropropane	6.387	43	73599	18.64	ug/L		97
22) acetone	6.681	58	12992	81.71	ug/L		90
23) acetonitrile	7.137	41	54703	200.59	ug/L		98
24) iodomethane	6.911	142	74194	19.53	ug/L		98
25) carbon disulfide	7.058	76	138643	19.30	ug/L		100
26) methylene chloride	7.404	84	48357	19.50	ug/L		98
27) methyl acetate	7.200	43	31293	19.84	ug/L		95
28) methyl tert butyl ether	7.818	73	127442	19.55	ug/L		99
29) trans-1,2-dichloroethene	7.834	96	43014	18.93	ug/L		98
30) hexane	8.232	57	59565	20.05	ug/L		100
31) di-isopropyl ether	8.537	45	151089	19.35	ug/L		95
32) 2-butanone	9.370	72	17529	85.23	ug/L	#	85
33) 1,1-dichloroethane	8.495	63	80585	19.07	ug/L		99
34) chloroprene	8.636	53	65342	19.43	ug/L		99
35) acrylonitrile	7.771	53	16054	21.03	ug/L		96
36) vinyl acetate	8.516	86	7493	21.31	ug/L		100
37) ethyl tert-butyl ether	9.103	59	142907	19.53	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	5739	20.58	ug/L		92
39) 2,2-dichloropropane	9.402	77	64468	19.17	ug/L		94
40) cis-1,2-dichloroethene	9.386	96	48718	19.14	ug/L		97
41) propionitrile	9.475	54	65519	202.00	ug/L		98
42) tert-Butyl Formate	9.926	59	44127	19.65	ug/L		94
43) bromochloromethane	9.763	128	24401	19.13	ug/L		96
44) tetrahydrofuran	9.832	72	5373	20.19	ug/L		94
45) chloroform	9.842	83	79341	19.46	ug/L		96
47) methacrylonitrile	9.711	67	17213	20.60	ug/L		98
48) 1,1,1-trichloroethane	10.178	97	72647	19.29	ug/L		96
49) cyclohexane	10.282	84	64392	20.58	ug/L		92
50) 1,1-dichloropropene	10.408	75	59442	19.10	ug/L		98
51) isobutyl alcohol	10.435	43	19828	201.96	ug/L		97
52) carbon tetrachloride	10.435	117	64122	19.40	ug/L		94
53) tert-amyl alcohol	10.608	73	11186	102.89	ug/L		98
56) benzene	10.739	78	174271	19.10	ug/L		99
57) iso-octane	10.807	57	188387	20.53	ug/L		97
58) tert-amyl methyl ether	10.838	73	135269	19.78	ug/L		99
59) heptane	11.037	57	33259	20.04	ug/L		99
60) isopropyl acetate	10.712	87	8332	20.62	ug/L	#	81
61) 1,2-dichloroethane	10.739	62	61805	19.43	ug/L		99
62) n-butyl alcohol	11.415	56	58020	1045.93	ug/L		99
63) ethyl acrylate	11.735	55	53149	19.85	ug/L		98
64) trichloroethene	11.672	130	47097	19.14	ug/L		98
65) 2-nitropropane	12.710	41	8702	19.25	ug/L		95
66) 2-chloroethyl vinyl ether	12.773	63	146444	99.36	ug/L		98
67) methyl methacrylate	12.086	69	28944	20.44	ug/L		91
68) 1,2-dichloropropane	12.018	63	46868	19.16	ug/L		97
69) dibromomethane	12.201	93	28502	19.81	ug/L		97
70) methylcyclohexane	11.986	83	82698	20.35	ug/L		96
71) bromodichloromethane	12.395	83	61007	19.35	ug/L		100
72) epichlorohydrin	12.899	57	21450	101.54	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	76591	19.09	ug/L		99
74) 4-methyl-2-pentanone	13.213	58	66264	79.62	ug/L		95
75) 3-methyl-1-butanol	13.240	55	38055	394.91	ug/L		93
78) toluene	13.538	92	110452	19.36	ug/L		96
79) trans-1,3-dichloropropene	13.806	75	68705	19.61	ug/L		95
80) ethyl methacrylate	13.869	69	58747	20.15	ug/L		97
81) 1,1,2-trichloroethane	14.084	83	34555	19.69	ug/L		97
82) tetrachloroethene	14.320	164	41630	19.43	ug/L		97
83) 1,3-dichloropropane	14.330	76	66850	19.35	ug/L		99
84) 2-hexanone	14.377	58	62292	79.76	ug/L		99
85) butyl acetate	14.508	56	28856	20.25	ug/L		96
86) dibromochloromethane	14.660	129	47018	19.22	ug/L		98
87) 1,2-dibromoethane	14.854	107	46876	19.66	ug/L		96
88) n-butyl ether	15.505	57	207286	19.25	ug/L		100
89) chlorobenzene	15.499	112	129877	19.22	ug/L		97
90) 1,1,1,2-tetrachloroethane	15.588	131	49623	19.59	ug/L		99
91) ethylbenzene	15.609	91	219387	19.39	ug/L		100
92) m,p-xylene	15.756	91	338708	38.48	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration

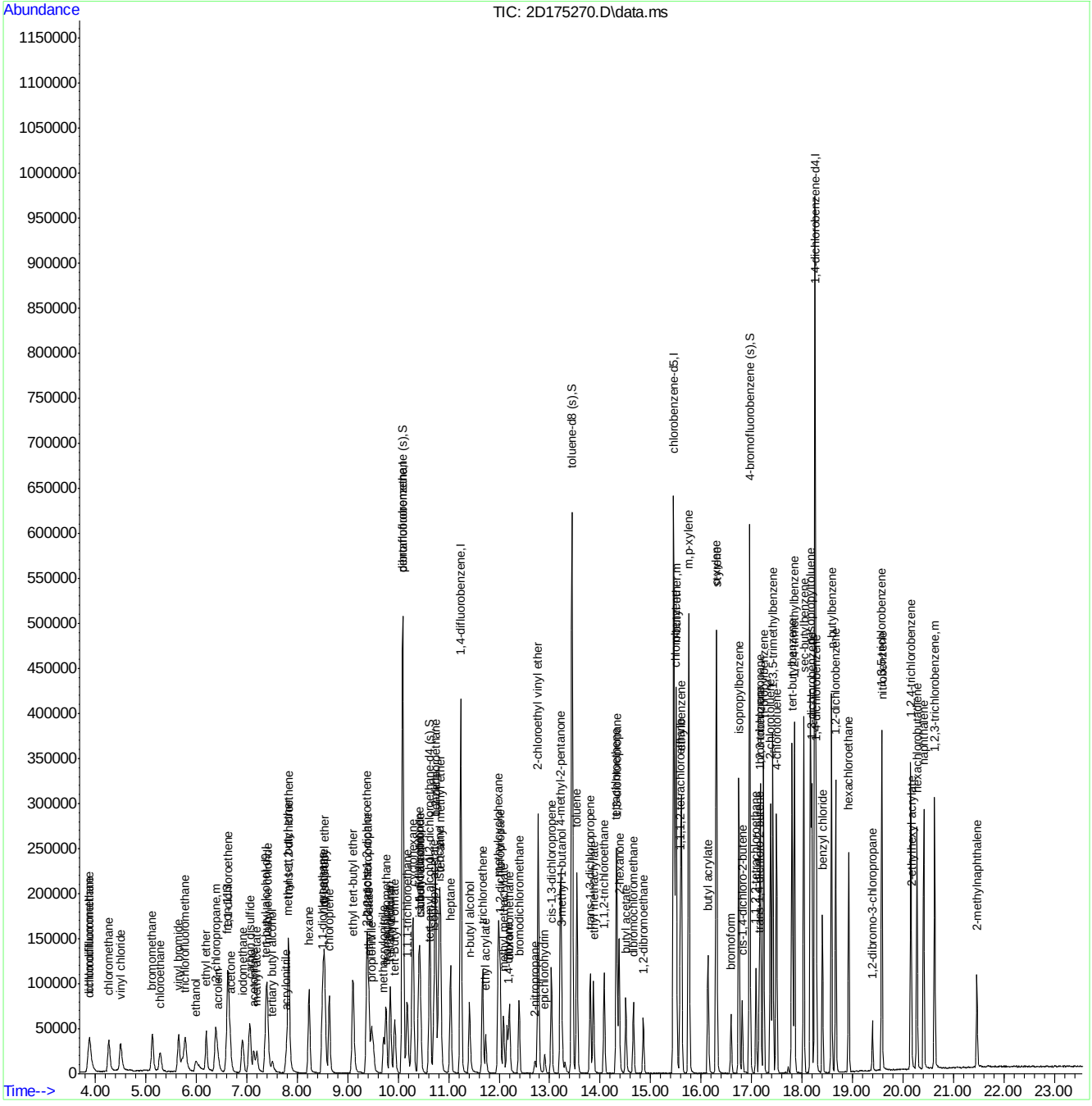
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.301	106	84831	19.09	ug/L		100
94)	styrene	16.307	104	146206	19.53	ug/L		98
95)	butyl acrylate	16.139	55	94263	19.81	ug/L		98
96)	bromoform	16.595	173	33284	19.70	ug/L		97
97)	isopropylbenzene	16.747	105	230841	19.42	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.815	88	19881	20.75	ug/L		97
101)	bromobenzene	17.177	156	64246	18.74	ug/L		94
102)	1,1,2,2-tetrachloroethane	17.088	83	59642	19.33	ug/L		97
103)	trans-1,4-dichloro-2-b...	17.151	53	14340	20.50	ug/L		89
104)	1,2,3-trichloropropane	17.167	110	15767	20.04	ug/L	#	90
105)	n-propylbenzene	17.240	91	272568	19.15	ug/L		100
106)	2-chlorotoluene	17.376	126	58133	19.13	ug/L		98
107)	4-chlorotoluene	17.492	91	163158	19.06	ug/L		98
109)	1,3,5-trimethylbenzene	17.423	105	200107	19.09	ug/L		98
110)	tert-butylbenzene	17.806	119	179084	19.26	ug/L		97
111)	1,2,4-trimethylbenzene	17.848	105	203414	19.01	ug/L		98
112)	sec-butylbenzene	18.037	105	267007	19.22	ug/L		99
113)	1,3-dichlorobenzene	18.194	146	122797	18.92	ug/L		100
114)	p-isopropyltoluene	18.168	119	231481	19.18	ug/L		99
115)	1,4-dichlorobenzene	18.283	146	125253	19.07	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	127449	19.57	ug/L		98
117)	benzyl chloride	18.404	91	116329	19.95	ug/L		99
119)	n-butylbenzene	18.582	92	117066	19.34	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.400	157	15384	20.38	ug/L		97
122)	nitrobenzene	19.584	77	1835	14.12	ug/L		82
123)	1,3,5-trichlorobenzene	19.578	180	122317	20.09	ug/L		98
124)	hexachlorobutadiene	20.281	225	59793	20.07	ug/L		98
125)	naphthalene	20.412	128	221758	20.99	ug/L		99
126)	2-ethylhexyl acrylate	20.171	70	10639	3.69	ug/L		95
127)	1,2,4-trichlorobenzene	20.155	180	105095	20.31	ug/L		96
128)	1,2,3-trichlorobenzene	20.627	180	97558	20.47	ug/L		99
129)	hexachloroethane	18.928	201	41666	19.62	ug/L		97
130)	2-methylnaphthalene	21.466	142	51389	9.59	ug/L		97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175270.D
Acq On : 3 May 2018 6:45 pm
Operator : oyinadei
Sample : IC7390-20
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: May 04 11:21:49 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:07 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.373	65	113069	500.00	ug/L	0.00
5) pentafluorobenzene	10.089	168	294649	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	404014	50.00	ug/L	0.00
76) chlorobenzene-d5	15.458	117	407064	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	242441	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	127364	50.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.34%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	139234	50.17	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.34%			
77) toluene-d8 (s)	13.439	98	471613	49.82	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.64%			
100) 4-bromofluorobenzene (s)	16.962	95	192106	49.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.78%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	54924	257.86	ug/L	100
3) ethanol	5.994	45	96061	4195.31	ug/L	100
4) 1,4-dioxane	12.181	88	27365	1291.25	ug/L	100
6) chlorodifluoromethane	3.886	51	137252	49.42	ug/L	100
7) dichlorodifluoromethane	3.860	85	175033	53.44	ug/L	100
10) chloromethane	4.258	50	170400	46.03	ug/L	100
11) vinyl chloride	4.494	62	165157	50.74	ug/L	100
12) bromomethane	5.123	94	111170	48.61	ug/L	100
13) chloroethane	5.276	64	81235	47.58	ug/L	100
14) trichlorofluoromethane	5.774	101	191651	50.62	ug/L	100
15) vinyl bromide	5.648	106	120328	49.34	ug/L	100
17) ethyl ether	6.193	74	55040	48.10	ug/L	100
18) acrolein	6.429	56	22188	47.30	ug/L	100
19) 1,1-dichloroethene	6.633	96	108544	48.89	ug/L	100
20) freon 113	6.612	151	95747	51.35	ug/L	100
21) 2-chloropropane	6.382	43	180334	46.09	ug/L	100
22) acetone	6.675	58	31779	201.74	ug/L	100
23) acetonitrile	7.137	41	130158	481.76	ug/L	100
24) iodomethane	6.911	142	188481	50.09	ug/L	100
25) carbon disulfide	7.058	76	347014	48.77	ug/L	100
26) methylene chloride	7.399	84	120148	48.90	ug/L	100
27) methyl acetate	7.194	43	76292	48.82	ug/L	100
28) methyl tert butyl ether	7.813	73	313822	48.59	ug/L	100
29) trans-1,2-dichloroethene	7.829	96	108405	48.15	ug/L	100
30) hexane	8.233	57	149894	50.93	ug/L	100
31) di-isopropyl ether	8.537	45	369768	47.79	ug/L	100
32) 2-butanone	9.365	72	42784	209.99	ug/L	100
33) 1,1-dichloroethane	8.490	63	201989	48.25	ug/L	100
34) chloroprene	8.631	53	162091	48.66	ug/L	100
35) acrylonitrile	7.766	53	39518	52.24	ug/L	100
36) vinyl acetate	8.510	86	18288	52.51	ug/L	100
37) ethyl tert-butyl ether	9.098	59	352622	48.64	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
38) ethyl acetate	9.423	45	13850	50.12	ug/L	100
39) 2,2-dichloropropane	9.402	77	156646	47.01	ug/L	100
40) cis-1,2-dichloroethene	9.381	96	121266	48.10	ug/L	100
41) propionitrile	9.470	54	158693	493.87	ug/L	100
42) tert-Butyl Formate	9.926	59	108131	48.61	ug/L	100
43) bromochloromethane	9.758	128	61106	48.34	ug/L	100
44) tetrahydrofuran	9.832	72	12853	48.74	ug/L	100
45) chloroform	9.842	83	197767	48.97	ug/L	100
47) methacrylonitrile	9.711	67	42239	51.02	ug/L	100
48) 1,1,1-trichloroethane	10.178	97	183345	49.15	ug/L	100
49) cyclohexane	10.277	84	159684	51.51	ug/L	100
50) 1,1-dichloropropene	10.408	75	149026	48.34	ug/L	100
51) isobutyl alcohol	10.429	43	45008	462.73	ug/L	100
52) carbon tetrachloride	10.435	117	161989	49.48	ug/L	100
53) tert-amyl alcohol	10.602	73	26583	246.82	ug/L	100
56) benzene	10.734	78	432670	48.05	ug/L	100
57) iso-octane	10.812	57	468163	51.71	ug/L	100
58) tert-amyl methyl ether	10.833	73	336727	49.91	ug/L	100
59) heptane	11.038	57	82250	50.22	ug/L	100
60) isopropyl acetate	10.707	87	20287	50.89	ug/L	100
61) 1,2-dichloroethane	10.739	62	150969	48.09	ug/L	100
62) n-butyl alcohol	11.410	56	141973	2593.72	ug/L	100
63) ethyl acrylate	11.730	55	130176	49.28	ug/L	100
64) trichloroethene	11.667	130	118026	48.61	ug/L	100
65) 2-nitropropane	12.710	41	21131	47.22	ug/L	100
66) 2-chloroethyl vinyl ether	12.773	63	360088	247.60	ug/L	100
67) methyl methacrylate	12.086	69	70881	50.73	ug/L	100
68) 1,2-dichloropropane	12.018	63	116117	48.10	ug/L	100
69) dibromomethane	12.202	93	71153	50.12	ug/L	100
70) methylcyclohexane	11.987	83	207165	51.67	ug/L	100
71) bromodichloromethane	12.396	83	154072	49.52	ug/L	100
72) epichlorohydrin	12.899	57	52227	250.54	ug/L	100
73) cis-1,3-dichloropropene	13.035	75	191408	48.35	ug/L	100
74) 4-methyl-2-pentanone	13.213	58	164160	199.89	ug/L	100
75) 3-methyl-1-butanol	13.229	55	93801	986.47	ug/L	100
78) toluene	13.539	92	272940	47.57	ug/L	100
79) trans-1,3-dichloropropene	13.801	75	173509	49.23	ug/L	100
80) ethyl methacrylate	13.864	69	144021	49.12	ug/L	100
81) 1,1,2-trichloroethane	14.079	83	85656	48.53	ug/L	100
82) tetrachloroethene	14.320	164	104145	48.34	ug/L	100
83) 1,3-dichloropropane	14.325	76	168662	48.53	ug/L	100
84) 2-hexanone	14.372	58	153352	195.23	ug/L	100
85) butyl acetate	14.509	56	70808	49.39	ug/L	100
86) dibromochloromethane	14.661	129	123172	50.06	ug/L	100
87) 1,2-dibromoethane	14.855	107	116801	48.70	ug/L	100
88) n-butyl ether	15.505	57	520949	48.10	ug/L	100
89) chlorobenzene	15.499	112	323683	47.63	ug/L	100
90) 1,1,1,2-tetrachloroethane	15.589	131	127372	49.98	ug/L	100
91) ethylbenzene	15.610	91	549634	48.29	ug/L	100
92) m,p-xylene	15.756	91	846126	95.56	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration

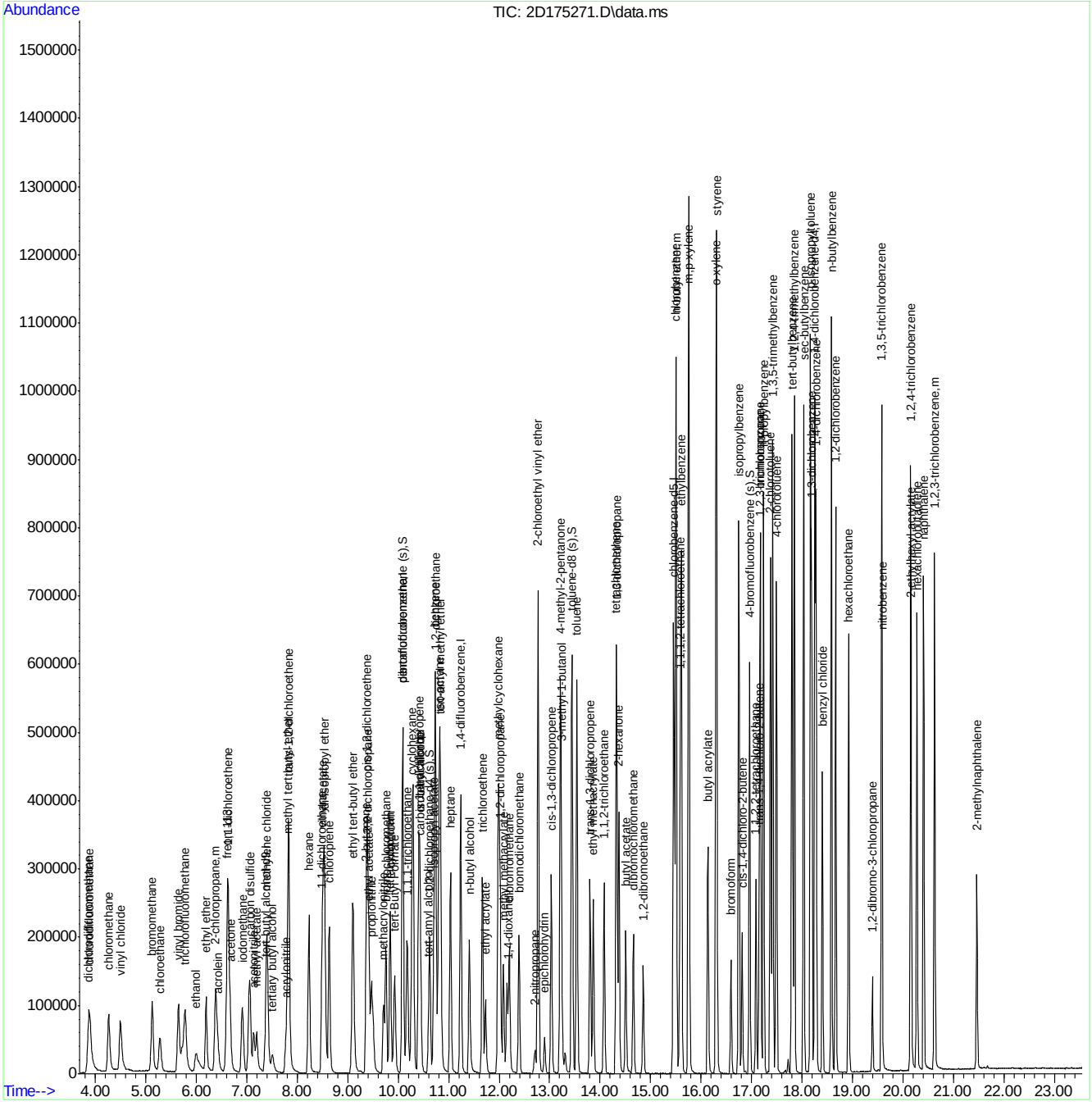
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) o-xylene	16.296	106	216162	48.37	ug/L	100
94) styrene	16.307	104	369733	49.10	ug/L	100
95) butyl acrylate	16.134	55	236704	49.47	ug/L	100
96) bromoform	16.590	173	87029	51.21	ug/L	100
97) isopropylbenzene	16.747	105	581942	48.68	ug/L	100
98) cis-1,4-dichloro-2-butene	16.815	88	50399	52.31	ug/L	100
101) bromobenzene	17.172	156	162157	47.40	ug/L	100
102) 1,1,2,2-tetrachloroethane	17.088	83	145479	47.24	ug/L	100
103) trans-1,4-dichloro-2-b...	17.151	53	34827	49.88	ug/L	100
104) 1,2,3-trichloropropane	17.167	110	38504	49.03	ug/L	100
105) n-propylbenzene	17.240	91	683453	48.12	ug/L	100
106) 2-chlorotoluene	17.376	126	145491	47.97	ug/L	100
107) 4-chlorotoluene	17.492	91	405135	47.42	ug/L	100
109) 1,3,5-trimethylbenzene	17.418	105	505424	48.31	ug/L	100
110) tert-butylbenzene	17.801	119	453671	48.89	ug/L	100
111) 1,2,4-trimethylbenzene	17.848	105	517115	48.43	ug/L	100
112) sec-butylbenzene	18.037	105	674998	48.68	ug/L	100
113) 1,3-dichlorobenzene	18.194	146	308141	47.56	ug/L	100
114) p-isopropyltoluene	18.168	119	585562	48.62	ug/L	100
115) 1,4-dichlorobenzene	18.278	146	315722	48.16	ug/L	100
116) 1,2-dichlorobenzene	18.666	146	317990	48.92	ug/L	100
117) benzyl chloride	18.404	91	292465	50.27	ug/L	100
119) n-butylbenzene	18.582	92	299444	49.56	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.395	157	38529	51.15	ug/L	100
122) nitrobenzene	19.589	77	4636	35.73	ug/L	100
123) 1,3,5-trichlorobenzene	19.579	180	311738	51.30	ug/L	100
124) hexachlorobutadiene	20.281	225	149998	50.45	ug/L	100
125) naphthalene	20.412	128	569038	53.98	ug/L	100
126) 2-ethylhexyl acrylate	20.166	70	30681	10.67	ug/L	100
127) 1,2,4-trichlorobenzene	20.155	180	273154	52.90	ug/L	100
128) 1,2,3-trichlorobenzene	20.627	180	252633	53.12	ug/L	100
129) hexachloroethane	18.928	201	111037	52.40	ug/L	100
130) 2-methylnaphthalene	21.466	142	146957	27.49	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175271.D
Acq On : 3 May 2018 7:16 pm
Operator : oyinadei
Sample : ICC7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: May 04 11:22:03 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	111938	500.00	ug/L		0.00
5) pentafluorobenzene	10.088	168	296992	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	412396	50.00	ug/L		0.00
76) chlorobenzene-d5	15.457	117	417264	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.252	152	244548	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.088	113	128001	50.03	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	138792	49.00	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.00%				
77) toluene-d8 (s)	13.439	98	478960	49.36	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.72%				
100) 4-bromofluorobenzene (s)	16.962	95	195285	49.77	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	111211	527.39	ug/L		93
3) ethanol	5.999	45	195335	8581.46	ug/L		99
4) 1,4-dioxane	12.180	88	56259	2681.48	ug/L		98
6) chlorodifluoromethane	3.891	51	280805	100.32	ug/L		99
7) dichlorodifluoromethane	3.870	85	337189	102.13	ug/L		98
10) chloromethane	4.269	50	364874	97.80	ug/L		100
11) vinyl chloride	4.499	62	344524	105.02	ug/L		98
12) bromomethane	5.128	94	227867	98.86	ug/L		96
13) chloroethane	5.281	64	164270	95.45	ug/L		99
14) trichlorofluoromethane	5.779	101	379587	99.47	ug/L		96
15) vinyl bromide	5.648	106	241591	98.28	ug/L		97
17) ethyl ether	6.193	74	117173	101.58	ug/L		95
18) acrolein	6.434	56	47047	99.50	ug/L		99
19) 1,1-dichloroethene	6.633	96	222390	99.37	ug/L		97
20) freon 113	6.618	151	189776	100.98	ug/L		97
21) 2-chloropropane	6.387	43	370673	94.00	ug/L		99
22) acetone	6.675	58	67793	426.97	ug/L		96
23) acetonitrile	7.137	41	260573	956.86	ug/L		100
24) iodomethane	6.916	142	385421	101.61	ug/L		100
25) carbon disulfide	7.058	76	709134	98.87	ug/L		99
26) methylene chloride	7.399	84	250410	101.11	ug/L		99
27) methyl acetate	7.199	43	158122	100.39	ug/L		99
28) methyl tert butyl ether	7.818	73	649109	99.72	ug/L		99
29) trans-1,2-dichloroethene	7.834	96	227333	100.18	ug/L		98
30) hexane	8.232	57	303468	102.30	ug/L		99
31) di-isopropyl ether	8.536	45	769033	98.61	ug/L		96
32) 2-butanone	9.370	72	90245	439.45	ug/L		98
33) 1,1-dichloroethane	8.495	63	420915	99.75	ug/L		99
34) chloroprene	8.636	53	336125	100.11	ug/L		98
35) acrylonitrile	7.766	53	83210	109.13	ug/L		94
36) vinyl acetate	8.510	86	39285	111.90	ug/L	#	94
37) ethyl tert-butyl ether	9.103	59	716301	98.03	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	28213	101.30	ug/L		96
39) 2,2-dichloropropane	9.407	77	314067	93.51	ug/L		96
40) cis-1,2-dichloroethene	9.386	96	254420	100.12	ug/L		97
41) propionitrile	9.470	54	337081	1040.76	ug/L		99
42) tert-Butyl Formate	9.931	59	221024	98.58	ug/L		98
43) bromochloromethane	9.758	128	129719	101.82	ug/L		97
44) tetrahydrofuran	9.837	72	28330	106.59	ug/L		92
45) chloroform	9.842	83	410046	100.74	ug/L		99
47) methacrylonitrile	9.711	67	89268	106.97	ug/L		95
48) 1,1,1-trichloroethane	10.178	97	375773	99.95	ug/L		96
49) cyclohexane	10.282	84	320569	102.60	ug/L		82
50) 1,1-dichloropropene	10.408	75	312361	100.51	ug/L		99
51) isobutyl alcohol	10.429	43	93298	951.64	ug/L		98
52) carbon tetrachloride	10.434	117	331920	100.58	ug/L		100
53) tert-amyl alcohol	10.602	73	54300	500.19	ug/L		96
56) benzene	10.733	78	904939	98.46	ug/L		98
57) iso-octane	10.812	57	925031	100.10	ug/L		99
58) tert-amyl methyl ether	10.833	73	683363	99.23	ug/L		100
59) heptane	11.037	57	164521	98.42	ug/L		98
60) isopropyl acetate	10.707	87	43710	107.42	ug/L	#	89
61) 1,2-dichloroethane	10.739	62	311169	97.11	ug/L		97
62) n-butyl alcohol	11.410	56	299722	5364.37	ug/L		98
63) ethyl acrylate	11.729	55	273310	101.36	ug/L		99
64) trichloroethene	11.667	130	245675	99.13	ug/L		98
65) 2-nitropropane	12.710	41	45945	100.58	ug/L		93
66) 2-chloroethyl vinyl ether	12.773	63	754556	508.29	ug/L		100
67) methyl methacrylate	12.086	69	150598	105.59	ug/L		97
68) 1,2-dichloropropane	12.018	63	243027	98.62	ug/L		100
69) dibromomethane	12.201	93	148414	102.43	ug/L		98
70) methylcyclohexane	11.986	83	416362	101.73	ug/L		100
71) bromodichloromethane	12.395	83	322515	101.54	ug/L		98
72) epichlorohydrin	12.899	57	106810	501.97	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	403085	99.76	ug/L		98
74) 4-methyl-2-pentanone	13.213	58	345144	411.72	ug/L		96
75) 3-methyl-1-butanol	13.234	55	197390	2033.69	ug/L		94
78) toluene	13.538	92	579684	98.55	ug/L		97
79) trans-1,3-dichloropropene	13.800	75	367885	101.84	ug/L		99
80) ethyl methacrylate	13.863	69	308845	102.75	ug/L		99
81) 1,1,2-trichloroethane	14.078	83	180361	99.70	ug/L		98
82) tetrachloroethene	14.320	164	217688	98.56	ug/L		98
83) 1,3-dichloropropane	14.325	76	355700	99.85	ug/L		99
84) 2-hexanone	14.372	58	326804	405.87	ug/L		99
85) butyl acetate	14.508	56	147958	100.69	ug/L		96
86) dibromochloromethane	14.660	129	263753	104.57	ug/L		98
87) 1,2-dibromoethane	14.854	107	246460	100.26	ug/L		100
88) n-butyl ether	15.504	57	1092757	98.42	ug/L		98
89) chlorobenzene	15.499	112	684899	98.31	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.588	131	269309	103.10	ug/L		98
91) ethylbenzene	15.609	91	1145980	98.21	ug/L		100
92) m,p-xylene	15.756	91	1774790	195.54	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration

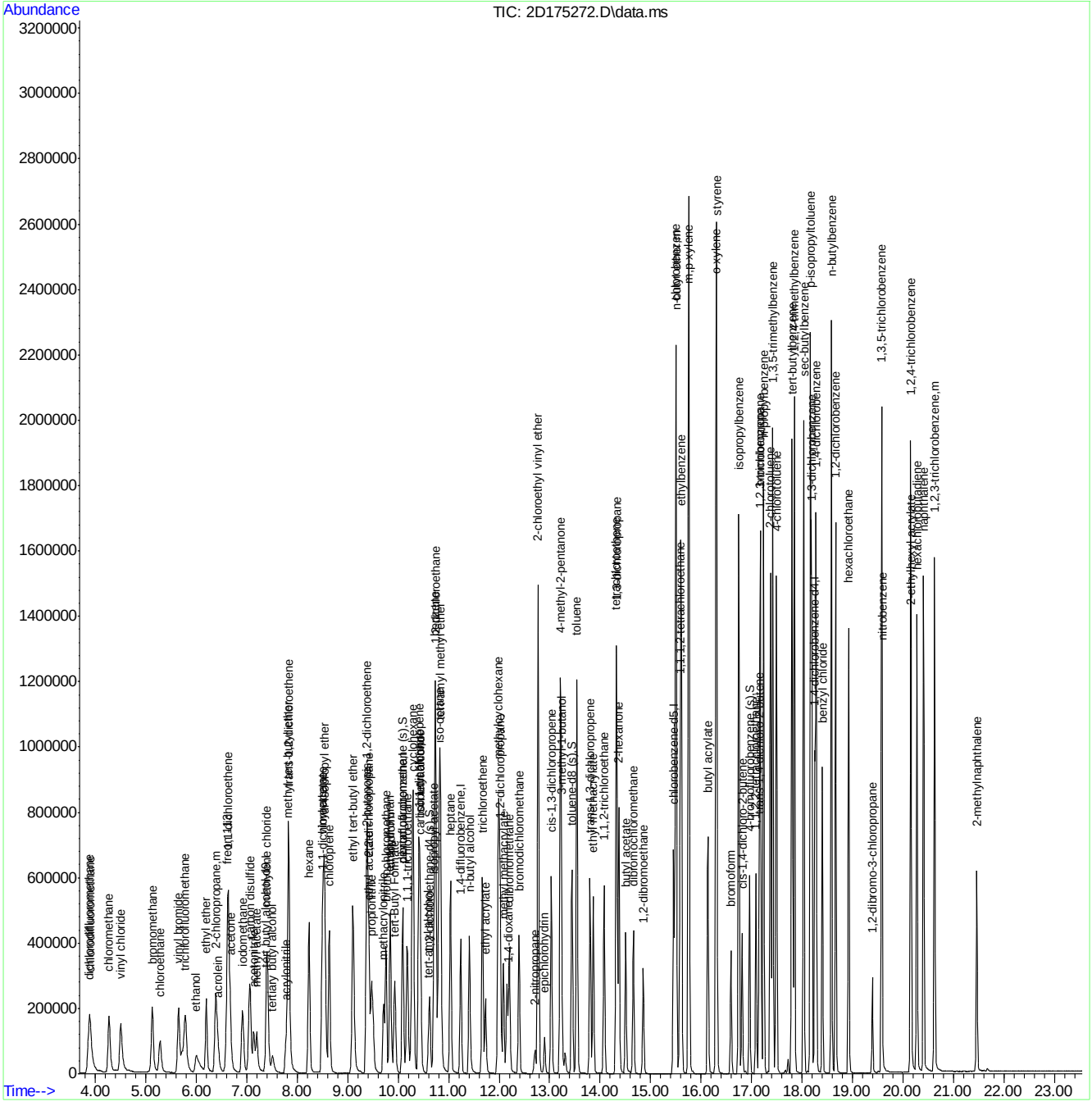
	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
93)	o-xylene	16.296	106	453895	99.09	ug/L	97
94)	styrene	16.307	104	774520	100.33	ug/L	99
95)	butyl acrylate	16.134	55	490947	100.09	ug/L	100
96)	bromoform	16.590	173	192667	110.59	ug/L	99
97)	isopropylbenzene	16.747	105	1203712	98.23	ug/L	99
98)	cis-1,4-dichloro-2-butene	16.815	88	105451	106.77	ug/L	98
101)	bromobenzene	17.172	156	343092	99.43	ug/L	99
102)	1,1,2,2-tetrachloroethane	17.088	83	308034	99.16	ug/L	99
103)	trans-1,4-dichloro-2-b...	17.151	53	74651	106.00	ug/L	93
104)	1,2,3-trichloropropane	17.167	110	81267	102.59	ug/L	97
105)	n-propylbenzene	17.240	91	1414766	98.75	ug/L	100
106)	2-chlorotoluene	17.376	126	307671	100.56	ug/L	99
107)	4-chlorotoluene	17.492	91	844463	97.99	ug/L	99
109)	1,3,5-trimethylbenzene	17.418	105	1047029	99.22	ug/L	99
110)	tert-butylbenzene	17.801	119	942700	100.71	ug/L	98
111)	1,2,4-trimethylbenzene	17.848	105	1067640	99.14	ug/L	99
112)	sec-butylbenzene	18.037	105	1394188	99.69	ug/L	99
113)	1,3-dichlorobenzene	18.194	146	647378	99.06	ug/L	99
114)	p-isopropyltoluene	18.168	119	1223836	100.73	ug/L	100
115)	1,4-dichlorobenzene	18.278	146	660900	99.94	ug/L	99
116)	1,2-dichlorobenzene	18.666	146	658404	100.41	ug/L	99
117)	benzyl chloride	18.404	91	611687	104.23	ug/L	100
119)	n-butylbenzene	18.582	92	617243	101.27	ug/L	100
121)	1,2-dibromo-3-chloropr...	19.395	157	82874	109.07	ug/L	98
122)	nitrobenzene	19.589	77	10557	80.67	ug/L	91
123)	1,3,5-trichlorobenzene	19.578	180	651067	106.22	ug/L	100
124)	hexachlorobutadiene	20.276	225	310036	103.37	ug/L	99
125)	naphthalene	20.407	128	1185283	111.46	ug/L	99
126)	2-ethylhexyl acrylate	20.166	70	69210	23.86	ug/L	98
127)	1,2,4-trichlorobenzene	20.155	180	577398	110.85	ug/L	99
128)	1,2,3-trichlorobenzene	20.627	180	524566	109.34	ug/L	100
129)	hexachloroethane	18.923	201	236522	110.65	ug/L	98
130)	2-methylnaphthalene	21.466	142	323834	60.05	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175272.D
Acq On : 3 May 2018 7:46 pm
Operator : oyinadei
Sample : IC7390-100
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: May 04 11:22:25 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:06:56 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	112206	500.00	ug/L	0.01
5) pentafluorobenzene	10.089	168	307798	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	429846	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	437957	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.257	152	256677	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	133113	50.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.40%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	138524	46.92	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.84%			
77) toluene-d8 (s)	13.444	98	496549	48.76	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.52%			
100) 4-bromofluorobenzene (s)	16.962	95	204942	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.514	59	221775	1049.21	ug/L	92
3) ethanol	6.004	45	376125	16413.37	ug/L	96
4) 1,4-dioxane	12.181	88	115685	5500.73	ug/L	97
6) chlorodifluoromethane	3.891	51	524602	180.84	ug/L	100
7) dichlorodifluoromethane	3.865	85	651173	190.30	ug/L	99
10) chloromethane	4.264	50	726252	187.83	ug/L	99
11) vinyl chloride	4.500	62	691687	203.44	ug/L	97
12) bromomethane	5.118	94	430503	180.21	ug/L	99
13) chloroethane	5.276	64	320003	179.42	ug/L	99
14) trichlorofluoromethane	5.774	101	762657	192.83	ug/L	97
15) vinyl bromide	5.643	106	489744	192.23	ug/L	99
17) ethyl ether	6.198	74	235492	196.99	ug/L	98
18) acrolein	6.434	56	95452	194.79	ug/L	99
19) 1,1-dichloroethene	6.633	96	455904	196.57	ug/L	100
20) freon 113	6.618	151	398129	204.41	ug/L	99
21) 2-chloropropane	6.387	43	745561	182.41	ug/L	100
22) acetone	6.675	58	133791	813.05	ug/L	98
23) acetonitrile	7.137	41	510238	1807.88	ug/L	100
24) iodomethane	6.917	142	779325	198.25	ug/L	99
25) carbon disulfide	7.058	76	1413259	190.13	ug/L	99
26) methylene chloride	7.399	84	512237	199.57	ug/L	100
27) methyl acetate	7.200	43	314584	192.72	ug/L	99
28) methyl tert butyl ether	7.818	73	1277942	189.44	ug/L	98
29) trans-1,2-dichloroethene	7.834	96	457194	194.40	ug/L	96
30) hexane	8.227	57	628565	204.44	ug/L	98
31) di-isopropyl ether	8.542	45	1516265	187.59	ug/L	94
32) 2-butanone	9.370	72	184407	866.44	ug/L	93
33) 1,1-dichloroethane	8.495	63	836622	191.32	ug/L	100
34) chloroprene	8.631	53	668955	192.24	ug/L	96
35) acrylonitrile	7.766	53	164447	208.11	ug/L	99
36) vinyl acetate	8.510	86	78622	216.10	ug/L #	83
37) ethyl tert-butyl ether	9.103	59	1412301	186.50	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) ethyl acetate	9.423	45	54437	188.59	ug/L		94
39) 2,2-dichloropropane	9.407	77	615341	176.77	ug/L		97
40) cis-1,2-dichloroethene	9.381	96	514354	195.30	ug/L		98
41) propionitrile	9.475	54	673026	2005.07	ug/L		94
42) tert-Butyl Formate	9.931	59	426889	183.72	ug/L		98
43) bromochloromethane	9.758	128	261441	198.00	ug/L		98
44) tetrahydrofuran	9.832	72	56162	203.89	ug/L		95
45) chloroform	9.842	83	814964	193.19	ug/L		99
47) methacrylonitrile	9.711	67	179595	207.65	ug/L		99
48) 1,1,1-trichloroethane	10.178	97	753835	193.46	ug/L		98
49) cyclohexane	10.283	84	661664	204.33	ug/L		86
50) 1,1-dichloropropene	10.408	75	630078	195.63	ug/L		98
51) isobutyl alcohol	10.435	43	188982	1859.95	ug/L		98
52) carbon tetrachloride	10.435	117	672406	196.60	ug/L		98
53) tert-amyl alcohol	10.608	73	111227	988.61	ug/L		96
56) benzene	10.733	78	1824591	190.47	ug/L		99
57) iso-octane	10.812	57	1931190	200.50	ug/L		98
58) tert-amyl methyl ether	10.838	73	1341833	186.93	ug/L		99
59) heptane	11.038	57	346664	198.95	ug/L		100
60) isopropyl acetate	10.707	87	88165	207.88	ug/L	#	81
61) 1,2-dichloroethane	10.739	62	608992	182.35	ug/L		97
62) n-butyl alcohol	11.415	56	616099	10579.18	ug/L		98
63) ethyl acrylate	11.730	55	548973	195.34	ug/L		99
64) trichloroethene	11.667	130	503406	194.88	ug/L		96
65) 2-nitropropane	12.710	41	93950	197.33	ug/L		94
66) 2-chloroethyl vinyl ether	12.778	63	1502584	971.09	ug/L		99
67) methyl methacrylate	12.086	69	302852	203.72	ug/L		100
68) 1,2-dichloropropane	12.018	63	493234	192.03	ug/L		99
69) dibromomethane	12.202	93	297749	197.15	ug/L		98
70) methylcyclohexane	11.987	83	888324	208.24	ug/L		99
71) bromodichloromethane	12.396	83	650096	196.37	ug/L		99
72) epichlorohydrin	12.899	57	216592	976.59	ug/L		95
73) cis-1,3-dichloropropene	13.035	75	817164	194.03	ug/L		98
74) 4-methyl-2-pentanone	13.213	58	691287	791.16	ug/L		99
75) 3-methyl-1-butanol	13.234	55	401520	3968.88	ug/L		96
78) toluene	13.539	92	1176214	190.52	ug/L		98
79) trans-1,3-dichloropropene	13.801	75	737892	194.61	ug/L		98
80) ethyl methacrylate	13.864	69	620890	196.81	ug/L		99
81) 1,1,2-trichloroethane	14.079	83	365560	192.52	ug/L		98
82) tetrachloroethene	14.320	164	448152	193.32	ug/L		95
83) 1,3-dichloropropane	14.330	76	715965	191.49	ug/L		97
84) 2-hexanone	14.377	58	658346	779.00	ug/L		96
85) butyl acetate	14.508	56	305541	198.10	ug/L		99
86) dibromochloromethane	14.661	129	541159	204.41	ug/L		99
87) 1,2-dibromoethane	14.855	107	499467	193.58	ug/L		99
88) n-butyl ether	15.505	57	2219378	190.45	ug/L		97
89) chlorobenzene	15.499	112	1415706	193.61	ug/L		100
90) 1,1,1,2-tetrachloroethane	15.589	131	548867	200.19	ug/L		98
91) ethylbenzene	15.610	91	2323561	189.73	ug/L		99
92) m,p-xylene	15.762	91	3601568	378.06	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration

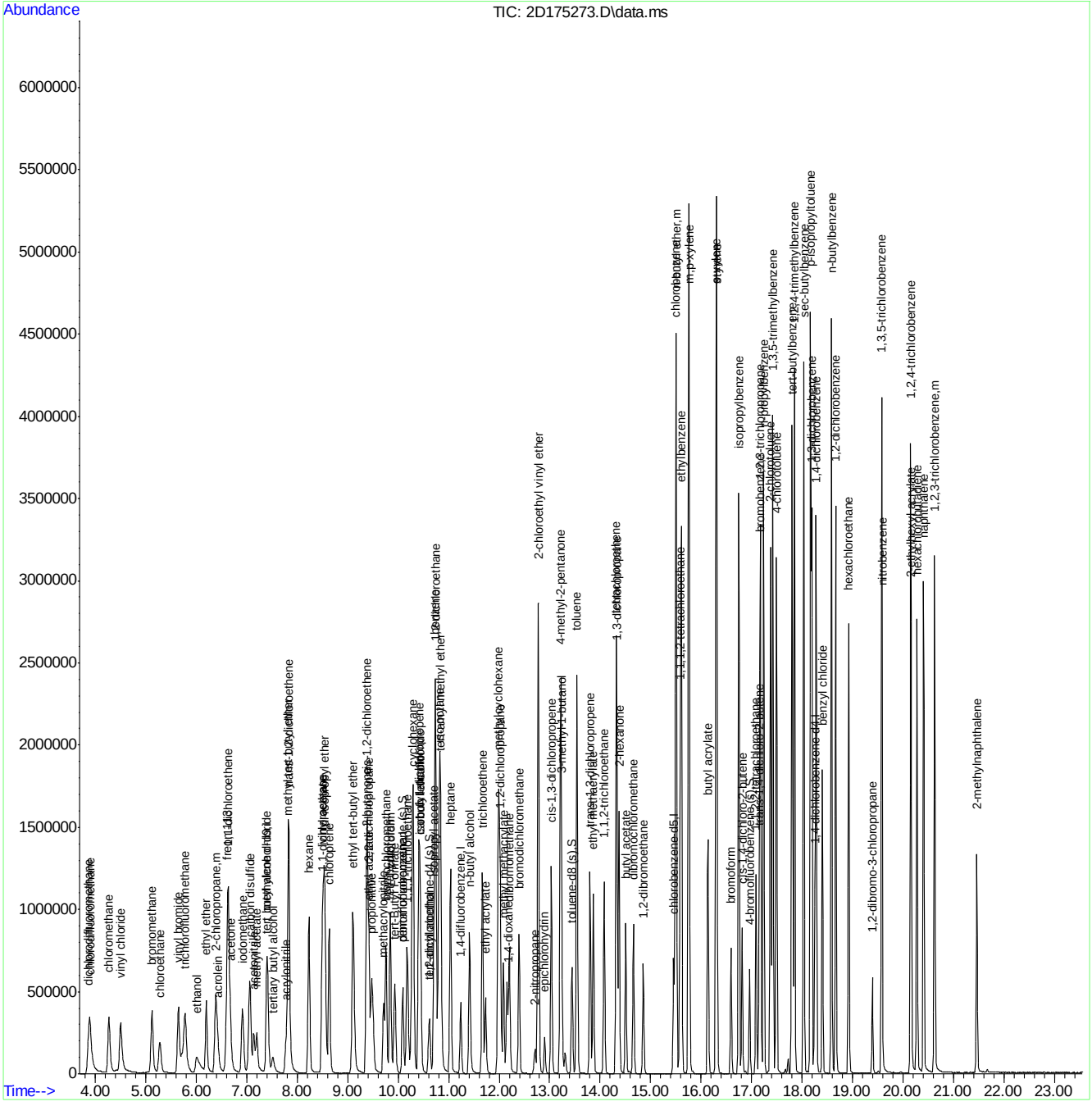
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
93)	o-xylene	16.302	106	937256	194.95	ug/L		94
94)	styrene	16.307	104	1579342	194.93	ug/L		98
95)	butyl acrylate	16.134	55	1012235	196.62	ug/L		99
96)	bromoform	16.595	173	400634	219.09	ug/L		99
97)	isopropylbenzene	16.747	105	2490487	193.63	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.815	88	214104	206.54	ug/L		97
101)	bromobenzene	17.177	156	704630	194.55	ug/L		92
102)	1,1,2,2-tetrachloroethane	17.088	83	626964	192.30	ug/L		99
103)	trans-1,4-dichloro-2-b...	17.151	53	149476	202.22	ug/L		99
104)	1,2,3-trichloropropane	17.172	110	162618	195.58	ug/L	#	74
105)	n-propylbenzene	17.240	91	2906190	193.27	ug/L		99
106)	2-chlorotoluene	17.376	126	638064	198.69	ug/L		97
107)	4-chlorotoluene	17.492	91	1744984	192.91	ug/L		100
109)	1,3,5-trimethylbenzene	17.424	105	2177264	196.58	ug/L		98
110)	tert-butylbenzene	17.806	119	1956767	199.16	ug/L		97
111)	1,2,4-trimethylbenzene	17.848	105	2210405	195.55	ug/L		100
112)	sec-butylbenzene	18.037	105	2910311	198.26	ug/L		99
113)	1,3-dichlorobenzene	18.194	146	1330045	193.91	ug/L		99
114)	p-isopropyltoluene	18.168	119	2543068	199.43	ug/L		100
115)	1,4-dichlorobenzene	18.283	146	1363157	196.39	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	1351028	196.30	ug/L		99
117)	benzyl chloride	18.404	91	1227027	199.20	ug/L		99
119)	n-butylbenzene	18.582	92	1292142	201.98	ug/L		97
121)	1,2-dibromo-3-chloropr...	19.395	157	169979	213.13	ug/L		97
122)	nitrobenzene	19.589	77	24225	176.37	ug/L		98
123)	1,3,5-trichlorobenzene	19.578	180	1318195	204.89	ug/L		99
124)	hexachlorobutadiene	20.276	225	618382	196.44	ug/L		98
125)	naphthalene	20.412	128	2357512	211.22	ug/L		100
126)	2-ethylhexyl acrylate	20.166	70	148149	48.66	ug/L		99
127)	1,2,4-trichlorobenzene	20.155	180	1164028	212.92	ug/L		98
128)	1,2,3-trichlorobenzene	20.627	180	1051170	208.75	ug/L		98
129)	hexachloroethane	18.928	201	501717	223.63	ug/L		96
130)	2-methylnaphthalene	21.466	142	679124	119.98	ug/L		100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175273.D
Acq On : 3 May 2018 8:17 pm
Operator : oyinadei
Sample : IC7390-200
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: May 04 11:22:43 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 10:07:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	115668	500.00	ug/L	-0.01
5) pentafluorobenzene	10.088	168	309596	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	423114	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	428295	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	254524	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.088	113	133738	50.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	141232	48.60	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.20%			
77) toluene-d8 (s)	13.439	98	496054	49.81	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.62%			
100) 4-bromofluorobenzene (s)	16.962	95	201263	49.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.509	59	55162	251.69	ug/L	96
3) ethanol	5.994	45	101784	5120.55	ug/L	96
4) 1,4-dioxane	12.180	88	28531	1316.02	ug/L	94
6) chlorodifluoromethane	3.891	51	177755	60.92	ug/L	97
7) dichlorodifluoromethane	3.865	85	167643	48.70	ug/L	99
10) chloromethane	4.263	50	206781	53.17	ug/L	100
11) vinyl chloride	4.494	62	169678	49.62	ug/L	99
12) bromomethane	5.123	94	114590	47.69	ug/L	95
13) chloroethane	5.281	64	83509	46.55	ug/L	99
14) trichlorofluoromethane	5.773	101	185302	47.92	ug/L	98
15) vinyl bromide	5.648	106	116194	45.34	ug/L	98
17) ethyl ether	6.193	74	57109	47.50	ug/L	96
18) acrolein	6.429	56	24985	50.69	ug/L	98
19) 1,1-dichloroethene	6.633	96	105580	45.26	ug/L	97
20) freon 113	6.623	151	96727	49.37	ug/L	99
21) 2-chloropropane	6.382	43	196225	50.06	ug/L	99
22) acetone	6.675	58	34531	208.63	ug/L	98
24) iodomethane	6.906	142	228087	57.68	ug/L	99
25) carbon disulfide	7.053	76	402134	53.79	ug/L	98
26) methylene chloride	7.399	84	121940	47.23	ug/L	98
27) methyl acetate	7.194	43	77533	47.22	ug/L	97
28) methyl tert butyl ether	7.813	73	643205	94.80	ug/L	86
29) trans-1,2-dichloroethene	7.829	96	110027	46.51	ug/L	99
30) hexane	8.227	57	142361	46.03	ug/L	99
31) di-isopropyl ether	8.536	45	390715	48.06	ug/L	99
32) 2-butanone	9.365	72	45661	213.29	ug/L	96
33) 1,1-dichloroethane	8.489	63	205243	46.66	ug/L	99
34) chloroprene	8.631	53	172723	49.35	ug/L	98
35) acrylonitrile	7.771	53	45862	57.70	ug/L	95
36) vinyl acetate	8.510	86	20569	53.81	ug/L	99
37) ethyl tert-butyl ether	9.097	59	362320	47.57	ug/L	100
38) ethyl acetate	9.417	45	14984	51.56	ug/L #	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) 2,2-dichloropropane	9.402	77	148866	42.52	ug/L		98
40) cis-1,2-dichloroethene	9.381	96	127497	48.13	ug/L		96
41) propionitrile	9.470	54	168092	497.87	ug/L		99
42) tert-Butyl Formate	9.926	59	79183	33.88	ug/L		98
43) bromochloromethane	9.758	128	64098	48.26	ug/L		93
44) tetrahydrofuran	9.826	72	13636	49.22	ug/L		89
45) chloroform	9.842	83	201667	47.53	ug/L		98
47) methacrylonitrile	9.711	67	43567	50.08	ug/L		99
48) 1,1,1-trichloroethane	10.178	97	178577	45.56	ug/L		95
49) cyclohexane	10.277	84	169347	51.99	ug/L		99
50) 1,1-dichloropropene	10.403	75	151516	46.77	ug/L		98
51) isobutyl alcohol	10.429	43	48293	477.55	ug/L		98
52) carbon tetrachloride	10.429	117	161930	47.07	ug/L		98
53) tert-amyl alcohol	10.602	73	28623	252.93	ug/L		93
56) benzene	10.733	78	449117	47.63	ug/L		99
57) iso-octane	10.807	57	466663	49.22	ug/L		97
58) tert-amyl methyl ether	10.833	73	343933	48.68	ug/L		99
59) heptane	11.032	57	90770	52.92	ug/L		97
60) isopropyl acetate	10.707	87	22093	51.14	ug/L	#	87
61) 1,2-dichloroethane	10.739	62	154170	46.90	ug/L		99
62) n-butyl alcohol	11.410	56	148625	2592.68	ug/L		98
63) ethyl acrylate	11.729	55	141133	51.02	ug/L		99
64) trichloroethene	11.667	130	120103	47.23	ug/L		96
65) 2-nitropropane	12.710	41	21957	46.85	ug/L		90
66) 2-chloroethyl vinyl ether	12.773	63	395324	259.55	ug/L		99
67) methyl methacrylate	12.081	69	75235	51.41	ug/L		97
68) 1,2-dichloropropane	12.018	63	118156	46.73	ug/L		99
69) dibromomethane	12.201	93	74599	50.18	ug/L		97
70) methylcyclohexane	11.986	83	200519	47.75	ug/L		92
71) bromodichloromethane	12.390	83	154828	47.51	ug/L		97
72) epichlorohydrin	12.899	57	54703	252.22	ug/L		98
73) cis-1,3-dichloropropene	13.035	75	199142	48.04	ug/L		97
74) 4-methyl-2-pentanone	13.208	58	173311	201.51	ug/L		98
75) 3-methyl-1-butanol	13.234	55	101138	1015.62	ug/L		95
78) toluene	13.538	92	286393	47.44	ug/L		99
79) trans-1,3-dichloropropene	13.800	75	171812	46.34	ug/L		99
80) ethyl methacrylate	13.863	69	146982	47.64	ug/L		100
81) 1,1,2-trichloroethane	14.078	83	89462	48.18	ug/L		99
83) 1,3-dichloropropane	14.325	76	179988	49.23	ug/L		98
84) 2-hexanone	14.372	58	164232	198.71	ug/L		100
85) butyl acetate	14.508	56	77169	51.16	ug/L		97
86) dibromochloromethane	14.660	129	131305	50.72	ug/L		100
87) 1,2-dibromoethane	14.854	107	123439	48.92	ug/L		99
88) n-butyl ether	15.504	57	538744	47.27	ug/L		98
89) chlorobenzene	15.499	112	342555	47.90	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.583	131	133053	49.62	ug/L		98
91) ethylbenzene	15.609	91	575567	48.06	ug/L		99
92) m,p-xylene	15.756	91	894777	96.05	ug/L		100
93) o-xylene	16.296	106	227326	48.35	ug/L		96
94) styrene	16.307	104	392569	49.54	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

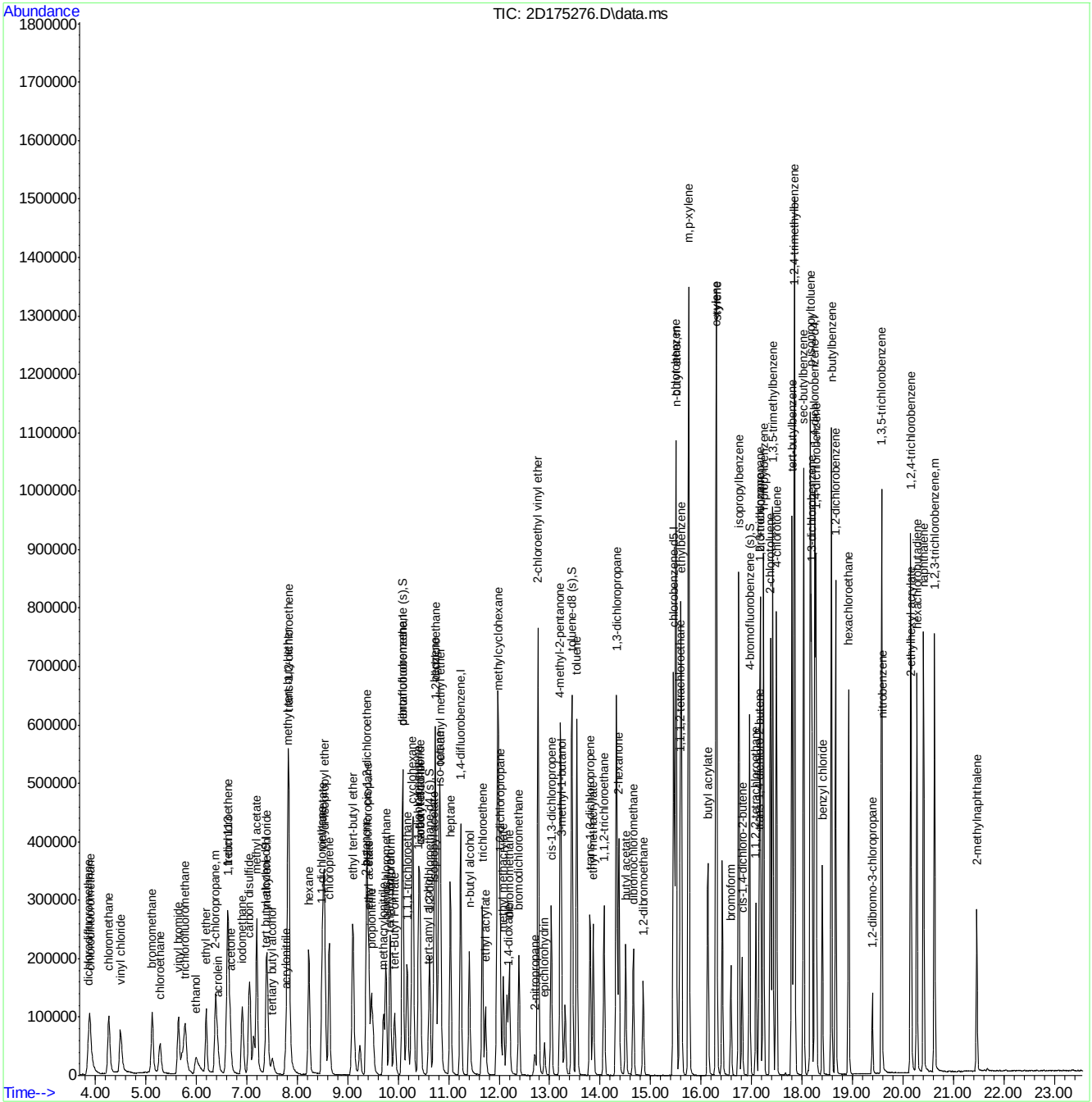
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
95)	butyl acrylate	16.134	55	256414	50.93	ug/L		99
96)	bromoform	16.590	173	96728	54.09	ug/L		99
97)	isopropylbenzene	16.747	105	601627	47.83	ug/L		99
98)	cis-1,4-dichloro-2-butene	16.815	88	50626	49.94	ug/L		99
101)	bromobenzene	17.172	156	172652	48.07	ug/L		96
102)	1,1,2,2-tetrachloroethane	17.088	83	152461	47.16	ug/L		98
103)	trans-1,4-dichloro-2-b...	17.151	53	39052	52.60	ug/L		90
104)	1,2,3-trichloropropane	17.166	110	39780	48.34	ug/L	#	90
105)	n-propylbenzene	17.240	91	711863	47.74	ug/L		99
106)	2-chlorotoluene	17.376	126	151888	47.70	ug/L		93
107)	4-chlorotoluene	17.492	91	436607	48.68	ug/L		100
109)	1,3,5-trimethylbenzene	17.418	105	517600	47.13	ug/L		99
110)	tert-butylbenzene	17.801	119	463590	47.58	ug/L		98
111)	1,2,4-trimethylbenzene	17.848	105	546879	48.79	ug/L		99
112)	sec-butylbenzene	18.032	105	697227	47.90	ug/L		98
113)	1,3-dichlorobenzene	18.194	146	323647	47.58	ug/L		99
114)	p-isopropyltoluene	18.168	119	606423	47.96	ug/L		100
115)	1,4-dichlorobenzene	18.278	146	330399	48.00	ug/L		99
116)	1,2-dichlorobenzene	18.666	146	328779	48.17	ug/L		99
117)	benzyl chloride	18.404	91	240025	38.98	ug/L		99
119)	n-butylbenzene	18.582	92	306308	48.29	ug/L		99
121)	1,2-dibromo-3-chloropr...	19.395	157	39131	49.48	ug/L		97
122)	nitrobenzene	19.589	77	4243	42.25	ug/L		93
123)	1,3,5-trichlorobenzene	19.578	180	320005	50.16	ug/L		99
124)	hexachlorobutadiene	20.276	225	149618	47.93	ug/L		98
125)	naphthalene	20.407	128	586737	53.01	ug/L		99
126)	2-ethylhexyl acrylate	20.166	70	33641	10.62	ug/L		98
127)	1,2,4-trichlorobenzene	20.155	180	281461	51.92	ug/L		98
128)	1,2,3-trichlorobenzene	20.627	180	255694	51.21	ug/L		99
129)	hexachloroethane	18.923	201	116002	52.83	ug/L		100
130)	2-methylnaphthalene	21.466	142	144276	24.30	ug/L		99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175276.D
Acq On : 3 May 2018 9:50 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: May 04 11:24:33 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175277.D
Acq On : 3 May 2018 10:21 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 04 11:25:07 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

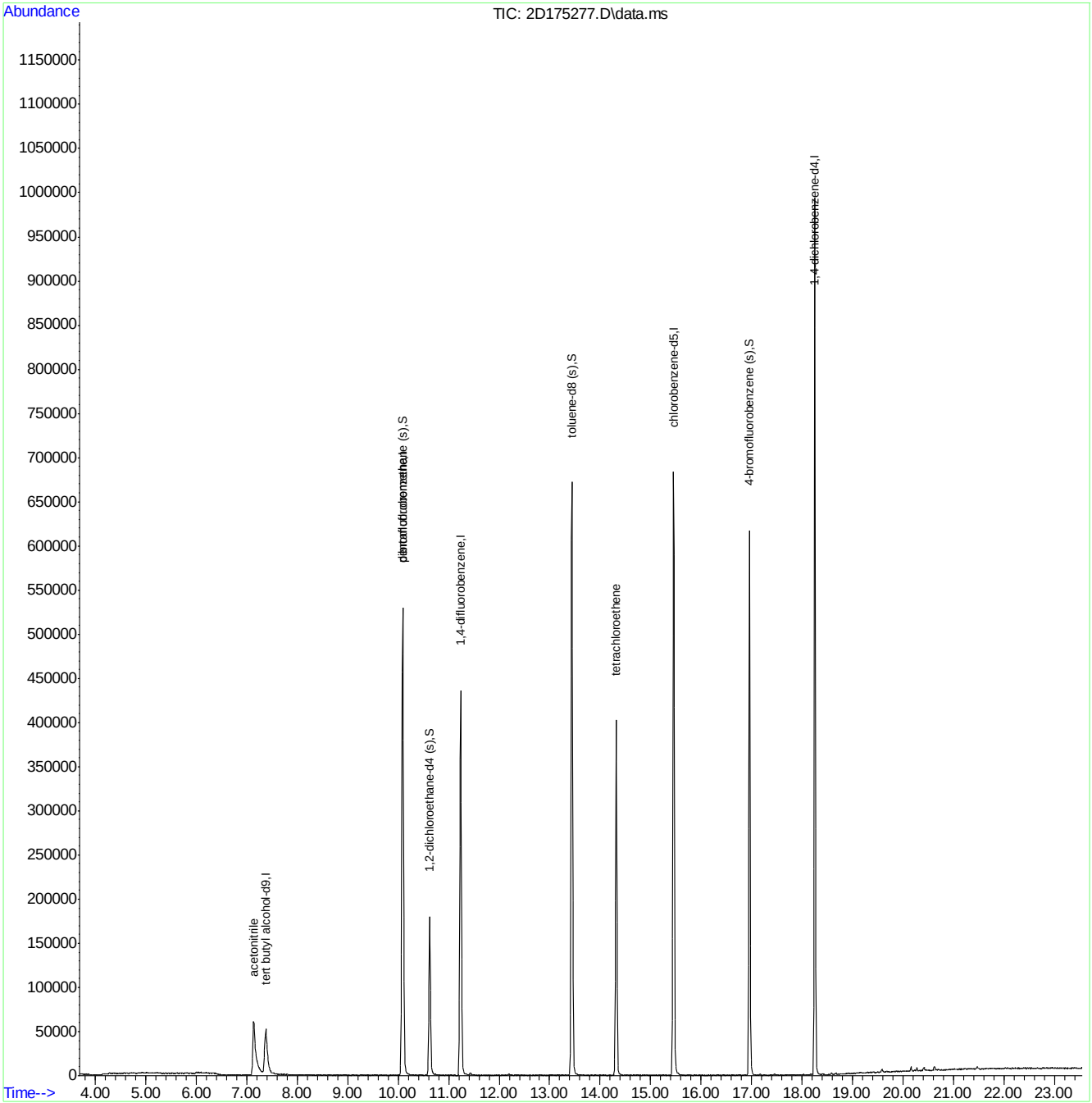
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.378	65	118596	500.00	ug/L	-0.01
5) pentafluorobenzene	10.089	168	317037	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	437486	50.00	ug/L	0.00
76) chlorobenzene-d5	15.457	117	433295	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.252	152	251974	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.089	113	136542	49.99	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.98%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	146204	48.65	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.30%			
77) toluene-d8 (s)	13.439	98	508279	50.45	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.90%			
100) 4-bromofluorobenzene (s)	16.957	95	204587	50.61	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.22%			
Target Compounds						Qvalue
23) acetonitrile	7.137	41	140953	496.38	ug/L	96
82) tetrachloroethene	14.320	164	112612	49.10	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\DATA\V2D7390\
Data File : 2D175277.D
Acq On : 3 May 2018 10:21 pm
Operator : oyinadei
Sample : ICV7390-50
Misc : MS25995,V2D7390,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: May 04 11:25:07 2018
Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176937.d
Acq On : 1 Jul 2018 9:04 am
Operator : juntaep
Sample : cc7390-20 Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:34:30 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.378	65	106260	500.00	ug/L		-0.01
5) pentafluorobenzene	10.083	168	343995	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.231	114	471890	50.00	ug/L		0.00
76) chlorobenzene-d5	15.452	117	459606	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.247	152	252868	50.00	ug/L		-0.01
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.083	113	147756	49.86	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.72%				
55) 1,2-dichloroethane-d4 (s)	10.618	65	139366	43.00	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 86.00%				
77) toluene-d8 (s)	13.434	98	545497	51.04	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.08%				
100) 4-bromofluorobenzene (s)	16.952	95	209464	51.63	ug/L		-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.26%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.509	59	20718	102.90	ug/L		94
3) ethanol	6.009	45	49295	2656.22	ug/L		98
4) 1,4-dioxane	12.170	88	12178	611.46	ug/L		99
6) chlorodifluoromethane	3.912	51	59190	18.26	ug/L		98
7) dichlorodifluoromethane	3.891	85	73330	19.17	ug/L		98
10) chloromethane	4.290	50	79761	18.46	ug/L		99
11) vinyl chloride	4.520	62	75455	19.86	ug/L		98
12) bromomethane	5.144	94	56744	21.25	ug/L		98
13) chloroethane	5.296	64	41704	20.92	ug/L		97
14) trichlorofluoromethane	5.784	101	81214	18.90	ug/L		97
15) vinyl bromide	5.663	106	46680	16.39	ug/L		97
17) ethyl ether	6.203	74	27854	20.85	ug/L		97
18) acrolein	6.445	56	7469	13.64	ug/L		86
19) 1,1-dichloroethene	6.633	96	50754	19.58	ug/L		92
20) freon 113	6.633	151	43206	19.85	ug/L		99
21) 2-chloropropane	6.392	43	83427	19.16	ug/L		96
22) acetone	6.686	58	14455	78.60	ug/L	#	79
23) acetonitrile	7.147	41	54379	176.49	ug/L		97
24) iodomethane	6.916	142	80680	18.36	ug/L		96
25) carbon disulfide	7.048	76	148192	17.84	ug/L		98
26) methylene chloride	7.404	84	58705	20.47	ug/L		91
27) methyl acetate	7.205	43	32159	17.63	ug/L		96
28) methyl tert butyl ether	7.823	73	129072	17.12	ug/L		100
29) trans-1,2-dichloroethene	7.834	96	55588	21.15	ug/L		92
30) hexane	8.232	57	68099	19.82	ug/L		98
31) di-isopropyl ether	8.537	45	166003	18.38	ug/L		95
32) 2-butanone	9.360	72	17737	74.57	ug/L	#	84
33) 1,1-dichloroethane	8.495	63	95138	19.47	ug/L		99
34) chloroprene	8.636	53	71176	18.30	ug/L		94
35) acrylonitrile	7.771	53	15828	17.92	ug/L		98
36) vinyl acetate	8.510	86	7626	17.95	ug/L	#	76
37) ethyl tert-butyl ether	9.103	59	156456	18.49	ug/L		98
38) ethyl acetate	9.412	45	5364	16.61	ug/L	#	17
39) 2,2-dichloropropane	9.402	77	73408	18.87	ug/L		97
40) cis-1,2-dichloroethene	9.381	96	61840	21.01	ug/L		86
41) propionitrile	9.465	54	67505	179.95	ug/L		98
42) tert-Butyl Formate	9.926	59	38133	14.68	ug/L		96
43) bromochloromethane	9.753	128	29791	20.19	ug/L		88
44) tetrahydrofuran	9.832	72	5411	17.58	ug/L		89

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176937.d
Acq On : 1 Jul 2018 9:04 am
Operator : juntaep
Sample : cc7390-20 Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:34:30 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.837	83	93119	19.75	ug/L		97
47) methacrylonitrile	9.706	67	16951	17.54	ug/L		93
48) 1,1,1-trichloroethane	10.172	97	79773	18.32	ug/L		97
49) cyclohexane	10.277	84	76198	21.06	ug/L		88
50) 1,1-dichloropropene	10.403	75	67863	18.85	ug/L		97
51) isobutyl alcohol	10.424	43	17113	152.30	ug/L		94
52) carbon tetrachloride	10.429	117	71047	18.59	ug/L		99
53) tert-amyl alcohol	10.597	73	10308	81.98	ug/L		93
56) benzene	10.728	78	213464	20.30	ug/L		97
57) iso-octane	10.802	57	208493	19.72	ug/L		96
58) tert-amyl methyl ether	10.828	73	151583	19.24	ug/L		98
59) heptane	11.032	57	37156	19.42	ug/L		93
60) isopropyl acetate	10.697	87	8695	18.05	ug/L	#	68
61) 1,2-dichloroethane	10.733	62	60923	16.62	ug/L		98
62) n-butyl alcohol	11.404	56	54718	855.86	ug/L		92
63) ethyl acrylate	11.724	55	49731	16.12	ug/L		98
64) trichloroethene	11.661	130	55981	19.74	ug/L		98
65) 2-nitropropane	12.700	41	8184	15.66	ug/L		98
66) 2-chloroethyl vinyl ether	12.762	63	141358	83.22	ug/L		99
67) methyl methacrylate	12.076	69	28322	17.35	ug/L		89
68) 1,2-dichloropropane	12.013	63	54628	19.37	ug/L		99
69) dibromomethane	12.191	93	31790	19.17	ug/L		96
70) methylcyclohexane	11.981	83	97366	20.79	ug/L		96
71) bromodichloromethane	12.385	83	69562	19.14	ug/L		98
72) epichlorohydrin	12.888	57	20782	85.92	ug/L		95
73) cis-1,3-dichloropropene	13.025	75	85467	18.49	ug/L		93
74) 4-methyl-2-pentanone	13.203	58	66887	69.73	ug/L		89
75) 3-methyl-1-butanol	13.229	55	37298	335.83	ug/L		89
78) toluene	13.533	92	131913	20.36	ug/L		95
79) trans-1,3-dichloropropene	13.795	75	71680	18.01	ug/L		95
80) ethyl methacrylate	13.858	69	57443	17.35	ug/L		93
81) 1,1,2-trichloroethane	14.073	83	39663	19.90	ug/L		95
82) tetrachloroethene	14.314	164	50770	20.87	ug/L		98
83) 1,3-dichloropropane	14.320	76	74734	19.05	ug/L		92
84) 2-hexanone	14.367	58	61746	69.62	ug/L		92
85) butyl acetate	14.498	56	28018	17.31	ug/L		96
86) dibromochloromethane	14.650	129	55217	19.87	ug/L		97
87) 1,2-dibromoethane	14.844	107	51712	19.10	ug/L		100
88) n-butyl ether	15.499	57	228825	18.71	ug/L		98
89) chlorobenzene	15.489	112	155234	20.23	ug/L		97
90) 1,1,1,2-tetrachloroethane	15.578	131	58364	20.28	ug/L		98
91) ethylbenzene	15.604	91	257671	20.05	ug/L		99
92) m,p-xylene	15.751	91	396089	39.62	ug/L		99
93) o-xylene	16.291	106	100589	19.94	ug/L		99
94) styrene	16.301	104	167521	19.70	ug/L		94
95) butyl acrylate	16.128	55	86319	15.98	ug/L		98
96) bromoform	16.585	173	39257	20.46	ug/L		97
97) isopropylbenzene	16.742	105	259615	19.23	ug/L		99
98) cis-1,4-dichloro-2-butene	16.810	88	5063	4.65	ug/L		92
101) bromobenzene	17.167	156	75392	21.13	ug/L		93
102) 1,1,2,2-tetrachloroethane	17.083	83	63361	19.73	ug/L		99
103) trans-1,4-dichloro-2-b...	17.146	53	3753	5.09	ug/L	#	1
104) 1,2,3-trichloropropane	17.161	110	16401	20.06	ug/L	#	76
105) n-propylbenzene	17.229	91	314171	21.21	ug/L		99
106) 2-chlorotoluene	17.366	126	69289	21.90	ug/L		95
107) 4-chlorotoluene	17.486	91	184696	20.73	ug/L		98
109) 1,3,5-trimethylbenzene	17.413	105	223479	20.48	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176937.d
Acq On : 1 Jul 2018 9:04 am
Operator : juntaep
Sample : cc7390-20 Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:34:30 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

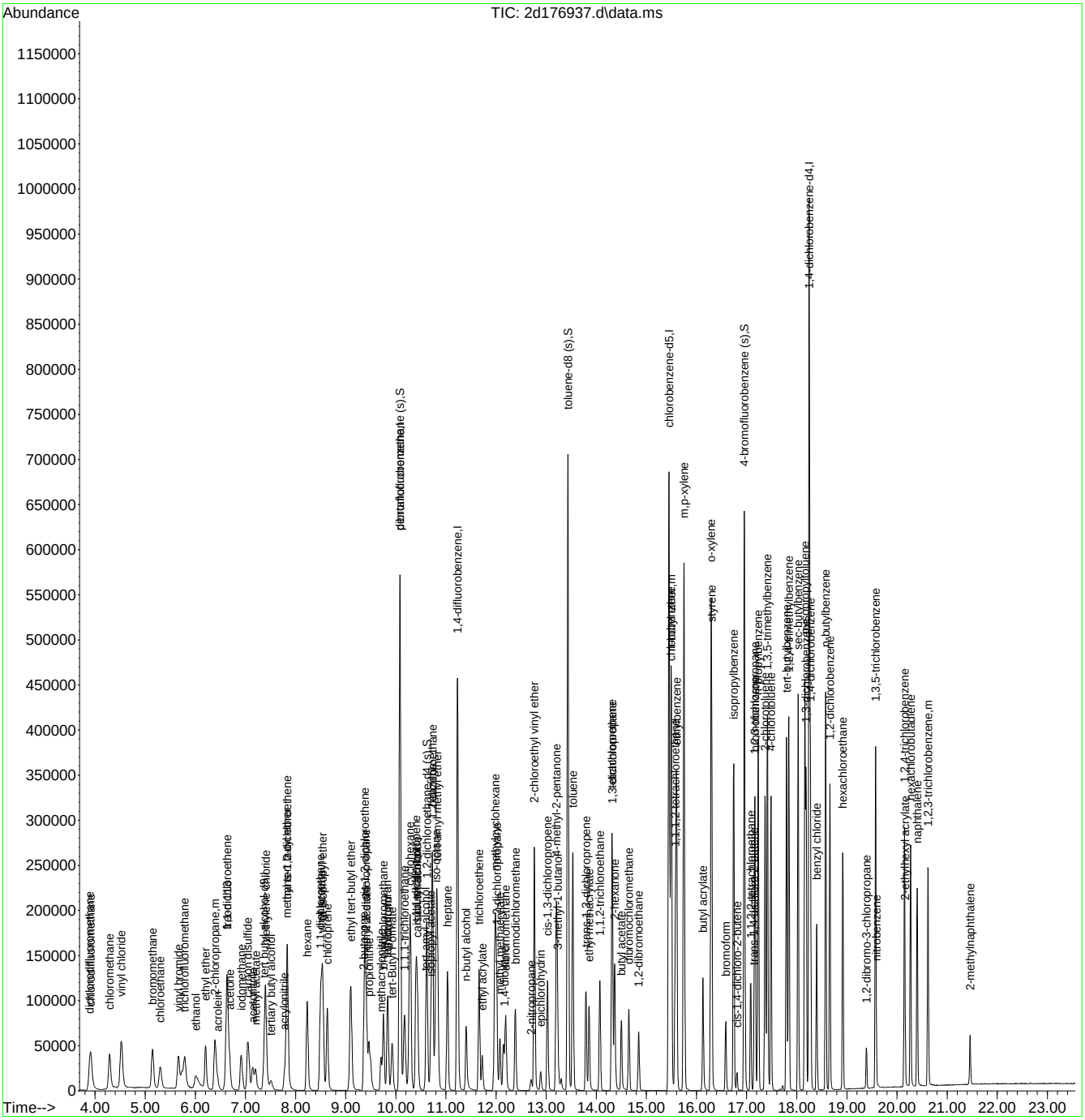
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.796	119	192305	19.87	ug/L	98
111) 1,2,4-trimethylbenzene	17.843	105	226822	20.37	ug/L	98
112) sec-butylbenzene	18.026	105	294010	20.33	ug/L	99
113) 1,3-dichlorobenzene	18.184	146	142948	21.15	ug/L	99
114) p-isopropyltoluene	18.163	119	246907	19.65	ug/L	98
115) 1,4-dichlorobenzene	18.273	146	141693	20.72	ug/L	98
116) 1,2-dichlorobenzene	18.661	146	140311	20.69	ug/L	98
117) benzyl chloride	18.399	91	128245	20.96	ug/L	99
119) n-butylbenzene	18.577	92	123193	19.55	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.390	157	13327	16.96	ug/L	97
122) nitrobenzene	19.589	77	2110	21.15	ug/L	98
123) 1,3,5-trichlorobenzene	19.573	180	122704	19.36	ug/L	99
124) hexachlorobutadiene	20.270	225	58820	18.97	ug/L	99
125) naphthalene	20.402	128	171168	15.57	ug/L	99
126) 2-ethylhexyl acrylate	20.160	70	4223	1.34	ug/L	94
127) 1,2,4-trichlorobenzene	20.150	180	91892	17.06	ug/L	97
128) 1,2,3-trichlorobenzene	20.622	180	82537	16.64	ug/L	97
129) hexachloroethane	18.918	201	47025	21.55	ug/L	99
130) 2-methylnaphthalene	21.461	142	28568	4.84	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176937.d
Acq On : 1 Jul 2018 9:04 am
Operator : juntaep
Sample : cc7390-20 Inst : MS2D
Misc : MS27522,V2D7472,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 21:34:30 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176960.d
Acq On : 1 Jul 2018 9:02 pm
Operator : juntaep
Sample : ecc7390-20 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:40:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.388	65	119588	500.00	ug/L		0.00
5) pentafluorobenzene	10.089	168	337460	50.00	ug/L		0.00
54) 1,4-difluorobenzene	11.237	114	469143	50.00	ug/L		0.00
76) chlorobenzene-d5	15.452	117	448825	50.00	ug/L		0.00
99) 1,4-dichlorobenzene-d4	18.252	152	246728	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	10.089	113	149606	51.46	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.92%				
55) 1,2-dichloroethane-d4 (s)	10.623	65	144187	44.75	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 89.50%				
77) toluene-d8 (s)	13.439	98	538783	51.62	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.24%				
100) 4-bromofluorobenzene (s)	16.957	95	207792	52.49	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.98%				
Target Compounds							Qvalue
2) tertiary butyl alcohol	7.525	59	25248	111.43	ug/L		96
3) ethanol	6.031	45	54542	2609.86	ug/L		93
4) 1,4-dioxane	12.170	88	12623	563.16	ug/L		95
6) chlorodifluoromethane	3.923	51	62540	19.66	ug/L		96
7) dichlorodifluoromethane	3.891	85	77948	20.78	ug/L		96
10) chloromethane	4.295	50	79917	18.85	ug/L		100
11) vinyl chloride	4.526	62	77101	20.68	ug/L		96
12) bromomethane	5.150	94	52480	20.04	ug/L		95
13) chloroethane	5.302	64	44112	22.56	ug/L		97
14) trichlorofluoromethane	5.795	101	85832	20.36	ug/L		93
15) vinyl bromide	5.674	106	48063	17.21	ug/L		97
17) ethyl ether	6.209	74	29770	22.71	ug/L		98
18) acrolein	6.450	56	6501	12.10	ug/L		92
19) 1,1-dichloroethene	6.639	96	52810	20.77	ug/L		89
20) freon 113	6.644	151	43961	20.59	ug/L		95
21) 2-chloropropane	6.392	43	89463	20.94	ug/L		96
22) acetone	6.691	58	16134	89.43	ug/L	#	80
23) acetonitrile	7.147	41	59661	197.39	ug/L		97
24) iodomethane	6.927	142	81262	18.85	ug/L		97
25) carbon disulfide	7.069	76	148962	18.28	ug/L		98
26) methylene chloride	7.409	84	59774	21.24	ug/L		93
27) methyl acetate	7.210	43	36749	20.53	ug/L		97
28) methyl tert butyl ether	7.829	73	137917	18.65	ug/L		100
29) trans-1,2-dichloroethene	7.845	96	56843	22.05	ug/L		90
30) hexane	8.238	57	66565	19.75	ug/L		98
31) di-isopropyl ether	8.542	45	174510	19.69	ug/L		93
32) 2-butanone	9.370	72	20751	88.93	ug/L	#	72
33) 1,1-dichloroethane	8.495	63	100826	21.03	ug/L		98
34) chloroprene	8.642	53	76288	20.00	ug/L		92
35) acrylonitrile	7.782	53	17828	20.58	ug/L		85
36) vinyl acetate	8.521	86	6935	16.64	ug/L	#	94
37) ethyl tert-butyl ether	9.108	59	160636	19.35	ug/L		99
38) ethyl acetate	9.423	45	6664	21.04	ug/L	#	77
39) 2,2-dichloropropane	9.407	77	54933	14.39	ug/L		96
40) cis-1,2-dichloroethene	9.386	96	63497	21.99	ug/L		93
41) propionitrile	9.470	54	77366	210.23	ug/L		98
42) tert-Butyl Formate	9.937	59	34040	13.36	ug/L		95
43) bromochloromethane	9.764	128	31045	21.45	ug/L		89
44) tetrahydrofuran	9.826	72	6274	20.77	ug/L	#	79

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176960.d
Acq On : 1 Jul 2018 9:02 pm
Operator : juntaep
Sample : ecc7390-20 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:40:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.847	83	98144	21.22	ug/L		97
47) methacrylonitrile	9.711	67	19735	20.81	ug/L		96
48) 1,1,1-trichloroethane	10.178	97	80792	18.91	ug/L		95
49) cyclohexane	10.283	84	79375	22.36	ug/L	#	84
50) 1,1-dichloropropene	10.403	75	72672	20.58	ug/L		97
51) isobutyl alcohol	10.435	43	20797	188.67	ug/L		96
52) carbon tetrachloride	10.435	117	72553	19.35	ug/L		97
53) tert-amyl alcohol	10.608	73	11949	96.87	ug/L		95
56) benzene	10.733	78	222979	21.33	ug/L		99
57) iso-octane	10.807	57	203124	19.32	ug/L		96
58) tert-amyl methyl ether	10.833	73	155176	19.81	ug/L		99
59) heptane	11.038	57	34881	18.34	ug/L		94
60) isopropyl acetate	10.707	87	9822	20.51	ug/L	#	63
61) 1,2-dichloroethane	10.733	62	65637	18.01	ug/L		98
62) n-butyl alcohol	11.410	56	64988	1022.45	ug/L		95
63) ethyl acrylate	11.730	55	55790	18.19	ug/L		97
64) trichloroethene	11.667	130	59889	21.24	ug/L		97
65) 2-nitropropane	12.705	41	8883	17.09	ug/L		99
66) 2-chloroethyl vinyl ether	12.768	63	134127	79.42	ug/L		99
67) methyl methacrylate	12.081	69	32334	19.93	ug/L		91
68) 1,2-dichloropropane	12.013	63	56715	20.23	ug/L		99
69) dibromomethane	12.196	93	34768	21.09	ug/L		96
70) methylcyclohexane	11.987	83	100748	21.64	ug/L		95
71) bromodichloromethane	12.385	83	71225	19.71	ug/L		100
72) epichlorohydrin	12.899	57	21307	88.60	ug/L		97
73) cis-1,3-dichloropropene	13.030	75	78657	17.11	ug/L		92
74) 4-methyl-2-pentanone	13.208	58	77105	80.85	ug/L		97
75) 3-methyl-1-butanol	13.229	55	43432	393.35	ug/L		94
78) toluene	13.533	92	136380	21.56	ug/L		98
79) trans-1,3-dichloropropene	13.795	75	64830	16.68	ug/L		98
80) ethyl methacrylate	13.858	69	64908	20.08	ug/L		92
81) 1,1,2-trichloroethane	14.073	83	42776	21.98	ug/L		95
82) tetrachloroethene	14.314	164	53187	22.39	ug/L		97
83) 1,3-dichloropropane	14.320	76	80020	20.88	ug/L		95
84) 2-hexanone	14.367	58	72328	83.51	ug/L		94
85) butyl acetate	14.503	56	31522	19.94	ug/L		98
86) dibromochloromethane	14.650	129	53764	19.82	ug/L		99
87) 1,2-dibromoethane	14.849	107	56063	21.20	ug/L		99
88) n-butyl ether	15.499	57	238666	19.98	ug/L		98
89) chlorobenzene	15.494	112	159630	21.30	ug/L		95
90) 1,1,1,2-tetrachloroethane	15.583	131	59508	21.18	ug/L		99
91) ethylbenzene	15.604	91	266453	21.23	ug/L		99
92) m,p-xylene	15.751	91	404917	41.48	ug/L		98
93) o-xylene	16.291	106	103552	21.02	ug/L		97
94) styrene	16.302	104	175323	21.11	ug/L		97
95) butyl acrylate	16.134	55	95628	18.13	ug/L		99
96) bromoform	16.585	173	36875	19.68	ug/L		98
97) isopropylbenzene	16.742	105	266876	20.25	ug/L		99
101) bromobenzene	17.172	156	77588	22.29	ug/L		92
102) 1,1,2,2-tetrachloroethane	17.083	83	68130	21.74	ug/L		96
104) 1,2,3-trichloropropane	17.161	110	17763	22.27	ug/L	#	91
105) n-propylbenzene	17.235	91	318178	22.01	ug/L		99
106) 2-chlorotoluene	17.371	126	68878	22.31	ug/L		97
107) 4-chlorotoluene	17.487	91	189957	21.85	ug/L		99
109) 1,3,5-trimethylbenzene	17.413	105	225730	21.20	ug/L		99
110) tert-butylbenzene	17.796	119	196847	20.84	ug/L		98
111) 1,2,4-trimethylbenzene	17.843	105	229702	21.14	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176960.d
Acq On : 1 Jul 2018 9:02 pm
Operator : juntaep
Sample : ecc7390-20 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:40:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

