DEPARTMENT OF THE AIR FORCE
AIR FORCE CIVIL ENGINEER CENTER

MAY 22 2013

MEMORANDUM FOR: Mr. Robert Morse
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Ms. Heather Bishop, Project Manager
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FROM: AFCEC/CIBE - Griffiss
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SUBJECT: Final 2012 Annual Monitoring Report for SS060 Building 35 AOC
Former Griffiss Air Force Base (AFB) Rome, New York
Contract Number FA8903-10-D-8595; Delivery Order 0014
May 2013

1. Please refer to my letter dated March 1, 2013 transmitting the reference document. Note that due to a reproduction and processing error, the text for the Buildings 774, 776, 785 and 786 Soil Vapor Intrusion O&M report was accidently inserted in the document.

2. Enclosed is the correct document. The previous document should be discarded.

3. Request that any comment that you may have be provided June 21, 2013.

4. Should you have any questions or concerns please contact me at 315 356 0810 ex 202.

MICHAEL F. MCDERMOTT
Air Force Civil Engineer Center
AFCEC/CIBE - Griffiss

Attachments: As noted

FINAL
2012 MONITORING REPORT
SS060 BUILDING 35 AREA OF CONCERN

FORMER GRIFFISS AIR FORCE BASE SITE
ROME, NEW YORK

Prepared for:

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May 2013

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LIST OF ACRONYMS AND ABBREVIATIONS

AFB	Air Force Base
AFCEC	Air Force Civil Engineer Center
AFRPA	Air Force Real Property Agency
AOC	Area of Concern
bgs	below ground surface
COC	Contaminant of Concern
CQCR	Chemical Quality Control Report
DCE	dichloroethylene/dichloroethene
DRMO	Defense Reutilization Marketing Office
FPM	FPM Remediations, Inc.
ft	feet
HRC®	Hydrogen Release Compound
HWSA	Hazardous Waste Storage Area
LTM	long term monitoring
LUC/ICs	Land Use Control/ Institutional Controls
MSL	mean sea level
µg/L	micrograms per liter
mg/L	milligrams per liter
NYSDEC	New York State Department of Environmental Conservation
OHM	OHM Remediation Services Corporation
PCB	polychlorinated biphenyl
PCE	tetrachloroethylene/perchloroethylene/tetrachloroethene/perchloroethene
ppm	parts per million
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act of 1976
SS	Spill Site
SVOC	semi-volatile organic compound
TAGM	Technical and Administrative Guidance Memorandum
TCE	trichloroethylene/trichloroethene
TOC	total organic carbon

LIST OF ACRONYMS AND ABBREVIATIONS (continued)

UICP	Underground Injection Control Program
USEPA	United States Environmental Protection Agency
VC	Vinyl Chloride
VOC	volatile organic compound

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1 INTRODUCTION

FPM Remediations, Inc. (FPM), in association with CAPE Environmental Management, Inc. (CAPE) and AECOM, Inc., under contract with the Air Force Civil Engineer Center (AFCEC), is conducting a groundwater monitoring program at Spill Site (SS)060 Building 35 Area of Concern (AOC) at the former Griffiss Air Force Base (AFB), New York (Figure 1-1). The SS060 Building 35 AOC is illustrated in Figure 1-2. The monitoring program at the site is conducted in accordance with provisions of the Basic Contract # FA8903-10-D-8595 and Delivery Order # 0014. The objective of the monitoring program is to achieve site closure with restricted use. Site closure will include the removal of the site groundwater restriction; however, the nonresidential use restriction will remain in association with site soils.

This annual report provides groundwater monitoring data from June 2012. Groundwater sampling was conducted in accordance with the SS060 Building 35 AOC Optimization Plan (FPM/CAPE, July 2011).

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2 SS060 BUILDING 35 AOC

2.1 SITE LOCATION AND HISTORY

Building 35 was located in the southeast-central section of the base (Figure 1-2), near an area that was used for outside storage of drums and scrap material during the 1940s. An unknown quantity of drums and transformers were also stored in this area during the late 1960s and 1970s. Site closure was a requirement under the Building 35 Resource Conservation and Recovery Act (RCRA) Hazardous Waste Storage permit and the closure activities were performed in the late 1990s (OHM Remediation Services Corporation [OHM], July 1997).

The former Hazardous Waste Storage Area (HWSA) was located in the southwest corner of Building 35 and had dimensions of approximately 30 feet (ft) by 50 ft, or 1,500 square feet. Although a hazardous waste inventory is not available for the area, the area was assumed to contain waste associated with aircraft maintenance activities such as corrosion control painting, degreasing, and routine engine, wheel and tire services. There is no record of any spills at the HWSA.

The former polychlorinated biphenyl (PCB) storage area was located in the northwest corner of Building 35 and had approximate dimensions of 37 ft by 46 ft (1,702 square ft). Inspection reports indicate that PCB-containing items were stored in the area since at least 1985. A spill in the PCB area was recorded on October 25, 1991, when approximately one quart of transformer oil leaked from a damaged terminal to part of a wooden pallet and a 2-inch diameter area on the concrete floor. The oil was tested and was reported below 5 parts per million (ppm) PCBs. Base records also indicate that a small PCB spill occurred on March 16, 1995. This spill reportedly occurred when a PCB-containing transformer was moved from the containment area within Building 35. The spill area, approximately 20 square ft in area, was properly remediated.

2.2 HYDROGEOLOGICAL SETTING

The Building 35 complex covered an approximate 1 acre area and is now utilized as a parking lot for Birnie Bus Service, Inc. The site has a topographic relief of 3 to 4 ft. The soils are predominantly composed of silty, fine to coarse sands with gravel. Surface water drainage from the site enters a shallow drainage swale, which leads southerly to a culvert drainage ditch informally referred to as Rainbow Creek, and ultimately flows east to Six Mile Creek.

During the Building 35 RCRA closure activities, groundwater elevations were recorded in May and July 1998. The depth to groundwater was approximately 6.9 to 7.2 ft below ground surface (bgs) [approximately 456.4 – 456.1 ft mean sea level (MSL)]. Groundwater contours interpreted from ground water elevation data collected show the groundwater flow direction to be northeast in 1998 (OHM, April 2000). This groundwater flow direction was confirmed during the subsequent March 2002, March 2003, and June 2004 sampling rounds.

It was noted in the reports from the April 2010 sampling event that monitoring well B035MW-4 water level measurement could not be obtained due to riser deformation. The well riser was hit by a snowplow during the winter season, which bent the riser. The riser was excavated and the

well head was reconstructed as a flush mount. The three remaining wells at the site were also reconstructed as flush mounts when the parking lot was paved for use as a bus storage lot for the building tenant, Birnie Bus services. All monitoring wells (B035MW-1, -2, -3, -4) at the site were resurveyed on July 13, 2010, and depth to groundwater was also measured on this date. The groundwater flow changed from previous sampling events where the hydraulic gradient was minimal with a general southerly flow. Monitoring Well B035MW-4 exhibited recharge from two adjacent 48-inch storm drains. Therefore the hydraulic grade at this point was the highest. Also, the other wells are in a paved parking lot allowing for minimum infiltration from surface water runoff. The depths to groundwater were measured on June 26, 2012 at monitoring wells B035MW-1, -2, -3, and -4. The mean depth was 6.0 ft bgs. The interpreted potentiometric surface map is provided in Figure 2-1.

2.3 SUMMARY OF PREVIOUS INVESTIGATIONS

Closure activities for the HWSA and PCB areas in association with RCRA New York State Department of Environmental Conservation (NYSDEC) Permit #6-3-13-00063/00020-0 were conducted by OHM in 1996 in accordance with Closure Plans approved by the NYSDEC in 1995. The Closure Plans were designed to ensure that the Building 35 storage areas would require no further maintenance after clean closure, and threats to human health and the environment would be minimized or eliminated. The closure activities included the collection of pre-closure wipe samples from each storage area and surface soil samples (0 to 1 ft bgs) from the outside perimeter of the building. Twelve surface soil samples were analyzed for PCBs, and all twelve samples indicated elevated concentrations of PCBs above the recommended action level of 1 ppm (OHM, July 1997).

An extensive soil investigation was conducted from January to March 1997 to delineate the extent of contaminated soil in the vicinity of Building 35 that were above the cleanup levels, which were established at 1 ppm in surface soil and 10 ppm in subsurface soil to meet United States Environmental Protection Agency (USEPA) and NYSDEC guidelines. A total of 140 Geoprobe® borings were installed in both the surface and subsurface soils surrounding Building 35, including three borings advanced underneath the building floor. Soil samples were analyzed for total PCBs in the field using a gas chromatograph with an electron capture detector. In addition, eight groundwater samples were collected during the Geoprobe® activities, and were analyzed for total PCBs, Volatile Organic Compounds (VOCs), Semi-Volatile Organic Compounds (SVOCs), pesticides, and metals (OHM, July 1997).

Results indicated widespread PCB contamination throughout the subsurface soils and also indicated possible groundwater contamination. Soil detections for PCBs ranged from non-detectable levels to 3,079 ppm. Several hot spots were identified during the investigation, with PCB concentrations recorded above regulatory action levels at a depth interval of 6 to 7 ft bgs. No correlation was found between PCB concentration and sample depth or between PCB concentration and distance from the building, indicating that the contamination may have been due to numerous sources, or the result of using imported fill at the site which potentially contained PCBs (OHM, July 1997).

Of the eight groundwater samples collected, seven indicated PCB concentrations above the PCB action level (0.1 micrograms per liter [µg/L]). The highest total PCB concentration (210 µg/L) was reported from sample B035-GW05, located near the southeast corner of Building 35. No VOCs or SVOCs were detected above regulatory action levels. Two pesticides, dieldrin and endrin, and several metals were detected at concentrations above action levels. Two chlorinated VOCs, total 1,2-dichloroethylene (DCE) at 5 µg/L, and vinyl chloride at 1 µg/L, were also reported above detection limits at B035-GW07. Results indicated that previous waste storage activities had potentially impacted the local groundwater conditions, but were inconclusive as the Geoprobe® samples collected were characterized with high suspended solids content, which is associated with higher concentrations of pesticides and metals due to the adsorption of these contaminants to fine particulates (OHM, July 1997).

An Interim Remedial Action was conducted in 1997 at the adjacent Defense Reutilization Marketing Office (DRMO) Area. The interim remedial action was performed to excavate, transport, and dispose of PCB-contaminated soil and debris, and backfill the area with clean soil. Building 35 was also demolished during this action. Following excavation at the DRMO Area, 30 confirmatory samples were collected using a sampling grid system comprised of 18 grid cells. Two of the 18 grids had PCB exceedances. One additional round of soil excavation occurred; where in total, 32 confirmatory samples were collected. Confirmatory samples were compared to state recommended cleanup levels from the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) 4046. All values were reported in Table 3.1-2 DRMO Area Confirmatory Sample Results Summary of Positive Hits and Validation Qualifiers, Appendix E of the Closeout Report Interim Remedial Action DRMO Area (IT, May 1999). A total of 5,318 tons of nonhazardous PCB-contaminated soil/concrete was removed from the DRMO Area during the IRA.

In Spring 1998, OHM installed four groundwater monitoring wells within the Building 35 area to characterize groundwater conditions and to determine the local groundwater flow direction. B035MW-4 is located near the intersection of two storm drains within the site boundaries – two 48-inch storm drains running from the northwest to the southeast near the northeast corner of the former Building 35 footprint and one 30-inch drain running perpendicular from the southwest to the two 48-inch drains – to assess any impacts the storm drains might have on groundwater flow. B035MW-3 is located near the highest concentration of PCBs detected in the soil samples, which was the same location with the highest PCB concentration in groundwater samples collected with the Geoprobe®. B035MW-1 and -2 are located north and southwest of Building 35, respectively. The total depth of each well is approximately 14 ft bgs. These wells are the current wells that have been monitored throughout site long term monitoring (LTM) activities.

Two groundwater monitoring rounds were conducted in May and July 1998, when samples were submitted for PCBs, VOCs, SVOCs, pesticides, and metals analyses. Results indicated two VOCs – vinyl chloride (VC) and total 1,2-DCE (including both the cis- and trans- isomers) – at levels above NYS Class GA Groundwater Standards in B035MW-4; total 1,2-DCE only was reported above the NYS Class GA Groundwater Standard in B035MW-3 (8 µg/L). Concentrations were reported up to 6 µg/L and 42 µg/L for vinyl chloride and 1,2-DCE, respectively, both in B035MW-4. No PCBs were reported above the detection limit during

either sampling round (1 µg/L [2 µg/L for aroclor 1221] for May 1998 and 0.06 µg/L for July 1998) (OHM, April 2000).

In addition, during the two groundwater sampling rounds, several metals were reported at levels above NYS Class GA Groundwater Standards, including iron, manganese, sodium, lead, antimony, copper, zinc, chromium, arsenic, and thallium. Samples were collected using a disposable bailer and were submitted as unfiltered groundwater samples for total metals analysis.

In accordance with the closure requirements under the RCRA Permit for Building 35, threats to human health and the environment have been minimized or eliminated (i.e., source areas have been removed). In addition, Land Use Control/Institutional Controls (LUC/ICs) were implemented at the site (OHM, April 2000). Closure under the RCRA Permit was approved by the NYSDEC in a letter dated December 8, 1999. The LUC/ICs are inspected annually and reported in a separate report. Additionally, groundwater monitoring was implemented at the site in 2002 as part of the On-Base Groundwater AOCs.

2.4 LONG TERM MONITORING – 2002 TO 2011

FPM performed annual Long Term Monitoring in March 2002, March 2003, June 2004, March 2005, March 2006, April 2007, April 2008, March 2009, April 2010, and June 2011. From March 2002 to June 2004, the groundwater at the Building 35 site was monitored for VOCs (SW8260 AFCEE QAPP 3.1 List), SVOCs (SW8270 AFCEE QAPP 3.1 List), and total and dissolved metals (SW6010 AFCEE QAPP 3.1 List plus lead and mercury) at monitoring wells B035MW-1, -2, -3, and -4. VOC concentrations were detected above NYS Class GA Groundwater Standards at only B035MW-4. No SVOCs were detected. Total metals analysis was performed on groundwater that contained suspended solids and dissolved metals analysis was performed on the groundwater after filtration removed the suspended solids. SVOC and metals analysis were discontinued after June 2004. Because of analytical trends from 2002 to 2004, the Revised On-Base Groundwater Report (FPM, November 2004) recommended that future sampling events include only well B035MW04, and include only VOC analysis.

The recommendations in the Revised On-Base Groundwater Report (FPM, November 2004) were implemented during the March 2005 sampling round. The April 2010 VOC results indicated two exceedances as opposed to past sampling rounds which indicated one exceedance. The two exceedances included cis-1,2-DCE and vinyl chloride. The cis-1,2-DCE concentrations ranged from 7.8 µg/L to 32 µg/L and the VC concentrations ranged from 0.45 F µg/L to 4.3 µg/L. The NYS Class GA Groundwater Standard for cis-1,2-DCE and VC are 5 µg/L and 2 µg/L, respectively.

2.5 GROUNDWATER REMEDIATION

Based on LTM sampling results, direct injection of remedial compounds was performed to remediate COCs. The purpose of the direct injection activities is to degrade and remediate the chlorinated hydrocarbon plume. The following describes the four injection events conducted at the site.

Injection 1: Hydrogen Release Compound (HRC®) releases lactic acid for fermentation by microorganisms producing hydrogen as an electron donor. Hydrogen then degrades chlorinated hydrocarbons. HRC® was injected in December 2005 in a 50-ft wall with five injection points. HRC® was injected from 10 to 20 ft bgs at a rate of eight pounds of product per foot at each of the injection points.

Injection 2: HRC® was injected in August 2006 in two 50-ft walls with five injection points. HRC® was injected from 10 to 20 ft bgs at a rate of eight pounds of product per foot.

Injection 3: Newman Zone® releases emulsified vegetable oil for fermentation by microorganisms producing hydrogen as an electron donor. Hydrogen then degrades chlorinated hydrocarbons. Newman Zone® was injected at two percent solution in December 2008 in monitoring well B035MW-4. 1,000 pounds of product was injected.

The first three injections were recommended in the LTM reports, including August 2005 Groundwater Monitoring Report (FPM, August 2005) for the December 2005 injection, August 2006 Groundwater Monitoring Report (FPM, August 2006) for the August 2006 injection, and May 2008 Groundwater Monitoring Report (FPM, May 2008) for the December 2008 injection. The injection activities were summarized in the August 2006, August 2007, and August 2009 On-base Groundwater AOCs Monitoring Reports, respectively.

Injection 4: 640 pounds of Newman Zone® was injected at four injection points on July 6 and 7, 2011 in accordance with the Draft-Final SS060 Building 35 AOC Optimization Plan (FPM/CAPE, July 2011). The injection points are illustrated on Figure 2-1. Newman Zone® solution (two percent solution) was injected at the injection points positioned in a 15-foot arc southwest of B035MW-4 in 1-foot intervals from 8 to 16 ft bgs. The Newman Zone® solution for each injection point consisted of 16 gallons of Newman Zone® to 984 gallons of water.

2.6 GROUNDWATER MONITORING - 2012

Groundwater samples were collected from B035MW-4 and analyzed for the VOCs as identified during previous investigations in June 2012. Both existing data and the information from new sampling are utilized for overall performance evaluation. Sample collection and analysis was conducted in accordance with the Draft-Final Uniform Federal Policy Quality Assurance Project Plan (QAPP), Revision 1.0 (FPM, July 2011). Reference is also made to the previously used QAPP, AFCEE Version 3.1 (AFCEE, August 2001), or later.

Daily Chemical Quality Control Reports (CQCRs) completed during the June 2012 sampling round are provided in Appendix A. The complete list of analytes and the validated laboratory data are attached in Appendix B and the raw laboratory data are available in Appendix C. The analytical results for compounds detected in the groundwater at the SS060 Building 35 AOC are shown in Table 2-1.

June 2012:

Monitoring well B035MW-4 was the only well sampled during the June 2012 sampling round, in

accordance with the recommendations in the Revised On-Base Groundwater Report (FPM, November 2004). Analyses were performed for VOCs, alkalinity, chloride, nitrate, sulfate, and total organic carbon (TOC) to evaluate groundwater chemistry.

Analytical results indicated that cis-1,2-DCE at 8.7 µg/L, and VC at 4.5 µg/L, exceeded NYS Class GA Groundwater Standards. Other VOC detections were similar to past sampling rounds for trichloroethene (TCE), and trans-1,2-DCE, which were all below their respective NYS Class GA Groundwater Standards (Table 2-1).

Groundwater chemistry results indicated a decrease in chloride concentration from 230 milligram per liter (mg/L) in June 2011 to 60 mg/L in June 2012. Sulfate also increased from 14 mg/L in June 2011 to 16 mg/L in June 2012, and TOC decreased from 1.5 mg/L in June 2011 to 1.2 mg/L in June 2012.

- VOC exceedances: 8.7 µg/L for cis-1,2-DCE and 4.5 µg/L for VC.

2.7 CONCLUSIONS

LTM results indicate that remedial actions completed for groundwater have removed contaminant mass and reduced contaminant concentrations at site SS060. At present, contaminant levels exceed NYS Class GA Groundwater Standards at only one location, B035MW-4. VOC results for the June 2012 sampling round indicate that the 2011 Newman Zone® injection has promoted enhanced biological breakdown of chlorinated hydrocarbons. Reductive dechlorination is exhibited by the increase in VC, and the decrease of the parent compound, cis-1,2-DCE. In addition, PCE, a highly chlorinated hydrocarbon formerly present at low concentrations below NYS Class GA Groundwater Standards, has not been detected for two consecutive annual sampling rounds (2011 – 2012). Figure 2-2 demonstrates the VOC trends at monitoring well B035MW-4.

The site is exhibiting a type 2 environment (groundwater systems that are mildly anaerobic due to moderate levels of organic carbon). An indicator of this is an increase in sulfate concentrations, from 14 mg/L in June 2011 to 16 mg/L in June 2012. The increase is attributed to the decrease in active sulfur reducing bacteria which are prominent in anaerobic environments (AFCEE, August 2004). The effects of the Newman Zone® injection are subsiding as evidenced by the decreased TOC levels (Figure 2-2). In addition, chloride concentrations increased from 2.4 mg/L prior to the 2008 Newman Zone® injection, to over 200 mg/L by 2011. The June 2012 data indicate chloride concentrations have begun to decline. The increase in chloride levels correlates with dechlorination of cis-1,2-DCE. The carbon source appears to have been utilized, and reductive dechlorination rate may be declining.

2.8 RECOMMENDATIONS

Since the June 2012 LTM data shows that chlorinated hydrocarbons are still slightly above NYS Class GA Groundwater Standards and that the carbon source has been utilized, an additional carbon source injection is recommended to promote a type 1 environment which is conducive for the dechlorination of the residual contamination. Newman Zone® is recommended to be used as

the carbon source at a quantity of 1,000 pounds. The Newman Zone® will be dissolved in water at a 2% solution. Figure 2-1 shows proposed injection points, where the injection is proposed to occur from 8 to 16 ft bgs. It is anticipated that the additional carbon source injection will continue to promote the biological breakdown of chlorinated hydrocarbons. Following the proposed Newman Zone® injection, a groundwater sample will be collected from B035MW-4 (June 2013). If the data indicates the continued reductive dechlorination of VOCs, no further sampling will be recommended. Table 2-2 provides the SS060 Building 35 AOC groundwater sampling and analytical results summary.

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Figures

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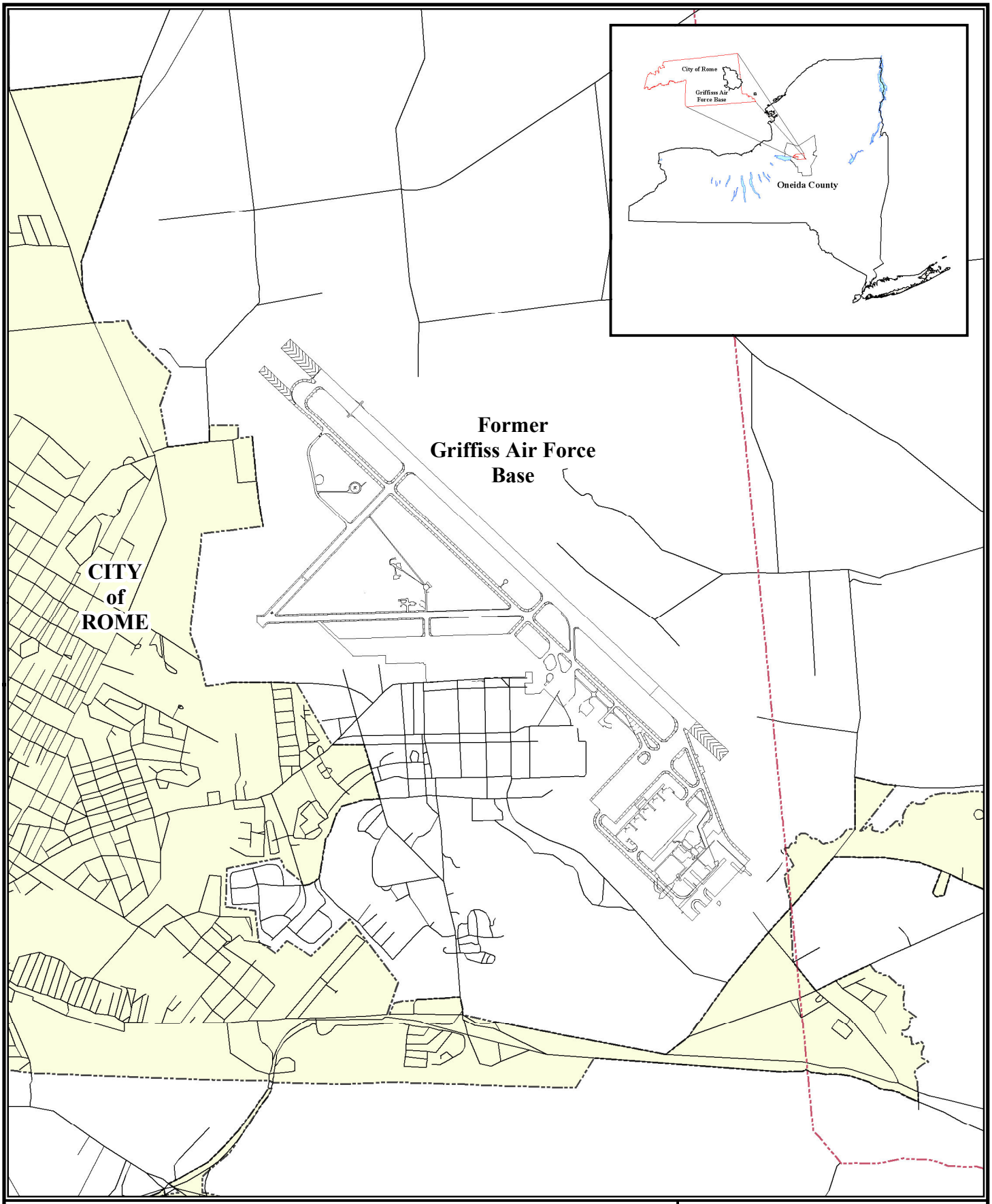

FIGURE 1-1
Base Location Map

N

2,500 1,250 0 2,500
Feet

UNITED STATES AIR FORCE
GRIFFISS AIR FORCE BASE
ROME, NEW YORK

FPM Remediations, Inc

CAPE

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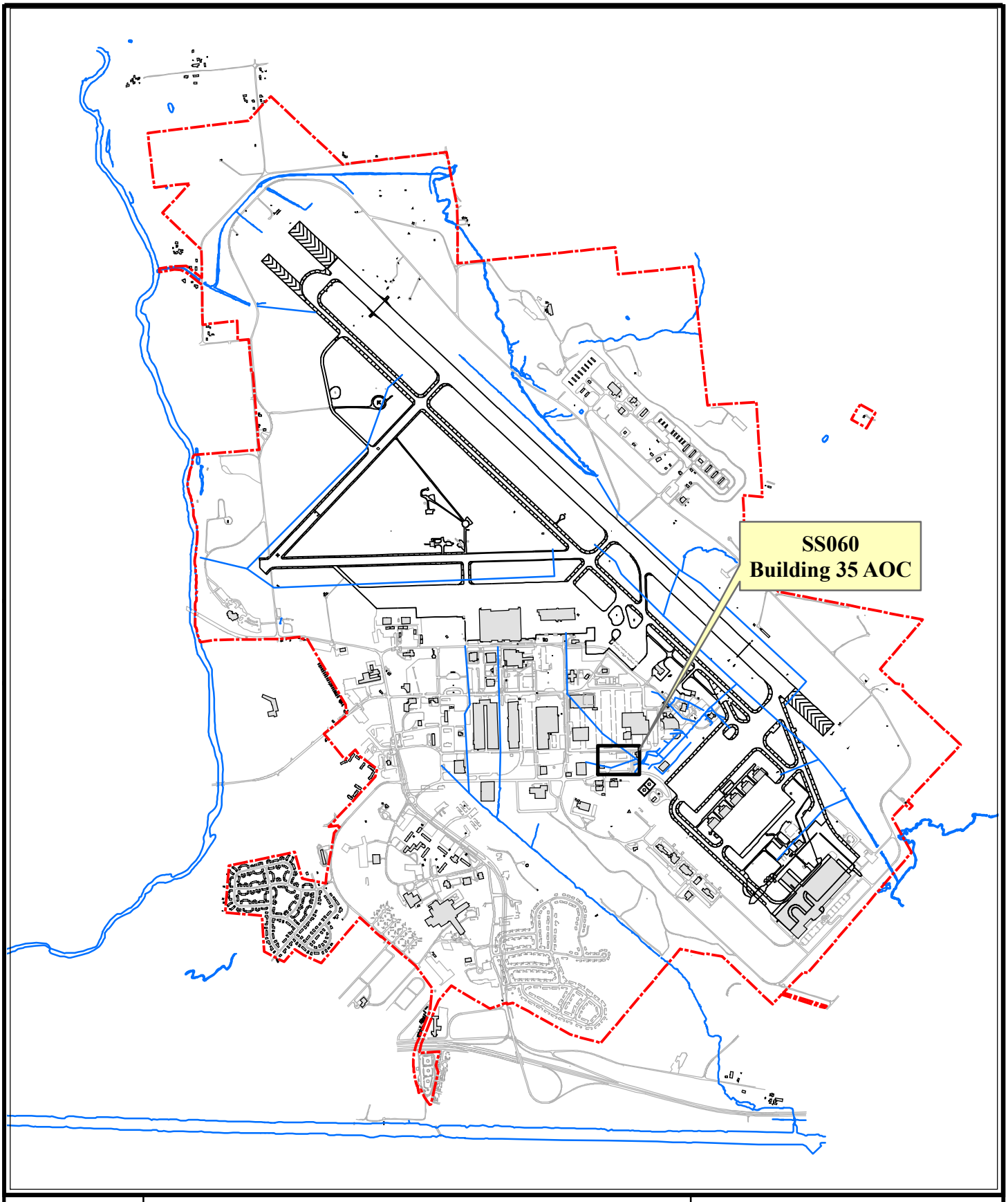

Site Location

Legend

- Boundary
- Hydro
- Airfield
- Road

Facilities

- Existing
- Demolished

N

760 380 0 760 1,520 Feet

United States Air Force
Former Griffiss Air Force Base
Rome,New York

Figure 1-2
SS060 Building 35 AOC
Location Map

FPM Remediations, Inc

CAPE

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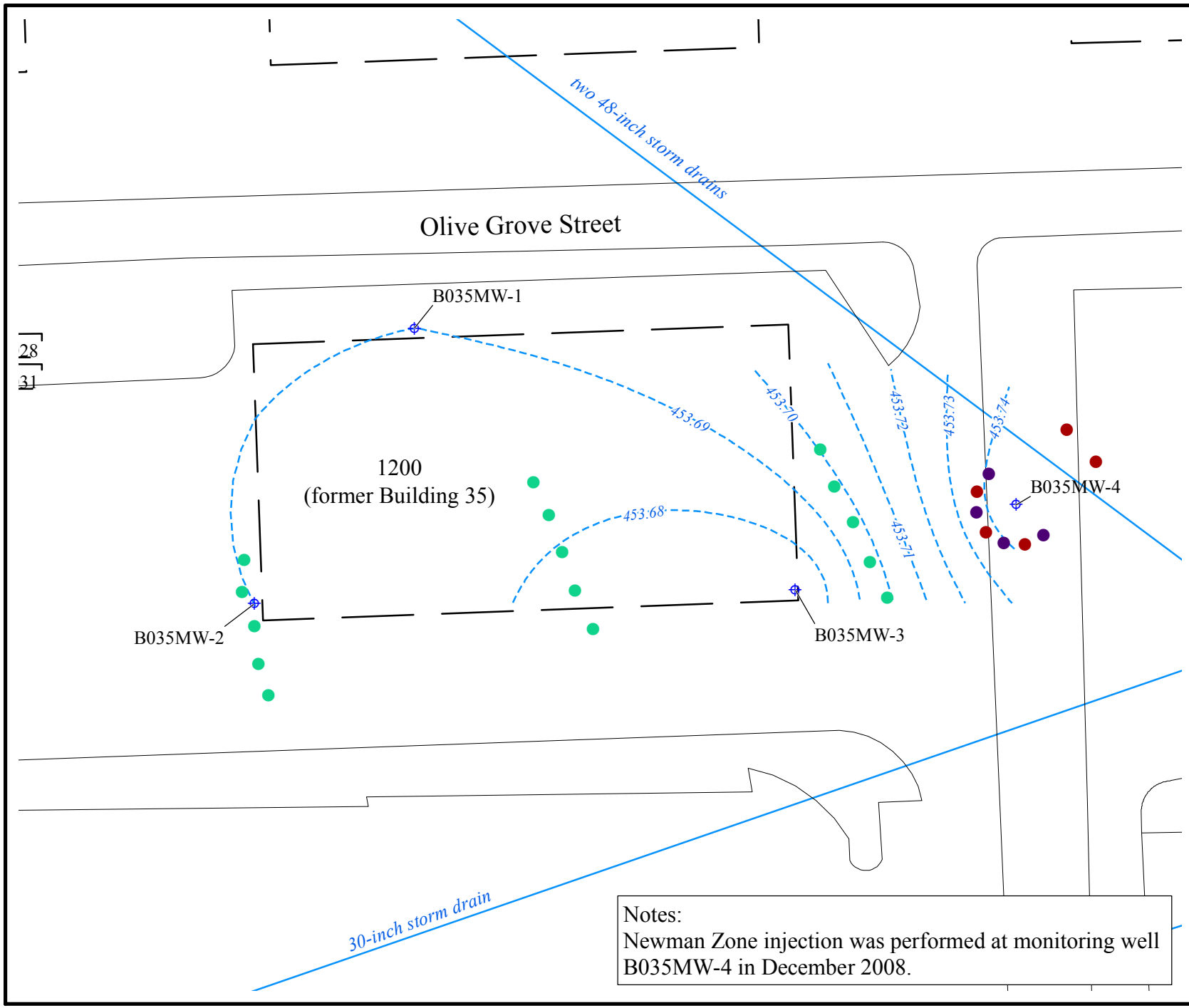
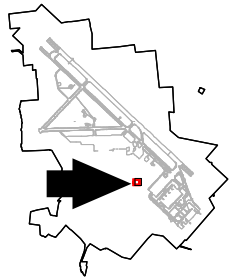


Notes:
Newman Zone injection was performed at monitoring well B035MW-4 in December 2008.

N



Site Location

Legend

- Monitoring well
- Newman Zone Injection Point
  - Proposed
  - Summer 2011
- HRC injection point
  - Dec. 2005, Aug. 2006
- GW Contour Jun 2012
- Airfield
- Road
- Storm drain
- Existing Facilities
- Demolished Facilities

30 15 0 30

Feet

United States Air Force
Former Griffiss Air Force Base
Rome, New York

Figure 2-1
SS060 Building 35 AOC
Site Location Map

FPM Remediations, Inc. CAPE

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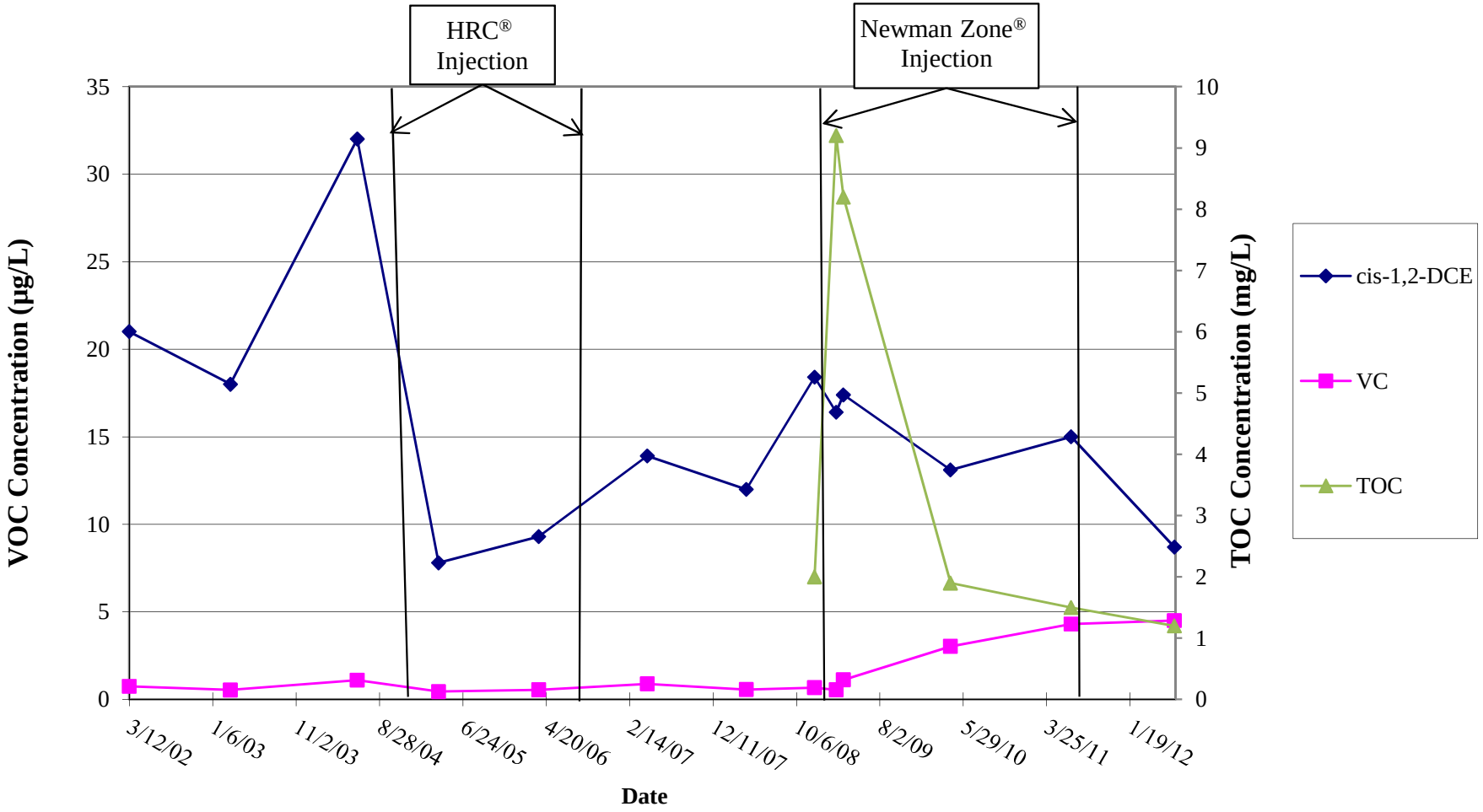
Figure 2-2
VOC Trends at Monitoring Well B035MW-4



Tables

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Table 2-1

SS060 Building 35 AOC Groundwater Sampling Results

Sample Location	NYSDEC Class GA Groundwater Standards and Guidances (µg/L)	B035MW-4						
Sample ID		B035M0415AA	B03M0415BA	B035M0415CA	B035M0415DA	B035M0415EA	B035M0416FA	B035M0416GA
Date of Collection		3/12/2002	3/11/2003	6/9/2004	3/29/2005	3/24/2006	4/18/2007	4/8/2008
Sample Depth (ft TOIC)		15	15	15	15	15	16	16
VOCs (µg/L)								
acetone	5	U	U	1.8 F	N/A	N/A	N/A	N/A
cis-1,2-dichloroethylene	5	**21**	**18**	**32**	**7.8**	**9.3**	**13.9**	**12**
tetrachloroethylene (PCE)	5	0.84	0.82	0.81 F	0.63	0.66	0.42 F	0.32 F
trans-1,2-dichloroethylene	5	0.37 F ^	0.22 F	0.69 F	U	U	0.39 F	0.31 F
trichloroethylene (TCE)	5	0.75 F ^	0.55	0.97 F	0.28 F	0.35 F	0.35 F	0.25 F
vinyl chloride	2	0.75	0.54	1.1	0.45 F	0.55	0.88 F	0.56 F
Wet Chemistry Data (mg/L)								
Alkalinity	--	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Chloride	250	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Nitrogen, Nitrate	10	N/S	N/S	N/S	N/S	N/S	N/S	N/S
Sulfate	250	N/S	N/S	N/S	N/S	N/S	N/S	N/S
TOC	--	N/S	N/S	N/S	N/S	N/S	N/S	N/S

Table 2-1

SS060 Building 35 AOC Groundwater Sampling Results

Sample Location	**NYSDEC Class GA Groundwater Standards and Guidances (µg/L)**	**B035MW-4**						
Sample ID		**B035M0416HA <>**	**B035M0416GB <>**	**B035M0416HA**	**B035M0416IA**	**B035M0416JA**	**B035M0411KA**	
Date of Collection		**12/10/2008**	**2/26/2009**	**3/24/2009**	**4/13/2010**	**6/21/2011**	**6/26/2012**	
Sample Depth (ft TOIC)		**16**	**16**	**16**	**16**	**11**	**11**	
VOCs (µg/L)								
acetone	5	N/A	N/A	N/A	N/A	U	U	
cis-1,2-dichloroethylene	5	**18.4**	**16.4**	**17.4**	**13.1**	**15**	**8.7**	
tetrachloroethylene (PCE)	5	0.52 F	0.59 F	0.62 F	0.21 F	U	U	
trans-1,2-dichloroethylene	5	0.36 F	0.4 F	0.38 F	0.46 F	0.52 F	0.32 J	
trichloroethylene (TCE)	5	0.45 F	0.51 F	0.52 F	0.39 F	0.38 F	0.25 J	
vinyl chloride	2	0.67 F	0.55 F	1.11	**3.03**	**4.3**	**4.5**	
Wet Chemistry Data (mg/L)								
Alkalinity	--	280	290	280	270	210	210	
Chloride	250	2.4	60 J	73	96	230	60	
Nitrogen, Nitrate	10	U	U	U	U	U	U	
Sulfate	250	13	1.4	2.7	11	14	16	
TOC	--	2.0	9.2	8.2	1.9	1.5	1.2	

Data Qualifiers and Table Notes

Qualifier/Table Note	Definition
F	The Analyte was detected above the method detection limit but below the reporting limit.
ft	Feet
J	The Analyte was positively identified; the quantitation is an estimation.
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
N/A	not analyzed
N/S	not sampled
TOIC	Top of Inner Casing
U	The Analyte was analyzed for, but not detected.
--	Indicates no NYS Class GA Groundwater Standard.
^	Concentrations are from duplicate sample, which was greater that the primary sample.
<>	Sample was not included in the annual sampling round, sample was collected to monitor groundwater before and after Newman Zone® injections.
X	Bold and red indicates an exceedance of the NYS Class GA Groundwater Standards.

Table 2-2
SS060 Building 35 AOC Groundwater Sampling and Analysis Summary

Sampling Locations	Sampling Rationale	Target Analytes / Method Numbers	Sampling Frequency	Evaluation Criteria / Modification Justification
Annual (2012) Recommendations				
B035MW-4	Downgradient of potential source	VOCs – SW8260 Groundwater Chemistry - Alkalinity – SM2320B, Chloride - SW9056 Nitrate – SW9056, Sulfate – SW9056, and TOC – SW9060	Annual	The cis-1,2- DCE attenuation has been verified. Discontinuation of sampling is recommended following an additional carbon source injection at the site.
Recommended LTM Network Changes				
None				

Table 2-2 (Continued)
SS060 Building 35 AOC Groundwater Sampling and Analysis Summary

Historical LTM Network Changes				
July 2004				
Analysis / Frequency Changes				
B035MW-4	Downgradient of potential source	VOCs – (Specified COC Short List) / SW8260 COCs - PCE, TCE, cis-1,2-DCE, trans-1,2-DCE, and VC.	Annual	Continue in the monitoring network to verify the attenuation of cis-1,2-DCE. Analysis for VOCs (chlorinated ethenes shortlist only) will occur for four rounds, after which the results will be evaluated to assess future monitoring frequency. Discontinue sampling for SVOCs since no detections have been reported in any sampling round. Discontinue metals sampling at the Building 35 Site since none of the reported exceedances can be attributed specifically to the site.
Removed Sampling Location				
B035MW-1	Upgradient		Discontinued from annual basis.	Discontinue sampling based on no reported exceedances.
B035MW-2	Crossgradient			
B035MW-3	Potential Source Area			

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Appendix A
Daily Chemical Quality Control Reports

Daily Chemical Quality Control Report

Project/Delivery Order Number: FA8903-10-D-8595-0014 Date: 6/26/12

Project Name/Site Number: Griffiss Landfill Areas of Concern LTM sampling (LF001- Landfill 1, Building 35, and Unknown Site #2 – Apron 1 Soil Pile)

Weather conditions: Average temperature: 79 Average Barometric reading: 29.80
Wind speed and direction: W, 10 mph
Significant wind changes: none

General description of tasks completed: Low flow sampling at LF001 – Landfill 1 (LF1MW-1R). Surface Water Sampling at LF001 – Landfill 1 (LF1SW-1, -2, and -3). Bailer Sampling at LF001 – Landfill 1 (LF1MW-14 and -103). Low flow sampling at Building 35 (B035MW04). Soil Sample - Unknown Site #2 (AP1 Soil Pile).

Explain any departures from the SAP or deviations from approved procedures during the day's field activities: None

---

Explain any technical problems encountered in the field or field equipment/field analytical instrument malfunction: None

---

Corrective actions taken or instructions obtained from AFCEE/USACE personnel: No corrective actions necessary.

Sampling shipment completed: √ Yes □ No Test America Courier.

DCQCR Prepared by: Josh Wenzel, FPM, Technical Lead Date: June 26, 2012

CQCC Signature:_____ Date: _____

ATTACHMENTS:

Checklist	Daily Chemical Quality Control Report Attachments
	✓ Field sampling forms
	✓ Equipment Calibration Log
	✓ Copies of COCs
	✓ SDG Table (See accompanying COCs).
	✓ Daily Health and Safety Meeting Form

AFCEE
CHAIN OF CUSTODY RECORD

COC#: _1_ SDG#: _ _ Cooler ID#: _A_

Ship to: Elaine Walker Test America Laboratories, Inc. 4955 Yarrow Street Arvada, Colorado Tel: 303-736-0156	Project Name: Griffiss AFB LF1 LTM Sampler Name: Josh Wenzel	Send Results to: Daniel Baldyga FPM Remediations, Inc. 584 Phoenix Drive Rome, NY 13441 Phone: (315) 336-7721 Ext. 207
Carrier: Test America Inc. courier.	Sampler Signature:	

Analyses requested

Field Sample ID	LocID	Date 2012	Time	MATRIX	SMCODE	SACODE	SBD/SED	# of Containers	VOCs note1 40mL vials (HCl)	Hardness note 2 500 mL poly (HNO_3)	Anions, TDS, color, Alkalinity note 6 500 mL poly	NH3, COD, TKN note7 500 mL poly (H_2SO_4)	TOC note8 250 mL amber (H_2SO_4)	BOD, note 10 1 L poly	Comments
LF1M01R11UA	WL-LF1MW-1R	6/26	1204	WG	LF	N	0/0	5	--	1	1	1	1	1	
LF1M1411UA	WL-LF1MW-14	6/26	1011	WG	B	N	0/0	5	--	1	1	1	1	1	
LF1M10318UA	WL-LF1MW-103	6/26	1030	WG	B	N	0/0	4	3	-	1	-	-	-	Not enough water to fill rest of bottle set
LF1SW0101UA	SL-LF1SW-1	6/26	1101	WG	G	N	0/0	8	3	1	1	1	1	1	
LF1SW02SMC01UA	SL-LF1SW-2	6/26	1145	WG	G	N	0/0	8	3	1	1	1	1	1	
LF1SW0301UA	SL-LF1SW-3	6/26	1035	WG	G	N	0/0	8	3	1	1	1	1	1	
062612UE	FIELDQC	6/26	1415	WQ	LF	EB	0/0	8	3	1	1	1	1	1	
062612UF	FIELDQC	6/26	1201	WQ	NA	AB	0/0	3	3	-	-	-	-	-	
062612UR	FIELDQC	6/26	0915	WQ	NA	TB	0/0	2	2	-	-	-	-	-	

Sample Condition Upon Receipt at Laboratory: Cooler temperature:

Special Instructions/Comments: Parameter List: (According to AFCEE QAPP 4.0 and NYSDEC Landfill Part 360 Baseline Parameters)

Note 1: VOCs: 8260B AFCEE QAPP 4.0 List + NYS Part 360 Baseline Parameters.

Note 2: Hardness: 130.2.
Note 3: Metals: SW6010 AFCEE QAPP 4.0 List (Dissolved).
Note 4: PCBs: SW8082.
Note 5: Phenols: SW9065.
Note 6: Anions: SW9056, TDS: SM2540C, color: 110.2, Alkalinity: SM2320B.
Note 7: NH3: 350.1, COD: 410.4, TKN: 351.2.

Note 8: TOC: SW9060.
Note 9: Cyanide: SW9012.
Note 10: BOD: 405.1.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 6/26/12	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Remediations, Inc.	Time: 1130	Company Name:	Time:
#1 Received by: (Sig)	Date:	#2 Received by: (Sig)	Date: 6-26-12	#3 Received by: (Sig)	Date:
Company Name: FPM Remediations, Inc.	Time:	Company Name: TA Sya	Time: 16:30	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split Spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

WELL PURGING & SAMPLING FORM
(LOW FLOW)

Project: 1015-11-01 Sampled by: KM, KW

Location and Site Code (SITEID): ~~LFIMW-1R~~ LF1

Well No. (LOCID): LFIMW-1R Well Diameter (SDIAM): 2"

Date (LOGDATE): 6/26 Weather: Overcast 70°F

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

Measured Well Depth (B) (TOTDEPTH) _____ ft. (optional)

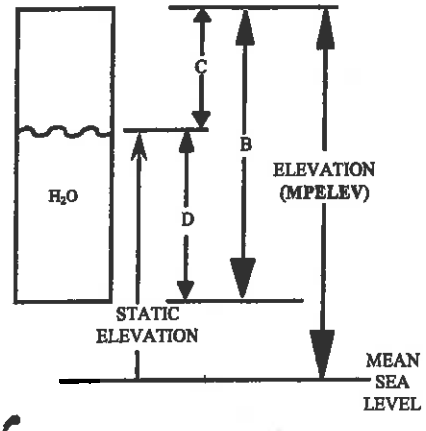
Measured Water Level Depth (C) (STATDEP) 4.62 ft.

Length of Static Water Column (D) = _____ (B) - _____ (C) = _____ (D) ft. (optional)

Pump Intake Depth (ft): 11

Depth during Purging/Sampling: 4.62 - 4.63 ft (provide range)

Comments (re: Depth during purging/sampling): _____



Purge Date and Method: BLADDER PUMP 6/26

Physical Appearance/Comments: Cloudy; organic scent

~~Dissolved Ferrous Iron (mg/L):~~ Minimum purge volume: 642 mL

FIELD MEASUREMENTS:

Allowable Range:		± 0.1	± 3%		± 10%	± 10%	± 10mV	
Time	Depth to Water (ft BTOC)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)	Flow Rate (mL/min)
1110	4.62	6.22	0.251	12.55	10.8	5.71	26	200
1113	4.62	6.21	0.252	12.33	7.1	7.70	19	200
1115	4.62	6.26	0.250	12.29	6.9	8.45	13	200
1148	4.62	6.08	0.219	13.47	32.4	1.19	47	200
1150	4.62	6.14	0.226	12.97	22.0	0.00	38	200
1152	4.62	6.20	0.239	12.62	23.8	0.00	27	200
1156	4.62	6.28	0.253	12.53	19.4	0.00	15	200
~~1158~~	~~4.62~~	~~6.30~~	~~0.257~~	~~12.56~~	~~21.2~~	~~0.00~~ KW		
1159	4.62	6.32	0.260	12.68	18.8	0.00	11	200
1201	4.62	6.34	0.261	12.65	18.8	0.00	10	200

Sample Time: 12:04 Sample ID: ~~LFIMW1R~~ LFIMW1R11VA KW

Note: Maintain a flow rate of 200-500 mL/min during purging. Collect samples at a flow rate between 100-250 mL/min. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 1015-11-01 Sampled by: JW/SN

Location and Site Code (SITEID): LF1

Well No. (LOCID): WL-LF1MW-14 Well Diameter (SDIAM): 2"

Date (LOGDATE): 6/20/12 Weather: cloudy 60°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

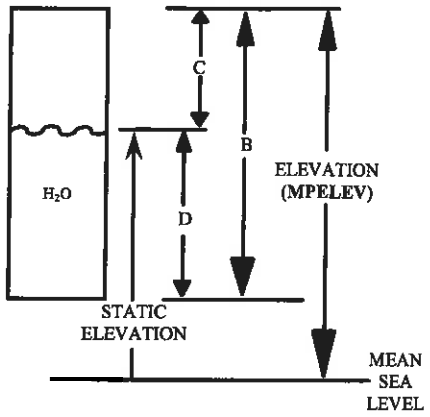
Measured Well Depth (B) (TOTDEPTH) 15.35 ft.

Measured Water Level Depth (C) (STATDEP) 10.75 ft.

Length of Static Water Column (D) = (B) 15.35 - (C) 10.75 = (D) 4.6 ft.

Casing Water Volume (E) = (A) .16 x (D) 4.6 = .736 gal

Minimum Purge Volume = 2.208 gal (3 well volumes)



Purge Date and Method: Bailer 6/20/12

Physical Appearance/Comments: cloudy, slight organic smell

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1006	0.50	5.15	0.140	13.21	95.7	5.81	52
1007	1.00	5.15	0.138	12.48	76.4	4.51	59
1008	1.50	5.16	0.142	11.90	77.1	5.21	62
1009	2.00	5.20	0.143	11.58	66.0	3.72	68
1010	2.50	5.22	0.143	11.48	72.6	4.88	69

Sample Time: 1011 Sample ID: LF1MW14DUA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 1015-11-01 Sampled by: KM, MG, KW, and ZF

Location and Site Code (SITEID): LF1

Well No. (LOCID): LF1MW103 Well Diameter (SDIAM): 2"

Date (LOGDATE): 6/25/12 Weather: Partly Cloudy 68°F

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

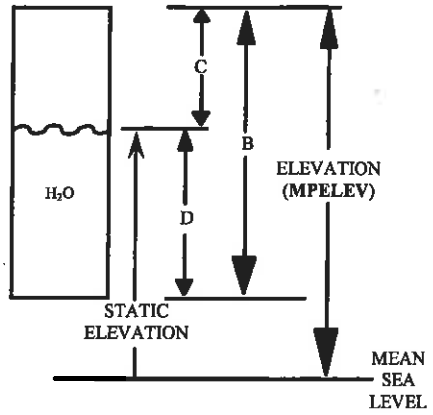
Measured Well Depth (B) (TOTDEPTH) 35.09 ft.

Measured Water Level Depth (C) (STATDEP) 17.61 ft.

Length of Static Water Column (D) = (B) 35.09 - (C) 17.61 = (D) 17.48 ft.

Casing Water Volume (E) = (A) _____ x (D) 17.48 = 2.8 gal

Minimum Purge Volume = 8.4 gal (3 well volumes)



Purge Date and Method: Bailer / 6-25-12

Physical Appearance/Comments: Cloudy / no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
10:43	2	11.43	0.794	13.7	27.1	4.78	14.0
10:47	4	11.51	0.794	13.76	~~+0~~ 162	4.63	18.0
10:53	5.25	11.45	0.891	17.1	287	3.85	19.0
	Bail dry at 5.25 gallons						

6-26-12 Sample Time: 1030 Sample ID: LF1MW103BLK

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 1015-11-01 Sampled by: JG/SN

Location and Site Code (**SITEID**): LF1

Well No. (**LOCID**): SL-LF1SW-1 Well Diameter (**SDIAM**): —

Date (**LOGDATE**): 6/26/12 Weather: cloudy 60°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

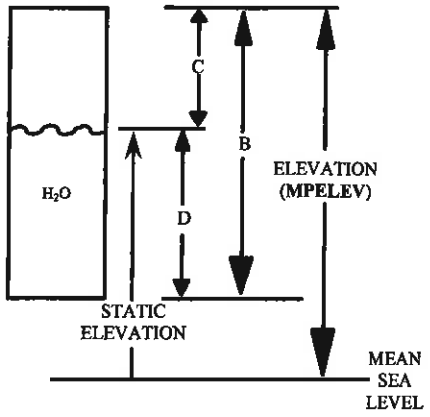
Measured Well Depth (B) (**TOTDEPTH**) _____ ft.

Measured Water Level Depth (C) (**STATDEP**) _____ ft.

Length of Static Water Column (D) = _____ (B) - _____ (C) = _____ (D) ft.

Casing Water Volume (E) = _____ (A) x _____ (D) = _____ gal

Minimum Purge Volume = _____ gal (3 well volumes)



Purge Date and Method: Grab 6/26/12

Physical Appearance/Comments: clear, no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1100	—	6.32	0.378	13.71	4.0	12.10	-47
		Surface Water Grab					

Sample Time: 1101 Sample ID: LF1SW010112A

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 1015-11-01 Sampled by: JW/SN

Location and Site Code (**SITEID**): LF1

Well No. (**LOCID**): SL-LF1SW-2 Well Diameter (**SDIAM**): —

Date (**LOGDATE**): 6/26/12 Weather: Cloudy 70'

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

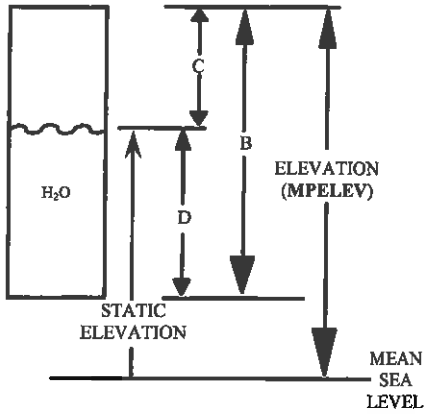
Measured Well Depth (B) (**TOTDEPTH**) _____ ft.

Measured Water Level Depth (C) (**STATDEP**) _____ ft.

Length of Static Water Column (D) = _____ (B) - _____ (C) = _____ (D) ft.

Casing Water Volume (E) = _____ (A) x _____ (D) = _____ gal

Minimum Purge Volume = _____ gal (3 well volumes)



Purge Date and Method: GRAB SAMPLE

Physical Appearance/Comments: CLEAR, SLIGHT FUEL ODOR

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1148	—	6.49	0.626	15.36	10.0	5.56	-172
	SURFACE WATER GRAB						

Sample Time: 1145 Sample ID: LF1SW02SMC01UA

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

WELL PURGING & SAMPLING FORM

Project: 1015-11-01 Sampled by: JW/SN

Location and Site Code (**SITEID**): LF1

Well No. (**LOCID**): SL-LF1SW-3 Well Diameter (**SDIAM**): —

Date (**LOGDATE**): 6/26/12 Weather: cloudy 60°

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

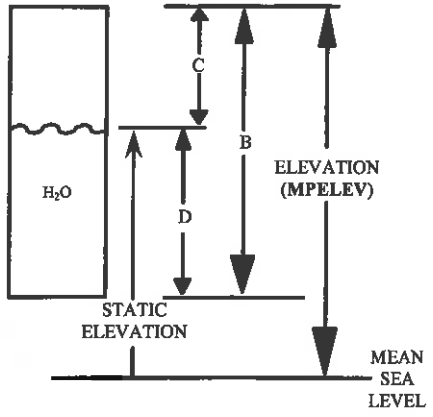
Measured Well Depth (B) (**TOTDEPTH**) _____ ft.

Measured Water Level Depth (C) (**STATDEP**) _____ ft.

Length of Static Water Column (D) = _____ (B) − _____ (C) = _____ (D) ft.

Casing Water Volume (E) = _____ (A) x _____ (D) = _____ gal

Minimum Purge Volume = _____ gal (3 well volumes)



Purge Date and Method: GRAB 6/26/12

Physical Appearance/Comments: clear, no odor

FIELD MEASUREMENTS:

Allowable Range: ± 0.1 ± 5% ±1°C

Time	Volume Removed (gal)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)
1034	—	5.64	0.271	16.16	3.6	7.99	-8
		Surface Water					
			Grab				

Sample Time: 1035 Sample ID: LF1SW030611A

Note: Attempt to get at least 5 sets of field measurements during purging. Sample may be collected after 3 to 5 well volumes have been removed and parameters have stabilized. Sample may be collected after 6 well volumes if parameters do not stabilize. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

AFCEE
CHAIN OF CUSTODY RECORD

COC#: _1_ SDG#: _ _ Cooler ID: _A_

Ship to: Elaine Walker Test America Laboratories, Inc. 4955 Yarrow Street Arvada, Colorado Tel: 303-736-0156	Project Name: Griffiss AFB B 35 LTM Sampler Name: Josh Wenzel	Send Results to: Daniel Baldyga FPM Remediations, Inc. 584 Phoenix Drive Rome, NY 13441 Phone: (315) 336-7721 Ext. 207
Carrier: Test America Inc. courier.	Sampler Signature:	

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2012	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)	Anions, TDS, color Alkalinity note 2 500 mL poly	TOC note3 2 50mL amber (H_2SO_4)	Comments
B035M0411HA	B035MW04	6/26	1600	WG	LF	0/0	N	HCl	Unf.	5	3	1	1	

ALL MONITORING WELLS GROUNDWATER ELEVATIONS SHOULD BE MEASURED.

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0
Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.
Note 2: Anions: SW9056, TDS: SM2540C, Color:110.2, Alkalinity: SM2320B
Note 3: TOC: SW9060.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 6/26/12	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM Remediations, Inc.	Time: 1630	Company Name:	Time:
#1 Received by: (Sig)	Date:	#2 Received by: (Sig) REMI/LIA	Date: 6-26-12	#3 Received by: (Sig)	Date:
Company Name: FPM Remediations, Inc.	Time:	Company Name: TA SYR	Time: 16:30	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

WELL PURGING & SAMPLING FORM
(LOW FLOW)

Project: 1015-11-01 Sampled by: KM and KW

Location and Site Code (SITEID): B35

Well No. (LOCID): B035MW04 Well Diameter (SDIAM): 2"

Date (LOGDATE): 6/26 Weather: Overcast 70°F

CASING VOLUME INFORMATION:

Casing ID (inch)	1.0	1.5	2.0	2.2	3.0	4.0	4.3	5.0	6.0	7.0	8.0
Unit Casing Volume (A) (gal/ft)	0.04	0.09	0.16	0.2	0.37	0.65	0.75	1.0	1.5	2.0	2.6

PURGING INFORMATION:

Measured Well Depth (B) (TOTDEPTH) _____ ft. (optional)

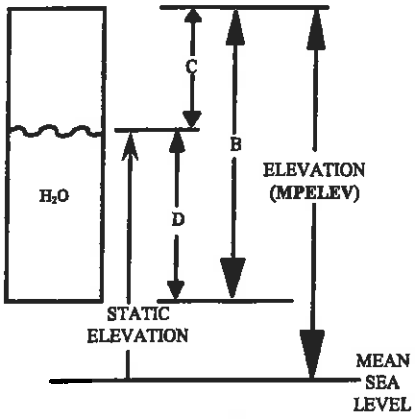
Measured Water Level Depth (C) (STATDEP) 6.53 ft.

Length of Static Water Column (D) = _____ (B) - _____ (C) = _____ (D) ft. (optional)

Pump Intake Depth (ft): 11

Depth during Purging/Sampling: 6.53-6.54 ft (provide range)

Comments (re: Depth during purging/sampling): _____



Purge Date and Method: BLADDER PUMP 6/26

Physical Appearance/Comments: clear w/ black percipitate / organic odor

~~Dissolved Ferrous Iron (mg/L):~~ Minimum purge volume: 642 mL

FIELD MEASUREMENTS:

Allowable Range:		± 0.1	± 3%		± 10%	± 10%	± 10mV	
Time	Depth to Water (ft BTOC)	pH	EC (mS/cm)	Temp. (F or C)	Turbidity (NTU)	D.O. (mg/L)	ORP (mV)	Flow Rate (mL/min)
1548	6.53	7.17	1.15	15.59	32	0.00	-83	250
1550	6.53	7.25	1.16	15.52	20.5	0.00	-93	250
1552	6.53	7.26	1.13	15.24	19.0	0.00	-96	250
1554	6.53	7.29	1.09	15.28	14.2	0.00	-98	250
1556	6.53	7.30	1.06	15.10	15.6	0.00	-101	250
1558	6.53	7.31	1.05	15.28	11.0	0.00	-102	250

Sample Time: 1600 Sample ID: B035M0411HA

Note: Maintain a flow rate of 200-500 mL/min during purging. Collect samples at a flow rate between 100-250 mL/min. VOC and gas sensitive (e.g. alkalinity, Fe^{2+}, CH_4, H_2S) parameters should be sampled first.

CHAIN OF CUSTODY RECORD

COC#: _1_ SDG#: _ _ (Open/Closed) Cooler ID#: _A_

Ship to: Elaine Walker Test America Laboratories, Inc. 4955 Yarrow Street Arvada, Colorado Tel: 303-736-0156	Project Name: Griffiss AFB Unknown #2 Sampler Name: Josh Wenzel	Send Results to: Daniel Baldyga FPM Remediations, Inc 584 Phoenix Drive Rome, NY 13441
Carrier: Test America courier.	Sampler Signature:	Phone: (315) 336-7721 Ext. 207

Analyses requested

Field Sample ID	LocID	Date 2012	Time	MATRIX	SMCODE	SACODE	SBD/SED	# of Containers	TCLP VOCs, 4 oz glass jar	TCLP Lead, and Flashpoint 8 oz glass jar	Comments
UNK20101AA	AP1 Soil Pile	6/26	1345	SO	G	N	0/0	2	1	1	

Sample Condition Upon Receipt at Laboratory: Cooler temperature:
Special Instructions/Comments: Parameter List:

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 6/26/12	#3 Released by: (Sig)	Date:
Company Name:	Time:	Company Name: FPM	Time: 1630	Company Name:	Time:
#1 Received by: (Sig) Daniel Baldyga	Date:	#2 Received by: (Sig)	Date: 06-26-12	#3 Received by: (Sig)	Date:
Company Name: FPM	Time:	Company Name: TA Syr	Time: 16:30	Company Name:	Time:

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
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SS = Split Spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

SOIL / SEDIMENT SAMPLING FORM

Project: 1015-11-01 Sampled by: JW/SN

Site and Site Code (**SITEID**): #Apron 1 Soil Pile, Unknown Site #2

Sampling Location ID. (**LOCID**): API Soil Pile

Date (**LOGDATE**): 6/26/12 Time: 1345

FIELD OBSERVATIONS:

Sample Depth or Interval	Material Description/ Color
Composite Grab Sample.	Dirt, Brown, small pebbles mixed w/in. No odor.

Comments/Observations:

Composite Sample

Sample Time: 1345 Sample ID: UNK20101AA

FPM Remediations, Inc.
Equipment Calibration Log

Instrument Name: U-52

Model Number: 15304 (rental)

Date	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
6/18/12	4.00	4.00			15304 - model
6/19	4.00	4.00			" "
6/20	4.00	4.00			
6/21	4.00	3.99	4.00		
6/25	4.00	4.00			
6/26	4.00	3.99	4.00	4.01	

FPM Remediations, Inc.
Equipment Calibration Log

Instrument Name: U-52

Model Number: FPM #1

Date	First Standard Concentration	First Standard Reading	Second Standard Concentration	Second Standard Reading	Comments
6/25	4.00	4.00			
6/26	4.00	4.00			

Daily Health and Safety Meeting Form

Date: 6/26/12 *Time Start:* 0845

Time End: 0915

Location: FPM Remediations office

Weather Conditions: cloudy 60°

Meeting Type: Daily Health & Safety

Personnel Present: Josh Wenzel, Spencer Noyes, Katrina Mattia, Mark Grifasi

Visitors Present: —

Visitor Training: —

PPE Required: Modified D, boots,

Possible risks, injuries, concerns: Biological, wind exposure, falling tree branches, slip/trip/fall

Anticipated Releases to Environment (if so, describe and detail response action/control measures implemented):

NONE

Daily Health and Safety Meeting Form (Page 2)

Property Damage: _____

NONE

Description (include sequence of events describing step by step how incident happened):

NONE

Analysis for, and Implementation of Corrective/Preventative Procedure to Prevent Future Occurrences (to be formulated by SSHO and FOM, approved by PM, and implemented by SSHO):

NONE

Report made by (Name): Josh Wenzel

SSHP Organization Title: Site Safety & Health Officer

Appendix B
Validated Data

FPM-GROUP
Data Verification and Usability Report
GRIFFISS AIR FORCE BASE
Site Griffiss AFB Building 35
Water Sampling
Contract No. FA8903-10-D-8595, Delivery Order No. 0014

FPM Project No. 1015-11-01

TestAmerica Job #280-30461-1

Laboratory:	TestAmerica Laboratories, Inc.
Sample Matrix:	Water
Number of Samples:	1
Analytical Protocol:	DOD QSM, version 4.2, as per project-specific UFP QAPP
Data Reviewer:	Connie van Hoesel
Sample Date:	June 26, 2012

LIST OF DATA VERIFICATION SAMPLES

This verification report pertains to the following environmental samples and corresponding QC samples:

Sample ID	Date	QC Samples	Date
B035M0411HA	6/26/12		

Notes:

Refer to attached chain-of-custody for detailed sampling information and sample specific analyses requested.
HA – Primary environmental samples

DELIVERABLES

The data deliverable report was per requirements of the DOD QSM, version 4.2, as specified in the project-specific QAPP. The report consisted of the following major sections: lab attachment letter, case narrative, chain-of-custody, lab qualifier definitions, analytical results (sheet 2) based on analytical batch, calibration summaries, method blank summaries, laboratory control sample summaries, matrix spike/matrix spike duplicate summaries, holding time forms, performance checks, surrogate and internal standard recoveries, as applicable.

ANALYTICAL METHODS

The analytical test methods and QA/QC requirements used for the sample analyses were per methods as specified in the DOD QSM, version 4.2, with project-specific modifications as listed in the project-specific QAPP. The analytical methods employed included SW-846: Volatile Organic Compounds (VOC) by Method SW8260B (short list), Total Organic Carbon (TOC) by Method SW 9060A, Total Dissolved Solids by Method SM 2540C, Total Alkalinity by Method SM 2320B, Anions (nitrate, nitrite, fluoride, orthophosphate P, bromide, chloride, and sulfate only) by Method SW9056, and Color by Method SM 2120B.

VERIFICATION GUIDANCE

The analytical work was performed by TestAmerica Laboratories, Inc. in accordance with the DOD QSM, version 4.2, and QC requirements of the respective analytical methods and of the project-specific QAPP. The data usability analysis was based on the reviewer's professional judgment and on an assessment of how this data would fare with respect to the DOD QSM, and the criteria as listed in the project-specific QAPP.

QA/QC CRITERIA

The following QA/QC criteria were reviewed, as applicable and available:

- Method detection limits (DLs) and limits of quantitation (LOQs)
- Holding times, sample preservation and storage
- Second source calibration verification summary
- Initial and Continuing calibration summaries
- Method blanks
- Field duplicate results
- Matrix spike/matrix spike duplicate (MS/MSD) analysis
- Laboratory control samples (LCS)
- Results reported between DL and LOQ (J-flag)
- MS tune performance
- Ambient, equipment, and trip blanks (as applicable)
- Surrogate spike recoveries
- Internal standard areas counts and retention times
- Sample storage and preservation

- Data system printouts
- Qualitative and quantitative compound identification
- Chain-of-custody (COC)
- Case narrative and deliverables compliance

The items listed above were in compliance with DOD QSM, version 4.2, and project-specific QAPP criteria and protocols with exceptions discussed in the text below. The data have been verified according to the procedures outlined above and qualified accordingly.

GENERAL NOTES:

MISSING SAMPLES

None. All samples documented on the chain of custody were received by the laboratory.

BLANKS

Whenever blanks, including method, ambient, equipment, and trip, contained low levels of contaminants (between the DL and LOQ), the laboratory and/or data verifier qualified the subject results with a "J" flag. Since no qualification of associated field samples are required for blanks less than half the LOQ, no further action was taken in such instances.

VOLATILE ORGANIC COMPOUNDS (VOCs)

- There were no exceedances for VOCs.

WET CHEMISTRY ANALYTES

- According to the case narrative, sample B035M0411HA required a 1:5 dilution for chloride after original results were above the calibration curve. Use diluted sample results for this compound only. Original sample results are modified accordingly.

DATA USABILITY RESULTS

VOCs

Based on the evaluation of all information in the analytical data groups, the results of the samples for VOCs are highly usable with the data qualifiers as noted. Using the verification approach as presented above, the results for all above samples are 100% usable.

WET CHEMISTRY ANALYTES

Based on the evaluation of all information in the analytical data groups, the results of the samples for wet chemistry analytes are highly usable with the data qualifiers as noted. Using the verification approach as presented above, the results for all above samples are 100% usable.

AFCEE SUMMARY

All data in Job # 280-30461-1 are valid and usable with qualifications as noted in the data review.

Signed: Concordia van Hoesel Date: 9/2/12

ATTACHMENTS

- Chain-of-Custody
- Laboratory's Case Narrative
- Qualified final data verification results on annotated Lab Sheet 2s

CASE NARRATIVE
Client: FPM Remediations Inc
Project: Griffiss AFB B35 LTM
Report Number: 280-30461-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
One sample was received on 06/27/2012; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.0°C.

VOLATILE ORGANIC COMPOUNDS (GC-MS)
Sample B035M0411HA (280-30461-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 07/09/2012.

Methylene Chloride was detected in method blank MB 280-127051/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged "J". However, because the result concentration was less than ½ the reporting limit, no corrective action was necessary.

No other difficulties were encountered during the VOC analysis.

All other quality control parameters were within the acceptance limits.

ANIONS
Sample B035M0411HA (280-30461-1) was analyzed for anions (28 days) in accordance with EPA SW-846 Method 9056. The sample was analyzed on 06/27/2012 and 06/28/2012.

Sample B035M0411HA (280-30461-1)] required a dilution for Chloride prior to analysis. The LOQ, LOD, and DL have been adjusted accordingly.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON
Sample B035M0411HA (280-30461-1) was analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The sample was analyzed on 07/19/2012.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

COLOR
Sample B035M0411HA (280-30461-1) was analyzed for color in accordance with SM20 2120B - Colorimetric. The sample was analyzed on 06/27/2012.

A sample duplicate analysis was performed on a sample from a different delivery group; however, because project requirements specify that only client-specific QC samples be reported, the duplicate analysis is not reported for Color for batch 280-126223.

No difficulties were encountered during the color analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY
Sample B035M0411HA (280-30461-1) was analyzed for Alkalinity in accordance with SM20 2320B. The sample was analyzed on 07/05/2012.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS

Sample B035M0411HA (280-30461-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 07/02/2012.

No difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

Client: FPM Remediations Inc

Job Number: 280-30461-1

Client Sample ID: **B035M0411HA**

Lab Sample ID: 280-30461-1
Client Matrix: Water

Date Sampled: 06/26/2012 1600
Date Received: 06/27/2012 0945

8260B/DoD Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B/DoD	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z8189.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1547			Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1547				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.20	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,1-Dichloroethane	0.20	U	0.16	1.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,1-Dichloroethene	0.20	U	0.14	1.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.20	U	0.13	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.20	U	0.15	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,2-Dichloropropane	0.20	U	0.13	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
4-Isopropyltoluene	0.40	U	0.17	1.0
Benzene	0.20	U	0.16	1.0
Acetone	6.4	U	1.9	10
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Carbon disulfide	0.80	U	0.45	2.0
2-Chlorotoluene	0.40	U	0.17	1.0
4-Chlorotoluene	0.40	U	0.17	1.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroform	0.20	U	0.16	1.0
Chloroethane	1.6	U	0.41	2.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	8.7		0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0

Client: FPM Remediations Inc

Job Number: 280-30461-1

Client Sample ID: **B035M0411HA**

Lab Sample ID: 280-30461-1
Client Matrix: Water

Date Sampled: 06/26/2012 1600
Date Received: 06/27/2012 0945

8260B/DoD Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B/DoD	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z8189.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1547			Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1547				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Ethylene Dibromide	0.20	U	0.18	1.0
Methylene Chloride	0.40	U	0.32	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
Styrene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
trans-1,2-Dichloroethene	0.32	J	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
Trichloroethene	0.25	J	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	4.5		0.40	1.5
1,4-Dioxane	80	U	71	220
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	0.79	3.0
1-Chlorohexane	0.20	U	0.17	1.0
Cyclohexane	0.40	U	0.28	2.0
Methyl acetate	2.0	U	1.6	5.0
Methylcyclohexane	0.40	U	0.36	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	100		85 - 120
1,2-Dichloroethane-d4 (Surr)	109		70 - 120
4-Bromofluorobenzene (Surr)	104		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115

General Chemistry

Client Sample ID: B035M0411HA

Lab Sample ID: 280-30461-1
Client Matrix: Water

Date Sampled: 06/26/2012 1600
Date Received: 06/27/2012 0945

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Bromide	0.16	J	mg/L	0.11	0.50	1.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/27/2012 1537						
Nitrate as N	0.10	U	mg/L	0.042	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Chloride	60		mg/L	1.3	15	5.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/28/2012 0018						
Nitrite as N	0.10	U	mg/L	0.049	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Fluoride	0.10	U	mg/L	0.060	1.0	1.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/27/2012 1537						
Nitrate Nitrite as N	0.10	U	mg/L	0.042	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Orthophosphate as P	0.20	U	mg/L	0.19	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Sulfate	16		mg/L	0.23	5.0	1.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/27/2012 1537						
Total Organic Carbon - Quad	1.2		mg/L	0.16	1.0	1.0	9060A
Analysis Batch: 280-128577	Analysis Date: 07/19/2012 0215						
Color	5.0	U	PCU	5.0	5.0	1.0	SM 2120B
Analysis Batch: 280-126223	Analysis Date: 06/27/2012 1300						
Alkalinity	210		mg/L	1.1	5.0	1.0	SM 2320B
Analysis Batch: 280-126771	Analysis Date: 07/05/2012 1405						
Total Dissolved Solids	340		mg/L	4.7	10	1.0	SM 2540C
Analysis Batch: 280-126315	Analysis Date: 07/02/2012 1031						

0/6, 2-A, 1/4, 1.0 FD ny 6127

AFCEE
CHAIN OF CUSTODY RECORD

COC#: _1_ SDG#: _ _ Cooler ID: _A_

Ship to: Elaine Walker Test America Laboratories, Inc. 4955 Yarrow Street Arvada, Colorado Tel: 303-736-0156	Project Name: Griffiss AFB B 35 LTM Sampler Name: Josh Wenzel	Send Results to: Daniel Baldyga FPM Remediations, Inc. 584 Phoenix Drive Rome, NY 13441 Phone: (315) 336-7721 Ext. 207
Carrier: Test America Inc. courier.	Sampler Signature:	

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2012	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)	Anions, TDS, color Alkalinity note 2 500 mL poly	TOC note3 2 250mL amber (H_2SO_4)	Comments
B035M0411HA	B035MW04	6/26	1600	WG	LF	0/0	N	HCl	Unf.	5	3	1	1	

ALL MONITORING WELLS GROUNDWATER ELEVATIONS SHOULD BE MEASURED.

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0
Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.
Note 2: Anions: SW9056, TDS: SM2540C, Color:110.2, Alkalinity: SM2320B
Note 3: TOC: SW9060.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 6/26/12	#3 Released by: (Sig)	Date: 06-26-12		
Company Name:	Time:	Company Name: FPM Remediations, Inc.	Time: 1630	Company Name: TA Sys	Time: 19:30		
#1 Received by: (Sig)	Date:	#2 Received by: (Sig)	Date: 06-26-12	#3 Received by: (Sig)	Date: 6/27/12		
Company Name: FPM Remediations, Inc.	Time:	Company Name: TA Sys	Time: 1630	Company Name: TA	Time: 0945		

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Appendix C
Raw Lab Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 280-30461-1

Job Description: Griffiss AFB B35 LTM

For:
FPM Remediations Inc
584 Phoenix Drive
Rome, NY 13441

Attention: Daniel Baldyga

Approved for release.
Elaine Walker
Project Manager I
7/26/2012 3:34 PM

Elaine Walker
Project Manager I
elaine.walker@testamericainc.com
07/26/2012

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

The Lab Certification ID# is E87667.

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

TestAmerica Laboratories, Inc.
TestAmerica Denver 4955 Yarrow Street, Arvada, CO 80002
Tel (303) 736-0100 Fax (303) 431-7171 www.testamericainc.com

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CASE NARRATIVE
Client: FPM Remediations Inc
Project: Griffiss AFB B35 LTM
Report Number: 280-30461-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

One sample was received on 06/27/2012; the sample arrived in good condition, properly preserved and on ice. The temperature of the cooler at receipt was 1.0ºC.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Sample B035M0411HA (280-30461-1) was analyzed for volatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8260B. The sample was analyzed on 07/09/2012.

Methylene Chloride was detected in method blank MB 280-127051/7 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. However, because the result concentration was less than ½ the reporting limit, no corrective action was necessary.

No other difficulties were encountered during the VOC analysis.

All other quality control parameters were within the acceptance limits.

ANIONS

Sample B035M0411HA (280-30461-1) was analyzed for anions (28 days) in accordance with EPA SW-846 Method 9056. The sample was analyzed on 06/27/2012 and 06/28/2012.

Sample B035M0411HA (280-30461-1)] required a dilution for Chloride prior to analysis. The LOQ, LOD, and DL have been adjusted accordingly.

No difficulties were encountered during the anions analysis.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Sample B035M0411HA (280-30461-1) was analyzed for total organic carbon in accordance with EPA SW-846 Method 9060A. The sample was analyzed on 07/19/2012.

No difficulties were encountered during the TOC analysis.

All quality control parameters were within the acceptance limits.

COLOR

Sample B035M0411HA (280-30461-1) was analyzed for color in accordance with SM20 2120B - Colorimetric. The sample was analyzed on 06/27/2012.

A sample duplicate analysis was performed on a sample from a different delivery group; however, because project requirements specify that only client-specific QC samples be reported, the duplicate analysis is not reported for Color for batch 280-126223.

No difficulties were encountered during the color analysis.

All quality control parameters were within the acceptance limits.

ALKALINITY

Sample B035M0411HA (280-30461-1) was analyzed for Alkalinity in accordance with SM20 2320B. The sample was analyzed on 07/05/2012.

No difficulties were encountered during the alkalinity analysis.

All quality control parameters were within the acceptance limits.

TOTAL DISSOLVED SOLIDS

Sample B035M0411HA (280-30461-1) was analyzed for total dissolved solids in accordance with SM20 2540C. The sample was analyzed on 07/02/2012.

No difficulties were encountered during the TDS analysis.

All quality control parameters were within the acceptance limits.

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: MSV_Z Analysis Batch Number: 123533

Lab Sample ID: IC 280-123533/4 Client Sample ID:

Date Analyzed: 06/11/12 11:42 Lab File ID: Z7130.D GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitropropane	6.22	Baseline Event	tinkhams	06/11/12 23:22

Lab Sample ID: IC 280-123533/7 Client Sample ID:

Date Analyzed: 06/11/12 12:46 Lab File ID: Z7133.D GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitropropane	6.21	Baseline Event	tinkhams	06/11/12 23:23

GC/MS VOA MANUAL INTEGRATION SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: MSV_Z Analysis Batch Number: 123533

Lab Sample ID: IC 280-123533/4 Client Sample ID:

Date Analyzed: 06/11/12 11:42 Lab File ID: Z7130.D GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitropropane	6.22	Baseline Event	tinkhams	06/11/12 23:22

Lab Sample ID: IC 280-123533/7 Client Sample ID:

Date Analyzed: 06/11/12 12:46 Lab File ID: Z7133.D GC Column: DB-624 ID: 0.53(mm)

COMPOUND NAME	RETENTION TIME	MANUAL INTEGRATION		
		REASON	ANALYST	DATE
2-Nitropropane	6.21	Baseline Event	tinkhams	06/11/12 23:23

6/11/12

SAMPLE SUMMARY

Client: FPM Remediations Inc

Job Number: 280-30461-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
280-30461-1	B035M0411HA	Water	06/26/2012 1600	06/27/2012 0945

EXECUTIVE SUMMARY - Detections

Client: FPM Remediations Inc

Job Number: 280-30461-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
280-30461-1	**B035M0411HA**					
cis-1,2-Dichloroethene		8.7		1.0	ug/L	8260B/DoD
trans-1,2-Dichloroethene		0.32	J	1.0	ug/L	8260B/DoD
Trichloroethene		0.25	J	1.0	ug/L	8260B/DoD
Vinyl chloride		4.5		1.5	ug/L	8260B/DoD
Bromide		0.16	J	0.50	mg/L	9056A
Chloride		60		15	mg/L	9056A
Sulfate		16		5.0	mg/L	9056A
Total Organic Carbon - Quad		1.2		1.0	mg/L	9060A
Alkalinity		210		5.0	mg/L	SM 2320B
Total Dissolved Solids		340		10	mg/L	SM 2540C

METHOD SUMMARY

Client: FPM Remediations Inc

Job Number: 280-30461-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds (GC/MS)	TAL DEN	SW846 8260B/DoD	
Purge and Trap	TAL DEN		SW846 5030B
Anions, Ion Chromatography	TAL DEN	SW846 9056A	
Organic Carbon, Total (TOC)	TAL DEN	SW846 9060A	
Color, Colorimetric	TAL DEN	SM SM 2120B	
Alkalinity	TAL DEN	SM SM 2320B	
Solids, Total Dissolved (TDS)	TAL DEN	SM SM 2540C	

Lab References:

TAL DEN = TestAmerica Denver

Method References:

SM = "Standard Methods For The Examination Of Water And Wastewater",

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method	Analyst	Analyst ID
SW846 8260B/DoD	Meier, Greg P	GPM
SW846 9056A	Kudla, Ewa	EK
SW846 9060A	Bandy, Darlene F	DFB
SM SM 2120B	Ayala, Delaina	DA
SM SM 2320B	Allen, Andrew J	AJA
SM SM 2540C	Domnick, Brandon J	BJD

Client: FPM Remediations Inc

Job Number: 280-30461-1

Client Sample ID: **B035M0411HA**

Lab Sample ID: 280-30461-1
Client Matrix: Water

Date Sampled: 06/26/2012 1600
Date Received: 06/27/2012 0945

8260B/DoD Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B/DoD	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z8189.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1547			Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1547				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
1,1,1,2-Tetrachloroethane	0.20	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,1-Dichloroethane	0.20	U	0.16	1.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,1-Dichloroethene	0.20	U	0.14	1.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.20	U	0.13	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.20	U	0.15	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,2-Dichloropropane	0.20	U	0.13	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
4-Isopropyltoluene	0.40	U	0.17	1.0
Benzene	0.20	U	0.16	1.0
Acetone	6.4	U	1.9	10
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Carbon disulfide	0.80	U	0.45	2.0
2-Chlorotoluene	0.40	U	0.17	1.0
4-Chlorotoluene	0.40	U	0.17	1.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroform	0.20	U	0.16	1.0
Chloroethane	1.6	U	0.41	2.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	8.7		0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0
Hexachlorobutadiene	0.40	U	0.36	1.0

Client: FPM Remediations Inc

Job Number: 280-30461-1

Client Sample ID: **B035M0411HA**

Lab Sample ID: 280-30461-1
Client Matrix: Water

Date Sampled: 06/26/2012 1600
Date Received: 06/27/2012 0945

8260B/DoD Volatile Organic Compounds (GC/MS)

Analysis Method:	8260B/DoD	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Prep Method:	5030B	Prep Batch:	N/A	Lab File ID:	Z8189.D
Dilution:	1.0			Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1547			Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1547				

Analyte	Result (ug/L)	Qualifier	DL	LOQ
Isopropylbenzene	0.40	U	0.19	1.0
Ethylene Dibromide	0.20	U	0.18	1.0
Methylene Chloride	0.40	U	0.32	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
Styrene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
trans-1,2-Dichloroethene	0.32	J	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
Trichloroethene	0.25	J	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	4.5		0.40	1.5
1,4-Dioxane	80	U	71	220
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	0.79	3.0
1-Chlorohexane	0.20	U	0.17	1.0
Cyclohexane	0.40	U	0.28	2.0
Methyl acetate	2.0	U	1.6	5.0
Methylcyclohexane	0.40	U	0.36	2.0

Surrogate	%Rec	Qualifier	Acceptance Limits
Toluene-d8 (Surr)	100		85 - 120
1,2-Dichloroethane-d4 (Surr)	109		70 - 120
4-Bromofluorobenzene (Surr)	104		75 - 120
Dibromofluoromethane (Surr)	98		85 - 115

General Chemistry

Client Sample ID: **B035M0411HA**

Lab Sample ID: 280-30461-1 Date Sampled: 06/26/2012 1600
Client Matrix: Water Date Received: 06/27/2012 0945

Analyte	Result	Qual	Units	DL	LOQ	Dil	Method
Bromide	0.16	J	mg/L	0.11	0.50	1.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/27/2012 1537						
Nitrate as N	0.10	U	mg/L	0.042	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Chloride	60		mg/L	1.3	15	5.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/28/2012 0018						
Nitrite as N	0.10	U	mg/L	0.049	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Fluoride	0.10	U	mg/L	0.060	1.0	1.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/27/2012 1537						
Nitrate Nitrite as N	0.10	U	mg/L	0.042	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Orthophosphate as P	0.20	U	mg/L	0.19	0.50	1.0	9056A
Analysis Batch: 280-125973	Analysis Date: 06/27/2012 1537						
Sulfate	16		mg/L	0.23	5.0	1.0	9056A
Analysis Batch: 280-125972	Analysis Date: 06/27/2012 1537						
Total Organic Carbon - Quad	1.2		mg/L	0.16	1.0	1.0	9060A
Analysis Batch: 280-128577	Analysis Date: 07/19/2012 0215						
Color	5.0	U	PCU	5.0	5.0	1.0	SM 2120B
Analysis Batch: 280-126223	Analysis Date: 06/27/2012 1300						
Alkalinity	210		mg/L	1.1	5.0	1.0	SM 2320B
Analysis Batch: 280-126771	Analysis Date: 07/05/2012 1405						
Total Dissolved Solids	340		mg/L	4.7	10	1.0	SM 2540C
Analysis Batch: 280-126315	Analysis Date: 07/02/2012 1031						

Client: FPM Remediations Inc

Job Number: 280-30461-1

Surrogate Recovery Report

8260B/DoD Volatile Organic Compounds (GC/MS)

Client Matrix: Water

Lab Sample ID	Client Sample ID	DBFM %Rec	DCA %Rec	TOL %Rec	BFB %Rec
280-30461-1	B035M0411HA	98	109	100	104
MB 280-127051/7		103	111	104	105
LCS 280-127051/6		92	101	101	94

Surrogate	Acceptance Limits
DBFM = Dibromofluoromethane (Surr)	85-115
DCA = 1,2-Dichloroethane-d4 (Surr)	70-120
TOL = Toluene-d8 (Surr)	85-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Method Blank - Batch: 280-127051

Method: 8260B/DoD
Preparation: 5030B

Lab Sample ID:	MB 280-127051/7	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z8176.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1051	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1051				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
1,1,1,2-Tetrachloroethane	0.20	U	0.17	1.0
1,1,1-Trichloroethane	0.20	U	0.16	1.0
1,2,3-Trichloropropane	0.80	U	0.77	3.0
1,2,3-Trichlorobenzene	0.40	U	0.18	1.0
1,1-Dichloroethane	0.20	U	0.16	1.0
1,2,4-Trichlorobenzene	0.80	U	0.32	1.0
1,2-Dibromo-3-Chloropropane	1.6	U	0.81	5.0
1,1-Dichloropropene	0.40	U	0.15	1.0
1,1-Dichloroethene	0.20	U	0.14	1.0
1,1,2-Trichloroethane	0.40	U	0.32	1.0
1,1,2,2-Tetrachloroethane	0.40	U	0.20	1.0
1,2,4-Trimethylbenzene	0.20	U	0.14	1.0
1,2-Dichlorobenzene	0.20	U	0.13	1.0
1,2-Dichloroethane	0.20	U	0.13	1.0
1,3-Dichlorobenzene	0.20	U	0.16	1.0
1,3-Dichloropropane	0.20	U	0.15	1.0
1,3,5-Trimethylbenzene	0.40	U	0.14	1.0
2-Butanone (MEK)	3.2	U	1.8	6.0
1,4-Dichlorobenzene	0.40	U	0.16	1.0
1,2-Dichloropropane	0.20	U	0.13	1.0
2,2-Dichloropropane	0.40	U	0.20	1.0
2-Hexanone	3.2	U	1.4	5.0
4-Methyl-2-pentanone (MIBK)	3.2	U	1.0	5.0
4-Isopropyltoluene	0.40	U	0.17	1.0
Benzene	0.20	U	0.16	1.0
Acetone	6.4	U	1.9	10
Bromobenzene	0.20	U	0.17	1.0
Bromoform	0.40	U	0.19	1.0
Bromomethane	0.40	U	0.21	2.0
Carbon tetrachloride	0.40	U	0.19	2.0
Carbon disulfide	0.80	U	0.45	2.0
2-Chlorotoluene	0.40	U	0.17	1.0
4-Chlorotoluene	0.40	U	0.17	1.0
Chlorobenzene	0.20	U	0.17	1.0
Chlorobromomethane	0.20	U	0.10	1.0
Chlorodibromomethane	0.40	U	0.17	1.0
Chloroform	0.20	U	0.16	1.0
Chloroethane	1.6	U	0.41	2.0
Chloromethane	0.80	U	0.30	2.0
cis-1,2-Dichloroethene	0.20	U	0.15	1.0
cis-1,3-Dichloropropene	0.20	U	0.16	1.0
Dibromomethane	0.40	U	0.17	1.0
Dichlorobromomethane	0.20	U	0.17	1.0
Dichlorodifluoromethane	0.80	U	0.31	2.0
Ethylbenzene	0.20	U	0.16	1.0

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method Blank - Batch: 280-127051

Method: 8260B/DoD
Preparation: 5030B

Lab Sample ID:	MB 280-127051/7	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z8176.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1051	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1051				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Hexachlorobutadiene	0.40	U	0.36	1.0
Isopropylbenzene	0.40	U	0.19	1.0
Ethylene Dibromide	0.20	U	0.18	1.0
Methylene Chloride	0.432	J	0.32	5.0
Methyl tert-butyl ether	0.40	U	0.25	5.0
m-Xylene & p-Xylene	0.80	U	0.34	2.0
Naphthalene	0.80	U	0.22	1.0
n-Butylbenzene	0.40	U	0.32	1.0
N-Propylbenzene	0.20	U	0.16	1.0
o-Xylene	0.40	U	0.19	1.0
Styrene	0.40	U	0.17	1.0
sec-Butylbenzene	0.40	U	0.17	1.0
tert-Butylbenzene	0.40	U	0.16	1.0
trans-1,2-Dichloroethene	0.20	U	0.15	1.0
trans-1,3-Dichloropropene	0.40	U	0.19	1.0
Tetrachloroethene	0.40	U	0.20	1.0
Toluene	0.40	U	0.17	1.0
Trichloroethene	0.20	U	0.16	1.0
Trichlorofluoromethane	0.80	U	0.29	2.0
Vinyl chloride	0.80	U	0.40	1.5
1,4-Dioxane	80	U	71	220
1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	0.79	3.0
1-Chlorohexane	0.20	U	0.17	1.0
Cyclohexane	0.40	U	0.28	2.0
Methyl acetate	2.0	U	1.6	5.0
Methylcyclohexane	0.40	U	0.36	2.0

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	104	85 - 120
1,2-Dichloroethane-d4 (Surr)	111	70 - 120
4-Bromofluorobenzene (Surr)	105	75 - 120
Dibromofluoromethane (Surr)	103	85 - 115

Client: FPM Remediations Inc

Job Number: 280-30461-1

Lab Control Sample - Batch: 280-127051

Method: 8260B/DoD
Preparation: 5030B

Lab Sample ID:	LCS 280-127051/6	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z8175.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1030	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1030				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
1,1,1,2-Tetrachloroethane	5.00	5.11	102	80 - 130	
1,1,1-Trichloroethane	5.00	5.07	101	65 - 130	
1,2,3-Trichloropropane	5.00	4.93	99	75 - 125	
1,2,3-Trichlorobenzene	5.00	4.69	94	55 - 140	
1,1-Dichloroethane	5.00	3.73	75	70 - 135	
1,2,4-Trichlorobenzene	5.00	4.61	92	65 - 135	
1,2-Dibromo-3-Chloropropane	5.00	4.88	98	50 - 130	J
1,1-Dichloropropene	5.00	4.82	96	75 - 130	
1,1-Dichloroethene	5.00	3.88	78	70 - 130	
1,1,2-Trichloroethane	5.00	4.57	91	75 - 125	
1,1,2,2-Tetrachloroethane	5.00	5.26	105	65 - 130	
1,2,4-Trimethylbenzene	5.00	4.91	98	75 - 130	
1,2-Dichlorobenzene	5.00	4.75	95	70 - 120	
1,2-Dichloroethane	5.00	5.16	103	70 - 130	
1,3-Dichlorobenzene	5.00	4.77	95	75 - 125	
1,3-Dichloropropane	5.00	5.22	104	75 - 125	
1,3,5-Trimethylbenzene	5.00	5.07	101	75 - 130	
2-Butanone (MEK)	20.0	16.5	83	30 - 150	
1,4-Dichlorobenzene	5.00	5.01	100	75 - 125	
1,2-Dichloropropane	5.00	4.59	92	75 - 125	
2,2-Dichloropropane	5.00	5.54	111	70 - 135	
2-Hexanone	20.0	19.0	95	55 - 130	
4-Methyl-2-pentanone (MIBK)	20.0	17.7	88	60 - 135	
4-Isopropyltoluene	5.00	4.72	94	75 - 130	
Benzene	5.00	4.71	94	80 - 120	
Acetone	20.0	19.2	96	40 - 140	
Bromobenzene	5.00	5.28	106	75 - 125	
Bromoform	5.00	5.36	107	70 - 130	
Bromomethane	5.00	3.29	66	30 - 145	
Carbon tetrachloride	5.00	5.00	100	65 - 140	
Carbon disulfide	5.00	3.17	63	35 - 160	
2-Chlorotoluene	5.00	4.64	93	75 - 125	
4-Chlorotoluene	5.00	4.92	98	75 - 130	
Chlorobenzene	5.00	5.03	101	80 - 120	
Chlorobromomethane	5.00	4.64	93	65 - 130	
Chlorodibromomethane	5.00	5.31	106	60 - 135	
Chloroform	5.00	5.11	102	65 - 135	
Chloroethane	5.00	3.39	68	60 - 135	
Chloromethane	5.00	3.09	62	40 - 125	
cis-1,2-Dichloroethene	5.00	4.70	94	70 - 125	
cis-1,3-Dichloropropene	5.00	5.03	101	70 - 130	
Dibromomethane	5.00	5.09	102	75 - 125	
Dichlorobromomethane	5.00	5.10	102	75 - 120	
Dichlorodifluoromethane	5.00	2.85	57	30 - 155	
Ethylbenzene	5.00	5.09	102	75 - 125	
Hexachlorobutadiene	5.00	4.93	99	50 - 140	

Client: FPM Remediations Inc

Job Number: 280-30461-1

Lab Control Sample - Batch: 280-127051

Method: 8260B/DoD
Preparation: 5030B

Lab Sample ID:	LCS 280-127051/6	Analysis Batch:	280-127051	Instrument ID:	MSV_Z
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	Z8175.D
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	20 mL
Analysis Date:	07/09/2012 1030	Units:	ug/L	Final Weight/Volume:	20 mL
Prep Date:	07/09/2012 1030				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Isopropylbenzene	5.00	5.13	103	75 - 125	
Ethylene Dibromide	5.00	5.16	103	80 - 120	
Methylene Chloride	5.00	3.61	72	55 - 140	J
Methyl tert-butyl ether	5.00	3.86	77	65 - 125	J
m-Xylene & p-Xylene	10.0	10.1	101	75 - 130	
Naphthalene	5.00	4.59	92	55 - 140	
n-Butylbenzene	5.00	5.17	103	70 - 135	
N-Propylbenzene	5.00	4.84	97	70 - 130	
o-Xylene	5.00	5.03	101	80 - 120	
Styrene	5.00	5.04	101	65 - 135	
sec-Butylbenzene	5.00	4.86	97	70 - 125	
tert-Butylbenzene	5.00	4.83	97	70 - 130	
trans-1,2-Dichloroethene	5.00	3.78	76	60 - 140	
trans-1,3-Dichloropropene	5.00	4.84	97	55 - 140	
Tetrachloroethene	5.00	5.44	109	45 - 150	
Toluene	5.00	4.66	93	75 - 120	
Trichloroethene	5.00	4.85	97	70 - 125	
Trichlorofluoromethane	5.00	3.36	67	60 - 145	
Vinyl chloride	5.00	3.16	63	50 - 145	

Surrogate	% Rec	Acceptance Limits
Toluene-d8 (Surr)	101	85 - 120
1,2-Dichloroethane-d4 (Surr)	101	70 - 120
4-Bromofluorobenzene (Surr)	94	75 - 120
Dibromofluoromethane (Surr)	92	85 - 115

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method Blank - Batch: 280-125972

Method: 9056A
Preparation: N/A

Lab Sample ID:	MB 280-125972/15	Analysis Batch:	280-125972	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	114.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1520	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Bromide	0.20	U	0.11	0.50
Chloride	0.50	U	0.25	3.0
Fluoride	0.10	U	0.060	1.0
Sulfate	0.50	U	0.23	5.0

Method Reporting Limit Check - Batch: 280-125972

Method: 9056A
Preparation: N/A

Lab Sample ID:	MRL 280-125972/12	Analysis Batch:	280-125972	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	111.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1430	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.200	0.210	105	50 - 150	
Chloride	1.00	0.996	100	50 - 150	J
Fluoride	0.200	0.189	95	50 - 150	J
Sulfate	1.00	0.896	90	50 - 150	J

Client: FPM Remediations Inc

Job Number: 280-30461-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-125972

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-125972/13	Analysis Batch:	280-125972	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1446	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-125972/14	Analysis Batch:	280-125972	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1503	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Bromide	96	96	86 - 110	0	10		
Chloride	97	97	89 - 110	0	10		
Fluoride	101	101	88 - 111	0	10		
Sulfate	96	97	86 - 110	0	10		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-125972

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-125972/13	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-125972/14
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	06/27/2012 1446			Analysis Date:	06/27/2012 1503
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Bromide	5.00	5.00	4.79	4.78
Chloride	25.0	25.0	24.4	24.3
Fluoride	5.00	5.00	5.04	5.05
Sulfate	25.0	25.0	24.1	24.2

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method Blank - Batch: 280-125973

Method: 9056A
Preparation: N/A

Lab Sample ID:	MB 280-125973/15	Analysis Batch:	280-125973	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	114.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1520	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Nitrate as N	0.10	U	0.042	0.50
Nitrite as N	0.10	U	0.049	0.50
Nitrate Nitrite as N	0.10	U	0.042	0.50
Orthophosphate as P	0.20	U	0.19	0.50

Method Reporting Limit Check - Batch: 280-125973

Method: 9056A
Preparation: N/A

Lab Sample ID:	MRL 280-125973/11	Analysis Batch:	280-125973	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	110.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1413	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Orthophosphate as P	0.500	0.492	98	50 - 150	J

Method Reporting Limit Check - Batch: 280-125973

Method: 9056A
Preparation: N/A

Lab Sample ID:	MRL 280-125973/12	Analysis Batch:	280-125973	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	111.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1430	Units:	mg/L	Final Weight/Volume:	5 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	0.200	0.206	103	50 - 150	J
Nitrite as N	0.200	0.197	99	50 - 150	J

Client: FPM Remediations Inc

Job Number: 280-30461-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-125973

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-125973/13	Analysis Batch:	280-125973	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	112.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1446	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-125973/14	Analysis Batch:	280-125973	Instrument ID:	WC_IC8
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	113.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	06/27/2012 1503	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Nitrate as N	96	96	87 - 110	0	10		
Nitrite as N	98	98	87 - 112	0	10		
Orthophosphate as P	97	102	90 - 110	5	10		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-125973

Method: 9056A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-125973/13	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-125973/14
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	06/27/2012 1446			Analysis Date:	06/27/2012 1503
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Nitrate as N	5.00	5.00	4.81	4.82
Nitrite as N	5.00	5.00	4.90	4.89
Orthophosphate as P	5.00	5.00	4.86	5.09

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method Blank - Batch: 280-128577

Method: 9060A
Preparation: N/A

Lab Sample ID:	MB 280-128577/11	Analysis Batch:	280-128577	Instrument ID:	WC_SHI2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	071812.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/18/2012 2243	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Total Organic Carbon - Quad	0.40	U	0.16	1.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-128577

Method: 9060A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-128577/9	Analysis Batch:	280-128577	Instrument ID:	WC_SHI2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	071812.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/18/2012 2205	Units:	mg/L	Final Weight/Volume:	200 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-128577/10	Analysis Batch:	280-128577	Instrument ID:	WC_SHI2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	071812.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/18/2012 2223	Units:	mg/L	Final Weight/Volume:	200 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Organic Carbon - Quad	98	97	86 - 114	0	12		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-128577

Method: 9060A
Preparation: N/A

LCS Lab Sample ID:	LCS 280-128577/9	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-128577/10
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/18/2012 2205			Analysis Date:	07/18/2012 2223
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Organic Carbon - Quad	25.0	25.0	24.4	24.4

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method Blank - Batch: 280-126223

Method: SM 2120B
Preparation: N/A

Lab Sample ID:	MB 280-126223/1	Analysis Batch:	280-126223	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	06/27/2012 1300	Units:	PCU	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Color	5.0	U	5.0	5.0

Method Blank - Batch: 280-126771 **Method: SM 2320B**
Preparation: N/A

Lab Sample ID:	MB 280-126771/6	Analysis Batch:	280-126771	Instrument ID:	WC-AT3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	070512.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/05/2012 1137	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Alkalinity	2.0	U	1.1	5.0

Method Blank - Batch: 280-126771 **Method: SM 2320B**
Preparation: N/A

Lab Sample ID:	MB 280-126771/33	Analysis Batch:	280-126771	Instrument ID:	WC-AT3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	070512.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/05/2012 1345	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Alkalinity	2.0	U	1.1	5.0

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-126771 **Method: SM 2320B**
Preparation: N/A

LCS Lab Sample ID:	LCS 280-126771/31	Analysis Batch:	280-126771	Instrument ID:	WC-AT3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	070512.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/05/2012 1336	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-126771/32	Analysis Batch:	280-126771	Instrument ID:	WC-AT3
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	070512.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 mL
Analysis Date:	07/05/2012 1341	Units:	mg/L	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Alkalinity	103	103	90 - 110	0	10		

Client: FPM Remediations Inc

Job Number: 280-30461-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-126771

Method: SM 2320B
Preparation: N/A

LCS Lab Sample ID:	LCS 280-126771/31	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-126771/32
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/05/2012 1336			Analysis Date:	07/05/2012 1341
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Alkalinity	200	200	206	206

Client: FPM Remediations Inc

Job Number: 280-30461-1

Method Blank - Batch: 280-126315

Method: SM 2540C
Preparation: N/A

Lab Sample ID:	MB 280-126315/1	Analysis Batch:	280-126315	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	07/02/2012 1031	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	DL	LOQ
Total Dissolved Solids	10	U	4.7	10

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-126315

Method: SM 2540C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-126315/2	Analysis Batch:	280-126315	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	07/02/2012 1031	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-126315/3	Analysis Batch:	280-126315	Instrument ID:	No Equipment
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	100 mL
Analysis Date:	07/02/2012 1031	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Total Dissolved Solids	100	99	86 - 110	1	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-126315

Method: SM 2540C
Preparation: N/A

LCS Lab Sample ID:	LCS 280-126315/2	Units:	mg/L	LCSD Lab Sample ID:	LCSD 280-126315/3
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/02/2012 1031			Analysis Date:	07/02/2012 1031
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Total Dissolved Solids	500	500	500	497

DATA REPORTING QUALIFIERS

Client: FPM Remediations Inc Job Number: 280-30461-1

Lab Section	Qualifier	Description
GC/MS VOA		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	U	Undetected at the Limit of Detection.
General Chemistry		
	J	Estimated: The analyte was positively identified; the quantitation is an estimation
	U	Undetected at the Limit of Detection.

Client: FPM Remediations Inc

Job Number: 280-30461-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
GC/MS VOA					
Analysis Batch:280-127051					
LCS 280-127051/6	Lab Control Sample	T	Water	8260B/DoD	
MB 280-127051/7	Method Blank	T	Water	8260B/DoD	
280-30461-1	B035M0411HA	T	Water	8260B/DoD	

Report Basis
T = Total

Client: FPM Remediations Inc

Job Number: 280-30461-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:280-125972					
LCS 280-125972/13	Lab Control Sample	T	Water	9056A	
LCSD 280-125972/14	Lab Control Sample Duplicate	T	Water	9056A	
MB 280-125972/15	Method Blank	T	Water	9056A	
280-30461-1	B035M0411HA	T	Water	9056A	
Analysis Batch:280-125973					
LCS 280-125973/13	Lab Control Sample	T	Water	9056A	
LCSD 280-125973/14	Lab Control Sample Duplicate	T	Water	9056A	
MB 280-125973/15	Method Blank	T	Water	9056A	
280-30461-1	B035M0411HA	T	Water	9056A	
Analysis Batch:280-126223					
MB 280-126223/1	Method Blank	T	Water	SM 2120B	
280-30461-1	B035M0411HA	T	Water	SM 2120B	
Analysis Batch:280-126315					
LCS 280-126315/2	Lab Control Sample	T	Water	SM 2540C	
LCSD 280-126315/3	Lab Control Sample Duplicate	T	Water	SM 2540C	
MB 280-126315/1	Method Blank	T	Water	SM 2540C	
280-30461-1	B035M0411HA	T	Water	SM 2540C	
Analysis Batch:280-126771					
LCS 280-126771/31	Lab Control Sample	T	Water	SM 2320B	
LCSD 280-126771/32	Lab Control Sample Duplicate	T	Water	SM 2320B	
MB 280-126771/33	Method Blank	T	Water	SM 2320B	
MB 280-126771/6	Method Blank	T	Water	SM 2320B	
280-30461-1	B035M0411HA	T	Water	SM 2320B	
Analysis Batch:280-128577					
LCS 280-128577/9	Lab Control Sample	T	Water	9060A	
LCSD 280-128577/10	Lab Control Sample Duplicate	T	Water	9060A	
MB 280-128577/11	Method Blank	T	Water	9060A	
280-30461-1	B035M0411HA	T	Water	9060A	

Report Basis

T = Total

Client: FPM Remediations Inc Job Number: 280-30461-1

Laboratory Chronicle

Lab ID: 280-30461-1 **Client ID: B035M0411HA**

Sample Date/Time: 06/26/2012 16:00 Received Date/Time: 06/27/2012 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	280-30461-E-1		280-127051		07/09/2012 15:47	1	TAL DEN	GPM
A:8260B/DoD	280-30461-E-1		280-127051		07/09/2012 15:47	1	TAL DEN	GPM
A:9056A	280-30461-A-1		280-125972		06/27/2012 15:37	1	TAL DEN	EK
A:9056A	280-30461-A-1		280-125973		06/27/2012 15:37	1	TAL DEN	EK
A:9056A	280-30461-A-1		280-125972		06/28/2012 00:18	5	TAL DEN	EK
A:9060A	280-30461-B-1		280-128577		07/19/2012 02:15	1	TAL DEN	DFB
A:SM 2120B	280-30461-A-1		280-126223		06/27/2012 13:00	1	TAL DEN	DA
A:SM 2320B	280-30461-A-1		280-126771		07/05/2012 14:05	1	TAL DEN	AJA
A:SM 2540C	280-30461-A-1		280-126315		07/02/2012 10:31	1	TAL DEN	BJD

Lab ID: MB **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	MB 280-127051/7		280-127051		07/09/2012 10:51	1	TAL DEN	GPM
A:8260B/DoD	MB 280-127051/7		280-127051		07/09/2012 10:51	1	TAL DEN	GPM
A:9056A	MB 280-125972/15		280-125972		06/27/2012 15:20	1	TAL DEN	EK
A:9056A	MB 280-125973/15		280-125973		06/27/2012 15:20	1	TAL DEN	EK
A:9060A	MB 280-128577/11		280-128577		07/18/2012 22:43	1	TAL DEN	DFB
A:SM 2120B	MB 280-126223/1		280-126223		06/27/2012 13:00	1	TAL DEN	DA
A:SM 2320B	MB 280-126771/6		280-126771		07/05/2012 11:37	1	TAL DEN	AJA
A:SM 2320B	MB 280-126771/33		280-126771		07/05/2012 13:45	1	TAL DEN	AJA
A:SM 2540C	MB 280-126315/1		280-126315		07/02/2012 10:31	1	TAL DEN	BJD

Lab ID: LCS **Client ID: N/A**

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:5030B	LCS 280-127051/6		280-127051		07/09/2012 10:30	1	TAL DEN	GPM
A:8260B/DoD	LCS 280-127051/6		280-127051		07/09/2012 10:30	1	TAL DEN	GPM
A:9056A	LCS 280-125972/13		280-125972		06/27/2012 14:46	1	TAL DEN	EK
A:9056A	LCS 280-125973/13		280-125973		06/27/2012 14:46	1	TAL DEN	EK
A:9060A	LCS 280-128577/9		280-128577		07/18/2012 22:05	1	TAL DEN	DFB
A:SM 2320B	LCS 280-126771/31		280-126771		07/05/2012 13:36	1	TAL DEN	AJA
A:SM 2540C	LCS 280-126315/2		280-126315		07/02/2012 10:31	1	TAL DEN	BJD

Client: FPM Remediations Inc

Job Number: 280-30461-1

Laboratory Chronicle

Lab ID: LCSD **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056A	LCSD 280-125972/14		280-125972		06/27/2012 15:03	1	TAL DEN	EK
A:9056A	LCSD 280-125973/14		280-125973		06/27/2012 15:03	1	TAL DEN	EK
A:9060A	LCSD 280-128577/10		280-128577		07/18/2012 22:23	1	TAL DEN	DFB
A:SM 2320B	LCSD 280-126771/32		280-126771		07/05/2012 13:41	1	TAL DEN	AJA
A:SM 2540C	LCSD 280-126315/3		280-126315		07/02/2012 10:31	1	TAL DEN	BJD

Lab ID: MRL **Client ID:** N/A

Sample Date/Time: N/A Received Date/Time: N/A

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:9056A	MRL 280-125973/11		280-125973		06/27/2012 14:13	1	TAL DEN	EK
A:9056A	MRL 280-125972/12		280-125972		06/27/2012 14:30	1	TAL DEN	EK
A:9056A	MRL 280-125973/12		280-125973		06/27/2012 14:30	1	TAL DEN	EK

Lab References:

TAL DEN = TestAmerica Denver

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Alk daily lcs_00256	07/09/12	07/02/12	Di Water, Lot na	1000 mL	Alk stk std_00003	4 mg/L	Alkalinity	200 mg/L
.Alk stk std_00003	02/01/13		Fischer, Lot 110214		(Purchased Reagent)		Alkalinity	50 g/L
IC CAL INT1_00160	07/03/12	06/26/12	Di Water, Lot na	100 mL	IC Br cal_00005	5 mL	Bromide	50 mg/L
					IC CL cal_00008	25 mL	Chloride	250 mg/L
					IC FL cal_00004	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00020	5 mL	Nitrite as N	50 mg/L
					IC N03 cal_00008	5 mL	Nitrate as N	50 mg/L
					IC P04 cal_00008	5 mL	Orthophosphate as P	50 mg/L
					IC sulfatecal_00007	25 mL	Sulfate	250 mg/L
.IC Br cal_00005	07/30/12		Ricca, Lot 4101497		(Purchased Reagent)		Bromide	1000 mg/L
.IC CL cal_00008	09/30/12		Ricca, Lot 1103357		(Purchased Reagent)		Chloride	1000 mg/L
.IC FL cal_00004	11/30/12		Ricca, Lot 4106066		(Purchased Reagent)		Fluoride	1000 mg/L
.IC N02 CAL_00020	08/31/12		RICCA, Lot 1202582		(Purchased Reagent)		Nitrite as N	1000 ppm
.IC N03 cal_00008	11/30/12		Ricca, Lot 1105365		(Purchased Reagent)		Nitrate as N	1000 mg/L
.IC P04 cal_00008	09/30/13		Ricca, Lot 4110047		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
.IC sulfatecal_00007	01/31/13		RICCA, Lot 2108045		(Purchased Reagent)		Sulfate	1000 mg/L
IC daily cal_00825	06/28/12	06/27/12	Di Water, Lot na	100 mL	IC CAL INT1_00160	10 mL	Bromide	5 mg/L
							Chloride	25 mg/L
							Fluoride	5 mg/L
							Nitrite as N	5 mg/L
							Nitrate as N	5 mg/L
							Orthophosphate as P	5 mg/L
							Sulfate	25 mg/L
.IC CAL INT1_00160	07/03/12	06/26/12	Di Water, Lot na	100 mL	IC Br cal_00005	5 mL	Bromide	50 mg/L
					IC CL cal_00008	25 mL	Chloride	250 mg/L
					IC FL cal_00004	5 mL	Fluoride	50 mg/L
					IC N02 CAL_00020	5 mL	Nitrite as N	50 mg/L
					IC N03 cal_00008	5 mL	Nitrate as N	50 mg/L
					IC P04 cal_00008	5 mL	Orthophosphate as P	50 mg/L
					IC sulfatecal_00007	25 mL	Sulfate	250 mg/L
..IC Br cal_00005	07/30/12		Ricca, Lot 4101497		(Purchased Reagent)		Bromide	1000 mg/L
..IC CL cal_00008	09/30/12		Ricca, Lot 1103357		(Purchased Reagent)		Chloride	1000 mg/L
..IC FL cal_00004	11/30/12		Ricca, Lot 4106066		(Purchased Reagent)		Fluoride	1000 mg/L
..IC N02 CAL_00020	08/31/12		RICCA, Lot 1202582		(Purchased Reagent)		Nitrite as N	1000 ppm
..IC N03 cal_00008	11/30/12		Ricca, Lot 1105365		(Purchased Reagent)		Nitrate as N	1000 mg/L
..IC P04 cal_00008	09/30/13		Ricca, Lot 4110047		(Purchased Reagent)		Orthophosphate as P	1000 mg/L
..IC sulfatecal_00007	01/31/13		RICCA, Lot 2108045		(Purchased Reagent)		Sulfate	1000 mg/L
IC ICV daily_00825	06/28/12	06/27/12	Di Water, Lot na	25 mL	IC ICV weekly_00154	1 mL	Bromide	2 mg/L
							Chloride	10 mg/L
							Fluoride	2 mg/L
							Nitrite as N	2 mg/L
							Nitrate as N	2 mg/L
							Orthophosphate as P	2 mg/L
							Sulfate	10 mg/L
.IC ICV weekly_00154	07/03/12	06/26/12	Di Water, Lot na	10 mL	IC BR ICV_00005	0.5 mL	Bromide	50 mg/L
					IC CL ICV_00004	2.5 mL	Chloride	250 mg/L
					IC F ICV_00004	0.5 mL	Fluoride	50 mg/L
					IC NO2 ICV_00004	0.5 mL	Nitrite as N	50 mg/L
					IC NO3 ICV_00003	0.5 mL	Nitrate as N	50 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					IC PO4 ICV_00006	0.5 mL	Orthophosphate as P	50 mg/L
					IC SO4 ICV_00004	2.5 mL	Sulfate	250 mg/L
..IC BR ICV_00005	02/28/13	SPEX, Lot 2-89br-2			(Purchased Reagent)		Bromide	1000 mg/L
..IC CL ICV_00004	07/15/13	LAB CHEM, Lot A195-13			(Purchased Reagent)		Chloride	1000 mg/L
..IC F ICV_00004	03/16/14	LAB CHEM, Lot BO74-27			(Purchased Reagent)		Fluoride	1000 mg/L
..IC NO2 ICV_00004	06/29/13	ERA, Lot 250611			(Purchased Reagent)		Nitrite as N	1000 mg/L
..IC NO3 ICV_00003	11/09/12	LAB CHEM, Lot 0312-12			(Purchased Reagent)		Nitrate as N	1000 mg/L
..IC PO4 ICV_00006	01/17/13	LAB CHEM, Lot A014-13			(Purchased Reagent)		Orthophosphate as P	1000 mg/L
..IC SO4 ICV_00004	07/15/13	LAB CHEM, Lot A195-12			(Purchased Reagent)		Sulfate	1000 mg/L
MV-2 Cleve_00012	10/28/12	04/28/12	P&T Methanol, Lot DE977	10 mL	MV-30265_00015	200 uL	2-Chloroethyl vinyl ether	40 ug/mL
.MV-30265_00015	01/31/16	RESTEK, Lot A079020			(Purchased Reagent)		2-Chloroethyl vinyl ether	2000 ug/mL
MV-524 A_00014	09/30/12	03/14/12	Methanol, Lot df233	10 mL	MV-DWM589N_00041	200 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							m-Xylene & p-Xylene	80 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-EPA1208_00027	400 uL	1-Chlorohexane	40 ug/mL
					MV-STS440_00035	200 uL	Methyl tert-butyl ether	40 ug/mL
.MV-DWM589N_00041	12/31/13	Ultra Scientific, Lot CG-3928			(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	4000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-EPA1208_00027	10/31/12	Ultra Scientific, Lot CF-3752			(Purchased Reagent)		1-Chlorohexane	1000 ug/mL
.MV-STS440_00035	01/31/15	Ultra, Lot cc-4444			(Purchased Reagent)		Methyl tert-butyl ether	2000 ug/mL
MV-624 A_00018	12/19/12	06/19/12	Methanol, Lot DF369	10 mL	MV-30462_00012	0.2 mL	1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
					MV-567117_00001	0.2 mL	Carbon disulfide	40 ug/mL
.MV-30462_00012	11/30/13	Restek, Lot A077815			(Purchased Reagent)		1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
.MV-567117_00001	05/31/14	RESTEK, Lot A088372			(Purchased Reagent)		Carbon disulfide	2000 ug/mL
MV-Acetates_00001	09/30/12	06/21/12	P&T Methanol, Lot DG256	10 mL	MV-cus14016_00001	200 uL	Methyl acetate	200 ug/mL
.MV-cus14016_00001	09/30/12	ULTRA, Lot CJ-2028			(Purchased Reagent)		Methyl acetate	10000 ug/mL
MV-Archon IS_00510	11/14/12	Supelco, Lot LB88967			(Purchased Reagent)		1,4-Dichlorobenzene-d4	250 ug/mL
							Chlorobenzene-d5	250 ug/mL
							Fluorobenzene	250 ug/mL
MV-Archon SS_00643	11/14/12	Restek, Lot A087857			(Purchased Reagent)		1,2-Dichloroethane-d4 (Surr)	250 ug/mL
							4-Bromofluorobenzene (Surr)	250 ug/mL
							Dibromofluoromethane (Surr)	250 ug/mL
							Toluene-d8 (Surr)	250 ug/mL
MV-Main GasKe_00029	06/22/12	05/22/12	P&T Methanol, Lot DF369	10 mL	MV- Acrolein_00010	100 uL	Acrolein	397.818 ug/mL
					MV-5M06036_00033	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
					MV-861149_00048	400 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
							Cyclohexanone	160 ug/mL
					MV-861149_00049	400 uL	2-Butanone (MEK)	160 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
							Cyclohexanone	1600 ug/mL
.MV- Acrolein_00010	06/22/12	12/22/11	P&T Methanol, Lot De997	5 mL	MV-48501_00005	0.2038 g	Acrolein	39781.8 ug/mL
..MV-48501_00005	06/30/12		Supelco, Lot LB85669v		(Purchased Reagent)		Acrolein	0.976 mL/mL
.MV-5M06036_00033	11/30/12		Supelco, Lot LB86965		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.MV-861149_00048	11/30/13		Supelco, Lot LB85301		(Purchased Reagent)		2-Butanone (MEK)	2000 ug/mL
							2-Hexanone	2000 ug/mL
							4-Methyl-2-pentanone (MIBK)	2000 ug/mL
							Acetone	2000 ug/mL
							Cyclohexanone	20000 ug/mL
.MV-861149_00049	11/30/13		Supelco, Lot LB85301		(Purchased Reagent)		2-Butanone (MEK)	2000 ug/mL
							2-Hexanone	2000 ug/mL
							4-Methyl-2-pentanone (MIBK)	2000 ug/mL
							Acetone	2000 ug/mL
							Cyclohexanone	20000 ug/mL
MV-Main GasKe_00031	07/30/12	05/22/12	P&T Methanol, Lot DF369	10 mL	MV-5M06036_00033	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
					MV-861149_00048	400 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-861149_00049	400 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
.MV-5M06036_00033	11/30/12		Supelco, Lot LB86965		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
.MV-861149_00048	11/30/13		Supelco, Lot LB85301		(Purchased Reagent)		2-Butanone (MEK)	2000 ug/mL
							2-Hexanone	2000 ug/mL
							4-Methyl-2-pentanone (MIBK)	2000 ug/mL
							Acetone	2000 ug/mL
.MV-861149_00049	11/30/13		Supelco, Lot LB85301		(Purchased Reagent)		2-Butanone (MEK)	2000 ug/mL
							2-Hexanone	2000 ug/mL
							4-Methyl-2-pentanone (MIBK)	2000 ug/mL
							Acetone	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-Main_00023	06/30/12	01/25/12	P&T Methanol, Lot de997	10 mL	MV-1-Ch Hex_00008	10.2 uL	1-Chlorohexane	39.944 ug/mL
					MV-502111_00024	200 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloroethene, Total	80 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	80 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added	Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
							Xylenes, Total	120 ug/mL
					MV-506052_00025	200 uL	Iodomethane	40 ug/mL
					MV-861145_00020	200 uL	2-Chloro-1,3-butadiene	40 ug/mL
					MV-CUS11338_00029	500 uL	1,4-Dioxane	2000 ug/mL
							2-Methyl-2-propanol	800 ug/mL
							Acetonitrile	400 ug/mL
							Acrylonitrile	400 ug/mL
							Isobutyl alcohol	800 ug/mL
							Isopropyl ether	200 ug/mL
							Methacrylonitrile	400 ug/mL
							Propionitrile	400 ug/mL
					MV-CUS11338_00030	500 uL	1,4-Dioxane	2000 ug/mL
							2-Methyl-2-propanol	800 ug/mL
							Acetonitrile	400 ug/mL
							Acrylonitrile	400 ug/mL
							Isobutyl alcohol	800 ug/mL
							Isopropyl ether	200 ug/mL
							Methacrylonitrile	400 ug/mL
							Propionitrile	400 ug/mL
.MV-1-Ch Hex_00008	07/25/12	01/25/12	P&T Methanol, Lot dd946	5 mL	MV-442258_00002	0.196 g	1-Chlorohexane	39160.8 ug/mL
..MV-442258_00002	07/31/13		Supelco, Lot LB77927		(Purchased Reagent)		1-Chlorohexane	0.999 mL/mL
.MV-502111_00024	04/30/13		Supelco, Lot LB83949		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloroethene, Total	4000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	4000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
							Xylenes, Total	6000 ug/mL
.MV-506052_00025	01/31/13		Supelco, Lot LB89742		(Purchased Reagent)		Iodomethane	2000 ug/mL
.MV-861145_00020	06/30/12		Supelco, Lot LB85068		(Purchased Reagent)		2-Chloro-1,3-butadiene	2000 ug/mL
.MV-CUS11338_00029	11/30/13		Ultra, Lot CH-3475		(Purchased Reagent)		1,4-Dioxane	20000 ug/mL
							2-Methyl-2-propanol	8000 ug/mL
							Acetonitrile	4000 ug/mL
							Acrylonitrile	4000 ug/mL
							Isobutyl alcohol	8000 ug/mL
							Isopropyl ether	2000 ug/mL
							Methacrylonitrile	4000 ug/mL
							Propionitrile	4000 ug/mL
.MV-CUS11338_00030	11/30/13		Ultra, Lot CH-3475		(Purchased Reagent)		1,4-Dioxane	20000 ug/mL
							2-Methyl-2-propanol	8000 ug/mL
							Acetonitrile	4000 ug/mL
							Acrylonitrile	4000 ug/mL
							Isobutyl alcohol	8000 ug/mL
							Isopropyl ether	2000 ug/mL
							Methacrylonitrile	4000 ug/mL
							Propionitrile	4000 ug/mL
MV-Main_00024	12/22/12	06/22/12	P&T Methanol, Lot dg256	10 mL	MV-1 CH Hex_00009	10 uL	1-Chlorohexane	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					MV-502111_00025	200 uL	1,1,1,2-Tetrachloroethane	40 ug/mL
							1,1,1-Trichloroethane	40 ug/mL
							1,1,2,2-Tetrachloroethane	40 ug/mL
							1,1,2-Trichloroethane	40 ug/mL
							1,1-Dichloroethane	40 ug/mL
							1,1-Dichloroethene	40 ug/mL
							1,1-Dichloropropene	40 ug/mL
							1,2,3-Trichlorobenzene	40 ug/mL
							1,2,3-Trichloropropane	40 ug/mL
							1,2,4-Trichlorobenzene	40 ug/mL
							1,2,4-Trimethylbenzene	40 ug/mL
							1,2-Dibromo-3-Chloropropane	40 ug/mL
							1,2-Dichlorobenzene	40 ug/mL
							1,2-Dichloroethane	40 ug/mL
							1,2-Dichloropropane	40 ug/mL
							1,3,5-Trimethylbenzene	40 ug/mL
							1,3-Dichlorobenzene	40 ug/mL
							1,3-Dichloropropane	40 ug/mL
							1,4-Dichlorobenzene	40 ug/mL
							2,2-Dichloropropane	40 ug/mL
							2-Chlorotoluene	40 ug/mL
							4-Chlorotoluene	40 ug/mL
							4-Isopropyltoluene	40 ug/mL
							Benzene	40 ug/mL
							Bromobenzene	40 ug/mL
							Bromoform	40 ug/mL
							Carbon tetrachloride	40 ug/mL
							Chlorobenzene	40 ug/mL
							Chlorobromomethane	40 ug/mL
							Chlorodibromomethane	40 ug/mL
							Chloroform	40 ug/mL
							cis-1,2-Dichloroethene	40 ug/mL
							cis-1,3-Dichloropropene	40 ug/mL
							Dibromomethane	40 ug/mL
							Dichlorobromomethane	40 ug/mL
							Ethylbenzene	40 ug/mL
							Ethylene Dibromide	40 ug/mL
							Hexachlorobutadiene	40 ug/mL
							Isopropylbenzene	40 ug/mL
							m-Xylene & p-Xylene	80 ug/mL
							Methylene Chloride	40 ug/mL
							n-Butylbenzene	40 ug/mL
							N-Propylbenzene	40 ug/mL
							Naphthalene	40 ug/mL
							o-Xylene	40 ug/mL
							sec-Butylbenzene	40 ug/mL
							Styrene	40 ug/mL
							tert-Butylbenzene	40 ug/mL
							Tetrachloroethene	40 ug/mL
							Toluene	40 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							trans-1,2-Dichloroethene	40 ug/mL
							trans-1,3-Dichloropropene	40 ug/mL
							Trichloroethene	40 ug/mL
					MV-CUS11338_00033	500 uL	1,4-Dioxane	2000 ug/mL
					MV-CUS11338_00034	500 uL	1,4-Dioxane	2000 ug/mL
.MV-1-Ch Hex_00009	12/22/12	06/22/12	P&T Methanol, Lot dg256	5 mL	MV-442258_00003	0.2052 g	1-Chlorohexane	40999 ug/mL
..MV-442258_00003	11/30/14		Supelco, Lot LB89038v		(Purchased Reagent)		1-Chlorohexane	0.999 mL/mL
.MV-502111_00025	04/30/13		Supelco, Lot LB83949		(Purchased Reagent)		1,1,1,2-Tetrachloroethane	2000 ug/mL
							1,1,1-Trichloroethane	2000 ug/mL
							1,1,2,2-Tetrachloroethane	2000 ug/mL
							1,1,2-Trichloroethane	2000 ug/mL
							1,1-Dichloroethane	2000 ug/mL
							1,1-Dichloroethene	2000 ug/mL
							1,1-Dichloropropene	2000 ug/mL
							1,2,3-Trichlorobenzene	2000 ug/mL
							1,2,3-Trichloropropane	2000 ug/mL
							1,2,4-Trichlorobenzene	2000 ug/mL
							1,2,4-Trimethylbenzene	2000 ug/mL
							1,2-Dibromo-3-Chloropropane	2000 ug/mL
							1,2-Dichlorobenzene	2000 ug/mL
							1,2-Dichloroethane	2000 ug/mL
							1,2-Dichloropropane	2000 ug/mL
							1,3,5-Trimethylbenzene	2000 ug/mL
							1,3-Dichlorobenzene	2000 ug/mL
							1,3-Dichloropropane	2000 ug/mL
							1,4-Dichlorobenzene	2000 ug/mL
							2,2-Dichloropropane	2000 ug/mL
							2-Chlorotoluene	2000 ug/mL
							4-Chlorotoluene	2000 ug/mL
							4-Isopropyltoluene	2000 ug/mL
							Benzene	2000 ug/mL
							Bromobenzene	2000 ug/mL
							Bromoform	2000 ug/mL
							Carbon tetrachloride	2000 ug/mL
							Chlorobenzene	2000 ug/mL
							Chlorobromomethane	2000 ug/mL
							Chlorodibromomethane	2000 ug/mL
							Chloroform	2000 ug/mL
							cis-1,2-Dichloroethene	2000 ug/mL
							cis-1,3-Dichloropropene	2000 ug/mL
							Dibromomethane	2000 ug/mL
							Dichlorobromomethane	2000 ug/mL
							Ethylbenzene	2000 ug/mL
							Ethylene Dibromide	2000 ug/mL
							Hexachlorobutadiene	2000 ug/mL
							Isopropylbenzene	2000 ug/mL
							m-Xylene & p-Xylene	4000 ug/mL
							Methylene Chloride	2000 ug/mL
							n-Butylbenzene	2000 ug/mL
							N-Propylbenzene	2000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Naphthalene	2000 ug/mL
							o-Xylene	2000 ug/mL
							sec-Butylbenzene	2000 ug/mL
							Styrene	2000 ug/mL
							tert-Butylbenzene	2000 ug/mL
							Tetrachloroethene	2000 ug/mL
							Toluene	2000 ug/mL
							trans-1,2-Dichloroethene	2000 ug/mL
							trans-1,3-Dichloropropene	2000 ug/mL
							Trichloroethene	2000 ug/mL
.MV-CUS11338_00033	11/30/13		Ultra, Lot CH-3475		(Purchased Reagent)		1,4-Dioxane	20000 ug/mL
.MV-CUS11338_00034	11/30/13		Ultra, Lot CH-3475		(Purchased Reagent)		1,4-Dioxane	20000 ug/mL
MV-SecSrc B_00007	10/18/12	04/18/12	P&T Methanol, Lot df233	5 mL	MV-8240CR310x_00014	100 uL	1,4-Dioxane	800 ug/mL
.MV-8240CR310x_00014	10/25/13		AccuStandard, Lot 210041266		(Purchased Reagent)		1,4-Dioxane	40000 ug/mL
MV-SS GasKe_00020	12/01/12	06/01/12	P&T Methanol, Lot De997	10 mL	MV-30006_00035	320 uL	2-Butanone (MEK)	160 ug/mL
							2-Hexanone	160 ug/mL
							4-Methyl-2-pentanone (MIBK)	160 ug/mL
							Acetone	160 ug/mL
					MV-5s06036_00018	200 uL	Bromomethane	40 ug/mL
							Chloroethane	40 ug/mL
							Chloromethane	40 ug/mL
							Dichlorodifluoromethane	40 ug/mL
							Trichlorofluoromethane	40 ug/mL
							Vinyl chloride	40 ug/mL
.MV-30006_00035	04/30/14		Restek, Lot A079446		(Purchased Reagent)		2-Butanone (MEK)	5000 ug/mL
							2-Hexanone	5000 ug/mL
							4-Methyl-2-pentanone (MIBK)	5000 ug/mL
							Acetone	5000 ug/mL
.MV-5s06036_00018	02/28/15		Supelco, Lot LB92231		(Purchased Reagent)		Bromomethane	2000 ug/mL
							Chloroethane	2000 ug/mL
							Chloromethane	2000 ug/mL
							Dichlorodifluoromethane	2000 ug/mL
							Trichlorofluoromethane	2000 ug/mL
							Vinyl chloride	2000 ug/mL
MV-SS Supp_00011	05/20/12	02/17/12	P&T Methanol, Lot de997	5 mL	MV-562811_00013	100 uL	Methyl acetate	200 ug/mL
					MV-564150_00011	100 uL	1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							Carbon disulfide	40 ug/mL
							Cyclohexane	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
.MV-562811_00013	07/31/13		RESTEK, Lot A086189		(Purchased Reagent)		Methyl acetate	10000 ug/mL
.MV-564150_00011	05/30/12		RESTEK, Lot A081643		(Purchased Reagent)		1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
MV-Supp Std_00023	12/19/12	05/17/12	P&T Methanol, Lot DF700	10 mL	MV-562811_00013	200 uL	Ethyl acetate	4000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Methyl acetate	200 ug/mL
							Vinyl acetate	80 ug/mL
					MV-564150_00012	200 uL	1,1,1-Trifluoro-2,2-dichloroethane	40 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							2-Nitropropane	40 ug/mL
							2-Pentanone	160 ug/mL
							3-Chloro-1-propene	40 ug/mL
							Carbon disulfide	40 ug/mL
							cis-1,4-Dichloro-2-butene	40 ug/mL
							Cyclohexane	40 ug/mL
							Dichlorofluoromethane	40 ug/mL
							Ethyl ether	40 ug/mL
							Ethyl methacrylate	80 ug/mL
							Hexane	40 ug/mL
							Isopropyl alcohol	800 ug/mL
							Methyl methacrylate	80 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
							Tert-amyl methyl ether	200 ug/mL
							Tert-butyl ethyl ether	200 ug/mL
							Tetrahydrofuran	80 ug/mL
							trans-1,4-Dichloro-2-butene	40 ug/mL
					MV-CUS13060_00013	240 uL	sec-Butyl Alcohol	1205.76 ug/mL
.MV-562811_00013	07/31/13		RESTEK, Lot A086189		(Purchased Reagent)		Ethyl acetate	4000 ug/mL
							Methyl acetate	10000 ug/mL
							Vinyl acetate	4000 ug/mL
.MV-564150_00012	01/30/13		RESTEK, Lot A086228		(Purchased Reagent)		1,1,1-Trifluoro-2,2-dichloroethane	2000 ug/mL
							1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							2-Nitropropane	2000 ug/mL
							2-Pentanone	8000 ug/mL
							3-Chloro-1-propene	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							cis-1,4-Dichloro-2-butene	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Dichlorofluoromethane	2000 ug/mL
							Ethyl ether	2000 ug/mL
							Ethyl methacrylate	4000 ug/mL
							Hexane	2000 ug/mL
							Isopropyl alcohol	40000 ug/mL
							Methyl methacrylate	4000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
							Tert-amyl methyl ether	10000 ug/mL
							Tert-butyl ethyl ether	10000 ug/mL
							Tetrahydrofuran	4000 ug/mL
							trans-1,4-Dichloro-2-butene	2000 ug/mL
.MV-CUS13060_00013	05/31/13		Ultra, Lot CH-1383		(Purchased Reagent)		sec-Butyl Alcohol	30240 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
MV-Supp Std_00025	10/02/12	06/19/12	P&T Methanol, Lot DF700	10 mL	MV-CUS14015_00001	200 uL	1,1,2-Trichloro-1,2,2-trifluoroethane	40 ug/mL
							Carbon disulfide	40 ug/mL
							Cyclohexane	40 ug/mL
							Methyl tert-butyl ether	40 ug/mL
							Methylcyclohexane	40 ug/mL
.MV-CUS14015_00001	07/31/13	Ultra, Lot CJ-2219			(Purchased Reagent)		1,1,2-Trichloro-1,2,2-trifluoroethane	2000 ug/mL
							Carbon disulfide	2000 ug/mL
							Cyclohexane	2000 ug/mL
							Methyl tert-butyl ether	2000 ug/mL
							Methylcyclohexane	2000 ug/mL
TDS LCS_00281	10/02/12	07/02/12	Di Water, Lot na	1000 mL	NaCl f_00004	0.5003 g	Total Dissolved Solids	500.3 mg/L
.NaCl f_00004	04/14/21	JT Baker, Lot J48622			(Purchased Reagent)		Total Dissolved Solids	1 g/g
TOC ICV Std_00012	01/31/13	Ricca, Lot 1201330			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm
TOC LCS Std_00013	11/30/13	Ultra Scientific, Lot M01122			(Purchased Reagent)		Total Organic Carbon - Quad	1000 ppm

Certification Summary

Client: FPM Remediations Inc
Project/Site: Griffiss AFB B35 LTM

TestAmerica Job ID: 280-30461-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Denver	A2LA	DoD ELAP		2907.01
TestAmerica Denver	A2LA	ISO/IEC 17025		2907.01
TestAmerica Denver	Alabama	State Program	4	40730
TestAmerica Denver	Alaska (UST)	State Program	10	UST-30
TestAmerica Denver	Arizona	State Program	9	AZ0713
TestAmerica Denver	Arkansas DEQ	State Program	6	88-0687
TestAmerica Denver	California	State Program	9	2513
TestAmerica Denver	Colorado	State Program	8	N/A
TestAmerica Denver	Connecticut	State Program	1	PH-0686
TestAmerica Denver	Florida	NELAC	4	E87667
TestAmerica Denver	Georgia	State Program	4	N/A
TestAmerica Denver	Idaho	State Program	10	CO00026
TestAmerica Denver	Illinois	NELAC	5	200017
TestAmerica Denver	Iowa	State Program	7	370
TestAmerica Denver	Kansas	NELAC	7	E-10166
TestAmerica Denver	Louisiana	NELAC	6	30785
TestAmerica Denver	Maine	State Program	1	CO0002
TestAmerica Denver	Maryland	State Program	3	268
TestAmerica Denver	Minnesota	NELAC	5	8-999-405
TestAmerica Denver	Nevada	State Program	9	CO0026
TestAmerica Denver	New Hampshire	NELAC	1	205310
TestAmerica Denver	New Jersey	NELAC	2	CO004
TestAmerica Denver	New Mexico	State Program	6	N/A
TestAmerica Denver	New York	NELAC	2	11964
TestAmerica Denver	North Carolina DENR	State Program	4	358
TestAmerica Denver	North Dakota	State Program	8	R-034
TestAmerica Denver	Oklahoma	State Program	6	8614
TestAmerica Denver	Oregon	NELAC	10	CO200001
TestAmerica Denver	Pennsylvania	NELAC	3	68-00664
TestAmerica Denver	South Carolina	State Program	4	72002
TestAmerica Denver	Tennessee	State Program	4	TN02944
TestAmerica Denver	Texas	NELAC	6	T104704183-08-TX
TestAmerica Denver	USDA	Federal		P330-08-00036
TestAmerica Denver	Utah	NELAC	8	QUAN5
TestAmerica Denver	Virginia	NELAC	3	
TestAmerica Denver	Washington	State Program	10	C1284
TestAmerica Denver	West Virginia DEP	State Program	3	354
TestAmerica Denver	Wisconsin	State Program	5	999615430
TestAmerica Denver	Wyoming (UST)	A2LA	8	