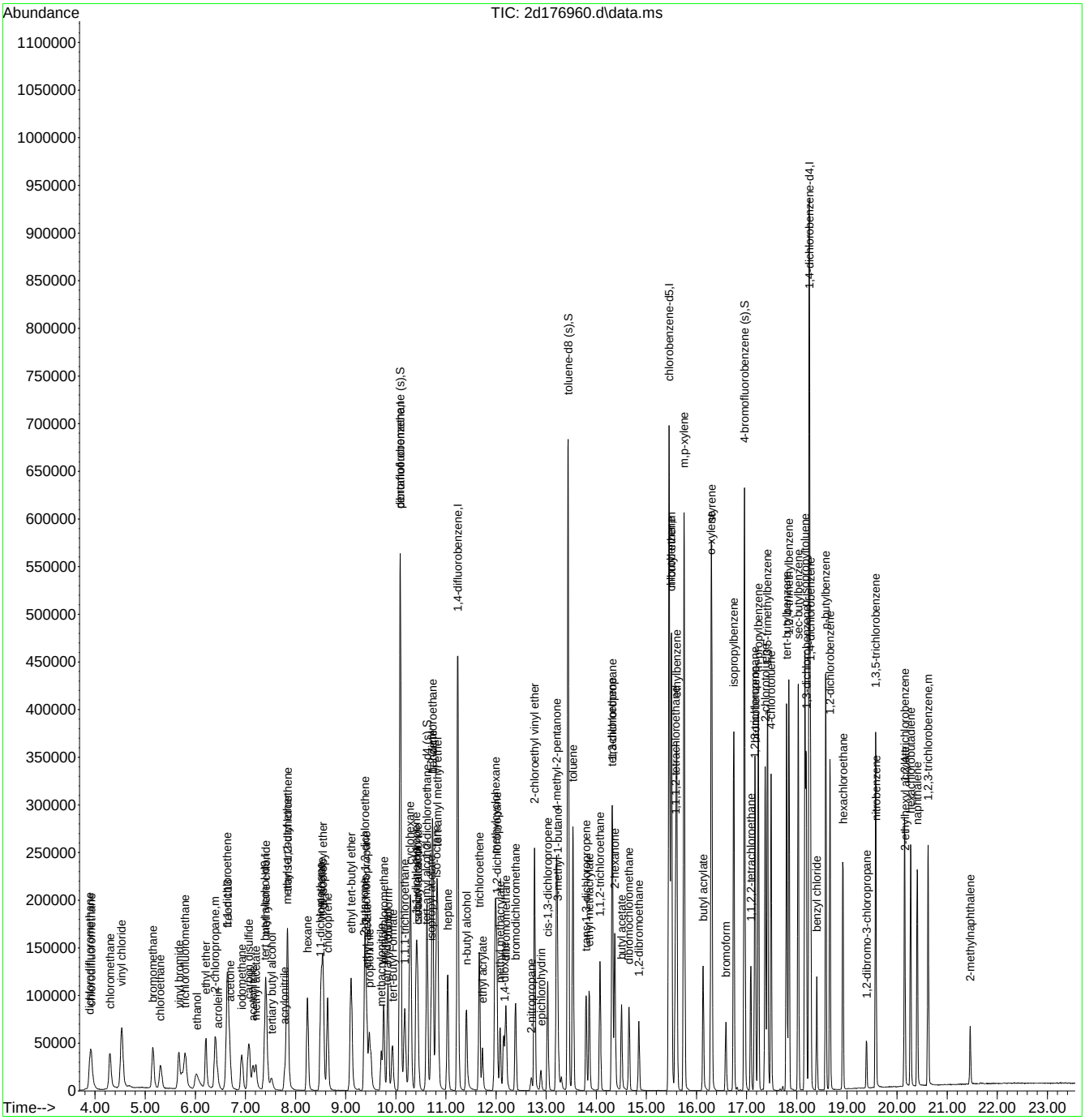
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
112) sec-butylbenzene	18.032	105	297969	21.12	ug/L	98
113) 1,3-dichlorobenzene	18.189	146	144572	21.93	ug/L	99
114) p-isopropyltoluene	18.163	119	248287	20.26	ug/L	100
115) 1,4-dichlorobenzene	18.273	146	144084	21.59	ug/L	99
116) 1,2-dichlorobenzene	18.661	146	142727	21.57	ug/L	99
117) benzyl chloride	18.399	91	81206	13.60	ug/L	99
119) n-butylbenzene	18.577	92	122392	19.90	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.395	157	14351	18.72	ug/L	95
122) nitrobenzene	19.584	77	1640	16.85	ug/L	98
123) 1,3,5-trichlorobenzene	19.573	180	120525	19.49	ug/L	100
124) hexachlorobutadiene	20.276	225	55804	18.44	ug/L	99
125) naphthalene	20.402	128	183952	17.15	ug/L	100
126) 2-ethylhexyl acrylate	20.160	70	4695	1.53	ug/L	95
127) 1,2,4-trichlorobenzene	20.155	180	91670	17.44	ug/L	99
128) 1,2,3-trichlorobenzene	20.622	180	85963	17.76	ug/L	99
129) hexachloroethane	18.923	201	43188	20.29	ug/L	98
130) 2-methylnaphthalene	21.461	142	30638	5.32	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2d7472\
Data File : 2d176960.d
Acq On : 1 Jul 2018 9:02 pm
Operator : juntaep
Sample : ecc7390-20 Inst : MS2D
Misc : MS27582,V2D7472,5,,,,1
ALS Vial : 23 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 02 22:40:19 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176982.d
Acq On : 2 Jul 2018 6:53 pm
Operator : juntaep
Sample : CC7390-50 Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:47:38 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.404	65	121043	500.00	ug/L	0.02
5) pentafluorobenzene	10.088	168	343770	50.00	ug/L	0.00
54) 1,4-difluorobenzene	11.237	114	480894	50.00	ug/L	0.00
76) chlorobenzene-d5	15.452	117	459974	50.00	ug/L	0.00
99) 1,4-dichlorobenzene-d4	18.246	152	247352	50.00	ug/L	-0.01
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.094	113	151547	51.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.34%			
55) 1,2-dichloroethane-d4 (s)	10.623	65	144937	43.88	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 87.76%			
77) toluene-d8 (s)	13.439	98	547664	51.20	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.40%			
100) 4-bromofluorobenzene (s)	16.951	95	209901	52.89	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.78%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.530	59	62624	273.05	ug/L	93
3) ethanol	6.046	45	134172	6473.96	ug/L	98
4) 1,4-dioxane	12.175	88	34382	1515.48	ug/L	96
6) chlorodifluoromethane	3.933	51	172636	53.28	ug/L	97
7) dichlorodifluoromethane	3.907	85	208975	54.68	ug/L	98
10) chloromethane	4.310	50	217407	50.34	ug/L	99
11) vinyl chloride	4.536	62	208462	54.90	ug/L	99
12) bromomethane	5.165	94	138513	51.91	ug/L	96
13) chloroethane	5.317	64	110131	55.29	ug/L	97
14) trichlorofluoromethane	5.810	101	223966	52.16	ug/L	98
15) vinyl bromide	5.679	106	126927	44.61	ug/L	96
17) ethyl ether	6.219	74	75219	56.34	ug/L	95
18) acrolein	6.460	56	21558	39.39	ug/L	98
19) 1,1-dichloroethene	6.665	96	139123	53.71	ug/L	92
20) freon 113	6.644	151	118742	54.59	ug/L	99
21) 2-chloropropane	6.408	43	221718	50.94	ug/L	95
22) acetone	6.696	58	40644	221.15	ug/L #	83
23) acetonitrile	7.157	41	142494	462.79	ug/L	98
24) iodomethane	6.937	142	212231	48.34	ug/L	95
25) carbon disulfide	7.089	76	396594	47.77	ug/L	95
26) methylene chloride	7.420	84	151218	52.75	ug/L	94
27) methyl acetate	7.215	43	92988	51.01	ug/L	95
28) methyl tert butyl ether	7.834	73	347344	46.10	ug/L	99
29) trans-1,2-dichloroethene	7.844	96	146153	55.64	ug/L	93
30) hexane	8.238	57	195556	56.95	ug/L	97
31) di-isopropyl ether	8.547	45	439145	48.65	ug/L	96
32) 2-butanone	9.370	72	54164	227.86	ug/L #	81
33) 1,1-dichloroethane	8.500	63	255828	52.38	ug/L	99
34) chloroprene	8.641	53	201004	51.72	ug/L	92
35) acrylonitrile	7.781	53	45581	51.65	ug/L	95
36) vinyl acetate	8.515	86	22783	53.68	ug/L #	63
37) ethyl tert-butyl ether	9.113	59	405237	47.91	ug/L	100
38) ethyl acetate	9.422	45	17965	55.68	ug/L #	56
39) 2,2-dichloropropane	9.412	77	179520	46.18	ug/L	97
40) cis-1,2-dichloroethene	9.391	96	163306	55.52	ug/L	89
41) propionitrile	9.475	54	196867	525.13	ug/L	97
42) tert-Butyl Formate	9.936	59	100748	38.82	ug/L	95
43) bromochloromethane	9.763	128	79488	53.90	ug/L	94
44) tetrahydrofuran	9.837	72	16408	53.33	ug/L #	84

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176982.d
Acq On : 2 Jul 2018 6:53 pm
Operator : juntaep
Sample : CC7390-50 Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:47:38 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.847	83	248599	52.77	ug/L		97
47) methacrylonitrile	9.711	67	50985	52.78	ug/L		93
48) 1,1,1-trichloroethane	10.183	97	208893	48.00	ug/L		98
49) cyclohexane	10.282	84	198045	54.76	ug/L		89
50) 1,1-dichloropropene	10.408	75	190188	52.87	ug/L		96
51) isobutyl alcohol	10.434	43	50978	453.99	ug/L		95
52) carbon tetrachloride	10.434	117	186479	48.82	ug/L		99
53) tert-amyl alcohol	10.613	73	31082	247.35	ug/L		88
56) benzene	10.738	78	576068	53.75	ug/L		97
57) iso-octane	10.812	57	564576	52.39	ug/L		97
58) tert-amyl methyl ether	10.838	73	386083	48.08	ug/L		98
59) heptane	11.032	57	105664	54.20	ug/L		95
60) isopropyl acetate	10.707	87	25256	51.44	ug/L	#	73
61) 1,2-dichloroethane	10.738	62	169955	45.49	ug/L		96
62) n-butyl alcohol	11.410	56	173585	2664.26	ug/L		95
63) ethyl acrylate	11.724	55	150402	47.84	ug/L		100
64) trichloroethene	11.666	130	153387	53.08	ug/L		97
65) 2-nitropropane	12.705	41	23644	44.39	ug/L		97
66) 2-chloroethyl vinyl ether	12.767	63	399006	230.49	ug/L		99
67) methyl methacrylate	12.081	69	84195	50.62	ug/L		90
68) 1,2-dichloropropane	12.012	63	148582	51.71	ug/L		98
69) dibromomethane	12.196	93	88664	52.47	ug/L		98
70) methylcyclohexane	11.986	83	268085	56.17	ug/L		97
71) bromodichloromethane	12.390	83	190982	51.57	ug/L		99
72) epichlorohydrin	12.893	57	60060	243.65	ug/L		97
73) cis-1,3-dichloropropene	13.030	75	229141	48.63	ug/L		94
74) 4-methyl-2-pentanone	13.208	58	198709	203.28	ug/L		93
75) 3-methyl-1-butanol	13.229	55	115709	1022.33	ug/L		92
78) toluene	13.533	92	351721	54.24	ug/L		97
79) trans-1,3-dichloropropene	13.795	75	193662	48.63	ug/L		97
80) ethyl methacrylate	13.858	69	169003	51.01	ug/L		92
81) 1,1,2-trichloroethane	14.073	83	108847	54.58	ug/L		96
82) tetrachloroethene	14.314	164	138662	56.95	ug/L		98
83) 1,3-dichloropropane	14.319	76	206449	52.57	ug/L		93
84) 2-hexanone	14.367	58	186494	210.11	ug/L		92
85) butyl acetate	14.503	56	81648	50.40	ug/L		98
86) dibromochloromethane	14.655	129	147310	52.98	ug/L		99
87) 1,2-dibromoethane	14.849	107	146260	53.97	ug/L		100
88) n-butyl ether	15.499	57	620596	50.71	ug/L		97
89) chlorobenzene	15.494	112	412655	53.73	ug/L		98
90) 1,1,1,2-tetrachloroethane	15.583	131	153243	53.22	ug/L		98
91) ethylbenzene	15.604	91	681822	53.01	ug/L		98
92) m,p-xylene	15.751	91	1043614	104.31	ug/L		98
93) o-xylene	16.291	106	266131	52.71	ug/L		97
94) styrene	16.301	104	452260	53.15	ug/L		95
95) butyl acrylate	16.128	55	262949	48.63	ug/L		99
96) bromoform	16.584	173	103007	53.63	ug/L		99
97) isopropylbenzene	16.742	105	690498	51.11	ug/L		99
98) cis-1,4-dichloro-2-butene	16.810	88	12519	11.50	ug/L		89
101) bromobenzene	17.166	156	200295	57.39	ug/L		94
102) 1,1,2,2-tetrachloroethane	17.083	83	175663	55.91	ug/L		98
103) trans-1,4-dichloro-2-b...	17.145	53	10288	14.26	ug/L	#	1
104) 1,2,3-trichloropropane	17.161	110	44421	55.54	ug/L	#	88
105) n-propylbenzene	17.229	91	815356	56.27	ug/L		99
106) 2-chlorotoluene	17.371	126	179876	58.13	ug/L		92
107) 4-chlorotoluene	17.486	91	478427	54.88	ug/L		98
109) 1,3,5-trimethylbenzene	17.413	105	581545	54.49	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176982.d
Acq On : 2 Jul 2018 6:53 pm
Operator : juntaep
Sample : CC7390-50 Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:47:38 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

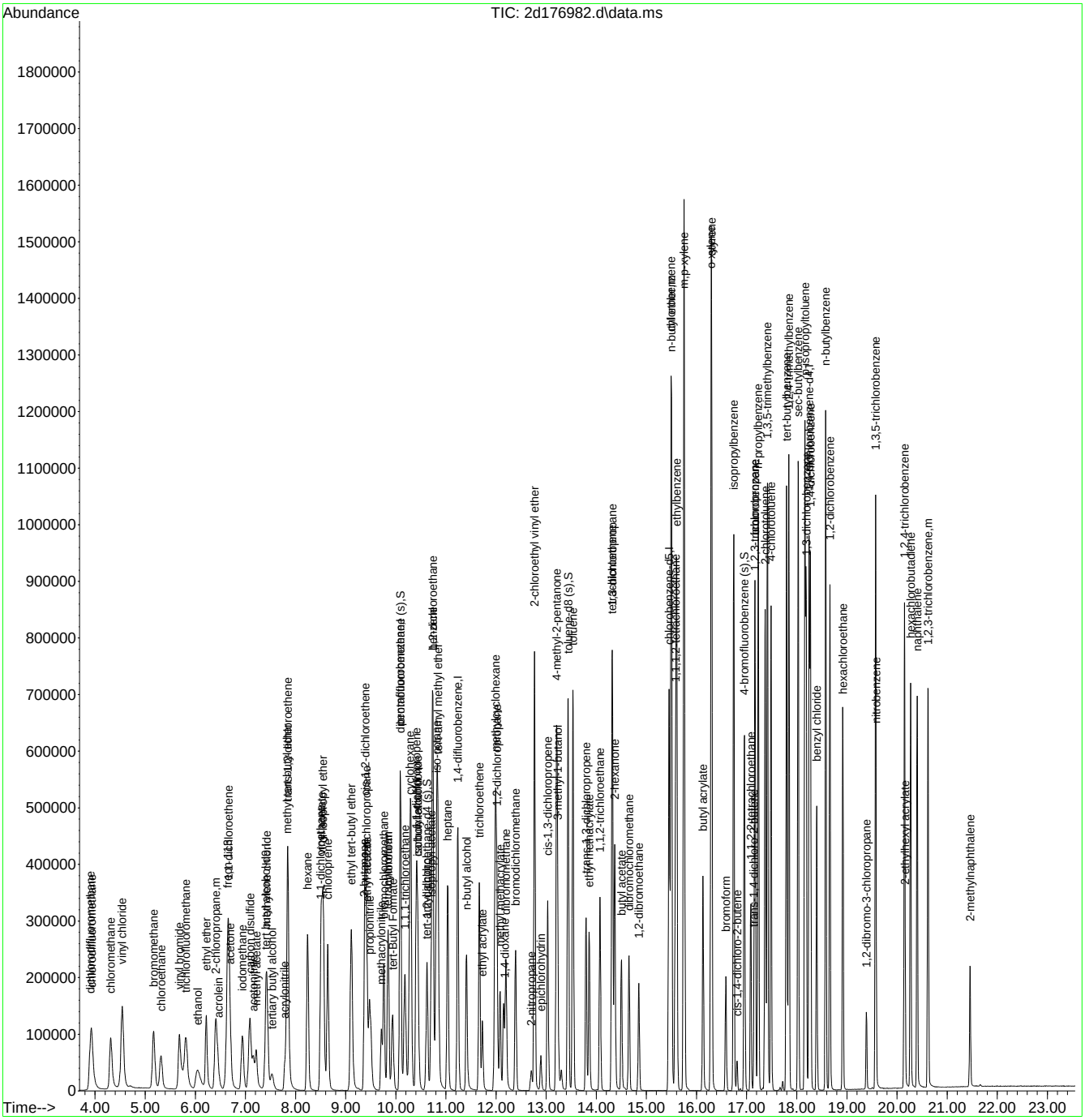
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.796	119	513912	54.28	ug/L	97
111) 1,2,4-trimethylbenzene	17.843	105	587975	53.98	ug/L	99
112) sec-butylbenzene	18.026	105	773727	54.70	ug/L	99
113) 1,3-dichlorobenzene	18.189	146	365505	55.30	ug/L	98
114) p-isopropyltoluene	18.163	119	650612	52.94	ug/L	98
115) 1,4-dichlorobenzene	18.273	146	366952	54.86	ug/L	99
116) 1,2-dichlorobenzene	18.661	146	361687	54.53	ug/L	99
117) benzyl chloride	18.398	91	342764	57.28	ug/L	99
119) n-butylbenzene	18.577	92	332770	53.98	ug/L	99
121) 1,2-dibromo-3-chloropr...	19.389	157	39420	51.29	ug/L	97
122) nitrobenzene	19.583	77	5977	61.25	ug/L	91
123) 1,3,5-trichlorobenzene	19.573	180	336573	54.29	ug/L	99
124) hexachlorobutadiene	20.270	225	160470	52.90	ug/L	97
125) naphthalene	20.401	128	534784	49.72	ug/L	100
126) 2-ethylhexyl acrylate	20.165	70	18725	6.08	ug/L	96
127) 1,2,4-trichlorobenzene	20.150	180	271058	51.45	ug/L	98
128) 1,2,3-trichlorobenzene	20.622	180	247119	50.92	ug/L	99
129) hexachloroethane	18.923	201	122262	57.29	ug/L	95
130) 2-methylnaphthalene	21.460	142	111803	19.38	ug/L	97

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d176982.d
Acq On : 2 Jul 2018 6:53 pm
Operator : juntaep
Sample : CC7390-50 Inst : MS2D
Misc : MS27061,V2D7474,5,,,,1
ALS Vial : 22 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 03 23:47:38 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177005.d
Acq On : 3 Jul 2018 6:58 am
Operator : juntaep
Sample : ECC7390-20 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:13:44 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.388	65	159052	500.00	ug/L	0.00
5) pentafluorobenzene	10.073	168	320016	50.00	ug/L	-0.02
54) 1,4-difluorobenzene	11.221	114	446297	50.00	ug/L	-0.02
76) chlorobenzene-d5	15.442	117	420932	50.00	ug/L	-0.02
99) 1,4-dichlorobenzene-d4	18.242	152	235668	50.00	ug/L	-0.02
System Monitoring Compounds						
46) dibromofluoromethane (s)	10.078	113	144169	52.29	ug/L	-0.01
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.58%			
55) 1,2-dichloroethane-d4 (s)	10.608	65	143286	46.74	ug/L	-0.02
Spiked Amount 50.000	Range 81 - 124		Recovery = 93.48%			
77) toluene-d8 (s)	13.423	98	512970	52.41	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 104.82%			
100) 4-bromofluorobenzene (s)	16.947	95	195131	51.61	ug/L	-0.02
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.22%			
Target Compounds						Qvalue
2) tertiary butyl alcohol	7.514	59	35443	117.61	ug/L	95
3) ethanol	6.041	45	69374	2491.93	ug/L	98
4) 1,4-dioxane	12.160	88	16384	549.59	ug/L	99
6) chlorodifluoromethane	3.923	51	49292	16.34	ug/L	97
7) dichlorodifluoromethane	3.891	85	66119	18.58	ug/L	100
10) chloromethane	4.300	50	73647	18.32	ug/L	97
11) vinyl chloride	4.515	62	72152	20.41	ug/L	99
12) bromomethane	5.160	94	51241	20.63	ug/L	93
13) chloroethane	5.296	64	41619	22.44	ug/L	98
14) trichlorofluoromethane	5.795	101	81972	20.51	ug/L	98
15) vinyl bromide	5.669	106	47148	17.80	ug/L	98
17) ethyl ether	6.204	74	30119	24.23	ug/L	98
18) acrolein	6.445	56	7504	14.73	ug/L	93
19) 1,1-dichloroethene	6.654	96	47166	19.56	ug/L	93
20) freon 113	6.633	151	39902	19.70	ug/L	97
21) 2-chloropropane	6.403	43	79477	19.62	ug/L	99
22) acetone	6.681	58	19582	114.46	ug/L #	76
23) acetonitrile	7.142	41	68003	237.25	ug/L	99
24) iodomethane	6.927	142	71738	17.55	ug/L	98
25) carbon disulfide	7.090	76	128911	16.68	ug/L	98
26) methylene chloride	7.415	84	58025	21.74	ug/L	94
27) methyl acetate	7.200	43	45541	26.83	ug/L	97
28) methyl tert butyl ether	7.813	73	140634	20.05	ug/L	96
29) trans-1,2-dichloroethene	7.829	96	53350	21.82	ug/L	93
30) hexane	8.222	57	57326	17.93	ug/L	99
31) di-isopropyl ether	8.531	45	167293	19.91	ug/L	96
32) 2-butanone	9.360	72	25933	117.20	ug/L #	83
33) 1,1-dichloroethane	8.484	63	96460	21.22	ug/L	98
34) chloroprene	8.626	53	71615	19.79	ug/L	93
35) acrylonitrile	7.771	53	21127	25.72	ug/L	93
36) vinyl acetate	8.500	86	7847	19.86	ug/L #	61
37) ethyl tert-butyl ether	9.092	59	154698	19.65	ug/L	99
38) ethyl acetate	9.407	45	8052	26.81	ug/L	95
39) 2,2-dichloropropane	9.391	77	42104	11.63	ug/L	94
40) cis-1,2-dichloroethene	9.370	96	61609	22.50	ug/L	91
41) propionitrile	9.459	54	95332	273.17	ug/L	99
42) tert-Butyl Formate	9.921	59	35434	14.67	ug/L	95
43) bromochloromethane	9.743	128	31423	22.89	ug/L	96
44) tetrahydrofuran	9.821	72	7746	27.05	ug/L	90

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177005.d
Acq On : 3 Jul 2018 6:58 am
Operator : juntaep
Sample : ECC7390-20 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:13:44 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45) chloroform	9.832	83	97080	22.13	ug/L		98
47) methacrylonitrile	9.701	67	22642	25.18	ug/L		92
48) 1,1,1-trichloroethane	10.162	97	77378	19.10	ug/L		95
49) cyclohexane	10.262	84	67282	19.98	ug/L		98
50) 1,1-dichloropropene	10.393	75	68517	20.46	ug/L		97
51) isobutyl alcohol	10.424	43	27213	260.34	ug/L		95
52) carbon tetrachloride	10.414	117	69011	19.41	ug/L		98
53) tert-amyl alcohol	10.597	73	16791	143.54	ug/L		94
56) benzene	10.718	78	216882	21.81	ug/L		97
57) iso-octane	10.796	57	181929	18.19	ug/L		97
58) tert-amyl methyl ether	10.823	73	154079	20.67	ug/L		99
59) heptane	11.017	57	31582	17.46	ug/L		93
60) isopropyl acetate	10.686	87	11438	25.10	ug/L	#	72
61) 1,2-dichloroethane	10.723	62	68884	19.87	ug/L		97
62) n-butyl alcohol	11.399	56	90469	1496.20	ug/L		99
63) ethyl acrylate	11.714	55	67222	23.04	ug/L		99
64) trichloroethene	11.651	130	56749	21.16	ug/L		97
65) 2-nitropropane	12.689	41	10758	21.76	ug/L		97
66) 2-chloroethyl vinyl ether	12.752	63	143474	89.31	ug/L		98
67) methyl methacrylate	12.070	69	36975	23.96	ug/L		90
68) 1,2-dichloropropane	11.997	63	56836	21.31	ug/L		98
69) dibromomethane	12.181	93	36516	23.29	ug/L		95
70) methylcyclohexane	11.971	83	92435	20.87	ug/L		95
71) bromodichloromethane	12.375	83	71465	20.79	ug/L		99
72) epichlorohydrin	12.883	57	26274	114.85	ug/L		98
73) cis-1,3-dichloropropene	13.019	75	79430	18.16	ug/L		94
74) 4-methyl-2-pentanone	13.198	58	94406	104.06	ug/L		93
75) 3-methyl-1-butanol	13.219	55	61425	584.78	ug/L		92
78) toluene	13.523	92	131940	22.24	ug/L		97
79) trans-1,3-dichloropropene	13.785	75	68037	18.67	ug/L		95
80) ethyl methacrylate	13.848	69	68876	22.72	ug/L		94
81) 1,1,2-trichloroethane	14.063	83	45219	24.78	ug/L		95
82) tetrachloroethene	14.304	164	48983	21.98	ug/L		99
83) 1,3-dichloropropane	14.309	76	83687	23.29	ug/L		95
84) 2-hexanone	14.356	58	90255	111.11	ug/L		94
85) butyl acetate	14.493	56	36331	24.51	ug/L		97
86) dibromochloromethane	14.645	129	56167	22.07	ug/L		99
87) 1,2-dibromoethane	14.839	107	59050	23.81	ug/L		96
88) n-butyl ether	15.489	57	224946	20.08	ug/L		97
89) chlorobenzene	15.484	112	153107	21.79	ug/L		99
90) 1,1,1,2-tetrachloroethane	15.568	131	57884	21.97	ug/L		96
91) ethylbenzene	15.594	91	252435	21.45	ug/L		100
92) m,p-xylene	15.741	91	383679	41.90	ug/L		99
93) o-xylene	16.281	106	99050	21.44	ug/L		93
94) styrene	16.291	104	167818	21.55	ug/L		97
95) butyl acrylate	16.123	55	105024	21.23	ug/L		99
96) bromoform	16.574	173	39998	22.76	ug/L		97
97) isopropylbenzene	16.732	105	250770	20.29	ug/L		99
98) cis-1,4-dichloro-2-butene	16.800	88	4855	4.87	ug/L		94
101) bromobenzene	17.161	156	75526	22.71	ug/L		93
102) 1,1,2,2-tetrachloroethane	17.072	83	77129	25.77	ug/L		97
103) trans-1,4-dichloro-2-b...	17.135	53	4343	6.32	ug/L	#	1
104) 1,2,3-trichloropropane	17.156	110	20232	26.55	ug/L	#	84
105) n-propylbenzene	17.224	91	301271	21.82	ug/L		99
106) 2-chlorotoluene	17.361	126	65612	22.25	ug/L		99
107) 4-chlorotoluene	17.476	91	181368	21.84	ug/L		99
109) 1,3,5-trimethylbenzene	17.408	105	217112	21.35	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177005.d
Acq On : 3 Jul 2018 6:58 am
Operator : juntaep
Sample : ECC7390-20 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:13:44 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration

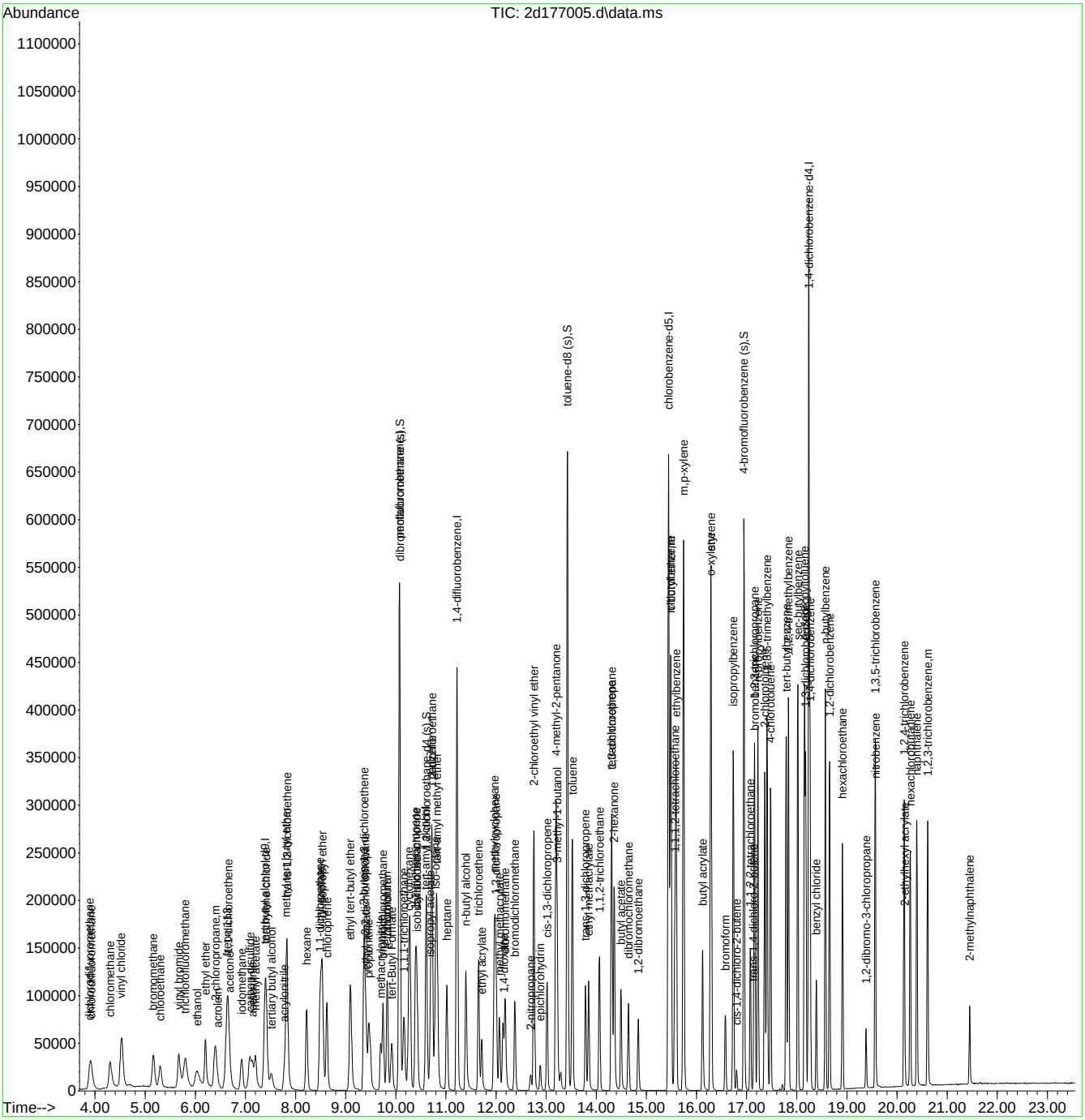
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
110) tert-butylbenzene	17.791	119	185694	20.58	ug/L	97
111) 1,2,4-trimethylbenzene	17.833	105	219443	21.14	ug/L	100
112) sec-butylbenzene	18.021	105	283066	21.00	ug/L	97
113) 1,3-dichlorobenzene	18.179	146	139132	22.09	ug/L	98
114) p-isopropyltoluene	18.152	119	232787	19.88	ug/L	100
115) 1,4-dichlorobenzene	18.268	146	139266	21.85	ug/L	98
116) 1,2-dichlorobenzene	18.656	146	141508	22.39	ug/L	98
117) benzyl chloride	18.388	91	78754	13.81	ug/L	99
119) n-butylbenzene	18.572	92	117129	19.94	ug/L	100
121) 1,2-dibromo-3-chloropr...	19.385	157	17827	24.35	ug/L	95
122) nitrobenzene	19.573	77	1920	20.65	ug/L	100
123) 1,3,5-trichlorobenzene	19.568	180	117681	19.92	ug/L	98
124) hexachlorobutadiene	20.265	225	54768	18.95	ug/L	100
125) naphthalene	20.396	128	220201	21.49	ug/L	99
126) 2-ethylhexyl acrylate	20.155	70	5564	1.90	ug/L	92
127) 1,2,4-trichlorobenzene	20.145	180	95185	18.96	ug/L	99
128) 1,2,3-trichlorobenzene	20.611	180	92492	20.01	ug/L	100
129) hexachloroethane	18.913	201	44478	21.88	ug/L	98
130) 2-methylnaphthalene	21.450	142	41347	7.52	ug/L	96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\kenrickb\v2d7474\
Data File : 2d177005.d
Acq On : 3 Jul 2018 6:58 am
Operator : juntaep
Sample : ECC7390-20 Inst : MS2D
Misc : MS27584,V2D7474,5,,,,1
ALS Vial : 45 Sample Multiplier: 1

Quant Method : C:\msdchem\1\METHODS\M2D7390.M
Quant Results File: M2D7390.RES
Quant Time: Jul 04 00:13:44 2018
Quant Title : SW-846 Method 8260C, DB624 60m x 0.25mm x 1.4um
QLast Update : Fri May 04 11:23:40 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143850.D
Acq On : 14 Jun 2018 5:03 pm
Operator : sydneys
Sample : ic6300-0.2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 15 11:45:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	144464	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	320538	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	462352	50.00	ug/L		0.00
77) chlorobenzene-d5	13.670	117	407845	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	216551	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	133822	49.68	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%				
57) 1,2-dichloroethane-d4 (s)	10.099	65	141686	49.76	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.52%				
78) toluene-d8 (s)	12.170	98	524452	49.42	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.84%				
101) 4-bromofluorobenzene (s)	14.818	95	192893	51.31	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.62%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.023	51	1049	0.24	ug/L		66
7) dichlorodifluoromethane	4.002	85	976	0.19	ug/L	#	51
11) vinyl chloride	4.652	62	1565	0.25	ug/L		90
14) trichlorofluoromethane	5.905	101	1149	0.21	ug/L	#	61
16) vinyl bromide	5.805	106	977	0.27	ug/L	#	59
20) freon 113	6.660	151	530	0.20	ug/L	#	36
21) 1,1-dichloroethene	6.712	61	1200	0.22	ug/L	#	56
24) iodomethane	7.006	142	1070	0.22	ug/L		87
32) ethyl tert-butyl ether	8.810	59	2507	0.23	ug/L		94
34) 1,1-dichloroethane	8.374	63	1547	0.25	ug/L		94
43) bromochloromethane	9.423	128	348	0.20	ug/L		86
47) 1,1-dichloropropene	9.916	75	1058	0.23	ug/L		88
48) carbon tetrachloride	9.926	117	906	0.23	ug/L	#	72
53) cyclohexane	9.801	84	1135	0.22	ug/L	#	81
58) 2,2,4-trimethylpentane	10.141	57	3124	0.24	ug/L		84
60) benzene	10.173	78	3780	0.27	ug/L		83
61) tert-amyl methyl ether	10.194	73	2833	0.27	ug/L		92
62) heptane	10.335	57	615	0.25	ug/L	#	76
65) trichloroethene	10.886	95	817	0.24	ug/L		87
67) 2-chloroethyl vinyl ether	11.678	63	2276	1.10	ug/L		95
70) methylcyclohexane	11.096	83	1551	0.25	ug/L		75
71) dibromomethane	11.321	93	436	0.22	ug/L	#	76
72) bromodichloromethane	11.442	83	974	0.22	ug/L		71
74) cis-1,3-dichloropropene	11.887	75	1396	0.25	ug/L		83
75) 4-methyl-2-pentanone	11.992	58	1003	0.82	ug/L	#	50
79) toluene	12.244	92	2177	0.26	ug/L	#	81
80) ethyl methacrylate	12.438	69	755	0.18	ug/L		84
81) trans-1,3-dichloropropene	12.448	75	1205	0.25	ug/L		71
82) 1,1,2-trichloroethane	12.663	83	609	0.26	ug/L		95
83) tetrachloroethene	12.821	164	658	0.23	ug/L	#	79
85) 1,3-dichloropropane	12.847	76	1306	0.27	ug/L		83
87) dibromochloromethane	13.104	129	569	0.18	ug/L		77
88) 1,2-dibromoethane	13.266	107	658	0.21	ug/L		74
89) n-butyl ether	13.612	57	3445	0.23	ug/L		95
90) chlorobenzene	13.707	112	2269	0.25	ug/L		73
91) 1,1,1,2-tetrachloroethane	13.770	131	646	0.20	ug/L		80
92) ethylbenzene	13.754	91	4020	0.26	ug/L		94
93) m,p-xylene	13.864	106	2962	0.49	ug/L		85
94) o-xylene	14.278	91	3176	0.25	ug/L		92
95) styrene	14.294	104	2369	0.23	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143850.D
Acq On : 14 Jun 2018 5:03 pm
Operator : sydneys
Sample : ic6300-0.2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 15 11:45:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

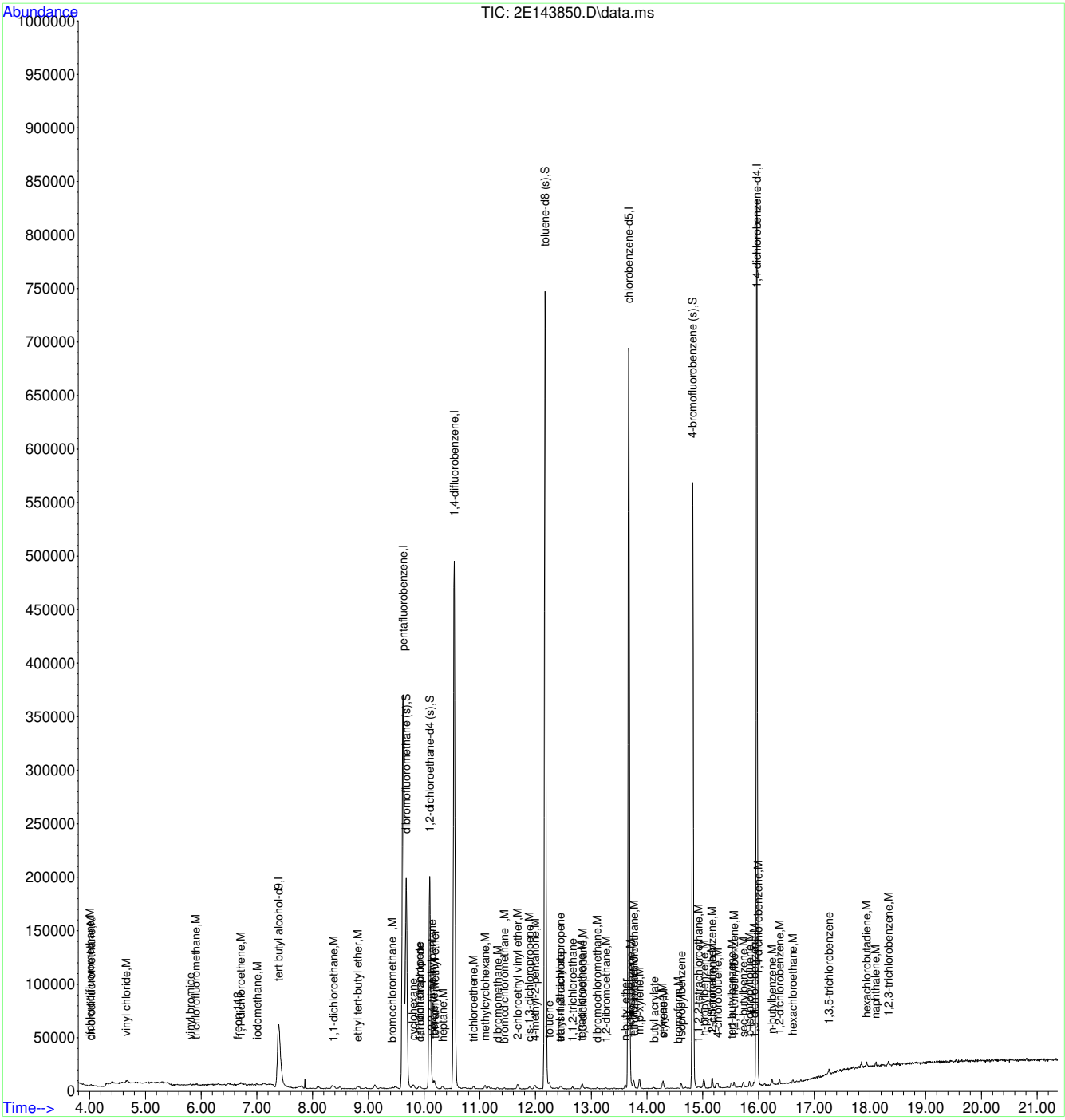
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
96)	butyl acrylate	14.126	55	1339	0.21	ug/L	#	52
97)	bromoform	14.556	173	391	0.18	ug/L	#	56
98)	isopropylbenzene	14.619	105	3646	0.23	ug/L		94
103)	1,1,2,2-tetrachloroethane	14.923	83	843	0.23	ug/L		75
106)	n-propylbenzene	15.028	91	4511	0.25	ug/L		94
107)	2-chlorotoluene	15.169	126	777	0.21	ug/L	#	64
108)	4-chlorotoluene	15.269	91	2689	0.25	ug/L		93
109)	1,3,5-trimethylbenzene	15.164	105	3172	0.24	ug/L		98
110)	tert-butylbenzene	15.521	119	2834	0.25	ug/L		74
111)	1,2,4-trimethylbenzene	15.563	105	3164	0.24	ug/L		85
112)	sec-butylbenzene	15.730	105	3847	0.23	ug/L		89
113)	1,3-dichlorobenzene	15.919	146	1894	0.25	ug/L		91
114)	p-isopropyltoluene	15.835	119	3391	0.24	ug/L		95
115)	1,4-dichlorobenzene	15.993	146	1970	0.26	ug/L		65
116)	1,2-dichlorobenzene	16.375	146	1936	0.26	ug/L		92
117)	n-butylbenzene	16.244	92	1804	0.25	ug/L		92
119)	1,3,5-trichlorobenzene	17.267	180	1551	0.23	ug/L		85
122)	hexachlorobutadiene	17.938	225	746	0.26	ug/L		97
123)	naphthalene	18.100	128	2751	0.22	ug/L		96
124)	1,2,3-trichlorobenzene	18.331	180	1270	0.25	ug/L		89
125)	hexachloroethane	16.617	201	490	0.20	ug/L		73

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143850.D
Acq On : 14 Jun 2018 5:03 pm
Operator : sydneys
Sample : ic6300-0.2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 1 Sample Multiplier: 1

Quant Time: Jun 15 11:45:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143851.D
Acq On : 14 Jun 2018 5:32 pm
Operator : sydneys
Sample : ic6300-0.5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 11:41:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.383	65	147833	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	304928	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	440967	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	390075	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	210255	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	128137	50.01	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%				
57) 1,2-dichloroethane-d4 (s)	10.099	65	137987	50.81	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.62%				
78) toluene-d8 (s)	12.170	98	509221	50.17	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.34%				
101) 4-bromofluorobenzene (s)	14.818	95	186149	51.00	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.00%				
Target Compounds							Qvalue
6) chlorodifluoromethane	4.033	51	2384	0.57	ug/L		83
7) dichlorodifluoromethane	4.007	85	2838	0.57	ug/L		76
9) freon 142b	4.290	65	2630	0.57	ug/L		94
10) chloromethane	4.400	50	4270	0.68	ug/L		89
11) vinyl chloride	4.641	62	3581	0.61	ug/L		100
12) bromomethane	5.281	94	2379	0.68	ug/L		74
13) chloroethane	5.433	64	2177	0.65	ug/L		87
14) trichlorofluoromethane	5.879	101	3070	0.60	ug/L		86
15) 1,3-butadiene	4.678	54	3099	0.63	ug/L	#	80
16) vinyl bromide	5.800	106	1931	0.55	ug/L		97
17) ethyl ether	6.293	74	1565	0.73	ug/L	#	67
20) freon 113	6.691	151	1356	0.54	ug/L	#	65
21) 1,1-dichloroethene	6.718	61	3147	0.60	ug/L		93
24) iodomethane	7.001	142	2414	0.52	ug/L		95
25) carbon disulfide	7.127	76	5801	0.59	ug/L		78
26) methylene chloride	7.425	84	2033	0.58	ug/L		93
28) methyl tert butyl ether	7.756	73	5217	0.57	ug/L		88
29) trans-1,2-dichloroethene	7.813	61	2649	0.58	ug/L		95
30) hexane	8.112	56	1260	0.56	ug/L		94
31) di-isopropyl ether	8.343	45	6569	0.60	ug/L	#	53
32) ethyl tert-butyl ether	8.810	59	5689	0.55	ug/L		94
33) 2-butanone	9.098	72	717	2.13	ug/L	#	60
34) 1,1-dichloroethane	8.374	63	3237	0.56	ug/L		97
35) chloroprene	8.485	53	2801	0.57	ug/L		82
36) acrylonitrile	7.777	53	518	0.45	ug/L	#	68
39) 2,2-dichloropropane	9.108	77	2874	0.67	ug/L		94
40) cis-1,2-dichloroethene	9.119	96	2328	0.64	ug/L		79
41) propionitrile	9.203	54	2353	4.97	ug/L		78
43) bromochloromethane	9.428	128	971	0.57	ug/L		90
45) chloroform	9.481	83	3092	0.57	ug/L		96
46) t-butyl formate	9.517	59	1245	0.49	ug/L		89
47) 1,1-dichloropropene	9.905	75	2589	0.59	ug/L		95
48) carbon tetrachloride	9.932	117	2163	0.57	ug/L		94
51) methacrylonitrile	9.392	67	597	0.47	ug/L	#	69
52) 1,1,1-trichloroethane	9.722	97	2819	0.60	ug/L		93
53) cyclohexane	9.795	84	2726	0.56	ug/L		87
58) 2,2,4-trimethylpentane	10.157	57	6730	0.55	ug/L		93
60) benzene	10.173	78	7711	0.58	ug/L		92
61) tert-amyl methyl ether	10.194	73	6145	0.61	ug/L		97
62) heptane	10.320	57	1339	0.57	ug/L		80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143851.D
Acq On : 14 Jun 2018 5:32 pm
Operator : sydneys
Sample : ic6300-0.5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 11:41:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

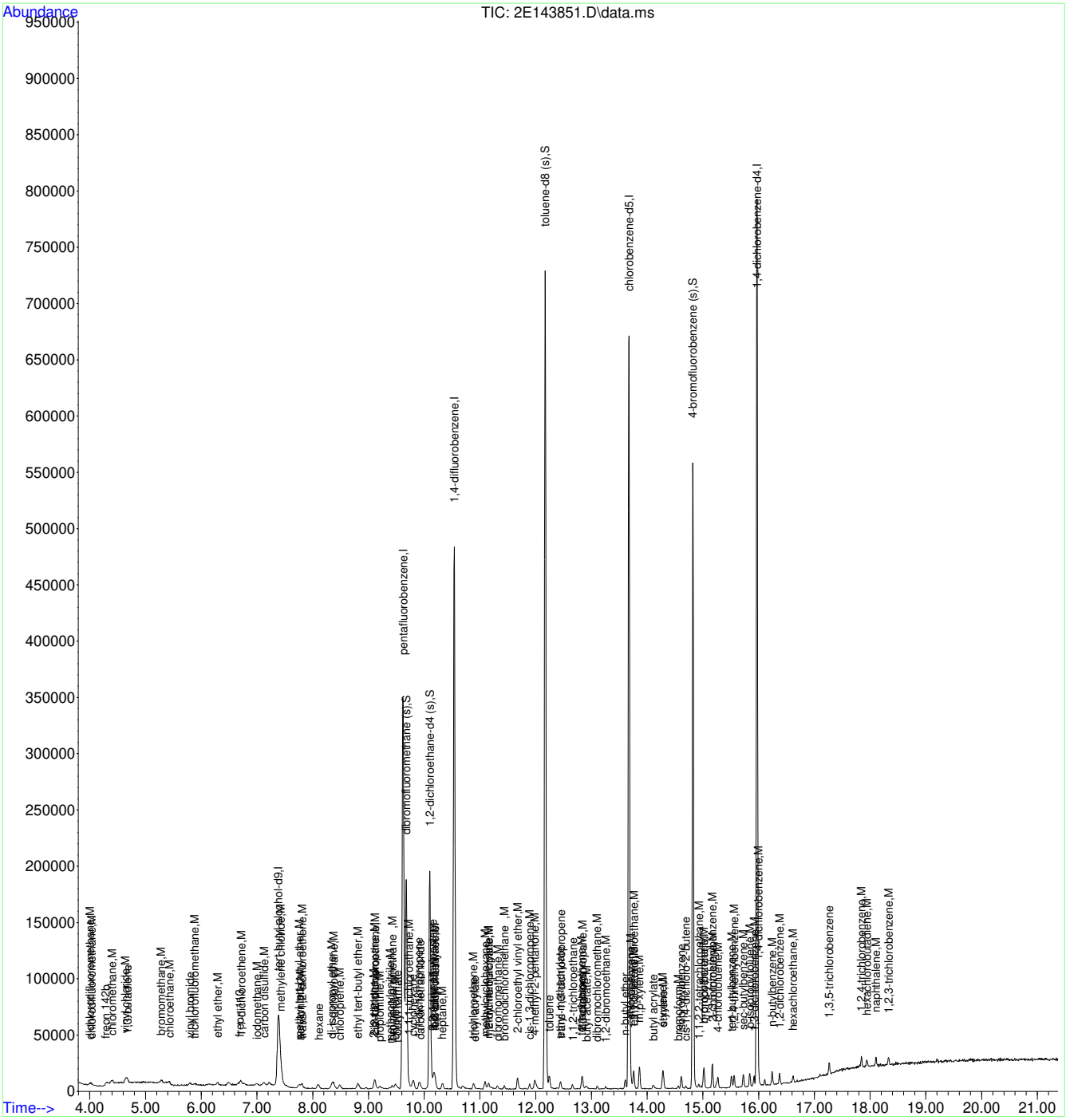
	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
63)	1,2-dichloroethane	10.188	62	2545	0.66	ug/L		96
64)	ethyl acrylate	10.907	55	1820	0.49	ug/L		71
65)	trichloroethene	10.881	95	1856	0.58	ug/L	#	77
67)	2-chloroethyl vinyl ether	11.678	63	4972	2.52	ug/L		96
68)	methyl methacrylate	11.153	100	316	0.37	ug/L	#	24
69)	1,2-dichloropropane	11.158	63	2001	0.58	ug/L		92
70)	methylcyclohexane	11.096	83	3165	0.54	ug/L		93
71)	dibromomethane	11.321	93	971	0.52	ug/L		82
72)	bromodichloromethane	11.436	83	2066	0.50	ug/L		98
74)	cis-1,3-dichloropropene	11.892	75	2771	0.51	ug/L		82
75)	4-methyl-2-pentanone	11.982	58	2211	1.89	ug/L		92
79)	toluene	12.244	92	4447	0.55	ug/L		91
80)	ethyl methacrylate	12.438	69	2013	0.50	ug/L		94
81)	trans-1,3-dichloropropene	12.454	75	2216	0.48	ug/L		98
82)	1,1,2-trichloroethane	12.668	83	1251	0.55	ug/L	#	78
83)	tetrachloroethene	12.821	164	1476	0.53	ug/L		87
84)	2-hexanone	12.836	58	1818	1.67	ug/L	#	78
85)	1,3-dichloropropane	12.841	76	2463	0.53	ug/L		79
86)	butyl acetate	12.915	56	988	0.50	ug/L	#	52
87)	dibromochloromethane	13.098	129	1496	0.50	ug/L		83
88)	1,2-dibromoethane	13.256	107	1533	0.51	ug/L		89
89)	n-butyl ether	13.607	57	7312	0.51	ug/L		99
90)	chlorobenzene	13.707	112	4580	0.53	ug/L		85
91)	1,1,1,2-tetrachloroethane	13.764	131	1535	0.49	ug/L		83
92)	ethylbenzene	13.759	91	8008	0.54	ug/L		97
93)	m,p-xylene	13.859	106	6353	1.09	ug/L	#	78
94)	o-xylene	14.278	91	6355	0.52	ug/L		87
95)	styrene	14.289	104	5103	0.51	ug/L		100
96)	butyl acrylate	14.110	55	2826	0.47	ug/L		90
97)	bromoform	14.556	173	917	0.45	ug/L		89
98)	isopropylbenzene	14.614	105	7894	0.53	ug/L		98
99)	cis-1,4-dichloro-2-butene	14.692	75	679	0.53	ug/L	#	85
102)	bromobenzene	15.017	156	1905	0.49	ug/L		94
103)	1,1,2,2-tetrachloroethane	14.928	83	2026	0.58	ug/L		90
106)	n-propylbenzene	15.017	91	10043	0.58	ug/L		93
107)	2-chlorotoluene	15.175	126	2041	0.57	ug/L	#	84
108)	4-chlorotoluene	15.269	91	5731	0.55	ug/L		95
109)	1,3,5-trimethylbenzene	15.169	105	6876	0.55	ug/L		89
110)	tert-butylbenzene	15.515	119	6468	0.59	ug/L		96
111)	1,2,4-trimethylbenzene	15.563	105	6178	0.49	ug/L		95
112)	sec-butylbenzene	15.725	105	8472	0.53	ug/L		95
113)	1,3-dichlorobenzene	15.919	146	4092	0.57	ug/L		95
114)	p-isopropyltoluene	15.841	119	7298	0.53	ug/L		91
115)	1,4-dichlorobenzene	15.993	146	4327	0.58	ug/L		84
116)	1,2-dichlorobenzene	16.375	146	4040	0.56	ug/L		90
117)	n-butylbenzene	16.244	92	3610	0.51	ug/L		99
119)	1,3,5-trichlorobenzene	17.267	180	3280	0.50	ug/L		90
120)	1,2,4-trichlorobenzene	17.843	180	2998	0.54	ug/L		86
122)	hexachlorobutadiene	17.943	225	1410	0.50	ug/L		96
123)	naphthalene	18.105	128	5863	0.49	ug/L		97
124)	1,2,3-trichlorobenzene	18.331	180	2567	0.51	ug/L		90
125)	hexachloroethane	16.616	201	1015	0.43	ug/L		77

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143851.D
Acq On : 14 Jun 2018 5:32 pm
Operator : sydneys
Sample : ic6300-0.5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 15 11:41:55 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration



Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 06/18/18 04:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 11:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	153574	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	331267	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	474487	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	419828	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	226813	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	137135	49.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.52%				
57) 1,2-dichloroethane-d4 (s)	10.099	65	144116	49.32	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.64%				
78) toluene-d8 (s)	12.170	98	542226	49.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.26%				
101) 4-bromofluorobenzene (s)	14.818	95	196545	49.92	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.84%				
Target Compounds							Qvalue
2) ethanol	6.136	45	4233m	128.29	ug/L		
3) tertiary butyl alcohol	7.520	59	2048	5.12	ug/L		34
4) 1,4-dioxane	11.274	88	778	25.99	ug/L		82
6) chlorodifluoromethane	4.028	51	4678	1.02	ug/L		94
7) dichlorodifluoromethane	4.007	85	5239	0.96	ug/L		92
9) freon 142b	4.290	65	5331	1.06	ug/L	#	92
10) chloromethane	4.411	50	7480	1.09	ug/L		90
11) vinyl chloride	4.636	62	6012	0.94	ug/L		91
12) bromomethane	5.292	94	4144	1.09	ug/L		97
13) chloroethane	5.449	64	3942	1.09	ug/L		90
14) trichlorofluoromethane	5.895	101	5669	1.02	ug/L		84
15) 1,3-butadiene	4.673	54	5943	1.11	ug/L		88
16) vinyl bromide	5.790	106	3822	1.01	ug/L		81
17) ethyl ether	6.288	74	2532	1.09	ug/L		88
18) 2-chloropropane	6.497	43	7457	1.17	ug/L		87
19) acrolein	6.550	56	821	1.06	ug/L		97
20) freon 113	6.681	151	2823	1.04	ug/L	#	78
21) 1,1-dichloroethene	6.712	61	5989	1.05	ug/L		83
22) acetone	6.786	58	1532	5.10	ug/L	#	34
23) acetonitrile	7.211	41	5203	11.12	ug/L		97
24) iodomethane	7.001	142	5075	1.00	ug/L		89
25) carbon disulfide	7.132	76	11585	1.08	ug/L		88
26) methylene chloride	7.441	84	4092	1.07	ug/L		89
28) methyl tert butyl ether	7.756	73	10262	1.04	ug/L		92
29) trans-1,2-dichloroethene	7.808	61	5172	1.05	ug/L		81
30) hexane	8.102	56	2714	1.11	ug/L		92
31) di-isopropyl ether	8.343	45	12514	1.05	ug/L	#	57
32) ethyl tert-butyl ether	8.804	59	10951	0.97	ug/L		95
33) 2-butanone	9.088	72	1115	3.05	ug/L	#	25
34) 1,1-dichloroethane	8.374	63	6641	1.05	ug/L		96
35) chloroprene	8.485	53	5461	1.02	ug/L		86
36) acrylonitrile	7.787	53	1290	1.02	ug/L		84
39) 2,2-dichloropropane	9.114	77	5328	1.14	ug/L		88
40) cis-1,2-dichloroethene	9.124	96	4108	1.04	ug/L	#	79
41) propionitrile	9.198	54	4925	9.58	ug/L		97
43) bromochloromethane	9.423	128	1840	1.00	ug/L		86
44) tetrahydrofuran	9.460	72	369	0.81	ug/L	#	40
45) chloroform	9.481	83	6169	1.05	ug/L		92
46) t-butyl formate	9.517	59	2490	0.90	ug/L		80
47) 1,1-dichloropropene	9.905	75	5083	1.07	ug/L		93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 11:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
48)	carbon tetrachloride	9.926	117	4418	1.07	ug/L		95
51)	methacrylonitrile	9.381	67	1146	0.83	ug/L	#	66
52)	1,1,1-trichloroethane	9.732	97	5379	1.06	ug/L		87
53)	cyclohexane	9.806	84	5742	1.09	ug/L	#	84
58)	2,2,4-trimethylpentane	10.157	57	13386	1.02	ug/L		99
59)	n-butyl alcohol	10.687	56	4075	44.33	ug/L		98
60)	benzene	10.173	78	15322	1.06	ug/L		92
61)	tert-amyl methyl ether	10.199	73	12047	1.11	ug/L		94
62)	heptane	10.320	57	2792	1.10	ug/L		83
63)	1,2-dichloroethane	10.189	62	4691	1.13	ug/L		89
64)	ethyl acrylate	10.896	55	3625	0.91	ug/L		87
65)	trichloroethene	10.881	95	3773	1.10	ug/L		88
67)	2-chloroethyl vinyl ether	11.672	63	10196	4.80	ug/L		96
69)	1,2-dichloropropane	11.153	63	3511	0.95	ug/L		90
70)	methylcyclohexane	11.096	83	6655	1.06	ug/L		97
71)	dibromomethane	11.311	93	1943	0.98	ug/L		78
72)	bromodichloromethane	11.442	83	4508	1.01	ug/L		85
73)	epichlorohydrin	11.819	57	1535	4.63	ug/L	#	57
74)	cis-1,3-dichloropropene	11.893	75	5678	0.98	ug/L		84
75)	4-methyl-2-pentanone	11.982	58	4819	3.82	ug/L	#	79
76)	3-methyl-1-butanol	12.008	70	1784	17.98	ug/L		92
79)	toluene	12.249	92	8927	1.03	ug/L	#	86
80)	ethyl methacrylate	12.438	69	4024	0.92	ug/L		96
81)	trans-1,3-dichloropropene	12.448	75	4401	0.89	ug/L		93
82)	1,1,2-trichloroethane	12.663	83	2429	0.99	ug/L		88
83)	tetrachloroethene	12.826	164	3054	1.03	ug/L		90
84)	2-hexanone	12.831	58	4172	3.57	ug/L		92
85)	1,3-dichloropropane	12.836	76	5066	1.01	ug/L		95
86)	butyl acetate	12.904	56	1928	0.91	ug/L	#	65
87)	dibromochloromethane	13.098	129	3136	0.97	ug/L		92
88)	1,2-dibromoethane	13.251	107	3124	0.97	ug/L		79
89)	n-butyl ether	13.607	57	15155	0.98	ug/L		97
90)	chlorobenzene	13.701	112	9525	1.02	ug/L		80
91)	1,1,1,2-tetrachloroethane	13.770	131	3355	1.00	ug/L		92
92)	ethylbenzene	13.754	91	16519	1.03	ug/L		96
93)	m,p-xylene	13.859	106	12018	1.92	ug/L		97
94)	o-xylene	14.278	91	13039	1.00	ug/L		96
95)	styrene	14.289	104	10127	0.94	ug/L		97
96)	butyl acrylate	14.105	55	6583	1.02	ug/L		94
97)	bromoform	14.561	173	1769	0.80	ug/L		98
98)	isopropylbenzene	14.614	105	15743	0.97	ug/L		93
99)	cis-1,4-dichloro-2-butene	14.692	75	1272	0.92	ug/L	#	71
102)	bromobenzene	15.017	156	4271	1.02	ug/L		87
103)	1,1,2,2-tetrachloroethane	14.918	83	3781	1.00	ug/L		93
104)	trans-1,4-dichloro-2-b...	14.965	53	887	0.99	ug/L	#	53
105)	1,2,3-trichloropropane	14.996	110	983	0.94	ug/L		78
106)	n-propylbenzene	15.017	91	18884	1.01	ug/L		99
107)	2-chlorotoluene	15.169	126	3687m	0.95	ug/L		
108)	4-chlorotoluene	15.269	91	11772	1.06	ug/L		99
109)	1,3,5-trimethylbenzene	15.169	105	13501	0.99	ug/L		98
110)	tert-butylbenzene	15.510	119	11569	0.98	ug/L		94
111)	1,2,4-trimethylbenzene	15.563	105	13419	0.99	ug/L		94
112)	sec-butylbenzene	15.725	105	17663	1.01	ug/L		98
113)	1,3-dichlorobenzene	15.919	146	8311	1.07	ug/L		94
114)	p-isopropyltoluene	15.841	119	14649	0.99	ug/L		98
115)	1,4-dichlorobenzene	15.993	146	7887	0.99	ug/L		85
116)	1,2-dichlorobenzene	16.375	146	7486	0.97	ug/L		97
117)	n-butylbenzene	16.244	92	7455	0.97	ug/L		92

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 11:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

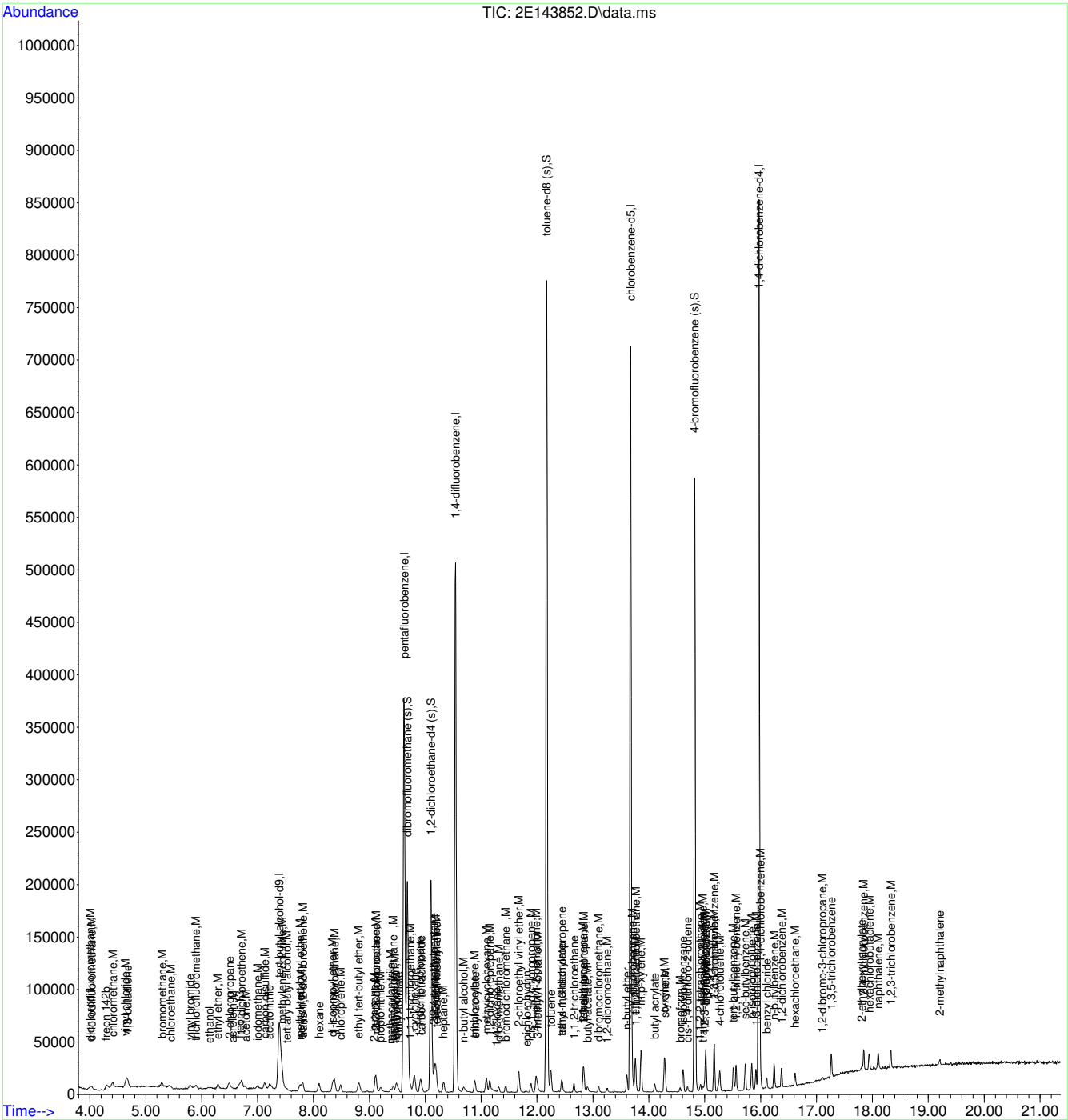
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
118) 1,2-dibromo-3-chloropr...	17.099	157	911	1.03	ug/L	87
119) 1,3,5-trichlorobenzene	17.267	180	7368	1.05	ug/L	90
120) 1,2,4-trichlorobenzene	17.843	180	6040	1.00	ug/L	98
121) 2-ethylhexyl acrylate	17.807	70	843	0.18	ug/L	81
122) hexachlorobutadiene	17.948	225	3115	1.03	ug/L	97
123) naphthalene	18.106	128	11993	0.94	ug/L	98
124) 1,2,3-trichlorobenzene	18.331	180	5479	1.02	ug/L	95
125) hexachloroethane	16.617	201	2089	0.82	ug/L	87
126) benzyl chloride	16.108	91	7801	1.07	ug/L	97
127) 2-methylnaphthalene	19.207	142	2958	0.41	ug/L	92

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 11:44:19 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration



Manual Integration Approval Summary

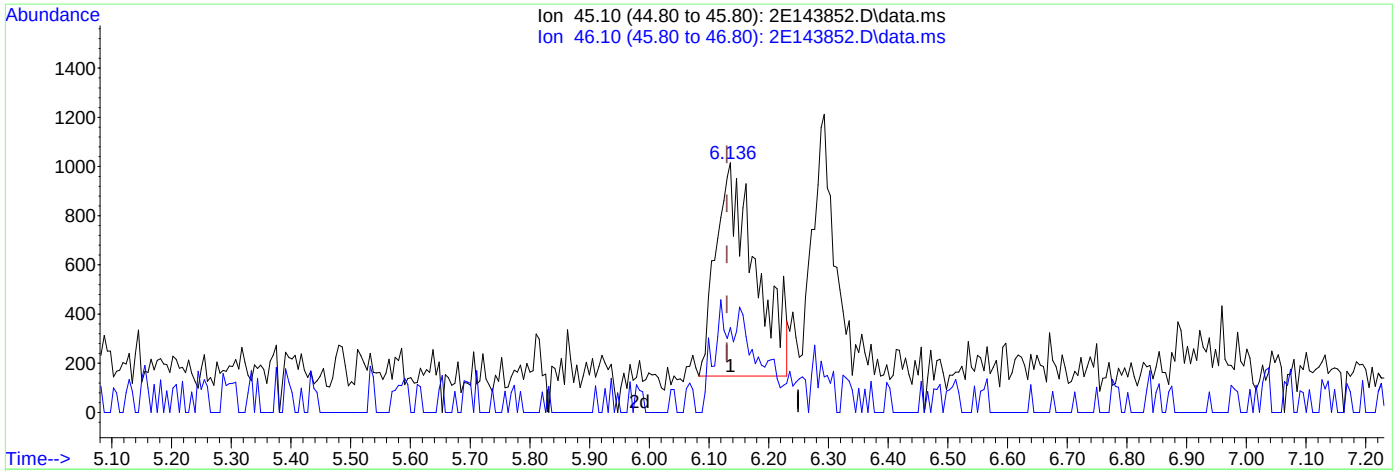
Sample Number: V2E6300-IC6300 **Method:** SW846 8260C
Lab FileID: 2E143852.D **Analyst approved:** 06/15/18 11:48 Robert Szot
Injection Time: 06/14/18 18:00 **Supervisor approved:** 06/18/18 04:43 Kanya Veerawat

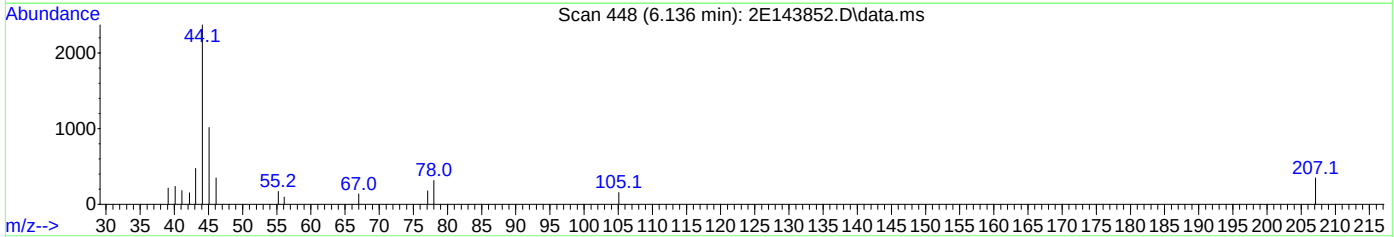
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethanol	64-17-5		6.14	Overlapping peak
o-Chlorotoluene	95-49-8		15.17	Missed peak

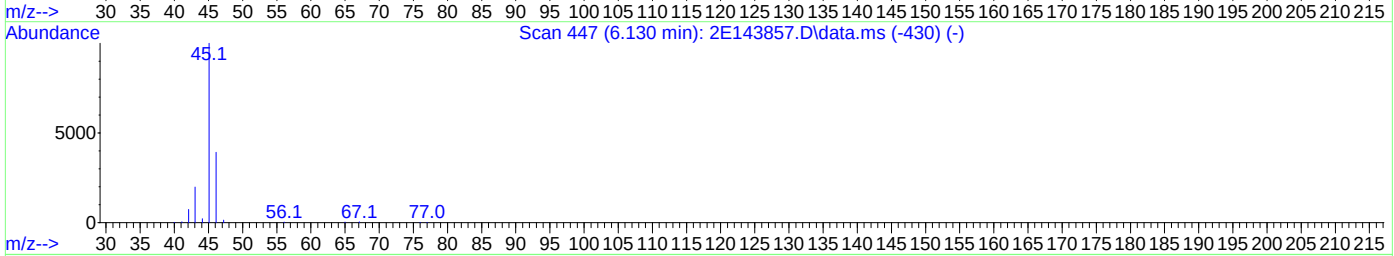
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 07:51:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration







TIC: 2E143852.D\data.ms

(2) ethanol

6.136min (+0.006) 120.02ug/L

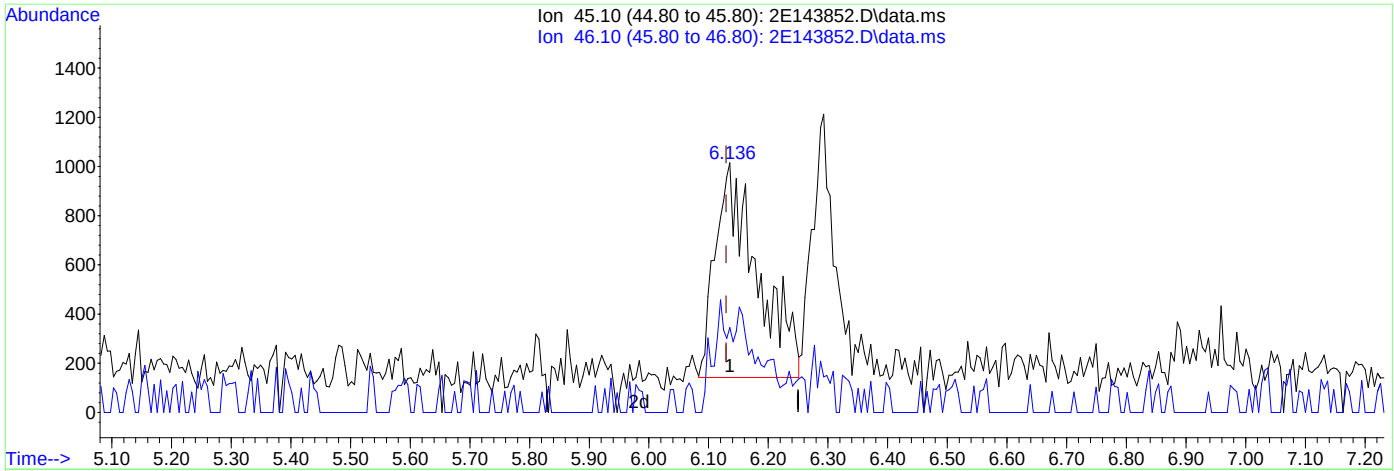
response 3960

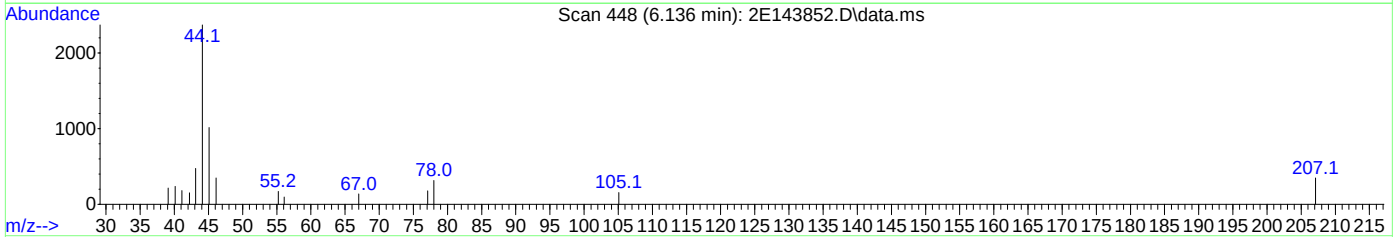
Ion	Exp%	Act%
45.10	100	100
46.10	39.20	39.79
0.00	0.00	0.00
0.00	0.00	0.00

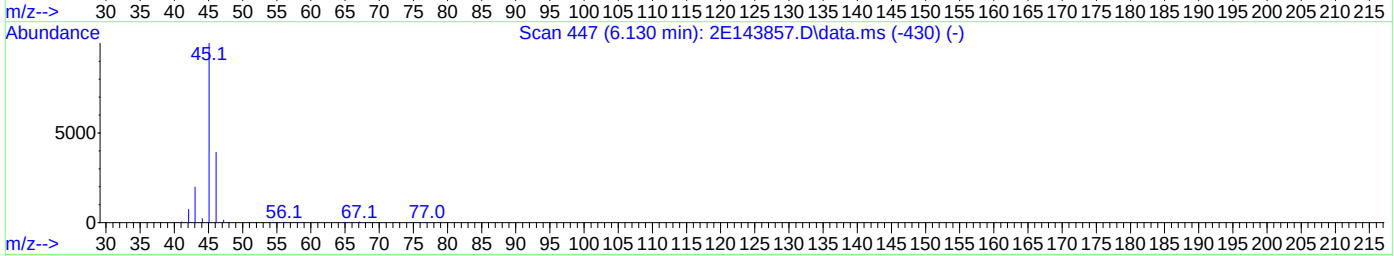
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 07:51:23 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration







TIC: 2E143852.D\data.ms

(2) ethanol

6.136min (+0.006) 128.29ug/L m

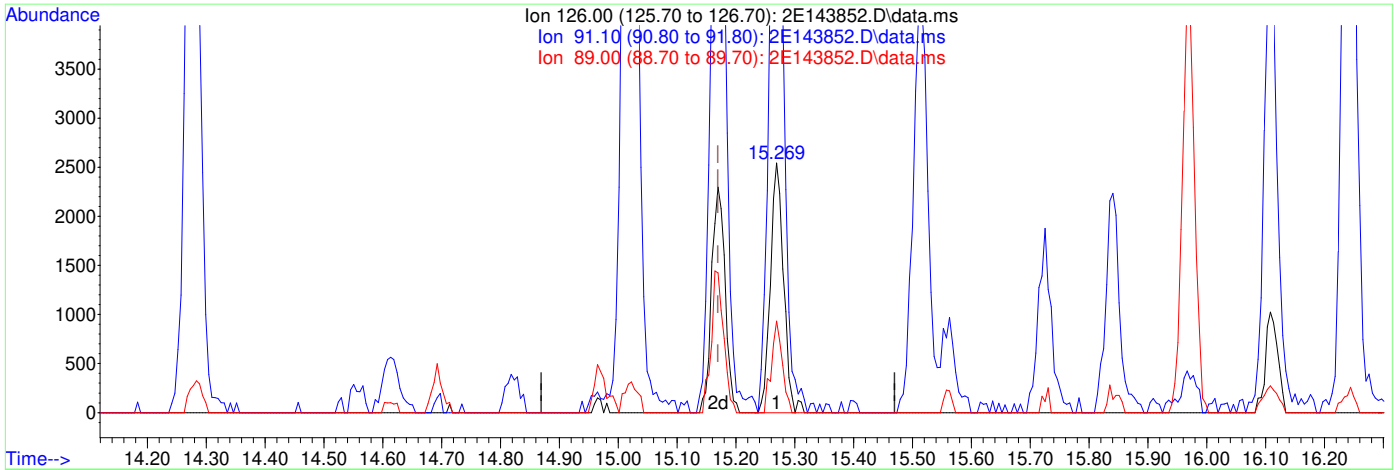
response 4233

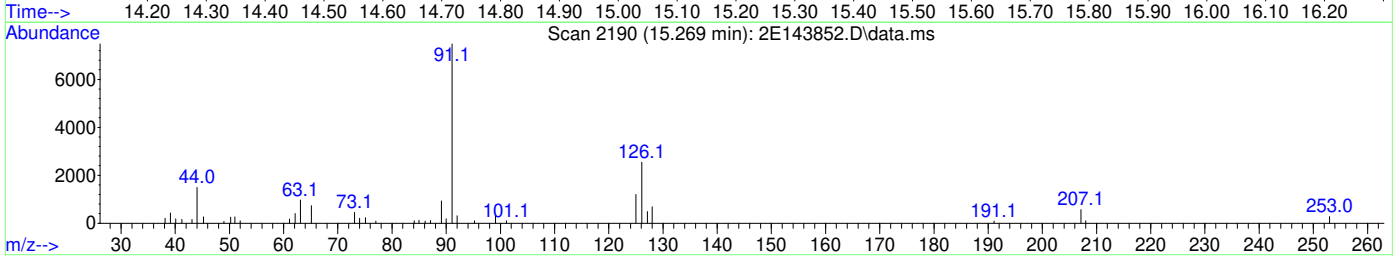
Ion	Exp%	Act%
45.10	100	100
46.10	39.20	33.99
0.00	0.00	0.00
0.00	0.00	0.00

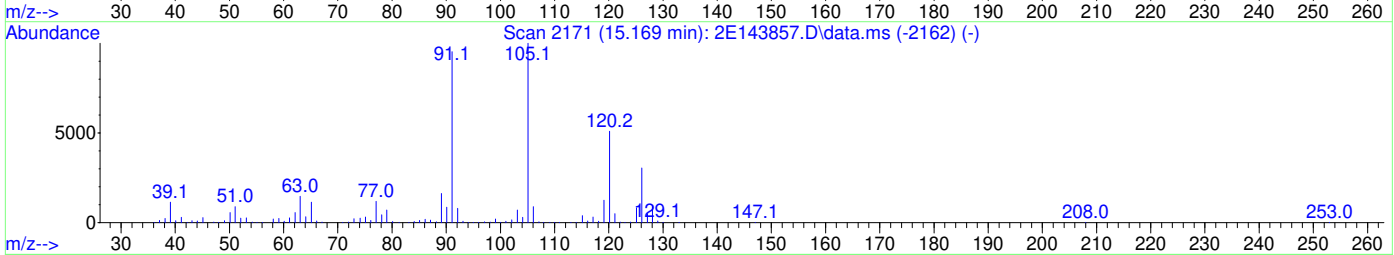
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 08:03:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration







TIC: 2E143852.D\data.ms

(107) 2-chlorotoluene (M)

15.269min (+0.100) 1.00ug/L

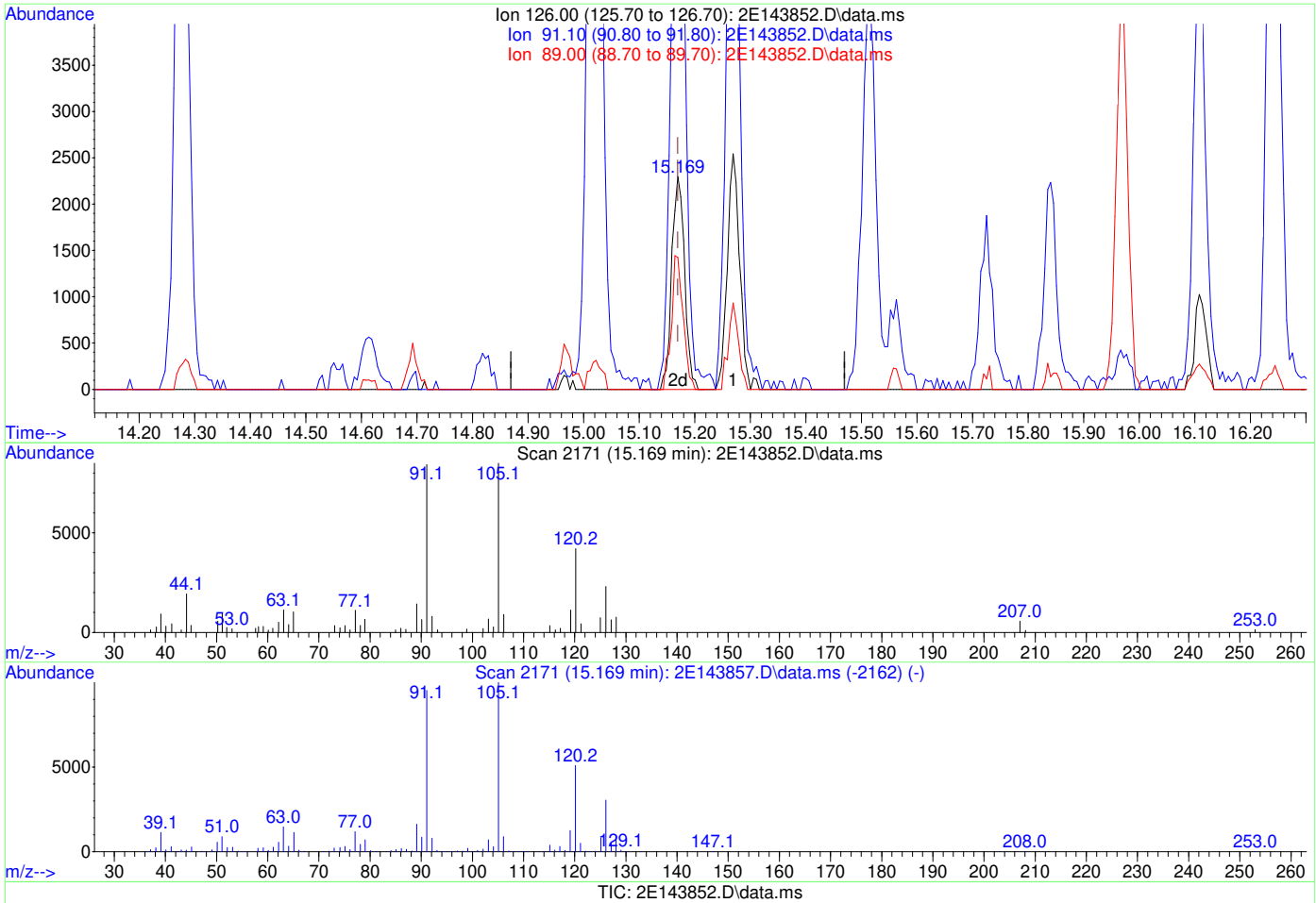
response 3894

Ion	Exp%	Act%
126.00	100	100
91.10	314.10	290.13
89.00	53.50	36.64
0.00	0.00	0.00

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143852.D
Acq On : 14 Jun 2018 6:00 pm
Operator : sydneys
Sample : ic6300-1
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 15 08:03:32 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration



TIC: 2E143852.D\data.ms

(107) 2-chlorotoluene (M)

15.169min (-0.000) 0.95ug/L m

response 3687

Ion	Exp%	Act%
126.00	100	100
91.10	314.10	366.88#
89.00	53.50	61.92
0.00	0.00	0.00

Manual Integrations APPROVED (compounds with "m" flag)
Kanya Veerawat 06/18/18 04:43

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143853.D
Acq On : 14 Jun 2018 6:29 pm
Operator : sydneys
Sample : ic6300-2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 11:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	153831	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	324706	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	470351	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	409673	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.966	152	221660	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	135501	49.83	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.66%				
57) 1,2-dichloroethane-d4 (s)	10.105	65	145130	49.96	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.92%				
78) toluene-d8 (s)	12.171	98	532047	50.09	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.18%				
101) 4-bromofluorobenzene (s)	14.818	95	191867	49.59	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%				
Target Compounds							Qvalue
2) ethanol	6.162	45	9229m	256.89	ug/L		
3) tertiary butyl alcohol	7.525	59	4089	10.04	ug/L		69
4) 1,4-dioxane	11.269	88	1576	50.98	ug/L		88
6) chlorodifluoromethane	4.033	51	9544	2.05	ug/L		92
7) dichlorodifluoromethane	4.012	85	10609	1.99	ug/L		94
9) freon 142b	4.295	65	9479	1.90	ug/L		98
10) chloromethane	4.411	50	14302	2.02	ug/L		89
11) vinyl chloride	4.647	62	12218	1.88	ug/L		95
12) bromomethane	5.292	94	8039	2.02	ug/L		97
13) chloroethane	5.438	64	7727	2.05	ug/L		88
14) trichlorofluoromethane	5.905	101	11111	1.97	ug/L		82
15) 1,3-butadiene	4.668	54	10976	1.99	ug/L		90
16) vinyl bromide	5.795	106	7748	1.96	ug/L		91
17) ethyl ether	6.288	74	5435	2.25	ug/L		86
18) 2-chloropropane	6.487	43	14855	2.24	ug/L		93
19) acrolein	6.560	56	1959	2.41	ug/L		96
20) freon 113	6.681	151	5817	2.12	ug/L	#	84
21) 1,1-dichloroethene	6.718	61	12333	2.10	ug/L		97
22) acetone	6.770	58	3085	9.62	ug/L	#	74
23) acetonitrile	7.216	41	12032	26.15	ug/L		92
24) iodomethane	7.011	142	10677	2.08	ug/L		95
25) carbon disulfide	7.127	76	23693	2.14	ug/L		91
26) methylene chloride	7.436	84	8448	2.11	ug/L		93
28) methyl tert butyl ether	7.761	73	21893	2.16	ug/L		93
29) trans-1,2-dichloroethene	7.808	61	10745	2.12	ug/L		97
30) hexane	8.107	56	5378	2.13	ug/L		97
31) di-isopropyl ether	8.343	45	26855	2.18	ug/L	#	59
32) ethyl tert-butyl ether	8.805	59	23952	2.08	ug/L		97
33) 2-butanone	9.093	72	2974	8.43	ug/L		97
34) 1,1-dichloroethane	8.380	63	13579	2.07	ug/L		92
35) chloroprene	8.485	53	11254	2.07	ug/L		97
36) acrylonitrile	7.766	53	2851	2.29	ug/L		79
37) vinyl acetate	8.369	86	1477	2.05	ug/L	#	23
39) 2,2-dichloropropane	9.114	77	10467	2.10	ug/L		95
40) cis-1,2-dichloroethene	9.119	96	8626	2.09	ug/L		94
41) propionitrile	9.192	54	10838	21.28	ug/L		98
43) bromochloromethane	9.428	128	3885	2.08	ug/L		94
44) tetrahydrofuran	9.470	72	856	1.94	ug/L	#	75
45) chloroform	9.476	83	12985	2.15	ug/L		98
46) t-butyl formate	9.507	59	5704	2.13	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143853.D
Acq On : 14 Jun 2018 6:29 pm
Operator : sydneys
Sample : ic6300-2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 11:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
47) 1,1-dichloropropene	9.911	75	10294	2.08	ug/L		91
48) carbon tetrachloride	9.937	117	8395	1.98	ug/L		99
49) isopropyl acetate	10.100	87	1635	2.11	ug/L	#	42
51) methacrylonitrile	9.381	67	2747	2.10	ug/L		86
52) 1,1,1-trichloroethane	9.727	97	10933	2.09	ug/L		97
53) cyclohexane	9.801	84	10819	2.01	ug/L		90
58) 2,2,4-trimethylpentane	10.147	57	27657	2.03	ug/L		98
59) n-butyl alcohol	10.676	56	9904	109.65	ug/L		97
60) benzene	10.173	78	32710	2.10	ug/L		97
61) tert-amyl methyl ether	10.194	73	24529	2.08	ug/L		98
62) heptane	10.325	57	5707	2.12	ug/L		95
63) 1,2-dichloroethane	10.194	62	9540	2.14	ug/L		92
64) ethyl acrylate	10.896	55	8197	2.08	ug/L		93
65) trichloroethene	10.886	95	7649	2.09	ug/L		96
67) 2-chloroethyl vinyl ether	11.672	63	21845	10.24	ug/L		96
68) methyl methacrylate	11.153	100	1729	2.01	ug/L	#	86
69) 1,2-dichloropropane	11.148	63	7976	2.10	ug/L		92
70) methylcyclohexane	11.096	83	13877	2.10	ug/L		93
71) dibromomethane	11.316	93	4391	2.15	ug/L		98
72) bromodichloromethane	11.437	83	9137	2.02	ug/L		89
73) epichlorohydrin	11.809	57	3162	9.78	ug/L		97
74) cis-1,3-dichloropropene	11.887	75	11747	1.97	ug/L		98
75) 4-methyl-2-pentanone	11.977	58	10553	8.44	ug/L	#	84
76) 3-methyl-1-butanol	12.008	70	4050	42.61	ug/L	#	72
79) toluene	12.244	92	19698	2.16	ug/L		96
80) ethyl methacrylate	12.433	69	8540	2.02	ug/L		97
81) trans-1,3-dichloropropene	12.448	75	10045	2.04	ug/L		92
82) 1,1,2-trichloroethane	12.658	83	5408	2.13	ug/L		88
83) tetrachloroethene	12.821	164	6515	2.14	ug/L		92
84) 2-hexanone	12.826	58	9573	8.65	ug/L		91
85) 1,3-dichloropropane	12.842	76	10721	2.06	ug/L		97
86) butyl acetate	12.899	56	4519	2.17	ug/L		84
87) dibromochloromethane	13.104	129	6420	2.06	ug/L		99
88) 1,2-dibromoethane	13.256	107	6220	1.97	ug/L		95
89) n-butyl ether	13.607	57	32115	2.07	ug/L		98
90) chlorobenzene	13.707	112	19940	2.08	ug/L		91
91) 1,1,1,2-tetrachloroethane	13.764	131	7163	2.15	ug/L		89
92) ethylbenzene	13.754	91	34877	2.09	ug/L		98
93) m,p-xylene	13.859	106	26202	4.09	ug/L		97
94) o-xylene	14.278	91	27227	2.05	ug/L		97
95) styrene	14.289	104	21399	2.01	ug/L		99
96) butyl acrylate	14.100	55	12668	2.01	ug/L		95
97) bromoform	14.561	173	4105	2.02	ug/L		92
98) isopropylbenzene	14.609	105	33060	2.03	ug/L		96
99) cis-1,4-dichloro-2-butene	14.692	75	2355	1.82	ug/L		95
102) bromobenzene	15.018	156	9152	2.18	ug/L		96
103) 1,1,2,2-tetrachloroethane	14.923	83	8008	2.07	ug/L		92
104) trans-1,4-dichloro-2-b...	14.960	53	1959	2.20	ug/L		91
105) 1,2,3-trichloropropane	14.997	110	2299	2.18	ug/L		87
106) n-propylbenzene	15.023	91	40239	2.06	ug/L		99
107) 2-chlorotoluene	15.170	126	7978	2.02	ug/L		91
108) 4-chlorotoluene	15.269	91	24387	2.09	ug/L		99
109) 1,3,5-trimethylbenzene	15.170	105	28050	2.02	ug/L		97
110) tert-butylbenzene	15.516	119	24122	1.99	ug/L		91
111) 1,2,4-trimethylbenzene	15.558	105	28285	2.05	ug/L		98
112) sec-butylbenzene	15.725	105	36232	2.05	ug/L		98
113) 1,3-dichlorobenzene	15.914	146	16628	2.03	ug/L		100
114) p-isopropyltoluene	15.841	119	30013	2.00	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143853.D
Acq On : 14 Jun 2018 6:29 pm
Operator : sydneys
Sample : ic6300-2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 11:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
115) 1,4-dichlorobenzene	15.998	146	17058	2.04	ug/L	95
116) 1,2-dichlorobenzene	16.370	146	16554	2.07	ug/L	97
117) n-butylbenzene	16.239	92	15638	2.02	ug/L	95
118) 1,2-dibromo-3-chloropr...	17.104	157	1811	2.04	ug/L	89
119) 1,3,5-trichlorobenzene	17.262	180	14286	2.01	ug/L	96
120) 1,2,4-trichlorobenzene	17.843	180	12317	1.99	ug/L	93
121) 2-ethylhexyl acrylate	17.812	70	1747	0.40	ug/L	89
122) hexachlorobutadiene	17.943	225	6127	1.98	ug/L	96
123) naphthalene	18.106	128	25708	2.05	ug/L	97
124) 1,2,3-trichlorobenzene	18.331	180	10877	2.01	ug/L	97
125) hexachloroethane	16.622	201	4800	1.99	ug/L	89
126) benzyl chloride	16.108	91	15792	2.15	ug/L	97
127) 2-methylnaphthalene	19.201	142	6550	0.98	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

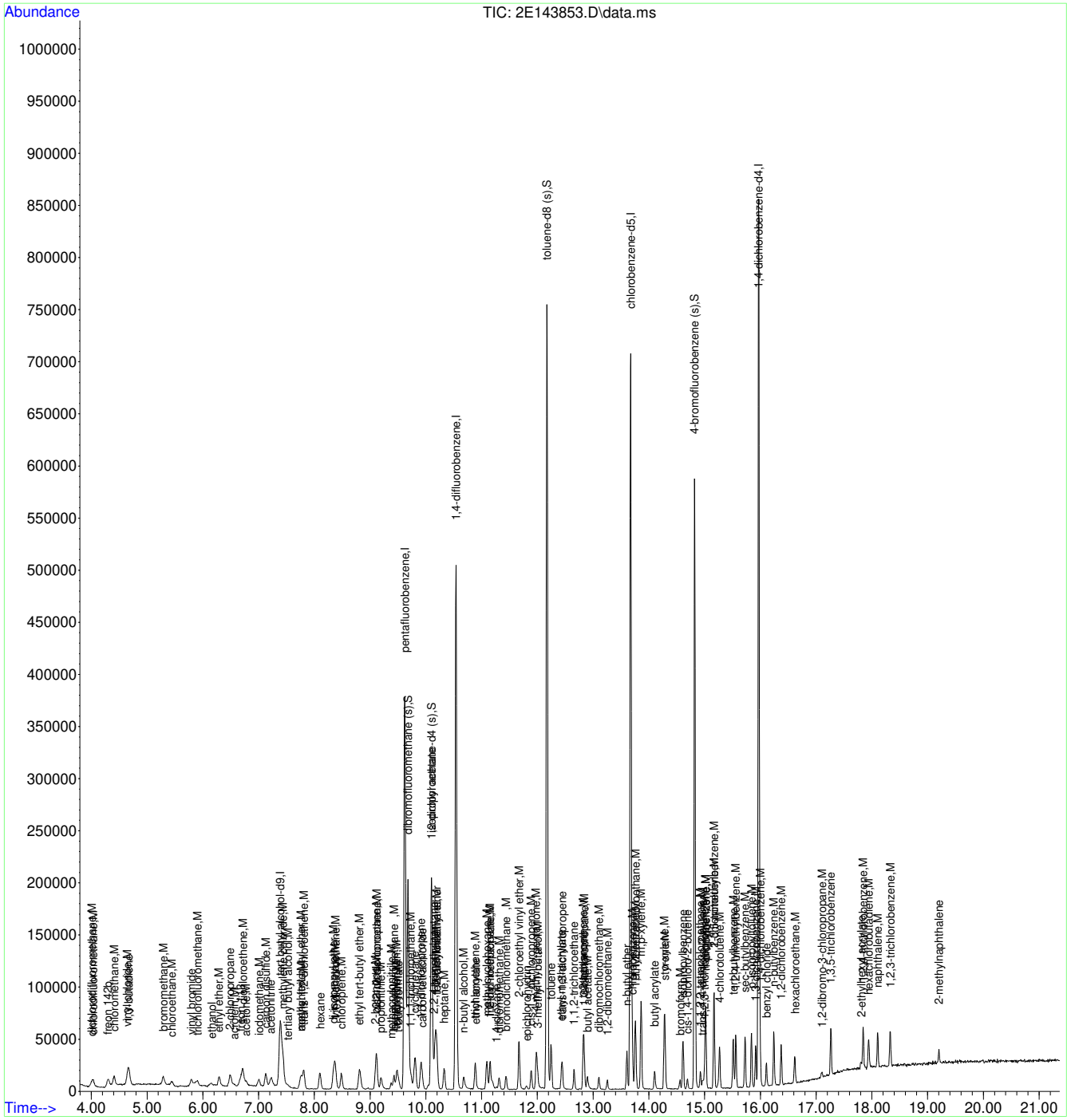
7.7.47

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143853.D
Acq On : 14 Jun 2018 6:29 pm
Operator : sydneys
Sample : ic6300-2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 11:42:34 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration



Manual Integration Approval Summary

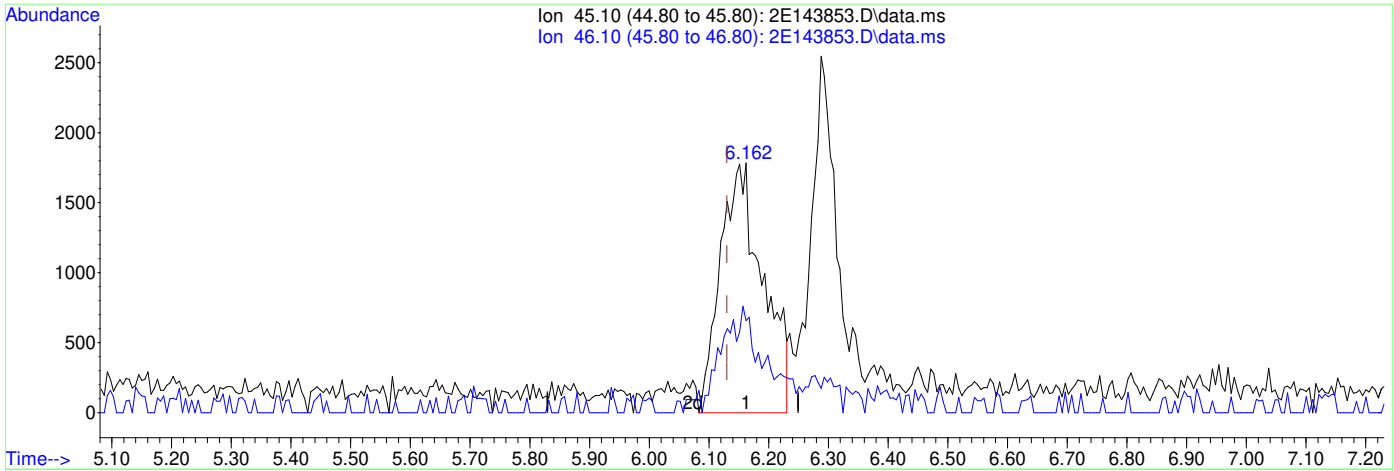
Sample Number:	V2E6300-IC6300	**Method:**	SW846 8260C
Lab FileID:	2E143853.D	**Analyst approved:**	06/15/18 11:48 Robert Szot
Injection Time:	06/14/18 18:29	**Supervisor approved:**	06/18/18 04:43 Kanya Veerawat

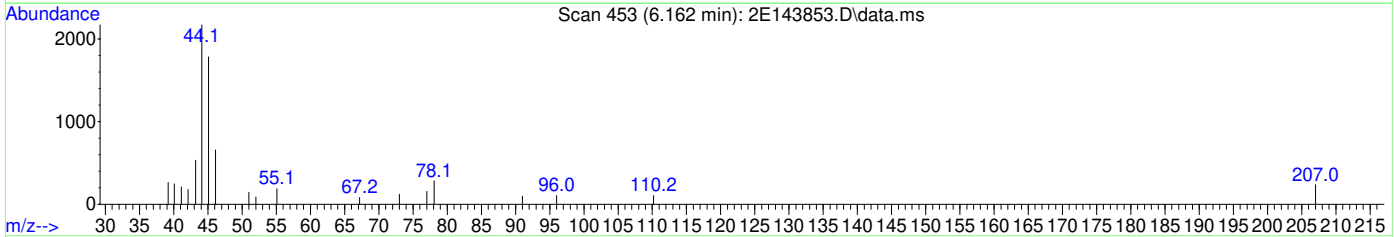
Parameter	CAS	Sig#	R.T. (min.)	Reason
Ethanol	64-17-5		6.16	Overlapping peak

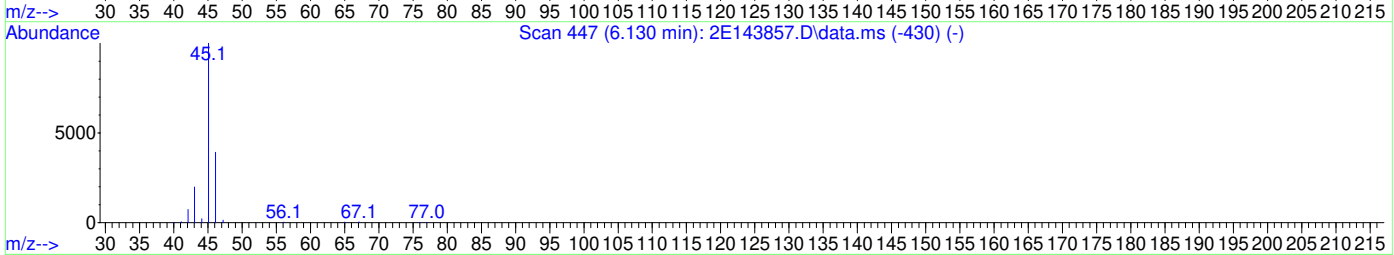
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143853.D
Acq On : 14 Jun 2018 6:29 pm
Operator : sydneys
Sample : ic6300-2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 11:28:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration







TIC: 2E143853.D\data.ms

(2) ethanol

6.162min (+0.032) 244.73ug/L

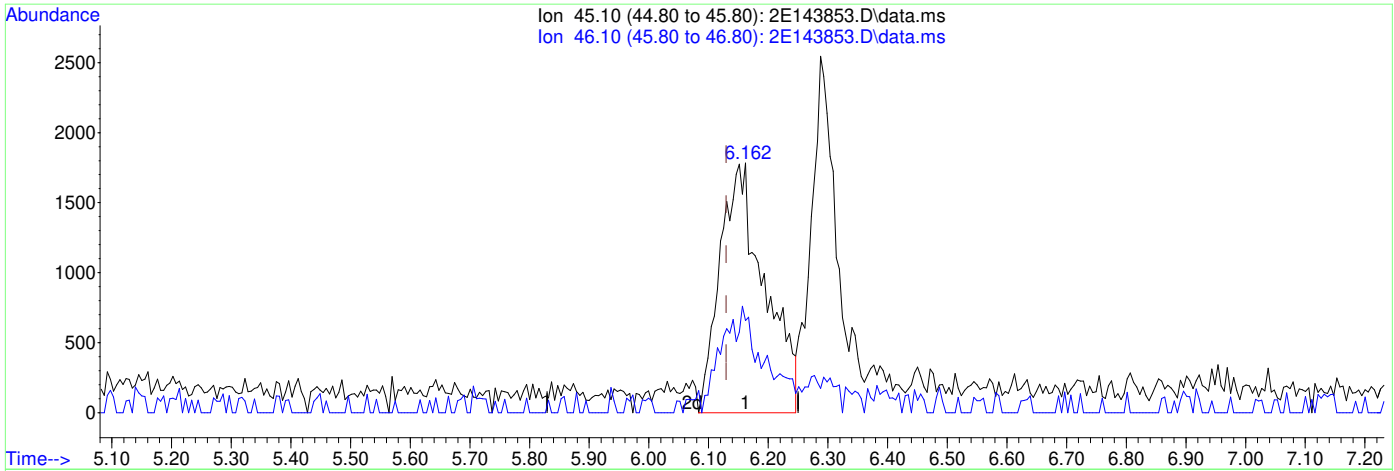
response 8792

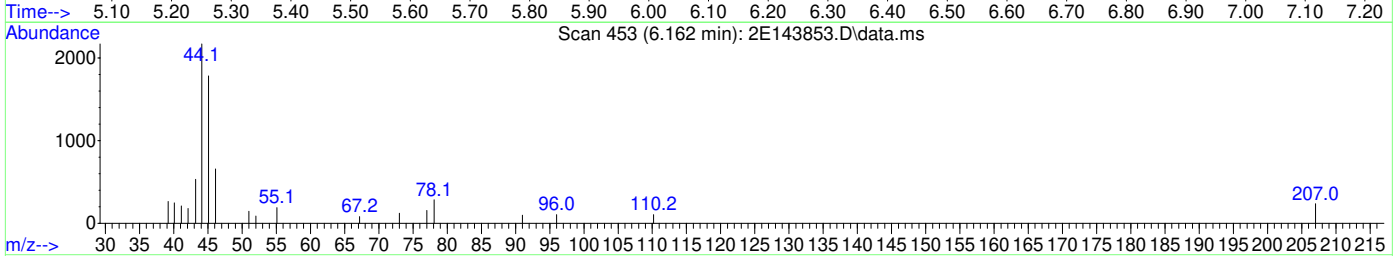
Ion	Exp%	Act%
45.10	100	100
46.10	39.20	27.97
0.00	0.00	0.00
0.00	0.00	0.00

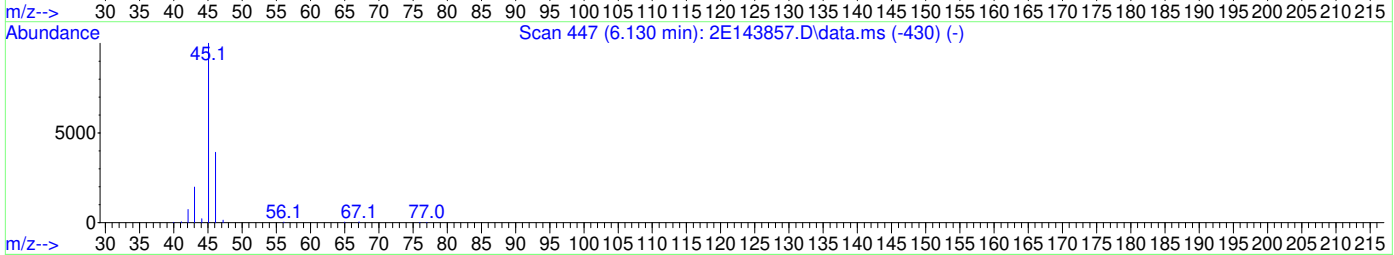
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143853.D
Acq On : 14 Jun 2018 6:29 pm
Operator : sydneys
Sample : ic6300-2
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 15 11:28:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration







TIC: 2E143853.D\data.ms

(2) ethanol

6.162min (+0.032) 256.89ug/L m

response 9229

Ion	Exp%	Act%
45.10	100	100
46.10	39.20	36.83
0.00	0.00	0.00
0.00	0.00	0.00

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143854.D
Acq On : 14 Jun 2018 6:57 pm
Operator : sydneys
Sample : ic6300-5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 11:32:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	157648	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	326283	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	466862	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	410659	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.966	152	220128	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	135118	49.45	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.90%				
57) 1,2-dichloroethane-d4 (s)	10.099	65	144106	49.98	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.96%				
78) toluene-d8 (s)	12.170	98	534631	50.22	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.44%				
101) 4-bromofluorobenzene (s)	14.818	95	192143	50.01	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.02%				
Target Compounds							Qvalue
2) ethanol	6.146	45	18549	503.82	ug/L		100
3) tertiary butyl alcohol	7.509	59	10902	26.11	ug/L		89
4) 1,4-dioxane	11.269	88	4028	127.15	ug/L		96
6) chlorodifluoromethane	4.033	51	23588	5.03	ug/L		96
7) dichlorodifluoromethane	4.002	85	25408	4.75	ug/L		90
9) freon 142b	4.301	65	25200	5.03	ug/L		98
10) chloromethane	4.411	50	35365	4.97	ug/L		100
11) vinyl chloride	4.641	62	30932	4.75	ug/L		95
12) bromomethane	5.286	94	19475	4.88	ug/L		92
13) chloroethane	5.449	64	19017	5.01	ug/L		93
14) trichlorofluoromethane	5.905	101	26637	4.69	ug/L		93
15) 1,3-butadiene	4.668	54	27227	4.91	ug/L		94
16) vinyl bromide	5.800	106	19545	4.93	ug/L		99
17) ethyl ether	6.293	74	13003	5.35	ug/L		92
18) 2-chloropropane	6.487	43	34799	5.21	ug/L		98
19) acrolein	6.555	56	4298	5.26	ug/L		87
20) freon 113	6.681	151	13207	4.78	ug/L		99
21) 1,1-dichloroethene	6.718	61	30205	5.11	ug/L		99
22) acetone	6.781	58	6500	20.17	ug/L	#	72
23) acetonitrile	7.210	41	25047	54.18	ug/L		97
24) iodomethane	7.001	142	26773	5.20	ug/L		98
25) carbon disulfide	7.127	76	56810	5.10	ug/L		96
26) methylene chloride	7.441	84	20993	5.22	ug/L		99
27) methyl acetate	7.237	43	16339	5.64	ug/L		88
28) methyl tert butyl ether	7.761	73	53046	5.22	ug/L		97
29) trans-1,2-dichloroethene	7.808	61	26245	5.15	ug/L		98
30) hexane	8.102	56	12922	5.10	ug/L		89
31) di-isopropyl ether	8.343	45	62910	5.08	ug/L	#	68
32) ethyl tert-butyl ether	8.810	59	59313	5.12	ug/L		98
33) 2-butanone	9.088	72	7585	21.40	ug/L		99
34) 1,1-dichloroethane	8.374	63	33360	5.06	ug/L		96
35) chloroprene	8.479	53	28014	5.14	ug/L		96
36) acrylonitrile	7.777	53	6307	5.05	ug/L		95
37) vinyl acetate	8.374	86	3660	5.05	ug/L	#	19
38) ethyl acetate	9.108	45	2659	5.53	ug/L	#	1
39) 2,2-dichloropropane	9.114	77	25612	5.12	ug/L		95
40) cis-1,2-dichloroethene	9.119	96	21487	5.19	ug/L		97
41) propionitrile	9.187	54	26965	52.68	ug/L		99
42) methyl acrylate	9.187	85	2390	4.98	ug/L		97
43) bromochloromethane	9.428	128	10080	5.38	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143854.D
Acq On : 14 Jun 2018 6:57 pm
Operator : sydneys
Sample : ic6300-5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 11:32:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tetrahydrofuran	9.465	72	2362	5.34	ug/L	#	63
45) chloroform	9.481	83	31253	5.15	ug/L		97
46) t-butyl formate	9.512	59	13872	5.16	ug/L		93
47) 1,1-dichloropropene	9.905	75	25147	5.06	ug/L		97
48) carbon tetrachloride	9.932	117	21300	5.00	ug/L		98
49) isopropyl acetate	10.089	87	4154	5.32	ug/L	#	88
51) methacrylonitrile	9.376	67	6434	4.90	ug/L		83
52) 1,1,1-trichloroethane	9.727	97	26641	5.06	ug/L		94
53) cyclohexane	9.801	84	26046	4.81	ug/L		90
54) iso-butyl alcohol	9.921	43	8374	60.10	ug/L		91
55) tert amyl alcohol	10.042	73	5518	29.35	ug/L		82
58) 2,2,4-trimethylpentane	10.157	57	64485	4.76	ug/L		95
59) n-butyl alcohol	10.671	56	24565	273.99	ug/L		99
60) benzene	10.173	78	78348	5.08	ug/L		98
61) tert-amyl methyl ether	10.199	73	59435	5.08	ug/L		96
62) heptane	10.325	57	12959	4.84	ug/L		94
63) 1,2-dichloroethane	10.194	62	22645	5.11	ug/L		95
64) ethyl acrylate	10.891	55	20076	5.13	ug/L		97
65) trichloroethene	10.881	95	18706	5.15	ug/L		99
66) 2-nitropropane	11.662	41	5328	5.11	ug/L	#	79
67) 2-chloroethyl vinyl ether	11.667	63	54143	25.56	ug/L		98
68) methyl methacrylate	11.153	100	4411	5.17	ug/L	#	91
69) 1,2-dichloropropane	11.153	63	19962	5.29	ug/L		93
70) methylcyclohexane	11.090	83	30937	4.72	ug/L		94
71) dibromomethane	11.311	93	10182	5.03	ug/L		97
72) bromodichloromethane	11.436	83	22755	5.06	ug/L		98
73) epichlorohydrin	11.798	57	8839	27.55	ug/L		93
74) cis-1,3-dichloropropene	11.887	75	30410	5.13	ug/L		99
75) 4-methyl-2-pentanone	11.982	58	26454	21.31	ug/L		97
76) 3-methyl-1-butanol	12.003	70	9817	104.06	ug/L		90
79) toluene	12.244	92	46976	5.15	ug/L		100
80) ethyl methacrylate	12.433	69	23041	5.44	ug/L		99
81) trans-1,3-dichloropropene	12.443	75	25986	5.26	ug/L		96
82) 1,1,2-trichloroethane	12.658	83	12817	5.04	ug/L		97
83) tetrachloroethene	12.826	164	15653	5.14	ug/L		94
84) 2-hexanone	12.826	58	23447	21.14	ug/L		97
85) 1,3-dichloropropane	12.842	76	26266	5.04	ug/L		97
86) butyl acetate	12.899	56	11358	5.44	ug/L		95
87) dibromochloromethane	13.104	129	15803	5.06	ug/L		97
88) 1,2-dibromoethane	13.250	107	16391	5.17	ug/L		96
89) n-butyl ether	13.607	57	80232	5.17	ug/L		98
90) chlorobenzene	13.707	112	49830	5.18	ug/L		97
91) 1,1,1,2-tetrachloroethane	13.764	131	17475	5.23	ug/L		96
92) ethylbenzene	13.754	91	86730	5.18	ug/L		100
93) m,p-xylene	13.859	106	66953	10.43	ug/L		100
94) o-xylene	14.278	91	67524	5.07	ug/L		96
95) styrene	14.289	104	55052	5.15	ug/L		98
96) butyl acrylate	14.100	55	32253	5.09	ug/L		96
97) bromoform	14.556	173	10201	5.00	ug/L		99
98) isopropylbenzene	14.614	105	83656	5.13	ug/L		99
99) cis-1,4-dichloro-2-butene	14.692	75	6179	4.76	ug/L		89
102) bromobenzene	15.017	156	22030	5.28	ug/L		97
103) 1,1,2,2-tetrachloroethane	14.923	83	19819	5.15	ug/L		94
104) trans-1,4-dichloro-2-b...	14.965	53	4488	5.08	ug/L		92
105) 1,2,3-trichloropropane	14.996	110	5843	5.59	ug/L		88
106) n-propylbenzene	15.017	91	100520	5.18	ug/L		99
107) 2-chlorotoluene	15.169	126	20444	5.22	ug/L		98
108) 4-chlorotoluene	15.269	91	60624	5.24	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143854.D
Acq On : 14 Jun 2018 6:57 pm
Operator : sydneys
Sample : ic6300-5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 11:32:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.164	105	71558	5.18	ug/L	96
110) tert-butylbenzene	15.515	119	59461	4.93	ug/L	97
111) 1,2,4-trimethylbenzene	15.557	105	72854	5.31	ug/L	99
112) sec-butylbenzene	15.725	105	91082	5.19	ug/L	99
113) 1,3-dichlorobenzene	15.914	146	40945	5.04	ug/L	95
114) p-isopropyltoluene	15.841	119	76698	5.14	ug/L	100
115) 1,4-dichlorobenzene	15.998	146	42954	5.18	ug/L	96
116) 1,2-dichlorobenzene	16.370	146	40591	5.10	ug/L	98
117) n-butylbenzene	16.239	92	38502	5.02	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.104	157	4877	5.54	ug/L	94
119) 1,3,5-trichlorobenzene	17.261	180	36377	5.14	ug/L	98
120) 1,2,4-trichlorobenzene	17.843	180	29860	4.86	ug/L	94
121) 2-ethylhexyl acrylate	17.807	70	3971	0.91	ug/L	90
122) hexachlorobutadiene	17.943	225	15127	4.91	ug/L	94
123) naphthalene	18.106	128	65020	5.21	ug/L	99
124) 1,2,3-trichlorobenzene	18.331	180	26593	4.94	ug/L	99
125) hexachloroethane	16.616	201	11994	5.02	ug/L	96
126) benzyl chloride	16.108	91	38135	5.23	ug/L	98
127) 2-methylnaphthalene	19.201	142	16657	2.52	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

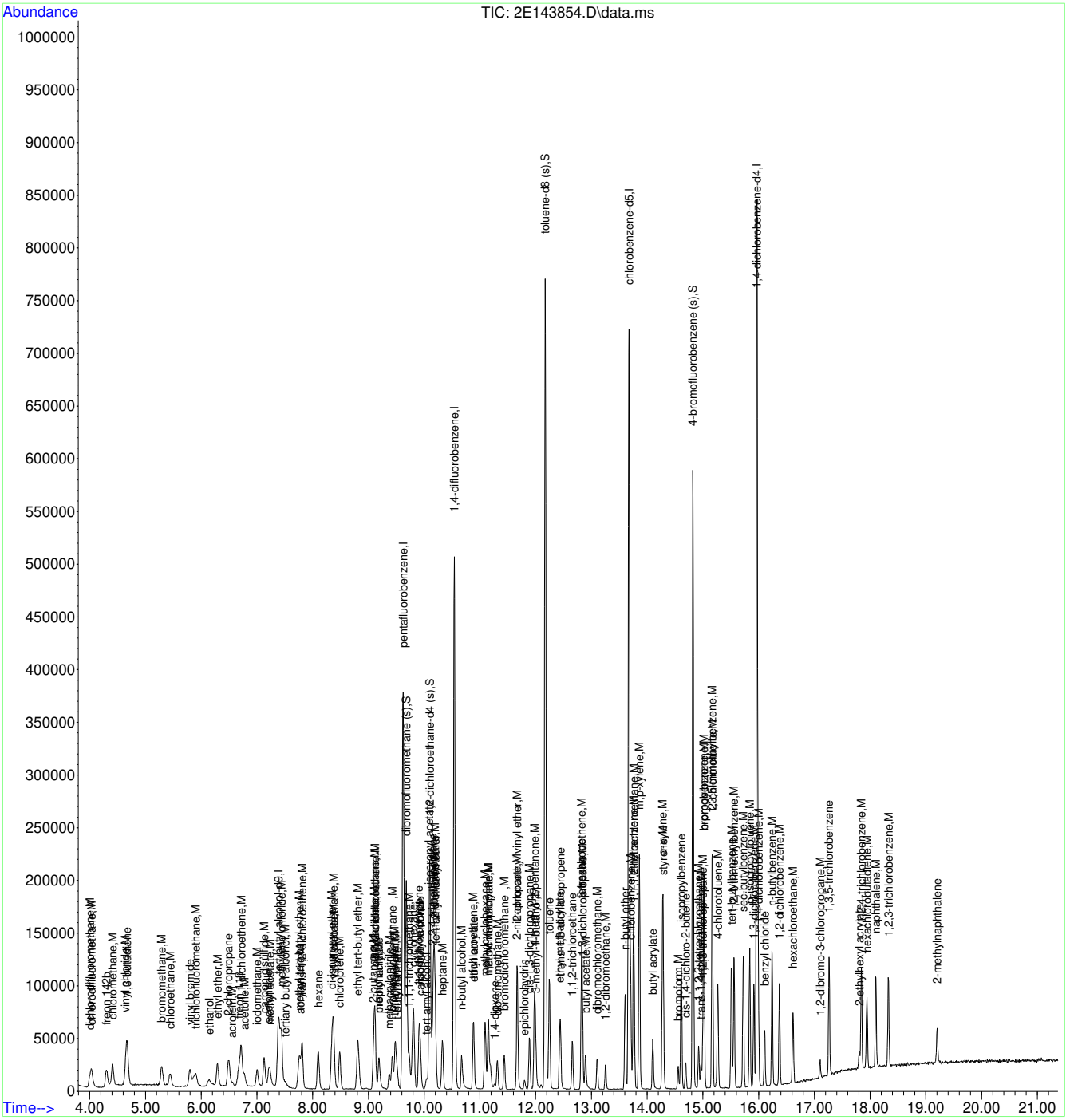
7.7.48

7

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143854.D
Acq On : 14 Jun 2018 6:57 pm
Operator : sydneys
Sample : ic6300-5
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 15 11:32:25 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143855.D
Acq On : 14 Jun 2018 7:26 pm
Operator : sydneys
Sample : ic6300-10
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 11:35:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.394	65	139959	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	322858	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	461633	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	405766	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	220143	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	135584	50.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%				
57) 1,2-dichloroethane-d4 (s)	10.099	65	142675	50.04	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.08%				
78) toluene-d8 (s)	12.170	98	528215	50.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.42%				
101) 4-bromofluorobenzene (s)	14.818	95	192033	49.98	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.96%				
Target Compounds							Qvalue
2) ethanol	6.136	45	35962	1100.23	ug/L		95
3) tertiary butyl alcohol	7.515	59	18993	51.23	ug/L		84
4) 1,4-dioxane	11.263	88	7801	277.38	ug/L		98
6) chlorodifluoromethane	4.033	51	45084	9.72	ug/L		97
7) dichlorodifluoromethane	4.002	85	54487	10.30	ug/L		99
9) freon 142b	4.306	65	49103	9.90	ug/L	#	92
10) chloromethane	4.416	50	65955	9.36	ug/L		100
11) vinyl chloride	4.647	62	61164	9.49	ug/L		98
12) bromomethane	5.292	94	37442	9.47	ug/L		95
13) chloroethane	5.449	64	35909	9.56	ug/L		94
14) trichlorofluoromethane	5.900	101	55338	9.86	ug/L		91
15) 1,3-butadiene	4.673	54	53431	9.74	ug/L		98
16) vinyl bromide	5.805	106	37077	9.46	ug/L		88
17) ethyl ether	6.293	74	23479	9.76	ug/L		98
18) 2-chloropropane	6.492	43	63756	9.65	ug/L		100
19) acrolein	6.566	56	7913	9.79	ug/L		94
20) freon 113	6.681	151	27102	9.92	ug/L		98
21) 1,1-dichloroethene	6.718	61	56167	9.60	ug/L		95
22) acetone	6.770	58	12477	39.13	ug/L	#	82
23) acetonitrile	7.216	41	47379	103.57	ug/L		94
24) iodomethane	7.006	142	50123	9.84	ug/L		96
25) carbon disulfide	7.132	76	106242	9.64	ug/L		100
26) methylene chloride	7.436	84	38589	9.70	ug/L		98
27) methyl acetate	7.231	43	27673	9.65	ug/L		97
28) methyl tert butyl ether	7.761	73	96870	9.63	ug/L		95
29) trans-1,2-dichloroethene	7.808	61	49199	9.77	ug/L		96
30) hexane	8.102	56	24436	9.75	ug/L		98
31) di-isopropyl ether	8.348	45	117852	9.61	ug/L		82
32) ethyl tert-butyl ether	8.810	59	113304	9.89	ug/L		97
33) 2-butanone	9.087	72	14159	40.38	ug/L		92
34) 1,1-dichloroethane	8.385	63	63051	9.66	ug/L		96
35) chloroprene	8.485	53	52219	9.68	ug/L		96
36) acrylonitrile	7.777	53	12451	10.07	ug/L		98
37) vinyl acetate	8.369	86	6782	9.46	ug/L	#	76
38) ethyl acetate	9.098	45	4902	10.31	ug/L	#	81
39) 2,2-dichloropropane	9.114	77	46874	9.48	ug/L		97
40) cis-1,2-dichloroethene	9.114	96	39355	9.60	ug/L		99
41) propionitrile	9.192	54	51421	101.53	ug/L		87
42) methyl acrylate	9.182	85	4408	9.29	ug/L		92
43) bromochloromethane	9.428	128	18102	9.77	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143855.D
Acq On : 14 Jun 2018 7:26 pm
Operator : sydneys
Sample : ic6300-10
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 11:35:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tetrahydrofuran	9.470	72	4295	9.81	ug/L		99
45) chloroform	9.481	83	58863	9.81	ug/L		100
46) t-butyl formate	9.507	59	26142	9.82	ug/L		93
47) 1,1-dichloropropene	9.905	75	46559	9.47	ug/L		96
48) carbon tetrachloride	9.932	117	40501	9.61	ug/L		99
49) isopropyl acetate	10.089	87	7243	9.38	ug/L	#	91
51) methacrylonitrile	9.376	67	13353	10.28	ug/L		99
52) 1,1,1-trichloroethane	9.732	97	50489	9.69	ug/L		99
53) cyclohexane	9.795	84	53464	9.99	ug/L		87
54) iso-butyl alcohol	9.911	43	13682	99.24	ug/L		94
55) tert amyl alcohol	10.036	73	9942	53.45	ug/L		88
58) 2,2,4-trimethylpentane	10.152	57	130409	9.74	ug/L		99
59) n-butyl alcohol	10.666	56	47600	536.92	ug/L		98
60) benzene	10.173	78	145515	9.54	ug/L		99
61) tert-amyl methyl ether	10.199	73	110860	9.59	ug/L		96
62) heptane	10.330	57	25594	9.68	ug/L		95
63) 1,2-dichloroethane	10.194	62	42025	9.59	ug/L		97
64) ethyl acrylate	10.886	55	39581	10.23	ug/L		97
65) trichloroethene	10.886	95	33798	9.42	ug/L		97
66) 2-nitropropane	11.662	41	9692	9.40	ug/L	#	66
67) 2-chloroethyl vinyl ether	11.667	63	103086	49.22	ug/L		98
68) methyl methacrylate	11.148	100	8600	10.19	ug/L		92
69) 1,2-dichloropropane	11.148	63	36426	9.76	ug/L		92
70) methylcyclohexane	11.096	83	61791	9.53	ug/L		97
71) dibromomethane	11.311	93	19911	9.95	ug/L		96
72) bromodichloromethane	11.436	83	43283	9.73	ug/L		95
73) epichlorohydrin	11.798	57	16174	50.99	ug/L		98
74) cis-1,3-dichloropropene	11.887	75	56955	9.72	ug/L		98
75) 4-methyl-2-pentanone	11.976	58	49658	40.45	ug/L		98
76) 3-methyl-1-butanol	11.997	70	20116	215.64	ug/L		100
79) toluene	12.244	92	87507	9.71	ug/L		100
80) ethyl methacrylate	12.427	69	42882	10.25	ug/L		96
81) trans-1,3-dichloropropene	12.448	75	47717	9.77	ug/L		97
82) 1,1,2-trichloroethane	12.658	83	24503	9.76	ug/L		98
83) tetrachloroethene	12.826	164	29005	9.64	ug/L		95
84) 2-hexanone	12.826	58	45293	41.32	ug/L		95
85) 1,3-dichloropropane	12.841	76	49976	9.71	ug/L		98
86) butyl acetate	12.894	56	21009	10.18	ug/L		95
87) dibromochloromethane	13.104	129	30297	9.82	ug/L		97
88) 1,2-dibromoethane	13.250	107	31356	10.01	ug/L		94
89) n-butyl ether	13.607	57	147753	9.63	ug/L		98
90) chlorobenzene	13.707	112	92406	9.73	ug/L		98
91) 1,1,1,2-tetrachloroethane	13.764	131	32888	9.95	ug/L		98
92) ethylbenzene	13.754	91	161626	9.76	ug/L		97
93) m,p-xylene	13.859	106	123715	19.51	ug/L		100
94) o-xylene	14.278	91	128633	9.78	ug/L		98
95) styrene	14.289	104	105193	9.96	ug/L		98
96) butyl acrylate	14.100	55	61355	9.81	ug/L		98
97) bromoform	14.556	173	20252	10.05	ug/L		92
98) isopropylbenzene	14.614	105	160016	9.92	ug/L		100
99) cis-1,4-dichloro-2-butene	14.687	75	12288	9.57	ug/L		96
102) bromobenzene	15.012	156	41219	9.87	ug/L		92
103) 1,1,2,2-tetrachloroethane	14.923	83	37388	9.71	ug/L		98
104) trans-1,4-dichloro-2-b...	14.965	53	8723	9.88	ug/L		98
105) 1,2,3-trichloropropane	14.996	110	10635	10.17	ug/L		97
106) n-propylbenzene	15.017	91	187002	9.64	ug/L		99
107) 2-chlorotoluene	15.169	126	38854	9.92	ug/L		99
108) 4-chlorotoluene	15.269	91	112631	9.73	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143855.D
Acq On : 14 Jun 2018 7:26 pm
Operator : sydneys
Sample : ic6300-10
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 11:35:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.169	105	134087	9.70	ug/L	99
110) tert-butylbenzene	15.515	119	112729	9.35	ug/L	98
111) 1,2,4-trimethylbenzene	15.557	105	136448	9.95	ug/L	99
112) sec-butylbenzene	15.725	105	172291	9.82	ug/L	98
113) 1,3-dichlorobenzene	15.914	146	78692	9.69	ug/L	97
114) p-isopropyltoluene	15.841	119	147767	9.91	ug/L	99
115) 1,4-dichlorobenzene	15.993	146	79861	9.63	ug/L	98
116) 1,2-dichlorobenzene	16.375	146	76102	9.56	ug/L	98
117) n-butylbenzene	16.239	92	75286	9.81	ug/L	97
118) 1,2-dibromo-3-chloropr...	17.104	157	8519	9.67	ug/L	95
119) 1,3,5-trichlorobenzene	17.267	180	69407	9.81	ug/L	98
120) 1,2,4-trichlorobenzene	17.843	180	59207	9.64	ug/L	99
121) 2-ethylhexyl acrylate	17.807	70	8596	1.97	ug/L	94
122) hexachlorobutadiene	17.943	225	30250	9.83	ug/L	97
123) naphthalene	18.100	128	124751	10.00	ug/L	99
124) 1,2,3-trichlorobenzene	18.331	180	52060	9.67	ug/L	99
125) hexachloroethane	16.616	201	24064	10.06	ug/L	97
126) benzyl chloride	16.108	91	70922	9.72	ug/L	99
127) 2-methylnaphthalene	19.201	142	32291	4.88	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

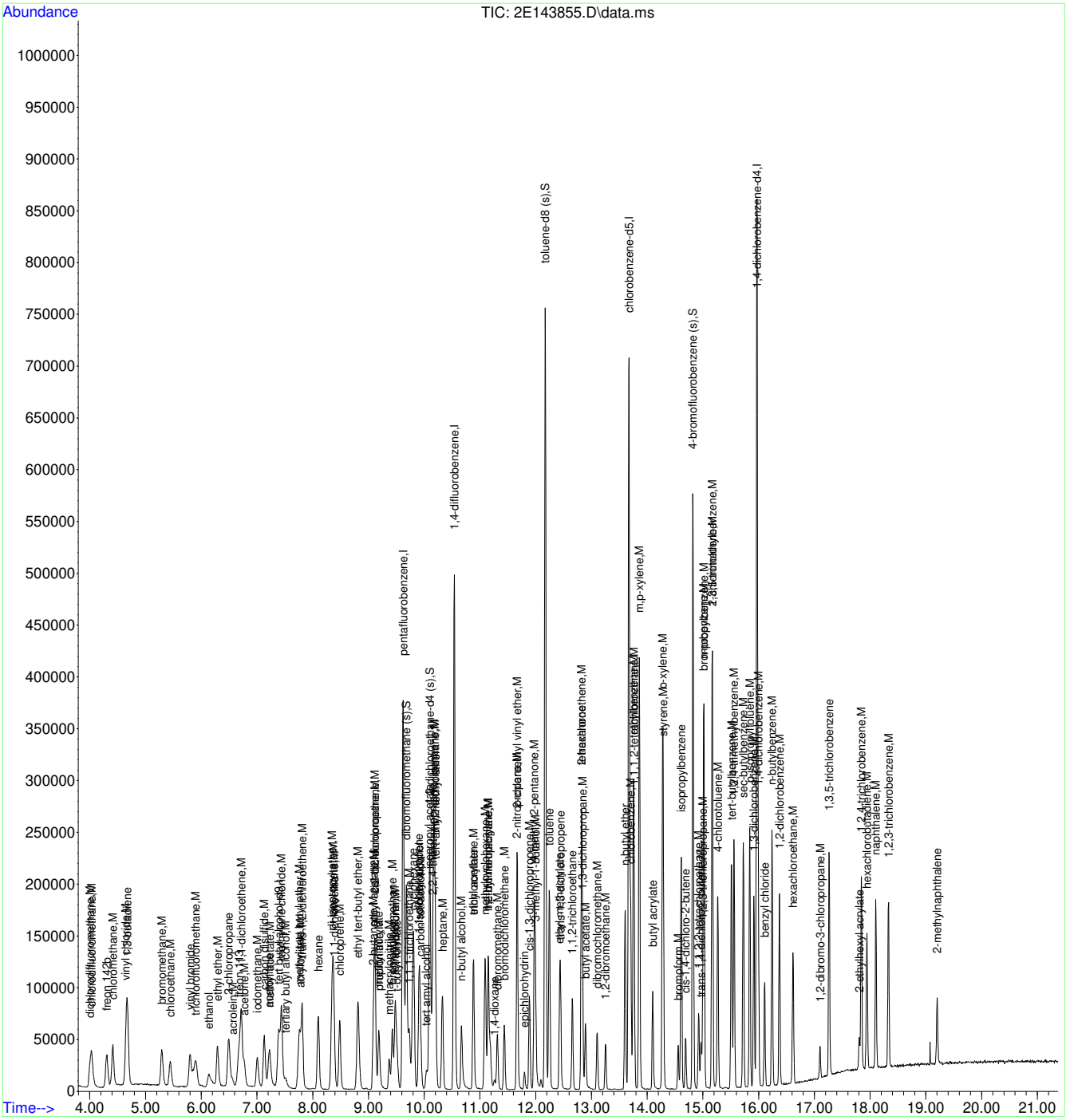
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143855.D
Acq On : 14 Jun 2018 7:26 pm
Operator : sydneys
Sample : ic6300-10
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 15 11:35:11 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143856.D
Acq On : 14 Jun 2018 7:55 pm
Operator : sydneys
Sample : ic6300-20
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 11:35:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	141146	500.00	ug/L		0.00
5) pentafluorobenzene	9.622	168	328137	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	470597	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	415466	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	226860	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	136014	49.49	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.98%				
57) 1,2-dichloroethane-d4 (s)	10.099	65	145941	50.21	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.42%				
78) toluene-d8 (s)	12.170	98	540450	50.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.36%				
101) 4-bromofluorobenzene (s)	14.818	95	196100	49.53	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.06%				
Target Compounds							Qvalue
2) ethanol	6.151	45	67081	2035.03	ug/L		95
3) tertiary butyl alcohol	7.509	59	37906	101.39	ug/L		82
4) 1,4-dioxane	11.263	88	14438	509.05	ug/L		89
6) chlorodifluoromethane	4.033	51	88766	18.84	ug/L		99
7) dichlorodifluoromethane	4.007	85	106394	19.79	ug/L		95
9) freon 142b	4.301	65	99346	19.71	ug/L		99
10) chloromethane	4.411	50	133192	18.60	ug/L		96
11) vinyl chloride	4.647	62	124280	18.97	ug/L		98
12) bromomethane	5.292	94	74116	18.45	ug/L		98
13) chloroethane	5.444	64	70401	18.45	ug/L		98
14) trichlorofluoromethane	5.900	101	111104	19.47	ug/L		99
15) 1,3-butadiene	4.673	54	104686	18.77	ug/L		98
16) vinyl bromide	5.795	106	74922	18.80	ug/L		95
17) ethyl ether	6.288	74	46088	18.85	ug/L		99
18) 2-chloropropane	6.487	43	124686	18.58	ug/L		95
19) acrolein	6.560	56	15522	18.89	ug/L		95
20) freon 113	6.681	151	54731	19.71	ug/L		94
21) 1,1-dichloroethene	6.723	61	111039	18.68	ug/L		99
22) acetone	6.770	58	24365	75.19	ug/L		92
23) acetonitrile	7.210	41	89968	193.51	ug/L		99
24) iodomethane	7.001	142	99583	19.24	ug/L		99
25) carbon disulfide	7.127	76	210740	18.82	ug/L		98
26) methylene chloride	7.436	84	74273	18.36	ug/L		97
27) methyl acetate	7.231	43	52832	18.12	ug/L		95
28) methyl tert butyl ether	7.756	73	194626	19.03	ug/L		99
29) trans-1,2-dichloroethene	7.808	61	97675	19.08	ug/L		100
30) hexane	8.097	56	49525	19.44	ug/L		99
31) di-isopropyl ether	8.343	45	232939	18.70	ug/L		80
32) ethyl tert-butyl ether	8.815	59	221944	19.07	ug/L		97
33) 2-butanone	9.077	72	28597	80.24	ug/L		94
34) 1,1-dichloroethane	8.380	63	123827	18.66	ug/L		99
35) chloroprene	8.485	53	105772	19.29	ug/L		99
36) acrylonitrile	7.771	53	25048	19.94	ug/L		97
37) vinyl acetate	8.364	86	14277	19.59	ug/L	#	85
38) ethyl acetate	9.093	45	9295	19.23	ug/L	#	68
39) 2,2-dichloropropane	9.114	77	93329	18.57	ug/L		99
40) cis-1,2-dichloroethene	9.114	96	77903	18.70	ug/L		98
41) propionitrile	9.187	54	102239	198.61	ug/L		98
42) methyl acrylate	9.182	85	9454	19.60	ug/L		99
43) bromochloromethane	9.428	128	36530	19.39	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143856.D
Acq On : 14 Jun 2018 7:55 pm
Operator : sydneys
Sample : ic6300-20
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 11:35:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tetrahydrofuran	9.470	72	9116	20.48	ug/L		89
45) chloroform	9.481	83	115021	18.86	ug/L		98
46) t-butyl formate	9.507	59	51593	19.07	ug/L		95
47) 1,1-dichloropropene	9.911	75	94102	18.83	ug/L		98
48) carbon tetrachloride	9.932	117	80871	18.87	ug/L		97
49) isopropyl acetate	10.089	87	14989	19.11	ug/L		92
51) methacrylonitrile	9.371	67	26817	20.31	ug/L		93
52) 1,1,1-trichloroethane	9.727	97	100201	18.91	ug/L		99
53) cyclohexane	9.795	84	103018	18.93	ug/L		91
54) iso-butyl alcohol	9.916	43	28435	202.93	ug/L		93
55) tert amyl alcohol	10.042	73	19145	101.27	ug/L		96
58) 2,2,4-trimethylpentane	10.152	57	263927	19.34	ug/L		98
59) n-butyl alcohol	10.666	56	92893	1027.87	ug/L		98
60) benzene	10.173	78	289982	18.64	ug/L		98
61) tert-amyl methyl ether	10.194	73	214558	18.21	ug/L		99
62) heptane	10.325	57	51488	19.09	ug/L		98
63) 1,2-dichloroethane	10.194	62	82300	18.42	ug/L		97
64) ethyl acrylate	10.886	55	77744	19.72	ug/L		97
65) trichloroethene	10.881	95	68257	18.66	ug/L		99
66) 2-nitropropane	11.662	41	20255	19.26	ug/L	#	81
67) 2-chloroethyl vinyl ether	11.667	63	206288	96.61	ug/L		99
68) methyl methacrylate	11.148	100	17661	20.53	ug/L		95
69) 1,2-dichloropropane	11.148	63	72850	19.15	ug/L		98
70) methylcyclohexane	11.090	83	127378	19.27	ug/L		100
71) dibromomethane	11.311	93	38654	18.94	ug/L		96
72) bromodichloromethane	11.436	83	87196	19.24	ug/L		98
73) epichlorohydrin	11.798	57	32014	99.00	ug/L		94
74) cis-1,3-dichloropropene	11.887	75	112297	18.79	ug/L		97
75) 4-methyl-2-pentanone	11.976	58	98887	79.01	ug/L		95
76) 3-methyl-1-butanol	11.997	70	39519	415.56	ug/L		90
79) toluene	12.244	92	173979	18.85	ug/L		99
80) ethyl methacrylate	12.427	69	86452	20.19	ug/L		98
81) trans-1,3-dichloropropene	12.443	75	97266	19.45	ug/L		97
82) 1,1,2-trichloroethane	12.658	83	48004	18.67	ug/L		98
83) tetrachloroethene	12.821	164	59846	19.42	ug/L		94
84) 2-hexanone	12.821	58	93468	83.28	ug/L		100
85) 1,3-dichloropropane	12.842	76	100712	19.11	ug/L		97
86) butyl acetate	12.889	56	42427	20.07	ug/L		94
87) dibromochloromethane	13.104	129	62038	19.64	ug/L		99
88) 1,2-dibromoethane	13.256	107	62555	19.50	ug/L		95
89) n-butyl ether	13.602	57	301281	19.18	ug/L		100
90) chlorobenzene	13.707	112	183041	18.82	ug/L		99
91) 1,1,1,2-tetrachloroethane	13.764	131	65785	19.44	ug/L		99
92) ethylbenzene	13.754	91	319730	18.86	ug/L		99
93) m,p-xylene	13.859	106	248412	38.27	ug/L		99
94) o-xylene	14.278	91	255190	18.94	ug/L		99
95) styrene	14.289	104	209103	19.33	ug/L		96
96) butyl acrylate	14.100	55	124926	19.51	ug/L		98
97) bromoform	14.556	173	41818	20.26	ug/L		99
98) isopropylbenzene	14.614	105	319175	19.33	ug/L		99
99) cis-1,4-dichloro-2-butene	14.692	75	25387	19.31	ug/L		98
102) bromobenzene	15.017	156	83141	19.32	ug/L		99
103) 1,1,2,2-tetrachloroethane	14.923	83	74824	18.86	ug/L		99
104) trans-1,4-dichloro-2-b...	14.965	53	17505	19.23	ug/L		98
105) 1,2,3-trichloropropane	14.996	110	20803	19.31	ug/L		100
106) n-propylbenzene	15.017	91	377214	18.87	ug/L		99
107) 2-chlorotoluene	15.169	126	77777	19.26	ug/L		96
108) 4-chlorotoluene	15.269	91	220881	18.51	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143856.D
Acq On : 14 Jun 2018 7:55 pm
Operator : sydneys
Sample : ic6300-20
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 11:35:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.169	105	270292	18.98	ug/L	100
110) tert-butylbenzene	15.510	119	230350	18.53	ug/L	98
111) 1,2,4-trimethylbenzene	15.557	105	269128	19.04	ug/L	100
112) sec-butylbenzene	15.725	105	345820	19.13	ug/L	99
113) 1,3-dichlorobenzene	15.914	146	157671	18.83	ug/L	99
114) p-isopropyltoluene	15.841	119	295648	19.23	ug/L	99
115) 1,4-dichlorobenzene	15.993	146	159073	18.61	ug/L	99
116) 1,2-dichlorobenzene	16.370	146	154441	18.83	ug/L	100
117) n-butylbenzene	16.239	92	151400	19.15	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.099	157	17297	19.06	ug/L	91
119) 1,3,5-trichlorobenzene	17.267	180	140417	19.26	ug/L	97
120) 1,2,4-trichlorobenzene	17.843	180	118820	18.77	ug/L	98
121) 2-ethylhexyl acrylate	17.801	70	17194	3.82	ug/L	98
122) hexachlorobutadiene	17.943	225	61966	19.53	ug/L	96
123) naphthalene	18.100	128	252064	19.60	ug/L	99
124) 1,2,3-trichlorobenzene	18.331	180	104976	18.92	ug/L	99
125) hexachloroethane	16.616	201	49191	19.97	ug/L	96
126) benzyl chloride	16.108	91	143144	19.04	ug/L	99
127) 2-methylnaphthalene	19.201	142	68892	10.10	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

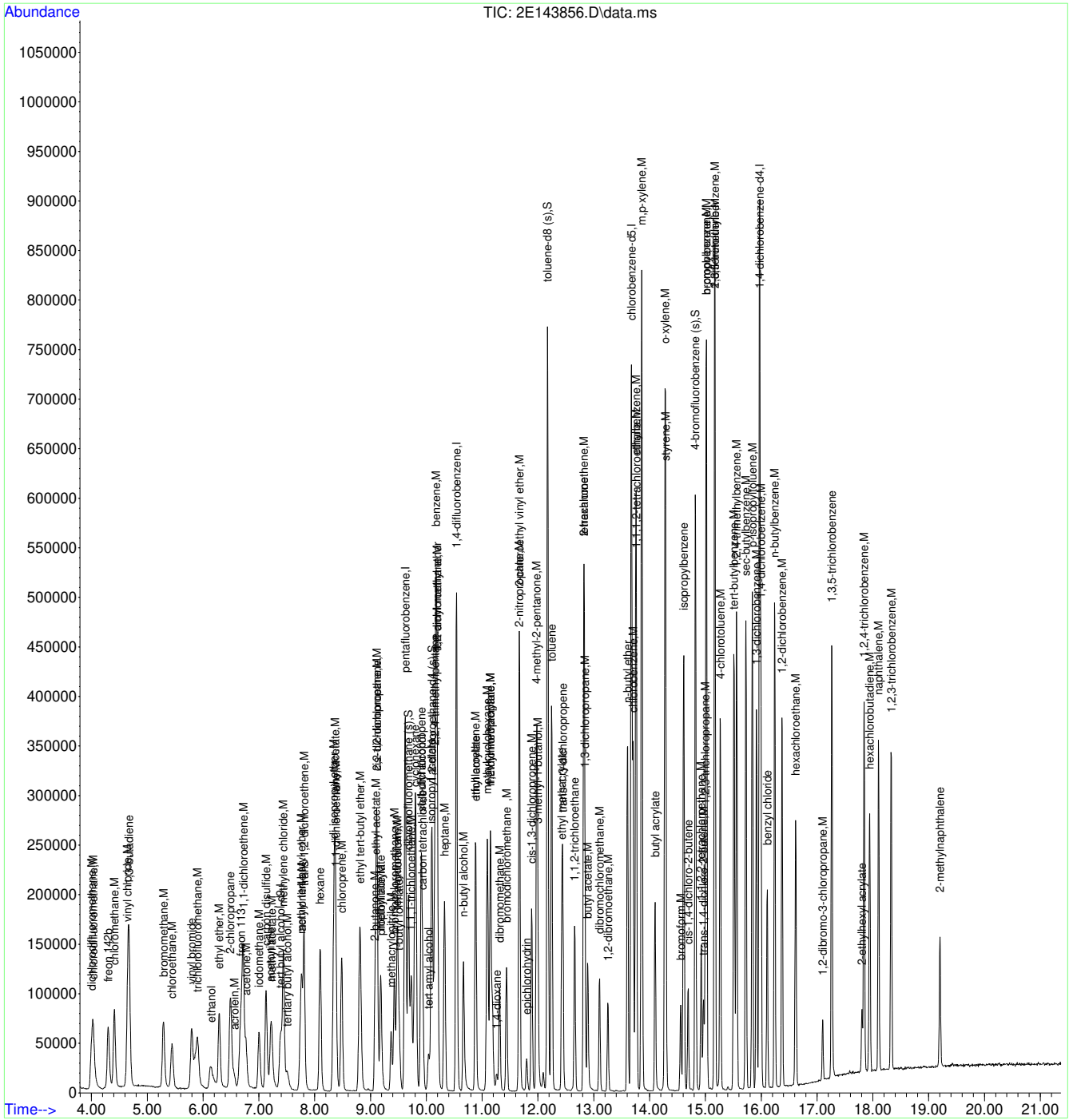
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Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143856.D
Acq On : 14 Jun 2018 7:55 pm
Operator : sydneys
Sample : ic6300-20
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 15 11:35:57 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143857.D
Acq On : 14 Jun 2018 8:24 pm
Operator : sydneys
Sample : icc6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 11:36:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.384	65	140863	500.00	ug/L	0.00
5) pentafluorobenzene	9.622	168	321604	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.540	114	466203	50.00	ug/L	0.00
77) chlorobenzene-d5	13.675	117	417705	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.972	152	228519	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	135131	50.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.34%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	143144	49.72	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.44%			
78) toluene-d8 (s)	12.170	98	543464	50.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%			
101) 4-bromofluorobenzene (s)	14.818	95	198340	49.73	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.46%			
Target Compounds						Qvalue
2) ethanol	6.130	45	156003	4742.15	ug/L	100
3) tertiary butyl alcohol	7.504	59	90718	243.14	ug/L	100
4) 1,4-dioxane	11.258	88	34372	1214.31	ug/L	100
6) chlorodifluoromethane	4.023	51	221602	47.98	ug/L	100
7) dichlorodifluoromethane	3.997	85	263398	49.98	ug/L	100
9) freon 142b	4.290	65	244478	49.48	ug/L	100
10) chloromethane	4.400	50	332325	47.35	ug/L	100
11) vinyl chloride	4.636	62	310259	48.32	ug/L	100
12) bromomethane	5.281	94	183868	46.71	ug/L	100
13) chloroethane	5.433	64	175636	46.96	ug/L	100
14) trichlorofluoromethane	5.889	101	269815	48.24	ug/L	100
15) 1,3-butadiene	4.662	54	260950	47.75	ug/L	100
16) vinyl bromide	5.784	106	184314	47.19	ug/L	100
17) ethyl ether	6.283	74	113119	47.20	ug/L	100
18) 2-chloropropane	6.482	43	309628	47.07	ug/L	100
19) acrolein	6.550	56	37462	46.51	ug/L	100
20) freon 113	6.676	151	132130	48.55	ug/L	100
21) 1,1-dichloroethene	6.712	61	276225	47.41	ug/L	100
22) acetone	6.760	58	58010	182.65	ug/L	99
23) acetonitrile	7.205	41	227194	498.59	ug/L	100
24) iodomethane	6.996	142	247046	48.70	ug/L	100
25) carbon disulfide	7.121	76	520757	47.46	ug/L	100
26) methylene chloride	7.436	84	185677	46.84	ug/L	100
27) methyl acetate	7.226	43	130948	45.83	ug/L	100
28) methyl tert butyl ether	7.751	73	478617	47.75	ug/L	100
29) trans-1,2-dichloroethene	7.803	61	238804	47.58	ug/L	100
30) hexane	8.097	56	118886	47.61	ug/L	100
31) di-isopropyl ether	8.343	45	578062	47.34	ug/L	100
32) ethyl tert-butyl ether	8.810	59	549661	48.18	ug/L	100
33) 2-butanone	9.072	72	70968	203.18	ug/L	100
34) 1,1-dichloroethane	8.375	63	305577	47.00	ug/L	100
35) chloroprene	8.479	53	261134	48.58	ug/L	100
36) acrylonitrile	7.761	53	61161	49.68	ug/L	100
37) vinyl acetate	8.354	86	35304	49.42	ug/L	100
38) ethyl acetate	9.093	45	22964	48.48	ug/L	100
39) 2,2-dichloropropane	9.109	77	227211	46.13	ug/L	100
40) cis-1,2-dichloroethene	9.109	96	191111	46.82	ug/L	100
41) propionitrile	9.182	54	249420	494.37	ug/L	100
42) methyl acrylate	9.171	85	24396	51.60	ug/L	100
43) bromochloromethane	9.423	128	89262	48.34	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143857.D
Acq On : 14 Jun 2018 8:24 pm
Operator : sydneys
Sample : icc6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 11:36:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
44)	tetrahydrofuran	9.460	72	22008	50.45	ug/L	100
45)	chloroform	9.476	83	284611	47.61	ug/L	100
46)	t-butyl formate	9.507	59	134319	50.64	ug/L	100
47)	1,1-dichloropropene	9.905	75	230299	47.02	ug/L	100
48)	carbon tetrachloride	9.926	117	200617	47.77	ug/L	100
49)	isopropyl acetate	10.089	87	38074	49.52	ug/L	100
51)	methacrylonitrile	9.365	67	66810	51.64	ug/L	100
52)	1,1,1-trichloroethane	9.727	97	247019	47.58	ug/L	100
53)	cyclohexane	9.795	84	255563	47.92	ug/L	100
54)	iso-butyl alcohol	9.911	43	67498	491.49	ug/L	100
55)	tert amyl alcohol	10.037	73	45007	242.90	ug/L	100
58)	2,2,4-trimethylpentane	10.152	57	646424	47.82	ug/L	100
59)	n-butyl alcohol	10.660	56	225396	2517.53	ug/L	100
60)	benzene	10.168	78	708556	45.97	ug/L	100
61)	tert-amyl methyl ether	10.194	73	532273	45.59	ug/L	100
62)	heptane	10.325	57	125223	46.87	ug/L	100
63)	1,2-dichloroethane	10.189	62	203082	45.89	ug/L	100
64)	ethyl acrylate	10.881	55	195814	50.14	ug/L	100
65)	trichloroethene	10.881	95	168431	46.47	ug/L	100
66)	2-nitropropane	11.657	41	49382	47.41	ug/L	100
67)	2-chloroethyl vinyl ether	11.667	63	521614	246.59	ug/L	100
68)	methyl methacrylate	11.143	100	45447	53.33	ug/L	100
69)	1,2-dichloropropane	11.148	63	182437	48.41	ug/L	100
70)	methylcyclohexane	11.090	83	309666	47.28	ug/L	100
71)	dibromomethane	11.311	93	97695	48.32	ug/L	100
72)	bromodichloromethane	11.436	83	219835	48.95	ug/L	100
73)	epichlorohydrin	11.793	57	81401	254.09	ug/L	100
74)	cis-1,3-dichloropropene	11.887	75	285274	48.19	ug/L	100
75)	4-methyl-2-pentanone	11.976	58	247948	199.98	ug/L	100
76)	3-methyl-1-butanol	11.992	70	96842	1027.94	ug/L	100
79)	toluene	12.244	92	432971	46.67	ug/L	100
80)	ethyl methacrylate	12.427	69	217362	50.48	ug/L	100
81)	trans-1,3-dichloropropene	12.443	75	245561	48.85	ug/L	100
82)	1,1,2-trichloroethane	12.658	83	122256	47.29	ug/L	100
83)	tetrachloroethene	12.826	164	148082	47.79	ug/L	100
84)	2-hexanone	12.821	58	232692	206.21	ug/L	100
85)	1,3-dichloropropane	12.836	76	250625	47.29	ug/L	100
86)	butyl acetate	12.889	56	105454	49.62	ug/L	100
87)	dibromochloromethane	13.104	129	161246	50.78	ug/L	100
88)	1,2-dibromoethane	13.251	107	159305	49.38	ug/L	100
89)	n-butyl ether	13.602	57	767899	48.63	ug/L	100
90)	chlorobenzene	13.701	112	463130	47.37	ug/L	100
91)	1,1,1,2-tetrachloroethane	13.764	131	167109	49.13	ug/L	100
92)	ethylbenzene	13.754	91	801235	47.01	ug/L	100
93)	m,p-xylene	13.859	106	623054	95.46	ug/L	100
94)	o-xylene	14.273	91	647478	47.80	ug/L	100
95)	styrene	14.283	104	533927	49.10	ug/L	100
96)	butyl acrylate	14.095	55	321246	49.89	ug/L	100
97)	bromoform	14.556	173	109596	52.81	ug/L	100
98)	isopropylbenzene	14.608	105	804789	48.49	ug/L	100
99)	cis-1,4-dichloro-2-butene	14.687	75	68909	52.14	ug/L	100
102)	bromobenzene	15.017	156	211400	48.78	ug/L	100
103)	1,1,2,2-tetrachloroethane	14.923	83	190267	47.60	ug/L	100
104)	trans-1,4-dichloro-2-b...	14.960	53	44942	49.02	ug/L	100
105)	1,2,3-trichloropropane	14.996	110	52862	48.71	ug/L	100
106)	n-propylbenzene	15.017	91	944973	46.92	ug/L	100
107)	2-chlorotoluene	15.169	126	196214	48.24	ug/L	100
108)	4-chlorotoluene	15.264	91	561390	46.70	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143857.D
Acq On : 14 Jun 2018 8:24 pm
Operator : sydneys
Sample : icc6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 11:36:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

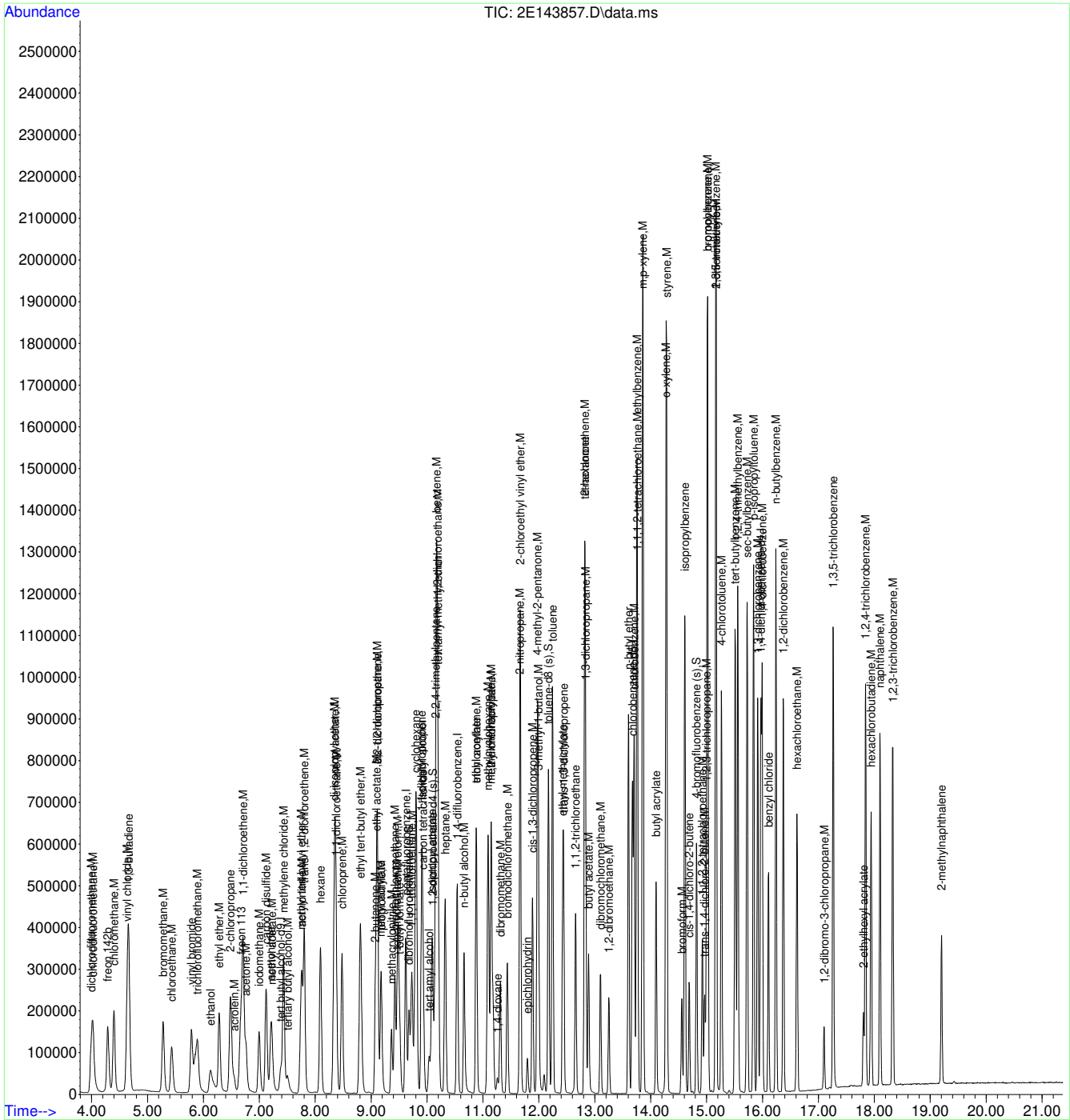
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.164	105	684696	47.72	ug/L	100
110) tert-butylbenzene	15.510	119	585618	46.77	ug/L	100
111) 1,2,4-trimethylbenzene	15.557	105	683264	48.00	ug/L	100
112) sec-butylbenzene	15.725	105	877128	48.18	ug/L	100
113) 1,3-dichlorobenzene	15.914	146	392874	46.58	ug/L	100
114) p-isopropyltoluene	15.841	119	742560	47.96	ug/L	100
115) 1,4-dichlorobenzene	15.993	146	402505	46.74	ug/L	100
116) 1,2-dichlorobenzene	16.370	146	388604	47.03	ug/L	100
117) n-butylbenzene	16.239	92	386795	48.57	ug/L	100
118) 1,2-dibromo-3-chloropr...	17.104	157	44538	48.71	ug/L	100
119) 1,3,5-trichlorobenzene	17.267	180	354711	48.30	ug/L	100
120) 1,2,4-trichlorobenzene	17.843	180	303126	47.55	ug/L	100
121) 2-ethylhexyl acrylate	17.807	70	46760	10.32	ug/L	100
122) hexachlorobutadiene	17.943	225	152785	47.81	ug/L	100
123) naphthalene	18.100	128	644267	49.74	ug/L	100
124) 1,2,3-trichlorobenzene	18.331	180	271634	48.60	ug/L	100
125) hexachloroethane	16.617	201	128170	51.64	ug/L	100
126) benzyl chloride	16.108	91	367845	48.57	ug/L	100
127) 2-methylnaphthalene	19.201	142	180671	26.29	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143857.D
Acq On : 14 Jun 2018 8:24 pm
Operator : sydneys
Sample : icc6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 15 11:36:17 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143858.D
Acq On : 14 Jun 2018 8:52 pm
Operator : sydneys
Sample : ic6300-100
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 11:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.389	65	135114	500.00	ug/L		0.00
5) pentafluorobenzene	9.617	168	316128	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	464601	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	423354	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	230816	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	135715	51.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.52%				
57) 1,2-dichloroethane-d4 (s)	10.100	65	145692	50.78	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.56%				
78) toluene-d8 (s)	12.171	98	545540	49.71	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.42%				
101) 4-bromofluorobenzene (s)	14.818	95	201301	49.97	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.94%				
Target Compounds							Qvalue
2) ethanol	6.131	45	278695	8832.19	ug/L		98
3) tertiary butyl alcohol	7.509	59	171334	478.74	ug/L		97
4) 1,4-dioxane	11.258	88	62460	2300.51	ug/L		93
6) chlorodifluoromethane	4.023	51	446271	98.30	ug/L		99
7) dichlorodifluoromethane	3.997	85	529830	102.28	ug/L		98
9) freon 142b	4.290	65	488582	100.60	ug/L		98
10) chloromethane	4.400	50	672954	97.53	ug/L		100
11) vinyl chloride	4.636	62	631908	100.12	ug/L		99
12) bromomethane	5.276	94	379770	98.15	ug/L		99
13) chloroethane	5.433	64	363239	98.81	ug/L		99
14) trichlorofluoromethane	5.895	101	557746	101.46	ug/L		100
15) 1,3-butadiene	4.662	54	539764	100.48	ug/L		100
16) vinyl bromide	5.784	106	384009	100.01	ug/L		96
17) ethyl ether	6.283	74	232212	98.56	ug/L		98
18) 2-chloropropane	6.482	43	638210	98.70	ug/L		99
19) acrolein	6.545	56	74852	94.54	ug/L		99
20) freon 113	6.676	151	276232	103.26	ug/L		96
21) 1,1-dichloroethene	6.713	61	569121	99.38	ug/L		99
22) acetone	6.765	58	115274	369.25	ug/L		94
23) acetonitrile	7.205	41	448454	1001.20	ug/L		100
24) iodomethane	6.996	142	500291	100.34	ug/L		98
25) carbon disulfide	7.121	76	1070912	99.29	ug/L		99
26) methylene chloride	7.436	84	398685	102.32	ug/L		98
27) methyl acetate	7.226	43	264216	94.07	ug/L		99
28) methyl tert butyl ether	7.756	73	972003	98.65	ug/L		99
29) trans-1,2-dichloroethene	7.803	61	487011	98.72	ug/L		98
30) hexane	8.091	56	243208	99.09	ug/L		99
31) di-isopropyl ether	8.343	45	1185939	98.80	ug/L		99
32) ethyl tert-butyl ether	8.810	59	1126163	100.42	ug/L		98
33) 2-butanone	9.072	72	139864	407.36	ug/L		94
34) 1,1-dichloroethane	8.375	63	618385	96.75	ug/L		98
35) chloroprene	8.479	53	531028	100.51	ug/L		99
36) acrylonitrile	7.766	53	120629	99.67	ug/L		99
37) vinyl acetate	8.359	86	73951	105.31	ug/L	#	81
38) ethyl acetate	9.093	45	47574	102.17	ug/L	#	92
39) 2,2-dichloropropane	9.109	77	462453	95.51	ug/L		99
40) cis-1,2-dichloroethene	9.109	96	389463	97.06	ug/L		100
41) propionitrile	9.182	54	497232	1002.63	ug/L		98
42) methyl acrylate	9.171	85	48592	104.56	ug/L		97
43) bromochloromethane	9.423	128	181143	99.80	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143858.D
Acq On : 14 Jun 2018 8:52 pm
Operator : sydneys
Sample : ic6300-100
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 11:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	tetrahydrofuran	9.465	72	43214	100.78	ug/L		94
45)	chloroform	9.476	83	581876	99.02	ug/L		99
46)	t-butyl formate	9.507	59	277610	106.48	ug/L		96
47)	1,1-dichloropropene	9.906	75	471647	97.97	ug/L		98
48)	carbon tetrachloride	9.926	117	415117	100.57	ug/L		98
49)	isopropyl acetate	10.084	87	77074	101.97	ug/L	#	81
51)	methacrylonitrile	9.360	67	133927	105.30	ug/L		97
52)	1,1,1-trichloroethane	9.727	97	504622	98.87	ug/L		99
53)	cyclohexane	9.795	84	508859	97.07	ug/L		96
54)	iso-butyl alcohol	9.911	43	127763	946.43	ug/L		95
55)	tert amyl alcohol	10.042	73	84260	462.63	ug/L		97
58)	2,2,4-trimethylpentane	10.157	57	1355233	100.59	ug/L		98
59)	n-butyl alcohol	10.661	56	422520	4735.55	ug/L		98
60)	benzene	10.168	78	1455115	94.74	ug/L		100
61)	tert-amyl methyl ether	10.194	73	1085494	93.30	ug/L		99
62)	heptane	10.325	57	257253	96.63	ug/L		97
63)	1,2-dichloroethane	10.189	62	418150	94.81	ug/L		97
64)	ethyl acrylate	10.875	55	403308	103.62	ug/L		98
65)	trichloroethene	10.881	95	346250	95.86	ug/L		100
66)	2-nitropropane	11.657	41	101149	97.44	ug/L		100
67)	2-chloroethyl vinyl ether	11.667	63	1074254	509.60	ug/L		100
68)	methyl methacrylate	11.143	100	93282	109.85	ug/L		96
69)	1,2-dichloropropane	11.148	63	375301	99.93	ug/L		99
70)	methylcyclohexane	11.096	83	647443	99.20	ug/L		98
71)	dibromomethane	11.311	93	200985	99.76	ug/L		100
72)	bromodichloromethane	11.436	83	458555	102.46	ug/L		99
73)	epichlorohydrin	11.798	57	161019	504.35	ug/L		99
74)	cis-1,3-dichloropropene	11.887	75	598269	101.41	ug/L		100
75)	4-methyl-2-pentanone	11.977	58	503893	407.81	ug/L		99
76)	3-methyl-1-butanol	11.992	70	178894	1905.43	ug/L		98
79)	toluene	12.244	92	884606	94.07	ug/L		98
80)	ethyl methacrylate	12.427	69	449228	102.94	ug/L		99
81)	trans-1,3-dichloropropene	12.443	75	508138	99.74	ug/L		99
82)	1,1,2-trichloroethane	12.658	83	253379	96.71	ug/L		98
83)	tetrachloroethene	12.826	164	305354	97.23	ug/L		97
84)	2-hexanone	12.821	58	467669	408.92	ug/L		97
85)	1,3-dichloropropane	12.836	76	515510	95.97	ug/L		99
86)	butyl acetate	12.889	56	211540	98.21	ug/L		97
87)	dibromochloromethane	13.099	129	335560	104.27	ug/L		97
88)	1,2-dibromoethane	13.251	107	330136	100.98	ug/L		96
89)	n-butyl ether	13.602	57	1605829	100.34	ug/L		99
90)	chlorobenzene	13.701	112	958058	96.69	ug/L		100
91)	1,1,1,2-tetrachloroethane	13.764	131	349555	101.39	ug/L		99
92)	ethylbenzene	13.754	91	1663626	96.31	ug/L		100
93)	m,p-xylene	13.859	106	1298659	196.32	ug/L		99
94)	o-xylene	14.273	91	1341258	97.69	ug/L		99
95)	styrene	14.289	104	1105561	100.32	ug/L		97
96)	butyl acrylate	14.095	55	662723	101.55	ug/L		99
97)	bromoform	14.556	173	228410	108.59	ug/L		99
98)	isopropylbenzene	14.614	105	1671223	99.35	ug/L		99
99)	cis-1,4-dichloro-2-butene	14.687	75	143447	107.09	ug/L		98
102)	bromobenzene	15.012	156	436921	99.81	ug/L		93
103)	1,1,2,2-tetrachloroethane	14.923	83	393542	97.48	ug/L		98
104)	trans-1,4-dichloro-2-b...	14.965	53	93608	101.09	ug/L		84
105)	1,2,3-trichloropropane	14.996	110	107551	98.11	ug/L		99
106)	n-propylbenzene	15.017	91	1961919	96.45	ug/L		100
107)	2-chlorotoluene	15.170	126	410376	99.89	ug/L		98
108)	4-chlorotoluene	15.264	91	1159981	95.54	ug/L		100

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143858.D
Acq On : 14 Jun 2018 8:52 pm
Operator : sydneys
Sample : ic6300-100
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 11:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration

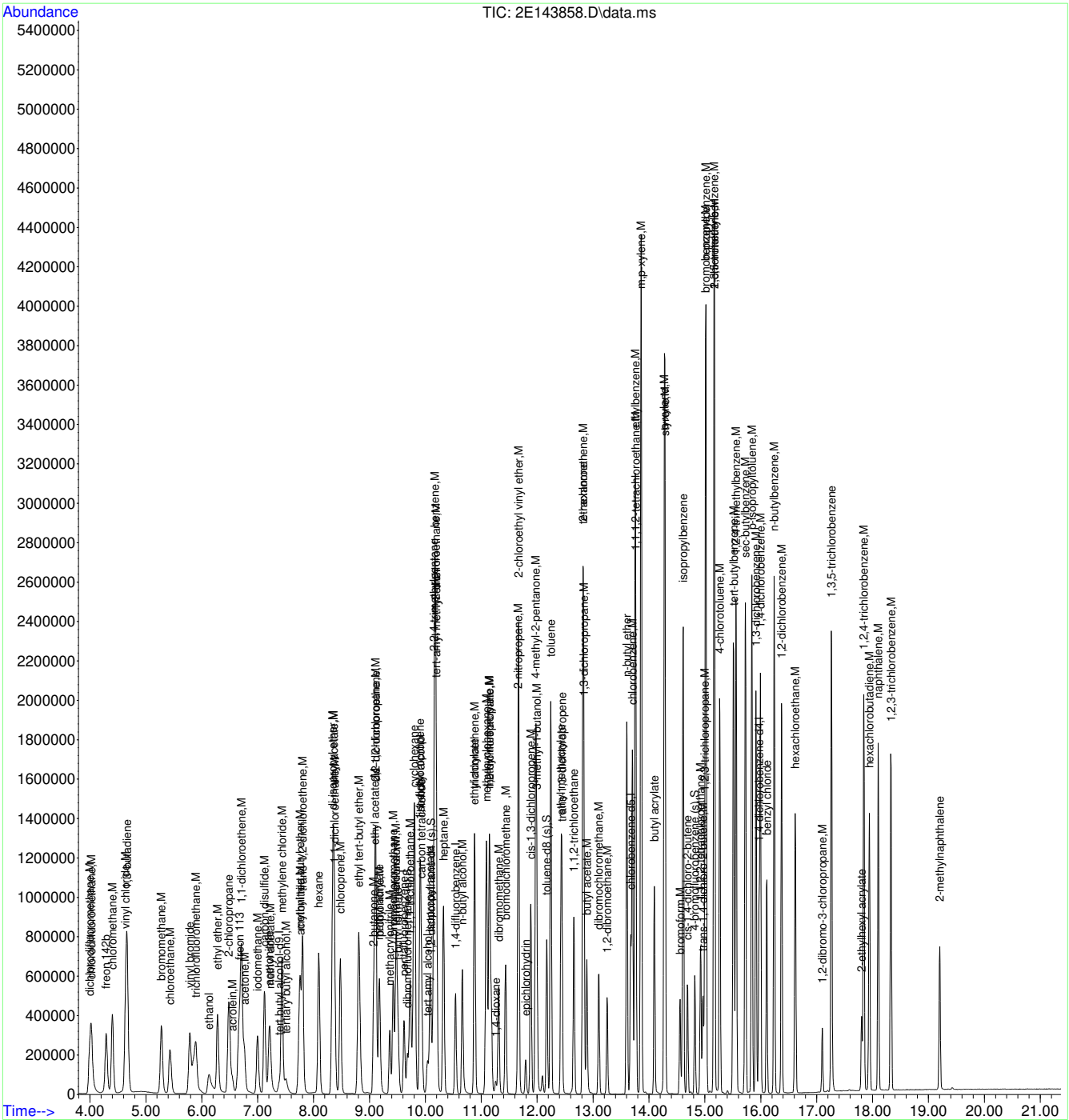
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.164	105	1430236	98.69	ug/L	100
110) tert-butylbenzene	15.516	119	1218650	96.36	ug/L	97
111) 1,2,4-trimethylbenzene	15.557	105	1427272	99.26	ug/L	99
112) sec-butylbenzene	15.725	105	1821127	99.03	ug/L	99
113) 1,3-dichlorobenzene	15.914	146	826092	96.98	ug/L	100
114) p-isopropyltoluene	15.841	119	1545598	98.83	ug/L	99
115) 1,4-dichlorobenzene	15.993	146	836571	96.19	ug/L	99
116) 1,2-dichlorobenzene	16.370	146	805482	96.52	ug/L	100
117) n-butylbenzene	16.239	92	803605	99.90	ug/L	100
118) 1,2-dibromo-3-chloropr...	17.099	157	94395	102.21	ug/L	96
119) 1,3,5-trichlorobenzene	17.267	180	745624	100.51	ug/L	99
120) 1,2,4-trichlorobenzene	17.843	180	631003	97.99	ug/L	99
121) 2-ethylhexyl acrylate	17.802	70	102109	22.31	ug/L	99
122) hexachlorobutadiene	17.943	225	321635	99.65	ug/L	99
123) naphthalene	18.100	128	1313647	100.40	ug/L	99
124) 1,2,3-trichlorobenzene	18.331	180	563664	99.85	ug/L	98
125) hexachloroethane	16.617	201	274857	109.65	ug/L	98
126) benzyl chloride	16.108	91	763200	99.76	ug/L	99
127) 2-methylnaphthalene	19.201	142	377115	54.33	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143858.D
Acq On : 14 Jun 2018 8:52 pm
Operator : sydneys
Sample : ic6300-100
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 15 11:37:02 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 08:03:47 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143859.D
Acq On : 14 Jun 2018 9:20 pm
Operator : sydneys
Sample : ic6300-200
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 07:42:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.394	65	131929	500.00	ug/L		0.01
5) pentafluorobenzene	9.622	168	343982	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	502443	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	458321	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.972	152	252311	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	145264	50.25	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.50%				
57) 1,2-dichloroethane-d4 (s)	10.100	65	151830	49.07	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.14%				
78) toluene-d8 (s)	12.171	98	587705	49.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.56%				
101) 4-bromofluorobenzene (s)	14.818	95	219253	50.06	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.12%				
Target Compounds							Qvalue
2) ethanol	6.141	45	492891	17388.91	ug/L		95
3) tertiary butyl alcohol	7.515	59	338981	986.08	ug/L		93
4) 1,4-dioxane	11.258	88	124821	4853.17	ug/L		93
6) chlorodifluoromethane	4.028	51	894445	188.68	ug/L		99
7) dichlorodifluoromethane	4.007	85	1098404	194.69	ug/L		97
9) freon 142b	4.295	65	958689	183.31	ug/L		96
10) chloromethane	4.406	50	1321571	185.55	ug/L		99
11) vinyl chloride	4.642	62	1289988	194.36	ug/L		98
12) bromomethane	5.281	94	786818	200.04	ug/L		99
13) chloroethane	5.433	64	736330	195.77	ug/L		99
14) trichlorofluoromethane	5.895	101	1160514	201.07	ug/L		98
15) 1,3-butadiene	4.668	54	1055870	189.15	ug/L		99
16) vinyl bromide	5.790	106	801023	203.16	ug/L		99
17) ethyl ether	6.288	74	481196	198.86	ug/L		100
18) 2-chloropropane	6.487	43	1275968	192.64	ug/L		98
19) acrolein	6.555	56	160316	199.12	ug/L		100
20) freon 113	6.676	151	566366	200.38	ug/L		98
21) 1,1-dichloroethene	6.713	61	1155308	195.52	ug/L		99
22) acetone	6.765	58	234460	751.95	ug/L		99
23) acetonitrile	7.211	41	888018	1827.18	ug/L		99
24) iodomethane	7.001	142	1046070	197.94	ug/L		100
25) carbon disulfide	7.127	76	2173946	195.15	ug/L		99
26) methylene chloride	7.436	84	824644	207.62	ug/L		98
27) methyl acetate	7.226	43	537481	191.34	ug/L		98
28) methyl tert butyl ether	7.756	73	1985459	193.92	ug/L		98
29) trans-1,2-dichloroethene	7.803	61	998314	195.43	ug/L		98
30) hexane	8.097	56	484735	190.60	ug/L		97
31) di-isopropyl ether	8.343	45	2443259	196.82	ug/L		99
32) ethyl tert-butyl ether	8.815	59	2300359	195.60	ug/L		100
33) 2-butanone	9.072	72	291659	768.47	ug/L		99
34) 1,1-dichloroethane	8.375	63	1275268	195.09	ug/L		99
35) chloroprene	8.479	53	1087100	194.61	ug/L		99
36) acrylonitrile	7.766	53	247825	189.42	ug/L		96
37) vinyl acetate	8.359	86	153183	202.83	ug/L	#	87
38) ethyl acetate	9.093	45	92634	188.57	ug/L	#	87
39) 2,2-dichloropropane	9.114	77	938459	192.80	ug/L		100
40) cis-1,2-dichloroethene	9.114	96	813581	199.01	ug/L		96
41) propionitrile	9.182	54	1008299	1889.79	ug/L		96
42) methyl acrylate	9.172	85	103312	197.96	ug/L		96
43) bromochloromethane	9.428	128	376554	197.20	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143859.D
Acq On : 14 Jun 2018 9:20 pm
Operator : sydneys
Sample : ic6300-200
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 07:42:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	tetrahydrofuran	9.460	72	88030	186.98	ug/L		89
45)	chloroform	9.481	83	1201177	197.29	ug/L		99
46)	t-butyl formate	9.507	59	563949	196.27	ug/L		97
47)	1,1-dichloropropene	9.906	75	977005	198.32	ug/L		98
48)	carbon tetrachloride	9.932	117	861037	200.64	ug/L		96
49)	isopropyl acetate	10.089	87	161615	198.43	ug/L		95
51)	methacrylonitrile	9.366	67	279512	195.58	ug/L		97
52)	1,1,1-trichloroethane	9.733	97	1048697	198.46	ug/L		99
53)	cyclohexane	9.801	84	1106622	202.25	ug/L	#	88
54)	iso-butyl alcohol	9.911	43	253654	1756.74	ug/L		95
55)	tert amyl alcohol	10.042	73	166369	853.43	ug/L		99
58)	2,2,4-trimethylpentane	10.157	57	2742744	196.85	ug/L		99
59)	n-butyl alcohol	10.666	56	827163	8496.76	ug/L		96
60)	benzene	10.173	78	2999645	196.41	ug/L		100
61)	tert-amyl methyl ether	10.194	73	2205595	191.76	ug/L		99
62)	heptane	10.325	57	518816	192.22	ug/L		99
63)	1,2-dichloroethane	10.189	62	860823	196.65	ug/L		100
64)	ethyl acrylate	10.881	55	830232	196.70	ug/L		99
65)	trichloroethene	10.881	95	719213	198.10	ug/L		100
66)	2-nitropropane	11.657	41	206463	192.51	ug/L	#	78
67)	2-chloroethyl vinyl ether	11.667	63	2213881	983.56	ug/L		100
68)	methyl methacrylate	11.143	100	198004	202.13	ug/L		94
69)	1,2-dichloropropane	11.148	63	776147	197.37	ug/L		99
70)	methylcyclohexane	11.096	83	1327252	198.85	ug/L		98
71)	dibromomethane	11.311	93	420327	199.26	ug/L		99
72)	bromodichloromethane	11.437	83	958272	202.23	ug/L		98
73)	epichlorohydrin	11.793	57	326293	929.84	ug/L		98
74)	cis-1,3-dichloropropene	11.887	75	1253192	203.80	ug/L		99
75)	4-methyl-2-pentanone	11.977	58	1011986	757.41	ug/L		97
76)	3-methyl-1-butanol	11.992	70	349641	3327.41	ug/L		97
79)	toluene	12.244	92	1857335	195.48	ug/L		99
80)	ethyl methacrylate	12.427	69	937366	196.35	ug/L		97
81)	trans-1,3-dichloropropene	12.443	75	1060466	196.79	ug/L		99
82)	1,1,2-trichloroethane	12.658	83	524591	195.53	ug/L		98
83)	tetrachloroethene	12.826	164	646069	198.81	ug/L		97
84)	2-hexanone	12.821	58	943269	738.90	ug/L		96
85)	1,3-dichloropropane	12.836	76	1070605	194.66	ug/L		99
86)	butyl acetate	12.889	56	435386	188.14	ug/L		97
87)	dibromochloromethane	13.104	129	713694	201.69	ug/L		98
88)	1,2-dibromoethane	13.251	107	695838	198.73	ug/L		97
89)	n-butyl ether	13.607	57	3318326	196.92	ug/L		98
90)	chlorobenzene	13.707	112	2003916	197.17	ug/L		98
91)	1,1,1,2-tetrachloroethane	13.764	131	744152	202.92	ug/L		99
92)	ethylbenzene	13.754	91	3450525	196.24	ug/L		99
93)	m,p-xylene	13.859	106	2703295	395.43	ug/L		97
94)	o-xylene	14.278	91	2786481	195.80	ug/L		99
95)	styrene	14.289	104	2308478	196.92	ug/L		99
96)	butyl acrylate	14.095	55	1370097	194.35	ug/L		99
97)	bromoform	14.556	173	488537	203.13	ug/L		100
98)	isopropylbenzene	14.614	105	3455791	195.62	ug/L		99
99)	cis-1,4-dichloro-2-butene	14.687	75	303381	200.62	ug/L		100
102)	bromobenzene	15.012	156	938512	201.04	ug/L		95
103)	1,1,2,2-tetrachloroethane	14.923	83	820539	195.30	ug/L		99
104)	trans-1,4-dichloro-2-b...	14.965	53	195737	197.23	ug/L		91
105)	1,2,3-trichloropropane	14.997	110	225278	192.99	ug/L		96
106)	n-propylbenzene	15.018	91	4049788	194.07	ug/L		99
107)	2-chlorotoluene	15.170	126	865774	199.82	ug/L		100
108)	4-chlorotoluene	15.269	91	2431797	196.16	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143859.D
Acq On : 14 Jun 2018 9:20 pm
Operator : sydneys
Sample : ic6300-200
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 07:42:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration