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

Method 8260B DOD

Volatile Organic Compounds (GC/MS) by Method 8260B/DOD

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): DB-624 ID: 0.53 (mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
B035M0411HA	280-30461-1	98	109	100	104
	MB 280-127051/7	103	111	104	105
	LCS 280-127051/6	92	101	101	94

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	85-115
DCA = 1,2-Dichloroethane-d4 (Surr)	70-120
TOL = Toluene-d8 (Surr)	85-120
BFB = 4-Bromofluorobenzene (Surr)	75-120

Column to be used to flag recovery values

FORM II 8260B/DoD

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z8175.D

Lab ID: LCS 280-127051/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1,2-Tetrachloroethane	5.00	5.11	102	80-130	
1,1,1-Trichloroethane	5.00	5.07	101	65-130	
1,2,3-Trichloropropane	5.00	4.93	99	75-125	
1,2,3-Trichlorobenzene	5.00	4.69	94	55-140	
1,1-Dichloroethane	5.00	3.73	75	70-135	
1,2,4-Trichlorobenzene	5.00	4.61	92	65-135	
1,2-Dibromo-3-Chloropropane	5.00	4.88 J	98	50-130	
1,1-Dichloropropene	5.00	4.82	96	75-130	
1,1-Dichloroethene	5.00	3.88	78	70-130	
1,1,2-Trichloroethane	5.00	4.57	91	75-125	
1,1,2,2-Tetrachloroethane	5.00	5.26	105	65-130	
1,2,4-Trimethylbenzene	5.00	4.91	98	75-130	
1,2-Dichlorobenzene	5.00	4.75	95	70-120	
1,2-Dichloroethane	5.00	5.16	103	70-130	
1,3-Dichlorobenzene	5.00	4.77	95	75-125	
1,3-Dichloropropane	5.00	5.22	104	75-125	
1,3,5-Trimethylbenzene	5.00	5.07	101	75-130	
2-Butanone (MEK)	20.0	16.5	83	30-150	
1,4-Dichlorobenzene	5.00	5.01	100	75-125	
1,2-Dichloropropane	5.00	4.59	92	75-125	
2,2-Dichloropropane	5.00	5.54	111	70-135	
2-Hexanone	20.0	19.0	95	55-130	
4-Methyl-2-pentanone (MIBK)	20.0	17.7	88	60-135	
4-Isopropyltoluene	5.00	4.72	94	75-130	
Benzene	5.00	4.71	94	80-120	
Acetone	20.0	19.2	96	40-140	
Bromobenzene	5.00	5.28	106	75-125	
Bromoform	5.00	5.36	107	70-130	
Bromomethane	5.00	3.29	66	30-145	
Carbon tetrachloride	5.00	5.00	100	65-140	
Carbon disulfide	5.00	3.17	63	35-160	
2-Chlorotoluene	5.00	4.64	93	75-125	
4-Chlorotoluene	5.00	4.92	98	75-130	
Chlorobenzene	5.00	5.03	101	80-120	
Chlorobromomethane	5.00	4.64	93	65-130	
Chlorodibromomethane	5.00	5.31	106	60-135	
Chloroform	5.00	5.11	102	65-135	
Chloroethane	5.00	3.39	68	60-135	
Chloromethane	5.00	3.09	62	40-125	
cis-1,2-Dichloroethene	5.00	4.70	94	70-125	
cis-1,3-Dichloropropene	5.00	5.03	101	70-130	
Dibromomethane	5.00	5.09	102	75-125	

Column to be used to flag recovery and RPD values

FORM III 8260B/DoD

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Matrix: Water Level: Low Lab File ID: Z8175.D

Lab ID: LCS 280-127051/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Dichlorobromomethane	5.00	5.10	102	75-120	
Dichlorodifluoromethane	5.00	2.85	57	30-155	
Ethylbenzene	5.00	5.09	102	75-125	
Hexachlorobutadiene	5.00	4.93	99	50-140	
Isopropylbenzene	5.00	5.13	103	75-125	
Ethylene Dibromide	5.00	5.16	103	80-120	
Methylene Chloride	5.00	3.61 J	72	55-140	
Methyl tert-butyl ether	5.00	3.86 J	77	65-125	
m-Xylene & p-Xylene	10.0	10.1	101	75-130	
Naphthalene	5.00	4.59	92	55-140	
n-Butylbenzene	5.00	5.17	103	70-135	
N-Propylbenzene	5.00	4.84	97	70-130	
o-Xylene	5.00	5.03	101	80-120	
Styrene	5.00	5.04	101	65-135	
sec-Butylbenzene	5.00	4.86	97	70-125	
tert-Butylbenzene	5.00	4.83	97	70-130	
trans-1,2-Dichloroethene	5.00	3.78	76	60-140	
trans-1,3-Dichloropropene	5.00	4.84	97	55-140	
Tetrachloroethene	5.00	5.44	109	45-150	
Toluene	5.00	4.66	93	75-120	
Trichloroethene	5.00	4.85	97	70-125	
Trichlorofluoromethane	5.00	3.36	67	60-145	
Vinyl chloride	5.00	3.16	63	50-145	

Column to be used to flag recovery and RPD values

FORM III 8260B/DoD

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab File ID: Z8176.D Lab Sample ID: MB 280-127051/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: MSV_Z Date Analyzed: 07/09/2012 10:51

GC Column: DB-624 (75.53) ID: 0.53(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-127051/6	Z8175.D	07/09/2012 10:30
B035M0411HA	280-30461-1	Z8189.D	07/09/2012 15:47

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab File ID: Z7127.D BFB Injection Date: 06/11/2012

Instrument ID: MSV_Z BFB Injection Time: 10:51

Analysis Batch No.: 123533

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	24.0	
75	30.0 - 60.0 % of mass 95	48.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	8.0	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	61.5	
175	5.0 - 9.0 % of mass 174	4.5	(7.4)1
176	95.0 - 101.0 % of mass 174	60.5	(98.2)1
177	5.0 - 9.0 % of mass 176	4.1	(6.9)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 280-123533/2	Z7128.D	06/11/2012	10:59
	IC 280-123533/3	Z7129.D	06/11/2012	11:21
	IC 280-123533/4	Z7130.D	06/11/2012	11:42
	ICIS 280-123533/5	Z7131.D	06/11/2012	12:03
	IC 280-123533/6	Z7132.D	06/11/2012	12:25
	IC 280-123533/7	Z7133.D	06/11/2012	12:46
	ICV 280-123533/8	Z7134.D	06/11/2012	13:07
	IC 280-123533/9	Z7135.D	06/11/2012	13:29
	IC 280-123533/10	Z7136.D	06/11/2012	13:50
	IC 280-123533/11	Z7137.D	06/11/2012	14:11
	IC 280-123533/12	Z7138.D	06/11/2012	14:33
	IC 280-123533/13	Z7139.D	06/11/2012	14:54
	IC 280-123533/14	Z7140.D	06/11/2012	15:15
	IC 280-123533/15	Z7141.D	06/11/2012	15:37
	ICV 280-123533/16	Z7142.D	06/11/2012	15:58
	ICV 280-123533/17	Z7143.D	06/11/2012	16:19
	ICV 280-123533/18	Z7144.D	06/11/2012	16:41

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab File ID: Z7145.D BFB Injection Date: 06/11/2012

Instrument ID: MSV_Z BFB Injection Time: 23:51

Analysis Batch No.: 123534

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	23.6	
75	30.0 - 60.0 % of mass 95	47.9	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.9	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	62.1	
175	5.0 - 9.0 % of mass 174	4.6	(7.5)1
176	95.0 - 101.0 % of mass 174	60.7	(97.7)1
177	5.0 - 9.0 % of mass 176	4.3	(7.0)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	ICV 280-123534/2	Z7146.D	06/12/2012	00:11

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab File ID: Z8170.D BFB Injection Date: 07/09/2012

Instrument ID: MSV_Z BFB Injection Time: 08:57

Analysis Batch No.: 127051

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	20.1	
75	30.0 - 60.0 % of mass 95	46.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0)1
174	50.0 - 120.00 % of mass 95	67.4	
175	5.0 - 9.0 % of mass 174	5.0	(7.5)1
176	95.0 - 101.0 % of mass 174	66.9	(99.2)1
177	5.0 - 9.0 % of mass 176	4.5	(6.7)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCV 280-127051/2	Z8171.D	07/09/2012	09:04
	CCV 280-127051/3	Z8172.D	07/09/2012	09:25
	CCV 280-127051/4	Z8173.D	07/09/2012	09:46
	LCS 280-127051/6	Z8175.D	07/09/2012	10:30
	MB 280-127051/7	Z8176.D	07/09/2012	10:51
B035M0411HA	280-30461-1	Z8189.D	07/09/2012	15:47

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Sample No.: ICIS 280-123533/5 Date Analyzed: 06/11/2012 12:03

Instrument ID: MSV_Z GC Column: DB-624 (75.53) ID: 0.53(mm)

Lab File ID (Standard): Z7131.D Heated Purge: (Y/N) N

Calibration ID: 9582

		FB		CBZ		DCB	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		912076	4.77	208964	9.20	304398	13.22
UPPER LIMIT		1824152	5.27	417928	9.70	608796	13.72
LOWER LIMIT		456038	4.27	104482	8.70	152199	12.72
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-123533/8		1050715	4.77	238465	9.21	327233	13.22
ICV 280-123533/16		1088018	4.77	273058	9.20	397465	13.22
ICV 280-123533/17		982037	4.78	216059	9.20	356103	13.22
ICV 280-123533/18		1125787	4.77	231068	9.20	339276	13.24
ICV 280-123534/2		1060586	4.75	229359	9.19	369521	13.21
CCV 280-127051/2		902004	4.76	184262	9.20	314527	13.20
CCV 280-127051/3		921047	4.76	197584	9.20	307622	13.22
CCV 280-127051/4		912089	4.76	194803	9.20	287696	13.22
LCS 280-127051/6		931764	4.77	187936	9.19	312634	13.20
MB 280-127051/7		853454	4.76	181920	9.20	268623	13.22
280-30461-1	B035M0411HA	916220	4.77	193243	9.20	277364	13.22

FB = Fluorobenzene
CBZ = Chlorobenzene-d5
DCB = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260B/DOD

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-30461-1

SDG No.:

Client Sample ID: B035M0411HA | Lab Sample ID: 280-30461-1

Matrix: Water | Lab File ID: Z8189.D

Analysis Method: 8260B/DoD | Date Collected: 06/26/2012 16:00

Sample wt/vol: 20(mL) | Date Analyzed: 07/09/2012 15:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127051 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.20	U	1.0	0.20	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
75-34-3	1,1-Dichloroethane	0.20	U	1.0	0.20	0.16
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	0.14
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.20	U	1.0	0.20	0.13
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.20	U	1.0	0.20	0.15
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
78-87-5	1,2-Dichloropropane	0.20	U	1.0	0.20	0.13
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
67-64-1	Acetone	6.4	U	10	6.4	1.9
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-30461-1

SDG No.:

Client Sample ID: B035M0411HA | Lab Sample ID: 280-30461-1

Matrix: Water | Lab File ID: Z8189.D

Analysis Method: 8260B/DoD | Date Collected: 06/26/2012 16:00

Sample wt/vol: 20(mL) | Date Analyzed: 07/09/2012 15:47

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127051 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	8.7		1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
106-93-4	Ethylene Dibromide	0.20	U	1.0	0.20	0.18
75-09-2	Methylene Chloride	0.40	U	5.0	0.40	0.32
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
156-60-5	trans-1,2-Dichloroethene	0.32	J	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
79-01-6	Trichloroethene	0.25	J	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	4.5		1.5	0.80	0.40
123-91-1	1,4-Dioxane	80	U	220	80	71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	3.0	3.0	0.79
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Client Sample ID: B035M0411HA Lab Sample ID: 280-30461-1

Matrix: Water Lab File ID: Z8189.D

Analysis Method: 8260B/DoD Date Collected: 06/26/2012 16:00

Sample wt/vol: 20(mL) Date Analyzed: 07/09/2012 15:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127051 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	100		85-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	109		70-120
460-00-4	4-Bromofluorobenzene (Surr)	104		75-120
1868-53-7	Dibromofluoromethane (Surr)	98		85-115

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8189.D
Lab Smp Id: 280-30461-E-1 Client Smp ID: B035M0411HA
Inj Date : 09-JUL-2012 15:47
Operator : MEIERG Inst ID: Z.i
Smp Info : 280-30461-e-1,,PH<2
Misc Info : 280-30461-E-1
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 09-Jul-2012 06:52 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: DOD.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					CONCENTRATIONS ON-COLUMN	FINAL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	
*	62 Fluorobenzene	96	4.766	4.767	(1.000)	916220	12.5000		
*	86 Chlorobenzene-d5	119	9.204	9.204	(1.000)	193243	12.5000		
*	111 1,4-Dichlorobenzene-d4	152	13.223	13.207	(1.000)	277364	12.5000		(Q)
$	51 Dibromofluoromethane (Surr)	111	3.949	3.948	(0.828)	444858	8.79579	8.79579	
$	56 1,2-Dichloroethane-d4	65	4.331	4.330	(0.909)	234090	9.78638	9.78638	
$	75 Toluene-d8	98	6.959	6.958	(0.756)	873781	9.04331	9.04331	
$	98 4-Bromofluorobenzene (Surr)	95	11.222	11.186	(0.849)	467715	9.36965	9.36965	
M	1 1,2-Dichloroethene (total)	96				281987	8.97150	8.97150	
M	2 Xylene (total)	106	Compound Not Detected.						
	6 dichlorodifluoromethane	85	Compound Not Detected.						
	8 1,2-Dichlorotetrafluoroethane	85	Compound Not Detected.						
	7 Chloromethane	50	Compound Not Detected.						
	9 Vinyl Chloride	62	1.478	1.461	(0.310)	125432	4.45433	4.45433	
	11 Ethylene Oxide	43	Compound Not Detected.						
	12 Bromomethane	94	Compound Not Detected.						
	13 Chloroethane	64	Compound Not Detected.						
	14 Dichlorofluoromethane	67	Compound Not Detected.						
	16 Trichlorofluoromethane	101	Compound Not Detected.						
	17 Ethyl Ether	59	Compound Not Detected.						
	19 1,2-dichloro-1,1,2-trifluoro	117	Compound Not Detected.						
	20 2,2-dichloro-1,1,1-trifluoro	83	Compound Not Detected.						
	21 Acrolein	56	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
23 1,1-Dichloroethene	96	Compound Not Detected.					
24 Trichlorotrifluoroethane	151	Compound Not Detected.					
22 Acetone	43	Compound Not Detected.					
25 Iodomethane	142	Compound Not Detected.					
18 2-propanol	45	Compound Not Detected.					
26 Carbon Disulfide	76	Compound Not Detected.					
39 Allyl Chloride	41	Compound Not Detected.					
27 Methyl Acetate	43	Compound Not Detected.					
28 Methylene Chloride	84	Compound Not Detected.					
30 tert-Butyl alcohol	59	Compound Not Detected.					
31 Acrylonitrile	53	Compound Not Detected.					
33 Methyl t-butyl ether	73	Compound Not Detected.					
32 trans-1,2-Dichloroethene	96	2.574	2.575	(0.540)	10116	0.31614	0.316144(a)
34 Hexane	57	Compound Not Detected.					
36 1,1-Dichloroethane	63	Compound Not Detected.					
35 Vinyl Acetate	43	Compound Not Detected.					
37 Isopropyl ether	87	Compound Not Detected.					
38 Chloroprene	53	Compound Not Detected.					
40 ETBE	59	Compound Not Detected.					
42 cis-1,2-Dichloroethene	96	3.461	3.462	(0.726)	271871	8.65535	8.65535
43 2,2-Dichloropropane	77	Compound Not Detected.					
41 2-Butanone	43	Compound Not Detected.					
44 Ethyl Acetate	43	Compound Not Detected.					
49 2-Butanol	45	Compound Not Detected.					
46 Methacrylonitrile	41	Compound Not Detected.					
47 Bromochloromethane	128	Compound Not Detected.					
48 Tetrahydrofuran	42	Compound Not Detected.					
50 Chloroform	83	Compound Not Detected.					
52 1,1,1-Trichloroethane	97	Compound Not Detected.					
53 Cyclohexane	56	Compound Not Detected.					
54 1,1-Dichloropropene	75	Compound Not Detected.					
55 Carbon Tetrachloride	117	Compound Not Detected.					
59 Benzene	78	Compound Not Detected.					
57 1,2-Dichloroethane	62	Compound Not Detected.					
60 TAME	73	Compound Not Detected.					
63 Trichloroethene	95	5.254	5.255	(1.102)	10004	0.25116	0.251156(a)
64 2-Pentanone	43	Compound Not Detected.					
65 Methyl Cyclohexane	55	Compound Not Detected.					
66 1,2-Dichloropropane	63	Compound Not Detected.					
67 Dibromomethane	93	Compound Not Detected.					
68 Methyl Methacrylate	100	Compound Not Detected.					
69 1,4-Dioxane	88	Compound Not Detected.					
70 Bromodichloromethane	83	Compound Not Detected.					
72 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
73 cis-1,3-Dichloropropene	75	Compound Not Detected.					
74 4-Methyl-2-pentanone	43	Compound Not Detected.					
76 Toluene	91	Compound Not Detected.					
77 trans-1,3-Dichloropropene	75	Compound Not Detected.					
78 Ethyl methacrylate	69	Compound Not Detected.					
79 1,1,2-Trichloroethane	97	Compound Not Detected.					
80 Tetrachloroethene	164	Compound Not Detected.					
81 1,3-Dichloropropane	76	Compound Not Detected.					
82 2-Hexanone	43	Compound Not Detected.					
84 Dibromochloromethane	129	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
85 1,2-Dibromoethane	107	Compound Not Detected.					
88 1-Chlorohexane	91	Compound Not Detected.					
87 Chlorobenzene	112	Compound Not Detected.					
89 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
90 Ethylbenzene	106	Compound Not Detected.					
91 m and p-Xylene	106	Compound Not Detected.					
92 o-Xylene	106	Compound Not Detected.					
93 Styrene	104	Compound Not Detected.					
94 Bromoform	173	Compound Not Detected.					
95 isopropyl benzene	105	Compound Not Detected.					
96 cis-1,4-dichloro-2-butene	53	Compound Not Detected.					
97 Cyclohexanone	55	Compound Not Detected.					
99 Bromobenzene	156	Compound Not Detected.					
100 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
101 1,2,3-Trichloropropane	110	Compound Not Detected.					
102 t-1,4-Dichloro-2-butene	53	Compound Not Detected.					
103 n-Propylbenzene	120	Compound Not Detected.					
104 2-Chlorotoluene	126	Compound Not Detected.					
106 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
105 4-Chlorotoluene	126	Compound Not Detected.					
107 tert-Butylbenzene	119	Compound Not Detected.					
108 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
109 sec-Butylbenzene	134	Compound Not Detected.					
110 1,3-Dichlorobenzene	146	Compound Not Detected.					
112 4-Isopropyltoluene	119	Compound Not Detected.					
113 1,4-dichlorobenzene	146	Compound Not Detected.					
116 n-Butylbenzene	91	Compound Not Detected.					
115 1,2-Dichlorobenzene	146	Compound Not Detected.					
117 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
118 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
119 Hexachlorobutadiene	225	Compound Not Detected.					
120 Naphthalene	128	Compound Not Detected.					
121 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

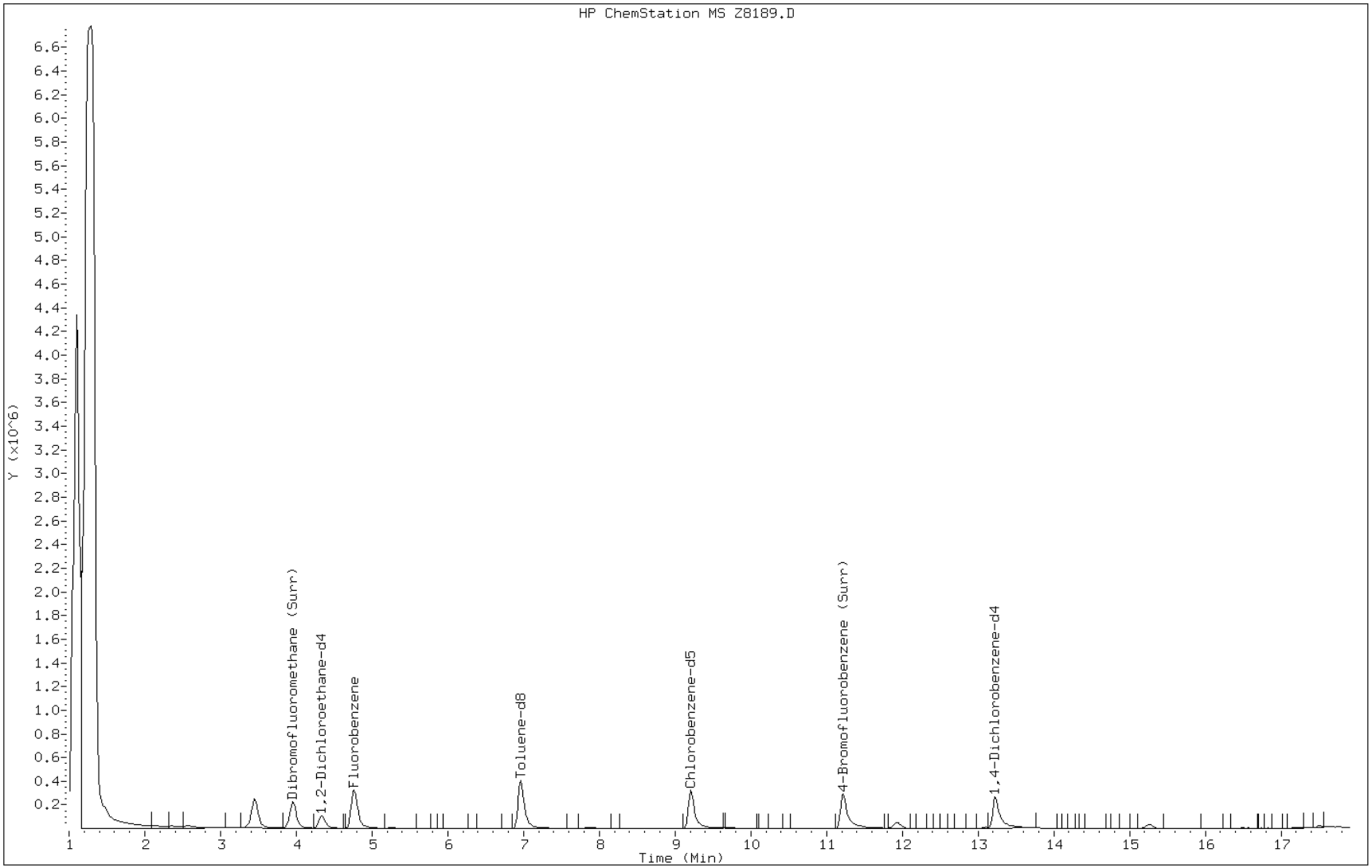
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z8189.D

Date: 09-JUL-2012 15:47

Client ID: B035M0411HA Instrument: Z.i

Sample Info: 280-30461-e-1,,PH<2 Operator: MEIERG



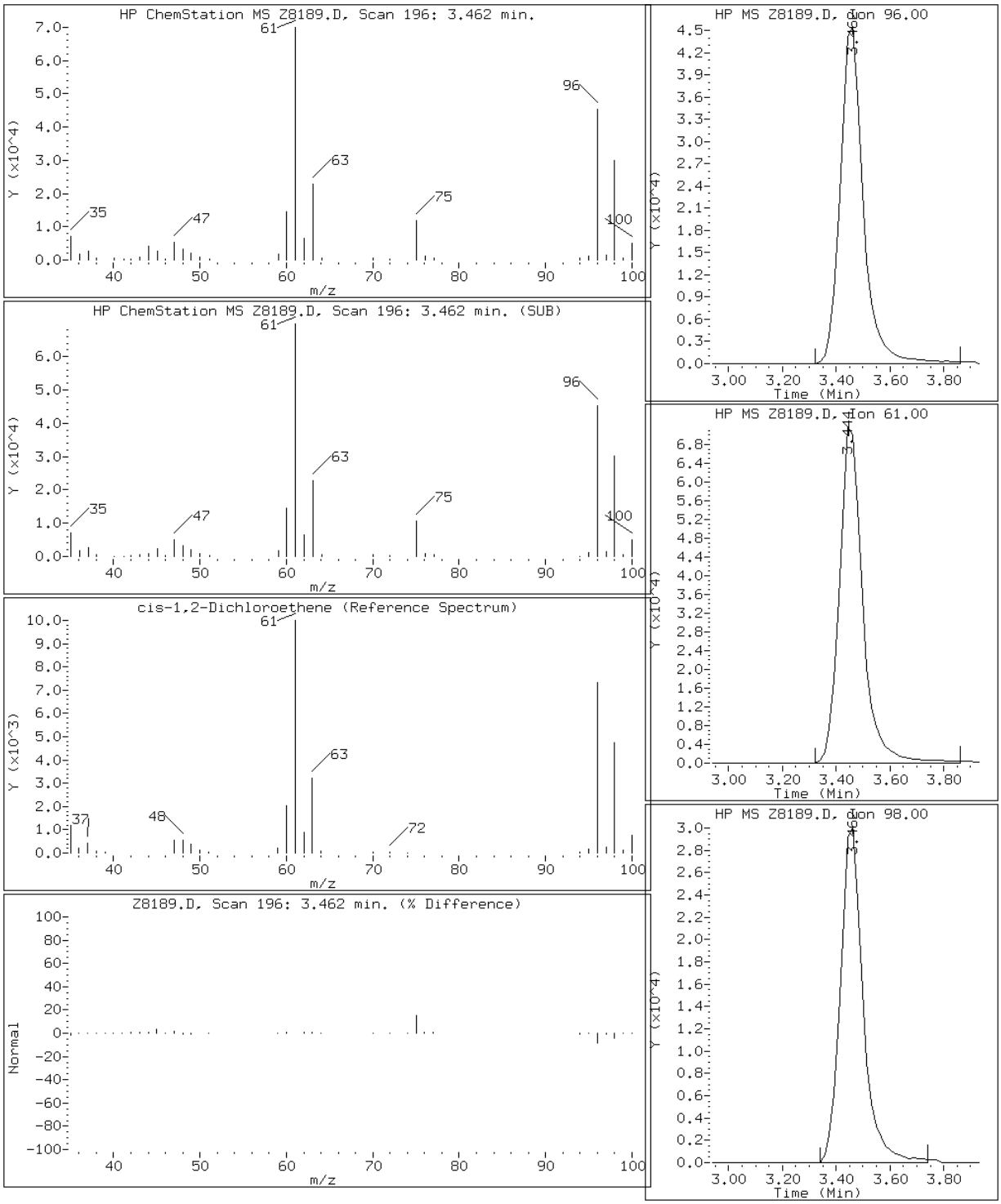
Data File: Z8189.D

Date: 09-JUL-2012 15:47

Client ID: B035M0411HA Instrument: Z.i

Sample Info: 280-30461-e-1,,PH<2 Operator: MEIERG

42 cis-1,2-Dichloroethene



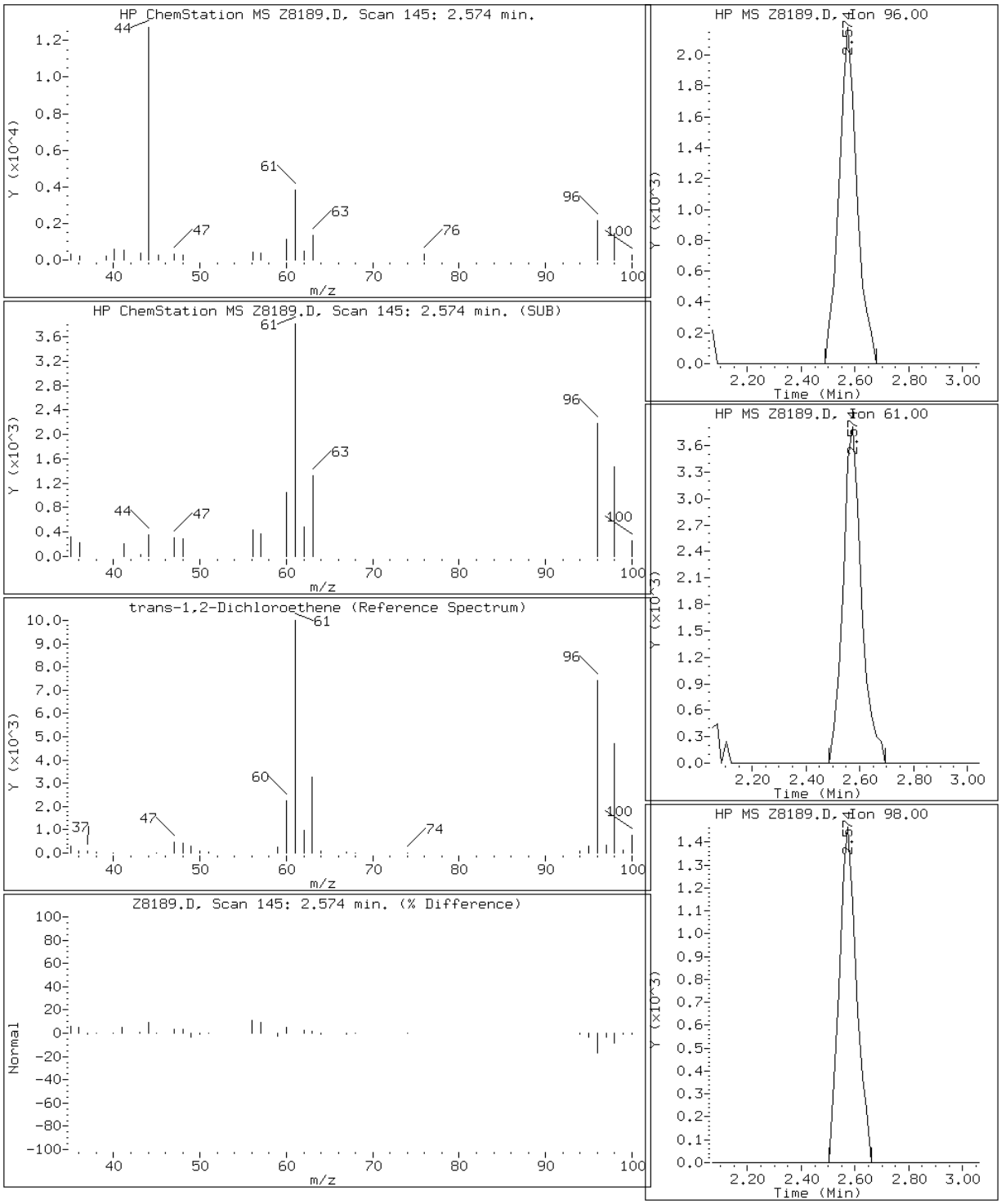
Data File: Z8189.D

Date: 09-JUL-2012 15:47

Client ID: B035M0411HA Instrument: Z.i

Sample Info: 280-30461-e-1,,PH<2 Operator: MEIERG

32 trans-1,2-Dichloroethene



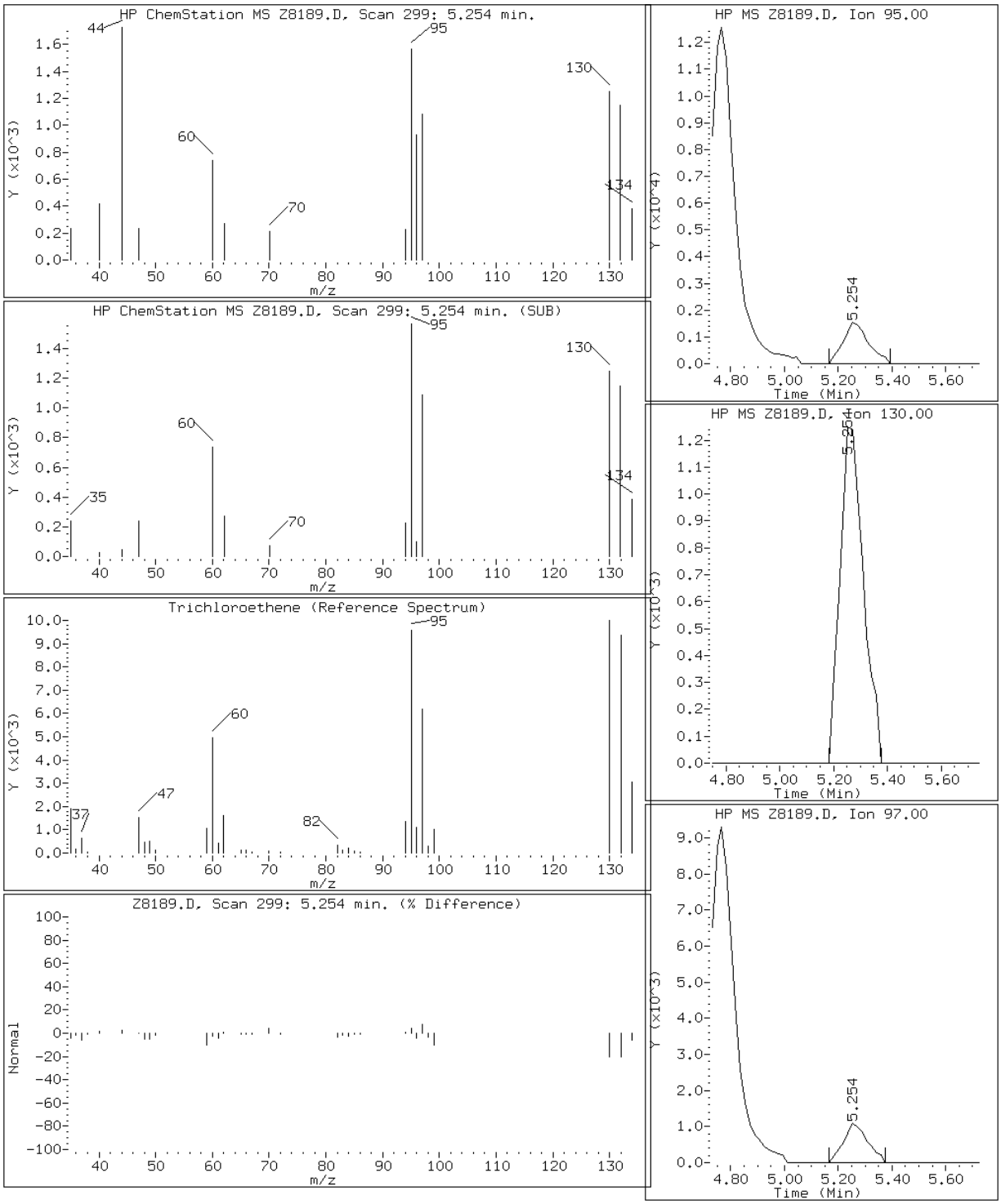
Data File: Z8189.D

Date: 09-JUL-2012 15:47

Client ID: B035M0411HA Instrument: Z.i

Sample Info: 280-30461-e-1,,PH<2 Operator: MEIERG

63 Trichloroethene



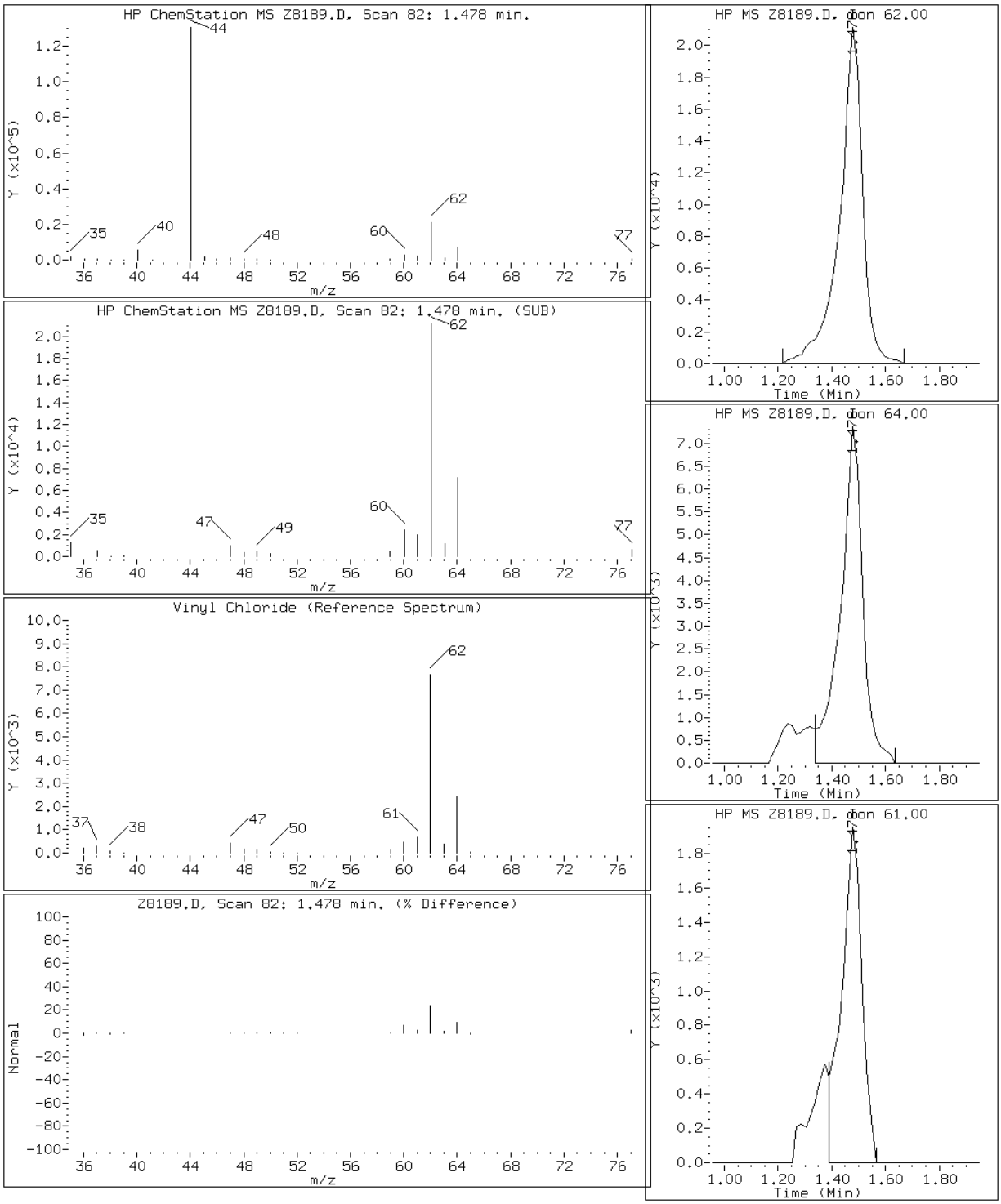
Data File: Z8189.D

Date: 09-JUL-2012 15:47

Client ID: B035M0411HA Instrument: Z.i

Sample Info: 280-30461-e-1,,PH<2 Operator: MEIERG

9 Vinyl Chloride



FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 10:59 Calibration End Date: 06/11/2012 12:46 Calibration ID: 9582

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-123533/2	Z7128.D
Level 2	IC 280-123533/3	Z7129.D
Level 3	IC 280-123533/4	Z7130.D
Level 4	ICIS 280-123533/5	Z7131.D
Level 5	IC 280-123533/6	Z7132.D
Level 6	IC 280-123533/7	Z7133.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorofluoromethane	1.0711 0.9494	0.9390	1.0991	1.0722	0.9309	Ave		1.0103				7.7		15.0			
Isopropyl alcohol	+++++ 0.0074	0.0080	0.0091	0.0090	0.0075	Ave		0.0082				10.0		15.0			
Ethyl ether	0.2679 0.2225	0.2292	0.2642	0.2588	0.2221	Ave		0.2441				8.9		15.0			
2,2-Dichloro-1,1,1-trifluoroethane	1.1176 0.9599	0.9811	1.1427	1.1108	0.9464	Ave		1.0431				8.6		15.0			
1,1,2-Trichloro-1,2,2-trifluoroethane	0.5627 0.5172	0.5057	0.5873	0.5898	0.5004	Ave		0.5439				7.5		15.0			
Carbon disulfide	1.6210 1.4387	1.4364	1.6359	1.6020	1.3839	Ave		1.5196				7.4		15.0			
Methyl acetate	0.1139 0.1063	0.1002	0.1157	0.1160	0.1018	Ave		0.1090				6.5		15.0			
Allyl chloride	0.7914 0.7357	0.7126	0.8185	0.8163	0.7210	Ave		0.7659				6.3		15.0			
Methyl tert-butyl ether	+++++ 0.5932	0.5615	0.6460	0.6523	0.5733	Ave		0.6053				6.9		15.0			
Hexane	3.1702 3.1792	3.1884	3.3399	3.3297	3.2281	Ave		3.2392				2.4		15.0			
Vinyl acetate	0.5334 0.5445	0.4494	0.5590	0.5562	0.4952	Ave		0.5230				8.2		15.0			
Tert-butyl ethyl ether	1.2727 1.1798	1.1129	1.2826	1.3088	1.1470	Ave		1.2173				6.7		15.0			
Ethyl acetate	+++++ 0.2274	0.1408	0.2300	0.2440	0.2251	Lin2	0.1248	0.2473							0.9916		0.9900
2-Butanol	+++++ 0.0119	0.0082	0.0108	0.0114	0.0119	Ave		0.0108				14.2		15.0			
Tetrahydrofuran	+++++ 0.0388	0.0321	0.0346	0.0374	0.0391	Ave		0.0364				8.2		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 10:59 Calibration End Date: 06/11/2012 12:46 Calibration ID: 9582

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Cyclohexane	0.8951 0.7906	0.8095	0.8407	0.8205	0.8065	Ave		0.8271				4.5		15.0			
2-Pentanone	+++++ 0.1472	0.1452	0.1721	0.1823	0.1947	Ave		0.1683				12.9		15.0			
Tert-amyl methyl ether	0.9110 0.7768	0.7992	0.8302	0.8325	0.8250	Ave		0.8291				5.5		15.0			
Methylcyclohexane	0.8163 0.7115	0.7573	0.7741	0.7653	0.7322	Ave		0.7594				4.8		15.0			
Methyl methacrylate	+++++ 0.0507	0.0430	0.0517	0.0528	0.0495	Ave		0.0495				7.8		15.0			
2-Nitropropane	+++++ 0.0302	0.0137	0.0232	0.0263	0.0266	Lin2	0.0852	0.0293							0.9979		0.9900
2-Chloroethyl vinyl ether	+++++ 0.1280	0.0849	0.1075	0.1176	0.1157	Ave		0.1108				14.6		15.0			
Ethyl methacrylate	1.1919 1.5046	1.1835	1.3215	1.3630	1.4257	Ave		1.3317				9.6		15.0			
trans-1,4-Dichloro-2-butene	+++++ 0.1880	0.1145	0.1587	0.1474	0.1837	Lin2	0.0619	0.1832							0.9935		0.9900
cis-1,4-Dichloro-2-butene	+++++ 0.2286	0.0557	0.1467	0.1847	0.2493	Lin2	0.1282	0.2390							0.9925		0.9900
Dibromofluoromethane (Surr)	+++++ 0.6385	0.7261	0.7159	0.6956	0.6740	Ave		0.6900				5.1		15.0			
1,2-Dichloroethane-d4 (Surr)	+++++ 0.2912	0.3562	0.3437	0.3244	0.3162	Ave		0.3263				7.7		15.0			
Toluene-d8 (Surr)	6.5660 6.0300	6.6962	6.2600	6.1195	5.8284	Ave		6.2500				5.3		15.0			
4-Bromofluorobenzene (Surr)	2.5453 2.0837	2.1140	2.1982	2.1572	2.3996	Ave		2.2497				8.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 10:59 Calibration End Date: 06/11/2012 12:46 Calibration ID: 9582

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-123533/2	Z7128.D
Level 2	IC 280-123533/3	Z7129.D
Level 3	IC 280-123533/4	Z7130.D
Level 4	ICIS 280-123533/5	Z7131.D
Level 5	IC 280-123533/6	Z7132.D
Level 6	IC 280-123533/7	Z7133.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Dichlorofluoromethane	FB	Ave	86415 4589173	152760	392870	782367	2322303	1.00 60.0	2.00	5.00	10.0	30.0
Isopropyl alcohol	FB	Ave	+++++ 716430	26126	65311	131783	374145	+++++ 1200	40.0	100	200	600
Ethyl ether	FB	Ave	21612 1075643	37278	94457	188834	554195	1.00 60.0	2.00	5.00	10.0	30.0
2,2-Dichloro-1,1,1-trifluoroethane	FB	Ave	90164 4639876	159601	408464	810492	2360922	1.00 60.0	2.00	5.00	10.0	30.0
1,1,2-Trichloro-1,2,2-trifluoroetha ne	FB	Ave	45400 2499939	82258	209938	430381	1248458	1.00 60.0	2.00	5.00	10.0	30.0
Carbon disulfide	FB	Ave	130781 6954443	233664	584760	1168916	3452505	1.00 60.0	2.00	5.00	10.0	30.0
Methyl acetate	FB	Ave	45965 2569574	81512	206834	423278	1270258	5.00 300	10.0	25.0	50.0	150
Allyl chloride	FB	Ave	63849 3556196	115925	292588	595638	1798815	1.00 60.0	2.00	5.00	10.0	30.0
Methyl tert-butyl ether	FB	Ave	+++++ 2867360	91346	230934	475986	1430326	+++++ 60.0	2.00	5.00	10.0	30.0
Hexane	CBZ	Ave	59327 3371333	108116	270418	556624	1658418	1.00 60.0	2.00	5.00	10.0	30.0
Vinyl acetate	FB	Ave	86064 5263808	146215	399621	811743	2470940	2.00 120	4.00	10.0	20.0	60.0
Tert-butyl ethyl ether	FB	Ave	513381 28514214	905222	2292346	4774762	14307474	5.00 300	10.0	25.0	50.0	150
Ethyl acetate	FB	Lin2	+++++ 2198162	45800	164401	356104	1123247	+++++ 120	4.00	10.0	20.0	60.0
2-Butanol	FB	Ave	+++++ 1720202	39940	115430	249002	888757	+++++ 1800	60.0	150	300	900
Tetrahydrofuran	FB	Ave	+++++ 375259	10442	24746	54559	195092	+++++ 120	4.00	10.0	20.0	60.0
Cyclohexane	FB	Ave	72212 3821863	131685	300529	598677	2011898	1.00 60.0	2.00	5.00	10.0	30.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 10:59 Calibration End Date: 06/11/2012 12:46 Calibration ID: 9582

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
2-Pentanone	FB	Ave	+++++ 2845490	94497	246127	532179	1943196	+++++ 240	8.00	20.0	40.0	120
Tert-amyl methyl ether	FB	Ave	367494 18775999	650078	1483823	3037328	10290690	5.00 300	10.0	25.0	50.0	150
Methylcyclohexane	FB	Ave	65856 3439090	123198	276715	558405	1826712	1.00 60.0	2.00	5.00	10.0	30.0
Methyl methacrylate	FB	Ave	+++++ 490041	13998	36939	77117	247020	+++++ 120	4.00	10.0	20.0	60.0
2-Nitropropane	FB	Lin2	+++++ 145922	2235	8281	19178	66379	+++++ 60.0	2.00	5.00	10.0	30.0
2-Chloroethyl vinyl ether	FB	Ave	+++++ 618628	13813	38440	85841	288715	+++++ 60.0	2.00	5.00	10.0	30.0
Ethyl methacrylate	CBZ	Ave	44611 3190987	80266	213988	455699	1464894	2.00 120	4.00	10.0	20.0	60.0
trans-1,4-Dichloro-2-butene	DCB	Lin2	+++++ 297691	5974	19494	35898	137296	+++++ 60.0	2.00	5.00	10.0	30.0
cis-1,4-Dichloro-2-butene	DCB	Lin2	+++++ 362146	2903	18011	44970	186314	+++++ 60.0	2.00	5.00	10.0	30.0
Dibromofluoromethane (Surr)	FB	Ave	+++++ 3086260	118122	255904	507528	1681507	+++++ 60.0	2.00	5.00	10.0	30.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	+++++ 1407494	57947	122861	236712	788842	+++++ 60.0	2.00	5.00	10.0	30.0
Toluene-d8 (Surr)	CBZ	Ave	122874 6394352	227064	506855	1023010	2994299	1.00 60.0	2.00	5.00	10.0	30.0
4-Bromofluorobenzene (Surr)	DCB	Ave	65745 3300345	110277	269962	525318	1793196	1.00 60.0	2.00	5.00	10.0	30.0

Curve Type Legend:

Ave = Average ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7128.D
Lab Smp Id: IC
Inj Date : 11-JUN-2012 10:59
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,S1.0
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:25 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
* 62 Fluorobenzene	96	4.761	4.761	(1.000)	1008473	12.5000	
* 86 Chlorobenzene-d5	119	9.216	9.216	(1.000)	233922	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.235	13.235	(1.000)	322880	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.961	3.961	(0.832)	63116	1.00000	1.13378
$ 56 1,2-Dichloroethane-d4	65	4.344	4.344	(0.912)	30106	1.00000	1.14348
$ 75 Toluene-d8	98	6.989	6.989	(0.758)	122874	1.00000	1.05055
$ 98 4-Bromofluorobenzene (Surr)	95	11.269	11.269	(0.851)	65745	1.00000	1.13139
11 Ethylene Oxide	43	1.577	1.577	(0.331)	77467	125.000	143.676(a)
14 Dichlorofluoromethane	67	1.734	1.734	(0.364)	86415	1.00000	1.06021(a)
19 1,2-dichloro-1,1,2-trifluoro	117	1.908	1.908	(0.401)	53778	1.00000	1.11270(a)
17 Ethyl Ether	59	1.908	1.908	(0.401)	21612	1.00000	1.09731(a)
20 2,2-dichloro-1,1,1-trifluoro	83	1.942	1.942	(0.408)	90164	1.00000	1.07144(a)
24 Trichlorotrifluoroethane	151	2.116	2.116	(0.445)	45400	1.00000	1.03471(a)
18 2-propanol	45	1.890	1.890	(0.397)	15082	20.0000	22.7394(a)
27 Methyl Acetate	43	2.273	2.273	(0.477)	45965	5.00000	5.22649
39 Allyl Chloride	41	2.273	2.273	(0.477)	63849	1.00000	1.03326(a)
26 Carbon Disulfide	76	2.238	2.238	(0.470)	130781	1.00000	1.06672(a)
33 Methyl t-butyl ether	73	2.586	2.586	(0.543)	52547	1.00000	1.07606(a)
34 Hexane	57	2.778	2.778	(0.301)	59327	1.00000	0.978696(a)
35 Vinyl acetate	43	2.934	2.934	(0.616)	86064	2.00000	2.03989(a)
40 ETBE	59	3.334	3.334	(0.700)	513381	5.00000	5.22751
44 Ethyl Acetate	43	3.543	3.543	(0.744)	38146	2.00000	3.47216(a)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
48	Tetrahydrofuran	42	3.769	3.769	(0.792)	9163	2.00000	3.12002(a)
49	2-Butanol	45	3.735	3.735	(0.784)	21787	30.0000	24.9767
53	Cyclohexane	56	4.100	4.100	(0.861)	72212	1.00000	1.08212(a)
60	TAME	73	4.605	4.605	(0.967)	367494	5.00000	5.49377
64	2-Pentanone	43	Compound Not Detected.					
65	Methyl Cyclohexane	55	5.527	5.527	(1.161)	65856	1.00000	1.07484
68	Methyl Methacrylate	100	5.788	5.788	(1.216)	7237	2.00000	1.81046(a)
71	2-nitropropane	41	6.258	6.258	(1.314)	2254	1.00000	2.01734(aQ)
72	2-Chloroethyl vinyl ether	63	6.467	6.467	(1.358)	5252	1.00000	0.587744(aQ)
78	Ethyl methacrylate	69	7.702	7.702	(0.836)	44611	2.00000	1.79009(a)
83	Tetrahydrothiophene	60	Compound Not Detected.					
96	cis-1,4-dichloro-2-butene	53	11.234	11.234	(0.849)	1264	1.00000	1.80706(aQ)
102	t-1,4-Dichloro-2-butene	53	Compound Not Detected.					
114	1,2,3-Trimethylbenzene	105	13.409	13.409	(1.013)	103468	1.00000	1.01804

QC Flag Legend

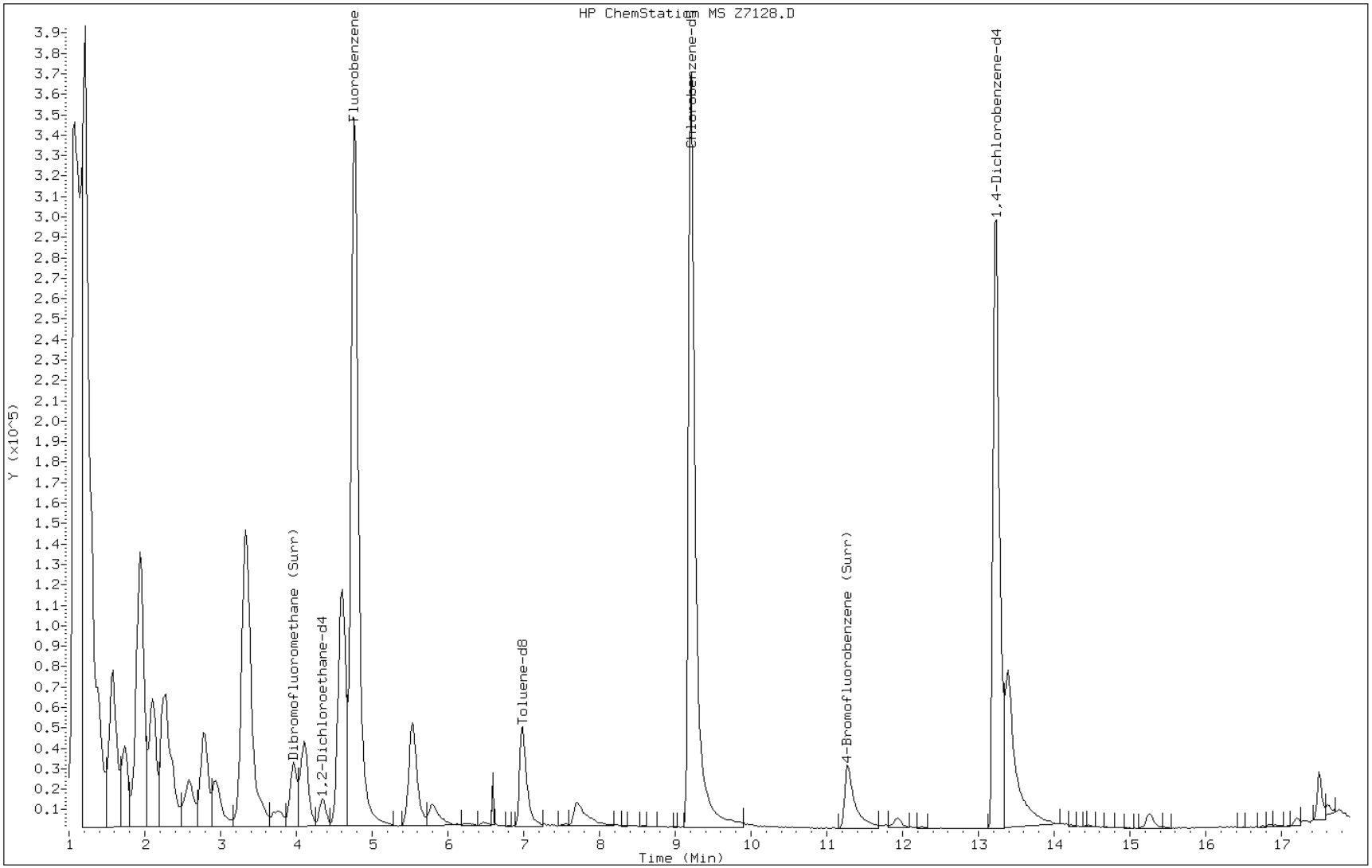
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7128.D

Date: 11-JUN-2012 10:59

Client ID: Instrument: Z.i

Sample Info: IC,,S1.0 Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7129.D
Lab Smp Id: IC
Inj Date : 11-JUN-2012 11:21
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,S2.0
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:25 Z.i Quant Type: ISTD
Cal Date : 11-JUN-2012 10:59 Cal File: Z7128.D
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
* 62 Fluorobenzene	96	4.779	4.779	(1.000)	1016727	12.5000	
* 86 Chlorobenzene-d5	119	9.216	9.216	(1.000)	211934	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.236	13.236	(1.000)	326032	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.961	3.961	(0.829)	118122	2.00000	2.10465
$ 56 1,2-Dichloroethane-d4	65	4.344	4.344	(0.909)	57947	2.00000	2.18306
$ 75 Toluene-d8	98	6.989	6.989	(0.758)	227064	2.00000	2.14277
$ 98 4-Bromofluorobenzene (Surr)	95	11.252	11.252	(0.850)	110277	2.00000	1.87939
11 Ethylene Oxide	43	1.577	1.577	(0.330)	134950	250.000	248.257(a)
14 Dichlorofluoromethane	67	1.751	1.751	(0.367)	152760	2.00000	1.85897(a)
19 1,2-dichloro-1,1,2-trifluoro	117	1.925	1.925	(0.403)	90537	2.00000	1.85805(a)
17 Ethyl Ether	59	1.908	1.908	(0.399)	37278	2.00000	1.87736(a)
20 2,2-dichloro-1,1,1-trifluoro	83	1.943	1.943	(0.407)	159601	2.00000	1.88119(a)
24 Trichlorotrifluoroethane	151	2.117	2.117	(0.443)	82258	2.00000	1.85952(a)
18 2-propanol	45	1.908	1.908	(0.399)	26126	40.0000	39.0709(a)
27 Methyl Acetate	43	2.291	2.291	(0.479)	81512	10.0000	9.19315
39 Allyl Chloride	41	2.291	2.291	(0.479)	115925	2.00000	1.86077(a)
26 Carbon Disulfide	76	2.239	2.239	(0.468)	233664	2.00000	1.89041(a)
33 Methyl t-butyl ether	73	2.587	2.587	(0.541)	91346	2.00000	1.85540(a)
34 Hexane	57	2.795	2.795	(0.303)	108116	2.00000	1.96859(a)
35 Vinyl acetate	43	2.935	2.935	(0.614)	146215	4.00000	3.43746
40 ETBE	59	3.335	3.335	(0.698)	905222	10.0000	9.14260
44 Ethyl Acetate	43	3.561	3.561	(0.745)	45800	4.00000	3.83710(aQ)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
48 Tetrahydrofuran	42	3.787	3.787	(0.792)	10442	4.00000	3.52665(aQ)
49 2-Butanol	45	3.735	3.735	(0.782)	39940	60.0000	45.4157
53 Cyclohexane	56	4.101	4.101	(0.858)	131685	2.00000	1.95731(a)
60 TAME	73	4.605	4.605	(0.964)	650078	10.0000	9.63930
64 2-Pentanone	43	5.580	5.580	(1.167)	94497	8.00000	6.90230
65 Methyl Cyclohexane	55	5.527	5.527	(1.157)	123198	2.00000	1.99440
68 Methyl Methacrylate	100	5.771	5.771	(1.208)	13998	4.00000	3.47342(a)
71 2-nitropropane	41	6.258	6.258	(1.309)	2235	2.00000	2.00164(aQ)
72 2-Chloroethyl vinyl ether	63	6.467	6.467	(1.353)	13813	2.00000	1.53324(aQ)
78 Ethyl methacrylate	69	7.685	7.685	(0.834)	80266	4.00000	3.55497
83 Tetrahydrothiophene	60	8.346	8.346	(0.906)	1647	2.00000	2.09514(Q)
96 cis-1,4-dichloro-2-butene	53	11.183	11.183	(0.845)	2903	2.00000	2.06796(a)
102 t-1,4-Dichloro-2-butene	53	11.792	11.792	(0.891)	5974	2.00000	2.02368(aQ)
114 1,2,3-Trimethylbenzene	105	13.392	13.392	(1.012)	193460	2.00000	1.88508

QC Flag Legend

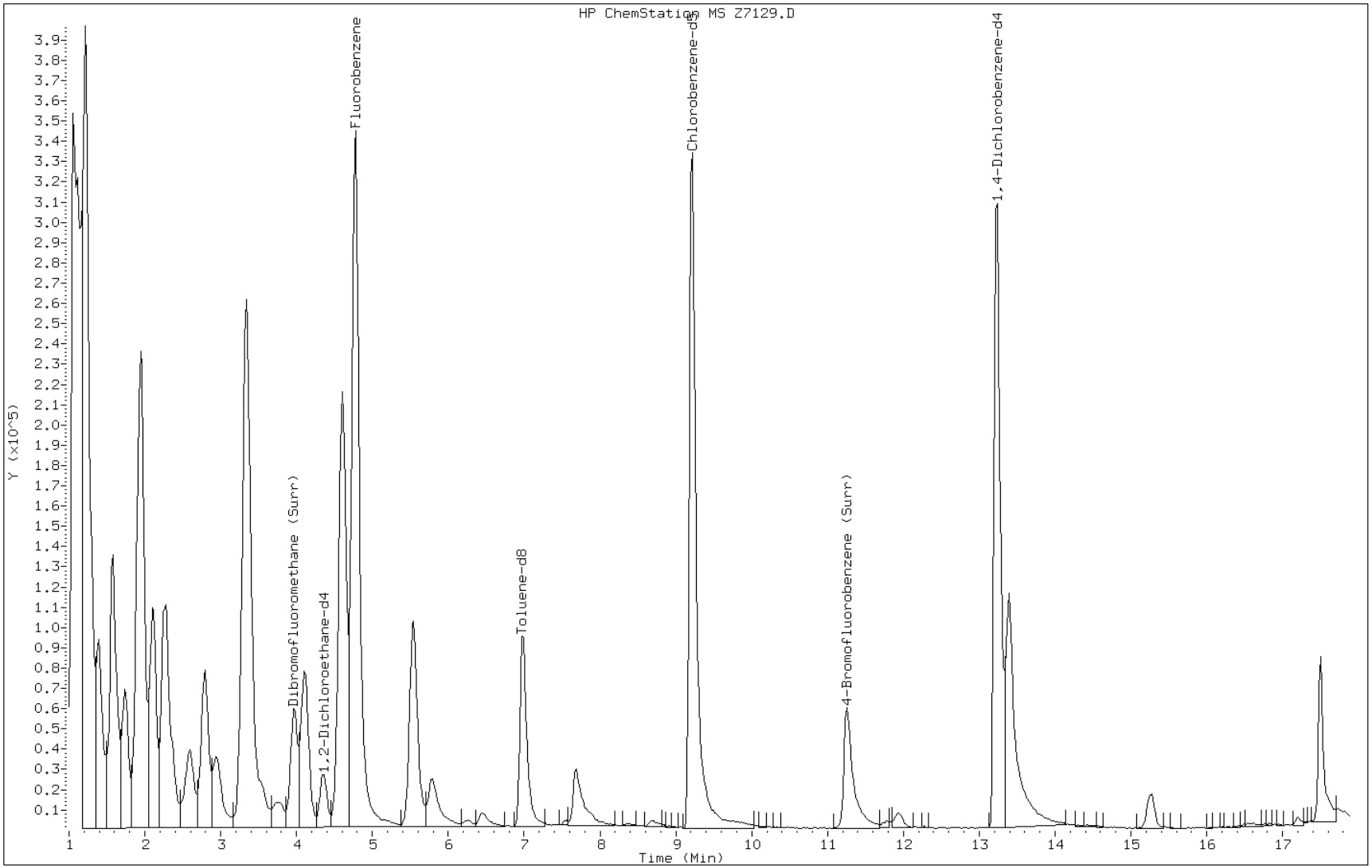
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7129.D

Date: 11-JUN-2012 11:21

Client ID: Instrument: Z.i

Sample Info: IC,,S2.0 Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7130.D
Lab Smp Id: IC
Inj Date : 11-JUN-2012 11:42
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,S5.0
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:25 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 13:44 Cal File: Z4907.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
* 62 Fluorobenzene	96	4.761	4.761	(1.000)	893657	12.5000	
* 86 Chlorobenzene-d5	119	9.216	9.216	(1.000)	202417	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.218	13.218	(1.000)	307029	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.961	3.961	(0.832)	255904	5.00000	5.18752
$ 56 1,2-Dichloroethane-d4	65	4.344	4.344	(0.912)	122861	5.00000	5.26602
$ 75 Toluene-d8	98	6.971	6.971	(0.756)	506855	5.00000	5.00801
$ 98 4-Bromofluorobenzene (Surr)	95	11.217	11.217	(0.849)	269962	5.00000	4.88557
11 Ethylene Oxide	43	1.577	1.577	(0.331)	336333	625.000	703.934
14 Dichlorofluoromethane	67	1.751	1.751	(0.368)	392870	5.00000	5.43932
19 1,2-dichloro-1,1,2-trifluoro	117	1.925	1.925	(0.404)	230127	5.00000	5.37319
17 Ethyl Ether	59	1.908	1.908	(0.401)	94457	5.00000	5.41207
20 2,2-dichloro-1,1,1-trifluoro	83	1.942	1.942	(0.408)	408464	5.00000	5.47752
24 Trichlorotrifluoroethane	151	2.116	2.116	(0.445)	209938	5.00000	5.39942
18 2-propanol	45	1.908	1.908	(0.401)	65311	100.000	111.122
27 Methyl Acetate	43	2.290	2.290	(0.481)	206834	25.0000	26.5398
39 Allyl Chloride	41	2.290	2.290	(0.481)	292588	5.00000	5.34326
26 Carbon Disulfide	76	2.238	2.238	(0.470)	584760	5.00000	5.38239
33 Methyl t-butyl ether	73	2.586	2.586	(0.543)	230934	5.00000	5.33665
34 Hexane	57	2.795	2.795	(0.303)	270418	5.00000	5.15531
35 Vinyl acetate	43	2.934	2.934	(0.616)	399621	10.0000	10.6888
40 ETBE	59	3.334	3.334	(0.700)	2292346	25.0000	26.3408
44 Ethyl Acetate	43	3.543	3.543	(0.744)	164401	10.0000	10.8578

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
48	Tetrahydrofuran	42	3.787	3.787	(0.795)	24746	10.0000	9.50862
49	2-Butanol	45	3.717	3.717	(0.781)	115430	150.000	149.331
53	Cyclohexane	56	4.100	4.100	(0.861)	300529	5.00000	5.08211
60	TAME	73	4.605	4.605	(0.967)	1483823	25.0000	25.0320
64	2-Pentanone	43	5.527	5.527	(1.161)	246127	20.0000	20.4535
65	Methyl Cyclohexane	55	5.527	5.527	(1.161)	276715	5.00000	5.09652
68	Methyl Methacrylate	100	5.771	5.771	(1.212)	36939	10.0000	10.4282
71	2-nitropropane	41	6.223	6.223	(1.307)	8281	5.00000	5.01273(M)
72	2-Chloroethyl vinyl ether	63	6.414	6.414	(1.347)	38440	5.00000	4.85446
78	Ethyl methacrylate	69	7.650	7.650	(0.830)	213988	10.0000	9.92310
83	Tetrahydrothiophene	60	8.294	8.294	(0.900)	21198	5.00000	4.58482(Q)
96	cis-1,4-dichloro-2-butene	53	11.130	11.130	(0.842)	18011	5.00000	4.66993(Q)
102	t-1,4-Dichloro-2-butene	53	11.704	11.704	(0.885)	19494	5.00000	5.10629(Q)
114	1,2,3-Trimethylbenzene	105	13.392	13.392	(1.013)	484596	5.00000	5.01416

QC Flag Legend

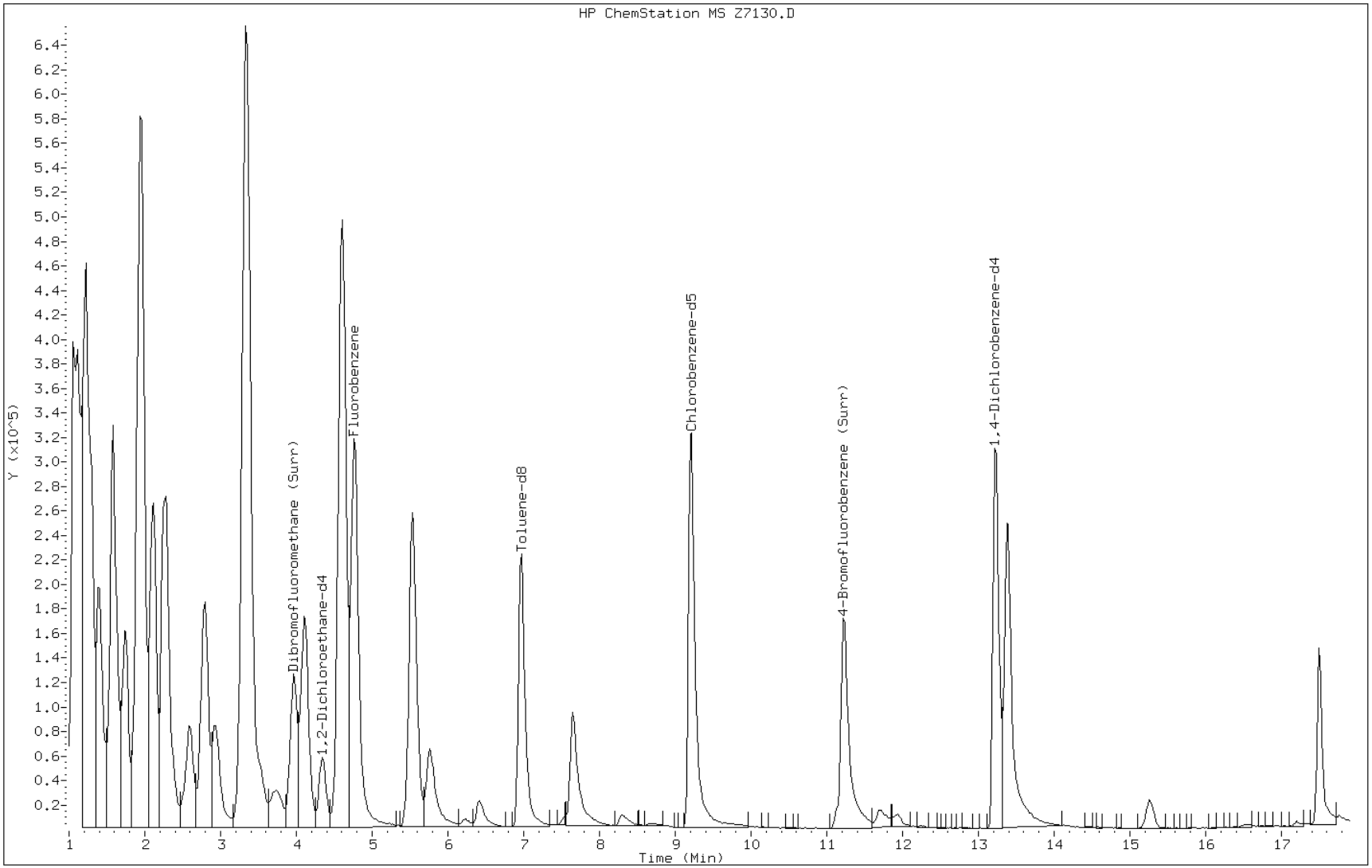
Q - Qualifier signal failed the ratio test.
M - Compound response manually integrated.

Data File: Z7130.D

Date: 11-JUN-2012 11:42

Client ID: Instrument: Z.i

Sample Info: IC,,S5.0 Operator: MEIERG



Manual Integration Report

Data File: Z7130.D
Inj. Date and Time: 11-JUN-2012 11:42
Instrument ID: Z.i
Client ID:
Compound: 71 2-nitropropane
CAS #: 79-46-9
Report Date: 06/12/2012

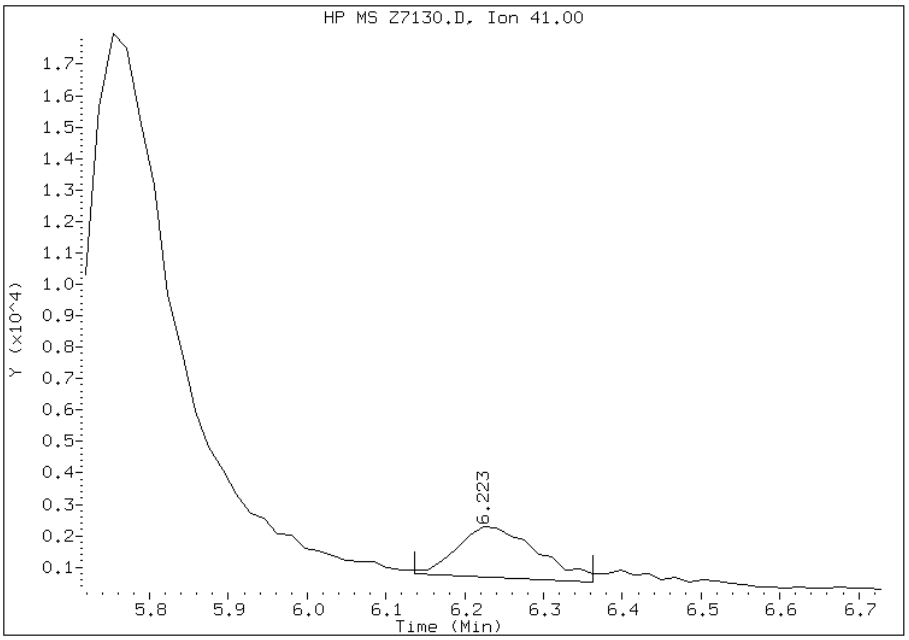
Processing Integration Results

RT: 6.22

Response: 11717

Amount: 6

Conc: 6



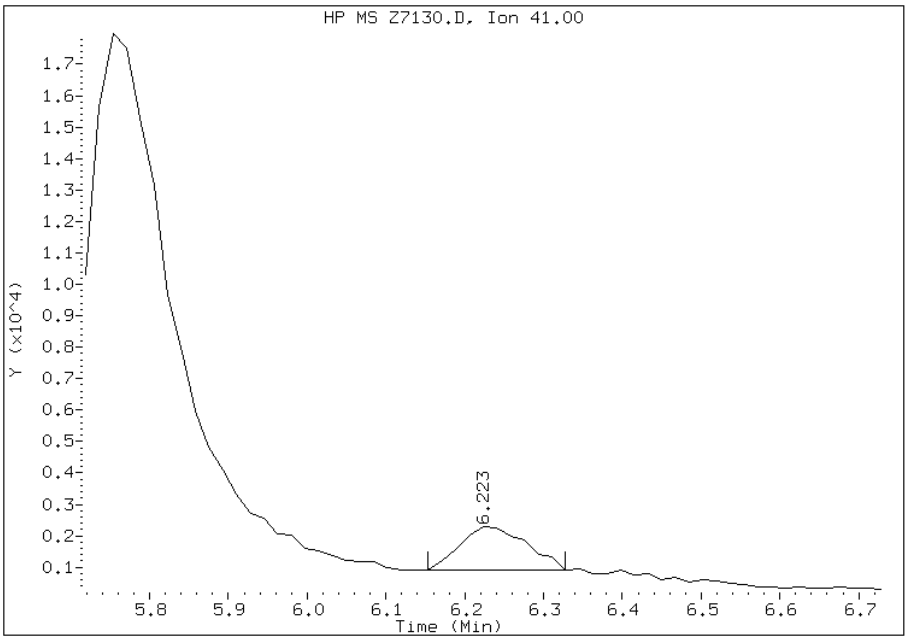
Manual Integration Results

RT: 6.22

Response: 8281

Amount: 5

Conc: 5



Manually Integrated By: tinkhams
Manual Integration Reason: Baseline Event

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7131.D
Lab Smp Id: ICIS
Inj Date : 11-JUN-2012 12:03
Operator : MEIERG Inst ID: Z.i
Smp Info : ICIS,,S10
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:28 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

						AMOUNTS	
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
* 62 Fluorobenzene	96	4.767	4.767	(1.000)	912076	12.5000	
* 86 Chlorobenzene-d5	119	9.204	9.204	(1.000)	208964	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.224	13.224	(1.000)	304398	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.966	3.966	(0.832)	507528	10.0000	10.0805
$ 56 1,2-Dichloroethane-d4	65	4.349	4.349	(0.912)	236712	10.0000	9.94096
$ 75 Toluene-d8	98	6.959	6.959	(0.756)	1023010	10.0000	9.79123
$ 98 4-Bromofluorobenzene (Surr)	95	11.205	11.205	(0.847)	525318	10.0000	9.58898
11 Ethylene Oxide	43	1.583	1.583	(0.332)	665382	1250.00	1364.50
14 Dichlorofluoromethane	67	1.757	1.757	(0.369)	782367	10.0000	10.6132
19 1,2-dichloro-1,1,2-trifluoro	117	1.931	1.931	(0.405)	462128	10.0000	10.5722
17 Ethyl Ether	59	1.913	1.913	(0.401)	188834	10.0000	10.6011
20 2,2-dichloro-1,1,1-trifluoro	83	1.948	1.948	(0.409)	810492	10.0000	10.6492
24 Trichlorotrifluoroethane	151	2.122	2.122	(0.445)	430381	10.0000	10.8455
18 2-propanol	45	1.913	1.913	(0.401)	131783	200.000	219.692
27 Methyl Acetate	43	2.279	2.279	(0.478)	423278	50.0000	53.2159
39 Allyl Chloride	41	2.296	2.296	(0.482)	595638	10.0000	10.6579
26 Carbon Disulfide	76	2.244	2.244	(0.471)	1168916	10.0000	10.5419
33 Methyl t-butyl ether	73	2.592	2.592	(0.544)	475986	10.0000	10.7774
34 Hexane	57	2.801	2.801	(0.304)	556624	10.0000	10.2791
35 Vinyl acetate	43	2.940	2.940	(0.617)	811743	20.0000	21.2734
40 ETBE	59	3.340	3.340	(0.701)	4774762	50.0000	53.7576
44 Ethyl Acetate	43	3.531	3.531	(0.741)	356104	20.0000	21.2924(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
48	Tetrahydrofuran	42	3.775	3.775	(0.792)	54559	20.0000	20.5409
49	2-Butanol	45	3.705	3.705	(0.777)	249002	300.000	315.627
53	Cyclohexane	56	4.106	4.106	(0.861)	598677	10.0000	9.91950
60	TAME	73	4.610	4.610	(0.967)	3037328	50.0000	50.2048
64	2-Pentanone	43	5.515	5.515	(1.157)	532179	40.0000	43.3318
65	Methyl Cyclohexane	55	5.532	5.532	(1.161)	558405	10.0000	10.0770
68	Methyl Methacrylate	100	5.759	5.759	(1.208)	77117	20.0000	21.3312
71	2-nitropropane	41	6.228	6.228	(1.307)	19178	10.0000	10.0227
72	2-Chloroethyl vinyl ether	63	6.402	6.402	(1.343)	85841	10.0000	10.6216
78	Ethyl methacrylate	69	7.638	7.638	(0.830)	455699	20.0000	20.4697
83	Tetrahydrothiophene	60	8.282	8.282	(0.900)	58364	10.0000	9.06785
96	cis-1,4-dichloro-2-butene	53	11.118	11.118	(0.841)	44970	10.0000	9.32771(Q)
102	t-1,4-Dichloro-2-butene	53	11.658	11.658	(0.882)	35898	10.0000	8.82152
114	1,2,3-Trimethylbenzene	105	13.380	13.380	(1.012)	983257	10.0000	10.2618

QC Flag Legend

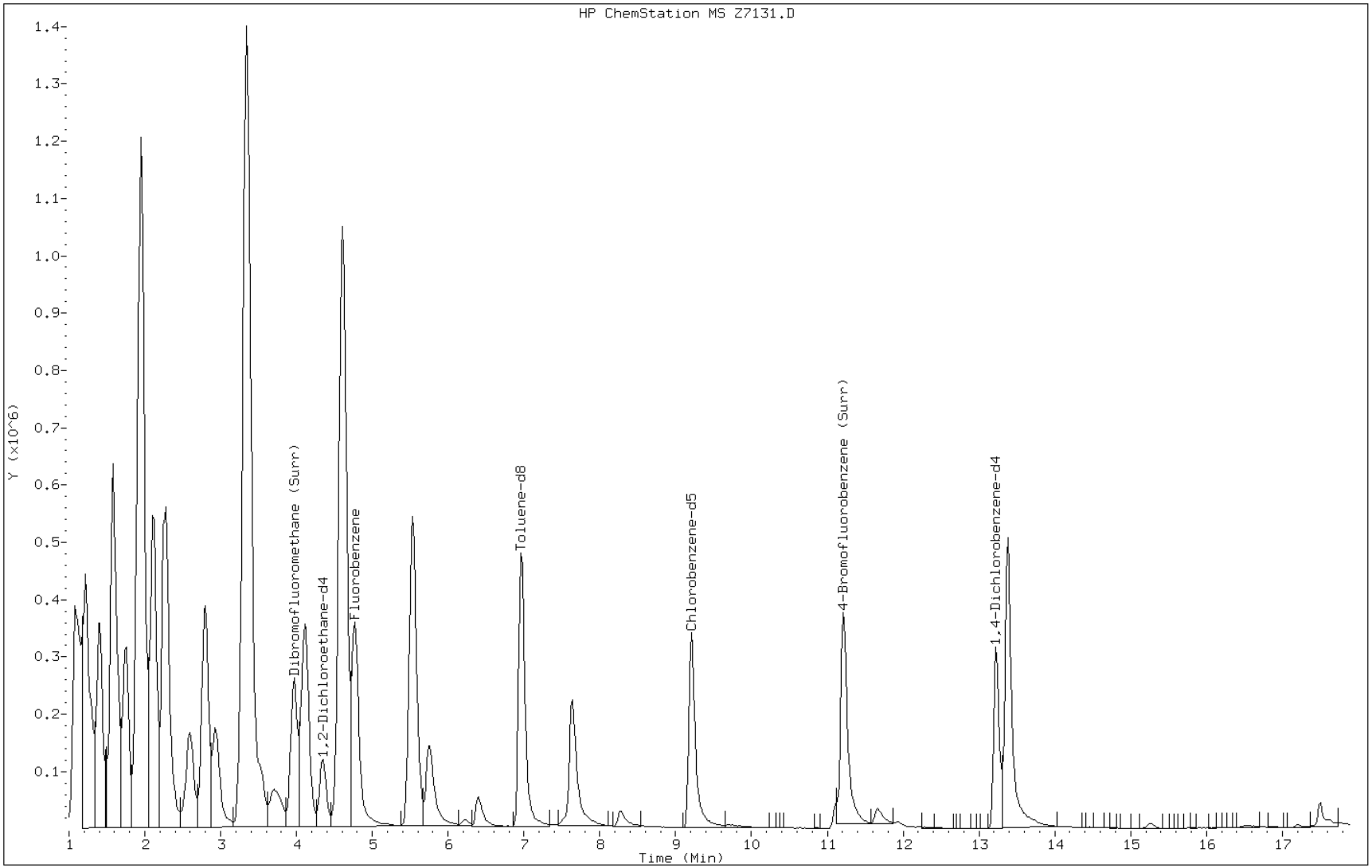
Q - Qualifier signal failed the ratio test.

Data File: Z7131.D

Date: 11-JUN-2012 12:03

Client ID: Instrument: Z.i

Sample Info: ICIS,,S10 Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7132.D
Lab Smp Id: IC
Inj Date : 11-JUN-2012 12:25
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,S30
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:25 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 14:27 Cal File: Z4909.D
Als bottle: 2 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
* 62 Fluorobenzene	96	4.762	4.762	(1.000)	1039473	12.5000	
* 86 Chlorobenzene-d5	119	9.199	9.199	(1.000)	214059	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.219	13.219	(1.000)	311366	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.944	3.944	(0.828)	1681507	30.0000	29.3048
$ 56 1,2-Dichloroethane-d4	65	4.327	4.327	(0.909)	788842	30.0000	29.0680
$ 75 Toluene-d8	98	6.955	6.955	(0.756)	2994299	30.0000	27.9763
$ 98 4-Bromofluorobenzene (Surr)	95	11.200	11.200	(0.847)	1793196	30.0000	31.9999
11 Ethylene Oxide	43	1.561	1.561	(0.328)	1881866	3750.00	3386.17
14 Dichlorofluoromethane	67	1.735	1.735	(0.364)	2322303	30.0000	27.6422
19 1,2-dichloro-1,1,2-trifluoro	117	1.909	1.909	(0.401)	1346821	30.0000	27.0354
17 Ethyl Ether	59	1.891	1.891	(0.397)	554195	30.0000	27.2992
20 2,2-dichloro-1,1,1-trifluoro	83	1.943	1.943	(0.408)	2360922	30.0000	27.2188
24 Trichlorotrifluoroethane	151	2.100	2.100	(0.441)	1248458	30.0000	27.6050
18 2-propanol	45	1.891	1.891	(0.397)	374145	600.000	547.283
27 Methyl Acetate	43	2.274	2.274	(0.478)	1270258	150.000	140.128
39 Allyl Chloride	41	2.274	2.274	(0.478)	1798815	30.0000	28.2419
26 Carbon Disulfide	76	2.222	2.222	(0.467)	3452505	30.0000	27.3205
33 Methyl t-butyl ether	73	2.587	2.587	(0.543)	1430326	30.0000	28.4167
34 Hexane	57	2.779	2.779	(0.302)	1658418	30.0000	29.8969
35 Vinyl acetate	43	2.918	2.918	(0.613)	2470940	60.0000	56.8196
40 ETBE	59	3.335	3.335	(0.700)	14307474	150.000	141.341
44 Ethyl Acetate	43	3.509	3.509	(0.737)	1123247	60.0000	56.1720

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
48	Tetrahydrofuran	42	3.770	3.770	(0.792)	195092	60.0000	64.4480
49	2-Butanol	45	3.666	3.666	(0.770)	888757	900.000	988.489
53	Cyclohexane	56	4.101	4.101	(0.861)	2011898	30.0000	29.2497
60	TAME	73	4.606	4.606	(0.967)	10290690	150.000	149.250
64	2-Pentanone	43	5.476	5.476	(1.150)	1943196	120.000	138.830
65	Methyl Cyclohexane	55	5.528	5.528	(1.161)	1826712	30.0000	28.9247
68	Methyl Methacrylate	100	5.737	5.737	(1.205)	247020	60.0000	59.9535
71	2-nitropropane	41	6.207	6.207	(1.303)	66379	30.0000	28.2692
72	2-Chloroethyl vinyl ether	63	6.381	6.381	(1.340)	288715	30.0000	31.3461
78	Ethyl methacrylate	69	7.616	7.616	(0.828)	1464894	60.0000	64.2359
83	Tetrahydrothiophene	60	8.242	8.242	(0.896)	240456	30.0000	30.7416
96	cis-1,4-dichloro-2-butene	53	11.079	11.079	(0.838)	186314	30.0000	32.8928(Q)
102	t-1,4-Dichloro-2-butene	53	11.618	11.618	(0.879)	137296	30.0000	30.8661
114	1,2,3-Trimethylbenzene	105	13.376	13.376	(1.012)	2986181	30.0000	30.4679

QC Flag Legend

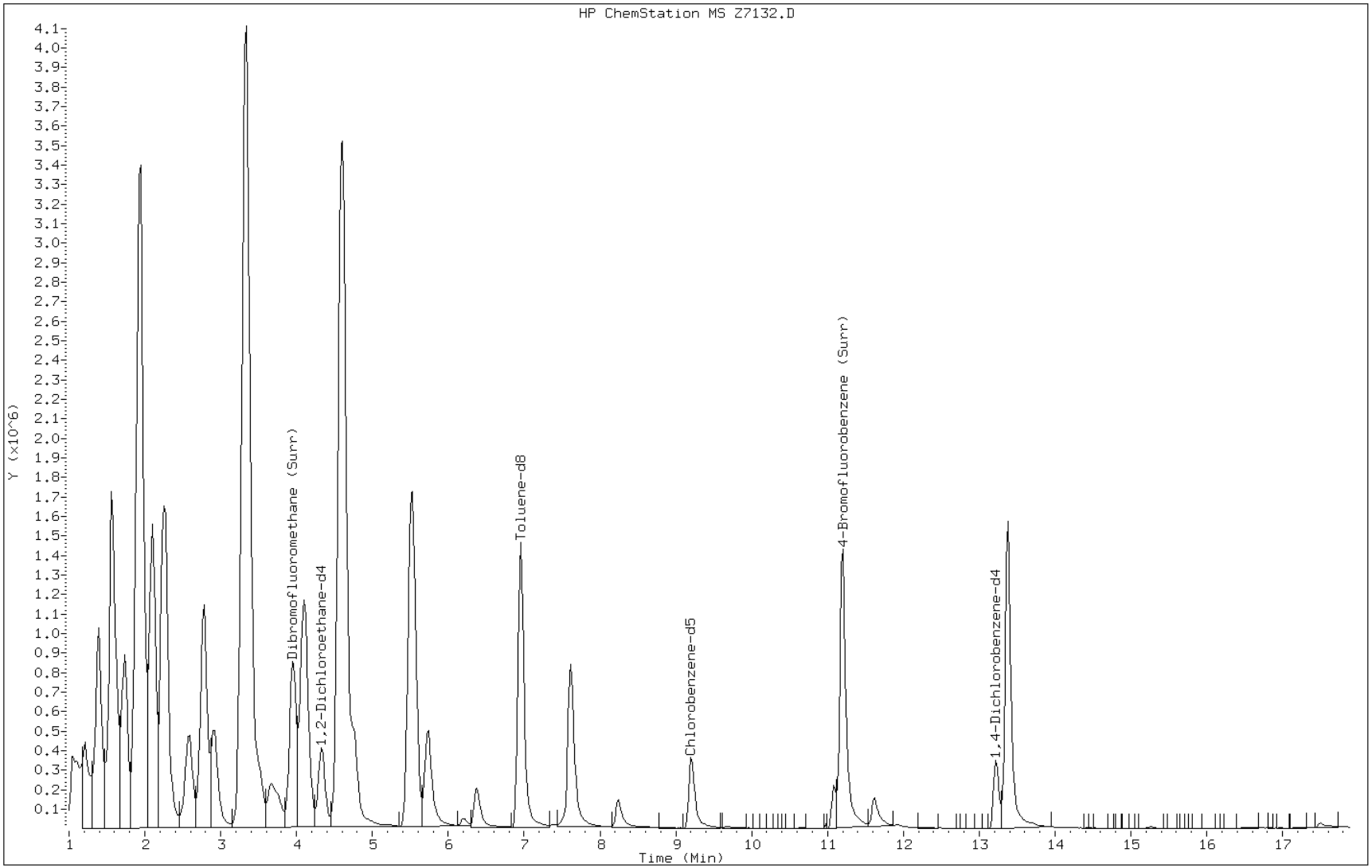
Q - Qualifier signal failed the ratio test.

Data File: Z7132.D

Date: 11-JUN-2012 12:25

Client ID: Instrument: Z.i

Sample Info: IC,,S30 Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7133.D
Lab Smp Id: IC
Inj Date : 11-JUN-2012 12:46
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,S60
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:27 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
* 62 Fluorobenzene	96	4.765	4.765	(1.000)	1007059	12.5000	
* 86 Chlorobenzene-d5	119	9.202	9.202	(1.000)	220923	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.222	13.222	(1.000)	329973	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.947	3.947	(0.828)	3086260	60.0000	55.5176
$ 56 1,2-Dichloroethane-d4	65	4.330	4.330	(0.909)	1407494	60.0000	53.5341
$ 75 Toluene-d8	98	6.958	6.958	(0.756)	6394352	60.0000	57.8874
$ 98 4-Bromofluorobenzene (Surr)	95	11.186	11.186	(0.846)	3300345	60.0000	55.5742
11 Ethylene Oxide	43	1.563	1.563	(0.328)	3578205	7500.00	6645.74
14 Dichlorofluoromethane	67	1.737	1.737	(0.365)	4589173	60.0000	56.3828
19 1,2-dichloro-1,1,2-trifluoro	117	1.911	1.911	(0.401)	2679313	60.0000	55.5142
17 Ethyl Ether	59	1.894	1.894	(0.398)	1075643	60.0000	54.6907
20 2,2-dichloro-1,1,1-trifluoro	83	1.929	1.929	(0.405)	4639876	60.0000	55.2144
24 Trichlorotrifluoroethane	151	2.103	2.103	(0.441)	2499939	60.0000	57.0560
18 2-propanol	45	1.894	1.894	(0.398)	716430	1200.00	1081.69
27 Methyl Acetate	43	2.259	2.259	(0.474)	2569574	300.000	292.586
39 Allyl Chloride	41	2.277	2.277	(0.478)	3556196	60.0000	57.6304
26 Carbon Disulfide	76	2.225	2.225	(0.467)	6954443	60.0000	56.8036
33 Methyl t-butyl ether	73	2.573	2.573	(0.540)	2867360	60.0000	58.8002
34 Hexane	57	2.781	2.781	(0.302)	3371333	60.0000	58.8880
35 Vinyl acetate	43	2.921	2.921	(0.613)	5263808	120.000	124.938(A)
40 ETBE	59	3.338	3.338	(0.701)	28514214	300.000	290.754
44 Ethyl Acetate	43	3.512	3.512	(0.737)	2198162	120.000	111.873

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
48	Tetrahydrofuran	42	3.756	3.756	(0.788)	375259	120.000	127.956(A)
49	2-Butanol	45	3.669	3.669	(0.770)	1720202	1800.00	1974.82(A)
53	Cyclohexane	56	4.104	4.104	(0.861)	3821863	60.0000	57.3520
60	TAME	73	4.609	4.609	(0.967)	18775999	300.000	281.082
64	2-Pentanone	43	5.479	5.479	(1.150)	2845490	240.000	209.837
65	Methyl Cyclohexane	55	5.531	5.531	(1.161)	3439090	60.0000	56.2083
68	Methyl Methacrylate	100	5.722	5.722	(1.201)	490041	120.000	122.765(A)
71	2-nitropropane	41	6.209	6.209	(1.303)	145922	60.0000	62.7930(AM)
72	2-Chloroethyl vinyl ether	63	6.366	6.366	(1.336)	618628	60.0000	69.3270(A)
78	Ethyl methacrylate	69	7.601	7.601	(0.826)	3190987	120.000	135.578(A)
83	Tetrahydrothiophene	60	8.228	8.228	(0.894)	540778	60.0000	64.7537(A)
96	cis-1,4-dichloro-2-butene	53	11.082	11.082	(0.838)	362146	60.0000	58.9932
102	t-1,4-Dichloro-2-butene	53	11.604	11.604	(0.878)	297691	60.0000	62.3426(A)
114	1,2,3-Trimethylbenzene	105	13.378	13.378	(1.012)	6199744	60.0000	59.6889

QC Flag Legend

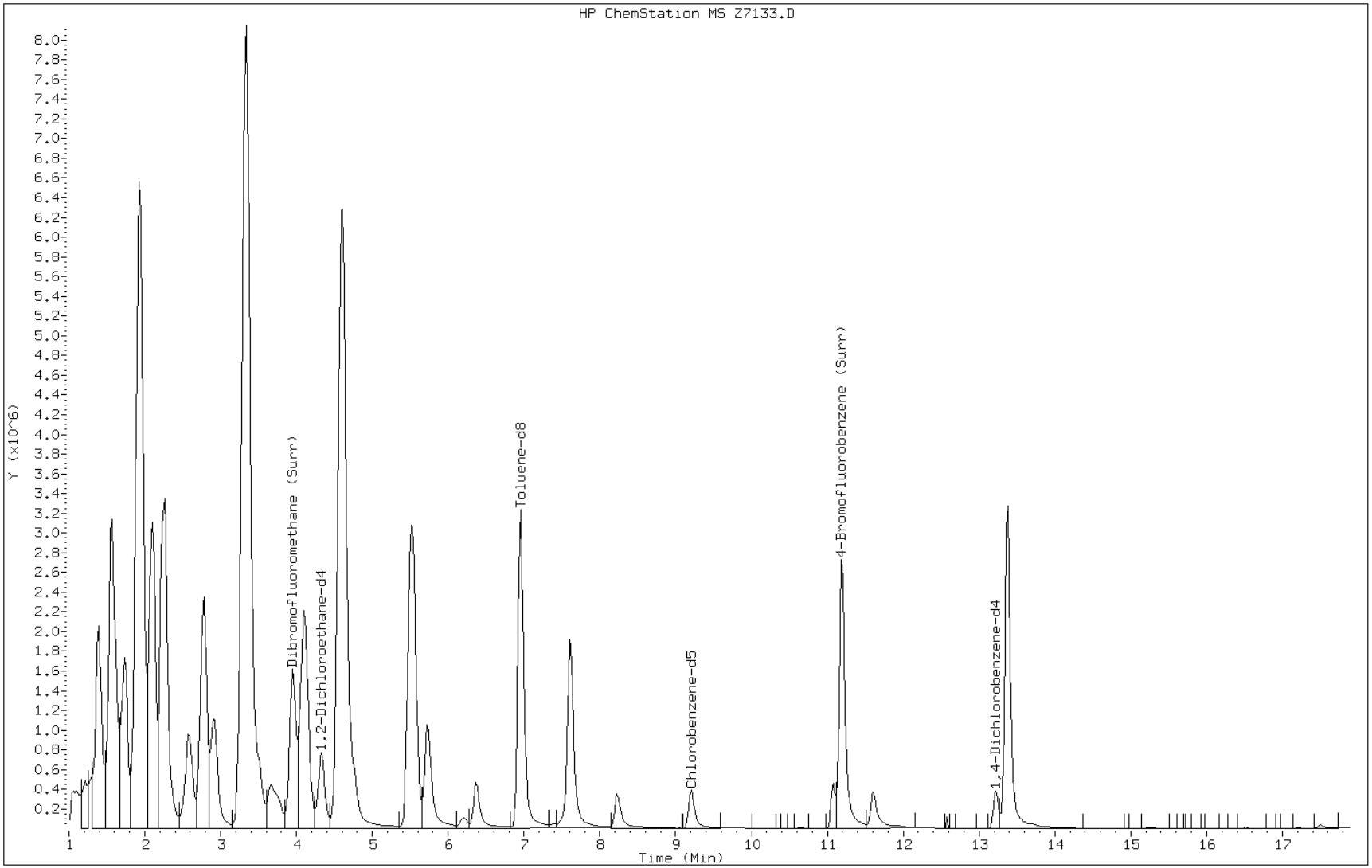
A - Target compound detected but, quantitated amount
exceeded maximum amount.
M - Compound response manually integrated.

Data File: Z7133.D

Date: 11-JUN-2012 12:46

Client ID: Instrument: Z.i

Sample Info: IC,,S60 Operator: MEIERG



Manual Integration Report

Data File: Z7133.D
Inj. Date and Time: 11-JUN-2012 12:46
Instrument ID: Z.i
Client ID:
Compound: 71 2-nitropropane
CAS #: 79-46-9
Report Date: 06/12/2012

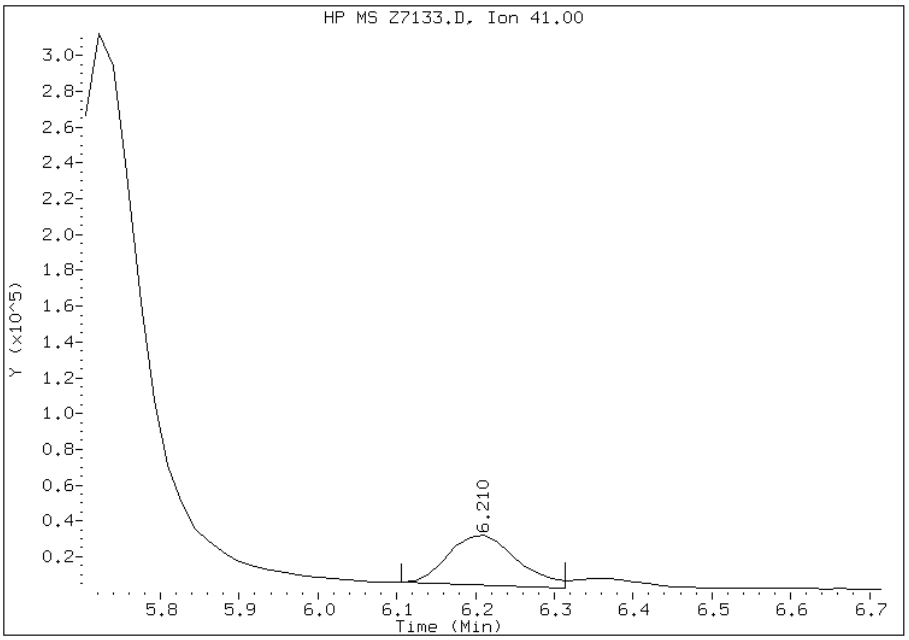
Processing Integration Results

RT: 6.21

Response: 174724

Amount: 80

Conc: 80



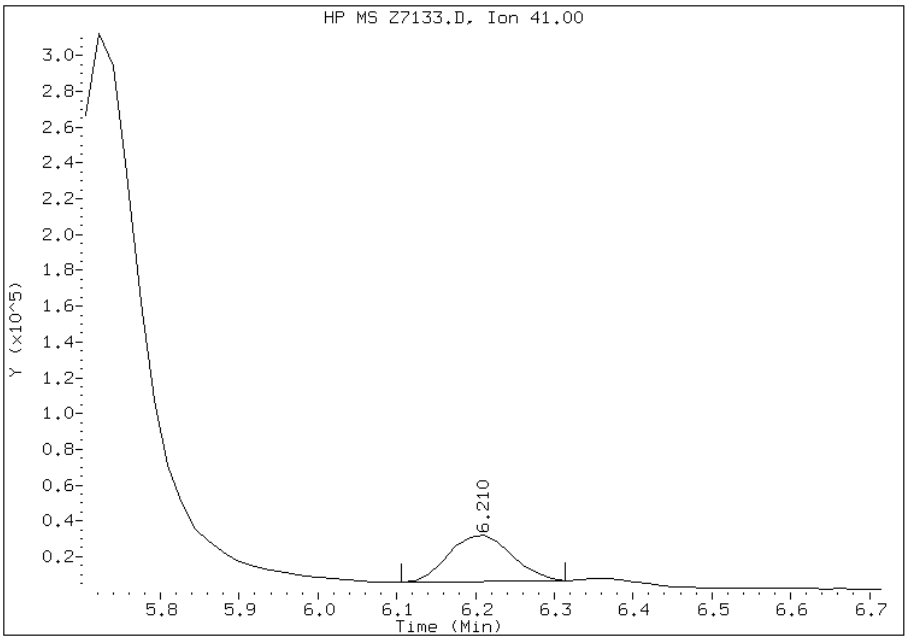
Manual Integration Results

RT: 6.21

Response: 145922

Amount: 63

Conc: 63



Manually Integrated By: tinkhams
Manual Integration Reason: Baseline Event

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-123533/9	Z7135.D
Level 2	IC 280-123533/10	Z7136.D
Level 3	IC 280-123533/11	Z7137.D
Level 4	IC 280-123533/12	Z7138.D
Level 5	IC 280-123533/13	Z7139.D
Level 6	IC 280-123533/14	Z7140.D
Level 7	IC 280-123533/15	Z7141.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2-Dichloroethene, Total	+++++ 0.4551	0.4133 0.4508	0.4099	0.4134	0.4772	Ave		0.4366				6.5		15.0			
Xylenes, Total	+++++ 2.9523	2.7987 2.9902	2.6869	2.6845	3.0134	Ave		2.8543				5.3		15.0			
Dichlorodifluoromethane	+++++ 0.6981	0.4947 0.6871	0.4853	0.5991	0.6982	Lin2	0.0276	0.6863							0.9924		0.9900
Chloromethane	+++++ 0.5032	0.4132 0.4895	0.4141	0.4450	0.5076	Ave		0.4621			0.1000	9.4		15.0			
Vinyl chloride	+++++ 0.4030	0.3530 0.3935	0.3643	0.3697	0.4217	Ave		0.3842				6.8		30.0			
Bromomethane	+++++ 0.3642	0.3446 0.3502	0.3565	0.3408	0.3859	Ave		0.3570				4.6		15.0			
Chloroethane	+++++ 0.2573	0.2483 0.2388	0.2451	0.2386	0.2710	Ave		0.2498				5.0		15.0			
Trichlorofluoromethane	+++++ 0.9484	0.8385 0.9064	0.8561	0.8642	0.9844	Ave		0.8997				6.4		15.0			
Acrolein	+++++ 0.0174	0.0175 0.0174	0.0167	0.0159	0.0185	Ave		0.0172				5.2		15.0			
1,1-Dichloroethene	+++++ 0.4177	0.3659 0.3964	0.3726	0.3671	0.4218	Ave		0.3903				6.5		30.0			
Acetone	+++++ 0.0317	0.0474 0.0292	0.0376	0.0307	0.0342	Lin2	-0.176	0.0301							0.9944		0.9900
Iodomethane	+++++ 0.9433	0.7906 0.8981	0.8133	0.7946	0.9368	Ave		0.8628				8.3		15.0			
Acetonitrile	+++++ 0.0071	+++++ 0.0063	0.0070	0.0062	0.0072	Ave		0.0068				7.3		15.0			
Methylene Chloride	+++++ 0.3648	+++++ 0.3496	0.4624	0.3537	0.3838	Ave		0.3828				12.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
2-Methyl-2-propanol	+++++ 0.0136	0.0129 0.0136	0.0128	0.0123	0.0147	Ave		0.0133				6.4		15.0			
Acrylonitrile	+++++ 0.0354	0.0322 0.0352	0.0319	0.0308	0.0369	Ave		0.0337				7.2		15.0			
trans-1,2-Dichloroethene	0.4037 0.4712	0.4088 0.4605	0.4243	0.4137	0.4735	Ave		0.4365				7.0		15.0			
1,1-Dichloroethane	0.8251 0.9113	0.8018 0.8984	0.8507	0.7872	0.9185	Ave		0.8562			0.1000	6.3		15.0			
2-Butanone (MEK)	+++++ 0.0697	0.0814 0.0708	0.0652	0.0696	0.0813	Ave		0.0730				9.2		15.0			
Isopropyl ether	+++++ 0.3048	0.2696 0.3018	0.2737	0.2639	0.3129	Ave		0.2878				7.3		15.0			
2-Chloro-1,3-butadiene	+++++ 0.8353	0.7665 0.8166	0.7940	0.7458	0.8653	Ave		0.8039				5.5		15.0			
cis-1,2-Dichloroethene	0.4126 0.4390	0.4177 0.4412	0.3954	0.4131	0.4808	Ave		0.4285				6.5		15.0			
2,2-Dichloropropane	+++++ 0.6901	0.7328 0.6777	0.6614	0.6776	0.7726	Ave		0.7021				6.0		15.0			
Propionitrile	+++++ 0.0124	+++++ 0.0125	0.0103	0.0115	0.0138	Ave		0.0121				10.9		15.0			
Methacrylonitrile	+++++ 0.0999	0.0906 0.0989	0.0808	0.0899	0.1119	Ave		0.0953				11.2		15.0			
Chlorobromomethane	0.1509 0.1985	0.1816 0.1957	0.1690	0.1812	0.2147	Ave		0.1845				11.3		15.0			
Isobutyl alcohol	+++++ 0.0033	+++++ 0.0038	0.0017	0.0025	0.0035	Lin2	1.8431	0.0037							0.9913		0.9900
Chloroform	0.7856 0.8406	0.7931 0.8256	0.7458	0.7926	0.9114	Ave		0.8135				6.5		30.0			
1,1,1-Trichloroethane	0.7930 0.8506	0.8123 0.8361	0.7610	0.8136	0.9214	Ave		0.8269				6.1		15.0			
1,4-Dioxane	+++++ 0.0011	+++++ 0.0011	0.0002	0.0006	0.0009	Lin1	7.3154	0.0011							0.9976		0.9900
1,1-Dichloropropene	0.7348 0.7294	0.7088 0.7399	0.6629	0.6874	0.7731	Ave		0.7195				5.1		15.0			
Carbon tetrachloride	0.7187 0.7944	0.7564 0.8110	0.6956	0.7359	0.8450	Ave		0.7653				7.0		15.0			
1,2-Dichloroethane	0.2868 0.3678	0.3543 0.3676	0.3260	0.3509	0.3968	Ave		0.3500				10.0		15.0			
Benzene	1.1706 1.3001	1.1950 1.2919	1.1462	1.1877	1.3580	Ave		1.2357				6.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Trichloroethene	0.5127 0.5689	0.5556 0.5606	0.5130	0.5286	0.5646	Ave		0.5434				4.5		15.0			
1,2-Dichloropropane	0.3896 0.4884	0.4522 0.5119	0.4356	0.4506	0.4789	Ave		0.4582				8.7		30.0			
Dibromomethane	0.1874 0.2549	0.2413 0.2653	0.2141	0.2314	0.2574	Ave		0.2360				11.7		15.0			
Dichlorobromomethane	+++++ 0.7366	0.6703 0.7272	0.6330	0.6769	0.7303	Ave		0.6957				6.0		15.0			
cis-1,3-Dichloropropene	0.4622 0.6354	0.5491 0.6226	0.5148	0.5580	0.6169	Ave		0.5656				11.3		15.0			
4-Methyl-2-pentanone (MIBK)	+++++ 0.2092	0.1498 0.2172	0.1530	0.1868	0.2180	Lin2	0.1131	0.2129							0.9937		0.9900
2-Hexanone	+++++ 0.5528	0.2017 0.6180	0.2524	0.4264	0.5559	Lin	0.4558	0.6240							0.9980		
Toluene	1.1519 1.4816	1.3418 1.5886	1.2788	1.3241	1.4530	Ave		1.3743				10.5		30.0			
trans-1,3-Dichloropropene	0.2923 0.4697	0.3982 0.5100	0.3717	0.4081	0.4548	Lin2	0.0093	0.4568							0.9919		0.9900
1,1,2-Trichloroethane	+++++ 0.2625	0.2408 0.2881	0.2331	0.2464	0.2837	Ave		0.2591				8.9		15.0			
Tetrachloroethene	1.5961 2.0887	2.0565 2.2344	1.8161	2.1172	2.2428	Ave		2.0217				11.6		15.0			
1,3-Dichloropropane	1.4961 2.0215	2.0011 2.1206	1.6502	1.9600	2.1448	Ave		1.9135				12.8		15.0			
Chlorodibromomethane	1.6280 2.1225	2.1502 2.1585	1.7875	2.1075	2.2667	Ave		2.0316				11.4		15.0			
Ethylene Dibromide	+++++ 1.6452	1.5000 1.5810	1.2163	1.4928	1.7113	Ave		1.5244				11.3		15.0			
Chlorobenzene	3.4658 4.7298	4.5157 4.7376	4.2427	4.4540	4.7666	Ave		4.4160			0.3000	10.4		15.0			
1-Chlorohexane	+++++ 3.2335	2.8654 3.2246	2.8799	2.9812	3.2019	Ave		3.0644				5.7		15.0			
1,1,1,2-Tetrachloroethane	1.5673 2.1908	2.0486 2.1554	1.9859	1.9659	2.2554	Ave		2.0242				11.3		15.0			
Ethylbenzene	1.7581 2.3393	2.1986 2.3741	2.1112	2.1167	2.3708	Ave		2.1812				10.0		30.0			
Cyclohexanone	+++++ 0.0249	+++++ 0.0273	0.0102	0.0164	0.0228	Lin2	4.2002	0.0263							0.9928		0.9900
m-Xylene & p-Xylene	+++++ 3.0567	2.9179 3.0811	2.7873	2.7820	3.1212	Ave		2.9577				5.1		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trichloropropane	+++++ 0.2376	0.2033 0.2344	0.1938	0.2145	0.2428	Ave		0.2211				9.1		15.0			
o-Xylene	2.0883 2.7437	2.5602 2.8084	2.4861	2.4896	2.7978	Ave		2.5677				9.9		15.0			
Styrene	+++++ 4.4955	3.5258 4.6096	3.7692	3.9359	4.5841	Ave		4.1533				11.3		15.0			
Bromoform	+++++ 1.2643	1.0083 1.3022	1.0137	1.0937	1.3099	Ave		1.1653			0.1000	12.3		15.0			
1,2-Dibromo-3-Chloropropane	+++++ 0.1777	+++++ 0.1704	0.1112	0.1450	0.1688	Lin2	0.0610	0.1778							0.9988		0.9900
Isopropylbenzene	4.9053 5.3614	5.2241 5.7650	5.1594	5.2673	5.1211	Ave		5.2576				5.0		15.0			
Bromobenzene	0.8607 1.1696	1.1198 1.2469	1.0528	1.1126	1.1973	Ave		1.1085				11.4		15.0			
1,1,2,2-Tetrachloroethane	0.7794 0.9539	0.9913 0.9909	0.8958	0.9398	1.0351	Ave		0.9409			0.3000	8.9		15.0			
N-Propylbenzene	1.0671 1.3465	1.2750 1.3604	1.2216	1.2871	1.3486	Ave		1.2723				8.1		15.0			
2-Chlorotoluene	0.9453 1.1141	1.0541 1.1382	1.0215	1.0354	1.1112	Ave		1.0600				6.3		15.0			
4-Chlorotoluene	+++++ 1.2268	1.0437 1.2195	0.9770	1.0272	1.2012	Ave		1.1159				10.0		15.0			
1,3,5-Trimethylbenzene	3.7281 4.1240	3.7997 4.0789	3.7111	3.8803	4.1458	Ave		3.9240				4.8		15.0			
tert-Butylbenzene	4.1666 4.5939	4.4604 4.5767	4.2465	4.3801	4.5258	Ave		4.4214				3.7		15.0			
1,2,4-Trimethylbenzene	3.4412 4.0708	3.5530 4.1047	3.5659	3.7643	3.9922	Ave		3.7846				7.2		15.0			
sec-Butylbenzene	0.9464 1.1572	1.1484 1.1888	1.0949	1.1002	1.1431	Ave		1.1113				7.2		15.0			
1,3-Dichlorobenzene	+++++ 2.1335	1.7526 2.2151	1.7376	1.9042	2.0906	Ave		1.9723				10.3		15.0			
1,4-Dichlorobenzene	+++++ 2.4157	2.4289 2.4099	2.2907	2.3065	2.4096	Ave		2.3769				2.6		15.0			
4-Isopropyltoluene	4.7577 5.0859	4.9112 5.1453	4.6745	4.8086	4.9822	Ave		4.9093				3.5		15.0			
1,2-Dichlorobenzene	+++++ 1.8503	1.6805 1.8519	1.5858	1.6993	1.8220	Ave		1.7483				6.3		15.0			
n-Butylbenzene	3.5056 5.1177	4.7864 4.9991	4.4874	4.7131	4.9592	Ave		4.6526				11.8		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Naphthalene	+++++ 1.5550	1.2397 1.5383	1.1374	1.4588	1.5727	Ave		1.4170				13.0		15.0			
1,2,4-Trichlorobenzene	+++++ 1.5160	1.3767 1.5090	1.2738	1.3944	1.4646	Ave		1.4224				6.5		15.0			
Hexachlorobutadiene	1.1166 1.3246	1.3195 1.2975	1.2479	1.3772	1.2972	Lin2	0.0036	1.3289							0.9988		0.9900
1,2,3-Trichlorobenzene	+++++ 1.1647	0.9824 1.1558	0.9477	1.1003	1.1148	Ave		1.0776				8.5		15.0			

Note: The m1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 280-123533/9	Z7135.D
Level 2	IC 280-123533/10	Z7136.D
Level 3	IC 280-123533/11	Z7137.D
Level 4	IC 280-123533/12	Z7138.D
Level 5	IC 280-123533/13	Z7139.D
Level 6	IC 280-123533/14	Z7140.D
Level 7	IC 280-123533/15	Z7141.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2-Dichloroethene, Total	FB	Ave	+++++ 2122087	70304 4305081	129671	343275	733482	+++++ 60.0	2.00 120	4.00	10.0	20.0
Xylenes, Total	CBZ	Ave	+++++ 4884554	150555 10030415	309060	693454	1511192	+++++ 90.0	3.00 180	6.00	15.0	30.0
Dichlorodifluoromethane	FB	Lin2	+++++ 1627417	42080 3280421	76770	248768	536611	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloromethane	FB	Ave	+++++ 1173012	35143 2337118	65513	184780	390109	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Vinyl chloride	FB	Ave	+++++ 939559	30021 1878763	57625	153493	324083	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Bromomethane	FB	Ave	+++++ 849050	29310 1672050	56402	141488	296591	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chloroethane	FB	Ave	+++++ 599759	21118 1140216	38765	99079	208256	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Trichlorofluoromethane	FB	Ave	+++++ 2211023	71323 4327611	135420	358845	756578	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acrolein	FB	Ave	+++++ 404877	14912 828450	26393	65919	142401	+++++ 300	10.0 600	20.0	50.0	100
1,1-Dichloroethene	FB	Ave	+++++ 973825	31121 1892885	58942	152421	324163	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acetone	FB	Lin2	+++++ 295248	16123 558265	23790	50959	105251	+++++ 120	4.00 240	8.00	20.0	40.0
Iodomethane	FB	Ave	+++++ 2199167	67245 4288214	128656	329909	720011	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Acetonitrile	FB	Ave	+++++ 164723	+++++ 299563	11143	25676	55669	+++++ 300	+++++ 600	20.0	50.0	100
Methylene Chloride	FB	Ave	+++++ 850425	+++++ 1669384	73142	146849	294935	+++++ 30.0	+++++ 60.0	2.00	5.00	10.0
2-Methyl-2-propanol	FB	Ave	+++++ 633712	21933 1301234	40474	101779	225823	+++++ 600	20.0 1200	40.0	100	200

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acrylonitrile	FB	Ave	+++++ 825529	27361 1679236	50399	127867	283886	+++++ 300	10.0 600	20.0	50.0	100
trans-1,2-Dichloroethene	FB	Ave	9267 1098617	34774 2198683	67126	171760	363940	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1-Dichloroethane	FB	Ave	18939 2124633	68201 4289550	134568	326866	705919	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Butanone (MEK)	FB	Ave	+++++ 649836	27680 1352242	41227	115657	249969	+++++ 120	4.00 240	8.00	20.0	40.0
Isopropyl ether	FB	Ave	+++++ 3553113	114665 7204514	216446	547869	1202556	+++++ 150	5.00 300	10.0	25.0	50.0
2-Chloro-1,3-butadiene	FB	Ave	+++++ 1947261	65196 3898935	125607	309670	665020	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,2-Dichloroethene	FB	Ave	9470 1023470	35530 2106398	62545	171515	369542	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2,2-Dichloropropane	FB	Ave	+++++ 1608929	62334 3235693	104634	281334	593802	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Propionitrile	FB	Ave	+++++ 288253	+++++ 594863	16254	47627	106391	+++++ 300	+++++ 600	20.0	50.0	100
Methacrylonitrile	FB	Ave	+++++ 2329051	77087 4720780	127881	373428	860049	+++++ 300	10.0 600	20.0	50.0	100
Chlorobromomethane	FB	Ave	3463 462694	15444 934347	26741	75232	164983	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Isobutyl alcohol	FB	Lin2	+++++ 154047	+++++ 367410	5336	20586	53734	+++++ 600	+++++ 1200	40.0	100	200
Chloroform	FB	Ave	18033 1959833	67456 3941984	117974	329096	700456	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1-Trichloroethane	FB	Ave	18202 1982919	69096 3991838	120389	337809	708153	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dioxane	FB	Lin1	+++++ 127529	+++++ 255575	1907	11525	34312	+++++ 1500	+++++ 3000	100	250	500
1,1-Dichloropropene	FB	Ave	16865 1700581	60288 3532662	104863	285429	594200	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Carbon tetrachloride	FB	Ave	16496 1851901	64340 3872106	110037	305539	649419	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloroethane	FB	Ave	6584 857473	30135 1755111	51574	145699	304932	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Benzene	FB	Ave	26869 3030887	101645 6168578	181318	493158	1043685	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Trichloroethene	FB	Ave	11768 1326271	47257 2676687	81146	219495	433925	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichloropropane	FB	Ave	8943 1138580	38459 2444307	68914	187109	368043	0.300 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dibromomethane	FB	Ave	4301 594365	20525 1266561	33868	96077	197791	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Dichlorobromomethane	FB	Ave	+++++ 1717279	57015 3472175	100135	281064	561242	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
cis-1,3-Dichloropropene	FB	Ave	10609 1481227	46702 2972686	81438	231670	474131	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Methyl-2-pentanone (MIBK)	FB	Lin2	+++++ 1950494	50951 4147792	96793	310270	670103	+++++ 120	4.00 240	8.00	20.0	40.0
2-Hexanone	CBZ	Lin	+++++ 1219453	14467 2764242	38708	146873	371671	+++++ 120	4.00 240	8.00	20.0	40.0
Toluene	FB	Ave	26440 3454159	114127 7585189	202285	549769	1116693	0.300 30.0	1.00 60.0	2.00	5.00	10.0
trans-1,3-Dichloropropene	FB	Lin2	6709 1095042	33870 2435093	58796	169429	349571	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2-Trichloroethane	FB	Ave	+++++ 611958	20479 1375573	36870	102301	218007	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Tetrachloroethene	CBZ	Ave	8603 1151894	36877 2498410	69633	182306	374905	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichloropropane	CBZ	Ave	8064 1114813	35883 2371144	63270	168766	358522	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Chlorodibromomethane	CBZ	Ave	8775 1170555	38556 2413501	68536	181470	378906	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylene Dibromide	CBZ	Ave	+++++ 907327	26897 1767748	46633	128535	286058	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Chlorobenzene	CBZ	Ave	18681 2608405	80975 5297331	162668	383509	796793	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1-Chlorohexane	CBZ	Ave	+++++ 1783241	51381 3605561	110420	256693	535234	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,1,1,2-Tetrachloroethane	CBZ	Ave	8448 1208215	36735 2410099	76142	169273	377022	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Ethylbenzene	CBZ	Ave	9476 1290097	39424 2654620	80944	182263	396303	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Cyclohexanone	CBZ	Lin2	+++++ 548185	+++++ 1223076	15638	56509	152585	+++++ 1200	+++++ 2400	80.0	200	400
m-Xylene & p-Xylene	CBZ	Ave	+++++ 3371426	104647 6890220	213740	479086	1043501	+++++ 60.0	2.00 120	4.00	10.0	20.0
1,2,3-Trichloropropane	DCB	Ave	+++++ 224372	5408 430777	12104	28786	73144	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
o-Xylene	CBZ	Ave	11256 1513128	45908 3140195	95320	214368	467691	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Styrene	CBZ	Ave	+++++ 2479229	63224 5154195	144514	338904	766283	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Bromoform	CBZ	Ave	+++++ 697268	18080 1456025	38867	94169	218974	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dibromo-3-Chloropropane	DCB	Lin2	+++++ 167799	+++++ 313110	6945	19461	50857	+++++ 30.0	+++++ 60.0	2.00	5.00	10.0
Isopropylbenzene	DCB	Ave	40549 5062723	138956 10593301	322204	706850	1542578	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Bromobenzene	DCB	Ave	7115 1104480	29786 2291197	65747	149301	360649	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,1,2,2-Tetrachloroethane	DCB	Ave	6443 900724	26368 1820747	55945	126123	311804	0.300 30.0	1.00 60.0	2.00	5.00	10.0
N-Propylbenzene	DCB	Ave	8821 1271491	33913 2499774	76292	172726	406220	0.300 30.0	1.00 60.0	2.00	5.00	10.0
2-Chlorotoluene	DCB	Ave	7814 1052072	28037 2091483	63795	138946	334728	0.300 30.0	1.00 60.0	2.00	5.00	10.0
4-Chlorotoluene	DCB	Ave	+++++ 1158482	27761 2240871	61012	137851	361822	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,3,5-Trimethylbenzene	DCB	Ave	30818 3894301	101069 7495068	231762	520724	1248795	0.300 30.0	1.00 60.0	2.00	5.00	10.0
tert-Butylbenzene	DCB	Ave	34443 4338048	118643 8409774	265198	587794	1363277	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trimethylbenzene	DCB	Ave	28446 3844008	94507 7542505	222689	505157	1202526	0.300 30.0	1.00 60.0	2.00	5.00	10.0
sec-Butylbenzene	DCB	Ave	7823 1092742	30547 2184441	68377	147647	344322	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,3-Dichlorobenzene	DCB	Ave	+++++ 2014654	46619 4070341	108513	255530	629722	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,4-Dichlorobenzene	DCB	Ave	+++++ 2281190	64607 4428269	143053	309516	725840	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
4-Isopropyltoluene	DCB	Ave	39329 4802592	130635 9454511	291926	645291	1500764	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2-Dichlorobenzene	DCB	Ave	+++++ 1747252	44700 3402898	99035	228041	548832	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
n-Butylbenzene	DCB	Ave	28979 4832656	127315 9185965	280241	632470	1493818	0.300 30.0	1.00 60.0	2.00	5.00	10.0
Naphthalene	DCB	Ave	+++++ 1468370	32976 2826582	71032	195760	473745	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
1,2,4-Trichlorobenzene	DCB	Ave	+++++ 1431560	36620 2772757	79552	187121	441173	+++++ 30.0	1.00 60.0	2.00	5.00	10.0
Hexachlorobutadiene	DCB	Lin2	9230 1250823	35097 2384186	77932	184807	390733	0.300 30.0	1.00 60.0	2.00	5.00	10.0
1,2,3-Trichlorobenzene	DCB	Ave	+++++ 1099786	26131 2123805	59186	147649	335802	+++++ 30.0	1.00 60.0	2.00	5.00	10.0

FORM VI
GC/MS VOA INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 280-30461-1 Analy Batch No.: 123533

SDG No.:

Instrument ID: MSV_Z GC Column: DB-624 ID: 0.53(mm) Heated Purge: (Y/N) N

Calibration Start Date: 06/11/2012 13:29 Calibration End Date: 06/11/2012 15:37 Calibration ID: 9583

Curve Type Legend:

Ave = Average ISTD
Lin = Linear ISTD
Lin1 = Linear 1/conc ISTD
Lin2 = Linear 1/conc^2 ISTD

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7135.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 13:29
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M0.3
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 1
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
* 62	Fluorobenzene	96	4.780	4.767	(1.000)	956382	12.5000	
* 86	Chlorobenzene-d5	119	9.217	9.204	(1.000)	224585	12.5000	
* 111	1,4-Dichlorobenzene-d4	152	13.237	13.207	(1.000)	344433	12.5000	(Q)
M 1	1,2-Dichloroethene (total)	96				18737	0.60000	0.566278(a)
M 2	Xylene (total)	106				34838	0.90000	0.687754(a)
M 3	1,3-Dichloropropene (total)	75				17318	0.60000	0.553210(a)
M 4	Trihalomethanes (total)	83				43724	1.20000	0.958740(a)
5	Chlorotrifluoroethene	116	1.300	1.305	(0.272)	1768	0.30000	1.29037(Q)
6	dichlorodifluoromethane	85	1.335	1.322	(0.279)	12214	0.30000	0.577382(a)
7	Chloromethane	50	1.369	1.374	(0.287)	10130	0.30000	0.286522(aQ)
10	2-Chloro-1,1,1-trifluoroethan	118	1.474	1.479	(0.308)	12155	0.30000	0.275176(aQ)
9	Vinyl Chloride	62	1.456	1.461	(0.305)	8102	0.30000	0.275635(aQ)
12	Bromomethane	94	1.613	1.618	(0.338)	9391	0.30000	0.343782(a)
13	Chloroethane	64	1.648	1.635	(0.345)	5682	0.30000	0.297256(a)
16	Trichlorofluoromethane	101	1.804	1.774	(0.378)	19707	0.30000	0.286296(a)
15	Ethanol	45	Compound Not Detected.					
21	Acrolein	56	2.013	1.983	(0.421)	4387	1.50000	3.32916(a)
22	Acetone	43	2.100	2.070	(0.439)	8559	1.20000	1.51245(aQ)
23	1,1-Dichloroethene	96	2.083	2.070	(0.436)	7958	0.30000	0.266523(a)
25	Iodomethane	142	2.187	2.175	(0.458)	18301	0.30000	0.277236(a)
29	Acetonitrile	41	2.274	2.262	(0.476)	1082	3.00000	2.09131(aQ)
30	tert-Butyl alcohol	59	2.466	2.453	(0.516)	6350	6.00000	6.23620(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28 Methylene Chloride	84	2.379	2.366	(0.498)	23324	0.30000	0.796271(a)
31 Acrylonitrile	53	2.553	2.523	(0.534)	6902	3.00000	2.67498(a)
32 trans-1,2-Dichloroethene	96	2.587	2.575	(0.541)	9267	0.30000	0.277450(a)
37 Isopropyl ether	87	3.005	2.992	(0.629)	30278	1.50000	1.37511(a)
36 1,1-Dichloroethane	63	2.918	2.905	(0.611)	18939	0.30000	0.289123(a)
38 Chloroprene	53	3.005	2.992	(0.629)	17900	0.30000	0.291020(aQ)
41 2-Butanone	43	Compound Not Detected.					
42 cis-1,2-Dichloroethene	96	3.475	3.462	(0.727)	9470	0.30000	0.288829(a)
45 Propionitrile	54	3.562	3.497	(0.745)	1411	3.00000	1.52635(aQ)
43 2,2-Dichloropropane	77	3.492	3.480	(0.731)	20508	0.30000	0.381797(a)
46 Methacrylonitrile	41	3.701	3.671	(0.774)	16661	3.00000	2.28386(a)
47 Bromochloromethane	128	3.736	3.706	(0.782)	3463	0.30000	0.245320(a)
50 Chloroform	83	3.805	3.793	(0.796)	18033	0.30000	0.289714(a)
52 1,1,1-Trichloroethane	97	4.032	4.019	(0.843)	18202	0.30000	0.287718(a)
58 Isobutanol	41	Compound Not Detected.					
54 1,1-Dichloropropene	75	4.223	4.193	(0.884)	16865	0.30000	0.306371(a)
55 Carbon Tetrachloride	117	4.240	4.228	(0.887)	16496	0.30000	0.281736(a)
57 1,2-Dichloroethane	62	4.449	4.437	(0.931)	6584	0.30000	0.245845(aQ)
59 Benzene	78	4.449	4.437	(0.931)	26869	0.30000	0.284206(a)
61 n-Butanol	56	4.797	4.611	(1.004)	6095	9.00000	0.000000(aQ)
63 Trichloroethene	95	5.267	5.255	(1.102)	11768	0.30000	0.283035(a)
66 1,2-Dichloropropane	63	5.563	5.516	(1.164)	8943	0.30000	0.255110(a)
69 1,4-Dioxane	88	Compound Not Detected.					
67 Dibromomethane	93	5.720	5.672	(1.197)	4301	0.30000	0.238233(a)
70 Bromodichloromethane	83	5.946	5.916	(1.244)	13091	0.30000	0.245933(aQ)
73 cis-1,3-Dichloropropene	75	6.624	6.560	(1.386)	10609	0.30000	0.245174(a)
74 4-Methyl-2-pentanone	43	6.938	6.803	(1.451)	10295	1.20000	2.04542(aQ)
76 Toluene	91	7.112	7.064	(1.488)	26440	0.30000	0.251463(a)
77 trans-1,3-Dichloropropene	75	7.512	7.395	(1.571)	6709	0.30000	0.308036(a)
79 1,1,2-Trichloroethane	97	7.721	7.656	(1.615)	4123	0.30000	0.207998(a)
82 2-Hexanone	43	Compound Not Detected.					
81 1,3-Dichloropropane	76	7.964	7.917	(0.864)	8064	0.30000	0.234564(a)
80 Tetrachloroethene	164	7.929	7.899	(0.860)	8603	0.30000	0.236844(a)
84 Dibromochloromethane	129	8.295	8.265	(0.900)	8775	0.30000	0.240407(a)
85 1,2-Dibromoethane	107	8.486	8.404	(0.921)	5510	0.30000	0.201178(a)
88 1-Chlorohexane	91	9.321	9.291	(1.011)	13212	0.30000	0.239967(a)
87 Chlorobenzene	112	9.269	9.239	(1.006)	18681	0.30000	0.235450(aQ)
89 1,1,1,2-Tetrachloroethane	131	9.408	9.396	(1.021)	8448	0.30000	0.232289(a)
90 Ethylbenzene	106	9.513	9.466	(1.032)	9476	0.30000	0.241797(a)
91 m and p-Xylene	106	9.722	9.674	(1.055)	23582	0.60000	0.443768(a)
92 o-Xylene	106	10.365	10.318	(1.125)	11256	0.30000	0.243986(a)
93 Styrene	104	10.470	10.353	(1.136)	12588	0.30000	0.168690(aQ)
94 Bromoform	173	10.661	10.597	(1.157)	3825	0.30000	0.182686(a)
95 isopropyl benzene	105	11.027	10.979	(0.833)	40549	0.30000	0.279895(a)
97 Cyclohexanone	55	Compound Not Detected.					
100 1,1,2,2-Tetrachloroethane	83	11.549	11.484	(0.872)	6443	0.30000	0.248515(aQ)
101 1,2,3-Trichloropropane	110	Compound Not Detected.					
99 Bromobenzene	156	11.531	11.414	(0.871)	7115	0.30000	0.232935(a)
103 n-Propylbenzene	120	11.758	11.693	(0.888)	8821	0.30000	0.251608(a)
104 2-Chlorotoluene	126	11.845	11.780	(0.895)	7814	0.30000	0.267536(a)
106 1,3,5-Trimethylbenzene	105	12.071	12.023	(0.912)	30818	0.30000	0.285024(a)
105 4-Chlorotoluene	126	12.088	11.971	(0.913)	5610	0.30000	0.182450(a)
107 tert-Butylbenzene	119	12.593	12.563	(0.951)	34443	0.30000	0.282710(a)
108 1,2,4-Trimethylbenzene	105	12.715	12.667	(0.961)	28446	0.30000	0.272778(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
109 sec-Butylbenzene	134	12.993	12.963	(0.982)	7823	0.30000	0.255478(a)
112 4-Isopropyltoluene	119	13.289	13.241	(1.004)	39329	0.30000	0.290733(a)
110 1,3-Dichlorobenzene	146	13.150	13.085	(0.993)	12123	0.30000	0.223075(a)
113 1,4-dichlorobenzene	146	13.271	13.241	(1.003)	21298	0.30000	0.325188(a)
116 n-Butylbenzene	91	14.072	13.972	(1.063)	28979	0.30000	0.226042(aQ)
115 1,2-Dichlorobenzene	146	13.985	13.885	(1.057)	11637	0.30000	0.241561(a)
117 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
118 1,2,4-Trichlorobenzene	180	16.717	16.565	(1.263)	8344	0.30000	0.212888(a)
119 Hexachlorobutadiene	225	16.839	16.809	(1.272)	9230	0.30000	0.297649(a)
120 Naphthalene	128	Compound Not Detected.					
121 1,2,3-Trichlorobenzene	180	17.187	17.087	(1.298)	7702	0.30000	0.259387(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7135.D

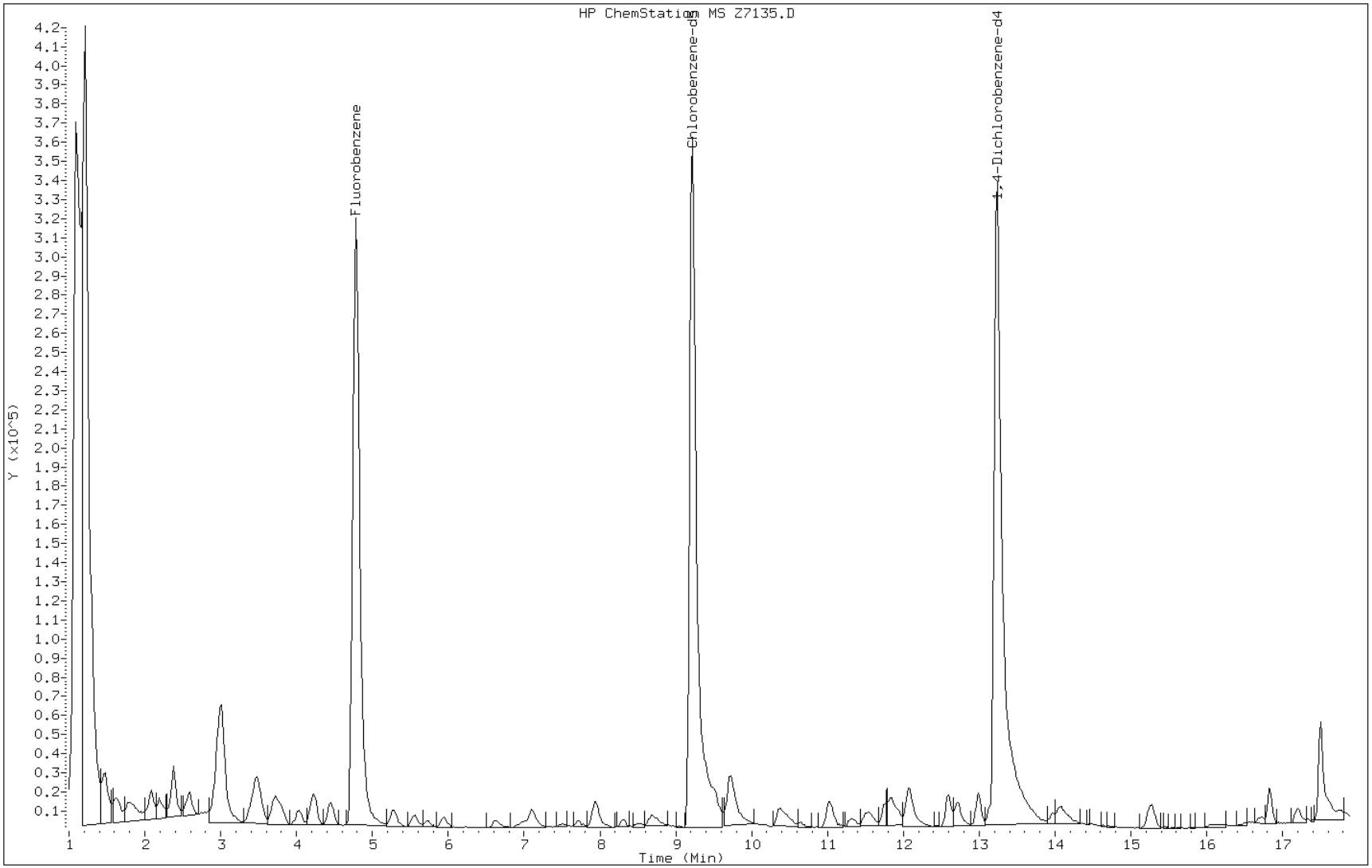
Date: 11-JUN-2012 13:29

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M0.3

Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7136.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 13:50
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M1.0
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
* 62 Fluorobenzene	96	4.797	4.767	(1.000)	1063214	12.5000	
* 86 Chlorobenzene-d5	119	9.217	9.204	(1.000)	224147	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.236	13.207	(1.000)	332491	12.5000	(Q)
M 1 1,2-Dichloroethene (total)	96				70304	2.00000	1.91126
M 2 Xylene (total)	106				150555	3.00000	2.97015
M 3 1,3-Dichloropropene (total)	75				80572	2.00000	1.95863
M 4 Trihalomethanes (total)	83				181107	4.00000	3.86190
5 Chlorotrifluoroethene	116	1.299	1.305	(0.271)	10029	1.00000	1.59714
6 dichlorodifluoromethane	85	1.334	1.322	(0.278)	42080	1.00000	1.06562(a)
7 Chloromethane	50	1.369	1.374	(0.285)	35143	1.00000	0.894123(aQ)
10 2-Chloro-1,1,1-trifluoroethan	118	1.491	1.479	(0.311)	45421	1.00000	0.924962(a)
9 Vinyl Chloride	62	1.456	1.461	(0.304)	30021	1.00000	0.918710(a)
12 Bromomethane	94	1.613	1.618	(0.336)	29310	1.00000	0.965155(a)
13 Chloroethane	64	1.647	1.635	(0.344)	21118	1.00000	0.993785(a)
16 Trichlorofluoromethane	101	1.787	1.774	(0.373)	71323	1.00000	0.932040(a)
15 Ethanol	45	Compound Not Detected.					
21 Acrolein	56	2.013	1.983	(0.420)	14912	10.0000	10.1792(a)
22 Acetone	43	2.100	2.070	(0.438)	16123	4.00000	4.09213(a)
23 1,1-Dichloroethene	96	2.100	2.070	(0.438)	31121	1.00000	0.937552(a)
25 Iodomethane	142	2.204	2.175	(0.460)	67245	1.00000	0.916317(a)
29 Acetonitrile	41	2.291	2.262	(0.478)	5445	10.0000	9.46672(a)
30 tert-Butyl alcohol	59	2.465	2.453	(0.514)	21933	20.0000	19.3756(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28 Methylene Chloride	84	2.378	2.366	(0.496)	46134	1.00000	1.41674(a)
31 Acrylonitrile	53	2.552	2.523	(0.532)	27361	10.0000	9.53867(a)
32 trans-1,2-Dichloroethene	96	2.587	2.575	(0.539)	34774	1.00000	0.936505(a)
37 Isopropyl ether	87	3.005	2.992	(0.626)	114665	5.00000	4.68438(a)
36 1,1-Dichloroethane	63	2.918	2.905	(0.608)	68201	1.00000	0.936541(a)
38 Chloroprene	53	3.022	2.992	(0.630)	65196	1.00000	0.953457(a)
41 2-Butanone	43	3.492	3.462	(0.728)	27680	4.00000	4.45844(a)
42 cis-1,2-Dichloroethene	96	3.475	3.462	(0.724)	35530	1.00000	0.974757(a)
45 Propionitrile	54	3.544	3.497	(0.739)	9670	10.0000	9.40945(a)
43 2,2-Dichloropropane	77	3.492	3.480	(0.728)	62334	1.00000	1.04387(a)
46 Methacrylonitrile	41	3.701	3.671	(0.771)	77087	10.0000	9.50517(a)
47 Bromochloromethane	128	3.718	3.706	(0.775)	15444	1.00000	0.984128(a)
50 Chloroform	83	3.805	3.793	(0.793)	67456	1.00000	0.974841(a)
52 1,1,1-Trichloroethane	97	4.049	4.019	(0.844)	69096	1.00000	0.982453(a)
58 Isobutanol	41	4.484	4.367	(0.935)	2333	20.0000	30.4417(aQ)
54 1,1-Dichloropropene	75	4.205	4.193	(0.877)	60288	1.00000	0.985150(a)
55 Carbon Tetrachloride	117	4.240	4.228	(0.884)	64340	1.00000	0.988450(a)
57 1,2-Dichloroethane	62	4.449	4.437	(0.927)	30135	1.00000	1.01217
59 Benzene	78	4.449	4.437	(0.927)	101645	1.00000	0.967117(a)
61 n-Butanol	56	4.780	4.611	(0.996)	7623	30.0000	0.000000(aQ)
63 Trichloroethene	95	5.284	5.255	(1.102)	47257	1.00000	1.02238
66 1,2-Dichloropropane	63	5.545	5.516	(1.156)	38459	1.00000	0.986853(a)
69 1,4-Dioxane	88	Compound Not Detected.					
67 Dibromomethane	93	5.719	5.672	(1.192)	20525	1.00000	1.02265
70 Bromodichloromethane	83	5.945	5.916	(1.239)	57015	1.00000	0.963482(a)
73 cis-1,3-Dichloropropene	75	6.607	6.560	(1.377)	46702	1.00000	0.970839(a)
74 4-Methyl-2-pentanone	43	6.902	6.803	(1.439)	50951	4.00000	4.22678(a)
76 Toluene	91	7.094	7.064	(1.479)	114127	1.00000	0.976364(a)
77 trans-1,3-Dichloropropene	75	7.477	7.395	(1.559)	33870	1.00000	0.987791(a)
79 1,1,2-Trichloroethane	97	7.703	7.656	(1.606)	20479	1.00000	0.929318(a)
82 2-Hexanone	43	8.347	8.108	(0.906)	14467	4.00000	6.99049
81 1,3-Dichloropropane	76	7.964	7.917	(0.864)	35883	1.00000	1.04580
80 Tetrachloroethene	164	7.929	7.899	(0.860)	36877	1.00000	1.01722
84 Dibromochloromethane	129	8.295	8.265	(0.900)	38556	1.00000	1.05837
85 1,2-Dibromoethane	107	8.469	8.404	(0.919)	26897	1.00000	0.983965(a)
88 1-Chlorohexane	91	9.304	9.291	(1.009)	51381	1.00000	0.935048(a)
87 Chlorobenzene	112	9.269	9.239	(1.006)	80975	1.00000	1.02258
89 1,1,1,2-Tetrachloroethane	131	9.408	9.396	(1.021)	36735	1.00000	1.01205
90 Ethylbenzene	106	9.495	9.466	(1.030)	39424	1.00000	1.00794
91 m and p-Xylene	106	9.704	9.674	(1.053)	104647	2.00000	1.97310(a)
92 o-Xylene	106	10.348	10.318	(1.123)	45908	1.00000	0.997050
93 Styrene	104	10.417	10.353	(1.130)	63224	1.00000	0.848909(a)
94 Bromoform	173	10.644	10.597	(1.155)	18080	1.00000	0.865206(a)
95 isopropyl benzene	105	11.009	10.979	(0.832)	138956	1.00000	0.993612(a)
97 Cyclohexanone	55	11.218	11.049	(1.217)	3861	40.0000	60.6927(aQ)
100 1,1,2,2-Tetrachloroethane	83	11.531	11.484	(0.871)	26368	1.00000	1.05358
101 1,2,3-Trichloropropane	110	11.566	11.519	(0.874)	5408	1.00000	0.919622(a)
99 Bromobenzene	156	11.479	11.414	(0.867)	29786	1.00000	1.01017
103 n-Propylbenzene	120	11.722	11.693	(0.886)	33913	1.00000	1.00207
104 2-Chlorotoluene	126	11.809	11.780	(0.892)	28037	1.00000	0.994410(a)
106 1,3,5-Trimethylbenzene	105	12.053	12.023	(0.911)	101069	1.00000	0.968322(a)
105 4-Chlorotoluene	126	12.036	11.971	(0.909)	27761	1.00000	0.935278(a)
107 tert-Butylbenzene	119	12.592	12.563	(0.951)	118643	1.00000	1.00880
108 1,2,4-Trimethylbenzene	105	12.697	12.667	(0.959)	94507	1.00000	0.938810(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
109 sec-Butylbenzene	134	12.993	12.963	(0.982)	30547	1.00000	1.03341
112 4-Isopropyltoluene	119	13.271	13.241	(1.003)	130635	1.00000	1.00038
110 1,3-Dichlorobenzene	146	13.132	13.085	(0.992)	46619	1.00000	0.888645(a)
113 1,4-dichlorobenzene	146	13.271	13.241	(1.003)	64607	1.00000	1.02188
116 n-Butylbenzene	91	14.019	13.972	(1.059)	127315	1.00000	1.02875
115 1,2-Dichlorobenzene	146	13.950	13.885	(1.054)	44700	1.00000	0.961211(a)
117 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
118 1,2,4-Trichlorobenzene	180	16.647	16.565	(1.258)	36620	1.00000	0.967875(a)
119 Hexachlorobutadiene	225	16.821	16.809	(1.271)	35097	1.00000	1.03849
120 Naphthalene	128	16.925	16.826	(1.279)	32976	1.00000	0.874909(a)
121 1,2,3-Trichlorobenzene	180	17.151	17.087	(1.296)	26131	1.00000	0.911646(a)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7136.D