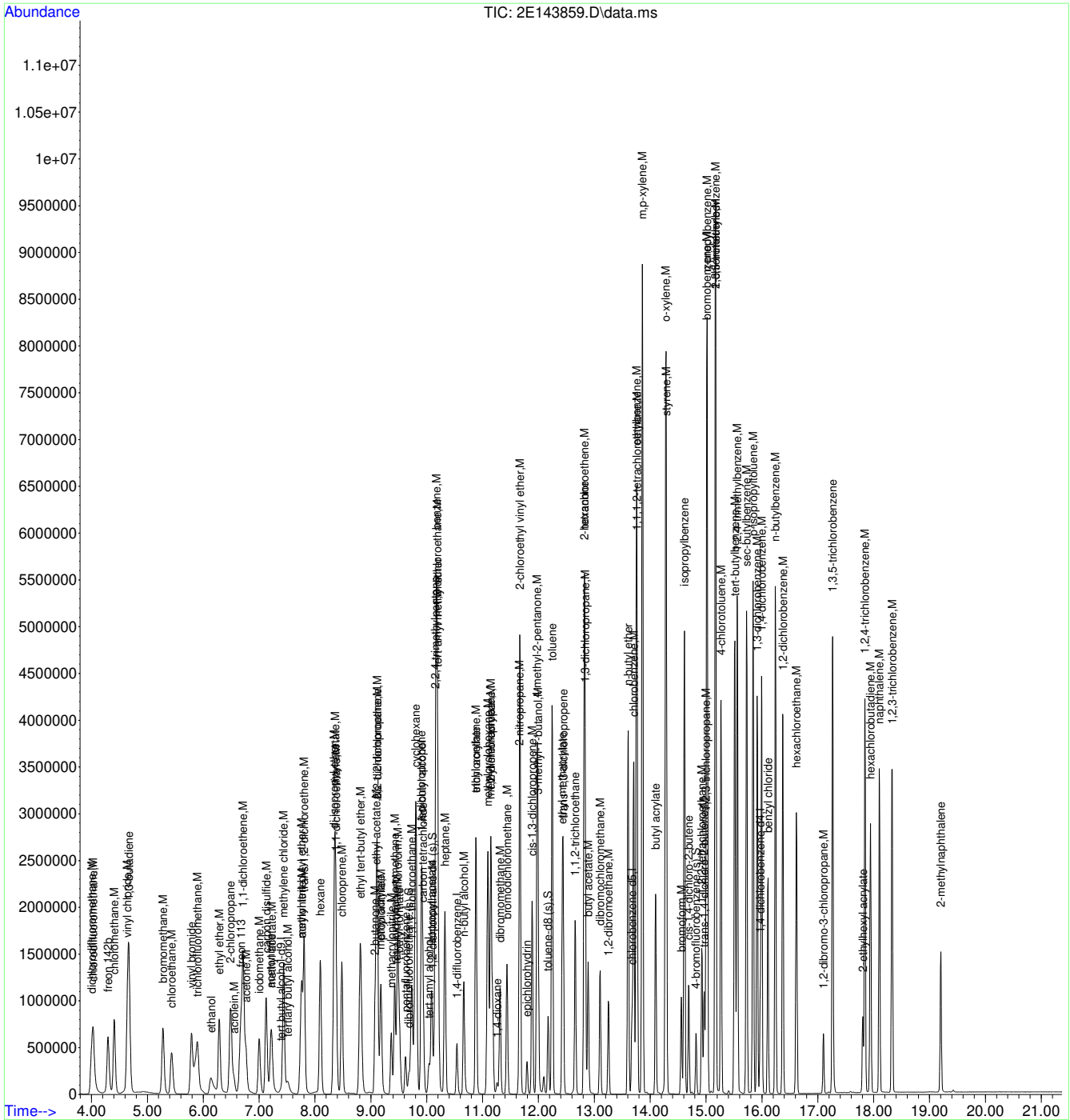
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
109) 1,3,5-trimethylbenzene	15.170	105	2987006	197.56	ug/L	99
110) tert-butylbenzene	15.516	119	2591641	197.34	ug/L	98
111) 1,2,4-trimethylbenzene	15.558	105	2981661	197.56	ug/L	99
112) sec-butylbenzene	15.725	105	3766382	194.51	ug/L	98
113) 1,3-dichlorobenzene	15.914	146	1734717	199.95	ug/L	99
114) p-isopropyltoluene	15.841	119	3214243	196.02	ug/L	98
115) 1,4-dichlorobenzene	15.993	146	1770200	199.16	ug/L	99
116) 1,2-dichlorobenzene	16.375	146	1699407	198.04	ug/L	99
117) n-butylbenzene	16.239	92	1673796	195.96	ug/L	98
118) 1,2-dibromo-3-chloropr...	17.099	157	192133	195.36	ug/L	97
119) 1,3,5-trichlorobenzene	17.267	180	1553987	198.39	ug/L	100
120) 1,2,4-trichlorobenzene	17.843	180	1310883	195.84	ug/L	99
121) 2-ethylhexyl acrylate	17.807	70	214454	41.54	ug/L	97
122) hexachlorobutadiene	17.943	225	666188	197.46	ug/L	98
123) naphthalene	18.100	128	2625121	184.23	ug/L	99
124) 1,2,3-trichlorobenzene	18.331	180	1160455	193.46	ug/L	100
125) hexachloroethane	16.617	201	595611	210.44	ug/L	97
126) benzyl chloride	16.108	91	1583220	195.07	ug/L	99
127) 2-methylnaphthalene	19.201	142	774137	97.02	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143859.D
Acq On : 14 Jun 2018 9:20 pm
Operator : sydneys
Sample : ic6300-200
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 15 07:42:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 07:37:23 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143862.D
Acq On : 14 Jun 2018 10:46 pm
Operator : sydneys
Sample : icv6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 15 11:45:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:45:10 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
Internal Standards							
1) tert butyl alcohol-d9	7.384	65	139719	500.00	ug/L		0.00
5) pentafluorobenzene	9.617	168	314276	50.00	ug/L		0.00
56) 1,4-difluorobenzene	10.540	114	463481	50.00	ug/L		0.00
77) chlorobenzene-d5	13.675	117	414206	50.00	ug/L		0.00
100) 1,4-dichlorobenzene-d4	15.966	152	224400	50.00	ug/L		0.00
System Monitoring Compounds							
50) dibromofluoromethane (s)	9.680	113	132233	50.22	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.44%				
57) 1,2-dichloroethane-d4 (s)	10.100	65	141778	49.62	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 99.24%				
78) toluene-d8 (s)	12.171	98	538190	50.14	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%				
101) 4-bromofluorobenzene (s)	14.818	95	196924	50.28	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.56%				
Target Compounds							Qvalue
2) ethanol	6.131	45	149429	4456.08	ug/L		98
3) tertiary butyl alcohol	7.504	59	89341	241.61	ug/L		94
4) 1,4-dioxane	11.258	88	32375	1152.22	ug/L		91
6) chlorodifluoromethane	4.023	51	226525	50.17	ug/L		99
7) dichlorodifluoromethane	3.997	85	250278	48.63	ug/L		95
9) freon 142b	4.290	65	231472	47.92	ug/L		99
10) chloromethane	4.400	50	381903	55.75	ug/L		97
11) vinyl chloride	4.636	62	323132	51.48	ug/L		98
12) bromomethane	5.281	94	193265	50.22	ug/L		99
13) chloroethane	5.433	64	178354	48.78	ug/L		100
14) trichlorofluoromethane	5.895	101	266726	48.78	ug/L		99
15) 1,3-butadiene	4.662	54	250450	46.87	ug/L		99
16) vinyl bromide	5.785	106	192759	50.48	ug/L		100
17) ethyl ether	6.288	74	112938	46.26	ug/L		94
18) 2-chloropropane	6.487	43	340285	52.99	ug/L		96
19) acrolein	6.545	56	41421	52.79	ug/L		94
20) freon 113	6.676	151	132419	49.77	ug/L		98
21) 1,1-dichloroethene	6.713	61	259466	45.55	ug/L		99
22) acetone	6.765	58	61302	197.54	ug/L		99
24) iodomethane	6.996	142	295414	59.57	ug/L		99
25) carbon disulfide	7.121	76	602491	56.16	ug/L		100
26) methylene chloride	7.436	84	193667	49.97	ug/L		98
27) methyl acetate	7.226	43	131624	49.32	ug/L		98
28) methyl tert butyl ether	7.751	73	978167	99.88	ug/L		91
29) trans-1,2-dichloroethene	7.803	61	236207	48.14	ug/L		99
30) hexane	8.091	56	104363	42.75	ug/L		97
31) di-isopropyl ether	8.343	45	606668	50.84	ug/L		98
32) ethyl tert-butyl ether	8.810	59	567956	50.92	ug/L		98
33) 2-butanone	9.072	72	73892	216.38	ug/L		96
34) 1,1-dichloroethane	8.375	63	305044	47.99	ug/L		100
35) chloroprene	8.479	53	265797	50.58	ug/L		97
36) acrylonitrile	7.766	53	69939	58.15	ug/L		99
37) vinyl acetate	8.359	86	38951	55.77	ug/L	#	70
38) ethyl acetate	9.088	45	23885	51.56	ug/L	#	45
39) 2,2-dichloropropane	9.109	77	221353	45.97	ug/L		97
40) cis-1,2-dichloroethene	9.109	96	194434	48.75	ug/L		98
41) propionitrile	9.182	54	255381	518.98	ug/L		98
42) methyl acrylate	9.172	85	24724	53.48	ug/L		93
43) bromochloromethane	9.423	128	89650	49.66	ug/L		97
44) tetrahydrofuran	9.460	72	22100	53.00	ug/L	#	80

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143862.D
Acq On : 14 Jun 2018 10:46 pm
Operator : sydneys
Sample : icv6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 15 11:45:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:45:10 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
45)	chloroform	9.476	83	287514	49.19	ug/L		99
46)	t-butyl formate	9.507	59	121788	46.97	ug/L		98
47)	1,1-dichloropropene	9.906	75	230110	48.08	ug/L		98
48)	carbon tetrachloride	9.927	117	199568	48.61	ug/L		98
49)	isopropyl acetate	10.084	87	38458	51.15	ug/L	#	91
51)	methacrylonitrile	9.366	67	69300	54.78	ug/L		98
52)	1,1,1-trichloroethane	9.727	97	241960	47.67	ug/L		98
53)	cyclohexane	9.795	84	260376	49.95	ug/L		100
54)	iso-butyl alcohol	9.911	43	69945	521.02	ug/L		95
55)	tert amyl alcohol	10.042	73	47127	260.62	ug/L		96
58)	2,2,4-trimethylpentane	10.157	57	621623	46.24	ug/L		98
59)	n-butyl alcohol	10.661	56	227001	2550.38	ug/L		96
60)	benzene	10.173	78	718359	46.91	ug/L		99
61)	tert-amyl methyl ether	10.194	73	544220	46.89	ug/L		99
62)	heptane	10.325	57	134449	50.61	ug/L		98
63)	1,2-dichloroethane	10.189	62	208871	47.49	ug/L		99
64)	ethyl acrylate	10.881	55	205401	52.91	ug/L		99
65)	trichloroethene	10.881	95	171056	47.46	ug/L		96
66)	2-nitropropane	11.662	41	55404	55.67	ug/L	#	51
67)	2-chloroethyl vinyl ether	11.667	63	594558	282.75	ug/L		98
68)	methyl methacrylate	11.143	100	47321	55.08	ug/L		98
69)	1,2-dichloropropane	11.148	63	182511	48.71	ug/L		98
70)	methylcyclohexane	11.090	83	292351	44.89	ug/L		98
71)	dibromomethane	11.311	93	103248	51.37	ug/L		97
72)	bromodichloromethane	11.437	83	219834	49.23	ug/L		98
73)	epichlorohydrin	11.793	57	83281	261.43	ug/L		97
74)	cis-1,3-dichloropropene	11.887	75	292420	49.68	ug/L		98
75)	4-methyl-2-pentanone	11.977	58	260581	211.37	ug/L		98
76)	3-methyl-1-butanol	11.992	70	97549	1042.21	ug/L		99
79)	toluene	12.244	92	441780	48.03	ug/L		97
80)	ethyl methacrylate	12.427	69	219448	51.43	ug/L		99
81)	trans-1,3-dichloropropene	12.443	75	241196	48.39	ug/L		98
82)	1,1,2-trichloroethane	12.658	83	124170	48.44	ug/L		98
84)	2-hexanone	12.821	58	240198	214.66	ug/L		99
85)	1,3-dichloropropane	12.836	76	258009	49.10	ug/L		99
86)	butyl acetate	12.889	56	114204	54.20	ug/L		98
87)	dibromochloromethane	13.104	129	165847	52.67	ug/L		98
88)	1,2-dibromoethane	13.251	107	163059	50.98	ug/L		98
89)	n-butyl ether	13.602	57	777134	49.68	ug/L		98
90)	chlorobenzene	13.701	112	470027	48.48	ug/L		99
91)	1,1,1,2-tetrachloroethane	13.764	131	174085	51.61	ug/L		95
92)	ethylbenzene	13.754	91	822358	48.65	ug/L		100
93)	m,p-xylene	13.859	106	643641	99.46	ug/L		99
94)	o-xylene	14.273	91	662392	49.33	ug/L		99
95)	styrene	14.289	104	548758	50.91	ug/L		98
96)	butyl acrylate	14.095	55	339286	53.23	ug/L		99
97)	bromoform	14.556	173	116178	56.45	ug/L		99
98)	isopropylbenzene	14.614	105	820050	49.83	ug/L		99
99)	cis-1,4-dichloro-2-butene	14.687	75	67145	51.23	ug/L		99
102)	bromobenzene	15.012	156	213915	50.26	ug/L		92
103)	1,1,2,2-tetrachloroethane	14.923	83	193604	49.32	ug/L		99
104)	trans-1,4-dichloro-2-b...	14.965	53	50303	55.87	ug/L		92
105)	1,2,3-trichloropropane	14.997	110	52872	49.61	ug/L		99
106)	n-propylbenzene	15.018	91	968619	48.99	ug/L		100
107)	2-chlorotoluene	15.170	126	196633	49.48	ug/L		98
108)	4-chlorotoluene	15.264	91	585827	49.63	ug/L		99
109)	1,3,5-trimethylbenzene	15.164	105	695929	49.38	ug/L		99
110)	tert-butylbenzene	15.516	119	592338	48.54	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143862.D
Acq On : 14 Jun 2018 10:46 pm
Operator : sydneys
Sample : icv6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 15 11:45:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:45:10 2018
Response via : Initial Calibration

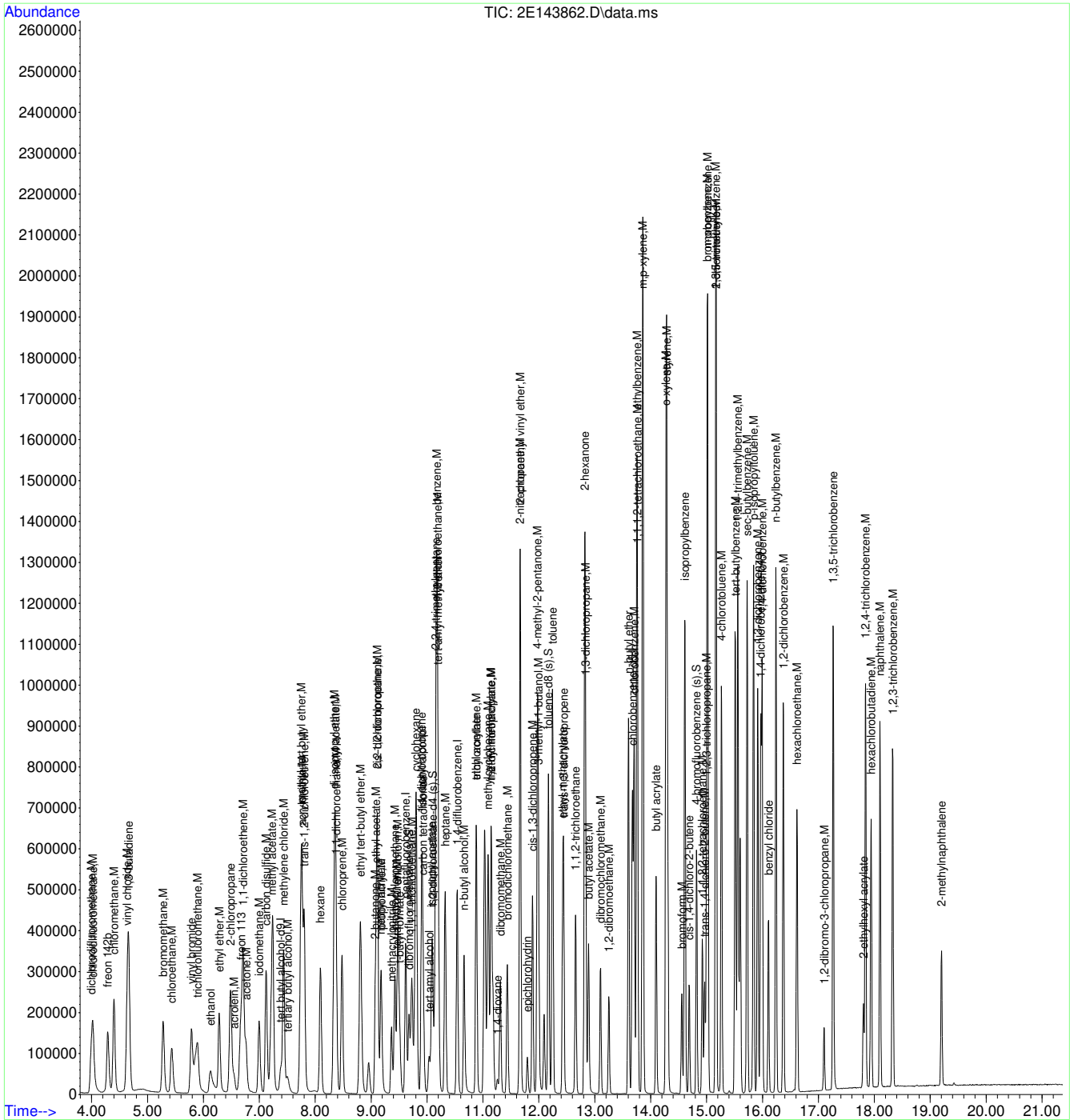
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
111) 1,2,4-trimethylbenzene	15.558	105	708500	50.68	ug/L	99
112) sec-butylbenzene	15.725	105	897621	50.22	ug/L	99
113) 1,3-dichlorobenzene	15.914	146	401833	48.52	ug/L	99
114) p-isopropyltoluene	15.841	119	761940	50.11	ug/L	99
115) 1,4-dichlorobenzene	15.993	146	410078	48.50	ug/L	100
116) 1,2-dichlorobenzene	16.375	146	393510	48.50	ug/L	99
117) n-butylbenzene	16.239	92	391927	50.11	ug/L	99
118) 1,2-dibromo-3-chloropr...	17.104	157	45717	50.92	ug/L	97
119) 1,3,5-trichlorobenzene	17.267	180	354597	49.17	ug/L	99
120) 1,2,4-trichlorobenzene	17.843	180	309960	51.16	ug/L	99
121) 2-ethylhexyl acrylate	17.807	70	54840	12.32	ug/L	97
122) hexachlorobutadiene	17.943	225	150139	47.84	ug/L	97
123) naphthalene	18.100	128	664288	52.23	ug/L	99
124) 1,2,3-trichlorobenzene	18.331	180	272491	49.65	ug/L	99
125) hexachloroethane	16.617	201	133419	54.75	ug/L	98
126) benzyl chloride	16.108	91	295670	39.77	ug/L	99
127) 2-methylnaphthalene	19.201	142	172305	25.53	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143862.D
Acq On : 14 Jun 2018 10:46 pm
Operator : sydneys
Sample : icv6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 15 11:45:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:45:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143863.D
Acq On : 14 Jun 2018 11:14 pm
Operator : sydneys
Sample : icv6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 15 11:46:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:45:10 2018
Response via : Initial Calibration

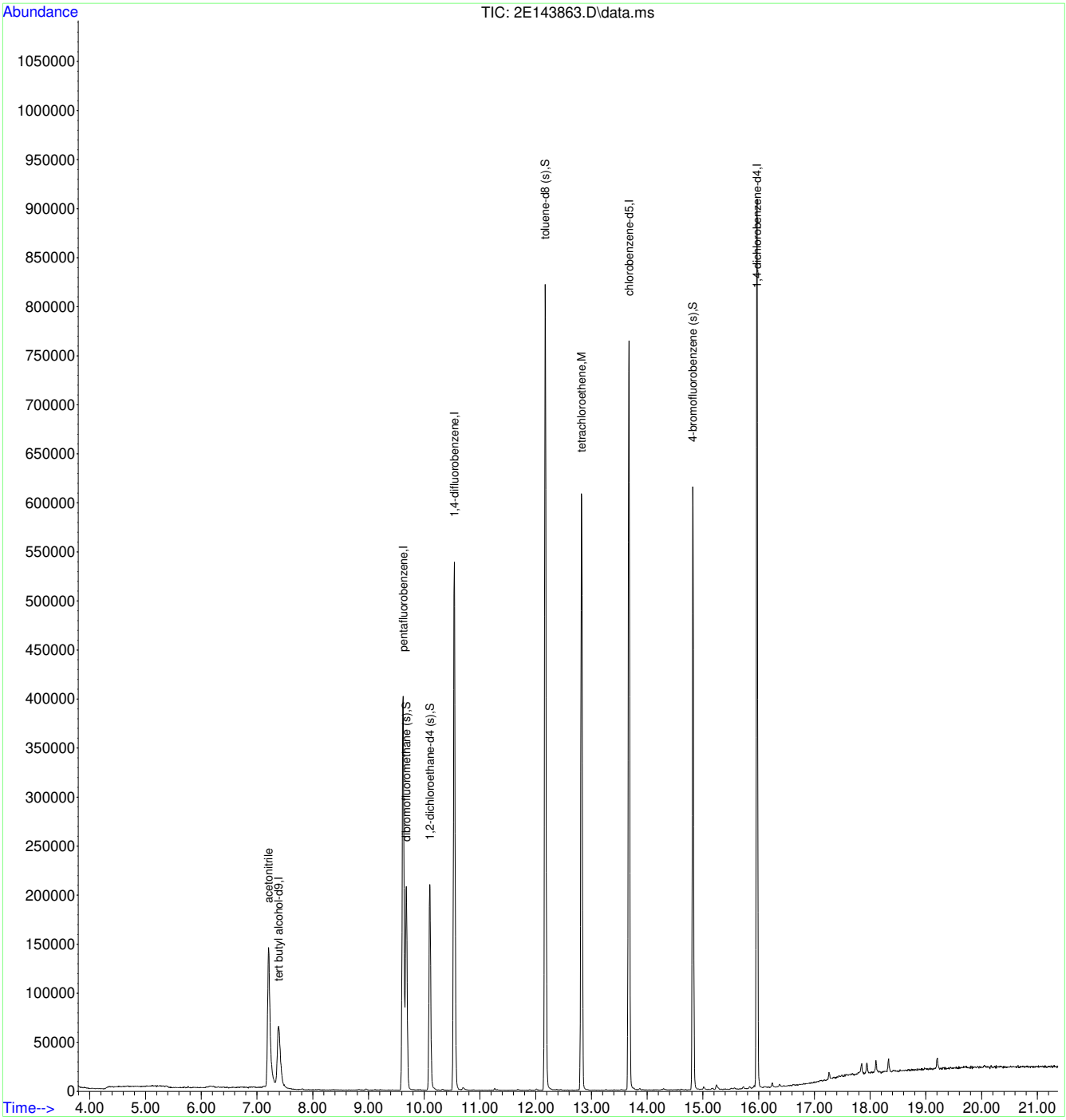
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.389	65	153985	500.00	ug/L	0.00
5) pentafluorobenzene	9.622	168	349166	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.540	114	504087	50.00	ug/L	0.00
77) chlorobenzene-d5	13.675	117	447452	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.972	152	237867	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.680	113	144195	49.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.58%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	151503	48.75	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.50%			
78) toluene-d8 (s)	12.170	98	577100	49.77	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.54%			
101) 4-bromofluorobenzene (s)	14.818	95	206902	49.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%			
Target Compounds						Qvalue
23) acetonitrile	7.210	41	261505	502.67	ug/L	99
83) tetrachloroethene	12.826	164	158502	47.75	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\V2E6300\
Data File : 2E143863.D
Acq On : 14 Jun 2018 11:14 pm
Operator : sydneys
Sample : icv6300-50
Misc : MS27143,V2E6300,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 15 11:46:26 2018
Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:45:10 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144436.d
Acq On : 1 Jul 2018 11:31 am
Operator : juntaep
Sample : cc6300-20 Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:51:28 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	124094	500.00	ug/L	0.00
5) pentafluorobenzene	9.617	168	275724	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	385371	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	356691	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	201903	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	356691	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	118144	51.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.28%			
57) 1,2-dichloroethane-d4 (s)	10.099	65	140287	59.05	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 118.10%			
78) toluene-d8 (s)	12.170	98	454498	49.17	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.34%			
101) 4-bromofluorobenzene (s)	14.818	95	176298	50.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.06%			
Target Compounds						Qvalue
2) ethanol	6.130	45	60515	2031.82	ug/L	98
3) tertiary butyl alcohol	7.504	59	32656	99.43	ug/L	76
4) 1,4-dioxane	11.258	88	12872	515.80	ug/L	92
6) chlorodifluoromethane	4.023	51	88389	22.31	ug/L	94
7) dichlorodifluoromethane	3.997	85	111138	24.61	ug/L	96
10) chloromethane	4.411	50	104234	17.34	ug/L	99
11) vinyl chloride	4.647	62	96367	17.50	ug/L	99
12) bromomethane	5.292	94	59389	17.59	ug/L	94
13) chloroethane	5.438	64	54148	16.88	ug/L	99
14) trichlorofluoromethane	5.900	101	112580	23.47	ug/L	97
16) vinyl bromide	5.790	106	54235	16.19	ug/L	92
17) ethyl ether	6.288	74	34518	16.11	ug/L	100
18) 2-chloropropane	6.487	43	108053	19.18	ug/L	90
19) acrolein	6.555	56	9462	13.75	ug/L	85
20) freon 113	6.681	151	49703	21.29	ug/L	93
21) 1,1-dichloroethene	6.712	61	98871	19.79	ug/L	96
22) acetone	6.765	58	17979	66.03	ug/L #	68
23) acetonitrile	7.210	41	69487	169.15	ug/L	99
24) iodomethane	7.001	142	78763	18.10	ug/L	89
25) carbon disulfide	7.127	76	164970	17.53	ug/L	95
26) methylene chloride	7.431	84	59554	17.52	ug/L	97
27) methyl acetate	7.226	43	39418	16.84	ug/L	96
28) methyl tert butyl ether	7.761	73	160740	18.71	ug/L	93
29) trans-1,2-dichloroethene	7.803	61	81962	19.04	ug/L	98
30) hexane	8.091	56	40461	18.89	ug/L	99
31) di-isopropyl ether	8.343	45	182931	17.47	ug/L	94
32) ethyl tert-butyl ether	8.815	59	187837	19.20	ug/L	95
33) 2-butanone	9.077	72	21895	73.08	ug/L	89
34) 1,1-dichloroethane	8.374	63	105680	18.95	ug/L	97
35) chloroprene	8.479	53	93614	20.31	ug/L	93
36) acrylonitrile	7.771	53	18149	17.20	ug/L	96
37) vinyl acetate	8.353	86	9702	15.83	ug/L #	69
38) ethyl acetate	9.093	45	6908	17.00	ug/L #	62
39) 2,2-dichloropropane	9.108	77	92799	21.97	ug/L	98
40) cis-1,2-dichloroethene	9.108	96	63741	18.22	ug/L	97
41) propionitrile	9.182	54	81427	188.61	ug/L	94
42) methyl acrylate	9.171	85	6810	16.79	ug/L	96
43) bromochloromethane	9.428	128	29226	18.45	ug/L	93

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144436.d
Acq On : 1 Jul 2018 11:31 am
Operator : juntaep
Sample : cc6300-20 Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:51:28 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tetrahydrofuran	9.460	72	7006	19.15	ug/L		83
45) chloroform	9.475	83	104127	20.31	ug/L		98
46) t-butyl formate	9.507	59	52689	23.16	ug/L		98
47) 1,1-dichloropropene	9.900	75	78875	18.78	ug/L		98
48) carbon tetrachloride	9.926	117	86243	23.94	ug/L		96
49) isopropyl acetate	10.084	87	11343	17.20	ug/L	#	73
51) methacrylonitrile	9.365	67	19847	17.88	ug/L		96
52) 1,1,1-trichloroethane	9.727	97	99307	22.30	ug/L		99
53) cyclohexane	9.795	84	89585	19.59	ug/L		90
54) iso-butyl alcohol	9.916	43	23867	202.64	ug/L		93
55) tert amyl alcohol	10.036	73	16428	103.55	ug/L		92
58) 2,2,4-trimethylpentane	10.152	57	227927	20.39	ug/L		97
59) n-butyl alcohol	10.660	56	79223	1070.48	ug/L		96
60) benzene	10.168	78	230813	18.13	ug/L		98
61) tert-amyl methyl ether	10.189	73	183102	18.98	ug/L		98
62) heptane	10.325	57	43039	19.49	ug/L		97
63) 1,2-dichloroethane	10.183	62	78540	21.48	ug/L		96
64) ethyl acrylate	10.881	55	60900	18.87	ug/L		99
65) trichloroethene	10.881	95	56715	18.93	ug/L		96
66) 2-nitropropane	11.657	41	19711	23.82	ug/L	#	76
67) 2-chloroethyl vinyl ether	11.667	63	168721	96.50	ug/L		99
68) methyl methacrylate	11.143	100	13567	18.99	ug/L	#	89
69) 1,2-dichloropropane	11.143	63	58831	18.88	ug/L		90
70) methylcyclohexane	11.096	83	109804	20.28	ug/L		99
71) dibromomethane	11.305	93	32747	19.60	ug/L		89
72) bromodichloromethane	11.431	83	76305	20.55	ug/L		97
73) epichlorohydrin	11.793	57	26036	98.30	ug/L		98
74) cis-1,3-dichloropropene	11.887	75	93121	19.03	ug/L		93
75) 4-methyl-2-pentanone	11.976	58	76513	74.64	ug/L		90
76) 3-methyl-1-butanol	11.992	70	33325	428.21	ug/L		98
79) toluene	12.244	92	144799	18.28	ug/L		99
80) ethyl methacrylate	12.427	69	64881	17.66	ug/L		95
81) trans-1,3-dichloropropene	12.443	75	86754	20.21	ug/L		95
82) 1,1,2-trichloroethane	12.653	83	38457	17.42	ug/L		96
83) tetrachloroethene	12.821	164	49753	18.80	ug/L		93
84) 2-hexanone	12.821	58	73082	75.84	ug/L		89
85) 1,3-dichloropropane	12.836	76	83932	18.55	ug/L		99
86) butyl acetate	12.889	56	32130	17.71	ug/L		92
87) dibromochloromethane	13.098	129	55687	20.54	ug/L		98
88) 1,2-dibromoethane	13.250	107	51838	18.82	ug/L		96
89) n-butyl ether	13.602	57	247196	18.35	ug/L		98
90) chlorobenzene	13.701	112	157184	18.83	ug/L		99
91) 1,1,1,2-tetrachloroethane	13.759	131	59221	20.39	ug/L		98
92) ethylbenzene	13.754	91	276509	19.00	ug/L		98
93) m,p-xylene	13.859	106	214235	38.44	ug/L		97
94) o-xylene	14.273	91	224696	19.43	ug/L		95
95) styrene	14.289	104	178089	19.19	ug/L		96
96) butyl acrylate	14.095	55	98164	17.88	ug/L		98
97) bromoform	14.556	173	37752	21.30	ug/L		98
98) isopropylbenzene	14.608	105	278640	19.66	ug/L		99
99) cis-1,4-dichloro-2-butene	14.687	75	23502	20.82	ug/L		87
102) bromobenzene	15.012	156	74030	19.33	ug/L		95
103) 1,1,2,2-tetrachloroethane	14.923	83	61728	17.48	ug/L		94
104) trans-1,4-dichloro-2-b...	14.965	53	16867	20.82	ug/L		93
105) 1,2,3-trichloropropane	14.996	110	18777	19.58	ug/L		96
106) n-propylbenzene	15.017	91	336025	18.89	ug/L		98
107) 2-chlorotoluene	15.169	126	68151	19.06	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144436.d
Acq On : 1 Jul 2018 11:31 am
Operator : juntaep
Sample : cc6300-20 Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:51:28 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration

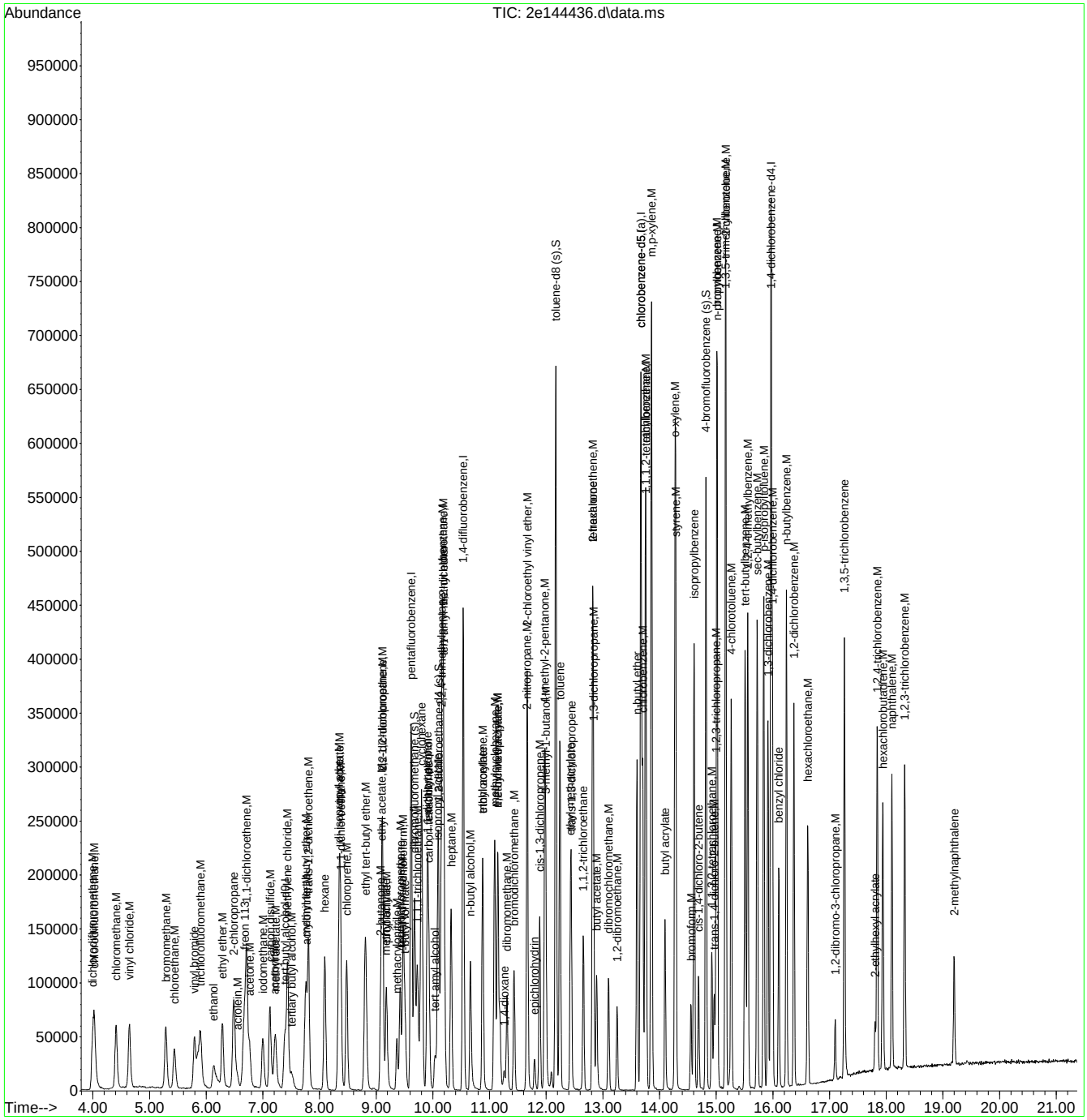
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 4-chlorotoluene	15.264	91	201882	19.01	ug/L	99
109) 1,3,5-trimethylbenzene	15.164	105	240013	18.93	ug/L	97
110) tert-butylbenzene	15.510	119	204240	18.60	ug/L	97
111) 1,2,4-trimethylbenzene	15.557	105	245162	19.49	ug/L	99
112) sec-butylbenzene	15.720	105	308552	19.19	ug/L	100
113) 1,3-dichlorobenzene	15.914	146	138853	18.63	ug/L	97
114) p-isopropyltoluene	15.841	119	264072	19.30	ug/L	99
115) 1,4-dichlorobenzene	15.993	146	142489	18.73	ug/L	99
116) 1,2-dichlorobenzene	16.370	146	135575	18.57	ug/L	99
117) n-butylbenzene	16.239	92	133124	18.92	ug/L	95
118) 1,2-dibromo-3-chloropr...	17.099	157	14382	17.80	ug/L	89
119) 1,3,5-trichlorobenzene	17.261	180	121153	18.67	ug/L	99
120) 1,2,4-trichlorobenzene	17.843	180	100030	18.35	ug/L	99
121) 2-ethylhexyl acrylate	17.801	70	11211	2.80	ug/L	90
122) hexachlorobutadiene	17.943	225	55258	19.57	ug/L	98
123) naphthalene	18.100	128	204533	17.87	ug/L	100
124) 1,2,3-trichlorobenzene	18.326	180	88541	17.93	ug/L	96
125) hexachloroethane	16.616	201	45231	20.63	ug/L	97
126) benzyl chloride	16.103	91	141021	21.08	ug/L	99
127) 2-methylnaphthalene	19.201	142	50705	8.35	ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144436.d
Acq On : 1 Jul 2018 11:31 am
Operator : juntaep
Sample : cc6300-20 Inst : VOAMS2E
Misc : MS27449,V2E6328,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 00:51:28 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 29 10:44:34 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144454.d
Acq On : 1 Jul 2018 11:17 pm
Operator : juntaep
Sample : ecc6300-20 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:26:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:39:21 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	7.394	65	140909	500.00	ug/L	0.01
5) pentafluorobenzene	9.617	168	275915	50.00	ug/L	0.00
56) 1,4-difluorobenzene	10.535	114	392897	50.00	ug/L	0.00
77) chlorobenzene-d5	13.670	117	356552	50.00	ug/L	0.00
100) 1,4-dichlorobenzene-d4	15.966	152	200307	50.00	ug/L	0.00
128) chlorobenzene-d5 (a)	13.670	117	356552	50.00	ug/L	0.00
System Monitoring Compounds						
50) dibromofluoromethane (s)	9.675	113	116766	50.51	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.02%			
57) 1,2-dichloroethane-d4 (s)	10.100	65	140908	58.18	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 116.36%			
78) toluene-d8 (s)	12.171	98	454574	49.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.38%			
101) 4-bromofluorobenzene (s)	14.818	95	176260	50.42	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.84%			
Target Compounds						Qvalue
2) ethanol	6.141	45	64177	1897.64	ug/L	92
3) tertiary butyl alcohol	7.504	59	36686	98.37	ug/L	87
4) 1,4-dioxane	11.253	88	14708	519.04	ug/L	86
6) chlorodifluoromethane	4.033	51	86091	21.72	ug/L	93
7) dichlorodifluoromethane	4.012	85	106873	23.65	ug/L	93
10) chloromethane	4.416	50	104588	17.39	ug/L	98
11) vinyl chloride	4.647	62	98845	17.94	ug/L	98
12) bromomethane	5.292	94	59218	17.53	ug/L	96
13) chloroethane	5.449	64	56128	17.49	ug/L	98
14) trichlorofluoromethane	5.900	101	114314	23.82	ug/L	98
16) vinyl bromide	5.795	106	55178	16.46	ug/L	94
17) ethyl ether	6.293	74	35110	16.38	ug/L	99
18) 2-chloropropane	6.492	43	108229	19.20	ug/L	93
19) acrolein	6.550	56	8733	12.68	ug/L	90
20) freon 113	6.676	151	48985	20.97	ug/L	94
21) 1,1-dichloroethene	6.718	61	101194	20.24	ug/L	96
22) acetone	6.770	58	19371	71.10	ug/L #	76
23) acetonitrile	7.216	41	74860	182.10	ug/L	97
24) iodomethane	7.001	142	80928	18.59	ug/L	89
25) carbon disulfide	7.127	76	169071	17.95	ug/L	97
26) methylene chloride	7.441	84	63624	18.70	ug/L	97
27) methyl acetate	7.226	43	43182	18.43	ug/L	96
28) methyl tert butyl ether	7.761	73	167682	19.50	ug/L	93
29) trans-1,2-dichloroethene	7.808	61	82211	19.08	ug/L	98
30) hexane	8.097	56	37170	17.34	ug/L	98
31) di-isopropyl ether	8.343	45	187676	17.91	ug/L	89
32) ethyl tert-butyl ether	8.810	59	191516	19.56	ug/L	96
33) 2-butanone	9.077	72	22432	74.82	ug/L	94
34) 1,1-dichloroethane	8.380	63	104934	18.80	ug/L	100
35) chloroprene	8.485	53	95573	20.72	ug/L	91
36) acrylonitrile	7.772	53	18848	17.85	ug/L	94
37) vinyl acetate	8.364	86	9677	15.78	ug/L #	89
38) ethyl acetate	9.088	45	7344	18.06	ug/L #	33
39) 2,2-dichloropropane	9.109	77	72952	17.26	ug/L	99
40) cis-1,2-dichloroethene	9.114	96	64059	18.29	ug/L	93
41) propionitrile	9.182	54	84703	196.06	ug/L	98
42) methyl acrylate	9.177	85	7423	18.29	ug/L	95
43) bromochloromethane	9.423	128	29188	18.42	ug/L	95

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144454.d
Acq On : 1 Jul 2018 11:17 pm
Operator : juntaep
Sample : ecc6300-20 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:26:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:39:21 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44) tetrahydrofuran	9.470	72	6963	19.02	ug/L		87
45) chloroform	9.476	83	103511	20.17	ug/L		100
46) t-butyl formate	9.507	59	50409	22.14	ug/L		97
47) 1,1-dichloropropene	9.906	75	79629	18.95	ug/L		97
48) carbon tetrachloride	9.932	117	86716	24.06	ug/L		97
49) isopropyl acetate	10.089	87	12323	18.67	ug/L	#	87
51) methacrylonitrile	9.365	67	20939	18.85	ug/L		91
52) 1,1,1-trichloroethane	9.727	97	100101	22.46	ug/L		97
53) cyclohexane	9.795	84	92563	20.22	ug/L		93
54) iso-butyl alcohol	9.911	43	23303	197.72	ug/L		95
55) tert amyl alcohol	10.037	73	16585	104.47	ug/L		86
58) 2,2,4-trimethylpentane	10.152	57	207981	18.25	ug/L		96
59) n-butyl alcohol	10.666	56	82409	1092.21	ug/L		96
60) benzene	10.168	78	233196	17.97	ug/L		99
61) tert-amyl methyl ether	10.189	73	189132	19.22	ug/L		99
62) heptane	10.325	57	36788	16.34	ug/L		96
63) 1,2-dichloroethane	10.189	62	79038	21.20	ug/L		99
64) ethyl acrylate	10.881	55	61913	18.81	ug/L		96
65) trichloroethene	10.881	95	58605	19.18	ug/L		98
66) 2-nitropropane	11.662	41	19618	23.25	ug/L		97
67) 2-chloroethyl vinyl ether	11.667	63	156304	87.69	ug/L		99
68) methyl methacrylate	11.148	100	13641	18.73	ug/L	#	88
69) 1,2-dichloropropane	11.148	63	58327	18.36	ug/L		95
70) methylcyclohexane	11.090	83	110093	19.94	ug/L		95
71) dibromomethane	11.305	93	33084	19.42	ug/L		96
72) bromodichloromethane	11.436	83	78191	20.66	ug/L		98
73) epichlorohydrin	11.793	57	25155	93.15	ug/L		99
74) cis-1,3-dichloropropene	11.887	75	87769	17.59	ug/L		94
75) 4-methyl-2-pentanone	11.977	58	80927	77.44	ug/L		92
76) 3-methyl-1-butanol	11.997	70	35409	446.27	ug/L		96
79) toluene	12.239	92	142987	18.06	ug/L		99
80) ethyl methacrylate	12.427	69	69242	18.85	ug/L		98
81) trans-1,3-dichloropropene	12.443	75	81929	19.10	ug/L		96
82) 1,1,2-trichloroethane	12.658	83	40718	18.45	ug/L		95
83) tetrachloroethene	12.821	164	49900	18.87	ug/L		92
84) 2-hexanone	12.821	58	76551	79.48	ug/L		94
85) 1,3-dichloropropane	12.836	76	84665	18.72	ug/L		99
86) butyl acetate	12.889	56	35129	19.37	ug/L		98
87) dibromochloromethane	13.099	129	56250	20.75	ug/L		96
88) 1,2-dibromoethane	13.251	107	52658	19.13	ug/L		96
89) n-butyl ether	13.602	57	249019	18.49	ug/L		100
90) chlorobenzene	13.701	112	154982	18.57	ug/L		98
91) 1,1,1,2-tetrachloroethane	13.759	131	57587	19.83	ug/L		97
92) ethylbenzene	13.754	91	278357	19.13	ug/L		96
93) m,p-xylene	13.859	106	212618	38.17	ug/L		97
94) o-xylene	14.273	91	222742	19.27	ug/L		98
95) styrene	14.283	104	178184	19.21	ug/L		98
96) butyl acrylate	14.100	55	104048	18.96	ug/L		97
97) bromoform	14.556	173	36972	20.87	ug/L		97
98) isopropylbenzene	14.609	105	277186	19.57	ug/L		99
99) cis-1,4-dichloro-2-butene	14.692	75	5106	4.53	ug/L		99
102) bromobenzene	15.012	156	75160	19.78	ug/L		95
103) 1,1,2,2-tetrachloroethane	14.923	83	62064	17.71	ug/L		95
104) trans-1,4-dichloro-2-b...	14.965	53	4236	5.27	ug/L		91
105) 1,2,3-trichloropropane	14.996	110	19916	20.93	ug/L		98
106) n-propylbenzene	15.017	91	336246	19.05	ug/L		98
107) 2-chlorotoluene	15.170	126	68000	19.17	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144454.d
Acq On : 1 Jul 2018 11:17 pm
Operator : juntaep
Sample : ecc6300-20 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:26:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:39:21 2018
Response via : Initial Calibration

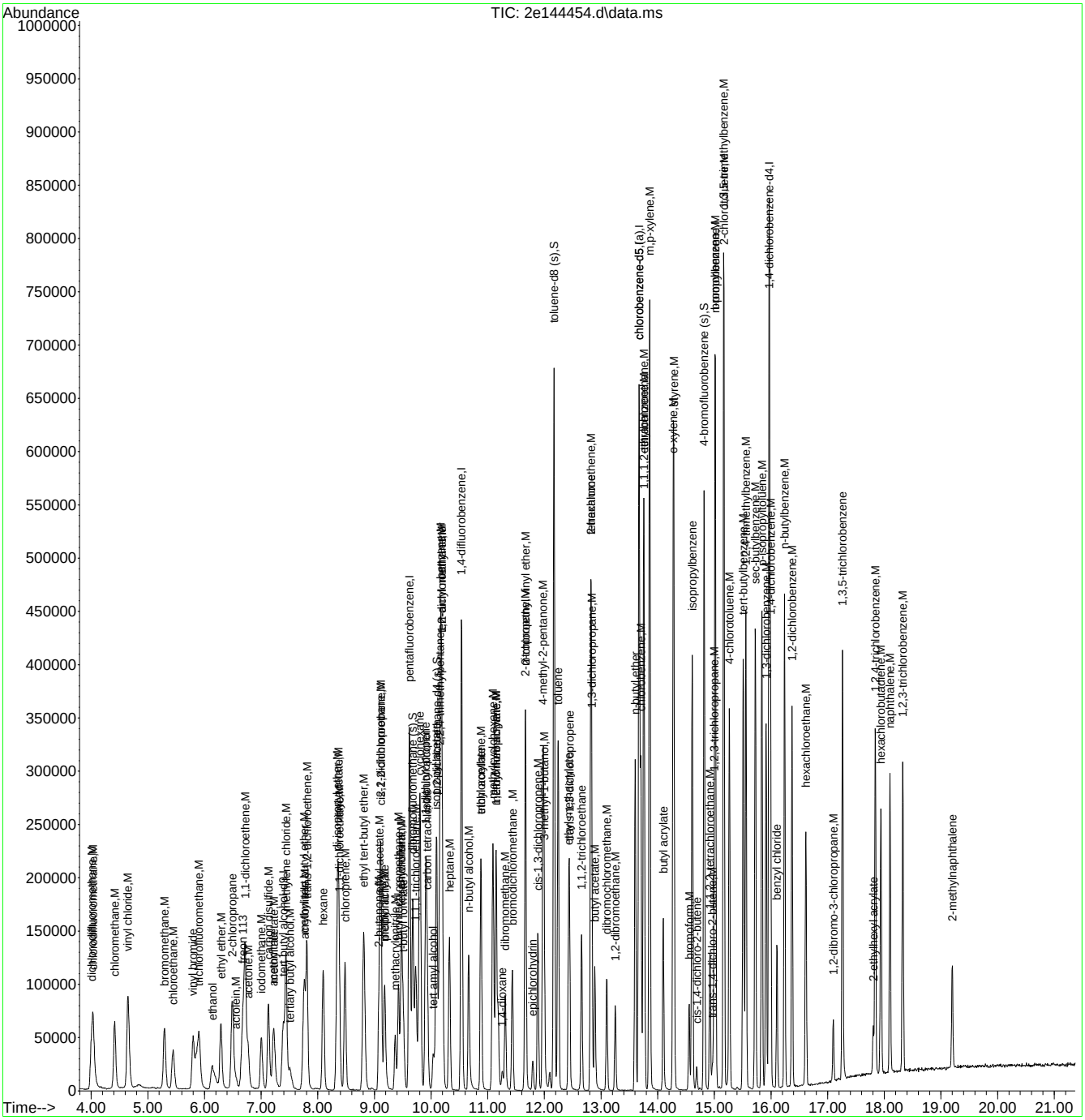
Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
108) 4-chlorotoluene	15.264	91	201771	19.15	ug/L	98
109) 1,3,5-trimethylbenzene	15.164	105	237199	18.86	ug/L	98
110) tert-butylbenzene	15.510	119	203527	18.69	ug/L	98
111) 1,2,4-trimethylbenzene	15.557	105	242963	19.47	ug/L	98
112) sec-butylbenzene	15.720	105	304980	19.11	ug/L	99
113) 1,3-dichlorobenzene	15.914	146	143221	19.37	ug/L	97
114) p-isopropyltoluene	15.841	119	260061	19.16	ug/L	98
115) 1,4-dichlorobenzene	15.993	146	143420	19.00	ug/L	99
116) 1,2-dichlorobenzene	16.370	146	138384	19.11	ug/L	97
117) n-butylbenzene	16.239	92	132331	18.96	ug/L	94
118) 1,2-dibromo-3-chloropr...	17.099	157	14694	18.33	ug/L	90
119) 1,3,5-trichlorobenzene	17.262	180	121355	18.85	ug/L	98
120) 1,2,4-trichlorobenzene	17.843	180	99714	18.44	ug/L	96
121) 2-ethylhexyl acrylate	17.807	70	10738	2.70	ug/L	93
122) hexachlorobutadiene	17.938	225	53529	19.11	ug/L	98
123) naphthalene	18.100	128	210037	18.50	ug/L	99
124) 1,2,3-trichlorobenzene	18.326	180	89718	18.31	ug/L	95
125) hexachloroethane	16.617	201	43816	20.14	ug/L	96
126) benzyl chloride	16.103	91	93420	14.08	ug/L	94
127) 2-methylnaphthalene	19.201	142	49888	8.28	ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\lotusa\VOA\v2e6328\
Data File : 2e144454.d
Acq On : 1 Jul 2018 11:17 pm
Operator : juntaep
Sample : ecc6300-20 Inst : VOAMS2E
Misc : MS27583,V2E6328,5,,,,1
ALS Vial : 20 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M2E6300.M
Quant Results File: M2E6300.RES
Quant Time: Jul 03 02:26:19 2018
Quant Title : SW-846 Method V8260C, ZB624 60Mx0.25MMx1.4UM
QLast Update : Fri Jun 15 11:39:21 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82569.D
Acq On : 7 Jun 2018 7:59 pm
Operator : HueanhT
Sample : ic3432-0.5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 11:32:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.78	65	144846	500.00	ug/L	-0.02
5) pentafluorobenzene	8.77	168	226591	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	315523	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	284671	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	186113	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	106925	50.14	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.28%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	115412	52.15	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 104.30%			
76) toluene-d8 (s)	11.24	98	365800	51.24	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.48%			
99) 4-bromofluorobenzene (s)	14.10	95	141857	48.84	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 97.68%			
Target Compounds						Qvalue
6) chlorodifluoromethane	3.92	51	3161	0.53	ug/L	89
7) dichlorodifluoromethane	3.91	85	2148	0.35	ug/L #	50
8) chloromethane	4.22	50	3942	0.59	ug/L	90
9) vinyl chloride	4.44	62	2827	0.46	ug/L #	48
10) 1,3-butadiene	4.45	54	2719	0.52	ug/L #	89
12) chloroethane	5.15	64	1812	0.63	ug/L	67
13) trichlorofluoromethane	5.54	101	1937	0.36	ug/L	82
14) vinyl bromide	5.42	106	1376	0.42	ug/L #	75
18) freon 113	6.22	151	974	0.37	ug/L #	66
19) 1,1-dichloroethene	6.22	61	2427	0.46	ug/L	92
22) iodomethane	6.45	142	2160	0.45	ug/L	86
23) carbon disulfide	6.59	76	4730	0.49	ug/L	88
24) methylene chloride	6.83	84	1671	0.52	ug/L	84
26) methyl tert butyl ether	7.14	73	4211	0.50	ug/L	96
27) trans-1,2-dichloroethene	7.18	61	1994	0.46	ug/L	83
28) hexane	7.48	56	1103	0.49	ug/L #	61
29) di-isopropyl ether	7.65	45	5602	0.51	ug/L	82
31) 1,1-dichloroethane	7.68	63	2374	0.44	ug/L	83
32) chloroprene	7.76	53	2069	0.47	ug/L	91
35) ethyl tert-butyl ether	8.06	59	4492	0.46	ug/L	87
37) 2,2-dichloropropane	8.34	77	2353	0.52	ug/L	73
38) cis-1,2-dichloroethene	8.32	96	1464	0.47	ug/L #	57
39) propionitrile	8.32	54	1823	4.23	ug/L	74
42) bromochloromethane	8.58	128	575	0.40	ug/L	82
44) chloroform	8.65	83	2601	0.53	ug/L	89
47) 1,1,1-trichloroethane	8.91	97	2226	0.46	ug/L	96
48) cyclohexane	9.01	84	2439	0.49	ug/L	87
50) 1,1-dichloropropene	9.04	75	1671	0.44	ug/L	95
51) carbon tetrachloride	9.08	117	1771	0.44	ug/L	85
57) 2,2,4-trimethylpentane	9.35	57	6003	0.44	ug/L	94
58) benzene	9.28	78	5348	0.49	ug/L	88
59) tert-amyl methyl ether	9.34	73	4215	0.49	ug/L	91
60) heptane	9.49	57	1148	0.51	ug/L	86

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82569.D
Acq On : 7 Jun 2018 7:59 pm
Operator : HueanhT
Sample : ic3432-0.5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 11:32:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration

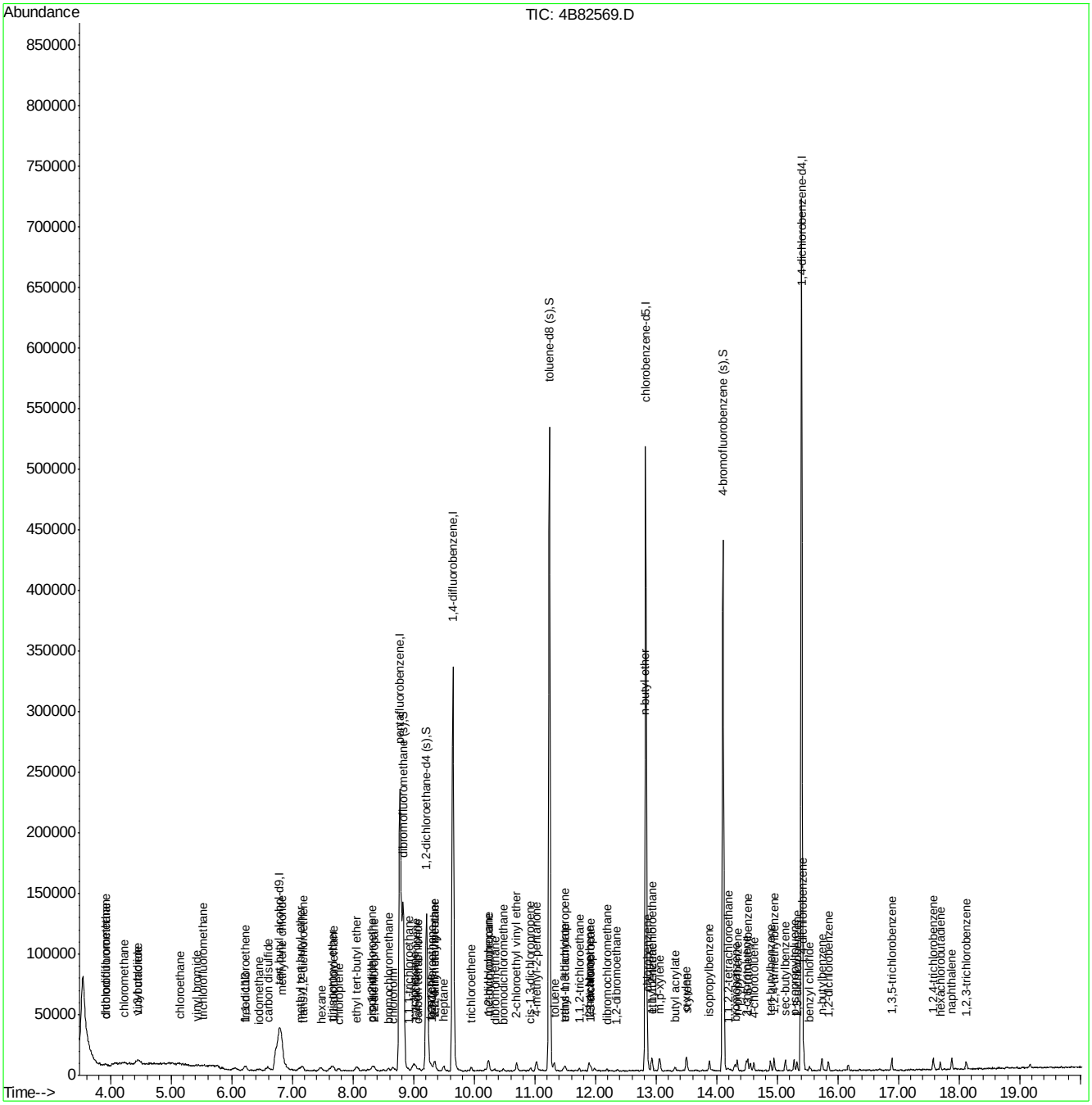
Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
61) 1,2-dichloroethane	9.30	62	1445	0.43 ug/L		76
63) trichloroethene	9.95	95	1099	0.41 ug/L		91
64) 2-chloroethyl vinyl ether	10.70	63	3050	2.04 ug/L		90
66) methylcyclohexane	10.24	83	2779	0.46 ug/L		91
67) 1,2-dichloropropane	10.23	63	1311	0.46 ug/L		94
68) dibromomethane	10.34	93	672	0.43 ug/L		98
69) bromodichloromethane	10.47	83	1426	0.42 ug/L		93
72) cis-1,3-dichloropropene	10.92	75	1630	0.40 ug/L		81
73) 4-methyl-2-pentanone	11.02	58	1581	1.57 ug/L		85
77) toluene	11.32	92	2827	0.46 ug/L	#	85
78) ethyl methacrylate	11.49	69	1180	0.41 ug/L		89
79) trans-1,3-dichloropropene	11.50	75	1422	0.43 ug/L	#	72
80) 1,1,2-trichloroethane	11.73	83	726	0.42 ug/L		91
81) tetrachloroethene	11.89	164	928	0.41 ug/L		88
82) 2-hexanone	11.90	58	1296	1.58 ug/L	#	74
83) 1,3-dichloropropane	11.92	76	1462	0.45 ug/L	#	67
85) dibromochloromethane	12.18	129	897	0.40 ug/L		83
86) 1,2-dibromoethane	12.35	107	893	0.41 ug/L		75
87) n-butyl ether	12.81	57	6067	0.50 ug/L		77
88) chlorobenzene	12.86	112	3131	0.47 ug/L		92
89) 1,1,1,2-tetrachloroethane	12.93	131	1305	0.47 ug/L		85
90) ethylbenzene	12.93	91	5701	0.47 ug/L		92
91) m,p-xylene	13.06	106	4114	0.90 ug/L		97
92) o-xylene	13.50	91	4926	0.48 ug/L		93
93) styrene	13.51	104	3284	0.44 ug/L		97
94) butyl acrylate	13.31	55	2334	0.49 ug/L		90
95) isopropylbenzene	13.88	105	6229	0.46 ug/L		94
100) 1,1,2,2-tetrachloroethane	14.19	83	1679	0.51 ug/L		96
103) bromobenzene	14.31	156	1322	0.39 ug/L		83
104) n-propylbenzene	14.34	91	7253	0.44 ug/L		93
105) 2-chlorotoluene	14.49	126	1469	0.44 ug/L		91
106) 4-chlorotoluene	14.61	91	4032	0.45 ug/L		98
107) 1,3,5-trimethylbenzene	14.51	105	5471	0.43 ug/L		99
108) tert-butylbenzene	14.89	119	4447	0.41 ug/L		89
109) 1,2,4-trimethylbenzene	14.94	105	5510	0.44 ug/L		96
110) sec-butylbenzene	15.13	105	7190	0.42 ug/L		95
111) p-isopropyltoluene	15.28	119	6273	0.43 ug/L		93
112) 1,3-dichlorobenzene	15.33	146	3190	0.47 ug/L		95
113) 1,4-dichlorobenzene	15.43	146	3162	0.46 ug/L		82
114) 1,2-dichlorobenzene	15.84	146	3553	0.50 ug/L		90
115) benzyl chloride	15.53	91	2653	0.44 ug/L		94
116) n-butylbenzene	15.73	92	3284	0.44 ug/L		98
119) 1,3,5-trichlorobenzene	16.89	180	3457	0.46 ug/L		90
120) 1,2,4-trichlorobenzene	17.57	180	2965	0.48 ug/L		90
122) hexachlorobutadiene	17.69	225	1633	0.47 ug/L		89
123) naphthalene	17.88	128	7220	0.61 ug/L		97
124) 1,2,3-trichlorobenzene	18.11	180	2680	0.50 ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82569.D
Acq On : 7 Jun 2018 7:59 pm
Operator : HueanhT
Sample : ic3432-0.5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 2 Sample Multiplier: 1

Quant Time: Jun 08 11:32:14 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82570.D
Acq On : 7 Jun 2018 8:27 pm
Operator : HueanhT
Sample : ic3432-1
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 11:32:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.80	65	144305	500.00	ug/L		0.00
5) pentafluorobenzene	8.77	168	248912	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	355926	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	321360	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	204250	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	117948	50.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	129087	51.71	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.42%				
76) toluene-d8 (s)	11.24	98	412417	51.18	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 102.36%				
99) 4-bromofluorobenzene (s)	14.10	95	158348	49.68	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.36%				
Target Compounds							Qvalue
6) chlorodifluoromethane	3.92	51	7273	1.11	ug/L		93
7) dichlorodifluoromethane	3.90	85	6273	0.92	ug/L		89
8) chloromethane	4.23	50	7854	1.06	ug/L		97
9) vinyl chloride	4.44	62	6283	0.93	ug/L		92
10) 1,3-butadiene	4.47	54	5992	1.04	ug/L		97
11) bromomethane	4.99	94	5033	1.30	ug/L		92
12) chloroethane	5.14	64	3739	1.18	ug/L		89
13) trichlorofluoromethane	5.53	101	5642	0.96	ug/L		94
14) vinyl bromide	5.43	106	3558	0.99	ug/L		89
15) ethyl ether	5.83	74	1398	0.94	ug/L	#	50
18) freon 113	6.23	151	2736	0.95	ug/L		87
19) 1,1-dichloroethene	6.22	61	5662	0.98	ug/L		96
22) iodomethane	6.45	142	5304	1.01	ug/L		95
23) carbon disulfide	6.59	76	10648	1.00	ug/L		99
24) methylene chloride	6.83	84	3708	1.04	ug/L		96
26) methyl tert butyl ether	7.15	73	9455	1.02	ug/L		93
27) trans-1,2-dichloroethene	7.18	61	4752	0.99	ug/L		93
28) hexane	7.46	56	2613	1.05	ug/L	#	76
29) di-isopropyl ether	7.65	45	12817	1.06	ug/L		94
30) 2-butanone	8.23	72	874	3.13	ug/L	#	31
31) 1,1-dichloroethane	7.67	63	6324	1.08	ug/L		93
32) chloroprene	7.76	53	4926	1.01	ug/L		93
33) acrylonitrile	7.08	53	875	0.79	ug/L	#	69
35) ethyl tert-butyl ether	8.06	59	10570	0.99	ug/L		93
37) 2,2-dichloropropane	8.35	77	5483	1.10	ug/L		100
38) cis-1,2-dichloroethene	8.31	96	3633	1.07	ug/L		89
39) propionitrile	8.32	54	4652	9.82	ug/L		94
41) methacrylonitrile	8.50	67	1090	1.02	ug/L	#	70
42) bromochloromethane	8.58	128	1612	1.03	ug/L		86
44) chloroform	8.65	83	5787	1.07	ug/L		93
45) tert-butyl formate	8.69	59	2176	0.90	ug/L		87
47) 1,1,1-trichloroethane	8.90	97	5411	1.01	ug/L		97
48) cyclohexane	9.00	84	6026	1.11	ug/L		96

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82570.D
Acq On : 7 Jun 2018 8:27 pm
Operator : HueanhT
Sample : ic3432-1
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 11:32:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
50) 1,1-dichloropropene	9.04	75	4227	1.00	ug/L		94
51) carbon tetrachloride	9.09	117	4324	0.98	ug/L		92
52) tert-amyl alcohol	9.15	73	922	5.57	ug/L	#	64
57) 2,2,4-trimethylpentane	9.35	57	14019	0.92	ug/L		94
58) benzene	9.28	78	12414	1.00	ug/L		97
59) tert-amyl methyl ether	9.34	73	9981	1.02	ug/L		95
60) heptane	9.50	57	2562	1.00	ug/L	#	75
61) 1,2-dichloroethane	9.30	62	3898	1.04	ug/L		91
62) ethyl acrylate	9.92	55	3202	1.04	ug/L		82
63) trichloroethene	9.95	95	2868	0.96	ug/L		95
64) 2-chloroethyl vinyl ether	10.70	63	7879	4.68	ug/L		95
66) methylcyclohexane	10.24	83	6900	1.02	ug/L		98
67) 1,2-dichloropropane	10.23	63	3316	1.02	ug/L		97
68) dibromomethane	10.33	93	1731	0.99	ug/L		93
69) bromodichloromethane	10.48	83	3661	0.95	ug/L		97
72) cis-1,3-dichloropropene	10.93	75	4366	0.95	ug/L		90
73) 4-methyl-2-pentanone	11.02	58	4389	3.86	ug/L		95
74) isoamyl alcohol	11.02	70	1364	16.38	ug/L	#	78
77) toluene	11.31	92	7114	1.02	ug/L		96
78) ethyl methacrylate	11.48	69	3063	0.95	ug/L		96
79) trans-1,3-dichloropropene	11.50	75	3733	1.00	ug/L		90
80) 1,1,2-trichloroethane	11.73	83	2036	1.04	ug/L	#	82
81) tetrachloroethene	11.89	164	2462	0.96	ug/L		94
82) 2-hexanone	11.90	58	3670	3.96	ug/L		96
83) 1,3-dichloropropane	11.92	76	3638	0.98	ug/L		99
84) butyl acetate	11.98	56	1538	0.94	ug/L	#	65
85) dibromochloromethane	12.18	129	1949	0.77	ug/L		88
86) 1,2-dibromoethane	12.36	107	2522	1.02	ug/L		87
87) n-butyl ether	12.81	57	14257	1.05	ug/L		89
88) chlorobenzene	12.86	112	7619	1.02	ug/L		89
89) 1,1,1,2-tetrachloroethane	12.93	131	2846	0.90	ug/L		92
90) ethylbenzene	12.93	91	13609	1.00	ug/L		98
91) m,p-xylene	13.06	106	10159	1.97	ug/L		89
92) o-xylene	13.50	91	11730	1.01	ug/L		97
93) styrene	13.51	104	7908	0.94	ug/L		95
94) butyl acrylate	13.31	55	5840	1.08	ug/L		95
95) isopropylbenzene	13.88	105	15116	0.99	ug/L		96
96) bromoform	13.76	173	1198	0.74	ug/L		88
100) 1,1,2,2-tetrachloroethane	14.19	83	3609	0.99	ug/L		93
101) trans-1,4-dichloro-2-buten	14.22	53	775	0.99	ug/L		91
102) 1,2,3-trichloropropane	14.29	110	912	1.05	ug/L	#	85
103) bromobenzene	14.31	156	3523	0.96	ug/L		86
104) n-propylbenzene	14.34	91	17538	0.98	ug/L		97
105) 2-chlorotoluene	14.48	126	3741	1.02	ug/L	#	82
106) 4-chlorotoluene	14.61	91	10067	1.02	ug/L		95
107) 1,3,5-trimethylbenzene	14.51	105	12813	0.92	ug/L		97
108) tert-butylbenzene	14.89	119	10767	0.90	ug/L		98
109) 1,2,4-trimethylbenzene	14.94	105	13488	0.98	ug/L		93
110) sec-butylbenzene	15.13	105	17287	0.92	ug/L		98
111) p-isopropyltoluene	15.28	119	14610	0.92	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82570.D
Acq On : 7 Jun 2018 8:27 pm
Operator : HueanhT
Sample : ic3432-1
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 11:32:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration

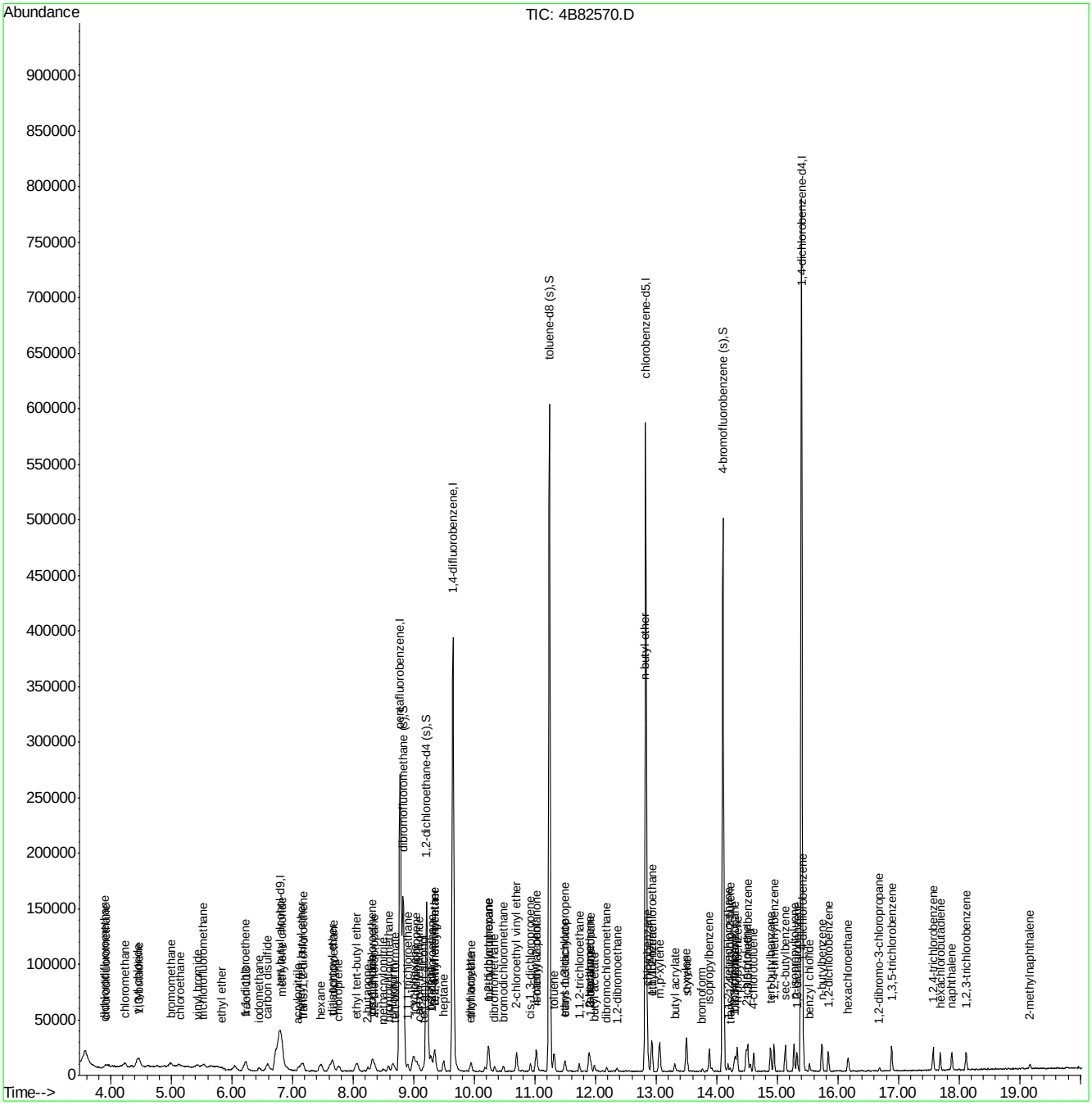
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
112) 1,3-dichlorobenzene	15.32	146	7441	0.99 ug/L	99
113) 1,4-dichlorobenzene	15.43	146	7816	1.04 ug/L	89
114) 1,2-dichlorobenzene	15.84	146	7705	0.99 ug/L	96
115) benzyl chloride	15.53	91	5544	0.84 ug/L	84
116) n-butylbenzene	15.73	92	7705	0.95 ug/L	98
117) hexachloroethane	16.17	201	1894	0.72 ug/L #	79
118) 1,2-dibromo-3-chloropropan	16.69	157	648	0.71 ug/L	95
119) 1,3,5-trichlorobenzene	16.88	180	7775	0.95 ug/L	98
120) 1,2,4-trichlorobenzene	17.57	180	6438	0.94 ug/L	97
122) hexachlorobutadiene	17.69	225	3697	0.97 ug/L	98
123) naphthalene	17.88	128	12634	0.97 ug/L	95
124) 1,2,3-trichlorobenzene	18.12	180	5708	0.98 ug/L	90
125) 2-methylnaphthalene	19.17	142	2588	0.42 ug/L	95

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82570.D
Acq On : 7 Jun 2018 8:27 pm
Operator : HueanhT
Sample : ic3432-1
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jun 08 11:32:20 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:48:41 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82571.D
Acq On : 7 Jun 2018 8:55 pm
Operator : HueanhT
Sample : ic3432-2
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 08 11:33:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:55:08 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.79	65	142339	500.00	ug/L	-0.01
5) pentafluorobenzene	8.77	168	251558	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	355465	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	320704	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	204519	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	118998	50.19	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.38%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	129554	50.87	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 101.74%			
76) toluene-d8 (s)	11.24	98	410650	50.44	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.88%			
99) 4-bromofluorobenzene (s)	14.10	95	155374	49.25	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.50%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.88	59	4143	10.68	ug/L	39
4) 1,4-dioxane	10.28	88	1621	47.85	ug/L	75
6) chlorodifluoromethane	3.93	51	14471	2.12	ug/L	93
7) dichlorodifluoromethane	3.89	85	13985	2.40	ug/L	95
8) chloromethane	4.23	50	16851	2.08	ug/L	97
9) vinyl chloride	4.44	62	14376	2.19	ug/L	99
10) 1,3-butadiene	4.46	54	11615	1.96	ug/L	95
11) bromomethane	4.99	94	10040	1.90	ug/L	89
12) chloroethane	5.13	64	7723	2.14	ug/L	97
13) trichlorofluoromethane	5.53	101	13018	2.55	ug/L	93
14) vinyl bromide	5.42	106	7897	2.36	ug/L	96
15) ethyl ether	5.85	74	3156	3.66	ug/L #	73
16) 2-chloropropane	6.04	43	15063	2.39	ug/L	96
18) freon 113	6.23	151	6041	2.38	ug/L	94
19) 1,1-dichloroethene	6.23	61	12048	2.15	ug/L	96
20) acetone	6.23	58	2039	8.45	ug/L #	48
22) iodomethane	6.46	142	10861	2.15	ug/L	99
23) carbon disulfide	6.59	76	21943	2.06	ug/L	97
24) methylene chloride	6.83	84	7681	2.10	ug/L	99
26) methyl tert butyl ether	7.14	73	19242	2.06	ug/L	95
27) trans-1,2-dichloroethene	7.17	61	10419	2.25	ug/L	95
28) hexane	7.47	56	5259	2.12	ug/L	99
29) di-isopropyl ether	7.65	45	26182	2.13	ug/L	97
30) 2-butanone	8.24	72	2050	7.26	ug/L #	51
31) 1,1-dichloroethane	7.68	63	12595	2.25	ug/L	99
32) chloroprene	7.76	53	10405	2.18	ug/L	93
33) acrylonitrile	7.08	53	1983	1.77	ug/L	80
35) ethyl tert-butyl ether	8.06	59	22177	2.14	ug/L	98
37) 2,2-dichloropropane	8.35	77	10832	2.11	ug/L	87
38) cis-1,2-dichloroethene	8.31	96	7134	2.13	ug/L	96
39) propionitrile	8.31	54	9767	22.11	ug/L	78
41) methacrylonitrile	8.48	67	2120	1.97	ug/L	84
42) bromochloromethane	8.58	128	3462	2.42	ug/L	89

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82571.D
Acq On : 7 Jun 2018 8:55 pm
Operator : HueanhT
Sample : ic3432-2
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 08 11:33:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:55:08 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units		Dev(Min)
44) chloroform	8.65	83	11513	2.05 ug/L		97
45) tert-butyl formate	8.68	59	4447	1.82 ug/L		90
47) 1,1,1-trichloroethane	8.90	97	11515	2.22 ug/L		98
48) cyclohexane	9.01	84	13266	2.43 ug/L		94
50) 1,1-dichloropropene	9.04	75	8602	2.16 ug/L		91
51) carbon tetrachloride	9.08	117	8918	2.13 ug/L		98
52) tert-amyl alcohol	9.15	73	1871	11.19 ug/L	#	57
57) 2,2,4-trimethylpentane	9.35	57	28393	1.98 ug/L		97
58) benzene	9.28	78	25880	2.12 ug/L		98
59) tert-amyl methyl ether	9.34	73	21058	2.19 ug/L		97
60) heptane	9.49	57	5320	2.07 ug/L		92
61) 1,2-dichloroethane	9.30	62	8146	2.33 ug/L		91
62) ethyl acrylate	9.92	55	6180	2.00 ug/L		95
63) trichloroethene	9.94	95	6076	2.22 ug/L		96
64) 2-chloroethyl vinyl ether	10.70	63	16268	10.65 ug/L		98
65) methyl methacrylate	10.17	100	1087	1.73 ug/L	#	78
66) methylcyclohexane	10.24	83	13863	2.13 ug/L		92
67) 1,2-dichloropropane	10.23	63	6575	2.12 ug/L		92
68) dibromomethane	10.34	93	3562	2.18 ug/L		90
69) bromodichloromethane	10.48	83	7566	2.14 ug/L		99
71) epichlorohydrin	10.79	57	3088	10.85 ug/L		90
72) cis-1,3-dichloropropene	10.92	75	8961	2.17 ug/L		96
73) 4-methyl-2-pentanone	11.02	58	9037	8.91 ug/L		94
74) isoamyl alcohol	11.03	70	3271	39.33 ug/L		91
77) toluene	11.31	92	14769	2.21 ug/L		98
78) ethyl methacrylate	11.48	69	6616	2.25 ug/L		99
79) trans-1,3-dichloropropene	11.50	75	6898	1.99 ug/L		81
80) 1,1,2-trichloroethane	11.73	83	3931	2.19 ug/L		97
81) tetrachloroethene	11.89	164	5195	2.23 ug/L		91
82) 2-hexanone	11.90	58	7804	9.43 ug/L	#	87
83) 1,3-dichloropropane	11.92	76	7819	2.24 ug/L		98
84) butyl acetate	11.98	56	3129	1.93 ug/L		96
85) dibromochloromethane	12.18	129	4248	1.87 ug/L		97
86) 1,2-dibromoethane	12.35	107	4915	2.19 ug/L		100
87) n-butyl ether	12.81	57	29184	2.14 ug/L		93
88) chlorobenzene	12.86	112	15363	2.12 ug/L		99
89) 1,1,1,2-tetrachloroethane	12.94	131	6048	1.98 ug/L		95
90) ethylbenzene	12.93	91	28341	2.15 ug/L		99
91) m,p-xylene	13.06	106	21084	4.31 ug/L		96
92) o-xylene	13.50	91	24944	2.20 ug/L		93
93) styrene	13.51	104	17331	2.19 ug/L		98
94) butyl acrylate	13.30	55	11826	2.22 ug/L		96
95) isopropylbenzene	13.88	105	31414	2.15 ug/L		99
96) bromoform	13.77	173	2697	2.04 ug/L		94
100) 1,1,2,2-tetrachloroethane	14.19	83	7342	2.00 ug/L		94
101) trans-1,4-dichloro-2-buten	14.22	53	1445	1.85 ug/L		86
102) 1,2,3-trichloropropane	14.29	110	1780	2.04 ug/L		85
103) bromobenzene	14.31	156	7238	2.20 ug/L		96
104) n-propylbenzene	14.34	91	35701	2.11 ug/L		98
105) 2-chlorotoluene	14.48	126	7186	2.08 ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82571.D
Acq On : 7 Jun 2018 8:55 pm
Operator : HueanhT
Sample : ic3432-2
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 08 11:33:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:55:08 2018
Response via : Initial Calibration

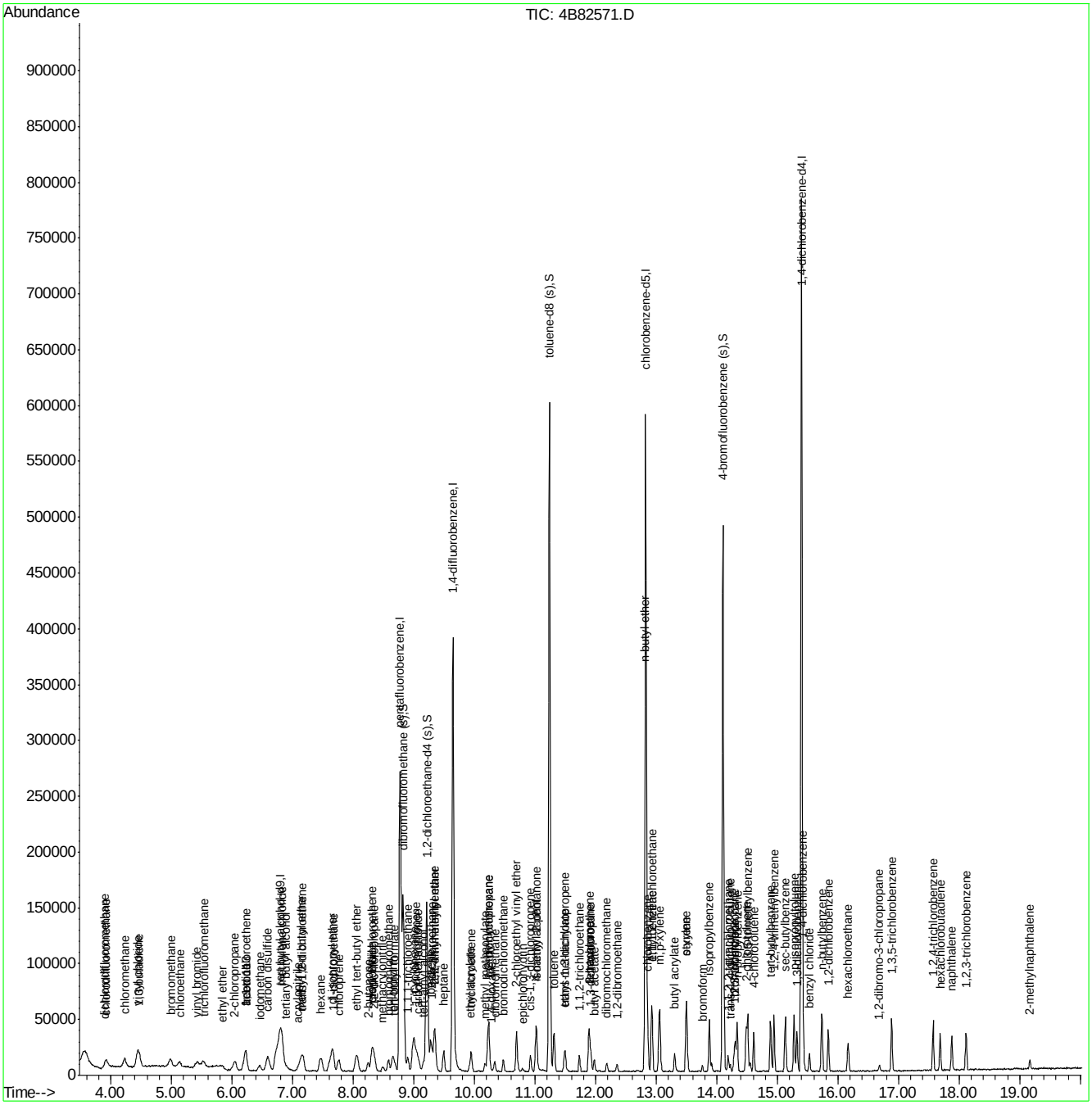
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
106) 4-chlorotoluene	14.61	91	20025	2.13 ug/L	97
107) 1,3,5-trimethylbenzene	14.51	105	26973	2.08 ug/L	98
108) tert-butylbenzene	14.89	119	22354	2.06 ug/L	99
109) 1,2,4-trimethylbenzene	14.94	105	27584	2.13 ug/L	100
110) sec-butylbenzene	15.13	105	36372	2.10 ug/L	98
111) p-isopropyltoluene	15.28	119	30789	2.08 ug/L	98
112) 1,3-dichlorobenzene	15.32	146	15543	2.14 ug/L	97
113) 1,4-dichlorobenzene	15.43	146	15522	2.14 ug/L	96
114) 1,2-dichlorobenzene	15.84	146	16020	2.05 ug/L	96
115) benzyl chloride	15.53	91	11756	1.89 ug/L	99
116) n-butylbenzene	15.73	92	16229	2.11 ug/L	98
117) hexachloroethane	16.17	201	3760	1.42 ug/L #	79
118) 1,2-dibromo-3-chloropropan	16.69	157	1379	1.51 ug/L	89
119) 1,3,5-trichlorobenzene	16.89	180	15944	2.02 ug/L	99
120) 1,2,4-trichlorobenzene	17.57	180	12766	1.91 ug/L	93
122) hexachlorobutadiene	17.69	225	7312	1.97 ug/L	92
123) naphthalene	17.87	128	25019	1.73 ug/L	98
124) 1,2,3-trichlorobenzene	18.11	180	11287	1.92 ug/L	97
125) 2-methylnaphthalene	19.17	142	5197	0.85 ug/L	93

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82571.D
Acq On : 7 Jun 2018 8:55 pm
Operator : HueanhT
Sample : ic3432-2
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 4 Sample Multiplier: 1

Quant Time: Jun 08 11:33:08 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 10:55:08 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82572.D
Acq On : 7 Jun 2018 9:23 pm
Operator : HueanhT
Sample : ic3432-5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 08 11:14:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.80	65	140972	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	245269	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	348838	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	316991	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	202839	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	117113	50.67	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.34%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	128558	51.44	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.88%				
76) toluene-d8 (s)	11.24	98	404454	50.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%				
99) 4-bromofluorobenzene (s)	14.10	95	155284	49.63	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.26%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.88	59	9657	25.15	ug/L		86
4) 1,4-dioxane	10.27	88	4288	127.81	ug/L		94
6) chlorodifluoromethane	3.92	51	34001	5.12	ug/L		97
7) dichlorodifluoromethane	3.90	85	33151	5.83	ug/L		95
8) chloromethane	4.23	50	39535	5.00	ug/L		98
9) vinyl chloride	4.44	62	34189	5.35	ug/L		99
10) 1,3-butadiene	4.46	54	29137	5.03	ug/L		99
11) bromomethane	4.99	94	22365	4.33	ug/L		95
12) chloroethane	5.13	64	16515	4.69	ug/L		96
13) trichlorofluoromethane	5.53	101	29736	5.97	ug/L		95
14) vinyl bromide	5.43	106	18284	5.60	ug/L		97
15) ethyl ether	5.80	74	7184	8.55	ug/L		96
16) 2-chloropropane	6.05	43	31944	5.19	ug/L		98
17) acrolein	6.05	56	3263	5.17	ug/L		89
18) freon 113	6.22	151	14078	5.69	ug/L		98
19) 1,1-dichloroethene	6.23	61	28947	5.29	ug/L		97
20) acetone	6.24	58	4351	18.49	ug/L		89
21) acetonitrile	6.60	41	25727	55.02	ug/L		91
22) iodomethane	6.46	142	26393	5.36	ug/L		98
23) carbon disulfide	6.59	76	51304	4.94	ug/L		99
24) methylene chloride	6.83	84	18239	5.12	ug/L		96
25) methyl acetate	6.58	43	12049	5.53	ug/L		91
26) methyl tert butyl ether	7.13	73	48144	5.27	ug/L		98
27) trans-1,2-dichloroethene	7.17	61	24034	5.32	ug/L		95
28) hexane	7.46	56	12080	5.00	ug/L		90
29) di-isopropyl ether	7.64	45	61021	5.08	ug/L		94
30) 2-butanone	8.24	72	5062	18.40	ug/L		99
31) 1,1-dichloroethane	7.68	63	29682	5.43	ug/L		98
32) chloroprene	7.77	53	24000	5.16	ug/L		96
33) acrylonitrile	7.08	53	5391	4.93	ug/L		86
34) vinyl acetate	7.61	86	1649	4.16	ug/L	#	90
35) ethyl tert-butyl ether	8.05	59	53882	5.34	ug/L		97
36) ethyl acetate	8.24	45	2129	4.73	ug/L	#	68

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82572.D
Acq On : 7 Jun 2018 9:23 pm
Operator : HueanhT
Sample : ic3432-5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 08 11:14:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.34	77	25734	5.15	ug/L		95
38) cis-1,2-dichloroethene	8.31	96	16926	5.19	ug/L		96
39) propionitrile	8.31	54	22922	53.23	ug/L		86
40) methyl acrylate	8.33	85	1604	4.14	ug/L	#	60
41) methacrylonitrile	8.49	67	5001	4.76	ug/L		97
42) bromochloromethane	8.58	128	7602	5.46	ug/L		95
43) tetrahydrofuran	8.60	72	1548	4.32	ug/L	#	80
44) chloroform	8.65	83	27389	5.00	ug/L		95
45) tert-butyl formate	8.69	59	10871	4.58	ug/L		94
47) 1,1,1-trichloroethane	8.90	97	26844	5.31	ug/L		97
48) cyclohexane	9.01	84	27143	5.10	ug/L		97
50) 1,1-dichloropropene	9.04	75	20941	5.39	ug/L		96
51) carbon tetrachloride	9.08	117	21404	5.24	ug/L		99
52) tert-amyl alcohol	9.14	73	4616	28.32	ug/L	#	63
53) isopropyl acetate	9.17	87	2401	4.67	ug/L	#	42
56) n-butyl alcohol	9.69	41	19124	215.13	ug/L	#	60
57) 2,2,4-trimethylpentane	9.35	57	66480	4.71	ug/L		97
58) benzene	9.28	78	60984	5.09	ug/L		98
59) tert-amyl methyl ether	9.34	73	48652	5.15	ug/L		96
60) heptane	9.49	57	12074	4.78	ug/L		97
61) 1,2-dichloroethane	9.30	62	18680	5.43	ug/L		95
62) ethyl acrylate	9.92	55	14676	4.85	ug/L		97
63) trichloroethene	9.95	95	14817	5.52	ug/L		97
64) 2-chloroethyl vinyl ether	10.70	63	39258	26.19	ug/L		96
65) methyl methacrylate	10.17	100	2739	4.44	ug/L	#	90
66) methylcyclohexane	10.24	83	33370	5.23	ug/L		98
67) 1,2-dichloropropane	10.23	63	16019	5.27	ug/L		98
68) dibromomethane	10.33	93	8319	5.20	ug/L		94
69) bromodichloromethane	10.48	83	17714	5.10	ug/L		99
70) 2-nitropropane	10.68	41	5064	5.35	ug/L		95
71) epichlorohydrin	10.79	57	6683	23.93	ug/L		97
72) cis-1,3-dichloropropene	10.93	75	20883	5.14	ug/L		98
73) 4-methyl-2-pentanone	11.02	58	21711	21.82	ug/L		94
74) isoamyl alcohol	11.02	70	8017	98.23	ug/L		95
77) toluene	11.31	92	34189	5.18	ug/L		95
78) ethyl methacrylate	11.48	69	15464	5.32	ug/L		99
79) trans-1,3-dichloropropene	11.50	75	17294	5.05	ug/L		93
80) 1,1,2-trichloroethane	11.73	83	9694	5.47	ug/L		93
81) tetrachloroethene	11.89	164	12240	5.33	ug/L		99
82) 2-hexanone	11.90	58	18321	22.41	ug/L		98
83) 1,3-dichloropropane	11.92	76	18011	5.22	ug/L		96
84) butyl acetate	11.97	56	8244	5.13	ug/L		95
85) dibromochloromethane	12.18	129	10700	4.76	ug/L		94
86) 1,2-dibromoethane	12.35	107	11688	5.27	ug/L		100
87) n-butyl ether	12.81	57	69711	5.18	ug/L		99
88) chlorobenzene	12.86	112	35971	5.02	ug/L		93
89) 1,1,1,2-tetrachloroethane	12.94	131	14537	4.82	ug/L		95
90) ethylbenzene	12.93	91	66357	5.09	ug/L		100
91) m,p-xylene	13.06	106	50936	10.54	ug/L		98
92) o-xylene	13.50	91	57406	5.12	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82572.D
Acq On : 7 Jun 2018 9:23 pm
Operator : HueanhT
Sample : ic3432-5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 08 11:14:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

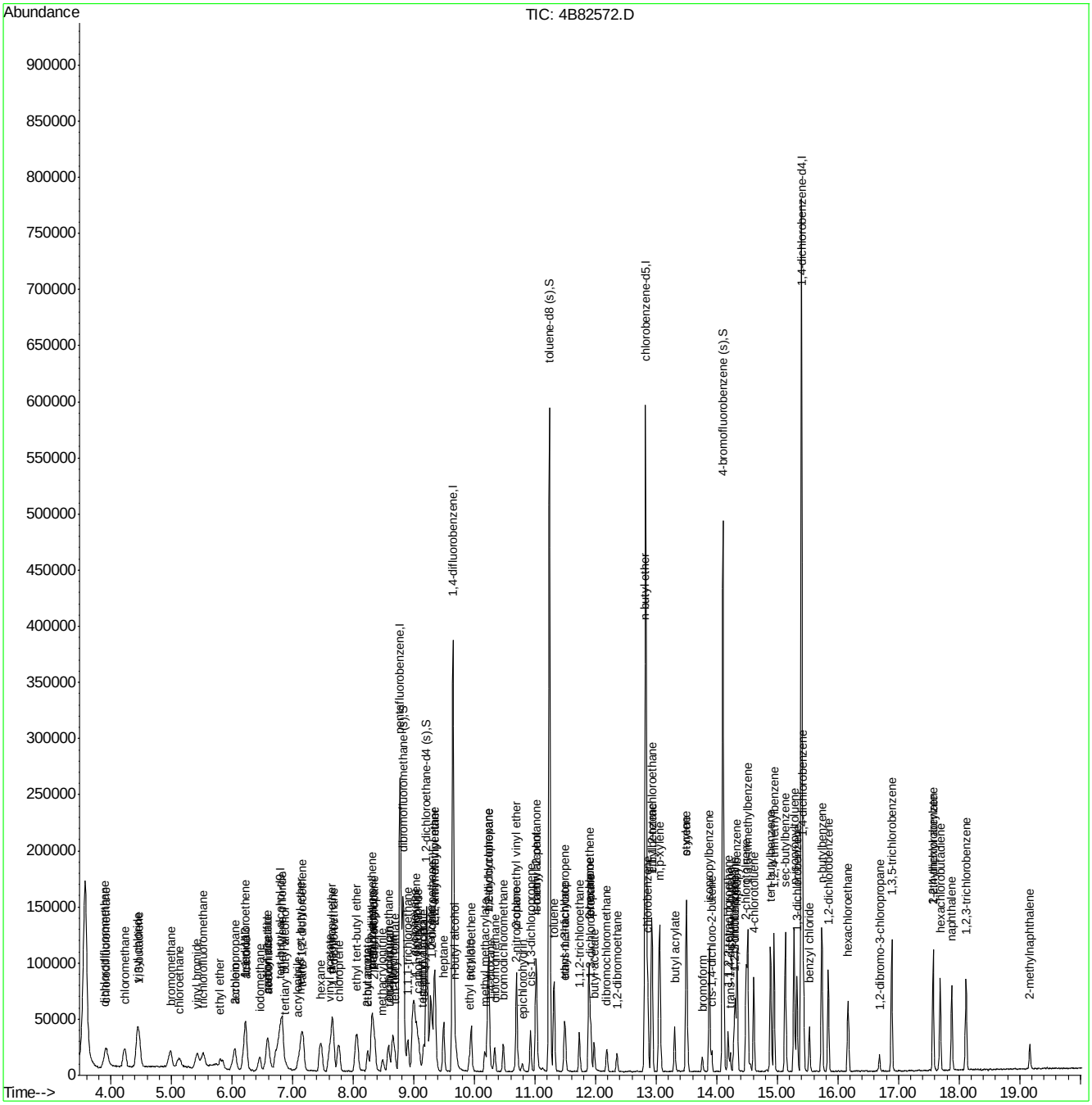
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) styrene	13.51	104	41602	5.32	ug/L		99
94) butyl acrylate	13.31	55	28410	5.41	ug/L		98
95) isopropylbenzene	13.88	105	74405	5.15	ug/L		97
96) bromoform	13.76	173	6421	4.92	ug/L		99
97) cis-1,4-dichloro-2-butene	13.92	88	3348	3.67	ug/L	#	88
100) 1,1,2,2-tetrachloroethane	14.19	83	17343	4.77	ug/L		98
101) trans-1,4-dichloro-2-buten	14.22	53	3674	4.74	ug/L	#	75
102) 1,2,3-trichloropropane	14.29	110	4340	5.02	ug/L		86
103) bromobenzene	14.30	156	17213	5.27	ug/L		95
104) n-propylbenzene	14.34	91	86301	5.13	ug/L		99
105) 2-chlorotoluene	14.48	126	17580	5.13	ug/L		92
106) 4-chlorotoluene	14.61	91	48120	5.17	ug/L		99
107) 1,3,5-trimethylbenzene	14.51	105	66138	5.15	ug/L		98
108) tert-butylbenzene	14.89	119	54629	5.08	ug/L		99
109) 1,2,4-trimethylbenzene	14.94	105	66451	5.18	ug/L		99
110) sec-butylbenzene	15.13	105	87846	5.13	ug/L		100
111) p-isopropyltoluene	15.28	119	75414	5.13	ug/L		97
112) 1,3-dichlorobenzene	15.32	146	35837	4.97	ug/L		98
113) 1,4-dichlorobenzene	15.43	146	36425	5.08	ug/L		94
114) 1,2-dichlorobenzene	15.84	146	38336	4.94	ug/L		99
115) benzyl chloride	15.53	91	29126	4.73	ug/L		93
116) n-butylbenzene	15.73	92	39563	5.19	ug/L		99
117) hexachloroethane	16.17	201	9691	3.68	ug/L		85
118) 1,2-dibromo-3-chloropropan	16.69	157	3834	4.22	ug/L		95
119) 1,3,5-trichlorobenzene	16.89	180	39066	4.99	ug/L		97
120) 1,2,4-trichlorobenzene	17.57	180	31294	4.72	ug/L		97
121) 2-ethylhexyl acrylate	17.58	70	3459	0.73	ug/L		88
122) hexachlorobutadiene	17.69	225	18653	5.07	ug/L		97
123) naphthalene	17.88	128	60521	4.22	ug/L		99
124) 1,2,3-trichlorobenzene	18.11	180	26614	4.57	ug/L		99
125) 2-methylnaphthalene	19.17	142	12736	2.10	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82572.D
Acq On : 7 Jun 2018 9:23 pm
Operator : HueanhT
Sample : ic3432-5
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 5 Sample Multiplier: 1

Quant Time: Jun 08 11:14:36 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82573.D
Acq On : 7 Jun 2018 9:51 pm
Operator : HueanhT
Sample : ic3432-10
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 08 11:24:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.80	65	141745	500.00	ug/L		0.00
5) pentafluorobenzene	8.77	168	247492	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	352258	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	321977	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	205085	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.82	113	117239	50.26	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.52%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	129338	51.25	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 102.50%				
76) toluene-d8 (s)	11.24	98	412194	50.43	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.86%				
99) 4-bromofluorobenzene (s)	14.10	95	156788	49.56	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.12%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.89	59	19915	51.58	ug/L		96
4) 1,4-dioxane	10.29	88	8721	258.52	ug/L		88
6) chlorodifluoromethane	3.92	51	69898	10.42	ug/L		99
7) dichlorodifluoromethane	3.91	85	70117	12.22	ug/L		100
8) chloromethane	4.23	50	78504	9.83	ug/L		97
9) vinyl chloride	4.44	62	69810	10.82	ug/L		99
10) 1,3-butadiene	4.47	54	57850	9.90	ug/L		99
11) bromomethane	4.98	94	42076	8.08	ug/L		95
12) chloroethane	5.12	64	33727	9.49	ug/L		97
13) trichlorofluoromethane	5.52	101	60615	12.06	ug/L		97
14) vinyl bromide	5.41	106	36665	11.12	ug/L		100
15) ethyl ether	5.84	74	14921	17.60	ug/L		86
16) 2-chloropropane	6.05	43	64422	10.38	ug/L		98
17) acrolein	6.04	56	6834	10.74	ug/L		93
18) freon 113	6.23	151	30476	12.21	ug/L		95
19) 1,1-dichloroethene	6.22	61	59262	10.73	ug/L		97
20) acetone	6.23	58	9946	41.90	ug/L	#	80
21) acetonitrile	6.60	41	51282	108.68	ug/L		96
22) iodomethane	6.46	142	54068	10.89	ug/L		99
23) carbon disulfide	6.59	76	107184	10.23	ug/L		99
24) methylene chloride	6.83	84	36848	10.26	ug/L		98
25) methyl acetate	6.58	43	22851	10.40	ug/L		100
26) methyl tert butyl ether	7.14	73	95959	10.42	ug/L		95
27) trans-1,2-dichloroethene	7.17	61	49377	10.84	ug/L		99
28) hexane	7.47	56	25119	10.31	ug/L		96
29) di-isopropyl ether	7.65	45	125138	10.33	ug/L		97
30) 2-butanone	8.23	72	10526	37.91	ug/L		98
31) 1,1-dichloroethane	7.68	63	60361	10.95	ug/L		98
32) chloroprene	7.76	53	50300	10.73	ug/L		97
33) acrylonitrile	7.07	53	10887	9.87	ug/L		86
34) vinyl acetate	7.60	86	3814	9.54	ug/L	#	95
35) ethyl tert-butyl ether	8.06	59	108613	10.66	ug/L		99
36) ethyl acetate	8.23	45	4630	10.20	ug/L	#	90

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82573.D
Acq On : 7 Jun 2018 9:51 pm
Operator : HueanhT
Sample : ic3432-10
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 08 11:24:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.34	77	52566	10.42	ug/L		94
38) cis-1,2-dichloroethene	8.31	96	34462	10.47	ug/L		93
39) propionitrile	8.31	54	47169	108.56	ug/L		94
40) methyl acrylate	8.32	85	3409	8.73	ug/L	#	78
41) methacrylonitrile	8.49	67	10722	10.12	ug/L		96
42) bromochloromethane	8.58	128	15976	11.36	ug/L		94
43) tetrahydrofuran	8.59	72	3351	9.27	ug/L		90
44) chloroform	8.65	83	55684	10.07	ug/L		99
45) tert-butyl formate	8.69	59	22474	9.37	ug/L		98
47) 1,1,1-trichloroethane	8.90	97	55815	10.95	ug/L		100
48) cyclohexane	9.01	84	56214	10.46	ug/L		98
50) 1,1-dichloropropene	9.05	75	42670	10.88	ug/L		97
51) carbon tetrachloride	9.08	117	44850	10.88	ug/L		98
52) tert-amyl alcohol	9.16	73	9409	57.21	ug/L	#	86
53) isopropyl acetate	9.16	87	4957	9.56	ug/L	#	88
56) n-butyl alcohol	9.68	41	37412	416.77	ug/L	#	60
57) 2,2,4-trimethylpentane	9.35	57	146542	10.29	ug/L		99
58) benzene	9.28	78	124490	10.29	ug/L		100
59) tert-amyl methyl ether	9.34	73	99668	10.45	ug/L		97
60) heptane	9.49	57	26420	10.36	ug/L		94
61) 1,2-dichloroethane	9.30	62	38683	11.14	ug/L		96
62) ethyl acrylate	9.91	55	30296	9.91	ug/L		100
63) trichloroethene	9.95	95	30042	11.08	ug/L		97
64) 2-chloroethyl vinyl ether	10.70	63	81721	53.99	ug/L		99
65) methyl methacrylate	10.16	100	6010	9.65	ug/L	#	85
66) methylcyclohexane	10.24	83	70767	10.98	ug/L		99
67) 1,2-dichloropropane	10.23	63	32166	10.48	ug/L		100
68) dibromomethane	10.34	93	17558	10.86	ug/L		97
69) bromodichloromethane	10.48	83	37671	10.75	ug/L		98
70) 2-nitropropane	10.67	41	10201	10.68	ug/L		94
71) epichlorohydrin	10.80	57	14110	50.04	ug/L		91
72) cis-1,3-dichloropropene	10.93	75	43984	10.73	ug/L		100
73) 4-methyl-2-pentanone	11.02	58	45370	45.16	ug/L		99
74) isoamyl alcohol	11.02	70	17401	211.13	ug/L		97
77) toluene	11.31	92	71853	10.73	ug/L		99
78) ethyl methacrylate	11.48	69	33130	11.22	ug/L		97
79) trans-1,3-dichloropropene	11.50	75	35979	10.35	ug/L		95
80) 1,1,2-trichloroethane	11.73	83	19243	10.69	ug/L		97
81) tetrachloroethene	11.89	164	26046	11.16	ug/L		97
82) 2-hexanone	11.90	58	38534	46.40	ug/L		93
83) 1,3-dichloropropane	11.92	76	37275	10.63	ug/L		92
84) butyl acetate	11.97	56	16694	10.23	ug/L		90
85) dibromochloromethane	12.18	129	22797	9.98	ug/L		97
86) 1,2-dibromoethane	12.35	107	24707	10.97	ug/L		97
87) n-butyl ether	12.81	57	142596	10.44	ug/L		98
88) chlorobenzene	12.86	112	76390	10.50	ug/L		95
89) 1,1,1,2-tetrachloroethane	12.93	131	31302	10.23	ug/L		99
90) ethylbenzene	12.93	91	138617	10.47	ug/L		99
91) m,p-xylene	13.06	106	104004	21.19	ug/L		96
92) o-xylene	13.50	91	118855	10.43	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82573.D
Acq On : 7 Jun 2018 9:51 pm
Operator : HueanhT
Sample : ic3432-10
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 08 11:24:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

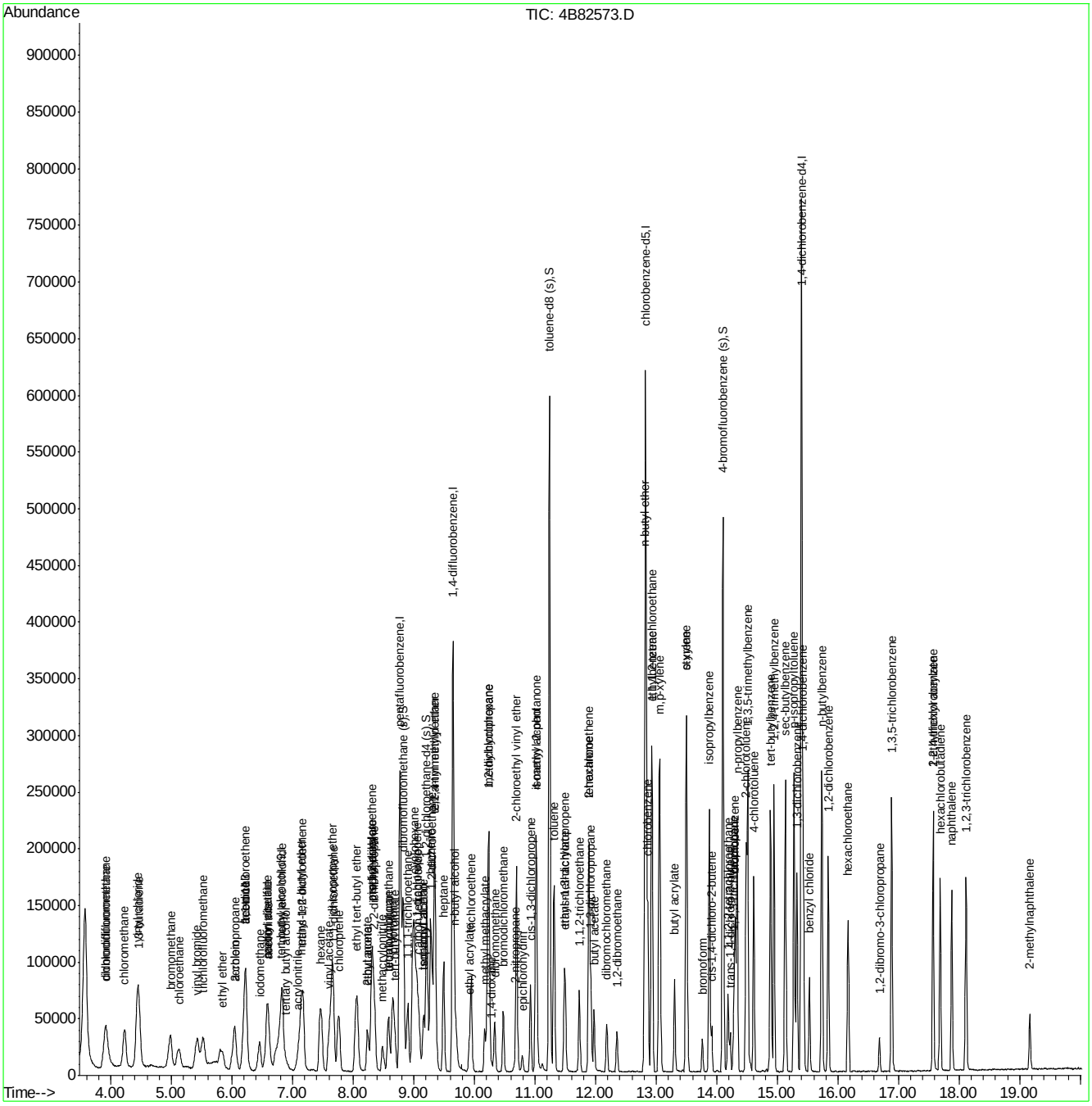
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) styrene	13.51	104	85311	10.73	ug/L		99
94) butyl acrylate	13.30	55	56214	10.53	ug/L		99
95) isopropylbenzene	13.88	105	156238	10.65	ug/L		100
96) bromoform	13.76	173	14076	10.62	ug/L		96
97) cis-1,4-dichloro-2-butene	13.92	88	7923	8.55	ug/L	#	85
100) 1,1,2,2-tetrachloroethane	14.19	83	35651	9.70	ug/L		97
101) trans-1,4-dichloro-2-buten	14.22	53	7436	9.49	ug/L		90
102) 1,2,3-trichloropropane	14.28	110	8552	9.78	ug/L		94
103) bromobenzene	14.31	156	35965	10.90	ug/L		99
104) n-propylbenzene	14.34	91	178813	10.51	ug/L		98
105) 2-chlorotoluene	14.48	126	36051	10.41	ug/L		95
106) 4-chlorotoluene	14.61	91	99170	10.53	ug/L		99
107) 1,3,5-trimethylbenzene	14.51	105	137989	10.62	ug/L		99
108) tert-butylbenzene	14.89	119	115262	10.59	ug/L		98
109) 1,2,4-trimethylbenzene	14.94	105	136922	10.57	ug/L		99
110) sec-butylbenzene	15.13	105	184152	10.63	ug/L		100
111) p-isopropyltoluene	15.27	119	157402	10.59	ug/L		98
112) 1,3-dichlorobenzene	15.32	146	75326	10.34	ug/L		99
113) 1,4-dichlorobenzene	15.43	146	75827	10.45	ug/L		98
114) 1,2-dichlorobenzene	15.84	146	78826	10.05	ug/L		99
115) benzyl chloride	15.53	91	60077	9.66	ug/L		99
116) n-butylbenzene	15.73	92	81722	10.60	ug/L		98
117) hexachloroethane	16.17	201	21996	8.27	ug/L		88
118) 1,2-dibromo-3-chloropropan	16.69	157	8062	8.78	ug/L		91
119) 1,3,5-trichlorobenzene	16.89	180	82126	10.37	ug/L		98
120) 1,2,4-trichlorobenzene	17.57	180	66778	9.96	ug/L		100
121) 2-ethylhexyl acrylate	17.58	70	7815	1.63	ug/L		92
122) hexachlorobutadiene	17.68	225	38346	10.31	ug/L		98
123) naphthalene	17.88	128	126199	8.70	ug/L		99
124) 1,2,3-trichlorobenzene	18.11	180	58376	9.92	ug/L		97
125) 2-methylnaphthalene	19.17	142	27294	4.45	ug/L		98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82573.D
Acq On : 7 Jun 2018 9:51 pm
Operator : HueanhT
Sample : ic3432-10
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 6 Sample Multiplier: 1

Quant Time: Jun 08 11:24:43 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82574.D
Acq On : 7 Jun 2018 10:19 pm
Operator : HueanhT
Sample : ic3432-20
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 08 11:25:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.79	65	140099	500.00	ug/L		0.00
5) pentafluorobenzene	8.77	168	247833	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	351823	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	327875	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	202238	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	117463	50.29	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.58%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	126736	50.28	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.56%				
76) toluene-d8 (s)	11.24	98	417522	50.16	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.32%				
99) 4-bromofluorobenzene (s)	14.10	95	155466	49.84	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.68%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.90	59	39689	104.00	ug/L		98
4) 1,4-dioxane	10.28	88	17320	519.45	ug/L		93
6) chlorodifluoromethane	3.92	51	137471	20.47	ug/L		99
7) dichlorodifluoromethane	3.91	85	139579	24.28	ug/L		97
8) chloromethane	4.23	50	152796	19.11	ug/L		99
9) vinyl chloride	4.44	62	138684	21.47	ug/L		99
10) 1,3-butadiene	4.46	54	118086	20.19	ug/L		99
11) bromomethane	4.98	94	83232	15.95	ug/L		97
12) chloroethane	5.12	64	66992	18.82	ug/L		98
13) trichlorofluoromethane	5.52	101	121178	24.08	ug/L		98
14) vinyl bromide	5.42	106	73102	22.15	ug/L		97
15) ethyl ether	5.84	74	30079	35.43	ug/L		94
16) 2-chloropropane	6.05	43	127945	20.58	ug/L		99
17) acrolein	6.05	56	12926	20.29	ug/L		90
18) freon 113	6.23	151	59205	23.69	ug/L		99
19) 1,1-dichloroethene	6.22	61	119226	21.56	ug/L		98
20) acetone	6.22	58	19041	80.10	ug/L		95
21) acetonitrile	6.59	41	98631	208.75	ug/L		97
22) iodomethane	6.46	142	107996	21.71	ug/L		99
23) carbon disulfide	6.59	76	217166	20.70	ug/L		99
24) methylene chloride	6.83	84	72877	20.26	ug/L		96
25) methyl acetate	6.58	43	42642	19.38	ug/L		96
26) methyl tert butyl ether	7.14	73	191574	20.77	ug/L		100
27) trans-1,2-dichloroethene	7.17	61	98459	21.59	ug/L		98
28) hexane	7.46	56	50089	20.53	ug/L		97
29) di-isopropyl ether	7.65	45	252512	20.81	ug/L		98
30) 2-butanone	8.23	72	21936	78.90	ug/L	#	84
31) 1,1-dichloroethane	7.67	63	121293	21.98	ug/L		98
32) chloroprene	7.76	53	100429	21.39	ug/L		99
33) acrylonitrile	7.08	53	21891	19.82	ug/L		91
34) vinyl acetate	7.59	86	8114	20.26	ug/L	#	75
35) ethyl tert-butyl ether	8.06	59	220560	21.62	ug/L		98
36) ethyl acetate	8.23	45	9510	20.92	ug/L	#	88

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82574.D
Acq On : 7 Jun 2018 10:19 pm
Operator : HueanhT
Sample : ic3432-20
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 08 11:25:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.35	77	104720	20.73	ug/L		99
38) cis-1,2-dichloroethene	8.31	96	70320	21.33	ug/L		97
39) propionitrile	8.30	54	95615	219.75	ug/L		87
40) methyl acrylate	8.32	85	7271	18.59	ug/L		95
41) methacrylonitrile	8.48	67	20895	19.69	ug/L		95
42) bromochloromethane	8.58	128	31755	22.56	ug/L		98
43) tetrahydrofuran	8.60	72	7334	20.26	ug/L		96
44) chloroform	8.65	83	110298	19.91	ug/L		99
45) tert-butyl formate	8.68	59	47501	19.79	ug/L		97
47) 1,1,1-trichloroethane	8.90	97	111293	21.80	ug/L		100
48) cyclohexane	9.01	84	112180	20.85	ug/L		98
50) 1,1-dichloropropene	9.04	75	85584	21.80	ug/L		99
51) carbon tetrachloride	9.09	117	89526	21.70	ug/L		98
52) tert-amyl alcohol	9.15	73	17091	103.78	ug/L		95
53) isopropyl acetate	9.16	87	10774	20.75	ug/L	#	85
56) n-butyl alcohol	9.68	41	70233	783.35	ug/L	#	50
57) 2,2,4-trimethylpentane	9.35	57	293552	20.64	ug/L		98
58) benzene	9.28	78	251937	20.85	ug/L		99
59) tert-amyl methyl ether	9.34	73	203454	21.35	ug/L		98
60) heptane	9.49	57	52250	20.51	ug/L		99
61) 1,2-dichloroethane	9.30	62	77462	22.34	ug/L		99
62) ethyl acrylate	9.91	55	62015	20.31	ug/L		98
63) trichloroethene	9.94	95	60608	22.39	ug/L		98
64) 2-chloroethyl vinyl ether	10.70	63	168301	111.33	ug/L		99
65) methyl methacrylate	10.17	100	12323	19.81	ug/L		95
66) methylcyclohexane	10.24	83	141139	21.93	ug/L		99
67) 1,2-dichloropropane	10.23	63	66197	21.59	ug/L		97
68) dibromomethane	10.33	93	35108	21.74	ug/L		98
69) bromodichloromethane	10.48	83	76835	21.95	ug/L		98
70) 2-nitropropane	10.67	41	20365	21.34	ug/L		96
71) epichlorohydrin	10.79	57	28482	101.14	ug/L		97
72) cis-1,3-dichloropropene	10.93	75	90297	22.05	ug/L		99
73) 4-methyl-2-pentanone	11.02	58	90979	90.68	ug/L		99
74) isoamyl alcohol	11.02	70	34862	423.51	ug/L		97
77) toluene	11.31	92	145455	21.33	ug/L		100
78) ethyl methacrylate	11.48	69	67196	22.35	ug/L		98
79) trans-1,3-dichloropropene	11.50	75	75467	21.33	ug/L		93
80) 1,1,2-trichloroethane	11.73	83	40761	22.23	ug/L		96
81) tetrachloroethene	11.89	164	52348	22.02	ug/L		99
82) 2-hexanone	11.90	58	76763	90.77	ug/L		97
83) 1,3-dichloropropane	11.92	76	76169	21.33	ug/L		97
84) butyl acetate	11.97	56	34230	20.60	ug/L		96
85) dibromochloromethane	12.18	129	49473	21.27	ug/L		99
86) 1,2-dibromoethane	12.35	107	50620	22.07	ug/L		98
87) n-butyl ether	12.81	57	287619	20.68	ug/L		99
88) chlorobenzene	12.86	112	153664	20.75	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.94	131	64686	20.75	ug/L		98
90) ethylbenzene	12.93	91	283448	21.03	ug/L		100
91) m,p-xylene	13.06	106	213489	42.72	ug/L		100
92) o-xylene	13.50	91	244792	21.11	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82574.D
Acq On : 7 Jun 2018 10:19 pm
Operator : HueanhT
Sample : ic3432-20
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 08 11:25:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

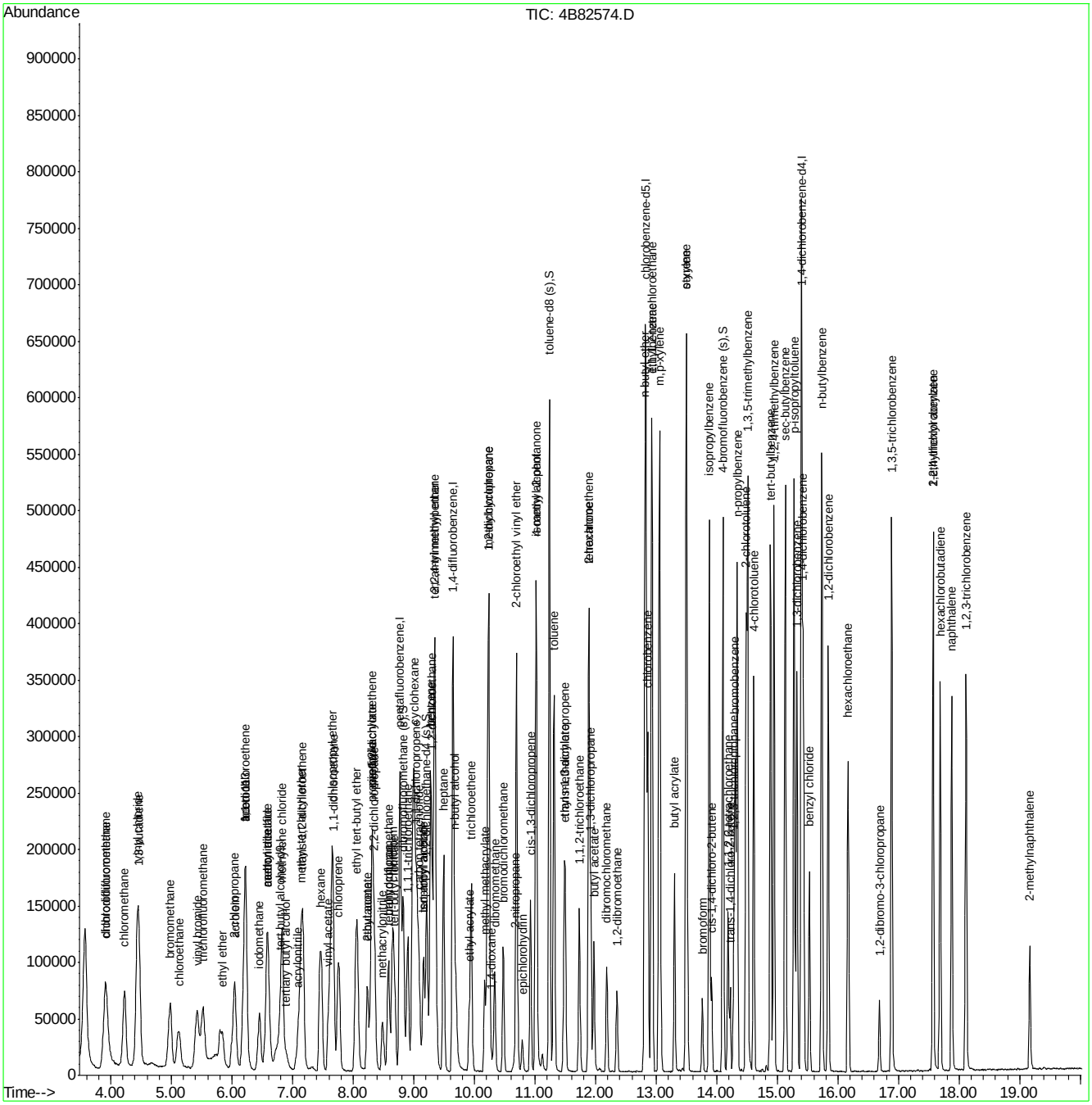
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.51	104	175010	21.62 ug/L	100
94) butyl acrylate	13.30	55	114331	21.04 ug/L	98
95) isopropylbenzene	13.88	105	319752	21.41 ug/L	99
96) bromoform	13.76	173	29957	22.20 ug/L	98
97) cis-1,4-dichloro-2-butene	13.92	88	17573	18.62 ug/L	95
100) 1,1,2,2-tetrachloroethane	14.19	83	72781	20.08 ug/L	99
101) trans-1,4-dichloro-2-buten	14.22	53	15002	19.41 ug/L	89
102) 1,2,3-trichloropropane	14.28	110	17491	20.29 ug/L	100
103) bromobenzene	14.31	156	73426	22.56 ug/L	97
104) n-propylbenzene	14.34	91	364216	21.72 ug/L	99
105) 2-chlorotoluene	14.48	126	74592	21.85 ug/L	99
106) 4-chlorotoluene	14.61	91	200294	21.56 ug/L	99
107) 1,3,5-trimethylbenzene	14.51	105	280361	21.88 ug/L	99
108) tert-butylbenzene	14.89	119	236027	22.00 ug/L	100
109) 1,2,4-trimethylbenzene	14.94	105	278620	21.80 ug/L	100
110) sec-butylbenzene	15.13	105	379825	22.23 ug/L	99
111) p-isopropyltoluene	15.28	119	319367	21.78 ug/L	99
112) 1,3-dichlorobenzene	15.32	146	152648	21.25 ug/L	99
113) 1,4-dichlorobenzene	15.43	146	152003	21.24 ug/L	99
114) 1,2-dichlorobenzene	15.84	146	159230	20.60 ug/L	100
115) benzyl chloride	15.53	91	127376	20.76 ug/L	98
116) n-butylbenzene	15.73	92	167529	22.04 ug/L	98
117) hexachloroethane	16.17	201	47315	18.04 ug/L	96
118) 1,2-dibromo-3-chloropropan	16.69	157	17481	19.32 ug/L	98
119) 1,3,5-trichlorobenzene	16.89	180	169094	21.66 ug/L	100
120) 1,2,4-trichlorobenzene	17.57	180	138337	20.93 ug/L	98
121) 2-ethylhexyl acrylate	17.58	70	17543	3.72 ug/L	97
122) hexachlorobutadiene	17.69	225	78854	21.49 ug/L	98
123) naphthalene	17.88	128	263241	18.40 ug/L	100
124) 1,2,3-trichlorobenzene	18.11	180	120707	20.80 ug/L	98
125) 2-methylnaphthalene	19.17	142	59405	9.83 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82574.D
Acq On : 7 Jun 2018 10:19 pm
Operator : HueanhT
Sample : ic3432-20
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 7 Sample Multiplier: 1

Quant Time: Jun 08 11:25:09 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82575.D
Acq On : 7 Jun 2018 10:47 pm
Operator : HueanhT
Sample : icc3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 11:25:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.80	65	140565	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	256261	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	369201	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	344921	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	210406	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	120585	49.93	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.86%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	129469	48.95	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 97.90%			
76) toluene-d8 (s)	11.24	98	432468	49.39	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.78%			
99) 4-bromofluorobenzene (s)	14.10	95	164169	50.58	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 101.16%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.90	59	95827	250.26	ug/L	100
4) 1,4-dioxane	10.27	88	41817	1250.00	ug/L	100
6) chlorodifluoromethane	3.92	51	336998	48.52	ug/L	100
7) dichlorodifluoromethane	3.90	85	351401	59.13	ug/L	100
8) chloromethane	4.23	50	380876	46.07	ug/L	100
9) vinyl chloride	4.44	62	348154	52.13	ug/L	100
10) 1,3-butadiene	4.46	54	297241	49.15	ug/L	100
11) bromomethane	4.99	94	199217	36.93	ug/L	100
12) chloroethane	5.12	64	163064	44.31	ug/L	100
13) trichlorofluoromethane	5.52	101	301200	57.89	ug/L	100
14) vinyl bromide	5.42	106	185653	54.40	ug/L	100
15) ethyl ether	5.83	74	76370	86.99	ug/L	100
16) 2-chloropropane	6.04	43	320697	49.88	ug/L	100
17) acrolein	6.05	56	32943	50.00	ug/L	100
18) freon 113	6.22	151	148229	57.37	ug/L	100
19) 1,1-dichloroethene	6.22	61	297306	52.00	ug/L	100
20) acetone	6.23	58	49162	200.00	ug/L	100
21) acetonitrile	6.59	41	244280	500.00	ug/L	100
22) iodomethane	6.46	142	269978	52.50	ug/L	100
23) carbon disulfide	6.59	76	549737	50.68	ug/L	100
24) methylene chloride	6.83	84	182979	49.19	ug/L	100
25) methyl acetate	6.59	43	113735	50.00	ug/L	100
26) methyl tert butyl ether	7.14	73	477405	50.06	ug/L	100
27) trans-1,2-dichloroethene	7.17	61	246095	52.18	ug/L	100
28) hexane	7.47	56	127501	50.55	ug/L	100
29) di-isopropyl ether	7.65	45	621214	49.51	ug/L	100
30) 2-butanone	8.23	72	57495	200.00	ug/L	100
31) 1,1-dichloroethane	7.68	63	302152	52.95	ug/L	100
32) chloroprene	7.76	53	251505	51.80	ug/L	100
33) acrylonitrile	7.07	53	57096	50.00	ug/L	100
34) vinyl acetate	7.60	86	20706	50.00	ug/L	100
35) ethyl tert-butyl ether	8.06	59	546935	51.84	ug/L	100
36) ethyl acetate	8.24	45	23503	50.00	ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82575.D
Acq On : 7 Jun 2018 10:47 pm
Operator : HueanhT
Sample : icc3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 11:25:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
37) 2,2-dichloropropane	8.35	77	256135	49.04 ug/L	100
38) cis-1,2-dichloroethene	8.31	96	175295	51.43 ug/L	100
39) propionitrile	8.31	54	243736	541.75 ug/L	100
40) methyl acrylate	8.32	85	20217	50.00 ug/L	100
41) methacrylonitrile	8.49	67	54870	50.00 ug/L	100
42) bromochloromethane	8.58	128	80545	55.33 ug/L	100
43) tetrahydrofuran	8.60	72	18719	50.00 ug/L	100
44) chloroform	8.65	83	278632	48.64 ug/L	100
45) tert-butyl formate	8.69	59	124125	50.00 ug/L	100
47) 1,1,1-trichloroethane	8.90	97	276219	52.32 ug/L	100
48) cyclohexane	9.01	84	280389	50.41 ug/L	100
50) 1,1-dichloropropene	9.04	75	217003	53.45 ug/L	100
51) carbon tetrachloride	9.08	117	226360	53.06 ug/L	100
52) tert-amyl alcohol	9.15	73	42572	250.00 ug/L	100
53) isopropyl acetate	9.17	87	26845	50.00 ug/L	100
56) n-butyl alcohol	9.68	41	175682	1867.26 ug/L #	47
57) 2,2,4-trimethylpentane	9.35	57	790036	52.94 ug/L	100
58) benzene	9.28	78	642009	50.64 ug/L	100
59) tert-amyl methyl ether	9.34	73	506791	50.68 ug/L	100
60) heptane	9.49	57	132996	49.75 ug/L	100
61) 1,2-dichloroethane	9.30	62	194742	53.53 ug/L	100
62) ethyl acrylate	9.91	55	160216	50.00 ug/L	100
63) trichloroethene	9.95	95	155463	54.73 ug/L	100
64) 2-chloroethyl vinyl ether	10.70	63	436323	275.04 ug/L	100
65) methyl methacrylate	10.17	100	32646	50.00 ug/L	100
66) methylcyclohexane	10.24	83	350182	51.85 ug/L	100
67) 1,2-dichloropropane	10.23	63	168339	52.32 ug/L	100
68) dibromomethane	10.34	93	90843	53.60 ug/L	100
69) bromodichloromethane	10.48	83	200400	54.57 ug/L	100
70) 2-nitropropane	10.67	41	50066	50.00 ug/L	100
71) epichlorohydrin	10.79	57	73880	250.00 ug/L	100
72) cis-1,3-dichloropropene	10.93	75	239005	55.62 ug/L	100
73) 4-methyl-2-pentanone	11.02	58	236161	224.30 ug/L	100
74) isoamyl alcohol	11.02	70	86383	1000.00 ug/L	100
77) toluene	11.31	92	375013	52.26 ug/L	100
78) ethyl methacrylate	11.48	69	173307	54.80 ug/L	100
79) trans-1,3-dichloropropene	11.50	75	199991	53.72 ug/L	100
80) 1,1,2-trichloroethane	11.73	83	104892	54.39 ug/L	100
81) tetrachloroethene	11.89	164	137604	55.03 ug/L	100
82) 2-hexanone	11.90	58	198815	223.49 ug/L	100
83) 1,3-dichloropropane	11.92	76	198487	52.84 ug/L	100
84) butyl acetate	11.97	56	87404	50.00 ug/L	100
85) dibromochloromethane	12.19	129	135995	55.58 ug/L	100
86) 1,2-dibromoethane	12.36	107	133137	55.17 ug/L	100
87) n-butyl ether	12.81	57	728195	49.76 ug/L	100
88) chlorobenzene	12.86	112	399815	51.31 ug/L	100
89) 1,1,1,2-tetrachloroethane	12.94	131	169774	51.78 ug/L	100
90) ethylbenzene	12.93	91	727239	51.29 ug/L	100
91) m,p-xylene	13.06	106	552868	105.17 ug/L	100
92) o-xylene	13.50	91	623317	51.08 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82575.D
Acq On : 7 Jun 2018 10:47 pm
Operator : HueanhT
Sample : icc3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 11:25:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration

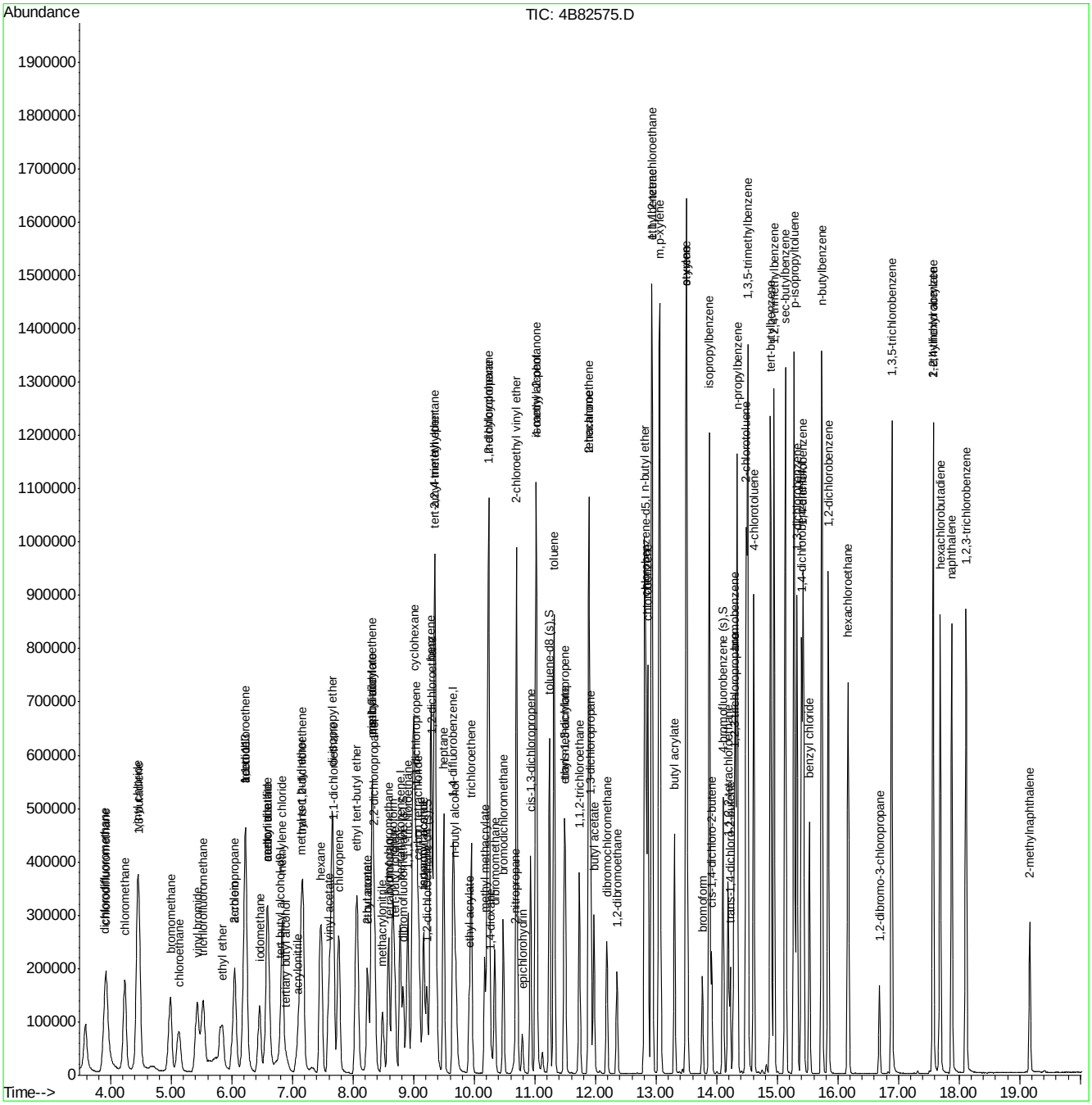
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
93) styrene	13.51	104	453661	53.27	ug/L	100
94) butyl acrylate	13.30	55	288920	50.54	ug/L	100
95) isopropylbenzene	13.88	105	816219	51.96	ug/L	100
96) bromoform	13.76	173	87188	61.42	ug/L	100
97) cis-1,4-dichloro-2-butene	13.92	88	49633	50.00	ug/L	100
100) 1,1,2,2-tetrachloroethane	14.19	83	187323	49.67	ug/L	100
101) trans-1,4-dichloro-2-buten	14.22	53	40215	50.00	ug/L	100
102) 1,2,3-trichloropropane	14.29	110	44850	50.00	ug/L	100
103) bromobenzene	14.31	156	189207	55.87	ug/L	100
104) n-propylbenzene	14.34	91	924814	53.00	ug/L	100
105) 2-chlorotoluene	14.48	126	189401	53.32	ug/L	100
106) 4-chlorotoluene	14.61	91	510530	52.83	ug/L	100
107) 1,3,5-trimethylbenzene	14.51	105	714581	53.60	ug/L	100
108) tert-butylbenzene	14.89	119	613473	54.96	ug/L	100
109) 1,2,4-trimethylbenzene	14.94	105	706608	53.15	ug/L	100
110) sec-butylbenzene	15.13	105	965156	54.28	ug/L	100
111) p-isopropyltoluene	15.28	119	816486	53.53	ug/L	100
112) 1,3-dichlorobenzene	15.32	146	386680	51.74	ug/L	100
113) 1,4-dichlorobenzene	15.43	146	387015	51.98	ug/L	100
114) 1,2-dichlorobenzene	15.84	146	402697	50.06	ug/L	100
115) benzyl chloride	15.53	91	338354	53.01	ug/L	100
116) n-butylbenzene	15.73	92	419472	53.05	ug/L	100
117) hexachloroethane	16.17	201	136420	50.00	ug/L	100
118) 1,2-dibromo-3-chloropropan	16.69	157	47080	50.00	ug/L	100
119) 1,3,5-trichlorobenzene	16.89	180	421312	51.88	ug/L	100
120) 1,2,4-trichlorobenzene	17.57	180	352312	51.24	ug/L	100
121) 2-ethylhexyl acrylate	17.58	70	49058	10.00	ug/L	100
122) hexachlorobutadiene	17.69	225	197131	51.64	ug/L	100
123) naphthalene	17.88	128	671952	45.15	ug/L	100
124) 1,2,3-trichlorobenzene	18.11	180	300779	49.82	ug/L	100
125) 2-methylnaphthalene	19.17	142	157231	25.00	ug/L	100

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82575.D
Acq On : 7 Jun 2018 10:47 pm
Operator : HueanhT
Sample : icc3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 8 Sample Multiplier: 1

Quant Time: Jun 08 11:25:50 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:14:17 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82576.D
Acq On : 7 Jun 2018 11:15 pm
Operator : HueanhT
Sample : ic3432-100
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 11:27:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:26:59 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.79	65	135614	500.00	ug/L		0.00
5) pentafluorobenzene	8.78	168	255855	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	369807	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	353691	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	215773	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.83	113	120030	49.54	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.08%				
55) 1,2-dichloroethane-d4 (s)	9.22	65	128665	47.95	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 95.90%				
76) toluene-d8 (s)	11.24	98	444184	49.21	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.42%				
99) 4-bromofluorobenzene (s)	14.10	95	166869	50.35	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.70%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.90	59	182934	481.05	ug/L		99
4) 1,4-dioxane	10.28	88	83950	2574.05	ug/L		96
6) chlorodifluoromethane	3.92	51	644813	90.06	ug/L		99
7) dichlorodifluoromethane	3.90	85	717248	107.29	ug/L		99
8) chloromethane	4.23	50	785537	95.80	ug/L		99
9) vinyl chloride	4.44	62	721440	103.88	ug/L		99
10) 1,3-butadiene	4.47	54	598624	99.07	ug/L		100
11) bromomethane	4.99	94	399677	81.41	ug/L		98
12) chloroethane	5.13	64	326428	89.58	ug/L		97
13) trichlorofluoromethane	5.52	101	618361	104.22	ug/L		98
14) vinyl bromide	5.43	106	384420	104.03	ug/L		98
15) ethyl ether	5.84	74	148488	110.71	ug/L		94
16) 2-chloropropane	6.04	43	613203	90.20	ug/L		99
17) acrolein	6.05	56	63686	88.95	ug/L		96
18) freon 113	6.23	151	286557	99.36	ug/L		98
19) 1,1-dichloroethene	6.22	61	571090	95.90	ug/L		99
20) acetone	6.23	58	95047	385.01	ug/L		97
21) acetonitrile	6.60	41	465142	901.53	ug/L		97
22) iodomethane	6.46	142	529959	97.84	ug/L		99
23) carbon disulfide	6.59	76	1080756	98.56	ug/L		99
24) methylene chloride	6.83	84	358965	94.74	ug/L		98
25) methyl acetate	6.60	43	216253	92.53	ug/L		96
26) methyl tert butyl ether	7.14	73	923822	94.54	ug/L		99
27) trans-1,2-dichloroethene	7.17	61	478575	96.26	ug/L		98
28) hexane	7.47	56	238148	92.10	ug/L		99
29) di-isopropyl ether	7.65	45	1212528	94.05	ug/L		98
30) 2-butanone	8.23	72	112703	424.92	ug/L		97
31) 1,1-dichloroethane	7.67	63	589782	96.02	ug/L		99
32) chloroprene	7.76	53	483066	95.41	ug/L		99
33) acrylonitrile	7.08	53	109533	102.24	ug/L		92
34) vinyl acetate	7.60	86	41693	106.18	ug/L	#	89
35) ethyl tert-butyl ether	8.06	59	1064116	96.66	ug/L		99
36) ethyl acetate	8.24	45	44362	94.24	ug/L	#	87

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82576.D
Acq On : 7 Jun 2018 11:15 pm
Operator : HueanhT
Sample : ic3432-100
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 11:27:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:26:59 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
37) 2,2-dichloropropane	8.35	77	489472	90.69 ug/L	100
38) cis-1,2-dichloroethene	8.31	96	341989	96.17 ug/L	96
39) propionitrile	8.31	54	471113	989.54 ug/L	99
40) methyl acrylate	8.32	85	39386	107.46 ug/L	99
41) methacrylonitrile	8.49	67	106146	97.61 ug/L	97
42) bromochloromethane	8.58	128	158550	99.08 ug/L	99
43) tetrahydrofuran	8.59	72	36963	103.99 ug/L	97
44) chloroform	8.65	83	544136	94.27 ug/L	99
45) tert-butyl formate	8.69	59	249323	106.70 ug/L	96
47) 1,1,1-trichloroethane	8.90	97	542716	97.22 ug/L	99
48) cyclohexane	9.01	84	538024	91.16 ug/L	98
50) 1,1-dichloropropene	9.05	75	423260	98.68 ug/L	98
51) carbon tetrachloride	9.09	117	449461	100.77 ug/L	100
52) tert-amyl alcohol	9.15	73	80679	434.75 ug/L	95
53) isopropyl acetate	9.16	87	53543	101.72 ug/L	98
56) n-butyl alcohol	9.68	41	337454	4442.27 ug/L	98
57) 2,2,4-trimethylpentane	9.36	57	1534150	103.12 ug/L	97
58) benzene	9.28	78	1270634	97.74 ug/L	99
59) tert-amyl methyl ether	9.34	73	995519	95.69 ug/L	99
60) heptane	9.49	57	253480	94.06 ug/L	99
61) 1,2-dichloroethane	9.30	62	380628	96.30 ug/L	99
62) ethyl acrylate	9.91	55	318851	99.11 ug/L	99
63) trichloroethene	9.95	95	305871	100.47 ug/L	98
64) 2-chloroethyl vinyl ether	10.70	63	870681	522.83 ug/L	99
65) methyl methacrylate	10.17	100	65692	106.69 ug/L	93
66) methylcyclohexane	10.24	83	689313	96.83 ug/L	99
67) 1,2-dichloropropane	10.23	63	333229	98.99 ug/L	100
68) dibromomethane	10.34	93	180648	101.17 ug/L	97
69) bromodichloromethane	10.48	83	406812	106.08 ug/L	99
70) 2-nitropropane	10.67	41	97014	92.00 ug/L	95
71) epichlorohydrin	10.79	57	144195	481.84 ug/L	98
72) cis-1,3-dichloropropene	10.93	75	482939	106.99 ug/L	97
73) 4-methyl-2-pentanone	11.02	58	461190	405.50 ug/L	97
74) isoamyl alcohol	11.02	70	169699	1994.90 ug/L	99
77) toluene	11.31	92	753377	97.56 ug/L	99
78) ethyl methacrylate	11.48	69	346293	100.08 ug/L	100
79) trans-1,3-dichloropropene	11.50	75	402035	102.60 ug/L	98
80) 1,1,2-trichloroethane	11.73	83	209414	98.78 ug/L	99
81) tetrachloroethene	11.89	164	280660	102.76 ug/L	98
82) 2-hexanone	11.90	58	392428	391.00 ug/L	99
83) 1,3-dichloropropane	11.92	76	398031	98.66 ug/L	98
84) butyl acetate	11.97	56	169048	94.52 ug/L	99
85) dibromochloromethane	12.19	129	284123	116.54 ug/L	100
86) 1,2-dibromoethane	12.36	107	268024	101.48 ug/L	98
87) n-butyl ether	12.81	57	1445006	93.20 ug/L	100
88) chlorobenzene	12.86	112	813046	98.90 ug/L	99
89) 1,1,1,2-tetrachloroethane	12.94	131	345069	103.39 ug/L	99
90) ethylbenzene	12.93	91	1483517	98.89 ug/L	99
91) m,p-xylene	13.06	106	1128316	200.78 ug/L	99
92) o-xylene	13.50	91	1262292	97.36 ug/L	100

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82576.D
Acq On : 7 Jun 2018 11:15 pm
Operator : HueanhT
Sample : ic3432-100
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 11:27:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:26:59 2018
Response via : Initial Calibration

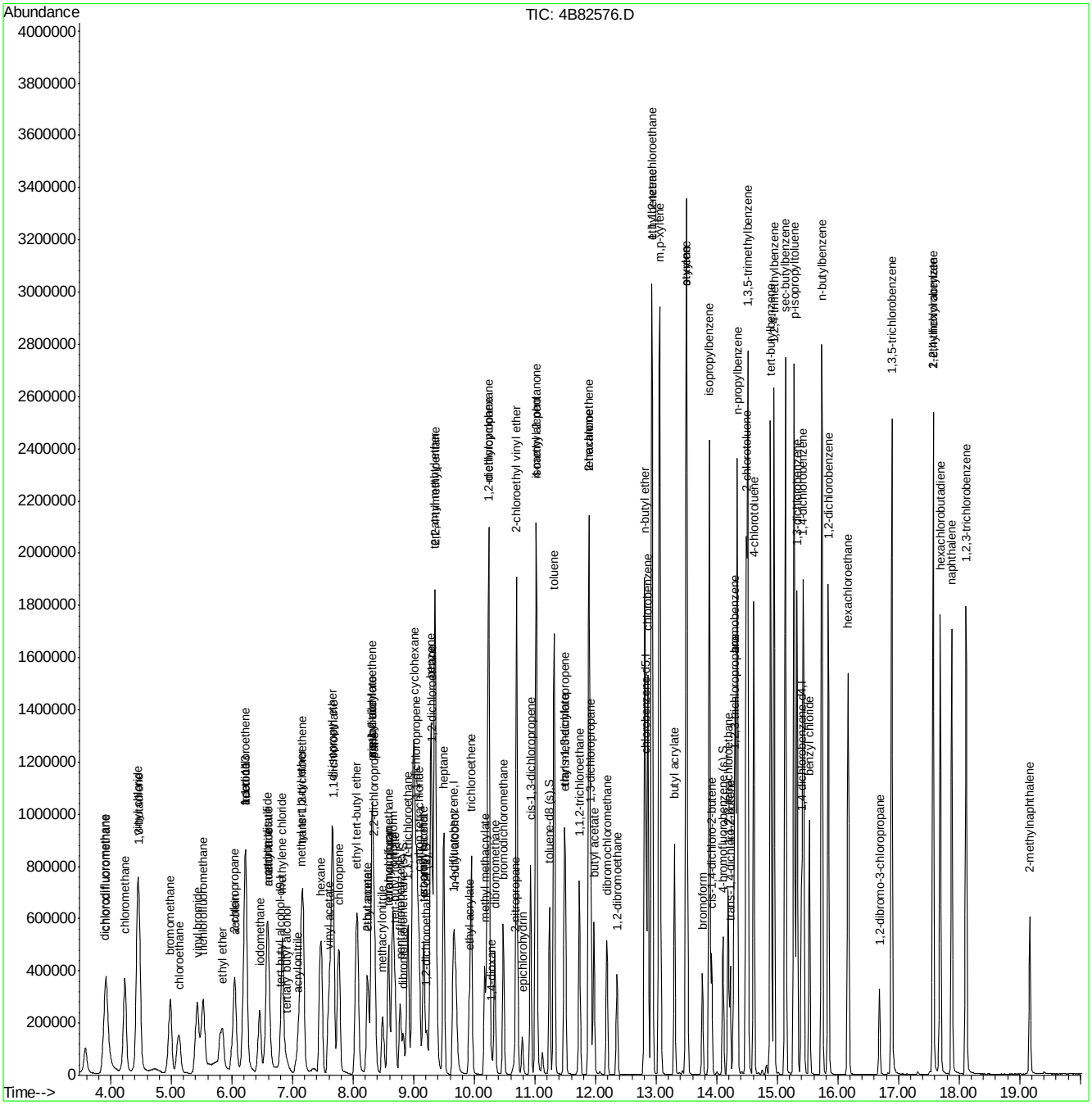
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
93) styrene	13.51	104	936668	102.74 ug/L	99
94) butyl acrylate	13.30	55	567628	91.65 ug/L	100
95) isopropylbenzene	13.88	105	1641692	98.06 ug/L	99
96) bromoform	13.76	173	187294	127.14 ug/L	100
97) cis-1,4-dichloro-2-butene	13.92	88	103431	104.37 ug/L	97
100) 1,1,2,2-tetrachloroethane	14.19	83	370789	97.05 ug/L	99
101) trans-1,4-dichloro-2-buten	14.22	53	80014	100.64 ug/L	94
102) 1,2,3-trichloropropane	14.29	110	89267	96.01 ug/L	99
103) bromobenzene	14.31	156	389179	105.39 ug/L	99
104) n-propylbenzene	14.34	91	1889110	101.92 ug/L	100
105) 2-chlorotoluene	14.48	126	385182	101.57 ug/L	100
106) 4-chlorotoluene	14.61	91	1047608	101.32 ug/L	100
107) 1,3,5-trimethylbenzene	14.51	105	1463873	103.87 ug/L	100
108) tert-butylbenzene	14.89	119	1260142	107.05 ug/L	100
109) 1,2,4-trimethylbenzene	14.94	105	1439270	101.28 ug/L	100
110) sec-butylbenzene	15.13	105	1979733	104.79 ug/L	99
111) p-isopropyltoluene	15.28	119	1679932	104.43 ug/L	99
112) 1,3-dichlorobenzene	15.32	146	797148	101.31 ug/L	99
113) 1,4-dichlorobenzene	15.43	146	801375	100.98 ug/L	99
114) 1,2-dichlorobenzene	15.84	146	819814	98.89 ug/L	99
115) benzyl chloride	15.53	91	696497	109.66 ug/L	99
116) n-butylbenzene	15.73	92	861314	102.41 ug/L	98
117) hexachloroethane	16.17	201	292297	128.18 ug/L	96
118) 1,2-dibromo-3-chloropropan	16.69	157	95906	115.69 ug/L	99
119) 1,3,5-trichlorobenzene	16.89	180	859255	101.51 ug/L	100
120) 1,2,4-trichlorobenzene	17.57	180	722294	103.82 ug/L	99
121) 2-ethylhexyl acrylate	17.58	70	104671	20.66 ug/L	99
122) hexachlorobutadiene	17.69	225	410190	103.28 ug/L	99
123) naphthalene	17.88	128	1354452	97.48 ug/L	99
124) 1,2,3-trichlorobenzene	18.11	180	620362	101.91 ug/L	98
125) 2-methylnaphthalene	19.17	142	330675	56.85 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82576.D
Acq On : 7 Jun 2018 11:15 pm
Operator : HueanhT
Sample : ic3432-100
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 9 Sample Multiplier: 1

Quant Time: Jun 08 11:27:10 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:26:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82577.D
Acq On : 7 Jun 2018 11:43 pm
Operator : HueanhT
Sample : ic3432-200
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 11:30:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:27:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.80	65	124729	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	252136	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	367172	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	363467	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	227185	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	118060	49.50	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.00%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	125138	47.21	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 94.42%			
76) toluene-d8 (s)	11.24	98	437698	47.28	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 94.56%			
99) 4-bromofluorobenzene (s)	14.10	95	171427	49.08	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 98.16%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.91	59	337438	970.92	ug/L	99
4) 1,4-dioxane	10.27	88	162753	5399.13	ug/L	95
6) chlorodifluoromethane	3.92	51	1287878	184.83	ug/L	99
7) dichlorodifluoromethane	3.90	85	1311283	197.24	ug/L	99
8) chloromethane	4.23	50	1413876	175.89	ug/L	100
9) vinyl chloride	4.44	62	1309819	190.46	ug/L	99
10) 1,3-butadiene	4.47	54	1111976	186.96	ug/L	99
12) chloroethane	5.12	64	527325	148.78	ug/L	99
13) trichlorofluoromethane	5.52	101	1095486	186.37	ug/L	99
14) vinyl bromide	5.42	106	669148	182.84	ug/L	98
15) ethyl ether	5.84	74	290575	216.93	ug/L	93
16) 2-chloropropane	6.04	43	1194377	181.23	ug/L	98
17) acrolein	6.05	56	120969	174.67	ug/L	86
18) freon 113	6.23	151	572370	201.56	ug/L	98
19) 1,1-dichloroethene	6.22	61	1113828	190.78	ug/L	99
20) acetone	6.22	58	182336	754.19	ug/L	95
21) acetonitrile	6.59	41	869680	1744.82	ug/L	96
22) iodomethane	6.46	142	1048676	197.00	ug/L	100
23) carbon disulfide	6.58	76	2137484	198.16	ug/L	99
24) methylene chloride	6.83	84	705102	190.10	ug/L	100
25) methyl acetate	6.60	43	416522	183.59	ug/L	97
26) methyl tert butyl ether	7.14	73	1777870	185.90	ug/L	99
27) trans-1,2-dichloroethene	7.17	61	936479	192.04	ug/L	99
28) hexane	7.47	56	471329	186.82	ug/L	98
29) di-isopropyl ether	7.65	45	2373785	188.24	ug/L	97
30) 2-butanone	8.23	72	218356	828.04	ug/L	92
31) 1,1-dichloroethane	7.67	63	1163613	193.21	ug/L	99
32) chloroprene	7.76	53	948004	191.10	ug/L	99
33) acrylonitrile	7.08	53	211808	199.98	ug/L	93
34) vinyl acetate	7.59	86	83107	212.15	ug/L	96
35) ethyl tert-butyl ether	8.06	59	2070308	191.63	ug/L	99
36) ethyl acetate	8.24	45	85827	187.16	ug/L	98
37) 2,2-dichloropropane	8.35	77	958178	182.27	ug/L	99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82577.D
Acq On : 7 Jun 2018 11:43 pm
Operator : HueanhT
Sample : ic3432-200
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 11:30:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:27:42 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
38) cis-1,2-dichloroethene	8.31	96	677565	194.28	ug/L		96
39) propionitrile	8.31	54	907089	1935.91	ug/L		89
40) methyl acrylate	8.32	85	76761	209.40	ug/L		98
41) methacrylonitrile	8.49	67	205765	192.67	ug/L		98
42) bromochloromethane	8.58	128	315186	200.11	ug/L		99
43) tetrahydrofuran	8.60	72	71616	202.84	ug/L		96
44) chloroform	8.65	83	1078623	190.99	ug/L		99
45) tert-butyl formate	8.69	59	488768	210.25	ug/L		96
47) 1,1,1-trichloroethane	8.90	97	1073386	195.80	ug/L		98
48) cyclohexane	9.01	84	1077213	187.29	ug/L		98
50) 1,1-dichloropropene	9.05	75	843988	200.00	ug/L		98
51) carbon tetrachloride	9.09	117	913520	207.63	ug/L		99
52) tert-amyl alcohol	9.16	73	151108	841.98	ug/L		94
53) isopropyl acetate	9.17	87	105689	203.04	ug/L	#	90
56) n-butyl alcohol	9.68	41	636259	8628.37	ug/L		97
57) 2,2,4-trimethylpentane	9.36	57	3130952	211.14	ug/L		97
58) benzene	9.28	78	2554628	198.49	ug/L		99
59) tert-amyl methyl ether	9.34	73	1932354	188.08	ug/L		99
60) heptane	9.49	57	502156	189.08	ug/L		98
61) 1,2-dichloroethane	9.30	62	752551	192.65	ug/L		99
62) ethyl acrylate	9.91	55	623421	195.42	ug/L		99
63) trichloroethene	9.95	95	616892	203.96	ug/L		98
64) 2-chloroethyl vinyl ether	10.70	63	1748890	1051.71	ug/L		99
65) methyl methacrylate	10.17	100	129627	209.69	ug/L		93
66) methylcyclohexane	10.24	83	1394778	198.12	ug/L		99
67) 1,2-dichloropropane	10.23	63	666252	199.60	ug/L		99
68) dibromomethane	10.34	93	360734	203.18	ug/L		99
69) bromodichloromethane	10.48	83	828196	215.86	ug/L		99
70) 2-nitropropane	10.67	41	189905	184.34	ug/L		95
71) epichlorohydrin	10.79	57	277500	939.64	ug/L		97
72) cis-1,3-dichloropropene	10.93	75	982743	217.38	ug/L		96
73) 4-methyl-2-pentanone	11.02	58	889564	786.40	ug/L		98
74) isoamyl alcohol	11.02	70	322958	3825.18	ug/L		95
77) toluene	11.31	92	1535824	194.12	ug/L		99
78) ethyl methacrylate	11.48	69	682600	191.95	ug/L		99
79) trans-1,3-dichloropropene	11.50	75	818976	202.72	ug/L		97
80) 1,1,2-trichloroethane	11.73	83	420501	193.32	ug/L		99
81) tetrachloroethene	11.89	164	571699	202.99	ug/L		98
82) 2-hexanone	11.90	58	768694	747.40	ug/L		97
83) 1,3-dichloropropane	11.92	76	811433	196.04	ug/L		99
84) butyl acetate	11.97	56	334088	183.22	ug/L		96
85) dibromochloromethane	12.19	129	589956	230.71	ug/L		99
86) 1,2-dibromoethane	12.36	107	544103	200.10	ug/L		99
87) n-butyl ether	12.81	57	2943595	186.34	ug/L		99
88) chlorobenzene	12.86	112	1688479	200.15	ug/L		99
89) 1,1,1,2-tetrachloroethane	12.94	131	707347	205.36	ug/L		99
90) ethylbenzene	12.93	91	3105553	201.73	ug/L		99
91) m,p-xylene	13.06	106	2330603	403.37	ug/L		97
92) o-xylene	13.50	91	2611441	196.65	ug/L		99
93) styrene	13.51	104	1960710	208.56	ug/L		94

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82577.D
Acq On : 7 Jun 2018 11:43 pm
Operator : HueanhT
Sample : ic3432-200
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 11:30:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:27:42 2018
Response via : Initial Calibration

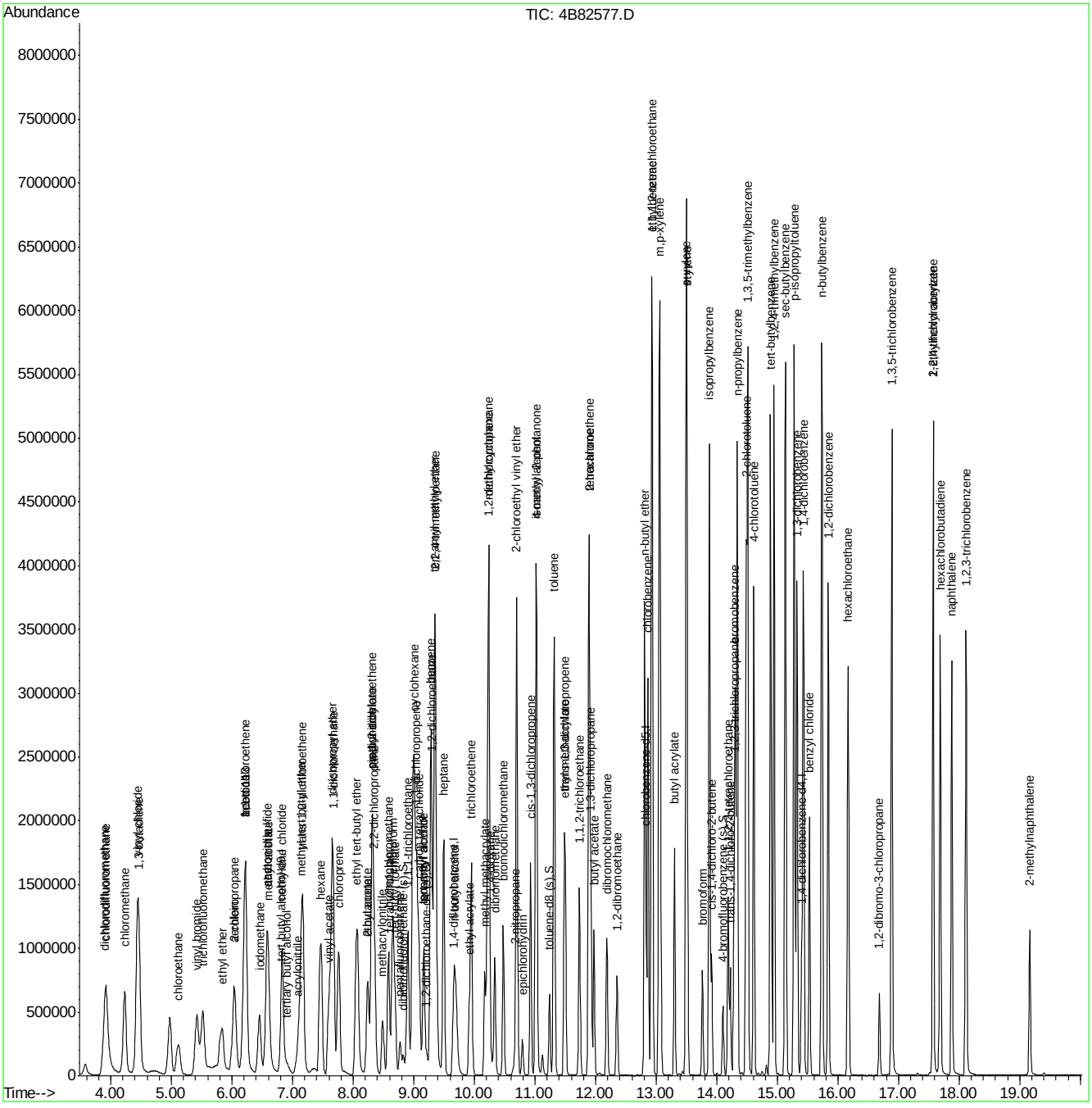
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
94) butyl acrylate	13.30	55	1129452	179.32 ug/L	100
95) isopropylbenzene	13.88	105	3417168	199.11 ug/L	100
96) bromoform	13.76	173	397570	254.00 ug/L	100
97) cis-1,4-dichloro-2-butene	13.92	88	214002	204.32 ug/L	98
100) 1,1,2,2-tetrachloroethane	14.19	83	741104	184.91 ug/L	99
101) trans-1,4-dichloro-2-buten	14.22	53	163238	194.83 ug/L	91
102) 1,2,3-trichloropropane	14.29	110	178159	183.04 ug/L	96
103) bromobenzene	14.31	156	825330	210.85 ug/L	99
104) n-propylbenzene	14.34	91	3978793	203.39 ug/L	100
105) 2-chlorotoluene	14.48	126	804215	201.02 ug/L	99
106) 4-chlorotoluene	14.61	91	2244884	205.87 ug/L	99
107) 1,3,5-trimethylbenzene	14.51	105	3065946	205.63 ug/L	99
108) tert-butylbenzene	14.89	119	2620014	209.54 ug/L	99
109) 1,2,4-trimethylbenzene	14.94	105	3036127	202.59 ug/L	99
110) sec-butylbenzene	15.13	105	4116546	205.72 ug/L	99
111) p-isopropyltoluene	15.28	119	3489408	204.88 ug/L	99
112) 1,3-dichlorobenzene	15.32	146	1697744	204.59 ug/L	99
113) 1,4-dichlorobenzene	15.43	146	1706806	204.02 ug/L	99
114) 1,2-dichlorobenzene	15.84	146	1705757	195.69 ug/L	98
115) benzyl chloride	15.53	91	1457526	215.34 ug/L	99
116) n-butylbenzene	15.73	92	1779869	200.40 ug/L	97
117) hexachloroethane	16.17	201	631181	252.71 ug/L	95
118) 1,2-dibromo-3-chloropropan	16.69	157	191755	214.87 ug/L	96
119) 1,3,5-trichlorobenzene	16.89	180	1733405	194.12 ug/L	100
120) 1,2,4-trichlorobenzene	17.57	180	1436629	195.19 ug/L	100
121) 2-ethylhexyl acrylate	17.58	70	216434	39.18 ug/L	97
122) hexachlorobutadiene	17.69	225	813410	193.72 ug/L	99
123) naphthalene	17.88	128	2632279	180.50 ug/L	99
124) 1,2,3-trichlorobenzene	18.11	180	1227283	191.03 ug/L	98
125) 2-methylnaphthalene	19.17	142	652585	104.51 ug/L	98

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82577.D
Acq On : 7 Jun 2018 11:43 pm
Operator : HueanhT
Sample : ic3432-200
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 10 Sample Multiplier: 1

Quant Time: Jun 08 11:30:40 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:27:42 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82580.D
Acq On : 8 Jun 2018 1:07 am
Operator : HueanhT
Sample : icv3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 13 09:57:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.79	65	138088	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	246227	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	354688	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	335174	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	206327	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	116867	50.23	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.46%			
55) 1,2-dichloroethane-d4 (s)	9.21	65	125578	49.35	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 98.70%			
76) toluene-d8 (s)	11.24	98	422371	49.78	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.56%			
99) 4-bromofluorobenzene (s)	14.10	95	158271	50.00	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.00%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.90	59	93239	243.34	ug/L	99
4) 1,4-dioxane	10.26	88	41905	1241.50	ug/L	92
6) chlorodifluoromethane	3.92	51	249917	37.04	ug/L	99
7) dichlorodifluoromethane	3.90	85	343846	53.04	ug/L	99
8) chloromethane	4.23	50	430385	55.57	ug/L	100
9) vinyl chloride	4.44	62	347926	52.08	ug/L	98
11) bromomethane	4.98	94	199774	46.03	ug/L	99
12) chloroethane	5.13	64	159049	47.30	ug/L	99
13) trichlorofluoromethane	5.53	101	292007	51.26	ug/L	100
14) vinyl bromide	5.42	106	192552	54.39	ug/L	99
15) ethyl ether	5.83	74	68994	47.32	ug/L	98
16) 2-chloropropane	6.05	43	307556	48.44	ug/L	98
17) acrolein	6.05	56	31950	50.26	ug/L	93
18) freon 113	6.23	151	144464	52.05	ug/L	98
19) 1,1-dichloroethene	6.22	61	248210	43.76	ug/L	99
20) acetone	6.23	58	48630	207.67	ug/L	98
22) iodomethane	6.46	142	289809	55.84	ug/L	99
23) carbon disulfide	6.59	76	631095	59.97	ug/L	99
24) methylene chloride	6.83	84	166072	46.10	ug/L	98
25) methyl acetate	6.58	43	99233	45.41	ug/L	96
26) methyl tert butyl ether	7.14	73	902566	97.40	ug/L	95
27) trans-1,2-dichloroethene	7.17	61	219798	46.36	ug/L	98
28) hexane	7.45	56	106868	43.70	ug/L	94
29) di-isopropyl ether	7.65	45	601611	49.17	ug/L	98
30) 2-butanone	8.23	72	54994	212.62	ug/L	96
31) 1,1-dichloroethane	7.67	63	280569	47.88	ug/L	99
32) chloroprene	7.76	53	237763	49.32	ug/L	98
33) acrylonitrile	7.08	53	59241	57.28	ug/L	92
34) vinyl acetate	7.59	86	20363	52.70	ug/L #	84
35) ethyl tert-butyl ether	8.06	59	521587	49.67	ug/L	99
36) ethyl acetate	8.23	45	21930	49.50	ug/L #	92
37) 2,2-dichloropropane	8.35	77	235699	46.37	ug/L	91
38) cis-1,2-dichloroethene	8.31	96	162938	47.99	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82580.D
Acq On : 8 Jun 2018 1:07 am
Operator : HueanhT
Sample : icv3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 13 09:57:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
39) propionitrile	8.31	54	232156	509.17	ug/L		96
40) methyl acrylate	8.32	85	18284	50.68	ug/L		97
41) methacrylonitrile	8.49	67	51361	49.47	ug/L		97
42) bromochloromethane	8.58	128	75773	49.26	ug/L		97
43) tetrahydrofuran	8.59	72	17146	49.61	ug/L		97
44) chloroform	8.65	83	261380	47.63	ug/L		99
45) tert-butyl formate	8.68	59	97764	42.79	ug/L		99
47) 1,1,1-trichloroethane	8.91	97	255248	47.79	ug/L		99
48) cyclohexane	9.01	84	265588	47.62	ug/L		98
50) 1,1-dichloropropene	9.04	75	201771	48.96	ug/L		99
51) carbon tetrachloride	9.09	117	214794	49.78	ug/L		100
52) tert-amyl alcohol	9.15	73	43689	254.30	ug/L		99
53) isopropyl acetate	9.16	87	25272	49.59	ug/L		94
56) n-butyl alcohol	9.68	41	176458	2535.14	ug/L		95
57) 2,2,4-trimethylpentane	9.35	57	719334	49.91	ug/L		99
58) benzene	9.28	78	597090	48.06	ug/L		99
59) tert-amyl methyl ether	9.34	73	484125	49.10	ug/L		98
60) heptane	9.49	57	133799	52.47	ug/L		99
61) 1,2-dichloroethane	9.30	62	184219	49.02	ug/L		99
62) ethyl acrylate	9.91	55	154445	50.26	ug/L		99
63) trichloroethene	9.95	95	147739	50.45	ug/L		98
64) 2-chloroethyl vinyl ether	10.70	63	447863	277.21	ug/L		99
65) methyl methacrylate	10.17	100	31216	51.92	ug/L	#	61
66) methylcyclohexane	10.24	83	319575	47.04	ug/L		98
67) 1,2-dichloropropane	10.23	63	156342	48.50	ug/L		98
68) dibromomethane	10.33	93	88236	51.36	ug/L		97
69) bromodichloromethane	10.48	83	187970	50.27	ug/L		99
70) 2-nitropropane	10.67	41	52842	53.80	ug/L		99
71) epichlorohydrin	10.79	57	69913	247.19	ug/L		98
72) cis-1,3-dichloropropene	10.93	75	224813	50.99	ug/L		98
73) 4-methyl-2-pentanone	11.02	58	230742	211.56	ug/L		98
74) isoamyl alcohol	11.02	70	87174	1074.72	ug/L		96
77) toluene	11.31	92	356372	49.01	ug/L		100
78) ethyl methacrylate	11.48	69	159320	48.80	ug/L		98
79) trans-1,3-dichloropropene	11.50	75	181827	48.73	ug/L		94
80) 1,1,2-trichloroethane	11.73	83	98966	49.52	ug/L		98
82) 2-hexanone	11.90	58	193135	205.14	ug/L		100
83) 1,3-dichloropropane	11.92	76	192736	50.61	ug/L		98
84) butyl acetate	11.97	56	86155	51.78	ug/L		97
85) dibromochloromethane	12.19	129	132330	55.18	ug/L		99
86) 1,2-dibromoethane	12.35	107	126679	50.52	ug/L		99
87) n-butyl ether	12.81	57	689429	47.69	ug/L		100
88) chlorobenzene	12.86	112	382348	49.14	ug/L		98
89) 1,1,1,2-tetrachloroethane	12.94	131	166332	52.21	ug/L		99
90) ethylbenzene	12.93	91	708060	49.83	ug/L		99
91) m,p-xylene	13.06	106	539126	101.09	ug/L		98
92) o-xylene	13.50	91	604934	49.49	ug/L		99
93) styrene	13.51	104	442520	50.80	ug/L		99
94) butyl acrylate	13.30	55	279447	48.67	ug/L		100
95) isopropylbenzene	13.88	105	793473	50.16	ug/L		99

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82580.D
Acq On : 8 Jun 2018 1:07 am
Operator : HueanhT
Sample : icv3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 13 09:57:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration

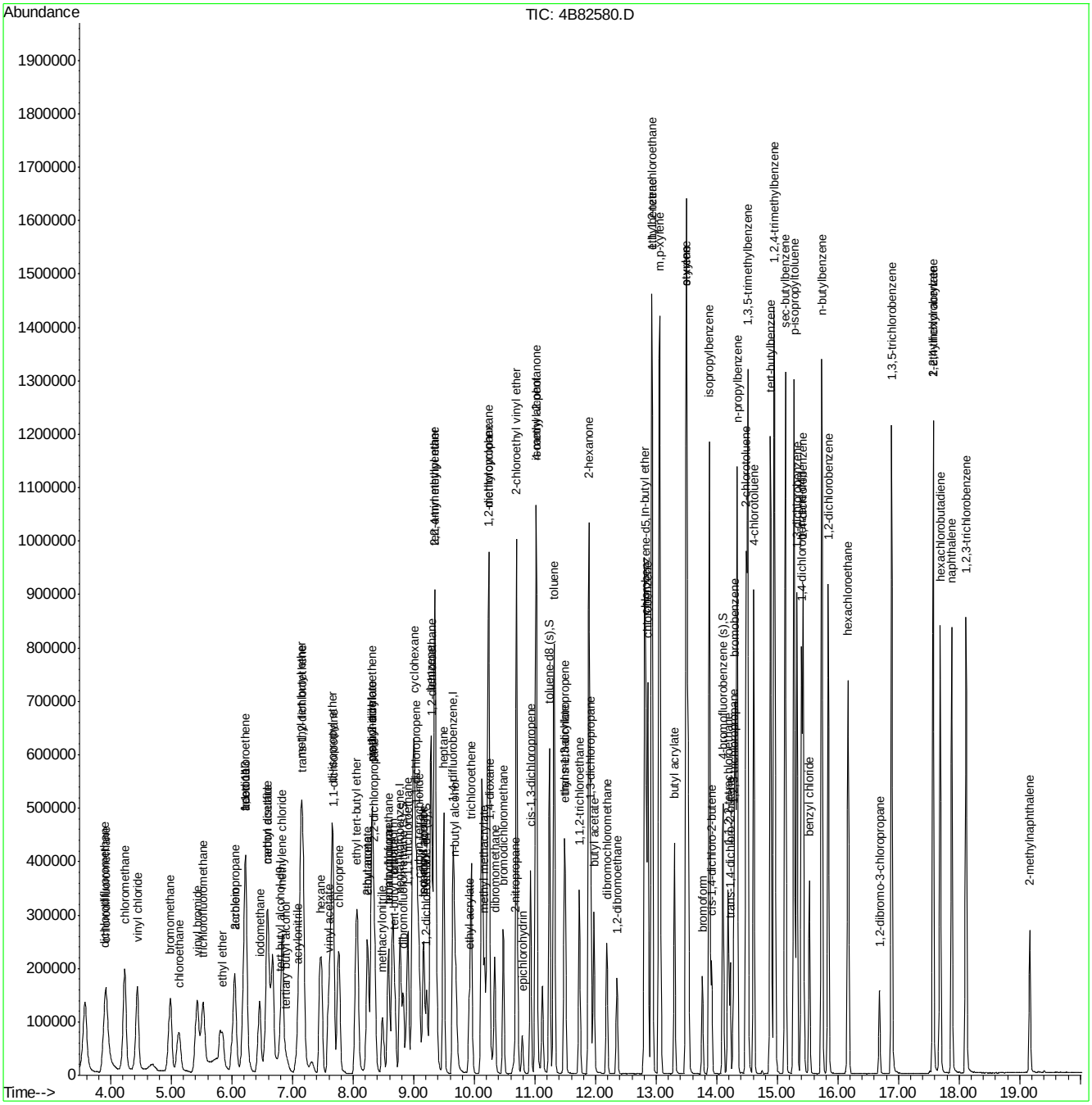
Internal Standards	R.T.	QIon	Response	Conc Units	Dev(Min)
96) bromoform	13.76	173	86967	56.49 ug/L	98
97) cis-1,4-dichloro-2-butene	13.92	88	46094	51.57 ug/L	97
100) 1,1,2,2-tetrachloroethane	14.19	83	179349	49.69 ug/L	100
101) trans-1,4-dichloro-2-buten	14.22	53	41314	54.47 ug/L	99
102) 1,2,3-trichloropropane	14.28	110	43309	49.52 ug/L	99
103) bromobenzene	14.31	156	185004	51.73 ug/L	99
104) n-propylbenzene	14.34	91	899482	50.53 ug/L	100
105) 2-chlorotoluene	14.48	126	182074	50.08 ug/L	97
106) 4-chlorotoluene	14.61	91	509737	51.31 ug/L	99
107) 1,3,5-trimethylbenzene	14.51	105	687706	50.63 ug/L	99
108) tert-butylbenzene	14.89	119	601289	52.67 ug/L	100
109) 1,2,4-trimethylbenzene	14.94	105	705242	51.74 ug/L	100
110) sec-butylbenzene	15.13	105	948483	52.03 ug/L	100
111) p-isopropyltoluene	15.28	119	806652	52.01 ug/L	99
112) 1,3-dichlorobenzene	15.32	146	380181	50.32 ug/L	99
113) 1,4-dichlorobenzene	15.43	146	376785	49.48 ug/L	98
114) 1,2-dichlorobenzene	15.84	146	391836	49.62 ug/L	99
115) benzyl chloride	15.53	91	262116	42.28 ug/L	98
116) n-butylbenzene	15.73	92	413153	51.21 ug/L	100
117) hexachloroethane	16.17	201	134050	57.21 ug/L	97
118) 1,2-dibromo-3-chloropropan	16.69	157	45214	55.27 ug/L	99
119) 1,3,5-trichlorobenzene	16.89	180	412354	51.01 ug/L	99
120) 1,2,4-trichlorobenzene	17.57	180	344019	51.60 ug/L	98
121) 2-ethylhexyl acrylate	17.58	70	53755	12.10 ug/L	99
122) hexachlorobutadiene	17.69	225	191458	50.38 ug/L	99
123) naphthalene	17.88	128	662125	50.54 ug/L	100
124) 1,2,3-trichlorobenzene	18.11	180	292041	50.30 ug/L	99
125) 2-methylnaphthalene	19.17	142	146679	25.72 ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82580.D
Acq On : 8 Jun 2018 1:07 am
Operator : HueanhT
Sample : icv3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 13 Sample Multiplier: 1