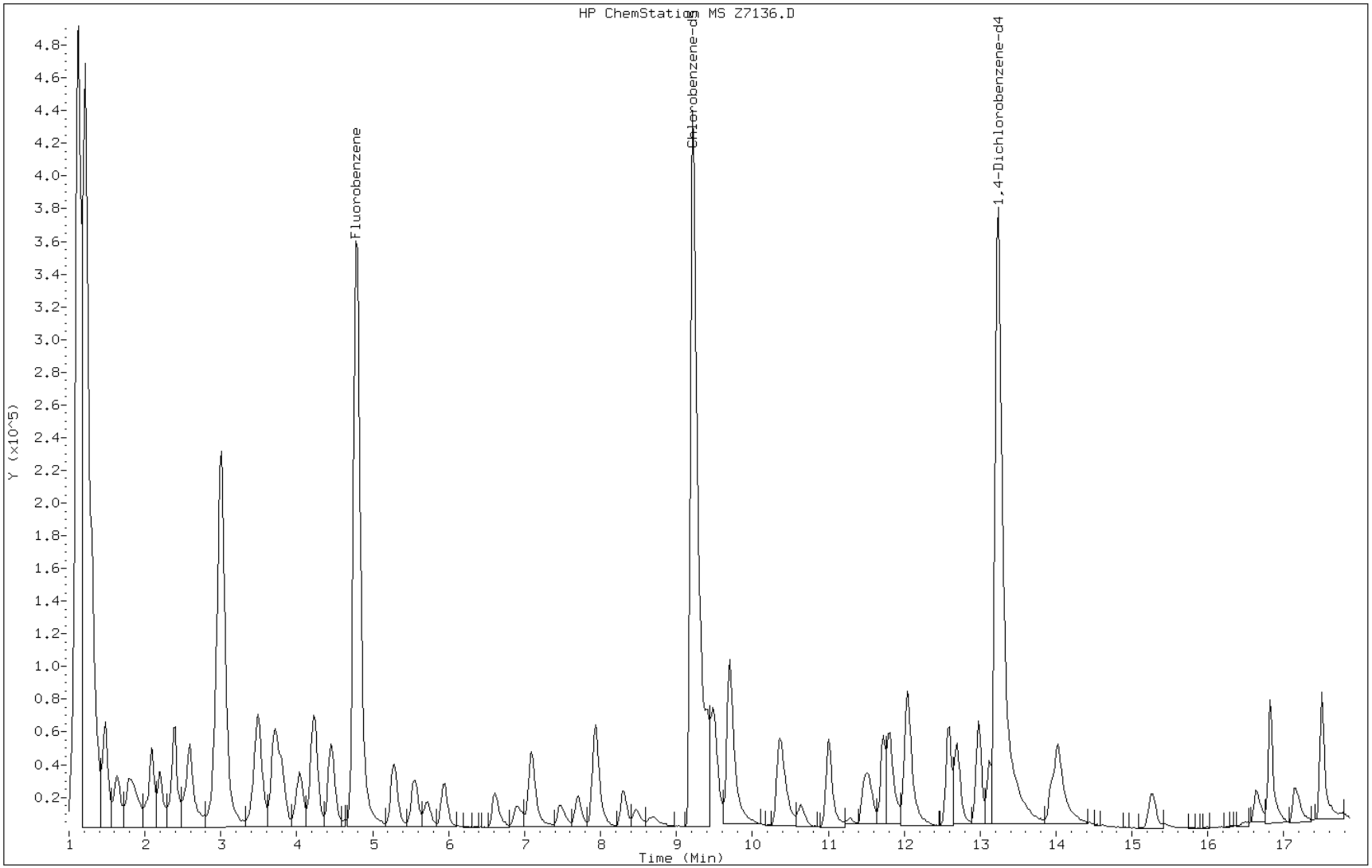
Date: 11-JUN-2012 13:50

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M1.0

Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7137.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 14:11
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M2.0
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 3
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
*	62 Fluorobenzene	96	4.764	4.767	(1.000)	988684	12.5000	
*	86 Chlorobenzene-d5	119	9.201	9.204	(1.000)	239632	12.5000	
*	111 1,4-Dichlorobenzene-d4	152	13.220	13.207	(1.000)	390315	12.5000	(Q)
M	1 1,2-Dichloroethene (total)	96				129671	4.00000	3.78932
M	2 Xylene (total)	106				309060	6.00000	5.70604
M	3 1,3-Dichloropropene (total)	75				140234	4.00000	3.56393
M	4 Trihalomethanes (total)	83				325512	8.00000	7.15266
	5 Chlorotrifluoroethene	116	1.301	1.305	(0.273)	20401	2.00000	2.05025
	6 dichlorodifluoromethane	85	1.336	1.322	(0.280)	76770	2.00000	1.75900(a)
	7 Chloromethane	50	1.371	1.374	(0.288)	65513	2.00000	1.79246(aQ)
	10 2-Chloro-1,1,1-trifluoroethan	118	1.475	1.479	(0.310)	88897	2.00000	1.94678
	9 Vinyl Chloride	62	1.440	1.461	(0.302)	57625	2.00000	1.89639
	12 Bromomethane	94	1.614	1.618	(0.339)	56402	2.00000	1.99728(a)
	13 Chloroethane	64	1.649	1.635	(0.346)	38765	2.00000	1.96174(a)
	16 Trichlorofluoromethane	101	1.788	1.774	(0.375)	135420	2.00000	1.90305(a)
	15 Ethanol	45	1.875	1.861	(0.394)	11231	100.000	159.730(aQ)
	21 Acrolein	56	1.997	1.983	(0.419)	26393	20.0000	19.3745(a)
	22 Acetone	43	2.084	2.070	(0.438)	23790	8.00000	7.78538(a)
	23 1,1-Dichloroethene	96	2.084	2.070	(0.438)	58942	2.00000	1.90955
	25 Iodomethane	142	2.188	2.175	(0.459)	128656	2.00000	1.88529
	29 Acetonitrile	41	2.258	2.262	(0.474)	11143	20.0000	20.8337(a)
	30 tert-Butyl alcohol	59	2.449	2.453	(0.514)	40474	40.0000	38.4500(a)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28 Methylene Chloride	84	2.362	2.366	(0.496)	73142	2.00000	2.41545(a)
31 Acrylonitrile	53	2.536	2.523	(0.532)	50399	20.0000	18.8947(a)
32 trans-1,2-Dichloroethene	96	2.571	2.575	(0.540)	67126	2.00000	1.94406
37 Isopropyl ether	87	2.989	2.992	(0.627)	216446	10.0000	9.50898(a)
36 1,1-Dichloroethane	63	2.902	2.905	(0.609)	134568	2.00000	1.98720
38 Chloroprene	53	3.006	2.992	(0.631)	125607	2.00000	1.97541
41 2-Butanone	43	3.476	3.462	(0.730)	41227	8.00000	7.14104
42 cis-1,2-Dichloroethene	96	3.459	3.462	(0.726)	62545	2.00000	1.84526
45 Propionitrile	54	3.528	3.497	(0.741)	16254	20.0000	17.0083(a)
43 2,2-Dichloropropane	77	3.476	3.480	(0.730)	104634	2.00000	1.88433(a)
46 Methacrylonitrile	41	3.667	3.671	(0.770)	127881	20.0000	16.9570
47 Bromochloromethane	128	3.702	3.706	(0.777)	26741	2.00000	1.83245
50 Chloroform	83	3.789	3.793	(0.795)	117974	2.00000	1.83342
52 1,1,1-Trichloroethane	97	4.033	4.019	(0.847)	120389	2.00000	1.84081
58 Isobutanol	41	4.433	4.367	(0.931)	5336	40.0000	41.2475(aQ)
54 1,1-Dichloropropene	75	4.207	4.193	(0.883)	104863	2.00000	1.84271
55 Carbon Tetrachloride	117	4.224	4.228	(0.887)	110037	2.00000	1.81792
57 1,2-Dichloroethane	62	4.433	4.437	(0.931)	51574	2.00000	1.86284
59 Benzene	78	4.433	4.437	(0.931)	181318	2.00000	1.85523
61 n-Butanol	56	4.764	4.611	(1.000)	7099	60.0000	0.000000(aQ)
63 Trichloroethene	95	5.268	5.255	(1.106)	81146	2.00000	1.88790
66 1,2-Dichloropropane	63	5.529	5.516	(1.161)	68914	2.00000	1.90163
69 1,4-Dioxane	88	5.825	5.742	(1.223)	1907	100.000	112.999(a)
67 Dibromomethane	93	5.703	5.672	(1.197)	33868	2.00000	1.81466
70 Bromodichloromethane	83	5.930	5.916	(1.245)	100135	2.00000	1.81972
73 cis-1,3-Dichloropropene	75	6.591	6.560	(1.383)	81438	2.00000	1.82055
74 4-Methyl-2-pentanone	43	6.869	6.803	(1.442)	96793	8.00000	7.16087
76 Toluene	91	7.078	7.064	(1.486)	202285	2.00000	1.86102
77 trans-1,3-Dichloropropene	75	7.443	7.395	(1.562)	58796	2.00000	1.74338(a)
79 1,1,2-Trichloroethane	97	7.687	7.656	(1.614)	36870	2.00000	1.79925
82 2-Hexanone	43	8.261	8.108	(0.898)	38708	8.00000	8.93322(Q)
81 1,3-Dichloropropane	76	7.931	7.917	(0.862)	63270	2.00000	1.72482
80 Tetrachloroethene	164	7.913	7.899	(0.860)	69633	2.00000	1.79665
84 Dibromochloromethane	129	8.279	8.265	(0.900)	68536	2.00000	1.75976
85 1,2-Dibromoethane	107	8.453	8.404	(0.919)	46633	2.00000	1.59572
88 1-Chlorohexane	91	9.305	9.291	(1.011)	110420	2.00000	1.87961
87 Chlorobenzene	112	9.253	9.239	(1.006)	162668	2.00000	1.92148
89 1,1,1,2-Tetrachloroethane	131	9.410	9.396	(1.023)	76142	2.00000	1.96216
90 Ethylbenzene	106	9.479	9.466	(1.030)	80944	2.00000	1.93573
91 m and p-Xylene	106	9.688	9.674	(1.053)	213740	4.00000	3.76961
92 o-Xylene	106	10.332	10.318	(1.123)	95320	2.00000	1.93642
93 Styrene	104	10.384	10.353	(1.129)	144514	2.00000	1.81500
94 Bromoform	173	10.628	10.597	(1.155)	38867	2.00000	1.73976
95 isopropyl benzene	105	10.993	10.979	(0.832)	322204	2.00000	1.96262
97 Cyclohexanone	55	11.202	11.049	(1.217)	15638	80.0000	83.5320(aQ)
100 1,1,2,2-Tetrachloroethane	83	11.515	11.484	(0.871)	55945	2.00000	1.90421
101 1,2,3-Trichloropropane	110	11.550	11.519	(0.874)	12104	2.00000	1.75334
99 Bromobenzene	156	11.463	11.414	(0.867)	65747	2.00000	1.89944
103 n-Propylbenzene	120	11.707	11.693	(0.885)	76292	2.00000	1.92033
104 2-Chlorotoluene	126	11.794	11.780	(0.892)	63795	2.00000	1.92746
106 1,3,5-Trimethylbenzene	105	12.037	12.023	(0.911)	231762	2.00000	1.89151
105 4-Chlorotoluene	126	12.020	11.971	(0.909)	61012	2.00000	1.75100
107 tert-Butylbenzene	119	12.577	12.563	(0.951)	265198	2.00000	1.92088
108 1,2,4-Trimethylbenzene	105	12.681	12.667	(0.959)	222689	2.00000	1.88442

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
109 sec-Butylbenzene	134	12.977	12.963	(0.982)	68377	2.00000	1.97051
112 4-Isopropyltoluene	119	13.255	13.241	(1.003)	291926	2.00000	1.90434
110 1,3-Dichlorobenzene	146	13.116	13.085	(0.992)	108513	2.00000	1.76202
113 1,4-dichlorobenzene	146	13.255	13.241	(1.003)	143053	2.00000	1.92745
116 n-Butylbenzene	91	14.003	13.972	(1.059)	280241	2.00000	1.92897
115 1,2-Dichlorobenzene	146	13.916	13.885	(1.053)	99035	2.00000	1.81411
117 1,2-Dibromo-3-chloropropane	157	15.396	15.277	(1.165)	6945	2.00000	2.01372(Q)
118 1,2,4-Trichlorobenzene	180	16.614	16.565	(1.257)	79552	2.00000	1.79109
119 Hexachlorobutadiene	225	16.822	16.809	(1.272)	77932	2.00000	1.92369
120 Naphthalene	128	16.892	16.826	(1.278)	71032	2.00000	1.60540
121 1,2,3-Trichlorobenzene	180	17.136	17.087	(1.296)	59186	2.00000	1.75895

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7137.D

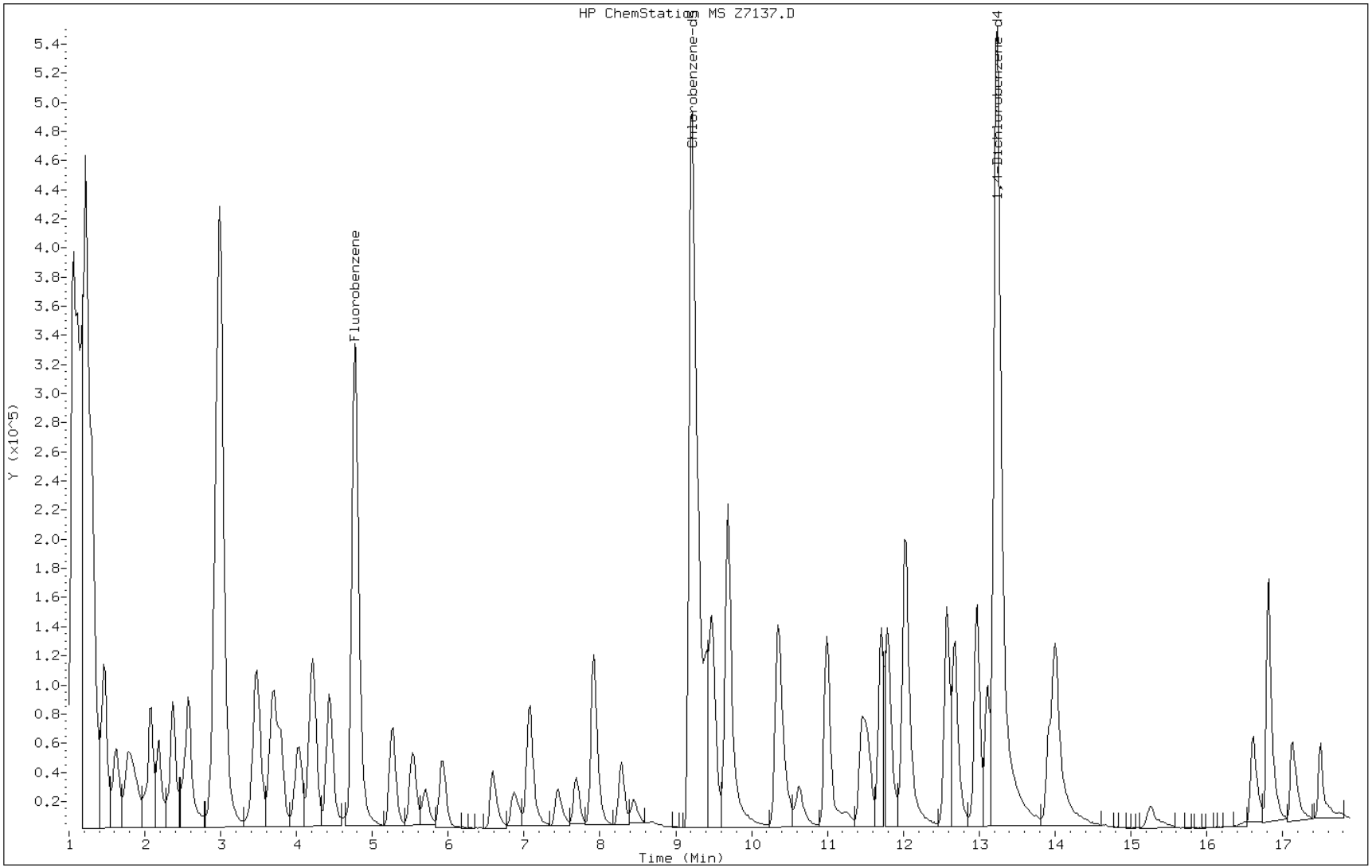
Date: 11-JUN-2012 14:11

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M2.0

Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7138.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 14:33
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M5.0
Misc Info :
Comment :
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Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 4
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
*	62 Fluorobenzene	96	4.767	4.767	(1.000)	1038033	12.5000	
*	86 Chlorobenzene-d5	119	9.205	9.204	(1.000)	215263	12.5000	
*	111 1,4-Dichlorobenzene-d4	152	13.224	13.207	(1.000)	335488	12.5000	(Q)
M	1 1,2-Dichloroethene (total)	96				343275	10.0000	9.55753
M	2 Xylene (total)	106				693454	15.0000	14.2538
M	3 1,3-Dichloropropene (total)	75				401099	10.0000	9.51523
M	4 Trihalomethanes (total)	83				885799	20.0000	19.6155
	5 Chlorotrifluoroethene	116	1.305	1.305	(0.274)	89168	5.00000	4.69027
	6 dichlorodifluoromethane	85	1.322	1.322	(0.277)	248768	5.00000	4.70959
	7 Chloromethane	50	1.374	1.374	(0.288)	184780	5.00000	4.81530
	10 2-Chloro-1,1,1-trifluoroethan	118	1.461	1.479	(0.307)	231242	5.00000	4.82329
	9 Vinyl Chloride	62	1.444	1.461	(0.303)	153493	5.00000	4.81118
	12 Bromomethane	94	1.618	1.618	(0.339)	141488	5.00000	4.77211
	13 Chloroethane	64	1.635	1.635	(0.343)	99079	5.00000	4.77563
	16 Trichlorofluoromethane	101	1.775	1.774	(0.372)	358845	5.00000	4.80310
	15 Ethanol	45	1.879	1.861	(0.394)	17308	250.000	234.456(a)
	21 Acrolein	56	2.001	1.983	(0.420)	65919	50.0000	46.0891
	22 Acetone	43	2.088	2.070	(0.438)	50959	20.0000	18.1744
	23 1,1-Dichloroethene	96	2.070	2.070	(0.434)	152421	5.00000	4.70323
	25 Iodomethane	142	2.175	2.175	(0.456)	329909	5.00000	4.60457
	29 Acetonitrile	41	2.262	2.262	(0.474)	25676	50.0000	45.7234
	30 tert-Butyl alcohol	59	2.453	2.453	(0.515)	101779	100.000	92.0927

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28 Methylene Chloride	84	2.366	2.366	(0.496)	146849	5.00000	4.61901(a)
31 Acrylonitrile	53	2.540	2.523	(0.533)	127867	50.0000	45.6587
32 trans-1,2-Dichloroethene	96	2.575	2.575	(0.540)	171760	5.00000	4.73791
37 Isopropyl ether	87	2.993	2.992	(0.628)	547869	25.0000	22.9249
36 1,1-Dichloroethane	63	2.906	2.905	(0.610)	326866	5.00000	4.59743
38 Chloroprene	53	2.993	2.992	(0.628)	309670	5.00000	4.63862
41 2-Butanone	43	3.462	3.462	(0.726)	115657	20.0000	19.0809
42 cis-1,2-Dichloroethene	96	3.462	3.462	(0.726)	171515	5.00000	4.81962
45 Propionitrile	54	3.515	3.497	(0.737)	47627	50.0000	47.4679
43 2,2-Dichloropropane	77	3.480	3.480	(0.730)	281334	5.00000	4.82561(a)
46 Methacrylonitrile	41	3.671	3.671	(0.770)	373428	50.0000	47.1623
47 Bromochloromethane	128	3.706	3.706	(0.777)	75232	5.00000	4.91025
50 Chloroform	83	3.793	3.793	(0.796)	329096	5.00000	4.87130
52 1,1,1-Trichloroethane	97	4.037	4.019	(0.847)	337809	5.00000	4.91971
58 Isobutanol	41	4.402	4.367	(0.923)	20586	100.000	89.9486(a)
54 1,1-Dichloropropene	75	4.193	4.193	(0.880)	285429	5.00000	4.77726
55 Carbon Tetrachloride	117	4.228	4.228	(0.887)	305539	5.00000	4.80784
57 1,2-Dichloroethane	62	4.437	4.437	(0.931)	145699	5.00000	5.01242
59 Benzene	78	4.437	4.437	(0.931)	493158	5.00000	4.80605
61 n-Butanol	56	4.750	4.611	(0.996)	7921	150.000	0.000000(aQ)
63 Trichloroethene	95	5.255	5.255	(1.102)	219495	5.00000	4.86388
66 1,2-Dichloropropane	63	5.533	5.516	(1.161)	187109	5.00000	4.91766
69 1,4-Dioxane	88	5.812	5.742	(1.219)	11525	250.000	215.524
67 Dibromomethane	93	5.690	5.672	(1.193)	96077	5.00000	4.90311
70 Bromodichloromethane	83	5.916	5.916	(1.241)	281064	5.00000	4.86485
73 cis-1,3-Dichloropropene	75	6.577	6.560	(1.380)	231670	5.00000	4.93277
74 4-Methyl-2-pentanone	43	6.838	6.803	(1.434)	310270	20.0000	18.9609
76 Toluene	91	7.064	7.064	(1.482)	549769	5.00000	4.81740
77 trans-1,3-Dichloropropene	75	7.430	7.395	(1.558)	169429	5.00000	4.58246
79 1,1,2-Trichloroethane	97	7.673	7.656	(1.609)	102301	5.00000	4.75494
82 2-Hexanone	43	8.195	8.108	(0.890)	146873	20.0000	19.3644
81 1,3-Dichloropropane	76	7.917	7.917	(0.860)	168766	5.00000	5.12162
80 Tetrachloroethene	164	7.917	7.899	(0.860)	182306	5.00000	5.23631
84 Dibromochloromethane	129	8.282	8.265	(0.900)	181470	5.00000	5.18699
85 1,2-Dibromoethane	107	8.439	8.404	(0.917)	128535	5.00000	4.89622
88 1-Chlorohexane	91	9.292	9.291	(1.009)	256693	5.00000	4.86417
87 Chlorobenzene	112	9.257	9.239	(1.006)	383509	5.00000	5.04296
89 1,1,1,2-Tetrachloroethane	131	9.396	9.396	(1.021)	169273	5.00000	4.85595
90 Ethylbenzene	106	9.466	9.466	(1.028)	182263	5.00000	4.85216
91 m and p-Xylene	106	9.674	9.674	(1.051)	479086	10.0000	9.40589
92 o-Xylene	106	10.336	10.318	(1.123)	214368	5.00000	4.84788
93 Styrene	104	10.370	10.353	(1.127)	338904	5.00000	4.73827
94 Bromoform	173	10.614	10.597	(1.153)	94169	5.00000	4.69238
95 isopropyl benzene	105	10.980	10.979	(0.830)	706850	5.00000	5.00922
97 Cyclohexanone	55	11.119	11.049	(1.208)	56509	200.000	177.324
100 1,1,2,2-Tetrachloroethane	83	11.502	11.484	(0.870)	126123	5.00000	4.99444
101 1,2,3-Trichloropropane	110	11.536	11.519	(0.872)	28786	5.00000	4.85128
99 Bromobenzene	156	11.432	11.414	(0.864)	149301	5.00000	5.01822
103 n-Propylbenzene	120	11.693	11.693	(0.884)	172726	5.00000	5.05815
104 2-Chlorotoluene	126	11.797	11.780	(0.892)	138946	5.00000	4.88408
106 1,3,5-Trimethylbenzene	105	12.024	12.023	(0.909)	520724	5.00000	4.94438
105 4-Chlorotoluene	126	11.989	11.971	(0.907)	137851	5.00000	4.60276
107 tert-Butylbenzene	119	12.563	12.563	(0.950)	587794	5.00000	4.95329
108 1,2,4-Trimethylbenzene	105	12.667	12.667	(0.958)	505157	5.00000	4.97328

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
109 sec-Butylbenzene	134	12.963	12.963	(0.980)	147647	5.00000	4.95030
112 4-Isopropyltoluene	119	13.259	13.241	(1.003)	645291	5.00000	4.89739
110 1,3-Dichlorobenzene	146	13.102	13.085	(0.991)	255530	5.00000	4.82737
113 1,4-dichlorobenzene	146	13.259	13.241	(1.003)	309516	5.00000	4.85184
116 n-Butylbenzene	91	13.990	13.972	(1.058)	632470	5.00000	5.06492
115 1,2-Dichlorobenzene	146	13.903	13.885	(1.051)	228041	5.00000	4.85990
117 1,2-Dibromo-3-chloropropane	157	15.364	15.277	(1.162)	19461	5.00000	4.84094
118 1,2,4-Trichlorobenzene	180	16.583	16.565	(1.254)	187121	5.00000	4.90147
119 Hexachlorobutadiene	225	16.809	16.809	(1.271)	184807	5.00000	5.22715
120 Naphthalene	128	16.861	16.826	(1.275)	195760	5.00000	5.14745
121 1,2,3-Trichlorobenzene	180	17.122	17.087	(1.295)	147649	5.00000	5.10509

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7138.D

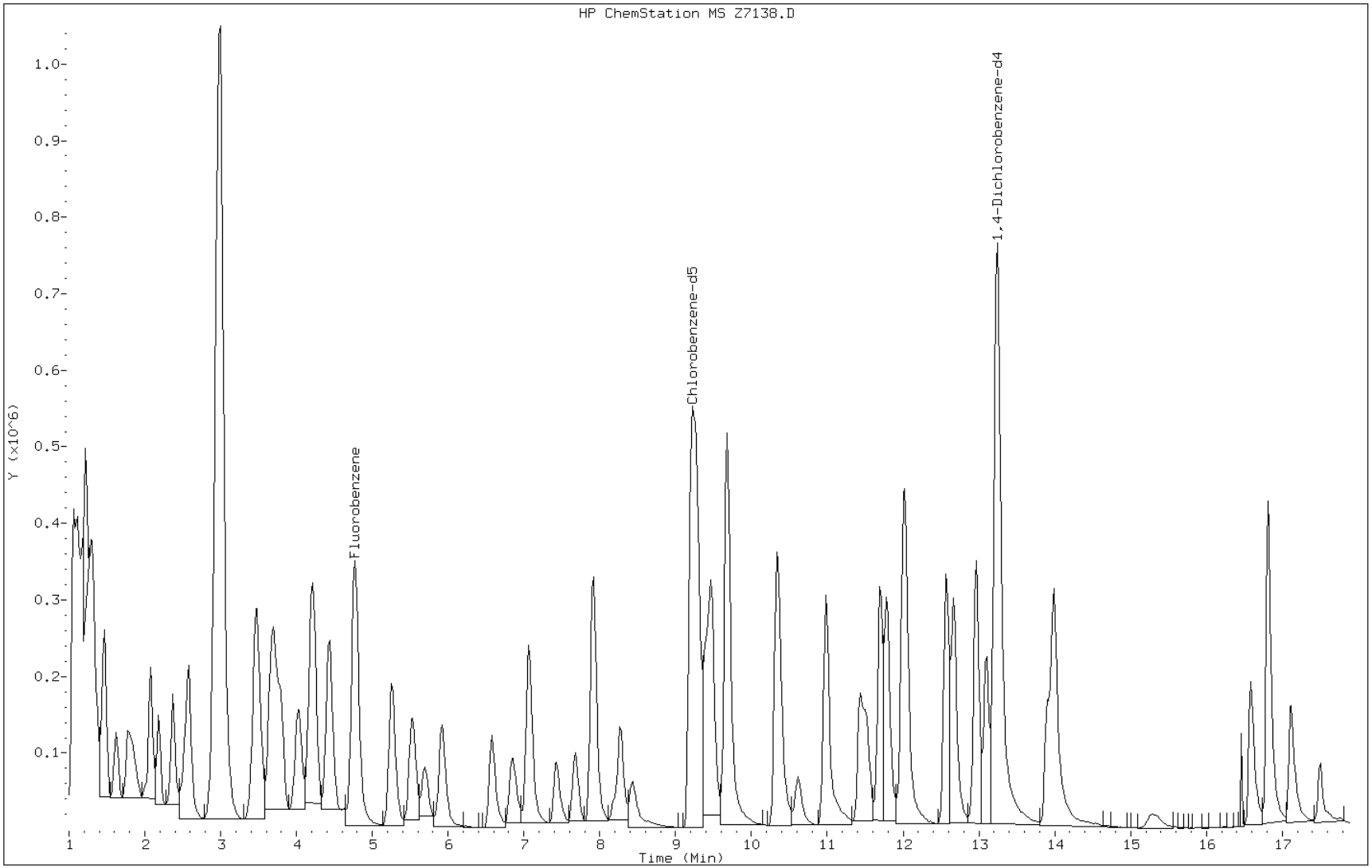
Date: 11-JUN-2012 14:33

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M5.0

Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7139.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 14:54
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M10
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 5
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS CAL-AMT	AMOUNTS ON-COL	
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)	
*	62 Fluorobenzene	96	4.780	4.767	(1.000)	960682	12.5000		
*	86 Chlorobenzene-d5	119	9.199	9.204	(1.000)	208953	12.5000		
*	111 1,4-Dichlorobenzene-d4	152	13.219	13.207	(1.000)	376528	12.5000		(Q)
M	1 1,2-Dichloroethene (total)	96				733482	20.0000	22.0678	
M	2 Xylene (total)	106				1511192	30.0000	32.0018	
M	3 1,3-Dichloropropene (total)	75				823702	20.0000	20.9814	
M	4 Trihalomethanes (total)	83				1859578	40.0000	44.0978	
	5 Chlorotrifluoroethene	116	1.299	1.305	(0.272)	206461	10.0000	9.90871	
	6 dichlorodifluoromethane	85	1.317	1.322	(0.276)	536611	10.0000	10.5181	
	7 Chloromethane	50	1.369	1.374	(0.287)	390109	10.0000	10.9846	
	10 2-Chloro-1,1,1-trifluoroethan	118	1.473	1.479	(0.308)	472901	10.0000	10.6581	
	9 Vinyl Chloride	62	1.456	1.461	(0.305)	324083	10.0000	10.9762	
	12 Bromomethane	94	1.613	1.618	(0.337)	296591	10.0000	10.8089	
	13 Chloroethane	64	1.630	1.635	(0.341)	208256	10.0000	10.8462	
	16 Trichlorofluoromethane	101	1.769	1.774	(0.370)	756578	10.0000	10.9421	
	15 Ethanol	45	Compound Not Detected.						
	21 Acrolein	56	1.995	1.983	(0.418)	142401	100.000	107.580	
	22 Acetone	43	2.082	2.070	(0.436)	105251	40.0000	43.2724	
	23 1,1-Dichloroethene	96	2.065	2.070	(0.432)	324163	10.0000	10.8080	
	25 Iodomethane	142	2.169	2.175	(0.454)	720011	10.0000	10.8584	
	29 Acetonitrile	41	2.256	2.262	(0.472)	55669	100.000	107.116	
	30 tert-Butyl alcohol	59	2.448	2.453	(0.512)	225823	200.000	220.783	

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28 Methylene Chloride	84	2.361	2.366	(0.494)	294935	10.0000	10.0239
31 Acrylonitrile	53	2.517	2.523	(0.527)	283886	100.000	109.532
32 trans-1,2-Dichloroethene	96	2.570	2.575	(0.538)	363940	10.0000	10.8474
37 Isopropyl ether	87	2.987	2.992	(0.625)	1202556	50.0000	54.3710
36 1,1-Dichloroethane	63	2.900	2.905	(0.607)	705919	10.0000	10.7283
38 Chloroprene	53	2.987	2.992	(0.625)	665020	10.0000	10.7636
41 2-Butanone	43	3.457	3.462	(0.723)	249969	40.0000	44.5598
42 cis-1,2-Dichloroethene	96	3.457	3.462	(0.723)	369542	10.0000	11.2203
45 Propionitrile	54	3.509	3.497	(0.734)	106391	100.000	114.573
43 2,2-Dichloropropane	77	3.474	3.480	(0.727)	593802	10.0000	11.0053
46 Methacrylonitrile	41	3.666	3.671	(0.767)	860049	100.000	117.366
47 Bromochloromethane	128	3.701	3.706	(0.774)	164983	10.0000	11.6351
50 Chloroform	83	3.788	3.793	(0.793)	700456	10.0000	11.2030
52 1,1,1-Trichloroethane	97	4.014	4.019	(0.840)	708153	10.0000	11.1436
58 Isobutanol	41	4.397	4.367	(0.920)	53734	200.000	211.751
54 1,1-Dichloropropene	75	4.188	4.193	(0.876)	594200	10.0000	10.7460
55 Carbon Tetrachloride	117	4.223	4.228	(0.884)	649419	10.0000	11.0418
57 1,2-Dichloroethane	62	4.432	4.437	(0.927)	304932	10.0000	11.3351
59 Benzene	78	4.432	4.437	(0.927)	1043685	10.0000	10.9901
61 n-Butanol	56	4.623	4.611	(0.967)	7503	300.000	0.000000(a)
63 Trichloroethene	95	5.249	5.255	(1.098)	433925	10.0000	10.3897
66 1,2-Dichloropropane	63	5.528	5.516	(1.157)	368043	10.0000	10.4519
69 1,4-Dioxane	88	5.789	5.742	(1.211)	34312	500.000	490.598
67 Dibromomethane	93	5.684	5.672	(1.189)	197791	10.0000	10.9066
70 Bromodichloromethane	83	5.911	5.916	(1.237)	561242	10.0000	10.4965
73 cis-1,3-Dichloropropene	75	6.572	6.560	(1.375)	474131	10.0000	10.9081
74 4-Methyl-2-pentanone	43	6.833	6.803	(1.430)	670103	40.0000	42.3628
76 Toluene	91	7.059	7.064	(1.477)	1116693	10.0000	10.5730
77 trans-1,3-Dichloropropene	75	7.407	7.395	(1.550)	349571	10.0000	10.0732
79 1,1,2-Trichloroethane	97	7.668	7.656	(1.604)	218007	10.0000	10.9488
82 2-Hexanone	43	8.155	8.108	(0.887)	371671	40.0000	41.3267
81 1,3-Dichloropropane	76	7.912	7.917	(0.860)	358522	10.0000	11.2088
80 Tetrachloroethene	164	7.912	7.899	(0.860)	374905	10.0000	11.0934
84 Dibromochloromethane	129	8.260	8.265	(0.898)	378906	10.0000	11.1574
85 1,2-Dibromoethane	107	8.416	8.404	(0.915)	286058	10.0000	11.2257
88 1-Chlorohexane	91	9.286	9.291	(1.009)	535234	10.0000	10.4486
87 Chlorobenzene	112	9.251	9.239	(1.006)	796793	10.0000	10.7938
89 1,1,1,2-Tetrachloroethane	131	9.391	9.396	(1.021)	377022	10.0000	11.1423
90 Ethylbenzene	106	9.460	9.466	(1.028)	396303	10.0000	10.8689
91 m and p-Xylene	106	9.669	9.674	(1.051)	1043501	20.0000	21.1057
92 o-Xylene	106	10.313	10.318	(1.121)	467691	10.0000	10.8961
93 Styrene	104	10.348	10.353	(1.125)	766283	10.0000	11.0370
94 Bromoform	173	10.609	10.597	(1.153)	218974	10.0000	11.2408
95 isopropyl benzene	105	10.974	10.979	(0.830)	1542578	10.0000	9.74024
97 Cyclohexanone	55	11.079	11.049	(1.204)	152585	400.000	399.724
100 1,1,2,2-Tetrachloroethane	83	11.496	11.484	(0.870)	311804	10.0000	11.0015
101 1,2,3-Trichloropropane	110	11.531	11.519	(0.872)	73144	10.0000	10.9833
99 Bromobenzene	156	11.427	11.414	(0.864)	360649	10.0000	10.8007
103 n-Propylbenzene	120	11.688	11.693	(0.884)	406220	10.0000	10.5992
104 2-Chlorotoluene	126	11.775	11.780	(0.891)	334728	10.0000	10.4836
106 1,3,5-Trimethylbenzene	105	12.018	12.023	(0.909)	1248795	10.0000	10.5651
105 4-Chlorotoluene	126	11.983	11.971	(0.907)	361822	10.0000	10.7642
107 tert-Butylbenzene	119	12.575	12.563	(0.951)	1363277	10.0000	10.2360
108 1,2,4-Trimethylbenzene	105	12.662	12.667	(0.958)	1202526	10.0000	10.5485

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
109 sec-Butylbenzene	134	12.958	12.963	(0.980)	344322	10.0000	10.2861
112 4-Isopropyltoluene	119	13.254	13.241	(1.003)	1500764	10.0000	10.1485
110 1,3-Dichlorobenzene	146	13.097	13.085	(0.991)	629722	10.0000	10.5998
113 1,4-dichlorobenzene	146	13.254	13.241	(1.003)	725840	10.0000	10.1378
116 n-Butylbenzene	91	13.984	13.972	(1.058)	1493818	10.0000	10.6588
115 1,2-Dichlorobenzene	146	13.897	13.885	(1.051)	548832	10.0000	10.4216
117 1,2-Dibromo-3-chloropropane	157	15.324	15.277	(1.159)	50857	10.0000	10.2585
118 1,2,4-Trichlorobenzene	180	16.577	16.565	(1.254)	441173	10.0000	10.2966
119 Hexachlorobutadiene	225	16.821	16.809	(1.272)	390733	10.0000	9.80678
120 Naphthalene	128	16.838	16.826	(1.274)	473745	10.0000	11.0992
121 1,2,3-Trichlorobenzene	180	17.099	17.087	(1.294)	335802	10.0000	10.3451

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7139.D

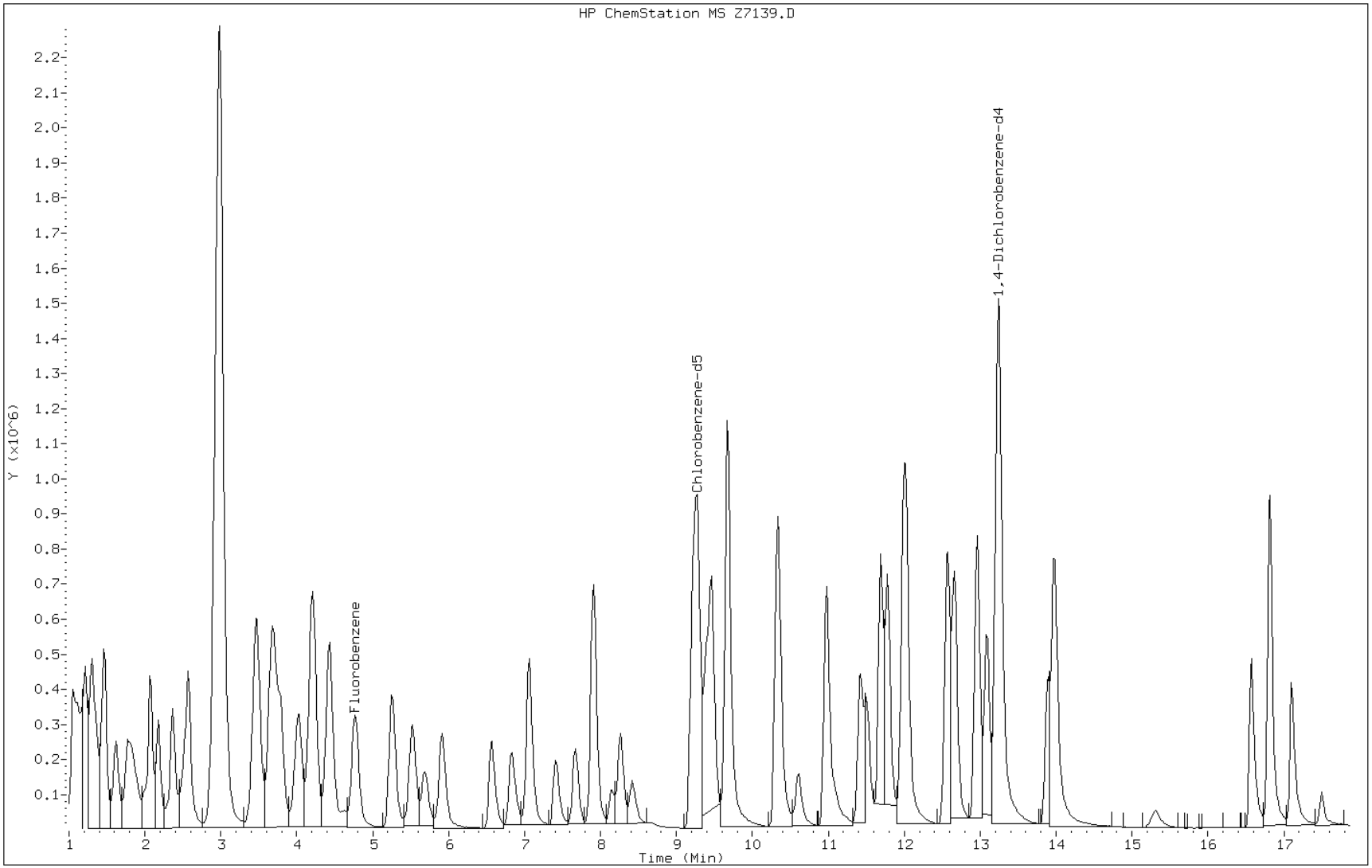
Date: 11-JUN-2012 14:54

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M10

Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7140.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 15:15
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M30
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 6
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
* 62	Fluorobenzene	96	4.767	4.767	(1.000)	971390	12.5000	
* 86	Chlorobenzene-d5	119	9.205	9.204	(1.000)	229787	12.5000	
* 111	1,4-Dichlorobenzene-d4	152	13.207	13.207	(1.000)	393458	12.5000	
M 1	1,2-Dichloroethene (total)	96				2122087	60.0000	63.1168
M 2	Xylene (total)	106				4884554	90.0000	94.0636
M 3	1,3-Dichloropropene (total)	75				2576269	60.0000	64.6657
M 4	Trihalomethanes (total)	83				5544935	120.000	126.655
5	Chlorotrifluoroethene	116	1.305	1.305	(0.274)	694306	30.0000	30.1273
6	dichlorodifluoromethane	85	1.322	1.322	(0.277)	1627417	30.0000	30.8579
7	Chloromethane	50	1.374	1.374	(0.288)	1173012	30.0000	32.6654
10	2-Chloro-1,1,1-trifluoroethan	118	1.479	1.479	(0.310)	1399459	30.0000	31.1928
9	Vinyl Chloride	62	1.461	1.461	(0.307)	939559	30.0000	31.4705
12	Bromomethane	94	1.618	1.618	(0.339)	849050	30.0000	30.6014
13	Chloroethane	64	1.653	1.635	(0.347)	599759	30.0000	30.8918
16	Trichlorofluoromethane	101	1.775	1.774	(0.372)	2211023	30.0000	31.6246
15	Ethanol	45	1.862	1.861	(0.391)	78279	1500.00	1133.12
21	Acrolein	56	2.001	1.983	(0.420)	404877	300.000	302.502
22	Acetone	43	2.088	2.070	(0.438)	295248	120.000	123.956
23	1,1-Dichloroethene	96	2.070	2.070	(0.434)	973825	30.0000	32.1107
25	Iodomethane	142	2.175	2.175	(0.456)	2199167	30.0000	32.7998
29	Acetonitrile	41	2.262	2.262	(0.474)	164723	300.000	313.460
30	tert-Butyl alcohol	59	2.453	2.453	(0.515)	633712	600.000	612.740

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28	Methylene Chloride	84	2.366	2.366	(0.496)	850425	30.0000	28.5846
31	Acrylonitrile	53	2.523	2.523	(0.529)	825529	300.000	315.003
32	trans-1,2-Dichloroethene	96	2.575	2.575	(0.540)	1098617	30.0000	32.3839
37	Isopropyl ether	87	2.993	2.992	(0.628)	3553113	150.000	158.876
36	1,1-Dichloroethane	63	2.906	2.905	(0.610)	2124633	30.0000	31.9335
38	Chloroprene	53	2.993	2.992	(0.628)	1947261	30.0000	31.1696
41	2-Butanone	43	3.462	3.462	(0.726)	649836	120.000	114.564
42	cis-1,2-Dichloroethene	96	3.462	3.462	(0.726)	1023470	30.0000	30.7329
45	Propionitrile	54	3.515	3.497	(0.737)	288253	300.000	307.000
43	2,2-Dichloropropane	77	3.480	3.480	(0.730)	1608929	30.0000	29.4906
46	Methacrylonitrile	41	3.671	3.671	(0.770)	2329051	300.000	314.329
47	Bromochloromethane	128	3.706	3.706	(0.777)	462694	30.0000	32.2710
50	Chloroform	83	3.793	3.793	(0.796)	1959833	30.0000	30.9998
52	1,1,1-Trichloroethane	97	4.037	4.019	(0.847)	1982919	30.0000	30.8596
58	Isobutanol	41	4.367	4.367	(0.916)	154047	600.000	558.085
54	1,1-Dichloropropene	75	4.193	4.193	(0.880)	1700581	30.0000	30.4156
55	Carbon Tetrachloride	117	4.228	4.228	(0.887)	1851901	30.0000	31.1400
57	1,2-Dichloroethane	62	4.437	4.437	(0.931)	857473	30.0000	31.5231
59	Benzene	78	4.437	4.437	(0.931)	3030887	30.0000	31.5638
61	n-Butanol	56	4.628	4.611	(0.971)	27371	900.000	0.000000(a)
63	Trichloroethene	95	5.255	5.255	(1.102)	1326271	30.0000	31.4056
66	1,2-Dichloropropane	63	5.516	5.516	(1.157)	1138580	30.0000	31.9776
69	1,4-Dioxane	88	5.759	5.742	(1.208)	127529	1500.00	1558.65
67	Dibromomethane	93	5.690	5.672	(1.193)	594365	30.0000	32.4133
70	Bromodichloromethane	83	5.916	5.916	(1.241)	1717279	30.0000	31.7631
73	cis-1,3-Dichloropropene	75	6.560	6.560	(1.376)	1481227	30.0000	33.7024
74	4-Methyl-2-pentanone	43	6.821	6.803	(1.431)	1950494	120.000	119.292
76	Toluene	91	7.064	7.064	(1.482)	3454159	30.0000	32.3439
77	trans-1,3-Dichloropropene	75	7.395	7.395	(1.551)	1095042	30.0000	30.9633
79	1,1,2-Trichloroethane	97	7.673	7.656	(1.609)	611958	30.0000	30.3952
82	2-Hexanone	43	8.126	8.108	(0.883)	1219453	120.000	111.998
81	1,3-Dichloropropane	76	7.917	7.917	(0.860)	1114813	30.0000	31.6934
80	Tetrachloroethene	164	7.900	7.899	(0.858)	1151894	30.0000	30.9942
84	Dibromochloromethane	129	8.265	8.265	(0.898)	1170555	30.0000	31.3434
85	1,2-Dibromoethane	107	8.422	8.404	(0.915)	907327	30.0000	32.3778
88	1-Chlorohexane	91	9.292	9.291	(1.009)	1783241	30.0000	31.6555
87	Chlorobenzene	112	9.239	9.239	(1.004)	2608405	30.0000	32.1314
89	1,1,1,2-Tetrachloroethane	131	9.396	9.396	(1.021)	1208215	30.0000	32.4694
90	Ethylbenzene	106	9.466	9.466	(1.028)	1290097	30.0000	32.1738
91	m and p-Xylene	106	9.674	9.674	(1.051)	3371426	60.0000	62.0074
92	o-Xylene	106	10.318	10.318	(1.121)	1513128	30.0000	32.0562
93	Styrene	104	10.353	10.353	(1.125)	2479229	30.0000	32.4716
94	Bromoform	173	10.597	10.597	(1.151)	697268	30.0000	32.5483
95	isopropyl benzene	105	10.979	10.979	(0.831)	5062723	30.0000	30.5918
97	Cyclohexanone	55	11.066	11.049	(1.202)	548185	1200.00	1186.85
100	1,1,2,2-Tetrachloroethane	83	11.484	11.484	(0.870)	900724	30.0000	30.4132
101	1,2,3-Trichloropropane	110	11.519	11.519	(0.872)	224372	30.0000	32.2420
99	Bromobenzene	156	11.414	11.414	(0.864)	1104480	30.0000	31.6536
103	n-Propylbenzene	120	11.693	11.693	(0.885)	1271491	30.0000	31.7487
104	2-Chlorotoluene	126	11.780	11.780	(0.892)	1052072	30.0000	31.5327(Q)
106	1,3,5-Trimethylbenzene	105	12.024	12.023	(0.910)	3894301	30.0000	31.5292
105	4-Chlorotoluene	126	11.971	11.971	(0.906)	1158482	30.0000	32.9819
107	tert-Butylbenzene	119	12.563	12.563	(0.951)	4338048	30.0000	31.1703
108	1,2,4-Trimethylbenzene	105	12.667	12.667	(0.959)	3844008	30.0000	32.2686

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
109 sec-Butylbenzene	134	12.963	12.963	(0.982)	1092742	30.0000	31.2395
112 4-Isopropyltoluene	119	13.242	13.241	(1.003)	4802592	30.0000	31.0787
110 1,3-Dichlorobenzene	146	13.085	13.085	(0.991)	2014654	30.0000	32.4524
113 1,4-dichlorobenzene	146	13.242	13.241	(1.003)	2281190	30.0000	30.4904
116 n-Butylbenzene	91	13.972	13.972	(1.058)	4832656	30.0000	32.9987
115 1,2-Dichlorobenzene	146	13.885	13.885	(1.051)	1747252	30.0000	31.7503
117 1,2-Dibromo-3-chloropropane	157	15.295	15.277	(1.158)	167799	30.0000	30.7452
118 1,2,4-Trichlorobenzene	180	16.565	16.565	(1.254)	1431560	30.0000	31.9736
119 Hexachlorobutadiene	225	16.809	16.809	(1.273)	1250823	30.0000	29.9488
120 Naphthalene	128	16.826	16.826	(1.274)	1468370	30.0000	32.9217
121 1,2,3-Trichlorobenzene	180	17.105	17.087	(1.295)	1099786	30.0000	32.4235

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z7140.D

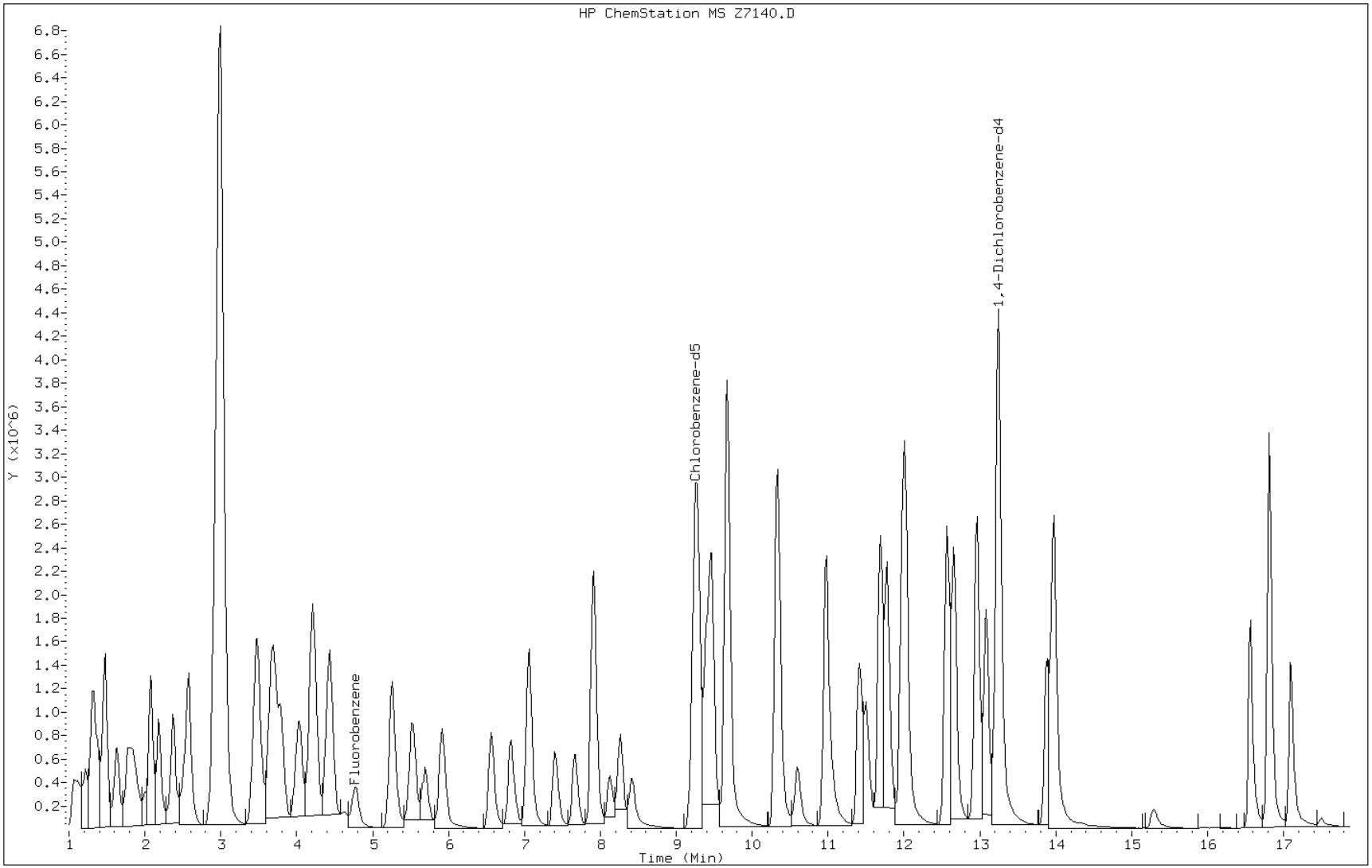
Date: 11-JUN-2012 15:15

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M30

Operator: MEIERG



TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7141.D
Lab Smp Id: IC Client Smp ID: IC
Inj Date : 11-JUN-2012 15:37
Operator : MEIERG Inst ID: Z.i
Smp Info : IC,,M60
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:00 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Calibration Sample, Level: 7
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-mainbo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
* 62	Fluorobenzene	96	4.767	4.767	(1.000)	994715	12.5000	
* 86	Chlorobenzene-d5	119	9.204	9.204	(1.000)	232948	12.5000	
* 111	1,4-Dichlorobenzene-d4	152	13.207	13.207	(1.000)	382816	12.5000	
M 1	1,2-Dichloroethene (total)	96				4305081	120.000	125.059
M 2	Xylene (total)	106				10030415	180.000	190.629
M 3	1,3-Dichloropropene (total)	75				5407779	120.000	133.155
M 4	Trihalomethanes (total)	83				11283685	240.000	254.399
5	Chlorotrifluoroethene	116	1.305	1.305	(0.274)	1498479	60.0000	62.1509(A)
6	dichlorodifluoromethane	85	1.322	1.322	(0.277)	3280421	60.0000	60.4086(A)
7	Chloromethane	50	1.374	1.374	(0.288)	2337118	60.0000	63.5567(A)
10	2-Chloro-1,1,1-trifluoroethan	118	1.479	1.479	(0.310)	2843145	60.0000	61.8854(A)
9	Vinyl Chloride	62	1.461	1.461	(0.307)	1878763	60.0000	61.4536(A)
12	Bromomethane	94	1.618	1.618	(0.339)	1672050	60.0000	58.8508
13	Chloroethane	64	1.635	1.635	(0.343)	1140216	60.0000	57.3520
16	Trichlorofluoromethane	101	1.774	1.774	(0.372)	4327611	60.0000	60.4471(A)
15	Ethanol	45	1.861	1.861	(0.391)	150564	3000.00	2128.38
21	Acrolein	56	1.983	1.983	(0.416)	828450	600.000	604.458(A)
22	Acetone	43	2.070	2.070	(0.434)	558265	240.000	230.748
23	1,1-Dichloroethene	96	2.070	2.070	(0.434)	1892885	60.0000	60.9520(A)
25	Iodomethane	142	2.175	2.175	(0.456)	4288214	60.0000	62.4574(A)
29	Acetonitrile	41	2.262	2.262	(0.474)	299563	600.000	556.688
30	tert-Butyl alcohol	59	2.453	2.453	(0.515)	1301234	1200.00	1228.67(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
28 Methylene Chloride	84	2.366	2.366	(0.496)	1669384	60.0000	54.7958
31 Acrylonitrile	53	2.523	2.523	(0.529)	1679236	600.000	625.734(A)
32 trans-1,2-Dichloroethene	96	2.575	2.575	(0.540)	2198683	60.0000	63.2907(A)
37 Isopropyl ether	87	2.992	2.992	(0.628)	7204514	300.000	314.592(A)
36 1,1-Dichloroethane	63	2.905	2.905	(0.609)	4289550	60.0000	62.9608(A)
38 Chloroprene	53	2.992	2.992	(0.628)	3898935	60.0000	60.9464(A)
41 2-Butanone	43	3.462	3.462	(0.726)	1352242	240.000	232.805
42 cis-1,2-Dichloroethene	96	3.462	3.462	(0.726)	2106398	60.0000	61.7680(A)
45 Propionitrile	54	3.497	3.497	(0.734)	594863	600.000	618.695(A)
43 2,2-Dichloropropane	77	3.480	3.480	(0.730)	3235693	60.0000	57.9175
46 Methacrylonitrile	41	3.671	3.671	(0.770)	4720780	600.000	622.178(A)
47 Bromochloromethane	128	3.706	3.706	(0.777)	934347	60.0000	63.6388(A)
50 Chloroform	83	3.793	3.793	(0.796)	3941984	60.0000	60.8906(A)
52 1,1,1-Trichloroethane	97	4.019	4.019	(0.843)	3991838	60.0000	60.6672(A)
58 Isobutanol	41	4.367	4.367	(0.916)	367410	1200.00	1269.23(A)
54 1,1-Dichloropropene	75	4.193	4.193	(0.880)	3532662	60.0000	61.7015(A)
55 Carbon Tetrachloride	117	4.228	4.228	(0.887)	3872106	60.0000	63.5833(A)
57 1,2-Dichloroethane	62	4.437	4.437	(0.931)	1755111	60.0000	63.0098(A)
59 Benzene	78	4.437	4.437	(0.931)	6168578	60.0000	62.7336(A)
61 n-Butanol	56	4.611	4.611	(0.967)	45125	1800.00	0.000000(a)
63 Trichloroethene	95	5.255	5.255	(1.102)	2676687	60.0000	61.8968(A)
66 1,2-Dichloropropane	63	5.516	5.516	(1.157)	2444307	60.0000	67.0397(A)
69 1,4-Dioxane	88	5.742	5.742	(1.204)	255575	3000.00	2962.86
67 Dibromomethane	93	5.672	5.672	(1.190)	1266561	60.0000	67.4513(A)
70 Bromodichloromethane	83	5.916	5.916	(1.241)	3472175	60.0000	62.7160(A)
73 cis-1,3-Dichloropropene	75	6.560	6.560	(1.376)	2972686	60.0000	66.0515(A)
74 4-Methyl-2-pentanone	43	6.803	6.803	(1.427)	4147792	240.000	246.209(A)
76 Toluene	91	7.064	7.064	(1.482)	7585189	60.0000	69.3604(A)
77 trans-1,3-Dichloropropene	75	7.395	7.395	(1.551)	2435093	60.0000	67.1039(A)
79 1,1,2-Trichloroethane	97	7.656	7.656	(1.606)	1375573	60.0000	66.7208(A)
82 2-Hexanone	43	8.108	8.108	(0.881)	2764242	240.000	243.388(A)
81 1,3-Dichloropropane	76	7.917	7.917	(0.860)	2371144	60.0000	66.4953(A)
80 Tetrachloroethene	164	7.899	7.899	(0.858)	2498410	60.0000	66.3130(A)
84 Dibromochloromethane	129	8.265	8.265	(0.898)	2413501	60.0000	63.7483(A)
85 1,2-Dibromoethane	107	8.404	8.404	(0.913)	1767748	60.0000	62.2258(A)
88 1-Chlorohexane	91	9.291	9.291	(1.009)	3605561	60.0000	63.1361(A)
87 Chlorobenzene	112	9.239	9.239	(1.004)	5297331	60.0000	64.3691(A)
89 1,1,1,2-Tetrachloroethane	131	9.396	9.396	(1.021)	2410099	60.0000	63.8899(A)
90 Ethylbenzene	106	9.466	9.466	(1.028)	2654620	60.0000	65.3054(A)
91 m and p-Xylene	106	9.674	9.674	(1.051)	6890220	120.000	125.006(A)
92 o-Xylene	106	10.318	10.318	(1.121)	3140195	60.0000	65.6234(A)
93 Styrene	104	10.353	10.353	(1.125)	5154195	60.0000	66.5908(A)
94 Bromoform	173	10.597	10.597	(1.151)	1456025	60.0000	67.0446(A)
95 isopropyl benzene	105	10.979	10.979	(0.831)	10593301	60.0000	65.7901(A)
97 Cyclohexanone	55	11.049	11.049	(1.200)	1223076	2400.00	2549.04(A)
100 1,1,2,2-Tetrachloroethane	83	11.484	11.484	(0.870)	1820747	60.0000	63.1871(A)
101 1,2,3-Trichloropropane	110	11.519	11.519	(0.872)	430777	60.0000	63.6231(A)
99 Bromobenzene	156	11.414	11.414	(0.864)	2291197	60.0000	67.4895(A)
103 n-Propylbenzene	120	11.693	11.693	(0.885)	2499774	60.0000	64.1537(A)
104 2-Chlorotoluene	126	11.780	11.780	(0.892)	2091483	60.0000	64.4285(A)
106 1,3,5-Trimethylbenzene	105	12.023	12.023	(0.910)	7495068	60.0000	62.3688(A)
105 4-Chlorotoluene	126	11.971	11.971	(0.906)	2240871	60.0000	65.5710(A)
107 tert-Butylbenzene	119	12.563	12.563	(0.951)	8409774	60.0000	62.1068(A)
108 1,2,4-Trimethylbenzene	105	12.667	12.667	(0.959)	7542505	60.0000	65.0757(A)

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
109 sec-Butylbenzene	134	12.963	12.963	(0.982)	2184441	60.0000	64.1851(A)
112 4-Isopropyltoluene	119	13.241	13.241	(1.003)	9454511	60.0000	62.8833(A)
110 1,3-Dichlorobenzene	146	13.085	13.085	(0.991)	4070341	60.0000	67.3885(A)
113 1,4-dichlorobenzene	146	13.241	13.241	(1.003)	4428269	60.0000	60.8338(A)
116 n-Butylbenzene	91	13.972	13.972	(1.058)	9185965	60.0000	64.4680(A)
115 1,2-Dichlorobenzene	146	13.885	13.885	(1.051)	3402898	60.0000	63.5550(A)
117 1,2-Dibromo-3-chloropropane	157	15.277	15.277	(1.157)	313110	60.0000	58.2646
118 1,2,4-Trichlorobenzene	180	16.565	16.565	(1.254)	2772757	60.0000	63.6506(A)
119 Hexachlorobutadiene	225	16.809	16.809	(1.273)	2384186	60.0000	58.6284
120 Naphthalene	128	16.826	16.826	(1.274)	2826582	60.0000	65.1353(A)
121 1,2,3-Trichlorobenzene	180	17.087	17.087	(1.294)	2123805	60.0000	64.3538(A)

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
A - Target compound detected but, quantitated amount
exceeded maximum amount.

Data File: Z7141.D

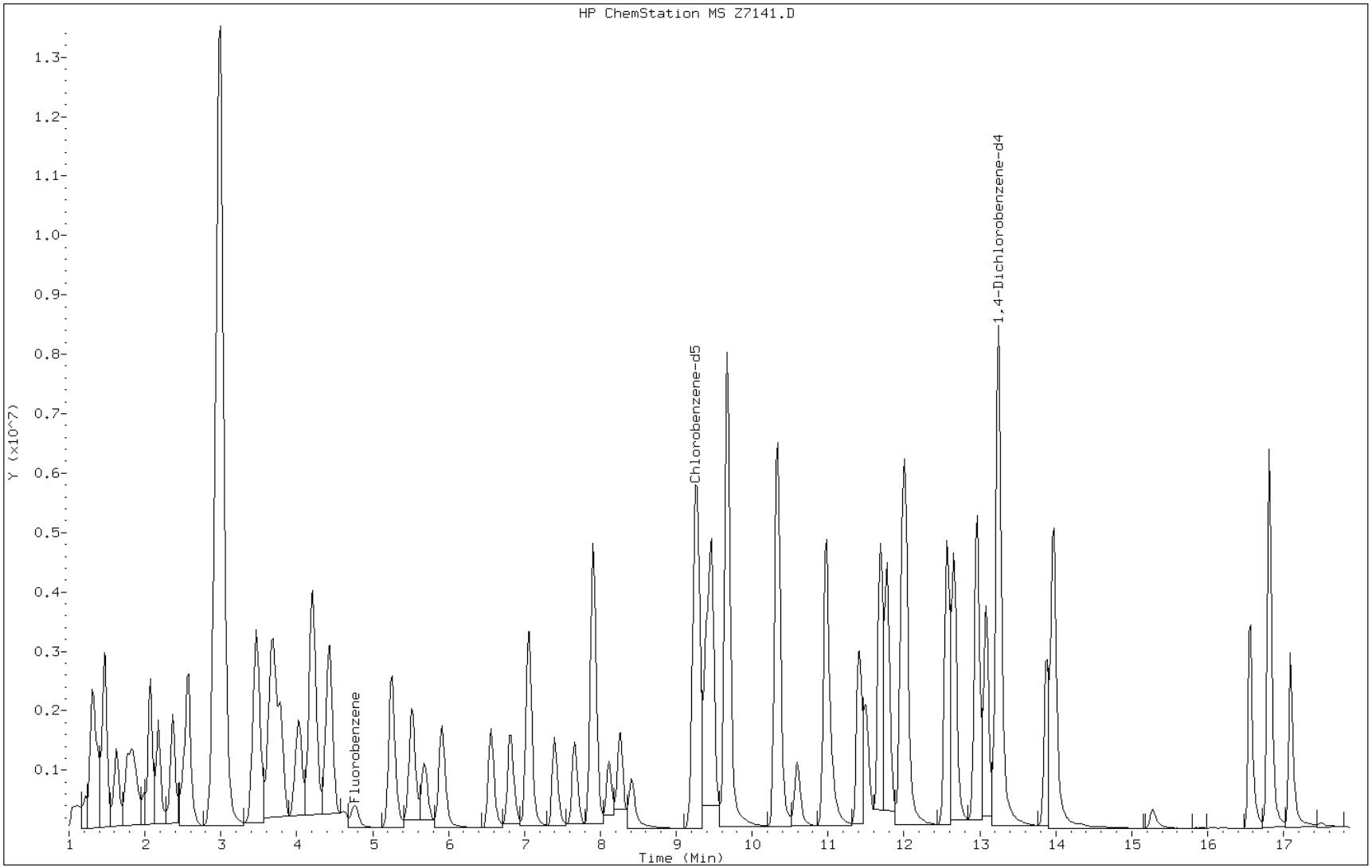
Date: 11-JUN-2012 15:37

Client ID: IC

Instrument: Z.i

Sample Info: IC,,M60

Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: ICV 280-123533/8 Calibration Date: 06/11/2012 13:07

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 10:59

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 12:46

Lab File ID: Z7134.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	1.010	0.9732		9.63	10.0	-3.7	50.0
Ethyl ether	Ave	0.2441	0.2286		9.36	10.0	-6.4	35.0
Isopropyl alcohol	Ave	0.0082	0.0079		192	200	-3.8	50.0
2,2-Dichloro-1,1,1-trifluoro ethane	Ave	1.043	1.013		9.71	10.0	-2.9	50.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.5439	0.5435		9.99	10.0	-0.0	35.0
Carbon disulfide	Ave	1.520	1.460		9.61	10.0	-3.9	20.0
Allyl chloride	Ave	0.7659	0.7642		9.98	10.0	-0.2	35.0
Methyl acetate	Ave	0.1090	0.1033		47.4	50.0	-5.3	55.0
Methyl tert-butyl ether	Ave	0.6053	0.5673		9.37	10.0	-6.3	20.0
Hexane	Ave	3.239	3.125		9.65	10.0	-3.5	20.0
Vinyl acetate	Ave	0.5230	0.4533		17.3	20.0	-13.3	55.0
Tert-butyl ethyl ether	Ave	1.217	1.166		47.9	50.0	-4.2	35.0
Ethyl acetate	Lin2	0.2134	0.2231		19.6	20.0	-2.0	55.0
2-Butanol	Ave	0.0108	0.0111		310	301	2.8	50.0
Tetrahydrofuran	Ave	0.0364	0.0363		19.9	20.0	-0.3	55.0
Cyclohexane	Ave	0.8271	0.8600		10.4	10.0	4.0	35.0
Tert-amyl methyl ether	Ave	0.8291	0.8143		49.1	50.0	-1.8	35.0
2-Pentanone	Ave	0.1683	0.1805		42.9	40.0	7.3	55.0
Methylcyclohexane	Ave	0.7594	0.7833		10.3	10.0	3.1	35.0
Methyl methacrylate	Ave	0.0495	0.0499		20.2	20.0	0.8	35.0
2-Nitropropane	Lin2	0.0240	0.0298		11.2	10.0	12.3	55.0
2-Chloroethyl vinyl ether	Ave	0.1108	0.1139		10.3	10.0	2.9	55.0
Ethyl methacrylate	Ave	1.332	1.314		19.7	20.0	-1.3	35.0
cis-1,4-Dichloro-2-butene	Lin2	0.1730	0.2030		10.1	10.0	0.9	55.0
trans-1,4-Dichloro-2-butene	Lin2	0.1585	0.1592		9.46	10.0	-5.4	55.0
Dibromofluoromethane (Surr)	Ave	0.6900	0.7284		9.50	9.00	5.6	35.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3263	0.3356		9.25	9.00	2.8	35.0
Toluene-d8 (Surr)	Ave	6.250	6.340		9.13	9.00	1.4	35.0
4-Bromofluorobenzene (Surr)	Ave	2.250	2.481		9.93	9.00	10.3	35.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7134.D
Lab Smp Id: ICV
Inj Date : 11-JUN-2012 13:07
Operator : MEIERG Inst ID: Z.i
Smp Info : ICV,,S
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:25 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp-.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
* 62 Fluorobenzene	96	4.768	4.765	(1.000)	1050715	12.5000	
* 86 Chlorobenzene-d5	119	9.205	9.202	(1.000)	238465	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.224	13.222	(1.000)	327233	12.5000	
$ 51 Dibromofluoromethane (Surr)	111	3.967	3.947	(0.832)	551046	9.50072	9.50072(R)
$ 56 1,2-Dichloroethane-d4	65	4.350	4.330	(0.912)	253863	9.25451	9.25451(R)
$ 75 Toluene-d8	98	6.960	6.958	(0.756)	1088535	9.12949	9.12949(R)
$ 98 4-Bromofluorobenzene (Surr)	95	11.206	11.186	(0.847)	584535	9.92534	9.92534(R)
11 Ethylene Oxide	43	1.583	1.563	(0.332)	694636	1236.53	1236.53
14 Dichlorofluoromethane	67	1.757	1.737	(0.369)	818071	9.63326	9.63326
19 1,2-dichloro-1,1,2-trifluoro	117	1.931	1.911	(0.405)	491287	9.75632	9.75632
17 Ethyl Ether	59	1.914	1.894	(0.402)	192122	9.36251	9.36251
20 2,2-dichloro-1,1,1-trifluoro	83	1.949	1.929	(0.409)	851366	9.71029	9.71029
24 Trichlorotrifluoroethane	151	2.123	2.103	(0.445)	456806	9.99249	9.99249
18 2-propanol	45	1.914	1.894	(0.402)	132887	192.301	192.301
27 Methyl Acetate	43	2.279	2.259	(0.478)	433958	47.3598	47.3598
39 Allyl Chloride	41	2.279	2.277	(0.478)	642328	9.97684	9.97684
26 Carbon Disulfide	76	2.245	2.225	(0.471)	1227642	9.61070	9.61070
33 Methyl t-butyl ether	73	2.593	2.573	(0.544)	476860	9.37255	9.37255
34 Hexane	57	2.784	2.781	(0.302)	596136	9.64688	9.64688
35 Vinyl acetate	43	2.941	2.921	(0.617)	762126	17.3377	17.3377
40 ETBE	59	3.341	3.338	(0.701)	4900607	47.8943	47.8943
44 Ethyl Acetate	43	3.532	3.512	(0.741)	375033	19.5993	19.5993(Q)

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
48	Tetrahydrofuran	42	3.793	3.756	(0.796)	60987	19.9313	19.9313
49	2-Butanol	45	3.689	3.669	(0.774)	281753	310.017	310.017
53	Cyclohexane	56	4.106	4.104	(0.861)	722860	10.3968	10.3968
60	TAME	73	4.611	4.609	(0.967)	3422367	49.1050	49.1050
64	2-Pentanone	43	5.516	5.479	(1.157)	606971	42.9006	42.9006
65	Methyl Cyclohexane	55	5.533	5.531	(1.161)	658423	10.3141	10.3141
68	Methyl Methacrylate	100	5.759	5.722	(1.208)	83934	20.1534	20.1534
71	2-nitropropane	41	6.229	6.209	(1.307)	25074	11.2313	11.2313
72	2-Chloroethyl vinyl ether	63	6.403	6.366	(1.343)	95778	10.2875	10.2875
78	Ethyl methacrylate	69	7.639	7.601	(0.830)	501427	19.7373	19.7373
83	Tetrahydrothiophene	60	8.283	8.228	(0.900)	63891	8.77573	8.77573
96	cis-1,4-dichloro-2-butene	53	11.119	11.082	(0.841)	53144	10.0948	10.0948
102	t-1,4-Dichloro-2-butene	53	11.658	11.604	(0.882)	41668	9.46325	9.46325
114	1,2,3-Trimethylbenzene	105	13.381	13.378	(1.012)	1075187	10.4382	10.4382

QC Flag Legend

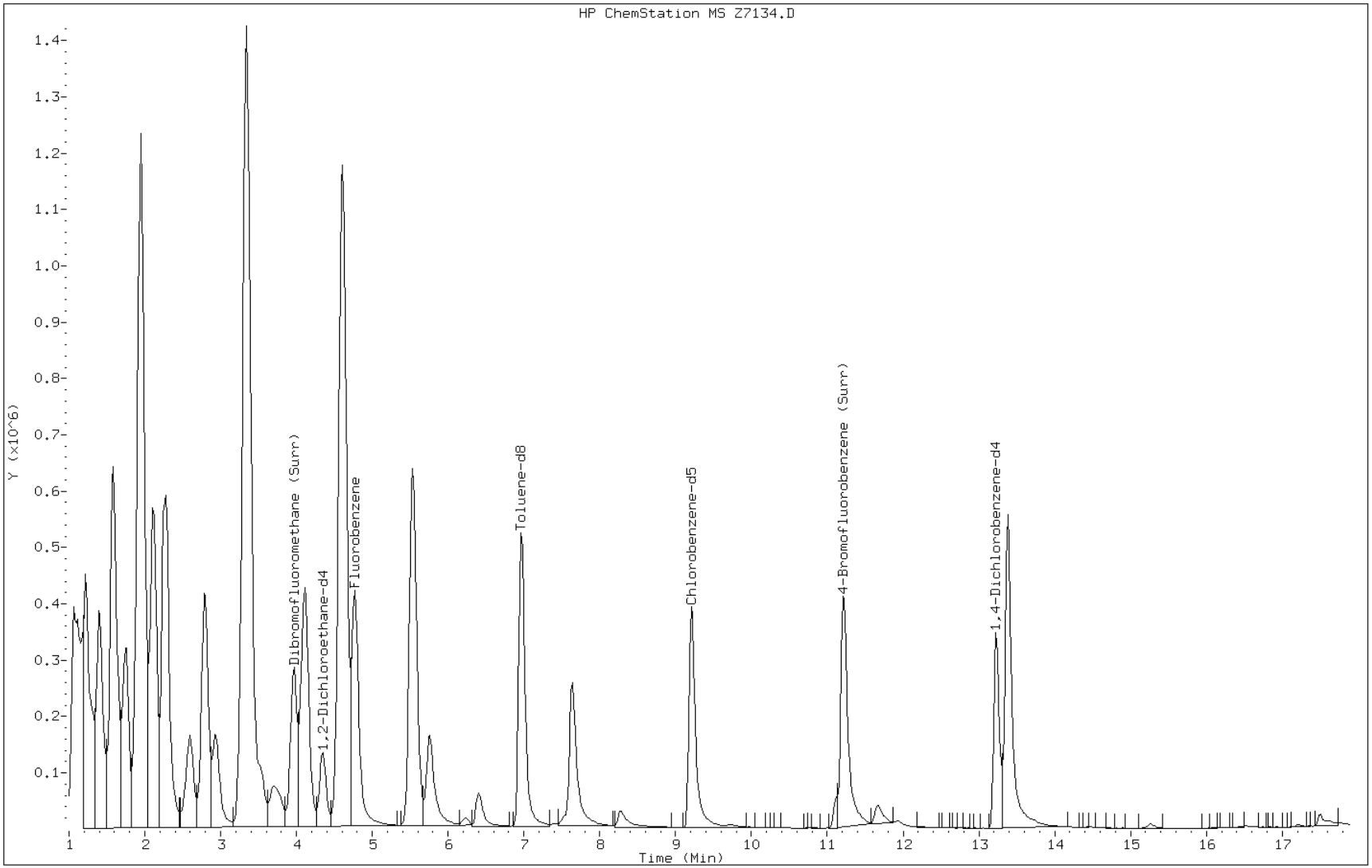
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: Z7134.D

Date: 11-JUN-2012 13:07

Client ID: Instrument: Z.i

Sample Info: ICV,,S Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: ICV 280-123533/16 Calibration Date: 06/11/2012 15:58

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z7142.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
2-Chloro-1,3-butadiene	Ave	0.8039	0.7251		9.02	10.0	-9.8	35.0
Propionitrile	Ave	0.0121	0.0115		94.9	100	-5.1	35.0
Methacrylonitrile	Ave	0.0953	0.0850		89.1	100	-10.9	50.0
Isobutyl alcohol	Lin2	0.0030	0.0033		201	200	0.7	50.0
1,4-Dioxane	Lin1	0.0008	0.0008		227	200	13.7	55.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7142.D
Lab Smp Id: ICV
Inj Date : 11-JUN-2012 15:58
Operator : MEIERG Inst ID: Z.i
Smp Info : ICV,,B
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 11-Jun-2012 23:45 tinkhams Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: icvmb-eth.sub
Target Version: 4.14
Processing Host: DENPC293

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
* 62 Fluorobenzene	96	4.765	4.767	(1.000)	1088018	12.5000	
* 86 Chlorobenzene-d5	119	9.202	9.204	(1.000)	273059	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.222	13.207	(1.000)	397466	12.5000	(Q)
38 Chloroprene	53	2.990	2.992	(0.628)	631134	9.01958	9.01958
45 Propionitrile	54	3.512	3.497	(0.737)	99806	94.9028	94.9028
46 Methacrylonitrile	41	3.651	3.671	(0.766)	739443	89.0980	89.0980
58 Isobutanol	41	4.400	4.367	(0.923)	57532	201.443	201.443(Q)
69 1,4-Dioxane	88	5.774	5.742	(1.212)	13242	227.460	227.460(Q)

QC Flag Legend

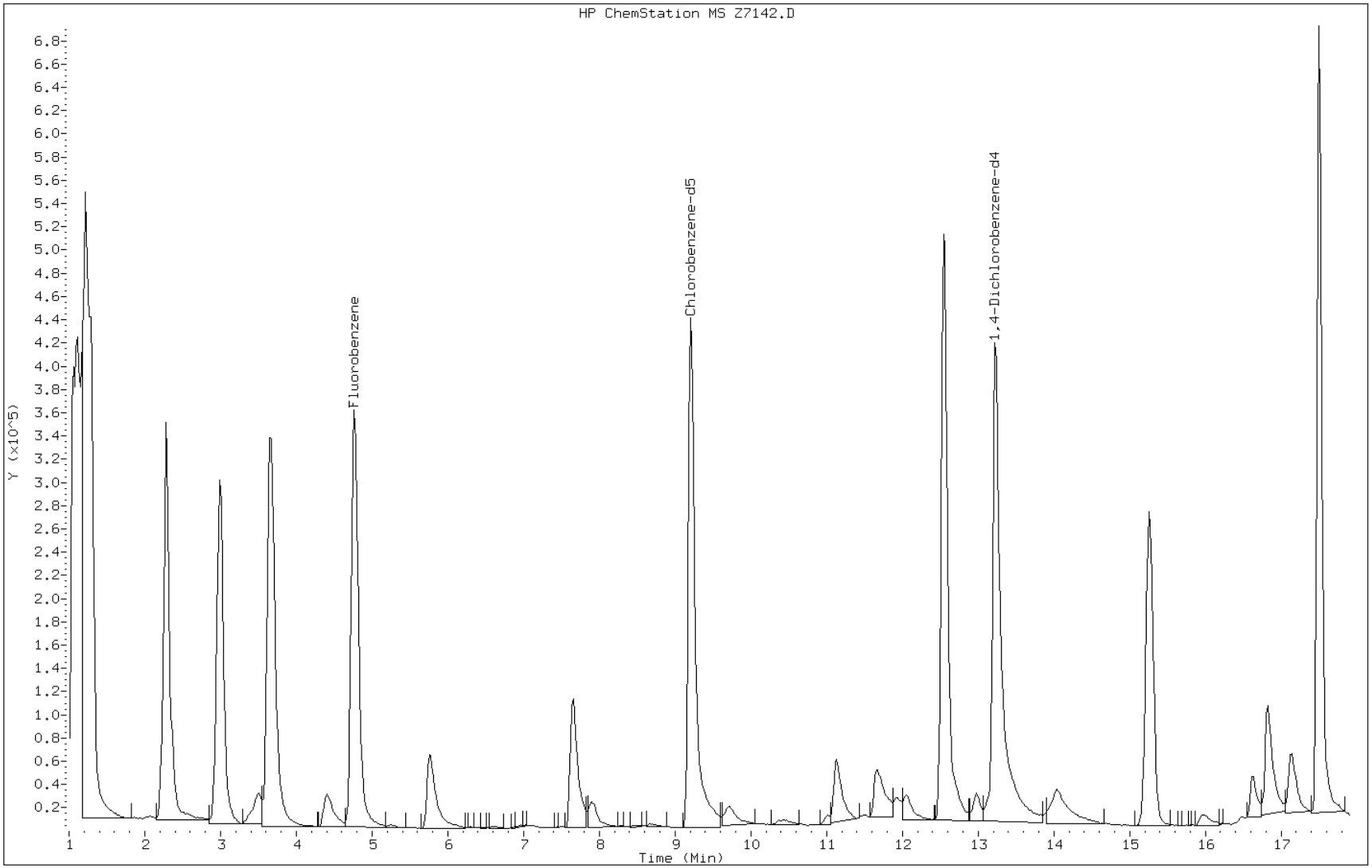
Q - Qualifier signal failed the ratio test.

Data File: Z7142.D

Date: 11-JUN-2012 15:58

Client ID: Instrument: Z.i

Sample Info: ICV,,B Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: ICV 280-123533/17 Calibration Date: 06/11/2012 16:19

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z7143.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Lin2	0.6104	0.6118		9.26	10.0	-7.4	20.0
Chloromethane	Ave	0.4621	0.5098	0.1000	11.0	10.0	10.3	20.0
Vinyl chloride	Ave	0.3842	0.3895		10.1	10.0	1.4	20.0
Bromomethane	Ave	0.3570	0.3675		10.3	10.0	2.9	20.0
Chloroethane	Ave	0.2498	0.2525		10.1	10.0	1.0	20.0
Trichlorofluoromethane	Ave	0.8997	0.9043		10.1	10.0	0.5	20.0
Acetone	Lin2	0.0351	0.0343		43.4	40.0	8.5	20.0
2-Butanone (MEK)	Ave	0.0730	0.0588		32.2	40.0	-19.5	20.0
4-Methyl-2-pentanone (MIBK)	Lin2	0.1890	0.1632		32.1	40.0	-19.8	20.0
2-Hexanone	Lin	0.4345	0.4155		32.3	40.0	-19.2	20.0
Cyclohexanone	Lin2	0.0203	0.0148		194	250	-22.6	55.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7143.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 11-JUN-2012 16:19
Operator : MEIERG Inst ID: Z.i
Smp Info : ICV,,A
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\8260B-H2O.m
Meth Date : 12-Jun-2012 05:32 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-gka+bo.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
* 62 Fluorobenzene	96	4.779	4.767	(1.000)	982037	12.5000	
* 86 Chlorobenzene-d5	119	9.199	9.204	(1.000)	216059	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.219	13.207	(1.000)	356103	12.5000	(Q)
6 dichlorodifluoromethane	85	1.334	1.322	(0.279)	480678	9.25951	9.25951
7 Chloromethane	50	1.369	1.374	(0.286)	400512	11.0323	11.0323(Q)
9 Vinyl Chloride	62	1.456	1.461	(0.305)	305982	10.1378	10.1378
12 Bromomethane	94	1.612	1.618	(0.337)	288713	10.2930	10.2930
13 Chloroethane	64	1.647	1.635	(0.345)	198329	10.1046	10.1046
16 Trichlorofluoromethane	101	1.786	1.774	(0.374)	710459	10.0516	10.0516
21 Acrolein	56	1.995	1.983	(0.418)	126003	93.1219	93.1219
22 Acetone	43	2.082	2.070	(0.436)	107920	43.4116	43.4116
41 2-Butanone	43	3.474	3.462	(0.727)	184611	32.1934	32.1934
74 4-Methyl-2-pentanone	43	6.832	6.803	(1.430)	512984	32.0797	32.0797
82 2-Hexanone	43	8.155	8.109	(0.887)	287254	32.3287	32.3286
97 Cyclohexanone	55	11.113	11.049	(1.208)	64099	193.568	193.568
5 Chlorotrifluoroethene	116	1.299	1.305	(0.272)	205686	9.68775	9.68775
10 2-Chloro-1,1,1-trifluoroethan	118	1.473	1.479	(0.308)	461153	10.1673	10.1673

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: Z7143.D

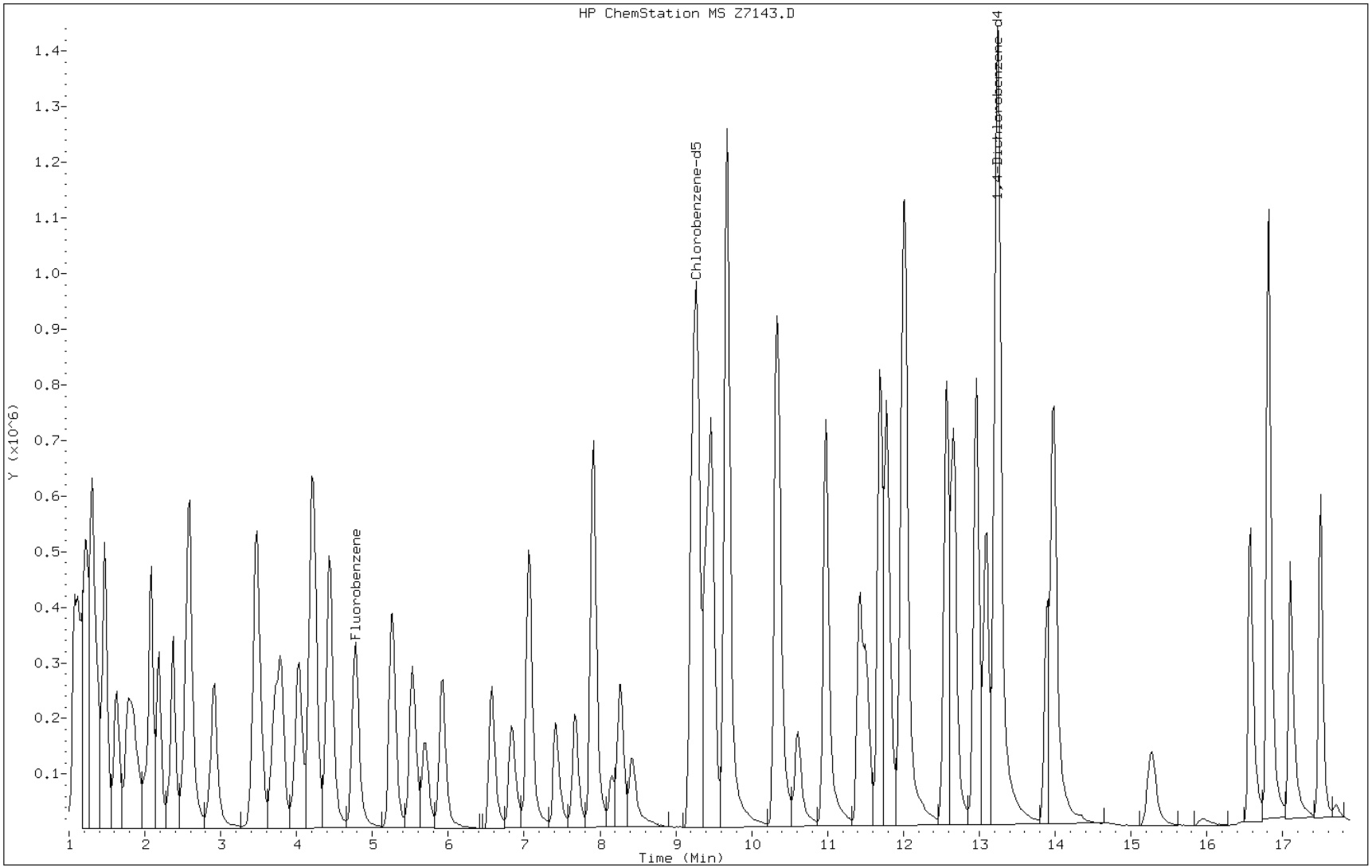
Date: 11-JUN-2012 16:19

Client ID: ICV

Instrument: Z.i

Sample Info: ICV,,A

Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: ICV 280-123534/2 Calibration Date: 06/12/2012 00:11

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z7146.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethene, Total	Ave	0.4366	0.4368		20.2	20.0	0.0	20.0
Xylenes, Total	Ave	2.854	2.955		31.4	30.0	3.5	35.0
Acrolein	Ave	0.0172	0.0175		102	100	1.5	55.0
1,1-Dichloroethene	Ave	0.3903	0.4049		10.4	10.0	3.8	20.0
Iodomethane	Ave	0.8628	0.8556		9.92	10.0	-0.8	35.0
Methylene Chloride	Ave	0.3828	0.3732		9.75	10.0	-2.5	20.0
Acrylonitrile	Ave	0.0337	0.0357		106	100	5.7	55.0
trans-1,2-Dichloroethene	Ave	0.4365	0.4479		10.3	10.0	2.6	20.0
1,1-Dichloroethane	Ave	0.8562	0.8645	0.1000	10.1	10.0	1.0	20.0
cis-1,2-Dichloroethene	Ave	0.4285	0.4257		9.93	10.0	-0.7	20.0
2,2-Dichloropropane	Ave	0.7021	0.6890		9.81	10.0	-1.9	20.0
Chlorobromomethane	Ave	0.1845	0.1917		10.4	10.0	3.9	20.0
Chloroform	Ave	0.8135	0.7910		9.72	10.0	-2.8	20.0
1,1,1-Trichloroethane	Ave	0.8269	0.7561		9.14	10.0	-8.6	20.0
1,1-Dichloropropene	Ave	0.7195	0.6647		9.24	10.0	-7.6	20.0
Carbon tetrachloride	Ave	0.7653	0.7259		9.49	10.0	-5.1	20.0
Benzene	Ave	1.236	1.215		9.83	10.0	-1.7	20.0
1,2-Dichloroethane	Ave	0.3500	0.3572		10.2	10.0	2.0	20.0
Trichloroethene	Ave	0.5434	0.5063		9.32	10.0	-6.8	20.0
1,2-Dichloropropane	Ave	0.4582	0.4545		9.92	10.0	-0.8	20.0
Dibromomethane	Ave	0.2360	0.2414		10.2	10.0	2.3	20.0
Dichlorobromomethane	Ave	0.6957	0.6983		10.0	10.0	0.4	20.0
cis-1,3-Dichloropropene	Ave	0.5656	0.6008		10.6	10.0	6.2	20.0
Toluene	Ave	1.374	1.368		9.95	10.0	-0.5	20.0
trans-1,3-Dichloropropene	Lin2	0.4150	0.4543		10.1	10.0	0.6	20.0
1,1,2-Trichloroethane	Ave	0.2591	0.2516		9.71	10.0	-2.9	20.0
1,3-Dichloropropane	Ave	1.913	2.044		10.7	10.0	6.8	20.0
Tetrachloroethene	Ave	2.022	2.046		10.1	10.0	1.2	20.0
Chlorodibromomethane	Ave	2.032	2.175		10.7	10.0	7.1	20.0
Ethylene Dibromide	Ave	1.524	1.620		10.6	10.0	6.3	20.0
Chlorobenzene	Ave	4.416	4.596	0.3000	10.4	10.0	4.1	20.0
1-Chlorohexane	Ave	3.064	2.954		9.64	10.0	-3.6	35.0
1,1,1,2-Tetrachloroethane	Ave	2.024	2.173		10.7	10.0	7.4	20.0
Ethylbenzene	Ave	2.181	2.253		10.3	10.0	3.3	20.0
m-Xylene & p-Xylene	Ave	2.958	3.066		20.7	20.0	3.7	20.0
o-Xylene	Ave	2.568	2.732		10.6	10.0	6.4	20.0
Styrene	Ave	4.153	4.415		10.6	10.0	6.3	20.0
Bromoform	Ave	1.165	1.273	0.1000	10.9	10.0	9.2	20.0
Isopropylbenzene	Ave	5.258	5.439		10.3	10.0	3.5	20.0
Bromobenzene	Ave	1.109	1.206		10.9	10.0	8.8	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9409	1.018	0.3000	10.8	10.0	8.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: ICV 280-123534/2 Calibration Date: 06/12/2012 00:11

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z7146.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.2211	0.2461		11.1	10.0	11.3	20.0
N-Propylbenzene	Ave	1.272	1.298		10.2	10.0	2.0	20.0
2-Chlorotoluene	Ave	1.060	1.089		10.3	10.0	2.7	20.0
4-Chlorotoluene	Ave	1.116	1.212		10.9	10.0	8.6	20.0
1,3,5-Trimethylbenzene	Ave	3.924	4.198		10.7	10.0	7.0	20.0
tert-Butylbenzene	Ave	4.421	4.483		10.1	10.0	1.4	20.0
1,2,4-Trimethylbenzene	Ave	3.785	3.885		10.3	10.0	2.6	20.0
sec-Butylbenzene	Ave	1.111	1.125		10.1	10.0	1.2	20.0
1,3-Dichlorobenzene	Ave	1.972	2.010		10.2	10.0	1.9	20.0
1,4-Dichlorobenzene	Ave	2.377	2.468		10.4	10.0	3.8	20.0
4-Isopropyltoluene	Ave	4.909	4.848		9.88	10.0	-1.2	20.0
1,2-Dichlorobenzene	Ave	1.748	1.957		11.2	10.0	12.0	20.0
n-Butylbenzene	Ave	4.653	5.070		10.9	10.0	9.0	20.0
1,2-Dibromo-3-Chloropropane	Lin2	0.1546	0.1753		10.6	10.0	6.2	20.0
1,2,4-Trichlorobenzene	Ave	1.422	1.488		10.5	10.0	4.6	20.0
Hexachlorobutadiene	Lin2	1.283	1.304		9.85	10.0	-1.5	20.0
Naphthalene	Ave	1.417	1.477		10.4	10.0	4.3	20.0
1,2,3-Trichlorobenzene	Ave	1.078	1.128		10.5	10.0	4.6	20.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112MA.B\Z7146.D
Lab Smp Id: ICV Client Smp ID: ICV
Inj Date : 12-JUN-2012 00:11
Operator : TINKHAMS Inst ID: Z.i
Smp Info : ICV,,MA
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112MA.B\8260B-H2O.m
Meth Date : 12-Jun-2012 06:06 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: icvam-.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	
*	62 Fluorobenzene	96	4.750	4.767	(1.000)	1060586	12.5000		
*	86 Chlorobenzene-d5	119	9.187	9.204	(1.000)	229359	12.5000		
*	111 1,4-Dichlorobenzene-d4	152	13.206	13.207	(1.000)	369521	12.5000		(Q)
M	1 1,2-Dichloroethene (total)	96				741198	20.1931	20.1931	
M	2 Xylene (total)	106				1626424	31.3718	31.3718	
M	3 1,3-Dichloropropene (total)	75				895191	20.6837	20.6837	
M	4 Trihalomethanes (total)	83				1896335	41.3916	41.3916	
	21 Acrolein	56	1.966	1.983	(0.414)	148388	101.543	101.543	
	23 1,1-Dichloroethene	96	2.053	2.070	(0.432)	343556	10.3756	10.3756	
	25 Iodomethane	142	2.157	2.175	(0.454)	725963	9.91688	9.91688	
	28 Methylene Chloride	84	2.348	2.366	(0.494)	316647	9.74808	9.74808	
	31 Acrylonitrile	53	2.505	2.523	(0.527)	302538	105.733	105.733	
	32 trans-1,2-Dichloroethene	96	2.557	2.575	(0.538)	380022	10.2598	10.2598	
	36 1,1-Dichloroethane	63	2.888	2.905	(0.608)	733529	10.0978	10.0978	
	42 cis-1,2-Dichloroethene	96	3.445	3.462	(0.725)	361176	9.93333	9.93332	
	43 2,2-Dichloropropane	77	3.462	3.480	(0.729)	584589	9.81400	9.81400	
	47 Bromochloromethane	128	3.688	3.706	(0.777)	162682	10.3922	10.3922	
	50 Chloroform	83	3.758	3.793	(0.791)	671128	9.72284	9.72284	
	52 1,1,1-Trichloroethane	97	4.001	4.019	(0.842)	641543	9.14449	9.14449	
	54 1,1-Dichloropropene	75	4.175	4.193	(0.879)	563999	9.23899	9.23899	
	55 Carbon Tetrachloride	117	4.210	4.228	(0.886)	615886	9.48525	9.48525	
	57 1,2-Dichloroethane	62	4.419	4.437	(0.930)	303056	10.2042	10.2042	

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
59	Benzene	78	4.402	4.437	(0.927)	1031042	9.83432	9.83432
63	Trichloroethene	95	5.237	5.255	(1.103)	429615	9.31757	9.31757
66	1,2-Dichloropropane	63	5.498	5.516	(1.158)	385621	9.91951	9.91951
67	Dibromomethane	93	5.672	5.672	(1.194)	204841	10.2314	10.2314
70	Bromodichloromethane	83	5.898	5.916	(1.242)	592495	10.0372	10.0372
73	cis-1,3-Dichloropropene	75	6.559	6.560	(1.381)	509751	10.6229	10.6229
76	Toluene	91	7.047	7.064	(1.484)	1160287	9.95093	9.95093
77	trans-1,3-Dichloropropene	75	7.395	7.395	(1.557)	385440	10.0607	10.0607
79	1,1,2-Trichloroethane	97	7.656	7.656	(1.612)	213489	9.71194	9.71194
81	1,3-Dichloropropane	76	7.899	7.917	(0.860)	375065	10.6827	10.6827
80	Tetrachloroethene	164	7.899	7.899	(0.860)	375428	10.1206	10.1206
84	Dibromochloromethane	129	8.247	8.265	(0.898)	399113	10.7068	10.7068
85	1,2-Dibromoethane	107	8.404	8.404	(0.915)	297230	10.6264	10.6264
88	1-Chlorohexane	91	9.274	9.291	(1.009)	541969	9.63880	9.63880
87	Chlorobenzene	112	9.239	9.239	(1.006)	843365	10.4083	10.4083
89	1,1,1,2-Tetrachloroethane	131	9.378	9.396	(1.021)	398807	10.7375	10.7375
90	Ethylbenzene	106	9.465	9.466	(1.030)	413426	10.3297	10.3297
91	m and p-Xylene	106	9.657	9.674	(1.051)	1125197	20.7333	20.7333
92	o-Xylene	106	10.318	10.318	(1.123)	501227	10.6385	10.6385
93	Styrene	104	10.335	10.353	(1.125)	810095	10.6300	10.6300
94	Bromoform	173	10.596	10.597	(1.153)	233599	10.9247	10.9247
95	isopropyl benzene	105	10.962	10.979	(0.830)	1607909	10.3453	10.3453
100	1,1,2,2-Tetrachloroethane	83	11.484	11.484	(0.870)	301047	10.8234	10.8234
101	1,2,3-Trichloropropane	110	11.519	11.519	(0.872)	72750	11.1313	11.1313
99	Bromobenzene	156	11.414	11.414	(0.864)	356403	10.8759	10.8759
103	n-Propylbenzene	120	11.693	11.693	(0.885)	383566	10.1979	10.1979
104	2-Chlorotoluene	126	11.780	11.780	(0.892)	321883	10.2724	10.2724
106	1,3,5-Trimethylbenzene	105	12.023	12.023	(0.910)	1241070	10.6989	10.6989
105	4-Chlorotoluene	126	11.971	11.971	(0.906)	358256	10.8602	10.8602
107	tert-Butylbenzene	119	12.563	12.563	(0.951)	1325391	10.1403	10.1403
108	1,2,4-Trimethylbenzene	105	12.650	12.667	(0.958)	1148378	10.2645	10.2645
109	sec-Butylbenzene	134	12.963	12.963	(0.982)	332554	10.1230	10.1230
112	4-Isopropyltoluene	119	13.241	13.241	(1.003)	1433232	9.87560	9.87560
110	1,3-Dichlorobenzene	146	13.085	13.085	(0.991)	594300	10.1932	10.1932
113	1,4-dichlorobenzene	146	13.241	13.241	(1.003)	729495	10.3821	10.3821
116	n-Butylbenzene	91	13.972	13.972	(1.058)	1498921	10.8981	10.8981
115	1,2-Dichlorobenzene	146	13.885	13.885	(1.051)	578598	11.1951	11.1951
117	1,2-Dibromo-3-chloropropane	157	15.312	15.277	(1.159)	51806	10.6191	10.6191(Q)
118	1,2,4-Trichlorobenzene	180	16.565	16.565	(1.254)	439774	10.4585	10.4585
119	Hexachlorobutadiene	225	16.808	16.809	(1.273)	385337	9.85451	9.85451
120	Naphthalene	128	16.843	16.826	(1.275)	436738	10.4262	10.4262
121	1,2,3-Trichlorobenzene	180	17.104	17.087	(1.295)	333340	10.4640	10.4640

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: Z7146.D

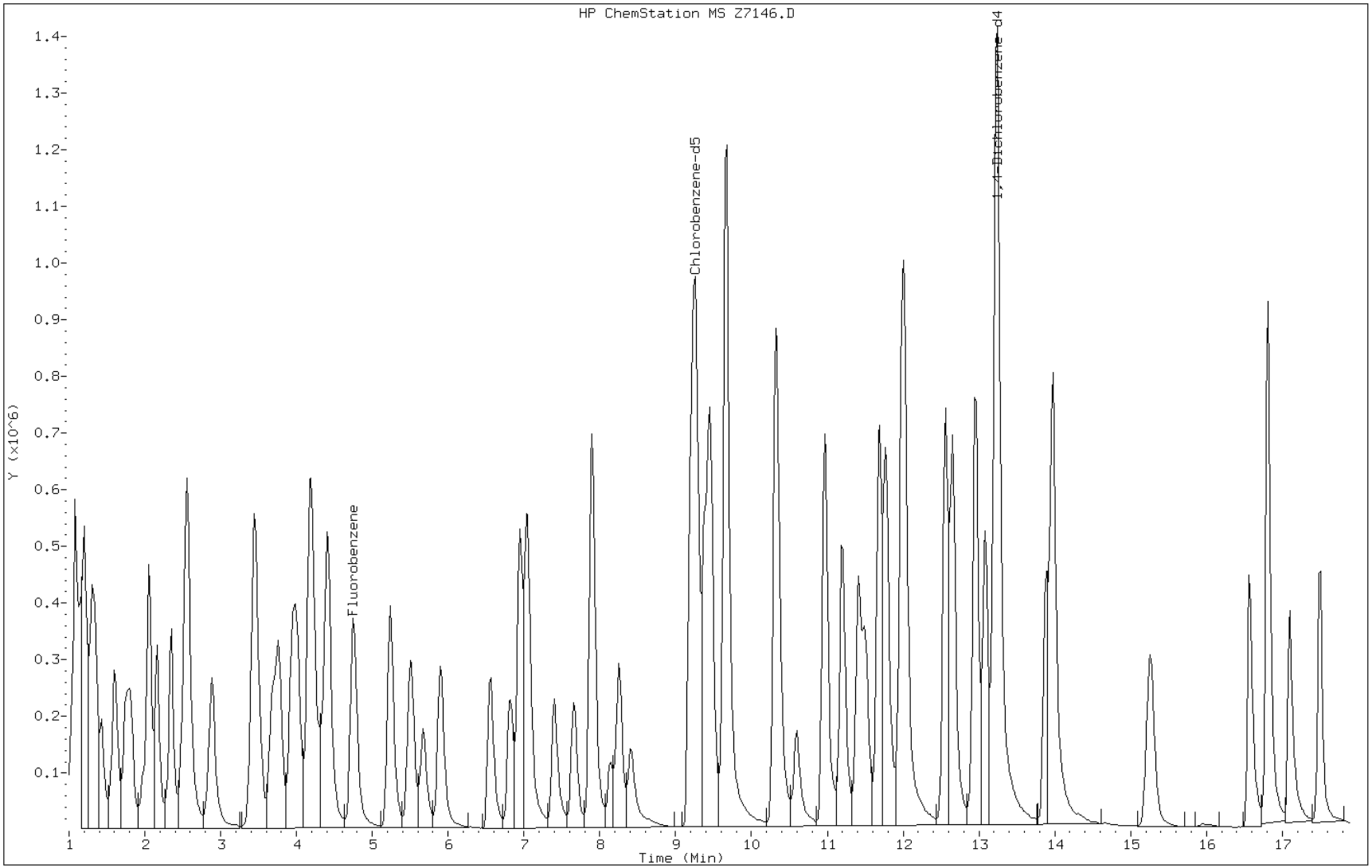
Date: 12-JUN-2012 00:11

Client ID: ICV

Instrument: Z.i

Sample Info: ICV,,MA

Operator: TINKHAMS



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: CCV 280-127051/2 Calibration Date: 07/09/2012 09:04

Instrument ID: MSV_Z Calib Start Date: 05/10/2012 09:56

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 05/10/2012 12:04

Lab File ID: Z8171.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Ethanol	Lin1	0.0005	0.0006		160	500	-100.0*	50.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8171.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 09-JUL-2012 09:04
Operator : MEIERG Inst ID: Z.i
Smp Info : CCV,,M
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 10-Jul-2012 05:49 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-main-.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
*	62 Fluorobenzene	96	4.760	4.760	(1.000)	902004	12.5000	
*	86 Chlorobenzene-d5	119	9.198	9.198	(1.000)	184262	12.5000	
*	111 1,4-Dichlorobenzene-d4	152	13.200	13.200	(1.000)	314527	12.5000	(Q)
M	1 1,2-Dichloroethene (total)	96				595125	20.0000	19.0694
M	2 Xylene (total)	106				1297135	30.0000	31.1472
M	3 1,3-Dichloropropene (total)	75				695369	20.0000	18.8569
M	4 Trihalomethanes (total)	83				1565802	40.0000	40.7328
	6 dichlorodifluoromethane	85	1.332	1.332	(0.280)	404486	10.0000	8.51205
	7 Chloromethane	50	1.367	1.367	(0.287)	272950	10.0000	8.18566(Q)
	9 Vinyl Chloride	62	1.454	1.454	(0.306)	243509	10.0000	8.78376
	12 Bromomethane	94	1.611	1.611	(0.338)	229534	10.0000	8.90924
	13 Chloroethane	64	1.628	1.628	(0.342)	165124	10.0000	9.15930(Q)
	16 Trichlorofluoromethane	101	1.767	1.767	(0.371)	670934	10.0000	10.3347
	21 Acrolein	56	1.976	1.976	(0.415)	117509	100.000	94.5500
	23 1,1-Dichloroethene	96	2.063	2.063	(0.433)	261546	10.0000	9.28758
	25 Iodomethane	142	2.168	2.168	(0.455)	542850	10.0000	8.71922
	29 Acetonitrile	41	2.255	2.255	(0.474)	47409	100.000	97.1571
	30 tert-Butyl alcohol	59	2.429	2.429	(0.510)	192035	200.000	199.963
	28 Methylene Chloride	84	2.359	2.359	(0.496)	242108	10.0000	8.76375
	31 Acrylonitrile	53	2.516	2.516	(0.529)	224641	100.000	92.3118
	32 trans-1,2-Dichloroethene	96	2.568	2.568	(0.539)	296035	10.0000	9.39747
	37 Isopropyl ether	87	2.968	2.968	(0.624)	962425	50.0000	46.3447

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)
36 1,1-Dichloroethane	63	2.881	2.881	(0.605)	592774	10.0000	9.59484
38 Chloroprene	53	2.985	2.985	(0.627)	503904	10.0000	8.68640
41 2-Butanone	43	3.438	3.438	(0.722)	197673	40.0000	37.5298
42 cis-1,2-Dichloroethene	96	3.438	3.438	(0.722)	299090	10.0000	9.67197
45 Propionitrile	54	3.490	3.490	(0.733)	77682	100.000	89.0985
43 2,2-Dichloropropane	77	3.473	3.473	(0.730)	527857	10.0000	10.4195
46 Methacrylonitrile	41	3.647	3.647	(0.766)	603249	100.000	87.6774
47 Bromochloromethane	128	3.682	3.682	(0.773)	124034	10.0000	9.31632
50 Chloroform	83	3.769	3.769	(0.792)	569417	10.0000	9.69964
52 1,1,1-Trichloroethane	97	4.012	4.012	(0.843)	598683	10.0000	10.0339
58 Isobutanol	41	4.360	4.360	(0.916)	37409	200.000	162.965
54 1,1-Dichloropropene	75	4.186	4.186	(0.879)	494798	10.0000	9.53041
55 Carbon Tetrachloride	117	4.221	4.221	(0.887)	544887	10.0000	9.86717
57 1,2-Dichloroethane	62	4.412	4.412	(0.927)	229402	10.0000	9.08220
59 Benzene	78	4.412	4.412	(0.927)	843654	10.0000	9.46171
63 Trichloroethene	95	5.230	5.230	(1.099)	382967	10.0000	9.76612
66 1,2-Dichloropropane	63	5.509	5.509	(1.157)	299902	10.0000	9.07081
69 1,4-Dioxane	88	5.770	5.770	(1.212)	31398	500.000	480.461
67 Dibromomethane	93	5.665	5.665	(1.190)	171780	10.0000	10.0885
70 Bromodichloromethane	83	5.909	5.909	(1.241)	502087	10.0000	10.0010
73 cis-1,3-Dichloropropene	75	6.553	6.553	(1.376)	403602	10.0000	9.88956
74 4-Methyl-2-pentanone	43	6.814	6.814	(1.431)	560196	40.0000	37.8734
76 Toluene	91	7.040	7.040	(1.479)	964690	10.0000	9.72799
77 trans-1,3-Dichloropropene	75	7.405	7.405	(1.556)	291767	10.0000	8.96737
79 1,1,2-Trichloroethane	97	7.666	7.666	(1.610)	168715	10.0000	9.02447
82 2-Hexanone	43	8.136	8.136	(0.885)	299544	40.0000	38.2602
81 1,3-Dichloropropane	76	7.910	7.910	(0.860)	288981	10.0000	10.2453
80 Tetrachloroethene	164	7.892	7.892	(0.858)	332181	10.0000	11.1464
84 Dibromochloromethane	129	8.258	8.258	(0.898)	311934	10.0000	10.4161
85 1,2-Dibromoethane	107	8.414	8.414	(0.915)	229090	10.0000	10.1948
88 1-Chlorohexane	91	9.285	9.285	(1.009)	508335	10.0000	11.2533
87 Chlorobenzene	112	9.232	9.232	(1.004)	660978	10.0000	10.1538
89 1,1,1,2-Tetrachloroethane	131	9.389	9.389	(1.021)	310731	10.0000	10.4137
90 Ethylbenzene	106	9.459	9.459	(1.028)	337972	10.0000	10.5112
91 m and p-Xylene	106	9.667	9.667	(1.051)	896406	20.0000	20.5601
92 o-Xylene	106	10.311	10.311	(1.121)	400729	10.0000	10.5871
93 Styrene	104	10.346	10.346	(1.125)	639576	10.0000	10.4464
94 Bromoform	173	10.590	10.590	(1.151)	182364	10.0000	10.6159
95 isopropyl benzene	105	10.972	10.972	(0.831)	1335174	10.0000	10.0925
97 Cyclohexanone	55	11.059	11.059	(1.202)	132716	400.000	394.979
100 1,1,2,2-Tetrachloroethane	83	11.477	11.477	(0.869)	237979	10.0000	10.0519
101 1,2,3-Trichloropropane	110	11.512	11.512	(0.872)	53700	10.0000	9.65314
99 Bromobenzene	156	11.407	11.407	(0.864)	296296	10.0000	10.6226
103 n-Propylbenzene	120	11.686	11.686	(0.885)	319524	10.0000	9.98060
104 2-Chlorotoluene	126	11.773	11.773	(0.892)	259467	10.0000	9.72833(Q)
106 1,3,5-Trimethylbenzene	105	12.016	12.016	(0.910)	1010671	10.0000	10.2361
105 4-Chlorotoluene	126	11.964	11.964	(0.906)	261724	10.0000	9.32118
107 tert-Butylbenzene	119	12.556	12.556	(0.951)	1084608	10.0000	9.74900
108 1,2,4-Trimethylbenzene	105	12.643	12.643	(0.958)	965827	10.0000	10.1423
109 sec-Butylbenzene	134	12.956	12.956	(0.982)	276131	10.0000	9.87510
112 4-Isopropyltoluene	119	13.234	13.234	(1.003)	1198509	10.0000	9.70218
110 1,3-Dichlorobenzene	146	13.078	13.078	(0.991)	495459	10.0000	9.98378
113 1,4-dichlorobenzene	146	13.234	13.234	(1.003)	583029	10.0000	9.74839
116 n-Butylbenzene	91	13.965	13.965	(1.058)	1245369	10.0000	10.6378

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
115 1,2-Dichlorobenzene	146	13.878	13.878	(1.051)	427679	10.0000	9.72190
117 1,2-Dibromo-3-chloropropane	157	15.323	15.323	(1.161)	38936	10.0000	9.46578
118 1,2,4-Trichlorobenzene	180	16.558	16.558	(1.254)	355254	10.0000	9.92572
119 Hexachlorobutadiene	225	16.802	16.802	(1.273)	337744	10.0000	10.1462
120 Naphthalene	128	16.836	16.836	(1.276)	336741	10.0000	9.44459
121 1,2,3-Trichlorobenzene	180	17.097	17.097	(1.295)	263469	10.0000	9.71676

QC Flag Legend

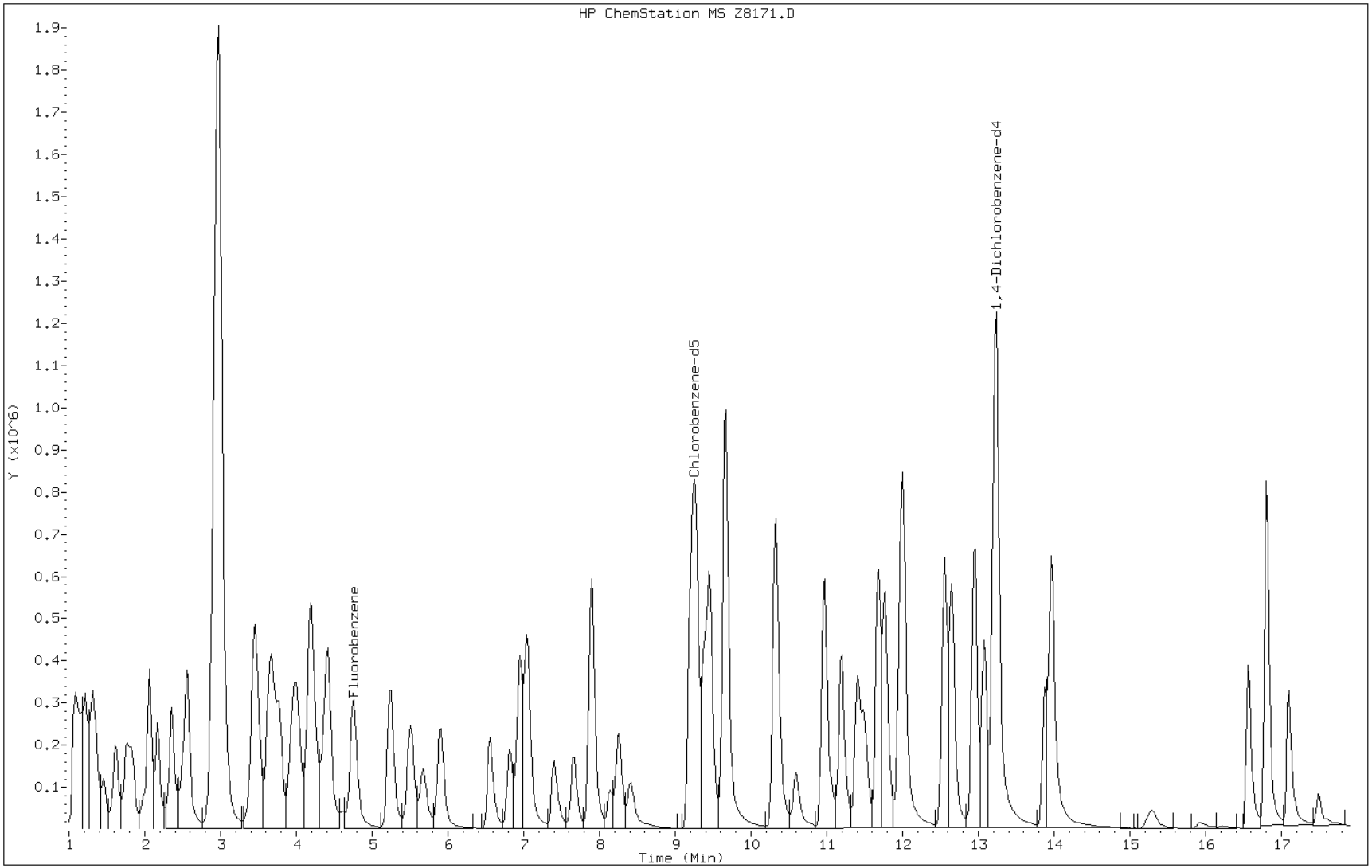
Q - Qualifier signal failed the ratio test.

Data File: Z8171.D

Date: 09-JUL-2012 09:04

Client ID: CCV Instrument: Z.i

Sample Info: CCV,,M Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: CCV 280-127051/2 Calibration Date: 07/09/2012 09:04

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z8171.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2-Dichloroethene, Total	Ave	0.4366	0.4124		19.1	20.0	-5.6	20.0
Xylenes, Total	Ave	2.854	2.933		31.1	30.0	2.8	35.0
Dichlorodifluoromethane	Lin2	0.6104	0.5605		8.51	10.0	-14.9	20.0
Chloromethane	Ave	0.4621	0.3783	0.1000	8.19	10.0	-18.1	20.0
Vinyl chloride	Ave	0.3842	0.3375		8.78	10.0	-12.2	20.0
Bromomethane	Ave	0.3570	0.3181		8.91	10.0	-10.9	20.0
Chloroethane	Ave	0.2498	0.2288		9.16	10.0	-8.4	20.0
Trichlorofluoromethane	Ave	0.8997	0.9298		10.3	10.0	3.3	20.0
Acrolein	Ave	0.0172	0.0164		94.5	99.5	-4.9	50.0
1,1-Dichloroethene	Ave	0.3903	0.3625		9.29	10.0	-7.1	20.0
Iodomethane	Ave	0.8628	0.7523		8.72	10.0	-12.8	35.0
Acetonitrile	Ave	0.0068	0.0066		97.2	100	-2.8	50.0
Methylene Chloride	Ave	0.3828	0.3355		8.76	10.0	-12.4	20.0
2-Methyl-2-propanol	Ave	0.0133	0.0133		200	200	-0.0	50.0
Acrylonitrile	Ave	0.0337	0.0311		92.3	100	-7.7	50.0
trans-1,2-Dichloroethene	Ave	0.4365	0.4103		9.40	10.0	-6.0	20.0
1,1-Dichloroethane	Ave	0.8562	0.8215	0.1000	9.59	10.0	-4.1	20.0
Isopropyl ether	Ave	0.2878	0.2668		46.3	50.0	-7.3	35.0
2-Chloro-1,3-butadiene	Ave	0.8039	0.6983		8.69	10.0	-13.1	35.0
2-Butanone (MEK)	Ave	0.0730	0.0685		37.5	40.0	-6.2	20.0
cis-1,2-Dichloroethene	Ave	0.4285	0.4145		9.67	10.0	-3.3	20.0
2,2-Dichloropropane	Ave	0.7021	0.7315		10.4	10.0	4.2	20.0
Propionitrile	Ave	0.0121	0.0108		89.1	100	-10.9	50.0
Methacrylonitrile	Ave	0.0953	0.0836		87.7	100	-12.3	50.0
Chlorobromomethane	Ave	0.1845	0.1719		9.32	10.0	-6.8	20.0
Chloroform	Ave	0.8135	0.7891		9.70	10.0	-3.0	20.0
1,1,1-Trichloroethane	Ave	0.8269	0.8297		10.0	10.0	0.3	20.0
1,1-Dichloropropene	Ave	0.7195	0.6857		9.53	10.0	-4.7	20.0
Carbon tetrachloride	Ave	0.7653	0.7551		9.87	10.0	-1.3	20.0
Isobutyl alcohol	Lin2	0.0030	0.0026		163	200	-18.5	50.0
1,2-Dichloroethane	Ave	0.3500	0.3179		9.08	10.0	-9.2	20.0
Benzene	Ave	1.236	1.169		9.46	10.0	-5.4	20.0
Trichloroethene	Ave	0.5434	0.5307		9.77	10.0	-2.3	20.0
1,2-Dichloropropane	Ave	0.4582	0.4156		9.07	10.0	-9.3	20.0
Dibromomethane	Ave	0.2360	0.2381		10.1	10.0	0.9	20.0
1,4-Dioxane	Lin1	0.0008	0.0009		480	500	-3.9	50.0
Dichlorobromomethane	Ave	0.6957	0.6958		10.0	10.0	0.0	20.0
cis-1,3-Dichloropropene	Ave	0.5656	0.5593		9.89	10.0	-1.1	20.0
4-Methyl-2-pentanone (MIBK)	Lin2	0.1890	0.1941		37.9	40.0	-5.3	20.0
Toluene	Ave	1.374	1.337		9.73	10.0	-2.7	20.0
trans-1,3-Dichloropropene	Lin2	0.4150	0.4043		8.97	10.0	-10.3	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: CCV 280-127051/2 Calibration Date: 07/09/2012 09:04

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z8171.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1,2-Trichloroethane	Ave	0.2591	0.2338		9.02	10.0	-9.8	20.0
Tetrachloroethene	Ave	2.022	2.253		11.1	10.0	11.5	20.0
1,3-Dichloropropane	Ave	1.913	1.960		10.2	10.0	2.5	20.0
2-Hexanone	Lin	0.4345	0.5080		38.3	40.0	-4.3	20.0
Chlorodibromomethane	Ave	2.032	2.116		10.4	10.0	4.2	20.0
Ethylene Dibromide	Ave	1.524	1.554		10.2	10.0	1.9	20.0
Chlorobenzene	Ave	4.416	4.484	0.3000	10.2	10.0	1.5	20.0
1-Chlorohexane	Ave	3.064	3.364		11.3	10.2	9.8	35.0
1,1,1,2-Tetrachloroethane	Ave	2.024	2.108		10.4	10.0	4.1	20.0
Ethylbenzene	Ave	2.181	2.293		10.5	10.0	5.1	20.0
m-Xylene & p-Xylene	Ave	2.958	3.041		20.6	20.0	2.8	20.0
o-Xylene	Ave	2.568	2.718		10.6	10.0	5.9	20.0
Styrene	Ave	4.153	4.339		10.4	10.0	4.5	20.0
Bromoform	Ave	1.165	1.237	0.1000	10.6	10.0	6.2	20.0
Isopropylbenzene	Ave	5.258	5.306		10.1	10.0	0.9	20.0
Cyclohexanone	Lin2	0.0203	0.0225		395	400	-1.3	50.0
Bromobenzene	Ave	1.109	1.178		10.6	10.0	6.2	20.0
1,1,2,2-Tetrachloroethane	Ave	0.9409	0.9458	0.3000	10.1	10.0	0.5	20.0
1,2,3-Trichloropropane	Ave	0.2211	0.2134		9.65	10.0	-3.5	20.0
N-Propylbenzene	Ave	1.272	1.270		9.98	10.0	-0.2	20.0
2-Chlorotoluene	Ave	1.060	1.031		9.73	10.0	-2.7	20.0
4-Chlorotoluene	Ave	1.116	1.040		9.32	10.0	-6.8	20.0
1,3,5-Trimethylbenzene	Ave	3.924	4.017		10.2	10.0	2.4	20.0
tert-Butylbenzene	Ave	4.421	4.310		9.75	10.0	-2.5	20.0
1,2,4-Trimethylbenzene	Ave	3.785	3.838		10.1	10.0	1.4	20.0
sec-Butylbenzene	Ave	1.111	1.097		9.88	10.0	-1.2	20.0
1,3-Dichlorobenzene	Ave	1.972	1.969		9.98	10.0	-0.2	20.0
1,4-Dichlorobenzene	Ave	2.377	2.317		9.75	10.0	-2.5	20.0
4-Isopropyltoluene	Ave	4.909	4.763		9.70	10.0	-3.0	20.0
1,2-Dichlorobenzene	Ave	1.748	1.700		9.72	10.0	-2.8	20.0
n-Butylbenzene	Ave	4.653	4.949		10.6	10.0	6.4	20.0
1,2-Dibromo-3-Chloropropane	Lin2	0.1546	0.1547		9.47	10.0	-5.3	20.0
1,2,4-Trichlorobenzene	Ave	1.422	1.412		9.93	10.0	-0.7	20.0
Hexachlorobutadiene	Lin2	1.283	1.342		10.1	10.0	1.5	20.0
Naphthalene	Ave	1.417	1.338		9.44	10.0	-5.6	20.0
1,2,3-Trichlorobenzene	Ave	1.078	1.047		9.72	10.0	-2.8	20.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8171.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 09-JUL-2012 09:04
Operator : MEIERG Inst ID: Z.i
Smp Info : CCV,,M
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 10-Jul-2012 05:49 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 1-main-.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

		QUANT SIG					AMOUNTS CAL-AMT	ON-COL
	Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
*	62 Fluorobenzene	96	4.760	4.760	(1.000)	902004	12.5000	
*	86 Chlorobenzene-d5	119	9.198	9.198	(1.000)	184262	12.5000	
*	111 1,4-Dichlorobenzene-d4	152	13.200	13.200	(1.000)	314527	12.5000	(Q)
M	1 1,2-Dichloroethene (total)	96				595125	20.0000	19.0694
M	2 Xylene (total)	106				1297135	30.0000	31.1472
M	3 1,3-Dichloropropene (total)	75				695369	20.0000	18.8569
M	4 Trihalomethanes (total)	83				1565802	40.0000	40.7328
	6 dichlorodifluoromethane	85	1.332	1.332	(0.280)	404486	10.0000	8.51205
	7 Chloromethane	50	1.367	1.367	(0.287)	272950	10.0000	8.18566(Q)
	9 Vinyl Chloride	62	1.454	1.454	(0.306)	243509	10.0000	8.78376
	12 Bromomethane	94	1.611	1.611	(0.338)	229534	10.0000	8.90924
	13 Chloroethane	64	1.628	1.628	(0.342)	165124	10.0000	9.15930(Q)
	16 Trichlorofluoromethane	101	1.767	1.767	(0.371)	670934	10.0000	10.3347
	21 Acrolein	56	1.976	1.976	(0.415)	117509	100.000	94.5500
	23 1,1-Dichloroethene	96	2.063	2.063	(0.433)	261546	10.0000	9.28758
	25 Iodomethane	142	2.168	2.168	(0.455)	542850	10.0000	8.71922
	29 Acetonitrile	41	2.255	2.255	(0.474)	47409	100.000	97.1571
	30 tert-Butyl alcohol	59	2.429	2.429	(0.510)	192035	200.000	199.963
	28 Methylene Chloride	84	2.359	2.359	(0.496)	242108	10.0000	8.76375
	31 Acrylonitrile	53	2.516	2.516	(0.529)	224641	100.000	92.3118
	32 trans-1,2-Dichloroethene	96	2.568	2.568	(0.539)	296035	10.0000	9.39747
	37 Isopropyl ether	87	2.968	2.968	(0.624)	962425	50.0000	46.3447

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
36 1,1-Dichloroethane	63	2.881	2.881	(0.605)	592774	10.0000	9.59484
38 Chloroprene	53	2.985	2.985	(0.627)	503904	10.0000	8.68640
41 2-Butanone	43	3.438	3.438	(0.722)	197673	40.0000	37.5298
42 cis-1,2-Dichloroethene	96	3.438	3.438	(0.722)	299090	10.0000	9.67197
45 Propionitrile	54	3.490	3.490	(0.733)	77682	100.000	89.0985
43 2,2-Dichloropropane	77	3.473	3.473	(0.730)	527857	10.0000	10.4195
46 Methacrylonitrile	41	3.647	3.647	(0.766)	603249	100.000	87.6774
47 Bromochloromethane	128	3.682	3.682	(0.773)	124034	10.0000	9.31632
50 Chloroform	83	3.769	3.769	(0.792)	569417	10.0000	9.69964
52 1,1,1-Trichloroethane	97	4.012	4.012	(0.843)	598683	10.0000	10.0339
58 Isobutanol	41	4.360	4.360	(0.916)	37409	200.000	162.965
54 1,1-Dichloropropene	75	4.186	4.186	(0.879)	494798	10.0000	9.53041
55 Carbon Tetrachloride	117	4.221	4.221	(0.887)	544887	10.0000	9.86717
57 1,2-Dichloroethane	62	4.412	4.412	(0.927)	229402	10.0000	9.08220
59 Benzene	78	4.412	4.412	(0.927)	843654	10.0000	9.46171
63 Trichloroethene	95	5.230	5.230	(1.099)	382967	10.0000	9.76612
66 1,2-Dichloropropane	63	5.509	5.509	(1.157)	299902	10.0000	9.07081
69 1,4-Dioxane	88	5.770	5.770	(1.212)	31398	500.000	480.461
67 Dibromomethane	93	5.665	5.665	(1.190)	171780	10.0000	10.0885
70 Bromodichloromethane	83	5.909	5.909	(1.241)	502087	10.0000	10.0010
73 cis-1,3-Dichloropropene	75	6.553	6.553	(1.376)	403602	10.0000	9.88956
74 4-Methyl-2-pentanone	43	6.814	6.814	(1.431)	560196	40.0000	37.8734
76 Toluene	91	7.040	7.040	(1.479)	964690	10.0000	9.72799
77 trans-1,3-Dichloropropene	75	7.405	7.405	(1.556)	291767	10.0000	8.96737
79 1,1,2-Trichloroethane	97	7.666	7.666	(1.610)	168715	10.0000	9.02447
82 2-Hexanone	43	8.136	8.136	(0.885)	299544	40.0000	38.2602
81 1,3-Dichloropropane	76	7.910	7.910	(0.860)	288981	10.0000	10.2453
80 Tetrachloroethene	164	7.892	7.892	(0.858)	332181	10.0000	11.1464
84 Dibromochloromethane	129	8.258	8.258	(0.898)	311934	10.0000	10.4161
85 1,2-Dibromoethane	107	8.414	8.414	(0.915)	229090	10.0000	10.1948
88 1-Chlorohexane	91	9.285	9.285	(1.009)	508335	10.0000	11.2533
87 Chlorobenzene	112	9.232	9.232	(1.004)	660978	10.0000	10.1538
89 1,1,1,2-Tetrachloroethane	131	9.389	9.389	(1.021)	310731	10.0000	10.4137
90 Ethylbenzene	106	9.459	9.459	(1.028)	337972	10.0000	10.5112
91 m and p-Xylene	106	9.667	9.667	(1.051)	896406	20.0000	20.5601
92 o-Xylene	106	10.311	10.311	(1.121)	400729	10.0000	10.5871
93 Styrene	104	10.346	10.346	(1.125)	639576	10.0000	10.4464
94 Bromoform	173	10.590	10.590	(1.151)	182364	10.0000	10.6159
95 isopropyl benzene	105	10.972	10.972	(0.831)	1335174	10.0000	10.0925
97 Cyclohexanone	55	11.059	11.059	(1.202)	132716	400.000	394.979
100 1,1,2,2-Tetrachloroethane	83	11.477	11.477	(0.869)	237979	10.0000	10.0519
101 1,2,3-Trichloropropane	110	11.512	11.512	(0.872)	53700	10.0000	9.65314
99 Bromobenzene	156	11.407	11.407	(0.864)	296296	10.0000	10.6226
103 n-Propylbenzene	120	11.686	11.686	(0.885)	319524	10.0000	9.98060
104 2-Chlorotoluene	126	11.773	11.773	(0.892)	259467	10.0000	9.72833(Q)
106 1,3,5-Trimethylbenzene	105	12.016	12.016	(0.910)	1010671	10.0000	10.2361
105 4-Chlorotoluene	126	11.964	11.964	(0.906)	261724	10.0000	9.32118
107 tert-Butylbenzene	119	12.556	12.556	(0.951)	1084608	10.0000	9.74900
108 1,2,4-Trimethylbenzene	105	12.643	12.643	(0.958)	965827	10.0000	10.1423
109 sec-Butylbenzene	134	12.956	12.956	(0.982)	276131	10.0000	9.87510
112 4-Isopropyltoluene	119	13.234	13.234	(1.003)	1198509	10.0000	9.70218
110 1,3-Dichlorobenzene	146	13.078	13.078	(0.991)	495459	10.0000	9.98378
113 1,4-dichlorobenzene	146	13.234	13.234	(1.003)	583029	10.0000	9.74839
116 n-Butylbenzene	91	13.965	13.965	(1.058)	1245369	10.0000	10.6378

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	AMOUNTS ON-COL (ug/L)
115 1,2-Dichlorobenzene	146	13.878	13.878	(1.051)	427679	10.0000	9.72190
117 1,2-Dibromo-3-chloropropane	157	15.323	15.323	(1.161)	38936	10.0000	9.46578
118 1,2,4-Trichlorobenzene	180	16.558	16.558	(1.254)	355254	10.0000	9.92572
119 Hexachlorobutadiene	225	16.802	16.802	(1.273)	337744	10.0000	10.1462
120 Naphthalene	128	16.836	16.836	(1.276)	336741	10.0000	9.44459
121 1,2,3-Trichlorobenzene	180	17.097	17.097	(1.295)	263469	10.0000	9.71676

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: Z8171.D

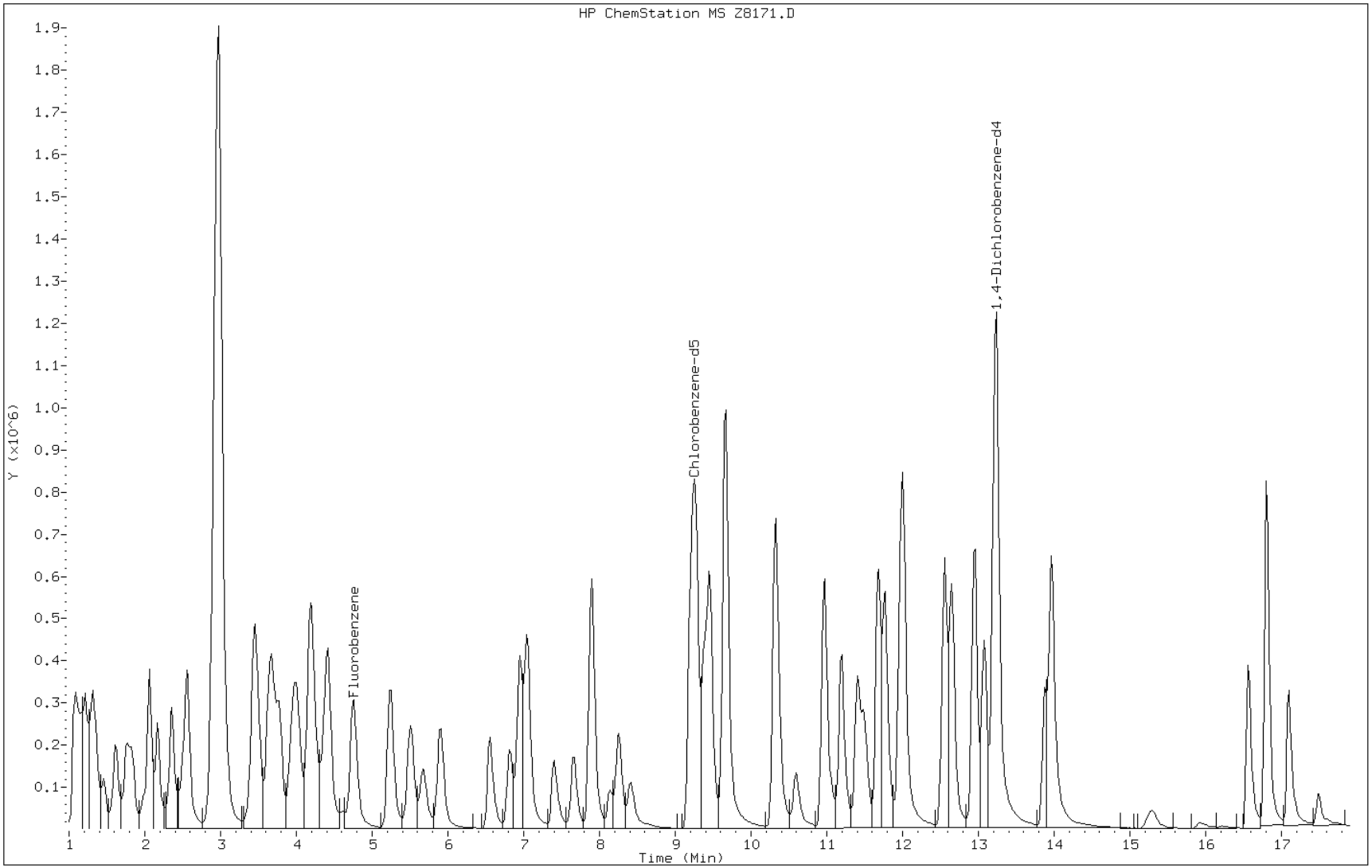
Date: 09-JUL-2012 09:04

Client ID: CCV

Instrument: Z.i

Sample Info: CCV,,M

Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: CCV 280-127051/3 Calibration Date: 07/09/2012 09:25

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 10:59

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 12:46

Lab File ID: Z8172.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorofluoromethane	Ave	1.010	0.9562		9.47	10.0	-5.3	50.0
Ethyl ether	Ave	0.2441	0.2293		9.39	10.0	-6.1	35.0
Isopropyl alcohol	Ave	0.0082	0.0080		195	200	-2.5	50.0
2,2-Dichloro-1,1,1-trifluoro ethane	Ave	1.043	0.9893		9.48	10.0	-5.2	50.0
1,1,2-Trichloro-1,2,2-triflu oroethane	Ave	0.5439	0.4749		8.73	10.0	-12.7	50.0
Carbon disulfide	Ave	1.520	1.407		9.26	10.0	-7.4	20.0
Methyl acetate	Ave	0.1090	0.1187		54.5	50.0	8.9	50.0
Allyl chloride	Ave	0.7659	0.7678		10.0	10.0	0.2	35.0
Methyl tert-butyl ether	Ave	0.6053	0.6227		10.3	10.0	2.9	20.0
Hexane	Ave	3.239	3.183		9.83	10.0	-1.7	20.0
Vinyl acetate	Ave	0.5230	0.4146		15.9	20.0	-20.7	50.0
Tert-butyl ethyl ether	Ave	1.217	1.091		44.8	50.0	-10.3	35.0
Ethyl acetate	Lin2	0.2134	0.2100		18.5	20.0	-7.3	50.0
2-Butanol	Ave	0.0108	0.0106		294	300	-2.0	50.0
Tetrahydrofuran	Ave	0.0364	0.0352		19.3	20.0	-3.4	50.0
Cyclohexane	Ave	0.8271	0.7474		9.04	10.0	-9.6	35.0
Tert-amyl methyl ether	Ave	0.8291	0.7807		47.1	50.0	-5.8	35.0
2-Pentanone	Ave	0.1683	0.1229		29.2	40.0	-27.0	50.0
Methylcyclohexane	Ave	0.7594	0.6847		9.02	10.0	-9.8	35.0
Methyl methacrylate	Ave	0.0495	0.0497		20.0	20.0	0.2	35.0
2-Nitropropane	Lin2	0.0240	0.0279		10.6	10.0	5.6	50.0
2-Chloroethyl vinyl ether	Ave	0.1108	0.1099		9.92	10.0	-0.8	50.0
Ethyl methacrylate	Ave	1.332	1.363		20.5	20.0	2.3	35.0
cis-1,4-Dichloro-2-butene	Lin2	0.1730	0.1166		6.48	10.0	-35.2	50.0
trans-1,4-Dichloro-2-butene	Lin2	0.1585	0.1540		9.18	10.0	-8.2	50.0
Dibromofluoromethane (Surr)	Ave	0.6900	0.5935		7.74	9.00	-14.0	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.3263	0.2817		7.77	9.00	-13.7	20.0
Toluene-d8 (Surr)	Ave	6.250	5.558		8.00	9.00	-11.1	20.0
4-Bromofluorobenzene (Surr)	Ave	2.250	2.207		8.83	9.00	-1.9	20.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8172.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 09-JUL-2012 09:25
Operator : MEIERG Inst ID: Z.i
Smp Info : CCV,,S
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 10-Jul-2012 05:49 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 2-supp.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

						AMOUNTS	
Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ug/L)	ON-COL (ug/L)
* 62 Fluorobenzene	96	4.760	4.760	(1.000)	921047	12.5000	
* 86 Chlorobenzene-d5	119	9.197	9.197	(1.000)	197584	12.5000	
* 111 1,4-Dichlorobenzene-d4	152	13.216	13.216	(1.000)	307622	12.5000	(Q)
$ 51 Dibromofluoromethane (Surr)	111	3.959	3.959	(0.832)	393607	10.0000	7.74166
$ 56 1,2-Dichloroethane-d4	65	4.342	4.342	(0.912)	186838	10.0000	7.77003
$ 75 Toluene-d8	98	6.952	6.952	(0.756)	790708	10.0000	8.00374
$ 98 4-Bromofluorobenzene (Surr)	95	11.198	11.198	(0.847)	488736	10.0000	8.82773
8 1,2-Dichlorotetrafluoroethane	85	1.401	1.401	(0.294)	596650	10.0000	9.29651
11 Ethylene Oxide	43	1.575	1.575	(0.331)	596925	1250.00	1212.19
14 Dichlorofluoromethane	67	1.749	1.749	(0.368)	704594	10.0000	9.46508
19 1,2-dichloro-1,1,2-trifluoro	117	1.923	1.923	(0.404)	399989	10.0000	9.06154
17 Ethyl Ether	59	1.906	1.906	(0.400)	168942	10.0000	9.39196
20 2,2-dichloro-1,1,1-trifluoro	83	1.941	1.941	(0.408)	728942	10.0000	9.48445
24 Trichlorotrifluoroethane	151	2.115	2.115	(0.444)	349902	10.0000	8.73155
18 2-propanol	45	1.906	1.906	(0.400)	118128	200.000	195.010
27 Methyl Acetate	43	2.271	2.271	(0.477)	437438	50.0000	54.4605
39 Allyl Chloride	41	2.289	2.289	(0.481)	565717	10.0000	10.0239
26 Carbon Disulfide	76	2.237	2.237	(0.470)	1036970	10.0000	9.26088
33 Methyl t-butyl ether	73	2.585	2.585	(0.543)	458795	10.0000	10.2870
34 Hexane	57	2.793	2.793	(0.304)	503090	10.0000	9.82563
35 Vinyl acetate	43	2.933	2.933	(0.616)	611037	20.0000	15.8575
40 ETBE	59	3.333	3.333	(0.700)	4020894	50.0000	44.8291

						AMOUNTS	
	QUANT SIG					CAL-AMT	ON-COL
Compounds	MASS	RT	EXP RT	REL RT	RESPONSE	(ug/L)	(ug/L)
44 Ethyl Acetate	43	3.524	3.524	(0.740)	309459	20.0000	18.5407(Q)
48 Tetrahydrofuran	42	3.785	3.785	(0.795)	51824	20.0000	19.3211
49 2-Butanol	45	3.681	3.681	(0.773)	234174	300.000	293.940
53 Cyclohexane	56	4.098	4.098	(0.861)	550695	10.0000	9.03562
60 TAME	73	4.603	4.603	(0.967)	2876179	50.0000	47.0780
64 2-Pentanone	43	5.508	5.508	(1.157)	362316	40.0000	29.2137
65 Methyl Cyclohexane	55	5.525	5.525	(1.161)	504512	10.0000	9.01575
68 Methyl Methacrylate	100	5.751	5.751	(1.208)	73197	20.0000	20.0497
71 2-nitropropane	41	6.204	6.204	(1.303)	20532	10.0000	10.5617
72 2-Chloroethyl vinyl ether	63	6.395	6.395	(1.344)	80990	10.0000	9.92379
78 Ethyl methacrylate	69	7.631	7.631	(0.830)	430788	20.0000	20.4652
83 Tetrahydrothiophene	60	8.257	8.257	(0.898)	50128	10.0000	8.41054
96 cis-1,4-dichloro-2-butene	53	11.111	11.111	(0.841)	28695	10.0000	6.48018(Q)
102 t-1,4-Dichloro-2-butene	53	11.650	11.650	(0.882)	37887	10.0000	9.17843
114 1,2,3-Trimethylbenzene	105	13.373	13.373	(1.012)	912208	10.0000	9.42052

QC Flag Legend

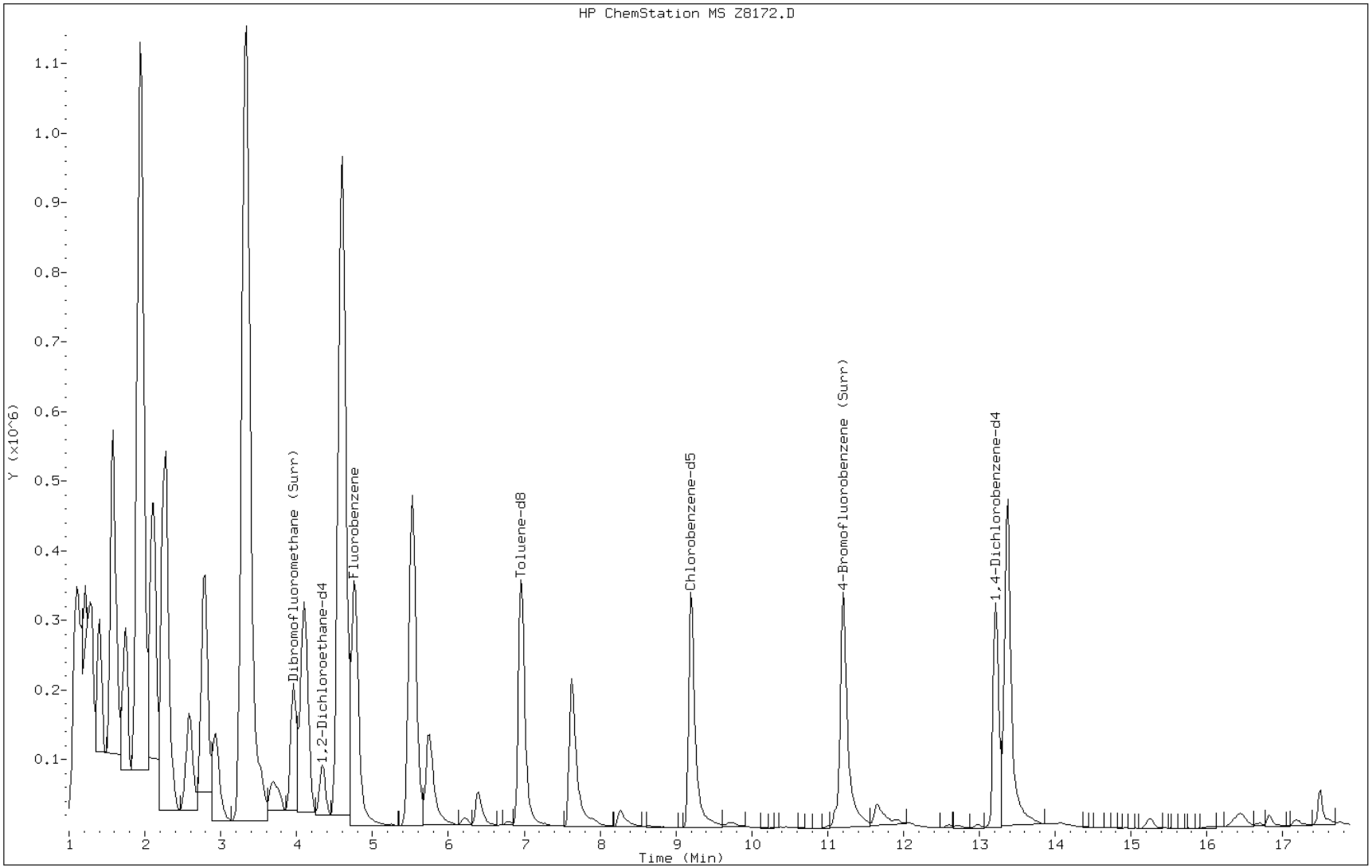
Q - Qualifier signal failed the ratio test.