Quant Time: Jun 13 09:57:41 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82581.D
Acq On : 8 Jun 2018 1:36 am
Operator : HueanhT
Sample : icv3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 11:45:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration

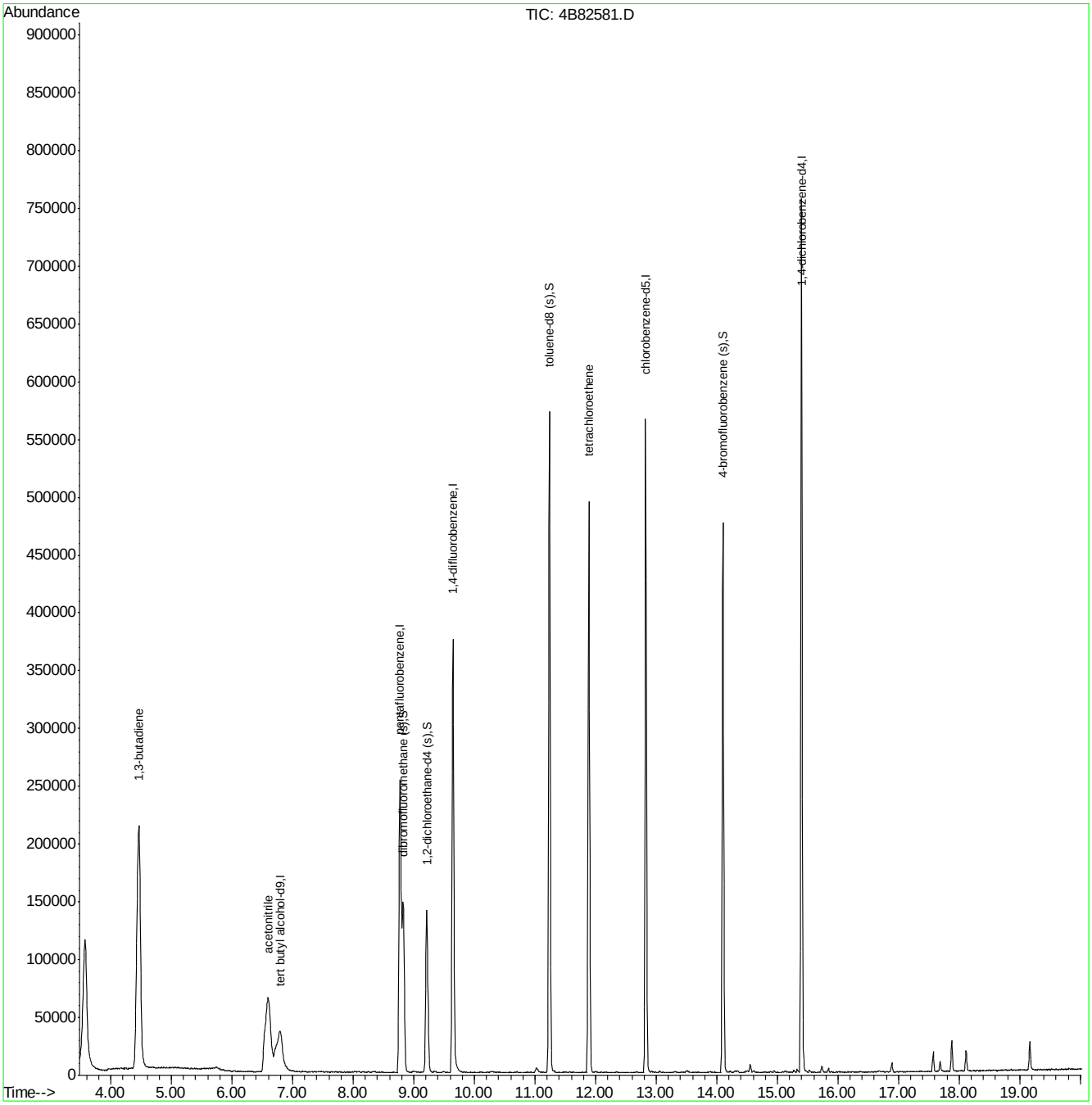
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) tert butyl alcohol-d9	6.79	65	138810	500.00	ug/L	0.00
5) pentafluorobenzene	8.78	168	242542	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.65	114	344395	50.00	ug/L	0.00
75) chlorobenzene-d5	12.83	117	312394	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.40	152	198670	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.83	113	113657	49.60	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.20%			
55) 1,2-dichloroethane-d4 (s)	9.22	65	123887	50.14	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.28%			
76) toluene-d8 (s)	11.24	98	397706	50.29	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.58%			
99) 4-bromofluorobenzene (s)	14.10	95	151149	49.59	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 99.18%			
Target Compounds						Qvalue
10) 1,3-butadiene	4.46	54	238201	41.94	ug/L	98
21) acetonitrile	6.60	41	240448	512.38	ug/L	95
81) tetrachloroethene	11.89	164	121279	50.02	ug/L	99

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3431\
Data File : 4B82581.D
Acq On : 8 Jun 2018 1:36 am
Operator : HueanhT
Sample : icv3432-50
Misc : MS26915,V4B3432,5,,,,1
ALS Vial : 14 Sample Multiplier: 1

Quant Time: Jun 08 11:45:12 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Fri Jun 08 11:32:59 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83385.D
Acq On : 6 Jul 2018 7:57 am
Operator : HueanhT
Sample : CC3432-20
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 17:10:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
1) tert butyl alcohol-d9	6.77	65	104703	500.00	ug/L		-0.02
5) pentafluorobenzene	8.78	168	207015	50.00	ug/L		0.00
54) 1,4-difluorobenzene	9.65	114	283123	50.00	ug/L		0.00
75) chlorobenzene-d5	12.83	117	269416	50.00	ug/L		0.00
98) 1,4-dichlorobenzene-d4	15.40	152	159337	50.00	ug/L		0.00
System Monitoring Compounds							
46) dibromofluoromethane (s)	8.82	113	93220	47.66	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 95.32%				
55) 1,2-dichloroethane-d4 (s)	9.21	65	102243	50.34	ug/L		0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 100.68%				
76) toluene-d8 (s)	11.24	98	316536	46.41	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.82%				
99) 4-bromofluorobenzene (s)	14.10	95	126081	51.57	ug/L		0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 103.14%				
Target Compounds							Qvalue
3) tertiary butyl alcohol	6.87	59	29006	99.84	ug/L		99
4) 1,4-dioxane	10.27	88	11298	441.45	ug/L		95
6) chlorodifluoromethane	3.92	51	89856	15.84	ug/L		97
7) dichlorodifluoromethane	3.91	85	97918	17.97	ug/L		97
8) chloromethane	4.25	50	113268	17.39	ug/L		98
9) vinyl chloride	4.46	62	101391	18.05	ug/L		99
10) 1,3-butadiene	4.48	54	90504	18.67	ug/L		99
11) bromomethane	5.00	94	64132	17.58	ug/L		95
12) chloroethane	5.14	64	51177	18.10	ug/L		98
13) trichlorofluoromethane	5.54	101	92828	19.38	ug/L		99
14) vinyl bromide	5.43	106	55015	18.48	ug/L		99
15) ethyl ether	5.83	74	26392	21.53	ug/L	#	86
16) 2-chloropropane	6.04	43	104347	19.55	ug/L		98
17) acrolein	6.04	56	9298	17.40	ug/L		93
18) freon 113	6.23	151	46142	19.77	ug/L		96
19) 1,1-dichloroethene	6.22	61	90483	18.97	ug/L		98
20) acetone	6.20	58	16210	82.34	ug/L		87
21) acetonitrile	6.58	41	77369	193.16	ug/L		95
22) iodomethane	6.45	142	84560	19.38	ug/L		99
23) carbon disulfide	6.59	76	171216	19.35	ug/L		99
24) methylene chloride	6.83	84	59852	19.76	ug/L		99
25) methyl acetate	6.60	43	41379	22.52	ug/L		96
26) methyl tert butyl ether	7.14	73	150174	19.28	ug/L		99
27) trans-1,2-dichloroethene	7.17	61	79894	20.04	ug/L		99
28) hexane	7.47	56	38131	18.54	ug/L		98
29) di-isopropyl ether	7.65	45	198491	19.30	ug/L		98
30) 2-butanone	8.23	72	18720	86.08	ug/L		97
31) 1,1-dichloroethane	7.67	63	100486	20.40	ug/L		99
32) chloroprene	7.76	53	81191	20.03	ug/L		99
33) acrylonitrile	7.07	53	18921	21.76	ug/L		92
34) vinyl acetate	7.61	86	6646	20.46	ug/L	#	89
35) ethyl tert-butyl ether	8.06	59	175052	19.83	ug/L		97
36) ethyl acetate	8.24	45	7062	18.96	ug/L	#	84

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83385.D
Acq On : 6 Jul 2018 7:57 am
Operator : HueanhT
Sample : CC3432-20
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 17:10:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
37) 2,2-dichloropropane	8.35	77	80618	18.86	ug/L		98
38) cis-1,2-dichloroethene	8.31	96	56672	19.85	ug/L		96
39) propionitrile	8.31	54	78573	204.97	ug/L		97
40) methyl acrylate	8.33	85	6249	20.60	ug/L	#	74
41) methacrylonitrile	8.49	67	17654	20.23	ug/L		96
42) bromochloromethane	8.58	128	26715	20.66	ug/L		95
43) tetrahydrofuran	8.59	72	6237	21.46	ug/L		96
44) chloroform	8.65	83	91460	19.82	ug/L		97
45) tert-butyl formate	8.68	59	46933	24.43	ug/L		95
47) 1,1,1-trichloroethane	8.90	97	84935	18.91	ug/L		99
48) cyclohexane	9.00	84	80260	17.12	ug/L		90
50) 1,1-dichloropropene	9.05	75	66916	19.31	ug/L		98
51) carbon tetrachloride	9.08	117	72257	19.92	ug/L		97
52) tert-amyl alcohol	9.14	73	13845	95.85	ug/L	#	67
53) isopropyl acetate	9.16	87	8437	19.69	ug/L	#	75
56) n-butyl alcohol	9.68	41	52698	948.48	ug/L		95
57) 2,2,4-trimethylpentane	9.35	57	221860	19.28	ug/L		99
58) benzene	9.27	78	198622	20.03	ug/L		100
59) tert-amyl methyl ether	9.34	73	158836	20.18	ug/L		98
60) heptane	9.49	57	38780	19.05	ug/L		98
61) 1,2-dichloroethane	9.30	62	62133	20.71	ug/L		99
62) ethyl acrylate	9.91	55	53777	21.92	ug/L		98
63) trichloroethene	9.95	95	47940	20.51	ug/L		98
64) 2-chloroethyl vinyl ether	10.70	63	146604	113.68	ug/L		99
65) methyl methacrylate	10.17	100	10078	21.00	ug/L		93
66) methylcyclohexane	10.24	83	100523	18.54	ug/L		99
67) 1,2-dichloropropane	10.23	63	53267	20.70	ug/L		100
68) dibromomethane	10.33	93	29770	21.71	ug/L		95
69) bromodichloromethane	10.47	83	65956	22.10	ug/L		98
70) 2-nitropropane	10.67	41	16016	20.43	ug/L		99
71) epichlorohydrin	10.79	57	22497	99.65	ug/L		97
72) cis-1,3-dichloropropene	10.92	75	77460	22.01	ug/L		97
73) 4-methyl-2-pentanone	11.02	58	76255	87.59	ug/L		100
74) isoamyl alcohol	11.01	70	27555	425.58	ug/L		92
77) toluene	11.31	92	114732	19.63	ug/L		99
78) ethyl methacrylate	11.48	69	56397	21.49	ug/L		99
79) trans-1,3-dichloropropene	11.50	75	65978	22.00	ug/L		95
80) 1,1,2-trichloroethane	11.73	83	34673	21.58	ug/L		95
81) tetrachloroethene	11.89	164	43563	20.83	ug/L		98
82) 2-hexanone	11.90	58	70124	92.66	ug/L		98
83) 1,3-dichloropropane	11.92	76	66135	21.60	ug/L		95
84) butyl acetate	11.97	56	30507	22.81	ug/L		94
85) dibromochloromethane	12.18	129	47965	24.88	ug/L		98
86) 1,2-dibromoethane	12.35	107	45738	22.69	ug/L		100
87) n-butyl ether	12.81	57	231903	19.96	ug/L		99
88) chlorobenzene	12.86	112	127786	20.43	ug/L		98
89) 1,1,1,2-tetrachloroethane	12.93	131	52977	20.69	ug/L		98
90) ethylbenzene	12.93	91	228090	19.97	ug/L		100
91) m,p-xylene	13.05	106	173291	40.42	ug/L		97
92) o-xylene	13.49	91	187934	19.13	ug/L		98

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83385.D
Acq On : 6 Jul 2018 7:57 am
Operator : HueanhT
Sample : CC3432-20
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 17:10:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

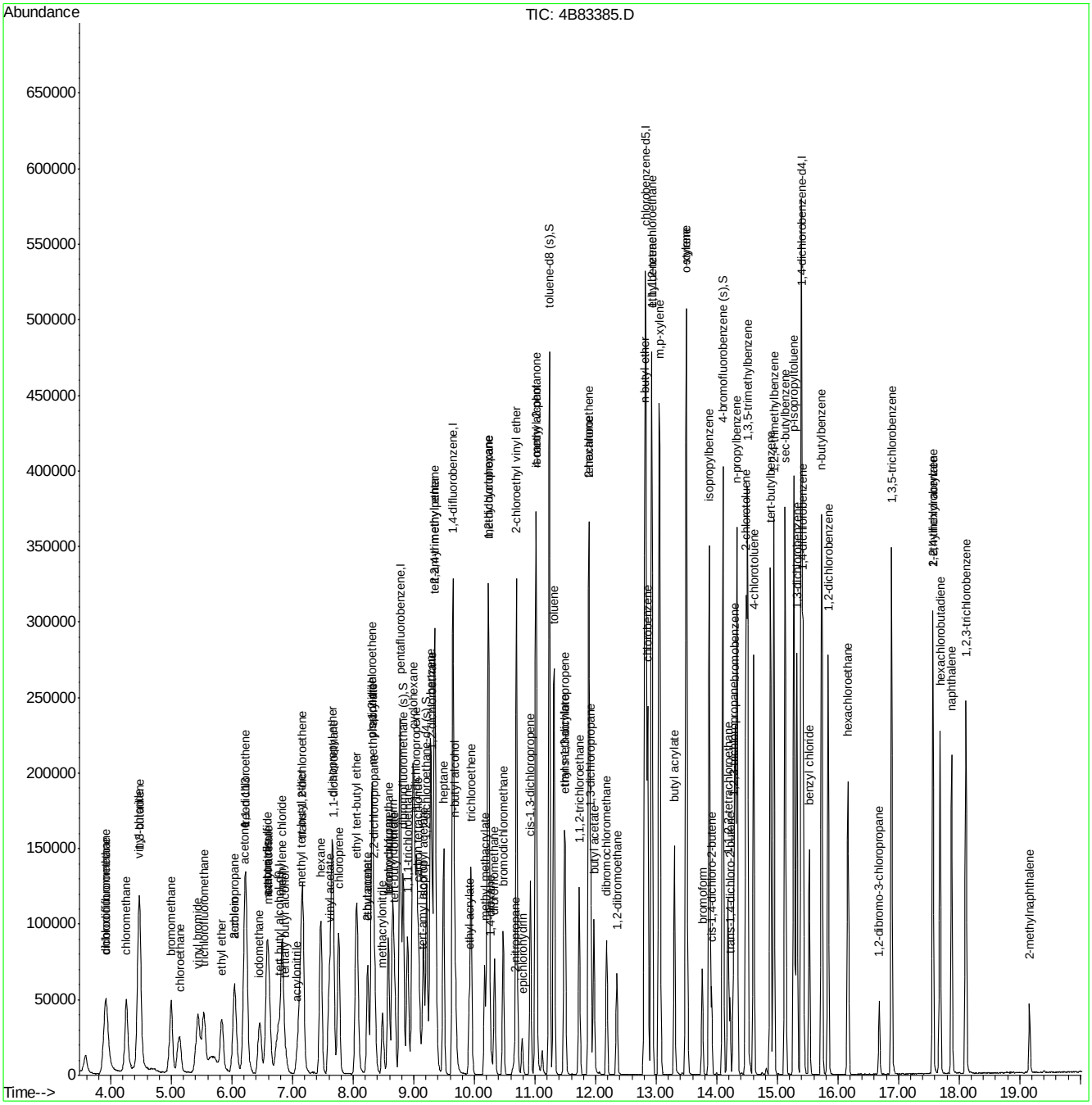
Internal Standards	R.T.	QIon	Response	Conc	Units		Dev(Min)
93) styrene	13.51	104	146226	20.88	ug/L		93
94) butyl acrylate	13.30	55	98931	21.44	ug/L		99
95) isopropylbenzene	13.88	105	239849	18.86	ug/L		100
96) bromoform	13.76	173	34396	27.80	ug/L		100
97) cis-1,4-dichloro-2-butene	13.92	88	12730	17.72	ug/L		96
100) 1,1,2,2-tetrachloroethane	14.19	83	61627	22.11	ug/L		100
101) trans-1,4-dichloro-2-buten	14.22	53	10277	17.55	ug/L		98
102) 1,2,3-trichloropropane	14.28	110	15072	22.31	ug/L		97
103) bromobenzene	14.30	156	62901	22.78	ug/L		98
104) n-propylbenzene	14.33	91	285545	20.77	ug/L		100
105) 2-chlorotoluene	14.48	126	59425	21.17	ug/L		97
106) 4-chlorotoluene	14.61	91	162669	21.20	ug/L		100
107) 1,3,5-trimethylbenzene	14.51	105	205237	19.56	ug/L		97
108) tert-butylbenzene	14.89	119	170385	19.33	ug/L		98
109) 1,2,4-trimethylbenzene	14.94	105	205865	19.56	ug/L		99
110) sec-butylbenzene	15.13	105	272604	19.36	ug/L		98
111) p-isopropyltoluene	15.27	119	232071	19.38	ug/L		99
112) 1,3-dichlorobenzene	15.32	146	120502	20.65	ug/L		99
113) 1,4-dichlorobenzene	15.43	146	121970	20.74	ug/L		98
114) 1,2-dichlorobenzene	15.84	146	119343	19.57	ug/L		99
115) benzyl chloride	15.52	91	107059	22.36	ug/L		98
116) n-butylbenzene	15.73	92	116178	18.65	ug/L		97
117) hexachloroethane	16.17	201	38800	21.44	ug/L		95
118) 1,2-dibromo-3-chloropropan	16.68	157	13964	22.10	ug/L		96
119) 1,3,5-trichlorobenzene	16.88	180	117074	18.76	ug/L		97
120) 1,2,4-trichlorobenzene	17.56	180	94638	18.38	ug/L		97
121) 2-ethylhexyl acrylate	17.57	70	5109	1.49	ug/L	#	81
122) hexachlorobutadiene	17.68	225	53171	18.12	ug/L		99
123) naphthalene	17.87	128	170303	16.83	ug/L		99
124) 1,2,3-trichlorobenzene	18.11	180	85224	19.01	ug/L		98
125) 2-methylnaphthalene	19.16	142	25195	5.72	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\MSDCHEM\1\DATA\V4B3470\
Data File : 4B83385.D
Acq On : 6 Jul 2018 7:57 am
Operator : HueanhT
Sample : CC3432-20
Misc : MS27606,V4B3470,5,,,,1
ALS Vial : 3 Sample Multiplier: 1

Quant Time: Jul 06 17:10:51 2018
Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83407.d
Acq On : 6 Jul 2018 7:12 pm
Operator : HueanhT
Sample : ecc3432-20 Inst : MS4B
Misc : MS27563,V4B3470,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:46 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

Compound	R.T.	QIon	Response	Conc	Units	Dev(Min)
Internal Standards						
1) tert butyl alcohol-d9	6.775	65	95588	500.00	ug/L	-0.02
5) pentafluorobenzene	8.778	168	167892	50.00	ug/L	0.00
54) 1,4-difluorobenzene	9.646	114	240600	50.00	ug/L	0.00
75) chlorobenzene-d5	12.826	117	234336	50.00	ug/L	0.00
98) 1,4-dichlorobenzene-d4	15.400	152	140664	50.00	ug/L	0.00
System Monitoring Compounds						
46) dibromofluoromethane (s)	8.825	113	79994	50.43	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 100.86%			
55) 1,2-dichloroethane-d4 (s)	9.212	65	88932	51.52	ug/L	0.00
Spiked Amount 50.000	Range 81 - 124		Recovery = 103.04%			
76) toluene-d8 (s)	11.236	98	273071	46.03	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 92.06%			
99) 4-bromofluorobenzene (s)	14.103	95	113563	52.62	ug/L	0.00
Spiked Amount 50.000	Range 80 - 120		Recovery = 105.24%			
Target Compounds						Qvalue
3) tertiary butyl alcohol	6.885	59	27952	105.38	ug/L	99
4) 1,4-dioxane	10.274	88	10843	464.07	ug/L	94
6) chlorodifluoromethane	3.924	51	66128	14.37	ug/L	98
7) dichlorodifluoromethane	3.898	85	69613	15.75	ug/L	97
8) chloromethane	4.254	50	96366	18.25	ug/L	99
9) vinyl chloride	4.453	62	72542	15.93	ug/L	98
11) bromomethane	4.991	94	47333	16.00	ug/L	98
12) chloroethane	5.133	64	38198	16.66	ug/L	98
13) trichlorofluoromethane	5.530	101	67343	17.34	ug/L	97
14) vinyl bromide	5.431	106	39324	16.29	ug/L	93
15) ethyl ether	5.833	74	21556	21.68	ug/L	92
16) 2-chloropropane	6.043	43	78285	18.08	ug/L	99
17) acrolein	6.053	56	6984	16.11	ug/L	96
18) freon 113	6.226	151	30815	16.28	ug/L	95
19) 1,1-dichloroethene	6.226	61	66102	17.09	ug/L	96
20) acetone	6.200	58	15255	95.54	ug/L	97
21) acetonitrile	6.581	41	75188	231.46	ug/L	98
22) iodomethane	6.451	142	60726	17.16	ug/L	98
23) carbon disulfide	6.587	76	122649	17.09	ug/L	96
24) methylene chloride	6.827	84	47276	19.25	ug/L	99
25) methyl acetate	6.597	43	37168	24.94	ug/L	99
26) methyl tert butyl ether	7.136	73	125577	19.87	ug/L	97
27) trans-1,2-dichloroethene	7.167	61	59735	18.48	ug/L	95
28) hexane	7.460	56	23804	14.27	ug/L	95
29) di-isopropyl ether	7.648	45	167068	20.03	ug/L	98
30) 2-butanone	8.234	72	16524	93.69	ug/L #	85
31) 1,1-dichloroethane	7.675	63	77513	19.40	ug/L	98
32) chloroprene	7.763	53	58289	17.73	ug/L	96
33) acrylonitrile	7.073	53	16488	23.38	ug/L	93
34) vinyl acetate	7.596	86	5103	19.37	ug/L #	78
35) ethyl tert-butyl ether	8.056	59	144153	20.13	ug/L	96
36) ethyl acetate	8.245	45	6252	20.70	ug/L #	87
37) 2,2-dichloropropane	8.344	77	48330	13.94	ug/L	97
38) cis-1,2-dichloroethene	8.307	96	42701	18.45	ug/L	99
39) propionitrile	8.307	54	71762	230.83	ug/L	88
40) methyl acrylate	8.323	85	5370	21.83	ug/L	98
41) methacrylonitrile	8.485	67	15377	21.72	ug/L	99
42) bromochloromethane	8.585	128	21020	20.04	ug/L	93
43) tetrahydrofuran	8.590	72	5234	22.21	ug/L	97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83407.d
Acq On : 6 Jul 2018 7:12 pm
Operator : HueanhT
Sample : ecc3432-20 Inst : MS4B
Misc : MS27563,V4B3470,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:46 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

	Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
44)	chloroform	8.653	83	71046	18.99	ug/L		99
45)	tert-butyl formate	8.679	59	36446	23.39	ug/L		97
47)	1,1,1-trichloroethane	8.904	97	63715	17.50	ug/L		98
48)	cyclohexane	9.008	84	56879	14.96	ug/L		98
50)	1,1-dichloropropene	9.045	75	47807	17.01	ug/L		96
51)	carbon tetrachloride	9.081	117	52390	17.81	ug/L		98
52)	tert-amyl alcohol	9.149	73	12447	106.25	ug/L	#	75
53)	isopropyl acetate	9.165	87	7048	20.28	ug/L		97
56)	n-butyl alcohol	9.678	41	52067	1102.74	ug/L		97
57)	2,2,4-trimethylpentane	9.348	57	143866	14.71	ug/L		95
58)	benzene	9.275	78	148729	17.65	ug/L		98
59)	tert-amyl methyl ether	9.338	73	132131	19.76	ug/L		98
60)	heptane	9.489	57	23387	13.52	ug/L		96
61)	1,2-dichloroethane	9.296	62	53418	20.95	ug/L		97
62)	ethyl acrylate	9.913	55	47222	22.65	ug/L		97
63)	trichloroethene	9.944	95	35253	17.75	ug/L		98
64)	2-chloroethyl vinyl ether	10.698	63	122630	111.90	ug/L		98
65)	methyl methacrylate	10.169	100	8256	20.24	ug/L		94
66)	methylcyclohexane	10.237	83	68674	14.90	ug/L		97
67)	1,2-dichloropropane	10.227	63	43537	19.91	ug/L		98
68)	dibromomethane	10.332	93	25378	21.78	ug/L		92
69)	bromodichloromethane	10.478	83	53919	21.26	ug/L		99
70)	2-nitropropane	10.666	41	14278	21.43	ug/L		98
71)	epichlorohydrin	10.792	57	19096	99.53	ug/L		96
72)	cis-1,3-dichloropropene	10.923	75	59013	19.73	ug/L		98
73)	4-methyl-2-pentanone	11.017	58	68517	92.61	ug/L		97
74)	isoamyl alcohol	11.011	70	25134	456.79	ug/L		94
77)	toluene	11.315	92	86287	16.97	ug/L		99
78)	ethyl methacrylate	11.477	69	49051	21.49	ug/L		94
79)	trans-1,3-dichloropropene	11.498	75	53428	20.48	ug/L		95
80)	1,1,2-trichloroethane	11.733	83	29579	21.17	ug/L		97
81)	tetrachloroethene	11.890	164	31105	17.10	ug/L		96
82)	2-hexanone	11.890	58	65373	99.31	ug/L		95
83)	1,3-dichloropropane	11.922	76	57143	21.46	ug/L		95
84)	butyl acetate	11.974	56	27891	23.98	ug/L		95
85)	dibromochloromethane	12.183	129	39358	23.47	ug/L		95
86)	1,2-dibromoethane	12.350	107	39068	22.28	ug/L		98
87)	n-butyl ether	12.805	57	186692	18.47	ug/L		98
88)	chlorobenzene	12.863	112	98311	18.07	ug/L		97
89)	1,1,1,2-tetrachloroethane	12.931	131	41897	18.81	ug/L		100
90)	ethylbenzene	12.926	91	173859	17.50	ug/L		100
91)	m,p-xylene	13.056	106	130668	35.05	ug/L		99
92)	o-xylene	13.491	91	148982	17.43	ug/L		100
93)	styrene	13.506	104	116604	19.15	ug/L		99
94)	butyl acrylate	13.302	55	88978	22.17	ug/L		99
95)	isopropylbenzene	13.878	105	178286	16.12	ug/L		97
96)	bromoform	13.763	173	28832	26.79	ug/L		98
97)	cis-1,4-dichloro-2-butene	13.914	88	6632	10.61	ug/L		89
100)	1,1,2,2-tetrachloroethane	14.181	83	54224	22.04	ug/L		98
101)	trans-1,4-dichloro-2-b...	14.218	53	5573	10.78	ug/L		95
102)	1,2,3-trichloropropane	14.280	110	13475	22.60	ug/L		97
103)	bromobenzene	14.301	156	50839	20.85	ug/L		94
104)	n-propylbenzene	14.333	91	217604	17.93	ug/L		98
105)	2-chlorotoluene	14.484	126	45546	18.38	ug/L		92
106)	4-chlorotoluene	14.610	91	132184	19.52	ug/L		99
107)	1,3,5-trimethylbenzene	14.510	105	158499	17.12	ug/L		99
108)	tert-butylbenzene	14.882	119	126348	16.23	ug/L		97

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83407.d
Acq On : 6 Jul 2018 7:12 pm
Operator : HueanhT
Sample : ecc3432-20 Inst : MS4B
Misc : MS27563,V4B3470,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:46 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration

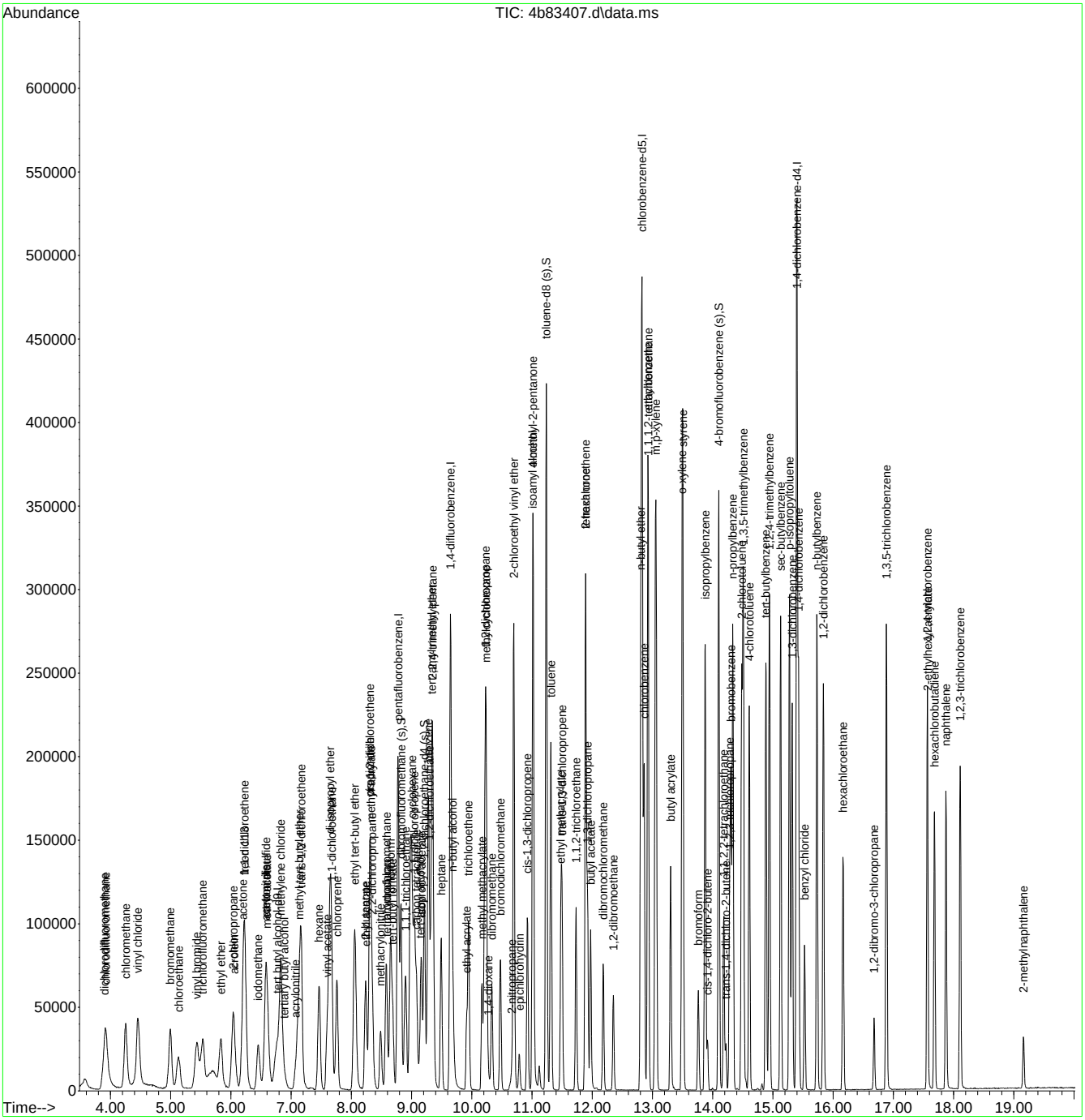
Compound	R.T.	QIon	Response	Conc	Units		Dev(Min)
109) 1,2,4-trimethylbenzene	14.945	105	163196	17.56	ug/L		99
110) sec-butylbenzene	15.128	105	201313	16.20	ug/L		99
111) p-isopropyltoluene	15.274	119	173273	16.39	ug/L		99
112) 1,3-dichlorobenzene	15.321	146	97462	18.92	ug/L		100
113) 1,4-dichlorobenzene	15.426	146	100021	19.27	ug/L		99
114) 1,2-dichlorobenzene	15.839	146	101068	18.77	ug/L		99
115) benzyl chloride	15.525	91	62473	14.78	ug/L		99
116) n-butylbenzene	15.729	92	88062	16.01	ug/L		98
117) hexachloroethane	16.163	201	26571	16.63	ug/L		95
118) 1,2-dibromo-3-chloropr...	16.681	157	12063	21.63	ug/L		97
119) 1,3,5-trichlorobenzene	16.885	180	90391	16.40	ug/L		98
120) 1,2,4-trichlorobenzene	17.565	180	73957	16.27	ug/L		99
121) 2-ethylhexyl acrylate	17.570	70	2685	0.89	ug/L	#	59
122) hexachlorobutadiene	17.685	225	38091	14.70	ug/L		98
123) naphthalene	17.874	128	137948	15.44	ug/L		99
124) 1,2,3-trichlorobenzene	18.109	180	66937	16.91	ug/L		99
125) 2-methylnaphthalene	19.160	142	16930	4.35	ug/L		96

(#) = qualifier out of range (m) = manual integration (+) = signals summed

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\data\janellac\07-10-18\v4b3470\
Data File : 4b83407.d
Acq On : 6 Jul 2018 7:12 pm
Operator : HueanhT
Sample : ecc3432-20 Inst : MS4B
Misc : MS27563,V4B3470,5,,,,1
ALS Vial : 25 Sample Multiplier: 1

Quant Method : C:\MSDCHEM\1\METHODS\M4B3432.M
Quant Results File: M4B3432.RES
Quant Time: Jul 09 09:52:46 2018
Quant Title : SW846 8260C, Rxi624Sil MS 60m x 0.25mm x 1.4um
QLast Update : Tue Jun 26 09:12:57 2018
Response via : Initial Calibration



GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi624(30mx0.25mmx1.4um)
Standards	ABK V018-2623-51.11	C V018-2623-57.7	E V018-2623-34.66	SL V018-2623-34.66	Method	V8260C
Standard Concentration	100-10,000 ppm	100 ppm	100 ppm	100 ppm	Init Calib Date	6/14/2018
External Standards	ABK V018-2623-28.11	C V018-2623-50.6	E V018-2623-25.11	13BDN V018-2623-3 2.3		
External Standard Concentration	100-10,000 ppm	100 ppm	100 ppm	100 ppm		
External Standards	F141B+F142B V018-2623-3 7.1	PA V018-2623-19.5			Analysis Date	6/14/2018
External Standard Concentration	100ppm	100ppm			Sequence loaded by	Robert Szot
Internal Surrogate	V018-2623-18				Data processed by	Robert Szot
Internal Surrogate Concentration	50/500ppm				Batch ID	V1A7758
					Matrix	AQ
Initial Calibration Method	M1A7758				Approved By:	JESSICA
					Approved Date:	6/22/2018 3:59:36 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A	182039	BFB		NA			5			1	NG	BFB Failed. Tuned instrument.
1A	182040	BFB		NA			5			1	OK	
1A	182041	IC7758-0.2		NA		V8260 initial cal.	5			2	OK	1 uL ABK, C ,E, SL / 500mL DI H2O.
1A	182042	IC7758-0.5		NA		V8260 initial cal.	5			3	OK	2.5 uL ABK, C ,E, SL / 500mL DI H2O.
1A	182043	IC7758-1		NA		V8260 initial cal.	5			4	OK	5 uL ABK, C ,E, SL / 500mL DI H2O.
1A	182044	IC7758-2		NA		V8260 initial cal.	5			5	OK	4 uL ABK, C ,E, SL / 200mL DI H2O.
1A	182045	IC7758-5		NA		V8260 initial cal.	5			6	OK	10 uL ABK, C ,E, SL / 200mL DI H2O.
1A	182046	IC7758-10		NA		V8260 initial cal.	5			7	OK	20 uL ABK, C ,E, SL / 200mL DI H2O.
1A	182047	IC7758-20		NA		V8260 initial cal.	5			8	OK	40 uL ABK, C ,E, SL / 200mL DI H2O.
1A	182048	ICC7758-50		NA		V8260 initial cal.	5			9	OK	80 uL ABK, C ,E, SL / 200mL DI H2O.
1A	182049	IC7758-100		NA		V8260 initial cal.	5			10	OK	100 uL ABK, C ,E, SL / 200mL DI H2O.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A	182050	IC7758-200		NA		V8260 initial cal.	5			11	OK	200 uL ABK, C ,E, SL / 200mL DI H2O.
1A	182051	IB		NA			5			12	OK	
1A	182052	IB		NA			5			13	OK	
1A	182053	ICV7758-50		NA		V8260 initial cal.	5			14	OK	100 uL Ext ABK, Ext C,Ext E, Ext 13BDN, Ext F141B+F142B / 200mL DI H2O.
1A	182054	ICV7758-50		NA		V8260 initial cal.	5			15	OK	100 uL Ext PA / 200 mL DI H2O
1A	182055	IB		NA			5			16	OK	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi624(30mx0.25mmx1.4um)
Standards	ABK V018-2623-68.20	C V018-2623-79.7	E V018-2623-58.45		Method	V8260C
Standard Concentration	100-10,000 ppm	100 ppm	100 ppm		Init Calib Date	6/14/2018
Internal Surrogate	V018-2623-52					
Internal Surrogate Concentration	50/500ppm					
					Analysis Date	7/5/2018
					Sequence loaded by	JoshuaR
					Data processed by	EddieH
					Batch ID	V1A7793
Rough Review Compkleted	Jessica Potts 7/6/18.				Matrix	AQ
Initial Calibration Method	M1A7758				Approved By:	JESSICA
pH Paper Lot#	232515				Approved Date:	7/9/2018 10:24:04 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A	182800	BFB/CC7758-50		NA			5			1	ok/ok	50uL ABK, C,E/100mL. (5:32 pm) 7/5/18 # 25 high.
1A	182801	BS		NA			5			2	ok	50uL ABK, C,E/100mL.
1A	182802	IB		NA			5			3	ok	
1A	182803	MB		NA			5			4	ok	
1A	182804	JC68966-24	1	NA	MS27583	V8260SL	5		1	5	ok	
1A	182805	JC68966-25	2	NA	MS27583	V8260SL	5		1	6	ok	
1A	182806	JC68966-26	2	NA	MS27583	V8260SL	5		1	7	ok	
1A	182807	JC68966-27	2	NA	MS27583	V8260SL	5		1	8	ok	
1A	182808	JC68966-28	2	NA	MS27583	V8260SL	5		1	9	ok	
1A	182809	JC68966-29	2	NA	MS27583	V8260SL	5		1	10	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
1A	182810	JC68966-30	2	NA	MS27583	V8260SL	5		1	11	ok	
1A	182811	JC68966-8	1	NA	MS27582	V8260SL	5		1	12	ok/DL	+2C160383.
1A	182812	JC68966-10	1	NA	MS27582	V8260SL	5		1	13	ok/DL	+2C160382.
1A	182813	JC68966-25MS	1	NA	MS27582	V8260SL	5		1	14	ok	20uL ABK, C,E/40mL of sample.
1A	182814	IB		NA	MS27673		5			15	ok	
1A	182815	JC68966-26DUP	1	NA	MS27582	V8260SL	5		1	16	ok	
1A	182816	JC68331-18	2	NA	MS27493	V8260BENZ	5		1	17	ok	
1A	182817	JC69024-1	4	NA	MS27608	V8260PCE,VLS,12DCA,12DCE, BENZ,	5		1	18	ok	ETHBNZ, MEK, NAP,TOLUENE, XYL. Do not report EPA TCL Compounds as TICS.
1A	182818	ECC7758-20		NA			5			19	ok	20uL ABK, C,E/100mL. (1: 33 am) 7/6/18. OK per Owen.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(60mx0.25mmx1.4um)
Standards	ABK V018-2615-120.3	C V018-2615-131.1	E V018-2615-121.23		Method	V8260C
Standard Concentration	100-10,000ppm	100ppm	100ppm		Init Calib Date	04/16/2018
External Standards	ABK V018-2615-114.8	C V018-2615-127.9	E V018-2615-115.6	PA V018-2615-128.12		
External Standard Concentration	100-10,000ppm	100ppm	100ppm	100-10,000ppm		
Internal Standard/Surrogate	V018-2615-113				Analysis Date	4/16/2018
Internal Surrogate Concentration	250/2500ppm				Sequence loaded by	Bridget Kelly
Standards	EXT E v018-2615-133.2	Ext Chlorodifluoromethan	v018-2615-132.5		Data processed by	Bridget Kelly
Standard Concentration	100ppm		100ppm		Batch ID	V2C7025
					Matrix	AQ
Initial Cal. Method	M2C7025				Approved By:	ROBERTS
pH Paper Lot#	215316				Approved Date:	4/27/2018 10:40:00 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2C	158312	IB		NA			5			1	ok	cleaned source
2C	158313	IB		NA			5			2	ok	
2C	158314	IB		NA			5			3	ok	
2C	158315	IB		NA			5			4	ok	
2C	158316	IB		NA			5			5	ok	
2C	158317	IB		NA			5			6	ok	
2C	158318	BFB		NA			5			7	oko	
2C	158319	IC7025-0.5		NA		8260 initial cal	5			8	ok	5ulABK,C,E/1000mL.
2C	158320	IC7025-1		NA		8260 initial cal	5			9	ok	1ulABK,C,E/100mL.
2C	158321	IC7025-2		NA		8260 initial cal	5			10	ok	2ulABK,C,E/100mL.
2C	158322	IC7025-5		NA		8260 initial cal	5			11	ok	5ulABK,C,E/100mL.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2C	158323	IC7025-10		NA		8260 initial cal	5			12	ok	10ulABK,C,E/100mL.
2C	158324	IC7025-20		NA		8260 initial cal	5			13	ok	20ulABK,C,E/100mL.
2C	158325	ICC7025-50		NA		8260 initial cal	5			14	ok	50ulABK,C,E/100mL.
2C	158326	IC7025-100		NA		8260 initial cal	5			15	ok	100ulABK,C,E/100mL.
2C	158327	IC7025-200		NA		8260 initial cal	5			16	ok	200ulABK,C,E/100mL.
2C	158328	IB		NA			5			17	ok	
2C	158329	IB		NA			5			18	ok	
2C	158330	ICV7025-50		NA		8260 initial cal	5			19	ok	50ulEXTABK,C,E/100mL.
2C	158331	ICV7025-50		NA		8260 initial cal	5			20	ok	50ulEXTPA/100mL.
2C	158332	IB		NA			5			21	ok	
2C	158333	IB		NA			5			1	ok	
2C	158334	BFB2		NA			5			2	ok	
2C	158335	ICV7025-50		NA		8260 initial cal	5			3	ok	50 uL EXT Chlorodifluoromethane, E / 100 mL

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-68.33	C V018-2623-69.15	E V018-2623-58.34	13BTD V018-2623-60 1	Method	V8260C
Standard Concentration	100ppm-10000ppm	100ppm	100ppm	100PPM	Init Calib Date	6/7/2018
Internal Surrogate	V018-2623-52					
Internal Surrogate Concentration	250/2500ppm				Rough reviewed by	Hueanh Tran(7/3/18)
					Analysis Date	7/2/2018
					Sequence loaded by	JoshuaR
					Data processed by	janellec
					Batch ID	V2C7121
					Matrix	AQ
Initial Calibration Method	M2C7025				Approved By:	JESSICA
pH Paper Lot#	232515				Approved Date:	7/9/2018 10:27:27 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2c	160375	BFB/CC7025-50		NA			5			1	OK	50ul abk,c,e/100ml, Austin gave OK
2c	160376	CC7025-1		NA			5			2	ok	1ul abk,c,e/100ml
2c	160377	BS		NA			5			3	ok	50ul abk,c,e/100ml
2c	160378	IB		NA			5			4	ok	
2c	160379	MB		NA			5			5	ok	
2c	160380	JC68902-4	4	NA	MS27512	V8260TCL20+, VMS+PCE	5		1	6	ok	
2c	160381	JC68902-5	2	NA	MS27512	V8260TCL20+	5		1	7	ok	
2c	160382	JC68966-10	2	10x	MS27582	V8260SL	5/50		1	8	RR	DOD-QSM5; rr O/D
2c	160383	JC68966-8	2	20x	MS27582	V8260SL	2.5/50		1	9	ok	DOD-QSM5
2c	160384	JC68966-10MS	2	10x	MS27582	V8260SL	5/50		1	10	ok	DOD-QSM5. 50ul abk,c,e/100ml

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2c	160385	JC68966-10MSD	2	10x	MS27582	V8260SL	5/50		1	11	ok	DOD-QSM5. 50ul abk,c,e/100ml
2c	160386	IB		NA			5			12	ok	
R	160387	JC68810-2	4	500x	MS27522	V8260TCL20, VMS+UNPR	.1/50		7	13	ok	OK PER OWEN
R	160388	JC68810-2	4	5000x	MS27522	V8260TCL20, VMS+UNPR	.01/50		7	14	ok	OK PER OWEN
R	160389	JC68810-4	10	10x	MS27522	V8260TCL20, VMS+UNPR	5/50		7	15	ok	
DL	160390	JC68810-5	4	250x	MS27522	V8260TCL20, VMS+UNPR	.2/50		7	16	ok	
DL	160391	JC68810-8	4	20x	MS27522	V8260TCL20, VMS+UNPR	2.5/50		7	17	ok	OK PER OWEN
DL	160392	JC68810-9	4	10x	MS27522	V8260TCL20, VMS+UNPR	5/50		7	18	ok	OK PER OWEN
DL	160393	JC68810-10	4	10x	MS27522	V8260TCL20, VMS+UNPR	5/50		7	19	ok	OK PER OWEN
DL	160394	JC68810-10	4	100x	MS27522	V8260TCL20, VMS+UNPR	.5/50		7	20	ok	OK PER OWEN
2C	160395	JC68966-12	2	NA	MS27582	V8260SL	5		1	21	ok	
2C	160396	JC68966-13	2	NA	MS27582	V8260SL	5		1	22	RR	surr out (DOD criteria)
2c	160397	JC68966-14	2	NA	MS27582	V8260SL	5		1	23	ok	
2c	160398	JC68966-15	2	NA	MS27582	V8260SL	5		1	24	RR	OUT OF BFB
2c	160399	ECC7025-50		NA			5			25	ok	OUT OF BFB. OK PER OWEN. 50ul abk,c,e/100ml 7:25AM

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	DB624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-05.2	C V018-2623-04.12	E V018-2623-03.2		Method	V8260C
Standard Concentration	100-10000 ppm	100ppm	100ppm		Init Calib Date	5/3/2018
Internal Surrogate	V018-2615-130					
Internal Surrogate Concentration	50/500ppm					
Standards	Ext ABK V018-2615-137.7	Ext C V018-2623-01.5	Ext E V018-2615-133.7	Ext PA V018-2615-128.2	Analysis Date	5/3/2018
Standard Concentration	100-10000 ppm	100 ppm	100 ppm	100/1000 ppm	Sequence loaded by	Robert Szot
					Data processed by	Robert Szot
					Batch ID	V2D7390
					Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	BRIDGETK
pH Paper Lot#	216315				Approved Date:	5/14/2018 3:06:48 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175264	BFB		NA			5			1	ok	
2D	175265	IC7390-1		NA		8260 initial cal.	5			2	ok	5 uL ABK, C, E / 500 mL DI H2O
2D	175266	IC7390-0.5		NA		8260 initial cal.	5			3	ok	2.5 uL ABK, C, E / 500 mL DI H2O
2D	175267	IC7390-2		NA		8260 initial cal.	5			4	ok	10 uL ABK, C, E / 500 mL DI H2O
2D	175268	IC7390-5		NA		8260 initial cal.	5			5	ok	5 uL ABK, C, E / 100 mL DI H2O
2D	175269	IC7390-10		NA		8260 initial cal.	5			6	ok	10 uL ABK, C, E / 100 mL DI H2O
2D	175270	IC7390-20		NA		8260 initial cal.	5			7	ok	20 uL ABK, C, E / 100 mL DI H2O
2D	175271	ICC7390-50		NA		8260 initial cal.	5			8	ok	50 uL ABK, C, E / 100 mL DI H2O
2D	175272	IC7390-100		NA		8260 initial cal.	5			9	ok	100 uL ABK, C, E / 100 mL DI H2O
2D	175273	IC7390-200		NA		8260 initial cal.	5			10	ok	200 uL ABK, C, E / 100 mL DI H2O
2D	175274	IB		NA			5			11	ok	
2D	175275	IB		NA			5			12	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	175276	ICV7390-50		NA		8260 initial cal.	5			13	ok	50 uLExt ABK, Ext C, Ext E / 100 mL DI H2O
2D	175277	ICV7390-50		NA		8260 initial cal.	5			14	ok	50 uLExt PA / 100 mL DI H2O

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(60mx0.25mmx1.4ul)
Standards	ABK V018-2623-68.22	C V018-2623-69.2	E V018-2623-58.32		Method	V8260C
Standard Concentration	100-10000ppm	100ppm	100ppm		Init Calib Date	5/30/2018
Internal Surrogate	V018-2623-52					
Internal Surrogate Concentration	250/2500ppm				Rough Reviewed	Bridget Kelly
					Analysis Date	7/1/2018
					Sequence loaded by	Maricela Delgadillo
					Data processed by	lotusa
					Batch ID	V2D7472
					Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	BRIDGETK
pH paper Lot #	232515				Approved Date:	7/3/2018 4:10:56 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	176936	IB		NA			5			1	OK	
2D	176937	BFB/CC7390-20		NA			5			2	OK/ok	20ul ABK,C,E/100ml 9:04am
2D	176938	BS		NA			5			3	OK	50ul ABK,E/100ml
2D	176939	IB		NA			5			4	OK	
2D	176940	MB		NA			5			5	OK	
	176941	CC7390-20		NA			5			6	not used	analyst purged wrong position headspace
	176942	BS		NA			5			7	not used	analyst purged wrong position headspace
	176943	IB		NA			5			8	not used	analyst purged wrong position headspace
	176944	MB		NA			5			9	not used	analyst purged wrong position headspace
2D	176945	JC68966-1	2	NA	MS27582	V8260SL	5		1	10	OK	DOD-QSM5
2D	176946	JC68966-2	1	NA	MS27582	V8260SL	5		1	11	OK	DOD-QSM5

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	176947	JC68966-3	2	NA	MS27582	V8260SL	5		1	12	OK	DOD-QSM5
2D	176948	JC68966-5	2	NA	MS27582	V8260SL	5		1	13	OK	DOD-QSM5
2D	176949	JC68966-7	2	NA	MS27582	V8260SL	5		1	14	OK	DOD-QSM5
2D	176950	JC68966-4	2	NA	MS27582	V8260SL	5		1	15	OK	DOD-QSM5
2D	176951	JC68966-9	2	NA	MS27582	V8260SL	5		1	16	OK	DOD-QSM5
2D	176952	JC68966-11	2	NA	MS27582	V8260SL	5		1	17	OK	DOD-QSM5
2D	176953	JC68966-2MS	2	NA	MS27582	V8260SL	5		1	18	OK	DOD-QSM5 20ul ABK,C,E/40ml sample
2D	176954	JC68966-2MSD	5	NA	MS27582	V8260SL	5		1	19	OK	DOD-QSM5 20ul ABK,C,E/40ml sample
2D	176955	IB		NA			5			20	OK	
2D	176956	JC68966-6	2	NA	MS27582	V8260SL	5		1	21	OK	DOD-QSM5 2D176957-59 No data
2D	176960	ECC7390-20		NA			5			22	OK	20ul ABK,C,E/100ml 9:02pm (2d176960 in msdchem)

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(60mx0.25mmx1.4ul)
Standards	ABK V018-2623-68.17	C V018-2623-69.23	E V018-2623-58.28		Method	V8260C
Standard Concentration	100-10000ppm	100ppm	100ppm		Init Calib Date	5/30/2018
Internal Surrogate	V018-2623-52					
Internal Surrogate Concentration	250/2500ppm					
					Analysis Date	7/2/2018
					Sequence loaded by	Austin Park
					Data processed by	kenrickb
					Batch ID	V2D7474
Rough review	dong,mei				Matrix	AQ
Initial Calibration Method	M2D7390				Approved By:	JESSICA
pH paper Lot #	232515				Approved Date:	7/9/2018 10:27:50 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	176982	BFB/CC7390-50		NA			5			1	ok/ok	25ul ABK,C,E/50ml DI H2O 6:53pm
2D	176983	BS		NA			5			2	ok	25ul ABK,C,E/50ml DI H2O
2D	176984	IB		NA			5			3	ok	
2D	176985	MB		NA			5			4	ok	
2D	176986	JC68966-41	4	NA	MS27584	V8260SL	5		1	5	ok	
2D	176987	JC68966-34	1	10x	MS27584	V8260SL	5/50		1	6	ok	
2D	176988	JC68966-41MS	5	NA	MS27584	V8260SL	5		1	7	ok	25ul ABK,C,E/50ml DI H2O
2D	176989	JC68966-41MSD	3	NA	MS27584	V8260SL	5		1	8	ok	25ul ABK,C,E/50ml DI H2O
2D	176990	IB		NA			5			9	ok	
2D	176991	JC68966-32	1	NA	MS27584	V8260SL	5		1	10	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2D	176992	JC68966-33	1	NA	MS27584	V8260SL	5		1	11	ok	
2D	176993	JC68966-35	1	NA	MS27584	V8260SL	5		1	12	ok	
2D	176994	JC68966-36	1	NA	MS27584	V8260SL	5		1	13	ok	
2D	176995	JC68966-37	1	NA	MS27584	V8260SL	5		1	14	ok	
2D	176996	JC68966-38	1	NA	MS27584	V8260SL	5		1	15	ok	
2D	176997	JC68966-39	2	NA	MS27584	V8260SL	5		1	16	ok	
2D	176998	JC68966-40	1	NA	MS27584	V8260SL	5		1	17	ok	
2D	176999	JC68966-42	1	NA	MS27584	V8260SL	5		1	18	ok	
2D	177000	JC68966-43	2	NA	MS27584	V8260SL	5		1	19	ok	
2D	177001	JC68966-44	1	NA	MS27584	V8260SL	5		1	20	ok	
2D	177002	JC68966-45	2	NA	MS27584	V8260SL	5		1	21	ok	
2D	177003	JC68966-46	1	NA	MS27584	V8260SL	5		1	22	ok	
2D	177004	JC68966-47	1	NA	MS27584	V8260SL	5		1	23	ok	6:21am
2D	177005	ECC7390-20		NA			5			24	ok	10ul ABK,C,E/50ml DI H2O ,6:58am out bfb. by owen approval.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	ZB624(60mx0.25mmx1.4um)
Standard	ABK V018-2623-51.11	C V018-2623-57.7	E V018-2623-34.66	8260 SL V018-2623-5 0.1	Method	V8260C
Standard Concentration	100-10000ppm	100ppm	100ppm	100ppm	Init Calib Date	3/23/2018
Internal Surrogate	V018-2623-17					
Internal Surrogate Concentration	250/2500ppm				Prepped by	Robert Szot
Standard	EXT ABK v018-2623-28.11	EXT C v018-2623-50.6	EXT E v018-2623-25.11	EXT PA v018-2623-1 0.5	Analysis Date	6/14/2018
Standard Concentration	100-10000ppm	100ppm	100ppm	100ppm	Sequence loaded by	Bridget Kelly
Standard	Ext 1,3-Butadiene	v018-2623-32.3	EXT F141B F142B	V018-2623-37.1	Data processed by	Robert Szot
Standard Concentration		100ppm		100ppm	Batch ID	V2E6300
					Matrix	AQ
Initial Calibration Method	M2E6300				Approved By:	JESSICA
pH Paper Lot # 216315	exp 06/15/18				Approved Date:	6/25/2018 12:12:47 PM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2e	143849	BFB		NA			5			1	ok	
2e	143850	IC6300-0.2		NA		8260 initial cal.	5			2	ok	1 uL ABK, C, E, SL / 500 mL
2e	143851	IC6300-0.5		NA		8260 initial cal.	5			3	ok	2.5 uL ABK, C, E, SL / 500 mL
2e	143852	IC6300-1		NA		8260 initial cal.	5			4	ok	5 uL ABK, C, E, SL / 500 mL
2e	143853	IC6300-2		NA		8260 initial cal.	5			5	ok	4 uL ABK, C, E, SL / 200 mL
2e	143854	IC6300-5		NA		8260 initial cal.	5			6	ok	10 uL ABK, C, E, SL / 200 mL
2e	143855	IC6300-10		NA		8260 initial cal.	5			7	ok	20 uL ABK, C, E, SL / 200 mL
2e	143856	IC6300-20		NA		8260 initial cal.	5			8	ok	40 uL ABK, C, E, SL / 200 mL
2e	143857	ICC6300-50		NA		8260 initial cal.	5			9	ok	100 uL ABK, C, E, SL / 200 mL
2e	143858	IC6300-100		NA		8260 initial cal.	5			10	ok	200 uL ABK, C, E, SL / 200 mL
2e	143859	IC6300-200		NA		8260 initial cal.	5			11	ok	400 uL ABK, C, E, SL / 200 mL

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2e	143860	IB		NA			5			12	ok	
2e	143861	IB		NA			5			13	ok	
2e	143862	ICV6300-50		NA		8260 initial cal.	5			14	ok	100 uL EXT ABK, C, E, F141B F142B, 1,3-Butadiene / 200 mL
2e	143863	ICV6300-50		NA		8260 initial cal.	5			15	ok	100 uL EXT PA / 200 mL

GCMS Volatile Run Log

Standard / Reagents	Lot #			
Standard	ABK V018-2623-51.31	C V018-2623-69.2	E V018-2623-58.5	
Standard Concentration	100-10000ppm	100ppm	100ppm	
Internal Surrogate	V018-2623-52			
Internal Surrogate Concentration	250/2500ppm			
Initial Calibration Method	M2e6300			
pH Paper Lot # 216315	232515			

Column	ZB624(60mx0.25mmx1.4um)
Method	V8260C
Init Calib Date	6/15/2018
Rough reviewed by	Eddie Huang (7/2/18)
Analysis Date	7/1/2018
Sequence loaded by	Maricela Delgadillo
Data processed by	lotusa
Batch ID	V2E6328
Matrix	AQ
Approved By:	MEI
Approved Date:	7/3/2018 10:19:22 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2e	144435	IB		NA			5			1	OK	
2e	144436	BFB/CC6300-20		NA			5			2	ok/OK	20ul ABK,C,E/100ml. 11:31am, 7/18/18. 7 high.
2e	144437	BS		NA			5			3	no data	No data collected. Aborted.
2e	144438	BS		NA			5			4	OK	50ul ABK,C,E/100ml.
2e	144439	IB		NA			5			5	OK	
2e	144440	MB		NA			5			6	OK	
2e	144441	JC68966-31	3	NA	MS27583	V8260SL	5		1	7	OK	DOD-QSM5.
2e	144442	JC68966-16	2	NA	MS27583	V8260SL	5		1	8	OK	DOD-QSM5.
2e	144443	JC68966-17	2	NA	MS27583	V8260SL	5		1	9	OK	DOD-QSM5.
2e	144444	JC68966-18	2	NA	MS27583	V8260SL	5		1	10	RR	DOD-QSM5. RR 1X surrogate high.

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
2e	144445	JC68966-19	2	NA	MS27583	V8260SL	5		1	11	OK	DOD-QSM5.
2e	144446	JC68966-20	2	NA	MS27583	V8260SL	5		1	12	RR	DOD-QSM5. RR 1X surrogate high.
2e	144447	JC68966-31MS	2	NA	MS27583	V8260SL	5		1	13	OK	DOD-QSM5. 20ul ABK,C,E/40ml sample.
2e	144448	JC68966-31MSD	1	NA	MS27583	V8260SL	5		1	14	OK	DOD-QSM5. 20ul ABK,C,E/40ml sample.
2e	144449	IB		NA			5			15	OK	
2e	144450	JC68966-21	2	NA	MS27583	V8260SL	5		1	16	OK	DOD-QSM5.
2e	144451	JC68966-22	2	NA	MS27583	V8260SL	5		1	17	OK	DOD-QSM5.
2e	144452	JC68966-23	2	NA	MS27583	V8260SL	5		1	18	OK	DOD-QSM5.
2e	144453	JC68966-24	2	NA	MS27583	V8260SL	5		1	19	not run	DOD-QSM5.
2e	144454	ECC6300-20		NA			5			20	OK	20ul ABK,C,E/100ml. 11:17pm, 7/1/18.

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	RXI624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-40.36	C V018-2623-48.14	E V018-2623-34.41	13BDN V018-2623-30.3	Method	V8260C
Standard Concentration	100-10,000 ppm	100 ppm	100 ppm	100 ppm	Init Calib Date	6/7/2018
External Standards	ABK V018-2623-28.7	C V018-2623-42.5	E V018-2623-25.6	13BDN V018-2623-32.5		
External Standard Concentration	100-10,000 ppm	100 ppm	100 ppm	100 ppm		
	PA V018-2623-19.3				Analysis Date	6/7/2018
	100 ppm				Sequence loaded by	Prashant B. Shukla
Internal Surrogate	V018-2623-17				Data processed by	Robert Szot
Internal Surrogate Concentration	250/2500 ppm				Batch ID	V4B3432
					Matrix	AQ
Initial Calibration Method	M4B3432				Approved By:	ROBERTS
pH Paper Lot#					Approved Date:	6/14/2018 10:32:36 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4B	82568	BFB		NA			5			1	ok	
4B	82569	IC3432-0.5		NA		8260 initial cal.	5			2	ok	5 uL ABK, C, E, 13BDN / 1000mL DI H2O.
4B	82570	IC3432-1		NA		8260 initial cal.	5			3	ok	1 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82571	IC3432-2		NA		8260 initial cal.	5			4	ok	2 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82572	IC3432-5		NA		8260 initial cal.	5			5	ok	5 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82573	IC3432-10		NA		8260 initial cal.	5			6	ok	10 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82574	IC3432-20		NA		8260 initial cal.	5			7	ok	20 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82575	ICC3432-50		NA		8260 initial cal.	5			8	ok	50 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82576	IC3432-100		NA		8260 initial cal.	5			9	ok	100 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82577	IC3432-200		NA		8260 initial cal.	5			10	ok	200 uL ABK, C, E, 13BDN / 100mL DI H2O.
4B	82578	IB		NA			5			11	ok	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4B	82579	IB		NA			5			12	ok	
4B	82580	ICV3432-50		NA		8260 initial cal.	5			13	ok	50 uL Ext ABK , Ext C, Ext E / 100mL DI H2O.
4B	82581	ICV3432-50		NA		8260 initial cal.	5			14	ok	50uL ExtPA, Ext 13BDN / 100mL DI H2O.
4B	82582	IB		NA			5			15	ok	

GCMS Volatile Run Log

Standard / Reagents	Lot #				Column	Rxi-624(60mx0.25mmx1.4um)
Standards	ABK V018-2623-68.21	C V018-2623-79.12	E V018-2623-58.50	13BTD V018-2623-60 1	Method	V8260C
Standard Concentration	100ppm-10000ppm	100ppm	100ppm	100PPM	Init Calib Date	6/7/2018
Internal Surrogate	V018-2623-73					
Internal Surrogate Concentration	250/2500ppm				Rough reviewed by	Hueanh Tran(7/9/18)
					Analysis Date	7/6/2018
					Sequence loaded by	Hueanh Tran
					Data processed by	EddieH/Kenrickb/janellec
					Batch ID	V4B3470
					Matrix	AQ
Initial Calibration Method	M4B3432				Approved By:	JESSICA
pH Paper Lot#	232515				Approved Date:	7/9/2018 11:31:32 AM

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4b	83383	IB		NA			5			1	ok	
4b	83384	IB		NA			5			2	ok	
4b	83385	BFB/CC3432-20		NA			5			3	ok/ok	7:57AM. #85,96 HIGH. 10ul abk,c,e,13btd/50ml
4b	83386	BS		NA			5			4	ok	96 HIGH. 25ul abk,c,e,13btd/50ml
4b	83387	IB		NA			5			5	ok	
4b	83388	MB		NA			5			6	ok	
R	83389	JC69034-4	2	NA	MS27602	V8260TCL20+	5		1	7	OK	
R	83390	JC68966-20	1	NA	MS27583	V8260SL	5		1	8	ok	DOD-QSM5
R	83391	JC68966-18	1	NA	MS27583	V8260SL	5		1	9	ok	DOD-QSM5
R	83392	JC68574-10	5	NA	MS27422	V8260TCL20+	5		1	10	OK	

Data File		Sample ID	Bot #	Dil	Workgroup #	Test	Purge Vol (ml)	CL	pH	ALS #	Status	Comments
4B	83393	JC68932-1	4	NA	MS27586	V8260STD	5		1	11	OK	DOD-QSM5
4b	83394	JC68932-2	1	NA	MS27586	V8260STD	5		1	12	OK	DOD-QSM5
4b	83395	JC68932-3	2	NA	MS27586	V8260STD	5		1	13	ok	DOD-QSM5
4b	83396	JC68932-4	2	NA	MS27586	V8260STD	5		1	14	ok	DOD-QSM5
4b	83397	JC68932-5	2	NA	MS27586	V8260STD	5		1	15	ok	DOD-QSM5
R	83398	JC68966-13	1	NA	MS27582	V8260SL	5		1	16	ok	DOD-QSM5.
R	83399	JC68966-15	1	NA	MS27582	V8260SL	5		1	17	ok	DOD-QSM5.
4b	83400	JC68932-1MS	8	NA	MS27586	V8260STD	5		1	18	ok	DOD-QSM5. 20ul abk,c,e/40ml sample.
R	83401	JC68932-1MSD	5	NA	MS27586	V8260STD	5		1	19	ok	DOD-QSM5. 20ul abk,c,e/40ml sample.
4b	83402	IB		NA			5			20	ok	
R	83403	JC68666-1	8	NA	MS27450	V8260TCL43+	5		1	21	ok	
4b	83404	JC68931-29	1	NA	MS27563	V8260BTXM	5		1	22	ok	
4b	83405	JC68931-27	2	NA	MS27563	V8260BTXM	5		1	23	ok	
4b	83406	JC68931-28	2	NA	MS27563	V8260BTXM	5		1	1	ok	
4b	83407	ECC3432-20		NA			5			2	ok	10ul abk,c,e/50ml 7:12pm

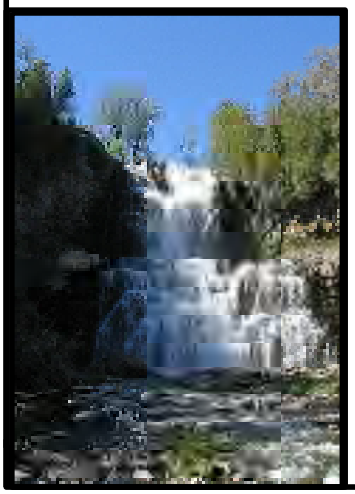
Data Validation Report
SDG: JC68966

Sites 3, 5, 7, 8, 10, & 13
June 2018 Sampling Event
Niagara Falls Air Reserve Station
Niagara Falls, New York

Prepared for:

EA Science and Technology
6712 Brooklawn Parkway, Suite 104
Syracuse, New York

July 2018
Revised November 2018



Prepared by:

SGD Environmental Services
Cazenovia, New York

2159.001-021

Data Validation Report
Niagara Falls Air Reserve Station
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July 27, 2018
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A Data Validated (Qualified) Forms

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1.0 Introduction

SGD Environmental Services (SGD Environmental) (Cazenovia, New York) was retained by EA Science and Technology (EA) located in Syracuse, New York to review analytical data generated from EA sampling efforts at the Niagara Falls Air Reserve Station (NFARS) in Niagara Falls, New York. Specifically, the sampling efforts involved the collection of water samples associated with the *Semi-Annual Sampling Event* in June 2018. This report represents the validation of the analyses of these samples.

1.1 Field sampling summary

Table 1 provides a summary of the samples collected during the June 2018 sampling event. The samples collected by EA were analyzed by SGS North America Mid Atlantic (Dayton, New Jersey) for volatile organic compounds (VOCs) using Solid Waste (SW) 846 Method 8260C.

1.2 Data validation process

The data contained in the laboratory sampling delivery group (SDG) were validated using guidance and quality control (QC) criteria identified in the following documents (as appropriate):

- *Pre-Design Investigation Quality Assurance Project Plan for Sites FT005, LF008, ST010, SS014, DS002, and DS004 Performance-based Remediation for Niagara Falls ARS, New York*. Versar, Inc. (Mt. Pleasant, SC) and EA Engineering, Science, and Technology, Inc. (Hunt Valley, MD). January 2014.

- *Department of Defense (DoD) Department of Energy (DOE) Quality Systems Manual (QSM) for Environmental Laboratories. Department of Defense Quality Systems Manual Version 5, Department of Energy Quality Systems for Analytical Services Version 3*. July 2013.

- *USEPA Hazardous Waste Support Section Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C. SOP No. HW-24. Revision 4*. September 2014.

- *FAQs: Quality Systems Manual (QSM) Version 5.0. http://www.denix.osd.mil/edqw/home/what-s-new/unassigned/dod-quality-systems-for-environmental-laboratories-dod-qsm-faqs-version-5/*

- *United States Environmental Protection Agency (USEPA) Hazardous Waste Support Section SOP No. HW-34 Revision 3 Trace Volatile Data Validation*. February 2013.

Areas reviewed included completeness of data, chain of custody, holding times, preservation, blank spike/laboratory control samples, matrix spike/matrix spike duplicate (MS/MSD) samples, laboratory duplicates, field duplicates, surrogate recoveries, preparation/calibration blanks, initial and continuing calibrations, instrument tunes, and detection limits.

Table 1 – Sampling matrix summary.

EA field identification	*Laboratory identification*	*Notes*
SDG JC68966		
MW8-11D-2018-06-25	JC68966-1	
CH8-01-2018-06-25	JC68966-2	Used for MS/MSD samples
MW8-1-2018-06-25	JC68966-3	
MW8-10D-2018-06-25	JC68966-4	
MW8-8-2018-06-25	JC68966-5	
TRIP BLANK 01	JC68966-6	Trip blank
MW5-1DA-2018-06-25	JC68966-7	
MW5-5D-2018-06-25	JC68966-8	
MW5-6-2018-06-25	JC68966-9	
RW5-1-2018-06-25	JC68966-10	Used for MS/MSD samples
RW5-2-2018-06-25	JC68966-11	
RW5-4-2018-06-25	JC68966-12	
MW13-4D-2018-06-25	JC68966-13	
MW13-5D-2018-06-25	JC68966-14	
PW13-1-2018-06-25	JC68966-15	
PW13-4D-2018-06-25	JC68966-16	
PW13-3D-2018-06-25	JC68966-17	
MW13-5A-2018-06-25	JC68966-18	
MW13-4-2018-06-25	JC68966-19	
MW13-3-2018-06-25	JC68966-20	Parent to field duplicate JC68966-21
MW13-FD-2018-06-25	JC68966-21	Field duplicate
MW10-10A-2018-06-26	JC68966-22	
MW10-3-2018-06-26	JC68966-23	
MW10-7-2018-06-26	JC68966-24	
MW3-3DA-2018-06-26	JC68966-25	Used for MS sample
PZ3-6D-2018-06-26	JC68966-26	Parent to duplicate JC68966-26Dup
SW03-15-2018-06-26	JC68966-27	
SW03-3-2018-06-26	JC68966-28	
SW99-10-2018-06-26	JC68966-29	
MW7-1D-2018-06-26	JC68966-30	
PW3-3A-2018-06-26	JC68966-31	Used for MS/MSD samples
MW3-4DA-2018-06-26	JC68966-32	Parent to field duplicate JC68966-32
MW3-FD-2018-06-26	JC68966-33	Field duplicate
MW10-10D-2018-06-26	JC68966-34	
PW10-1-2018-06-26	JC68966-35	
MW10-2-2018-06-26	JC68966-36	

Table 1 – Sampling matrix summary (continued).

EA field identification	*Laboratory identification*	*Notes*
SDG JC68966 (continued)		
PW10-2-2018-06-26	JC68966-37	
PZ10-7-2018-06-26	JC68966-38	
SW10-08-2018-06-26	JC68966-39	Parent to field duplicate JC68966-44
SW10-07-2018-06-26	JC68966-40	
SW3-2-2018-06-26	JC68966-41	Used for MS/MSD samples
PZ3-7D-2018-06-26	JC68966-42	
PZ3-8D-2018-06-26	JC68966-43	
SW10-FD-2018-06-26	JC68966-44	Field duplicate
PBD-BLANK-2018-06-26	JC68966-45	Equipment blank
MW5-PT-2018-06-26	JC68966-46	
TB-02	JC68966-47	Trip blank

The summary of this review is presented in the following section and outlines data which are considered non-compliant with method requirements. It is recognized that depending on validation requirements, an analyte associated with a particular sample could receive multiple qualifiers; samples were qualified based on the most conservative qualifier.

Where necessary, the sample results are hand-qualified with data qualifiers to reflect data deficiencies on the accompanying sample result reports (Appendix A). A summary list of qualifiers used to flag the data and associated definitions accompany the reports.

1.3 Chain of custody and holding times

Tracking documentation (*e.g.*, chain of custody, laboratory sample receipt documents, *etc*.) accompanied the samples and was included in the laboratory deliverables. The following observations and inconsistencies relative to the samples collected and requested analyses were noted:

- Information (such as matrix, sampler, street address, billing information, courier delivery number, *etc*.) was not filled out in entirety on the chain of custody. In some instances, changes were not crossed out with one line and were not initialed. No qualification of the data was required.

- Samples in the SDG were analyzed within the required 14-day holding time.

- Samples in the SDG were reported as received by the laboratory within the required temperature range (less than 4ºC).

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2.0 Volatile organic compound validation

2.1 Data completeness and deliverables

A narrative summarizing the analyses was included in the SDG prepared by the laboratory. Table 1 summarizes the samples analyzed for VOCs using Method 8260C. The results were summarized on standardized laboratory report forms listing each individual VOC. At the request of EA representatives, this report has been revised to include the validation of 1,4-Dioxane originally identified as a Department of Defense semi-VOC. In addition, sample JC68966-45 (PBD Blank) was validated as an equipment blank.

In summary, based on the scope of the validation efforts as described herein, the data were deemed complete and useable (as qualified) with the exception of Bromoform in samples JC68966-8, JC68966-10, and JC68966-24 through JC68966-30 which were rejected due to poor continuing calibration performance (see Section 2.9).

2.2 Surrogate recoveries

Surrogate compounds (Dibromofluoromethane, 1,2-Dichloroethane-D4, Toluene-D8, and 4-Bromofluorobenzene) appear to have been analyzed consistent with method requirements. Surrogate recoveries for the samples were within the control limits. No qualification of the data relative to surrogate recoveries was required.

No transcription/calculation errors between the raw data and the reported data were identified in the surrogates reviewed.

2.3 Blank spike samples

Blank spike samples appear to have been prepared, extracted, and analyzed consistent with method requirements. The majority of the blank spike analytes were within the control limits; the lower control limit (LCL) was not exceeded in the blank spike samples associated with the SDG. The upper control limit (UCL) for Bromoform was, however, exceeded for blank spike sample V4B3470-BS (associated with samples JC68966-13, JC68966-15, JC68966-18, and JC68966-20). Given Bromoform was not detected in the associated samples, no qualification of the data was necessary.

No transcription/calculation errors between the blank spike raw data and the reported data were identified in the samples reviewed.

2.4 Matrix spike/matrix spike duplicate samples

The VOC MS/MSD recoveries were within DoD specified limits for the spiked analytes except for those listed below. As noted in the table below, qualification of the data was

based upon whether the LCL or the UCL was exceeded and whether the compound was detected in the sample.

Table 2 - MS/MSD outliers.

MS/MSD / VOC	*Qualifier in parent sample*
JC68966-2 MS/MSD	
trans-1,3-Dichloropropene	Exceeded LCL; qualified estimated ("UJ")
JC68966-10 MS/MSD	
cis-1,2-Dichloroethene	Exceeded LCL; qualified estimated ("J")
Methylene chloride (MSD only)	Exceeded LCL; qualified estimated ("UJ")
JC68966-25 MS	
Bromomethane	Exceeded LCL; qualified estimated ("UJ")
Chloroethane	Exceeded UCL; no qualification, not detected
Iodomethane	Exceeded LCL; qualified estimated ("UJ")
JC68966-31 MSD	
Benzene	Exceeded LCL; qualified estimated ("J")
Bromochloromethane	Exceeded LCL; qualified estimated ("UJ")
Carbon disulfide	↓
Chlorobenzene	
1,2-Dichlorobenzene	
1,3-Dichlorobenzene	
1,4-Dichlorobenzene	
1,1-Dichloroethane	
cis-1,2-Dichloroethene	Exceeded LCL; qualified estimated ("J")
trans-1,2-Dichloroethene	Exceeded LCL; qualified estimated ("J")
1,2-Dichloropropane	Exceeded LCL; qualified estimated ("UJ")
Ethylbenzene	↓
Iodomethane	
Methylene chloride	
Toluene	
1,1,2-Trichloroethane	
Trichloroethene	Exceeded LCL; qualified estimated ("J")
Xylene	Exceeded LCL; qualified estimated ("UJ")
JC68966-41 MS/MSD	
Benzene (MS only)	Exceeded UCL; no qualification, not detected
Chlorobenzene (MS only)	↓
1,2-Dibromomethane (MS only)	
1,2-Dichlorobenzene	
1,3-Dichlorobenzene	
1,4-Dichlorobenzene	
cis-1,2-Dichloroethene (MS only)	
trans-1,2-Dichloroethene (MS only)	
Ethylbenzene (MS only)	
Methylcyclohexane (MS only)	
1,1,2,2-Tetrachloroethane (MS only)	
Tetrachloroethene (MS only)	
Toluene	
1,1,2-Trichloroethane (MS only)	

With the exception of Chloroform, trans-1,3-Dichloropropene, Benzene, Bromochloromethane, Carbon disulfide, Chlorobenzene, Chloroform, 1,1-Dichloroethane, trans-1,2-Dichloropropene, trans-1,2-Dichloroethene, Ethylbenzene, Iodomethane, Isopropylbenzene, Toluene, and Tetrachloroethene for MC68966-31MS/MSD, and 1,4-Dioxane for MC68966-10MS/MSD, the RPDs for the MS/MSD were within established control limits. No transcription/calculation errors between the raw data and the reported data were identified in the MS/MSD samples reviewed.

2.5 Blank contamination

Method blank samples appear to have been prepared, extracted, analyzed, and reported consistent with method requirements. Two trip blanks (JC68966-6 and JC68966-47) and one equipment blank (JC68966-45) were collected for analyses. Blank contamination was not identified in the method blanks or trip blanks associated with this project. Acetone was detected at 31.6 parts per billion (ppb) in the equipment blank. As such, sample Acetone concentrations were qualified based on the following:

- Where Acetone was detected below the reporting limit (J values), the result was raised to 10U ppb.
- Where Acetone was detected above the reporting limit, but below two times the reporting limit, the detection limit was raised to the reported concentration.
- Where Acetone was detected at greater than 20 ppb but less than the contaminant concentration of 31.6 ppb, the detection limit was raised to the reported concentration.
- Where Acetone was not detected in the associated samples or was present at a concentration greater than 31.6 ppb, qualification of the sample data was not required.

2.6 Instrument performance checks

Instrument performance check samples (Bromofluorobenzene) appear to have been analyzed and reported consistent with method requirements. No transcription/calculation errors between the raw data and the reported data were identified in the instrument check samples reviewed and the spectra of the mass calibration compounds were acceptable. Therefore, qualification of the data with respect to instrument performance checks was not required.

2.7 Target analytes

Report forms (sample and blank), data system reports (quantitation reports), chromatograms, and mass spectra for identified analytes were prepared by the laboratory. Collective review of standard and sample mass spectra as well as the relative intensities of the characteristic ions for both the sample and reference spectra appears to support the

majority of the laboratory reported analytes. Relative retention times (RRTs) of reported analytes were acceptable (0.06 RRT units). The relative intensity of the characteristic ions in some samples exceeded the 20% relative intensity of the reference spectra and/or the ions present in the reference spectra at greater than 10% relative intensity were missing in the sample spectrum. It is, however, the validator's opinion that the laboratory correctly reported the detected analytes and qualification of the data is not necessary.

2.8 Compound quantitation

Transcription/calculation errors between the raw data and the reported data were not identified in the samples reviewed; qualification of the data was not required.

2.9 Initial and continuing calibration verifications

Reporting forms, quantitation reports, chromatograms, and mass spectra for the initial and continuing calibrations were prepared by the laboratory. The percent relative standard deviation (%RSD) or correlation coefficient for initial calibration (IC) analytes met established criteria and, therefore, no qualification with respect to ICs was required.

Volatile compounds with a percent difference (20%D or 20% Drift) not meeting DoD method criteria between the initial and continuing calibrations (including initial verification calibrations) occurred with the continuing calibrations associated with the samples noted below[1]. Consistent with data validation requirements, the outlying volatile compounds associated with the corresponding calibration samples were qualified as estimated ("J" or UJ") as appropriate.

V1A7793-CC7758 (JC68966-8, -10, and -24 thru -30):

- Methyl acetate

V1A7793-ECC7758 (JC68966-8, -10, and -24 thru -30):

- Bromomethane

V2C7121-CC7025 (JC68966-12 and -14):

- Chloroethane

V2D7472-CC7390 (JC68966-32 thru -47):

- 1,4-Dioxane

V2D7474-CC7390 (JC68966-1 thru -7, -9 and -11):

- 1,4-Dioxane

V2E6328-CC6300 (JC68966-16, -17, -19, -21 thru -23, and -31):

- Dichlorodifluoromethane

[1] A limit of 50% exists for the ending continuing calibrations (ECCs).

V4B3470-CC3432 (JC68966-13, -15, -18, and -20):

- Bromoform
- Dibromochloromethane

The average relative response factors (RRFs) associated with initial and continuing calibrations met established minimum RRF criteria with the exception of Bromomethane in V1A7793-ECC7758. As such, Bromomethane in the associated samples, JC68966-8, JC68966-10, and JC68966-24 thru JC68966-30, were qualified with an "R" (rejected).

No transcription/calculation errors between the raw data and the reported data were identified in the calibrations reviewed.

2.10 Internal standards

Internal standards were within established limits and, therefore, no qualification of the data relative to internal standard criteria was required.

2.11 Sampling duplicates

The parent samples associated with the blind field duplicates were provided by EA; three duplicate samples were collected (JC68966-21, JC68966-33, and JC68966-44). One duplicate sample was also collected (JC68966-26Dup). Compared to the parent samples (JC68966-20, JC68966-32, and JC68966-39, respectively for the blind duplicates), the field duplicate results did not warrant qualification based on calculated RPDs (<50%) for the detected compounds.

APPENDICES

Data Validation Report
Niagara Falls Air Reserve Station
Niagara Falls, New York

SDG: JC68966
Sites 3, 5, 7, 8, 10, and 13
June 2018 Sampling Event

Appendices Table of Contents

Appendix A – Data Validated (Qualified) Forms

Appendix A
Data Validated (Qualified) Forms

U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ	The analyte was analyzed for, but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting Quality Control (QC) criteria. The analyte may or may not be present in the sample.

Source: *USEPA Hazardous Waste Support Section Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Method 8260B & 8260C. SOP No. HW-24. Revision 4.* September 2014.

SDG: JC68966

Report of Analysis

Client Sample ID:	MW8-11D-2018-06-25		
Lab Sample ID:	JC68966-1	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176945.D	1	07/01/18 14:25	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	40.1	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.73	1.0	0.50	0.20	ug/l	J
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 U J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

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Client Sample ID:	CH8-01-2018-06-25		
Lab Sample ID:	JC68966-2	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176946.D	1	07/01/18 14:57	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.87	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

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Client Sample ID:	MW8-1-2018-06-25		
Lab Sample ID:	JC68966-3	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176947.D	1	07/01/18 15:31	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	40.4	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.59	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.34	1.0	0.50	0.21	ug/l	J
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	81.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	3.0	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW8-10D-2018-06-25		
Lab Sample ID:	JC68966-4	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176950.D	1	07/01/18 17:10	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	42.0	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.0	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 U J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

4.5
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Client Sample ID:	MW8-8-2018-06-25		
Lab Sample ID:	JC68966-5	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176948.D	1	07/01/18 16:03	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~7.3~~	10	5.0	5.0	ug/l	~~J~~ 10U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	6.1	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75U
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK 01		
Lab Sample ID:	JC68966-6	Date Sampled:	06/25/18
Matrix:	AQ - Trip Blank Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176956.D	1	07/01/18 20:31	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 U J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW5-1DA-2018-06-25		
Lab Sample ID:	JC68966-7	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176949.D	1	07/01/18 16:37	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~14.2~~	10	5.0	5.0	ug/l	14.2U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	41.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW5-5D-2018-06-25		
Lab Sample ID:	JC68966-8	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182811.D	1	07/05/18 22:38	JP	n/a	n/a	V1A7793
Run #2	2C160383.D	20	07/02/18 23:08	HT	n/a	n/a	V2C7121

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
~~74-83-9~~	~~Bromomethane~~ [a]	~~1.4 U~~	~~2.0~~	~~1.4~~	~~1.4~~	~~ug/l~~	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	3.2	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1310 [b]	20	10	10	ug/l	
156-60-5	trans-1,2-Dichloroethene	32.8	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	104	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-5D-2018-06-25		
Lab Sample ID:	JC68966-8	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [c]	3.5 U	5.0	3.5	3.1	ug/l	U J
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	38.7	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	3170 [b]	20	12	12	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	112%	81-124%
2037-26-5	Toluene-D8	91%	96%	80-120%
460-00-4	4-Bromofluorobenzene	107%	110%	80-120%

(a) Associated CCV outside of DoD control limits low.

(b) Result is from Run# 2

(c) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW5-6-2018-06-25		
Lab Sample ID:	JC68966-9	**Date Sampled:**	06/25/18
Matrix:	AQ - Ground Water	**Date Received:**	06/28/18
Method:	SW846 8260C	**Percent Solids:**	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176951.D	1	07/01/18 17:54	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	36.2	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.23	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	8.8	10	5.0	4.8	ug/l	J
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.89	1.0	0.50	0.29	ug/l	J
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.1	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW5-1-2018-06-25		
Lab Sample ID:	JC68966-10	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182812.D	1	07/05/18 23:03	JP	n/a	n/a	V1A7793
Run #2	2C160382.D	10	07/02/18 22:38	HT	n/a	n/a	V2C7121

	Purge Volume
Run #1	5.0 ml
Run #2	5.0 ml

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	30.8	10	5.0	5.0	ug/l	30.8U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.5	2.0	1.0	0.50	ug/l	J
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	1.3	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	2.0	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	854 [b]	10	5.0	5.0	ug/l	J
156-60-5	trans-1,2-Dichloroethene	3.9	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	129	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	RW5-1-2018-06-25		
Lab Sample ID:	JC68966-10	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [c]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	UJ
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	21.7	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	338 [b]	10	6.2	6.2	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	103%	80-120%
17060-07-0	1,2-Dichloroethane-D4	94%	113%	81-124%
2037-26-5	Toluene-D8	91%	97%	80-120%
460-00-4	4-Bromofluorobenzene	105%	110%	80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Result is from Run# 2
(c) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

4.11 4

Client Sample ID:	RW5-2-2018-06-25		
Lab Sample ID:	JC68966-11	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176952.D	1	07/01/18 18:26	JTP	n/a	n/a	V2D7472
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	41.0	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	8.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.47	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [a]	~~75 U~~	130	75	52	ug/l	75 u J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	RW5-4-2018-06-25		
Lab Sample ID:	JC68966-12	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C160395.D	1	07/03/18 05:08	HT	n/a	n/a	V2C7121
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	6.8	10	5.0	5.0	ug/l	J 10 UL
71-43-2	Benzene	3.9	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane [a]	0.59 U	1.0	0.59	0.59	ug/l	UJ
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-4D-2018-06-25		
Lab Sample ID:	JC68966-13	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83398.D	1	07/06/18 14:58	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~21.9~~	10	5.0	5.0	ug/l	21.9 U
71-43-2	Benzene	0.21	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	UJ
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	UJ
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	9.6	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-5D-2018-06-25		
Lab Sample ID:	JC68966-14	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2C160397.D	1	07/03/18 06:13	HT	n/a	n/a	V2C7121
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~31.2~~	10	5.0	5.0	ug/l	31.2 U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane [a]	0.59 U	1.0	0.59	0.59	ug/l	UJ
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	39.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.53	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW13-1-2018-06-25		
Lab Sample ID:	JC68966-15	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83399.D	1	07/06/18 15:26	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	UJ
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	UJ
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	14.1	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.0	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW13-4D-2018-06-25		
Lab Sample ID:	JC68966-16	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144442.D	1	07/01/18 17:30	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.4	10	5.0	5.0	ug/l	31.4L
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	UJ
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.1	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW13-3D-2018-06-25		
Lab Sample ID:	JC68966-17	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144443.D	1	07/01/18 17:59	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~27.8~~	10	5.0	5.0	ug/l	27.8U
71-43-2	Benzene	0.25	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	4J
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.73	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-5A-2018-06-25		
Lab Sample ID:	JC68966-18	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83391.D	1	07/06/18 11:39	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	38.1	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.21	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	UJ
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	UJ
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.63	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-4-2018-06-25		
Lab Sample ID:	JC68966-19	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144445.D	1	07/01/18 18:57	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~16.5~~	10	5.0	5.0	ug/l	16.5 U
71-43-2	Benzene	0.41	0.50	0.25	0.17	ug/l	J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	UJ
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-3-2018-06-25		
Lab Sample ID:	JC68966-20	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	4B83390.D	1	07/06/18 11:11	HT	n/a	n/a	V4B3470
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	33.0	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform [a]	0.50 U	1.0	0.50	0.42	ug/l	UJ
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane [b]	0.50 U	1.0	0.50	0.16	ug/l	UJ
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW13-FD-2018-06-25		
Lab Sample ID:	JC68966-21	Date Sampled:	06/25/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144450.D	1	07/01/18 21:52	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.7	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	UJ
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.8	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW10-10A-2018-06-26		
Lab Sample ID:	JC68966-22	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144451.D	1	07/01/18 22:20	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	5.0	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	UJ
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.46	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.22	1.0	0.50	0.22	ug/l	J
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
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N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW10-3-2018-06-26		
Lab Sample ID:	JC68966-23	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144452.D	1	07/01/18 22:49	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.3	10	5.0	5.0	ug/l	J 10 U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	UJ
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	1.5	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

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LOQ = Limit of Quantitation DL = Detection Limit
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B = Indicates analyte found in associated method blank
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SGS North America Inc.

Report of Analysis

Client Sample ID:	MW10-7-2018-06-26		
Lab Sample ID:	JC68966-24	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182804.D	1	07/05/18 19:42	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~12.7~~ 12.7L	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
~~74-83-9~~	~~Bromomethane~~ [a]	~~1.4 U~~	~~2.0~~	~~1.4~~	~~1.4~~	~~ug/l~~	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	23.4	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.81	1.0	0.50	0.40	ug/l	J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW10-7-2018-06-26		
Lab Sample ID:	JC68966-24	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	13.4	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
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B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW3-3DA-2018-06-26		
Lab Sample ID:	JC68966-25	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182805.D	1	07/05/18 20:07	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	7.5	10	5.0	5.0	ug/l	J 10 U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.4	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	61.4	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW3-3DA-2018-06-26		
Lab Sample ID:	JC68966-25	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	UJ
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	13.6	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	107%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PZ3-6D-2018-06-26		
Lab Sample ID:	JC68966-26	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182806.D	1	07/05/18 20:32	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.1	10	5.0	5.0	ug/l	J 10 U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [3]	1.4 U	2.0	1.4	1.4	ug/l	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	3.3	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PZ3-6D-2018-06-26		
Lab Sample ID:	JC68966-26	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	2.7	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	89%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SW03-15-2018-06-26		
Lab Sample ID:	JC68966-27	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182807.D	1	07/05/18 20:57	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	L
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	54.6	130	75	52	ug/l	J
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW03-15-2018-06-26		
Lab Sample ID:	JC68966-27	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	95%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SW3-3-2018-06-26		
Lab Sample ID:	JC68966-28	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182808.D	1	07/05/18 21:22	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
~~74-83-9~~	~~Bromomethane~~ [a]	~~1.4 U~~	~~2.0~~	~~1.4~~	~~1.4~~	~~ug/l~~	P
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW3-3-2018-06-26		
Lab Sample ID:	JC68966-28	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-120%
17060-07-0	1,2-Dichloroethane-D4	90%		81-124%
2037-26-5	Toluene-D8	92%		80-120%
460-00-4	4-Bromofluorobenzene	106%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	SW99-10-2018-06-26		
Lab Sample ID:	JC68966-29	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182809.D	1	07/05/18 21:48	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	133	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
~~74-83-9~~	~~Bromomethane~~ [a]	~~1.4 U~~	~~2.0~~	~~1.4~~	~~1.4~~	~~ug/l~~	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	0.76	2.0	1.0	0.50	ug/l	J
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW99-10-2018-06-26		
Lab Sample ID:	JC68966-29	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	95%		81-124%
2037-26-5	Toluene-D8	91%		80-120%
460-00-4	4-Bromofluorobenzene	104%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW7-1D-2018-06-26		
Lab Sample ID:	JC68966-30	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	1A182810.D	1	07/05/18 22:13	JP	n/a	n/a	V1A7793
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.8	10	5.0	5.0	ug/l	J 10U
71-43-2	Benzene	15.2	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane [a]	1.4 U	2.0	1.4	1.4	ug/l	R
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.54	1.0	0.50	0.22	ug/l	J
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW7-1D-2018-06-26		
Lab Sample ID:	JC68966-30	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	
98-82-8	Isopropylbenzene	0.56	1.0	0.50	0.25	ug/l	J
79-20-9	Methyl Acetate [b]	3.5 U	5.0	3.5	3.1	ug/l	UJ
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.35	1.0	0.50	0.25	ug/l	J
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	
79-01-6	Trichloroethene	0.50 U	1.0	0.50	0.27	ug/l	
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	0.62 U	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-120%
17060-07-0	1,2-Dichloroethane-D4	94%		81-124%
2037-26-5	Toluene-D8	90%		80-120%
460-00-4	4-Bromofluorobenzene	105%		80-120%

(a) Associated CCV outside of DoD control limits low.
(b) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW3-3A-2018-06-26		
Lab Sample ID:	JC68966-31	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2E144441.D	1	07/01/18 17:01	JTP	n/a	n/a	V2E6328
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	45.3	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.20	0.50	0.25	0.17	ug/l	J J
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	UJ
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	UJ
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	UJ
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	UJ
541-73-1	1,3-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	UJ
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	UJ
75-71-8	Dichlorodifluoromethane [a]	1.9 U	2.0	1.9	1.9	ug/l	UJ
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	UJ
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	17.6	1.0	0.50	0.50	ug/l	J
156-60-5	trans-1,2-Dichloroethene	0.43	1.0	0.50	0.40	ug/l	J J
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	UJ
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane	75 U	130	75	52	ug/l	
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	UJ
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW3-3A-2018-06-26		
Lab Sample ID:	JC68966-31	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
591-78-6	2-Hexanone	3.5 U	5.0	3.5	3.3	ug/l	
74-88-4	Iodomethane	1.0 U	2.0	1.0	0.27	ug/l	UJ
98-82-8	Isopropylbenzene	0.50 U	1.0	0.50	0.25	ug/l	
79-20-9	Methyl Acetate	3.5 U	5.0	3.5	3.1	ug/l	
108-87-2	Methylcyclohexane	2.0 U	5.0	2.0	1.8	ug/l	
1634-04-4	Methyl Tert Butyl Ether	0.50 U	1.0	0.50	0.25	ug/l	
108-10-1	4-Methyl-2-pentanone(MIBK)	3.5 U	5.0	3.5	3.0	ug/l	
75-09-2	Methylene chloride	1.0 U	2.0	1.0	1.0	ug/l	UJ
100-42-5	Styrene	0.50 U	1.0	0.50	0.24	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	0.50 U	1.0	0.50	0.17	ug/l	
127-18-4	Tetrachloroethene	0.50 U	1.0	0.50	0.50	ug/l	
108-88-3	Toluene	0.50 U	1.0	0.50	0.25	ug/l	UJ
87-61-6	1,2,3-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
120-82-1	1,2,4-Trichlorobenzene	0.75 U	1.0	0.75	0.50	ug/l	
71-55-6	1,1,1-Trichloroethane	0.50 U	1.0	0.50	0.25	ug/l	
79-00-5	1,1,2-Trichloroethane	0.50 U	1.0	0.50	0.24	ug/l	UJ
79-01-6	Trichloroethene	0.64	1.0	0.50	0.27	ug/l	J
75-69-4	Trichlorofluoromethane	1.0 U	2.0	1.0	0.60	ug/l	
75-01-4	Vinyl chloride	17.8	1.0	0.62	0.62	ug/l	
1330-20-7	Xylene (total)	0.50 U	1.0	0.50	0.22	ug/l	UJ

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-120%
17060-07-0	1,2-Dichloroethane-D4	118%		81-124%
2037-26-5	Toluene-D8	99%		80-120%
460-00-4	4-Bromofluorobenzene	102%		80-120%

(a) Associated CCV outside of control limits high, sample was ND.

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

4.32
4

Client Sample ID:	MW3-4DA-2018-06-26		
Lab Sample ID:	JC68966-32	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176991.D	1	07/02/18 23:39	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	4.7	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW3-FD-2018-06-26		
Lab Sample ID:	JC68966-33	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176992.D	1	07/03/18 00:09	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.6	10	5.0	5.0	ug/l	J 10UL
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	5.8	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	75 U	130	75	52	ug/l	75UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value

LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank

E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	MW10-10D-2018-06-26		
Lab Sample ID:	JC68966-34	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176987.D	10	07/02/18 21:36	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	50 U	100	50	50	ug/l	
71-43-2	Benzene	2.4	5.0	2.5	1.7	ug/l	J
74-97-5	Bromochloromethane	5.0 U	10	5.0	3.8	ug/l	
75-27-4	Bromodichloromethane	7.5 U	10	7.5	2.2	ug/l	
75-25-2	Bromoform	5.0 U	10	5.0	4.2	ug/l	
74-83-9	Bromomethane	14 U	20	14	14	ug/l	
78-93-3	2-Butanone (MEK)	50 U	100	50	48	ug/l	
75-15-0	Carbon disulfide	10 U	20	10	5.0	ug/l	
56-23-5	Carbon tetrachloride	7.5 U	10	7.5	3.4	ug/l	
108-90-7	Chlorobenzene	5.0 U	10	5.0	2.4	ug/l	
75-00-3	Chloroethane	5.9 U	10	5.9	5.9	ug/l	
67-66-3	Chloroform	5.0 U	10	5.0	2.9	ug/l	
74-87-3	Chloromethane	10 U	10	10	5.3	ug/l	
110-82-7	Cyclohexane	10 U	50	10	6.3	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	10 U	20	10	6.9	ug/l	
124-48-1	Dibromochloromethane	5.0 U	10	5.0	1.6	ug/l	
106-93-4	1,2-Dibromoethane	5.0 U	10	5.0	2.1	ug/l	
95-50-1	1,2-Dichlorobenzene	5.0 U	10	5.0	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	5.0 U	10	5.0	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	5.0 U	10	5.0	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	19 U	20	19	19	ug/l	
75-34-3	1,1-Dichloroethane	5.0 U	10	5.0	2.1	ug/l	
107-06-2	1,2-Dichloroethane	5.0 U	10	5.0	2.0	ug/l	
75-35-4	1,1-Dichloroethene	5.0 U	10	5.0	4.7	ug/l	
156-59-2	cis-1,2-Dichloroethene	1660	10	5.0	5.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	9.0	10	5.0	4.0	ug/l	J
78-87-5	1,2-Dichloropropane	5.0 U	10	5.0	2.4	ug/l	
10061-01-5	cis-1,3-Dichloropropene	5.0 U	10	5.0	2.5	ug/l	
10061-02-6	trans-1,3-Dichloropropene	5.0 U	10	5.0	2.2	ug/l	
123-91-1	1,4-Dioxane [b]	750 U	1300	750	520	ug/l	750 U
100-41-4	Ethylbenzene	5.0 U	10	5.0	2.2	ug/l	
76-13-1	Freon 113	25 U	50	25	12	ug/l	

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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PW10-1-2018-06-26		
Lab Sample ID:	JC68966-35	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176993.D	1	07/03/18 00:40	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	11.3	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.6	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

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LOQ = Limit of Quantitation DL = Detection Limit
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SGS North America Inc.

Report of Analysis

Client Sample ID:	MW10-2-2018-06-26		
Lab Sample ID:	JC68966-36	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176994.D	1	07/03/18 01:10	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~18.9~~	10	5.0	5.0	ug/l	18.9U
71-43-2	Benzene	2.0	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	8.3	10	5.0	4.8	ug/l	J
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	7.2	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	1.4	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PW10-2-2018-06-26		
Lab Sample ID:	JC68966-37	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176995.D	1	07/03/18 01:40	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~28.3~~	10	5.0	5.0	ug/l	28.3U
71-43-2	Benzene	3.4	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	0.64	5.0	1.0	0.63	ug/l	J
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75UJ
100-41-4	Ethylbenzene	0.37	1.0	0.50	0.22	ug/l	J
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PZ10-7-2018-06-26
Lab Sample ID:	JC68966-38
Matrix:	AQ - Ground Water
Method:	SW846 8260C
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY
Date Sampled:	06/26/18
Date Received:	06/28/18
Percent Solids:	n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176996.D	1	07/03/18 02:11	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~6.9~~	10	5.0	5.0	ug/l	~~J~~ 10U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

4.39
4

Client Sample ID:	SW10-08-2018-06-26		
Lab Sample ID:	JC68966-39	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176997.D	1	07/03/18 02:41	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

4.40 4

Client Sample ID:	SW10-07-2018-06-26		
Lab Sample ID:	JC68966-40	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176998.D	1	07/03/18 03:11	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75 uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW3-2-2018-06-26		
Lab Sample ID:	JC68966-41	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176986.D	1	07/02/18 21:05	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PZ3-7D-2018-06-26		
Lab Sample ID:	JC68966-42	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D176999.D	1	07/03/18 03:41	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~5.9~~	10	5.0	5.0	ug/l	~~J~~ 10U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	13.4	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

Client Sample ID:	PZ3-8D-2018-06-26		
Lab Sample ID:	JC68966-43	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177000.D	1	07/03/18 04:11	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	~~5.4~~	10	5.0	5.0	ug/l	~~J~~ 10U
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SW10-FD-2018-06-26		
Lab Sample ID:	JC68966-44	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177001.D	1	07/03/18 04:41	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PDB-BLANK-2018-06-26		
Lab Sample ID:	JC68966-45	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177002.D	1	07/03/18 05:13	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	31.6	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW5-PT-2018-06-26		
Lab Sample ID:	JC68966-46	Date Sampled:	06/26/18
Matrix:	AQ - Ground Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177003.D	1	07/03/18 05:46	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	9.1	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	25.8	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75 UJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection J = Indicates an estimated value
LOQ = Limit of Quantitation DL = Detection Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range N = Indicates presumptive evidence of a compound

SGS North America Inc.

Report of Analysis

4.47 4

Client Sample ID:	TB-02		
Lab Sample ID:	JC68966-47	Date Sampled:	06/26/18
Matrix:	AQ - Trip Blank Water	Date Received:	06/28/18
Method:	SW846 8260C	Percent Solids:	n/a
Project:	Niagara Falls Air Reserve Station (NFARS), Semi Annual 2017, Niagara Falls, NY		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	2D177004.D	1	07/03/18 06:21	JTP	n/a	n/a	V2D7474
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA Special List

CAS No.	Compound	Result	LOQ	LOD	DL	Units	Q
67-64-1	Acetone	5.0 U	10	5.0	5.0	ug/l	
71-43-2	Benzene	0.25 U	0.50	0.25	0.17	ug/l	
74-97-5	Bromochloromethane	0.50 U	1.0	0.50	0.38	ug/l	
75-27-4	Bromodichloromethane	0.75 U	1.0	0.75	0.22	ug/l	
75-25-2	Bromoform	0.50 U	1.0	0.50	0.42	ug/l	
74-83-9	Bromomethane	1.4 U	2.0	1.4	1.4	ug/l	
78-93-3	2-Butanone (MEK)	5.0 U	10	5.0	4.8	ug/l	
75-15-0	Carbon disulfide	1.0 U	2.0	1.0	0.50	ug/l	
56-23-5	Carbon tetrachloride	0.75 U	1.0	0.75	0.34	ug/l	
108-90-7	Chlorobenzene	0.50 U	1.0	0.50	0.24	ug/l	
75-00-3	Chloroethane	0.59 U	1.0	0.59	0.59	ug/l	
67-66-3	Chloroform	0.50 U	1.0	0.50	0.29	ug/l	
74-87-3	Chloromethane	1.0 U	1.0	1.0	0.53	ug/l	
110-82-7	Cyclohexane	1.0 U	5.0	1.0	0.63	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	1.0 U	2.0	1.0	0.69	ug/l	
124-48-1	Dibromochloromethane	0.50 U	1.0	0.50	0.16	ug/l	
106-93-4	1,2-Dibromoethane	0.50 U	1.0	0.50	0.21	ug/l	
95-50-1	1,2-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
541-73-1	1,3-Dichlorobenzene [a]	0.50 U	1.0	0.50	0.50	ug/l	
106-46-7	1,4-Dichlorobenzene	0.50 U	1.0	0.50	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	1.9 U	2.0	1.9	1.9	ug/l	
75-34-3	1,1-Dichloroethane	0.50 U	1.0	0.50	0.21	ug/l	
107-06-2	1,2-Dichloroethane	0.50 U	1.0	0.50	0.20	ug/l	
75-35-4	1,1-Dichloroethene	0.50 U	1.0	0.50	0.47	ug/l	
156-59-2	cis-1,2-Dichloroethene	0.50 U	1.0	0.50	0.50	ug/l	
156-60-5	trans-1,2-Dichloroethene	0.50 U	1.0	0.50	0.40	ug/l	
78-87-5	1,2-Dichloropropane	0.50 U	1.0	0.50	0.24	ug/l	
10061-01-5	cis-1,3-Dichloropropene	0.50 U	1.0	0.50	0.25	ug/l	
10061-02-6	trans-1,3-Dichloropropene	0.50 U	1.0	0.50	0.22	ug/l	
123-91-1	1,4-Dioxane [b]	~~75 U~~	130	75	52	ug/l	75uJ
100-41-4	Ethylbenzene	0.50 U	1.0	0.50	0.22	ug/l	
76-13-1	Freon 113	2.5 U	5.0	2.5	1.2	ug/l	

U = Not detected LOD = Limit of Detection
LOQ = Limit of Quantitation DL = Detection Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

APPENDIX D

OPERATION AND MAINTENANCE FORMS

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EA Engineering P.C. and its Affiliate,
EA Science and Technology

OPERATIONS AND MAINTENANCE INSPECTION REPORT
Groundwater Pumping Stations - IRP Sites 10 and 13
Niagara Falls Air Reserve Station

Date of Inspection: 23 January 2018 **Weather:** 42°F, Overcast

Names of EA Inspectors: EA -Lindsay Mairs

Other Personnel Present/Company: None

Pumping Station Number	PW10-1	PW10-2	PW13-1
Previous Totalizer Reading (gals.) (9/23/15)	197,706	NA	84,119
Totalizer Reading (gals.)	197,706	NA	84,119
Date/Time of Reading	NA	NA	NA
Water level depth (feet TOIC)	6.5	6.98	7.05
Total well depth (feet TOIC)	NA	NA	NA
Date/Time of sample collection	NA	NA	NA
Pump running at inspect? (Y/N)	NA	NA	NA
Pressure during pumping (psig)	NA	NA	NA
Flow rate (gpm)	NA	NA	NA
Condition Check Items (G = good, F = fair, P = poor; Y = yes, N = no, N/A = not applicable)			
Enclosure (G/F/P)	G	G	G
Lock (G/F/P)	G	NA	G
Concrete pad (G/F/P)	G	NA	G
Are circuit breakers tripped? (Y/N)	N	N	N
Panel boards (G/F/P)	NA	NA	G
Electrical connections in well enclosure (G/F/P)	G	G	G
Run/Stop panel lights (G/P)	NA	NA	G
Trip test pump (Y/N/NA)	N	N	N
Evidence of leaks? (Y/N)	N	N	N
Is sump dry? (Y/N)	Y	N[(a)]	Y
Is heater working? (Y/N/NA)	Y	Y	Y
Alarm conditions (describe)	NONE	NA	NONE

Comments/Maintenance performed:

All pumping wells remain off following remedial actions.

(a) 1.0 ft. of water in vault.

Key: gpm = Gallons per minute gals = Gallons NA = Not applicable NM = Not measured

OPERATIONS AND MAINTENANCE INSPECTION CHECKLIST

Site 10 Groundwater Treatment Trailer **Niagara Falls Air Reserve Station**

Date & time of inspection: 23 January 2018 **Weather**: 42°F, Overcast

Inspection personnel: EA – Lindsay Mairs

Totalizer Readings

	Date	Time	EQ Tank (Gallons)	Effluent Meter (Gal)
Prev. Reading	10/30/2017	11:40	7,691,296	399,007
Current Reading	01/23/2018	12:25	7,691,296	399,007

Effluent Sample Data

Sample Date:	NA
Sample Time:	NA
Sample ID:	NA

Analyses:
☐ VOCs – Method 624 including *cis*-1,2-dichloroethylene
☐Metals – 200.7 Cu, Pb, Ni, Zn

If answers to inspection criteria are in shaded spaces, inspection personnel must provide corrective actions taken, as well as comments and/or recommendations.

	Yes	No	Comments
Trailer exterior:			
Are there any signs of vandalism or burglary?		X	
Are there any signs of the trailer shifting, heaving, or settling?		X	
Are there any signs of damage to the vent stack?		X	
Are there any other signs of damage to the exterior of the trailer?		X	
Is the yard hydrant (potable water supply) operating properly?	X		
Are the trailer tie-down straps secure?	X		
Does outdoor GFCI outlet test and reset properly?	X		
Are outdoor flood lights functional?	X		
Trailer interior:			
Is there any standing water or signs of water damage?		X	
Process piping:			
Are there any signs of damage, failure, or stress that may compromise the integrity of either the interior process piping or the exterior connections?		X	
Are there any signs of damage, failure, or stress that may compromise the integrity of any valves?		X	
Electrical and control panels:			
Are there any signs of damage, failure, or stress that may compromise the integrity of the electrical panels?		X	
Do all green indicator lights on the main control panel illuminate during component operation?	NA	NA	GWTS turned off
Are all control switches in the "AUTO" position? If no, explain.	NA	NA	GWTS turned off
Are any red alarm indicator lights illuminated?	NA	NA	GWTS turned off
Is the RP-2 elapsed time meter operational?	NA	NA	GWTS turned off
Is the system shut-down elapsed time meter operational?	NA	NA	GWTS turned off
Is the E-CON Kilowatt-hour meter operational?	X		Reading: 2.6.4.8 Date/Time: 01/23/18 12:18

OPERATIONS AND MAINTENANCE INSPECTION CHECKLIST Date: 23 January 2018
Site 10 Groundwater Treatment Trailer, Niagara Falls Air Reserve Station

If answers to inspection criteria are in shaded spaces, inspection personnel must provide corrective actions taken, as well as comments and/or recommendations.

	Yes	No	Comments
Equalization tank/stripper sump tanks:			
Are there any signs of damage, failure, or stress that may compromise the integrity of the tanks?		X	
EQ tank feed pump:			
Is the feed pump operating properly?	NA	NA	GWTS turned off
Are there any signs of damage or excessive wear to the pump, wiring, piping, or rotameter?		X	
Cartridge filter:			
Is the cartridge filter in use?		X	
Antiscalant chemical metering system:			
Is there an adequate amount of antiscalant chemical in the storage tank? [Provide the approximate chemical level.]	NA	NA	Tank level: _16_ gallons
Is the antiscalant chemical metering pump operating properly?	NA	NA	Stroke: _NA_ Speed: _NA_
Are there any signs of damage or excessive wear to the pump, tank, or lines?		X	
Air stripper:			
Is the air stripper blower operating properly?	NA	NA	GWTS turned off
Are there any leaks or other signs of damage to the stripper unit, vent pipe, or other pipe connections?		X	
Stripper tank pump:			
Is the stripper sump pump operating properly?	NA	NA	GWTS turned off
Are there any signs of damage or excessive wear?		X	
Activated carbon vessel:			
Is the carbon vessel currently in use?		X	
Effluent Flowmeter:			
Is the flowmeter functioning?	NA	NA	GWTS turned off
Pressure gauge readings: PI 5-1: 0 psi PI 5-2: N/A psi PI 6: 0 psi			
Electric heater (for inspection during cold months only; if heater is not on during inspection, turn thermostat up until heater turns on; reset thermostat after inspection): Yes – Heater checked and operational during electrical O&M visit			
Is the heater fan operating properly?	X		Air temperature: _59_ °F
Is warm air coming out of heater?	X		

Other Observations/Comments:

No issues to report. GWTS has been turned off since 28 September 2015.

EA Engineering P.C. and its Affiliate,
EA Science and Technology

OPERATIONS AND MAINTENANCE INSPECTION REPORT
Groundwater Pumping Stations - IRP Sites 10 and 13
Niagara Falls Air Reserve Station

Date of Inspection: 10 April 2018 **Weather:** 35°F, Overcast

Names of EA Inspectors: EA – Nate Kranes

Other Personnel Present/Company: None

Pumping Station Number	PW10-1	PW10-2	PW13-1
Previous Totalizer Reading (gals.) (9/23/15)	197,706	NA	84,119
Totalizer Reading (gals.)	197,706	NA	84,119
Date/Time of Reading	NA	NA	NA
Water level depth (feet TOIC)	NA	NA	NA
Total well depth (feet TOIC)	NA	NA	NA
Date/Time of sample collection	NA	NA	NA
Pump running at inspect? (Y/N)	NA	NA	NA
Pressure during pumping (psig)	NA	NA	NA
Flow rate (gpm)	NA	NA	NA
Condition Check Items (G = good, F = fair, P = poor; Y = yes, N = no, N/A = not applicable)			
Enclosure (G/F/P)	G	G	G
Lock (G/F/P)	G	NA	G
Concrete pad (G/F/P)	G	NA	G
Are circuit breakers tripped? (Y/N)	N	N	N
Panel boards (G/F/P)	NA	NA	G
Electrical connections in well enclosure (G/F/P)	G	G	G
Run/Stop panel lights (G/P)	NA	NA	G
Trip test pump (Y/N/NA)	N	N	N
Evidence of leaks? (Y/N)	N	N	N
Is sump dry? (Y/N)	Y	N[(a)]	Y
Is heater working? (Y/N/NA)	Y	Y	Y
Alarm conditions (describe)	NONE	NA	NONE

Comments/Maintenance performed:

All pumping wells remain off following remedial actions.

(a) 1.0 ft. of water in vault.

Key: gpm = Gallons per minute gals = Gallons NA = Not applicable NM = Not measured

OPERATIONS AND MAINTENANCE INSPECTION CHECKLIST

Site 10 Groundwater Treatment Trailer **Niagara Falls Air Reserve Station**

Date & time of inspection: 10 April 2018 **Weather**: 35°F, Overcast

Inspection personnel: EA – Nate Kranes

Totalizer Readings

	Date	Time	EQ Tank (Gallons)	Effluent Meter (Gal)
Prev. Reading	10/30/2017	11:40	7,691,296	399,007
Current Reading	04/10/2018	13:20	7,691,296	399,007

Effluent Sample Data

Sample Date:	NA
Sample Time:	NA
Sample ID:	NA

Analyses:
☐ VOCs – Method 624 including *cis*-1,2-dichloroethylene
☐Metals – 200.7 Cu, Pb, Ni, Zn

If answers to inspection criteria are in shaded spaces, inspection personnel must provide corrective actions taken, as well as comments and/or recommendations.

	Yes	No	Comments
Trailer exterior:			
Are there any signs of vandalism or burglary?		X	
Are there any signs of the trailer shifting, heaving, or settling?		X	
Are there any signs of damage to the vent stack?		X	
Are there any other signs of damage to the exterior of the trailer?		X	
Is the yard hydrant (potable water supply) operating properly?	X		
Are the trailer tie-down straps secure?	X		
Does outdoor GFCI outlet test and reset properly?	X		
Are outdoor flood lights functional?	X		
Trailer interior:			
Is there any standing water or signs of water damage?		X	
Process piping:			
Are there any signs of damage, failure, or stress that may compromise the integrity of either the interior process piping or the exterior connections?		X	
Are there any signs of damage, failure, or stress that may compromise the integrity of any valves?		X	
Electrical and control panels:			
Are there any signs of damage, failure, or stress that may compromise the integrity of the electrical panels?		X	
Do all green indicator lights on the main control panel illuminate during component operation?	NA	NA	GWTS turned off
Are all control switches in the "AUTO" position? If no, explain.	NA	NA	GWTS turned off
Are any red alarm indicator lights illuminated?	NA	NA	GWTS turned off
Is the RP-2 elapsed time meter operational?	NA	NA	GWTS turned off
Is the system shut-down elapsed time meter operational?	NA	NA	GWTS turned off
Is the E-CON Kilowatt-hour meter operational?	X		Reading: 2.8.9.3 Date/Time: 04/10/18 13:20

OPERATIONS AND MAINTENANCE INSPECTION CHECKLIST Date: 10 April 2018
Site 10 Groundwater Treatment Trailer, Niagara Falls Air Reserve Station

If answers to inspection criteria are in shaded spaces, inspection personnel must provide corrective actions taken, as well as comments and/or recommendations.

	Yes	No	Comments
Equalization tank/stripper sump tanks:			
Are there any signs of damage, failure, or stress that may compromise the integrity of the tanks?		X	
EQ tank feed pump:			
Is the feed pump operating properly?	NA	NA	GWTS turned off
Are there any signs of damage or excessive wear to the pump, wiring, piping, or rotameter?		X	
Cartridge filter:			
Is the cartridge filter in use?		X	
Antiscalant chemical metering system:			
Is there an adequate amount of antiscalant chemical in the storage tank? [Provide the approximate chemical level.]	NA	NA	Tank level: _16_ gallons
Is the antiscalant chemical metering pump operating properly?	NA	NA	Stroke: _NA_ Speed: _NA_
Are there any signs of damage or excessive wear to the pump, tank, or lines?		X	
Air stripper:			
Is the air stripper blower operating properly?	NA	NA	GWTS turned off
Are there any leaks or other signs of damage to the stripper unit, vent pipe, or other pipe connections?		X	
Stripper tank pump:			
Is the stripper sump pump operating properly?	NA	NA	GWTS turned off
Are there any signs of damage or excessive wear?		X	
Activated carbon vessel:			
Is the carbon vessel currently in use?		X	
Effluent Flowmeter:			
Is the flowmeter functioning?	NA	NA	GWTS turned off
Pressure gauge readings: PI 5-1: 0 psi PI 5-2: N/A psi PI 6: 0 psi			
Electric heater (for inspection during cold months only; if heater is not on during inspection, turn thermostat up until heater turns on; reset thermostat after inspection): Yes – Heater checked and operational during electrical O&M visit			
Is the heater fan operating properly?	X		Air temperature: _35_ °F
Is warm air coming out of heater?	X		

Other Observations/Comments:

No issues to report. GWTS has been turned off since 28 September 2015.

APPENDIX E
WELL INSPECTION CHECKLIST

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Well Number	Water Level (feet TOIC)	Current Depth (feet TOIC)	Well Paint (G/F/P)	Well Label (G/F/P)	Casing Lock (G/F/P)	Protective Cover (G/F/P)	Inner Well Cap (G/F/P)	Equipment in Well	Obstructions in Well (Y/N)	Water in Annulus (Y/N)	Concrete Pad (G/F/P)	Inspection Date	Comments/Needs
Site 1													
MW1-1DA	10.06	24.03	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW1-7A	7.08	13.00	G	G	G	G	G	N	N	N	G	6/6/2018	
Site 2													
MW2-1DA	3.97	14.36	N/A	G	G	G	G				G	6/6/2018	
Site 3													
MW3-1A	5.66	13.39	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-1DA	1.92	16.02	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-1E	1.49	44.20	G	G	G	G	P	Y	N	N	G	6/6/2018	
MW3-2	6.12	10.06	G	G	G	G	G	N	N	N	G	6/6/2018	
MW3-2DA	9.31	22.05	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-3DA	0.40	16.99	P	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-4DA	1.32	15.60	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-5D	5.28	25.65	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-6A	6.48	10.96	G	G	G	G	G	N	N	N	G	6/6/2018	
MW3-6D	6.10	19.03	G	G	G	G	G	N	N	N	G	6/6/2018	
MW3-7	6.05	7.40	G	G	G	G	G	N	N	N	G	6/6/2018	
MW3-8	---	12.75	G	G	G	F	G	N	N	N	G	6/6/2018	No water level taken due to wasp nest
MW3-8D	12.91	23.72	G	G	G	G	G	N	N	N	G	6/6/2018	
MW3-8E	13.01	46.41	G	G	G	G	G	N	N	N	G	6/6/2018	
PW3-3A	1.20	14.00	N/A	G	G	G	N/A	Y	N	N	G	6/6/2018	
PZ3-1	2.98	5.81	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ3-1D	3.01	12.32	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ3-2	2.88	4.07	N/A	None	G	G	G	N	N	N	P	6/6/2018	No label. Repair concrete pad.
PZ3-2D	2.56	12.70	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ3-3	1.18	2.28	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ3-3D	0.68	9.37	N/A	None	F	F	G	N	N	N	G	6/6/2018	missing bolt. No label
PZ3-4	2.98	3.32	N/A	N one	F	F	G	Y	N	N	G	6/6/2018	missing bolt. No label
PZ3-4D	1.71	11.52	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ3-5	0.00	2.86	N/A	G	G	F	G	Y	N	Y	G	6/6/2018	missing bolt
PZ3-5D	0.3	9.90	N/A	G	G	F	G	Y	N	N	G	6/6/2018	missing bolt
PZ3-6	0.84	3.25	N/A	G	G	G	G	N	N	Y	G	6/6/2018	
PZ3-6D	0	12.82	N/A	G	G	G	G	Y	N	Y	G	6/6/2018	
PZ3-7D	3.88	21.55	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW3-3A	1.89	5.1	N/A	G	G	G	G	N	N	N	G	6/6/2018	
PZ3-8D	3.8	18.19	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ3-9	2.07	4.13	N/A	G	G	G	G	N	N	Y	G	6/6/2018	
PZ3-9D	1.31	24.25	N/A	G	G	G	G	N	N	N	F	6/6/2018	Repair concrete pad.

NOTE: TOIC = Top of Inner Casing
G = Good
F = Fair
P = Poor
Y = Yes
N = No
PDB = Passive Diffusion Bag
N/A = Not applicable
TOC = Top of Casing

Well Number	Water Level (feet TOIC)	Current Depth (feet TOIC)	Well Paint (G/F/P)	Well Label (G/F/P)	Casing Lock (G/F/P)	Protective Cover (G/F/P)	Inner Well Cap (G/F/P)	Equipment in Well	Obstructions in Well (Y/N)	Water in Annulus (Y/N)	Concrete Pad (G/F/P)	Inspection Date	Comments/Needs
Site 5													
CH5-01	9.91	30.00	N/A	G	G	G	G	N	N	N	G	6/6/2018	
CH5-02	10.95	31.01	N/A	G	G	G	G	N	N	N	G	6/6/2018	
CH5-03	11.19	32.58	N/A	G	G	G	G	N	N	N	G	6/6/2018	
CH5-04	11.10	33.80	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW5-1A	12.48	16.00	G	G	G	G	G	N	N	N	G	6/6/2018	
MW5-1DA	14.00	28.72	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-1E	12.16	57.22	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-2D	14.21	26.37	G	G	G	G	G	N	N	N	G	6/6/2018	
MW5-3D	14.08	25.01	G	G	G	G	G	N	N	N	G	6/6/2018	
MW5-4	12.90	15.57	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-4D	11.55	25.96	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW5-5A	15.00	20.00	G	G	G	G	G	N	N	N	G	6/6/2018	
MW5-5D	10.58	20.45	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-6	8.12	13.52	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-6D	6.39	22.92	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW5-7	7.38	12.91	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-7D	---											6/6/2018	Well covered with soil after final construction grading. Will be located and uncovered in CY 2018.
MW5-8	7.42	10.50	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW5-8D	9.81	20.38	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
RW5-1	7.85	14.64	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
RW5-2	6.78	11.01	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
RW5-3	8.83	14.15	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
RW5-4	9.08	14.70	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
Site 7													
MW7-1D	6.28	10.94	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW7-2	DRY	5.90	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW7-2D	4.88	15.30	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW7-3D	3.95	15.05	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
Site 8													
CH8-01	8.40	32.22	N/A	G	G	P	G	N	N	N	G	6/6/2018	Damaged flush mount cover.
MW8-1	8.34	13.74	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-10D	10.61	24.73	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-11	13.39	16.55	G	G	G	G	G	N	N	N	G	6/6/2018	
MW8-11D	12.42	27.55	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-11E	13.31	49.65	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-1E	17.39	50.62	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-2D	10.92	30.00	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-3	9.81	14.51	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-3DA	11.68	26.65	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-4A	10.79	14.95	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW8-4D	9.22	22.45	G	G	G	G	G	N	N	N	G	6/6/2018	
MW8-5A	10.33	15.00	G	G	G	G	G	N	N	N	G	6/6/2018	
MW8-8	11.05	13.90	G	G	G	G	G	Y	N	N	G	6/6/2018	

Well Number	Water Level (feet TOIC)	Current Depth (feet TOIC)	Well Paint (G/F/P)	Well Label (G/F/P)	Casing Lock (G/F/P)	Protective Cover (G/F/P)	Inner Well Cap (G/F/P)	Equipment in Well	Obstructions in Well (Y/N)	Water in Annulus (Y/N)	Concrete Pad (G/F/P)	Inspection Date	Comments/Needs
Site 10													
MW10-10D	3.91	11.11	N/A	None	G	G	G	Y	N	N	G	6/6/2018	No label.
MW10-1DA	4.95	22.91	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-1EA	6.20	39.82	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-1F	6.51	59.10	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-2	4.26	8.80	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-2E	5.50	47.11	N/A	None	G	G	G	N	N	N	G	6/6/2018	
MW10-3	4.55	9.20	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-3D	4.50	26.82	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-3E	6.50	43.26	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-4	4.11	8.05	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-4D	3.31	19.95	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-4E	---	41.04	N/A	P	P	P	P	Y	N	N	P	6/6/2018	Severely damaged by mowers. Will be repaired in CY 2018.
MW10-5D	5.48	19.68	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW10-6	5.87	9.60	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-7	4.32	8.94	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-8	4.58	9.41	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW10-8D	4.52	24.22	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW10-9D	4.49	20.31	N/A	G	G	P	G	Y	N	N	F	6/6/2018	
MW10-11	3.60	7.40	N/A	G	G	G	G	Y	N	N	F	6/6/2018	
MW10-11D	3.82	17.35	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-12	5.68	8.41	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-12D	5.96	18.80	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-13	4.79	6.99	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW10-13D	3.84	16.87	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PW10-1	4.19	13.86	G	G	G	G	N/A	Y	N	N	N/A	6/6/2018	
PW10-2	3.85	22.80	N/A	N/A	N/A	G	N/A	Y	N	Y	N/A	6/6/2018	
PZ10-7	4.58	10.05	N/A	G	G	G	G	Y	N	N	G	6/6/2018	

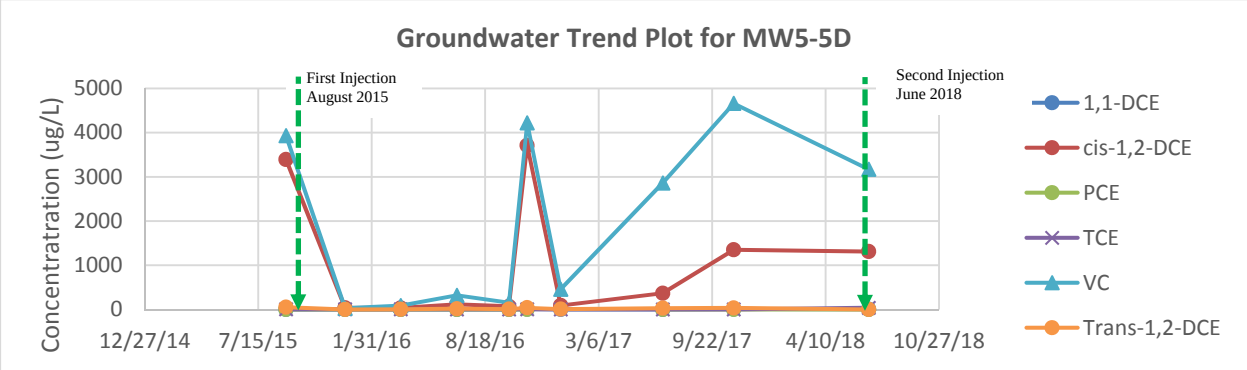
Well Number	Water Level (feet TOIC)	Current Depth (feet TOIC)	Well Paint (G/F/P)	Well Label (G/F/P)	Casing Lock (G/F/P)	Protective Cover (G/F/P)	Inner Well Cap (G/F/P)	Equipment in Well	Obstructions in Well (Y/N)	Water in Annulus (Y/N)	Concrete Pad (G/F/P)	Inspection Date	Comments/Needs
Site 13													
MW13-1	8.20	10.08	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-1D	7.72	20.69	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-1E	16.63	43.88	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-2D	11.09	23.65	G	G	G	G	G	N	N	N	G	6/6/2018	
MW13-3	7.29	10.89	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-3D	4.01	15.94	N/A	G	G	G	G	N	N	N	G	6/6/2018	
MW13-4	7.88	10.95	G	G	G	F	G	Y	N	N	G	6/6/2018	missing bolt
MW13-4D	9.09	18.75	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-5A	4.38	8.10	N/A	None	G	F	G	Y	N	N	G	6/6/2018	No label. Missing bolt
MW13-5D	7.01	20.72	G	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-6	3.90	6.78	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
MW13-6D	4.24	8.92	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PW13-1	6.09	27.38	G	G	G	G	N/A	Y	N	N	G	6/6/2018	
PW13-4D	8.41	22.80	G	G	G	G	N/A	Y	N	N	G	6/6/2018	
PZ13-1	3.63	4.31	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ13-1D	4.48	16.96	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ13-2	2.40	5.90	N/A	G	G	G	G	N	N	N	G	6/6/2018	
PZ13-2D	6.61	17.15	N/A	G	G	G	G	N	N	N	G	6/6/2018	
PZ13-3D	5.48	17.70	N/A	G	G	G	G	N	N	N	G	6/6/2018	
PZ13-4	4.27	9.60	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
PZ13-4D	4.82	22.19	N/A	G	G	G	G	Y	N	N	G	6/6/2018	
Site Former 02													
MPL2-1A	5.45	13.50	G	None	G	G	G	Y	N	N	G	6/6/2018	
Site Former 06													
MPL6-2A	8.02	14.25	G	G	G	G	G	Y	N	N	G	6/6/2018	
MPL6-3	7.56	15.55	P	F	G	G	G	Y	N	N	G	6/6/2018	Paint peeling on casing.

APPENDIX F

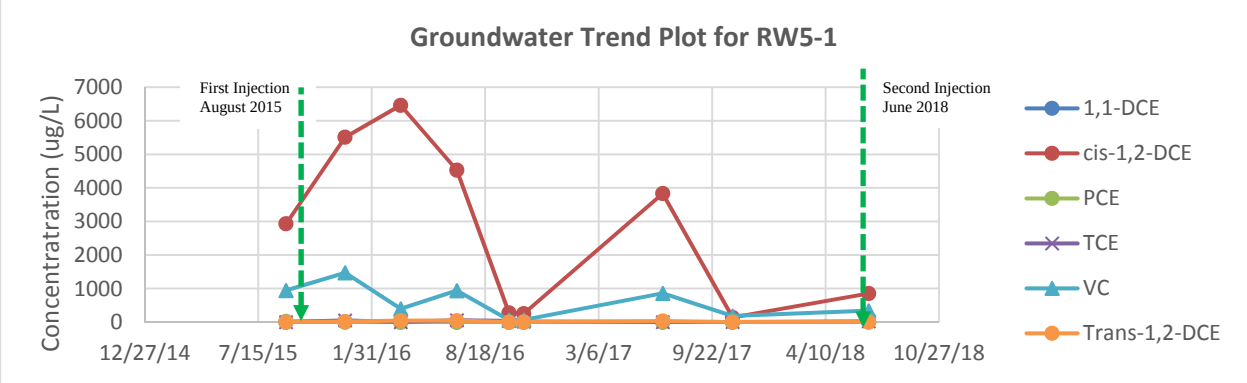
REMEDIAL ACTION PERFORMANCE MONITORING DATA TREND GRAPHS

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Trend Plots of Selected VOC Data
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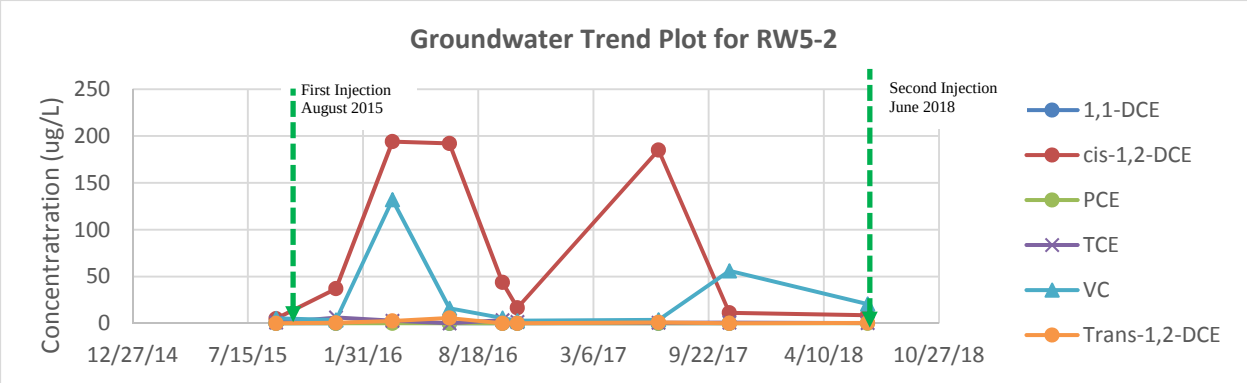


Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	10/31/2016	12/29/2016	6/27/2017	10/30/2017	6/25/2018
1,1-Dichloroethene	ND (1.4)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.60)	8.4	ND (0.64)	ND (0.21)	8.4	3.2
cis-1,2-Dichloroethene	3390	37	34.1	114	70.3	3710	90	368	1350	1310
trans-1,2-Dichloroethylene	50.3	1.1	4.6	15.8	8.2	39.5	7.8	29.5	35.3	32.8
Tetrachloroethene	ND (1.0)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.50)
Trichloroethene	3.5 J	3.9	4.7	2.5	2.8	3.9	0.92 J	1.3	ND (0.45)	38.7
Vinyl chloride	3930	27.8	87.5	321	155	4220	458	2860	4660	3170

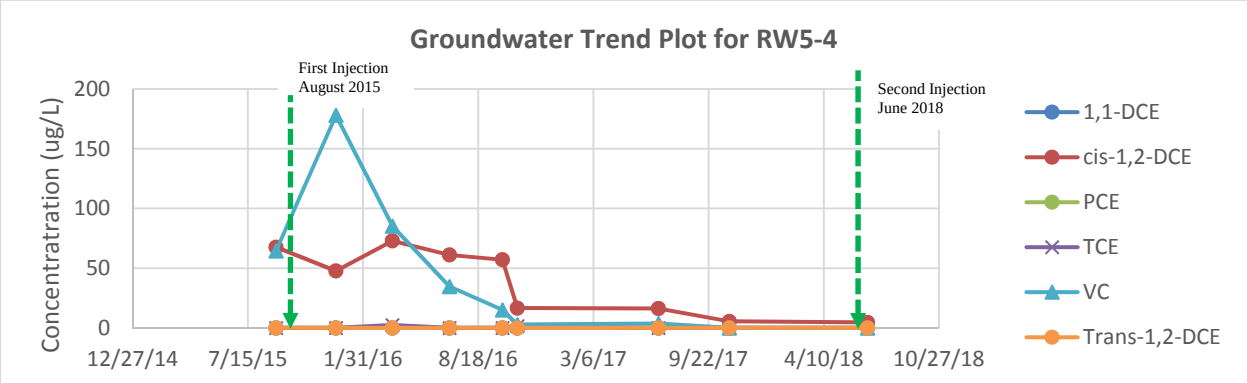


Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	10/25/2016	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	ND (7.1)	6.3	ND (22)	ND (0.60)	ND (0.60)	ND (1.4)	ND (5.2)	ND (5.2)	2
cis-1,2-Dichloroethene	2930	5510	6460	4530	275	251	3830	138	854
trans-1,2-Dichloroethylene	ND (12)	12.9	42.8 J	43.3 J	ND	1.5 J	31.4	2.7	3.9
Tetrachloroethene	21.0 J	ND (0.33)	ND (30)	ND (0.45)	ND (0.45)	ND (0.89)	ND (13)	ND (13)	ND (0.50)
Trichloroethene	ND (6.2)	49.7	ND (27)	54.8	33.2	12.8	ND (6.7)	1.1	21.7
Vinyl Chloride	943	1470	369	939	62.8	65.8	858	180	338

Trend Plots of Selected VOC Data
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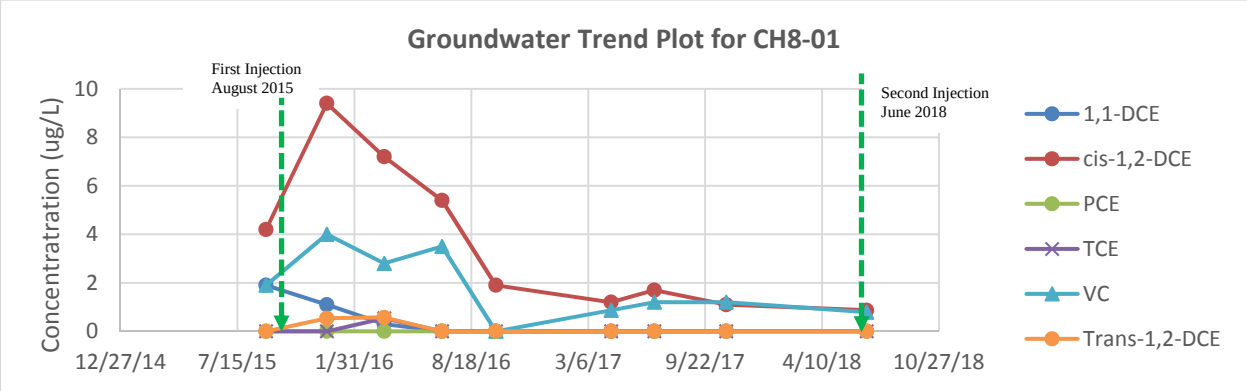
Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	10/25/2016	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	1.5	ND (0.60)	ND (0.60)	ND (0.68)	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	5	37	194	192	43.8	16.6	185	11.2	8.7
trans-1,2-Dichloroethylene	ND (0.48)	0.59 J	2.5	5.7	ND (0.48)	ND (0.50)	1	ND (0.50)	0.47 J
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.50)	ND (0.50)	ND (0.50)
Trichloroethene	0.82 J	6.3	2.8	1.3	3.4	1.6	0.63 J	0.8 J	0.32 J
Vinyl Chloride	5.3	3.5	132	16.1	5.7	2.8	3.7	4.1	20.6



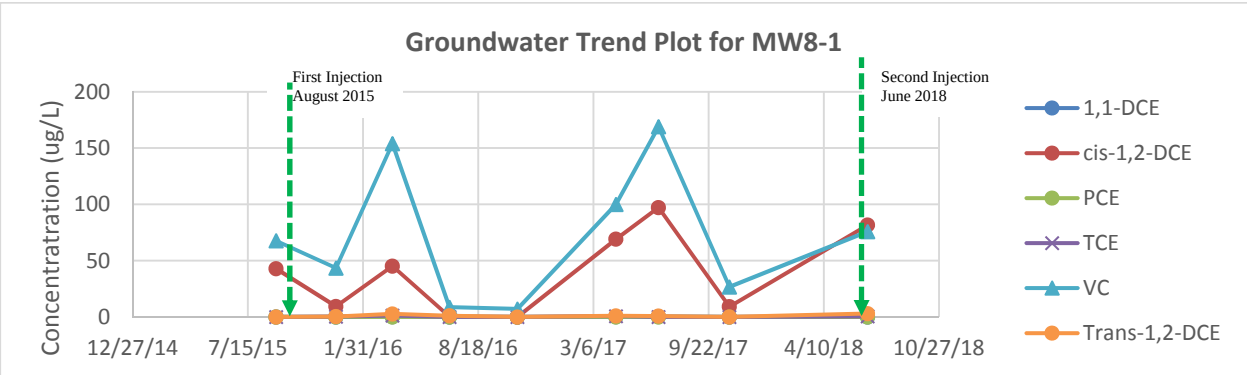
Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	10/25/2016	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (27)	ND (0.22)	ND (0.60)	ND (0.60)	ND (0.68)	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	67.6	47.7 J	72.9	61.1	57.1	16.6	16.3	5.5	4.6
trans-1,2-Dichloroethylene	ND (0.48)	ND (21)	ND (0.33) [b]	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.41)	ND (0.41)	ND (0.50)
Tetrachloroethene	ND (0.21)	ND (33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.50)	ND (0.50)	ND (0.50)
Trichloroethene	ND (0.25)	ND (22)	2.4	ND (0.48)	ND (0.48)	1.6	ND (0.27)	ND (0.27)	ND (0.50)
Vinyl Chloride	64.5	178	85.2	34.7	15.1	2.8	3.7	ND (0.50)	ND (0.62)

Trend Plots of Selected VOC Data

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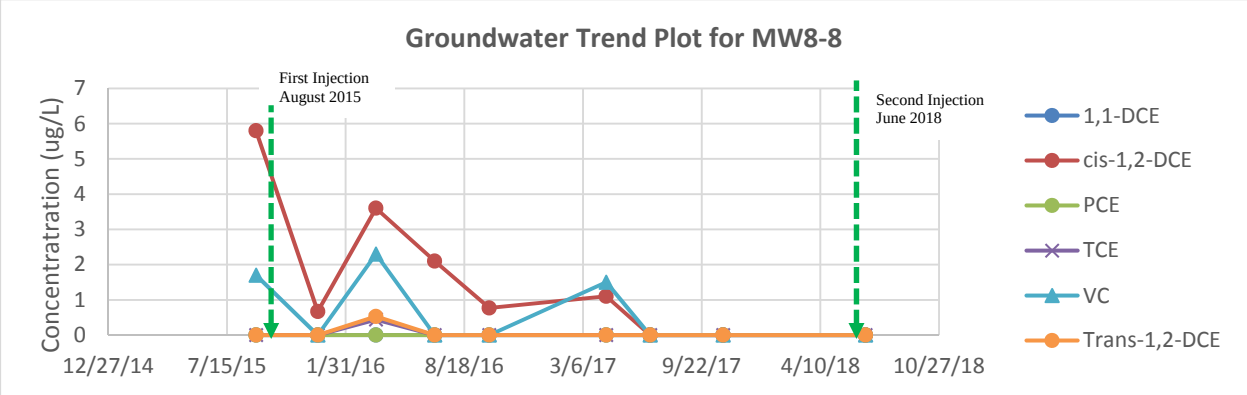
Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	1.9	1.1	0.30 J	ND (0.68)	ND (0.68)	ND (0.68)	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	4.2	9.4	7.2	5.4	1.9	1.2	1.7	1.1	0.87 J
Tetrachloroethylene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.5)	ND (0.5)	ND (0.50)
Trichloroethene	ND (0.25)	ND (0.22)	0.54 J	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.6)	ND (0.6)	ND (0.50)
Vinyl Chloride	1.9	4	2.8	3.5	ND (0.69)	0.87	1.2	1.2	0.79 J
trans-1,2-Dichloroethylene	ND (0.48)	0.54 J	0.57 J	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.4)	ND (0.4)	ND (0.50)



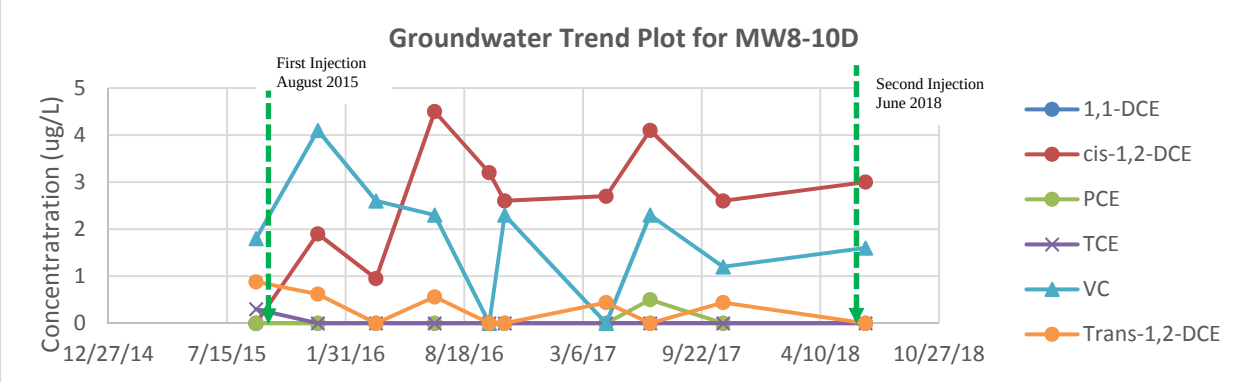
Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	10/25/2016	4/14/2017	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	0.31 J	ND (0.60)	ND (0.60)	ND (0.68)	0.24	.42 J	ND (0.68)	ND (0.50)
cis-1,2-Dichloroethene	42.9	9.4	45.2	0.37 J	ND (0.29)	ND (0..29)	69.1	97.2	9.2	81.6
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.5)	ND (0.5)	ND (0.50)
Trichloroethene	ND (0.25)	0.28 J	1.2	ND (0.48)	ND (0.48)	ND (0.48)	0.7	ND (0.27)	ND (0.27)	0.55 J
Vinyl Chloride	67.7	43.5	154	8.7	ND (0.69)	7.1	100	169	26.7	75.9
trans-1,2-Dichloroethylene	ND (0.48)	0.34 J	2.7	1.1	(ND 0.50)	ND (0.26)	1	0.82 J	0.31 J	3

Trend Plots of Selected VOC Data

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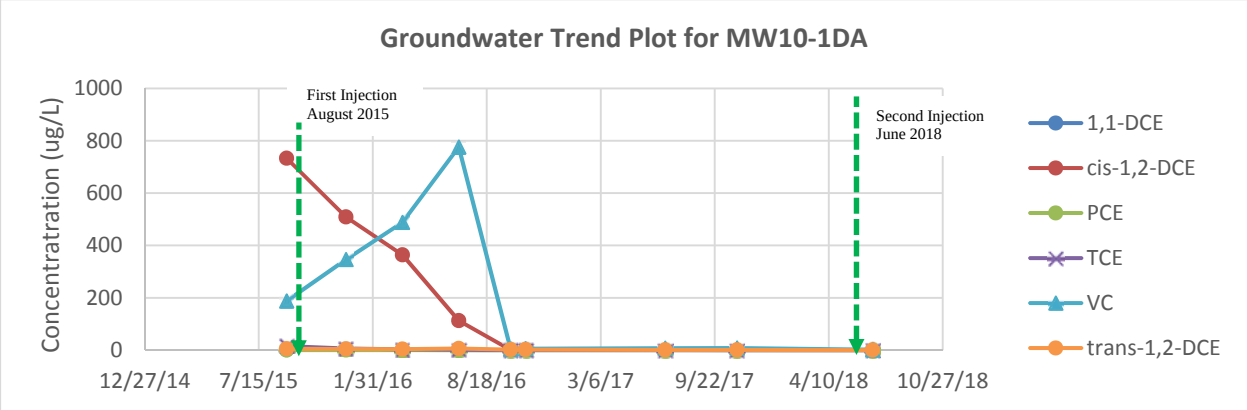
Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.26)	ND (0.68)	ND (0.60)	ND (0.60)	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	5.8	0.67 J	3.6	5.4	0.77 J	1.1	ND (0.20)	ND (0.20)	ND (0.50)
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.50)	ND (0.50)	ND (0.50)
Trichloroethene	ND (0.25)	ND (0.22)	0.44 J	ND (0.48)	ND (0.48)	ND (0.48)	ND (0.60)	ND (0.60)	ND (0.50)
Vinyl Chloride	1.7	ND (0.25)	2.3	3.5	ND (0.69)	1.5	ND (0.62)	ND (0.62)	ND (0.62)
trans-1,2-Dichloroethylene	ND (0.48)	0	0.53 J	ND (0.50)	ND (0.50)	ND (0.50)	ND (0.40)	ND (0.40)	ND (0.50)



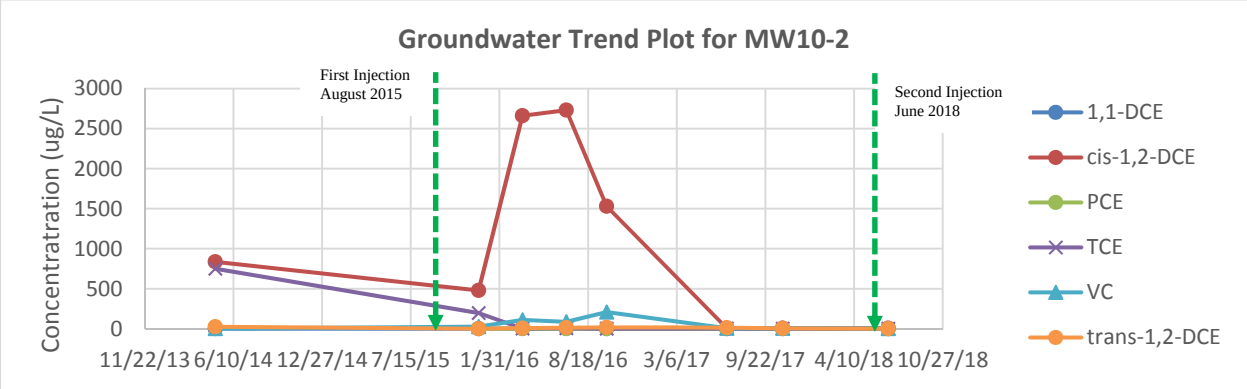
Analyte	9/2/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	10/25/2016	4/14/2017	6/27/2017	10/28/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.27)	ND (0.60)	ND (0.60)	ND (0.60)	ND (1.0)	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	5.2	1.9	0.95 J	4.5	3.2	2.6	2.7	4.1	2.6	3
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.33)	ND (0.45)	ND (0.45)	ND (0.45)	ND (1.0)	0.50 J	ND (1.0)	ND (0.50)
trans-1,2-Dichloroethene	0.88 J	0.62 J	ND (0.33)	0.56 J	ND (0.33)	ND (0.23)	0.44	ND (0.54)	0.44	ND (0.50)
Trichloroethene	0.30 J	ND (0.22)	ND (0.22)	ND (0.48)	ND (0.48)	ND (0.48)	ND (1.0)	ND (0.60)	ND (0.60)	1.6
Vinyl Chloride	1.8	4.1	2.6	2.3	ND (0.69)	2.3	1.1	2.3	1.2	ND (0.62)

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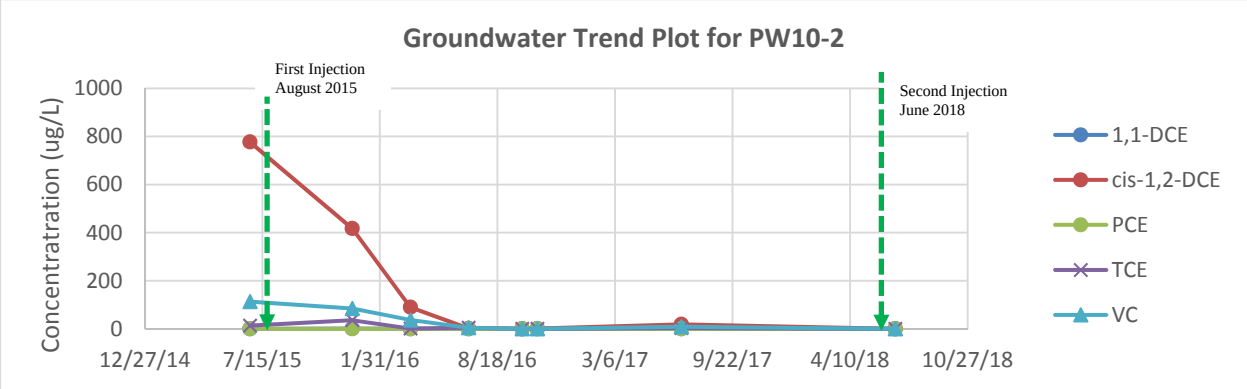
Analyte	9/2/2015	12/15/2015	3/23/2016	6/30/2016	9/29/2016	10/25/2016	6/27/2017	10/31/2017	6/26/2018
1,1-Dichloroethene	1.5	2.6	ND (1.1)	ND (0.60)	ND (0.60)	ND (0.68)	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	733	509	364	113	1.2	1.4	0.64 J	ND	ND (0.50)
trans-1,2-Dichloroethene	5.2	4.8	4.0 J	6.1	1.9	2.0	0.75 J	0.75 J	0.46 J
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (1.5)	ND (0.45)	ND (0.45)	ND (0.45)	ND (0.50)	ND (0.50)	ND (0.50)
Trichloroethene	15.3	6.4	3.2 J	2	ND (0.48)	ND (0.48)	ND (0.27)	ND (0.27)	ND (0.50)
Vinyl Chloride	188 [a]	346	488	776	4.2	6.0	7.9	8.5	2.2



Note: Baseline sample date for MW10-2 is from the PDI Investigation (4/30/2014). Well was dry on 9/2/15.

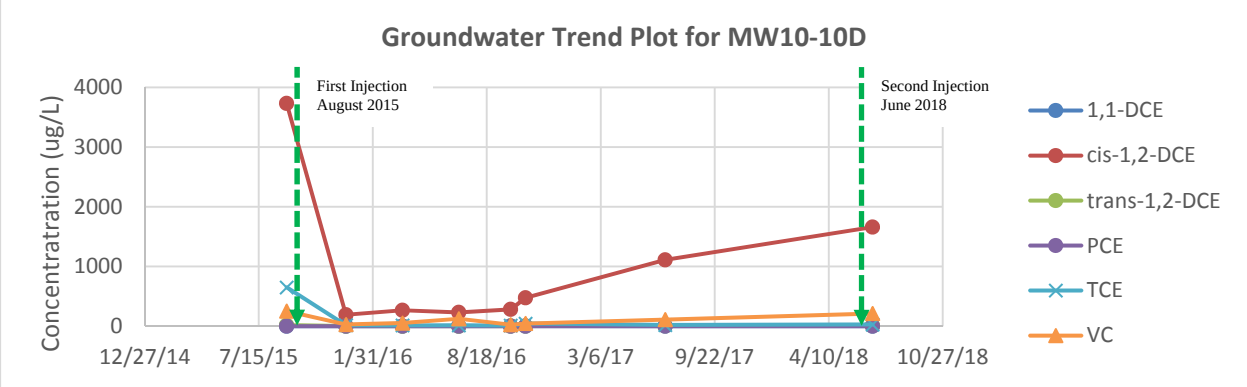
Analyte	4/30/14	12/15/2015	3/23/2016	6/30/2016	9/29/2016	10/25/2016	6/27/2017	10/31/2017	6/26/2018
1,1-Dichloroethene	1	0.71 J	2.7 J	2.3 [b]	ND (6.0)	NA	ND (0.21)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	837	478	2660	2730	1530	NA	6.3	6.0	7.2
trans-1,2-Dichloroethene	24.4		7.5	14.7	17.1	NA	13.3	5.5	1.4
Tetrachloroethene	ND	ND (0.33)	ND (1.5)	ND (0.45)	ND (0.45)	NA	ND (0.60)	ND (0.60)	ND (0.50)
Trichloroethene	750	197	3.6 J	6	ND (0.48)	NA	1.9	0.77 J	0.64 J
Vinyl Chloride	1.8	26.8	111	87.3	209	NA	7.4	6.3	2.5

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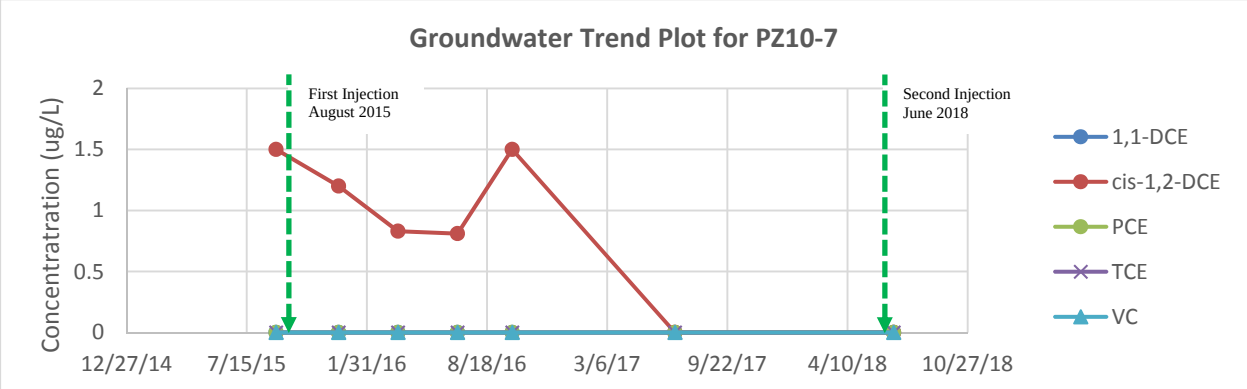
Note: Baseline sample date for PW10-2 is from the 2015 Semi-Annual event (6/24/2015). Well not sampled prior to RA injection.

Analyte	6/24/2015	12/16/2015	3/23/2016	6/30/2016	9/29/2016	10/25/2016	6/27/2017	6/26/2018
1,1-Dichloroethene	ND (0.28)	1.3	ND (0.22)	ND (0.60)	ND (0.60)	ND (0.60)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	777	417	89.8	1.6	ND (0.29)	0.88 J	18.4	ND (0.50)
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	0.69 J	ND (0.50)	ND (0.50)
Trichloroethene	13.4	35.9	1.2	4.7	ND (0.48)	ND (0.48)	3.3	ND (0.50)
Vinyl Chloride	113	84.3	37	4.7	ND (0.69)	ND (0.69)	8.6	ND (0.62)

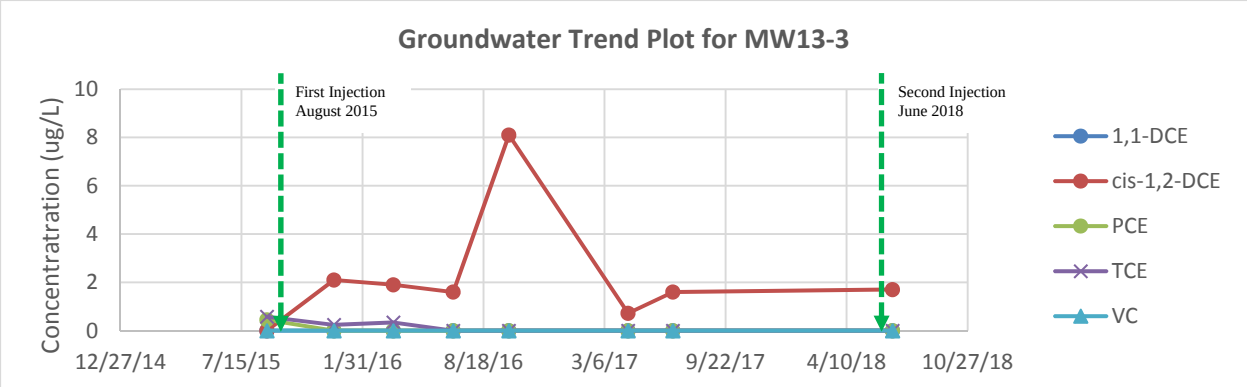


Analyte	9/2/2015	12/15/2015	3/23/2016	6/30/2016	9/29/2016	10/25/2016	6/27/2017	6/26/2018
1,1-Dichloroethene	ND (5.7)	ND (0.27)	ND (0.43)	ND (0.60)	ND (1.4)	0.75 J	ND (2.1)	ND (0.50)
cis-1,2-Dichloroethene	3730	191	266	230	281	476	1110	1660
trans-1,2-Dichloroethene	17.8	0.95 J	1.2 J	1.4	2.2	3.2	6.5 J	9
Tetrachloroethene	ND (4.1)	ND (0.33)	ND (0.61)	ND (0.45)	ND (0.89)	ND (0.45)	ND (5.0)	ND (0.50)
Trichloroethene	650	15.6	13.8	14.5	10	43.8	20	28.1
Vinyl Chloride	253 [a]	28.6	51.5	124	25.3	45.6	110	212

Trend Plots of Selected VOC Data
Remedial Action Injection Sites
Performance Monitoring Point Groundwater Data
Niagara Falls Air Reserve Station, New York



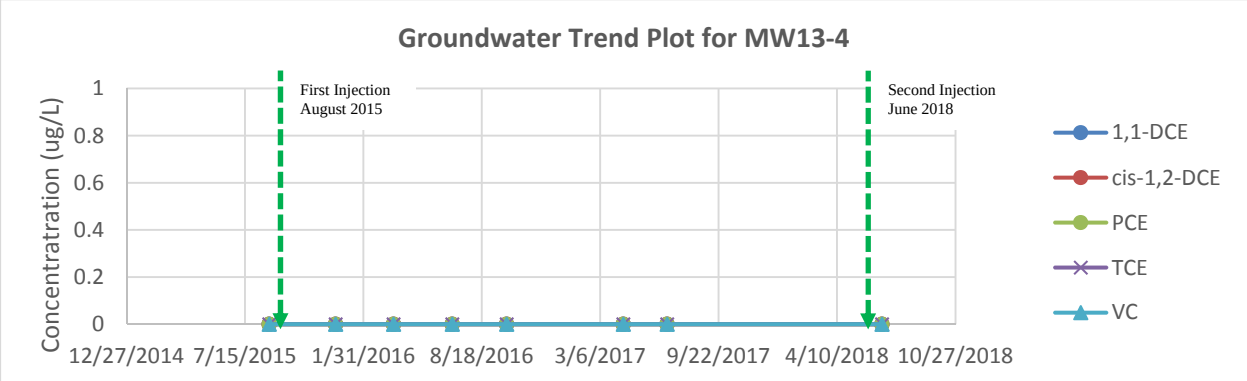
Analyte	9/2/2015	12/15/2015	3/23/2016	6/30/2016	9/29/2016	6/27/2017	6/26/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.60)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	1.5	1.2	0.83 J	0.81 J	1.5	ND (0.50)	ND (0.50)
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (0.50)	ND (0.50)
Trichloroethene	ND (0.25)	ND (0.22)	ND (0.27)	ND (0.48)	ND (0.48)	ND (0.62)	ND (0.50)
Vinyl Chloride	ND (0.45)	ND (0.25)	ND (0.31)	ND (0.69)	ND (0.69)	ND (0.62)	ND (0.62)



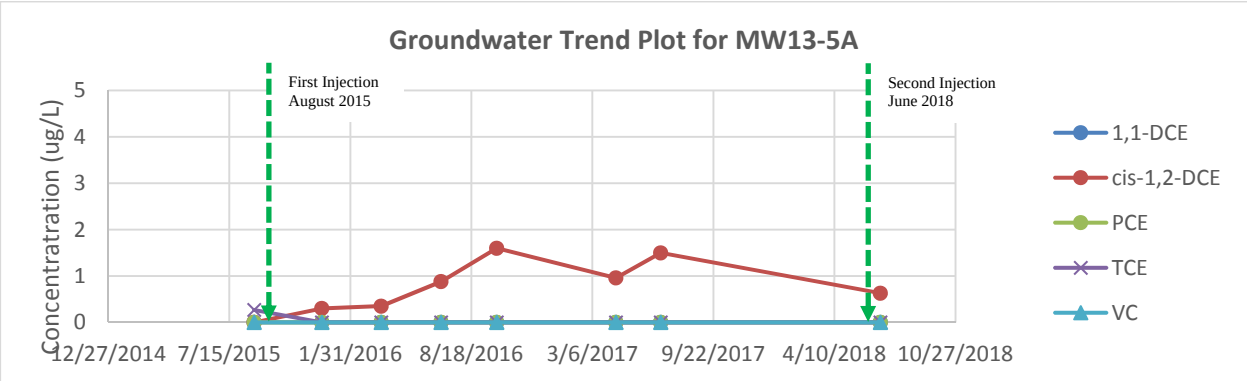
Analyte	8/26/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.60)	ND (1.0)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	ND (0.31)	2.1	1.9	1.6	8.1	0.72 J	1.6	1.7
Tetrachloroethene	0.45 J	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (1.0)	ND (0.50)	ND (0.50)
Trichloroethene	0.58 J	0.24 J	0.34 J	ND (0.48)	ND (0.48)	ND (1.0)	ND (0.27)	ND (0.50)
Vinyl Chloride	ND (0.45)	ND (0.25)	ND (0.31)	ND (0.69)	ND (0.69)	ND (1.0)	ND (0.62)	ND (0.62)

Trend Plots of Selected VOC Data

Remedial Action Injection Sites
Performance Monitoring Point Groundwater Data
Niagara Falls Air Reserve Station, New York



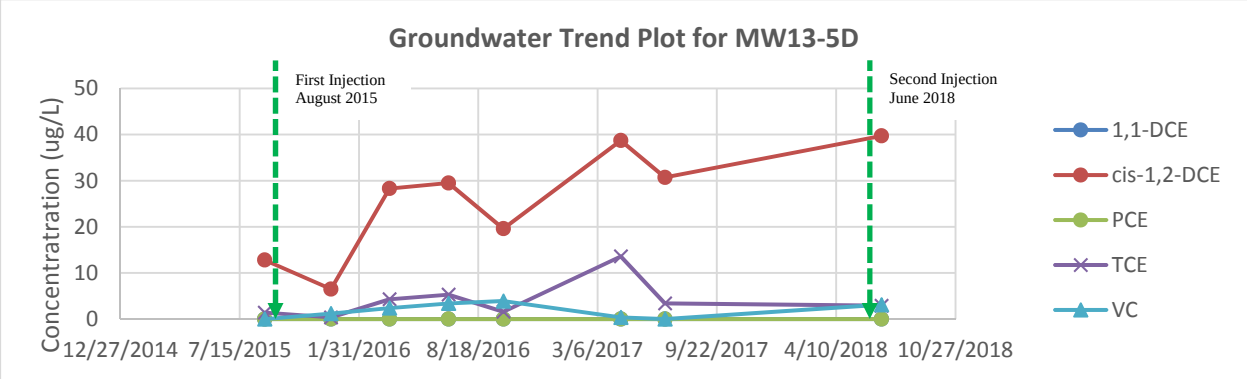
Analyte	8/26/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.68)	ND (1.0)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	ND (0.31)	ND (0.22)	ND (0.31)	ND (0.29)	ND (0.29)	ND (1.0)	ND (0.50)	ND (0.50)
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (1.0)	ND (0.50)	ND (0.50)
Trichloroethene	ND (0.25)	ND (0.22)	ND (0.27)	ND (0.48)	ND (0.48)	ND (1.0)	ND (0.27)	ND (0.50)
Vinyl Chloride	ND (0.45)	ND (0.25)	ND (0.31)	ND (0.69)	ND (0.69)	ND (1.0)	ND (0.62)	ND (0.62)



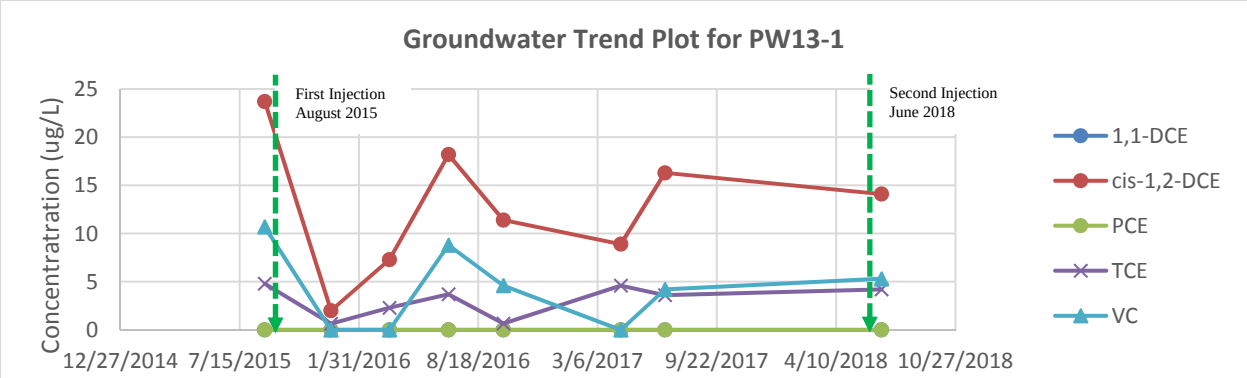
Analyte	8/25/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.68)	ND (1.0)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	ND (0.31)	0.30 J	0.35 J	0.88 J	1.6	0.96	1.5	0.63 J
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (1.0)	ND (0.50)	ND (0.50)
Trichloroethene	0.27 J	ND (0.22)	ND (0.27)	ND (0.48)	ND (0.48)	ND (1.0)	ND (0.27)	ND (0.50)
Vinyl Chloride	ND (0.45)	ND (0.25)	ND (0.31)	ND (0.69)	ND (0.69)	ND (1.0)	ND (0.62)	ND (0.62)

Trend Plots of Selected VOC Data

Remedial Action Injection Sites
Performance Monitoring Point Groundwater Data
Niagara Falls Air Reserve Station, New York



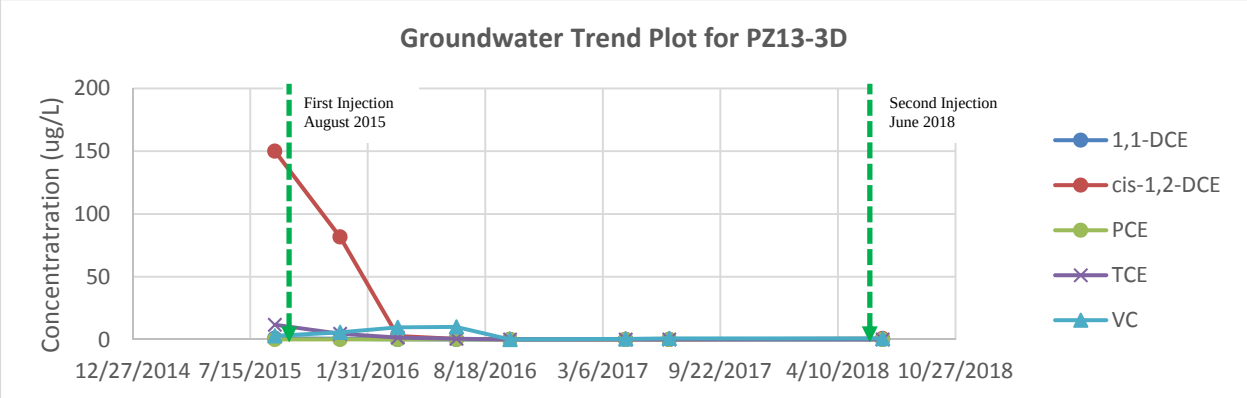
Analyte	8/26/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.68)	ND (1.0)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	12.8	6.5	28.3	29.5	19.6	38.7	30.7	39.7
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (1.0)	ND (0.50)	ND (0.50)
Trichloroethene	1.4	0.37 J	4.3	5.3	1.6	13.6	3.4	2.9
Vinyl Chloride	ND (0.45)	1.2	2.4	3.4	3.9	0.36	ND (0.62)	3.1



Analyte	8/26/2015	12/15/2015	3/22/2016	6/29/2016	9/29/2016	4/14/2017	6/27/2017	6/25/2018
1,1-Dichloroethene	ND (0.28)	ND (0.27)	ND (0.22)	ND (0.60)	ND (0.68)	ND (1.0)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	23.7	2	7.3	18.2	11.4	8.9	16.3	14.1
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (1.0)	ND (0.50)	ND (0.50)
Trichloroethene	4.8	0.64 J	2.3	3.7	0.66 J	4.6	3.6	4.2
Vinyl Chloride	10.7	ND (0.25)	ND (0.31)	8.8	4.6	ND (1.0)	4.2	5.3

Trend Plots of Selected VOC Data

Remedial Action Injection Sites
Performance Monitoring Point Groundwater Data
Niagara Falls Air Reserve Station, New York



Analyte	8/26/2015	12/15/2015	3/22/2016	6/30/2016	9/29/2016	4/14/2017	6/27/2017	6/25/2018
1,1-Dichloroethene	0.94 J	0.49 J	ND (0.22)	ND (0.60)	ND (0.68)	ND (1.0)	ND (0.21)	ND (0.50)
cis-1,2-Dichloroethene	150	81.6	2.7	0.45 J	ND (0.29)	ND (1.0)	ND (0.50)	0.73 J
Tetrachloroethene	ND (0.21)	ND (0.33)	ND (0.30)	ND (0.45)	ND (0.45)	ND (1.0)	ND (0.50)	ND (0.50)
Trichloroethene	11.7	4.6	1.5	0.58 J	ND (0.48)	ND (1.0)	ND (0.27)	ND (0.50)
Vinyl Chloride	2.9	5.7	9.7	10	ND (0.69)	0.47	0.84 J	0.77 J

APPENDIX G

2018 Remedial Action Injection Summary Memorandum

Sites FT005-Site 10, ST010-Site13, DS002-Site 8,

and DS004-Site 5

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FINAL

2018 Remedial Action Injection Summary Memorandum
Sites FT005-Site 10, ST010-Site 13, DS002-Site 8, and DS004-Site 5
Niagara Falls Air Reserve Station
Niagara, New York

Prepared for

Air Force Civil Engineer Center

Environmental Restoration Division

Lackland Air Force Base, Texas 78236-9853

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August 2018

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Appendix

A Application Summary Report for Remedial Services at the Niagara ANG Site

Acronyms and Abbreviations

AFCEC	Air Force Civil Engineer Center
bgs	Below ground surface
BOMARC	Boeing Michigan Aeronautical Research Center
CEV	Civil Engineering-Environmental
CO	Order on Consent
CVOC	Chlorinated volatile organic compound
DOC	Dissolved organic carbon
DoD	Department of Defense
DPT	Direct push technology
EA	EA Engineering, P.C. and Its Affiliate EA Science and Technology
ELAP	Environmental Laboratory Accreditation Program
EVO	Emulsified vegetable oil
EZVI	Emulsified vegetable oil and zero valent iron mixture
ft	Foot/feet
ft^2	square foot/feet
IDW	Investigation-derived waste
IRP	Installation Restoration Program
lb	Pound(s)
NYSDEC	New York State Department of Environmental Conservation
PBR	Performance based remediation
PDB	Passive diffusion bags
PVC	Polyvinyl chloride
QAPP	Quality Assurance Project Plan
RA	Remedial action
SMP	Site Management Plan
SWMU	Solid Waste Management Unit
TOC	Total organic carbon
ZVI	Zero valent iron

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1.0 Introduction

The U.S. Department of the Air Force, Air Force Civil Engineer Center (AFCEC), has retained Versar, Inc. and its teaming partner EA Engineering, P.C. and its affiliate EA Science and Technology (EA) on behalf of the 914th Air Refueling Wing Mission Support Group/Civil Engineering-Environmental (CEV) under Contract Number (No.) FA8903-09-D-8588, Task Order 0006, to perform remedial actions (RAs) under a Performance Based Remediation (PBR) contract, at the Niagara Falls Air Reserve Station in Niagara Falls, New York (**Figure 1-1**).

As part of the PBR, a second set of RAs were conducted at four solid waste management units (SWMUs) managed under the United States Department of Defense (DoD) Installation Restoration Program (IRP). The work related to the RAs is conducted under the DoD IRP and in compliance with the requirements of a New York State Department of Environmental Conservation (NYSDEC) Order on Consent (CO) and Administrative Settlement (Site No. 932106, Index No. R9-20150902-65). Unless otherwise noted, all work was performed in accordance with the Site Management Plan (SMP) prepared by EA (EA 2017).

The primary objective of the 2018 RAs is to continue to reduce chlorinated volatile organic compounds (CVOCs) in the overburden and the shallow bedrock groundwater at FT005 – Site 10, ST010 – Site 13, DS002 – Site 8, and DS004 – Site 5 (**Figure 1-2**) by performing a second injection of an emulsified vegetable oil (EVO) and zero valent iron (ZVI) mixture (EZVI). This round of injections follows the first round of injections conducted in 2015 using the same EZVI mixture to reduce CVOC compounds at these sites. The purpose of this round of injections is to target specific areas where CVOC concentrations remain elevated, and/or target areas where low total organic carbon (TOC) and dissolved organic carbon (DOC) concentrations indicate that the EVO has been depleted.

This report provides a summary of the injections, including the projected versus actual quantities, the dosages of materials injected during the RAs, and the locations of the injection points for each site. An Application Summary Report, provided by the injection services subcontractor with additional injection details is included in **Appendix A.**

The summary details for each site are provided in the following sections in this report:

- Injections of EZVI at FT005 – Site 10 (Section 2)
- Injections of EZVI at ST010 – Site 13 (Section 3)
- Injections of EZVI at DS002 – Site 8 (Section 4)
- Injections of EZVI at DS004 – Site 5 (Section 5).

1.1 Overview of Field Activities

Field activities were performed from 19 to 28 June 2018 as described in the Additional Remedial Injections at Site 5 (DS004), Site 8 (DS002), and Site 10 (FT005) Letter Work Plan (EA 2018a), Supplemental Letter Work Plan for Site 13 (ST010) (EA 2018b) and in accordance with the RA Quality Assurance Project Plan (QAPP) for FT005, LF008, ST010, SS014, DS002, and DS004 (EA 2015). The pre-design quantities versus the actual quantities injected at each site are presented in **Table 1-1**.