Data File: Z8172.D

Date: 09-JUL-2012 09:25

Client ID: CCV Instrument: Z.i

Sample Info: CCV,,S Operator: MEIERG



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Lab Sample ID: CCV 280-127051/4 Calibration Date: 07/09/2012 09:46

Instrument ID: MSV_Z Calib Start Date: 06/11/2012 13:29

GC Column: DB-624 (75.53) ID: 0.53(mm) Calib End Date: 06/11/2012 15:37

Lab File ID: Z8173.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Acetone	Lin2	0.0351	0.0322		40.6	40.0	1.5	20.0

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8173.D
Lab Smp Id: CCV Client Smp ID: CCV
Inj Date : 09-JUL-2012 09:46
Operator : MEIERG Inst ID: Z.i
Smp Info : CCV,,K
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 10-Jul-2012 05:49 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 Continuing Calibration Sample
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: 3-acetone.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	AMOUNTS CAL-AMT (ug/L)	ON-COL (ug/L)	
* 62 Fluorobenzene	96	4.761	4.761	(1.000)	912089	12.5000		
* 86 Chlorobenzene-d5	119	9.198	9.198	(1.000)	194803	12.5000		
* 111 1,4-Dichlorobenzene-d4	152	13.218	13.218	(1.000)	287696	12.5000		(Q)
22 Acetone	43	2.081	2.081	(0.437)	94050	40.0000	40.5978	

QC Flag Legend

Q - Qualifier signal failed the ratio test.

Data File: Z8173.D

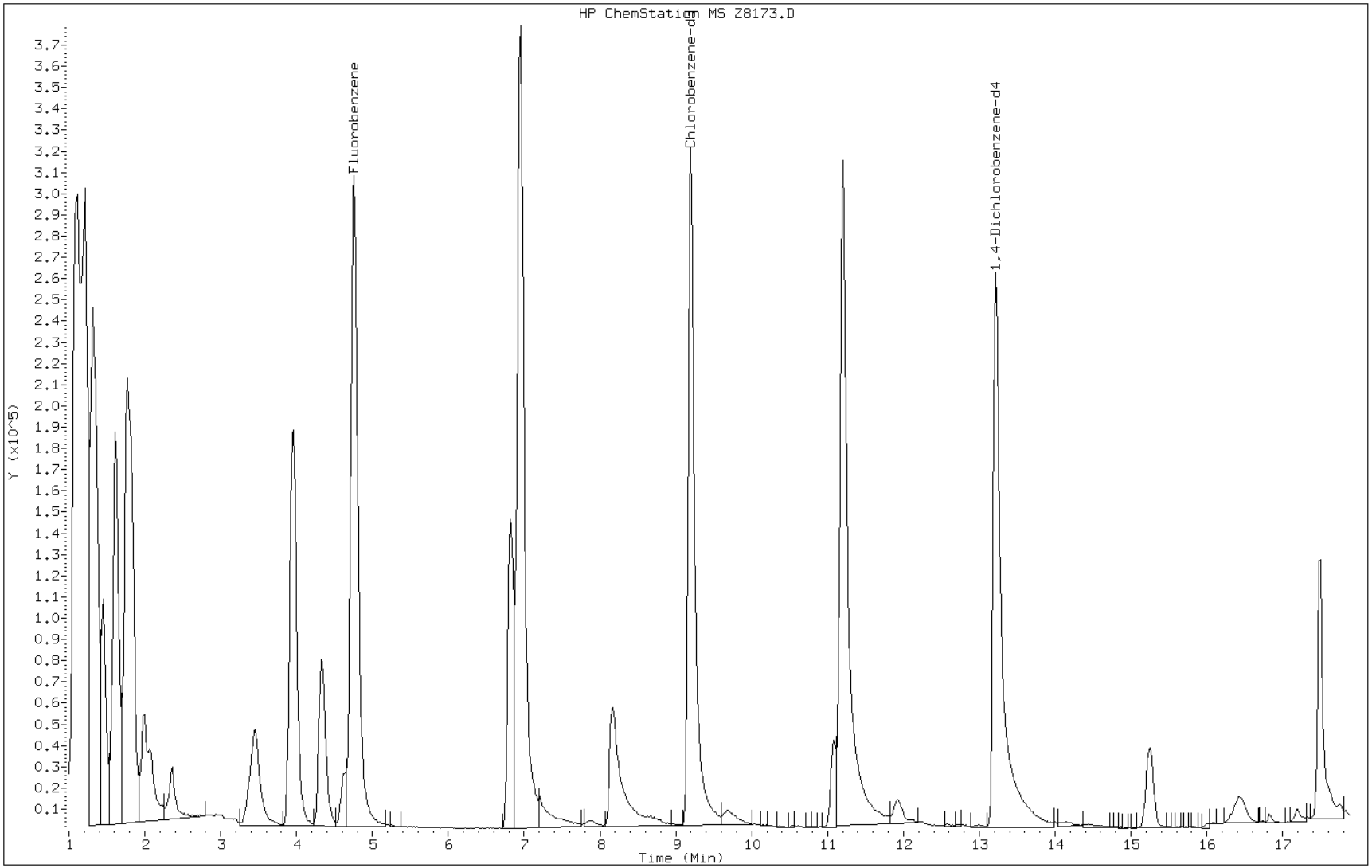
Date: 09-JUL-2012 09:46

Client ID: CCV

Instrument: Z.i

Sample Info: CCV,,K

Operator: MEIERG



TestAmerica

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7127.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 11-JUN-2012 10:51
Operator : MEIERG Inst ID: Z.i
Smp Info : BFB,,
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\bfb390.m
Meth Date : 13-May-2011 06:15 meierg Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: DENPC186

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	CONCENTRATIONS FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
1.786	1.903	(0.000)	95	16199			0.00- 100.00	100.00
1.786	1.903	(0.000)	50	3884			15.00- 40.00	23.98
1.786	1.903	(0.000)	75	7856			30.00- 60.00	48.50
1.786	1.903	(0.000)	96	1290			5.00- 9.00	7.96
1.786	1.903	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
1.786	1.903	(0.000)	174	9970			50.00- 0.00	61.55
1.786	1.903	(0.000)	175	737			5.00- 9.00	7.39
1.786	1.903	(0.000)	176	9794			95.00- 101.00	98.23
1.786	1.903	(0.000)	177	672			5.00- 9.00	6.86

Data File: Z7127.D

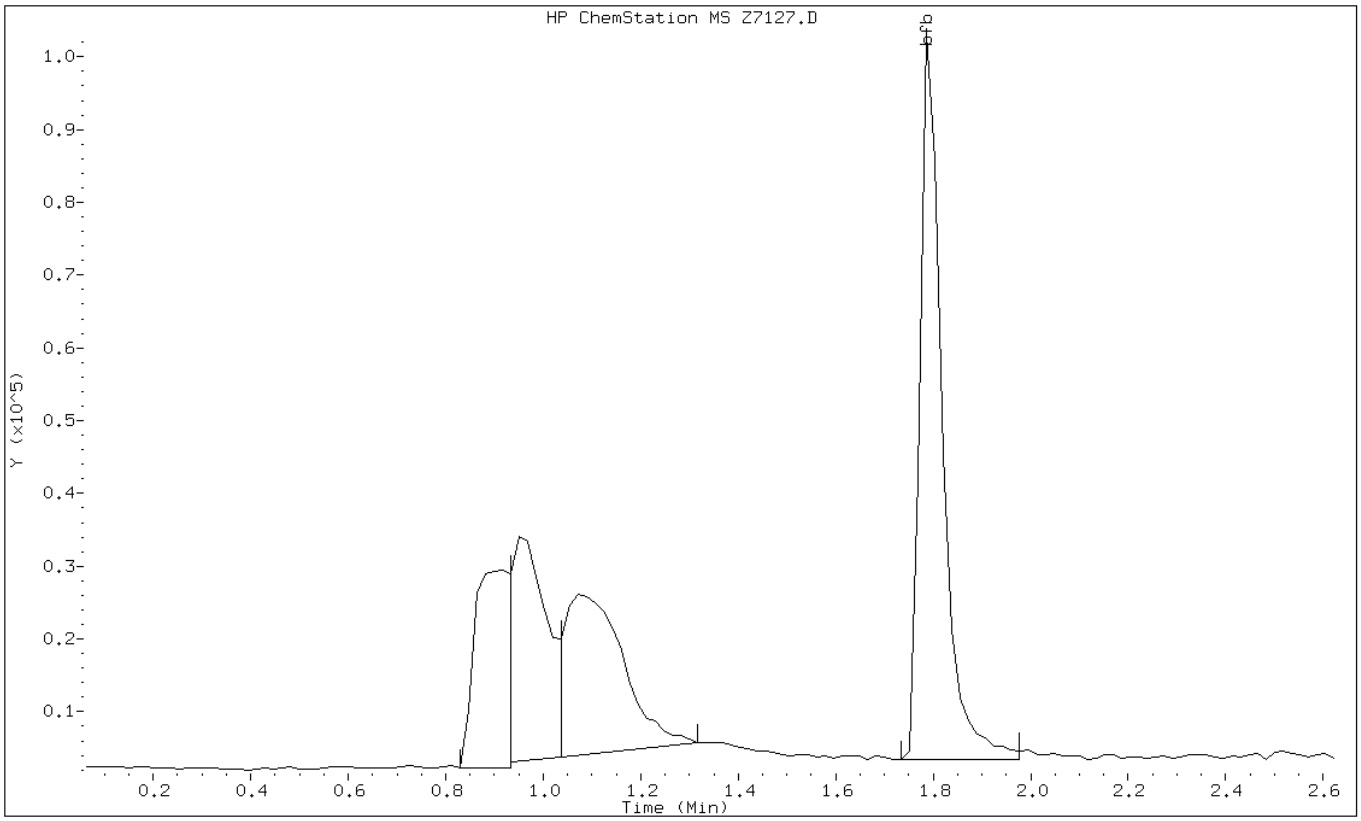
Date: 11-JUN-2012 10:51

Client ID: BFB

Instrument: Z.i

Sample Info: BFB,,

Operator: MEIERG



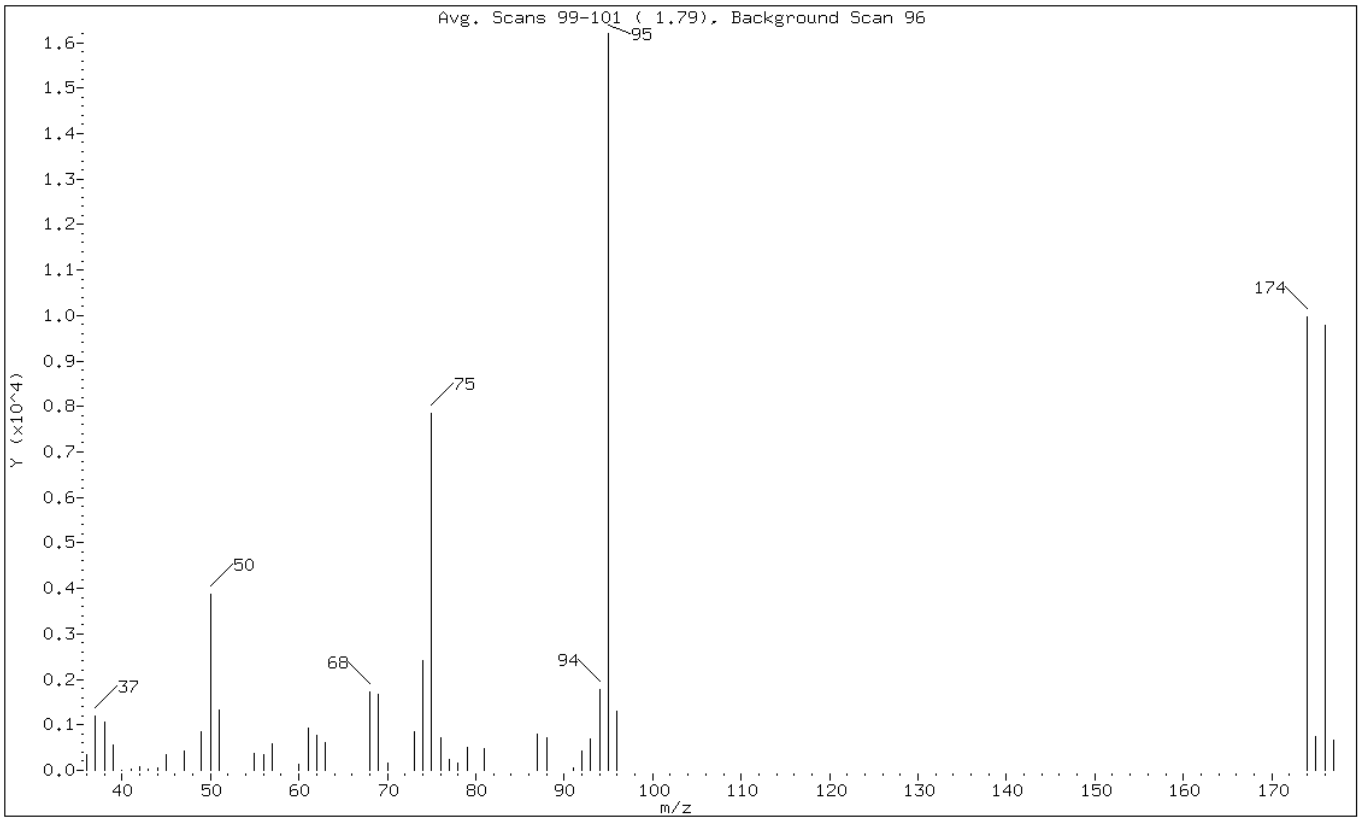
Data File: Z7127.D

Date: 11-JUN-2012 10:51

Client ID: BFB Instrument: Z.i

Sample Info: BFB,, Operator: MEIERG

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.98
75	30.00 - 60.00% of mass 95	48.50
96	5.00 - 9.00% of mass 95	7.96
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	61.55
175	5.00 - 9.00% of mass 174	4.55 (7.39)
176	95.00 - 101.00% of mass 174	60.46 (98.23)
177	5.00 - 9.00% of mass 176	4.15 (6.86)

Data File: Z7127.D

Date: 11-JUN-2012 10:51

Client ID: BFB Instrument: Z.i

Sample Info: BFB,, Operator: MEIERG

Data File: \\DenSvr03\Public\chem\MSV\Z.i\061112I.B\Z7127.D
Spectrum: Avg. Scans 99-101 (1.79), Background Scan 96
Location of Maximum: 95.00
Number of points: 44

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	332	50.00	3884	73.00	837	93.00	677
37.00	1197	51.00	1314	74.00	2422	94.00	1767
38.00	1055	55.00	359	75.00	7856	95.00	16199
39.00	552	56.00	357	76.00	704	96.00	1290
40.00	10	57.00	571	77.00	230	174.00	9970
41.00	24	60.00	145	78.00	161	175.00	737
42.00	67	61.00	923	79.00	512	176.00	9794
43.00	29	62.00	782	81.00	489	177.00	672
44.00	51	63.00	601	87.00	787		
45.00	354	68.00	1717	88.00	715		
47.00	422	69.00	1660	91.00	65		
49.00	851	70.00	163	92.00	430		

TestAmerica

Data file : \\DenSvr03\Public\chem\MSV\Z.i\061112MA.B\Z7145.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 11-JUN-2012 23:51
Operator : TINKHAMS Inst ID: Z.i
Smp Info : BFB,,
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\061112MA.B\bfb390.m
Meth Date : 13-May-2011 06:15 meierg Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: DENPC088

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
1.786	1.903	(0.000)	95	18984			0.00- 100.00	100.00
1.786	1.903	(0.000)	50	4476			15.00- 40.00	23.58
1.786	1.903	(0.000)	75	9093			30.00- 60.00	47.90
1.786	1.903	(0.000)	96	1505			5.00- 9.00	7.93
1.786	1.903	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
1.786	1.903	(0.000)	174	11791			50.00- 0.00	62.11
1.786	1.903	(0.000)	175	881			5.00- 9.00	7.47
1.786	1.903	(0.000)	176	11514			95.00- 101.00	97.65
1.786	1.903	(0.000)	177	808			5.00- 9.00	7.02

Data File: Z7145.D

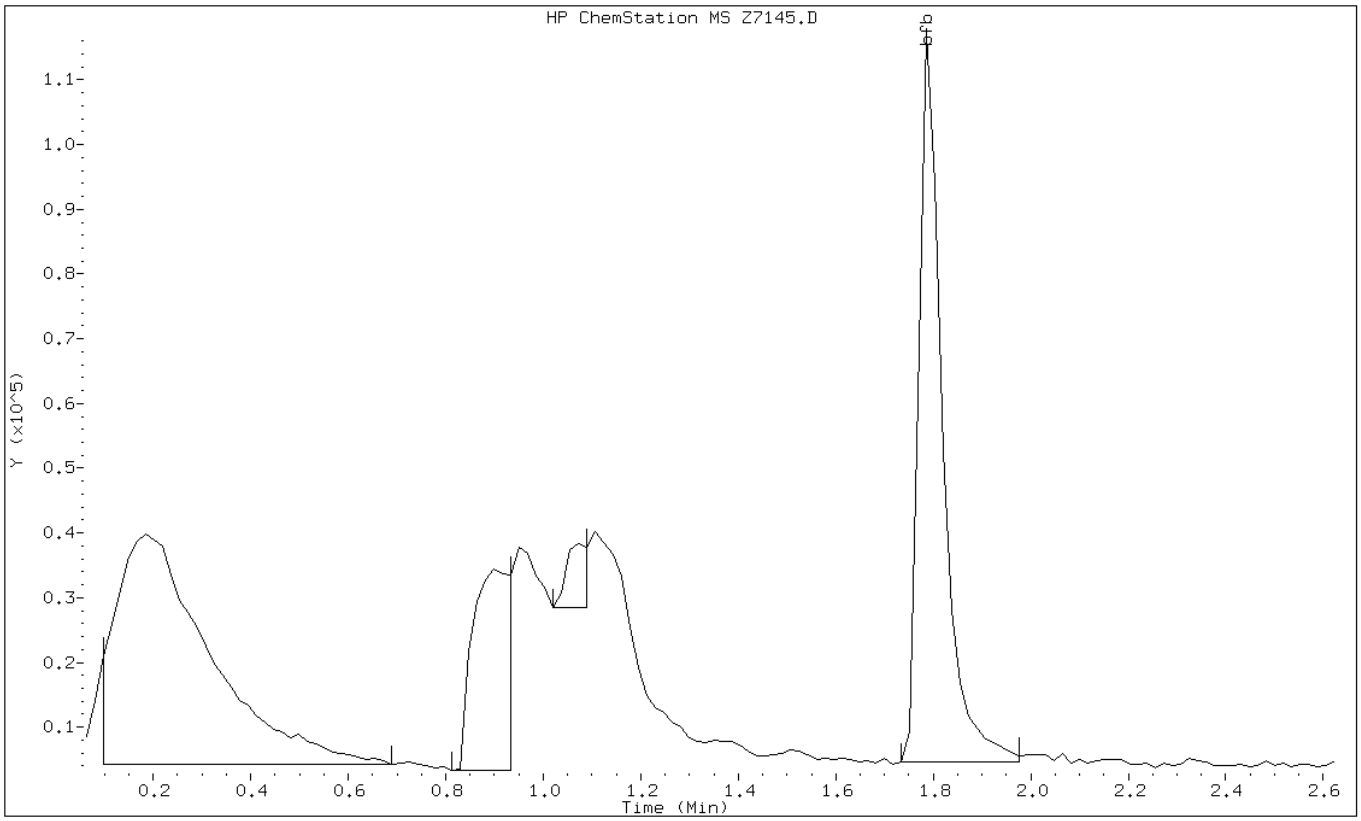
Date: 11-JUN-2012 23:51

Client ID: BFB

Instrument: Z.i

Sample Info: BFB,,

Operator: TINKHAMS



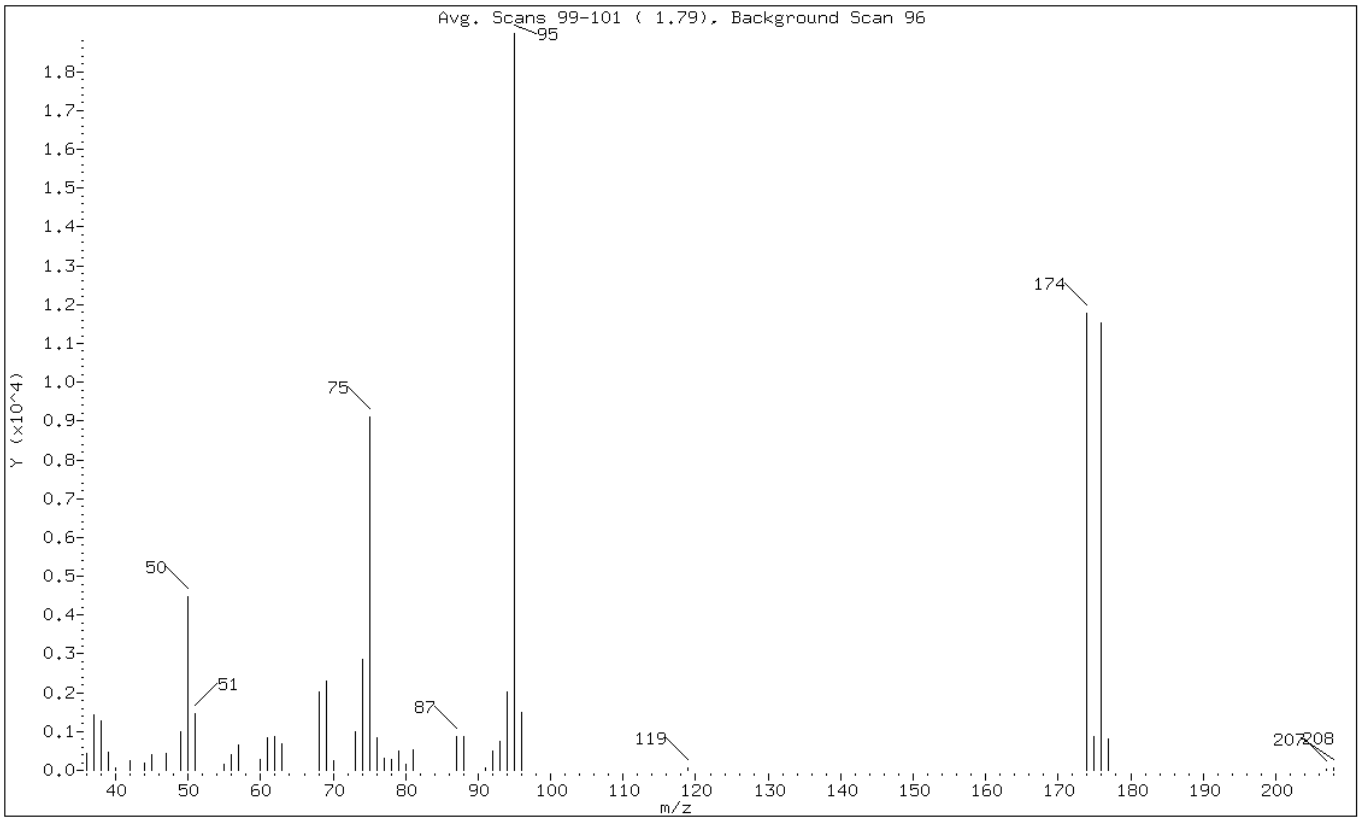
Data File: Z7145.D

Date: 11-JUN-2012 23:51

Client ID: BFB Instrument: Z.i

Sample Info: BFB,, Operator: TINKHAMS

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	23.58
75	30.00 - 60.00% of mass 95	47.90
96	5.00 - 9.00% of mass 95	7.93
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	62.11
175	5.00 - 9.00% of mass 174	4.64 (7.47)
176	95.00 - 101.00% of mass 174	60.65 (97.65)
177	5.00 - 9.00% of mass 176	4.26 (7.02)

Data File: Z7145.D

Date: 11-JUN-2012 23:51

Client ID: BFB Instrument: Z.i

Sample Info: BFB,, Operator: TINKHAMS

Data File: \\DenSvr03\Public\chem\MSV\Z.i\061112MA.B\Z7145.D
Spectrum: Avg. Scans 99-101 (1.79), Background Scan 96
Location of Maximum: 95.00
Number of points: 46

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	442	55.00	141	75.00	9093	94.00	2030
37.00	1444	56.00	416	76.00	825	95.00	18984
38.00	1272	57.00	667	77.00	305	96.00	1505
39.00	467	60.00	273	78.00	268	119.00	70
40.00	68	61.00	838	79.00	502	174.00	11791
42.00	249	62.00	867	80.00	145	175.00	881
44.00	186	63.00	693	81.00	536	176.00	11514
45.00	397	68.00	2021	87.00	874	177.00	808
47.00	437	69.00	2302	88.00	862	207.00	20
49.00	991	70.00	246	91.00	50	208.00	75
50.00	4476	73.00	993	92.00	496		
51.00	1452	74.00	2872	93.00	753		

TestAmerica

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8170.D
Lab Smp Id: BFB Client Smp ID: BFB
Inj Date : 09-JUL-2012 08:57
Operator : MEIERG Inst ID: Z.i
Smp Info : BFB,,
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\bfb390.m
Meth Date : 13-May-2011 06:15 meierg Quant Type: ISTD
Cal Date : Cal File:
Als bottle: 2 QC Sample: BFB
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: all.sub
Target Version: 4.14 Sample Matrix: WATER
Processing Host: DENPC232

Concentration Formula: Amt * DF * Uf * Vf * VI * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Uf	1.000	ng unit correction factor
Vf	1.000	Volumetric correction factor
VI	1.000	Injection Volume
Cpnd Variable		Local Compound Variable

					CONCENTRATIONS ON-COL	FINAL		
RT	EXP RT	REL RT	MASS	RESPONSE	(ug/L)	(ug/L)	TARGET RANGE	RATIO
1 bfb						CAS #: 460-00-4		
1.802	1.903	(0.000)	95	31128			0.00- 100.00	100.00
1.802	1.903	(0.000)	50	6271			15.00- 40.00	20.15
1.802	1.903	(0.000)	75	14429			30.00- 60.00	46.35
1.802	1.903	(0.000)	96	2242			5.00- 9.00	7.20
1.802	1.903	(0.000)	173	0	0.0	0.0	0.00- 2.00	0.00
1.802	1.903	(0.000)	174	20984			50.00- 0.00	67.41
1.802	1.903	(0.000)	175	1569			5.00- 9.00	7.48
1.802	1.903	(0.000)	176	20824			95.00- 101.00	99.24
1.802	1.903	(0.000)	177	1391			5.00- 9.00	6.68

Data File: Z8170.D

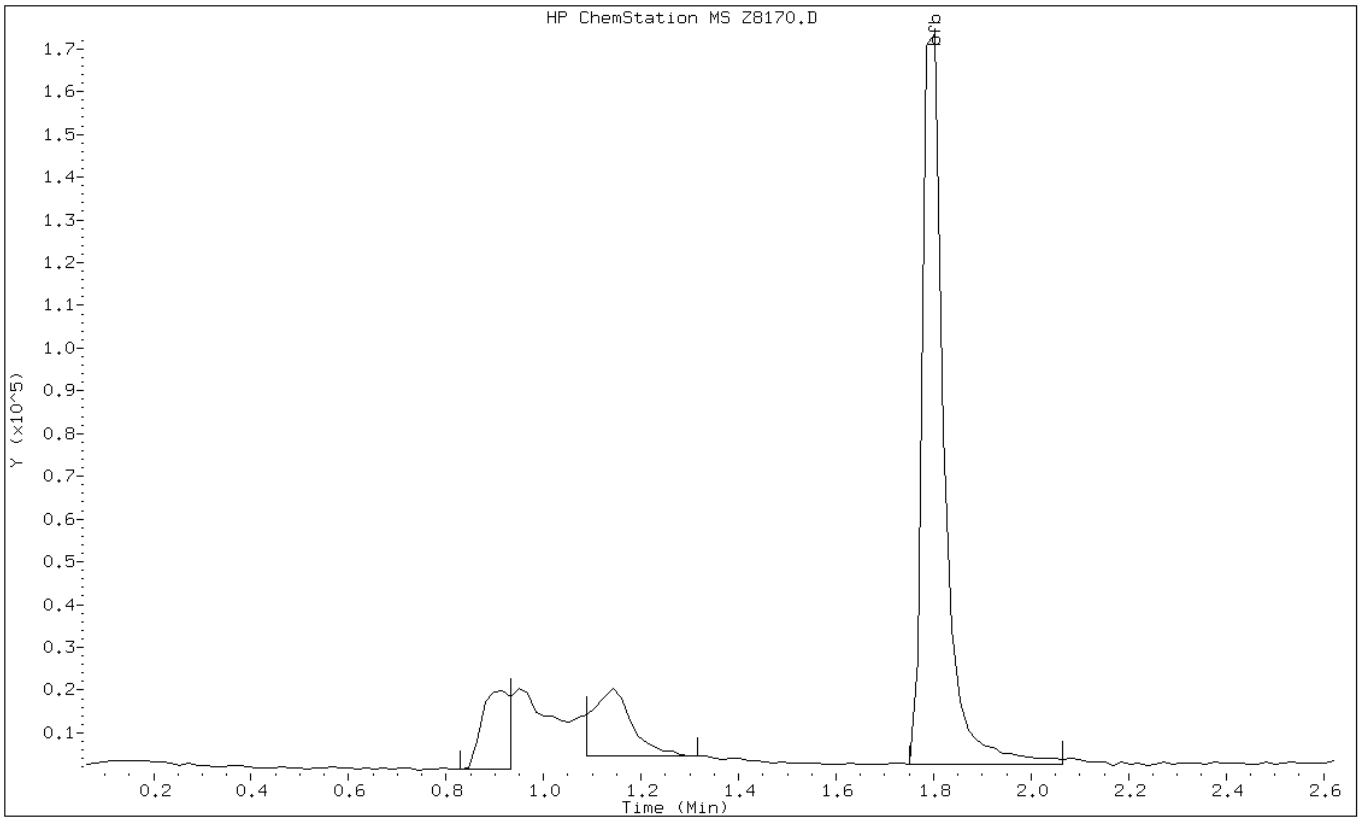
Date: 09-JUL-2012 08:57

Client ID: BFB

Instrument: Z.i

Sample Info: BFB,,

Operator: MEIERG



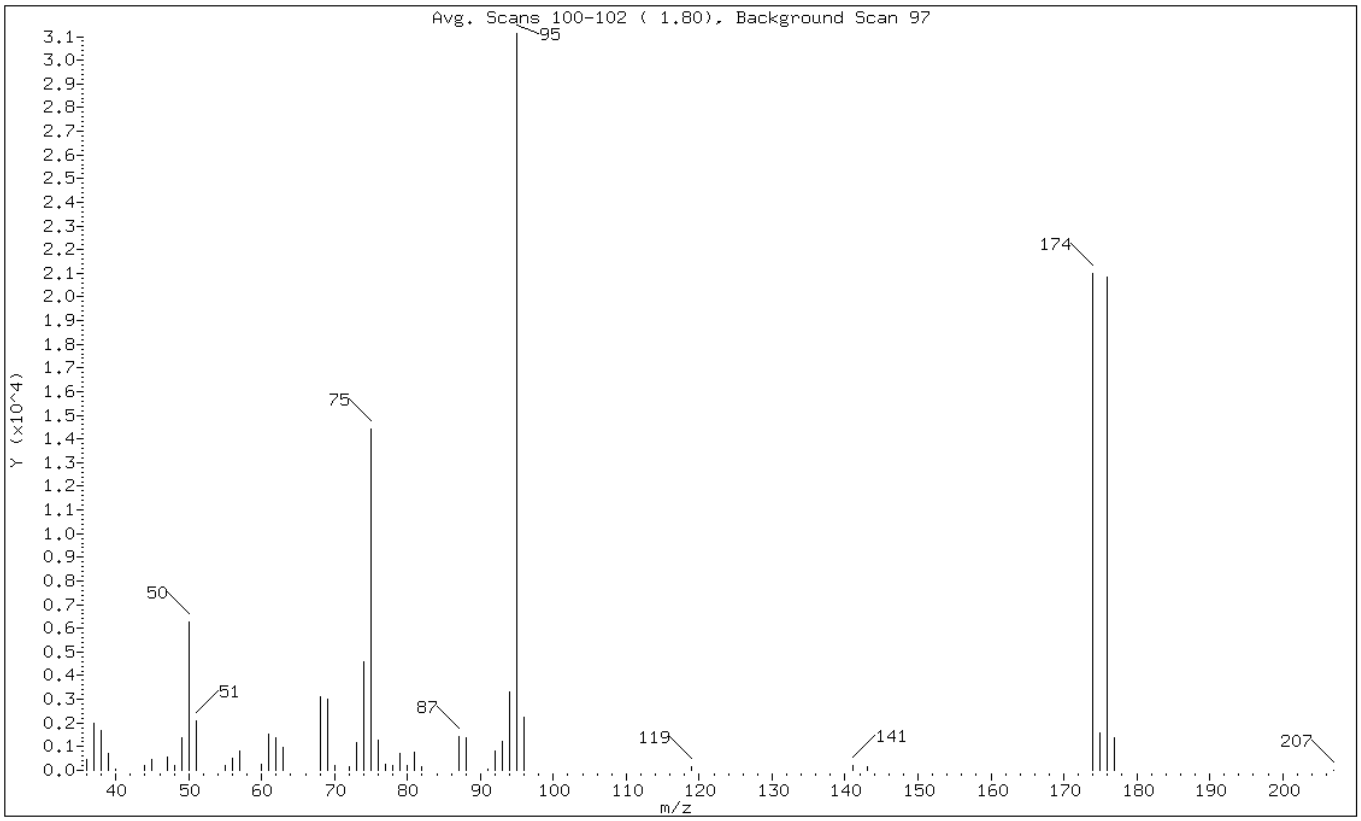
Data File: Z8170.D

Date: 09-JUL-2012 08:57

Client ID: BFB Instrument: Z.i

Sample Info: BFB,, Operator: MEIERG

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	20.15
75	30.00 - 60.00% of mass 95	46.35
96	5.00 - 9.00% of mass 95	7.20
173	Less than 2.00% of mass 174	0.00 (0.00)
174	Greater than 50.00% of mass 95	67.41
175	5.00 - 9.00% of mass 174	5.04 (7.48)
176	95.00 - 101.00% of mass 174	66.90 (99.24)
177	5.00 - 9.00% of mass 176	4.47 (6.68)

Data File: Z8170.D

Date: 09-JUL-2012 08:57

Client ID: BFB Instrument: Z.i

Sample Info: BFB,, Operator: MEIERG

Data File: \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8170.D
Spectrum: Avg. Scans 100-102 (1.80), Background Scan 97
Location of Maximum: 95.00
Number of points: 49

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	475	56.00	516	76.00	1265	95.00	31128
37.00	2000	57.00	831	77.00	275	96.00	2242
38.00	1698	60.00	255	78.00	185	119.00	153
39.00	727	61.00	1509	79.00	735	141.00	180
40.00	32	62.00	1358	80.00	199	143.00	159
44.00	189	63.00	950	81.00	772	174.00	20984
45.00	442	68.00	3104	82.00	162	175.00	1569
47.00	584	69.00	2983	87.00	1409	176.00	20824
48.00	179	70.00	214	88.00	1388	177.00	1391
49.00	1359	72.00	149	91.00	71	207.00	19
50.00	6271	73.00	1157	92.00	799		
51.00	2072	74.00	4584	93.00	1218		
55.00	189	75.00	14429	94.00	3292		

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-30461-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-127051/7

Matrix: Water | Lab File ID: Z8176.D

Analysis Method: 8260B/DoD | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 07/09/2012 10:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127051 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	0.20	U	1.0	0.20	0.17
71-55-6	1,1,1-Trichloroethane	0.20	U	1.0	0.20	0.16
96-18-4	1,2,3-Trichloropropane	0.80	U	3.0	0.80	0.77
87-61-6	1,2,3-Trichlorobenzene	0.40	U	1.0	0.40	0.18
75-34-3	1,1-Dichloroethane	0.20	U	1.0	0.20	0.16
120-82-1	1,2,4-Trichlorobenzene	0.80	U	1.0	0.80	0.32
96-12-8	1,2-Dibromo-3-Chloropropane	1.6	U	5.0	1.6	0.81
563-58-6	1,1-Dichloropropene	0.40	U	1.0	0.40	0.15
75-35-4	1,1-Dichloroethene	0.20	U	1.0	0.20	0.14
79-00-5	1,1,2-Trichloroethane	0.40	U	1.0	0.40	0.32
79-34-5	1,1,2,2-Tetrachloroethane	0.40	U	1.0	0.40	0.20
95-63-6	1,2,4-Trimethylbenzene	0.20	U	1.0	0.20	0.14
95-50-1	1,2-Dichlorobenzene	0.20	U	1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	0.20	U	1.0	0.20	0.13
541-73-1	1,3-Dichlorobenzene	0.20	U	1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	0.20	U	1.0	0.20	0.15
108-67-8	1,3,5-Trimethylbenzene	0.40	U	1.0	0.40	0.14
78-93-3	2-Butanone (MEK)	3.2	U	6.0	3.2	1.8
106-46-7	1,4-Dichlorobenzene	0.40	U	1.0	0.40	0.16
78-87-5	1,2-Dichloropropane	0.20	U	1.0	0.20	0.13
594-20-7	2,2-Dichloropropane	0.40	U	1.0	0.40	0.20
591-78-6	2-Hexanone	3.2	U	5.0	3.2	1.4
108-10-1	4-Methyl-2-pentanone (MIBK)	3.2	U	5.0	3.2	1.0
99-87-6	4-Isopropyltoluene	0.40	U	1.0	0.40	0.17
71-43-2	Benzene	0.20	U	1.0	0.20	0.16
67-64-1	Acetone	6.4	U	10	6.4	1.9
108-86-1	Bromobenzene	0.20	U	1.0	0.20	0.17
75-25-2	Bromoform	0.40	U	1.0	0.40	0.19
74-83-9	Bromomethane	0.40	U	2.0	0.40	0.21
56-23-5	Carbon tetrachloride	0.40	U	2.0	0.40	0.19
75-15-0	Carbon disulfide	0.80	U	2.0	0.80	0.45
95-49-8	2-Chlorotoluene	0.40	U	1.0	0.40	0.17
106-43-4	4-Chlorotoluene	0.40	U	1.0	0.40	0.17
108-90-7	Chlorobenzene	0.20	U	1.0	0.20	0.17
74-97-5	Chlorobromomethane	0.20	U	1.0	0.20	0.10
124-48-1	Chlorodibromomethane	0.40	U	1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-30461-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-127051/7

Matrix: Water | Lab File ID: Z8176.D

Analysis Method: 8260B/DoD | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 07/09/2012 10:51

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127051 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
67-66-3	Chloroform	0.20	U	1.0	0.20	0.16
75-00-3	Chloroethane	1.6	U	2.0	1.6	0.41
74-87-3	Chloromethane	0.80	U	2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	0.20	U	1.0	0.20	0.16
74-95-3	Dibromomethane	0.40	U	1.0	0.40	0.17
75-27-4	Dichlorobromomethane	0.20	U	1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	0.80	U	2.0	0.80	0.31
100-41-4	Ethylbenzene	0.20	U	1.0	0.20	0.16
87-68-3	Hexachlorobutadiene	0.40	U	1.0	0.40	0.36
98-82-8	Isopropylbenzene	0.40	U	1.0	0.40	0.19
106-93-4	Ethylene Dibromide	0.20	U	1.0	0.20	0.18
75-09-2	Methylene Chloride	0.432	J	5.0	0.40	0.32
1634-04-4	Methyl tert-butyl ether	0.40	U	5.0	0.40	0.25
179601-23-1	m-Xylene & p-Xylene	0.80	U	2.0	0.80	0.34
91-20-3	Naphthalene	0.80	U	1.0	0.80	0.22
104-51-8	n-Butylbenzene	0.40	U	1.0	0.40	0.32
103-65-1	N-Propylbenzene	0.20	U	1.0	0.20	0.16
95-47-6	o-Xylene	0.40	U	1.0	0.40	0.19
100-42-5	Styrene	0.40	U	1.0	0.40	0.17
135-98-8	sec-Butylbenzene	0.40	U	1.0	0.40	0.17
98-06-6	tert-Butylbenzene	0.40	U	1.0	0.40	0.16
156-60-5	trans-1,2-Dichloroethene	0.20	U	1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	0.40	U	1.0	0.40	0.19
127-18-4	Tetrachloroethene	0.40	U	1.0	0.40	0.20
108-88-3	Toluene	0.40	U	1.0	0.40	0.17
79-01-6	Trichloroethene	0.20	U	1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	0.80	U	2.0	0.80	0.29
75-01-4	Vinyl chloride	0.80	U	1.5	0.80	0.40
123-91-1	1,4-Dioxane	80	U	220	80	71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	3.0	U	3.0	3.0	0.79
544-10-5	1-Chlorohexane	0.20	U	1.0	0.20	0.17
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 280-127051/7

Matrix: Water Lab File ID: Z8176.D

Analysis Method: 8260B/DoD Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 07/09/2012 10:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127051 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	104		85-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	111		70-120
460-00-4	4-Bromofluorobenzene (Surr)	105		75-120
1868-53-7	Dibromofluoromethane (Surr)	103		85-115

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8176.D
Lab Smp Id: MB Client Smp ID: MB
Inj Date : 09-JUL-2012 10:51
Operator : MEIERG Inst ID: Z.i
Smp Info : MB,,AF
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 10-Jul-2012 05:49 Z.i Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 QC Sample: BLANK
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: TALS.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)	
* 62 Fluorobenzene	96	4.760	4.761	(1.000)	853454	12.5000		
* 86 Chlorobenzene-d5	119	9.197	9.198	(1.000)	181920	12.5000		
* 111 1,4-Dichlorobenzene-d4	152	13.217	13.218	(1.000)	268623	12.5000		(Q)
$ 51 Dibromofluoromethane (Surr)	111	3.960	3.959	(0.832)	438843	9.31499	9.31499	
$ 56 1,2-Dichloroethane-d4	65	4.343	4.342	(0.912)	223070	10.0115	10.0115	
$ 75 Toluene-d8	98	6.953	6.952	(0.756)	853300	9.38102	9.38102	
$ 98 4-Bromofluorobenzene (Surr)	95	11.198	11.198	(0.847)	457129	9.45557	9.45557	
M 1 1,2-Dichloroethene (total)	96	Compound Not Detected.						
M 2 Xylene (total)	106	Compound Not Detected.						
6 dichlorodifluoromethane	85	Compound Not Detected.						
8 1,2-Dichlorotetrafluoroethane	85	Compound Not Detected.						
7 Chloromethane	50	Compound Not Detected.						
9 Vinyl Chloride	62	Compound Not Detected.						
11 Ethylene Oxide	43	Compound Not Detected.						
12 Bromomethane	94	Compound Not Detected.						
13 Chloroethane	64	Compound Not Detected.						
14 Dichlorofluoromethane	67	Compound Not Detected.						
16 Trichlorofluoromethane	101	Compound Not Detected.						
15 Ethanol	45	Compound Not Detected.						
17 Ethyl Ether	59	Compound Not Detected.						
19 1,2-dichloro-1,1,2-trifluoro	117	Compound Not Detected.						
20 2,2-dichloro-1,1,1-trifluoro	83	Compound Not Detected.						

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
21 Acrolein	56	Compound Not Detected.					
23 1,1-Dichloroethene	96	Compound Not Detected.					
24 Trichlorotrifluoroethane	151	Compound Not Detected.					
22 Acetone	43	Compound Not Detected.					
25 Iodomethane	142	Compound Not Detected.					
18 2-propanol	45	Compound Not Detected.					
26 Carbon Disulfide	76	Compound Not Detected.					
39 Allyl Chloride	41	Compound Not Detected.					
27 Methyl Acetate	43	Compound Not Detected.					
29 Acetonitrile	41	Compound Not Detected.					
28 Methylene Chloride	84	2.359	2.359	(0.496)	11296	0.43215	0.432149(a)
30 tert-Butyl alcohol	59	Compound Not Detected.					
31 Acrylonitrile	53	Compound Not Detected.					
33 Methyl t-butyl ether	73	Compound Not Detected.					
32 trans-1,2-Dichloroethene	96	Compound Not Detected.					
34 Hexane	57	Compound Not Detected.					
36 1,1-Dichloroethane	63	Compound Not Detected.					
35 Vinyl Acetate	43	Compound Not Detected.					
37 Isopropyl ether	87	Compound Not Detected.					
38 Chloroprene	53	Compound Not Detected.					
40 ETBE	59	Compound Not Detected.					
42 cis-1,2-Dichloroethene	96	Compound Not Detected.					
43 2,2-Dichloropropane	77	Compound Not Detected.					
41 2-Butanone	43	Compound Not Detected.					
44 Ethyl Acetate	43	Compound Not Detected.					
45 Propionitrile	54	Compound Not Detected.					
46 Methacrylonitrile	41	Compound Not Detected.					
47 Bromochloromethane	128	Compound Not Detected.					
48 Tetrahydrofuran	42	Compound Not Detected.					
50 Chloroform	83	Compound Not Detected.					
52 1,1,1-Trichloroethane	97	Compound Not Detected.					
53 Cyclohexane	56	Compound Not Detected.					
54 1,1-Dichloropropene	75	Compound Not Detected.					
55 Carbon Tetrachloride	117	Compound Not Detected.					
59 Benzene	78	Compound Not Detected.					
57 1,2-Dichloroethane	62	Compound Not Detected.					
60 TAME	73	Compound Not Detected.					
58 Isobutanol	41	Compound Not Detected.					
63 Trichloroethene	95	Compound Not Detected.					
64 2-Pentanone	43	Compound Not Detected.					
65 Methyl Cyclohexane	55	Compound Not Detected.					
66 1,2-Dichloropropane	63	Compound Not Detected.					
67 Dibromomethane	93	Compound Not Detected.					
68 Methyl Methacrylate	100	Compound Not Detected.					
69 1,4-Dioxane	88	Compound Not Detected.					
70 Bromodichloromethane	83	Compound Not Detected.					
71 2-nitropropane	41	Compound Not Detected.					
72 2-Chloroethyl vinyl ether	63	Compound Not Detected.					
73 cis-1,3-Dichloropropene	75	Compound Not Detected.					
74 4-Methyl-2-pentanone	43	Compound Not Detected.					
76 Toluene	91	Compound Not Detected.					
77 trans-1,3-Dichloropropene	75	Compound Not Detected.					
78 Ethyl methacrylate	69	Compound Not Detected.					
79 1,1,2-Trichloroethane	97	Compound Not Detected.					

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
80 Tetrachloroethene	164	Compound Not Detected.					
81 1,3-Dichloropropane	76	Compound Not Detected.					
82 2-Hexanone	43	Compound Not Detected.					
83 Tetrahydrothiophene	60	Compound Not Detected.					
84 Dibromochloromethane	129	Compound Not Detected.					
85 1,2-Dibromoethane	107	Compound Not Detected.					
88 1-Chlorohexane	91	Compound Not Detected.					
87 Chlorobenzene	112	Compound Not Detected.					
89 1,1,1,2-Tetrachloroethane	131	Compound Not Detected.					
90 Ethylbenzene	106	Compound Not Detected.					
91 m and p-Xylene	106	Compound Not Detected.					
92 o-Xylene	106	Compound Not Detected.					
93 Styrene	104	Compound Not Detected.					
94 Bromoform	173	Compound Not Detected.					
95 isopropyl benzene	105	Compound Not Detected.					
96 cis-1,4-dichloro-2-butene	53	Compound Not Detected.					
97 Cyclohexanone	55	Compound Not Detected.					
99 Bromobenzene	156	Compound Not Detected.					
100 1,1,2,2-Tetrachloroethane	83	Compound Not Detected.					
101 1,2,3-Trichloropropane	110	Compound Not Detected.					
102 t-1,4-Dichloro-2-butene	53	Compound Not Detected.					
103 n-Propylbenzene	120	Compound Not Detected.					
104 2-Chlorotoluene	126	Compound Not Detected.					
106 1,3,5-Trimethylbenzene	105	Compound Not Detected.					
105 4-Chlorotoluene	126	Compound Not Detected.					
107 tert-Butylbenzene	119	Compound Not Detected.					
108 1,2,4-Trimethylbenzene	105	Compound Not Detected.					
109 sec-Butylbenzene	134	Compound Not Detected.					
110 1,3-Dichlorobenzene	146	Compound Not Detected.					
112 4-Isopropyltoluene	119	Compound Not Detected.					
113 1,4-dichlorobenzene	146	Compound Not Detected.					
116 n-Butylbenzene	91	Compound Not Detected.					
115 1,2-Dichlorobenzene	146	Compound Not Detected.					
117 1,2-Dibromo-3-chloropropane	157	Compound Not Detected.					
118 1,2,4-Trichlorobenzene	180	Compound Not Detected.					
119 Hexachlorobutadiene	225	Compound Not Detected.					
120 Naphthalene	128	Compound Not Detected.					
121 1,2,3-Trichlorobenzene	180	Compound Not Detected.					

QC Flag Legend

a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.

Data File: Z8176.D

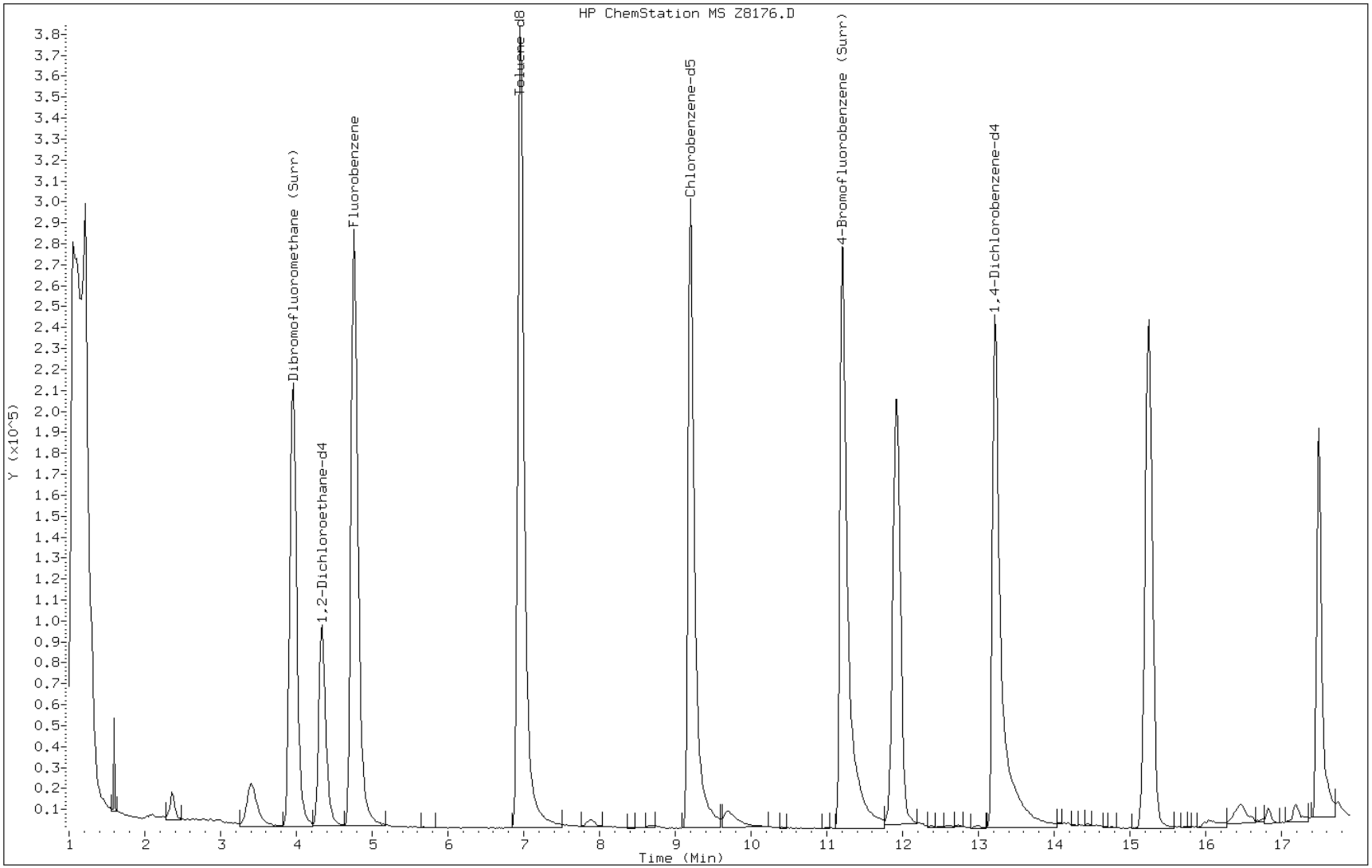
Date: 09-JUL-2012 10:51

Client ID: MB

Instrument: Z.i

Sample Info: MB,,AF

Operator: MEIERG



Data File: Z8176.D

Date: 09-JUL-2012 10:51

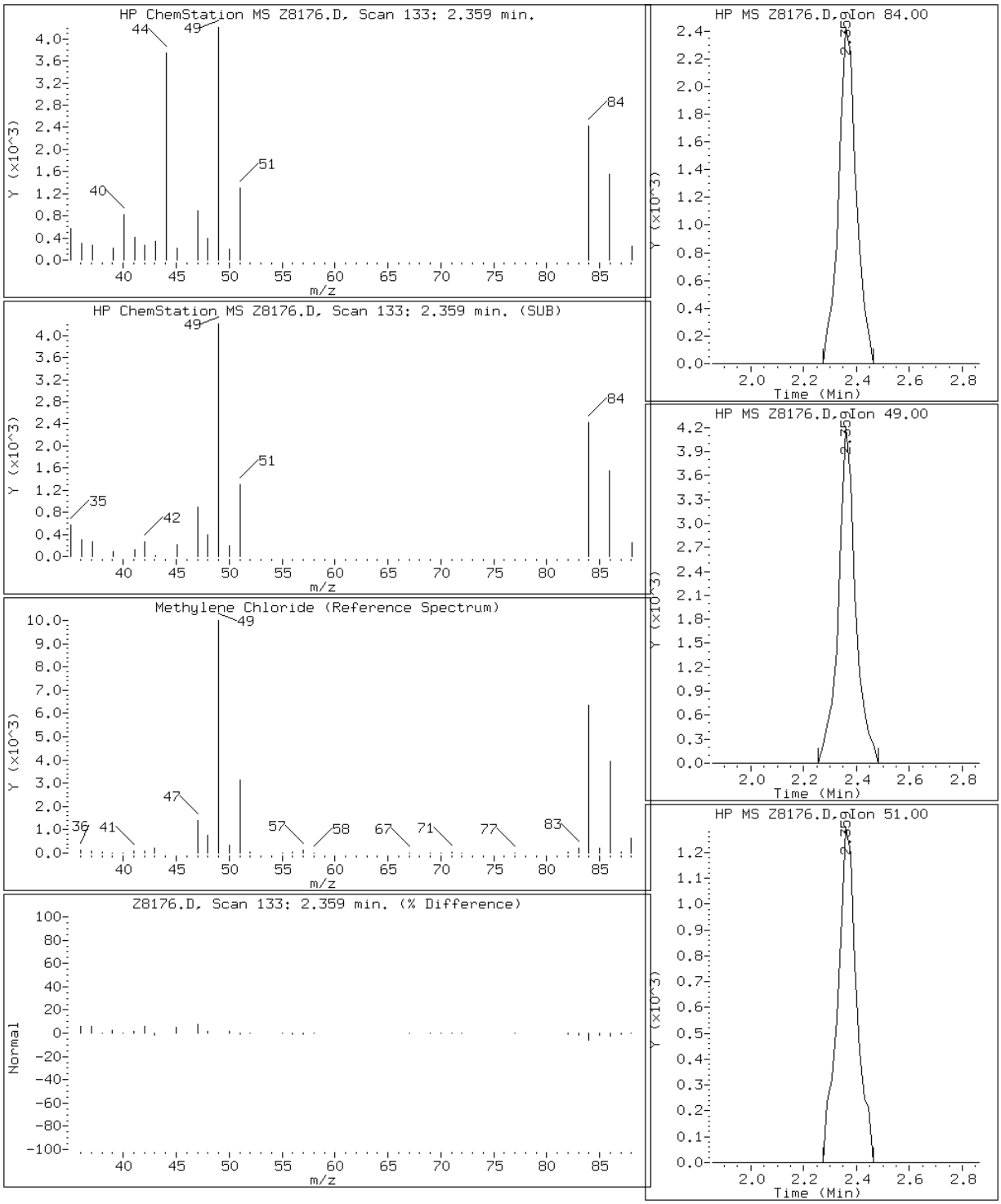
Client ID: MB

Instrument: Z.i

Sample Info: MB,,AF

Operator: MEIERG

28 Methylene Chloride



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-30461-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-127051/6

Matrix: Water | Lab File ID: Z8175.D

Analysis Method: 8260B/DoD | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 07/09/2012 10:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127051 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
630-20-6	1,1,1,2-Tetrachloroethane	5.11		1.0	0.20	0.17
71-55-6	1,1,1-Trichloroethane	5.07		1.0	0.20	0.16
96-18-4	1,2,3-Trichloropropane	4.93		3.0	0.80	0.77
87-61-6	1,2,3-Trichlorobenzene	4.69		1.0	0.40	0.18
75-34-3	1,1-Dichloroethane	3.73		1.0	0.20	0.16
120-82-1	1,2,4-Trichlorobenzene	4.61		1.0	0.80	0.32
96-12-8	1,2-Dibromo-3-Chloropropane	4.88	J	5.0	1.6	0.81
563-58-6	1,1-Dichloropropene	4.82		1.0	0.40	0.15
75-35-4	1,1-Dichloroethene	3.88		1.0	0.20	0.14
79-00-5	1,1,2-Trichloroethane	4.57		1.0	0.40	0.32
79-34-5	1,1,2,2-Tetrachloroethane	5.26		1.0	0.40	0.20
95-63-6	1,2,4-Trimethylbenzene	4.91		1.0	0.20	0.14
95-50-1	1,2-Dichlorobenzene	4.75		1.0	0.20	0.13
107-06-2	1,2-Dichloroethane	5.16		1.0	0.20	0.13
541-73-1	1,3-Dichlorobenzene	4.77		1.0	0.20	0.16
142-28-9	1,3-Dichloropropane	5.22		1.0	0.20	0.15
108-67-8	1,3,5-Trimethylbenzene	5.07		1.0	0.40	0.14
78-93-3	2-Butanone (MEK)	16.5		6.0	3.2	1.8
106-46-7	1,4-Dichlorobenzene	5.01		1.0	0.40	0.16
78-87-5	1,2-Dichloropropane	4.59		1.0	0.20	0.13
594-20-7	2,2-Dichloropropane	5.54		1.0	0.40	0.20
591-78-6	2-Hexanone	19.0		5.0	3.2	1.4
108-10-1	4-Methyl-2-pentanone (MIBK)	17.7		5.0	3.2	1.0
99-87-6	4-Isopropyltoluene	4.72		1.0	0.40	0.17
71-43-2	Benzene	4.71		1.0	0.20	0.16
67-64-1	Acetone	19.2		10	6.4	1.9
108-86-1	Bromobenzene	5.28		1.0	0.20	0.17
75-25-2	Bromoform	5.36		1.0	0.40	0.19
74-83-9	Bromomethane	3.29		2.0	0.40	0.21
56-23-5	Carbon tetrachloride	5.00		2.0	0.40	0.19
75-15-0	Carbon disulfide	3.17		2.0	0.80	0.45
95-49-8	2-Chlorotoluene	4.64		1.0	0.40	0.17
106-43-4	4-Chlorotoluene	4.92		1.0	0.40	0.17
108-90-7	Chlorobenzene	5.03		1.0	0.20	0.17
74-97-5	Chlorobromomethane	4.64		1.0	0.20	0.10
124-48-1	Chlorodibromomethane	5.31		1.0	0.40	0.17

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 280-30461-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-127051/6

Matrix: Water | Lab File ID: Z8175.D

Analysis Method: 8260B/DoD | Date Collected:

Sample wt/vol: 20(mL) | Date Analyzed: 07/09/2012 10:30

Soil Aliquot Vol: | Dilution Factor: 1

Soil Extract Vol.: | GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: | Level: (low/med) Low

Analysis Batch No.: 127051 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	LOQ	LOD	DL
67-66-3	Chloroform	5.11		1.0	0.20	0.16
75-00-3	Chloroethane	3.39		2.0	1.6	0.41
74-87-3	Chloromethane	3.09		2.0	0.80	0.30
156-59-2	cis-1,2-Dichloroethene	4.70		1.0	0.20	0.15
10061-01-5	cis-1,3-Dichloropropene	5.03		1.0	0.20	0.16
74-95-3	Dibromomethane	5.09		1.0	0.40	0.17
75-27-4	Dichlorobromomethane	5.10		1.0	0.20	0.17
75-71-8	Dichlorodifluoromethane	2.85		2.0	0.80	0.31
100-41-4	Ethylbenzene	5.09		1.0	0.20	0.16
87-68-3	Hexachlorobutadiene	4.93		1.0	0.40	0.36
98-82-8	Isopropylbenzene	5.13		1.0	0.40	0.19
106-93-4	Ethylene Dibromide	5.16		1.0	0.20	0.18
75-09-2	Methylene Chloride	3.61	J	5.0	0.40	0.32
1634-04-4	Methyl tert-butyl ether	3.86	J	5.0	0.40	0.25
179601-23-1	m-Xylene & p-Xylene	10.1		2.0	0.80	0.34
91-20-3	Naphthalene	4.59		1.0	0.80	0.22
104-51-8	n-Butylbenzene	5.17		1.0	0.40	0.32
103-65-1	N-Propylbenzene	4.84		1.0	0.20	0.16
95-47-6	o-Xylene	5.03		1.0	0.40	0.19
100-42-5	Styrene	5.04		1.0	0.40	0.17
135-98-8	sec-Butylbenzene	4.86		1.0	0.40	0.17
98-06-6	tert-Butylbenzene	4.83		1.0	0.40	0.16
156-60-5	trans-1,2-Dichloroethene	3.78		1.0	0.20	0.15
10061-02-6	trans-1,3-Dichloropropene	4.84		1.0	0.40	0.19
127-18-4	Tetrachloroethene	5.44		1.0	0.40	0.20
108-88-3	Toluene	4.66		1.0	0.40	0.17
79-01-6	Trichloroethene	4.85		1.0	0.20	0.16
75-69-4	Trichlorofluoromethane	3.36		2.0	0.80	0.29
75-01-4	Vinyl chloride	3.16		1.5	0.80	0.40
123-91-1	1,4-Dioxane	80	U	220	80	71
76-13-1	1,1,2-Trichloro-1,2,2-trifluoroethane	3.57		3.0	3.0	0.79
544-10-5	1-Chlorohexane	5.13		1.0	0.20	0.17
110-82-7	Cyclohexane	0.40	U	2.0	0.40	0.28
79-20-9	Methyl acetate	2.0	U	5.0	2.0	1.6
108-87-2	Methylcyclohexane	0.40	U	2.0	0.40	0.36

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 280-127051/6

Matrix: Water Lab File ID: Z8175.D

Analysis Method: 8260B/DoD Date Collected:

Sample wt/vol: 20(mL) Date Analyzed: 07/09/2012 10:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: DB-624 (75.53) ID: 0.53(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 127051 Units: ug/L

CAS NO.	SURROGATE	%REC	Q	LIMITS
2037-26-5	Toluene-d8 (Surr)	101		85-120
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		70-120
460-00-4	4-Bromofluorobenzene (Surr)	94		75-120
1868-53-7	Dibromofluoromethane (Surr)	92		85-115

TestAmerica

VOLATILE REPORT SW-846

Data file : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\Z8175.D
Lab Smp Id: LCS Client Smp ID: LCS
Inj Date : 09-JUL-2012 10:30
Operator : MEIERG Inst ID: Z.i
Smp Info : LCS,,
Misc Info :
Comment :
Method : \\DenSvr03\Public\chem\MSV\Z.i\070912A.B\8260B-H2O.m
Meth Date : 09-Jul-2012 06:52 meierg Quant Type: ISTD
Cal Date : 18-APR-2012 15:10 Cal File: Z4911.D
Als bottle: 2 QC Sample: LCS
Dil Factor: 1.00000
Integrator: HP RTE Compound Sublist: DOD.sub
Target Version: 4.14
Processing Host: DENPC186

Concentration Formula: Amt * DF * Vp/Vs * CpndVariable

Name	Value	Description
DF	1.000	Dilution Factor
Vp	20.000	Purge Volume (mL)
Vs	20.000	Sample Volume purged (mL)
Cpnd Variable		Local Compound Variable

	Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
* 62	Fluorobenzene	96	4.765	4.767	(1.000)	931764	12.5000	
* 86	Chlorobenzene-d5	119	9.185	9.204	(1.000)	187936	12.5000	
* 111	1,4-Dichlorobenzene-d4	152	13.204	13.207	(1.000)	312634	12.5000	(Q)
$ 51	Dibromofluoromethane (Surr)	111	3.947	3.948	(0.828)	427187	8.30549	8.30549
$ 56	1,2-Dichloroethane-d4	65	4.330	4.330	(0.909)	220454	9.06257	9.06256
$ 75	Toluene-d8	98	6.958	6.958	(0.758)	850591	9.05190	9.05190
$ 98	4-Bromofluorobenzene (Surr)	95	11.203	11.186	(0.848)	474196	8.42779	8.42779
M 1	1,2-Dichloroethene (total)	96				273242	8.48318	8.48318
M 2	Xylene (total)	106				642096	15.1030	15.1030
6	dichlorodifluoromethane	85	1.320	1.322	(0.277)	128058	2.84791	2.84791
8	1,2-Dichlorotetrafluoroethane	85	1.320	1.403	(0.277)	128058	1.97234	1.97234(a)
7	Chloromethane	50	1.372	1.374	(0.288)	106349	3.08750	3.08750(Q)
9	Vinyl Chloride	62	1.459	1.461	(0.306)	90358	3.15526	3.15526
11	Ethylene Oxide	43	Compound Not Detected.					
12	Bromomethane	94	1.598	1.618	(0.335)	87604	3.29170	3.29170
13	Chloroethane	64	1.633	1.635	(0.343)	63084	3.38746	3.38746
14	Dichlorofluoromethane	67	Compound Not Detected.					
16	Trichlorofluoromethane	101	1.772	1.774	(0.372)	225583	3.36377	3.36377
17	Ethyl Ether	59	2.068	1.894	(0.434)	9842	0.54085	0.540851(a)
19	1,2-dichloro-1,1,2-trifluoro	117	Compound Not Detected.					
20	2,2-dichloro-1,1,1-trifluoro	83	Compound Not Detected.					
21	Acrolein	56	1.981	1.983	(0.416)	48764	37.9833	37.9833

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	FINAL (ug/L)
23 1,1-Dichloroethene	96	2.068	2.070	(0.434)	112985	3.88399	3.88398
24 Trichlorotrifluoroethane	151	2.103	2.103	(0.441)	144846	3.57295	3.57295
22 Acetone	43	2.068	2.070	(0.434)	47968	19.1660	19.1660
25 Iodomethane	142	2.172	2.175	(0.456)	222048	3.45261	3.45261
18 2-propanol	45	Compound Not Detected.					
26 Carbon Disulfide	76	2.225	2.225	(0.467)	359467	3.17337	3.17337
39 Allyl Chloride	41	2.364	2.277	(0.496)	7485	0.13110	0.131101(aQ)
27 Methyl Acetate	43	Compound Not Detected.					
28 Methylene Chloride	84	2.364	2.366	(0.496)	102998	3.60921	3.60921
30 tert-Butyl alcohol	59	2.433	2.453	(0.511)	78786	79.4184	79.4184
31 Acrylonitrile	53	2.520	2.523	(0.529)	91008	36.2035	36.2035
33 Methyl t-butyl ether	73	2.590	2.573	(0.544)	174011	3.85676	3.85676(a)
32 trans-1,2-Dichloroethene	96	2.573	2.575	(0.540)	123050	3.78139	3.78139
34 Hexane	57	2.781	2.781	(0.303)	175906	3.61191	3.61191
36 1,1-Dichloroethane	63	2.903	2.905	(0.609)	238270	3.73354	3.73354
35 Vinyl Acetate	43	2.921	2.921	(0.613)	149803	3.84295	3.84294
37 Isopropyl ether	87	Compound Not Detected.					
38 Chloroprene	53	Compound Not Detected.					
40 ETBE	59	Compound Not Detected.					
42 cis-1,2-Dichloroethene	96	3.460	3.462	(0.726)	150192	4.70178	4.70178
43 2,2-Dichloropropane	77	3.477	3.480	(0.730)	289734	5.53649	5.53649
41 2-Butanone	43	3.460	3.462	(0.726)	89931	16.5288	16.5288
44 Ethyl Acetate	43	3.460	3.512	(0.726)	91538	6.52550	6.52550(Q)
49 2-Butanol	45	3.686	3.669	(0.774)	109694	136.107	136.106
46 Methacrylonitrile	41	Compound Not Detected.					
47 Bromochloromethane	128	3.704	3.706	(0.777)	63861	4.64346	4.64346
48 Tetrahydrofuran	42	Compound Not Detected.					
50 Chloroform	83	3.773	3.793	(0.792)	309816	5.10895	5.10895
52 1,1,1-Trichloroethane	97	4.017	4.019	(0.843)	312374	5.06814	5.06814
53 Cyclohexane	56	Compound Not Detected.					
54 1,1-Dichloropropene	75	4.191	4.193	(0.880)	258682	4.82339	4.82339
55 Carbon Tetrachloride	117	4.208	4.228	(0.883)	285011	4.99632	4.99632
59 Benzene	78	4.417	4.437	(0.927)	434230	4.71441	4.71441
57 1,2-Dichloroethane	62	4.417	4.437	(0.927)	134700	5.16255	5.16255
60 TAME	73	Compound Not Detected.					
63 Trichloroethene	95	5.252	5.255	(1.102)	196480	4.85044	4.85044
64 2-Pentanone	43	5.531	5.479	(1.161)	73860	5.88686	5.88686(R)
65 Methyl Cyclohexane	55	Compound Not Detected.					
66 1,2-Dichloropropane	63	5.513	5.516	(1.157)	156816	4.59155	4.59155
67 Dibromomethane	93	5.687	5.672	(1.194)	89602	5.09419	5.09419
68 Methyl Methacrylate	100	Compound Not Detected.					
69 1,4-Dioxane	88	Compound Not Detected.					
70 Bromodichloromethane	83	5.914	5.916	(1.241)	264232	5.09513	5.09512
72 2-Chloroethyl vinyl ether	63	6.401	6.366	(1.343)	43836	5.30949	5.30949
73 cis-1,3-Dichloropropene	75	6.557	6.560	(1.376)	212064	5.03029	5.03029
74 4-Methyl-2-pentanone	43	6.836	6.803	(1.435)	257710	17.6506	17.6506
76 Toluene	91	7.045	7.064	(1.478)	476898	4.65547	4.65547
77 trans-1,3-Dichloropropene	75	7.410	7.395	(1.555)	160699	4.83547	4.83547
78 Ethyl methacrylate	69	Compound Not Detected.					
79 1,1,2-Trichloroethane	97	7.671	7.656	(1.610)	88319	4.57325	4.57325
80 Tetrachloroethene	164	7.897	7.899	(0.860)	165437	5.44273	5.44273
81 1,3-Dichloropropane	76	7.915	7.917	(0.862)	150135	5.21872	5.21872
82 2-Hexanone	43	8.176	8.108	(0.890)	124805	18.9996	18.9996
84 Dibromochloromethane	129	8.263	8.265	(0.900)	162105	5.30721	5.30721

Compounds	QUANT SIG MASS	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS ON-COLUMN (ug/L)	CONCENTRATIONS FINAL (ug/L)
85 1,2-Dibromoethane	107	8.419	8.404	(0.917)	118155	5.15527	5.15527
88 1-Chlorohexane	91	9.289	9.291	(1.011)	236480	5.13273	5.13273
87 Chlorobenzene	112	9.237	9.239	(1.006)	333793	5.02744	5.02744
89 1,1,1,2-Tetrachloroethane	131	9.394	9.396	(1.023)	155426	5.10705	5.10705
90 Ethylbenzene	106	9.463	9.466	(1.030)	166795	5.08603	5.08603
91 m and p-Xylene	106	9.672	9.674	(1.053)	447767	10.0693	10.0693
92 o-Xylene	106	10.316	10.318	(1.123)	194329	5.03372	5.03372
93 Styrene	104	10.351	10.353	(1.127)	314667	5.03910	5.03910
94 Bromoform	173	10.612	10.597	(1.155)	93849	5.35641	5.35641
95 isopropyl benzene	105	10.977	10.979	(0.831)	674814	5.13177	5.13177
96 cis-1,4-dichloro-2-butene	53	10.960	11.082	(0.830)	9847	3.24940	3.24940(Q)
97 Cyclohexanone	55	11.116	11.049	(1.210)	26686	120.020	120.020
99 Bromobenzene	156	11.412	11.414	(0.864)	146431	5.28154	5.28154
100 1,1,2,2-Tetrachloroethane	83	11.482	11.484	(0.870)	123885	5.26443	5.26443
101 1,2,3-Trichloropropane	110	11.534	11.519	(0.873)	27264	4.93067	4.93067
102 t-1,4-Dichloro-2-butene	53	11.604	11.604	(0.879)	120739	27.1297	27.1297
103 n-Propylbenzene	120	11.691	11.693	(0.885)	154106	4.84278	4.84278
104 2-Chlorotoluene	126	11.778	11.780	(0.892)	122967	4.63838	4.63838(Q)
106 1,3,5-Trimethylbenzene	105	12.021	12.023	(0.910)	497158	5.06570	5.06570
105 4-Chlorotoluene	126	11.986	11.971	(0.908)	137197	4.91579	4.91579
107 tert-Butylbenzene	119	12.561	12.563	(0.951)	533975	4.82870	4.82870
108 1,2,4-Trimethylbenzene	105	12.665	12.667	(0.959)	464296	4.90515	4.90515
109 sec-Butylbenzene	134	12.961	12.963	(0.982)	135024	4.85802	4.85802
110 1,3-Dichlorobenzene	146	13.083	13.085	(0.991)	235453	4.77324	4.77324
112 4-Isopropyltoluene	119	13.239	13.241	(1.003)	579158	4.71680	4.71680
113 1,4-dichlorobenzene	146	13.239	13.241	(1.003)	297779	5.00909	5.00909
116 n-Butylbenzene	91	13.970	13.972	(1.058)	602177	5.17485	5.17485
115 1,2-Dichlorobenzene	146	13.883	13.885	(1.051)	207859	4.75361	4.75361
117 1,2-Dibromo-3-chloropropane	157	15.345	15.277	(1.162)	18290	4.87574	4.87574
118 1,2,4-Trichlorobenzene	180	16.580	16.565	(1.256)	163845	4.60551	4.60551
119 Hexachlorobutadiene	225	16.806	16.809	(1.273)	162217	4.92626	4.92626
120 Naphthalene	128	16.841	16.826	(1.275)	162729	4.59170	4.59170
121 1,2,3-Trichlorobenzene	180	17.102	17.087	(1.295)	126439	4.69132	4.69132

QC Flag Legend

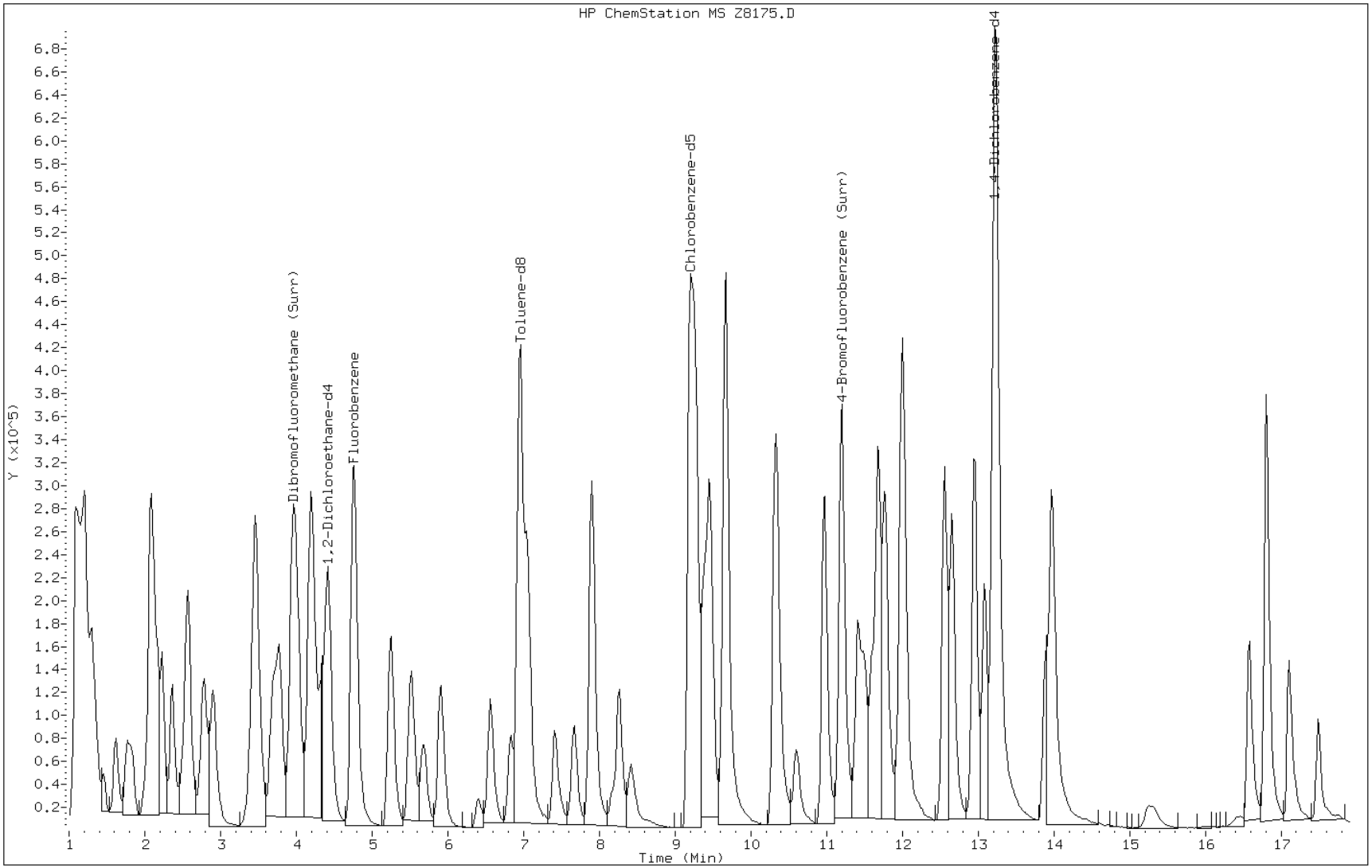
a - Target compound detected but, quantitated amount
Below Limit Of Quantitation(BLOQ).
Q - Qualifier signal failed the ratio test.
R - Spike/Surrogate failed recovery limits.

Data File: Z8175.D

Date: 09-JUL-2012 10:30

Client ID: LCS Instrument: Z.i

Sample Info: LCS,, Operator: MEIERG



GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: MSV_Z Start Date: 06/11/2012 10:51

Analysis Batch Number: 123533 End Date: 06/11/2012 16:41

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-123533/1		06/11/2012 10:51	1	Z7127.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/2		06/11/2012 10:59	1	Z7128.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/3		06/11/2012 11:21	1	Z7129.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/4		06/11/2012 11:42	1	Z7130.D	DB-624 (75.53) 0.53(mm)
ICIS 280-123533/5		06/11/2012 12:03	1	Z7131.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/6		06/11/2012 12:25	1	Z7132.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/7		06/11/2012 12:46	1	Z7133.D	DB-624 (75.53) 0.53(mm)
ICV 280-123533/8		06/11/2012 13:07	1	Z7134.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/9		06/11/2012 13:29	1	Z7135.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/10		06/11/2012 13:50	1	Z7136.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/11		06/11/2012 14:11	1	Z7137.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/12		06/11/2012 14:33	1	Z7138.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/13		06/11/2012 14:54	1	Z7139.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/14		06/11/2012 15:15	1	Z7140.D	DB-624 (75.53) 0.53(mm)
IC 280-123533/15		06/11/2012 15:37	1	Z7141.D	DB-624 (75.53) 0.53(mm)
ICV 280-123533/16		06/11/2012 15:58	1	Z7142.D	DB-624 (75.53) 0.53(mm)
ICV 280-123533/17		06/11/2012 16:19	1	Z7143.D	DB-624 (75.53) 0.53(mm)
ICV 280-123533/18		06/11/2012 16:41	1	Z7144.D	DB-624 (75.53) 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: MSV_Z Start Date: 06/11/2012 23:51

Analysis Batch Number: 123534 End Date: 06/12/2012 00:11

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-123534/1		06/11/2012 23:51	1	Z7145.D	DB-624 (75.53) 0.53(mm)
ICV 280-123534/2		06/12/2012 00:11	1	Z7146.D	DB-624 (75.53) 0.53(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: MSV_Z Start Date: 07/09/2012 08:57

Analysis Batch Number: 127051 End Date: 07/09/2012 19:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 280-127051/1		07/09/2012 08:57	1	Z8170.D	DB-624 (75.53) 0.53(mm)
CCV 280-127051/2		07/09/2012 09:04	1	Z8171.D	DB-624 (75.53) 0.53(mm)
CCV 280-127051/3		07/09/2012 09:25	1	Z8172.D	DB-624 (75.53) 0.53(mm)
CCV 280-127051/4		07/09/2012 09:46	1	Z8173.D	DB-624 (75.53) 0.53(mm)
CCV 280-127051/5		07/09/2012 10:08	1		DB-624 (75.53) 0.53(mm)
LCS 280-127051/6		07/09/2012 10:30	1	Z8175.D	DB-624 (75.53) 0.53(mm)
MB 280-127051/7		07/09/2012 10:51	1	Z8176.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 11:25	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 11:52	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 12:14	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 12:35	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 12:56	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 13:18	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 13:39	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 14:00	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 14:22	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 14:43	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 15:05	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 15:26	1		DB-624 (75.53) 0.53(mm)
280-30461-1	B035M0411HA	07/09/2012 15:47	1	Z8189.D	DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 16:09	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 16:30	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 16:52	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 17:13	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 17:34	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 17:56	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 18:17	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 18:39	1		DB-624 (75.53) 0.53(mm)
ZZZZZ		07/09/2012 19:00	1		DB-624 (75.53) 0.53(mm)

GC/MS VOA Continuing Calibration Review Checklist

Instrument ID and Date: Z 7/9/12

Check Method Used: Analysis ☐ 524.2 ☐ 624 ☒ 8260B ☐ Other VOA

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Continuing Calibration					
1. BFB meets criteria?	/			/	
2. ICAL date and instrument ID verified?	/			/	
3. Do SPCC RRFs and CCC %Ds meet method criteria?	/			/	
4. Does %D meet criteria for non-CCC compounds?	/			/	
5. Isomeric pairs checked for correct peak assignment?	/			/	
6. Standards traceability properly documented?	/			/	
7. Manual integrations documented and checked?	/			/	
8. Do the Internal Standards meet criteria for %D against ICAL?	/			/	

1st Level Reviewer: [signature] Date: 7/10/12

2nd Level Reviewer: [signature] Date: 7/10/12

TestAmerica Denver

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

DV-MS-0010 (8260B/624) (Circle) **Purge Volume:** (20mL/5mL/5g) **Tune Time:** 0857-1900 **Lims Batch :** **Instrument:** 7

Sequence Name: C:\HPCHEM\1\SEQUENCE\070912A.S
Comment:
Operator: MEIERG
Data Path: C:\HPCHEM\1\data\070912A.B\
Pre-Seq Cmd:
Post-Seq Cmd:

Method Sections To Run
(X) Full Method
( ) Reprocessing Only

On A Barcode Mismatch
(X) Inject Anyway
( ) Don't Inject

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	Z8170	BFBAFC	BFB,,
2	Sample	1	Z8171	8260AFCG	CCV,,M
3	Sample	2	Z8172	8260AFCG	CCV,,S
4	Sample	3	Z8173	8260AFCG	CCV,,K AG13-12
5	Sample	4	Z8174	8260AFCG	CCV,,K
6	Sample	5	Z8175	8260AFCG	LCS,,
7	Sample	6	Z8176	8260AFCG	MB,,AF
8	Sample	7	Z8177	8260AFCG	280-30535-f-37,,PH<2
9	Sample	8	Z8178	8260AFCG	280-30535-b-29,,PH<2
10	Sample	9	Z8179	8260AFCG	280-30535-c-30,,PH<2
11	Sample	10	Z8180	8260AFCG	280-30535-a-35,,PH<2
12	Sample	11	Z8181	8260AFCG	280-30535-d-36,,PH<2
13	Sample	12	Z8182	8260AFCG	280-30469-d-1,,PH<2 RR No EtOH
14	Sample	13	Z8183	8260AFCG	280-30469-a-4,,PH<2 ↓
15	Sample	14	Z8184	8260AFCG	280-30459-b-15,,PH<2
16	Sample	15	Z8185	8260AFCG	280-30459-l-19,,PH<2
17	Sample	16	Z8186	8260AFCG	280-30459-n-19 MS,,PH<2
18	Sample	17	Z8187	8260AFCG	280-30459-n-19 MSD,,PH<2
19	Sample	18	Z8188	8260AFCG	280-30459-g-20,,PH<2 TSS NCM
20	Sample	19	Z8189	8260AFCG	280-30461-e-1,,PH<2
21	Sample	20	Z8190	8260AFCG	280-30519-c-1,,PH<2
22	Sample	21	Z8191	8260AFCG	280-30519-e-2,,PH<2
23	Sample	22	Z8192	8260AFCG	280-30519-c-3,,PH<2 TSS NCM
24	Sample	23	Z8193	8260AFCG	280-30519-d-4,,PH<2
25	Sample	24	Z8194	8260AFCG	280-30519-e-5,,PH<2
26	Sample	25	Z8195	8260AFCG	280-30519-d-6,,PH<2 TSS NCM
27	Sample	26	Z8196	8260AFCG	280-30519-c-7,,PH<2
28	Sample	27	Z8197	8260AFCG	280-30519-e-8,,PH<2
29	Sample	28	Z8198	8260AFCG	280-30519-b-9,,PH<2

EN INCLUDE WITH RUNLOG

BFB
[X] Mv-BFB_08

MAIN CCV
[X] Mv-main_023
[X] mv-main gas_029
[ ] mv-BO mix B_010
[ ]

SUPP CCV
[X] Mv-supp_025
[X] mv- 2 cleve_012
[X] Mv-Acetates_001

ICV/LCS/LCSD/MS/MSD
[X] mv-524 A_014
[X] mv-624 A_018
[X] mv-SS Gas/ke_020
[ ] mv-secsrc B_07
[ ] mv-Secsrc C_015
[ ] mv-SS Supp_014
[ ] mv-SS 2 Cleve_06
[ ] mv-BO mix A_010
[ ] mv-Acrol/Acryl_023

[X] Mv-Archon IS_0524
[X] mv-Archon SS_0660

GM 7/10/12

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07/26/2012

*Run rejected because of poor purge or QC issue. Do not report.

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: Z 061112I Main
Calibration Event 9583 Batch 123533

ICV - 16, 17, 18
123534 2

Check Method Used: Analysis ☐ 625 ☐ 8270 ☐ Other SV _____
☐ 524.2 ☐ 624 ☒ 8260B ☐ Other VOA _

VOA Preparation ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	Level 1 Yes	Level 1 No	Level 1 N/A	Level 2	Comments
Initial Calibration					
1. BFB/DFTPP meets criteria?	x			✓	
2. ICAL date and instrument ID verified?	x			✓	
3. Does the Form VI match the data in the Target source method?	x			✓	
4. Sufficient number of calibration points used?	x			✓	
5. Reasons for removal of points documented?	x			✓	Some points < RL removed
6. %RSD or correlation coefficient within method limits?	x			✓	
7. If RRF used for ICAL, were all compounds within 15% RSD?	x			✓	List all exceptions below (cpd & RSD)
8. Response factors meet criteria?	x			✓	
9. Isomeric pairs checked for correct peak assignment?	x			✓	
10. Data checked for detector saturation?	x			✓	
11. Standards traceability properly documented?	x			✓	
12. Manual integrations documented and checked?	x			✓	
13. 2nd source ICV recovery 75-125% (±25%drift)for DoD projects, 65-135% (±35%,or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	x			✓	

1st Level Reviewer: ST Date: 06/11/12

2nd Level Reviewer: CM Date: 6/12/12

not calibrated for ethanol, n-Butanol

Revision 2.3
04/30/2010
G:\QA\Edit\Forms|GCMS ICAL

TestAmerica Denver

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

DV-MS-0010 (8260B/624) (Circle) **Purge Volume:** (20mL/5mL/5g) **Tune Time:** 10:51 - 16:41 **Lims Batch :** 123533 **Instrument:** Z

```
Sequence Name: C:\HPCHEM\1\SEQUENCE\061112I.S
      Comment:
     Operator: MEIERG
    Data Path: C:\HPCHEM\1\DATA\061112I.B\
  Pre-Seq Cmd:
 Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch
 (X) Full Method              (X) Inject Anyway
 ( ) Reprocessing Only        ( ) Don't Inject
```

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	Z7127	BFBAFC	BFB,,
2	Sample	1	Z7128	8260AFCG	IC,,S1.0
3	Sample	2	Z7129	8260AFCG	IC,,S2.0
4	Sample	3	Z7130	8260AFCG	IC,,S5.0
5	Sample	4	Z7131	8260AFCG	ICIS,,S10
6	Sample	5	Z7132	8260AFCG	ICIS,,S30
7	Sample	6	Z7133	8260AFCG	IC,,S60
8	Sample	7	Z7134	8260AFCG	ICV,,S
9	Sample	8	Z7135	8260AFCG	IC,,M0.3
10	Sample	9	Z7136	8260AFCG	IC,,M1.0
11	Sample	10	Z7137	8260AFCG	IC,,M2.0
12	Sample	11	Z7138	8260AFCG	IC,,M5.0
13	Sample	12	Z7139	8260AFCG	IC,,M10
14	Sample	13	Z7140	8260AFCG	IC,,M30
15	Sample	14	Z7141	8260AFCG	IC,,M60
16	Sample	15	Z7142	8260AFCG	ICV,,B
17	Sample	16	Z7143	8260AFCG	ICV,,A
18	Sample	17	Z7144	8260AFCG	ICV,,C

mv-BFB_07

mv-main_23
mv-main gas_29

mv-supp_23
mv-2-cleve_12

mv-524A_14
mv-624A_17
mv-SS gas/ke_20
mv-SS B_7
mv-SS C_15
mv-SS Supp_11
mv-SS 2-cleve_6
mv-acro/acryl_23

mv-BOmixA_10
mv-BOmixB_10

mv-Archon IS_518
mv-Archon SS_650

07/26/2012

*Run rejected because of poor purge or QC issue. Do not report.

DV-MS-0010 (8260B/624) (Circle) **Purge Volume:** (20mL/5mL/5g) **Tune Time:** 2351-0011 **Lims Batch :** 123534 **Instrument:** 2

```
Sequence Name: C:\HPCHEM\1\SEQUENCE\061112MA.S
      Comment:
     Operator: TINKHAMS
    Data Path: C:\HPCHEM\1\DATA\061112MA.B\
  Pre-Seq Cmd:
 Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch
 (X) Full Method              (X) Inject Anyway
 ( ) Reprocessing Only        ( ) Don't Inject


Line Type      Vial DataFile Method   Sample Name
-------------------------------------------------
  1 Sample      100 Z7145    BFBAFC   BFB,,
  2 Sample        1 Z7146    8260AFCG ICV,,MA
```

BFB
- [X] mv-BFB_07

MAIN CCV
- [ ] Mv-main_023
- [ ] mv-main gas_027
- [ ] mv-BO mix B_8

SUPP CCV
- [ ] mv-supp_021
- [ ] mv- 2 cleve_09
- [ ] Mv-F114_01

ICV/LCS/LCSD/MS/MSD
- [X] mv-524 A_013
- [ ] mv-624 A_015
- [X] mv-SS Gas/ke_018
- [ ] mv-secsrc B_05
- [ ] mv-Secsrc C_015
- [ ] mv-SS Supp_11
- [ ] mv-SS 2 Cleve_05
- [ ] mv-BO mix A_8
- [✓] mv-Acrol/Acryl_021

- [X] mv-Archon IS_462
- [✓] mv-Archon SS_571

Cw 6/12/12

*Run rejected because of poor purge or QC issue. Do not report.

TestAmerica Denver
GC/MS Initial Calibration Review Checklist

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Instrument ID and Date: Z 061112I Supp
Calibration Event 9582 Batch 123533

ICV-8

Check Method Used: Analysis ☐ 625 ☐ 8270 ☐ Other SV _____

☐ 524.2 ☐ 624 ☒ 8260B ☐ Other VOA _

VOA Preparation_ ☐ 5mL ☒ 20mL ☐ 5035 Low ☐ 5035 High ☐ 5030 Low ☐ 5030 High

Review Items	----- Level 1 ----- Yes	No	N/A	Level 2	Comments
Initial Calibration					
1. BFB/DFTPP meets criteria?	x			✓	
2. ICAL date and instrument ID verified?	x			✓	
3. Does the Form VI match the data in the Target source method?	x			✓	
4. Sufficient number of calibration points used?	x			✓	
5. Reasons for removal of points documented?	x			✓	Some points < RL removed
6. %RSD or correlation coefficient within method limits?	x			✓	
7. If RRF used for ICAL, were all compounds within 15% RSD?	x			✓	List all exceptions below (cpd & RSD)
8. Response factors meet criteria?	x			✓	
9. Isomeric pairs checked for correct peak assignment?	x			✓	
10. Data checked for detector saturation?	x			✓	
11. Standards traceability properly documented?	x			✓	
12. Manual integrations documented and checked?	x			✓	
13. 2nd source ICV recovery 75-125% (±25%drift)for DoD projects, 65-135% (±35%,or ±55% of expected for poor performers) for non-DoD? Exceptions noted in comment section.	x			✓	

1st Level Reviewer: SR Date: 06/11/12

2nd Level Reviewer: [signature] Date: 6/12/12

TestAmerica Denver

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

DV-MS-0010 (8260B/624) (Circle) **Purge Volume:** (20mL/5mL/5g) **Tune Time:** 10:51-16:41 **Lims Batch :** 123533 **Instrument:** Z

```
Sequence Name: C:\HPCHEM\1\SEQUENCE\061112I.S
      Comment:
     Operator: MEIERG
    Data Path: C:\HPCHEM\1\DATA\061112I.B\
  Pre-Seq Cmd:
 Post-Seq Cmd:

Method Sections To Run      On A Barcode Mismatch
 (X) Full Method              (X) Inject Anyway
 ( ) Reprocessing Only        ( ) Don't Inject
```

Line	Type	Vial	DataFile	Method	Sample Name
1	Sample	100	Z7127	BFBAFC	BFB,,
2	Sample	1	Z7128	8260AFCG	IC,,S1.0
3	Sample	2	Z7129	8260AFCG	IC,,S2.0
4	Sample	3	Z7130	8260AFCG	IC,,S5.0
5	Sample	4	Z7131	8260AFCG	ICIS,,S10
6	Sample	5	Z7132	8260AFCG	ICIS,,S30
7	Sample	6	Z7133	8260AFCG	IC,,S60
8	Sample	7	Z7134	8260AFCG	ICV,,S
9	Sample	8	Z7135	8260AFCG	IC,,M0.3
10	Sample	9	Z7136	8260AFCG	IC,,M1.0
11	Sample	10	Z7137	8260AFCG	IC,,M2.0
12	Sample	11	Z7138	8260AFCG	IC,,M5.0
13	Sample	12	Z7139	8260AFCG	IC,,M10
14	Sample	13	Z7140	8260AFCG	IC,,M30
15	Sample	14	Z7141	8260AFCG	IC,,M60
16	Sample	15	Z7142	8260AFCG	ICV,,B
17	Sample	16	Z7143	8260AFCG	ICV,,A
18	Sample	17	Z7144	8260AFCG	ICV,,C

mv-BFB_01

mv-main_23
mv-main gas_29

mv-supp_23
mv-2-cleve_12

mv-524A_14
mv-624A_17
mv-SS gas/ke_20
mv-SS B_7
mv-SS C_15
mv-SS Supp_11
mv-SS 2-cleve_6
mv-acro/acryl_23

mv-BOmixA_10
mv-BOmixB_10

mv-Archon IS_518
mv-Archon SS_650

*Run rejected because of poor purge or QC issue. Do not report.

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG No.:

Project: Griffiss AFB B35 LTM

Client Sample ID	Lab Sample ID
B035M0411HA	280-30461-1

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: B035M0411HA
Lab Sample ID: 280-30461-1
Lab Name: TestAmerica Denver
Job No.: 280-30461-1
SDG ID.:
Matrix: Water
Date Sampled: 06/26/2012 16:00
Reporting Basis: WET
Date Received: 06/27/2012 09:45

Analyte	Result	LOQ	LOD	DL	Units	C	Q	DIL	Method
Color	5.0	5.0	5.0	5.0	PCU	U		1	SM 2120B
Bromide	0.16	0.50	0.20	0.11	mg/L	J		1	9056A
Nitrate as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Chloride	60	15	2.5	1.3	mg/L			5	9056A
Nitrite as N	0.10	0.50	0.10	0.049	mg/L	U		1	9056A
Fluoride	0.10	1.0	0.10	0.060	mg/L	U		1	9056A
Nitrate Nitrite as N	0.10	0.50	0.10	0.042	mg/L	U		1	9056A
Orthophosphate as P	0.20	0.50	0.20	0.19	mg/L	U		1	9056A
Sulfate	16	5.0	0.50	0.23	mg/L			1	9056A
Total Organic Carbon - Quad	1.2	1.0	0.40	0.16	mg/L			1	9060A
Alkalinity	210	5.0	2.0	1.1	mg/L			1	SM 2320B
Total Dissolved Solids	340	10	10	4.7	mg/L			1	SM 2540C

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Analyst: EK Batch Start Date: 06/27/2012

Reporting Units: mg/L Analytical Batch No.: 125972

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
9	ICV	13:39	Bromide	1.86	2.00	93	90-110		IC ICV daily_00825
			Chloride	9.75	10.0	98	90-110		IC ICV daily_00825
			Fluoride	2.04	2.00	102	90-110		IC ICV daily_00825
			Sulfate	9.72	10.0	97	90-110		IC ICV daily_00825
10	ICB	13:56	Bromide	0.20				U	
			Chloride	0.50				U	
			Fluoride	0.10				U	
			Sulfate	0.50				U	
26	CCV	19:33	Bromide	4.85	5.00	97	90-110		IC daily cal_00825
			Chloride	24.5	25.0	98	90-110		IC daily cal_00825
			Fluoride	4.93	5.00	99	90-110		IC daily cal_00825
			Sulfate	24.6	25.0	98	90-110		IC daily cal_00825
27	CCB	19:49	Bromide	0.20				U	
			Chloride	0.50				U	
			Fluoride	0.10				U	
			Sulfate	0.50				U	
38	CCV	22:54	Bromide	4.79	5.00	96	90-110		IC daily cal_00825
			Chloride	24.5	25.0	98	90-110		IC daily cal_00825
			Fluoride	4.95	5.00	99	90-110		IC daily cal_00825
			Sulfate	24.5	25.0	98	90-110		IC daily cal_00825
39	CCB	23:11	Bromide	0.20				U	
			Chloride	0.50				U	
			Fluoride	0.10				U	
			Sulfate	0.50				U	
50	CCV	02:16	Bromide	4.83	5.00	97	90-110		IC daily cal_00825
			Chloride	24.6	25.0	98	90-110		IC daily cal_00825
			Fluoride	4.91	5.00	98	90-110		IC daily cal_00825
			Sulfate	24.4	25.0	98	90-110		IC daily cal_00825
51	CCB	02:33	Bromide	0.20				U	
			Chloride	0.50				U	
			Fluoride	0.10				U	
			Sulfate	0.50				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Analyst: EK Batch Start Date: 06/27/2012

Reporting Units: mg/L Analytical Batch No.: 125973

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
9	ICV	13:39	Nitrate as N	1.93	2.00	97	90-110		IC ICV daily_00825
			Nitrite as N	1.94	2.00	97	90-110		IC ICV daily_00825
			Orthophosphate as P	2.10	2.00	105	90-110		IC ICV daily_00825
10	ICB	13:56	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
26	CCV	19:33	Nitrate as N	4.89	5.00	98	90-110		IC daily cal_00825
			Nitrite as N	4.85	5.00	97	90-110		IC daily cal_00825
			Orthophosphate as P	5.01	5.00	100	90-110		IC daily cal_00825
27	CCB	19:49	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
62	CCV	05:37	Nitrate as N	4.87	5.00	97	90-110		IC daily cal_00825
			Nitrite as N	4.82	5.00	96	90-110		IC daily cal_00825
			Orthophosphate as P	4.66	5.00	93	90-110		IC daily cal_00825
63	CCB	05:54	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	
71	CCV	08:15	Nitrate as N	4.89	5.00	98	90-110		IC daily cal_00825
			Nitrite as N	4.80	5.00	96	90-110		IC daily cal_00825
			Orthophosphate as P	4.78	5.00	96	90-110		IC daily cal_00825
72	CCB	08:35	Nitrate as N	0.10				U	
			Nitrite as N	0.10				U	
			Orthophosphate as P	0.20				U	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Analyst: DFB Batch Start Date: 07/18/2012

Reporting Units: mg/L Analytical Batch No.: 128577

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	19:41	Total Organic Carbon - Quad	19.2	20.0	96	90-110		TOC ICV Std_00012
2	ICB	20:00	Total Organic Carbon - Quad	0.25				U	
16	CCV	00:13	Total Organic Carbon - Quad	24.1	25.0	96	90-110		TOC LCS Std_00013
17	CCB	00:33	Total Organic Carbon - Quad	0.176				J	
28	CCV	04:10	Total Organic Carbon - Quad	24.3	25.0	97	90-110		TOC LCS Std_00013
29	CCB	04:31	Total Organic Carbon - Quad	0.417				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Analyst: AJA Batch Start Date: 07/05/2012

Reporting Units: mg/L Analytical Batch No.: 126771

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
17	CCV	12:30	Alkalinity	206	200	103	90-110		Alk daily lcs_00256
18	CCB	12:34	Alkalinity	2.0				U	
29	CCV	13:27	Alkalinity	207	200	104	90-110		Alk daily lcs_00256
30	CCB	13:31	Alkalinity	2.0				U	
41	CCV	14:25	Alkalinity	208					
42	CCB	14:29	Alkalinity	1.31				J	

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	LOQ	Dil
Batch ID: 125972	Date: 06/27/2012 15:20						
9056A	MB 280-125972/15	Bromide	0.20	U	mg/L	0.50	1
9056A	MB 280-125972/15	Chloride	0.50	U	mg/L	3.0	1
9056A	MB 280-125972/15	Fluoride	0.10	U	mg/L	1.0	1
9056A	MB 280-125972/15	Sulfate	0.50	U	mg/L	5.0	1
Batch ID: 125973	Date: 06/27/2012 15:20						
9056A	MB 280-125973/15	Nitrate as N	0.10	U	mg/L	0.50	1
9056A	MB 280-125973/15	Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-125973/15	Nitrate Nitrite as N	0.10	U	mg/L	0.50	1
9056A	MB 280-125973/15	Orthophosphate as P	0.20	U	mg/L	0.50	1
Batch ID: 128577	Date: 07/18/2012 22:43						
9060A	MB 280-128577/11	Total Organic Carbon - Quad	0.40	U	mg/L	1.0	1
Batch ID: 126223	Date: 06/27/2012 13:00						
SM 2120B	MB 280-126223/1	Color	5.0	U	PCU	5.0	1
Batch ID: 126771	Date: 07/05/2012 11:37						
SM 2320B	MB 280-126771/6	Alkalinity	2.0	U	mg/L	5.0	1
Batch ID: 126771	Date: 07/05/2012 13:45						
SM 2320B	MB 280-126771/33	Alkalinity	2.0	U	mg/L	5.0	1
Batch ID: 126315	Date: 07/02/2012 10:31						
SM 2540C	MB 280-126315/1	Total Dissolved Solids	10	U	mg/L	10	1

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 125972	Date: 06/27/2012 14:46										
						LCS Source: IC daily cal_00825					
9056A	LCS 280-125972/13	Bromide	4.79		mg/L	5.00	96	86-110	0	10	
9056A	LCS 280-125972/13	Chloride	24.4		mg/L	25.0	97	89-110	0	10	
9056A	LCS 280-125972/13	Fluoride	5.04		mg/L	5.00	101	88-111	0	10	
9056A	LCS 280-125972/13	Sulfate	24.1		mg/L	25.0	96	86-110	0	10	
Batch ID: 125973	Date: 06/27/2012 14:46										
						LCS Source: IC daily cal_00825					
9056A	LCS 280-125973/13	Nitrate as N	4.81		mg/L	5.00	96	87-110	0	10	
9056A	LCS 280-125973/13	Nitrite as N	4.90		mg/L	5.00	98	87-112	0	10	
9056A	LCS 280-125973/13	Orthophosphate as P	4.86		mg/L	5.00	97	90-110	5	10	
Batch ID: 128577	Date: 07/18/2012 22:05										
						LCS Source: TOC LCS Std_00013					
9060A	LCS 280-128577/9	Total Organic Carbon - Quad	24.4		mg/L	25.0	98	86-114	0	12	
Batch ID: 126771	Date: 07/05/2012 13:36										
						LCS Source: Alk daily lcs_00256					
SM 2320B	LCS 280-126771/31	Alkalinity	206		mg/L	200	103	90-110	0	10	
Batch ID: 126315	Date: 07/02/2012 10:31										
						LCS Source: TDS LCS_00281					
SM 2540C	LCS 280-126315/2	Total Dissolved Solids	500		mg/L	500	100	86-110	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 125972	Date: 06/27/2012 15:03										
						LCSD Source: IC daily cal_00825					
9056A	LCSD 280-125972/14	Bromide	4.78		mg/L	5.00	96	86-110	0	10	
9056A	LCSD 280-125972/14	Chloride	24.3		mg/L	25.0	97	89-110	0	10	
9056A	LCSD 280-125972/14	Fluoride	5.05		mg/L	5.00	101	88-111	0	10	
9056A	LCSD 280-125972/14	Sulfate	24.2		mg/L	25.0	97	86-110	0	10	
Batch ID: 125973	Date: 06/27/2012 15:03										
						LCSD Source: IC daily cal_00825					
9056A	LCSD 280-125973/14	Nitrate as N	4.82		mg/L	5.00	96	87-110	0	10	
9056A	LCSD 280-125973/14	Nitrite as N	4.89		mg/L	5.00	98	87-112	0	10	
9056A	LCSD 280-125973/14	Orthophosphate as P	5.09		mg/L	5.00	102	90-110	5	10	
Batch ID: 128577	Date: 07/18/2012 22:23										
						LCSD Source: TOC LCS Std_00013					
9060A	LCSD 280-128577/10	Total Organic Carbon - Quad	24.4		mg/L	25.0	97	86-114	0	12	
Batch ID: 126771	Date: 07/05/2012 13:41										
						LCSD Source: Alk daily lcs_00256					
SM 2320B	LCSD 280-126771/32	Alkalinity	206		mg/L	200	103	90-110	0	10	
Batch ID: 126315	Date: 07/02/2012 10:31										
						LCSD Source: TDS LCS_00281					
SM 2540C	LCSD 280-126315/3	Total Dissolved Solids	497		mg/L	500	99	86-110	1	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

7A-IN
METHOD REPORTING LIMIT CHECK
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 125973	Date: 06/27/2012 14:13										
						LCS Source:	IC CAL INT1_00160				
9056A	MRL 280-125973/11	Orthophosphate as P	0.492	J	mg/L	0.500	98	50-150			
Batch ID: 125972	Date: 06/27/2012 14:30										
						LCS Source:	IC CAL INT1_00160				
9056A	MRL 280-125972/12	Bromide	0.210		mg/L	0.200	105	50-150			
9056A	MRL 280-125972/12	Chloride	0.996	J	mg/L	1.00	100	50-150			
9056A	MRL 280-125972/12	Fluoride	0.189	J	mg/L	0.200	95	50-150			
9056A	MRL 280-125972/12	Sulfate	0.896	J	mg/L	1.00	90	50-150			
Batch ID: 125973	Date: 06/27/2012 14:30										
						LCS Source:	IC CAL INT1_00160				
9056A	MRL 280-125973/12	Nitrate as N	0.206	J	mg/L	0.200	103	50-150			
9056A	MRL 280-125973/12	Nitrite as N	0.197	J	mg/L	0.200	99	50-150			

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B LOQ Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	LOQ (PCU)	
Color		5	

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2120B XRL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (PCU)	
Color		5	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC_IC8

Method: 9056A DL Date: 11/30/2009 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Bromide		0.5	0.113
Chloride		3	0.254
Fluoride		1	0.06
Nitrate as N		0.5	0.042
Nitrate Nitrite as N		0.5	0.042
Nitrite as N		0.5	0.049
Orthophosphate as P		0.5	0.187
Sulfate		5	0.232

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC_IC8

Method: 9056A XMDL Date: 11/01/2009 00:00

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.2	0.113
Chloride		3	0.254
Fluoride		0.5	0.0597
Sulfate		5	0.232

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC_IC8

Method: 9056A XMDL Date: 03/28/2011 13:33

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate as N		0.5	0.0425
Nitrate Nitrite as N		0.5	0.0425
Nitrite as N		0.5	0.0494
Orthophosphate as P		0.5	0.187

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI2

Method: 9060A DL Date: 11/30/2009 00:00

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC_SHI2

Method: 9060A XMDL Date: 03/28/2011 11:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon - Quad		1	0.155

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B DL Date: 03/28/2011 12:06

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Alkalinity		5	1.07

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: WC-AT3

Method: SM 2320B XMDL Date: 03/28/2011 12:06

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	1.07

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C DL Date: 10/07/2011 10:03

Analyte	Wavelength/ Mass	LOQ (mg/L)	DL (mg/L)
Total Dissolved Solids		10	4.7

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job Number: 280-30461-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540C XMDL Date: 10/11/2010 11:58

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Dissolved Solids		10	4.7

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2120B

Start Date: 06/27/2012 13:00 End Date: 06/30/2012 07:28

Lab Sample ID	D / F	Type	Time	Analytes																				
				Color																				
MB 280-126223/1	1	T	13:00	X																				
ZZZZZZ			13:00																					
ZZZZZZ			13:00																					
ZZZZZZ			13:00																					
ZZZZZZ			13:00																					
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ZZZZZZ			13:00																					
ZZZZZZ			13:00																					
280-30461-1	1	T	13:00	X																				
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13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2120B

Start Date: 06/27/2012 13:00 End Date: 06/30/2012 07:28

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC_IC8 Method: 9056A

Start Date: 06/27/2012 10:46 End Date: 06/28/2012 09:26

Lab Sample ID	D / F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
ZZZZZZ			10:46																				
ZZZZZZ			11:03																				
ZZZZZZ			11:20																				
ZZZZZZ			11:36																				
ZZZZZZ			12:15																				
ZZZZZZ			12:32																				
ZZZZZZ			12:49																				
ZZZZZZ			13:06																				
ICV 280-125972/9	1		13:39	X	X	X	X																
ICB 280-125972/10	1		13:56	X	X	X	X																
ZZZZZZ			14:13																				
MRL 280-125972/12	1	T	14:30	X	X	X	X																
LCS 280-125972/13	1	T	14:46	X	X	X	X																
LCSD 280-125972/14	1	T	15:03	X	X	X	X																
MB 280-125972/15	1	T	15:20	X	X	X	X																
280-30461-1	1	T	15:37	X		X	X																
ZZZZZZ			15:54																				
ZZZZZZ			16:10																				
ZZZZZZ			16:27																				
ZZZZZZ			16:44																				
ZZZZZZ			17:01																				
ZZZZZZ			17:18																				
ZZZZZZ			17:35																				
ZZZZZZ			17:52																				
ZZZZZZ			18:08																				
CCV 280-125972/26	1		19:33	X	X	X	X																
CCB 280-125972/27	1		19:49	X	X	X	X																
ZZZZZZ			20:06																				
ZZZZZZ			20:23																				
ZZZZZZ			20:40																				
ZZZZZZ			20:57																				
ZZZZZZ			21:13																				
ZZZZZZ			21:30																				
ZZZZZZ			21:47																				
ZZZZZZ			22:04																				
ZZZZZZ			22:21																				
ZZZZZZ			22:37																				
CCV 280-125972/38	1		22:54	X	X	X	X																
CCB 280-125972/39	1		23:11	X	X	X	X																
ZZZZZZ			23:28																				
ZZZZZZ			23:45																				
ZZZZZZ			00:01																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC_IC8 Method: 9056A

Start Date: 06/27/2012 10:46 End Date: 06/28/2012 09:26

Lab Sample ID	D / F	Type	Time	Analytes																				
				Br	CL-	F	SO4																	
280-30461-1	5	T	00:18		X																			
ZZZZZZ			00:35																					
ZZZZZZ			00:52																					
ZZZZZZ			01:09																					
ZZZZZZ			01:25																					
ZZZZZZ			01:42																					
ZZZZZZ			01:59																					
CCV 280-125972/50	1		02:16	X	X	X	X																	
CCB 280-125972/51	1		02:33	X	X	X	X																	
ZZZZZZ			02:49																					
ZZZZZZ			03:06																					
ZZZZZZ			03:23																					
ZZZZZZ			03:40																					
ZZZZZZ			03:57																					
ZZZZZZ			04:13																					
ZZZZZZ			04:30																					
ZZZZZZ			04:47																					
ZZZZZZ			05:04																					
ZZZZZZ			05:21																					
CCV 280-125972/62			05:37																					
CCB 280-125972/63			05:54																					
ZZZZZZ			06:18																					
ZZZZZZ			06:35																					
ZZZZZZ			06:51																					
ZZZZZZ			07:08																					
ZZZZZZ			07:25																					
ZZZZZZ			07:42																					
ZZZZZZ			07:59																					
CCV 280-125972/71			08:15																					
CCB 280-125972/72			08:35																					
ZZZZZZ			08:52																					
ZZZZZZ			09:09																					
ZZZZZZ			09:26																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC_IC8 Method: 9056A

Start Date: 06/27/2012 10:46 End Date: 06/28/2012 09:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3	Orthop																
ZZZZZZ			10:46																				
ZZZZZZ			11:03																				
ZZZZZZ			11:20																				
ZZZZZZ			11:36																				
ZZZZZZ			12:15																				
ZZZZZZ			12:32																				
ZZZZZZ			12:49																				
ZZZZZZ			13:06																				
ICV 280-125973/9	1		13:39	X		X	X																
ICB 280-125973/10	1		13:56	X		X	X																
MRL 280-125973/11	1	T	14:13				X																
MRL 280-125973/12	1	T	14:30	X		X																	
LCS 280-125973/13	1	T	14:46	X		X	X																
LCSD 280-125973/14	1	T	15:03	X		X	X																
MB 280-125973/15	1	T	15:20	X	X	X	X																
280-30461-1	1	T	15:37	X	X	X	X																
ZZZZZZ			15:54																				
ZZZZZZ			16:10																				
ZZZZZZ			16:27																				
ZZZZZZ			16:44																				
ZZZZZZ			17:01																				
ZZZZZZ			17:18																				
ZZZZZZ			17:35																				
ZZZZZZ			17:52																				
ZZZZZZ			18:08																				
CCV 280-125973/26	1		19:33	X		X	X																
CCB 280-125973/27	1		19:49	X		X	X																
ZZZZZZ			20:06																				
ZZZZZZ			20:23																				
ZZZZZZ			20:40																				
ZZZZZZ			20:57																				
ZZZZZZ			21:13																				
ZZZZZZ			21:30																				
ZZZZZZ			21:47																				
ZZZZZZ			22:04																				
ZZZZZZ			22:21																				
ZZZZZZ			22:37																				
CCV 280-125973/38			22:54																				
CCB 280-125973/39			23:11																				
ZZZZZZ			23:28																				
ZZZZZZ			23:45																				
ZZZZZZ			00:01																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC_IC8 Method: 9056A

Start Date: 06/27/2012 10:46 End Date: 06/28/2012 09:26

Lab Sample ID	D / F	Type	Time	Analytes																				
				N-No2	NNO32	NO3	Orthop																	
ZZZZZZ			00:18																					
ZZZZZZ			00:35																					
ZZZZZZ			00:52																					
ZZZZZZ			01:09																					
ZZZZZZ			01:25																					
ZZZZZZ			01:42																					
ZZZZZZ			01:59																					
CCV 280-125973/50			02:16																					
CCB 280-125973/51			02:33																					
ZZZZZZ			02:49																					
ZZZZZZ			03:06																					
ZZZZZZ			03:23																					
ZZZZZZ			03:40																					
ZZZZZZ			03:57																					
ZZZZZZ			04:13																					
ZZZZZZ			04:30																					
ZZZZZZ			04:47																					
ZZZZZZ			05:04																					
ZZZZZZ			05:21																					
CCV 280-125973/62	1		05:37	X		X	X																	
CCB 280-125973/63	1		05:54	X		X	X																	
ZZZZZZ			06:18																					
ZZZZZZ			06:35																					
ZZZZZZ			06:51																					
ZZZZZZ			07:08																					
ZZZZZZ			07:25																					
ZZZZZZ			07:42																					
ZZZZZZ			07:59																					
CCV 280-125973/71	1		08:15	X		X	X																	
CCB 280-125973/72	1		08:35	X		X	X																	
ZZZZZZ			08:52																					
ZZZZZZ			09:09																					
ZZZZZZ			09:26																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC_SHI2 Method: 9060A

Start Date: 07/18/2012 19:41 End Date: 07/19/2012 14:30

Lab Sample ID	D / F	Type	Time	Analytes																				
				TOCQ																				
ICV 280-128577/1	1		19:41	X																				
ICB 280-128577/2	1		20:00	X																				
ZZZZZZ			20:17																					
ZZZZZZ			20:35																					
ZZZZZZ			20:54																					
ZZZZZZ			21:10																					
ZZZZZZ			21:28																					
ZZZZZZ			21:46																					
LCS 280-128577/9	1	T	22:05	X																				
LCSD 280-128577/10	1	T	22:23	X																				
MB 280-128577/11	1	T	22:43	X																				
ZZZZZZ			23:04																					
ZZZZZZ			23:20																					
ZZZZZZ			23:38																					
ZZZZZZ			23:56																					
CCV 280-128577/16	1		00:13	X																				
CCB 280-128577/17	1		00:33	X																				
ZZZZZZ			00:52																					
ZZZZZZ			01:07																					
ZZZZZZ			01:25																					
ZZZZZZ			01:41																					
ZZZZZZ			02:00																					
280-30461-1	1	T	02:15	X																				
ZZZZZZ			02:45																					
ZZZZZZ			03:07																					
ZZZZZZ			03:33																					
ZZZZZZ			03:51																					
CCV 280-128577/28	1		04:10	X																				
CCB 280-128577/29	1		04:31	X																				
ZZZZZZ			04:48																					
ZZZZZZ			05:07																					
ZZZZZZ			05:23																					
ZZZZZZ			05:41																					
ZZZZZZ			06:02																					
ZZZZZZ			06:20																					
ZZZZZZ			06:39																					
ZZZZZZ			06:58																					
ZZZZZZ			07:13																					
ZZZZZZ			07:32																					
CCV 280-128577/40			07:48																					
CCB 280-128577/41			08:09																					
ZZZZZZ			08:27																					

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC_SHI2 Method: 9060A

Start Date: 07/18/2012 19:41 End Date: 07/19/2012 14:30

Lab Sample ID	D / F	Type	Time	Analytes																			
				TOCQ																			
ZZZZZZ			08:45																				
ZZZZZZ			09:03																				
ZZZZZZ			09:18																				
ZZZZZZ			09:34																				
ZZZZZZ			09:52																				
ZZZZZZ			10:09																				
ZZZZZZ			10:27																				
ZZZZZZ			10:48																				
CCV 280-128577/51			11:06																				
CCB 280-128577/52			11:24																				
ZZZZZZ			11:39																				
ZZZZZZ			12:12																				
ZZZZZZ			12:59																				
ZZZZZZ			13:45																				
CCV 280-128577/57			14:13																				
CCB 280-128577/58			14:30																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC-AT3 Method: SM 2320B

Start Date: 07/05/2012 11:09 End Date: 07/05/2012 16:49

Lab Sample ID	D/F	Type	Time	Analytes																				
				Alk																				
RINSE 280-126771/1			11:09																					
ZZZZZZ			11:16																					
ZZZZZZ			11:22																					
ZZZZZZ			11:27																					
ZZZZZZ			11:33																					
MB 280-126771/6	1	T	11:37	X																				
ZZZZZZ			11:41																					
ZZZZZZ			11:46																					
ZZZZZZ			11:50																					
ZZZZZZ			11:55																					
ZZZZZZ			12:00																					
ZZZZZZ			12:06																					
ZZZZZZ			12:11																					
ZZZZZZ			12:16																					
ZZZZZZ			12:21																					
ZZZZZZ			12:25																					
CCV 280-126771/17	1		12:30	X																				
CCB 280-126771/18	1		12:34	X																				
ZZZZZZ			12:39																					
ZZZZZZ			12:44																					
ZZZZZZ			12:48																					
ZZZZZZ			12:53																					
ZZZZZZ			12:57																					
ZZZZZZ			13:03																					
ZZZZZZ			13:08																					
ZZZZZZ			13:12																					
ZZZZZZ			13:17																					
ZZZZZZ			13:22																					
CCV2 280-126771/29	1		13:27	X																				
CCB2 280-126771/30	1		13:31	X																				
LCS 280-126771/31	1	T	13:36	X																				
LCSD 280-126771/32	1	T	13:41	X																				
MB 280-126771/33	1	T	13:45	X																				
ZZZZZZ			13:50																					
ZZZZZZ			13:55																					
ZZZZZZ			14:00																					
280-30461-1	1	T	14:05	X																				
ZZZZZZ			14:10																					
ZZZZZZ			14:15																					
ZZZZZZ			14:20																					
CCV3 280-126771/41	1		14:25	X																				
CCB3 280-126771/42	1		14:29	X																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: WC-AT3 Method: SM 2320B

Start Date: 07/05/2012 11:09 End Date: 07/05/2012 16:49

Lab Sample ID	D/F	Type	Time	Analytes																			
				Alk																			
ZZZZZZ			14:34																				
ZZZZZZ			14:39																				
ZZZZZZ			14:44																				
ZZZZZZ			14:49																				
ZZZZZZ			14:54																				
ZZZZZZ			14:59																				
ZZZZZZ			15:04																				
ZZZZZZ			15:08																				
ZZZZZZ			15:13																				
ZZZZZZ			15:17																				
CCV4 280-126771/53			15:23																				
CCB4 280-126771/54			15:27																				
ZZZZZZ			15:31																				
ZZZZZZ			15:35																				
ZZZZZZ			15:41																				
ZZZZZZ			15:45																				
CCV5 280-126771/59			15:50																				
CCB5 280-126771/60			15:54																				
ZZZZZZ			15:58																				
ZZZZZZ			16:03																				
ZZZZZZ			16:07																				
ZZZZZZ			16:12																				
ZZZZZZ			16:17																				
ZZZZZZ			16:21																				
ZZZZZZ			16:26																				
ZZZZZZ			16:31																				
ZZZZZZ			16:34																				
ZZZZZZ			16:39																				
CCV6 280-126771/71			16:45																				
CCB6 280-126771/72			16:49																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2540C

Start Date: 07/02/2012 10:31 End Date: 07/02/2012 10:31

Lab Sample ID	D / F	Type	Time	Analytes																			
				TDS																			
MB 280-126315/1	1	T	10:31	X																			
LCS 280-126315/2	1	T	10:31	X																			
LCSD 280-126315/3	1	T	10:31	X																			
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
280-30461-1	1	T	10:31	X																			
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				
ZZZZZZ			10:31																				

Prep Types
T = Total/NA

TestAmerica

Wet Chemistry Data Review Checklist
Direct Measurement Methods (pH, Conductance, etc.)

Test Name/Method #: Color **Analysis Date** 6 27 12

SOP #: DR WC 0058 **Analyst:** DA **Instrument:** Nessler tubes

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
280 30455/1-7	Water	NA	126223	2120B	NA
280 30461/1	1	1	1	1	1
					6 30 12

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
1. Was the instrument properly standardized?	✓			—
2. Second-source ICV analyzed immediately after instrument standardization & recovery ± 10% of true value?			-	—
3. ICB analyzed immediately after ICV & results < the RL?			-	—
4. CCV analyzed after every ten samples & recovery ± 10% of true value?			-	—
5. CCB analyzed after every CCV & all results < the RL?			-	—
B. Sample Results				
1. pH sample and duplicate within ± 0.1 units?			-	—
1. Are all sample dilutions appropriate and do associated RLs reflect required dilutions or limited sample volumes?	✓			—
2. All reported results bracketed by in control CCV results?			-	—
3. Sample analyses done within holding time?	✓			—
4. Preparation benchsheet completed and included in package (if applicable)?	✓			—
5. Special client requirements reviewed and met?	✓			—
6. Was data manually transcribed from instrument printouts into TALS verified 100% including significant figures and correct units? (If Applicable)	✓			—
7. Do the prep and analysis dates in TALS reflect the actual dates?	✓			—
8. STD/True Value information is updated and included?	✓			—
9. Raw data copies prepared, scanned, and uploaded?	✓			—
C. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10x blank?	✓			—
2. Method blank < ½ RL or NCM provided?	✓			—
3. LCS/LCSD run for batch and within QC limits?			-	—
4. Sample DUP run at required frequency and RPD within established limits?	✓			—

Analyst: [signature] **Date:** 6 30 12

2nd Level Reviewer : [signature] **Date:** 7/2/12

5/18/10 Version 2
QA/Edit/Forms/Data Review\Direct Measurement Methods Checklist

Laboratory Bench Sheet

Color

Revision 2 – October 2007

Analyst: DM	Date: 62712	SOP#: DEN-WC-0058

Calibration Standard Information

Source/Verification Lot#: 1316339 Prep. Date: 31412 Made by: DM

Concentration: 0-50 (mg/L or ug/L) Expiration Date: 91412

Sample	pH	Observed Color	Dilution Factor	Turbidity Removed?*	Final Color
Blank MB	NA	0	0	Yes No	0
280 30455 A1		0	0	(Yes) No	0
280 30455 A1 DV		0	8	(Yes) No	0
A2		0	0	(Yes) No	0
A3 ~~A3 DUP~~		0	0	(Yes) No	0
A4		0	0	(Yes) No	0
A5		0	0	(Yes) No	0
A6		0	0	(Yes) No	0
A7		0	0	(Yes) No	0
30416 A1		0	0	Yes (No)	0
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	
				Yes No	

DM 62712

Note: If turbidity is removed, the results ate reported as "true color." Otherwise, results are reported as "apparent color."

Comments: A1-A7 280 30455 true Color

Wet Chemistry Data Review Checklist
For Tests with Calibration Curves

Test Name/ Method #: IC **SOP #** WC # 0020

Instrument: IC8 **Analyst:** E. Kuder **Analysis Date:** 6-27-12

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
280 - 30461, 30455	AQ		125972		Q4
30459			125993		
30252	S	125785			Q4

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
1. Minimum of five standards in ICAL or as specified in method?	✓			✓
2. Correlation coefficient ≥ 0.995 ?	✓			✓
3. Second-source ICV analyzed, and recovery within acceptance limits?	✓			✓
4. ICB analyzed immediately after the ICV & results < the RL	✓			✓
5. CCV analyzed after every ten samples & recovery within acceptance limits?	✓			✓
6. CCB analyzed after every CCV & results < RL?	✓			✓
7. Absolute value of the intercept is < ± ½ the RL? Evaluated	✓			✓
B. Sample Results				
1. All samples greater than highest calibration standard diluted and reanalyzed?	✓			✓
2. Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			✓
3. All reported results bracketed by in control CCV results?	✓			✓
4. Sample analyses done within holding time?	✓			✓
5. Initial pH check documented for all samples? (If Applicable)			✓	✓
6. Preparation benchsheet completed and included in package?			✓	✓
7. Client requirements reviewed and met?	✓			✓
8. Were data manually transcribed from instrument printouts into TALS verified 100% including significant figures and correct units? (If Applicable)	✓			✓
9. Do the prep and analysis dates in TALS reflect the actual dates?	✓			✓
11. Raw data copies prepared, scanned, and uploaded?	✓			✓
12. Manual integrations done properly and initialed and dated?			✓	✓
13. STD/True Value information is updated and included?	✓			✓
C. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10x blank have NCM?	✓			✓
2. Method blank < ½ RL or NCM provided?	✓			✓
3. LCS/LCSD run for batch and within QC limits?	✓			✓
4. MS/MSD run at required frequency and within limits or NCM written?	✓			✓
5. DUP run at required frequency and RPD within acceptance limits or NCM written?	✓			✓

Analyst: Ellen **Date:** 06-29-12

2nd Level Reviewer : [signature] **Date:** 7/5/12
AR 7/5/12

7/09

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	RT CHECK	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:46:24 AM
2	cal1	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:03:13 AM
3	cal2	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:20:01 AM
4	cal3	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:36:49 AM
5	cal4	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 12:15:38 PM
6	cal5	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 12:32:26 PM
7	cal6	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 12:49:14 PM
8	BLK	Unknown	6	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 1:06:03 PM
9	ICV STD#00825	Unknown	203	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 1:39:39 PM
10	ICB	Unknown	204	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 1:56:27 PM
11	MRL 0.05	Unknown	203	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 2:13:15 PM
12	MRL 0.02	Unknown	204	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 2:30:03 PM
13	LCS STD#00825	Unknown	194	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 2:46:52 PM
14	LCSD	Unknown	193	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:03:40 PM
15	MB	Unknown	175	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:20:28 PM
16	280-30461-a-1	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:37:16 PM
17	280-30455-b-1	Unknown	177	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:54:04 PM
18	280-30455-b-2	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 4:10:53 PM
19	280-30455-a-3	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 4:27:41 PM
20	280-30455-b-4	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 4:44:29 PM
21	280-30455-b-5	Unknown	179	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:01:46 PM
22	280-30455-b-6	Unknown	177	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:18:34 PM
23	280-30455-b-7	Unknown	179	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:35:22 PM
24	280-30459-c-1	Unknown	180	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:52:10 PM
25	DU 280-30459-c-1	Unknown	180	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 6:08:59 PM
26	CCV	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 7:33:00 PM
27	CCB	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 7:49:48 PM
28	MS 280-30459-c-1	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:06:37 PM
29	MSD 280-30459-c-1	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:23:25 PM
30	280-30459-a-2	Unknown	411	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:40:13 PM
31	280-30459-a-3	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:57:02 PM
32	280-30459-a-4	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 9:13:50 PM
33	280-30459-a-5	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 9:30:38 PM
34	280-30459-a-6	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 9:47:26 PM
35	280-30459-a-18	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:04:15 PM
36	280-30459-c-19	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:21:03 PM
37	DU 280-30459-c-19	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:37:51 PM
38	CCV	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:54:39 PM
39	CCB	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:11:28 PM
40	MS 280-30459-c-19	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:28:16 PM
41	MSD 280-30459-c-19	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:45:04 PM
42	280-30459-a-20	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:01:53 AM
43	280-30461-a-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:18:41 AM
44	280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:35:29 AM

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
1	RT CHECK	1.0000	1.0000	1.0000	100		EMK
2	cal1	1.0000	1.0000	1.0000	101		EMK
3	cal2	1.0000	1.0000	1.0000	102		EMK
4	cal3	1.0000	1.0000	1.0000	103		EMK
5	cal4	1.0000	1.0000	1.0000	104		EMK
6	cal5	1.0000	1.0000	1.0000	105		EMK
7	cal6	1.0000	1.0000	1.0000	106		EMK
8	BLK	1.0000	1.0000	1.0000	107		EMK
9	ICV STD#00825	1.0000	1.0000	1.0000	108		EMK
10	ICB	1.0000	1.0000	1.0000	109		EMK
11	MRL 0.05	1.0000	1.0000	1.0000	110		EMK
12	MRL 0.02	1.0000	1.0000	1.0000	111		EMK
13	LCS STD#00825	1.0000	1.0000	1.0000	112		EMK
14	LCSD	1.0000	1.0000	1.0000	113		EMK
15	MB	1.0000	1.0000	1.0000	114		EMK
16	280-30461-a-1	1.0000	1.0000	1.0000	115		EMK
17	280-30455-b-1	1.0000	1.0000	1.0000	116		EMK
18	280-30455-b-2	1.0000	1.0000	1.0000	117		EMK
19	280-30455-a-3	1.0000	1.0000	1.0000	118		EMK
20	280-30455-b-4	1.0000	1.0000	1.0000	119		EMK
21	280-30455-b-5	1.0000	1.0000	1.0000	120		EMK
22	280-30455-b-6	1.0000	1.0000	1.0000	121		EMK
23	280-30455-b-7	1.0000	1.0000	1.0000	122		EMK
24	280-30459-c-1	1.0000	1.0000	1.0000	123		EMK
25	DU 280-30459-c-1	1.0000	1.0000	1.0000	124		EMK
26	CCV	1.0000	1.0000	1.0000	125		EMK
27	CCB	1.0000	1.0000	1.0000	126		EMK
28	MS 280-30459-c-1	1.0000	1.0000	1.0000	127		EMK
29	MSD 280-30459-c-1	1.0000	1.0000	1.0000	128		EMK
30	280-30459-a-2	1.0000	1.0000	1.0000	129		EMK
31	280-30459-a-3	1.0000	1.0000	1.0000	130		EMK
32	280-30459-a-4	1.0000	1.0000	1.0000	131		EMK
33	280-30459-a-5	1.0000	1.0000	1.0000	132		EMK
34	280-30459-a-6	1.0000	1.0000	1.0000	133		EMK
35	280-30459-a-18	1.0000	1.0000	1.0000	134		EMK
36	280-30459-c-19	1.0000	1.0000	1.0000	135		EMK
37	DU 280-30459-c-19	1.0000	1.0000	1.0000	136		EMK
38	CCV	1.0000	1.0000	1.0000	137		EMK
39	CCB	1.0000	1.0000	1.0000	138		EMK
40	MS 280-30459-c-19	1.0000	1.0000	1.0000	139		EMK
41	MSD 280-30459-c-19	1.0000	1.0000	1.0000	140		EMK
42	280-30459-a-20	1.0000	1.0000	1.0000	141		EMK
43	280-30461-a-1 5X	1.0000	5.0000	1.0000	142		EMK
44	280-30459-c-1 5X	1.0000	5.0000	1.0000	143		EMK

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
45	DU 280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:52:18 AM
46	MSD 280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:09:06 AM
47	MSD 280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:25:54 AM
48	280-30459-a-2 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:42:42 AM
49	280-30459-a-3 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:59:31 AM
50	CCV	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 2:16:19 AM
51	CCB	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 2:33:07 AM
52	280-30459-a-4 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 2:49:56 AM
53	280-30459-a-5 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:06:44 AM
54	280-30459-a-6 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:23:32 AM
55	280-30459-a-18 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:40:21 AM
56	280-30459-c-19 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:57:09 AM
57	DU 280-30459-c-19 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 4:13:57 AM
58	MS 280-30459-c-19 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 4:30:45 AM
59	MSD 280-30459-c-19 5X	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 4:47:33 AM
60	280-30459-a-20 5X	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:04:22 AM
61	lcs 280-125785/1-a	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:21:10 AM
62	CCV	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:37:58 AM
63	CCB	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:54:46 AM
64	lcsd 280-125785/2-a	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 6:18:13 AM
65	mb 280-125785/3-a	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 6:35:01 AM
66	280-30252-a-1-e	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 6:51:49 AM
67	280-30252-a-2-c	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:08:38 AM
68	MS 280-30459-c-19	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:25:26 AM
69	MSD 280-30459-c-19	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:42:14 AM
70	280-30459-c-19	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:59:03 AM
71	CCV	Unknown	417	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 8:15:50 AM
72	CCB	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 8:35:48 AM
73	280-30160-a-7 CONF	Unknown	417	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 8:52:36 AM
74	280-30017-a-17 CONF	Unknown	418	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 9:09:24 AM
75	280-30017-a-26 CON	Unknown	418	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 9:26:12 AM

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
45	DU 280-30459-c-1 5X	1.0000	5.0000	1.0000	144		EMK
46	MSD 280-30459-c-1 5X	1.0000	5.0000	1.0000	145		EMK
47	MSD 280-30459-c-1 5X	1.0000	5.0000	1.0000	146		EMK
48	280-30459-a-2 5X	1.0000	5.0000	1.0000	147		EMK
49	280-30459-a-3 5X	1.0000	5.0000	1.0000	148		EMK
50	CCV	1.0000	1.0000	1.0000	149		EMK
51	CCB	1.0000	1.0000	1.0000	150		EMK
52	280-30459-a-4 5X	1.0000	5.0000	1.0000	151		EMK
53	280-30459-a-5 5X	1.0000	5.0000	1.0000	152		EMK
54	280-30459-a-6 5X	1.0000	5.0000	1.0000	153		EMK
55	280-30459-a-18 5X	1.0000	5.0000	1.0000	154		EMK
56	280-30459-c-19 5X	1.0000	5.0000	1.0000	155		EMK
57	DU 280-30459-c-19 5X	1.0000	5.0000	1.0000	156		EMK
58	MS 280-30459-c-19 5X	1.0000	5.0000	1.0000	157		EMK
59	MSD 280-30459-c-19 5X	1.0000	5.0000	1.0000	158		EMK
60	280-30459-a-20 5X	1.0000	5.0000	1.0000	159		EMK
61	lcs 280-125785/1-a	1.0000	1.0000	1.0000	160		EMK
62	CCV	1.0000	1.0000	1.0000	161		EMK
63	CCB	1.0000	1.0000	1.0000	162		EMK
64	lcsd 280-125785/2-a	1.0000	1.0000	1.0000	163		EMK
65	mb 280-125785/3-a	1.0000	1.0000	1.0000	164		EMK
66	280-30252-a-1-e	1.0000	1.0000	1.0000	165		EMK
67	280-30252-a-2-c	1.0000	1.0000	1.0000	166		EMK
68	MS 280-30459-c-19	1.0000	1.0000	1.0000	167		EMK
69	MSD 280-30459-c-19	1.0000	1.0000	1.0000	168		EMK
70	280-30459-c-19	1.0000	1.0000	1.0000	169		EMK
71	CCV	1.0000	1.0000	1.0000	170		EMK
72	CCB	1.0000	1.0000	1.0000	171		EMK
73	280-30160-a-7 CONF	1.0000	1.0000	1.0000	172		EMK
74	280-30017-a-17 CONF	1.0000	1.0000	1.0000	173		EMK
75	280-30017-a-26 CON	1.0000	1.0000	1.0000	174		EMK

Title:
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Created: 3/20/2008 10:44:59 AM by kudlae
Timebase: ICS-8 Changed: 3/31/2008 10:13:48 AM by kudlae

```
           Pressure.LowerLimit =              200 [psi]
           Pressure.UpperLimit =              3000 [psi]
           %A.Equate =                        "DI H2O"
           CR_TC =                            On
           Pump_InjectValve.State             LoadPosition
           Data_Collection_Rate =             5.0 [Hz]
           CellTemperature.Nominal =          35.0 [°C]
           ColumnTemperature.Nominal =        30.0 [°C]
           Suppressor_Type =                  ASRS_4mm
           ; Pump_ECD.Hydroxide =             50.0
           ; Pump_ECD.Recommended Current =   124
           ; Pump_ECD.Carbonate =             0.0
           ; Pump_ECD.Bicarbonate =           0.0
           ; Pump_ECD.Tetraborate =           0.0
           ; Pump_ECD.Other eluent =          0.0
           Suppressor_Current =               125 [mA]
           Flow =                             1.00 [ml/min]

-2.700     Pump_ECD_Relay_1.Open              Duration=0.01
           Concentration =                    10.00 [mM]
           Curve =                            5

-2.500     Pump_ECD_Relay_1.Closed            Duration=0.01

 0.000     Autozero
           ECD_1.AcqOn
           Pump_InjectValve.InjectPosition    Duration=720.00

 7.500     Concentration =                    10.00 [mM]
           Curve =                            5

10.500     Concentration =                    40.00 [mM]
           Curve =                            5

10.600     Concentration =                    50.00 [mM]
           Curve =                            5

12.500     Concentration =                    50.00 [mM]
           Curve =                            5

12.600     Concentration =                    10.00 [mM]
           Curve =                            5

13.000     Concentration =                    10.00 [mM]
```

Chromeleon © Dionex Corporation, Version 6.80 SP3 Build 2345 (128616)

Title:
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Created: 3/20/2008 10:44:59 AM by kudlae
Timebase: ICS-8 Changed: 3/31/2008 10:13:48 AM by kudlae

```
           Curve =                          5

14.000     ECD_1.AcqOff
           End
```

Chromeleon © Dionex Corporation, Version 6.80 SP3 Build 2345 (128616)

Title:
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ
Timebase: ICS-8
Created: 3/20/2008 10:44:59 AM by kudlae
Changed: 3/31/2008 10:13:48 AM by kudlae

No.	Channel	Operation	Parameters

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Blank Run Subtraction: No Blank Run Subtraction

Detection Table:

No.	Ret. Time [min]	Param. Name	Param. Value	Channel
1	0.000	Minimum Area	0.5E-3 "[Signal]*min"	All Channels
2	0.000	Sensitivity	0.8E-3 "[Signal]"	All Channels
3	0.000	Inhibit Integration	On	All Channels
4	0.000	Valley to Valley	On	All Channels
5	0.000	Fronting Sensitivity Factor	5.0	All Channels
6	0.000	Tailing Sensitivity Factor	6.0	All Channels
7	1.500	Void Volume Treatment	On	All Channels
8	1.500	Inhibit Integration	Off	All Channels
9	1.800	Void Volume Treatment	Off	All Channels
10	2.000	Maximum Width	0.75 min	All Channels
11	8.200	Inhibit Integration	On	All Channels
12	11.000	Inhibit Integration	Off	All Channels

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Peak Table:

Use Recently Detected Retention Times: Off
Peak Retention Time Determination: Absolute
Dead time:
Delay Time of 2'nd Detector: <None>
Delay Time of 3'rd Detector: <None>

No.	Peak Name	Ret.Time	Window	Standard	Int.Type	Cal.Type	Peak Type	Group	Comment	Amount BLK	Amount cal1
1	*Fluoride*	*1.900 min*	*7.000 RN*	*External*	*Area*	*XLOff*	*Auto*		*Autogenerated*	*0.000000*	*0.200000*
2	Acetate	2.700 min	3.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.000000
3	Chloride	3.200 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	1.000000
4	Nitrite	3.700 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000
5	Bromide	6.100 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000
6	Nitrate	6.700 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000
7	Sulfate	11.300 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	1.000000
8	Ortho as P	12.600 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Peak Table:

Use Recently Detected Retention Times: Off
Peak Retention Time Determination: Absolute
Dead time:
Delay Time of 2'nd Detector: <None>
Delay Time of 3'rd Detector: <None>

No.	Peak Name	Ret.Time	Amount cal2	Amount cal3	Amount cal4	Amount cal5	Amount cal6
1	*Fluoride*	*1.900 min*	*0.500000*	*1.000000*	*4.000000*	*8.000000*	*10.000000*
2	Acetate	2.700 min	0.500000	1.000000	4.000000	8.000000	10.000000
3	Chloride	3.200 min	2.500000	5.000000	20.000000	40.000000	50.000000
4	Nitrite	3.700 min	0.500000	1.000000	4.000000	8.000000	10.000000
5	Bromide	6.100 min	0.500000	1.000000	4.000000	8.000000	10.000000
6	Nitrate	6.700 min	0.500000	1.000000	4.000000	8.000000	10.000000
7	Sulfate	11.300 min	2.500000	5.000000	20.000000	40.000000	50.000000
8	Ortho as P	12.600 min	0.500000	1.000000	4.000000	8.000000	10.000000

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Amount Table:

Dimension of Amounts: mg/L
Reference volume for amounts: Use inject volume of first standard
Number of Amount Columns: 7
Sample column used for amount column assignment: Sample Name

No.	Peak Name	Ret.Time	Window	Standard	Int.Type	Cal.Type	Peak Type	Left Limit	Right Limit	Group	Resp.Fact.
1	*Fluoride*	*1.900 min*	*7.000 RN*	*External*	*Area*	*XLOff*	*Auto*	*0.000*	*0.000*		*1.000000*
2	Acetate	2.700 min	3.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
3	Chloride	3.200 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
4	Nitrite	3.700 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
5	Bromide	6.100 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
6	Nitrate	6.700 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
7	Sulfate	11.300 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
8	Ortho as P	12.600 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Amount Table:

Dimension of Amounts: mg/L
Reference volume for amounts: Use inject volume of first standard
Number of Amount Columns: 7
Sample column used for amount column assignment: Sample Name

No.	Peak Name	Ret.Time	Comment
1	*Fluoride*	*1.900 min*	*Autogenerated*
2	Acetate	2.700 min	Autogenerated
3	Chloride	3.200 min	Autogenerated
4	Nitrite	3.700 min	Autogenerated
5	Bromide	6.100 min	Autogenerated
6	Nitrate	6.700 min	Autogenerated
7	Sulfate	11.300 min	Autogenerated
8	Ortho as P	12.600 min	Autogenerated

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Calibration:

Calibration Mode: Total
Auto Recalibrate: On
Curve Fitting Model: Normal
Dual-Column Separate Calibration: Off

No.	Enabled	Name	Smp.No.	Pos.	Inj. Vol.	Weight	ISTD Amount	Dil. Factor	Inj. Date/Time	Sample Comment
1	☒	cal1	2	151	10.0	1.0000	1.0000	1.0000	6/27/2012 11:0	EMK
2	☒	cal2	3	151	10.0	1.0000	1.0000	1.0000	6/27/2012 11:2	EMK
3	☒	cal3	4	151	10.0	1.0000	1.0000	1.0000	6/27/2012 11:3	EMK
4	☒	cal4	5	151	10.0	1.0000	1.0000	1.0000	6/27/2012 12:1	EMK
5	☒	cal5	6	151	10.0	1.0000	1.0000	1.0000	6/27/2012 12:3	EMK
6	☒	cal6	7	151	10.0	1.0000	1.0000	1.0000	6/27/2012 12:4	EMK

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Calibration:

Calibration Mode: Total
Auto Recalibrate: On
Curve Fitting Model: Normal
Dual-Column Separate Calibration: Off

No.	Enabled	Name	Calib.	Comment
1	☒	cal1	Ok	
2	☒	cal2	Ok	
3	☒	cal3	Ok	
4	☒	cal4	Ok	
5	☒	cal5	Ok	
6	☒	cal6	Ok	

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

System Suitability Test:

No.	Name	Sample Condition	Test Condition	Aggregate	Operator	Value	Channel	Peak	N.A.
1									

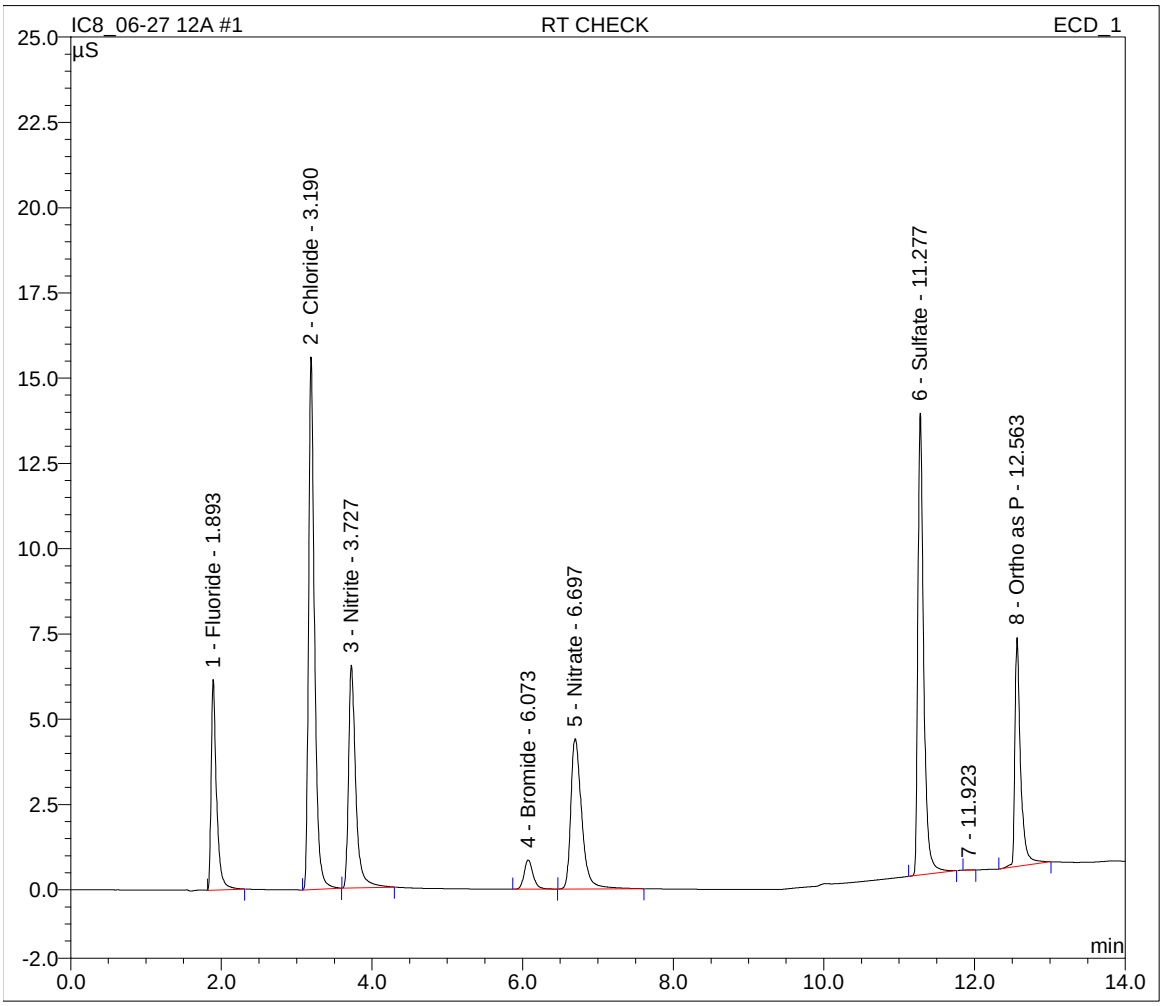
Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

System Suitability Test:

No.	Name	Fail-Action	Result	SST Message	Rounding
1					

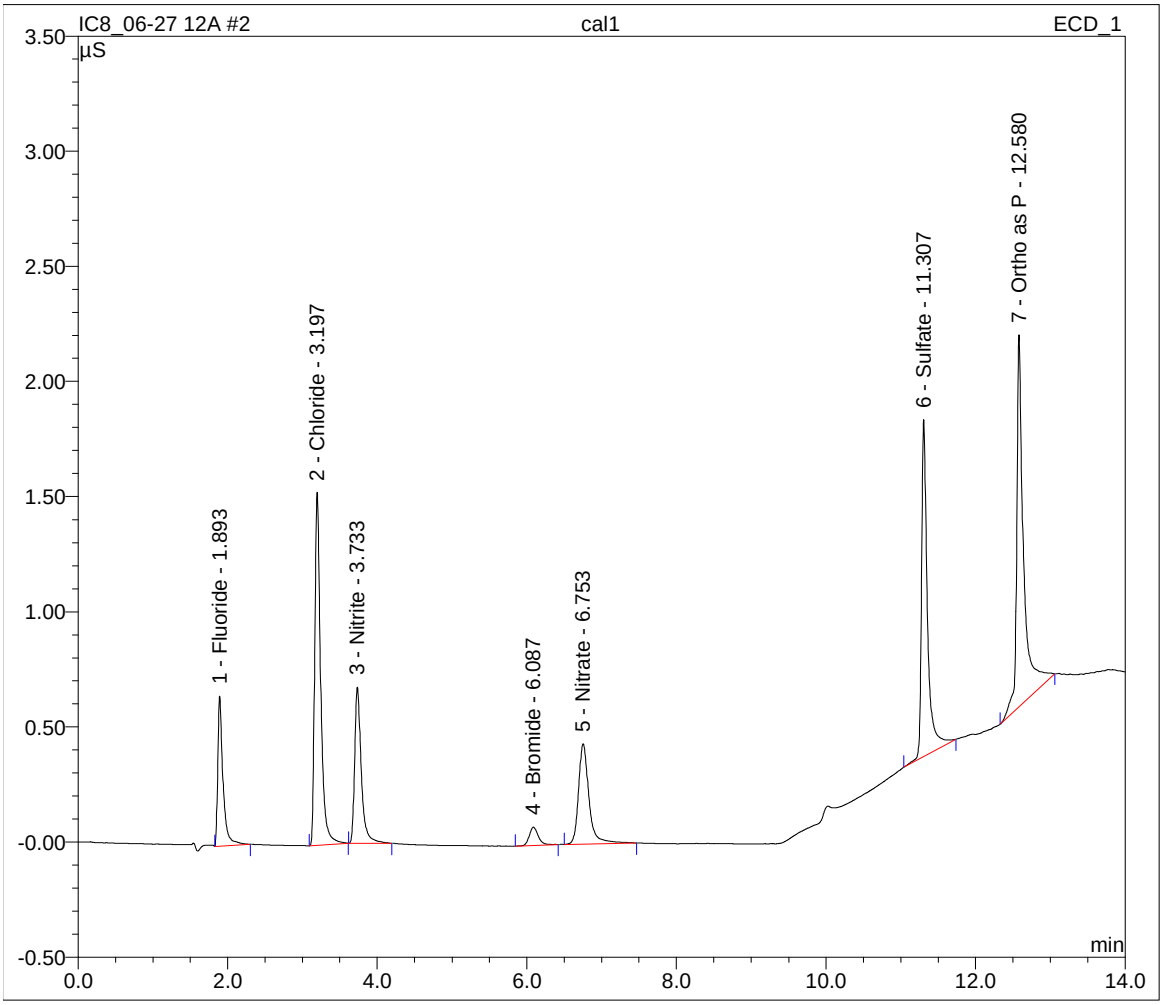
Sample Name:	**RT CHECK**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 10:46**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.511	6.180	2.1154
2	3.19	Chloride	BMB	1.429	15.609	10.1409
3	3.73	Nitrite	BMB	0.730	6.536	2.0562
4	6.07	Bromide	BMB	0.117	0.853	1.9653
5	6.70	Nitrate	BMB	0.738	4.402	2.0328
6	11.28	Sulfate	BMB	1.213	13.538	10.4285
8	12.56	Ortho as P	BMB	0.592	6.719	2.3018
		TOTAL:		5.33	53.84	31.04



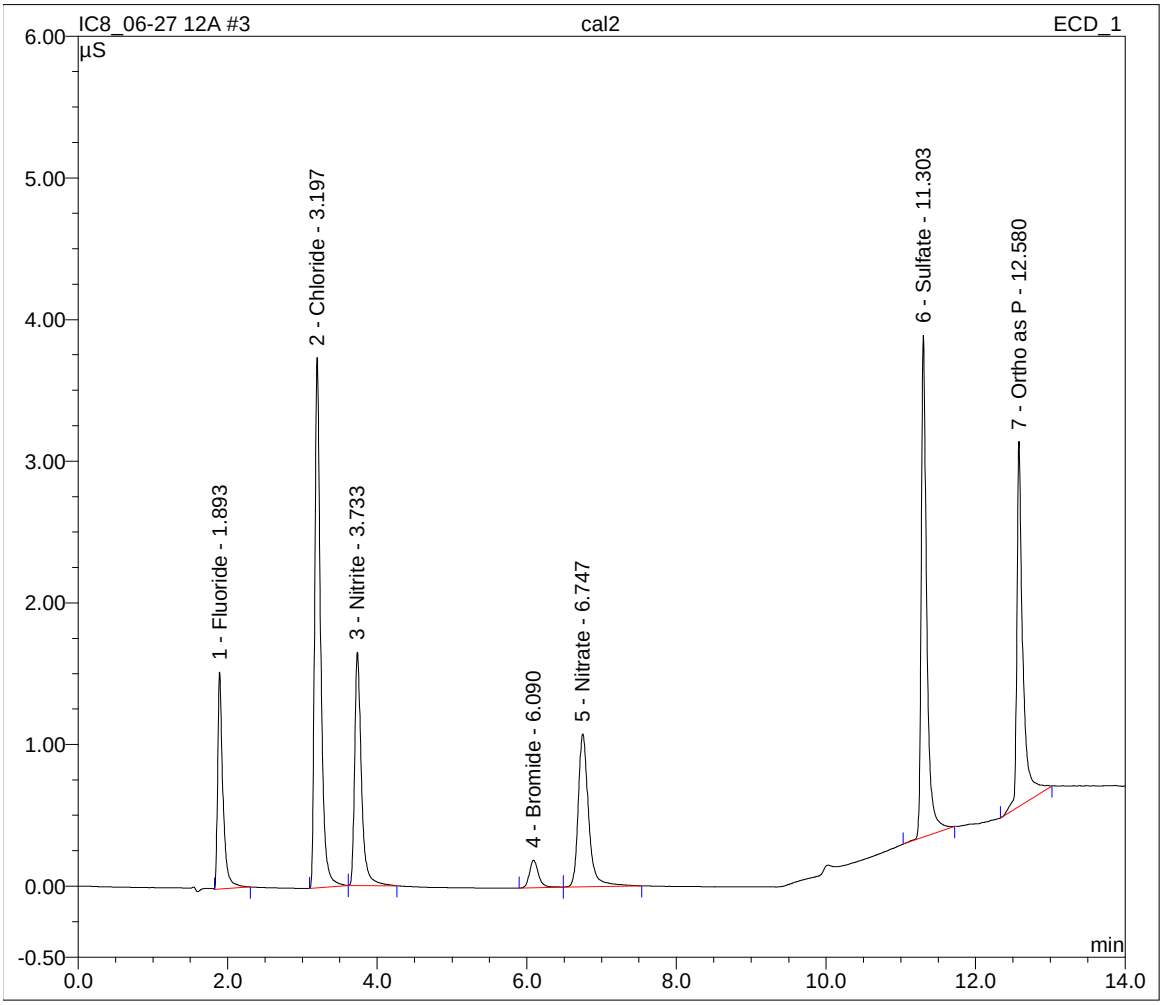
Sample Name:	**cal1**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 11:03**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.053	0.651	0.1929
2	3.20	Chloride	BMB	0.142	1.533	1.0209
3	3.73	Nitrite	BMB	0.070	0.678	0.2025
4	6.09	Bromide	BMB	0.011	0.080	0.2182
5	6.75	Nitrate	BMB	0.071	0.436	0.2176
6	11.31	Sulfate	BMB	0.134	1.464	0.9746
7	12.58	Ortho as P	BMB	0.175	1.617	0.1681
		TOTAL:		0.66	6.46	2.99



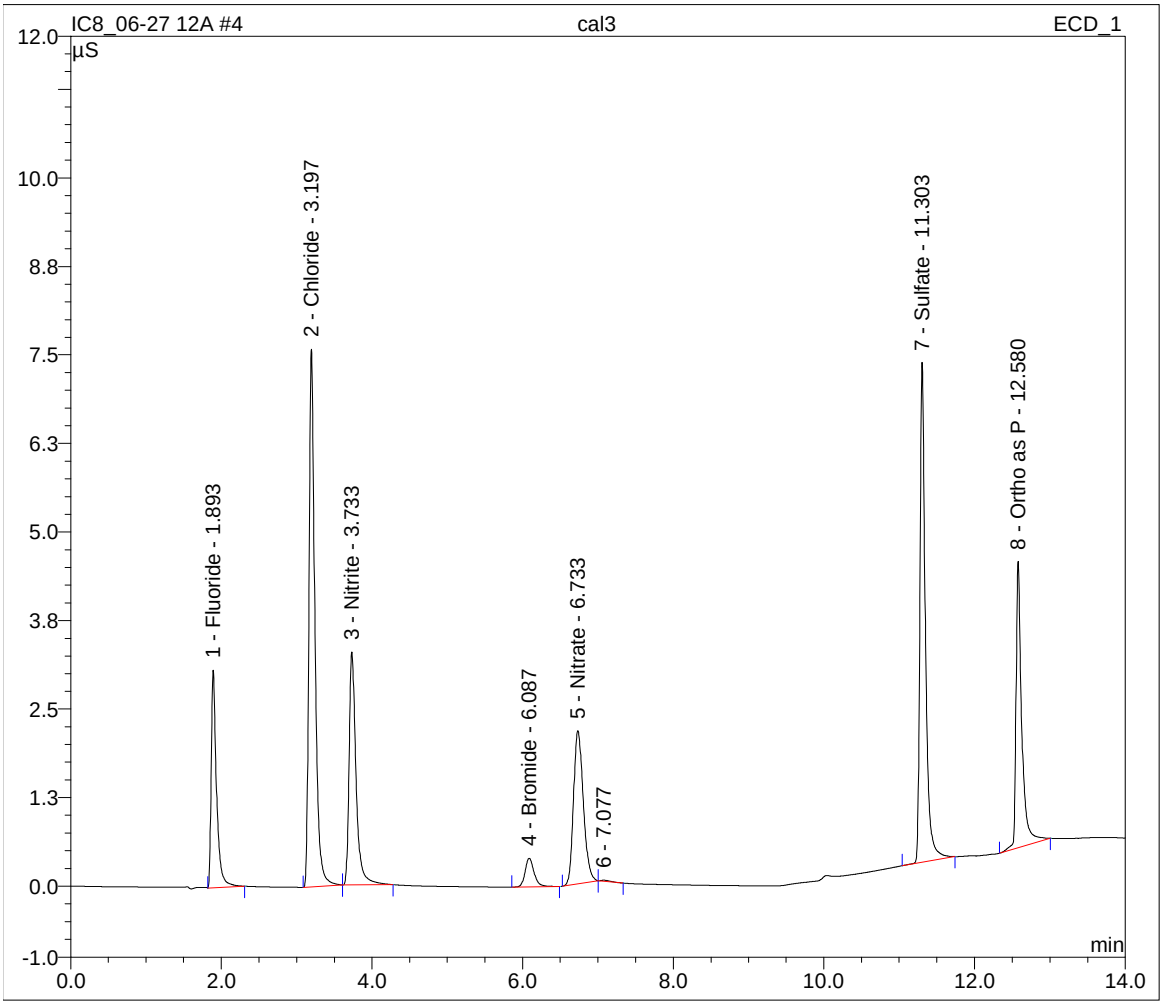
Sample Name:	**cal2**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 11:20**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.125	1.531	0.4953
2	3.20	Chloride	BMB	0.346	3.743	2.4656
3	3.73	Nitrite	bMB	0.172	1.648	0.4906
4	6.09	Bromide	BMB	0.027	0.195	0.4841
5	6.75	Nitrate	bMB	0.173	1.079	0.4959
6	11.30	Sulfate	BMB	0.306	3.543	2.4770
7	12.58	Ortho as P	BMB	0.242	2.578	0.5111
		TOTAL:		1.39	14.32	7.42



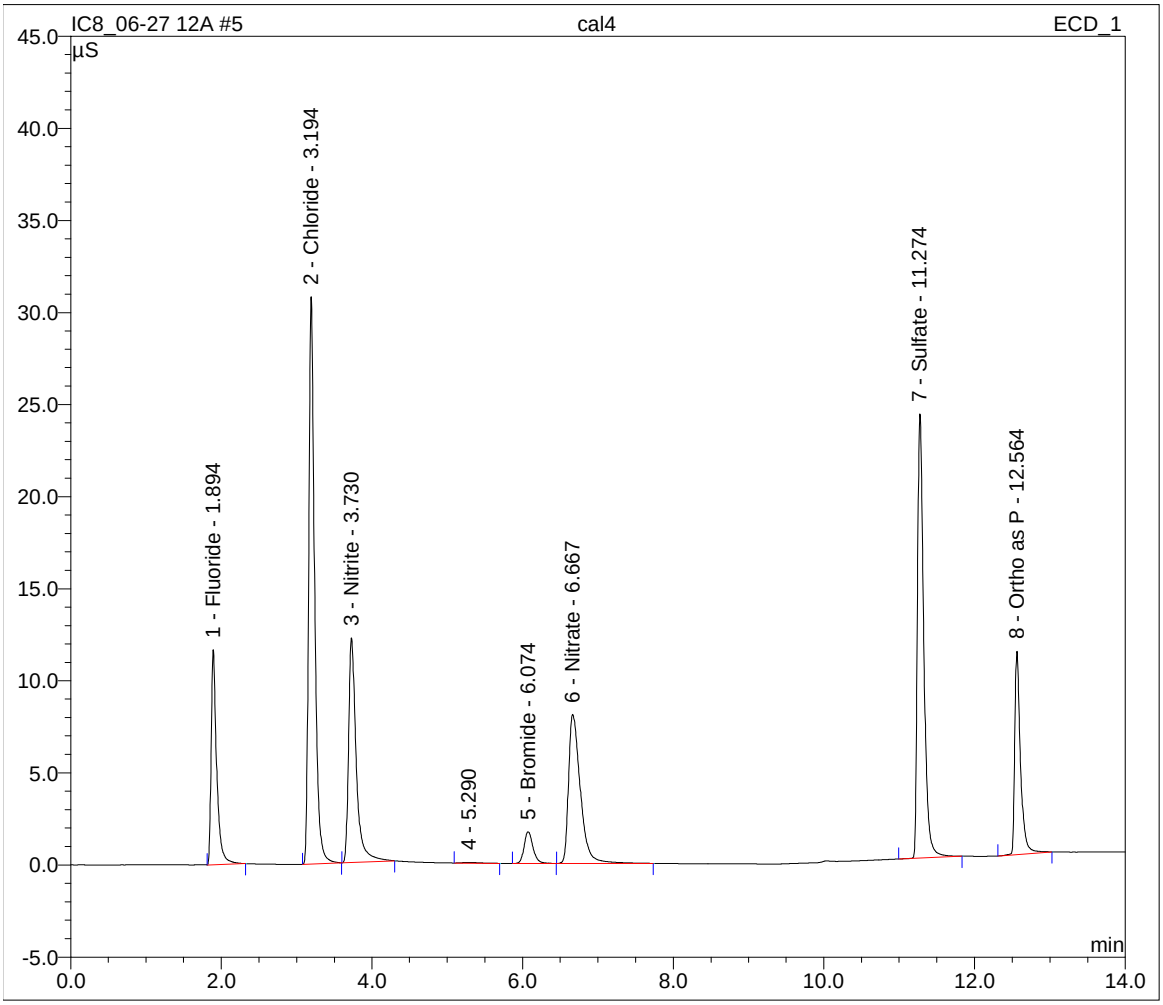
Sample Name:	**cal3**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 11:36**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.252	3.073	1.0266
2	3.20	Chloride	BMB	0.698	7.590	4.9651
3	3.73	Nitrite	BMB	0.352	3.289	0.9957
4	6.09	Bromide	BMB	0.055	0.402	0.9505
5	6.73	Nitrate	BMb	0.326	2.162	0.9121
7	11.30	Sulfate	BMB	0.608	7.055	5.1242
8	12.58	Ortho as P	BMB	0.359	4.043	1.1078
		TOTAL:		2.65	27.61	15.08



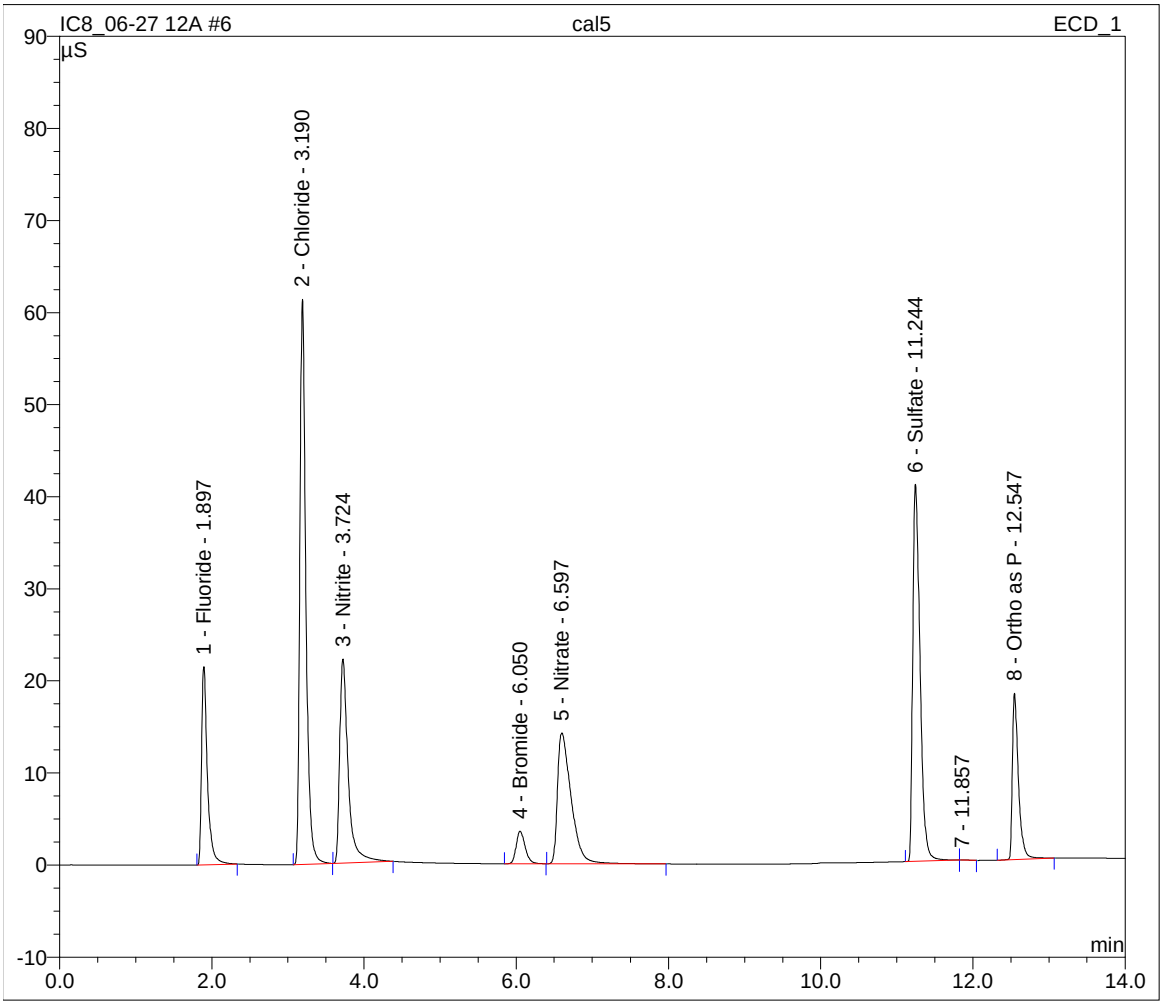
Sample Name:	**cal4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 12:15**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.992	11.687	4.1333
2	3.19	Chloride	BMB	2.814	30.815	19.9594
3	3.73	Nitrite	BMB	1.443	12.198	4.0584
5	6.07	Bromide	BMB	0.234	1.720	3.8960
6	6.67	Nitrate	BMB	1.461	8.088	3.9999
7	11.27	Sulfate	BMB	2.351	24.114	20.4077
8	12.56	Ortho as P	BMB	0.977	11.044	4.2717
		TOTAL:		10.27	99.66	60.73



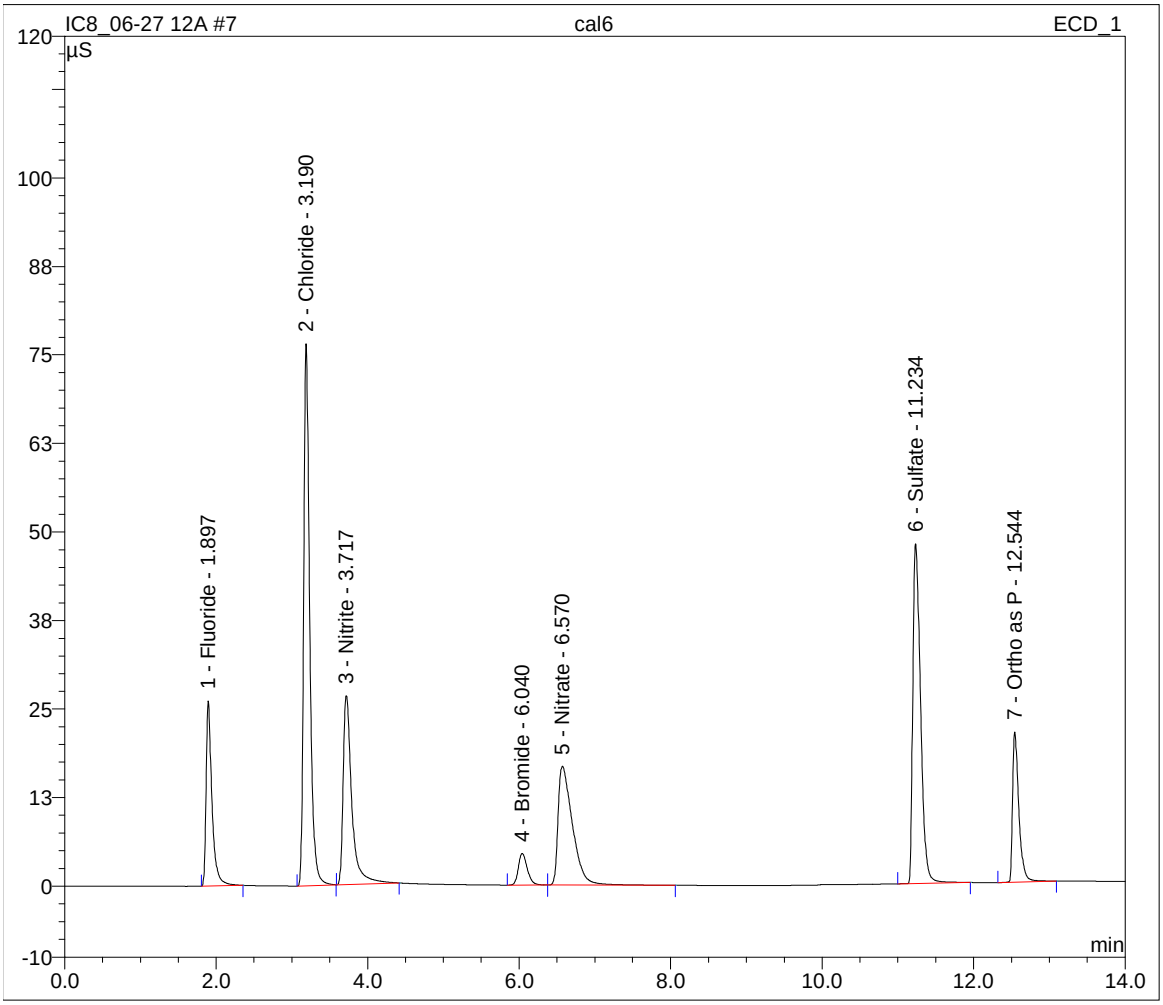
Sample Name:	**cal5**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 12:32**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.90	Fluoride	BMB	1.912	21.558	7.9960
2	3.19	Chloride	BMB	5.645	61.408	40.0214
3	3.72	Nitrite	BMB	2.857	22.176	8.0299
4	6.05	Bromide	BMB	0.485	3.547	8.0439
5	6.60	Nitrate	BMB	2.943	14.189	8.0328
6	11.24	Sulfate	BMb	4.563	40.946	39.8085
8	12.55	Ortho as P	BMB	1.685	18.056	7.8956
		TOTAL:		20.09	181.88	119.83



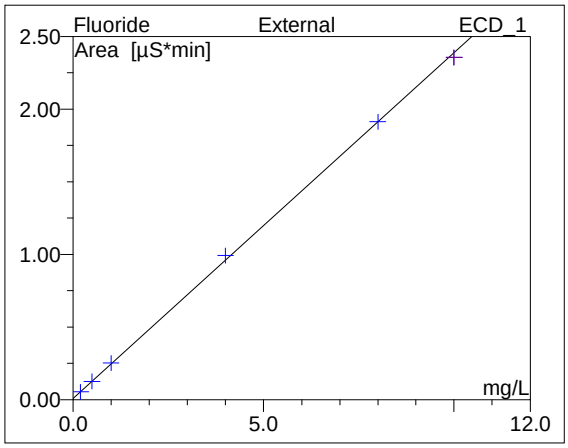
Sample Name:	**cal6**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 12:49**	*Run Time:*	**14.00**

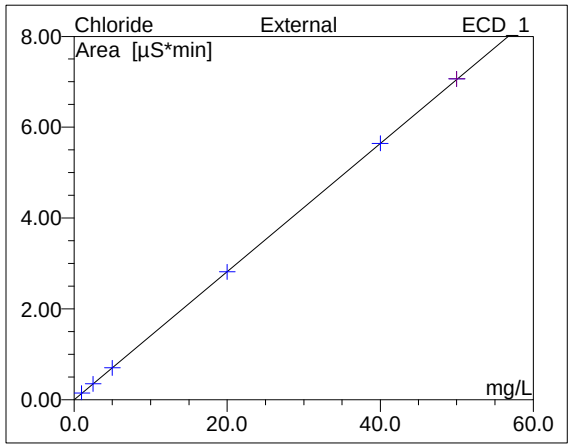
No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.90	Fluoride	BMB	2.355	26.115	9.8559
2	3.19	Chloride	BMB	7.063	76.532	50.0676
3	3.72	Nitrite	BMB	3.532	26.644	9.9230
4	6.04	Bromide	BMB	0.610	4.443	10.1073
5	6.57	Nitrate	BMB	3.682	16.762	10.0417
6	11.23	Sulfate	BMB	5.692	47.967	49.7079
7	12.54	Ortho as P	BMB	2.047	21.191	9.7457
TOTAL:				24.98	219.65	149.45

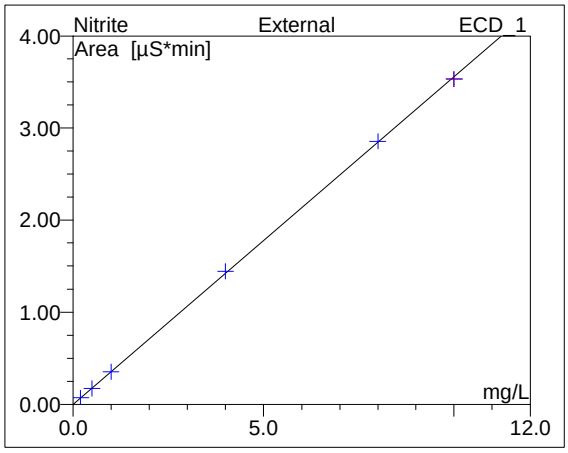


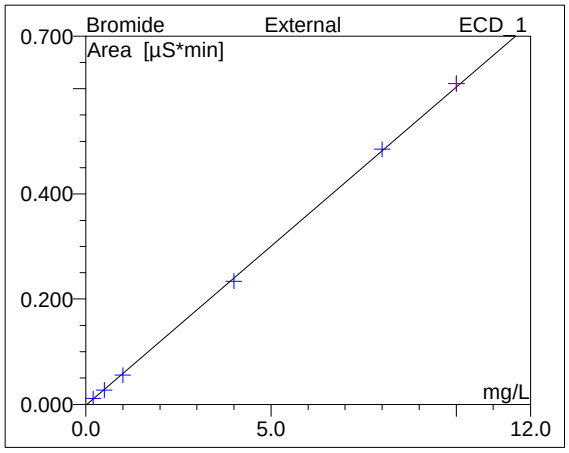
Calibration Batch Report

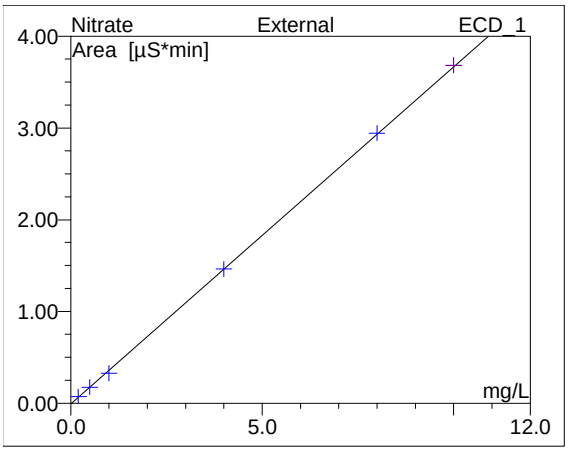
Sequence:	**IC8_06-27 12A**	Inj. Vol.:	**10.0**
Program:	**7 Anion**	Operator:	**DENPC241**
Inj. Date/Time:	**06/27/12 12:49**	Run Time:	**14.00**

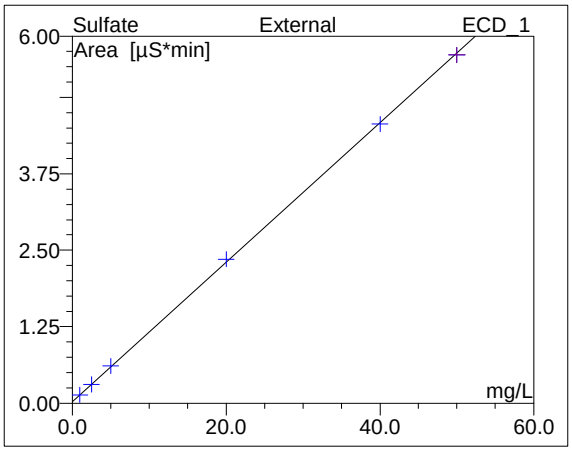




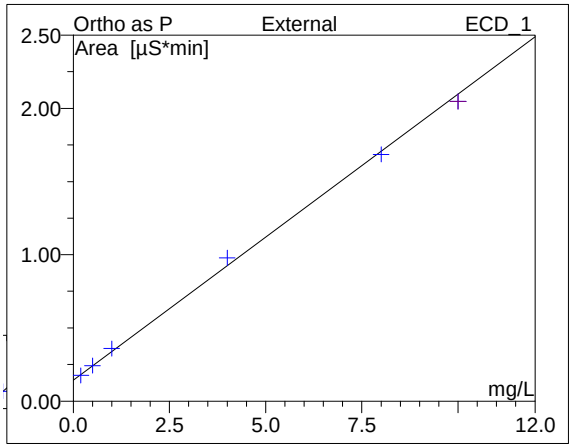








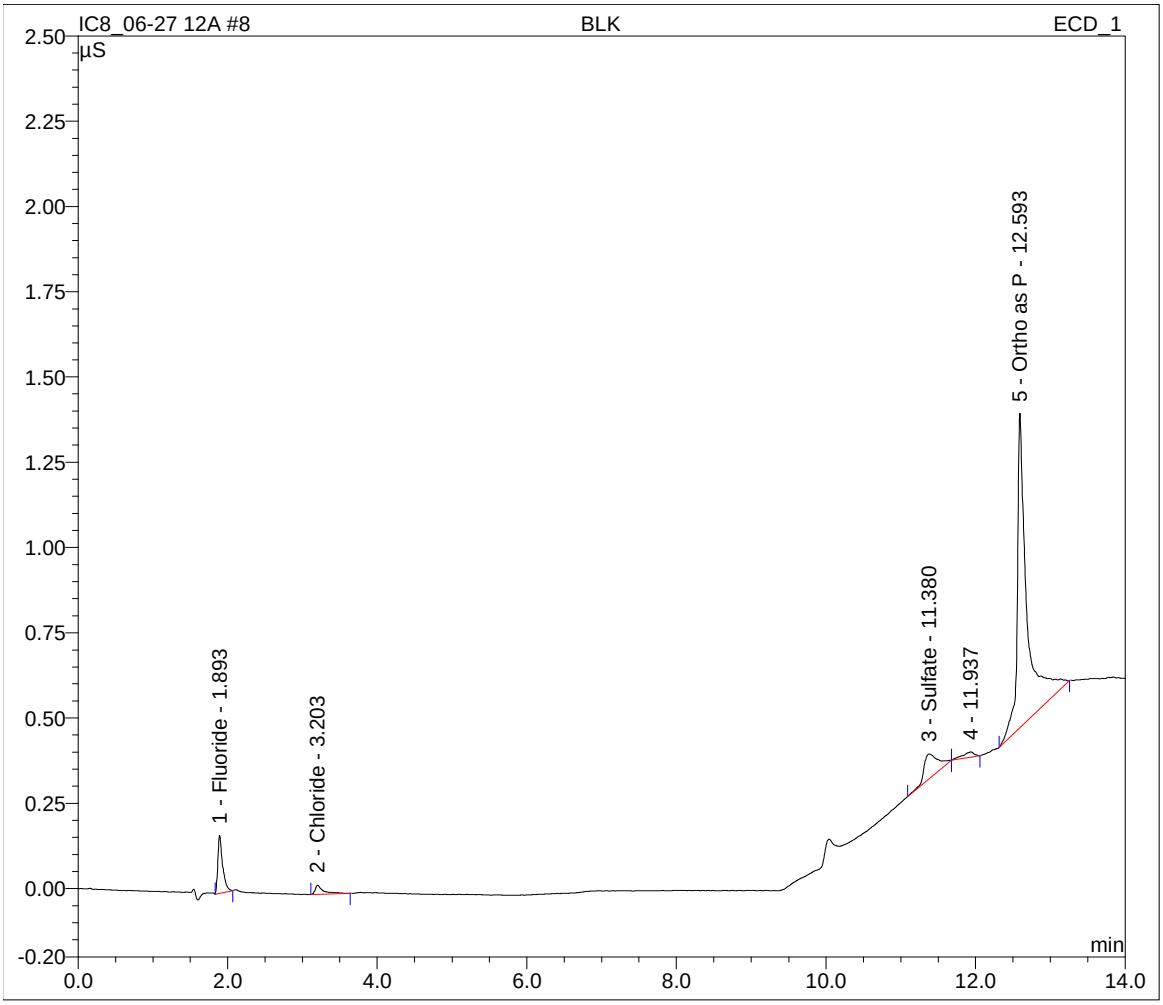
Program:	**7 Anion**	*Operator:*	**n.a.**
Ini. Date/Time:	**06/27/12 12:49**	*Run Time:*	**14.00**



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	1.90	Fluoride	XLOff	6	0.007	0.238	0.000	99.981
2	3.19	Chloride	XLOff	6	-0.002	0.141	0.000	99.999
3	3.72	Nitrite	XLOff	6	-0.003	0.356	0.000	99.995
4	6.04	Bromide	XLOff	6	-0.002	0.061	0.000	99.978
5	6.57	Nitrate	XLOff	6	-0.009	0.368	0.000	99.975
6	11.23	Sulfate	XLOff	6	0.023	0.114	0.000	99.992
7	12.54	Ortho as P	XLOff	6	0.142	0.195	0.000	99.889
AVERAGE:					0.0223	0.2104	0.0000	99.9728

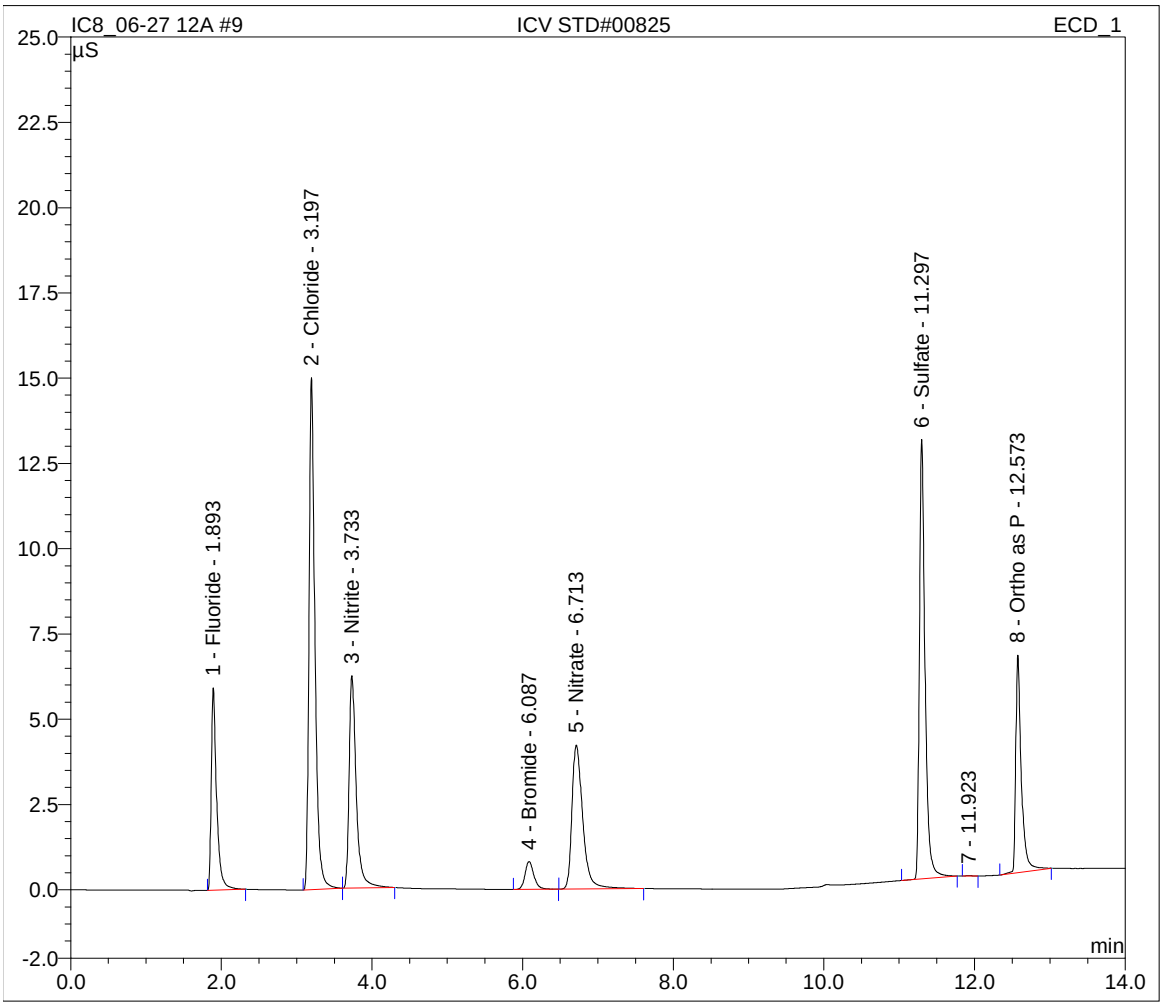
Sample Name:	**BLK**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 13:06**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.013	0.170	0.0236
2	3.20	Chloride	BMB	0.004	0.026	0.0415
3	11.38	Sulfate	BMB	0.015	0.072	-0.0729
5	12.59	Ortho as P	BMB	0.141	0.922	-0.0066
		TOTAL:		0.17	1.19	-0.01



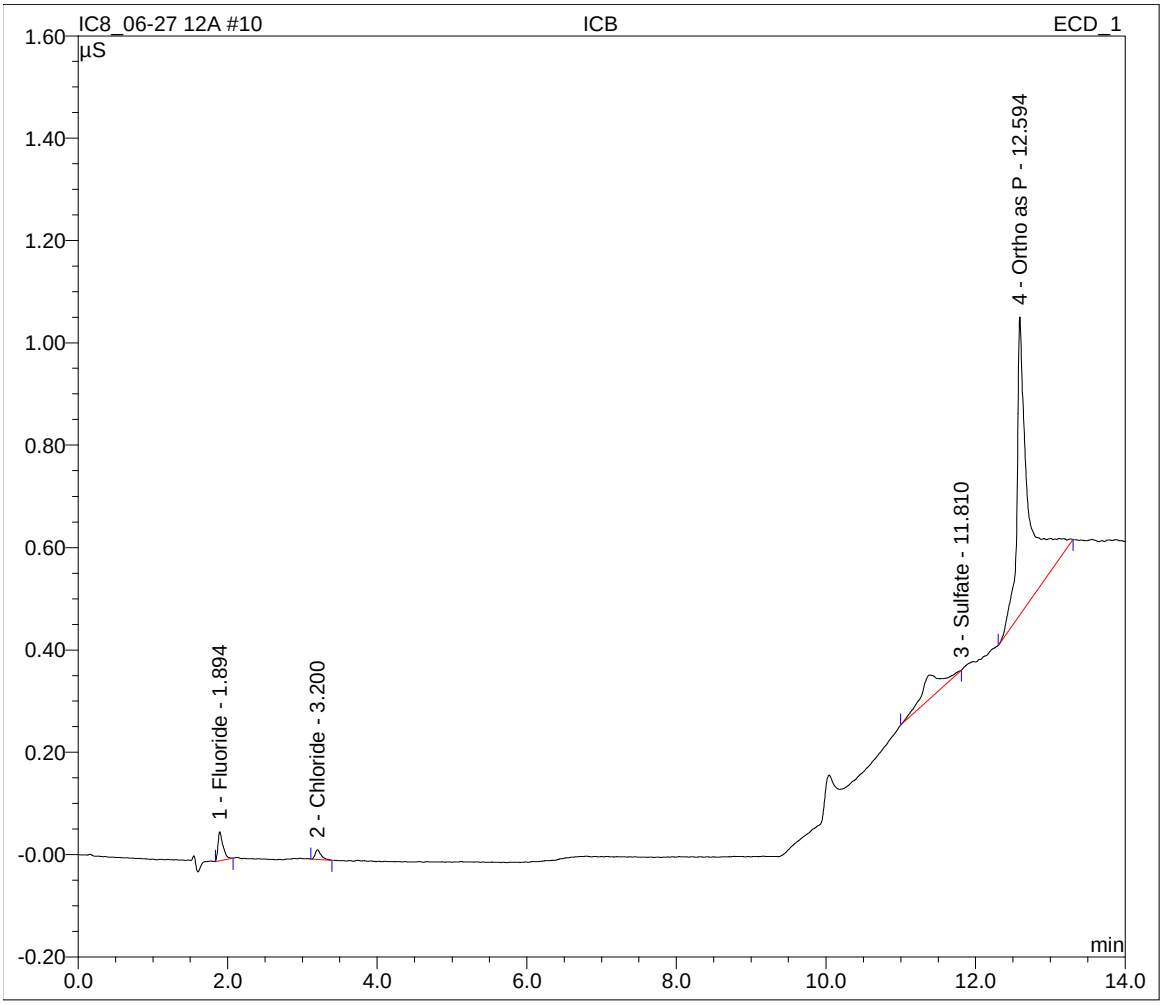
Sample Name:	**ICV STD#00825**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 13:39**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.492	5.929	2.0362
2	3.20	Chloride	BMB	1.374	15.003	9.7525
3	3.73	Nitrite	BMB	0.687	6.230	1.9372
4	6.09	Bromide	BMB	0.111	0.812	1.8616
5	6.71	Nitrate	BMB	0.702	4.218	1.9339
6	11.30	Sulfate	BMB	1.132	12.882	9.7210
8	12.57	Ortho as P	BMB	0.551	6.382	2.0952
TOTAL:				5.05	51.46	29.34



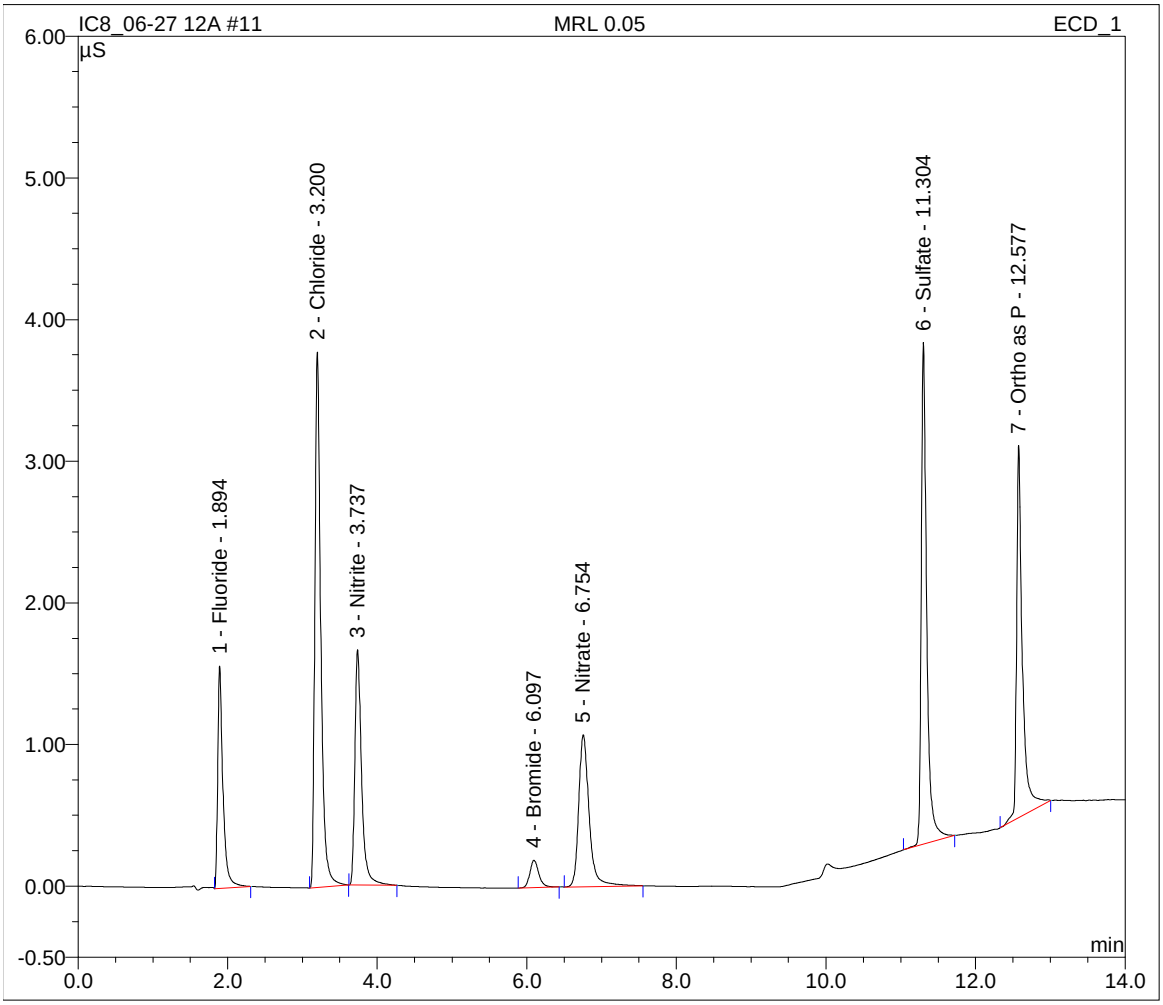
Sample Name:	**ICB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 13:56**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.004	0.057	-0.0117
2	3.20	Chloride	BMB	0.002	0.019	0.0291
3	11.81	Sulfate	BMB	0.013	0.000	-0.0867
4	12.59	Ortho as P	BMB	0.109	0.582	-0.1705
TOTAL:				0.13	0.66	-0.24



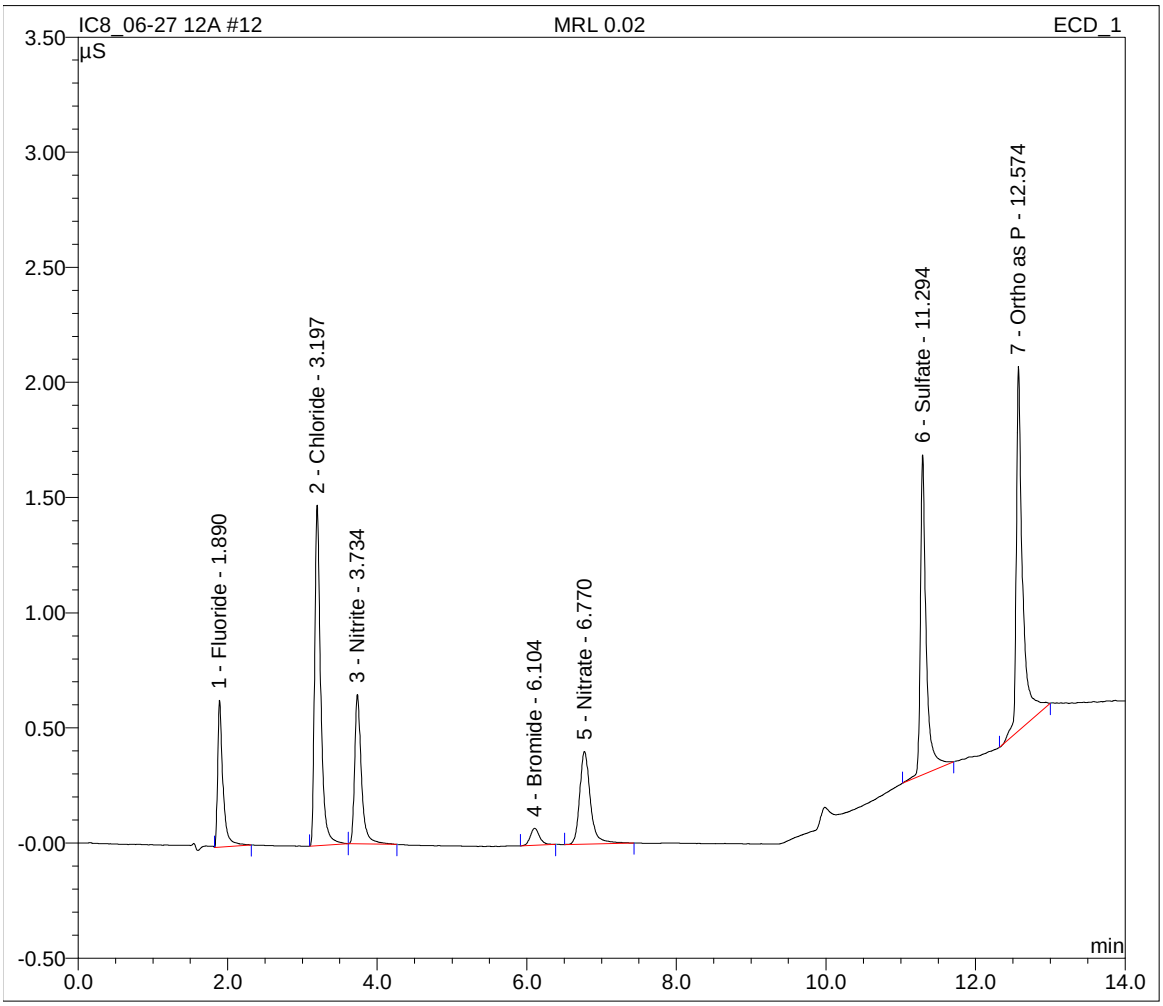
Sample Name:	**MRL 0.05**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 14:13**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.128	1.571	0.5080
2	3.20	Chloride	BMB	0.349	3.778	2.4903
3	3.74	Nitrite	BMB	0.173	1.662	0.4925
4	6.10	Bromide	BMB	0.027	0.193	0.4795
5	6.75	Nitrate	BMB	0.174	1.072	0.4981
6	11.30	Sulfate	BMB	0.303	3.542	2.4499
7	12.58	Ortho as P	BMB	0.238	2.628	0.4919
		TOTAL:		1.39	14.45	7.41



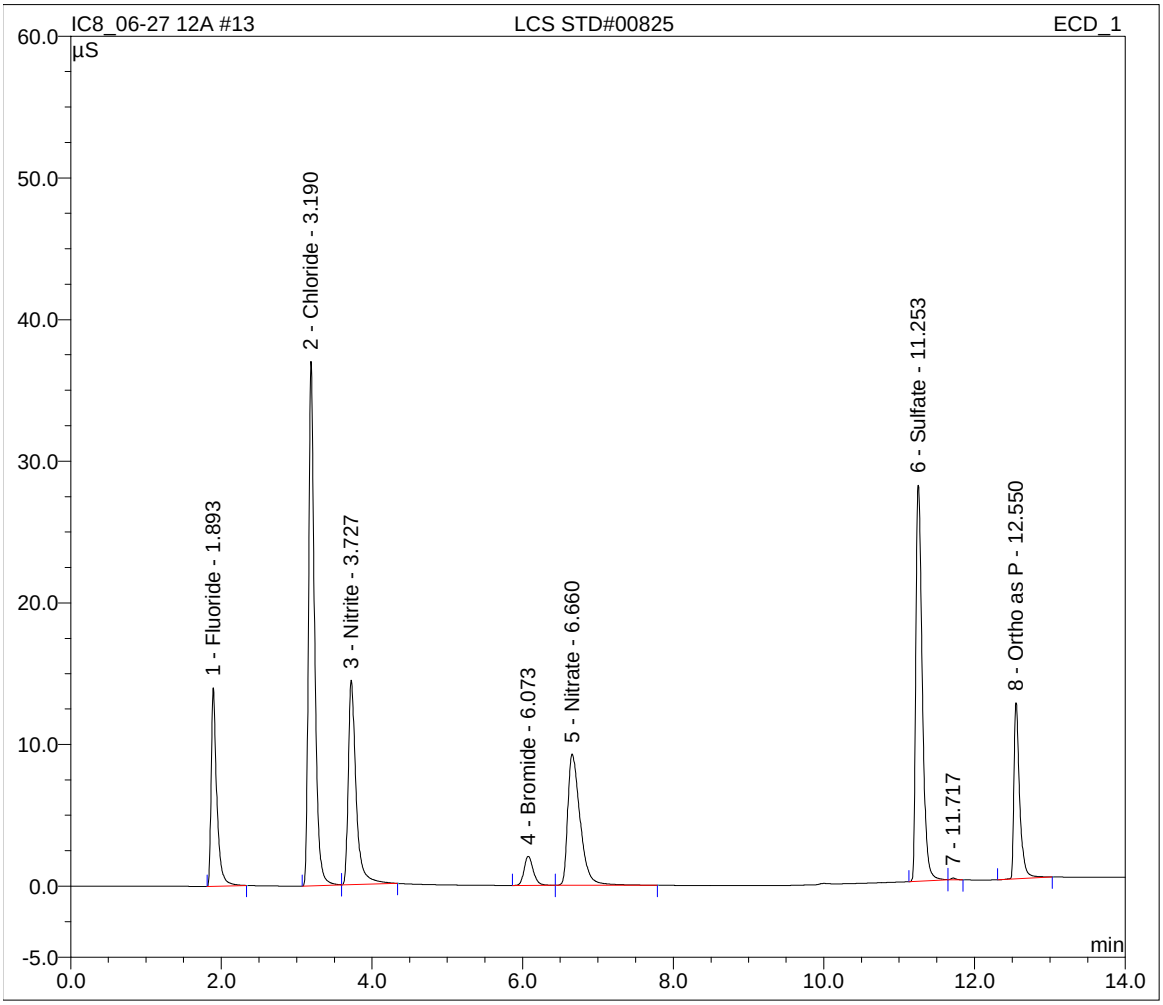
Sample Name:	**MRL 0.02**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 14:30**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.052	0.636	0.1894
2	3.20	Chloride	BMb	0.138	1.479	0.9964
3	3.73	Nitrite	bMB	0.068	0.648	0.1972
4	6.10	Bromide	BMB	0.011	0.074	0.2101
5	6.77	Nitrate	BMB	0.067	0.402	0.2064
6	11.29	Sulfate	BMB	0.126	1.390	0.8963
7	12.57	Ortho as P	BMB	0.156	1.583	0.0739
		TOTAL:		0.62	6.21	2.77



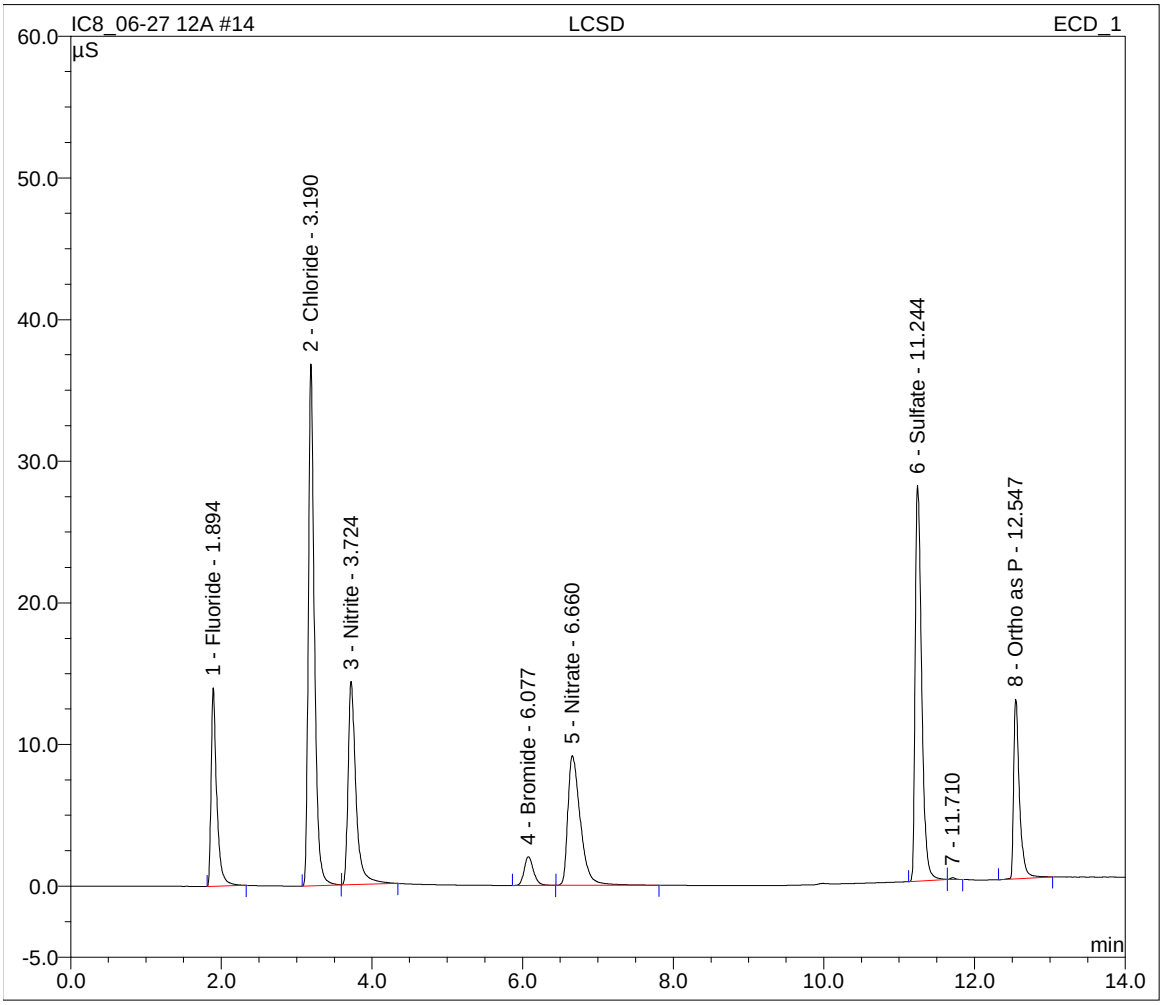
Sample Name:	**LCS STD#00825**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 14:46**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.207	14.000	5.0377
2	3.19	Chloride	BMB	3.435	37.022	24.3627
3	3.73	Nitrite	BMB	1.742	14.410	4.8991
4	6.07	Bromide	BMb	0.288	2.047	4.7926
5	6.66	Nitrate	bMB	1.759	9.255	4.8100
6	11.25	Sulfate	BMb	2.769	27.951	24.0796
8	12.55	Ortho as P	BMB	1.091	12.413	4.8564
		TOTAL:		12.29	117.10	72.84



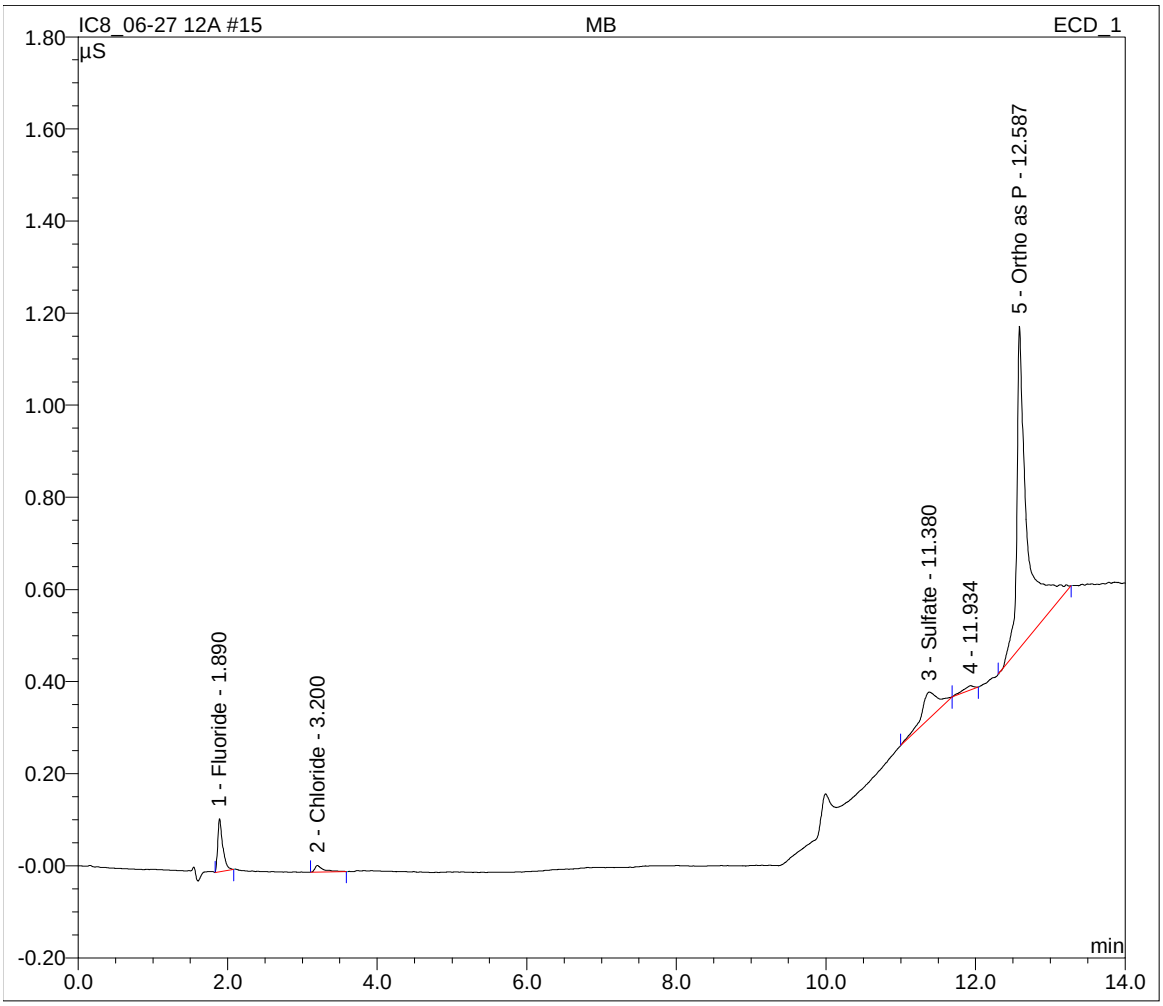
Sample Name:	**LCSD**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:03**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.211	13.996	5.0543
2	3.19	Chloride	BMB	3.429	36.840	24.3172
3	3.72	Nitrite	BMB	1.739	14.335	4.8895
4	6.08	Bromide	BMB	0.287	2.017	4.7769
5	6.66	Nitrate	BMB	1.761	9.148	4.8166
6	11.24	Sulfate	BMb	2.781	27.929	24.1795
8	12.55	Ortho as P	BMB	1.136	12.670	5.0860
		TOTAL:		12.34	116.94	73.12



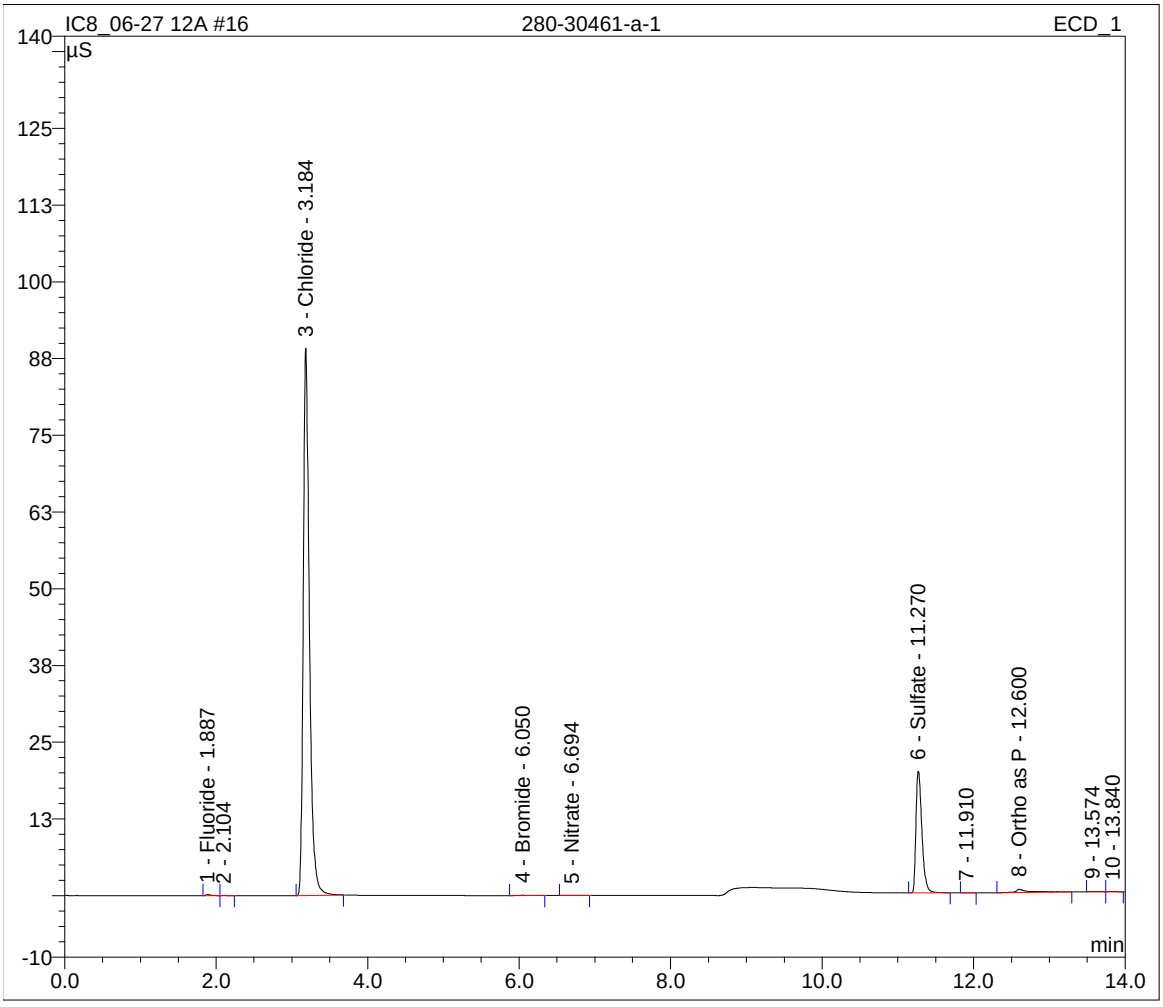
Sample Name:	**MB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:20**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.009	0.115	0.0075
2	3.20	Chloride	BMB	0.002	0.014	0.0300
3	11.38	Sulfate	BMB	0.014	0.057	-0.0801
5	12.59	Ortho as P	BMB	0.115	0.700	-0.1369
TOTAL:				0.14	0.89	-0.18



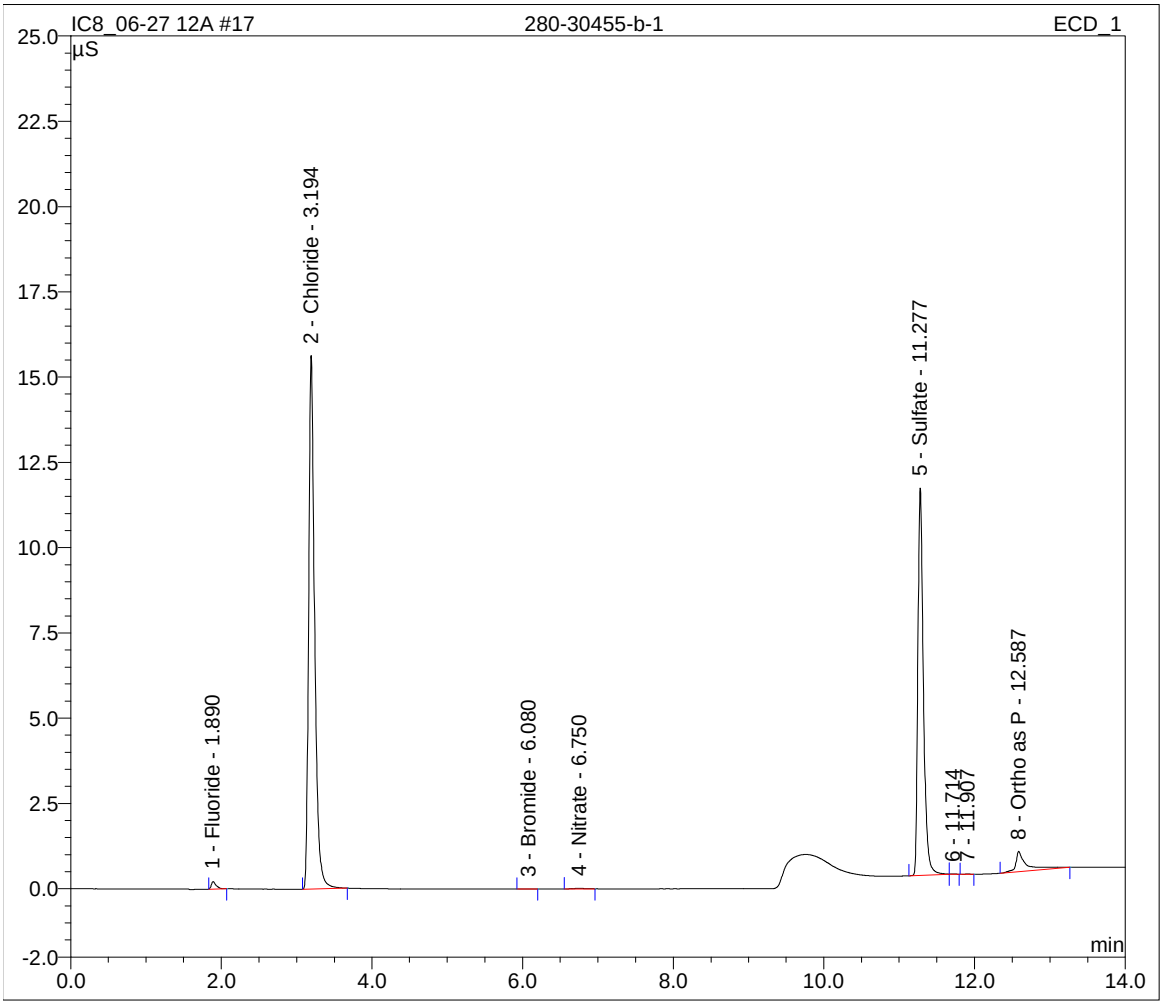
Sample Name:	**280-30461-a-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:37**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMb	0.013	0.177	0.0256
3	3.18	Chloride	BMB	8.375	89.115	59.3666
4	6.05	Bromide	BMB	0.008	0.055	0.1634
5	6.69	Nitrate	BMB	0.003	0.022	0.0346
6	11.27	Sulfate	BMB	1.802	19.795	15.5951
8	12.60	Ortho as P	BMB	0.097	0.525	-0.2322
		TOTAL:		10.30	109.69	74.95



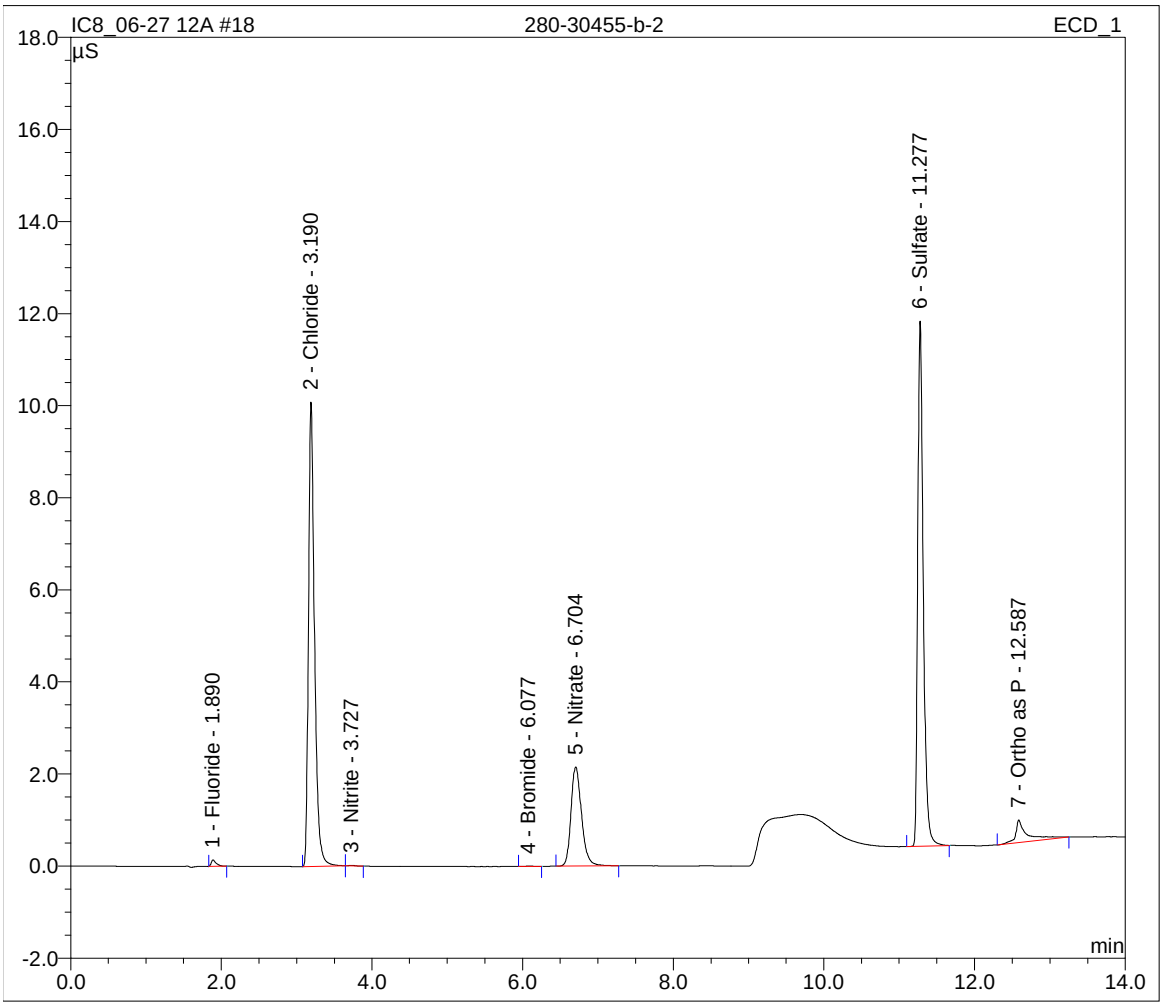
Sample Name:	**280-30455-b-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:54**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.017	0.220	0.0396
2	3.19	Chloride	BMB	1.444	15.636	10.2463
3	6.08	Bromide	BMB	0.001	0.004	0.0433
4	6.75	Nitrate	BMB	0.002	0.015	0.0319
5	11.28	Sulfate	BMb	0.966	11.358	8.2634
8	12.59	Ortho as P	BMB	0.102	0.599	-0.2059
		TOTAL:		2.53	27.83	18.42



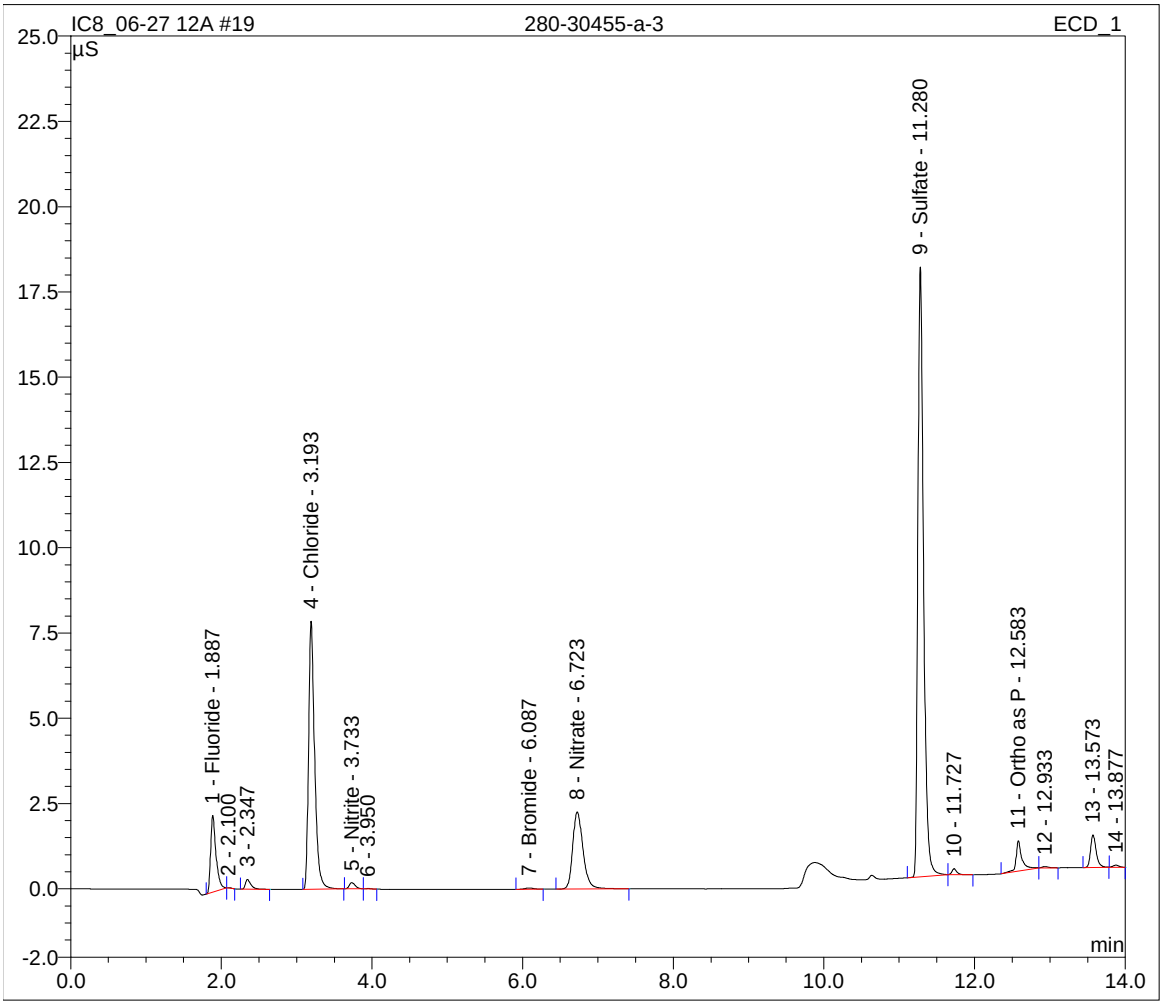
Sample Name:	**280-30455-b-2**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 16:10**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.011	0.142	0.0154
2	3.19	Chloride	BMb	0.938	10.086	6.6646
3	3.73	Nitrite	bMB	0.001	0.011	0.0101
4	6.08	Bromide	BMB	0.001	0.005	0.0451
5	6.70	Nitrate	BMB	0.349	2.152	0.9748
6	11.28	Sulfate	BMB	0.973	11.410	8.3263
7	12.59	Ortho as P	BMB	0.087	0.492	-0.2791
TOTAL:				2.36	24.30	15.76



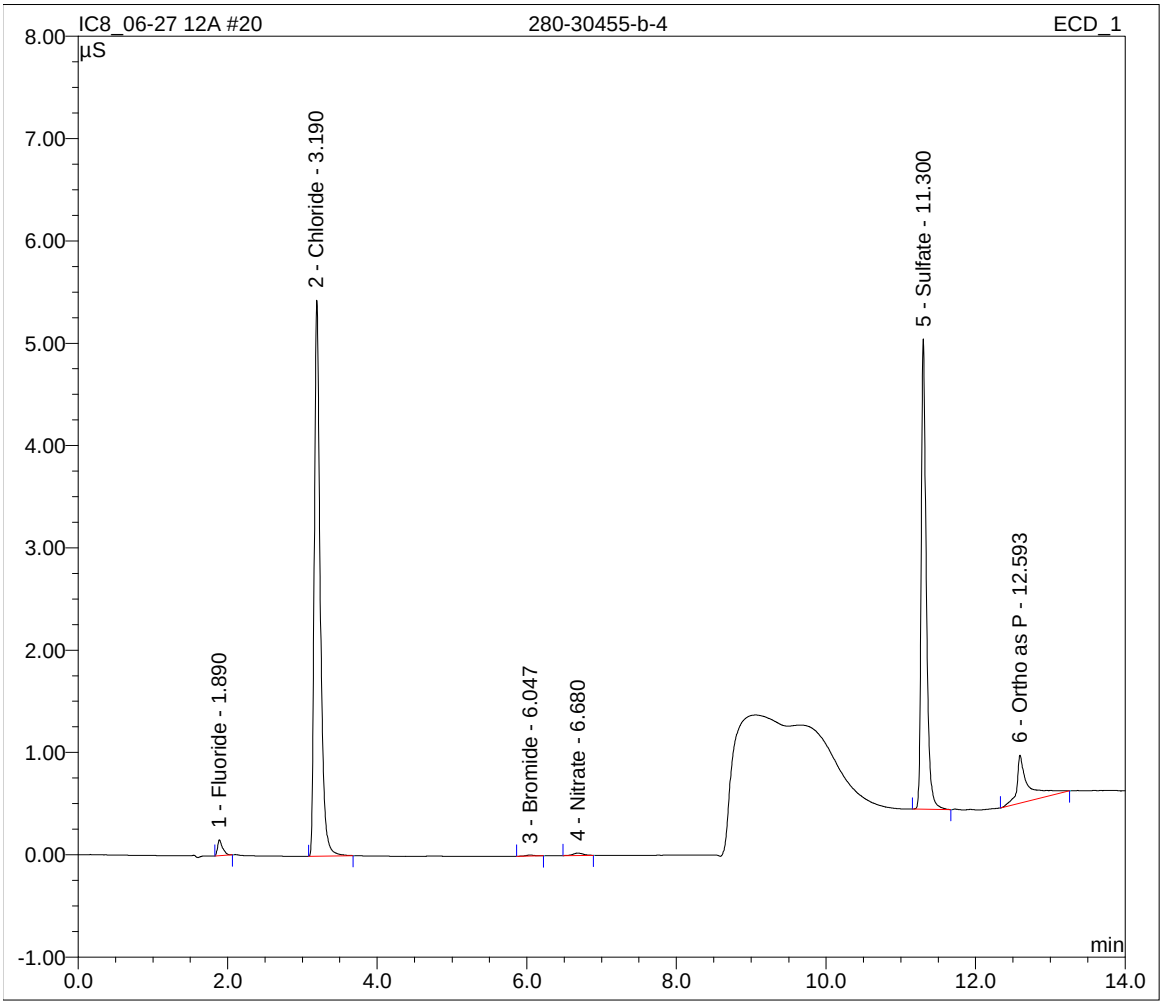
Sample Name:	**280-30455-a-3**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 16:27**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMb	0.185	2.248	0.7463
4	3.19	Chloride	BMB	0.732	7.865	5.2019
5	3.73	Nitrite	BMb	0.017	0.185	0.0555
7	6.09	Bromide	BMB	0.005	0.038	0.1198
8	6.72	Nitrate	BMB	0.360	2.258	1.0041
9	11.28	Sulfate	BMb	1.567	17.880	13.5352
11	12.58	Ortho as P	BMB	0.080	0.890	-0.3186
		TOTAL:		2.95	31.36	20.34



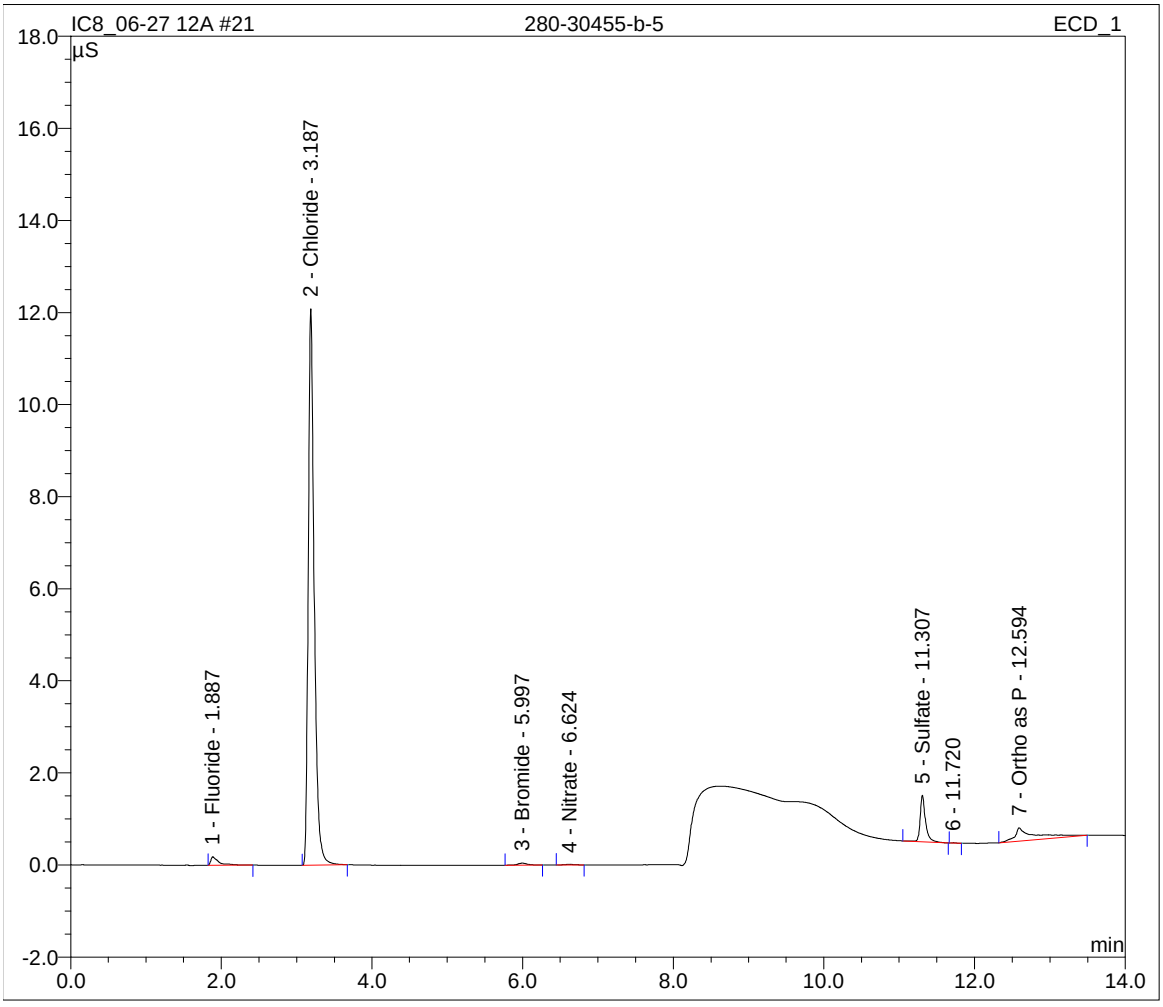
Sample Name:	**280-30455-b-4**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 16:44**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.012	0.158	0.0211
2	3.19	Chloride	BMB	0.501	5.435	3.5653
3	6.05	Bromide	BMB	0.001	0.010	0.0566
4	6.68	Nitrate	BMB	0.004	0.023	0.0351
5	11.30	Sulfate	BMB	0.365	4.600	2.9999
6	12.59	Ortho as P	BMB	0.085	0.468	-0.2928
		TOTAL:		0.97	10.69	6.39



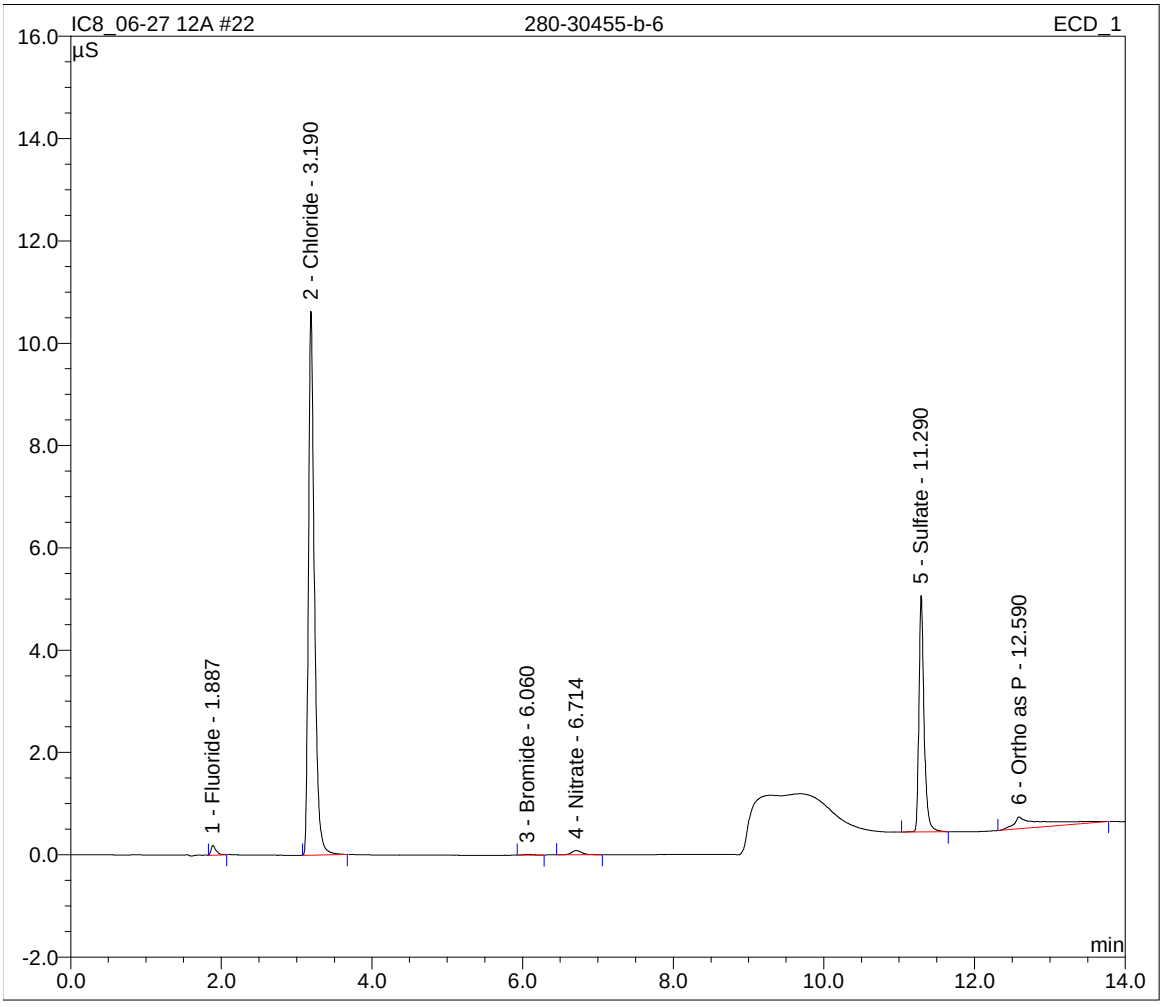
Sample Name:	**280-30455-b-5**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:01**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.023	0.184	0.0647
2	3.19	Chloride	BMB	1.114	12.091	7.9129
3	6.00	Bromide	BMB	0.006	0.042	0.1317
4	6.62	Nitrate	BMB	0.002	0.012	0.0300
5	11.31	Sulfate	BMB	0.085	1.007	0.5399
7	12.59	Ortho as P	BMB	0.088	0.285	-0.2756
		TOTAL:		1.32	13.62	8.40



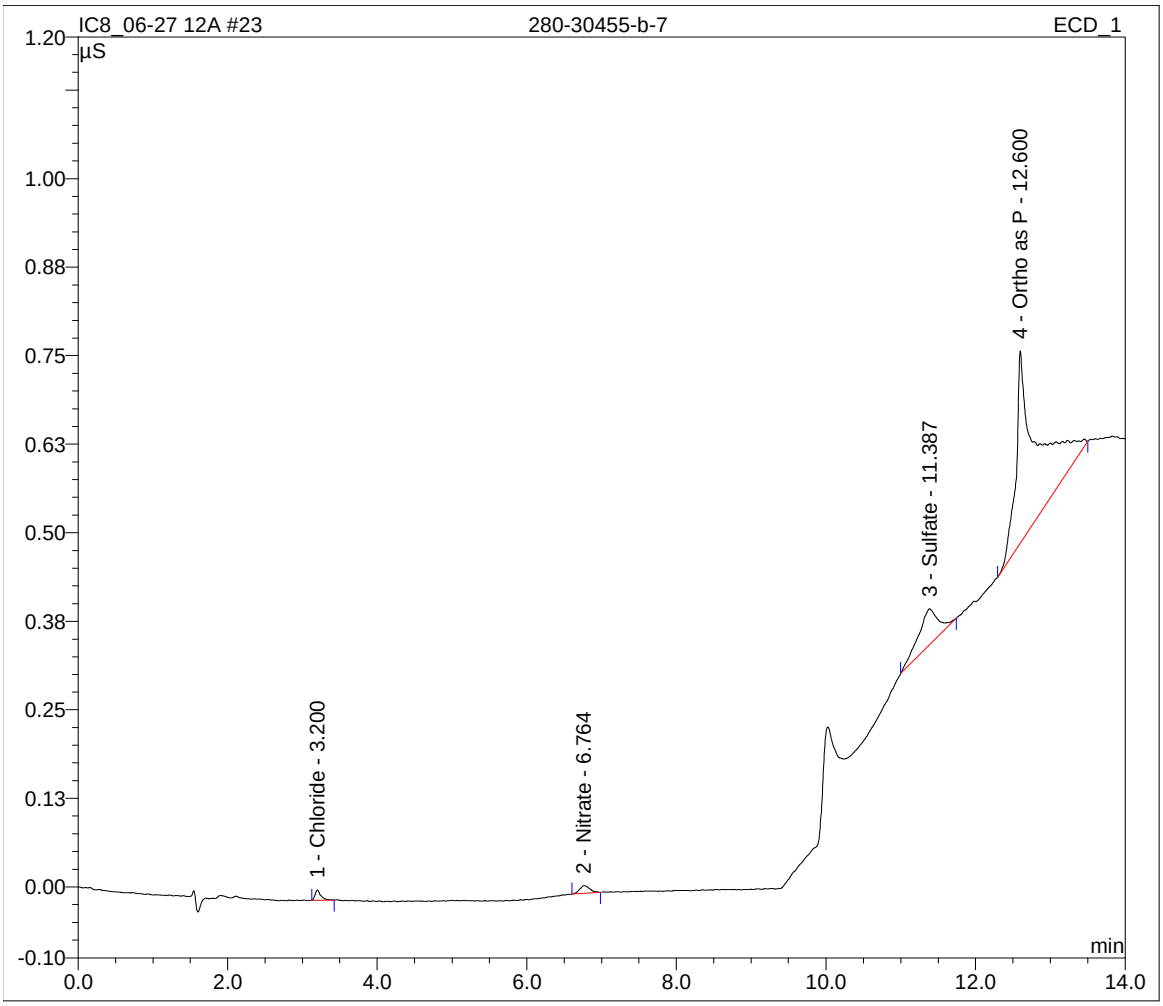
Sample Name:	**280-30455-b-6**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:18**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.014	0.189	0.0296
2	3.19	Chloride	BMB	0.982	10.631	6.9725
3	6.06	Bromide	BMB	0.002	0.013	0.0638
4	6.71	Nitrate	BMB	0.013	0.082	0.0606
5	11.29	Sulfate	BMB	0.371	4.624	3.0446
6	12.59	Ortho as P	BMB	0.106	0.233	-0.1852
		TOTAL:		1.49	15.77	9.99



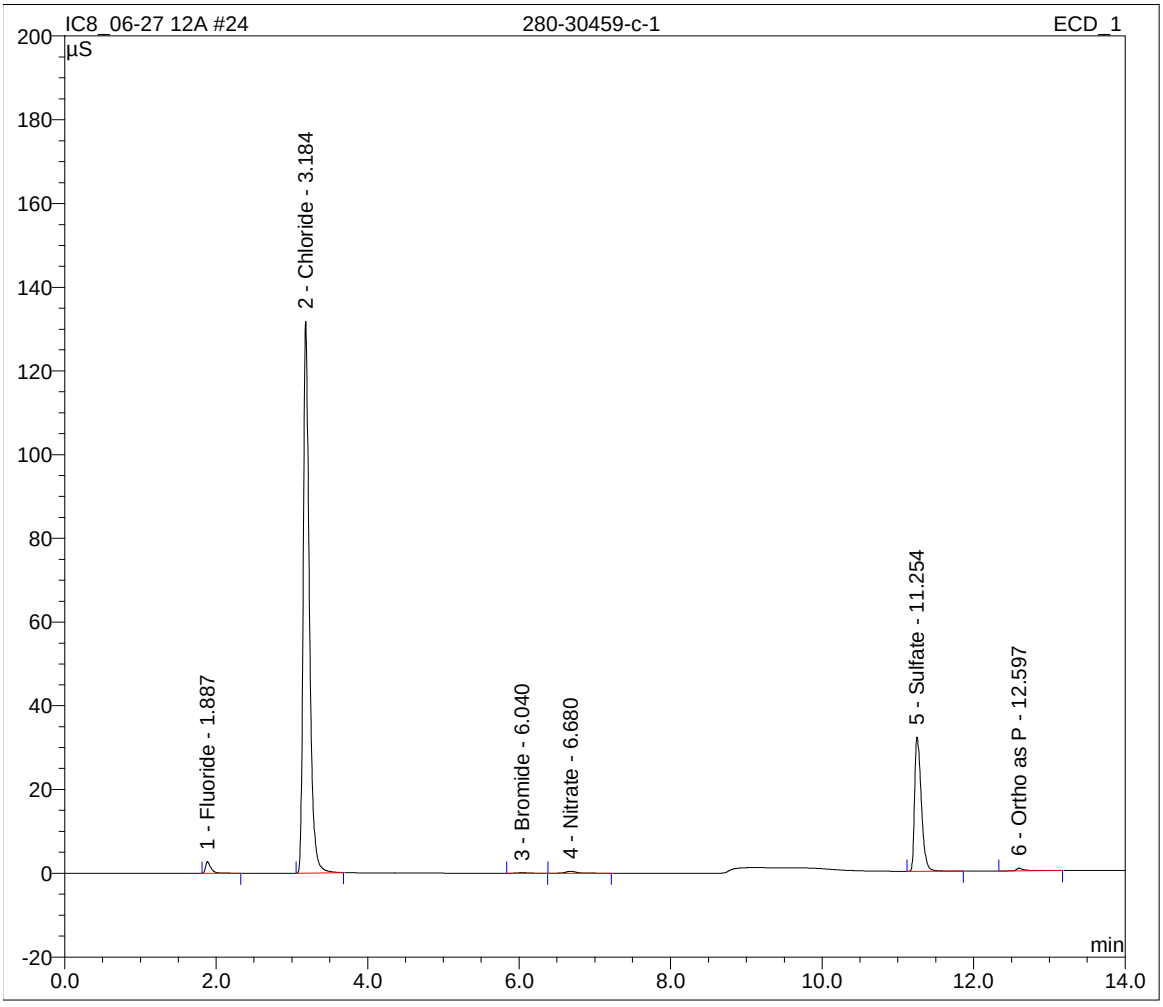
Sample Name:	**280-30455-b-7**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	3.20	Chloride	BMB	0.001	0.014	0.0259
2	6.76	Nitrate	BMB	0.002	0.011	0.0300
3	11.39	Sulfate	BMB	0.016	0.051	-0.0668
4	12.60	Ortho as P	BMB	0.088	0.270	-0.2744
TOTAL:				0.11	0.35	-0.29



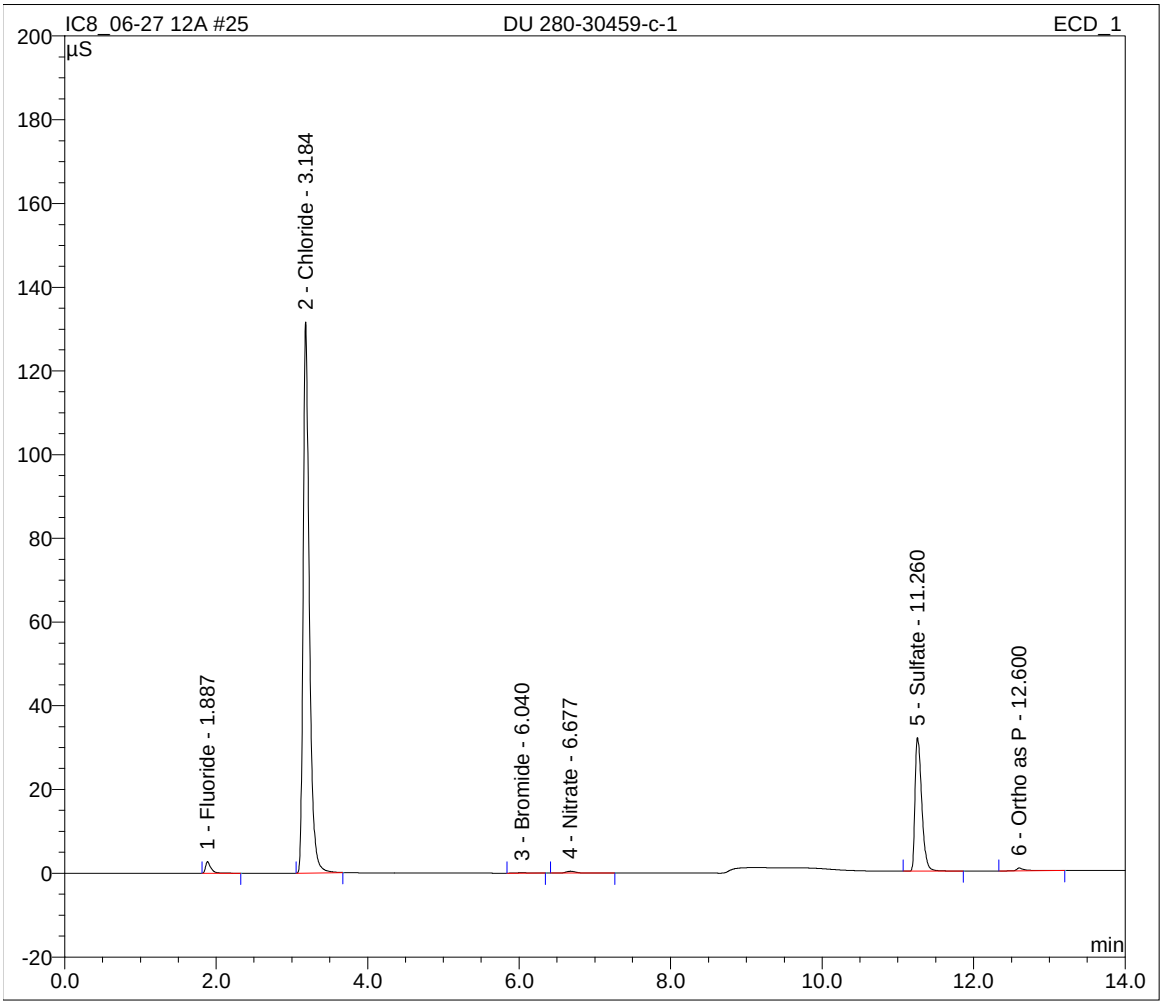
Sample Name:	**280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:52**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.234	2.789	0.9520
2	3.18	Chloride	BMB	12.412	131.911	87.9743
3	6.04	Bromide	BMB	0.017	0.122	0.3141
4	6.68	Nitrate	BMB	0.070	0.452	0.2150
5	11.25	Sulfate	BMB	3.292	32.030	28.6568
6	12.60	Ortho as P	BMB	0.100	0.690	-0.2164
		TOTAL:		16.12	167.99	117.90



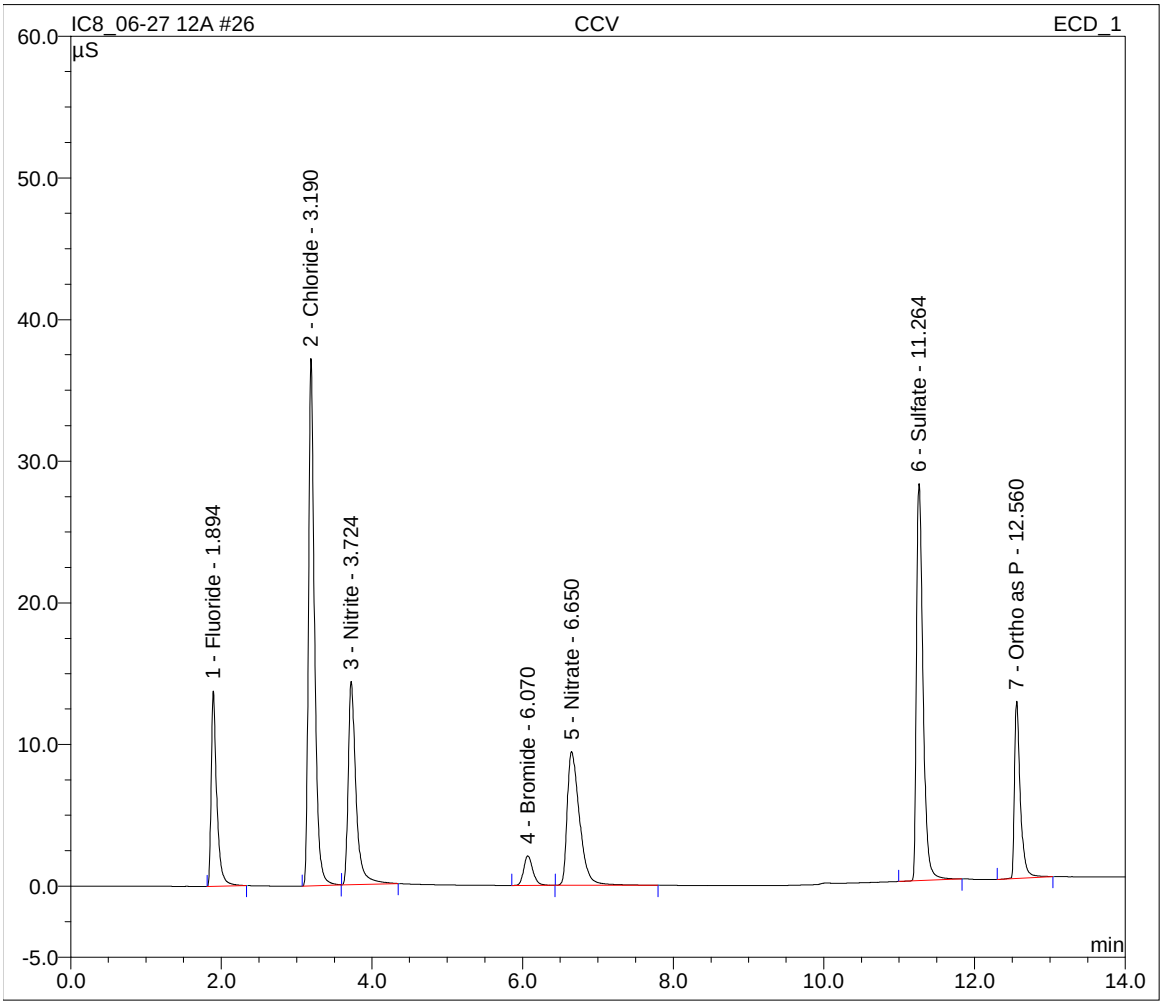
Sample Name:	**DU 280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 18:08**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.235	2.793	0.9541
2	3.18	Chloride	BMB	12.409	131.731	87.9556
3	6.04	Bromide	BMB	0.017	0.121	0.3110
4	6.68	Nitrate	BMB	0.071	0.458	0.2180
5	11.26	Sulfate	BMB	3.287	31.891	28.6197
6	12.60	Ortho as P	BMB	0.107	0.721	-0.1804
		TOTAL:		16.13	167.72	117.88



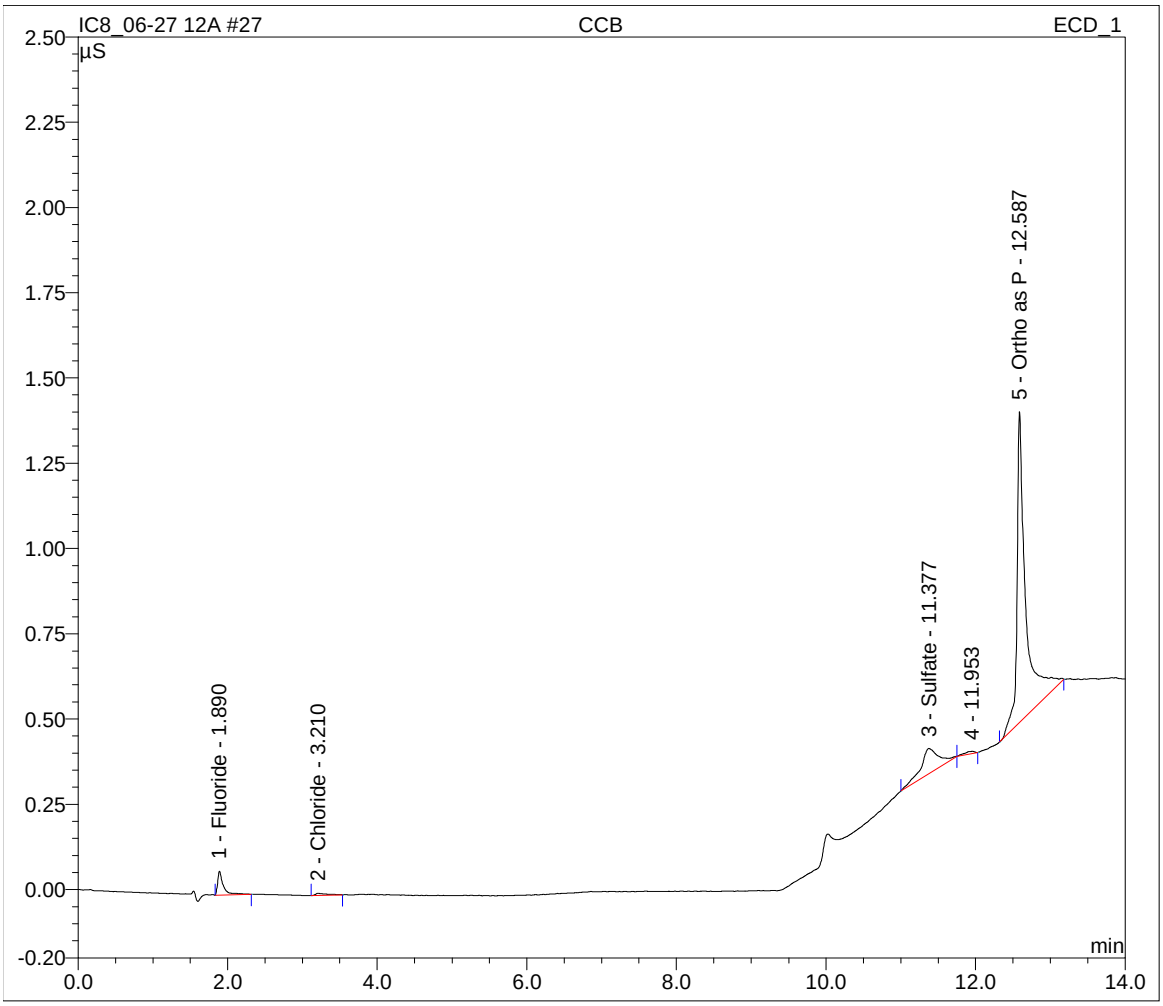
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 19:33**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.183	13.771	4.9335
2	3.19	Chloride	BMB	3.457	37.224	24.5134
3	3.72	Nitrite	BMB	1.726	14.321	4.8533
4	6.07	Bromide	BMB	0.291	2.079	4.8456
5	6.65	Nitrate	BMB	1.786	9.429	4.8848
6	11.26	Sulfate	BMB	2.829	28.018	24.6022
7	12.56	Ortho as P	BMB	1.121	12.496	5.0119
		TOTAL:		12.39	117.34	73.64



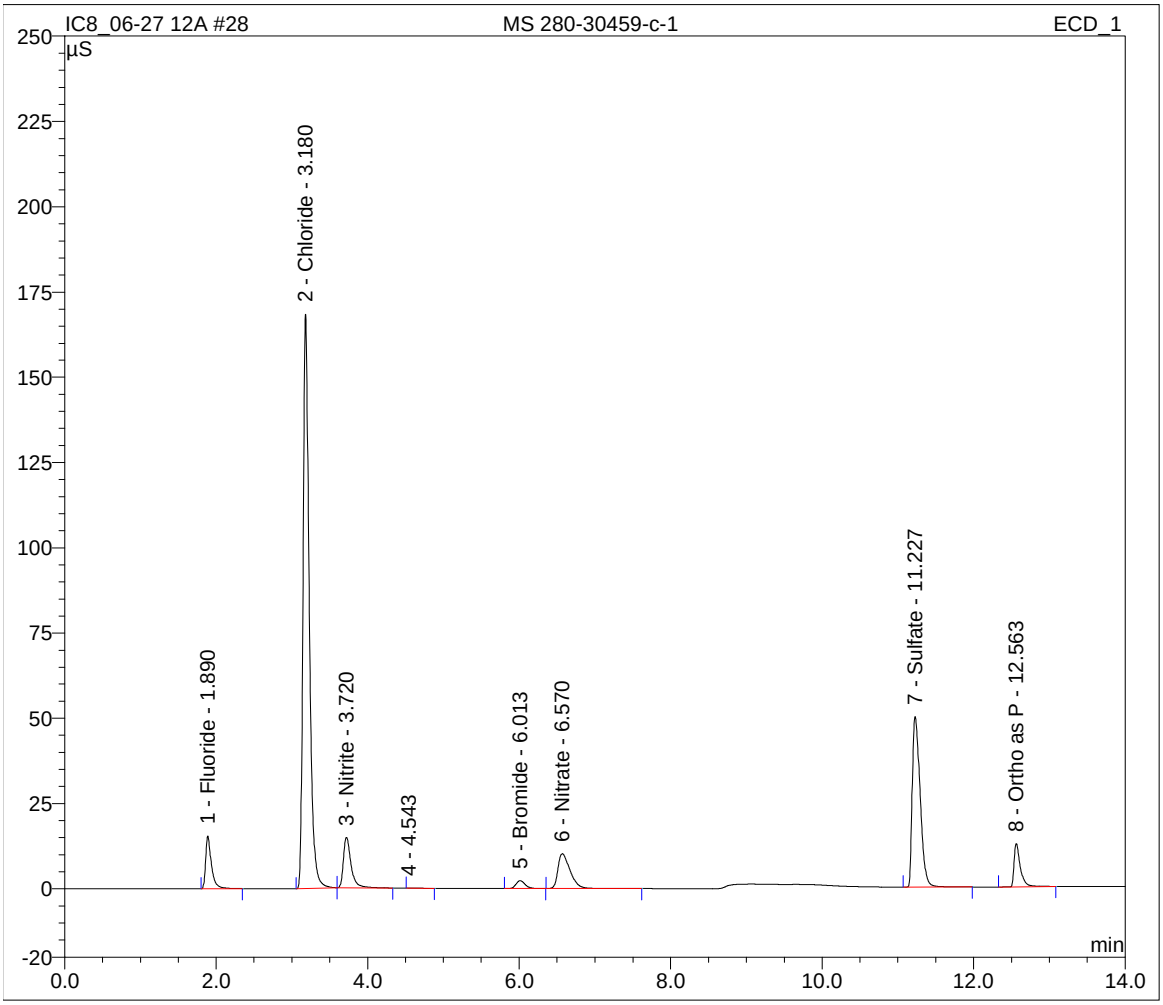
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 19:49**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.006	0.070	-0.0033
2	3.21	Chloride	BMB	0.001	0.006	0.0244
3	11.38	Sulfate	BMB	0.020	0.073	-0.0314
5	12.59	Ortho as P	BMB	0.125	0.911	-0.0885
TOTAL:				0.15	1.06	-0.10