TABLE 1-1

Target Quantities and Actual Quantities of Injectate

Site	Target Quantities			Actual Quantities		
	Injectate (gallon)	ZVI (lb)	EVO (lb)	Injectate (gallon)	ZVI (lb)	EVO (lb)
FT005 – Site 10	5,000	950	2,800	3,900	779	2,338
ST010 - Site 13	0	0	0	942	200	727
DS002 – Site 8	4,000	775	2,300	4,737	952.7	2855
DS004 – Site 5	10,000	3,000	9,000	9,457	2,651	7,580
Total	19,000	4,725	14,100	19,036	4,615	13,500

NOTE:

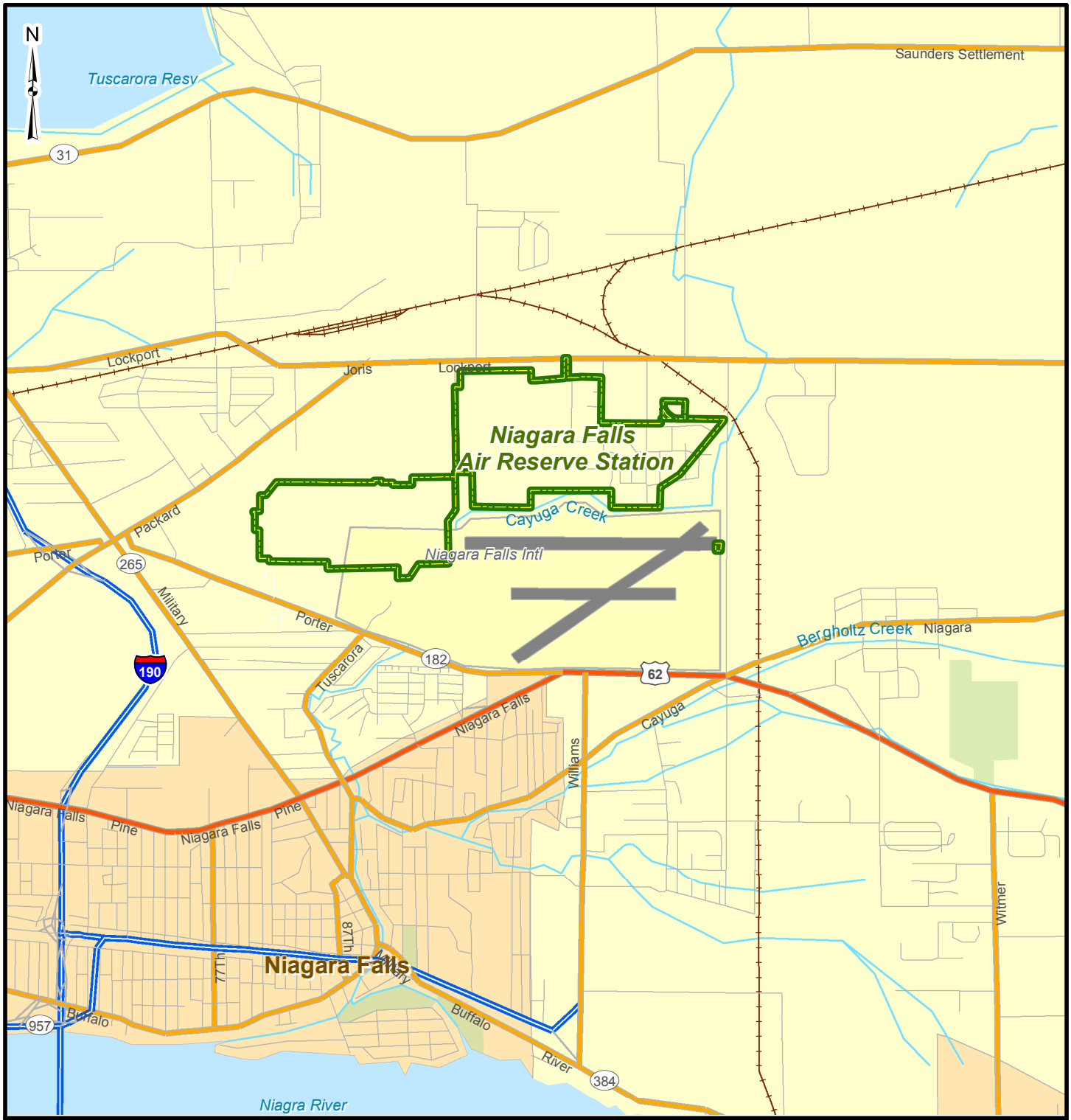
lb = Pound(s)

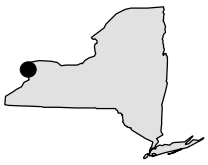
Direct push injection points for FT005 – Site 10, ST010 – Site 13, DS002 – Site 8, and DS004 – Site 5 were installed by Northeast Specialized Drilling, Inc. Low pressure injection services for delivering the EZVI into the subsurface was provided by REGENESIS. Prior to intrusive field activities, a Base Civil Engineering Work Clearance Request was obtained and subsurface utilities were marked in the field by Base Civil Engineering staff. Utilities not owned by the Base were marked in the field by a Dig Safely New York subcontractor.

Investigative-derived waste (IDW) generated during field investigative activities included:

- Expendable material (e.g., gloves, tubing, etc.).

No Liquid IDW was generated during field investigative activities. Expendable waste materials generated during field investigative activities included used personal protective equipment, non-dedicated sampling materials (i.e., tubing), and waste paper. Expendable materials were properly disposed of as general debris/trash.





Legend

NFARS Boundary

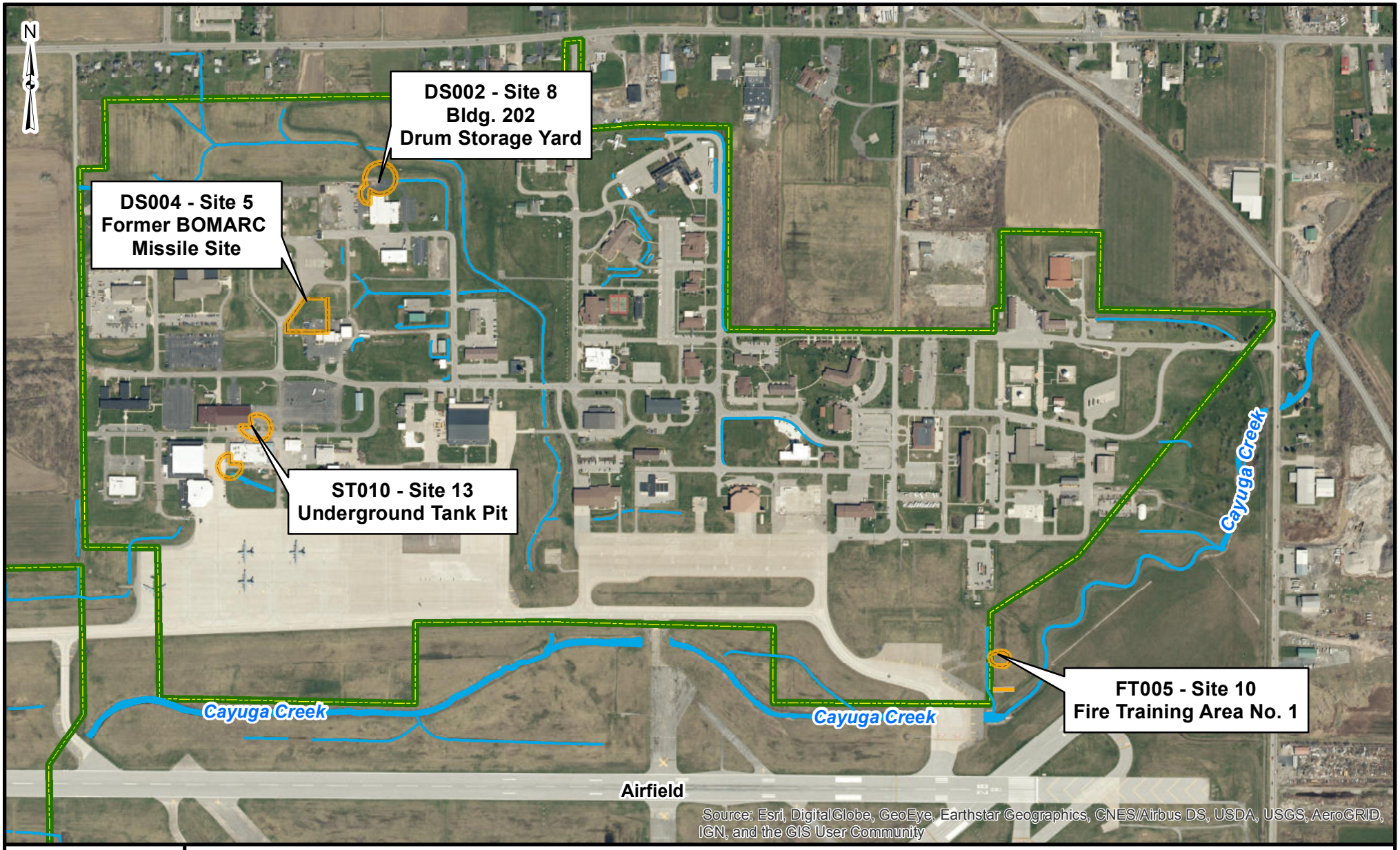
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Miles

	2018 Remedial Action Injection Summary Memorandum Sites FT005, ST010, DS002, and DS004 Niagara Falls Air Reserve Station Niagara Falls, New York	FIGURE 1-1 Location of Niagara Falls Air Reserve Station

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
BY	FD	FD	BY	AS SHOWN	AUGUST 2018	6265401	G:\Projects\Federal\DOD\6265401_AFCEC_NFARS

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Installation Boundary
Surface Water Pathway
Site Boundary Area
Groundwater Collection Trench

0 1,500
Feet

2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 1-2
Remedial Action Sites
Location Map

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BY	HW	HW	FD	AS SHOWN	AUGUST 2018	6265401	G:\Projects\Federal\DOD\6265401_AFCEC

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2.0 FT005 – Site 10 Injection Summary

2.1 Introduction

Injection activities were completed at the site from 27–28 June 2018. Injection activities were conducted as described in the Additional Remedial Injections at Site 5 (DS004), Site 8 (DS002), and Site 10 (FT005) (EA 2018a) Letter Work Plan and the RA QAPP (EA 2015). Injection activities were performed to target a suspected residual source area hydraulically upgradient at monitoring well MW10-10D. CVOC concentrations in monitoring well MW10-10D have remained elevated since the 2015 injection. EZVI was delivered to this area (approximately 2,500 square feet [ft^2]) to reduce the source concentration (**Figure 2-1**).

The proposed injection activities at FT005 – Site 10 also included an injection of EZVI into the groundwater extraction trench at FT005 – Site 10. The intent of the injection into the trench was to create a passive reactive barrier downgradient from the former source area to help mitigate potential future CVOC impacted groundwater from reaching Cayuga Creek. The application would necessitate removing the pumping system from the extraction well. However, based on NYSDEC comments to the 2017 Annual Comprehensive Sampling/Monitoring Report (NYSDEC 2018), NYSDEC requested that the remedial systems components be left in place and not be decommissioned. Therefore, the EZVI injection was not applied to the trench to limit potential impacts to the functionality of the pumping system components. The EZVI volume originally planned for the trench was instead injected at Site 13 (**Section 3.0**).

Site tasks for the injection activities included injection point grid layout and direct push technology (DPT) injection point installation, injectate mixing, and application.

2.2 Injection Point Installation and Injectate Application

2.2.1 Injection Point Installation

Nine DPT points were installed in the suspected residual source area at FT005 – Site 10. The proposed rectangular injection grid was roughly 55 feet (ft) by 45 ft oriented roughly north-south with DPT points spaced approximately 12 ft apart (**Figure 2-2**). DPT points were pushed to refusal at the bedrock/overburden interface. The depths of the injection points ranged between 7 and 10 ft below ground surface (bgs). Between two and four points were installed at a time, and injection tooling and hoses were connected to the DPT rods to facilitate the application of the injectate through the rods into the subsurface.

2.2.2 Injectate Mixing and Delivery

Each point received approximately 200 to 600 gallons of EZVI injectate dosed with approximately 0.2 lb of ZVI and 0.6 lb of EVO per gallon of injectate. The amendments were mixed with water on site and delivered to each location. Overall, FT005 – Site 10 received 779 lb of ZVI and 2,338 lb of EVO with a total injectate volume of 3,900 gallons.

2.2.3 Monitoring Well Observations

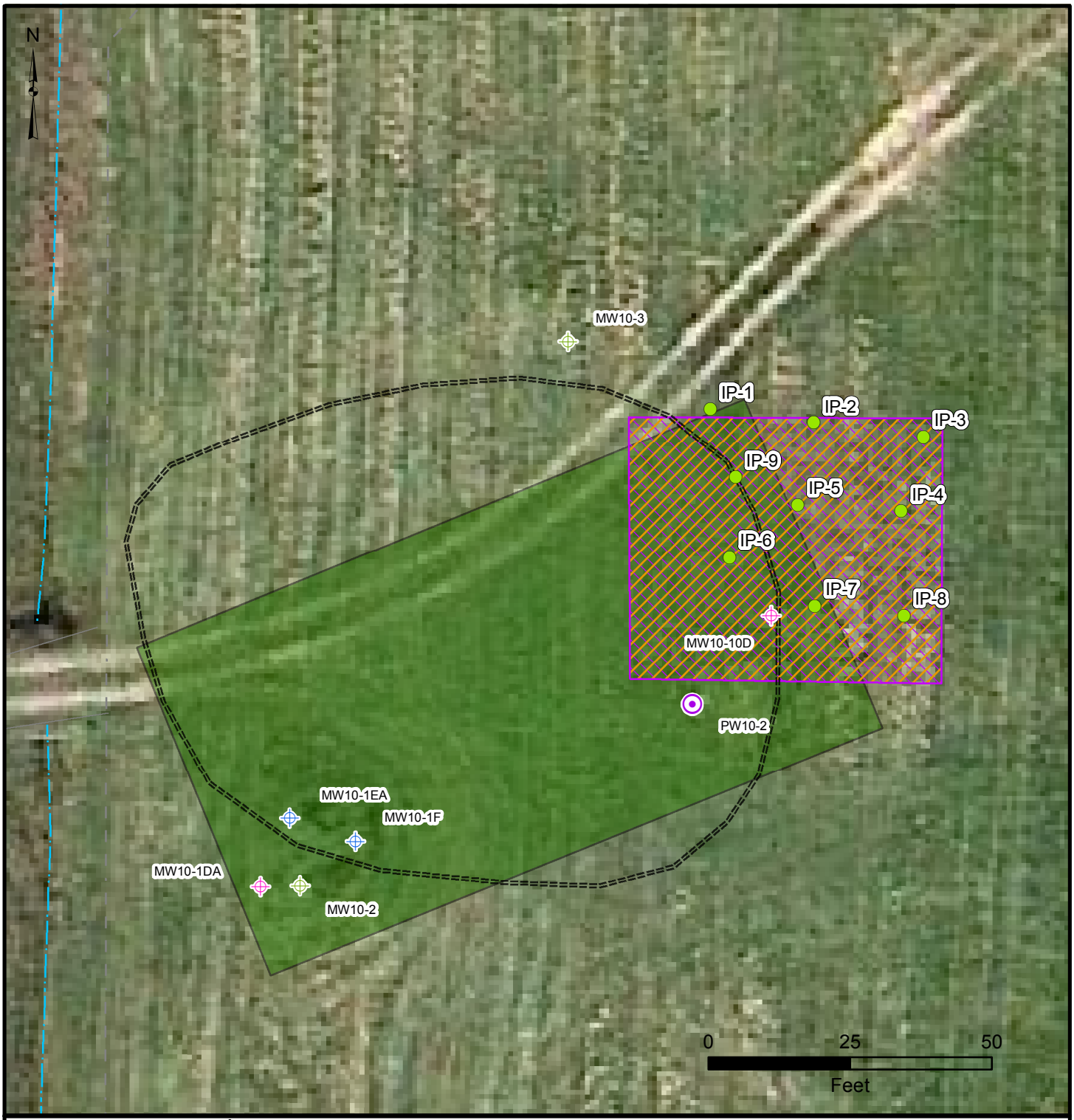
During the injection work at FT005 – Site 10, water levels were periodically checked in several of the wells adjacent to injection points in the injection grid. This was done to evaluate the progress of the injection and to monitor for the potential of daylighting injectate through monitoring wells to the surface. Water level increases in adjacent wells, as well as the EZVI injectate, was observed in all

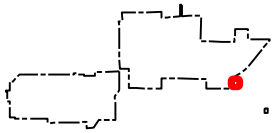
performance monitoring wells (MW10-10D and PW10-2) within the injection grid during the injection work. However, no daylighting of the EZVI occurred.

2.3 Remedial Action Performance Monitoring

2.3.1 Performance Well Sampling

Performance monitoring of CVOCs in groundwater will continue following the second RA injection. As proposed in the Additional Remedial Injection Letter (EA 2018a), quarterly groundwater samples will be collected from the four performance monitoring points (MW10-2, MW10-1DA, MW10-10D, and PW10-2) for a period of one year (4 quarters) (**Figure 2-2**). Performance monitoring will also continue at monitoring well PZ10-7, which serves as a sentinel well for capturing potential increases in CVOCs in the groundwater prior to discharging to Cayuga Creek.





Overburden Well
Shallow Bedrock Well
Deep Bedrock Well
Pumping Well

Injection Zones

2018 Overburden Injection Area
Actual Injection Points
2015 Overburden Injection Area

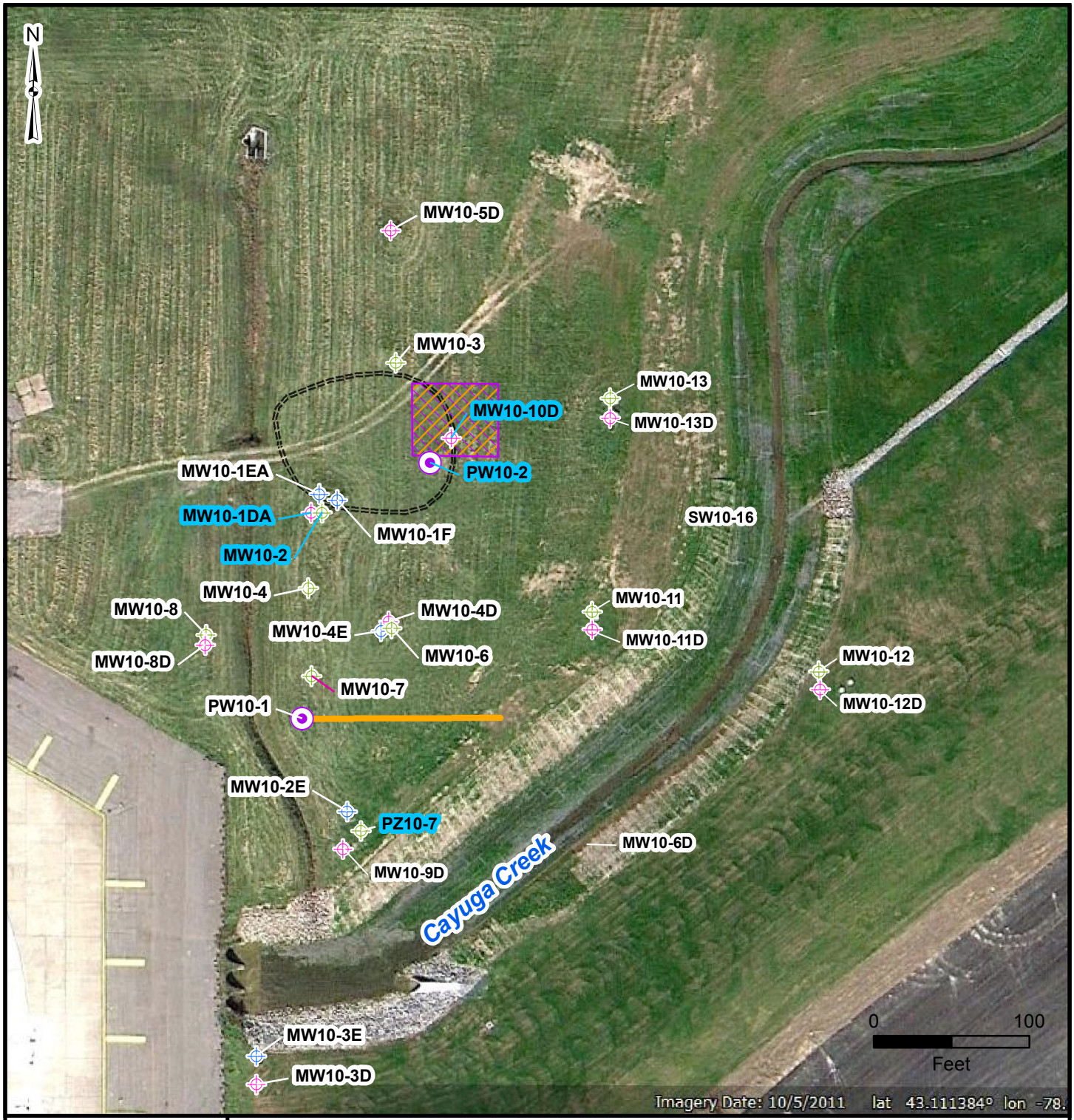
Groundwater Collection Trench
Former Fire Training Pit

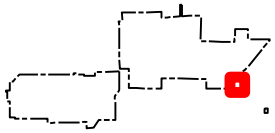
2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-1
FT005 - Site 10
Injection Point Locations
and Injection Area

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Overburden Well/Piezometer
Shallow Bedrock Well/Piezometer
Deep Bedrock Well
Pumping System
Former Fire Training Pit
Groundwater Collection Trench
2018 Overburden Injection Area
MWX-X Performance Monitoring Well

2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 2-2
FT005 - Site 10
Performance Monitoring Locations

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3.0 ST010 – Site 13 Injection Summary

3.1 Introduction

Injection activities were completed at the site on 28 June 2018. Injection activities were conducted as described in the Additional Remedial Injection at Site 13 (ST010) (EA 2018b) Letter Work Plan, which was submitted as a supplemental letter to the Additional Remedial Injections at Site 5 (DS004), Site 8 (DS002), and Site 10 (FT005) (EA 2018a) Letter Work Plan. Injection activities were performed to deliver the EZVI to an area west of the former tank pit source area in the vicinity of pumping well PW13-1 and monitoring wells MW13-5D, MW13-3, and MW13-1E. This area was targeted for a second injection because CVOC trends in groundwater from monitoring well MW13-5D continue to show a slight upward trend in total CVOC concentrations. NYSDEC had suggested that the "Air Force consider a second injection in this area to mitigate the remaining CVOC contamination in groundwater" in the comments to the Draft Final 2017 Annual Comprehensive Sampling/Monitoring Report (NYSDEC 2018).

Site tasks for the injection activities included injection point grid layout, DPT injection point installation, and injectate mixing, and application.

3.2 Injection Point Installation and Injectate Application

3.2.1 Injection Point Installation

A total of three DPT were installed at ST010 – Site 13. These points were arranged in a triangular pattern centered on the group of wells near pumping well PW13-1, just to the west of the 2015 injection zone to the former source area. DPT points spaced approximately 10 to 15 ft apart (**Figure 3-1**). DPT points in each injection location were pushed to refusal at the bedrock/overburden interface. The typical depth of the injection points was between 7 to 9 ft bgs. All three points were installed prior to commencing the injection. Injection tooling and hoses were connected to the three DPT rods to facilitate the application of the injectate through the rods to the subsurface.

3.2.2 Injectate Mixing and Delivery

Each point received approximately 315 gallons of EZVI injectate dosed with approximately 0.2 lb of ZVI and 0.8 lb of EVO per gallon. The amendments were mixed with water on site and delivered to each location. Overall, ST010 – Site 13 received 200 lb of ZVI, and 727 lb of EVO with a total injectate volume of 942 gallons.

3.2.3 Monitoring Well Observations

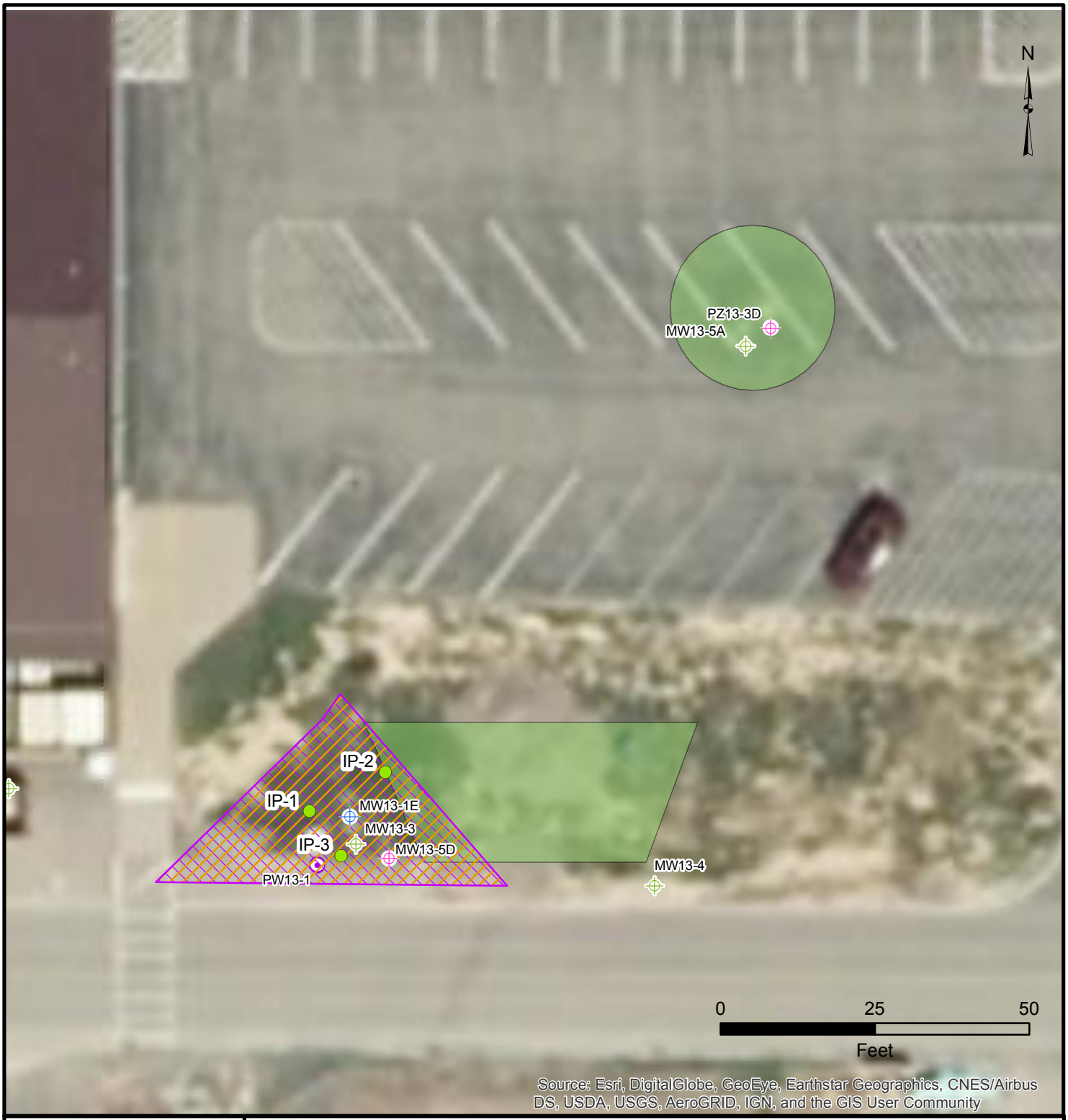
During the injection work at ST010 – Site 13, water levels were periodically checked in wells adjacent to injection points in the injection grid. This was done in order to evaluate the progress of the injection and to monitor for the potential of daylighting injectate through monitoring wells to the surface. Water level increases as well as the EZVI injectate was observed in monitoring well MW13-3 during the injection work; however, no daylighting was observed. Injectate was also observed in the performance monitoring wells following the completion of the injection work.

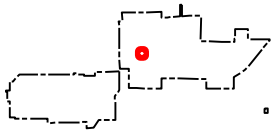
3.3 Remedial Action Performance Monitoring

3.3.1 Performance Well Sampling

Performance monitoring of CVOCs in groundwater will continue following the second RA injection. Quarterly groundwater samples will be collected from six performance monitoring points including three overburden monitoring wells (MW13-3, MW13-4, MW13-5A), two shallow bedrock monitoring

wells/piezometers (MW13-5D, PZ13-3D), and one pumping well (PW13-1) for a period of one year (4-quarters) (**Figure 3-2**).





Shallow Bedrock Well/Piezometer
Deep Bedrock Well
Overburden Well/Piezometer
Pumping Well

Injection Zones

2018 Overburden Injection Area
Actual Injection Points
2015 Injection Areas

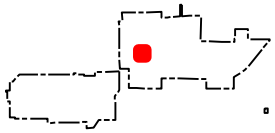
2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 3-1
ST010 - Site 13
Injection Point Locations
and Injection Area

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Overburden Well/Piezometer

Shallow Bedrock Well/Piezometer

Deep Bedrock Well

Pumping Well

2018 Overburden Injection Area

MWX-X Performance Monitoring Well

2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 3-2
ST010 - Site 13
Performance Monitoring Locations

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4.0 DS002 – Site 8 Injection Summary

4.1 Introduction

Injection activities were completed at DS002 – Site 8 from 25–26 June 2018. Injection activities were conducted as described in the Additional Remedial Injections at Site 5 (DS004), Site 8 (DS002), and Site 10 (FT005) (EA 2018a) Letter Work Plan and the RA QAPP (EA 2015). The EZVI was injected into the overburden in one area of approximately 3,300 ft^2 using DPT where performance data indicate elevated levels of CVOCs remain in groundwater in the overburden. The area around monitoring well MW8-1, near the former drum storage pad, was targeted in this round because TOC/DOC data indicated that the EVO had been depleted since the 2015 injection. CVOC concentrations also persist above NYSDEC Class GA groundwater standards. The EZVI injection also targeted the upper portion of the overburden (8 to 10 ft bgs), where residual CVOCs are suspected to remain in the soil matrix.

The EZVI mixture was also delivered to one bedrock core hole to refresh the injectate from the 2015 injection and treat residual CVOCs in the impacted groundwater in the shallow, fractured bedrock at DS002 – Site 8. Site tasks for the injection activities included collection of injection point grid layout and DPT injection point installation, injectate mixing, and application.

4.2 Injection Point Installation and Injectate Application

4.2.1 Injection Point Installation

Fourteen DPT points were installed through the overburden in one 60-ft by 55-ft grid. DPT points were spaced approximately 10 ft apart in each grid (**Figure 4-1**). These points were centered on existing monitoring wells MW8-1E and MW8-1. The injection points were spaced at approximately 8 to 12 ft apart. The typical depth of the injection points was between 8-10 ft bgs. Injection tooling and hoses were connected to the DPT rods at two to four locations concurrently to facilitate the application of the injectate to the subsurface.

Injectate was also applied to the bedrock through corehole CH8-01 to continue to mitigate groundwater contamination in the shallow bedrock.

4.2.2 Injectate Mixing and Delivery

Each point received approximately 335 gallons of EZVI injectate dosed with approximately 0.2 lb of ZVI and 0.6 lb of EVO per gallon. The amendments were mixed with water on site and delivered to each location. Overall, the overburden of DS002 – Site 8 received 935 lb of ZVI and 2,850 lb of EVO with a total injectate volume of 4,687 gallons.

The EZVI was also injected into a 4-ft zone in the shallow bedrock from 21 to 25 ft bgs in core hole CH8-01. The fractured bedrock was targeted for low pressure injection using a 4-ft section of polyvinyl chloride (PVC) screen separated by inflated packers at the top and bottom of the selected zone. Fifty gallons of injectate was injected into the corehole at low pressures through a perforated section of PVC fixed in place with a packer assemble. The injectate was dosed with 16.7 lb of ZVI (dosing rate of 0.33 lb/gallon) and 50 lb of EVO (1.0 lb/gallon).

4.2.3 Monitoring Well Observations

During the injection work at DS002 – Site 8, water levels were periodically checked in wells adjacent to injection points in the injection grid. This was done in order to evaluate the progress of the injection, and to monitor for the potential of daylighting injectate through monitoring wells to the surface. Water level increases as well as the EZVI injectate was observed in one overburden performance monitoring

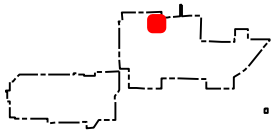
well (MW8-1) within the injection grid during the injection work. Injectate was also observed in monitoring well MW8-1 following the completion of the injection work. No daylighting occurred during the injections.

4.3 Remedial Action Performance Monitoring

4.3.1 Performance Well Sampling

Performance monitoring of CVOCs in groundwater will continue following the second RA injection. Quarterly groundwater samples will be collected for one year from four performance monitoring points including two overburden monitoring wells (MW8-1 and MW8-8), and two shallow bedrock monitoring wells (CH8-01, MW8-10D) (**Figure 4-2**).





Overburden Well
Shallow Bedrock Well
Deep Bedrock Well

Injection Zones

2018 Overburden Injection Area
2018 Bedrock Injection Area
Actual Injection Points

2015 Injection Areas

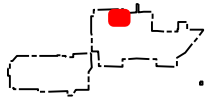
2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 4-1
DS002 - Site 8
Injection Point Locations
and Injection Area

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Overburden Well/Piezometer
Shallow Bedrock Well/Piezometer
Deep Bedrock Well
Drum Storage Yard
2018 Overburden Injection Area
2018 Bedrock Injection Area
MWX-X Performance Monitoring Well

2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 4-2
DS002 - Site 8
Performance Monitoring Locations

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5.0 DS004 – Site 5 Injection Summary

5.1 Introduction

Injection activities were completed at DS004 – Site 5 from 19–22 June 2018. Injection activities were conducted as described in the Additional Remedial Injections at Site 5 (DS004), Site 8 (DS002), and Site 10 (FT005) (EA 2018a) Letter Work Plan and the RA QAPP (EA 2015). The EZVI was injected into the overburden in two areas of approximately 2,500 ft^2 each using DPT where performance data indicate elevated levels of CVOCs remain in groundwater in the overburden and shallow bedrock. The target treatment areas are located between the Boeing Michigan Aeronautical Research Center (BOMARC) missile Shelters F-5 and F-6, adjacent to performance monitoring wells MW5-5D and RW5-1, where CVOC contamination is suspected to be trapped by the remaining concrete missile pads. The northern target area was reduced slightly to exclude the area around monitoring well RW5-2 because further data review indicated that adequate TOC/DOC remained in the area. The target depths for the second injection is the bedrock and overburden interface zone that was also targeted in 2015, as well as the overburden zone adjacent to the missile Shelters F-5 and F-6.

The EZVI mixture was also delivered to two bedrock coreholes in an effort to refresh the injectate from the 2015 injection and treat residual CVOCs in the impacted groundwater in the shallow fractured bedrock at DS004 – Site 5.

Site tasks for the injection activities included collection of injection point grid layout, DPT injection point installation, injectate mixing, and application.

5.2 Injection Point Installation and Injectate Application

5.2.1 Injection Point Installation

Thirty DPT points were installed through the overburden to the bedrock contact in two separate 2,500 ft^2 grids. DPT points were spaced approximately 15 ft apart in each grid (**Figure 5-1**). These points were centered on existing monitoring well RW5-1 and the BOMARC launch pad F-5 in the northern grid and existing monitoring well RW5-2 and the BOMARC launch pad F-6 in the southern grid. The typical depth of the injection points was between 10 ft and 17 ft bgs. With the exception of injection points 9 and 10, each point was driven to refusal at the bedrock surface, and the total volume of injectate (approximately 300 gallons per location) was applied to a 3-ft zone above the bedrock. For injection points 9 and 10, which are immediately adjacent to the suspected source area near BOMARC missile pad F-6, the proposed injectate volume was distributed across multiple 3- ft zones. In injection point 9, the injectate was distributed across two zones, with 156 gallons injected just above bedrock from 13 to 16 ft bgs, and 156 gallons injected in a 3-ft zone from 10 to 13 ft bgs. In injection point 10, the injectate was distributed across three zones, with 104 gallons injected just above bedrock from 13.6 to 16.6 ft bgs, 104 gallons injected in a zone from 10.6 to 13.6 ft bgs, and the remaining 104 gallons injected from 7.6 to 10.6 ft bgs. Injection tooling and hoses were connected to the DPT rods at two to four locations concurrently to facilitate the application of the injectate to the subsurface.

The shallow bedrock treatment area targeted two zones around monitoring well MW5-5D. The injections were completed through two open bedrock holes (CH5-01 and CH5-02), which extend from the top of bedrock at approximately 15 ft bgs to a depth of approximately 30 ft bgs. The injectate was pressure injected into one 4-ft zone of fractured bedrock in both coreholes from 21 to 25 ft bgs. The fracture zones were identified in the pre-design investigation and selected based on CVOC concentrations and fracture locations.

5.2.2 Injectate Mixing and Delivery

Each point received approximately 315 gallons of EZVI injectate dosed with approximately 0.3 lb of ZVI and 0.8 lb of EVO per gallon. The amendments were mixed with water on site and delivered to each location. Overall, the overburden of DS004 – Site 5 received 2,618 lb of ZVI and 7,480 lb of EVO with a total injectate volume of 9,357 gallons.

The EZVI was also injected into the shallow bedrock coreholes CH5-01 and CH5-02. The fractured bedrock was targeted for low pressure injection using a 4-ft section of PVC screen separated by inflated packers at the top and bottom of the selected zone. Fifty gallons of injectate was injected into each of the coreholes at low pressures through a perforated section of PVC fixed in place with a packer assemble. The injectate was dosed with 16.7 lb of EZVI (dosing rate of 0.33 lb/gallon) and 50 lb of EVO (1.0 lb/gallon) for each corehole.

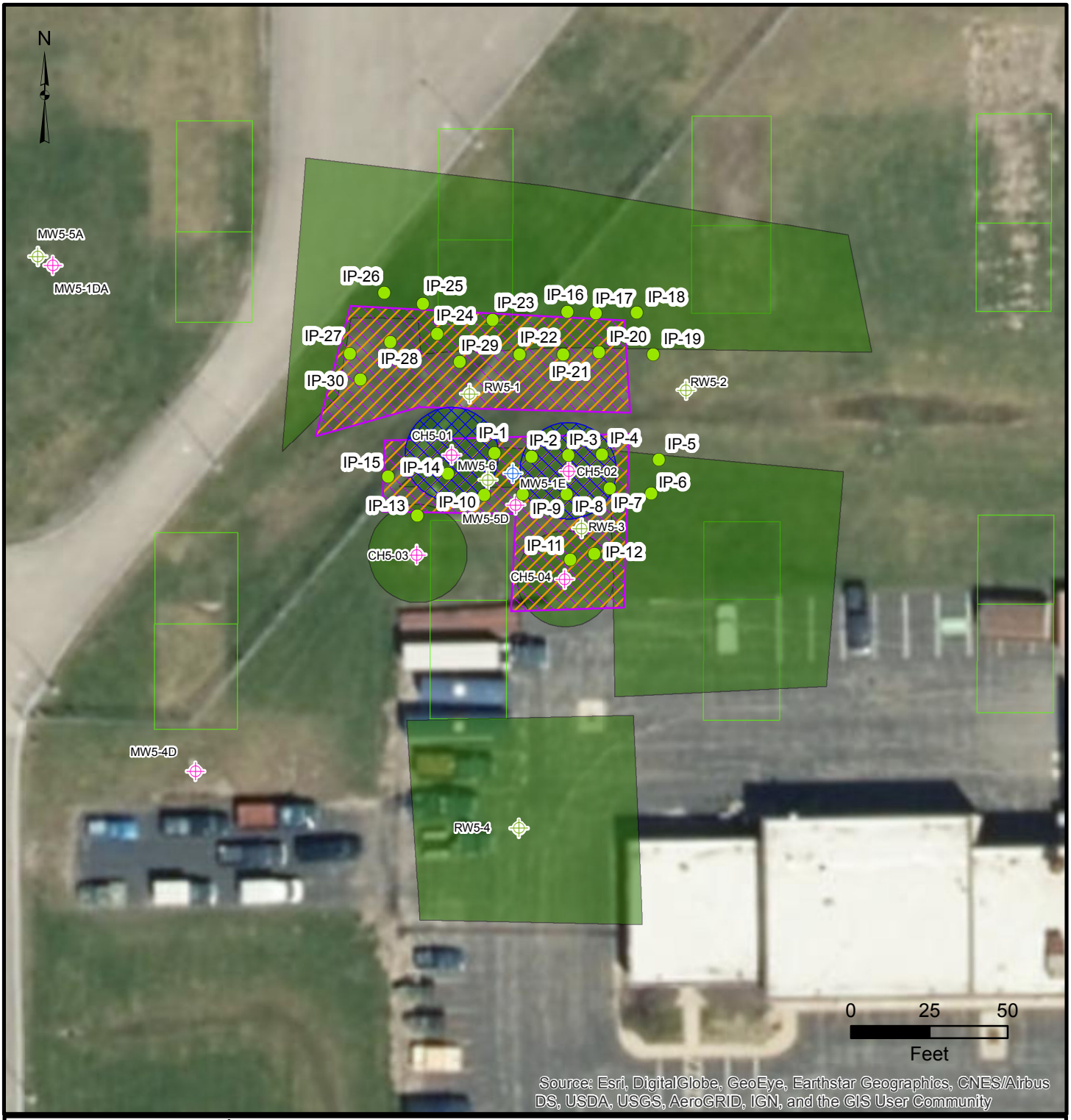
5.2.3 Monitoring Well Observations

During the injection work at DS004 – Site 5, water levels were periodically checked in several of the wells adjacent to injection points in the injection grid. This was done to evaluate the progress of the injection, and to monitor for the potential of daylighting injectate through monitoring wells to the surface. Water level increases, as well as visual evidence of the EZVI injectate, was observed in three overburden wells with the injection grids during the injection work. These wells include one of the overburden performance monitoring wells (RW5-1), as well as two other overburden monitoring wells, not included on the list of performance monitoring wells (MW5-6 and RW5-3). Injectate remained in all three of the overburden monitoring wells following the completion of the injection work. Daylighting occurred within a one square foot area in the western side of the northern injection zone after injecting approximately 650 gallons into injection points IP-23, IP-25, and IP-29. The area was contained and after approximately one hour of troubleshooting Regenesis determined all three points were contributing to the daylighting. Injection point IP-24 was moved 5 ft to the south from the original planned location and advanced to 15.2' bgs. The remaining injectate, a total of 508 gallons, was injected into IP-24.

5.3 Remedial Action Performance Monitoring

5.3.1 Performance Well Sampling

Performance monitoring of CVOCs in groundwater will continue following the second RA injection. Quarterly groundwater samples will be collected for one year from four performance monitoring points including three overburden monitoring wells (RW5-1, RW5-2, and RW5-4), and one shallow bedrock monitoring wells (MW5-5D) (**Figure 5-2**).



Shallow Bedrock Well
Deep Bedrock Well
Overburden Well
Former BOMARC Launcher Shelter

Injection Zones
2018 Overburden Injection Areas
2018 Bedrock Injection Areas
Actual Injection Points

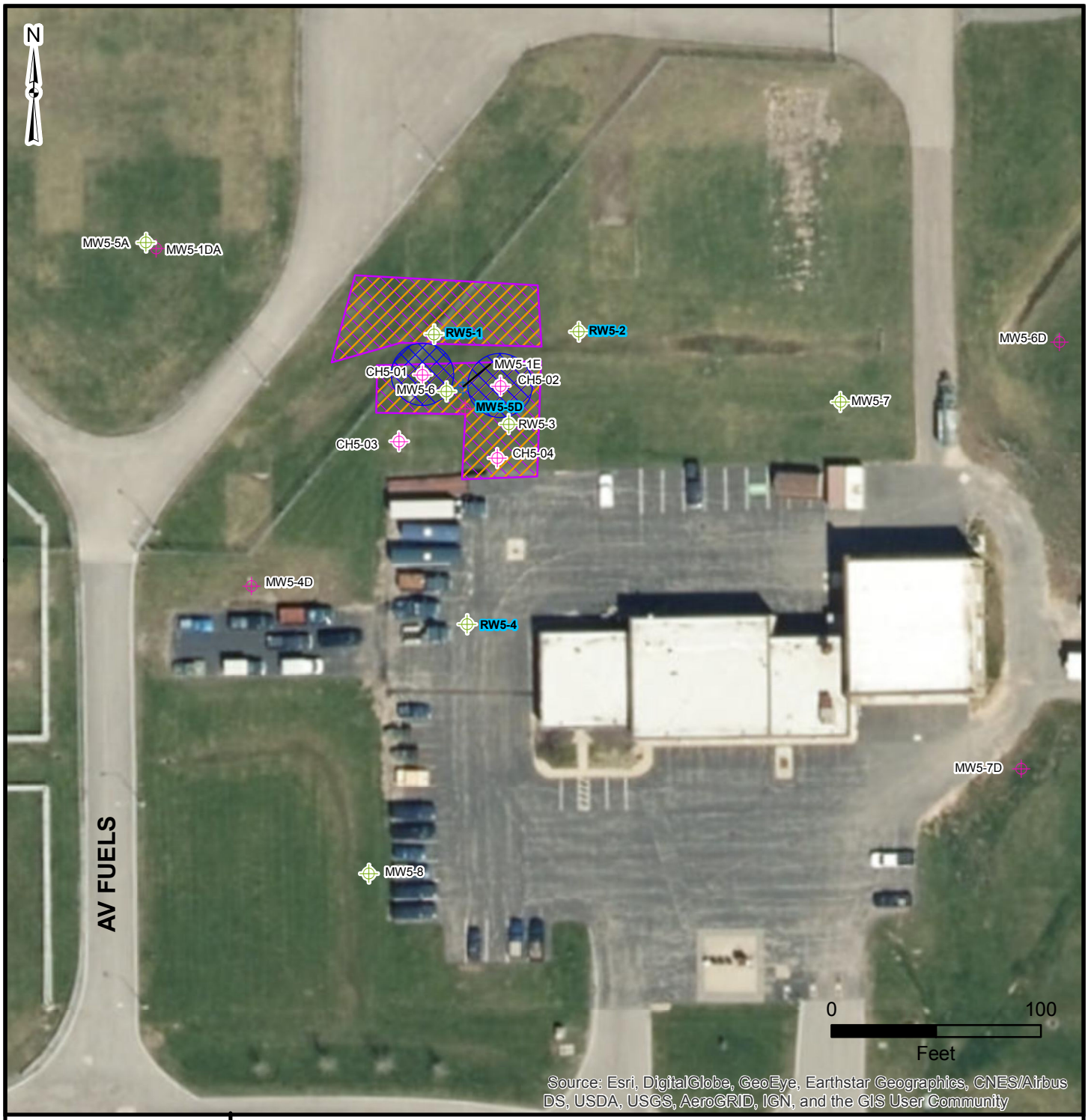
2015 Injection Areas

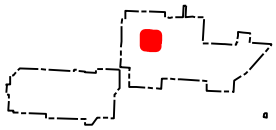
2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 5-1
DS004 - Site 5
Injection Point Locations
and Injection Zones

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Overburden Well/Piezometer
Shallow Bedrock Well/Piezometer
Deep Bedrock Well
Bedrock Injection Point
2018 Overburden Injection Areas
2018 Bedrock Injection Areas
MWX-X Performance Monitoring Well

2018 Remedial Action Injection Summary Memorandum
Sites FT005, ST010, DS002, and DS004
Niagara Falls Air Reserve Station
Niagara Falls, New York

FIGURE 5-2
DS004 - Site 5
Performance Monitoring Locations

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6.0 Performance Monitoring

6.1 Overview of Field Activities

Quarterly performance monitoring will continue at FT005 – Site 10, ST010 – Site 13, DS002 – Site 8, and DS004 – Site 5 following the completion of the second round of RA injections. The sampling will be performed in accordance with the RA QAPP for Sites FT005, LF008, ST010, SS014, DS002, and DS004 (EA 2015). Passive diffusion bags (PDBs) will be used to sample performance-monitoring wells for four consecutive quarterly monitoring events (October 2018, and January, April, and June 2019). The performance monitoring wells for each site are summarized in **Table 6-1**.

TABLE 6-1

Performance Monitoring Wells by Site

Site	Performance Monitoring Well
FT005 – Site 10	MW10-1DA, MW10-2, MW10-10D, PW10-2, PW10-7
ST010 – Site 13	MW13-3, MW13-4, MW13-5A, MW13-5D, PW13-1, PZ13-3D
DS002 – Site 8	MW8-1, MW8-8, MW8-10D, CH8-01
DS004 – Site 5	MW5-5D, RW5-1, RW5-2, RW5-4

6.2 Laboratory Analysis and Data Validation

All groundwater samples will be submitted for Laboratory analyses by United States Environmental Protection Agency Method 8260C. Analysis will be conducted by SGS Accutest Laboratories, a DOD Environmental Laboratory Accreditation Program (ELAP), and New York State Department of Health, ELAP-certified laboratory, using the most current NYSDEC Analytical Services Protocol methods, as per NYSDEC Division of Environmental Remediation-10 guidance (NYSDEC 2010). As per NYSDEC Analytical Services Protocol requirements, a Category B laboratory data package will be used for data validation for each sample delivery group.

6.3 Data Evaluation and Recommendations

Following one year of quarterly performance monitoring at FT005 – Site 10, ST010 – Site 13, DS002 – Site 8, and DS004 – Site 5 the performance monitoring results will be reported in the 2019 Injection Summary Report (Fall 2019). The report will summarize the injections and performance monitoring data and evaluate the effectiveness of the 2018 injection. Recommendations for each site, with regard to continuing RA performance monitoring, will be included in this report.

The graphs will also be presented in both the semi-annual Data Summary Report and Annual Comprehensive Sampling/Monitoring Report along with all the other Installation Wide Groundwater Program data. The CVOC data from each quarter will be added to the current RA trend graphs in order to track the overall effectiveness of the second-round injections at FT005 – Site 10, ST010 – Site 13, DS002 – Site 8, and DS004 – Site 5. Recommendations for each of the Sites in the IWGP will continue to be included in future Annual Comprehensive Sampling/Monitoring Reports.

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7.0 References

EA. 2015. Remedial Action Quality Assurance Project Plan Sites FT005, LF008, ST010, SS014, DS002, and DS004 Niagara Falls Air Reserve Station. Niagara Falls, New York. August.

EA. 2017. Site Management Plan. Niagara Falls Air Reserve Station. Niagara Falls, New York. April.

EA. 2018a. Niagara Falls ARS Additional Remedial Injections at Site 5 (DS004), Site 8 (DS002), and Site 10 (FT005) Niagara Falls Air Reserve Station. Niagara Falls, New York. March.

EA. 2018b. Additional Remedial Injection as Site 13 (ST010). Niagara Falls Air Reserve Station. Niagara Falls, New York. June.

New York State Department of Environmental Conservation (NYSDEC). 2010. Program Policy DER-10. Technical Guidance for Site Investigation and Remediation. May.

NYSDEC. 2018. Comments to the Draft Final 2017 Annual Comprehensive Sampling/Monitoring Report. Department of Environmental Remediation, Region 9. Buffalo, New York. June 12.

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Appendix A

Application Summary Report for Remedial Services at the Niagara Air National Guard Site

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REGENESIS
REMEDIATION SERVICES
Technology-Based Solutions for the Environment

Global Headquarters
1011 Calle Sombra
San Clemente, CA 92673
Ph: (949) 366-8000
Fax: (949) 366-8090

July 10th, 2018

REGENESIS Proposal No. MaD60568

Nate Kranes
EA Engineering
6712 Brooklawn Parkway
Syracuse, NY

SUBJECT: Application Summary Report for Remedial Services at the Niagara ANG Site

Nate,

REGENESIS Remediation Services (RRS) has recently completed an *in-situ* application of MicroZVI™ (ZVI), and SRS®-SD (EVO) at the Niagara ANG site located at 10405 Lockport Road, Niagara Falls, NY. The goal of the remedial application was to remediate Chlorinated Solvents. RRS employed *in-situ* chemical reduction technologies to meet remediation goals.

RRS mobilized product, support pickup truck, injection trailer, and personnel to the site to begin work over 9 days on June 18th- 29th 2018. RRS staffed this project with an experienced Project Supervisor who ensured a safe, successful injection application.

Please review the attached application summary page and injection log for more detail on the application.

RRS appreciates the opportunity to work at this site with EA Engineering. RRS will be available to interpret the field data as it is collected, or answer any questions. If you need additional information regarding the application process or attached field notes, please contact Paul Mansur at 630.335.9563 or Ian Doliana at 814.418.4655.

Sincerely,

Paul Mansur
East Region Project Manager
REGENESIS Remediation Services

Ian Doliana
Project Supervisor
REGENESIS Remediation Services

REGENESIS
REMEDIATION SERVICES
Technology-Based Solutions for the Environment

Global Headquarters
1011 Calle Sombra
San Clemente, CA 92673
Ph: (949) 366-8000
Fax: (949) 366-8090

Application Summary Page

MicroZVI™

OVERVIEW

Client: EA Engineering
Client PM: Nate Kranes
Site Name: Niagara Falls Air Reserve Station
Project Dates: 6/18/18- 6/29/18

Site Address: 10405 Lockport Road Niagara Falls, NY
Project Name: Niagara ANG Phase 2
RRS Project Manager: Paul Mansur
RRS Project Supervisor: Ian Doliana

TREATMENT TECHNOLOGY

RRS used the following products to remediate the four treatment areas: ZVI and EVO. Application of these products are designed to anaerobically biodegrade chlorinated volatile organic compounds through reductive dechlorination by altering groundwater chemistry into a reducing environment and augment the microbial population to bioremediate contaminants into harmless byproducts such as ethane, ethane, and methane.

RRS employed remediation design specifications as outlined in designs dated 6/18/18. This report is subdivided into five (5) sections to discuss the individual treatment areas (Site 5, Site 8, Site 10, Bedrock, Site 13) separately.

APPLICATION

RRS applied the REGENESIS and Terra Systems products by mixing the products in the RRS injection trailer and injecting through direct push borings drilled with 1.5" retractable stainless-steel injection screen (3') or 1.5" expendable points. Products were also injected into three bedrock core holes using packers supplied by EA Engineering. Non- potable mixing water was provided through fire hydrants on site and connected to the RRS trailer using 1.5' fire hose. RRS used a dual batch mixing system with 350-gallon tanks and pumped product using a positive displacement electrically powered pump. Soil borings were backfilled with sodium bentonite chips after injection to seal the boring. Injection pressures were observed between 0 and 100 pounds per square inch (PSI) and flow rates were maintained between 1.5 and 5.6 gallons per minute (GPM). Injection was completed by pumping on up to four injection points at a time using the RRS injection trailer manifold system.

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TREATMENT AREA 1 – Site 5 (6,000 SQ FT)

Total Amount Applied:

EVO	7,480 lbs.
ZVI	2,618 lbs.

A total of 9,357 gallons of remedial reagent solution was applied in this treatment area.

Application Method: Direct push drilling with retractable injection screens — 3 feet, Expendable points
Injection Depth: 18-10 feet below ground surface
Number of Injection Points: 28
Deviations from Proposal: None

Please see Table 1 Injection Log for details on injection flow rates and pressures observed.

TREATMENT AREA 2 – Site 8 (3,000 SQ FT)

Total Amount Applied:

EVO	2,805 lbs.
ZVI	935 lbs.

A total of 4,687 gallons of remedial reagent solution was applied in this treatment area.

Application Method: Direct push drilling with expendable points
Injection Depth: 10 to 8 feet below ground surface
Number of Injection Points: 14
Deviations from Proposal: None

Please see Table 2 Injection Log for details on injection flow rates and pressures observed.

TREATMENT AREA 3 – Site 10 (2,500 SQ FT)

Total Amount Applied:

EVO	2,338 lbs.
ZVI	779 lbs.

A total of 3,900 gallons of remedial reagent solution was applied in this treatment area.

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Application Method: Direct push drilling with expendable points
Injection Depth: 10 to 7 feet below ground surface
Number of Injection Points: 9
Deviations from Proposal: Injection point 9 was added to distribute volume further away from MW-10-10D

Please see Table 3 Injection Log for details on injection flow rates and pressures observed.

TREATMENT AREA 4 – Bedrock Core Holes

Total Amount Applied:

EVO	150 lbs.
ZVI	50 lbs.

A total of 150 gallons of remedial reagent solution was applied in this treatment area.

Application Method: Core holes
Injection Depth: 25-20 feet below ground surface
Number of Injection Wells: 3
Deviations from Proposal: The double bladder packer broke while attempting to inject into the core hole at site 8. A single bladder packer was used instead.

Please see Table 4 Injection Log for details on injection flow rates and pressures observed.

TREATMENT AREA 5 – Site 13 (200 SQ FT)

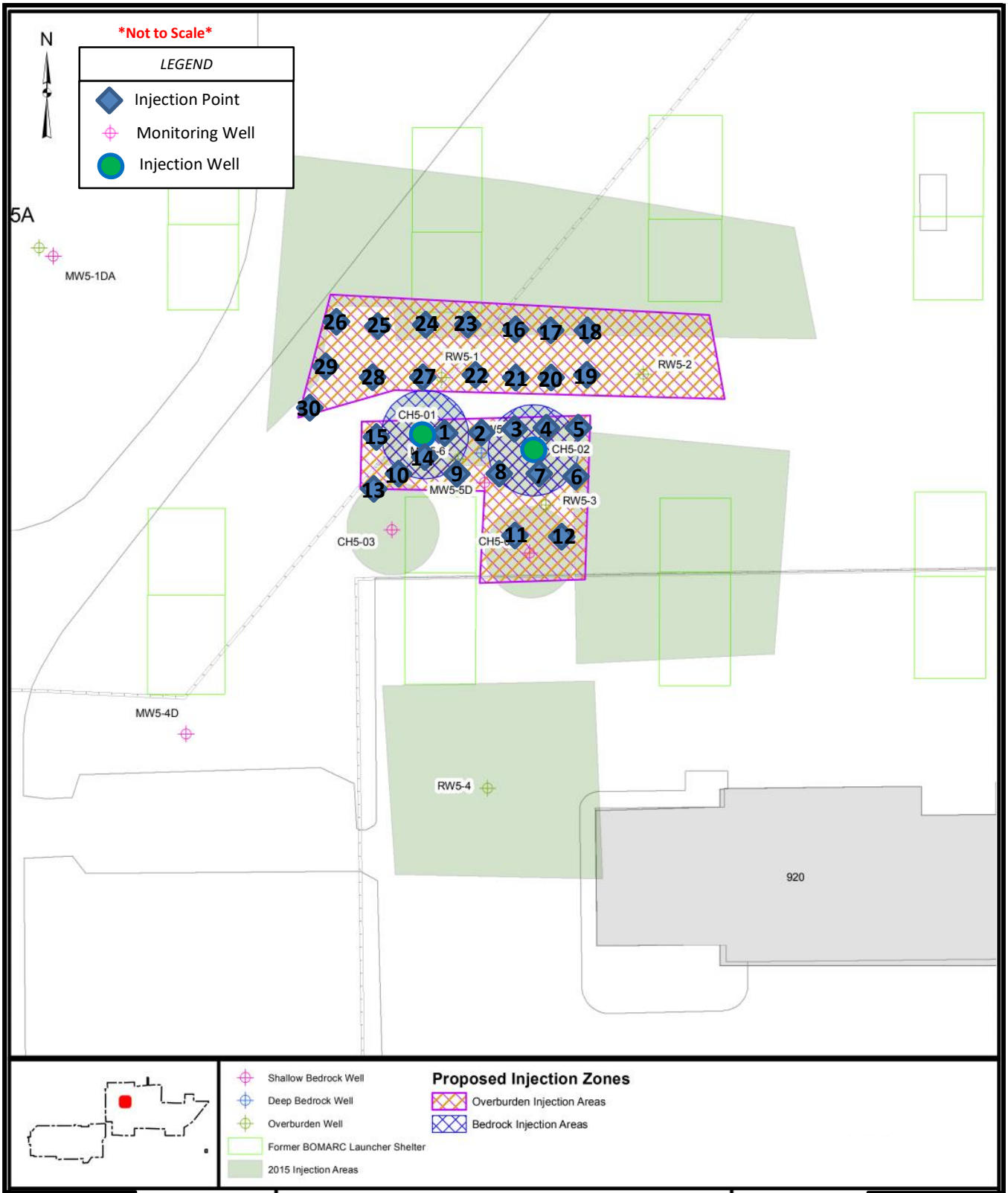
Total Amount Applied:

EVO	727 lbs.
ZVI	200 lbs.

A total of 942 gallons of remedial reagent solution was applied in this treatment area.

Application Method: Direct push drilling with expendable points
Injection Depth: 9.3- 6.9 feet below ground surface
Number of Injection Points: 3
Deviations from Proposal: None

Please see Table 5 Injection Log for details on injection flow rates and pressures observed.

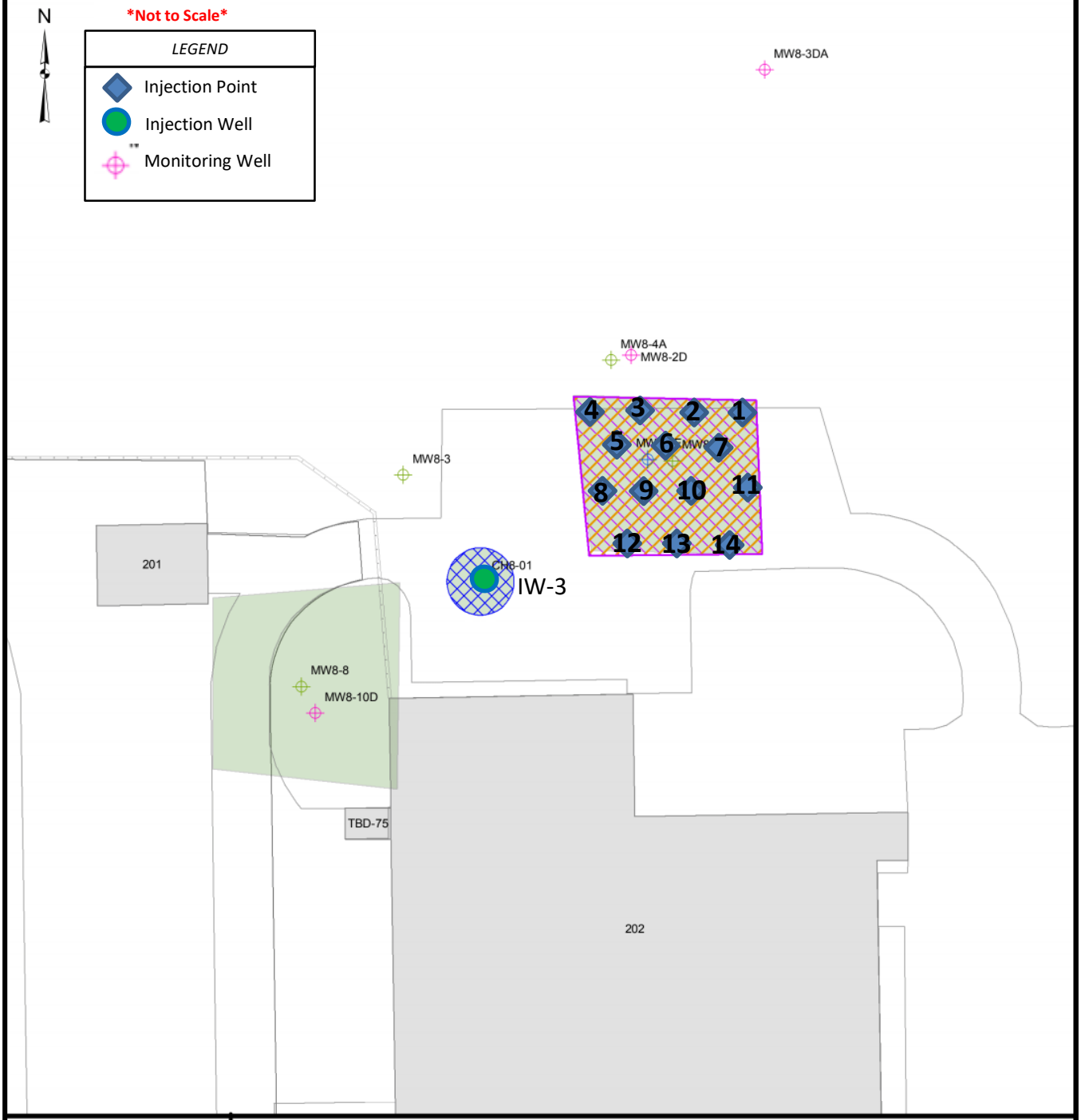


Prepared By: *JRG*	Site 5	Date Prepared: *July 2018*

Figure 1 – Injection Locations Map
Niagara ANG
10405 Lockport Road
Niagara Falls, NY

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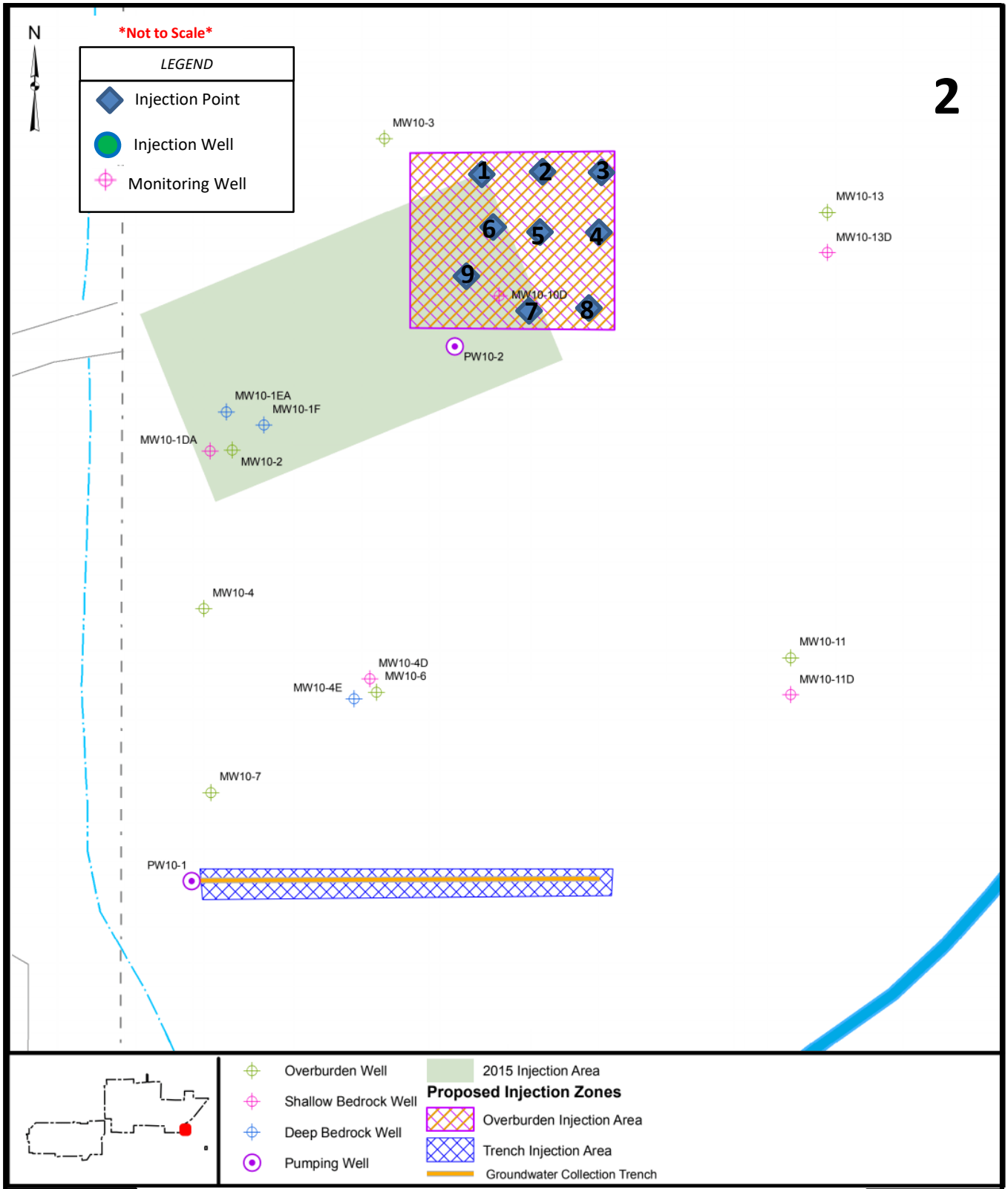


Prepared By: *JRG*	Site 8	Date Prepared: *July 2018*

Figure 2 – Injection Locations Map
Niagara ANG
10405 Lockport Road
Niagara Falls, NY

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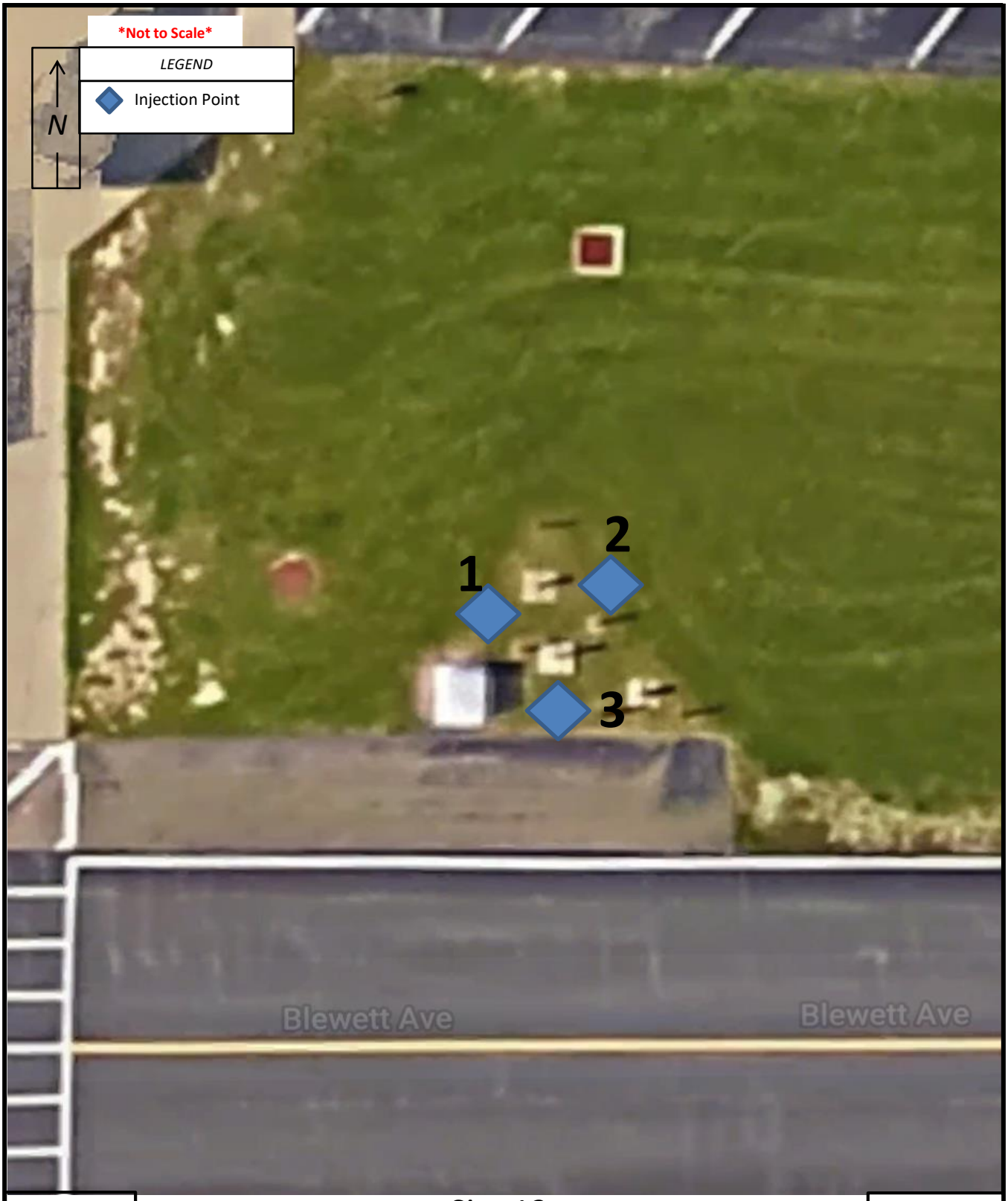


Prepared By: *JRG*	Site 10	Date Prepared: *July 2018*

Figure 3 – Injection Locations Map
Niagara ANG
10405 Lockport Road
Niagara Falls, NY

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Prepared By: *JRG*	Site 13	Date Prepared: *July 2018*

Figure 4 – Injection Locations Map
Niagara ANG
10405 Lockport Road
Niagara Falls, NY

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EA Engineering - Niagara Falls ANG

Micro ZVI Injection Summary Log

Site 5

Table 1

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of Micro ZVI Injected			Total gallons Per Location	Pounds of EVO Injected Per Location	Pounds of Micro ZVI	Comments	Injection Tooling
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval					
1	6/19/2018	13:55	15-12	5	2.33	0.00	148.56	148.56	313	250	88	Refusal	3-Foot Screen
	6/19/2018	15:06	15-12	10	2.15	148.56	301.93	153.37					
	6/19/2018	15:45	15-12	20	2.20	301.93	313.00	11.07					
2	6/20/2018	11:45	16-13	85	2.05	0.00	128.02	128.02	313	251	88	Refusal	3-Foot Screen
	6/20/2018	12:29	16-13	84	2.18	128.02	224.96	96.94					
	6/20/2018	13:12	16-13	90	2.18	224.96	313.41	88.45					
3	6/20/2018	8:45	13-10	45	1.42	0.00	113.45	113.45	313	250	88	Refusal	3-Foot Screen
	6/20/2018	9:45	13-10	74	2.20	113.45	249.08	135.63					
	6/20/2018	10:11	13-10	62	2.57	249.08	313.04	63.96					
4	6/20/2018	11:45	15.3-12.3	0	2.26	0.00	60.06	60.06	314	251	88	Refusal	3-Foot Screen
	6/20/2018	12:30	15.3-12.3	0	2.08	60.06	157.00	96.94					
	6/20/2018	13:45	15.3-12.3	0	1.98	157.00	313.68	156.68					
5	6/20/2018	8:45	13-10	10	2.50	0.00	100.62	100.62	313	250	88	Refusal	3-Foot Screen
	6/20/2018	9:45	13-10	12	2.60	100.62	245.16	144.54					
	6/20/2018	10:13	13-10	10	2.85	245.16	313.04	67.88					
6	6/20/2018	11:45	14.4-11.4	0	2.19	0.00	63.02	63.02	313	250	88	Refusal, Surfacing through old boring for point 5	3-Foot Screen
	6/20/2018	12:31	14.4-11.4	10	2.36	63.02	100.52	37.50					
	6/20/2018	14:05	14.4-11.4	10	2.46	100.52	313.17	212.65					
7	6/20/2018	8:45	16.7-13.7	0	2.10	0.00	58.30	58.30	313	250	88	Refusal	3-Foot Screen
	6/20/2018	9:45	16.7-13.7	0	2.51	58.30	211.52	153.22					
	6/20/2018	10:22	16.7-13.7	0	2.53	211.52	313.06	101.54					
8	6/20/2018	11:45	16.3-13.3	0	2.53	0.00	124.10	124.10	313	251	88	Refusal	3-Foot Screen
	6/20/2018	12:32	16.3-13.3	0	2.38	124.10	218.83	94.73					
	6/20/2018	13:10	16.3-13.3	0	2.52	218.83	313.45	94.62					
9	6/20/2018	11:36	16.6-13.6	0	1.88	0.00	104.36	104.36	313	250	88	Refusal	3-Foot Screen
	6/20/2018	11:36	13.6-10.6	0	2.73	104.36	208.76	104.40					
	6/20/2018	11:36	10.6-7.6	0	2.49	208.76	313.34	104.58					
10	6/20/2018	15:00	16-13	0	2.60	0.00	97.72	97.72	313	250	88	Refusal. New Hole drilled 1.5' West and down to 13' bgs, pulled up 3'	Expendable Tip
	6/20/2018	15:17	16-13	0	2.58	97.72	156.38	58.66					
	6/21/2018	8:30	13-10	0	2.44	156.38	313.00	156.62					
11	6/21/2018	9:00	15-12	11	3.22	0.00	103.16	103.16	318	255	89	Refusal	Expendable Tip
	6/21/2018	9:30	15-12	11	3.06	103.16	190.46	87.30					
	6/21/2018	10:15	15-12	11	3.37	190.46	318.42	127.96					
12	6/20/2018	15:00	17.4-14.4	12	2.60	0.00	38.42	38.42	313	251	88	Refusal	Expendable Tip
	6/20/2018	15:40	17.4-14.4	15	4.10	38.42	180.03	141.61					
	6/21/2018	8:00	17.4-14.4	10	3.22	180.03	313.47	133.44					
13	6/20/2018	15:00	15.6-12.6	0	2.45	0.00	88.09	88.09	314	251	88	Refusal at 4'. Moved 4' NNE	Expendable Tip
	6/20/2018	15:40	15.6-12.6	5	3.15	88.09	219.43	131.34					
	6/21/2018	7:52	15.6-12.6	5	2.30	219.43	313.52	94.09					
14	6/21/2018	9:00	14-11	0	3.00	0.00	137.70	137.70	313	250	88	Refusal	Expendable Tip
	6/21/2018	9:30	14-11	0	2.88	137.70	219.30	81.60					
	6/21/2018	10:15	14-11	0	3.02	219.30	313.09	93.79					
15	6/22/2018	12:20	13.7-11.7	10	2.56	0.00	107.56	107.56	316	252	88	Refusal	Expendable Tip
	6/22/2018	12:45	13.7-11.7	10	2.58	107.56	172.98	65.42					
	6/22/2018	13:12	13.7-11.7	10	3.45	172.98	315.86	142.88					
16	6/21/2018	15:24	14-11	0	3.48	0.00	107.48	107.48	314	251	88	Refusal	Expendable Tip
	6/21/2018	15:50	14-11	0	3.32	107.48	212.86	105.38					
	6/22/2018	8:00	14-11	0	2.74	212.86	313.72	100.86					
17	6/22/2018	12:05	15.5-12.5	0	2.48	0.00	109.90	109.90	313	250	88	Refusal	Expendable Tip
	6/22/2018	13:50	15.5-12.5	0	3.32	109.90	206.86	96.96					
	6/22/2018	14:30	15.5-12.5	0	3.16	206.86	313.25	106.39					
18	6/21/2018	9:45	13-10	8	3.40	0.00	109.67	109.67	309	247	86	refusal	Expendable Tip
	6/21/2018	10:15	13-10	12	4.00	109.67	225.57	115.90					
	6/21/2018	10:50	13-10	0	2.18	225.57	308.57	83.00					

EA Engineering - Niagara Falls ANG

Micro ZVI Injection Summary Log

Site 5

Table 1

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of Micro ZVI Injected			Total gallons Per Location	Pounds of EVO Injected Per Location	Pounds of Micro ZVI	Comments	Injection Tooling
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval					
19	6/21/2018	14:45	14-11	100	2.00	0.00	104.40	104.40	313	250	88	Refusal at 4'. Moved 4' East	Expendable Tip
	6/21/2018	15:30	14-11	100	1.90	104.40	181.85	77.45					
	6/22/2018	7:50	14-11	100	2.98	181.85	313.32	131.47					
20	6/21/2018	11:00	15-13	5	3.98	0.00	112.27	112.27	314	251	88	Refusal	Expendable Tip
	6/21/2018	11:40	15-13	5	2.47	112.27	224.80	112.53					
	6/21/2018	12:10	15-13	10	2.72	224.80	313.64	88.84					
21	6/21/2018	14:45	15-13	0	3.48	0.00	137.14	137.14	313	250	88	Refusal	Expendable Tip
	6/21/2018	15:24	15-13	0	3.32	137.14	270.48	133.34					
	6/21/2018	15:35	15-13	0	2.74	270.48	313.03	42.55					
22	6/21/2018	11:15	15-13	8	2,24	0.00	105.45	105.45	327	262	92	Refusal	Expendable Tip
	6/21/2018	11:50	15-13	8	2.43	105.45	205.92	100.47					
	6/21/2018	13:46	15-13	8	3.21	205.92	327.14	121.22					
23	6/22/2018	9:40	15-13	10	2.98	0.00	118.54	118.54	232	186	65	Surfacing. Volume added to points 24,28	Expendable Tip
	6/22/2018	10:15	15-13	10	2.80	118.54	212.78	94.24					
	6/22/2018	10:45	15-13	10	2.80	212.78	232.24	19.46					
24	6/22/2018	12:05	15-13	0	2.21	0.00	101.31	101.31	610	488	171	redrilled near IP-29, received volume from IP-29,24,28	Expendable Tip
	6/22/2018	12:45	15-13	0	2.33	101.31	197.66	96.35					
	6/22/2018	14:30	15-13	5	2.96	197.66	472.47	274.81					
	6/22/2018	14:45	15-13	5	2.96	472.47	610.00	137.53					
25	6/22/2018	9:40	15-13	12	3.15	0.00	47.98	47.98	207	165	58	Surfacing. Volume added to point 24,28	Expendable Tip
	6/22/2018	10:15	15-13	15	4.96	47.98	167.84	119.86					
	6/22/2018	10:45	15-13	12	3.06	167.84	206.87	39.03					
26	6/22/2018	10:22	14.4-12.4	10	3.12	0.00	109.74	109.74	314	251	88		Expendable Tip
	6/22/2018	10:23	14.4-12.4	10	3.46	109.74	196.90	87.16					
	6/22/2018	10:23	14.4-12.4	10	2.86	196.90	313.80	116.90					
27	6/22/2018	15:00	18.4-16.4	5	3.61	0.00	119.88	119.88	327	261	91	Refusal	Expendable Tip
	6/22/2018	15:20	18.4-16.4	5	2.80	119.88	196.98	77.10					
	6/22/2018	15:42	18.4-16.4	5	3.26	196.98	256.64	59.66					
	6/25/2018	7:35	18.4-16.4	0	3.62	256.64	326.68	70.04					
28	6/22/2018	15:42	15-13.5	10	4.23	0.00	91.13	91.13	445	356	125	Refusal	Expendable Tip
	6/25/2018	7:35	15-13.5	10	3.28	91.13	153.27	62.14					
	6/25/2018	8:35	15-13.5	10	4.29	153.27	445.00	291.73					
29						0.00	0.00	0.00	0	0	0	Volume to IP-24	Expendable Tip
30	6/22/2018	8:23	15-13	20	4.30	0.00	111.00	111.00	313	250	88		Expendable Tip
	6/22/2018	9:40	15-13	22	4.20	111.00	215.00	104.00					
	6/22/2018	10:37	15-13	22	4.20	215.00	313.00	98.00					
									Total Gallons:	**Total Lbs. EVO**	**Total Lbs. of Micro ZVI:**		
									9357	7480	2618		

EA Engineering - Niagara Falls ANG

Micro ZVI Injection Summary Log

Site 8

Table 2

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of Micro ZVI Injected			Total gallons Per Location	Pounds of EVO Injected Per Location	Pounds of Micro ZVI	Comments	Injection Tooling
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval					
1	6/25/2018	13:22	10-8	10	2.98	0.00	101.45	101.45	334	200	67		Expendable Tip
	6/25/2018	14:00	10-8	5	2.44	101.45	196.48	95.03					
	6/25/2018	15:00	10-8	0	2.38	196.48	334.07	137.59					
2	6/25/2018	15:50	10-8	18	2.86	0.00	62.22	62.22	338	202	67		Expendable Tip
	6/26/2018	7:53	10-8	18	3.12	62.22	179.82	117.60					
	6/26/2018	8:52	10-8	12	3.26	179.82	338.12	158.30					
3	6/25/2018	13:45	10-8	11	2.46	0.00	95.28	95.28	334	200	67		Expendable Tip
	6/25/2018	14:25	10-8	11	2.34	95.28	193.76	98.48					
	6/25/2018	15:20	10-8	8	2.85	193.76	334.21	140.45					
4	6/25/2018	15:50	10-8	10	2.54	0.00	23.84	23.84	334	200	67		Expendable Tip
	6/26/2018	7:53	10-8	12	2.88	23.84	140.18	116.34					
	6/26/2018	9:02	10-8	10	3.58	140.18	334.21	194.03					
5	6/26/2018	9:30	10-8	14	3.14	0.00	105.98	105.98	334	200	67		Expendable Tip
	6/26/2018	10:05	10-8	12	2.80	105.98	198.44	92.46					
	6/26/2018	11:05	10-8	12	2.90	198.44	334.28	135.84					
6	6/25/2018	13:40	10-8	8	2.23	0.00	117.26	117.26	334	200	67		Expendable Tip
	6/25/2018	14:15	10-8	10	2.47	117.26	212.50	95.24					
	6/25/2018	15:05	10-8	11	2.33	212.50	334.05	121.55					
7	6/26/2018	8:10	10-8	0	2.41	0.00	105.93	105.93	334	200	67		Expendable Tip
	6/26/2018	8:40	10-8	0	2.98	105.93	200.12	94.19					
	6/26/2018	9:25	10-8	0	2.62	200.12	334.40	134.28					
8	6/26/2018	10:05	10-8	10	3.24	0.00	101.65	101.65	335	200	67		Expendable Tip
	6/26/2018	10:23	10-8	10	3.26	101.65	200.31	98.66					
	6/26/2018	11:20	10-8	10	3.30	200.31	334.57	134.26					
9	6/26/2018	12:25	10-8	12	3.50	0.00	117.25	117.25	335	200	67		Expendable Tip
	6/26/2018	12:51	10-8	10	3.24	117.25	201.40	84.15					
	6/26/2018	13:33	10-8	10	3.33	201.40	334.98	133.58					
10	6/25/2018	7:50	10-8	18	2.76	0.00	92.57	92.57	337	201	67		Expendable Tip
	6/26/2018	7:53	10-8	18	2.42	92.57	206.64	114.07					
	6/26/2018	8:48	10-8	15	2.48	206.64	336.68	130.04					
11	6/25/2018	14:25	10-8	10	2.50	0.00	117.26	117.26	334	200	67		Expendable Tip
	6/25/2018	15:00	10-8	8	3.39	117.26	212.45	95.19					
	6/25/2018	15:45	10-8	10	3.50	212.45	334.36	121.91					
12	6/26/2018	9:52	10-8	8	2.43	0.00	98.98	98.98	335	200	67		Expendable Tip
	6/26/2018	10:32	10-8	10	2.36	98.98	198.85	99.87					
	6/26/2018	11:30	10-8	10	2.88	198.85	334.98	136.13					
13	6/26/2018	12:51	10-8	10	3.28	0.00	100.33	100.33	334	200	67		Expendable Tip
	6/26/2018	13:25	10-8	10	3.14	100.33	202.68	102.35					
	6/26/2018	14:00	10-8	10	4.05	202.68	334.36	131.68					
14	6/26/2018	10:21	10-8	8	2.96	0.00	101.14	101.14	334	200	67		Expendable Tip
	6/26/2018	10:55	10-8	10	2.89	101.14	200.56	99.42					
	6/26/2018	11:45	10-8	10	3.14	200.56	334.14	133.58					

Total Gallons:	Total Lbs. EVO:	Total Lbs. of Mico ZVI:
4687	2805	935

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Micro ZVI Injection Summary Log

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Table 3

Injection Point	Date	Time	Injection Depth (feet)	Avg. Injection Pressure (psi)	Avg. Flow Rate (gpm)	Volume of 3DM EVO Injected			Total gallons Per Location	Pounds of EVO Injected Per Location	Pounds of Micro ZVI	Comments	Injection Tooling
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval					
1	6/27/2018	10:25	10-8	8	2.17	0.00	155.50	155.50	490	294	98		Expendable Tip
	6/27/2018	11:17	10-8	5	3.29	155.50	290.67	135.17					
	6/27/2018	12:45	10-8	0	2.82	290.67	490.13	199.46					
2	6/27/2018	14:25	9.6-7.6	0	2.83	0.00	147.56	147.56	651	390	130		Expendable Tip
	6/28/2018	8:50	9.6-7.6	0	2.45	147.56	297.56	150.00					
	6/28/2018	10:50	9.6-7.6	0	2.87	297.56	651.11	353.55					
3	6/27/2018	10:25	10-8	8	2.17	0.00	121.12	121.12	490	294	98		Expendable Tip
	6/27/2018	11:17	10-8	5	3.29	121.12	349.33	228.21					
	6/27/2018	12:45	10-8	0	2.82	349.33	490.03	140.70					
4	6/27/2018	14:25	8.8-6.8	8	2.87	0.00	110.58	110.58	678	406	135		Expendable Tip
	6/28/2018	8:50	8.8-6.8	8	2.58	110.58	255.86	145.28					
	6/28/2018	11:10	8.8-6.8	8	3.20	255.86	677.89	422.03					
5	6/27/2018	10:50	9.4-7.4	11	3.06	0.00	145.29	145.29	492	295	98		Expendable Tip
	6/27/2018	12:17	9.4-7.4	10	3.06	145.29	314.32	169.03					
	6/27/2018	13:10	9.4-7.4	10	3.01	314.32	492.32	178.00					
6	6/27/2018	14:06	10-8	0	3.32	0.00	173.70	173.70	280	168	56	Surfacing through MW-10-10D. Abandoned.	Expendable Tip
	6/27/2018	14:25	10-8	0	3.10	173.70	210.00	36.30					
	6/27/2018	14:40	10-8	0	2.67	210.00	280.00	70.00					
7	6/27/2018	14:25	8.9-6.9	0	3.12	0.00	120.00	120.00	120	72	24	Surfacing through MW-10-10D. Abandoned.	Expendable Tip
8	6/27/2018	10:50	10-8	8	2,47	0.00	163.00	163.00	492	295	98		Expendable Tip
	6/27/2018	11:47	10-8	10	2.80	163.00	308.22	145.22					
	6/27/2018	13:02	10-8	5	2.77	308.22	491.79	183.57					
9	6/28/2018	10:45	9.1-7.1	10	3.08	0.00	114.80	114.80	206	124	41	Added to distribute excess volume from points 6,7	Expendable Tip
	6/28/2018	11:09	9.1-7.1	10	3.59	114.80	206.31	91.51					
									Total Gallons:	**Total Lbs. of EVO**	**Total Lbs. of Micro ZVI**		
									3900	2338	779		

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Micro ZVI Injection Summary Log

Bedrock Core Holes

Table 4

Injection Point	Date	Time	Injection Depth (feet)	Avg. Injection Pressure (psi)	Avg. Flow Rate (gpm)	Volume of 3DM EVO Injected			Total gallons Per Location	Pounds of EVO Injected Per Location	Pounds of Micro ZVI	Comments
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval				
1	6/25/2018	9:25	25-20	11	5.26	0.00	20.26	20.26	50	50	16.7	
	6/25/2018	9:32	25-20	11	5.26	20.26	40.07	19.81				
	6/25/2018	9:34	25-20	11	5.26	40.07	50.22	10.15				
2	6/25/2018	9:45	45-40	14	5.59	0.00	20.59	20.59	50	50	16.7	
	6/25/2018	9:50	45-40	14	5.59	20.59	41.34	20.75				
	6/25/2018	9:52	45-40	14	5.59	41.34	50.21	8.87				
3	6/26/2018	14:53	20-Bottom	10	9.60	0.00	50.00	50.00	50	50	16.7	

Total Gallons:	**Total Lbs. of EVO:**	**Total Lbs. of Micro ZVI:**
150	150	50

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Micro ZVI Injection Summary Log

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Table 5

Injection Point	Date	Time	Injection Depth (feet)	Injection Pressure (psi)	Flow Rate (gpm)	Volume of Micro ZVI Injected			Total gallons Per Location	Batches Injected Per Location	Pounds of EVO Injected Per Location	Pounds of Micro ZVI	Comments	Injection Tooling
						Beginning Flow Meter (gal)	Ending Flow Meter (gal)	Gallons Injected Per Interval						
1	6/28/2018	14:03	9-7	0	2.91	0.00	100.57	100.57	314	1.00	242	66		Expendable Tip
	6/28/2018	14:33	9-7	0	2.85	100.57	201.19	100.62						
	6/28/2018	15:10	9-7	0	3.08	201.19	313.58	112.39						
2	6/28/2018	13:35	9.3-7.3	10	3.13	0.00	125.88	125.88	315	1.01	243	67		Expendable Tip
	6/28/2018	14:05	9.3-7.3	10	2.62	125.88	209.38	83.50						
	6/28/2018	14:45	9.3-7.3	10	2.67	209.38	315.36	105.98						
3	6/28/2018	13:54	8.9-6.9	10	2.90	0.00	105.72	105.72	313	1.00	242	66		Expendable Tip
	6/28/2018	14:27	8.9-6.9	10	2.96	105.72	202.64	96.92						
	6/28/2018	15:03	8.9-6.9	10	3.06	202.64	313.46	110.82						

Total Gallons:	**Total Number of Batches:**	**Total Lbs. EVO**	**Total Lbs. of Micro ZVI:**
942	3.01	727	200