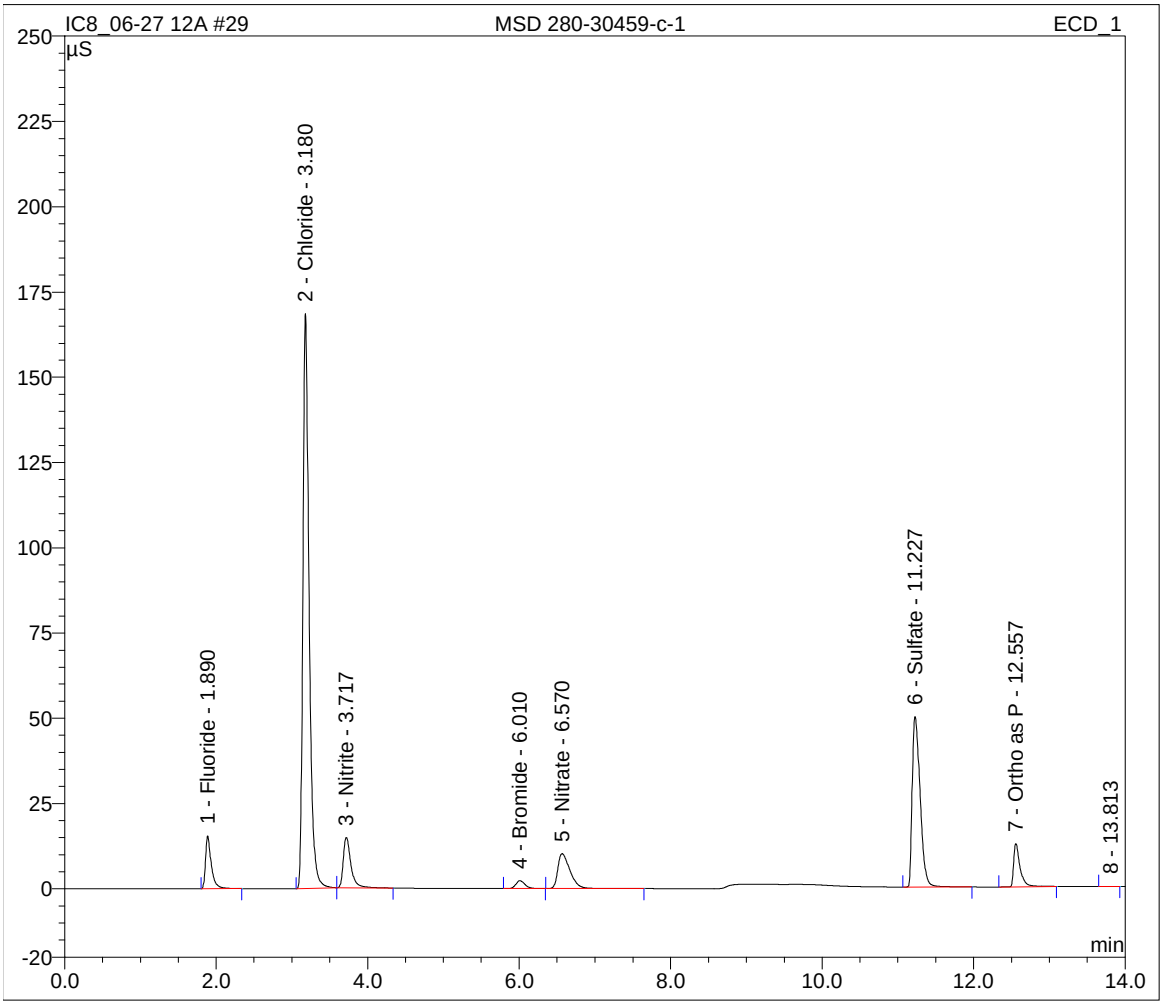
Sample Name:	**MS 280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:06**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.387	15.480	5.7914
2	3.18	Chloride	BMB	15.916	168.453	112.8078
3	3.72	Nitrite	bMB	1.736	14.756	4.8803
5	6.01	Bromide	BMB	0.322	2.330	5.3590
6	6.57	Nitrate	BMB	1.892	10.213	5.1737
7	11.23	Sulfate	BMB	6.046	49.975	52.8077
8	12.56	Ortho as P	BMB	1.205	12.671	5.4389
		TOTAL:		28.50	273.88	192.26



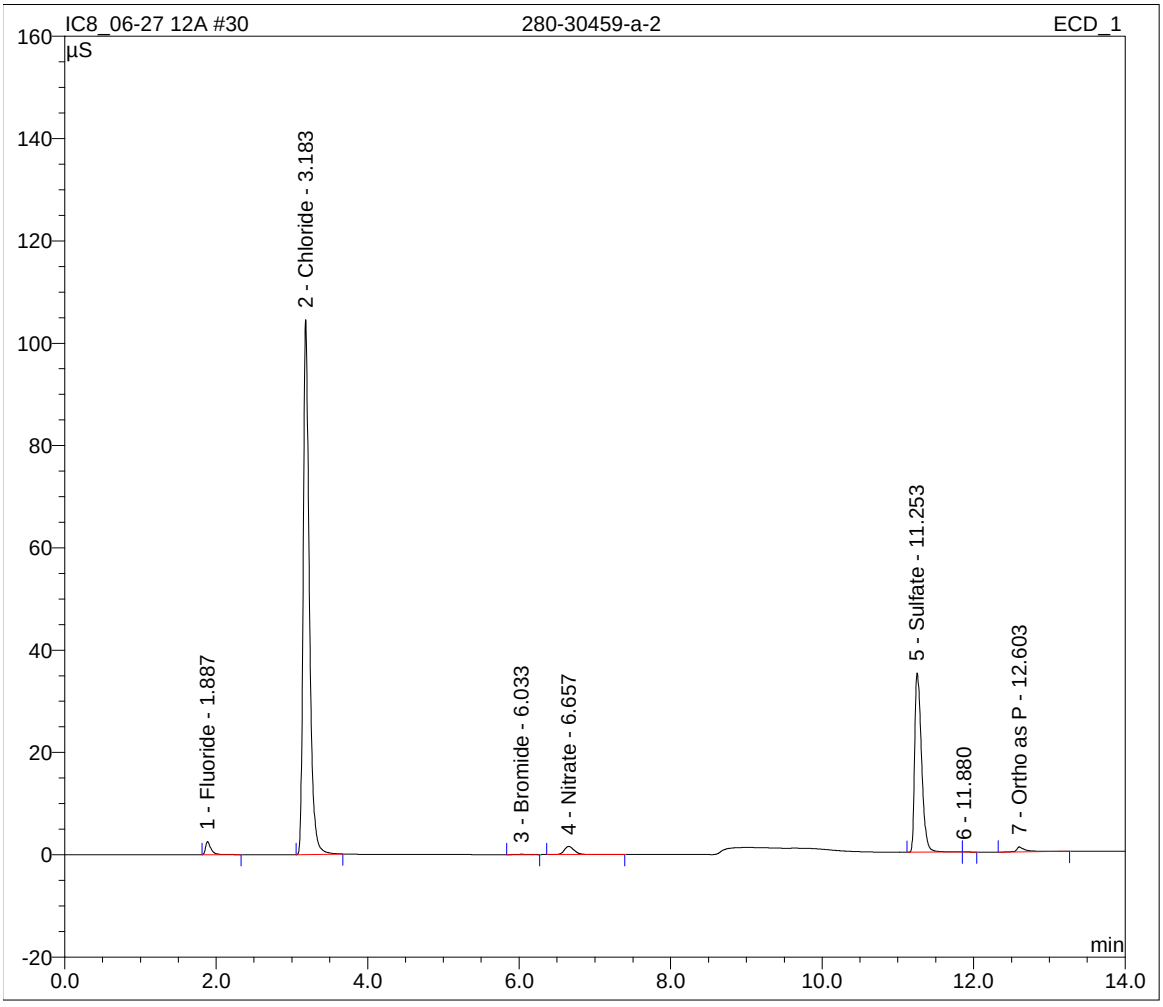
Sample Name:	**MSD 280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:23**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.389	15.486	5.8014
2	3.18	Chloride	BMb	15.921	168.632	112.8411
3	3.72	Nitrite	bMB	1.734	14.755	4.8764
4	6.01	Bromide	BMB	0.323	2.333	5.3624
5	6.57	Nitrate	BMB	1.896	10.213	5.1821
6	11.23	Sulfate	BMB	6.058	49.960	52.9145
7	12.56	Ortho as P	BMB	1.231	12.671	5.5729
		TOTAL:		28.55	274.05	192.55



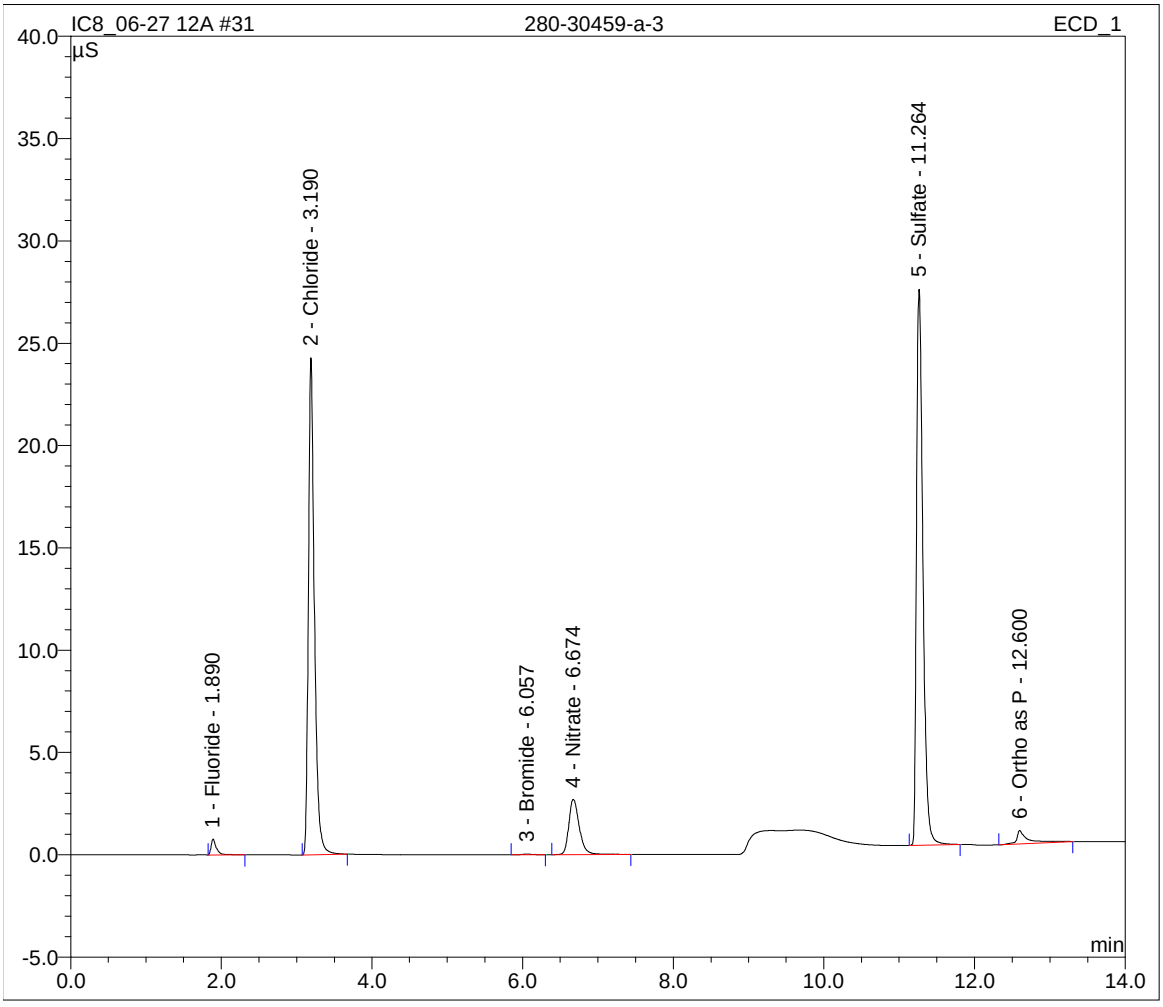
Sample Name:	**280-30459-a-2**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:40**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.217	2.576	0.8817
2	3.18	Chloride	BMB	9.832	104.579	69.6961
3	6.03	Bromide	BMB	0.009	0.068	0.1895
4	6.66	Nitrate	BMB	0.247	1.588	0.6962
5	11.25	Sulfate	BMb	3.695	35.044	32.1972
7	12.60	Ortho as P	BMB	0.146	0.977	0.0222
		TOTAL:		14.15	144.83	103.68



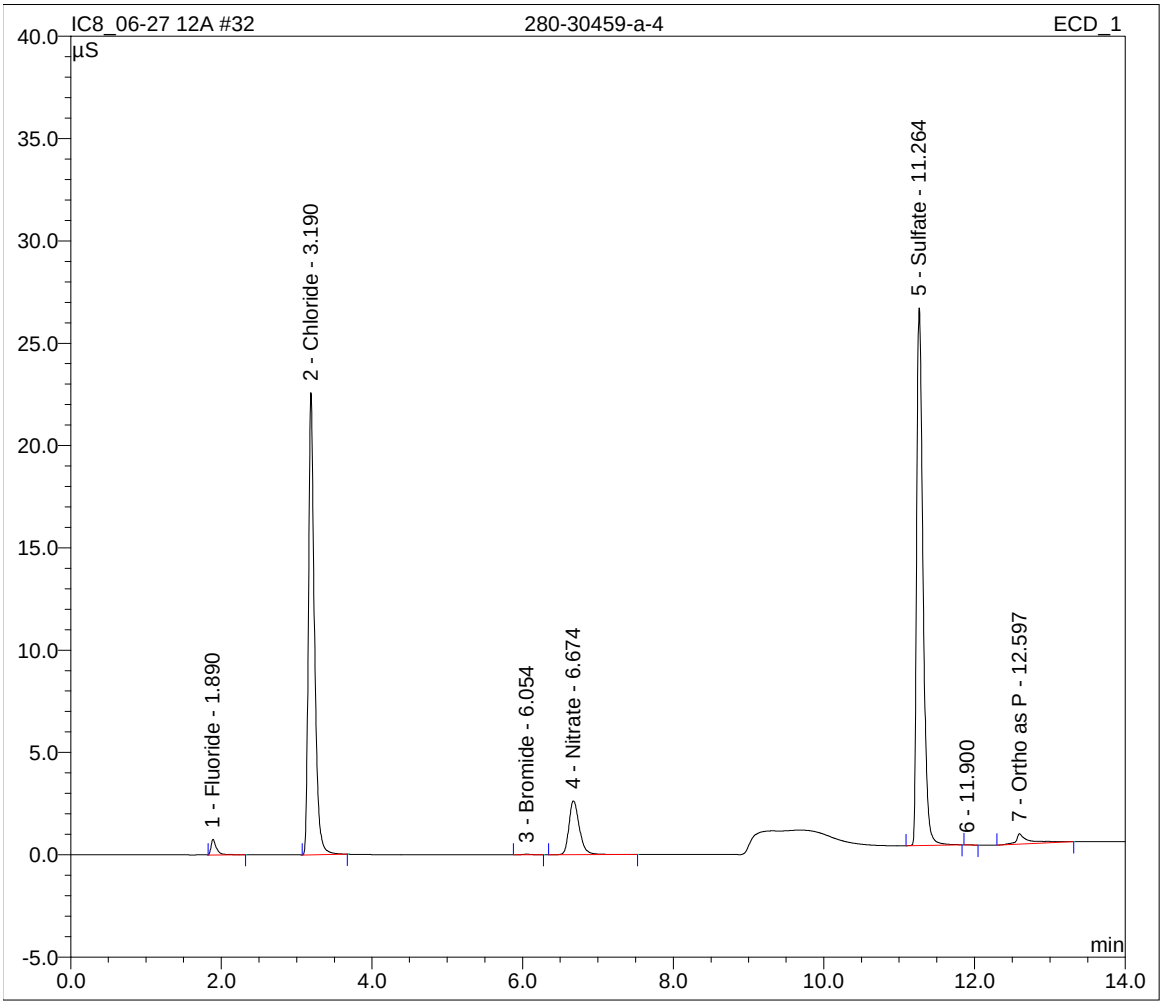
Sample Name:	**280-30459-a-3**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:57**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.064	0.774	0.2396
2	3.19	Chloride	BMB	2.248	24.290	15.9501
3	6.06	Bromide	BMB	0.004	0.030	0.1053
4	6.67	Nitrate	BMB	0.432	2.696	1.1996
5	11.26	Sulfate	BMB	2.675	27.172	23.2487
6	12.60	Ortho as P	BMB	0.115	0.658	-0.1359
		TOTAL:		5.54	55.62	40.61



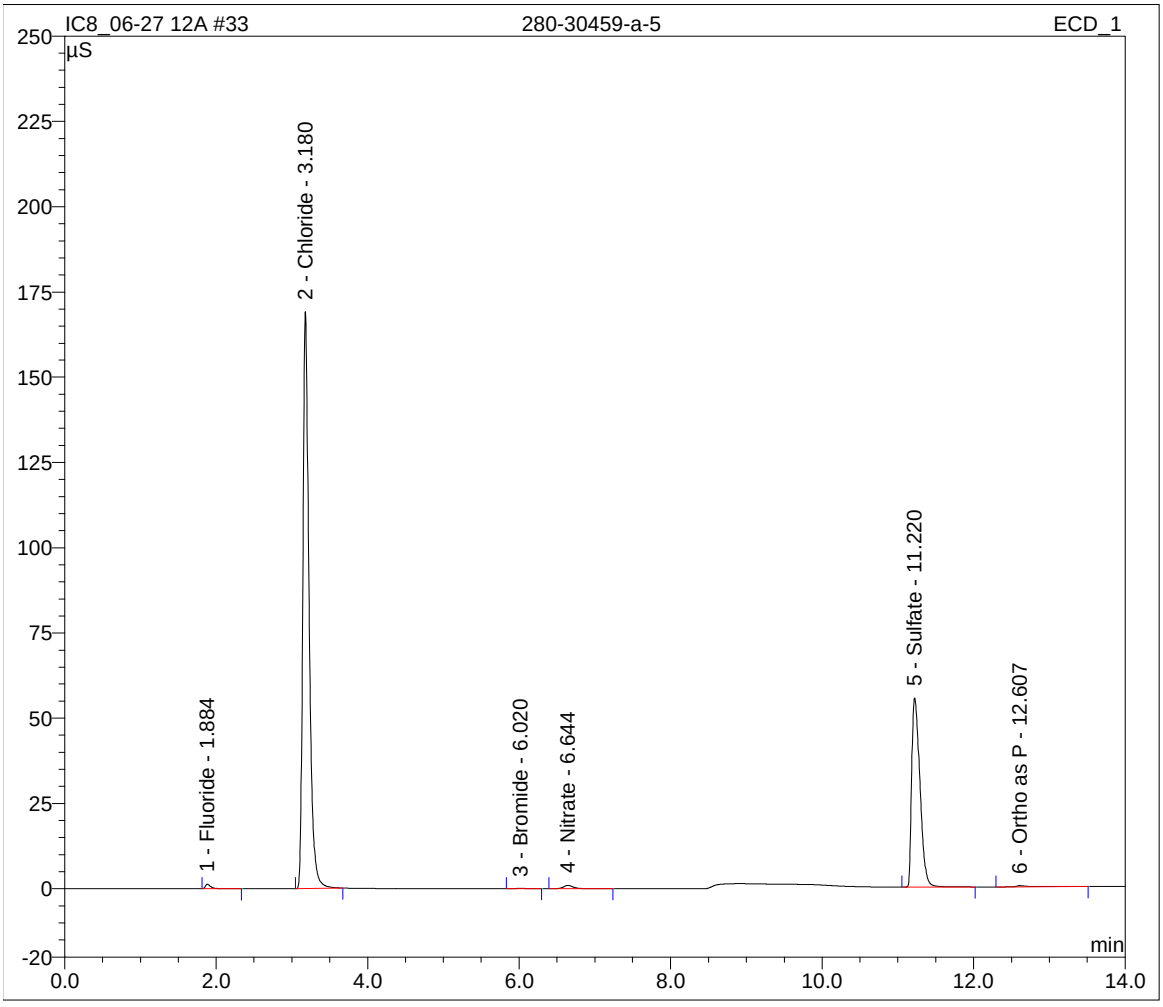
Sample Name:	**280-30459-a-4**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 21:13**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.064	0.763	0.2382
2	3.19	Chloride	BMB	2.083	22.581	14.7765
3	6.05	Bromide	BMB	0.004	0.029	0.1007
4	6.67	Nitrate	BMB	0.421	2.624	1.1695
5	11.26	Sulfate	BMB	2.560	26.280	22.2429
7	12.60	Ortho as P	BMB	0.098	0.505	-0.2254
		TOTAL:		5.23	52.78	38.30



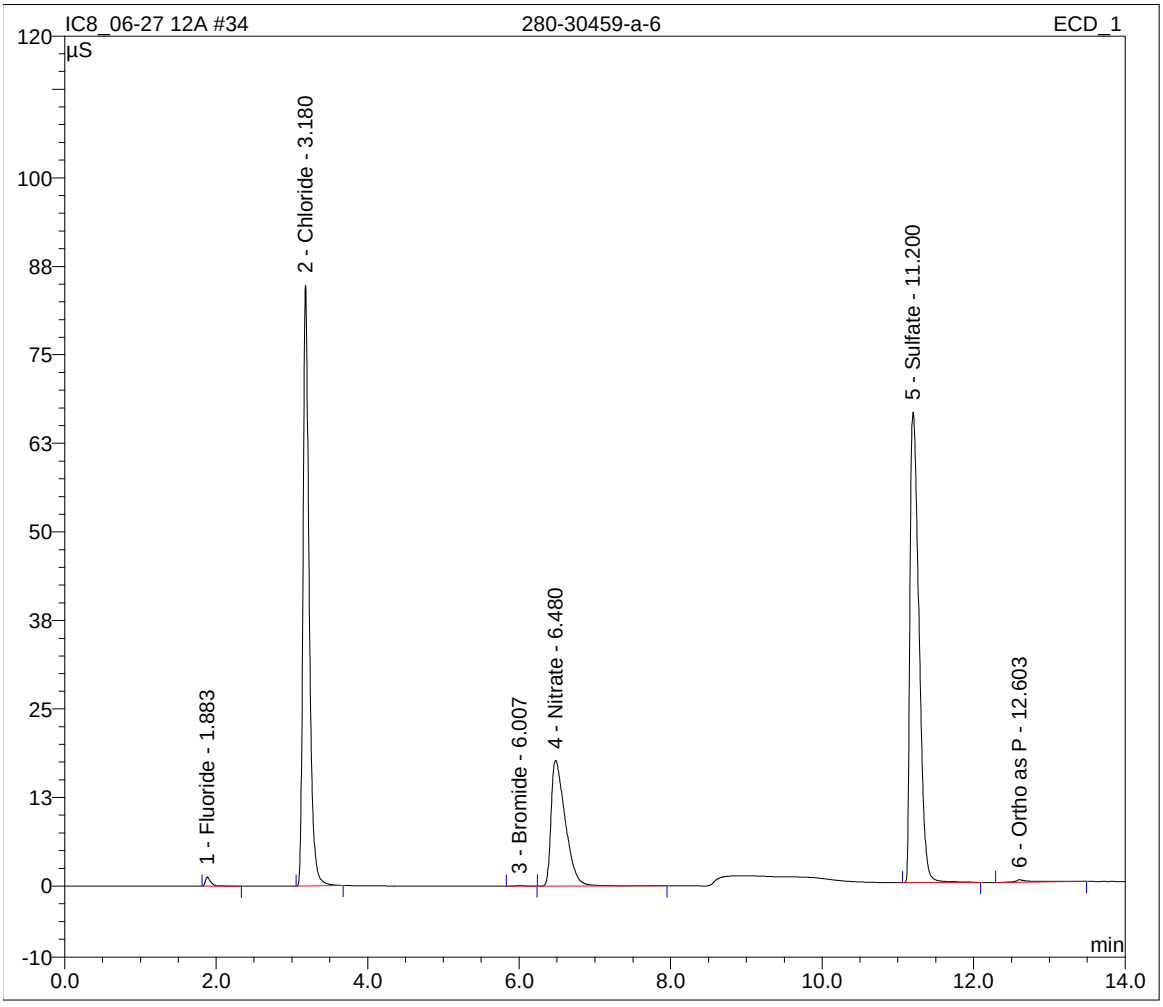
Sample Name:	**280-30459-a-5**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 21:30**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.88	Fluoride	BMB	0.115	1.340	0.4523
2	3.18	Chloride	BMB	16.055	169.212	113.7921
3	6.02	Bromide	BMB	0.013	0.092	0.2456
4	6.64	Nitrate	BMB	0.143	0.944	0.4152
5	11.22	Sulfate	BMB	7.015	55.412	61.3021
6	12.61	Ortho as P	BMB	0.102	0.391	-0.2041
		TOTAL:		23.44	227.39	176.00



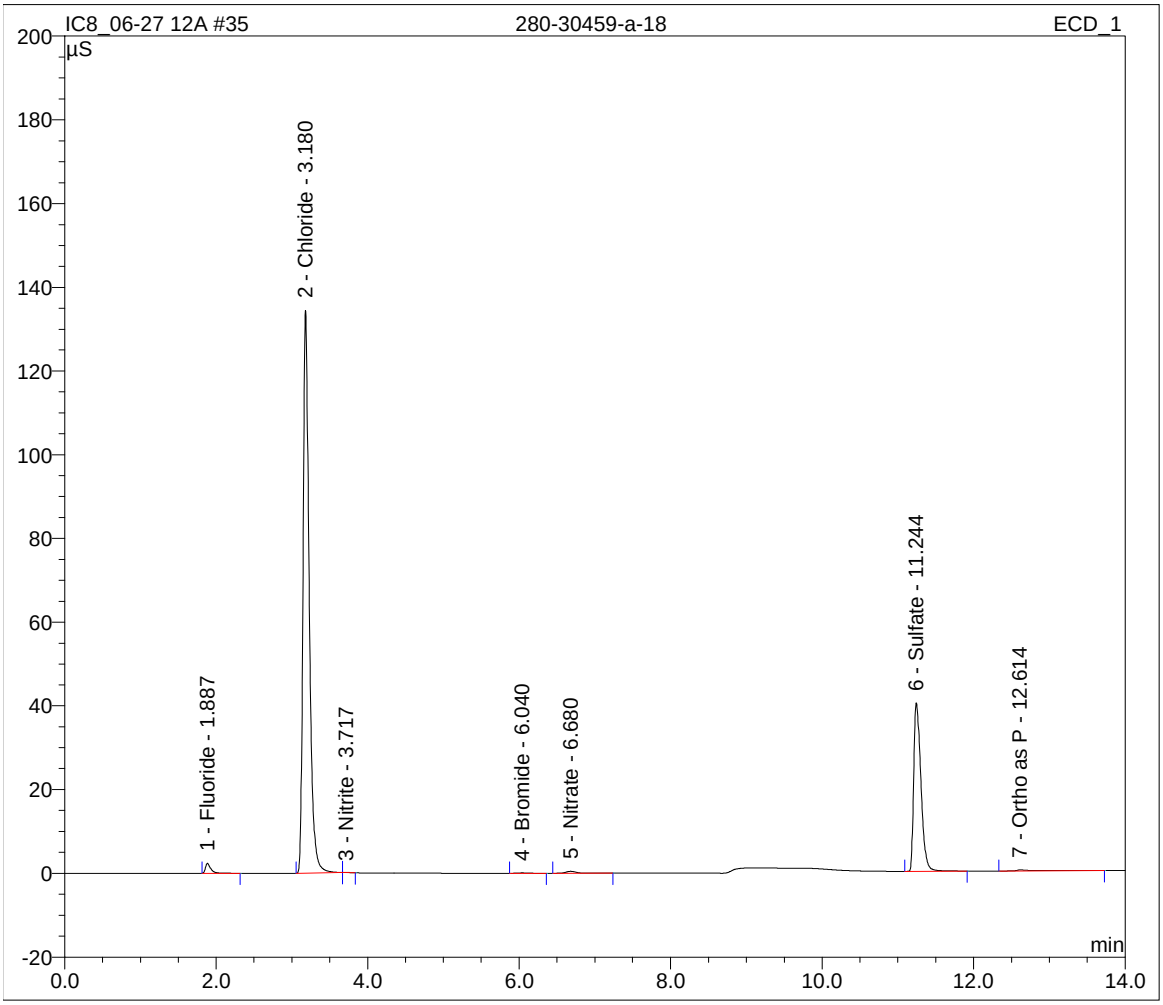
Sample Name:	**280-30459-a-6**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 21:47**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.88	Fluoride	BMB	0.112	1.302	0.4409
2	3.18	Chloride	BMB	7.964	84.812	56.4552
3	6.01	Bromide	BMB	0.009	0.070	0.1861
4	6.48	Nitrate	BMB	3.837	17.730	10.4639
5	11.20	Sulfate	BMB	9.186	66.414	80.3451
6	12.60	Ortho as P	BMB	0.096	0.364	-0.2366
		TOTAL:		21.20	170.69	147.65



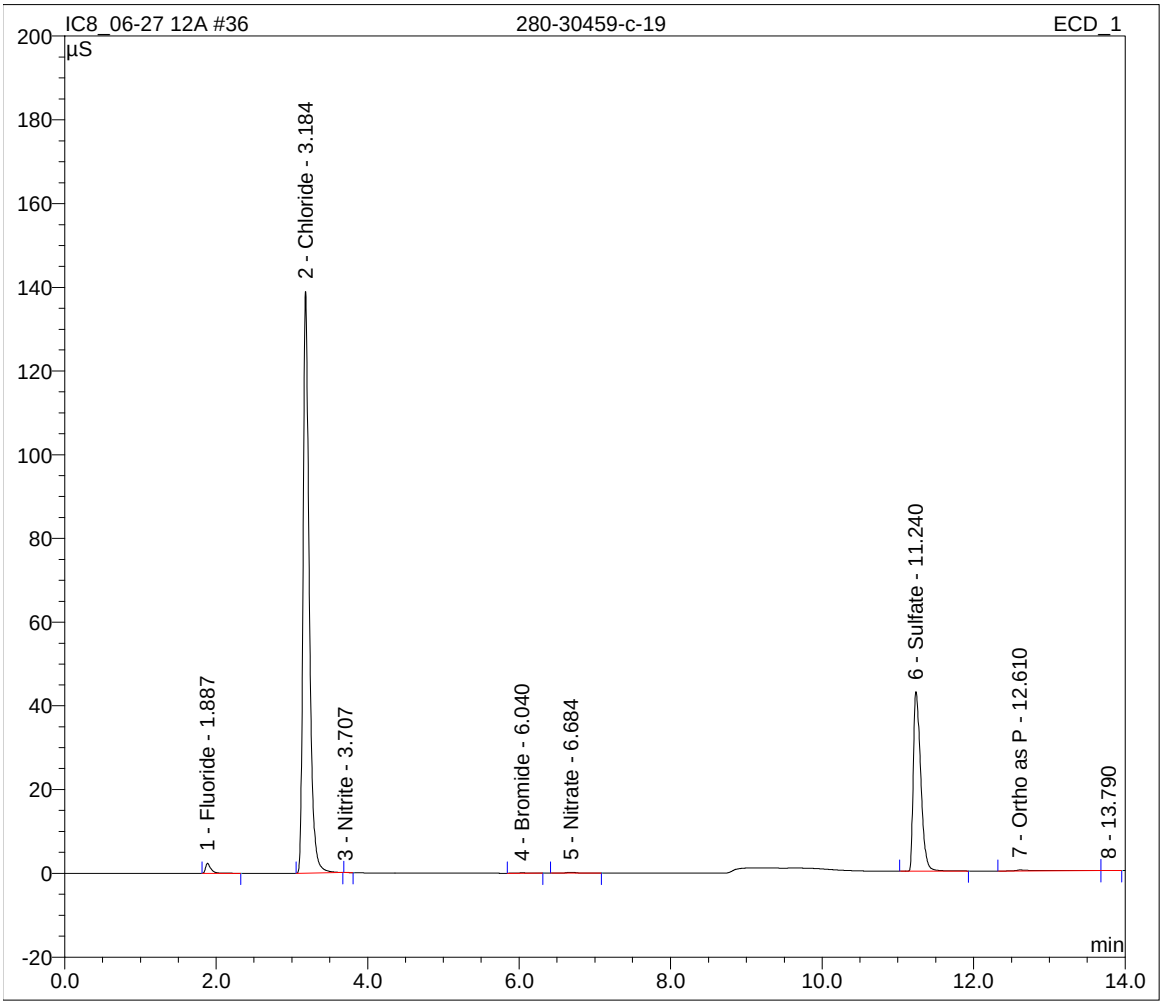
Sample Name:	**280-30459-a-18**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:04**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.201	2.394	0.8144
2	3.18	Chloride	BMb	12.693	134.492	89.9705
3	3.72	Nitrite	bMB	0.003	0.041	0.0166
4	6.04	Bromide	BMB	0.012	0.088	0.2347
5	6.68	Nitrate	BMB	0.072	0.464	0.2218
6	11.24	Sulfate	BMB	4.459	40.218	38.8908
7	12.61	Ortho as P	BMB	0.110	0.303	-0.1654
TOTAL:				17.55	178.00	129.98



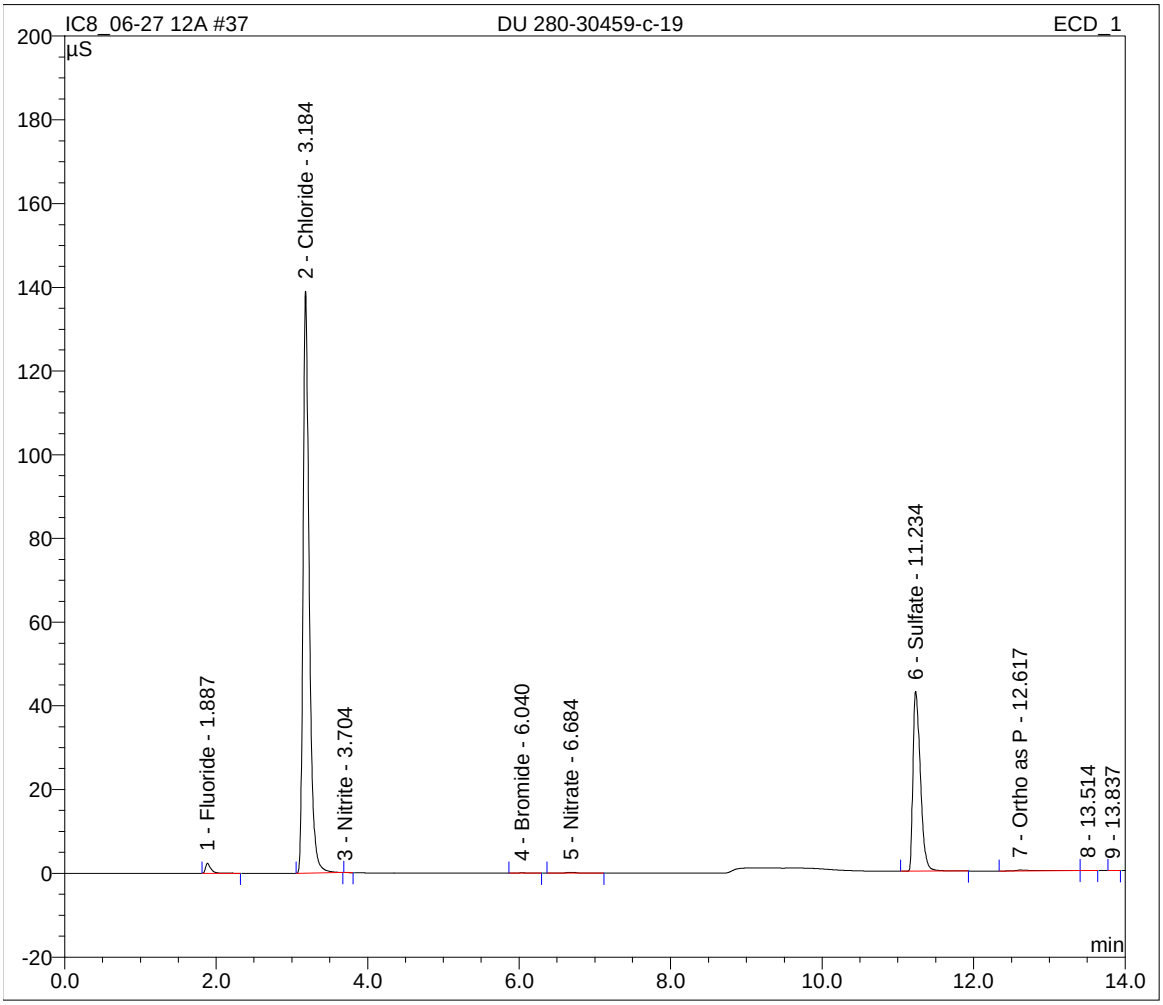
Sample Name:	**280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:21**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.202	2.396	0.8166
2	3.18	Chloride	BMB	13.145	138.986	93.1724
3	3.71	Nitrite	BMB	0.001	0.011	0.0100
4	6.04	Bromide	BMB	0.012	0.089	0.2385
5	6.68	Nitrate	BMB	0.034	0.214	0.1165
6	11.24	Sulfate	BMB	4.895	42.883	42.7133
7	12.61	Ortho as P	BMB	0.105	0.272	-0.1897
TOTAL:				18.39	184.85	136.88



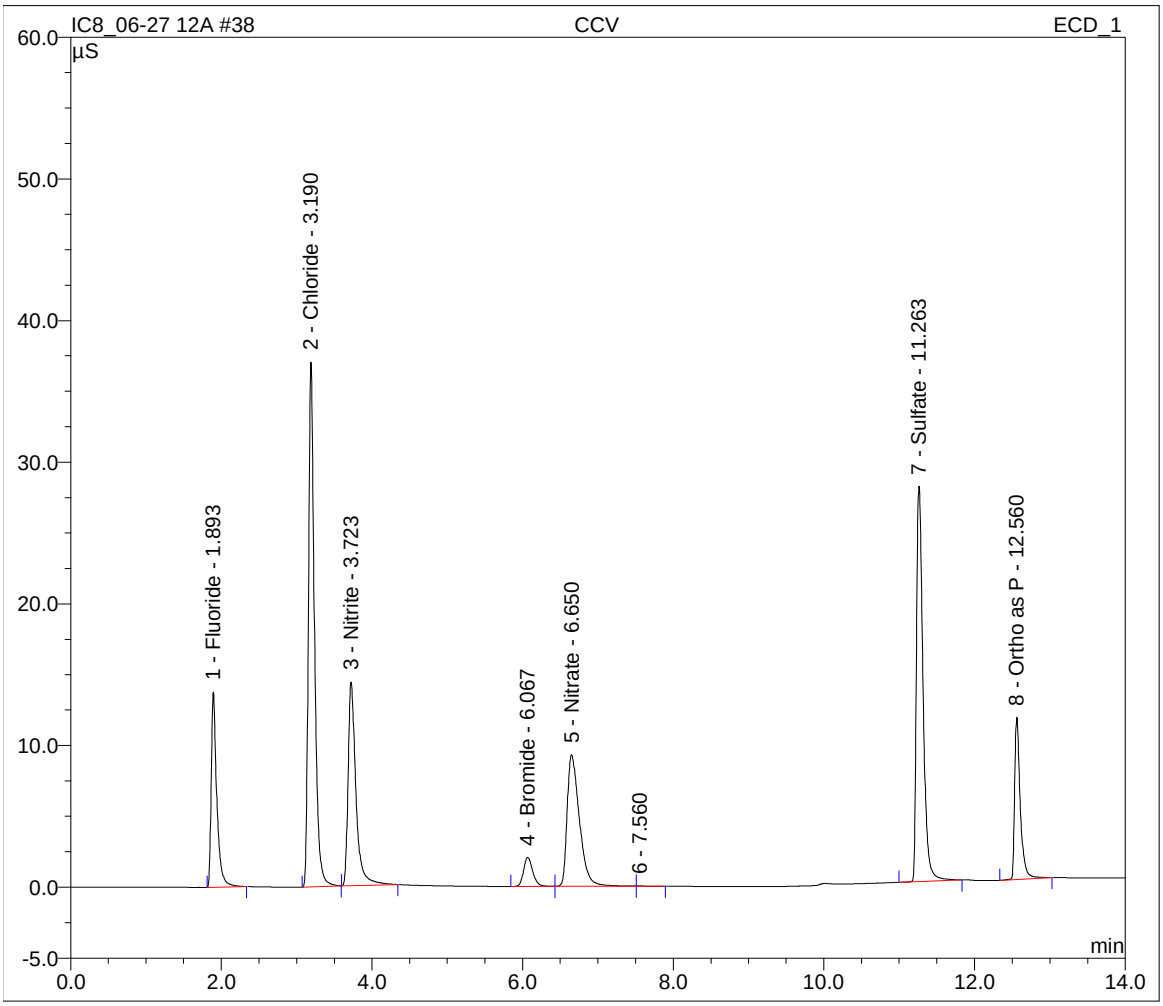
Sample Name:	**DU 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:37**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.202	2.398	0.8173
2	3.18	Chloride	BMB	13.155	139.079	93.2433
3	3.70	Nitrite	BMB	0.001	0.009	0.0100
4	6.04	Bromide	BMB	0.012	0.089	0.2355
5	6.68	Nitrate	BMB	0.033	0.212	0.1164
6	11.23	Sulfate	BMB	4.893	42.924	42.7034
7	12.62	Ortho as P	BMB	0.077	0.237	-0.3304
TOTAL:				18.37	184.95	136.80



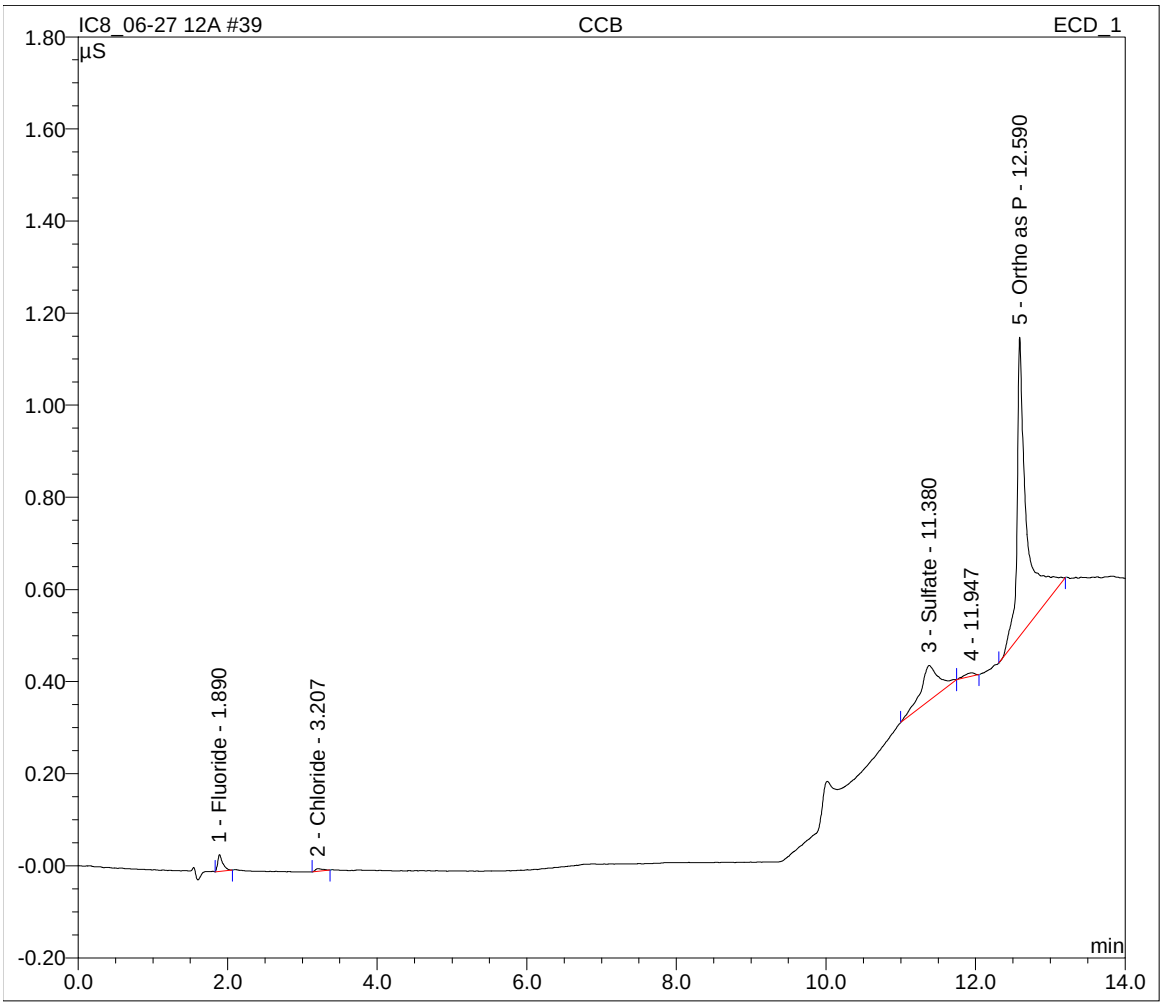
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:54**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.186	13.786	4.9466
2	3.19	Chloride	BMB	3.448	37.038	24.4506
3	3.72	Nitrite	BMB	1.735	14.356	4.8774
4	6.07	Bromide	BMB	0.288	2.050	4.7945
5	6.65	Nitrate	BMb	1.741	9.271	4.7604
7	11.26	Sulfate	BMB	2.818	27.892	24.5078
8	12.56	Ortho as P	BMB	0.991	11.433	4.3426
		TOTAL:		12.21	115.83	72.68



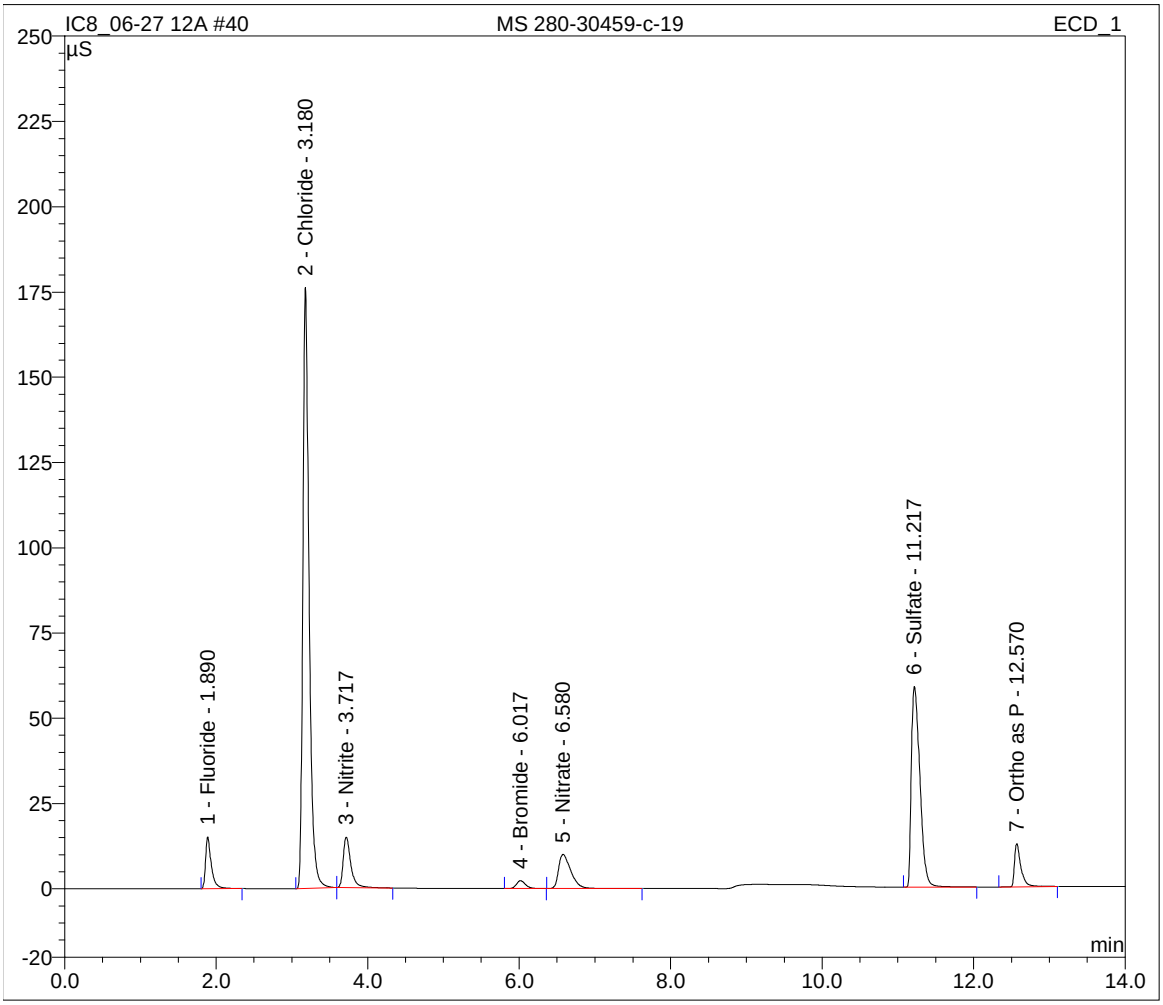
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 23:11**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.003	0.036	-0.0185
2	3.21	Chloride	BMB	0.001	0.006	0.0211
3	11.38	Sulfate	BMB	0.021	0.077	-0.0179
5	12.59	Ortho as P	BMB	0.101	0.649	-0.2124
TOTAL:				0.13	0.77	-0.23



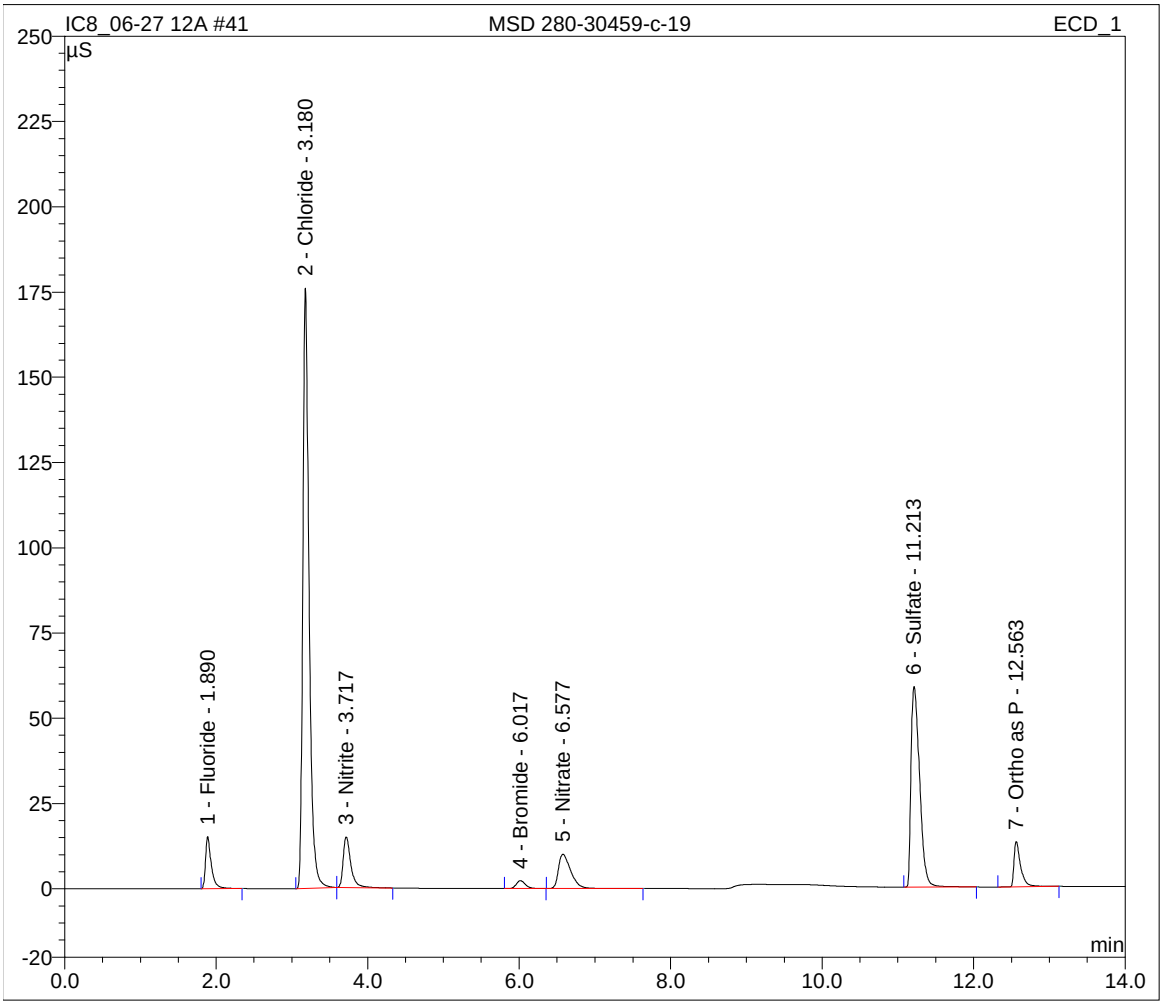
Sample Name:	**MS 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 23:28**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.364	15.209	5.6951
2	3.18	Chloride	BMb	16.697	176.259	118.3434
3	3.72	Nitrite	bMB	1.742	14.777	4.8991
4	6.02	Bromide	BMB	0.321	2.302	5.3386
5	6.58	Nitrate	BMB	1.874	10.021	5.1238
6	11.22	Sulfate	BMB	7.690	58.749	67.2229
7	12.57	Ortho as P	BMB	1.237	12.629	5.6019
TOTAL:				30.93	289.94	212.22



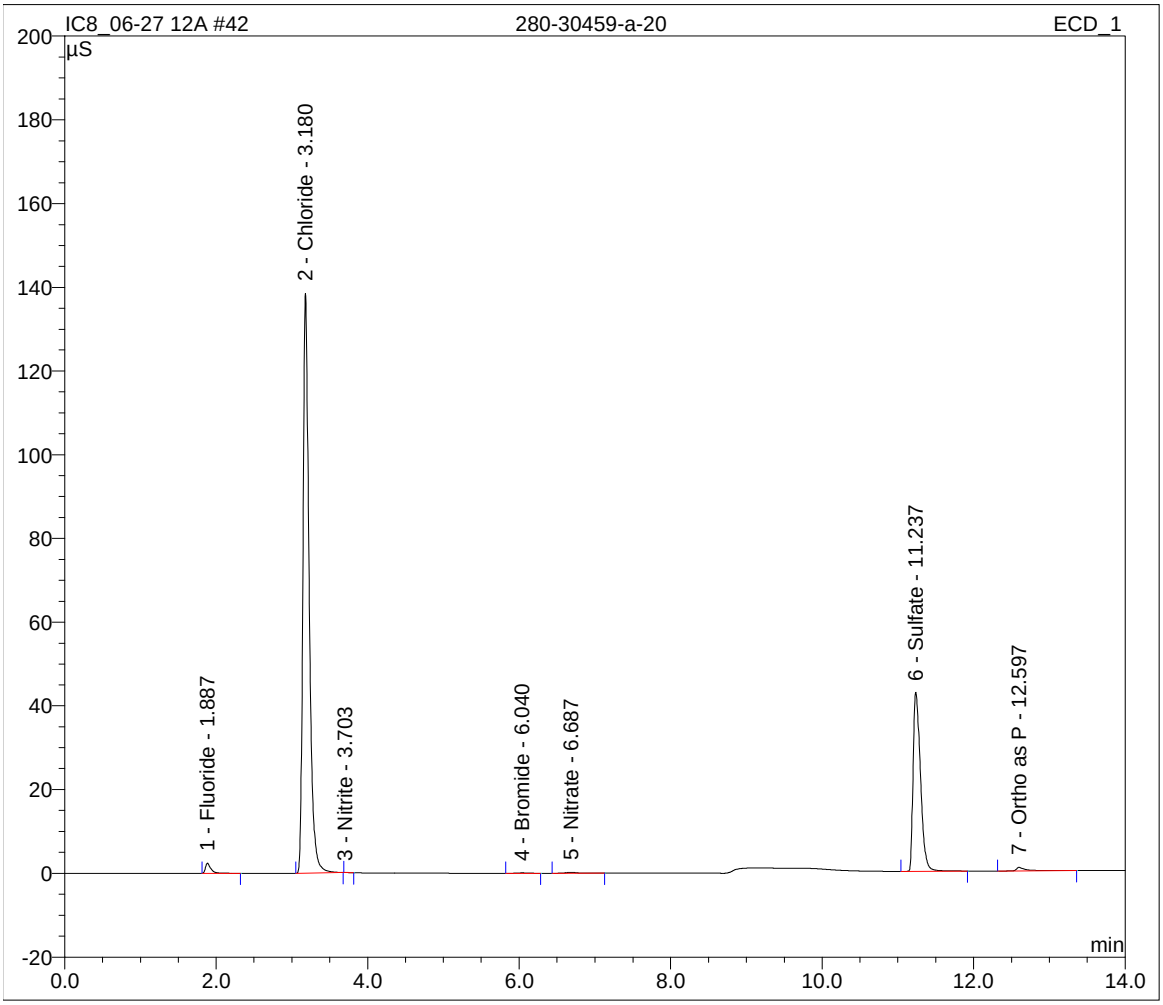
Sample Name:	**MSD 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 23:45**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.378	15.282	5.7524
2	3.18	Chloride	BMb	16.713	176.028	118.4590
3	3.72	Nitrite	bMB	1.747	14.814	4.9128
4	6.02	Bromide	BMB	0.323	2.317	5.3718
5	6.58	Nitrate	BMB	1.888	10.076	5.1629
6	11.21	Sulfate	BMB	7.724	58.745	67.5199
7	12.56	Ortho as P	BMB	1.339	13.238	6.1258
		TOTAL:		31.11	290.50	213.30



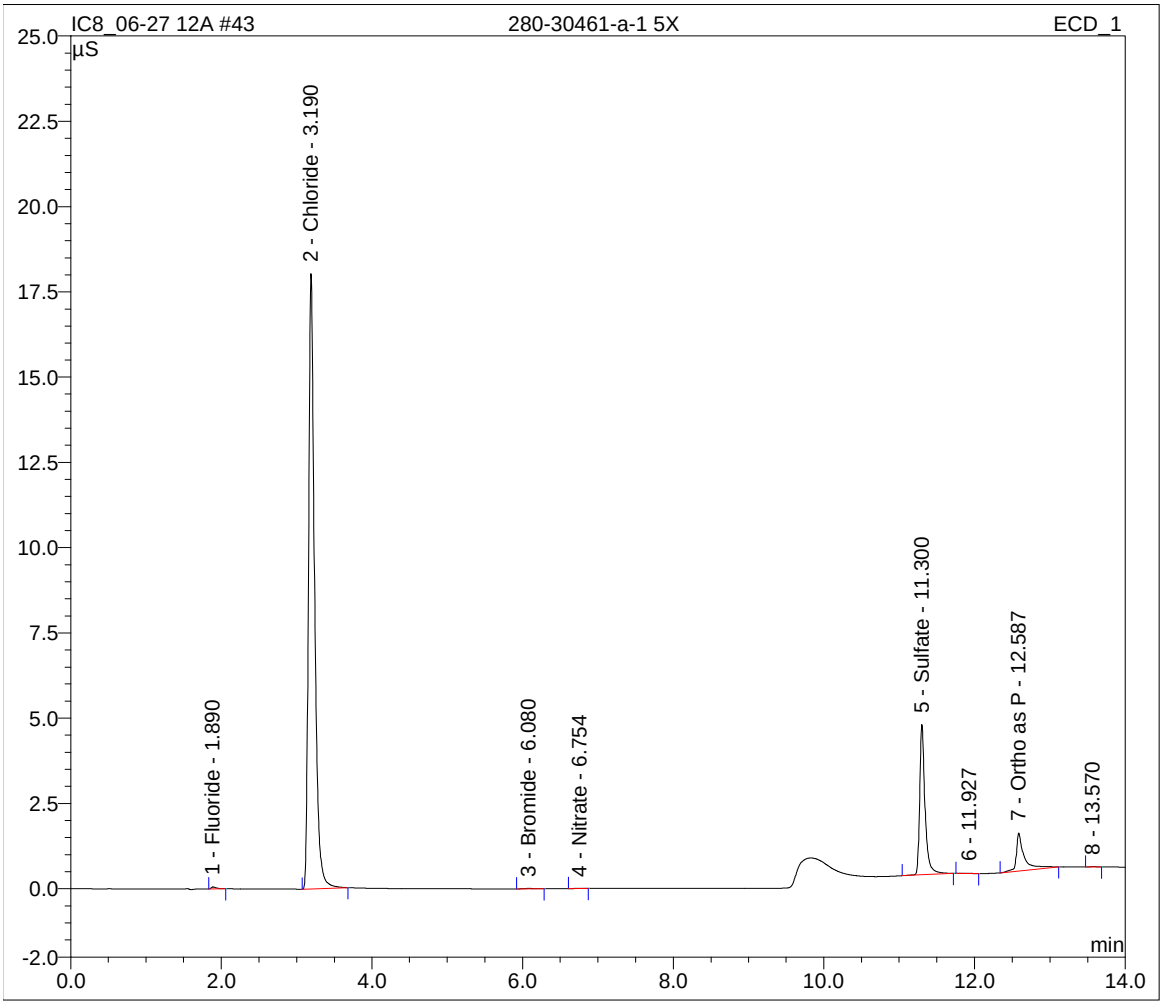
Sample Name:	**280-30459-a-20**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:01**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.206	2.439	0.8330
2	3.18	Chloride	BMB	13.125	138.545	93.0314
3	3.70	Nitrite	BMB	0.001	0.011	0.0103
4	6.04	Bromide	BMB	0.012	0.089	0.2373
5	6.69	Nitrate	BMB	0.034	0.215	0.1182
6	11.24	Sulfate	BMB	4.841	42.717	42.2392
7	12.60	Ortho as P	BMB	0.153	0.898	0.0557
TOTAL:				18.37	184.91	136.53



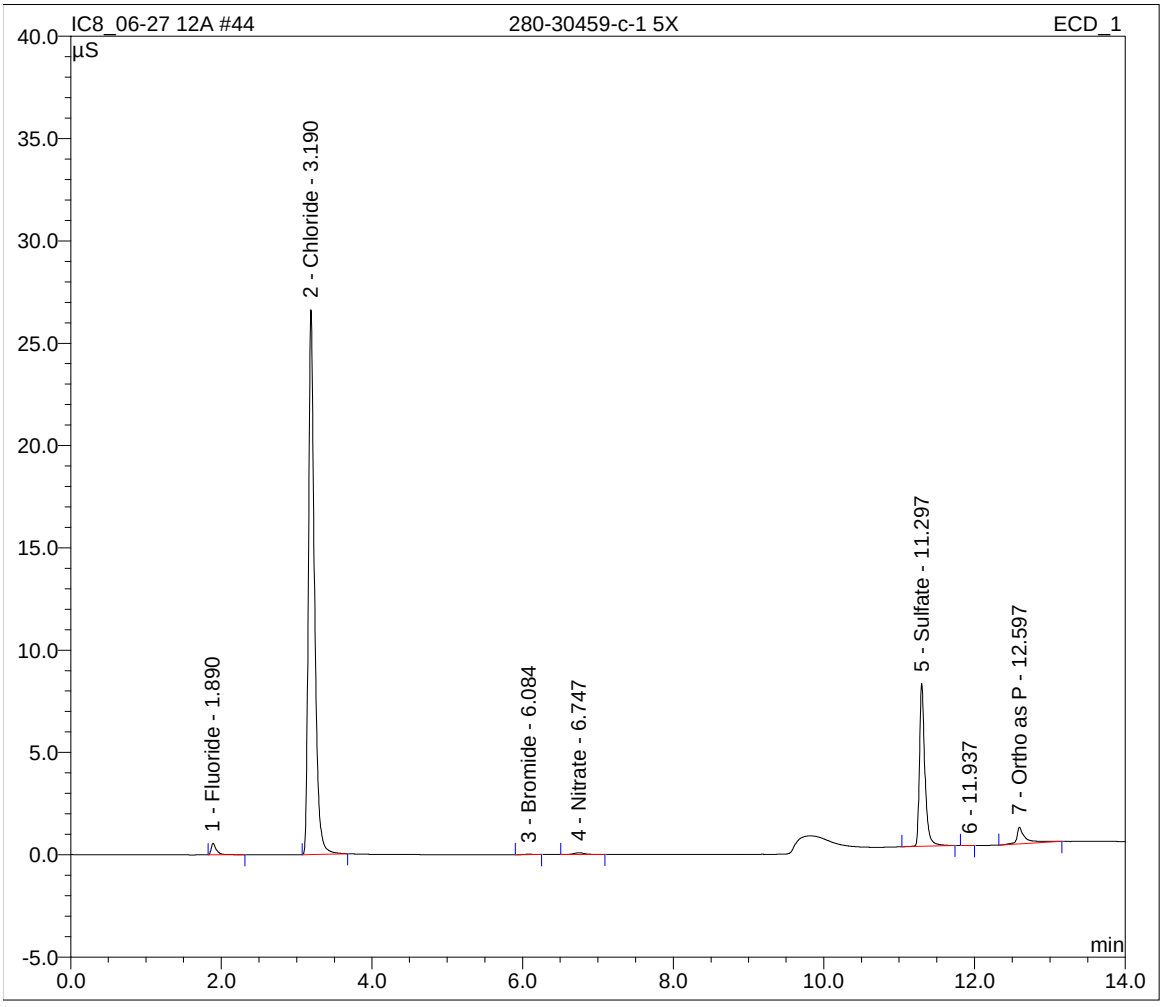
Sample Name:	**280-30461-a-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:18**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.005	0.059	-0.0539
2	3.19	Chloride	BMB	1.680	18.041	59.5973
3	6.08	Bromide	BMB	0.002	0.011	0.3015
4	6.75	Nitrate	BMB	0.001	0.004	0.1334
5	11.30	Sulfate	BMB	0.366	4.401	15.0420
7	12.59	Ortho as P	BMB	0.135	1.110	-0.1760
		TOTAL:		2.19	23.63	74.84



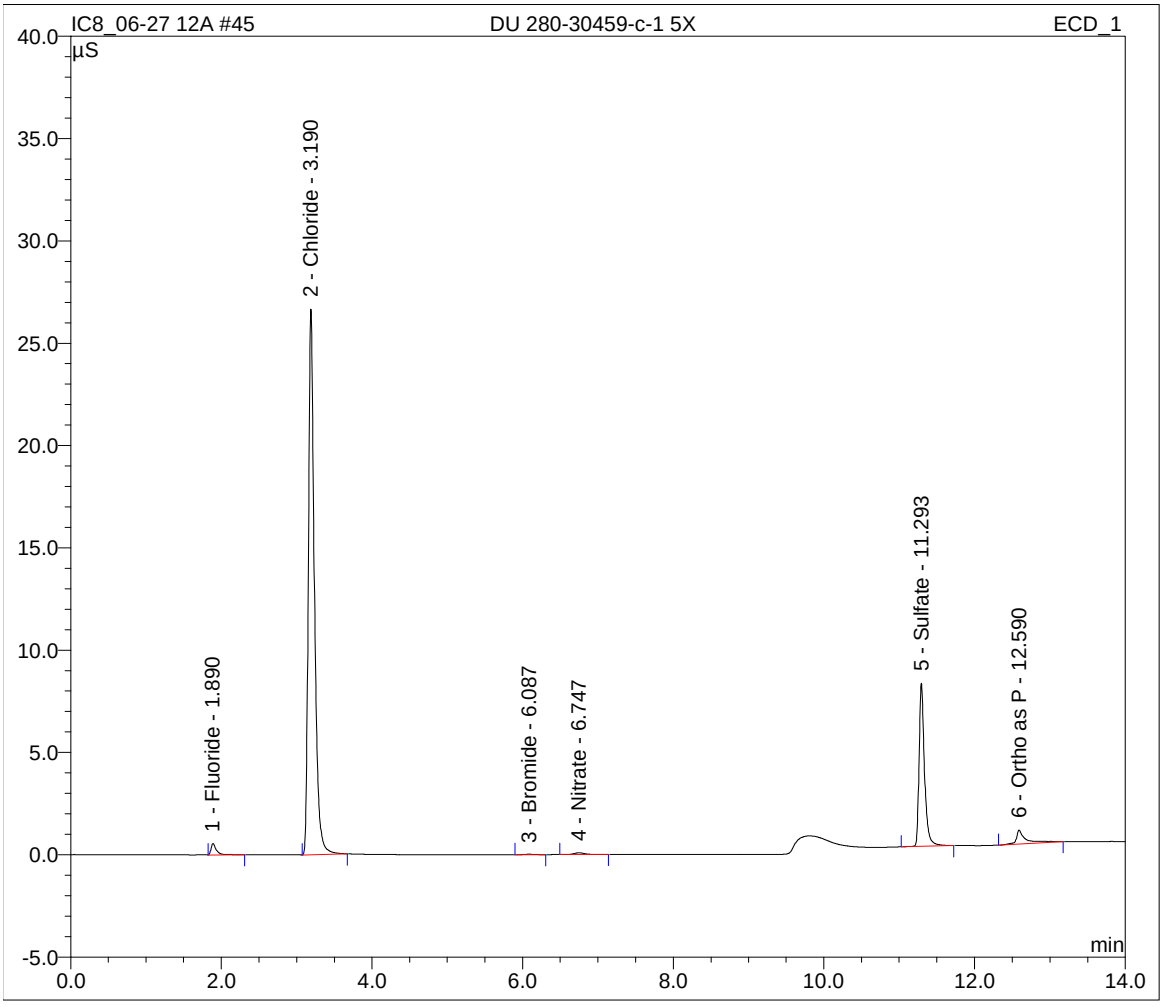
Sample Name:	**280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.047	0.563	0.8293
2	3.19	Chloride	BMB	2.483	26.637	88.0724
3	6.08	Bromide	BMB	0.003	0.022	0.4157
4	6.75	Nitrate	BMB	0.014	0.084	0.3140
5	11.30	Sulfate	BMB	0.669	7.946	28.2994
7	12.60	Ortho as P	BMB	0.110	0.815	-0.8204
		TOTAL:		3.33	36.07	117.11



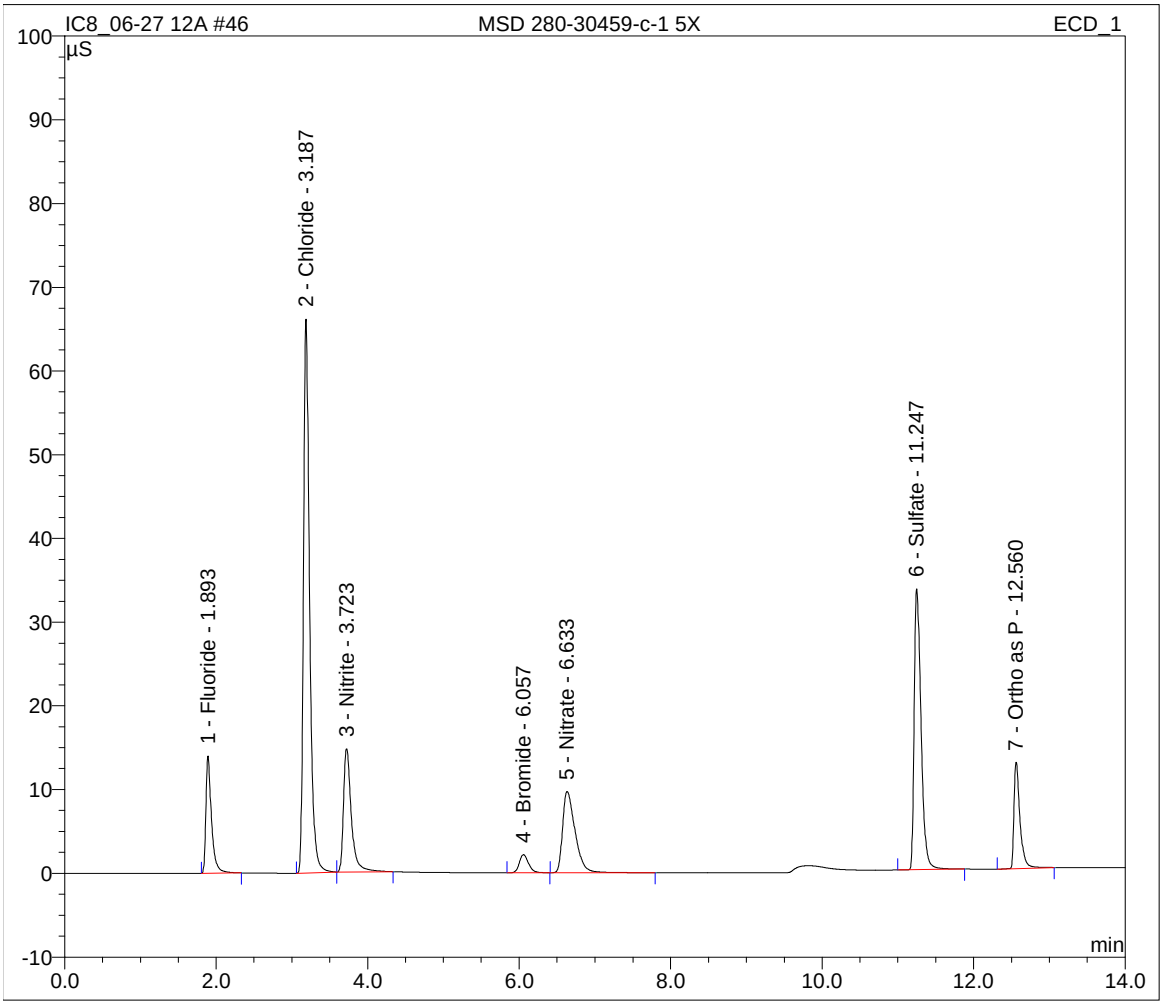
Sample Name:	**DU 280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:52**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.046	0.559	0.8192
2	3.19	Chloride	BMB	2.485	26.670	88.1313
3	6.09	Bromide	BMB	0.003	0.022	0.4257
4	6.75	Nitrate	BMB	0.014	0.084	0.3134
5	11.29	Sulfate	BMB	0.668	7.971	28.2792
6	12.59	Ortho as P	BMB	0.099	0.683	-1.1116
		TOTAL:		3.31	35.99	116.86



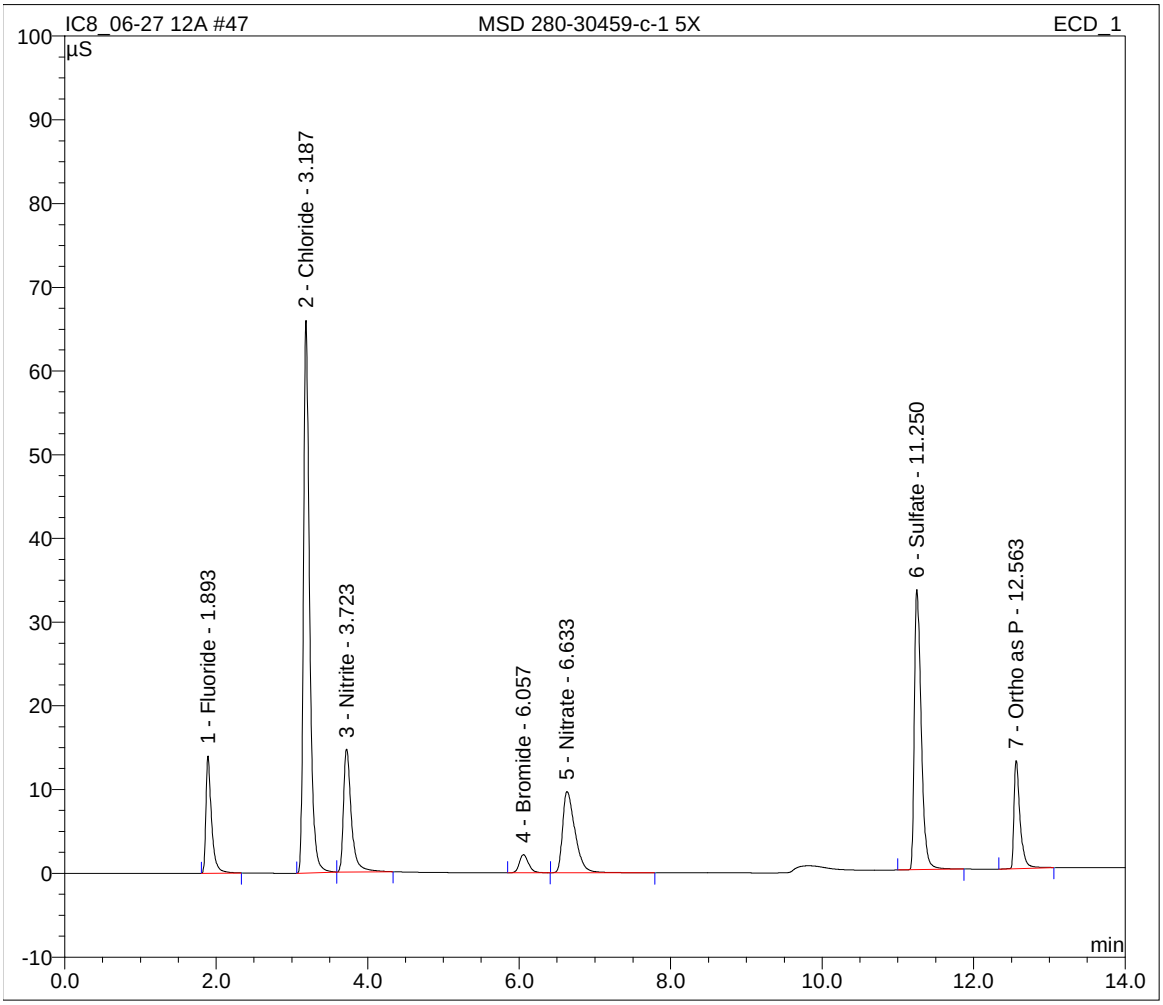
Sample Name:	**MSD 280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:09**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.215	14.024	25.3439
2	3.19	Chloride	BMB	6.203	66.170	219.8731
3	3.72	Nitrite	BMB	1.767	14.698	24.8412
4	6.06	Bromide	BMB	0.307	2.168	25.5485
5	6.63	Nitrate	BMB	1.851	9.686	25.3040
6	11.25	Sulfate	BMB	3.544	33.553	154.3536
7	12.56	Ortho as P	BMB	1.160	12.691	26.0320
TOTAL:				16.05	152.99	501.30



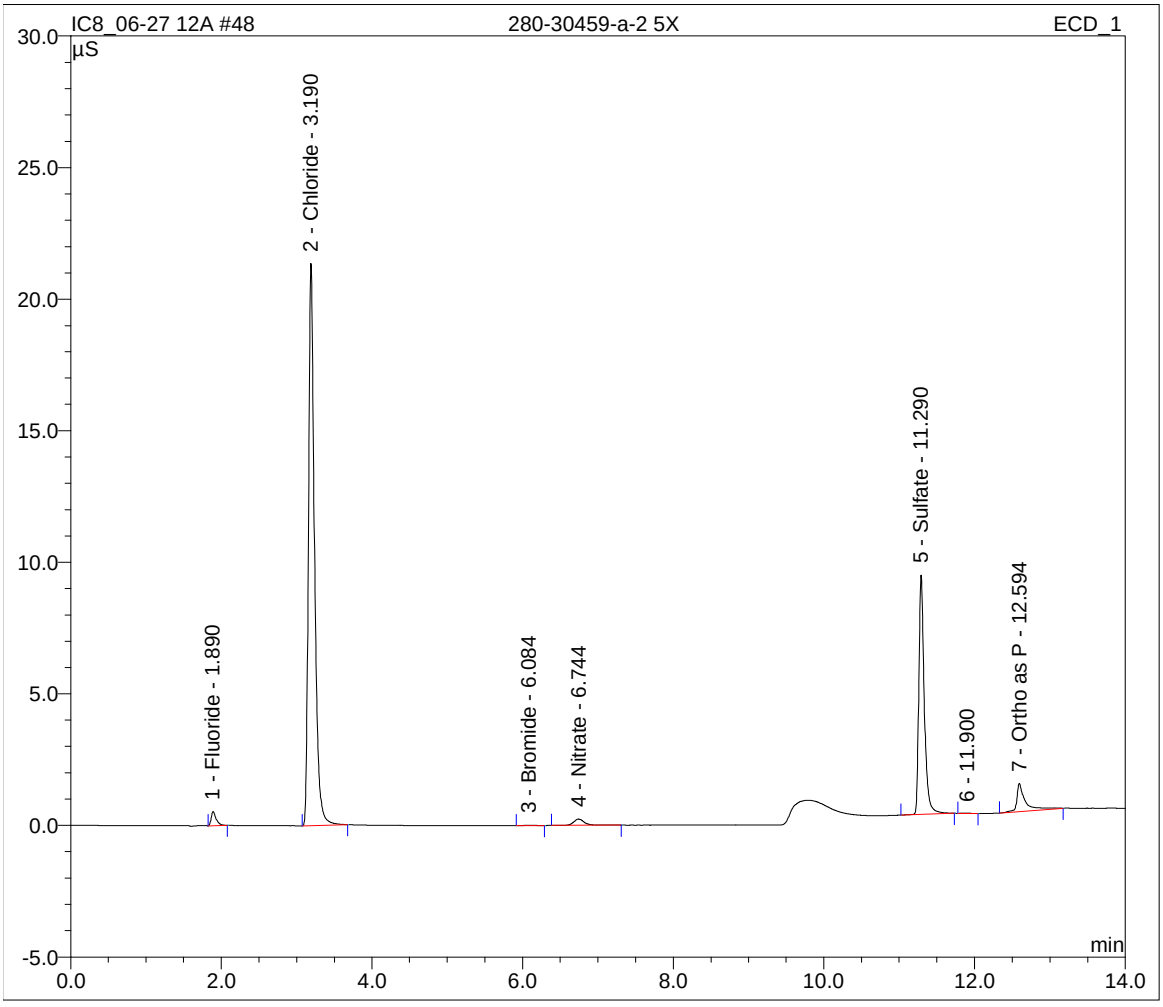
Sample Name:	**MSD 280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:25**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.213	14.006	25.3045
2	3.19	Chloride	BMB	6.184	66.036	219.2205
3	3.72	Nitrite	BMB	1.757	14.632	24.7022
4	6.06	Bromide	BMB	0.306	2.170	25.4525
5	6.63	Nitrate	BMB	1.841	9.687	25.1672
6	11.25	Sulfate	BMB	3.526	33.466	153.5595
7	12.56	Ortho as P	BMB	1.188	12.871	26.7524
TOTAL:				16.01	152.87	500.16



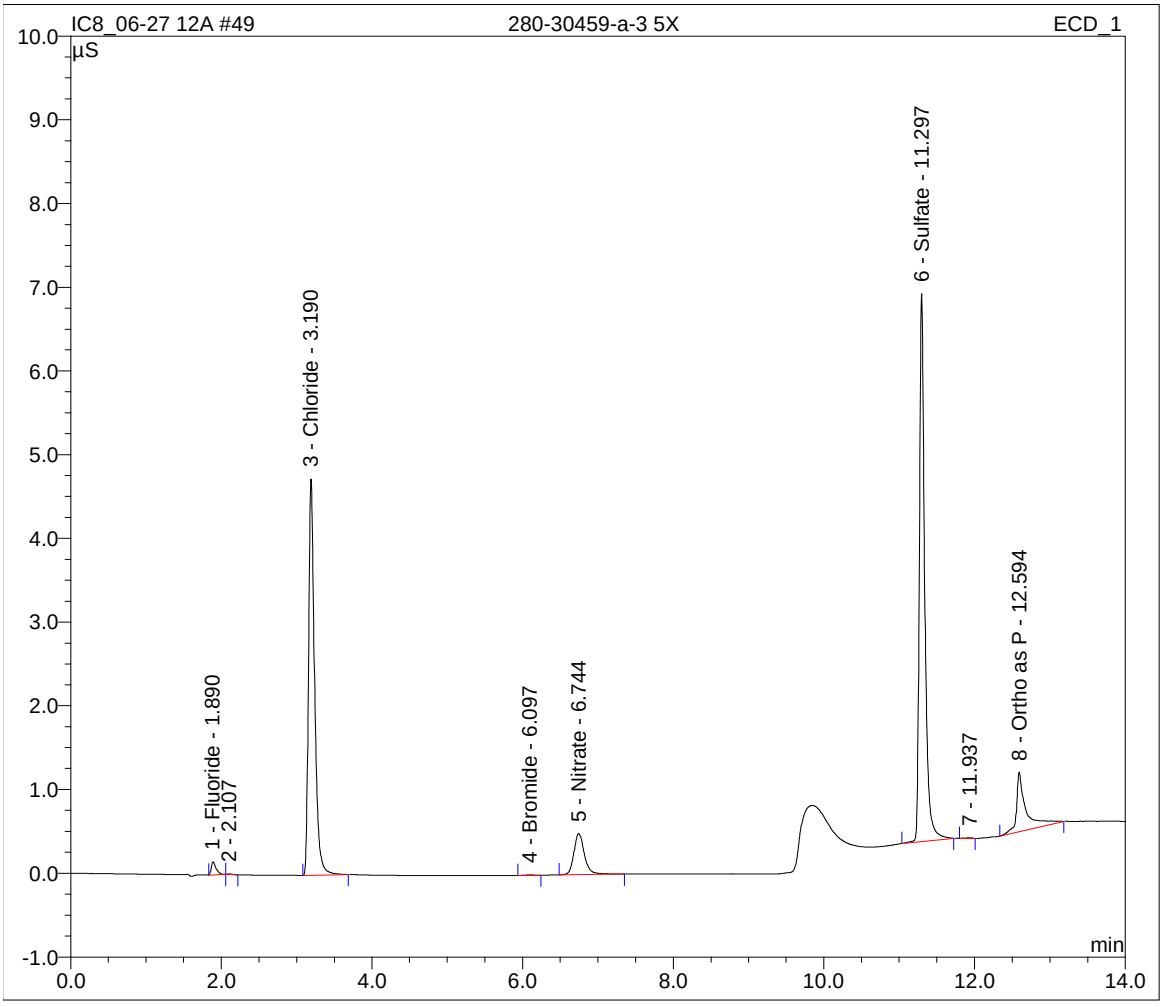
Sample Name:	**280-30459-a-2 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:42**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.041	0.542	0.7180
2	3.19	Chloride	BMB	1.990	21.373	70.5817
3	6.08	Bromide	BMB	0.002	0.013	0.3277
4	6.74	Nitrate	BMB	0.040	0.239	0.6640
5	11.29	Sulfate	BMB	0.770	9.099	32.7416
7	12.59	Ortho as P	BMB	0.140	1.069	-0.0536
		TOTAL:		2.98	32.34	104.98



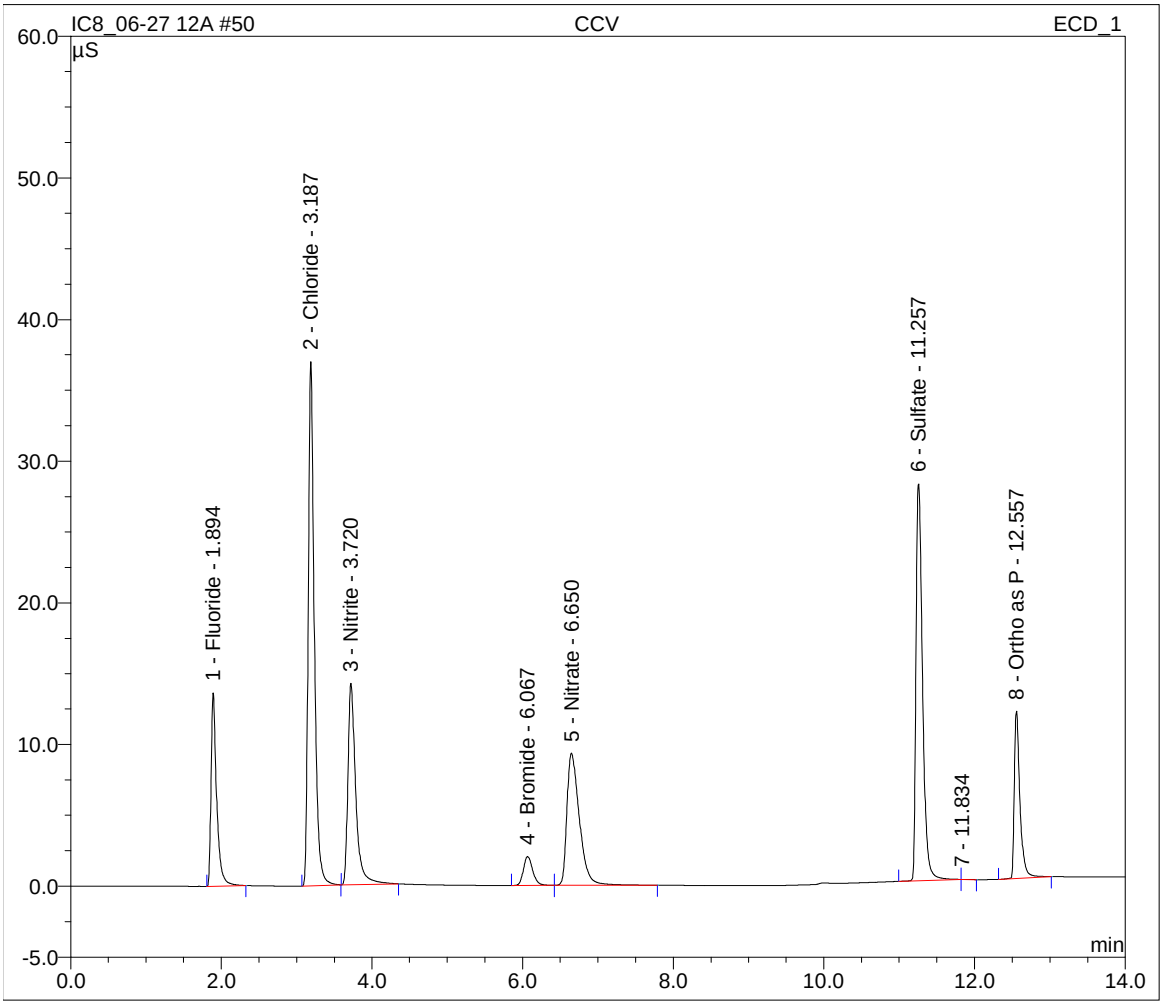
Sample Name:	**280-30459-a-3 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:59**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMb	0.012	0.157	0.0958
3	3.19	Chloride	BMB	0.441	4.733	15.7050
4	6.10	Bromide	BMB	0.001	0.006	0.2345
5	6.74	Nitrate	BMB	0.080	0.491	1.2093
6	11.30	Sulfate	BMB	0.549	6.545	23.0429
8	12.59	Ortho as P	BMB	0.105	0.709	-0.9589
		TOTAL:		1.19	12.64	39.33



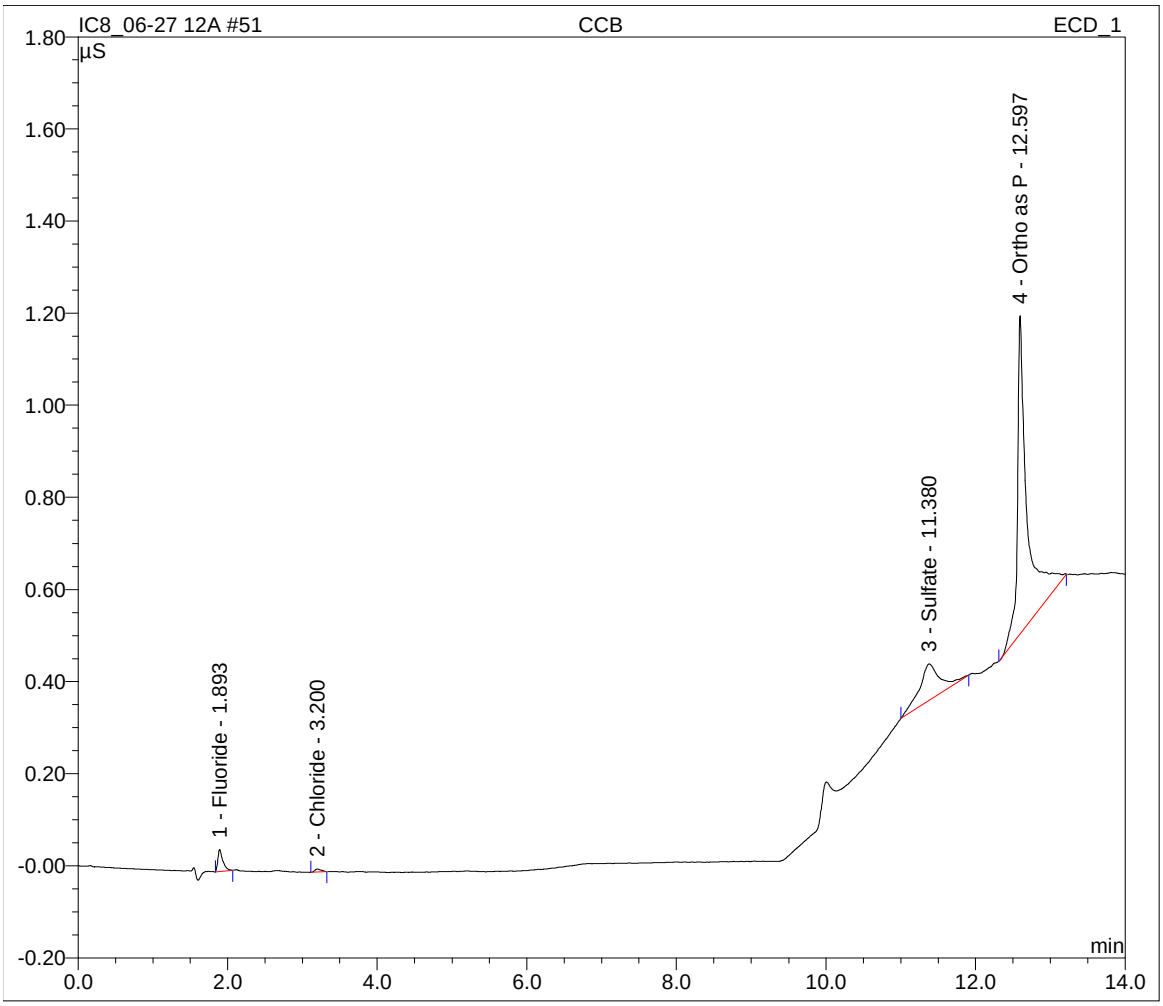
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 02:16**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.178	13.642	4.9134
2	3.19	Chloride	BMB	3.463	36.985	24.5579
3	3.72	Nitrite	BMB	1.718	14.191	4.8308
4	6.07	Bromide	BMB	0.291	2.039	4.8336
5	6.65	Nitrate	bMB	1.785	9.316	4.8807
6	11.26	Sulfate	BMb	2.811	28.003	24.4437
8	12.56	Ortho as P	BMB	1.024	11.800	4.5150
TOTAL:				12.27	115.98	72.97



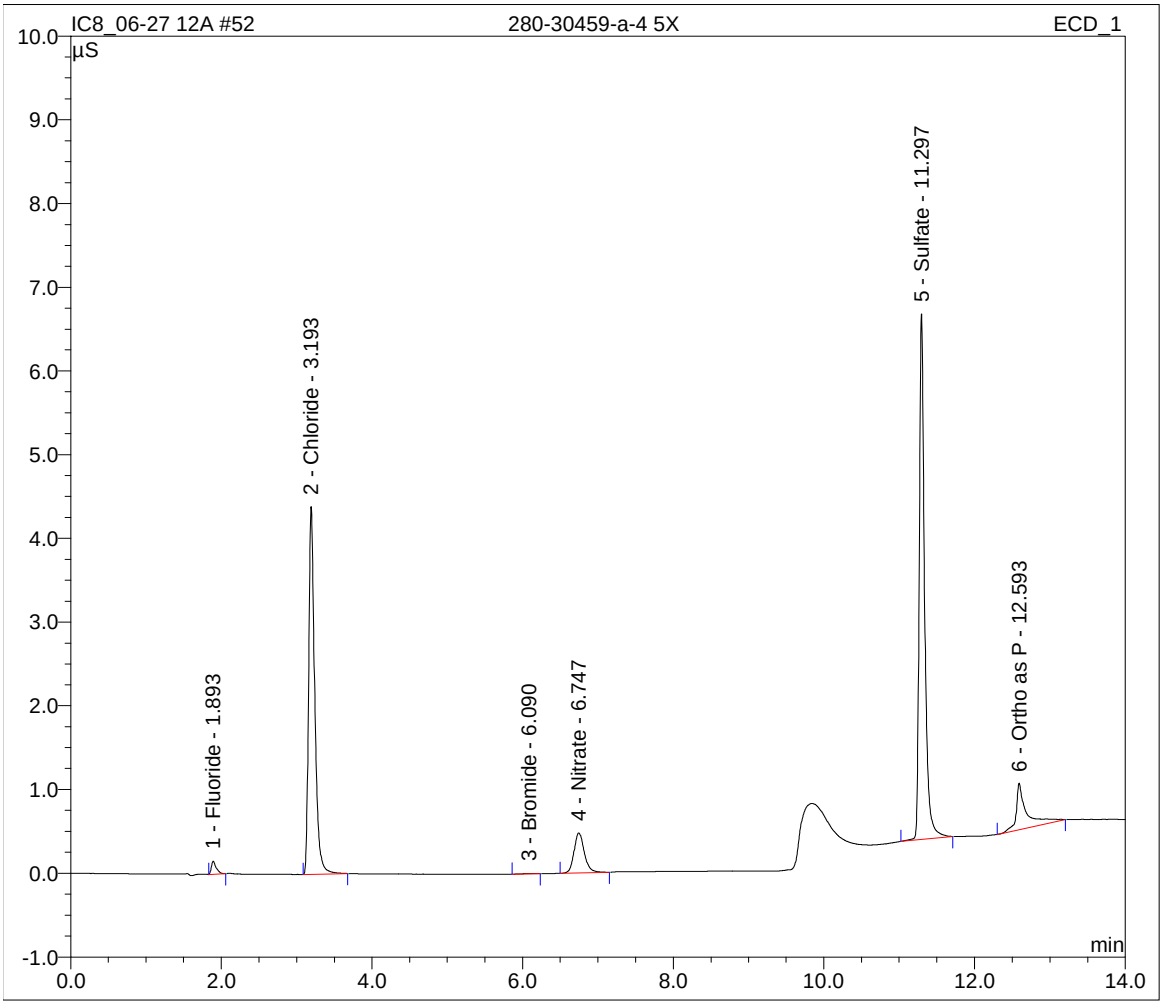
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 02:33**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.004	0.048	-0.0147
2	3.20	Chloride	BMB	0.001	0.007	0.0210
3	11.38	Sulfate	BMB	0.024	0.079	0.0102
4	12.60	Ortho as P	BMB	0.106	0.691	-0.1844
TOTAL:				0.13	0.82	-0.17



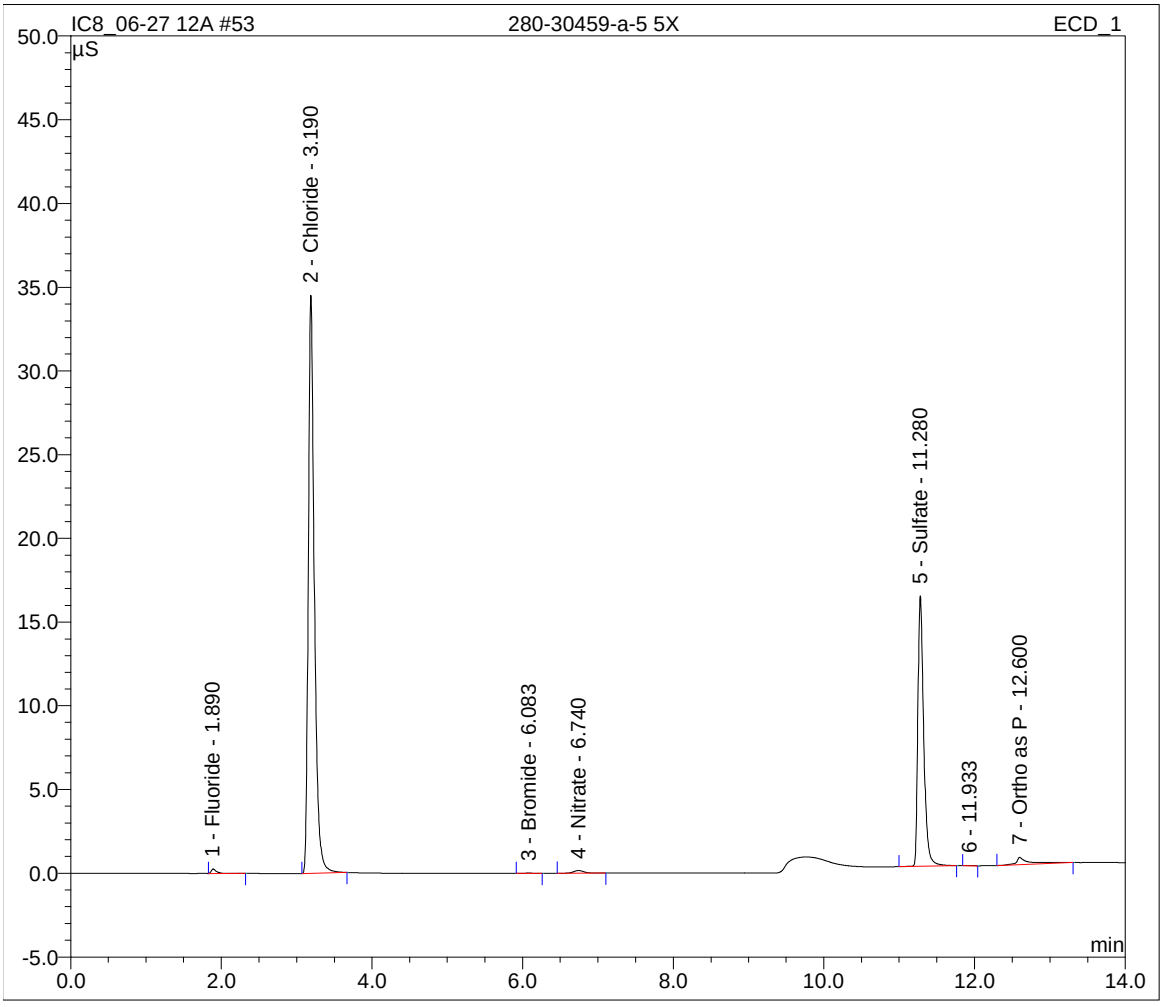
Sample Name:	**280-30459-a-4 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 02:49**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.012	0.156	0.0968
2	3.19	Chloride	BMB	0.410	4.393	14.6083
3	6.09	Bromide	BMB	0.001	0.005	0.2423
4	6.75	Nitrate	BMB	0.076	0.477	1.1589
5	11.30	Sulfate	BMB	0.526	6.281	22.0526
6	12.59	Ortho as P	BMB	0.090	0.554	-1.3256
		TOTAL:		1.12	11.87	36.83



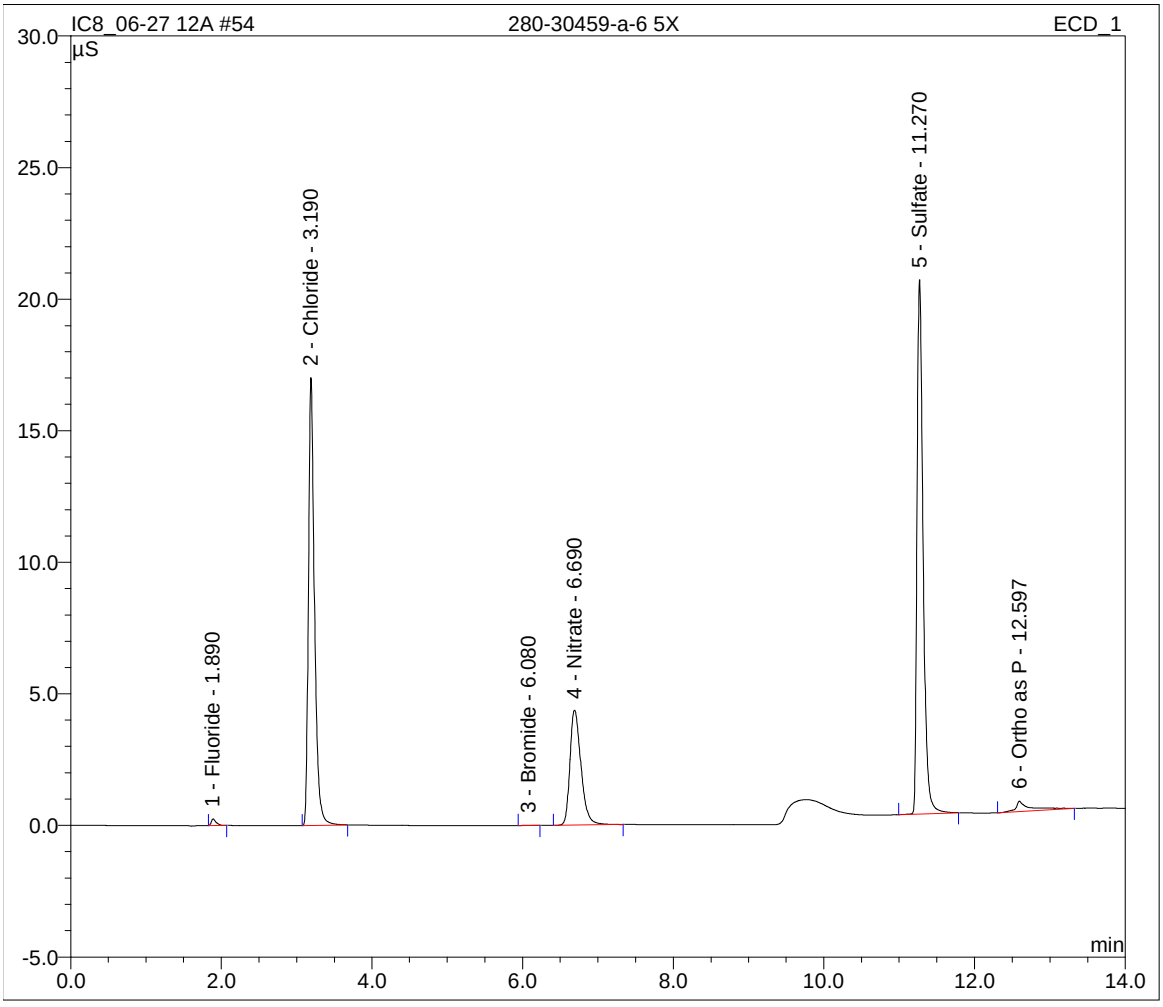
Sample Name:	**280-30459-a-5 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:06**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.023	0.272	0.3324
2	3.19	Chloride	BMB	3.227	34.532	114.4166
3	6.08	Bromide	BMB	0.002	0.016	0.3600
4	6.74	Nitrate	BMB	0.026	0.160	0.4823
5	11.28	Sulfate	BMB	1.453	16.151	62.6617
7	12.60	Ortho as P	BMB	0.087	0.433	-1.4059
		TOTAL:		4.82	51.56	176.85



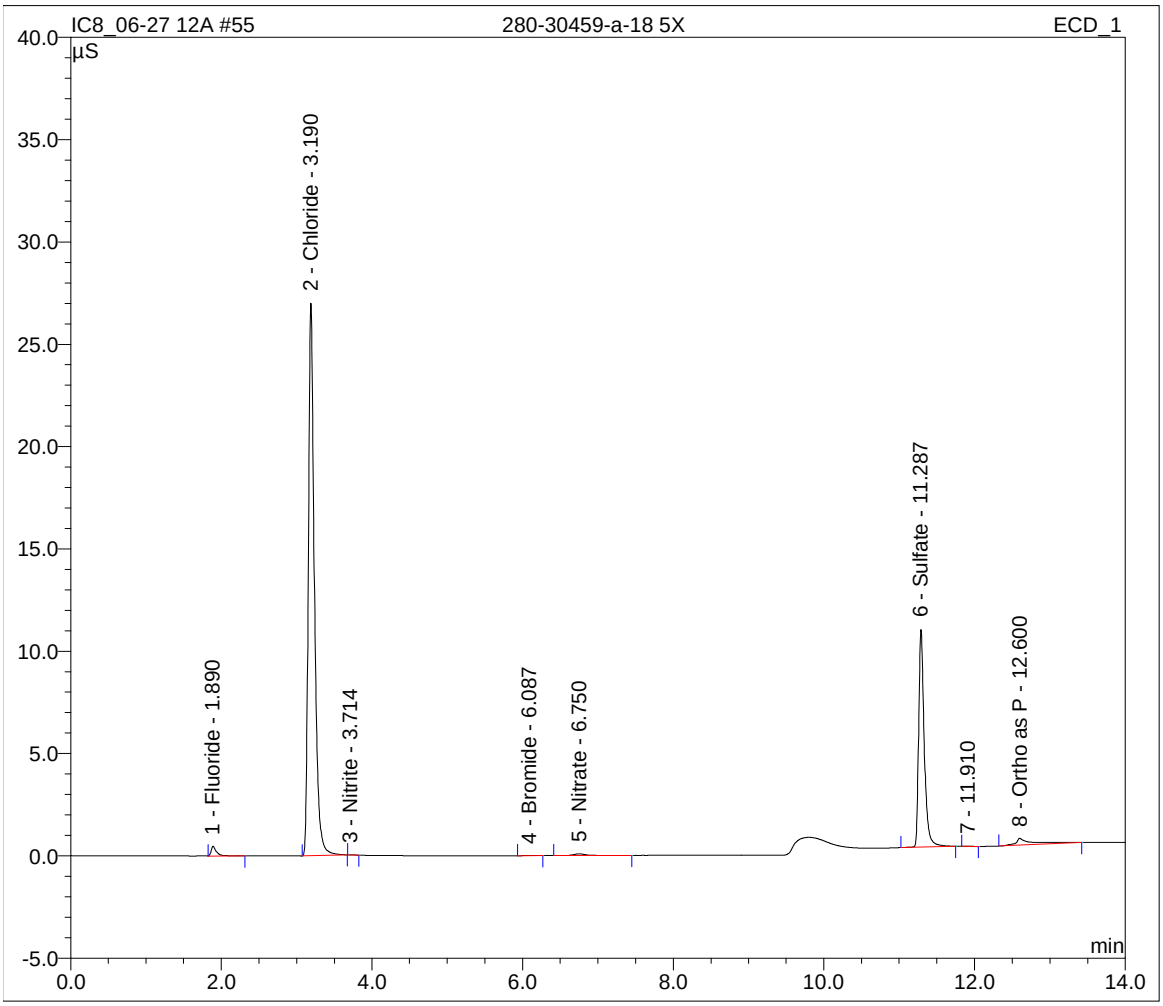
Sample Name:	**280-30459-a-6 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:23**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.020	0.258	0.2635
2	3.19	Chloride	BMB	1.585	17.019	56.2407
3	6.08	Bromide	BMB	0.002	0.012	0.3000
4	6.69	Nitrate	BMB	0.739	4.361	10.1728
5	11.27	Sulfate	BMB	1.900	20.309	82.2955
6	12.60	Ortho as P	BMB	0.085	0.394	-1.4553
		TOTAL:		4.33	42.35	147.82



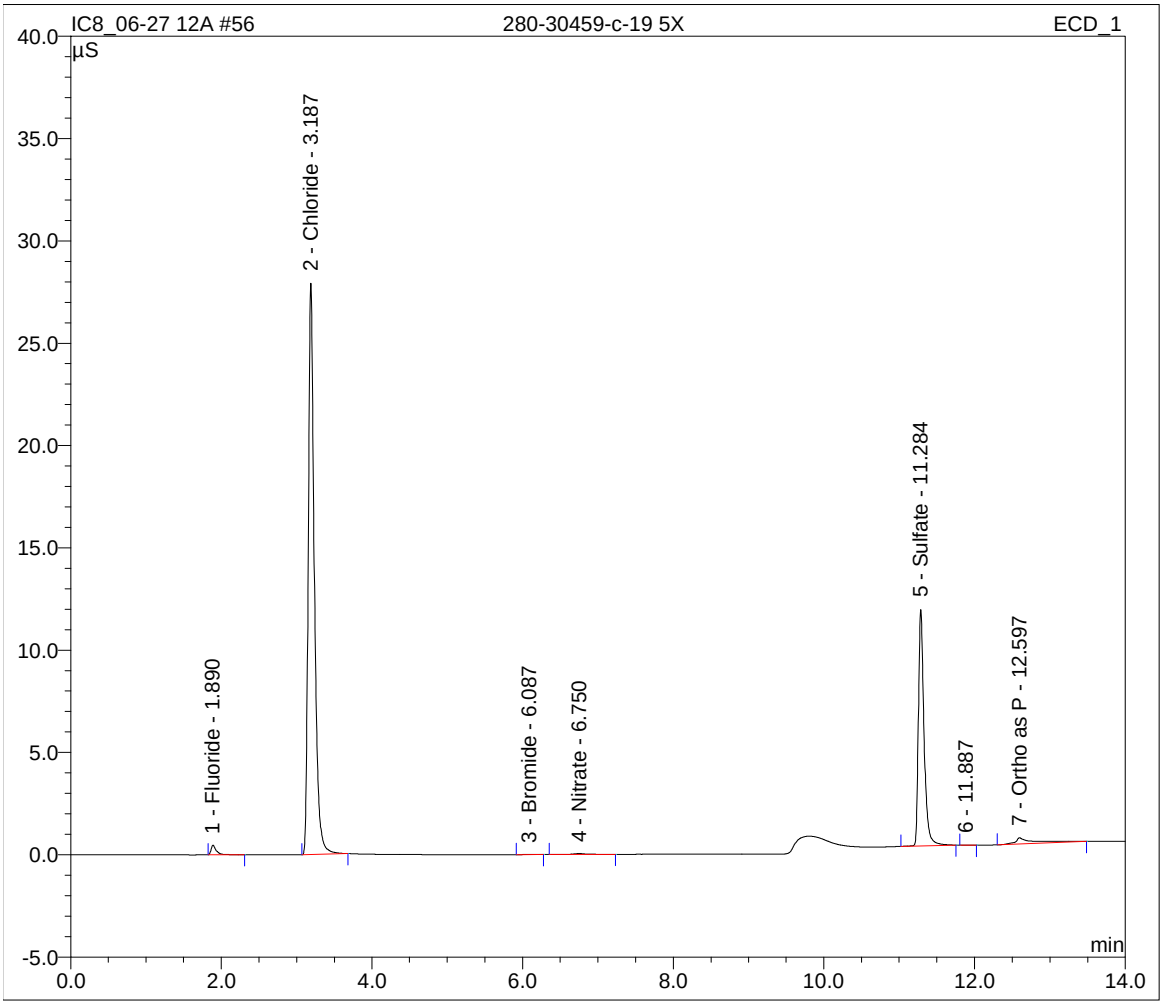
Sample Name:	**280-30459-a-18 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:40**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.039	0.473	0.6697
2	3.19	Chloride	BMB	2.527	27.008	89.6254
3	3.71	Nitrite	BMB	0.001	0.007	0.0448
4	6.09	Bromide	BMB	0.002	0.015	0.3471
5	6.75	Nitrate	BMB	0.016	0.086	0.3467
6	11.29	Sulfate	BMB	0.919	10.637	39.2869
8	12.60	Ortho as P	BMB	0.087	0.333	-1.4012
TOTAL:				3.59	38.56	128.92



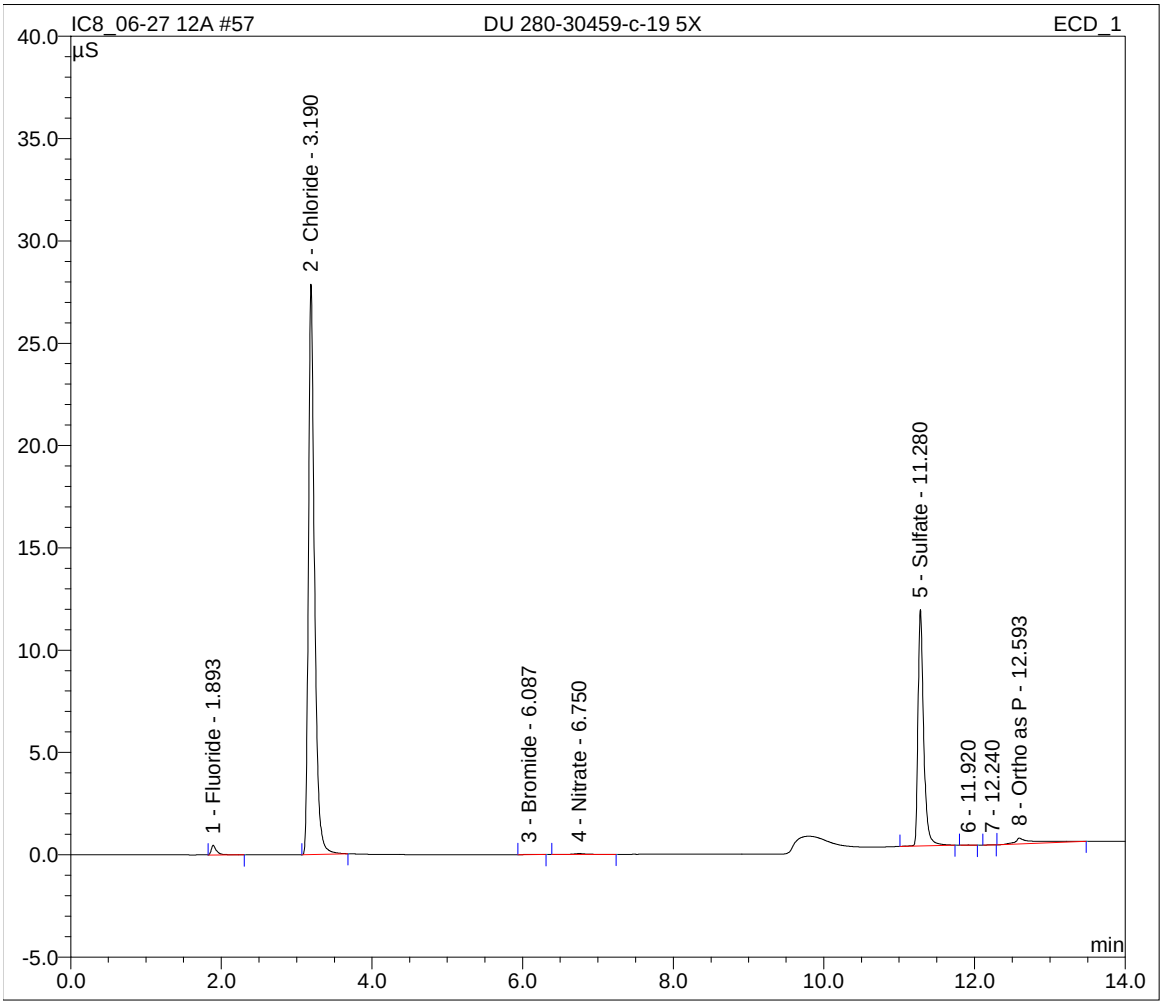
Sample Name:	**280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:57**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.039	0.472	0.6670
2	3.19	Chloride	BMB	2.624	27.939	93.0532
3	6.09	Bromide	BMB	0.002	0.016	0.3577
4	6.75	Nitrate	BMB	0.008	0.043	0.2417
5	11.28	Sulfate	BMB	1.005	11.557	43.0602
7	12.60	Ortho as P	BMB	0.090	0.306	-1.3397
		TOTAL:		3.77	40.33	136.04



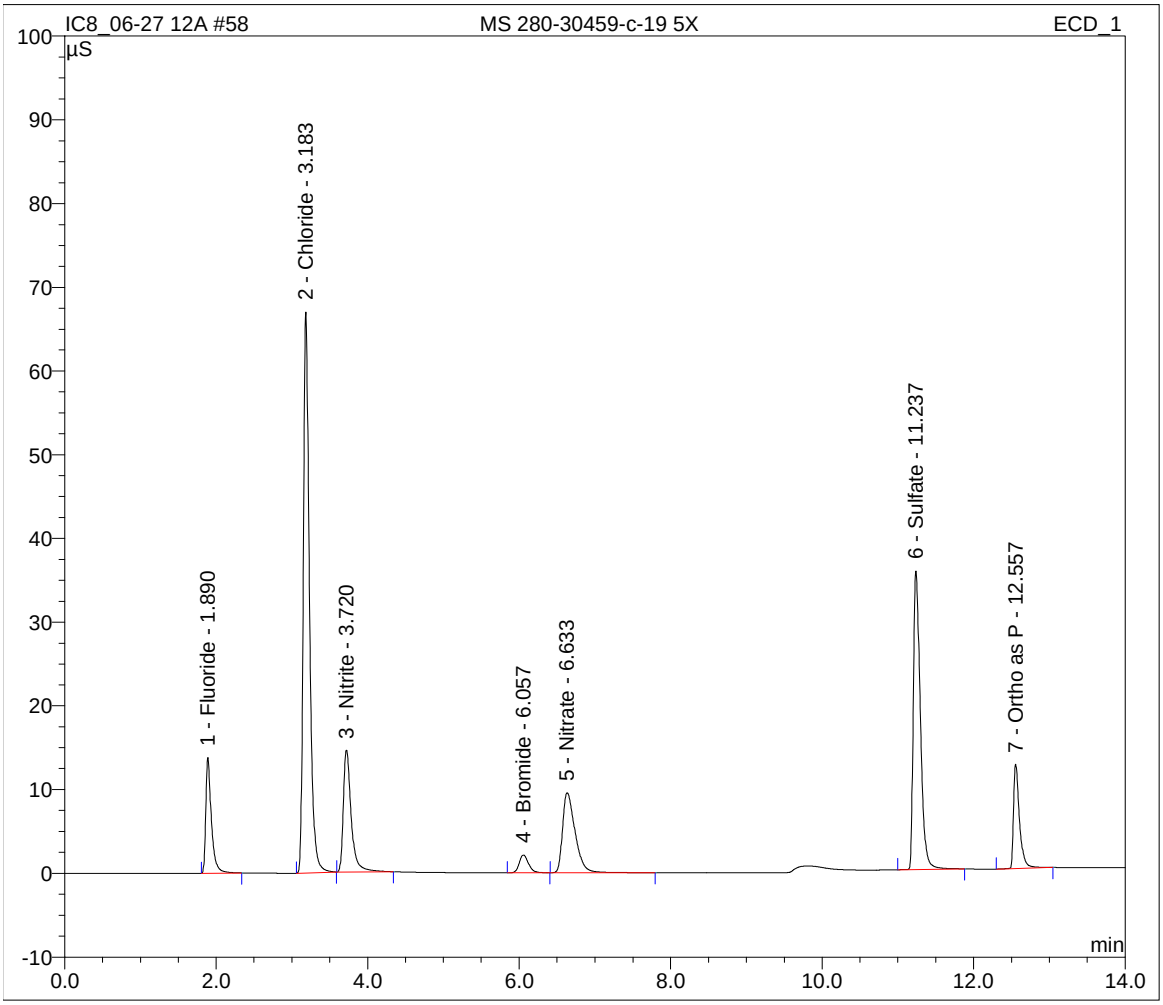
Sample Name:	**DU 280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 04:13**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.039	0.470	0.6638
2	3.19	Chloride	BMB	2.617	27.889	92.8082
3	6.09	Bromide	BMB	0.002	0.016	0.3543
4	6.75	Nitrate	BMB	0.008	0.042	0.2403
5	11.28	Sulfate	BMB	1.003	11.547	42.9618
8	12.59	Ortho as P	BMB	0.084	0.285	-1.4743
		TOTAL:		3.75	40.25	135.55



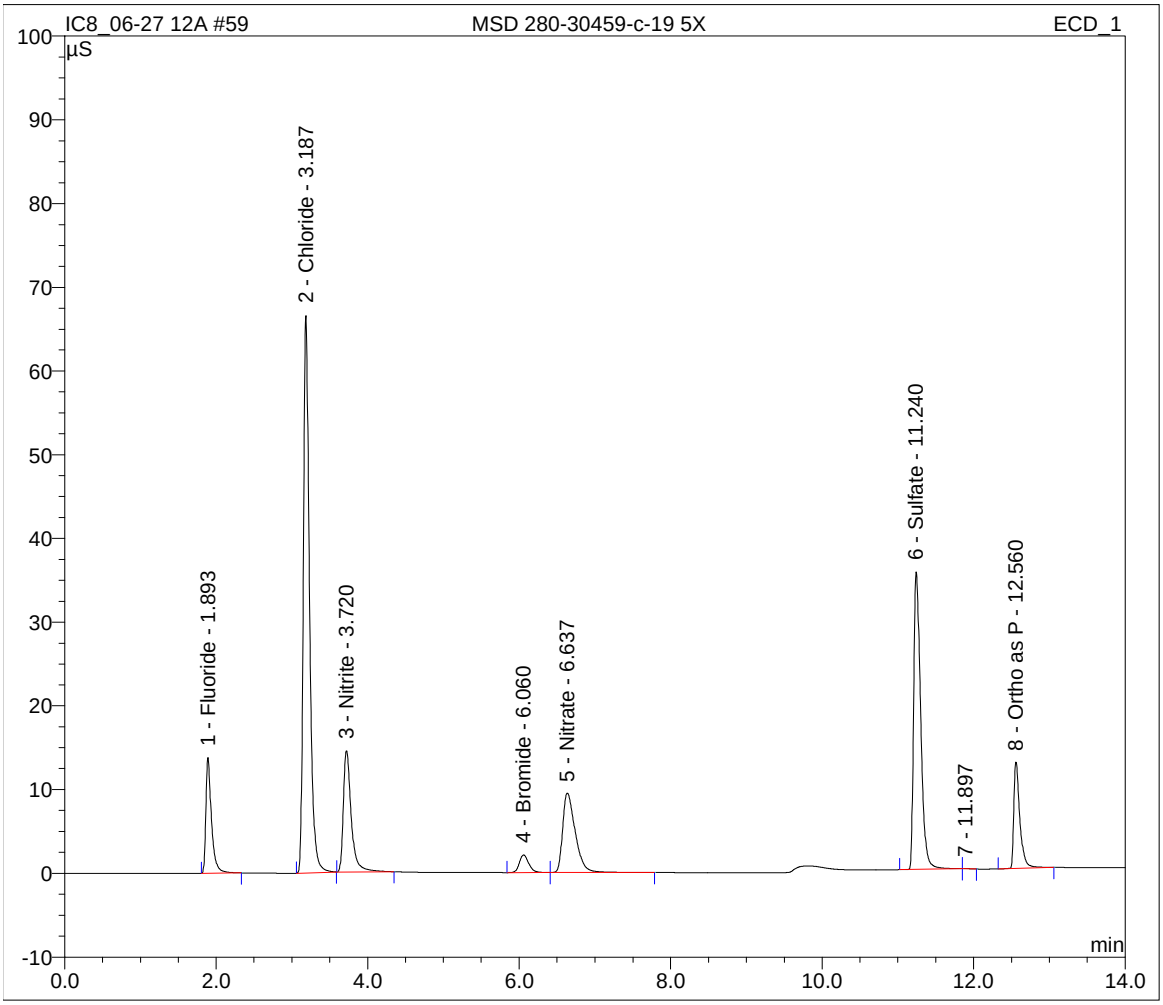
Sample Name:	**MS 280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 04:30**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.197	13.814	24.9804
2	3.18	Chloride	BMB	6.307	67.026	223.5441
3	3.72	Nitrite	BMB	1.751	14.531	24.6224
4	6.06	Bromide	BMB	0.303	2.125	25.1993
5	6.63	Nitrate	BMB	1.825	9.532	24.9517
6	11.24	Sulfate	BMB	3.856	35.686	168.0468
7	12.56	Ortho as P	BMB	1.133	12.430	25.3509
TOTAL:				16.37	155.14	516.70



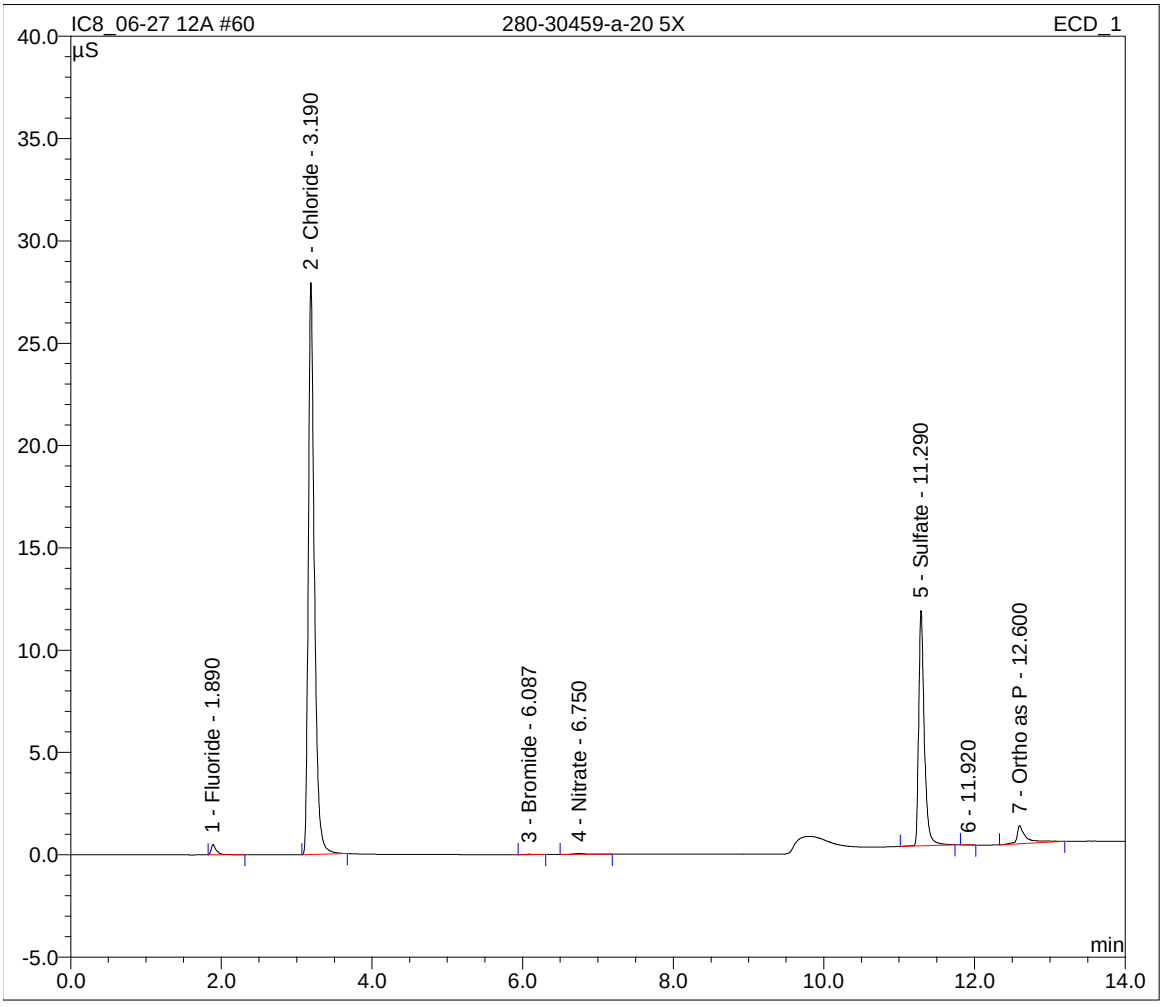
Sample Name:	**MSD 280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 04:47**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.199	13.821	25.0073
2	3.19	Chloride	BMB	6.291	66.605	222.9905
3	3.72	Nitrite	BMB	1.747	14.444	24.5578
4	6.06	Bromide	BMB	0.302	2.105	25.1515
5	6.64	Nitrate	bMB	1.821	9.469	24.8962
6	11.24	Sulfate	BMb	3.836	35.534	167.1472
8	12.56	Ortho as P	BMB	1.173	12.693	26.3891
		TOTAL:		16.37	154.67	516.14



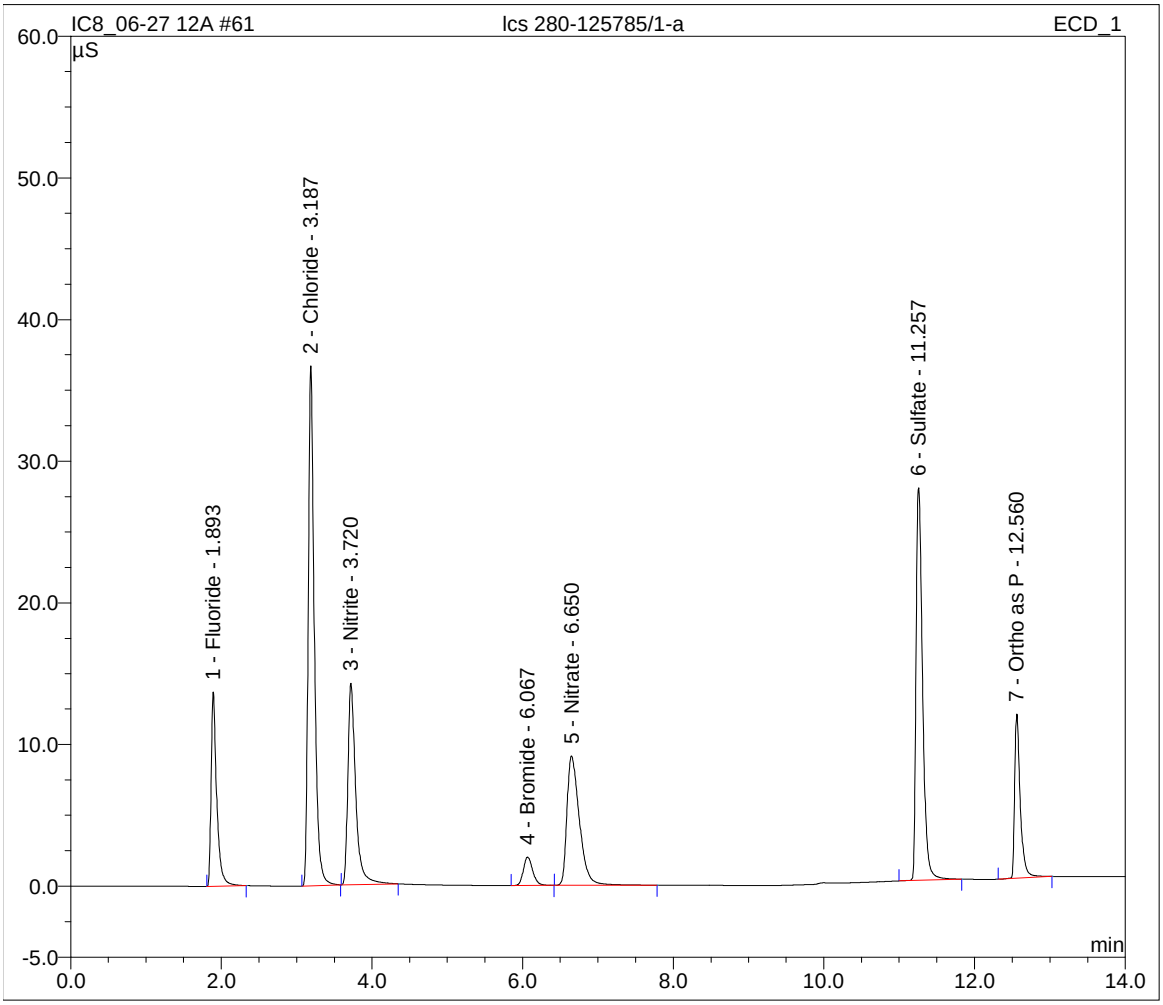
Sample Name:	**280-30459-a-20 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:04**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.042	0.500	0.7218
2	3.19	Chloride	BMB	2.622	27.968	92.9802
3	6.09	Bromide	BMB	0.002	0.016	0.3586
4	6.75	Nitrate	BMB	0.008	0.043	0.2354
5	11.29	Sulfate	BMB	1.001	11.499	42.8671
7	12.60	Ortho as P	BMB	0.125	0.888	-0.4461
		TOTAL:		3.80	40.92	136.72



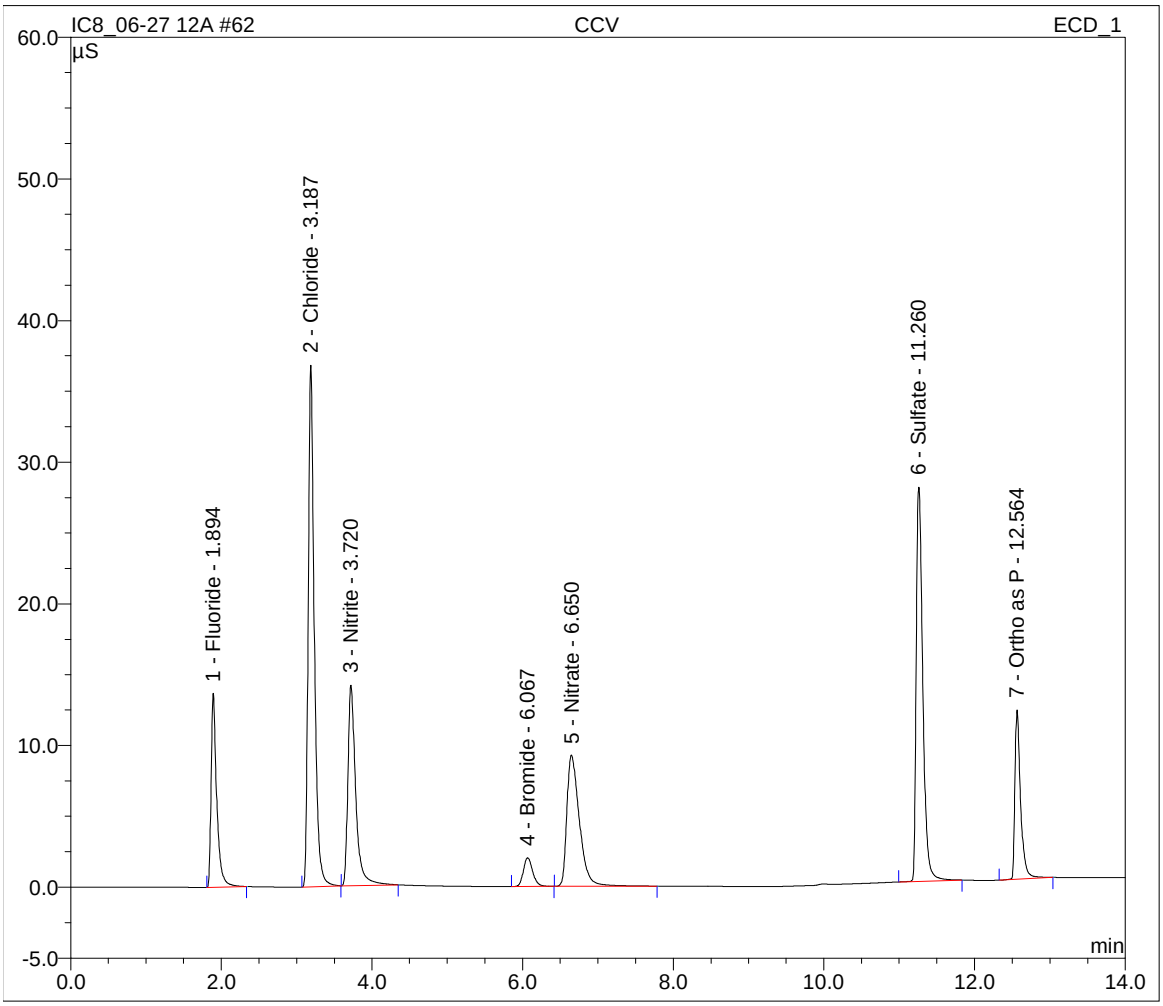
Sample Name:	**lcs 280-125785/1-a**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:21**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.182	13.717	4.9317
2	3.19	Chloride	BMB	3.444	36.701	24.4219
3	3.72	Nitrite	BMB	1.723	14.209	4.8438
4	6.07	Bromide	BMB	0.287	2.005	4.7737
5	6.65	Nitrate	BMB	1.747	9.130	4.7782
6	11.26	Sulfate	BMB	2.768	27.708	24.0648
7	12.56	Ortho as P	BMB	1.004	11.587	4.4094
TOTAL:				12.15	115.06	72.22



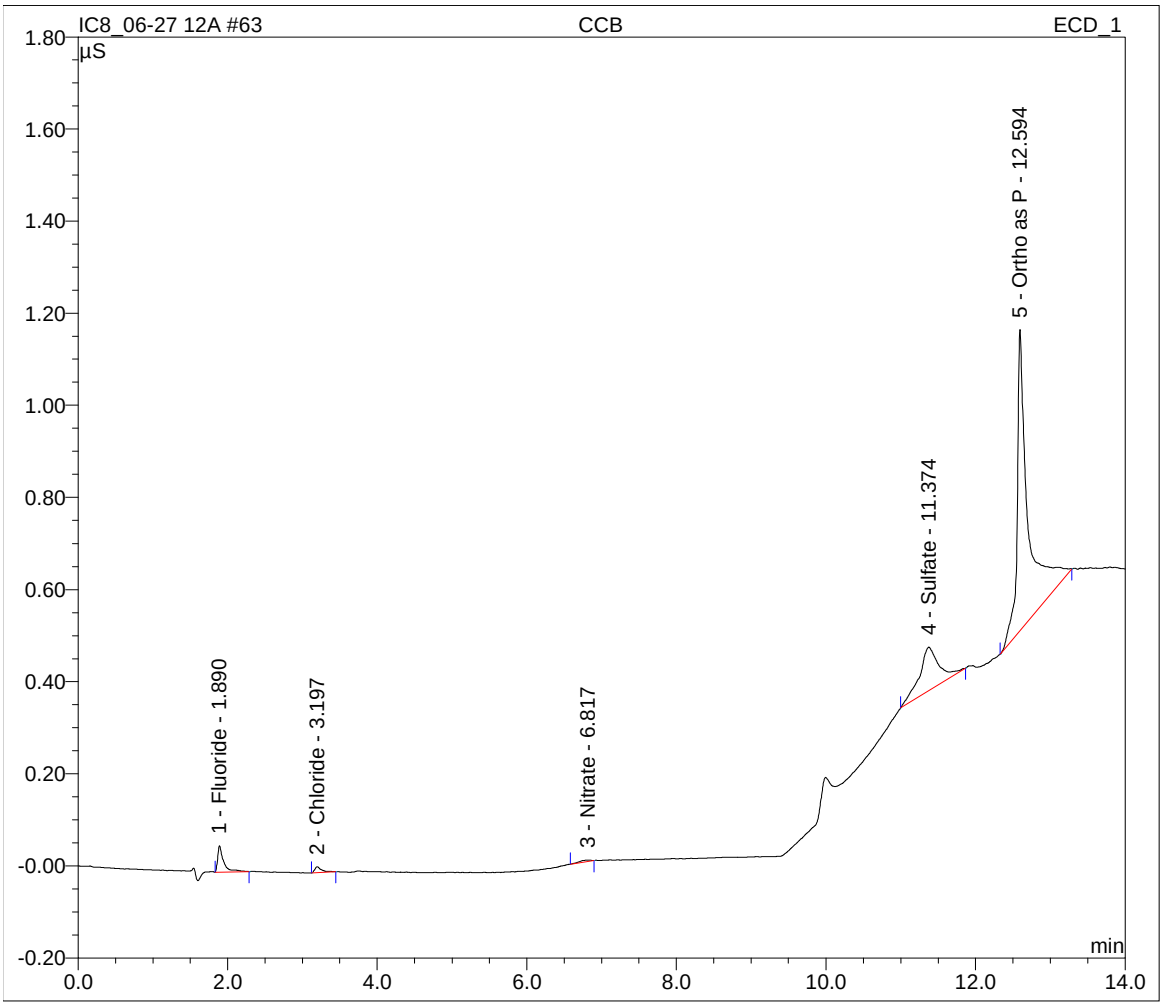
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:37**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.184	13.678	4.9392
2	3.19	Chloride	BMB	3.455	36.813	24.4995
3	3.72	Nitrite	BMB	1.714	14.140	4.8203
4	6.07	Bromide	BMB	0.289	2.023	4.8102
5	6.65	Nitrate	BMB	1.782	9.254	4.8742
6	11.26	Sulfate	BMB	2.802	27.826	24.3680
7	12.56	Ortho as P	BMB	1.052	11.942	4.6560
		TOTAL:		12.28	115.68	72.97



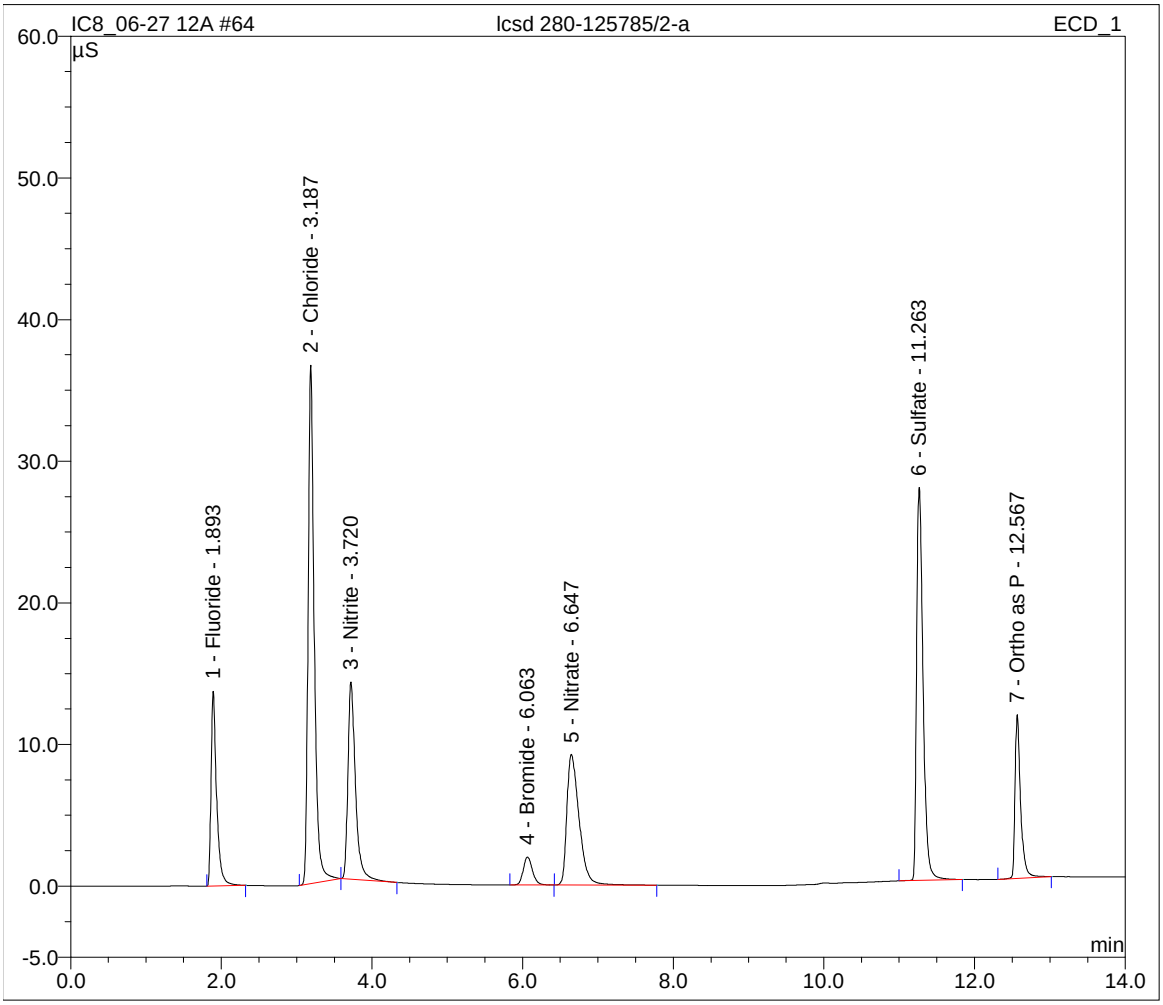
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:54**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.005	0.058	-0.0076
2	3.20	Chloride	BMB	0.001	0.013	0.0262
3	6.82	Nitrate	BMB	0.001	0.003	0.0269
4	11.37	Sulfate	BMB	0.028	0.095	0.0435
5	12.59	Ortho as P	BMB	0.112	0.654	-0.1534
		TOTAL:		0.15	0.82	-0.06



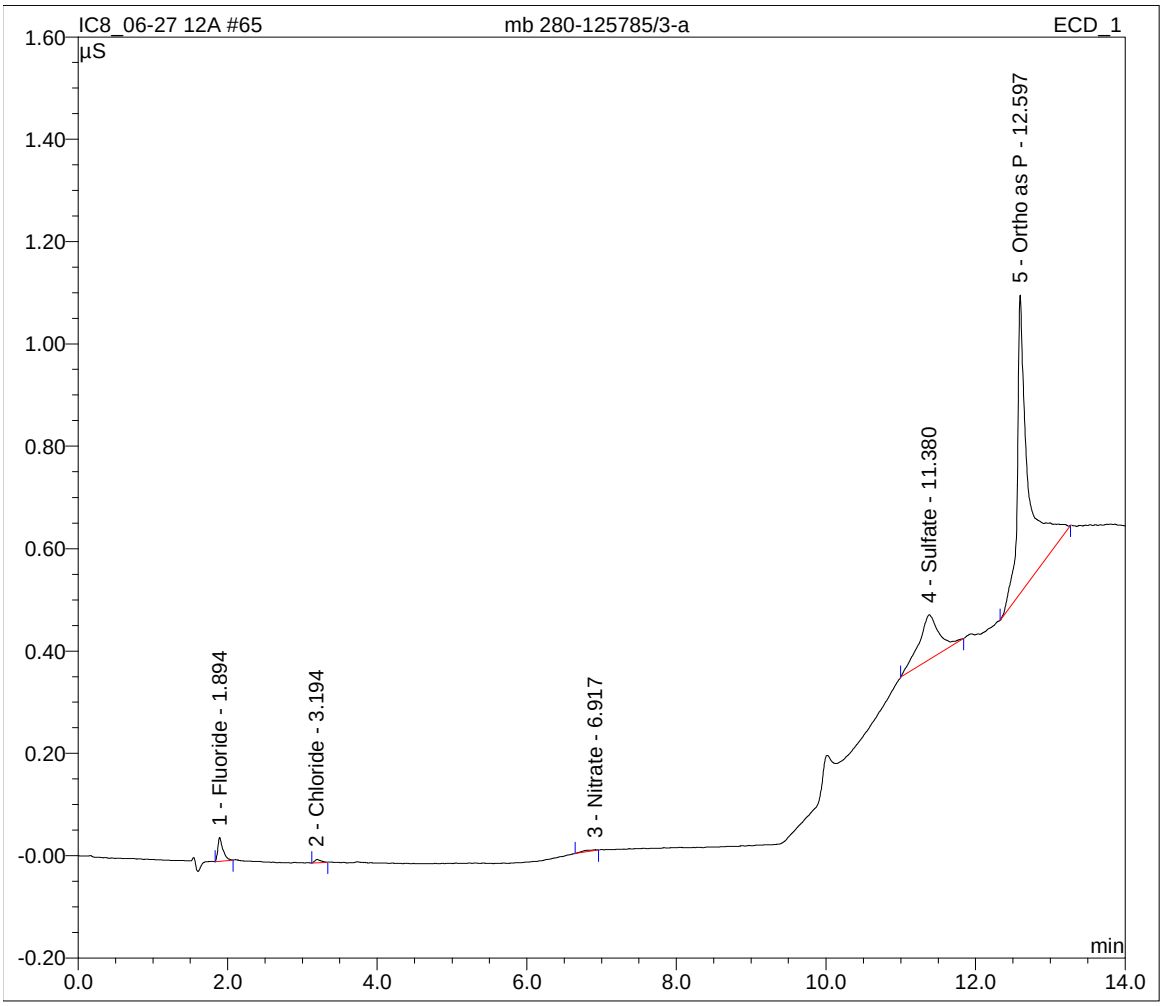
Sample Name:	**lcsd 280-125785/2-a**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 06:18**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.177	13.731	4.9115
2	3.19	Chloride	BMb	3.452	36.590	24.4795
3	3.72	Nitrite	bMB	1.623	13.910	4.5635
4	6.06	Bromide	BMB	0.280	1.981	4.6626
5	6.65	Nitrate	BMB	1.736	9.221	4.7484
6	11.26	Sulfate	BMB	2.750	27.745	23.9094
7	12.57	Ortho as P	BMB	0.995	11.555	4.3650
		TOTAL:		12.01	114.73	71.64



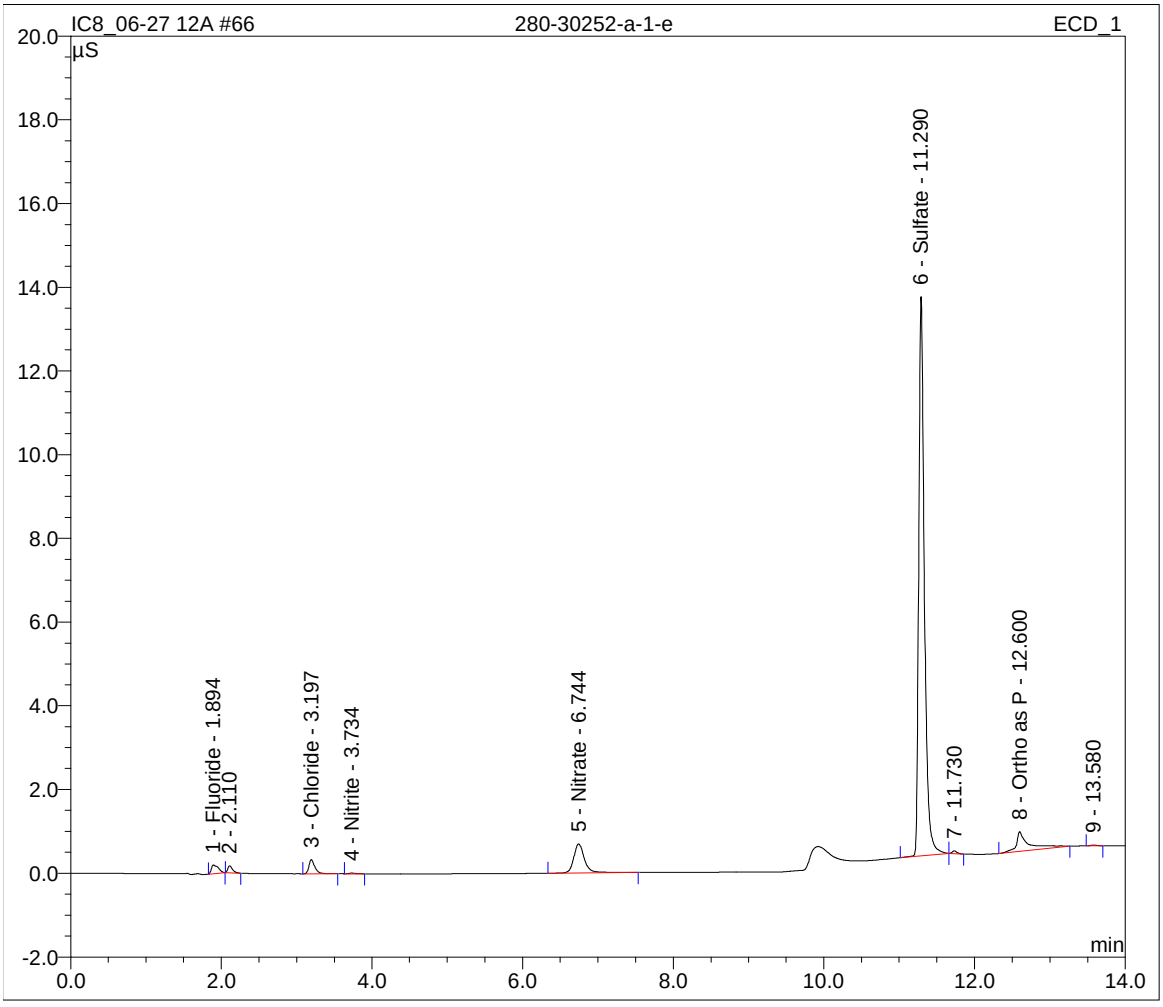
Sample Name:	**mb 280-125785/3-a**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 06:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.004	0.047	-0.0146
2	3.19	Chloride	BMB	0.001	0.006	0.0208
3	6.92	Nitrate	BMB	0.001	0.001	0.0267
4	11.38	Sulfate	BMB	0.027	0.088	0.0350
5	12.60	Ortho as P	BMB	0.102	0.583	-0.2034
		TOTAL:		0.13	0.72	-0.14



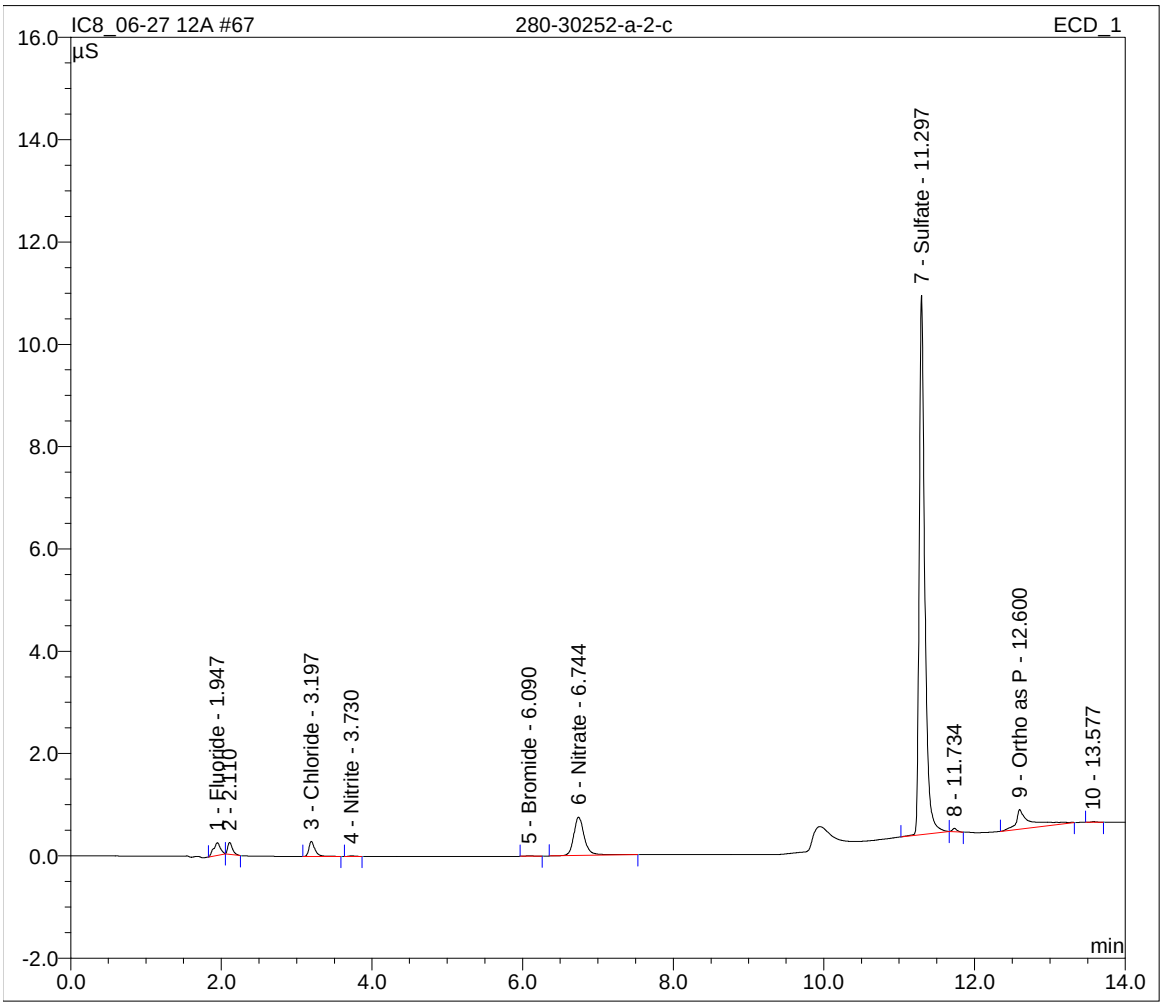
Sample Name:	**280-30252-a-1-e**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 06:51**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.023	0.213	0.0646
3	3.20	Chloride	BMB	0.031	0.338	0.2380
4	3.73	Nitrite	BMB	0.002	0.017	0.0119
5	6.74	Nitrate	BMB	0.116	0.695	0.3411
6	11.29	Sulfate	BMb	1.170	13.364	10.0562
8	12.60	Ortho as P	BMB	0.090	0.470	-0.2681
		TOTAL:		1.43	15.10	10.44



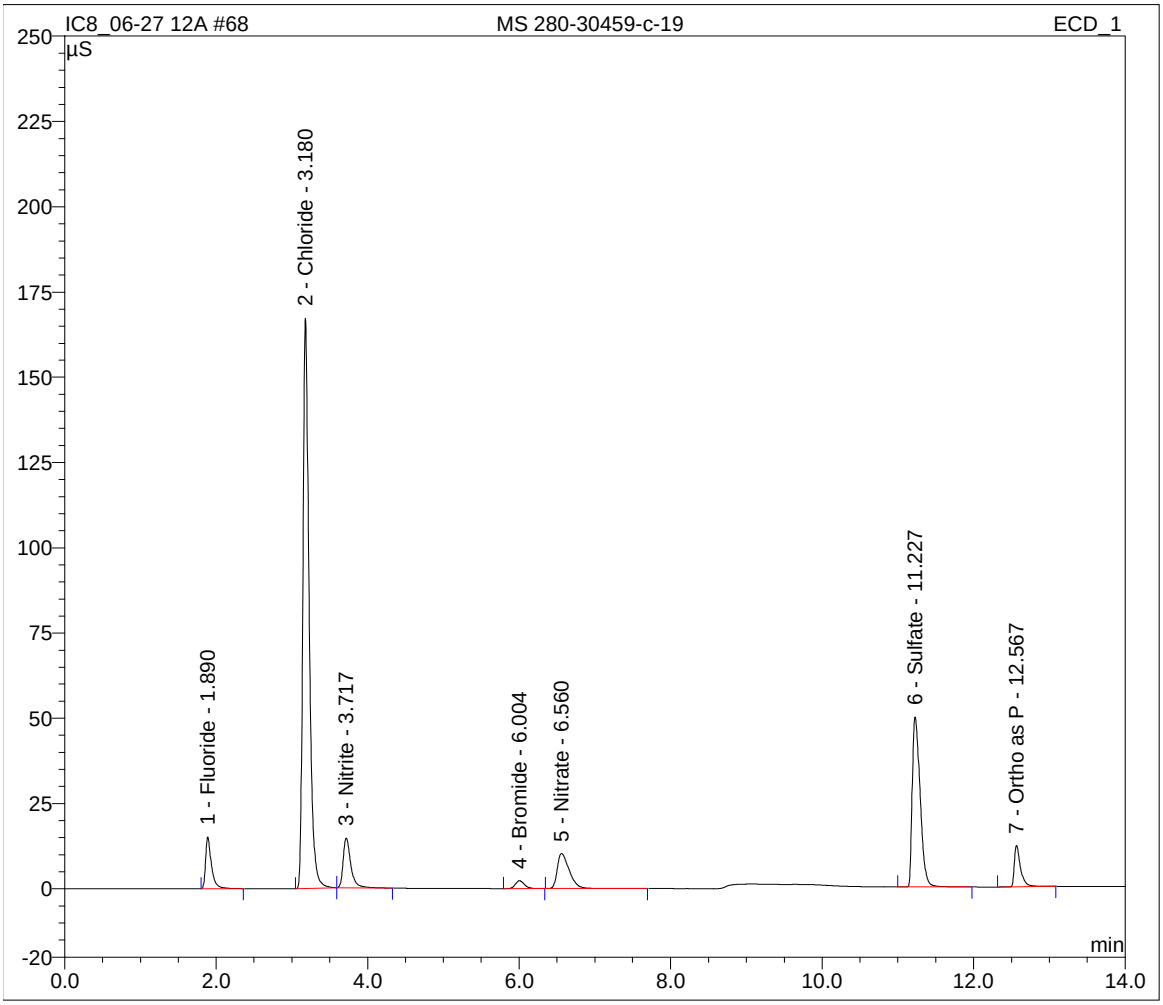
Sample Name:	**280-30252-a-2-c**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:08**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.95	Fluoride	BMb	0.026	0.247	0.0778
3	3.20	Chloride	BMB	0.027	0.294	0.2104
4	3.73	Nitrite	BMB	0.001	0.010	0.0100
5	6.09	Bromide	BMB	0.001	0.007	0.0488
6	6.74	Nitrate	BMB	0.123	0.751	0.3612
7	11.30	Sulfate	BMb	0.911	10.540	7.7859
9	12.60	Ortho as P	BMB	0.086	0.383	-0.2875
		TOTAL:		1.18	12.23	8.21



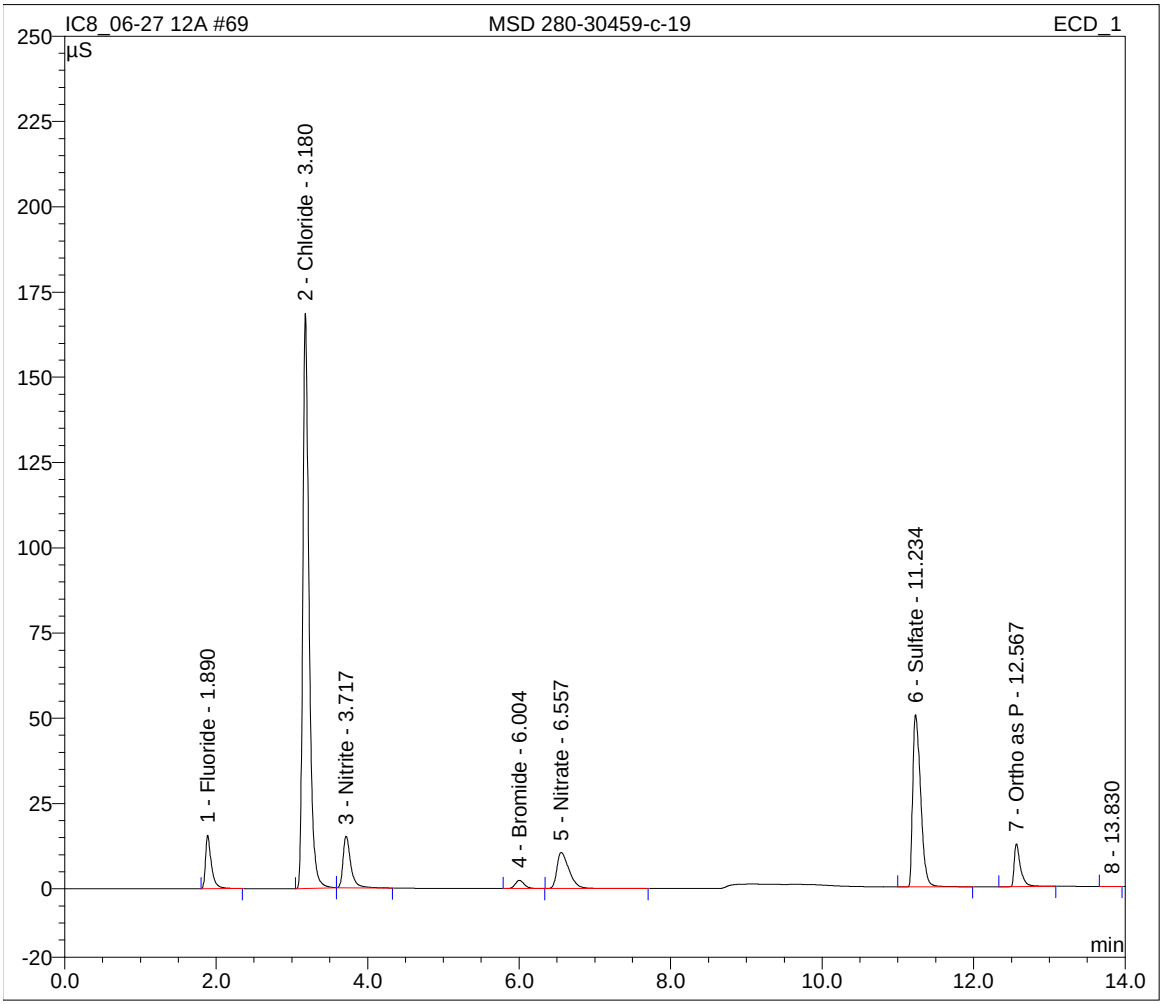
Sample Name:	**MS 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:25**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.381	15.231	5.7675
2	3.18	Chloride	BMB	15.896	167.249	112.6635
3	3.72	Nitrite	bMB	1.708	14.530	4.8030
4	6.00	Bromide	BMB	0.319	2.321	5.3114
5	6.56	Nitrate	BMB	1.884	10.265	5.1496
6	11.23	Sulfate	BMB	6.020	49.780	52.5787
7	12.57	Ortho as P	BMB	1.145	12.108	5.1298
		TOTAL:		28.35	271.48	191.40



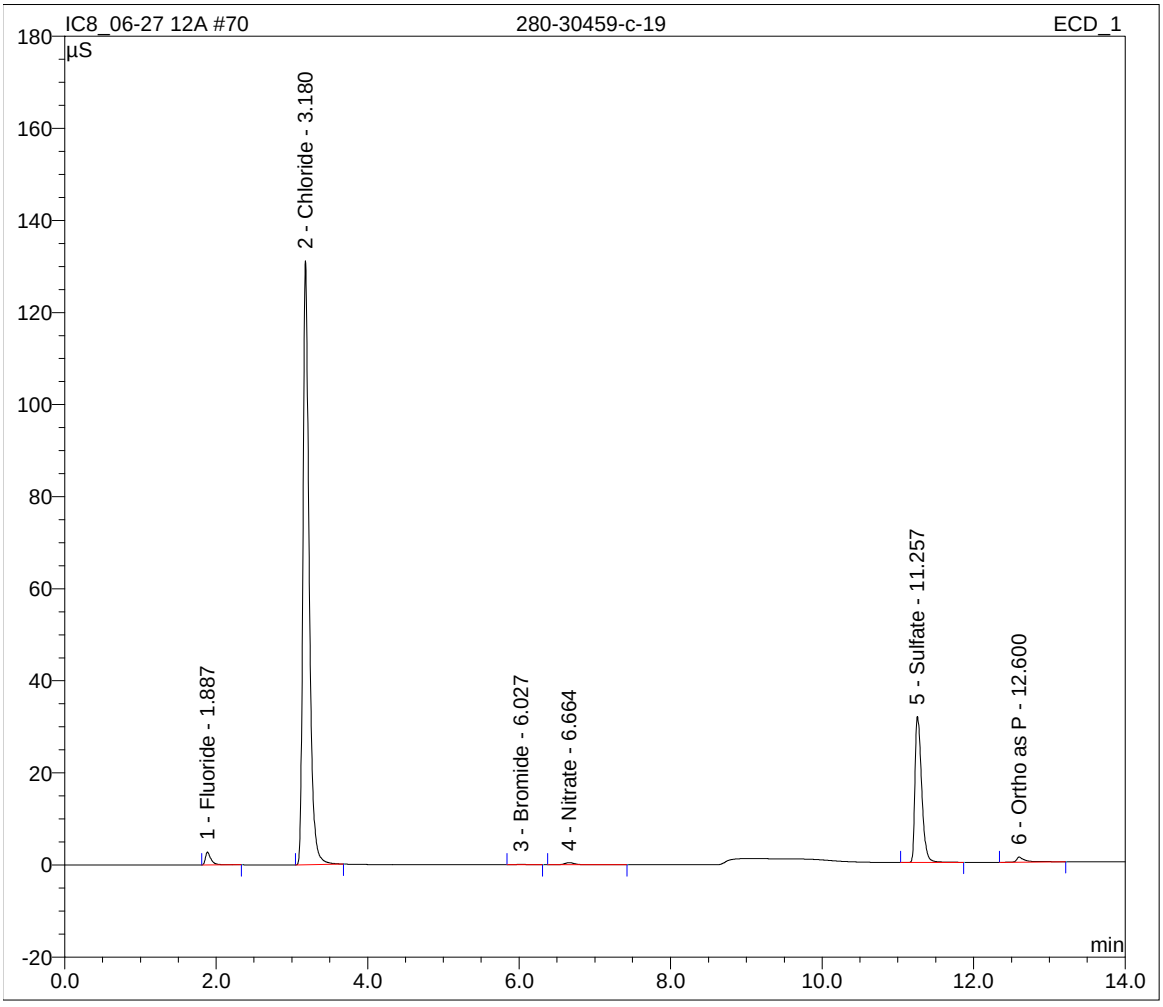
Sample Name:	**MSD 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:42**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.429	15.721	5.9698
2	3.18	Chloride	BMb	16.054	168.703	113.7881
3	3.72	Nitrite	bMB	1.777	15.041	4.9973
4	6.00	Bromide	BMB	0.332	2.409	5.5252
5	6.56	Nitrate	BMB	1.960	10.568	5.3584
6	11.23	Sulfate	BMB	6.128	50.431	53.5292
7	12.57	Ortho as P	BMB	1.205	12.501	5.4393
TOTAL:				28.89	275.37	194.61



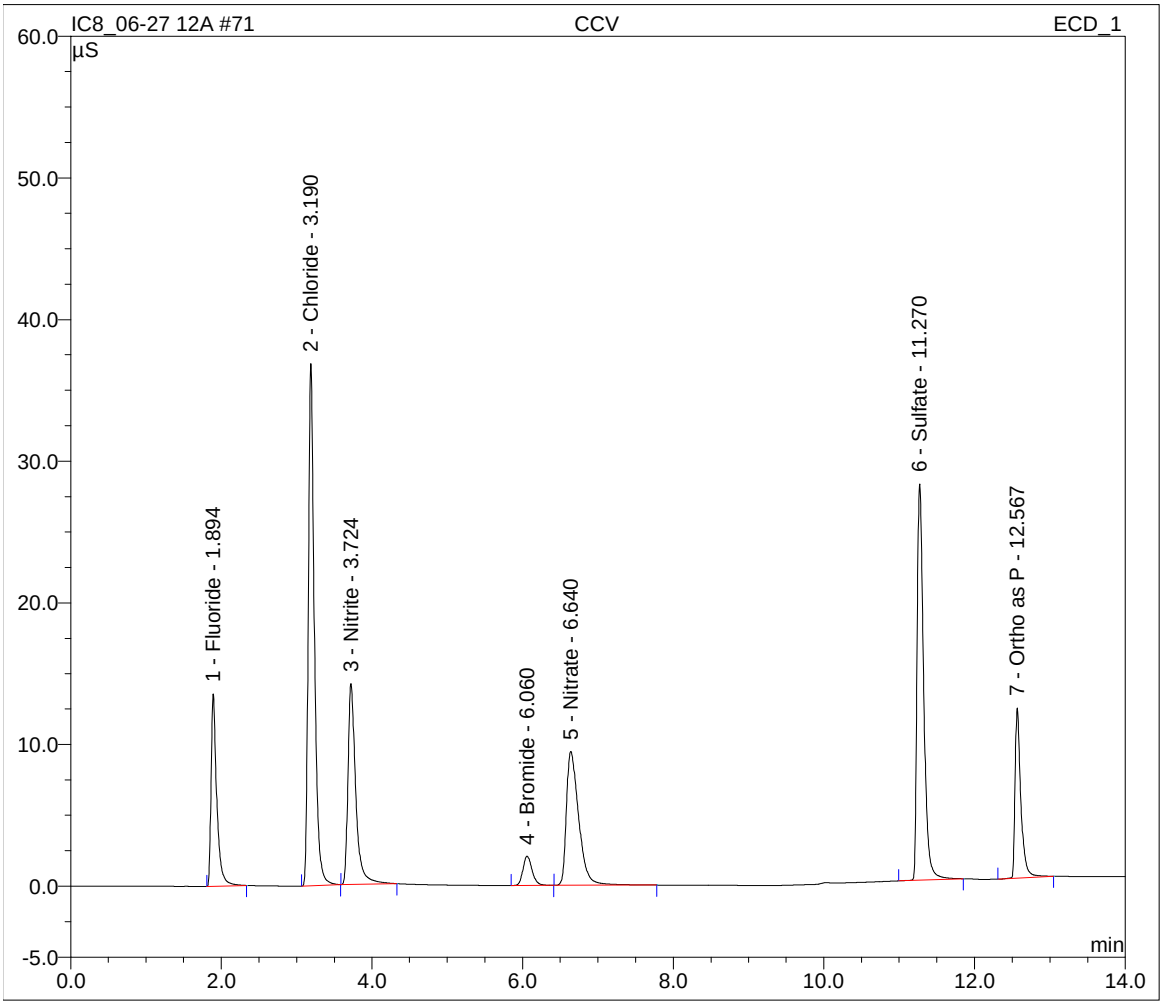
Sample Name:	**280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:59**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.241	2.801	0.9821
2	3.18	Chloride	BMB	12.447	131.186	88.2264
3	6.03	Bromide	BMB	0.016	0.120	0.3066
4	6.66	Nitrate	BMB	0.074	0.463	0.2253
5	11.26	Sulfate	BMB	3.246	31.686	28.2567
6	12.60	Ortho as P	BMB	0.159	1.147	0.0870
		TOTAL:		16.18	167.40	118.08



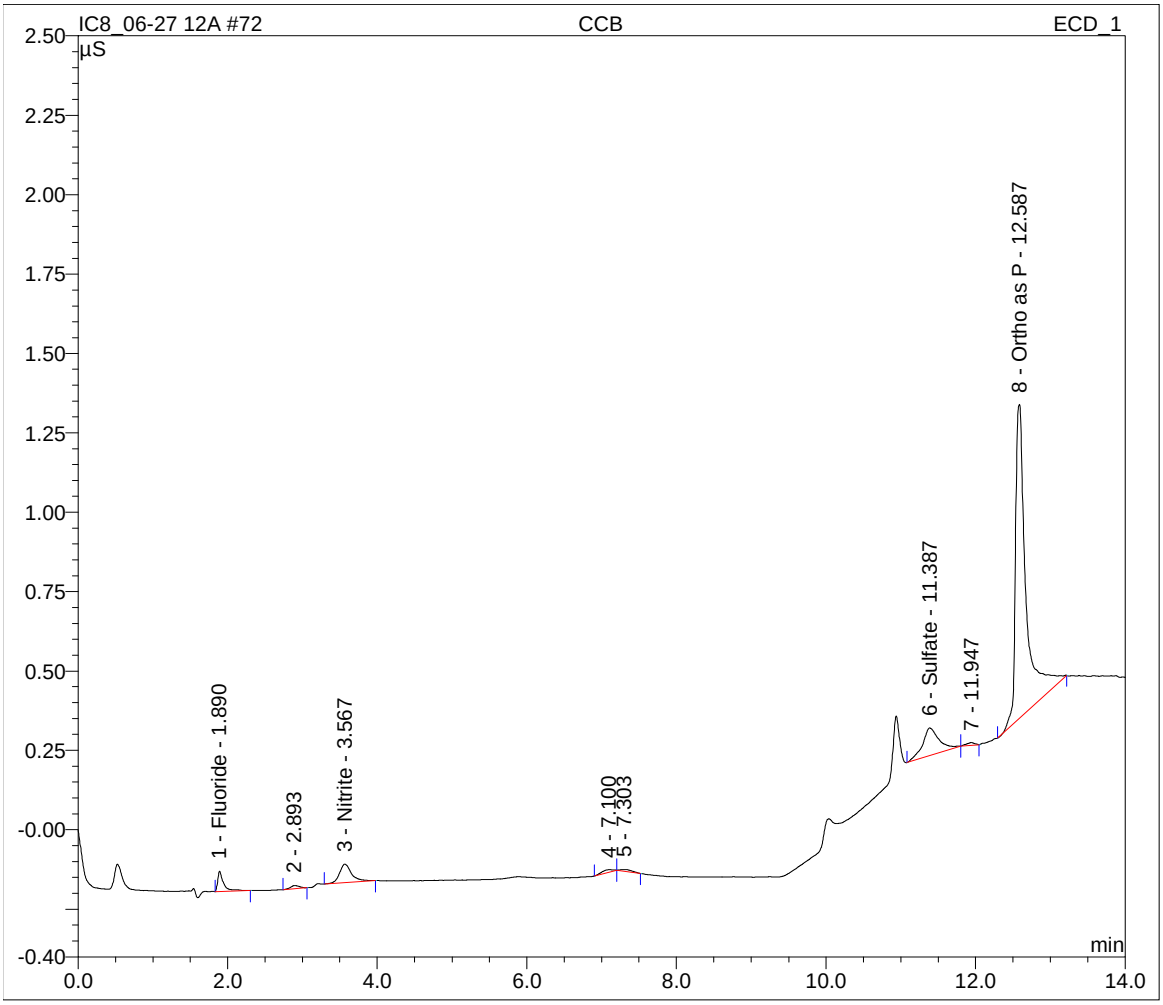
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 08:15**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.189	13.576	4.9607
2	3.19	Chloride	BMB	3.457	36.858	24.5168
3	3.72	Nitrite	BMB	1.708	14.176	4.8016
4	6.06	Bromide	BMB	0.290	2.066	4.8232
5	6.64	Nitrate	BMB	1.789	9.450	4.8916
6	11.27	Sulfate	BMB	2.835	27.973	24.6497
7	12.57	Ortho as P	BMB	1.076	12.010	4.7795
TOTAL:				12.34	116.11	73.42



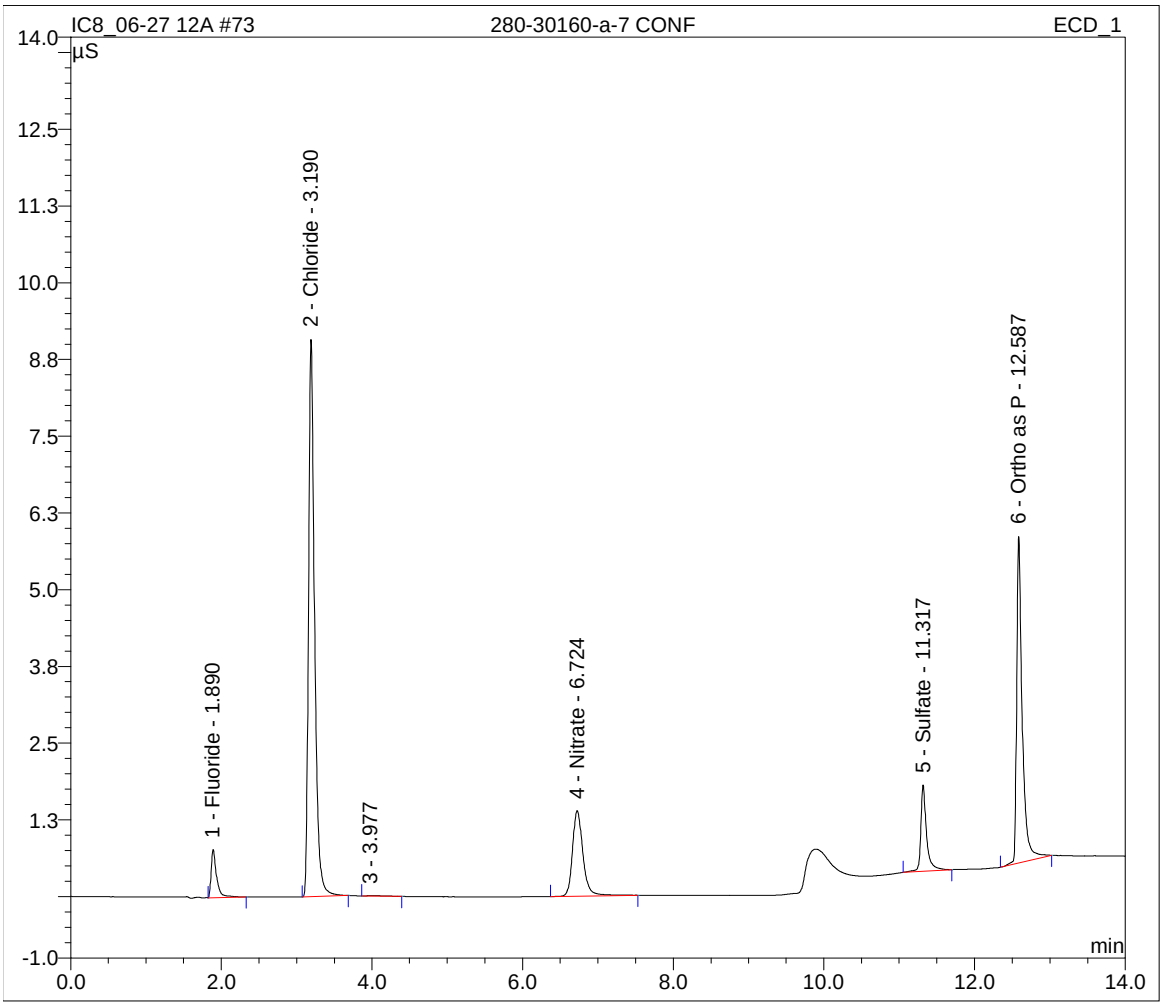
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 08:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.006	0.064	-0.0057
3	3.57	Nitrite	BMB	0.011	0.058	0.0378
6	11.39	Sulfate	BMB	0.022	0.087	-0.0116
8	12.59	Ortho as P	BMB	0.161	0.988	0.0992
		TOTAL:		0.20	1.20	0.12



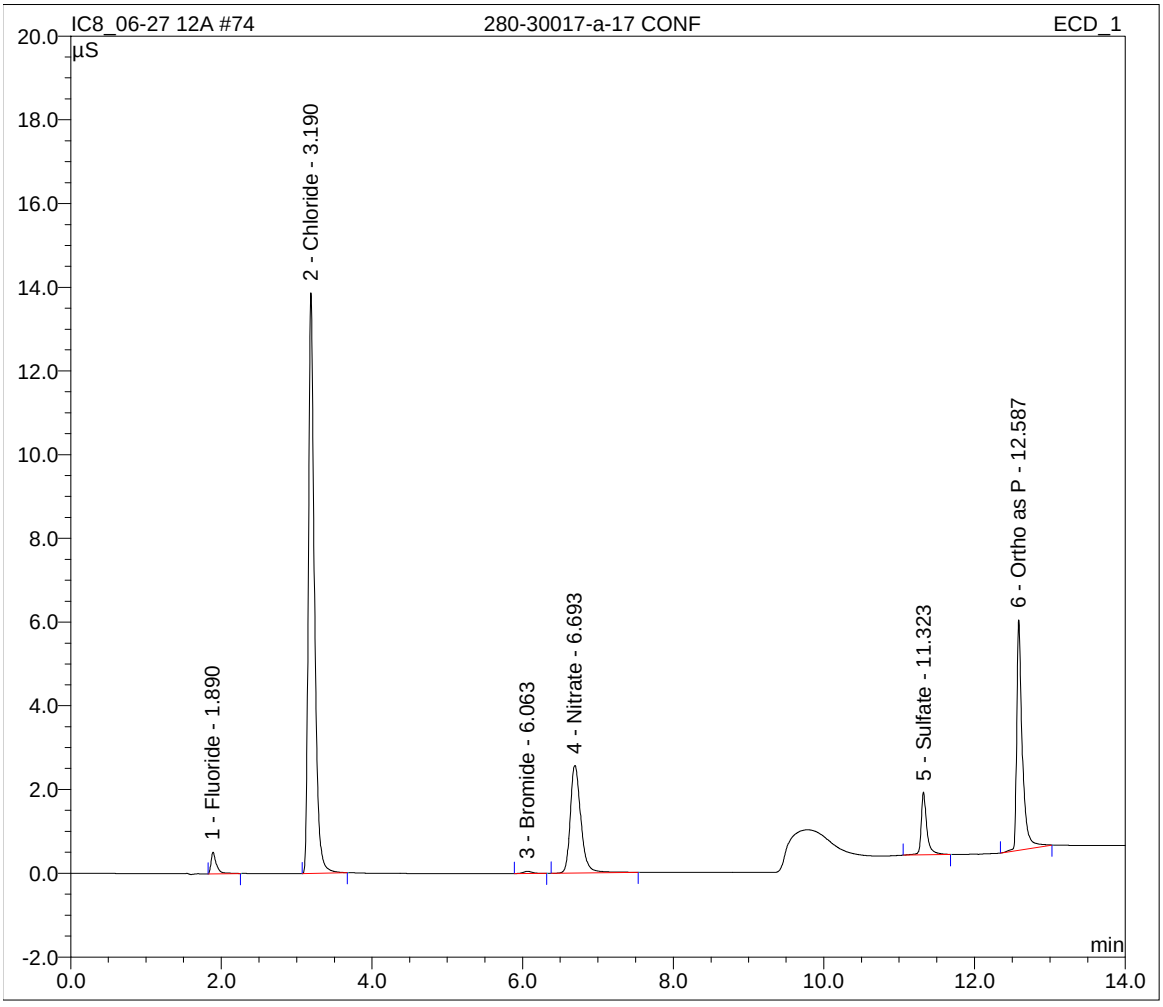
Sample Name:	**280-30160-a-7 CONF**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 08:52**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.066	0.784	0.2462
2	3.19	Chloride	BMB	0.848	9.079	6.0266
4	6.72	Nitrate	BMB	0.224	1.391	0.6357
5	11.32	Sulfate	BMB	0.125	1.404	0.8959
6	12.59	Ortho as P	BMB	0.459	5.319	1.6221
		TOTAL:		1.72	17.98	9.43



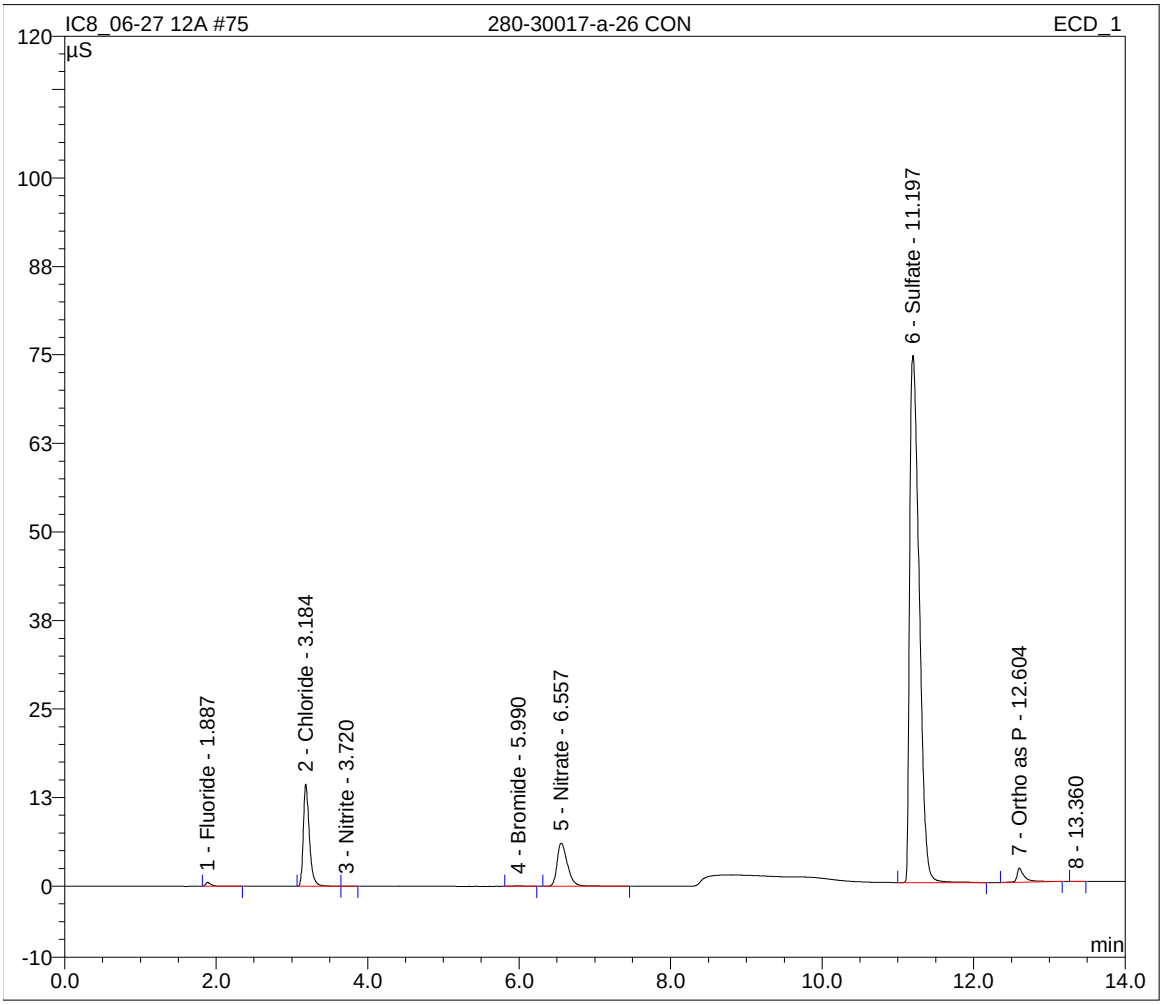
Sample Name:	**280-30017-a-17 CONF**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 09:09**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.043	0.518	0.1511
2	3.19	Chloride	BMB	1.290	13.881	9.1558
3	6.06	Bromide	BMB	0.007	0.050	0.1489
4	6.69	Nitrate	BMB	0.415	2.570	1.1554
5	11.32	Sulfate	BMB	0.130	1.497	0.9350
6	12.59	Ortho as P	BMB	0.478	5.506	1.7189
		TOTAL:		2.36	24.02	13.27



Sample Name:	**280-30017-a-26 CON**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 09:26**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.049	0.555	0.1756
2	3.18	Chloride	BMb	1.333	14.426	9.4632
3	3.72	Nitrite	bMB	0.002	0.018	0.0118
4	5.99	Bromide	BMB	0.011	0.083	0.2129
5	6.56	Nitrate	BMB	0.968	6.061	2.6586
6	11.20	Sulfate	BMB	10.880	74.398	95.1944
7	12.60	Ortho as P	BMB	0.232	1.998	0.4630
		TOTAL:		13.47	97.54	108.18



Wet Chemistry Data Review Checklist
For Tests with Calibration Curves

Test Name/ Method #: IC **SOP #** WC # 0020

Instrument: IC8 **Analyst:** E. Kuder **Analysis Date:** 6-27-12

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
280 - 30461, 30455	AQ		125972		Q4
30459			125993		
30252	S	125785			Q4

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
1. Minimum of five standards in ICAL or as specified in method?	✓			✓
2. Correlation coefficient ≥ 0.995 ?	✓			✓
3. Second-source ICV analyzed, and recovery within acceptance limits?	✓			✓
4. ICB analyzed immediately after the ICV & results < the RL	✓			✓
5. CCV analyzed after every ten samples & recovery within acceptance limits?	✓			✓
6. CCB analyzed after every CCV & results < RL?	✓			✓
7. Absolute value of the intercept is < ± ½ the RL? Evaluated	✓			✓
B. Sample Results				
1. All samples greater than highest calibration standard diluted and reanalyzed?	✓			✓
2. Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			✓
3. All reported results bracketed by in control CCV results?	✓			✓
4. Sample analyses done within holding time?	✓			✓
5. Initial pH check documented for all samples? (If Applicable)			✓	✓
6. Preparation benchsheet completed and included in package?			✓	✓
7. Client requirements reviewed and met?	✓			✓
8. Were data manually transcribed from instrument printouts into TALS verified 100% including significant figures and correct units? (If Applicable)	✓			✓
9. Do the prep and analysis dates in TALS reflect the actual dates?	✓			✓
11. Raw data copies prepared, scanned, and uploaded?	✓			✓
12. Manual integrations done properly and initialed and dated?			✓	✓
13. STD/True Value information is updated and included?	✓			✓
C. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10x blank have NCM?	✓			✓
2. Method blank < ½ RL or NCM provided?	✓			✓
3. LCS/LCSD run for batch and within QC limits?	✓			✓
4. MS/MSD run at required frequency and within limits or NCM written?	✓			✓
5. DUP run at required frequency and RPD within acceptance limits or NCM written?	✓			✓

Analyst: Ellen **Date:** 06-29-12

2nd Level Reviewer : [signature] **Date:** 7/5/12
AR 7/5/12

7/09

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
1	RT CHECK	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:46:24 AM
2	cal1	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:03:13 AM
3	cal2	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:20:01 AM
4	cal3	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:36:49 AM
5	cal4	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 12:15:38 PM
6	cal5	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 12:32:26 PM
7	cal6	Standard	151	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 12:49:14 PM
8	BLK	Unknown	6	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 1:06:03 PM
9	ICV STD#00825	Unknown	203	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 1:39:39 PM
10	ICB	Unknown	204	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 1:56:27 PM
11	MRL 0.05	Unknown	203	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 2:13:15 PM
12	MRL 0.02	Unknown	204	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 2:30:03 PM
13	LCS STD#00825	Unknown	194	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 2:46:52 PM
14	LCSD	Unknown	193	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:03:40 PM
15	MB	Unknown	175	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:20:28 PM
16	280-30461-a-1	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:37:16 PM
17	280-30455-b-1	Unknown	177	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 3:54:04 PM
18	280-30455-b-2	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 4:10:53 PM
19	280-30455-a-3	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 4:27:41 PM
20	280-30455-b-4	Unknown	178	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 4:44:29 PM
21	280-30455-b-5	Unknown	179	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:01:46 PM
22	280-30455-b-6	Unknown	177	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:18:34 PM
23	280-30455-b-7	Unknown	179	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:35:22 PM
24	280-30459-c-1	Unknown	180	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 5:52:10 PM
25	DU 280-30459-c-1	Unknown	180	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 6:08:59 PM
26	CCV	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 7:33:00 PM
27	CCB	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 7:49:48 PM
28	MS 280-30459-c-1	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:06:37 PM
29	MSD 280-30459-c-1	Unknown	181	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:23:25 PM
30	280-30459-a-2	Unknown	411	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:40:13 PM
31	280-30459-a-3	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 8:57:02 PM
32	280-30459-a-4	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 9:13:50 PM
33	280-30459-a-5	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 9:30:38 PM
34	280-30459-a-6	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 9:47:26 PM
35	280-30459-a-18	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:04:15 PM
36	280-30459-c-19	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:21:03 PM
37	DU 280-30459-c-19	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:37:51 PM
38	CCV	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 10:54:39 PM
39	CCB	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:11:28 PM
40	MS 280-30459-c-19	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:28:16 PM
41	MSD 280-30459-c-19	Unknown	412	10.0	7 Anion	7 ANION AS11	Finished	6/27/2012 11:45:04 PM
42	280-30459-a-20	Unknown	413	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:01:53 AM
43	280-30461-a-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:18:41 AM
44	280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:35:29 AM

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
1	RT CHECK	1.0000	1.0000	1.0000	100		EMK
2	cal1	1.0000	1.0000	1.0000	101		EMK
3	cal2	1.0000	1.0000	1.0000	102		EMK
4	cal3	1.0000	1.0000	1.0000	103		EMK
5	cal4	1.0000	1.0000	1.0000	104		EMK
6	cal5	1.0000	1.0000	1.0000	105		EMK
7	cal6	1.0000	1.0000	1.0000	106		EMK
8	BLK	1.0000	1.0000	1.0000	107		EMK
9	ICV STD#00825	1.0000	1.0000	1.0000	108		EMK
10	ICB	1.0000	1.0000	1.0000	109		EMK
11	MRL 0.05	1.0000	1.0000	1.0000	110		EMK
12	MRL 0.02	1.0000	1.0000	1.0000	111		EMK
13	LCS STD#00825	1.0000	1.0000	1.0000	112		EMK
14	LCSD	1.0000	1.0000	1.0000	113		EMK
15	MB	1.0000	1.0000	1.0000	114		EMK
16	280-30461-a-1	1.0000	1.0000	1.0000	115		EMK
17	280-30455-b-1	1.0000	1.0000	1.0000	116		EMK
18	280-30455-b-2	1.0000	1.0000	1.0000	117		EMK
19	280-30455-a-3	1.0000	1.0000	1.0000	118		EMK
20	280-30455-b-4	1.0000	1.0000	1.0000	119		EMK
21	280-30455-b-5	1.0000	1.0000	1.0000	120		EMK
22	280-30455-b-6	1.0000	1.0000	1.0000	121		EMK
23	280-30455-b-7	1.0000	1.0000	1.0000	122		EMK
24	280-30459-c-1	1.0000	1.0000	1.0000	123		EMK
25	DU 280-30459-c-1	1.0000	1.0000	1.0000	124		EMK
26	CCV	1.0000	1.0000	1.0000	125		EMK
27	CCB	1.0000	1.0000	1.0000	126		EMK
28	MS 280-30459-c-1	1.0000	1.0000	1.0000	127		EMK
29	MSD 280-30459-c-1	1.0000	1.0000	1.0000	128		EMK
30	280-30459-a-2	1.0000	1.0000	1.0000	129		EMK
31	280-30459-a-3	1.0000	1.0000	1.0000	130		EMK
32	280-30459-a-4	1.0000	1.0000	1.0000	131		EMK
33	280-30459-a-5	1.0000	1.0000	1.0000	132		EMK
34	280-30459-a-6	1.0000	1.0000	1.0000	133		EMK
35	280-30459-a-18	1.0000	1.0000	1.0000	134		EMK
36	280-30459-c-19	1.0000	1.0000	1.0000	135		EMK
37	DU 280-30459-c-19	1.0000	1.0000	1.0000	136		EMK
38	CCV	1.0000	1.0000	1.0000	137		EMK
39	CCB	1.0000	1.0000	1.0000	138		EMK
40	MS 280-30459-c-19	1.0000	1.0000	1.0000	139		EMK
41	MSD 280-30459-c-19	1.0000	1.0000	1.0000	140		EMK
42	280-30459-a-20	1.0000	1.0000	1.0000	141		EMK
43	280-30461-a-1 5X	1.0000	5.0000	1.0000	142		EMK
44	280-30459-c-1 5X	1.0000	5.0000	1.0000	143		EMK

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Type	Pos.	Inj. Vol.	Program	Method	Status	Inj. Date/Time
45	DU 280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 12:52:18 AM
46	MSD 280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:09:06 AM
47	MSD 280-30459-c-1 5X	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:25:54 AM
48	280-30459-a-2 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:42:42 AM
49	280-30459-a-3 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 1:59:31 AM
50	CCV	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 2:16:19 AM
51	CCB	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 2:33:07 AM
52	280-30459-a-4 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 2:49:56 AM
53	280-30459-a-5 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:06:44 AM
54	280-30459-a-6 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:23:32 AM
55	280-30459-a-18 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:40:21 AM
56	280-30459-c-19 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 3:57:09 AM
57	DU 280-30459-c-19 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 4:13:57 AM
58	MS 280-30459-c-19 5X	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 4:30:45 AM
59	MSD 280-30459-c-19 5X	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 4:47:33 AM
60	280-30459-a-20 5X	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:04:22 AM
61	lcs 280-125785/1-a	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:21:10 AM
62	CCV	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:37:58 AM
63	CCB	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 5:54:46 AM
64	lcsd 280-125785/2-a	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 6:18:13 AM
65	mb 280-125785/3-a	Unknown	414	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 6:35:01 AM
66	280-30252-a-1-e	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 6:51:49 AM
67	280-30252-a-2-c	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:08:38 AM
68	MS 280-30459-c-19	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:25:26 AM
69	MSD 280-30459-c-19	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:42:14 AM
70	280-30459-c-19	Unknown	416	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 7:59:03 AM
71	CCV	Unknown	417	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 8:15:50 AM
72	CCB	Unknown	415	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 8:35:48 AM
73	280-30160-a-7 CONF	Unknown	417	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 8:52:36 AM
74	280-30017-a-17 CONF	Unknown	418	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 9:09:24 AM
75	280-30017-a-26 CON	Unknown	418	10.0	7 Anion	7 ANION AS11	Finished	6/28/2012 9:26:12 AM

Title: Temporary sequence for manual data acquisition
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12
Timebase: ICS-8
#Samples: 75
Created: 6/27/2012 10:20:15 AM by WETCHEMD
Last Update: 6/28/2012 11:56:37 AM by WETCHEMD

No.	Name	Weight	Dil. Factor	ISTD Amount	Sample ID	Replicate ID	Comment
45	DU 280-30459-c-1 5X	1.0000	5.0000	1.0000	144		EMK
46	MSD 280-30459-c-1 5X	1.0000	5.0000	1.0000	145		EMK
47	MSD 280-30459-c-1 5X	1.0000	5.0000	1.0000	146		EMK
48	280-30459-a-2 5X	1.0000	5.0000	1.0000	147		EMK
49	280-30459-a-3 5X	1.0000	5.0000	1.0000	148		EMK
50	CCV	1.0000	1.0000	1.0000	149		EMK
51	CCB	1.0000	1.0000	1.0000	150		EMK
52	280-30459-a-4 5X	1.0000	5.0000	1.0000	151		EMK
53	280-30459-a-5 5X	1.0000	5.0000	1.0000	152		EMK
54	280-30459-a-6 5X	1.0000	5.0000	1.0000	153		EMK
55	280-30459-a-18 5X	1.0000	5.0000	1.0000	154		EMK
56	280-30459-c-19 5X	1.0000	5.0000	1.0000	155		EMK
57	DU 280-30459-c-19 5X	1.0000	5.0000	1.0000	156		EMK
58	MS 280-30459-c-19 5X	1.0000	5.0000	1.0000	157		EMK
59	MSD 280-30459-c-19 5X	1.0000	5.0000	1.0000	158		EMK
60	280-30459-a-20 5X	1.0000	5.0000	1.0000	159		EMK
61	lcs 280-125785/1-a	1.0000	1.0000	1.0000	160		EMK
62	CCV	1.0000	1.0000	1.0000	161		EMK
63	CCB	1.0000	1.0000	1.0000	162		EMK
64	lcsd 280-125785/2-a	1.0000	1.0000	1.0000	163		EMK
65	mb 280-125785/3-a	1.0000	1.0000	1.0000	164		EMK
66	280-30252-a-1-e	1.0000	1.0000	1.0000	165		EMK
67	280-30252-a-2-c	1.0000	1.0000	1.0000	166		EMK
68	MS 280-30459-c-19	1.0000	1.0000	1.0000	167		EMK
69	MSD 280-30459-c-19	1.0000	1.0000	1.0000	168		EMK
70	280-30459-c-19	1.0000	1.0000	1.0000	169		EMK
71	CCV	1.0000	1.0000	1.0000	170		EMK
72	CCB	1.0000	1.0000	1.0000	171		EMK
73	280-30160-a-7 CONF	1.0000	1.0000	1.0000	172		EMK
74	280-30017-a-17 CONF	1.0000	1.0000	1.0000	173		EMK
75	280-30017-a-26 CON	1.0000	1.0000	1.0000	174		EMK

Title:
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Created: 3/20/2008 10:44:59 AM by kudlae
Timebase: ICS-8 Changed: 3/31/2008 10:13:48 AM by kudlae

	Pressure.LowerLimit =	200 [psi]
	Pressure.UpperLimit =	3000 [psi]
	%A.Equate =	"DI H2O"
	CR_TC =	On
	Pump_InjectValve.State	LoadPosition
	Data_Collection_Rate =	5.0 [Hz]
	CellTemperature.Nominal =	35.0 [°C]
	ColumnTemperature.Nominal =	30.0 [°C]
	Suppressor_Type =	ASRS_4mm
	; Pump_ECD.Hydroxide =	50.0
	; Pump_ECD.Recommended Current =	124
	; Pump_ECD.Carbonate =	0.0
	; Pump_ECD.Bicarbonate =	0.0
	; Pump_ECD.Tetraborate =	0.0
	; Pump_ECD.Other eluent =	0.0
	Suppressor_Current =	125 [mA]
	Flow =	1.00 [ml/min]
-2.700	Pump_ECD_Relay_1.Open	Duration=0.01
	Concentration =	10.00 [mM]
	Curve =	5
-2.500	Pump_ECD_Relay_1.Closed	Duration=0.01
0.000	Autozero	
	ECD_1.AcqOn	
	Pump_InjectValve.InjectPosition	Duration=720.00
7.500	Concentration =	10.00 [mM]
	Curve =	5
10.500	Concentration =	40.00 [mM]
	Curve =	5
10.600	Concentration =	50.00 [mM]
	Curve =	5
12.500	Concentration =	50.00 [mM]
	Curve =	5
12.600	Concentration =	10.00 [mM]
	Curve =	5
13.000	Concentration =	10.00 [mM]

Chromeleon © Dionex Corporation, Version 6.80 SP3 Build 2345 (128616)

Title:
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Created: 3/20/2008 10:44:59 AM by kudlae
Timebase: ICS-8 Changed: 3/31/2008 10:13:48 AM by kudlae

```
           Curve =                          5

14.000     ECD_1.AcqOff
           End
```

Chromeleon © Dionex Corporation, Version 6.80 SP3 Build 2345 (128616)

Title:
Datasource: D3YCYMF1_local
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ
Timebase: ICS-8
Created: 3/20/2008 10:44:59 AM by kudlae
Changed: 3/31/2008 10:13:48 AM by kudlae

No.	Channel	Operation	Parameters

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Blank Run Subtraction: No Blank Run Subtraction

Detection Table:

No.	Ret. Time [min]	Param. Name	Param. Value	Channel
1	0.000	Minimum Area	0.5E-3 "[Signal]*min"	All Channels
2	0.000	Sensitivity	0.8E-3 "[Signal]"	All Channels
3	0.000	Inhibit Integration	On	All Channels
4	0.000	Valley to Valley	On	All Channels
5	0.000	Fronting Sensitivity Factor	5.0	All Channels
6	0.000	Tailing Sensitivity Factor	6.0	All Channels
7	1.500	Void Volume Treatment	On	All Channels
8	1.500	Inhibit Integration	Off	All Channels
9	1.800	Void Volume Treatment	Off	All Channels
10	2.000	Maximum Width	0.75 min	All Channels
11	8.200	Inhibit Integration	On	All Channels
12	11.000	Inhibit Integration	Off	All Channels

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Peak Table:

Use Recently Detected Retention Times: Off
Peak Retention Time Determination: Absolute
Dead time:
Delay Time of 2'nd Detector: <None>
Delay Time of 3'rd Detector: <None>

No.	Peak Name	Ret.Time	Window	Standard	Int.Type	Cal.Type	Peak Type	Group	Comment	Amount BLK	Amount cal1
1	*Fluoride*	*1.900 min*	*7.000 RN*	*External*	*Area*	*XLOff*	*Auto*		*Autogenerated*	*0.000000*	*0.200000*
2	Acetate	2.700 min	3.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.000000
3	Chloride	3.200 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	1.000000
4	Nitrite	3.700 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000
5	Bromide	6.100 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000
6	Nitrate	6.700 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000
7	Sulfate	11.300 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	1.000000
8	Ortho as P	12.600 min	5.000 RN	External	Area	XLOff	Auto		Autogenerated	0.000000	0.200000

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Peak Table:

Use Recently Detected Retention Times: Off
Peak Retention Time Determination: Absolute
Dead time:
Delay Time of 2'nd Detector: <None>
Delay Time of 3'rd Detector: <None>

No.	Peak Name	Ret.Time	Amount cal2	Amount cal3	Amount cal4	Amount cal5	Amount cal6
1	*Fluoride*	*1.900 min*	*0.500000*	*1.000000*	*4.000000*	*8.000000*	*10.000000*
2	Acetate	2.700 min	0.500000	1.000000	4.000000	8.000000	10.000000
3	Chloride	3.200 min	2.500000	5.000000	20.000000	40.000000	50.000000
4	Nitrite	3.700 min	0.500000	1.000000	4.000000	8.000000	10.000000
5	Bromide	6.100 min	0.500000	1.000000	4.000000	8.000000	10.000000
6	Nitrate	6.700 min	0.500000	1.000000	4.000000	8.000000	10.000000
7	Sulfate	11.300 min	2.500000	5.000000	20.000000	40.000000	50.000000
8	Ortho as P	12.600 min	0.500000	1.000000	4.000000	8.000000	10.000000

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Amount Table:

Dimension of Amounts: mg/L
Reference volume for amounts: Use inject volume of first standard
Number of Amount Columns: 7
Sample column used for amount column assignment: Sample Name

No.	Peak Name	Ret.Time	Window	Standard	Int.Type	Cal.Type	Peak Type	Left Limit	Right Limit	Group	Resp.Fact.
1	*Fluoride*	*1.900 min*	*7.000 RN*	*External*	*Area*	*XLOff*	*Auto*	*0.000*	*0.000*		*1.000000*
2	Acetate	2.700 min	3.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
3	Chloride	3.200 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
4	Nitrite	3.700 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
5	Bromide	6.100 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
6	Nitrate	6.700 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
7	Sulfate	11.300 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000
8	Ortho as P	12.600 min	5.000 RN	External	Area	XLOff	Auto	0.000	0.000		1.000000

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Amount Table:

Dimension of Amounts: mg/L
Reference volume for amounts: Use inject volume of first standard
Number of Amount Columns: 7
Sample column used for amount column assignment: Sample Name

No.	Peak Name	Ret.Time	Comment
1	*Fluoride*	*1.900 min*	*Autogenerated*
2	Acetate	2.700 min	Autogenerated
3	Chloride	3.200 min	Autogenerated
4	Nitrite	3.700 min	Autogenerated
5	Bromide	6.100 min	Autogenerated
6	Nitrate	6.700 min	Autogenerated
7	Sulfate	11.300 min	Autogenerated
8	Ortho as P	12.600 min	Autogenerated

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Calibration:

Calibration Mode: Total
Auto Recalibrate: On
Curve Fitting Model: Normal
Dual-Column Separate Calibration: Off

No.	Enabled	Name	Smp.No.	Pos.	Inj. Vol.	Weight	ISTD Amount	Dil. Factor	Inj. Date/Time	Sample Comment
1	☒	cal1	2	151	10.0	1.0000	1.0000	1.0000	6/27/2012 11:0	EMK
2	☒	cal2	3	151	10.0	1.0000	1.0000	1.0000	6/27/2012 11:2	EMK
3	☒	cal3	4	151	10.0	1.0000	1.0000	1.0000	6/27/2012 11:3	EMK
4	☒	cal4	5	151	10.0	1.0000	1.0000	1.0000	6/27/2012 12:1	EMK
5	☒	cal5	6	151	10.0	1.0000	1.0000	1.0000	6/27/2012 12:3	EMK
6	☒	cal6	7	151	10.0	1.0000	1.0000	1.0000	6/27/2012 12:4	EMK

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

Calibration:

Calibration Mode: Total
Auto Recalibrate: On
Curve Fitting Model: Normal
Dual-Column Separate Calibration: Off

No.	Enabled	Name	Calib.	Comment
1	☒	cal1	Ok	
2	☒	cal2	Ok	
3	☒	cal3	Ok	
4	☒	cal4	Ok	
5	☒	cal5	Ok	
6	☒	cal6	Ok	

Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

System Suitability Test:

No.	Name	Sample Condition	Test Condition	Aggregate	Operator	Value	Channel	Peak	N.A.
1									

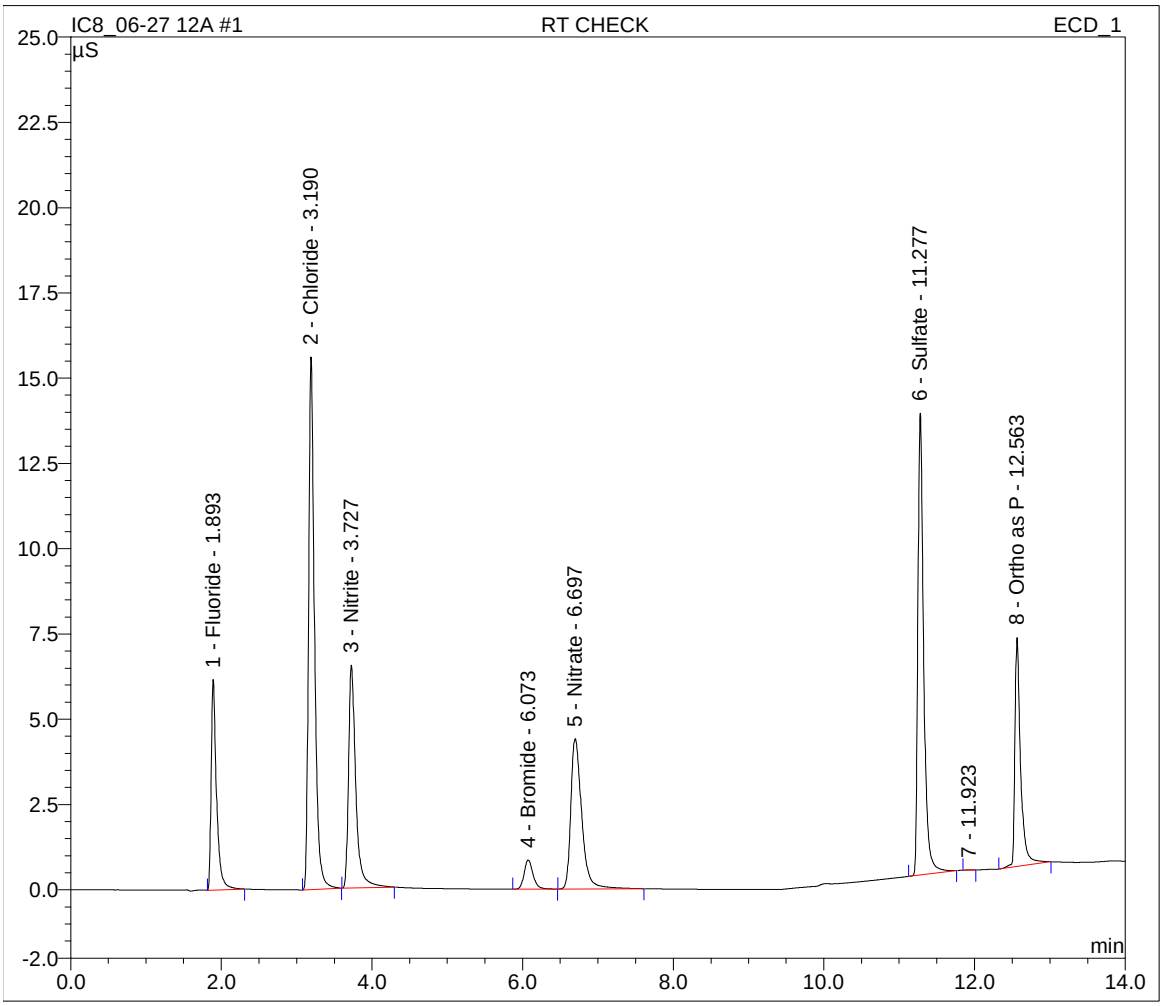
Title: 9056
Datasource: D3YCYMF1_local Created: 7/13/2004 10:19:05 PM by COONL
Location: ICS-8\data\2012\06 12\IC8_06-27 12A.SEQ Last Update: 6/27/2012 1:00:11 PM by WETCHEMD

System Suitability Test:

No.	Name	Fail-Action	Result	SST Message	Rounding
1					

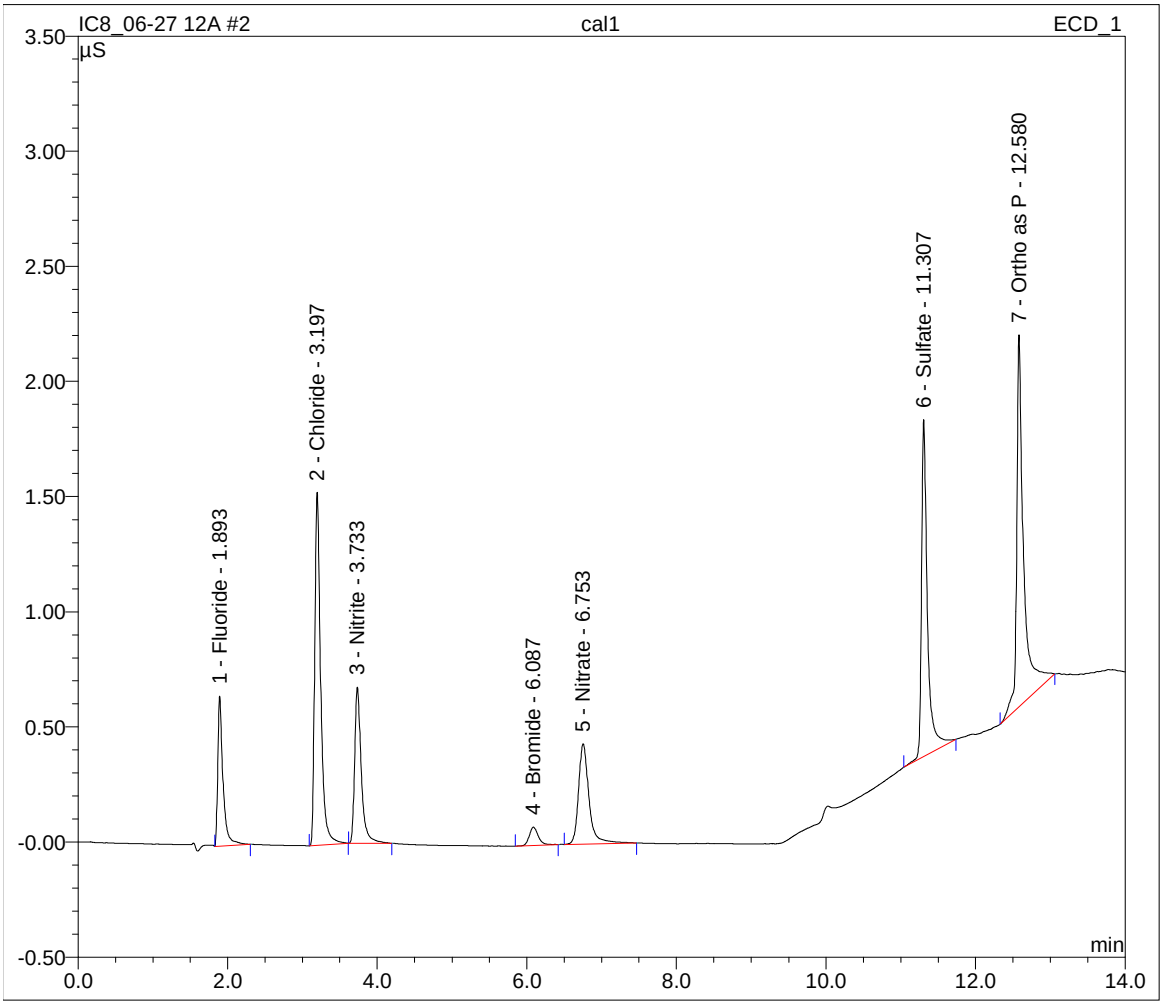
Sample Name:	**RT CHECK**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 10:46**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.511	6.180	2.1154
2	3.19	Chloride	BMB	1.429	15.609	10.1409
3	3.73	Nitrite	BMB	0.730	6.536	2.0562
4	6.07	Bromide	BMB	0.117	0.853	1.9653
5	6.70	Nitrate	BMB	0.738	4.402	2.0328
6	11.28	Sulfate	BMB	1.213	13.538	10.4285
8	12.56	Ortho as P	BMB	0.592	6.719	2.3018
		TOTAL:		5.33	53.84	31.04



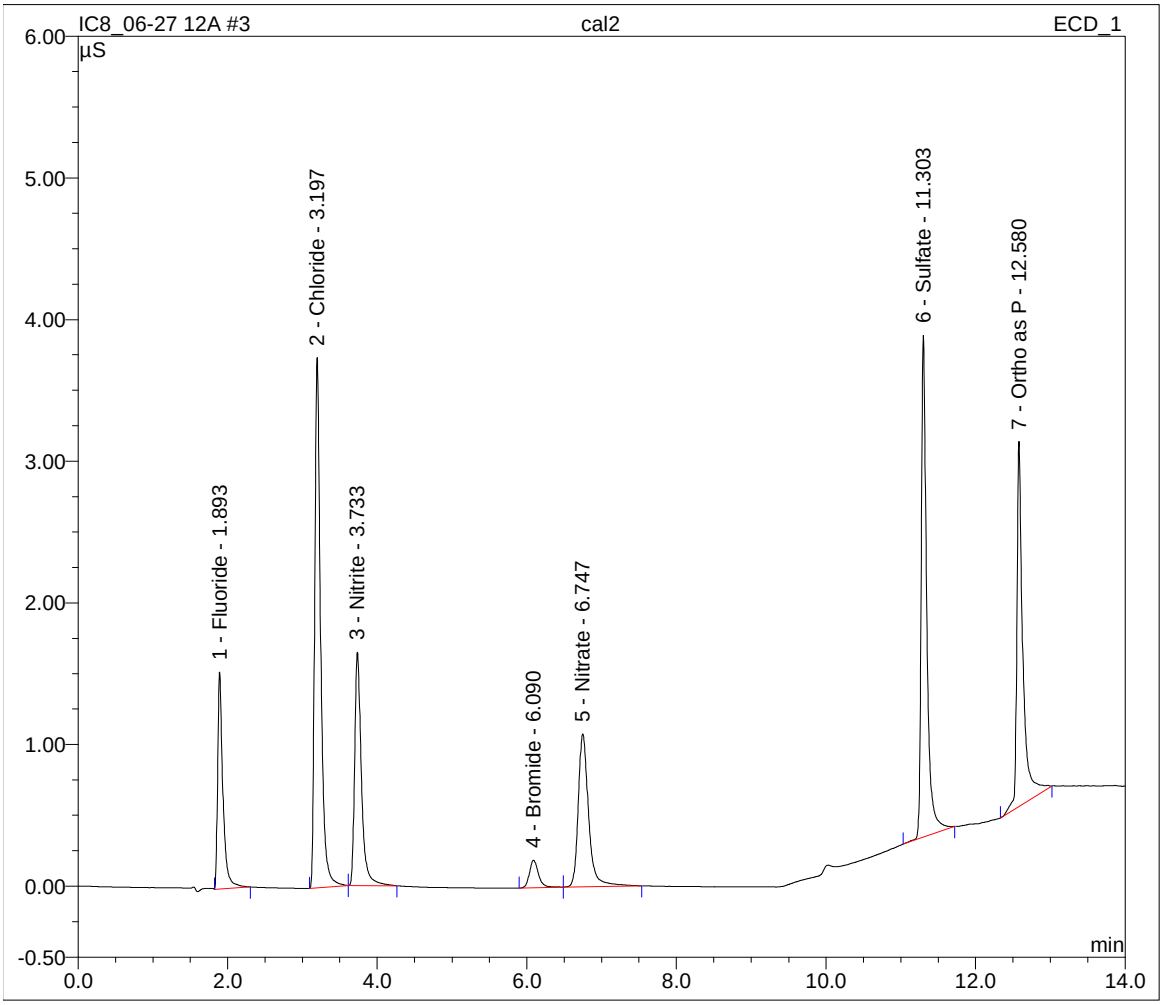
Sample Name:	**cal1**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 11:03**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.053	0.651	0.1929
2	3.20	Chloride	BMB	0.142	1.533	1.0209
3	3.73	Nitrite	BMB	0.070	0.678	0.2025
4	6.09	Bromide	BMB	0.011	0.080	0.2182
5	6.75	Nitrate	BMB	0.071	0.436	0.2176
6	11.31	Sulfate	BMB	0.134	1.464	0.9746
7	12.58	Ortho as P	BMB	0.175	1.617	0.1681
		TOTAL:		0.66	6.46	2.99



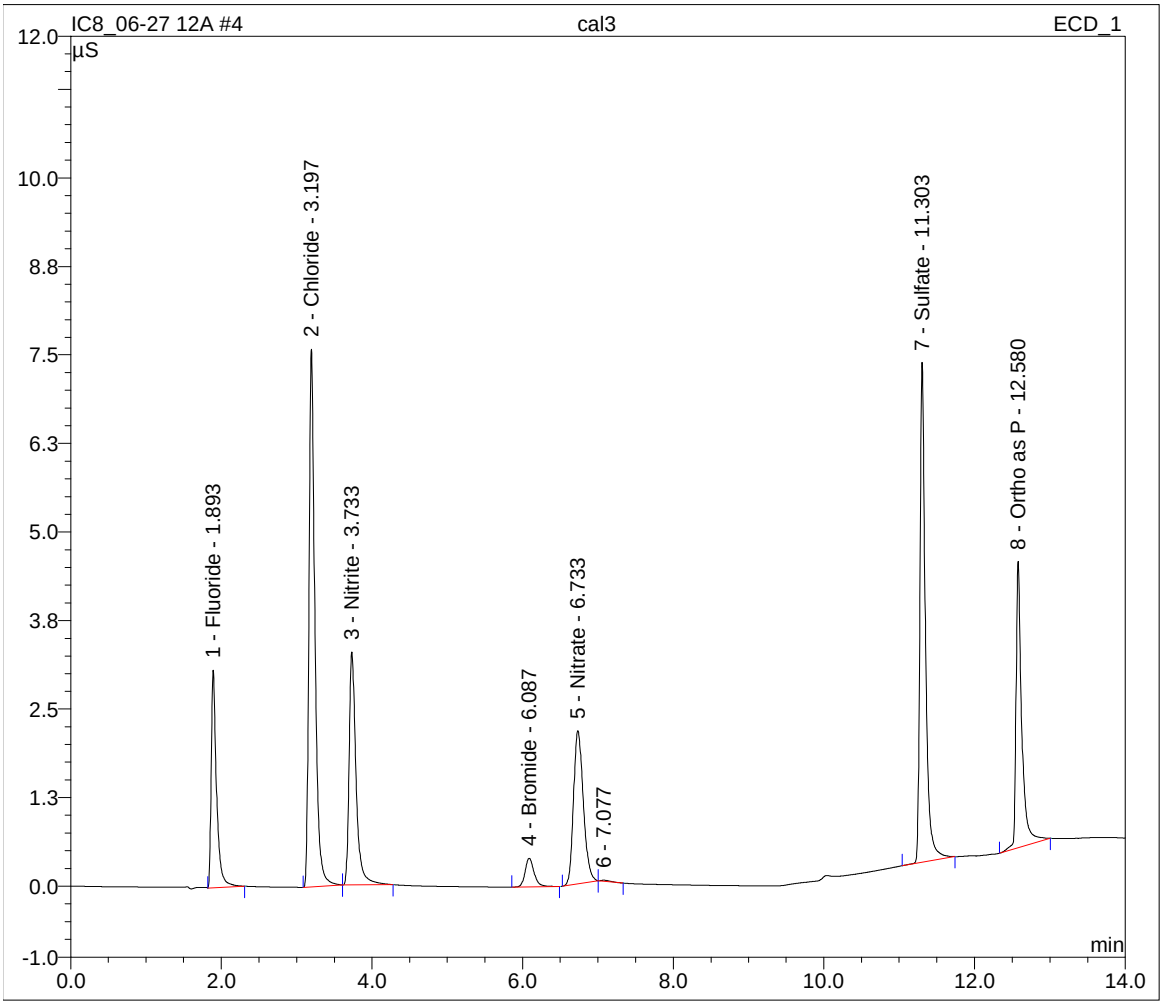
Sample Name:	**cal2**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 11:20**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.125	1.531	0.4953
2	3.20	Chloride	BMB	0.346	3.743	2.4656
3	3.73	Nitrite	bMB	0.172	1.648	0.4906
4	6.09	Bromide	BMB	0.027	0.195	0.4841
5	6.75	Nitrate	bMB	0.173	1.079	0.4959
6	11.30	Sulfate	BMB	0.306	3.543	2.4770
7	12.58	Ortho as P	BMB	0.242	2.578	0.5111
		TOTAL:		1.39	14.32	7.42



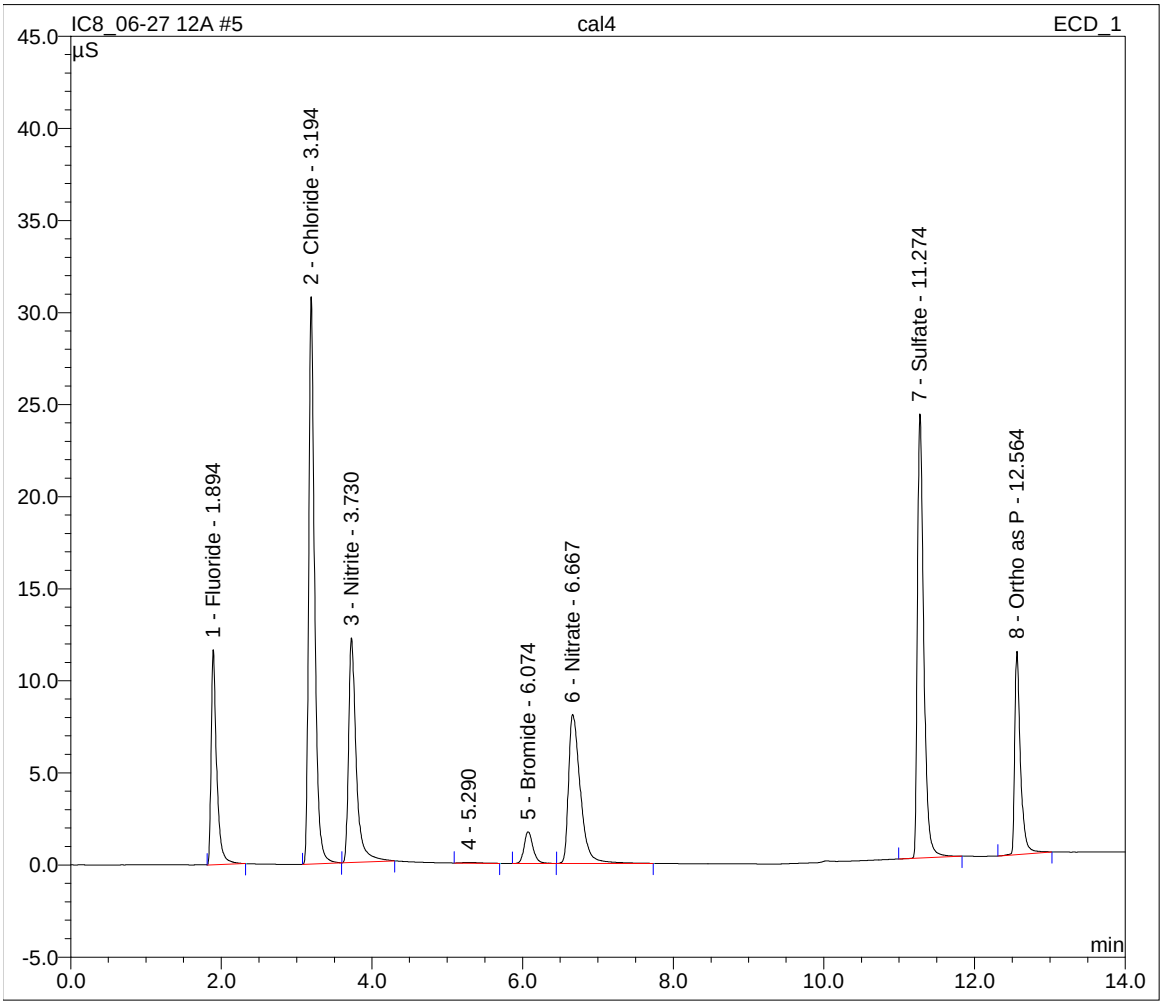
Sample Name:	**cal3**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 11:36**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.252	3.073	1.0266
2	3.20	Chloride	BMB	0.698	7.590	4.9651
3	3.73	Nitrite	BMB	0.352	3.289	0.9957
4	6.09	Bromide	BMB	0.055	0.402	0.9505
5	6.73	Nitrate	BMb	0.326	2.162	0.9121
7	11.30	Sulfate	BMB	0.608	7.055	5.1242
8	12.58	Ortho as P	BMB	0.359	4.043	1.1078
		TOTAL:		2.65	27.61	15.08



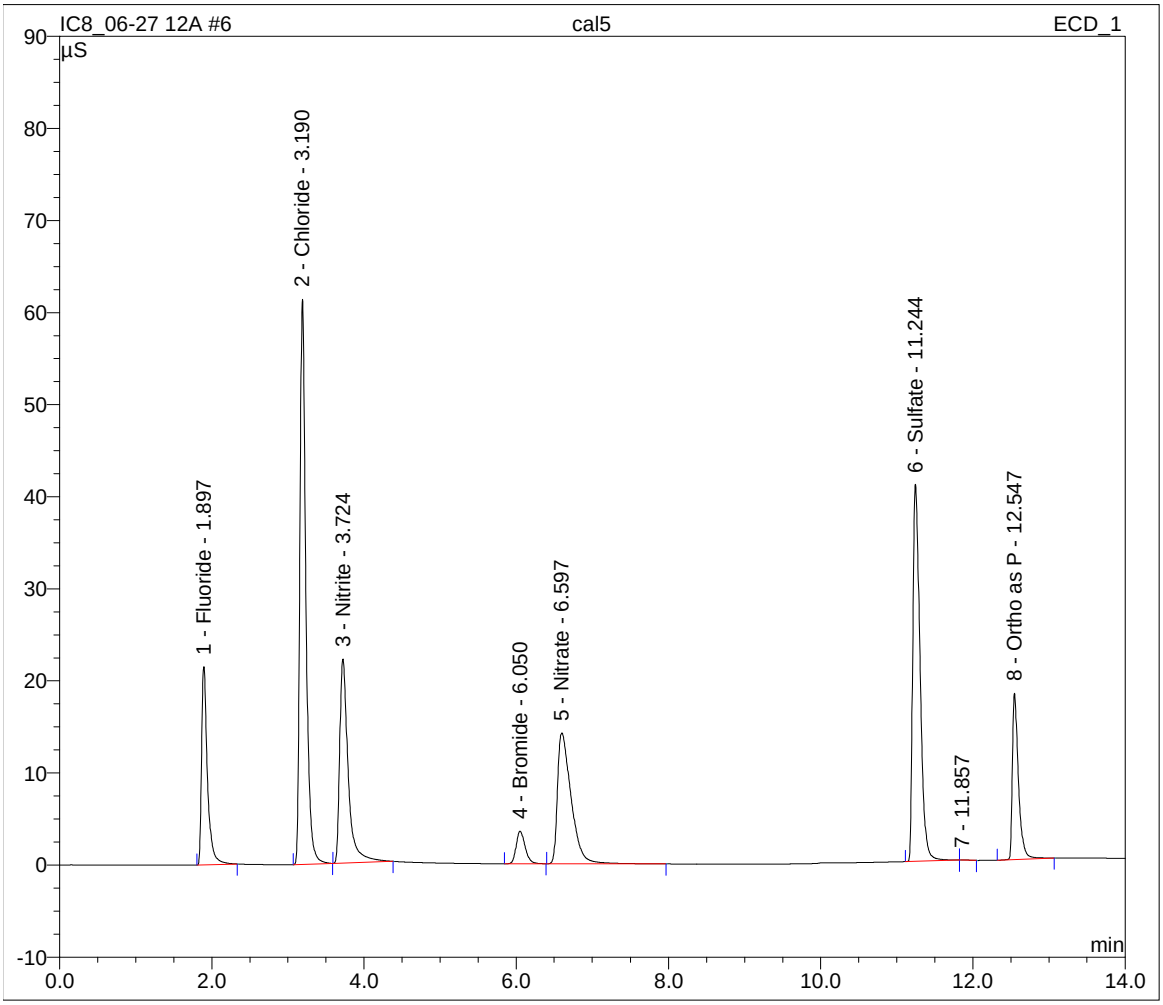
Sample Name:	**cal4**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 12:15**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.992	11.687	4.1333
2	3.19	Chloride	BMB	2.814	30.815	19.9594
3	3.73	Nitrite	BMB	1.443	12.198	4.0584
5	6.07	Bromide	BMB	0.234	1.720	3.8960
6	6.67	Nitrate	BMB	1.461	8.088	3.9999
7	11.27	Sulfate	BMB	2.351	24.114	20.4077
8	12.56	Ortho as P	BMB	0.977	11.044	4.2717
		TOTAL:		10.27	99.66	60.73



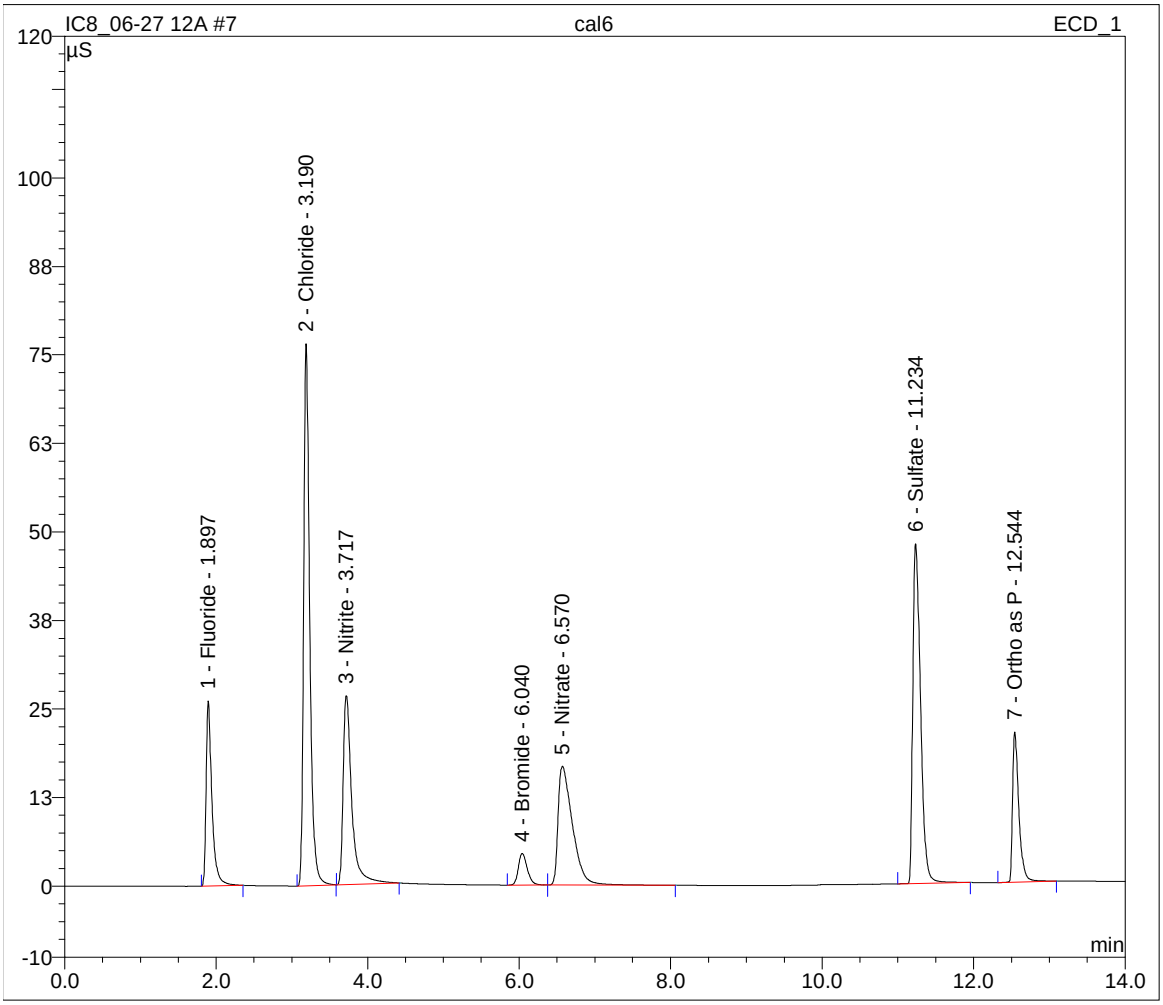
Sample Name:	**cal5**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 12:32**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.90	Fluoride	BMB	1.912	21.558	7.9960
2	3.19	Chloride	BMB	5.645	61.408	40.0214
3	3.72	Nitrite	BMB	2.857	22.176	8.0299
4	6.05	Bromide	BMB	0.485	3.547	8.0439
5	6.60	Nitrate	BMB	2.943	14.189	8.0328
6	11.24	Sulfate	BMb	4.563	40.946	39.8085
8	12.55	Ortho as P	BMB	1.685	18.056	7.8956
		TOTAL:		20.09	181.88	119.83



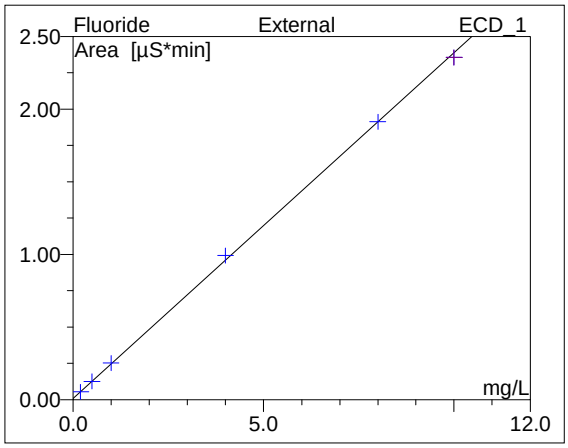
Sample Name:	**cal6**	*Inj. Vol.:*	**10.0**
Sample Type:	**standard**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 12:49**	*Run Time:*	**14.00**

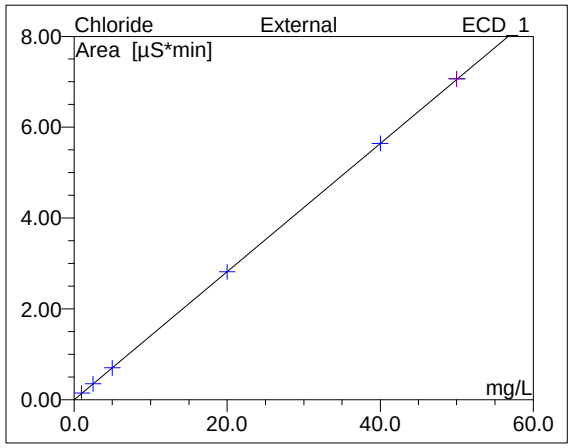
No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.90	Fluoride	BMB	2.355	26.115	9.8559
2	3.19	Chloride	BMB	7.063	76.532	50.0676
3	3.72	Nitrite	BMB	3.532	26.644	9.9230
4	6.04	Bromide	BMB	0.610	4.443	10.1073
5	6.57	Nitrate	BMB	3.682	16.762	10.0417
6	11.23	Sulfate	BMB	5.692	47.967	49.7079
7	12.54	Ortho as P	BMB	2.047	21.191	9.7457
TOTAL:				24.98	219.65	149.45

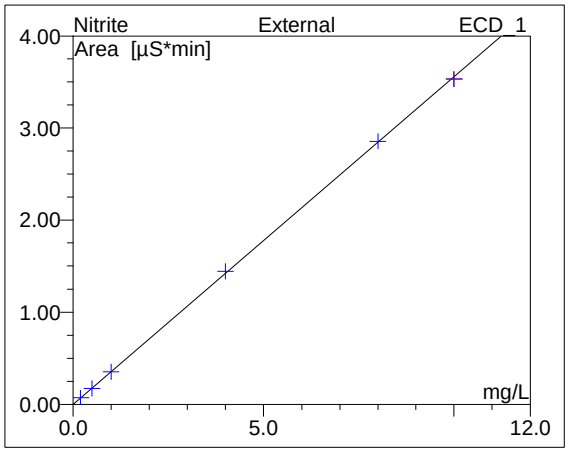


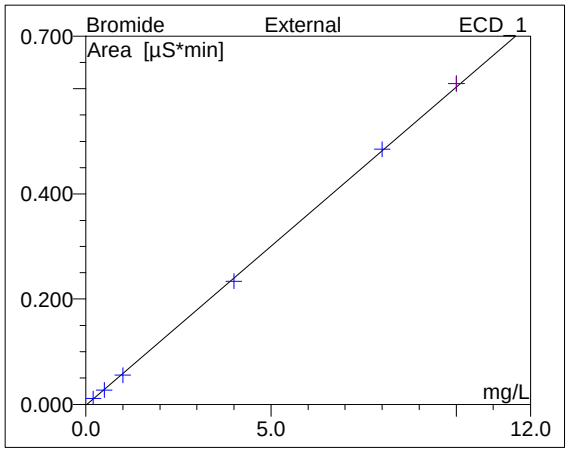
Calibration Batch Report

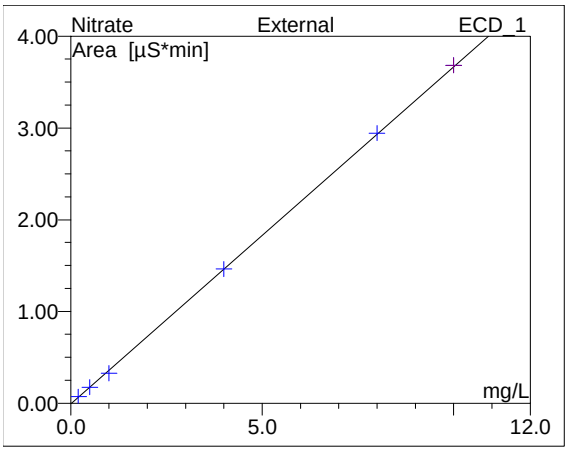
Sequence:	**IC8_06-27 12A**	Inj. Vol.:	**10.0**
Program:	**7 Anion**	Operator:	**DENPC241**
Inj. Date/Time:	**06/27/12 12:49**	Run Time:	**14.00**

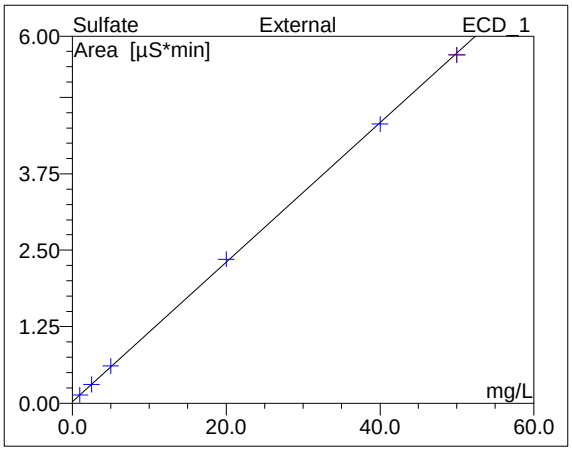




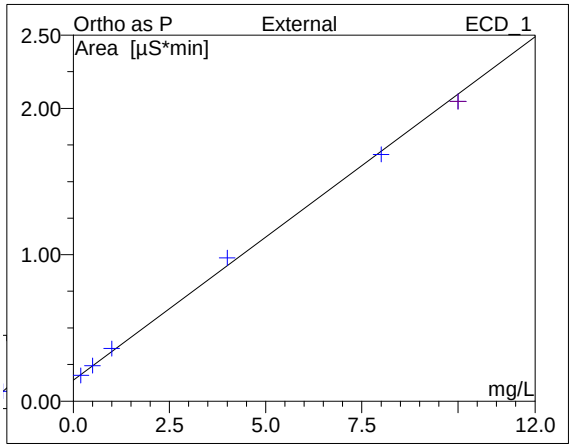








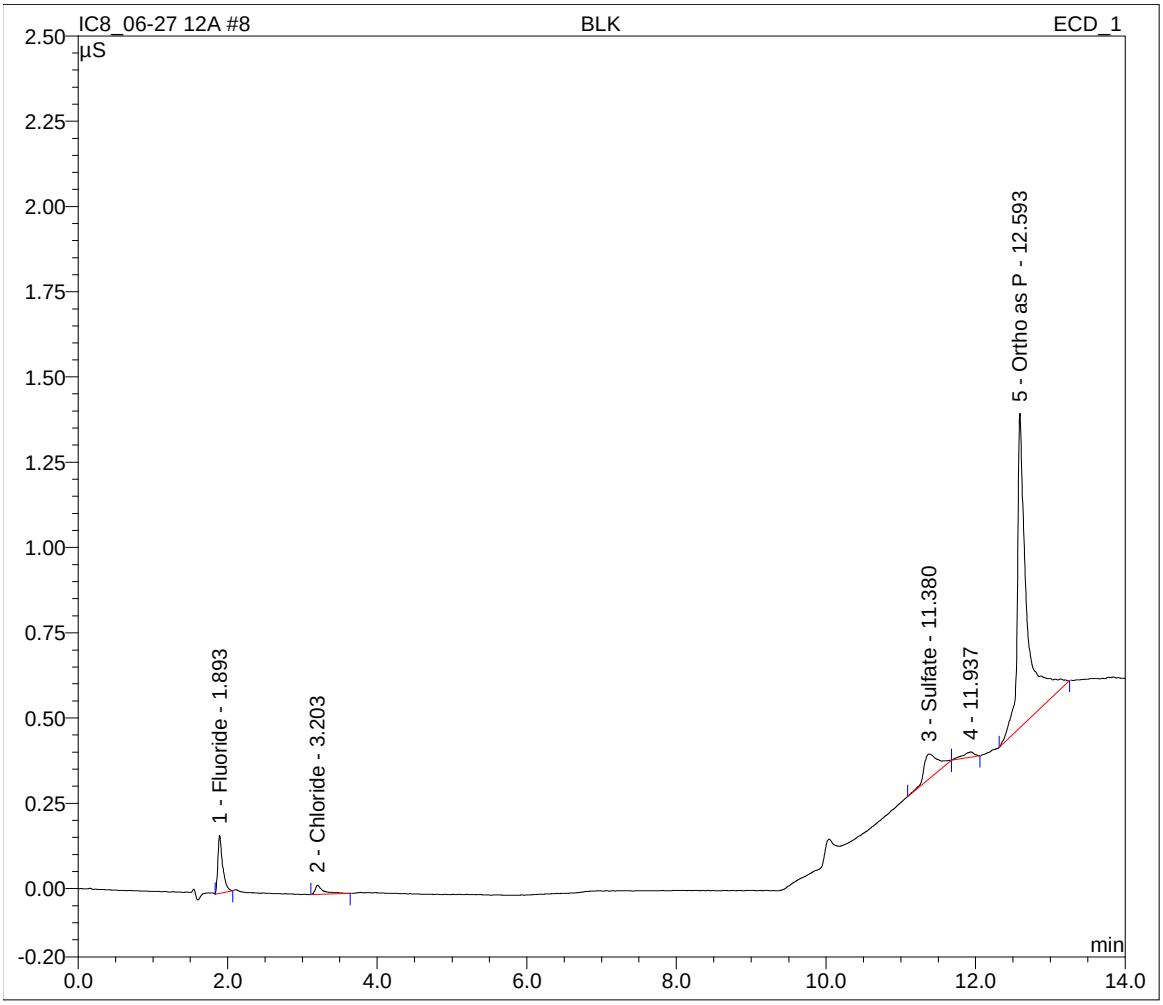
Program:	**7 Anion**	*Operator:*	**n.a.**
Ini. Date/Time:	**06/27/12 12:49**	*Run Time:*	**14.00**



No.	Ret.Time min	Peak Name	Cal.Type	Points	Offset (C0)	Slope (C1)	Curve (C2)	Corr.Coeff. %
1	1.90	Fluoride	XLOff	6	0.007	0.238	0.000	99.981
2	3.19	Chloride	XLOff	6	-0.002	0.141	0.000	99.999
3	3.72	Nitrite	XLOff	6	-0.003	0.356	0.000	99.995
4	6.04	Bromide	XLOff	6	-0.002	0.061	0.000	99.978
5	6.57	Nitrate	XLOff	6	-0.009	0.368	0.000	99.975
6	11.23	Sulfate	XLOff	6	0.023	0.114	0.000	99.992
7	12.54	Ortho as P	XLOff	6	0.142	0.195	0.000	99.889
AVERAGE:					0.0223	0.2104	0.0000	99.9728

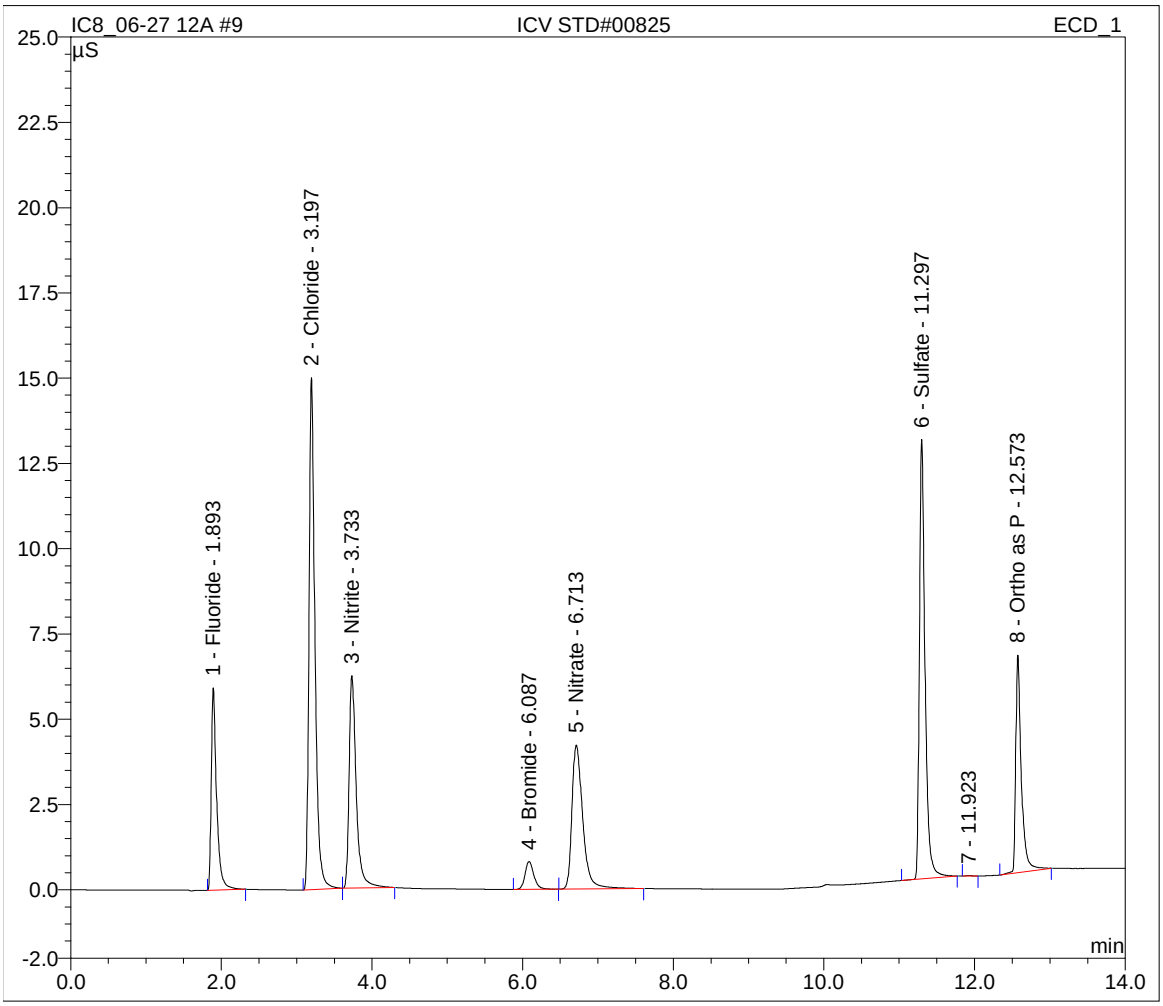
Sample Name:	**BLK**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 13:06**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.013	0.170	0.0236
2	3.20	Chloride	BMB	0.004	0.026	0.0415
3	11.38	Sulfate	BMB	0.015	0.072	-0.0729
5	12.59	Ortho as P	BMB	0.141	0.922	-0.0066
TOTAL:				0.17	1.19	-0.01



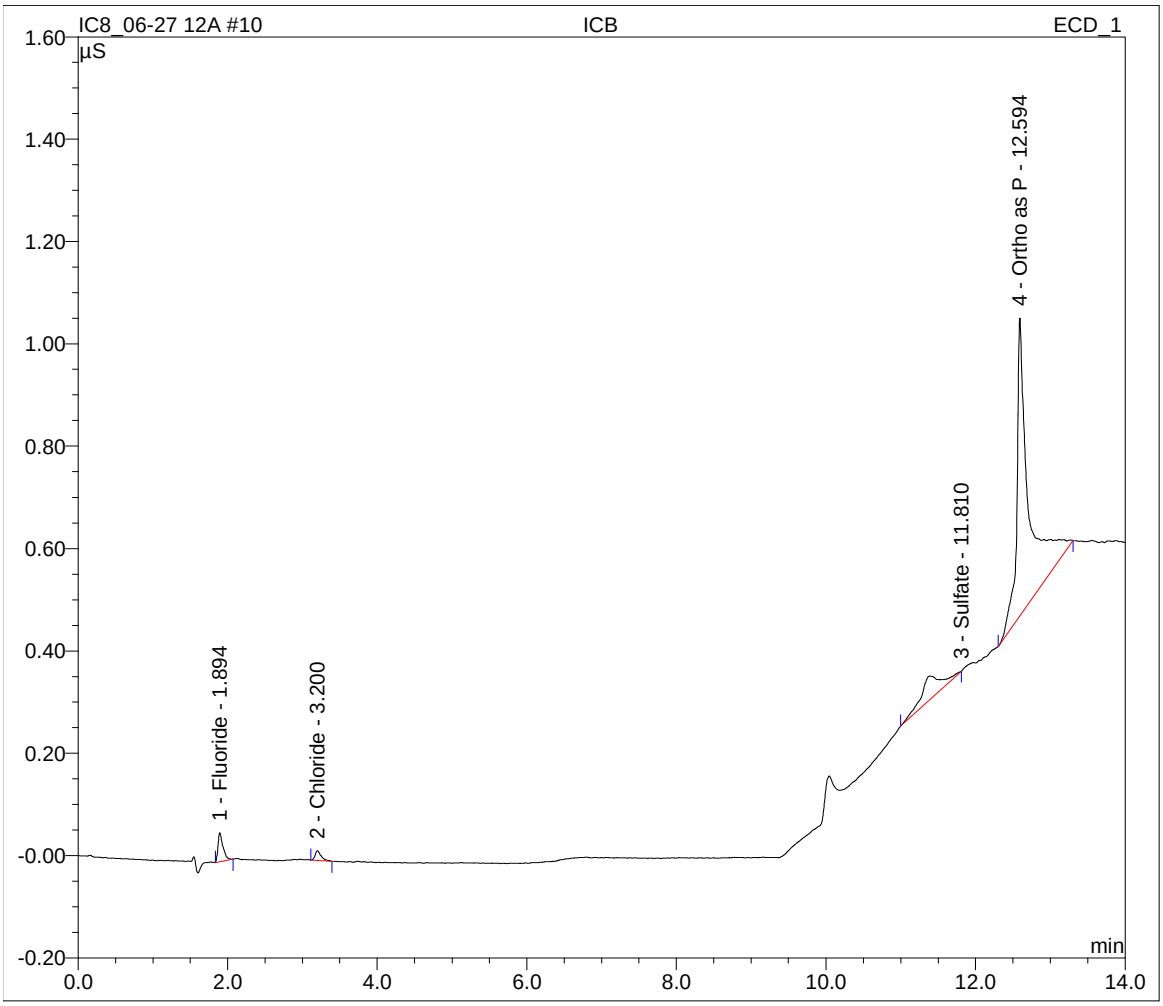
Sample Name:	**ICV STD#00825**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 13:39**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.492	5.929	2.0362
2	3.20	Chloride	BMB	1.374	15.003	9.7525
3	3.73	Nitrite	BMB	0.687	6.230	1.9372
4	6.09	Bromide	BMB	0.111	0.812	1.8616
5	6.71	Nitrate	BMB	0.702	4.218	1.9339
6	11.30	Sulfate	BMB	1.132	12.882	9.7210
8	12.57	Ortho as P	BMB	0.551	6.382	2.0952
TOTAL:				5.05	51.46	29.34



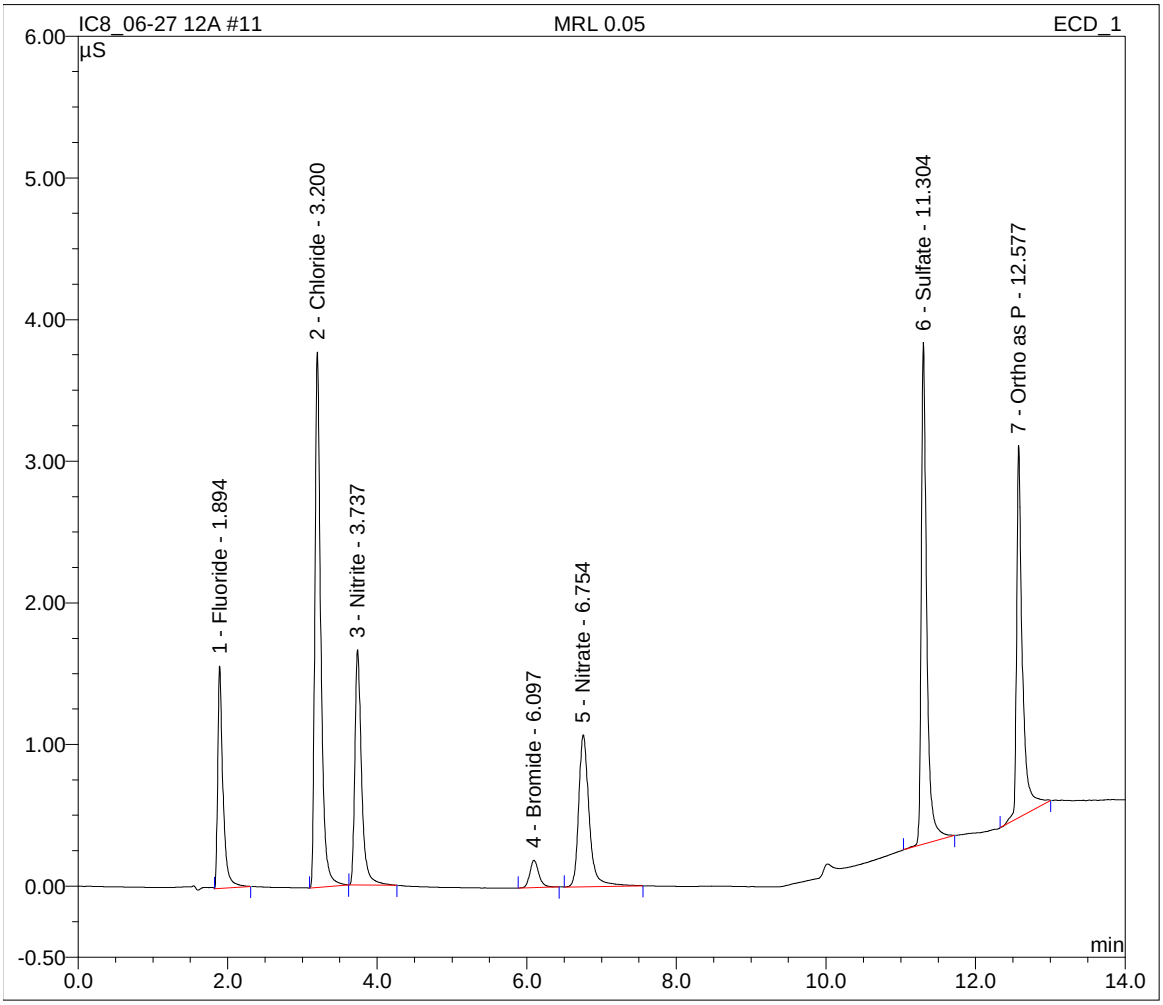
Sample Name:	**ICB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 13:56**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.004	0.057	-0.0117
2	3.20	Chloride	BMB	0.002	0.019	0.0291
3	11.81	Sulfate	BMB	0.013	0.000	-0.0867
4	12.59	Ortho as P	BMB	0.109	0.582	-0.1705
		TOTAL:		0.13	0.66	-0.24



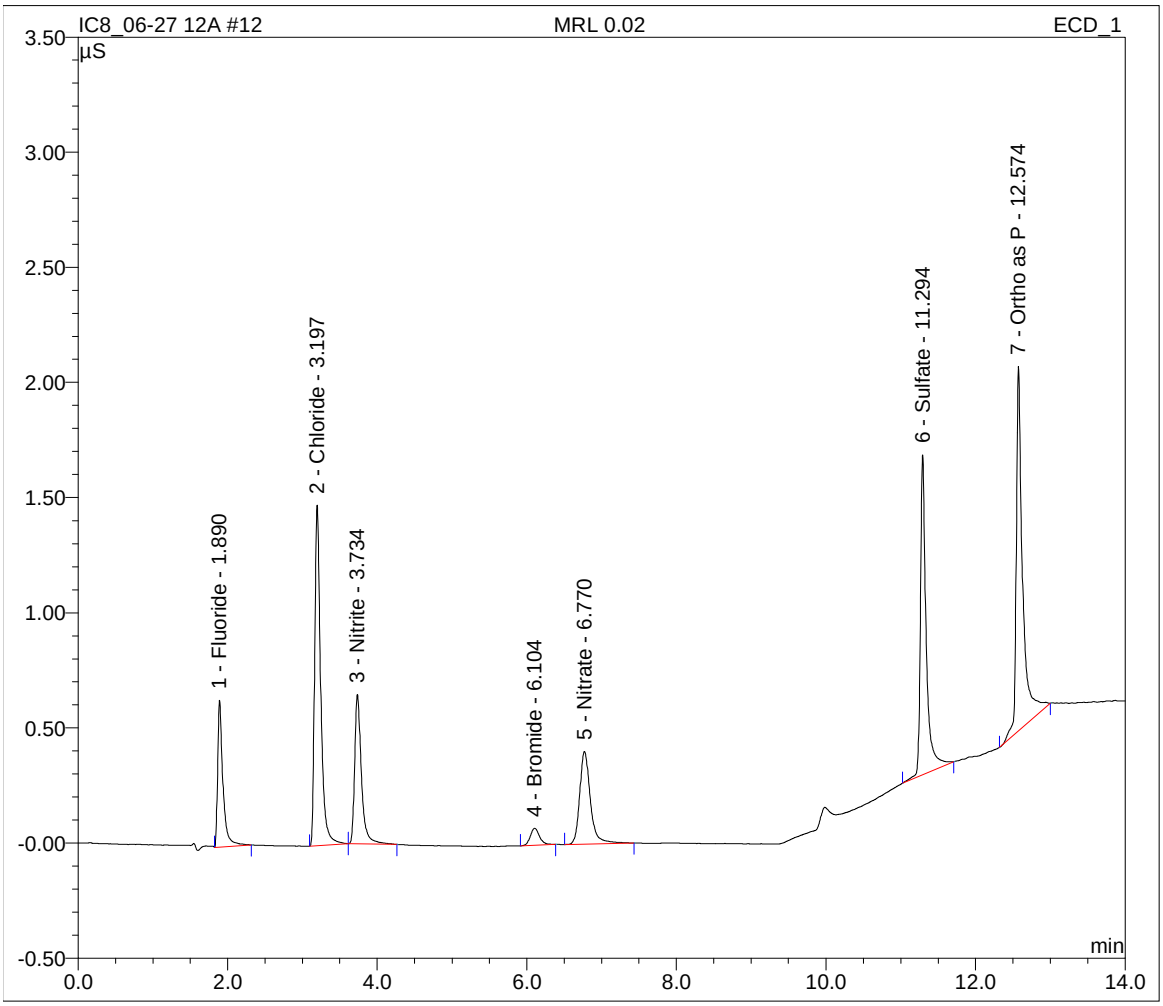
Sample Name:	**MRL 0.05**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 14:13**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.128	1.571	0.5080
2	3.20	Chloride	BMB	0.349	3.778	2.4903
3	3.74	Nitrite	BMB	0.173	1.662	0.4925
4	6.10	Bromide	BMB	0.027	0.193	0.4795
5	6.75	Nitrate	BMB	0.174	1.072	0.4981
6	11.30	Sulfate	BMB	0.303	3.542	2.4499
7	12.58	Ortho as P	BMB	0.238	2.628	0.4919
		TOTAL:		1.39	14.45	7.41



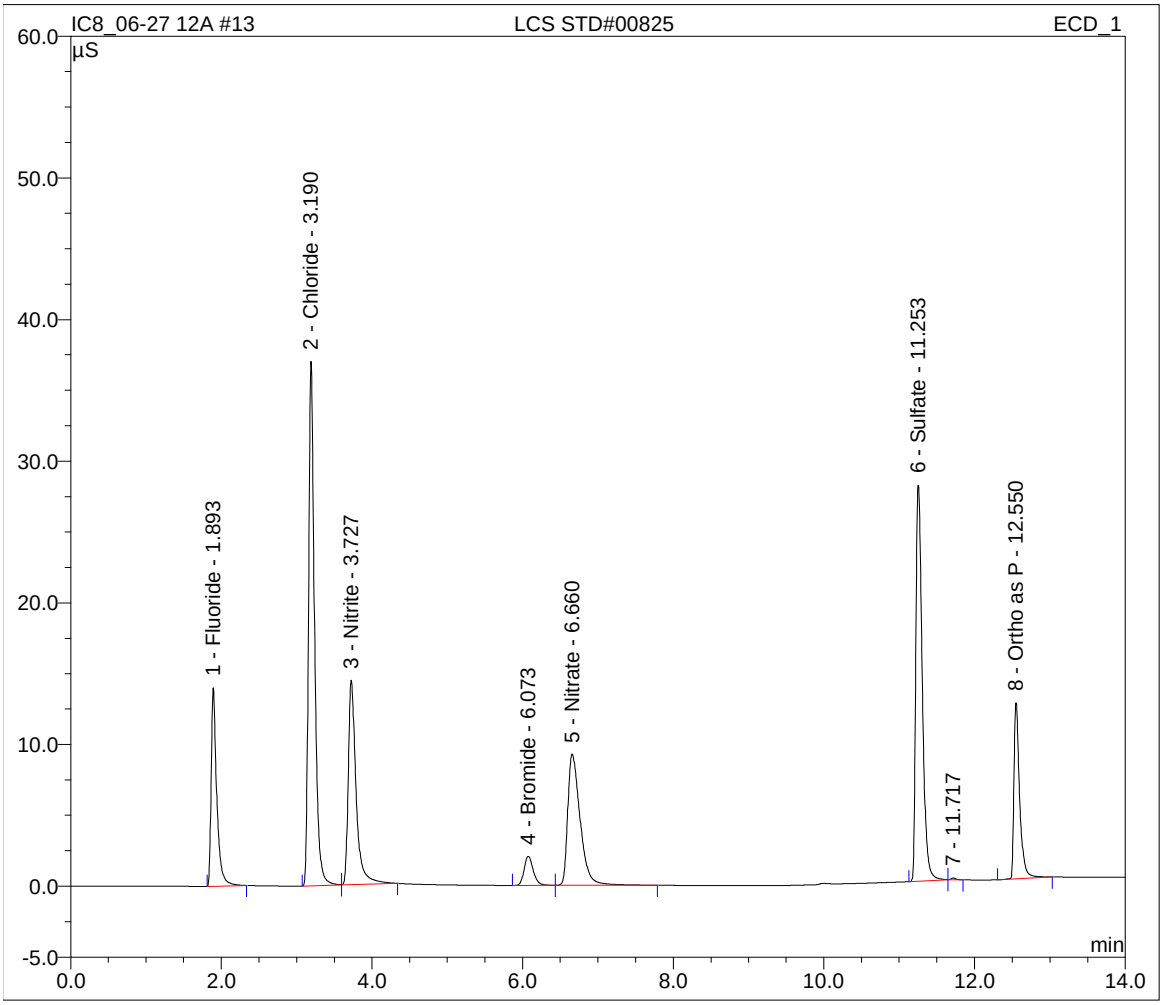
Sample Name:	**MRL 0.02**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 14:30**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.052	0.636	0.1894
2	3.20	Chloride	BMb	0.138	1.479	0.9964
3	3.73	Nitrite	bMB	0.068	0.648	0.1972
4	6.10	Bromide	BMB	0.011	0.074	0.2101
5	6.77	Nitrate	BMB	0.067	0.402	0.2064
6	11.29	Sulfate	BMB	0.126	1.390	0.8963
7	12.57	Ortho as P	BMB	0.156	1.583	0.0739
		TOTAL:		0.62	6.21	2.77



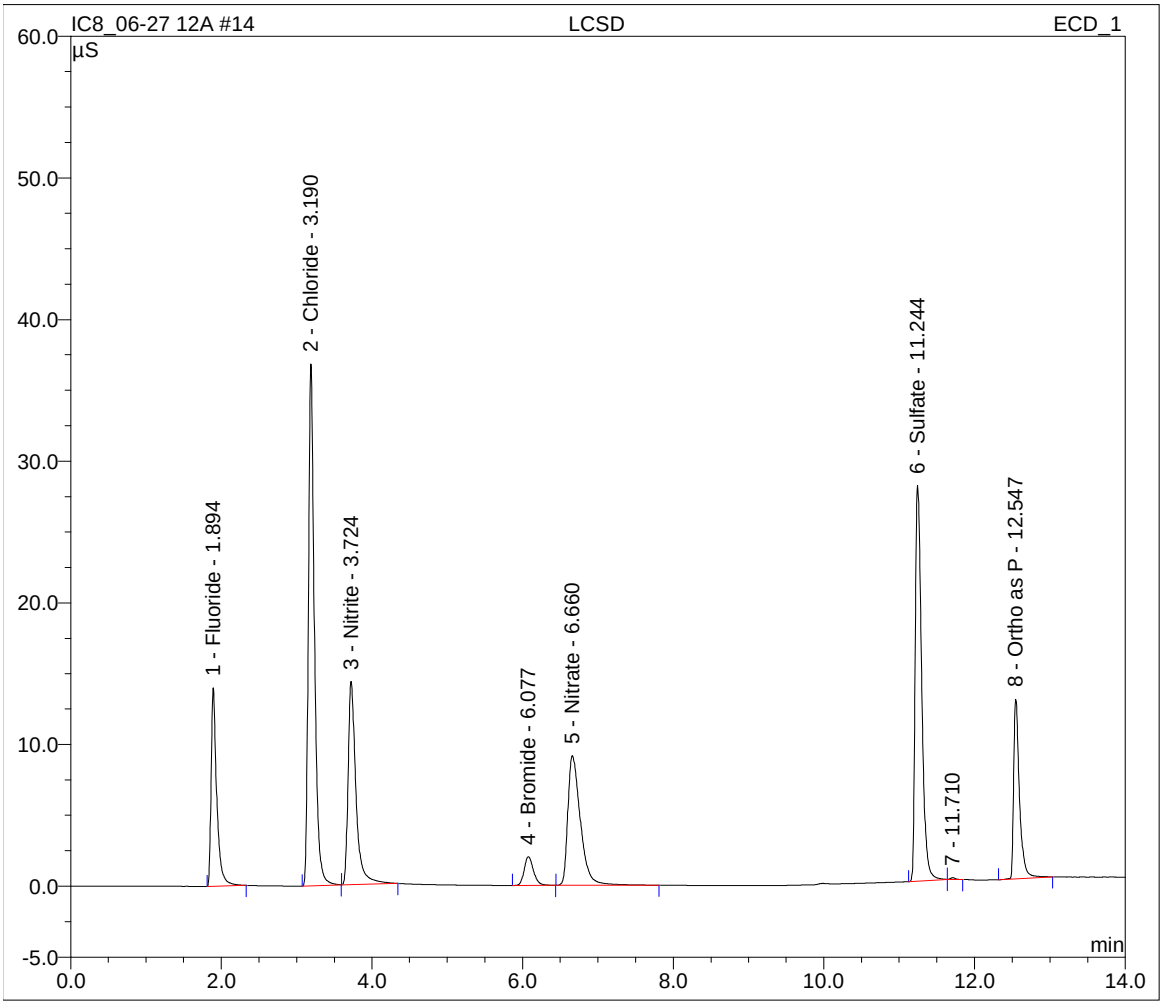
Sample Name:	**LCS STD#00825**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 14:46**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.207	14.000	5.0377
2	3.19	Chloride	BMB	3.435	37.022	24.3627
3	3.73	Nitrite	BMB	1.742	14.410	4.8991
4	6.07	Bromide	BMb	0.288	2.047	4.7926
5	6.66	Nitrate	bMB	1.759	9.255	4.8100
6	11.25	Sulfate	BMb	2.769	27.951	24.0796
8	12.55	Ortho as P	BMB	1.091	12.413	4.8564
		TOTAL:		12.29	117.10	72.84



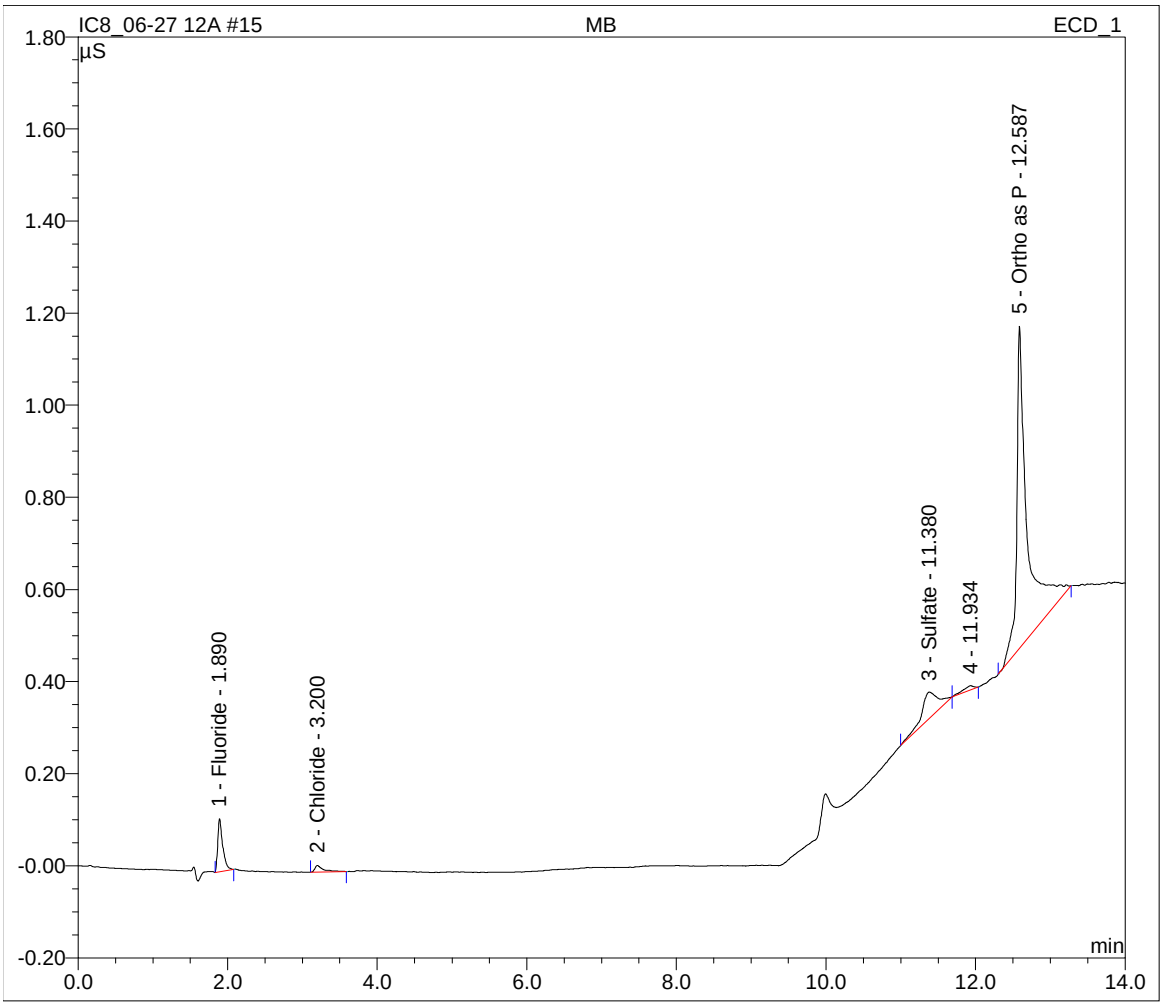
Sample Name:	**LCSD**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:03**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.211	13.996	5.0543
2	3.19	Chloride	BMB	3.429	36.840	24.3172
3	3.72	Nitrite	BMB	1.739	14.335	4.8895
4	6.08	Bromide	BMB	0.287	2.017	4.7769
5	6.66	Nitrate	BMB	1.761	9.148	4.8166
6	11.24	Sulfate	BMb	2.781	27.929	24.1795
8	12.55	Ortho as P	BMB	1.136	12.670	5.0860
		TOTAL:		12.34	116.94	73.12



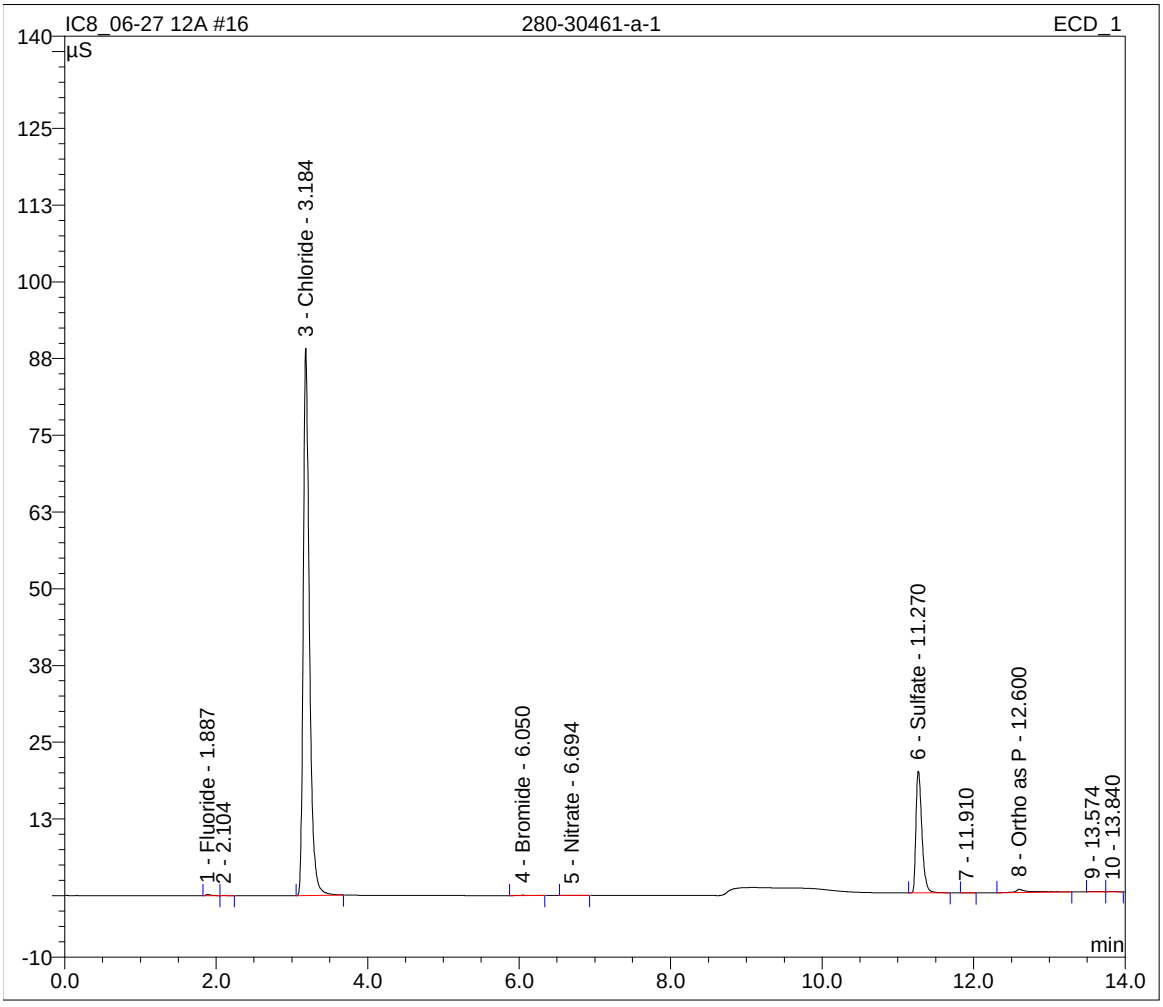
Sample Name:	**MB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:20**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.009	0.115	0.0075
2	3.20	Chloride	BMB	0.002	0.014	0.0300
3	11.38	Sulfate	BMB	0.014	0.057	-0.0801
5	12.59	Ortho as P	BMB	0.115	0.700	-0.1369
TOTAL:				0.14	0.89	-0.18



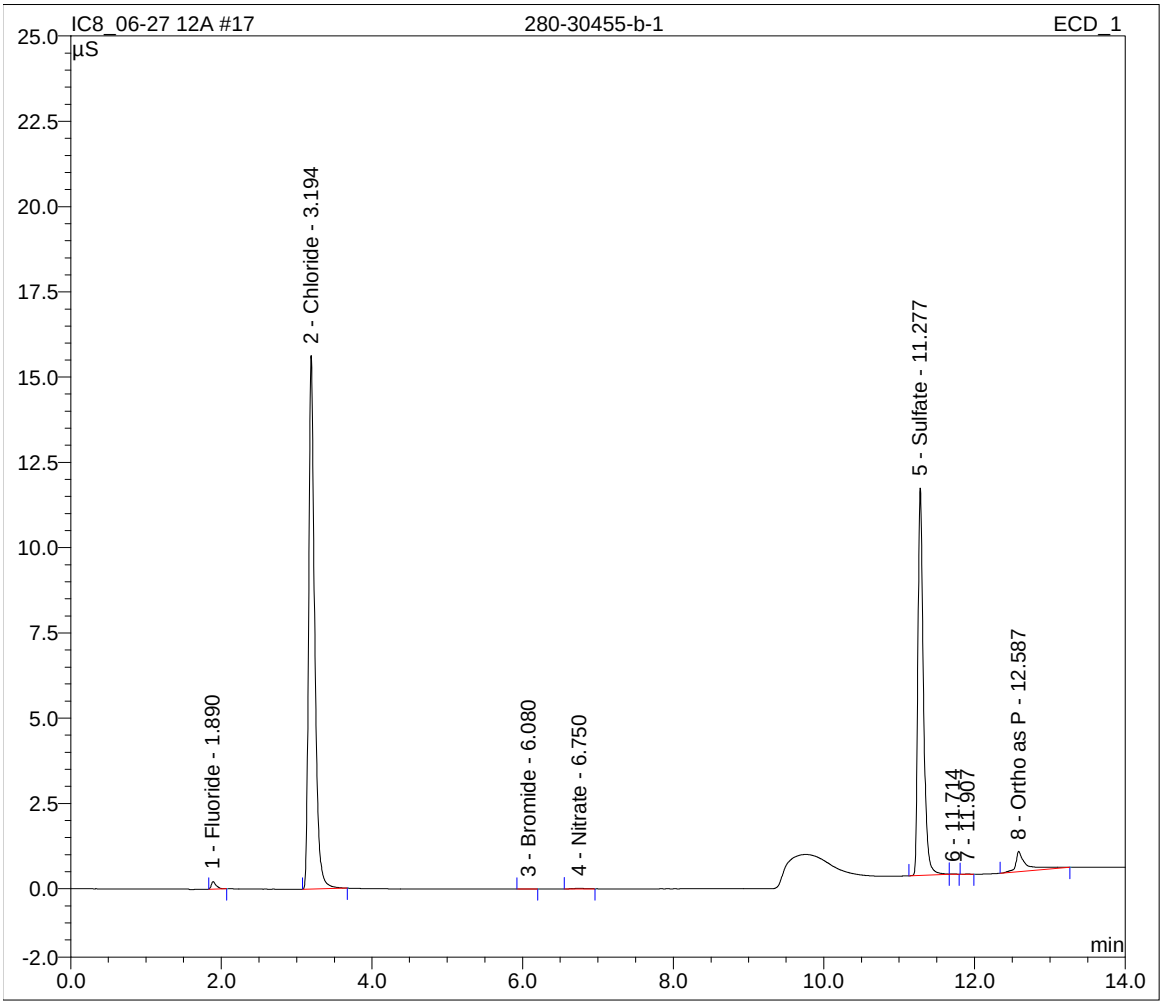
Sample Name:	**280-30461-a-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:37**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMb	0.013	0.177	0.0256
3	3.18	Chloride	BMB	8.375	89.115	59.3666
4	6.05	Bromide	BMB	0.008	0.055	0.1634
5	6.69	Nitrate	BMB	0.003	0.022	0.0346
6	11.27	Sulfate	BMB	1.802	19.795	15.5951
8	12.60	Ortho as P	BMB	0.097	0.525	-0.2322
		TOTAL:		10.30	109.69	74.95



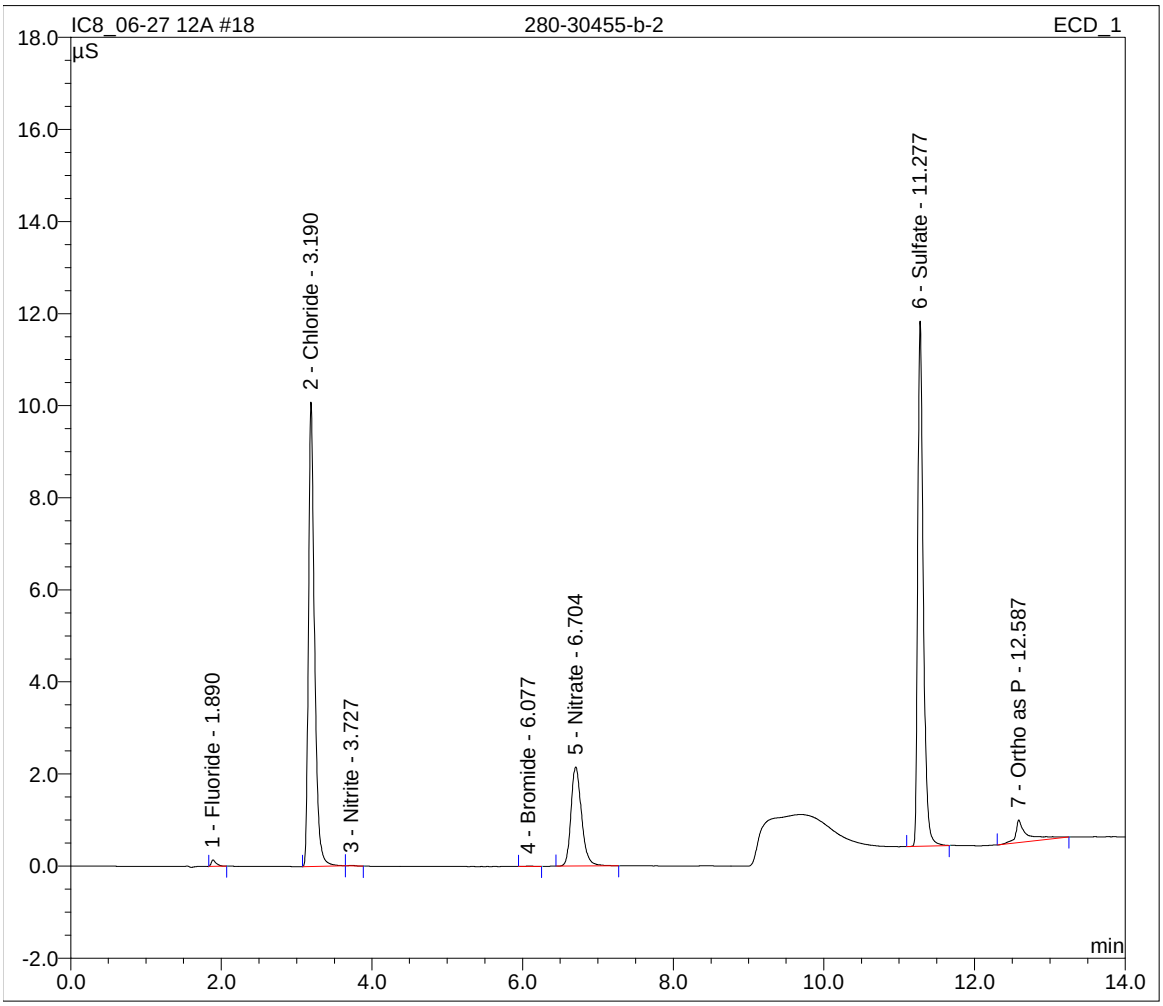
Sample Name:	**280-30455-b-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 15:54**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.017	0.220	0.0396
2	3.19	Chloride	BMB	1.444	15.636	10.2463
3	6.08	Bromide	BMB	0.001	0.004	0.0433
4	6.75	Nitrate	BMB	0.002	0.015	0.0319
5	11.28	Sulfate	BMb	0.966	11.358	8.2634
8	12.59	Ortho as P	BMB	0.102	0.599	-0.2059
		TOTAL:		2.53	27.83	18.42



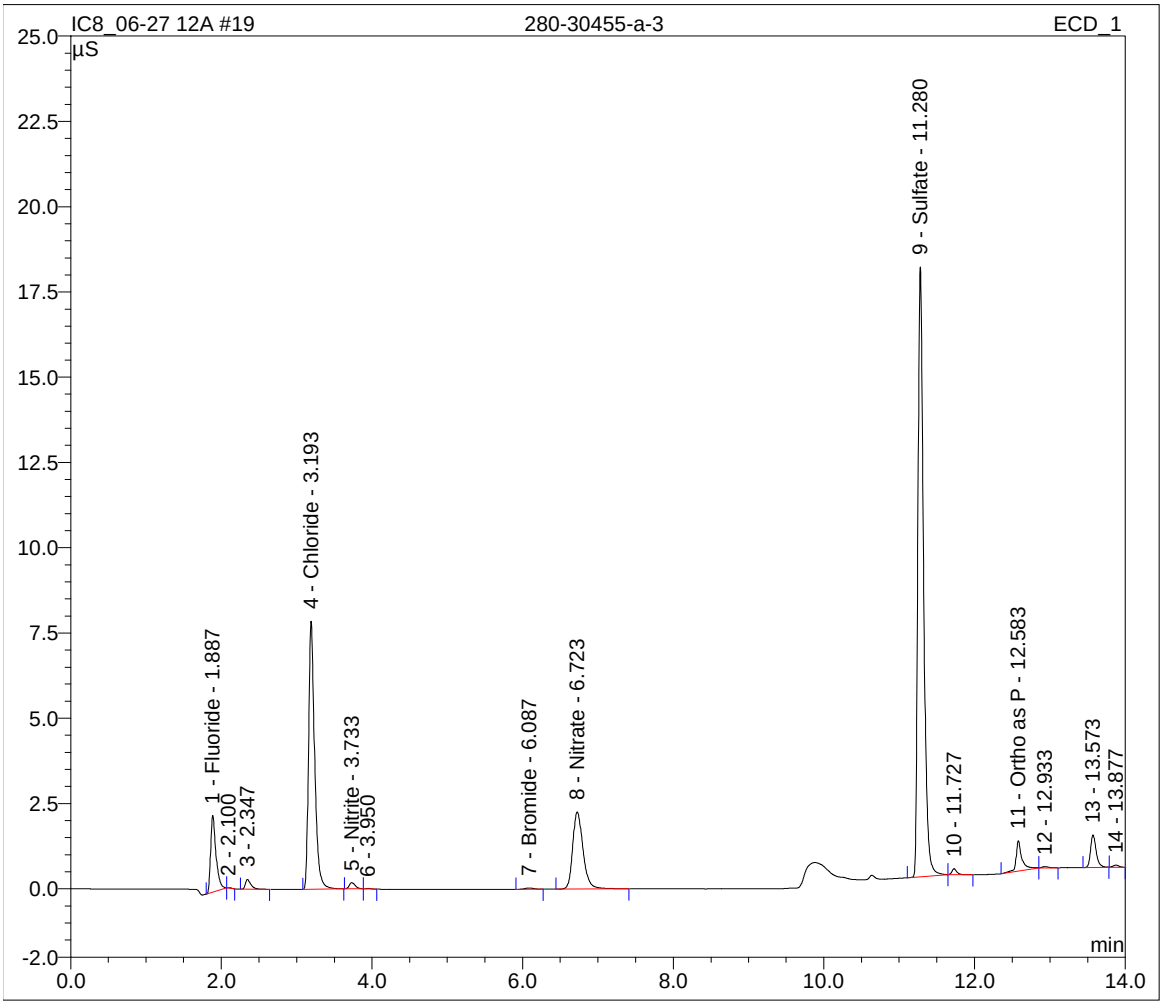
Sample Name:	**280-30455-b-2**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 16:10**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.011	0.142	0.0154
2	3.19	Chloride	BMb	0.938	10.086	6.6646
3	3.73	Nitrite	bMB	0.001	0.011	0.0101
4	6.08	Bromide	BMB	0.001	0.005	0.0451
5	6.70	Nitrate	BMB	0.349	2.152	0.9748
6	11.28	Sulfate	BMB	0.973	11.410	8.3263
7	12.59	Ortho as P	BMB	0.087	0.492	-0.2791
TOTAL:				2.36	24.30	15.76



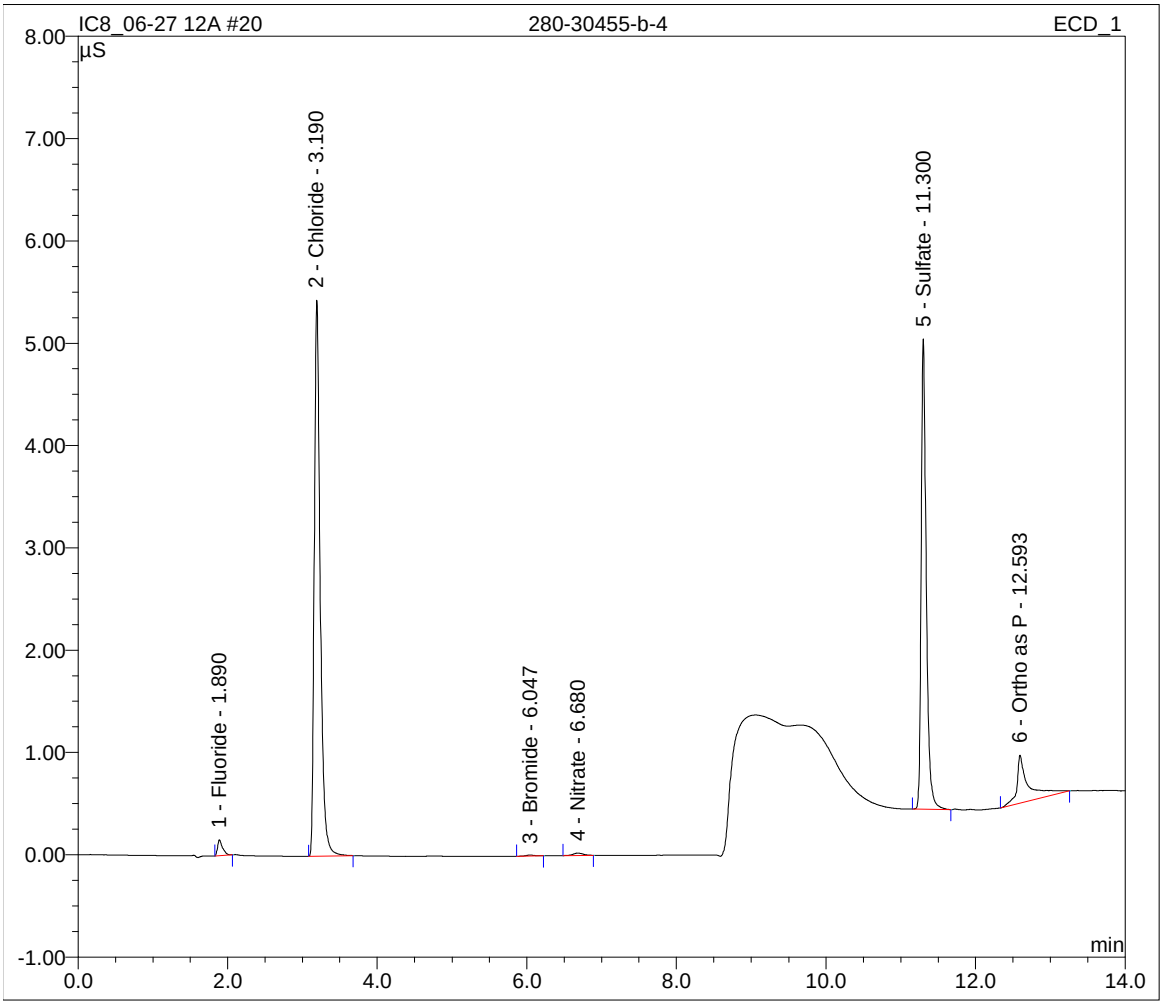
Sample Name:	**280-30455-a-3**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 16:27**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMb	0.185	2.248	0.7463
4	3.19	Chloride	BMB	0.732	7.865	5.2019
5	3.73	Nitrite	BMb	0.017	0.185	0.0555
7	6.09	Bromide	BMB	0.005	0.038	0.1198
8	6.72	Nitrate	BMB	0.360	2.258	1.0041
9	11.28	Sulfate	BMb	1.567	17.880	13.5352
11	12.58	Ortho as P	BMB	0.080	0.890	-0.3186
		TOTAL:		2.95	31.36	20.34



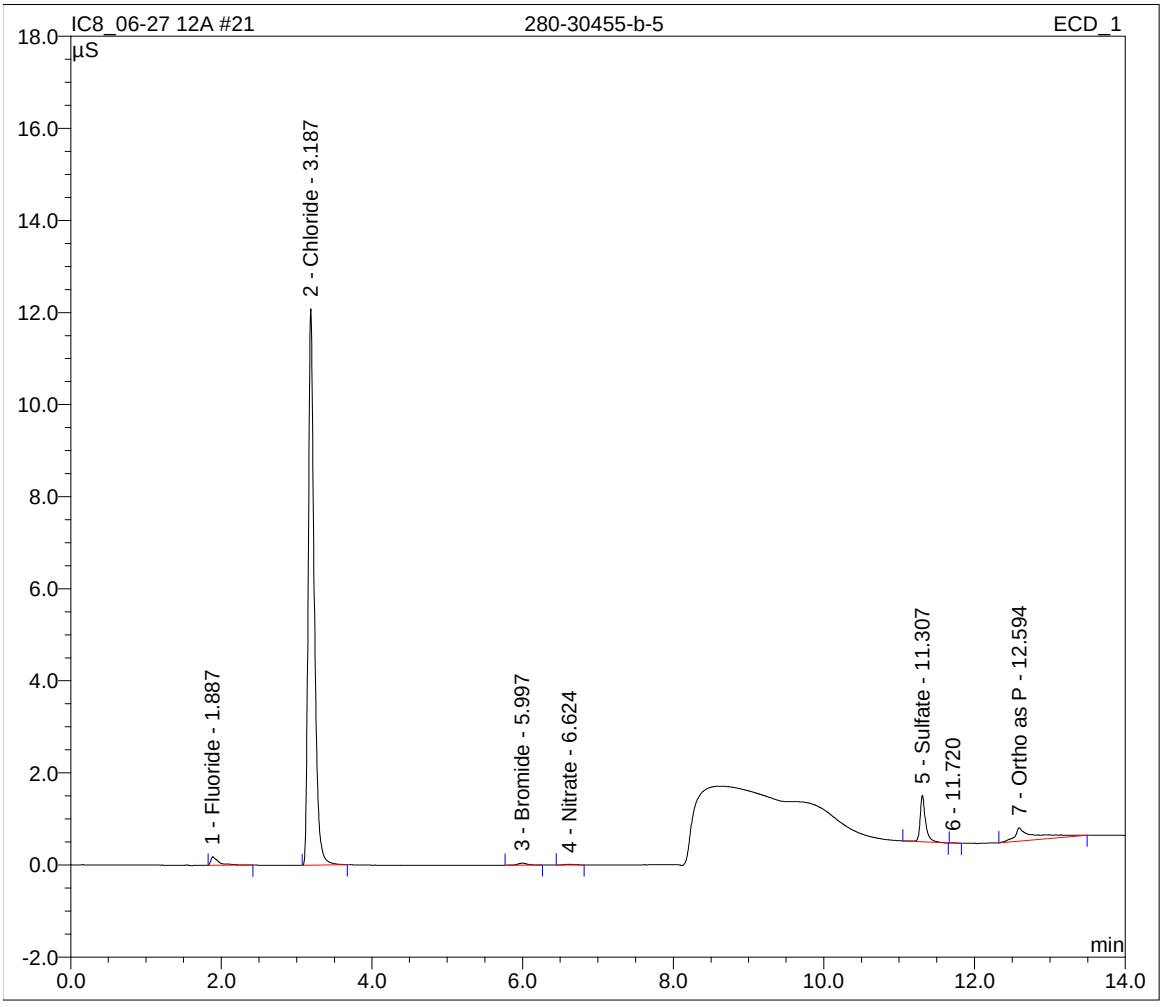
Sample Name:	**280-30455-b-4**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 16:44**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.012	0.158	0.0211
2	3.19	Chloride	BMB	0.501	5.435	3.5653
3	6.05	Bromide	BMB	0.001	0.010	0.0566
4	6.68	Nitrate	BMB	0.004	0.023	0.0351
5	11.30	Sulfate	BMB	0.365	4.600	2.9999
6	12.59	Ortho as P	BMB	0.085	0.468	-0.2928
		TOTAL:		0.97	10.69	6.39



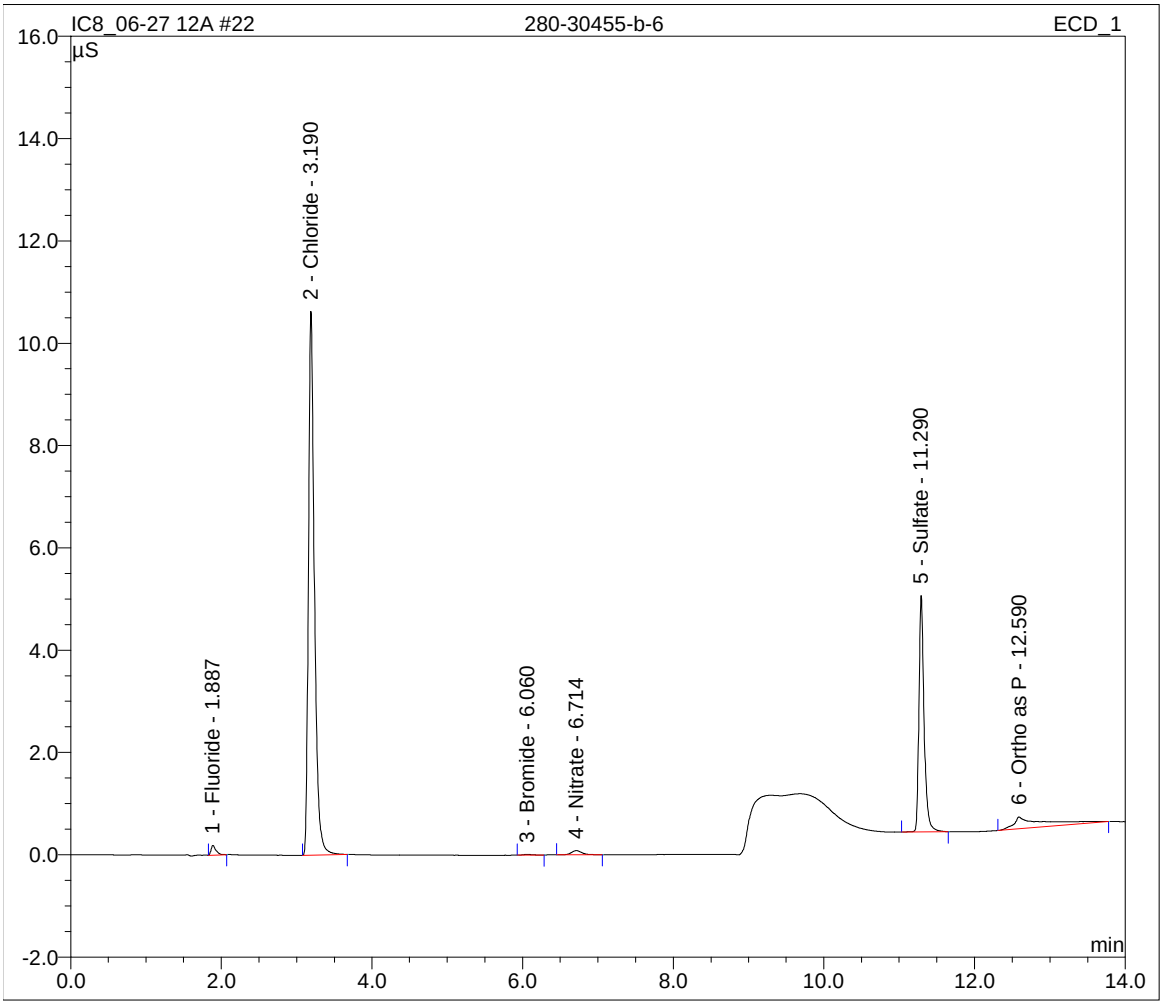
Sample Name:	**280-30455-b-5**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:01**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.023	0.184	0.0647
2	3.19	Chloride	BMB	1.114	12.091	7.9129
3	6.00	Bromide	BMB	0.006	0.042	0.1317
4	6.62	Nitrate	BMB	0.002	0.012	0.0300
5	11.31	Sulfate	BMB	0.085	1.007	0.5399
7	12.59	Ortho as P	BMB	0.088	0.285	-0.2756
		TOTAL:		1.32	13.62	8.40



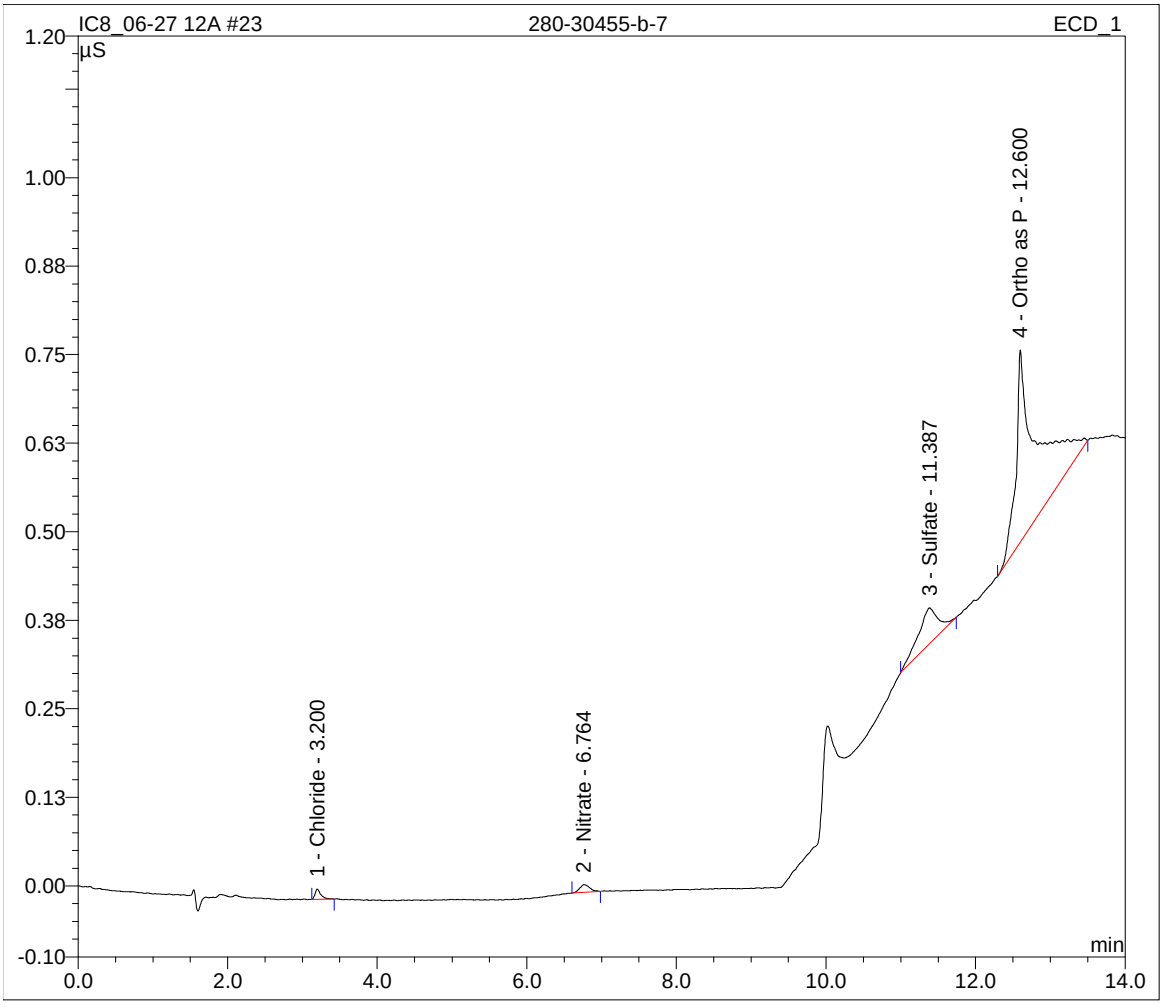
Sample Name:	**280-30455-b-6**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:18**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.014	0.189	0.0296
2	3.19	Chloride	BMB	0.982	10.631	6.9725
3	6.06	Bromide	BMB	0.002	0.013	0.0638
4	6.71	Nitrate	BMB	0.013	0.082	0.0606
5	11.29	Sulfate	BMB	0.371	4.624	3.0446
6	12.59	Ortho as P	BMB	0.106	0.233	-0.1852
TOTAL:				1.49	15.77	9.99



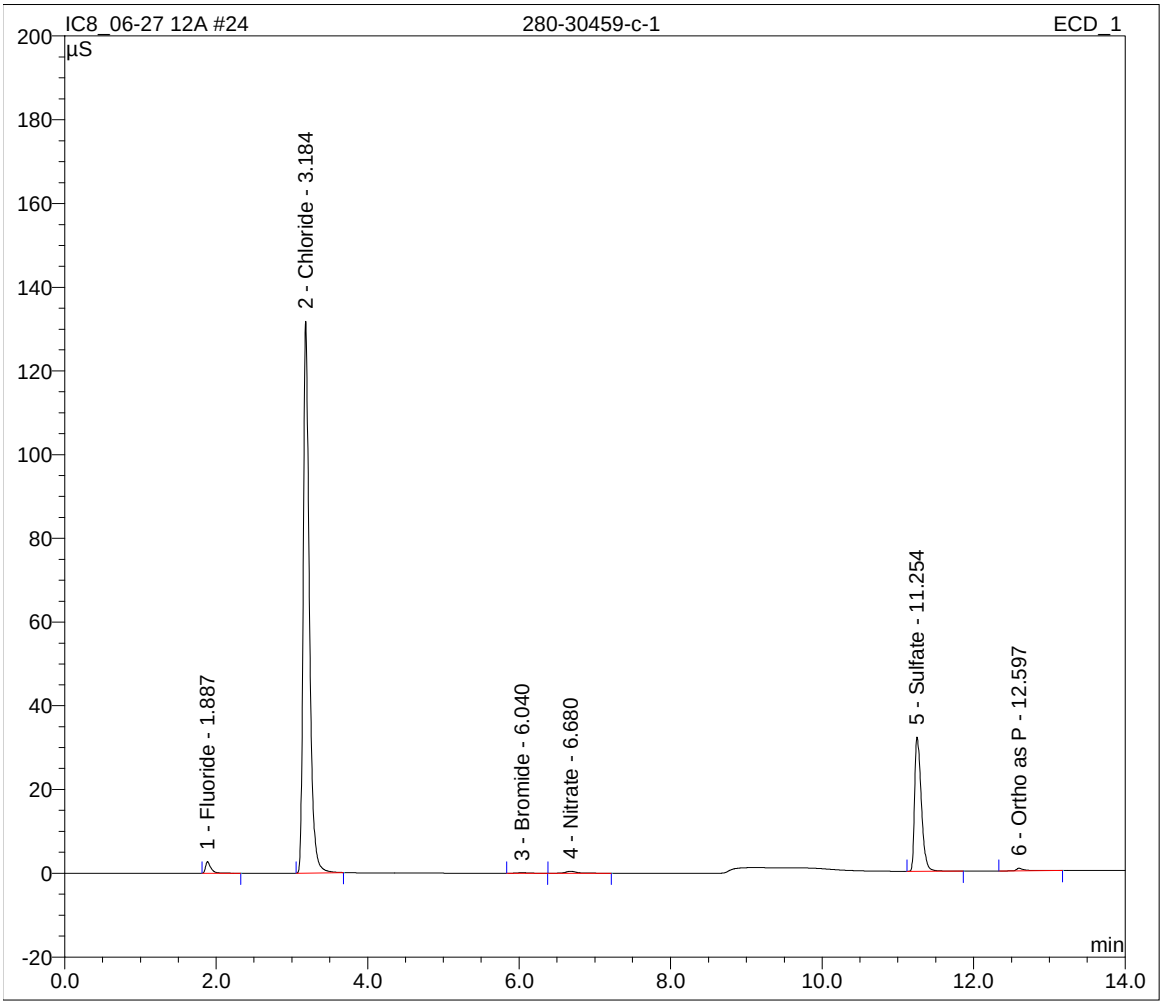
Sample Name:	**280-30455-b-7**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	3.20	Chloride	BMB	0.001	0.014	0.0259
2	6.76	Nitrate	BMB	0.002	0.011	0.0300
3	11.39	Sulfate	BMB	0.016	0.051	-0.0668
4	12.60	Ortho as P	BMB	0.088	0.270	-0.2744
TOTAL:				0.11	0.35	-0.29



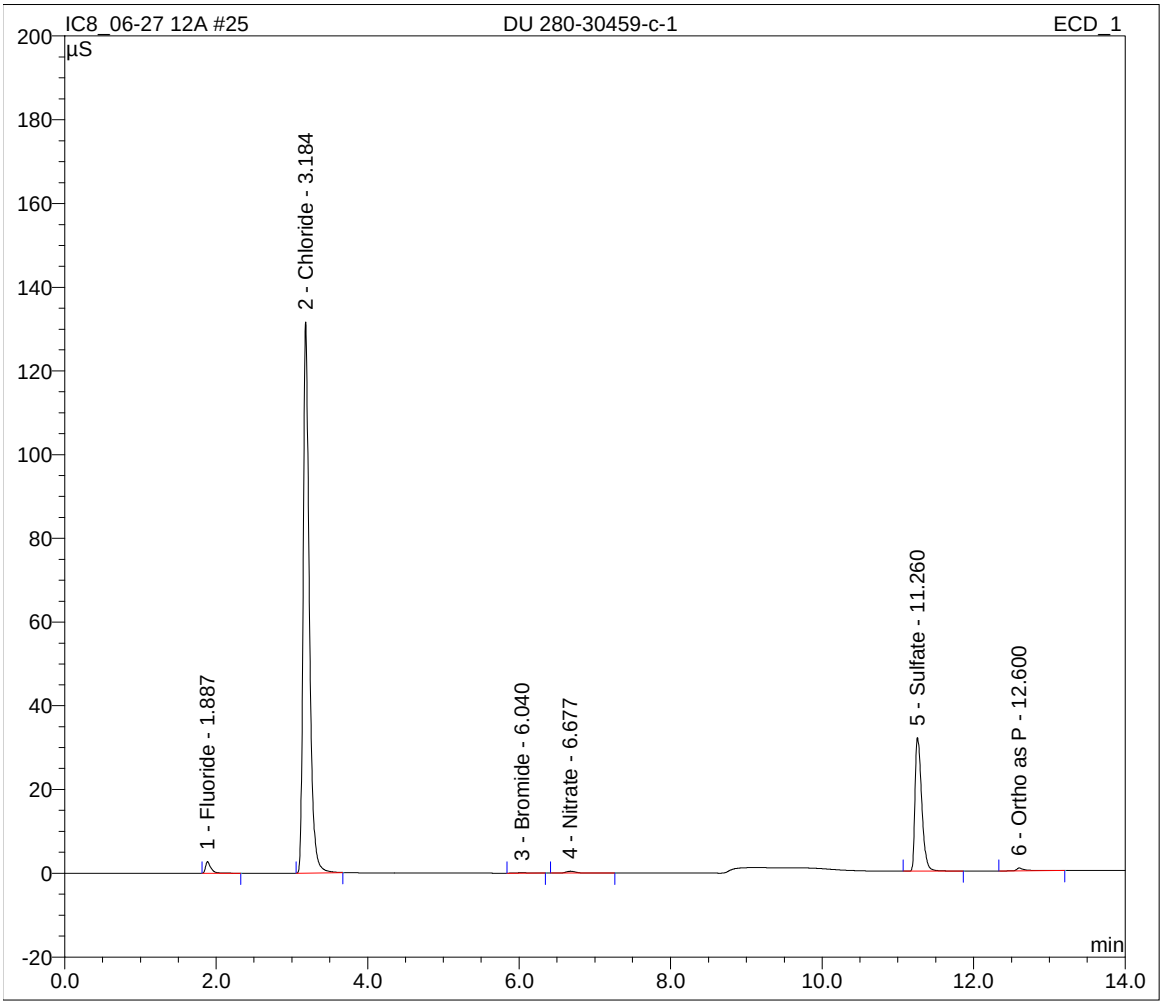
Sample Name:	**280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 17:52**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.234	2.789	0.9520
2	3.18	Chloride	BMB	12.412	131.911	87.9743
3	6.04	Bromide	BMB	0.017	0.122	0.3141
4	6.68	Nitrate	BMB	0.070	0.452	0.2150
5	11.25	Sulfate	BMB	3.292	32.030	28.6568
6	12.60	Ortho as P	BMB	0.100	0.690	-0.2164
		TOTAL:		16.12	167.99	117.90



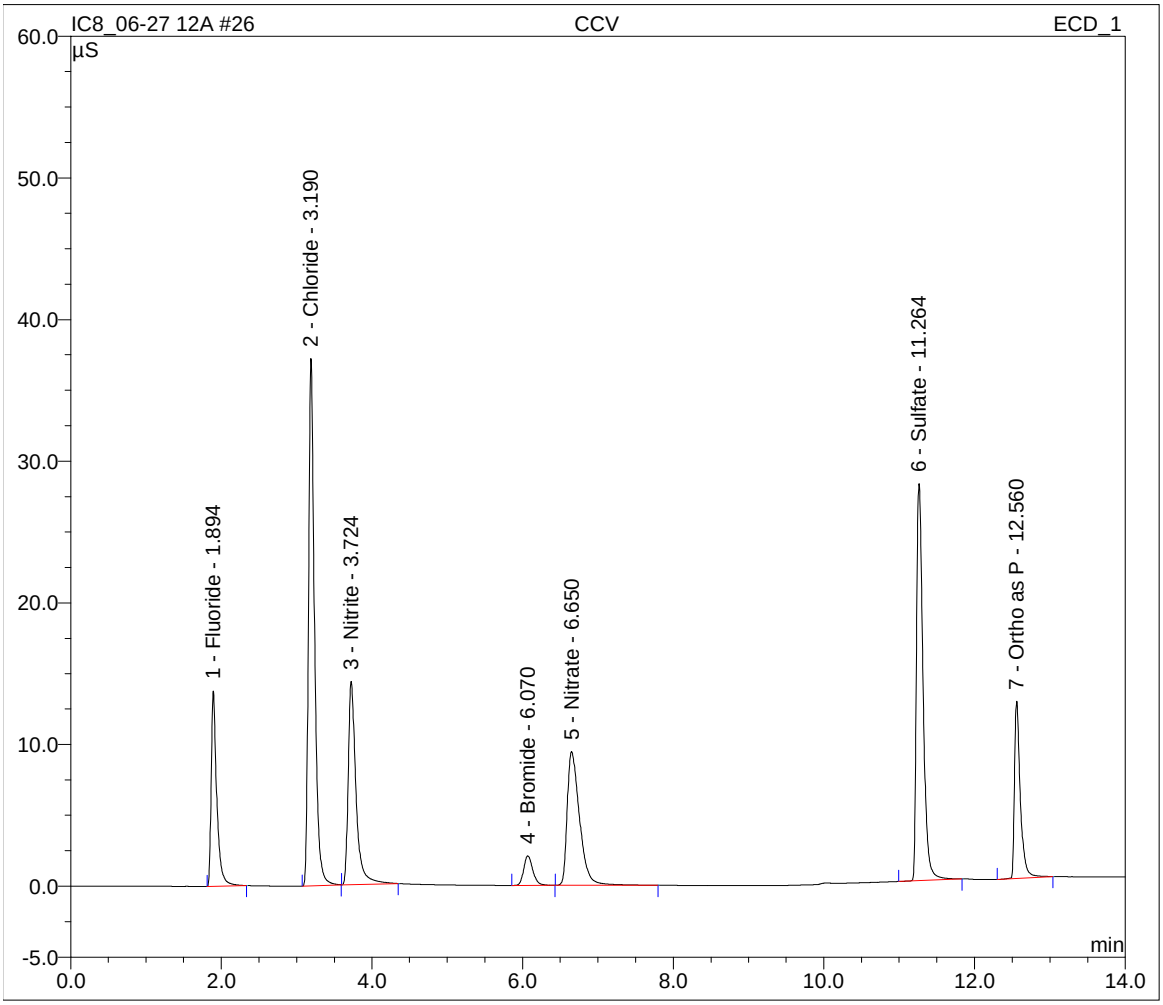
Sample Name:	**DU 280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 18:08**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.235	2.793	0.9541
2	3.18	Chloride	BMB	12.409	131.731	87.9556
3	6.04	Bromide	BMB	0.017	0.121	0.3110
4	6.68	Nitrate	BMB	0.071	0.458	0.2180
5	11.26	Sulfate	BMB	3.287	31.891	28.6197
6	12.60	Ortho as P	BMB	0.107	0.721	-0.1804
		TOTAL:		16.13	167.72	117.88



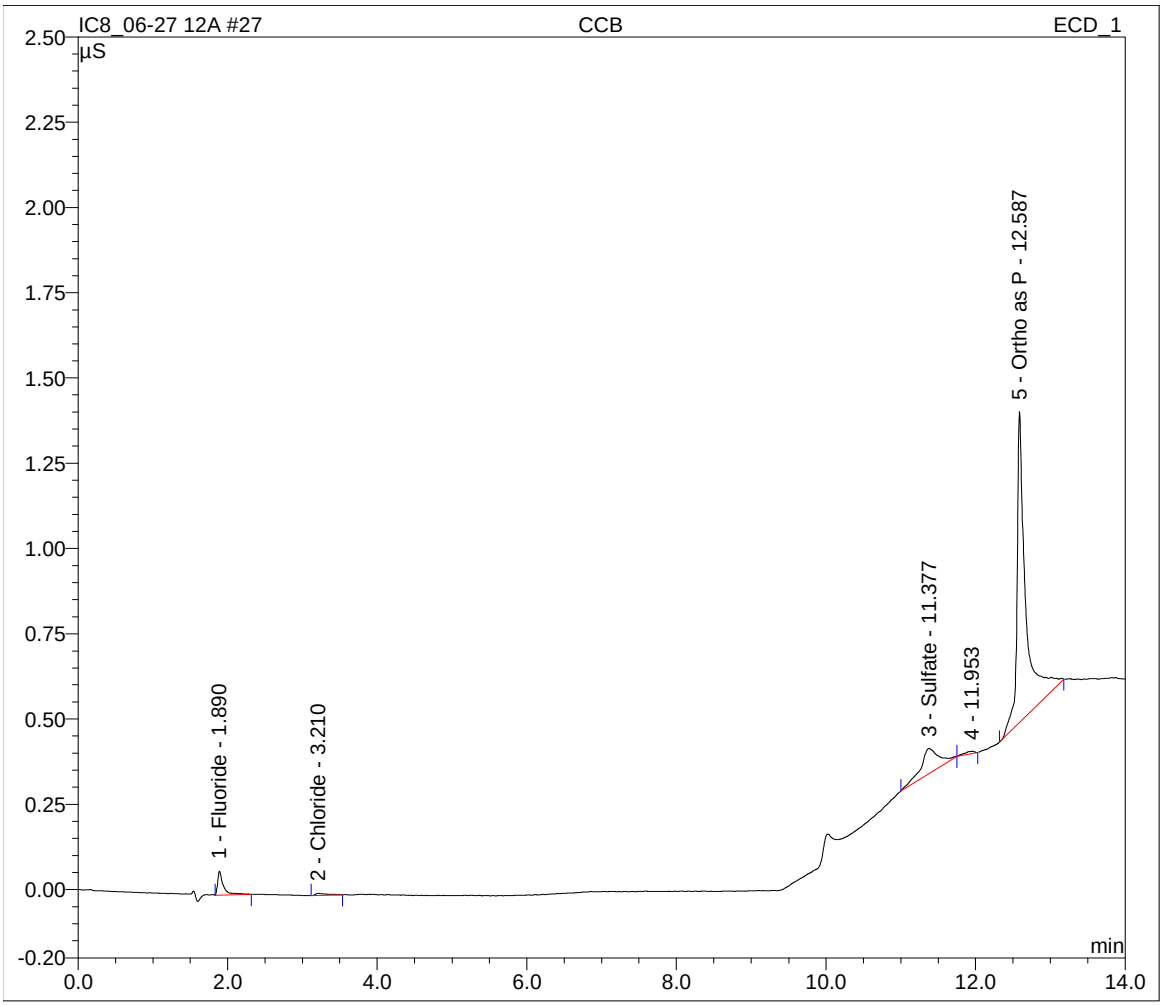
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 19:33**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.183	13.771	4.9335
2	3.19	Chloride	BMB	3.457	37.224	24.5134
3	3.72	Nitrite	BMB	1.726	14.321	4.8533
4	6.07	Bromide	BMB	0.291	2.079	4.8456
5	6.65	Nitrate	BMB	1.786	9.429	4.8848
6	11.26	Sulfate	BMB	2.829	28.018	24.6022
7	12.56	Ortho as P	BMB	1.121	12.496	5.0119
		TOTAL:		12.39	117.34	73.64



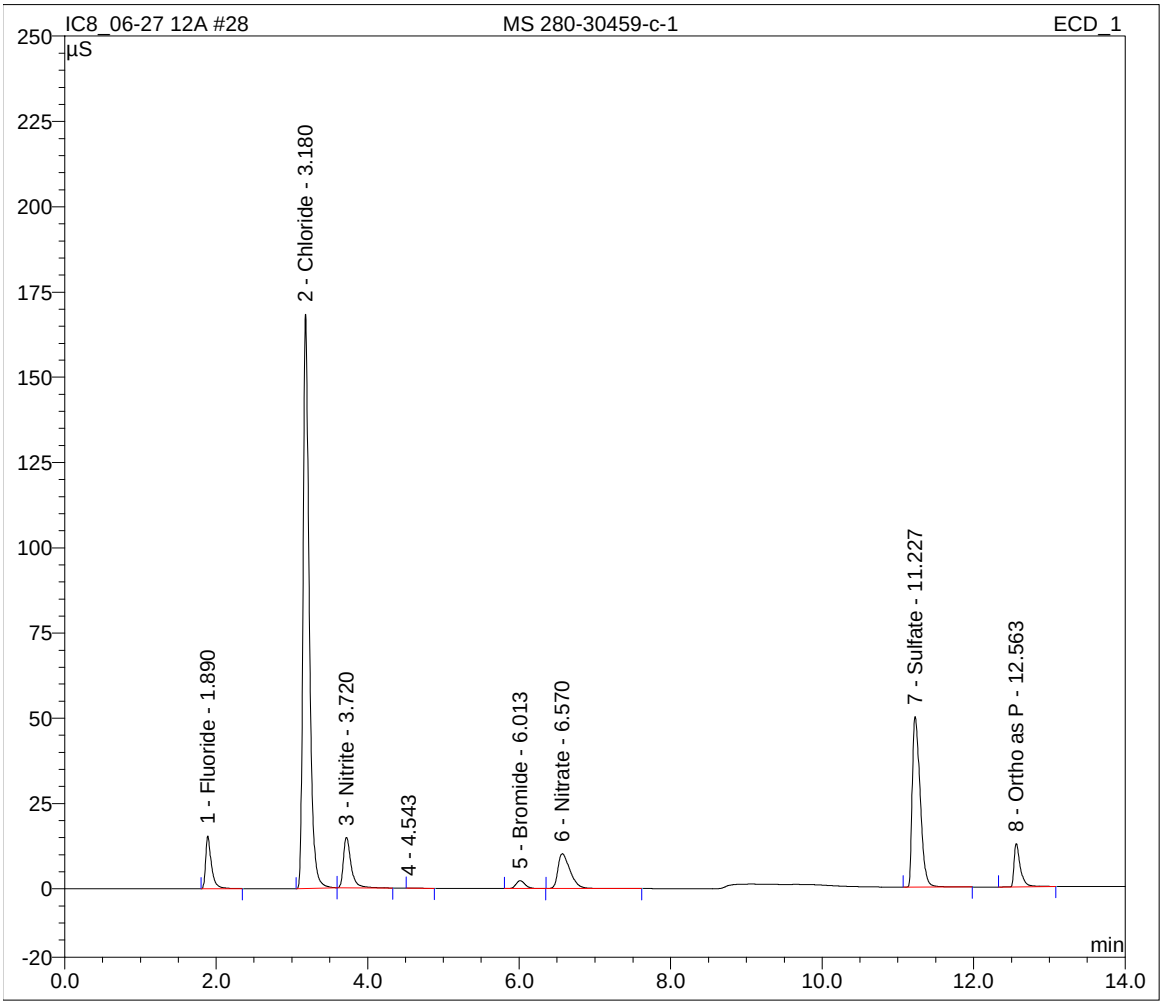
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 19:49**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.006	0.070	-0.0033
2	3.21	Chloride	BMB	0.001	0.006	0.0244
3	11.38	Sulfate	BMB	0.020	0.073	-0.0314
5	12.59	Ortho as P	BMB	0.125	0.911	-0.0885
TOTAL:				0.15	1.06	-0.10



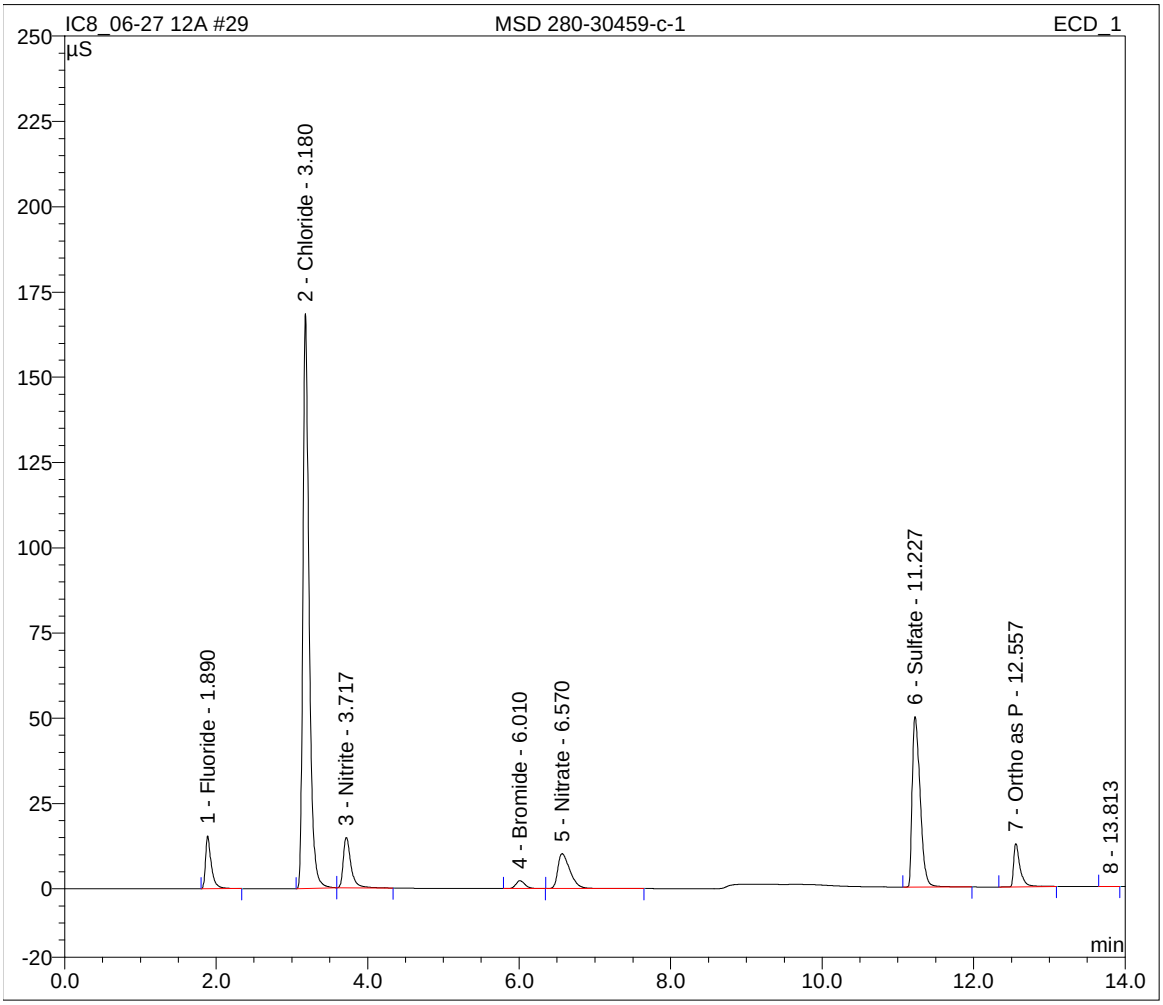
Sample Name:	**MS 280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:06**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.387	15.480	5.7914
2	3.18	Chloride	BMB	15.916	168.453	112.8078
3	3.72	Nitrite	bMB	1.736	14.756	4.8803
5	6.01	Bromide	BMB	0.322	2.330	5.3590
6	6.57	Nitrate	BMB	1.892	10.213	5.1737
7	11.23	Sulfate	BMB	6.046	49.975	52.8077
8	12.56	Ortho as P	BMB	1.205	12.671	5.4389
		TOTAL:		28.50	273.88	192.26



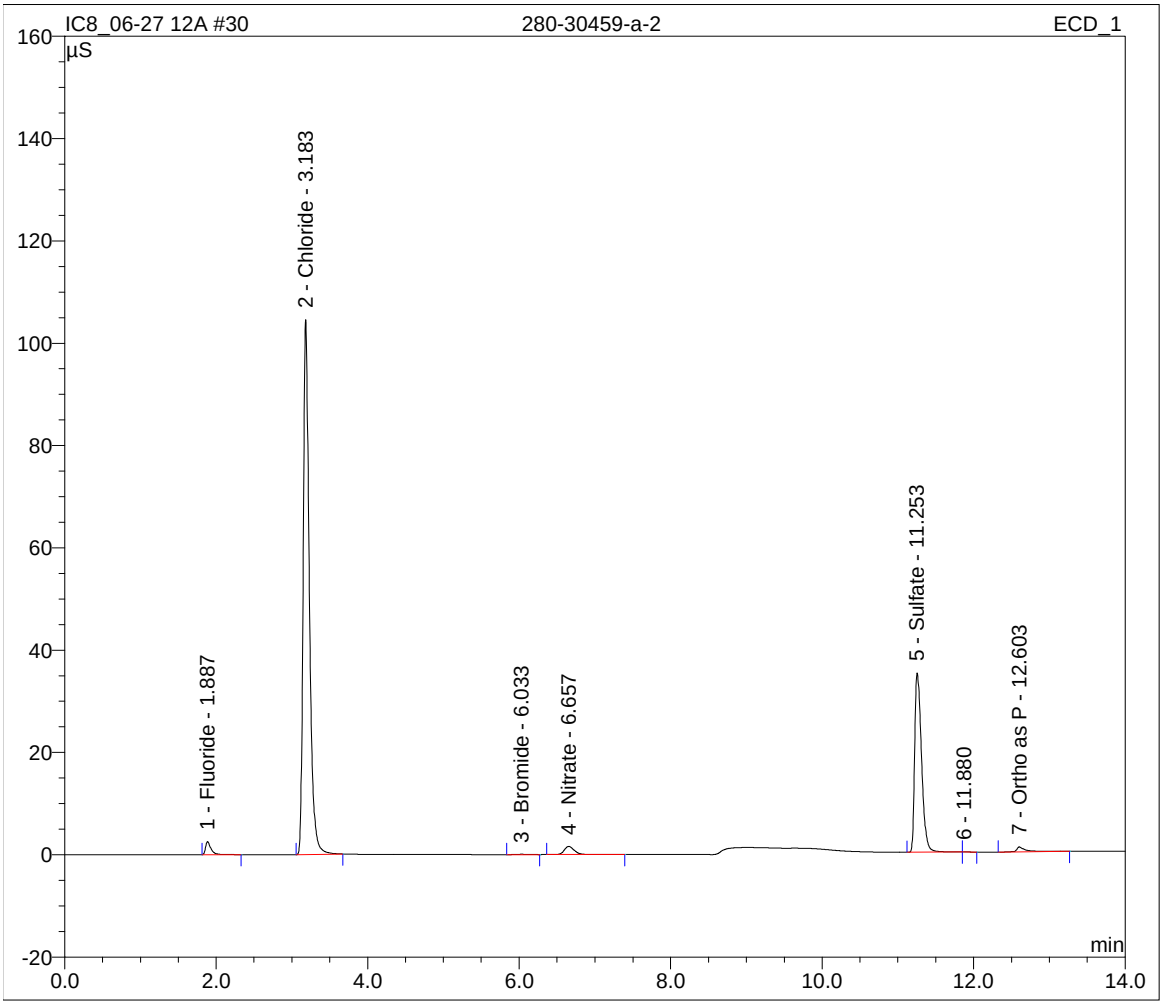
Sample Name:	**MSD 280-30459-c-1**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:23**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.389	15.486	5.8014
2	3.18	Chloride	BMb	15.921	168.632	112.8411
3	3.72	Nitrite	bMB	1.734	14.755	4.8764
4	6.01	Bromide	BMB	0.323	2.333	5.3624
5	6.57	Nitrate	BMB	1.896	10.213	5.1821
6	11.23	Sulfate	BMB	6.058	49.960	52.9145
7	12.56	Ortho as P	BMB	1.231	12.671	5.5729
		TOTAL:		28.55	274.05	192.55



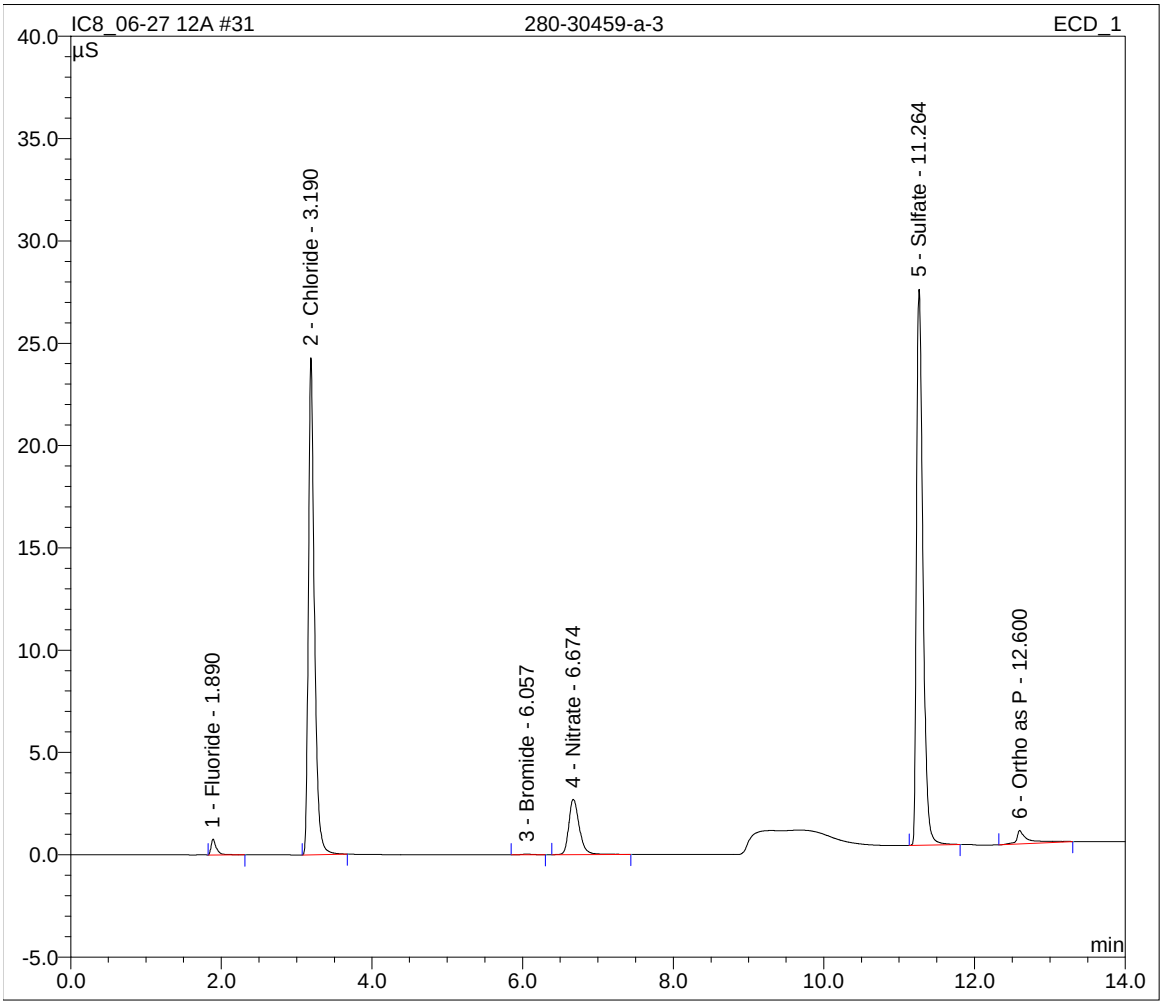
Sample Name:	**280-30459-a-2**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:40**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.217	2.576	0.8817
2	3.18	Chloride	BMB	9.832	104.579	69.6961
3	6.03	Bromide	BMB	0.009	0.068	0.1895
4	6.66	Nitrate	BMB	0.247	1.588	0.6962
5	11.25	Sulfate	BMb	3.695	35.044	32.1972
7	12.60	Ortho as P	BMB	0.146	0.977	0.0222
		TOTAL:		14.15	144.83	103.68



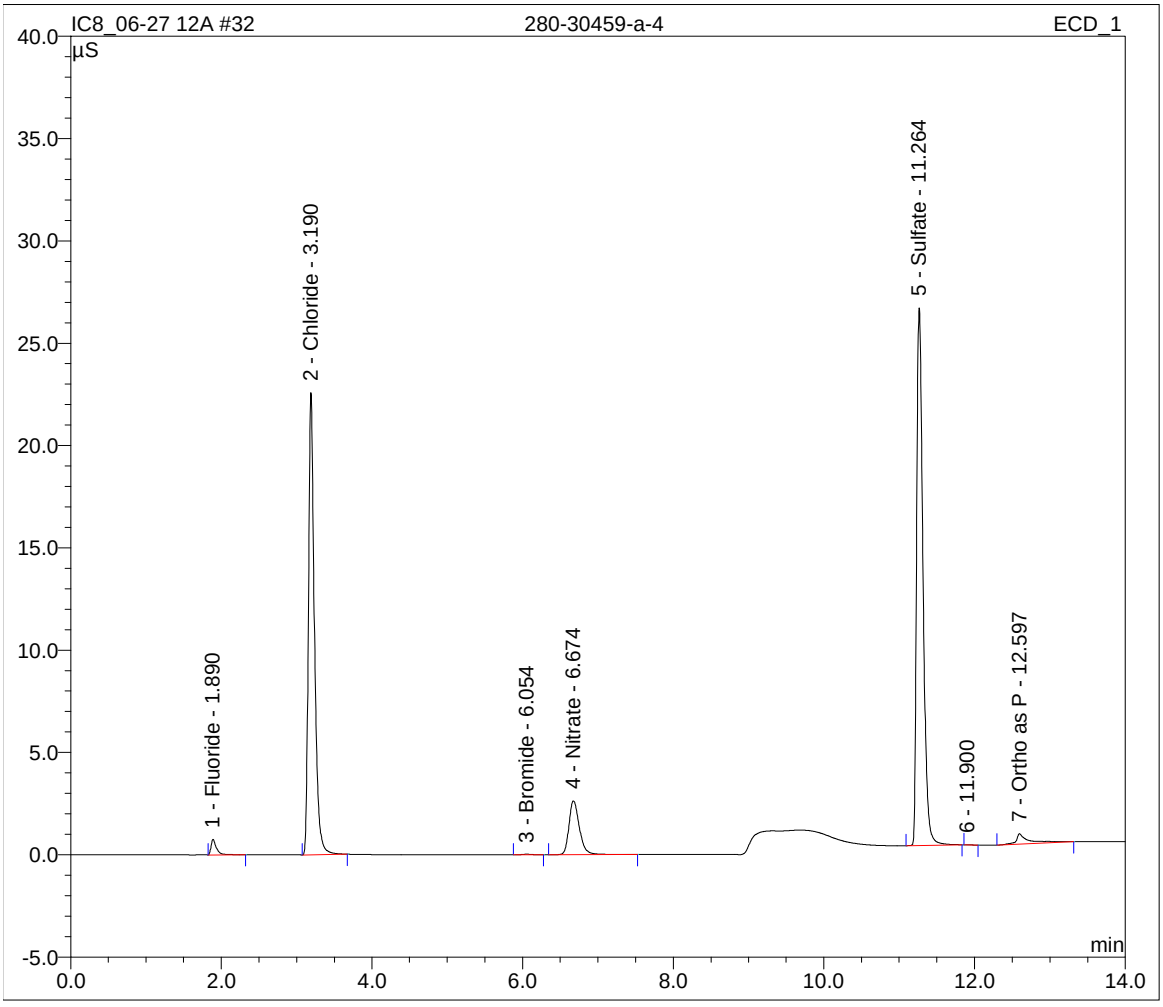
Sample Name:	**280-30459-a-3**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 20:57**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.064	0.774	0.2396
2	3.19	Chloride	BMB	2.248	24.290	15.9501
3	6.06	Bromide	BMB	0.004	0.030	0.1053
4	6.67	Nitrate	BMB	0.432	2.696	1.1996
5	11.26	Sulfate	BMB	2.675	27.172	23.2487
6	12.60	Ortho as P	BMB	0.115	0.658	-0.1359
		TOTAL:		5.54	55.62	40.61



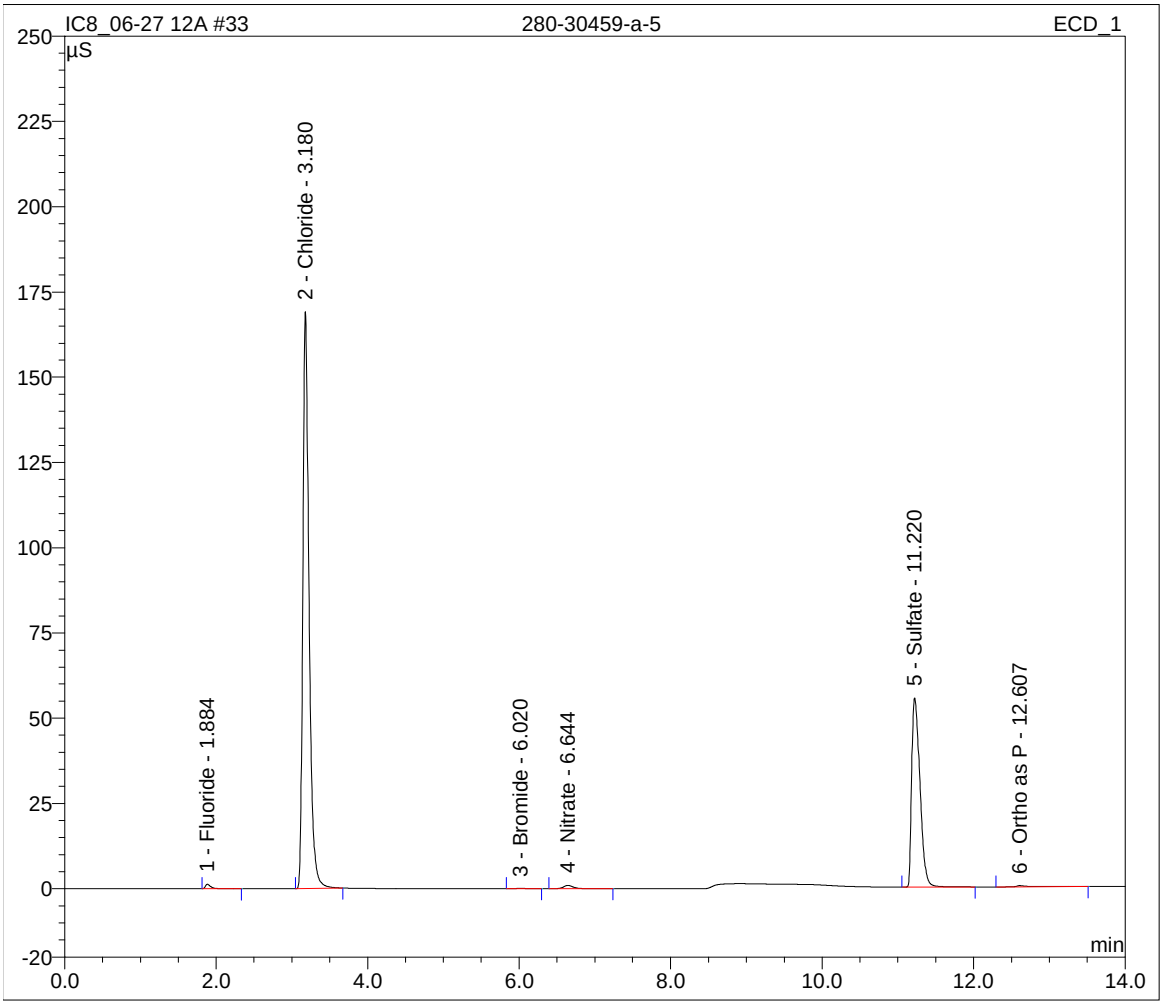
Sample Name:	**280-30459-a-4**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 21:13**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.064	0.763	0.2382
2	3.19	Chloride	BMB	2.083	22.581	14.7765
3	6.05	Bromide	BMB	0.004	0.029	0.1007
4	6.67	Nitrate	BMB	0.421	2.624	1.1695
5	11.26	Sulfate	BMB	2.560	26.280	22.2429
7	12.60	Ortho as P	BMB	0.098	0.505	-0.2254
		TOTAL:		5.23	52.78	38.30



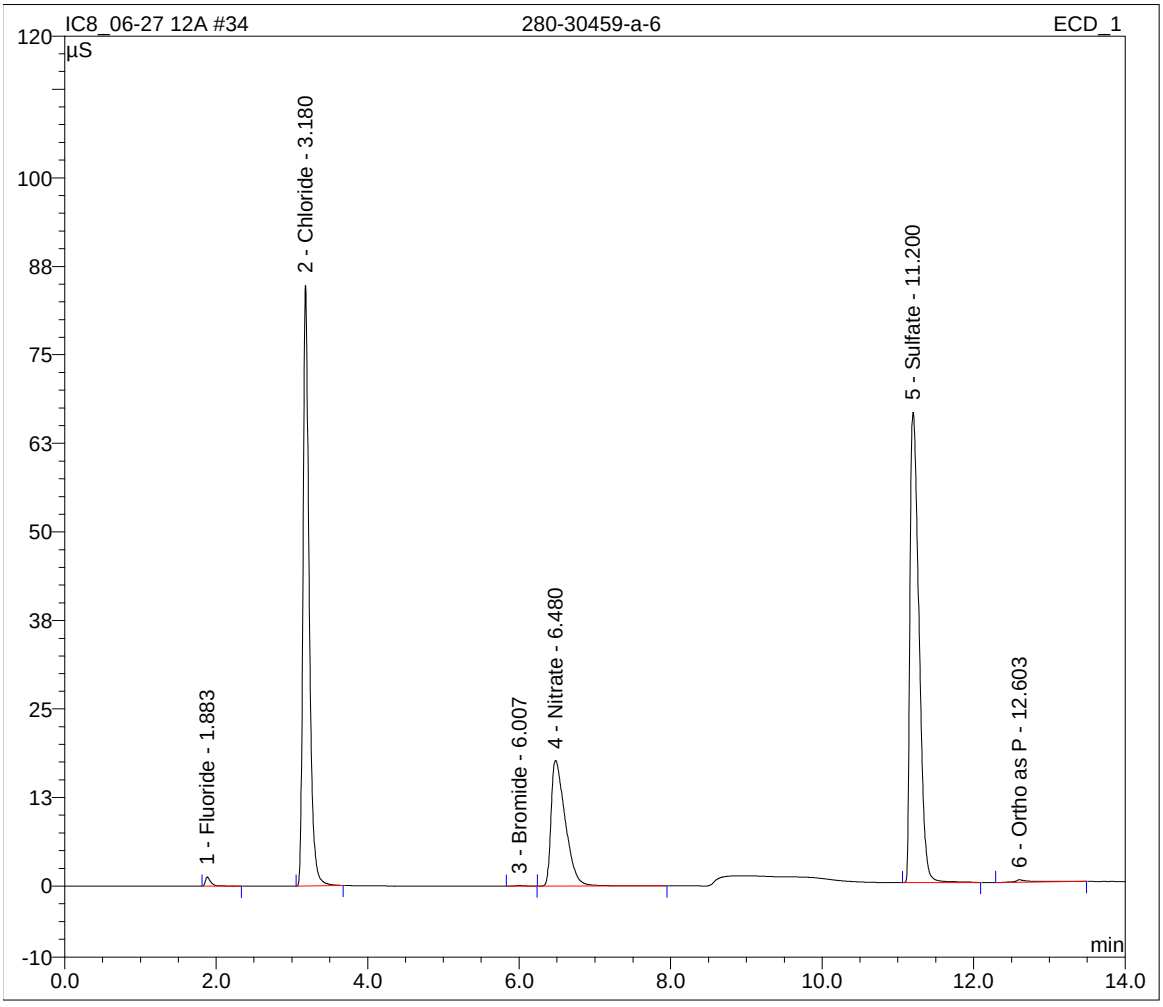
Sample Name:	**280-30459-a-5**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 21:30**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.88	Fluoride	BMB	0.115	1.340	0.4523
2	3.18	Chloride	BMB	16.055	169.212	113.7921
3	6.02	Bromide	BMB	0.013	0.092	0.2456
4	6.64	Nitrate	BMB	0.143	0.944	0.4152
5	11.22	Sulfate	BMB	7.015	55.412	61.3021
6	12.61	Ortho as P	BMB	0.102	0.391	-0.2041
		TOTAL:		23.44	227.39	176.00



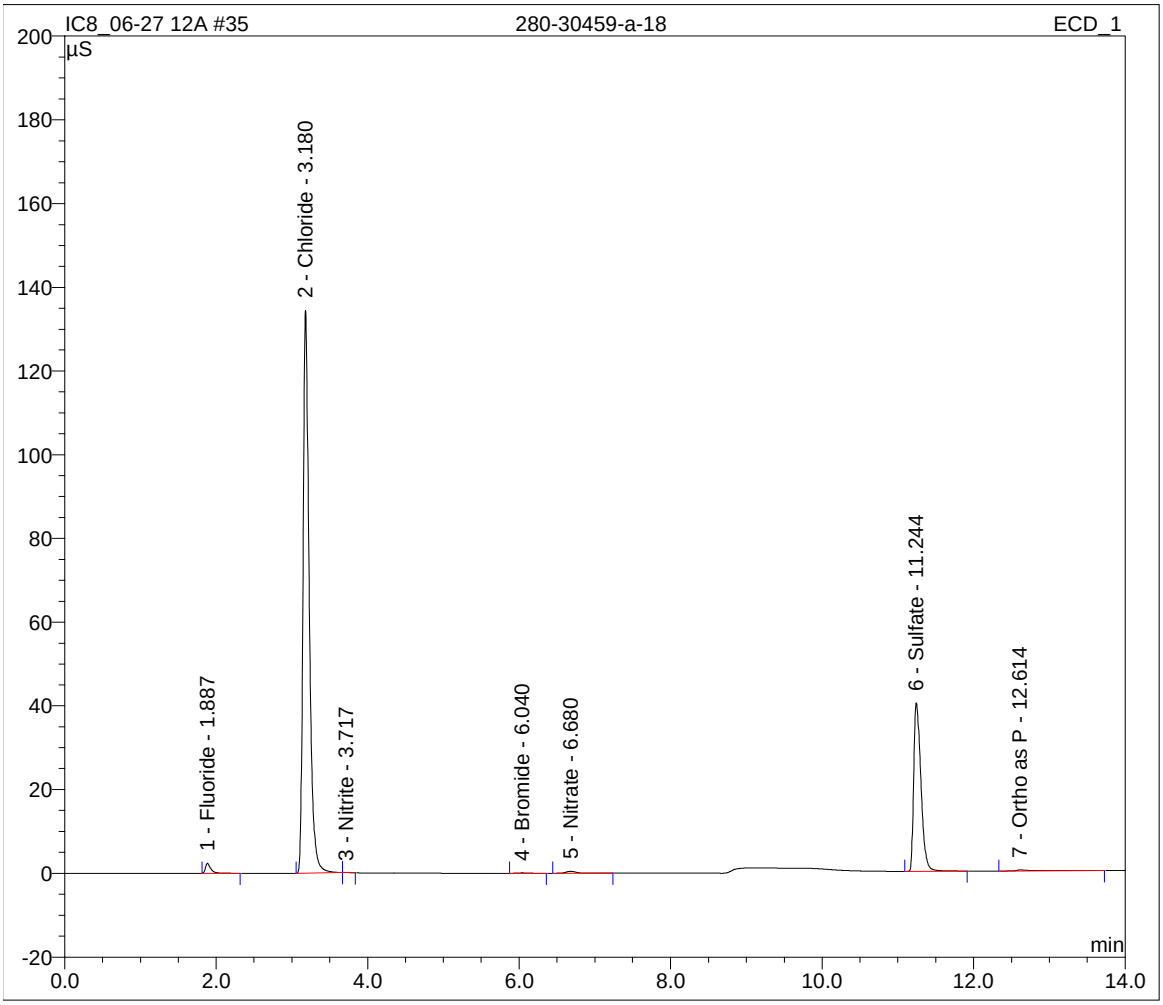
Sample Name:	**280-30459-a-6**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 21:47**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.88	Fluoride	BMB	0.112	1.302	0.4409
2	3.18	Chloride	BMB	7.964	84.812	56.4552
3	6.01	Bromide	BMB	0.009	0.070	0.1861
4	6.48	Nitrate	BMB	3.837	17.730	10.4639
5	11.20	Sulfate	BMB	9.186	66.414	80.3451
6	12.60	Ortho as P	BMB	0.096	0.364	-0.2366
		TOTAL:		21.20	170.69	147.65



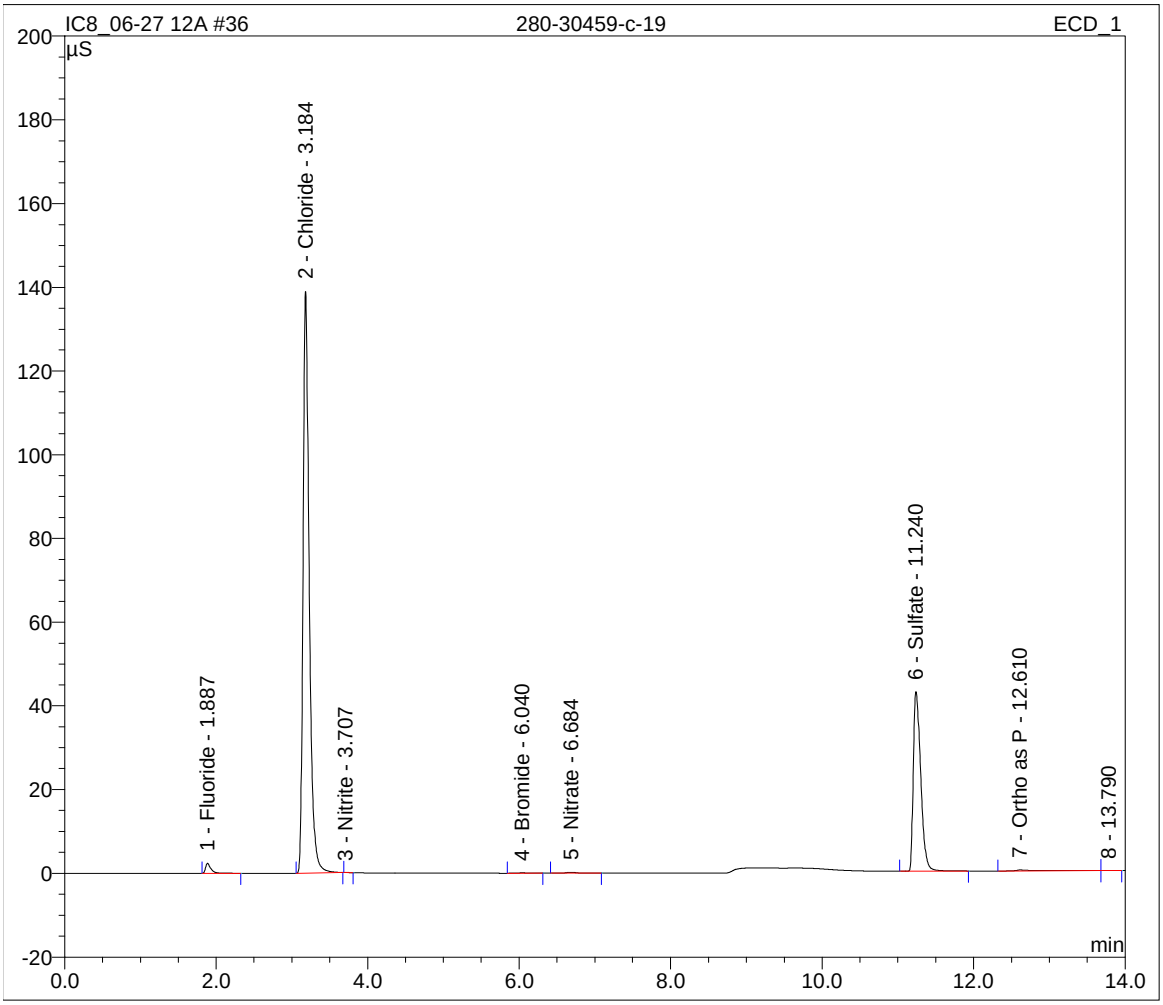
Sample Name:	**280-30459-a-18**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:04**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.201	2.394	0.8144
2	3.18	Chloride	BMb	12.693	134.492	89.9705
3	3.72	Nitrite	bMB	0.003	0.041	0.0166
4	6.04	Bromide	BMB	0.012	0.088	0.2347
5	6.68	Nitrate	BMB	0.072	0.464	0.2218
6	11.24	Sulfate	BMB	4.459	40.218	38.8908
7	12.61	Ortho as P	BMB	0.110	0.303	-0.1654
TOTAL:				17.55	178.00	129.98



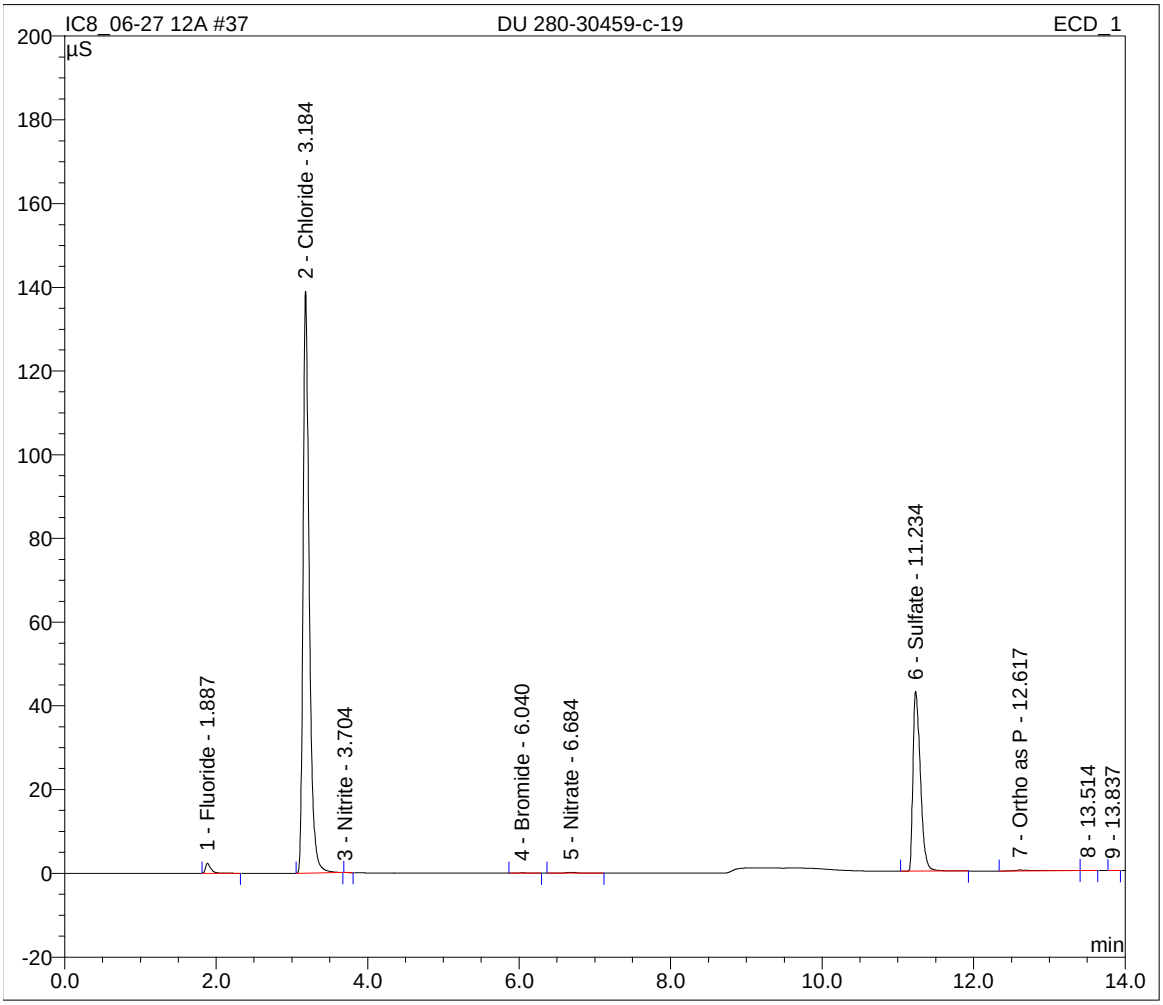
Sample Name:	**280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:21**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.202	2.396	0.8166
2	3.18	Chloride	BMB	13.145	138.986	93.1724
3	3.71	Nitrite	BMB	0.001	0.011	0.0100
4	6.04	Bromide	BMB	0.012	0.089	0.2385
5	6.68	Nitrate	BMB	0.034	0.214	0.1165
6	11.24	Sulfate	BMB	4.895	42.883	42.7133
7	12.61	Ortho as P	BMB	0.105	0.272	-0.1897
TOTAL:				18.39	184.85	136.88



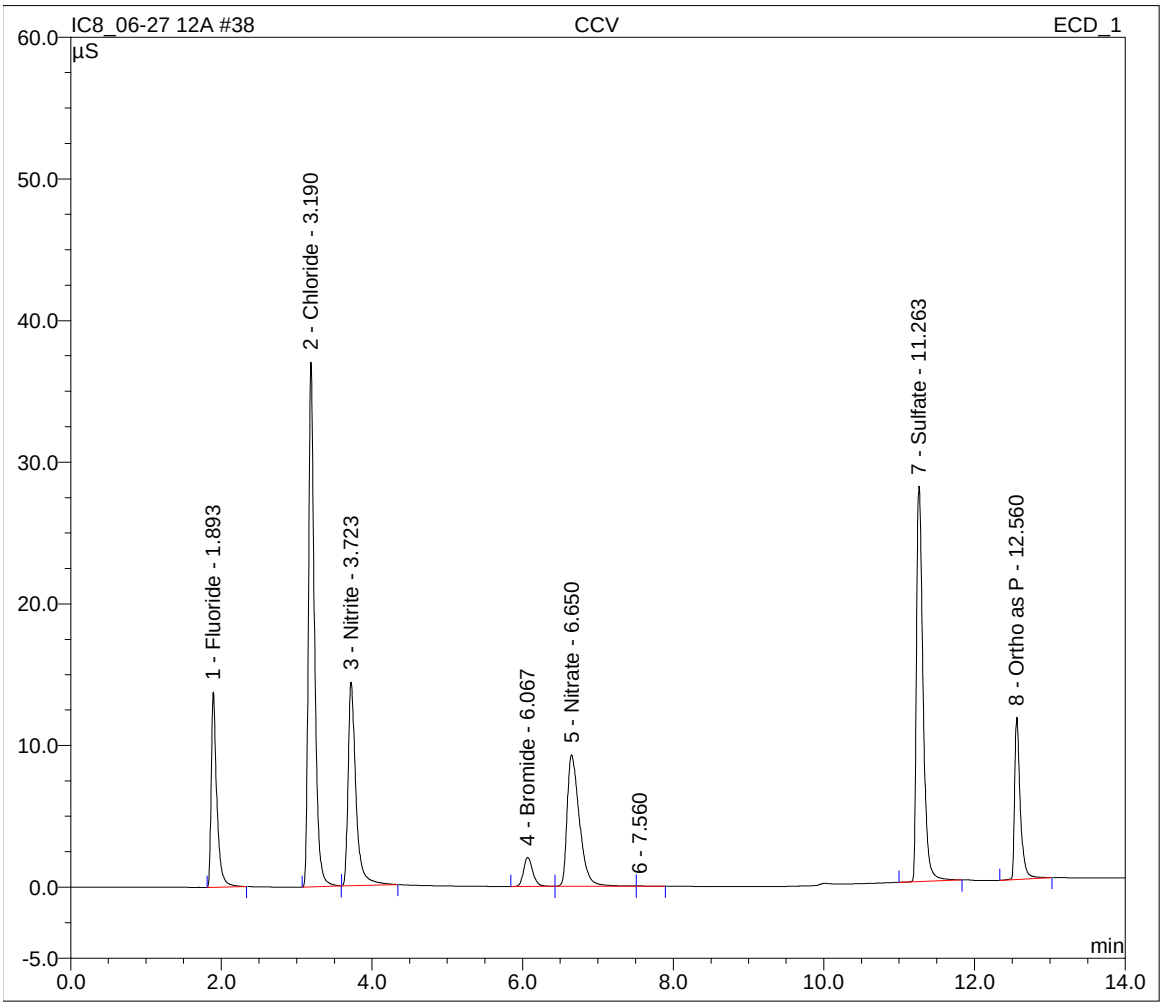
Sample Name:	**DU 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:37**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.202	2.398	0.8173
2	3.18	Chloride	BMB	13.155	139.079	93.2433
3	3.70	Nitrite	BMB	0.001	0.009	0.0100
4	6.04	Bromide	BMB	0.012	0.089	0.2355
5	6.68	Nitrate	BMB	0.033	0.212	0.1164
6	11.23	Sulfate	BMB	4.893	42.924	42.7034
7	12.62	Ortho as P	BMB	0.077	0.237	-0.3304
TOTAL:				18.37	184.95	136.80



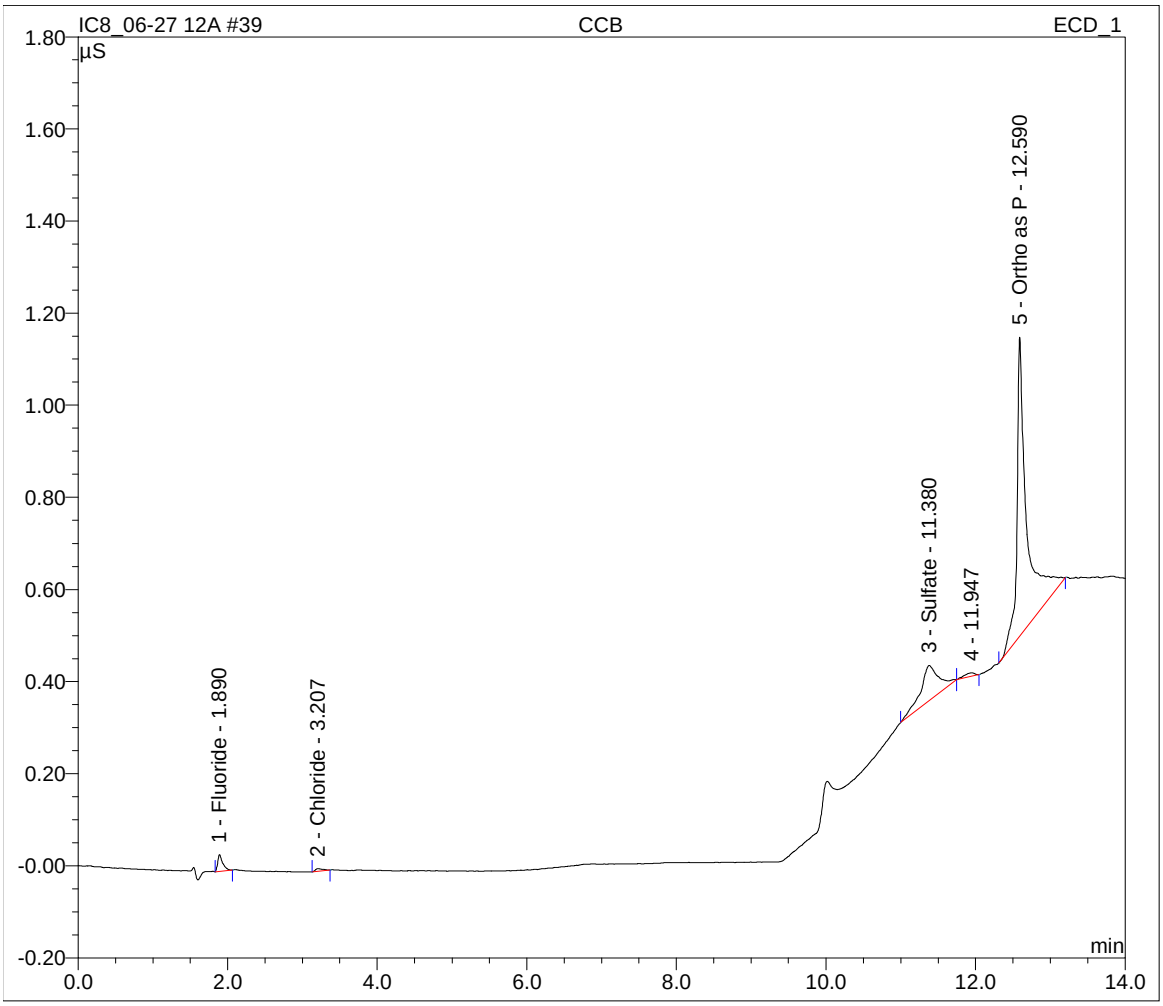
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 22:54**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.186	13.786	4.9466
2	3.19	Chloride	BMB	3.448	37.038	24.4506
3	3.72	Nitrite	BMB	1.735	14.356	4.8774
4	6.07	Bromide	BMB	0.288	2.050	4.7945
5	6.65	Nitrate	BMb	1.741	9.271	4.7604
7	11.26	Sulfate	BMB	2.818	27.892	24.5078
8	12.56	Ortho as P	BMB	0.991	11.433	4.3426
		TOTAL:		12.21	115.83	72.68



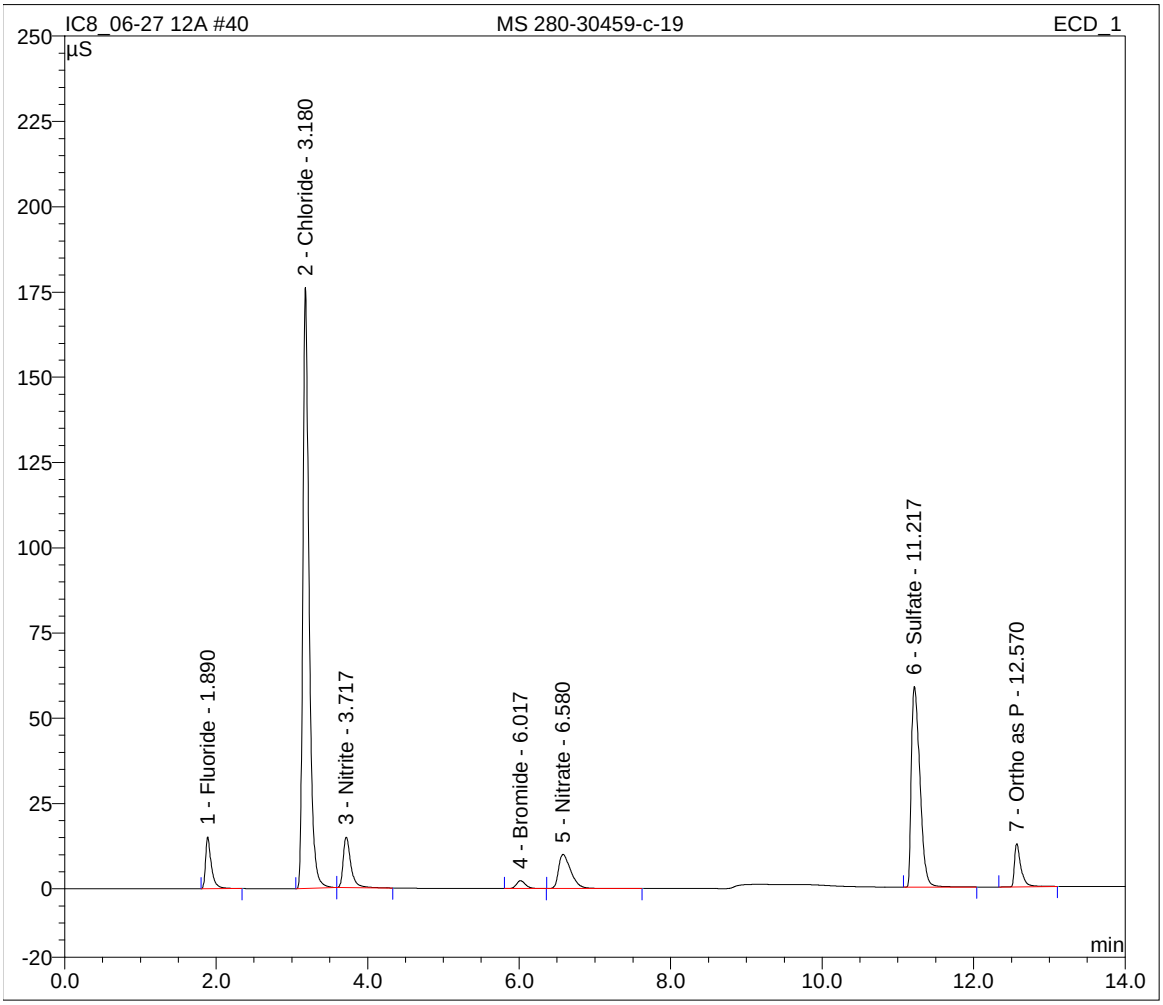
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 23:11**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.003	0.036	-0.0185
2	3.21	Chloride	BMB	0.001	0.006	0.0211
3	11.38	Sulfate	BMB	0.021	0.077	-0.0179
5	12.59	Ortho as P	BMB	0.101	0.649	-0.2124
TOTAL:				0.13	0.77	-0.23



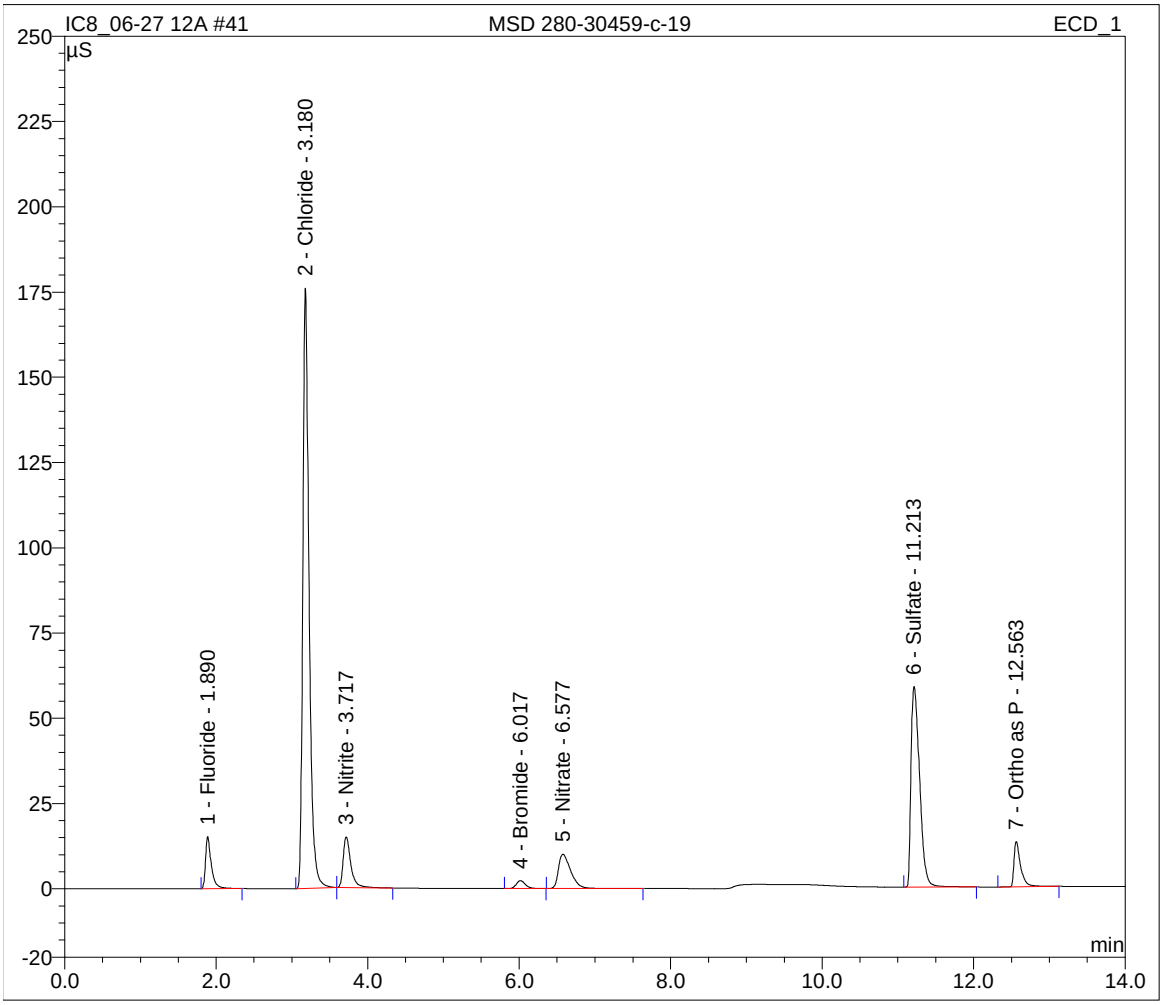
Sample Name:	**MS 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 23:28**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.364	15.209	5.6951
2	3.18	Chloride	BMb	16.697	176.259	118.3434
3	3.72	Nitrite	bMB	1.742	14.777	4.8991
4	6.02	Bromide	BMB	0.321	2.302	5.3386
5	6.58	Nitrate	BMB	1.874	10.021	5.1238
6	11.22	Sulfate	BMB	7.690	58.749	67.2229
7	12.57	Ortho as P	BMB	1.237	12.629	5.6019
TOTAL:				30.93	289.94	212.22



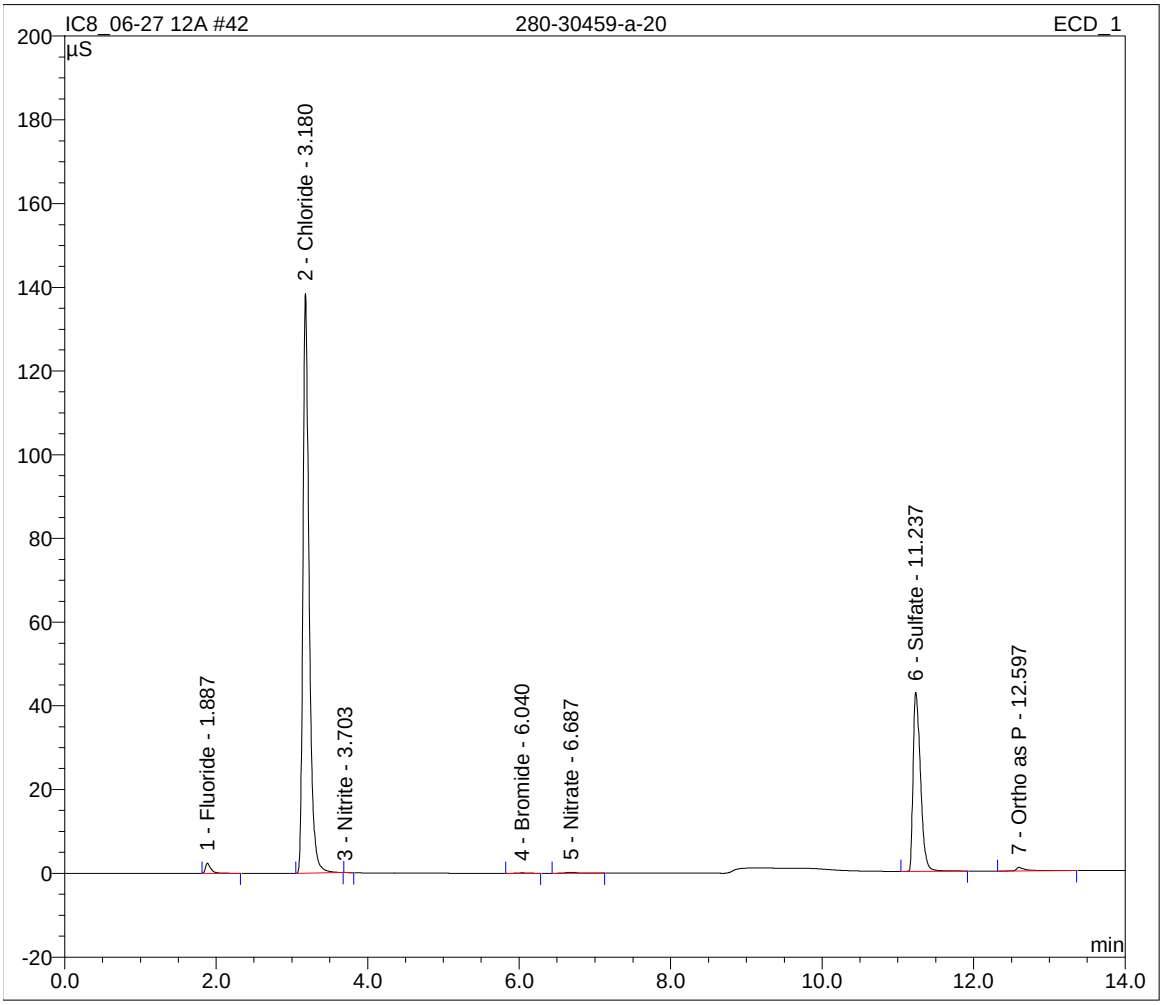
Sample Name:	**MSD 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**27.06.12 23:45**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.378	15.282	5.7524
2	3.18	Chloride	BMb	16.713	176.028	118.4590
3	3.72	Nitrite	bMB	1.747	14.814	4.9128
4	6.02	Bromide	BMB	0.323	2.317	5.3718
5	6.58	Nitrate	BMB	1.888	10.076	5.1629
6	11.21	Sulfate	BMB	7.724	58.745	67.5199
7	12.56	Ortho as P	BMB	1.339	13.238	6.1258
TOTAL:				31.11	290.50	213.30



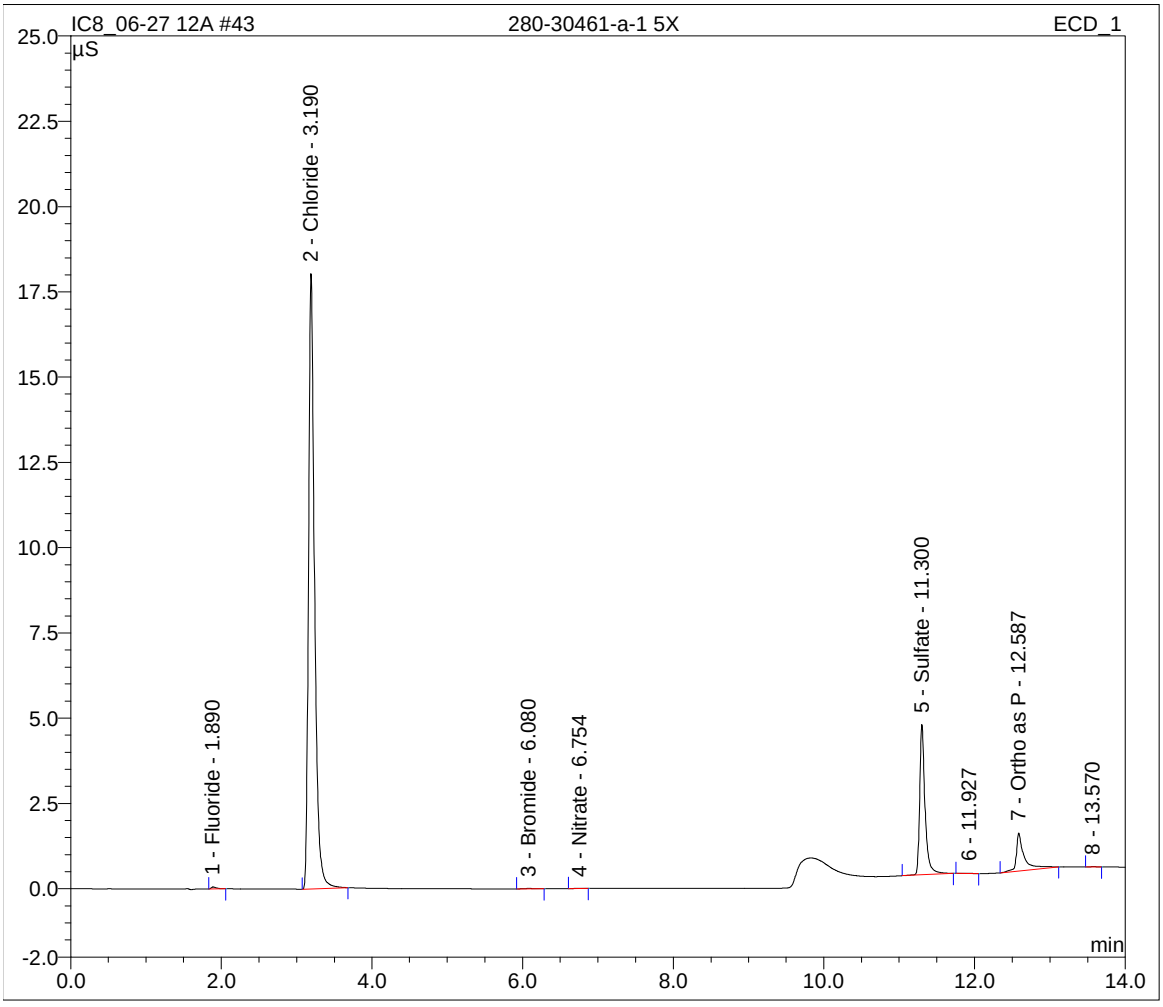
Sample Name:	**280-30459-a-20**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:01**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.206	2.439	0.8330
2	3.18	Chloride	BMB	13.125	138.545	93.0314
3	3.70	Nitrite	BMB	0.001	0.011	0.0103
4	6.04	Bromide	BMB	0.012	0.089	0.2373
5	6.69	Nitrate	BMB	0.034	0.215	0.1182
6	11.24	Sulfate	BMB	4.841	42.717	42.2392
7	12.60	Ortho as P	BMB	0.153	0.898	0.0557
TOTAL:				18.37	184.91	136.53



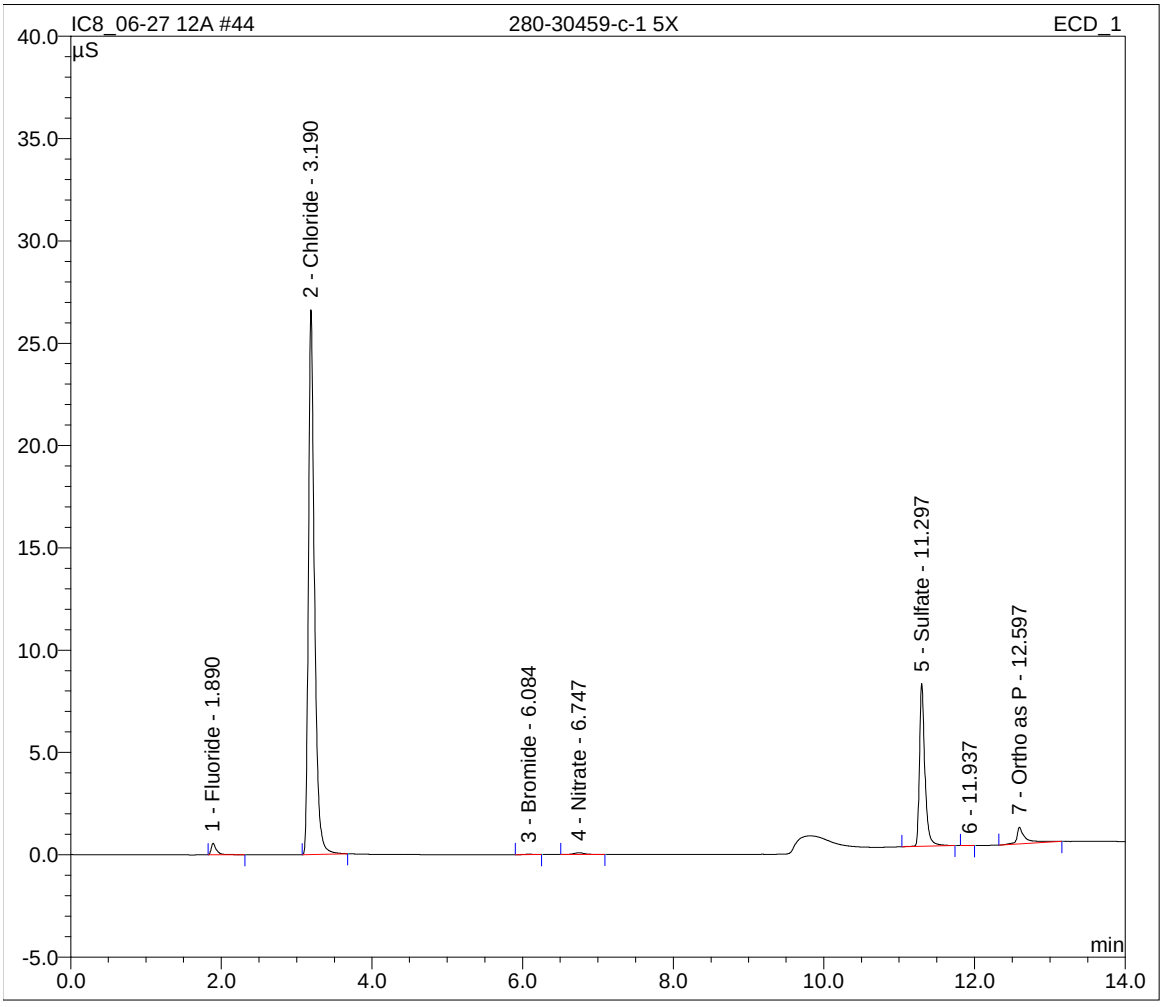
Sample Name:	**280-30461-a-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:18**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.005	0.059	-0.0539
2	3.19	Chloride	BMB	1.680	18.041	59.5973
3	6.08	Bromide	BMB	0.002	0.011	0.3015
4	6.75	Nitrate	BMB	0.001	0.004	0.1334
5	11.30	Sulfate	BMB	0.366	4.401	15.0420
7	12.59	Ortho as P	BMB	0.135	1.110	-0.1760
		TOTAL:		2.19	23.63	74.84



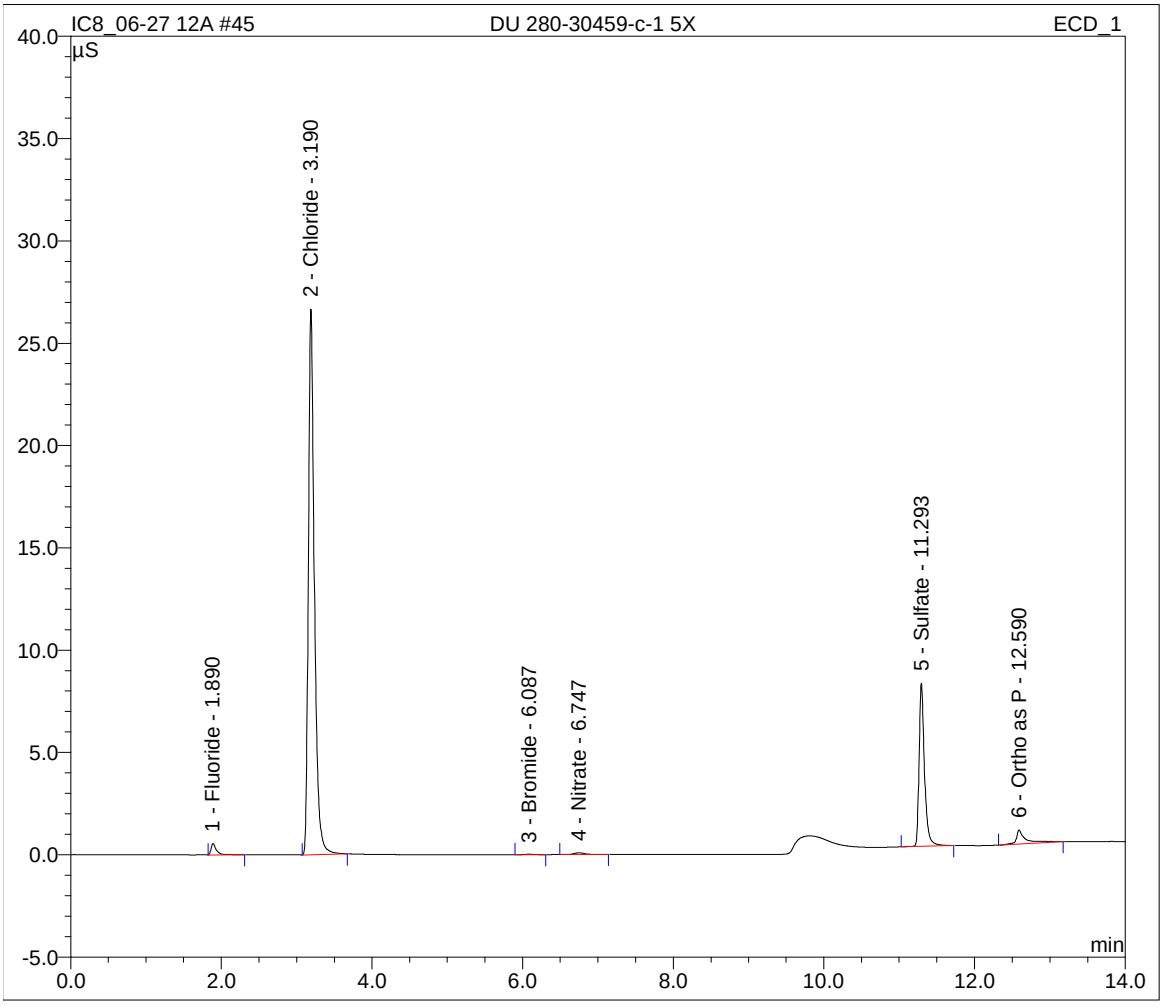
Sample Name:	**280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.047	0.563	0.8293
2	3.19	Chloride	BMB	2.483	26.637	88.0724
3	6.08	Bromide	BMB	0.003	0.022	0.4157
4	6.75	Nitrate	BMB	0.014	0.084	0.3140
5	11.30	Sulfate	BMB	0.669	7.946	28.2994
7	12.60	Ortho as P	BMB	0.110	0.815	-0.8204
		TOTAL:		3.33	36.07	117.11



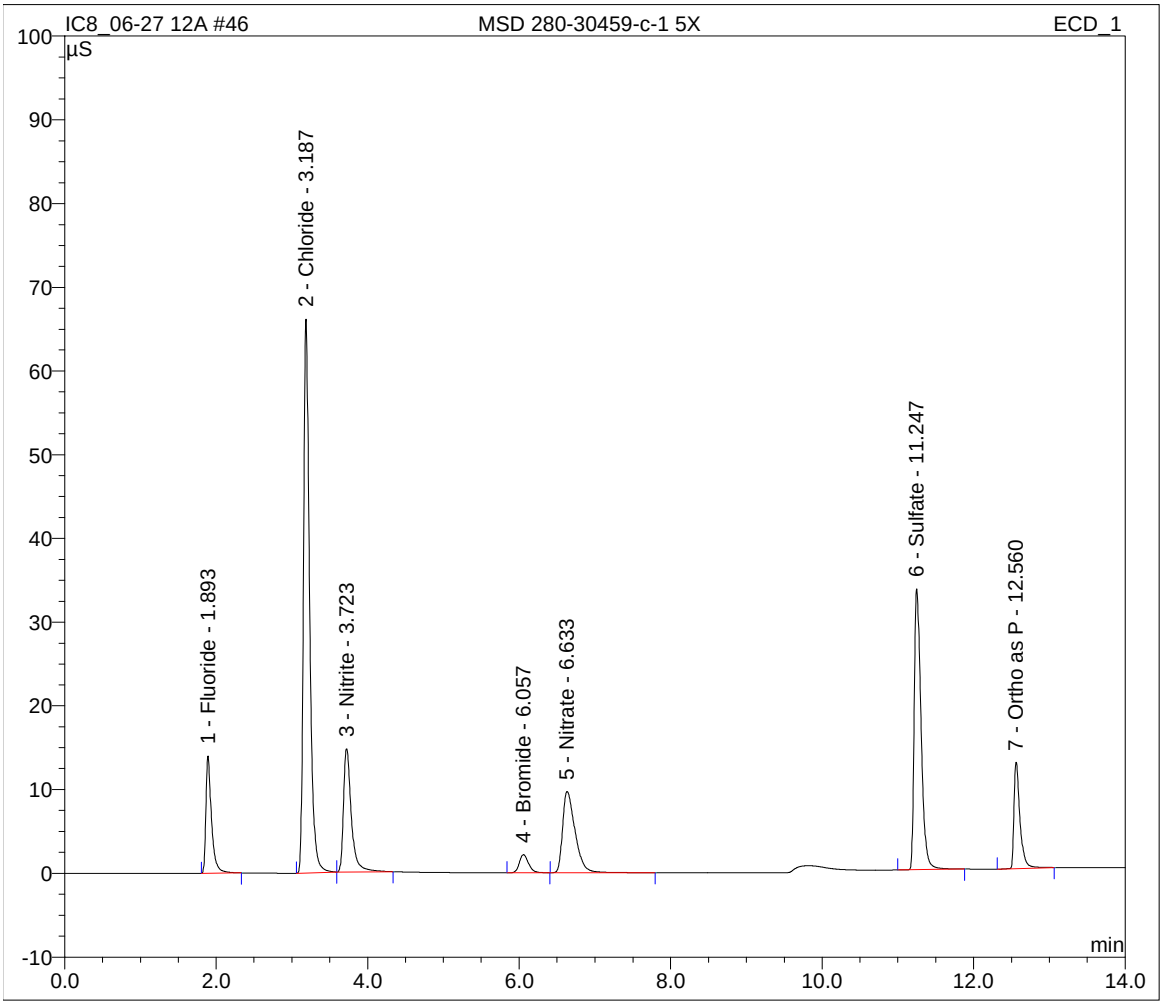
Sample Name:	**DU 280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 00:52**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.046	0.559	0.8192
2	3.19	Chloride	BMB	2.485	26.670	88.1313
3	6.09	Bromide	BMB	0.003	0.022	0.4257
4	6.75	Nitrate	BMB	0.014	0.084	0.3134
5	11.29	Sulfate	BMB	0.668	7.971	28.2792
6	12.59	Ortho as P	BMB	0.099	0.683	-1.1116
		TOTAL:		3.31	35.99	116.86



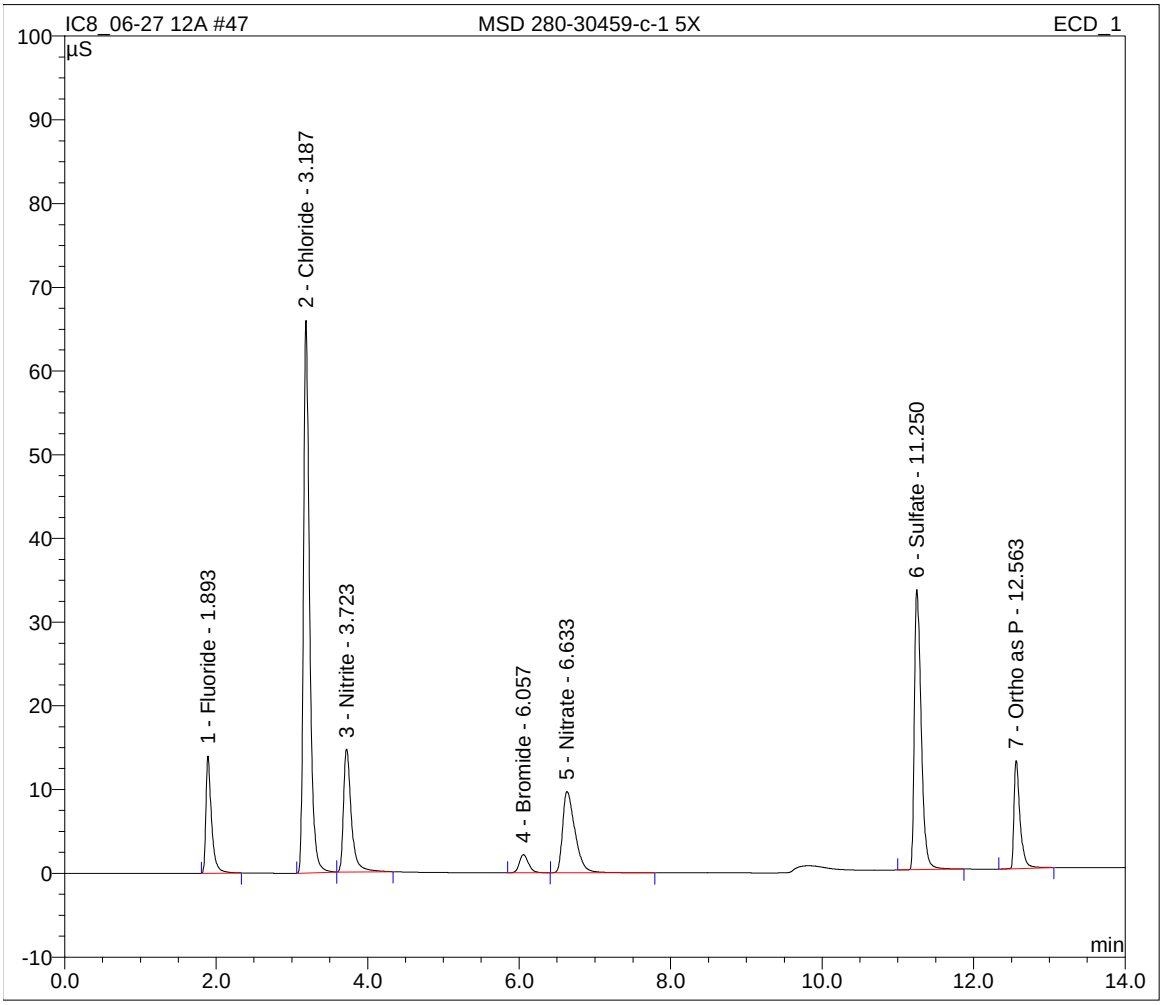
Sample Name:	**MSD 280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:09**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.215	14.024	25.3439
2	3.19	Chloride	BMB	6.203	66.170	219.8731
3	3.72	Nitrite	BMB	1.767	14.698	24.8412
4	6.06	Bromide	BMB	0.307	2.168	25.5485
5	6.63	Nitrate	BMB	1.851	9.686	25.3040
6	11.25	Sulfate	BMB	3.544	33.553	154.3536
7	12.56	Ortho as P	BMB	1.160	12.691	26.0320
TOTAL:				16.05	152.99	501.30



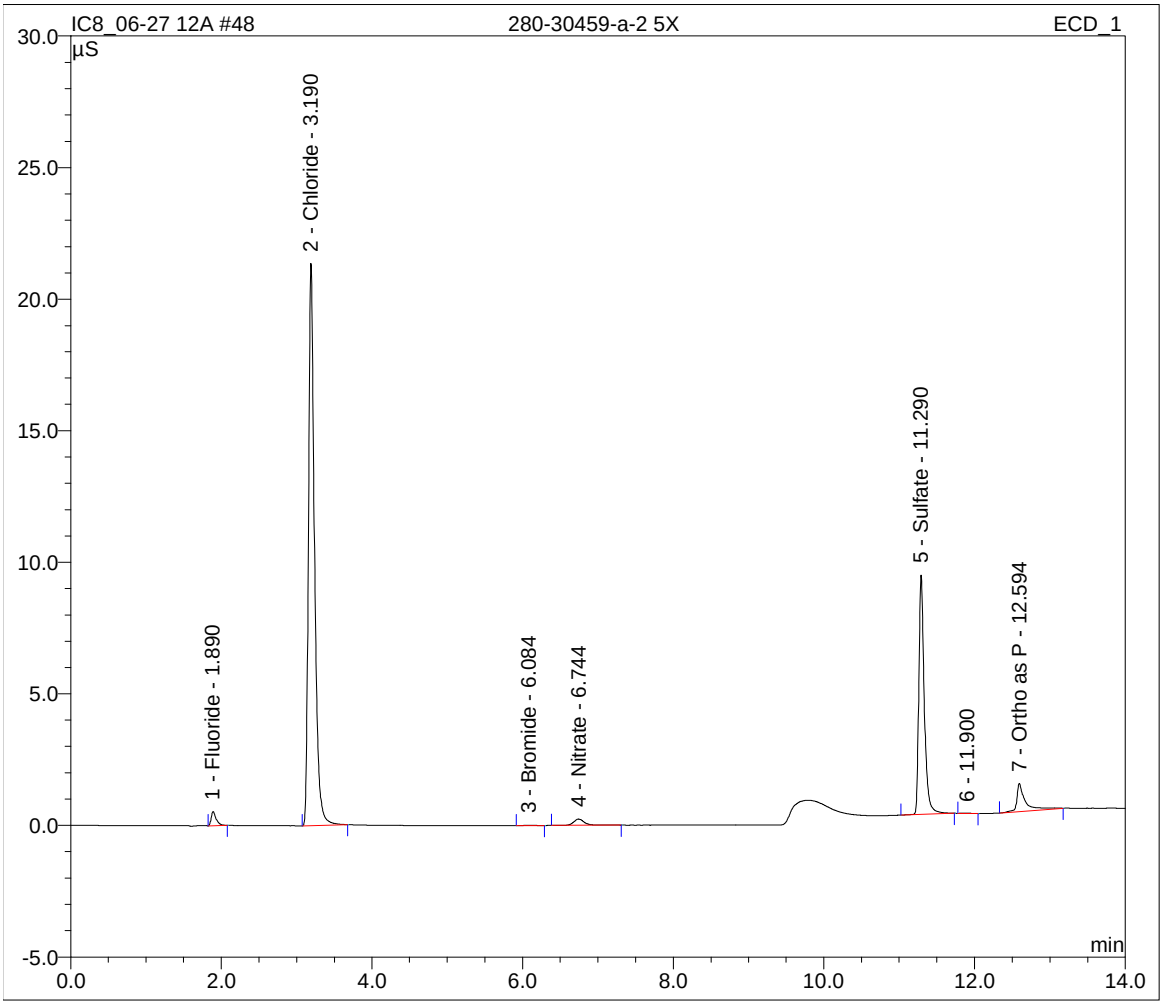
Sample Name:	**MSD 280-30459-c-1 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:25**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.213	14.006	25.3045
2	3.19	Chloride	BMB	6.184	66.036	219.2205
3	3.72	Nitrite	BMB	1.757	14.632	24.7022
4	6.06	Bromide	BMB	0.306	2.170	25.4525
5	6.63	Nitrate	BMB	1.841	9.687	25.1672
6	11.25	Sulfate	BMB	3.526	33.466	153.5595
7	12.56	Ortho as P	BMB	1.188	12.871	26.7524
TOTAL:				16.01	152.87	500.16



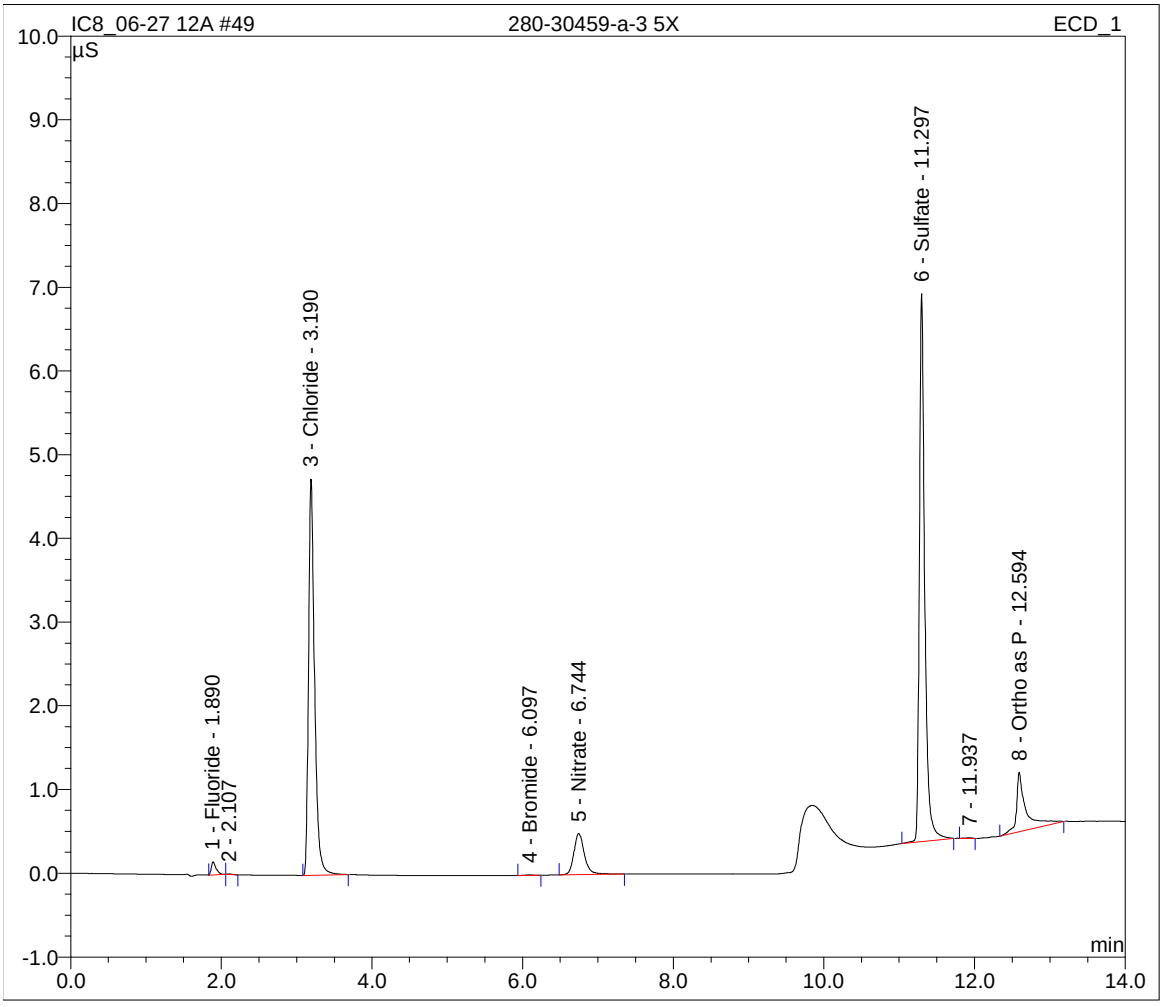
Sample Name:	**280-30459-a-2 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:42**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.041	0.542	0.7180
2	3.19	Chloride	BMB	1.990	21.373	70.5817
3	6.08	Bromide	BMB	0.002	0.013	0.3277
4	6.74	Nitrate	BMB	0.040	0.239	0.6640
5	11.29	Sulfate	BMB	0.770	9.099	32.7416
7	12.59	Ortho as P	BMB	0.140	1.069	-0.0536
		TOTAL:		2.98	32.34	104.98



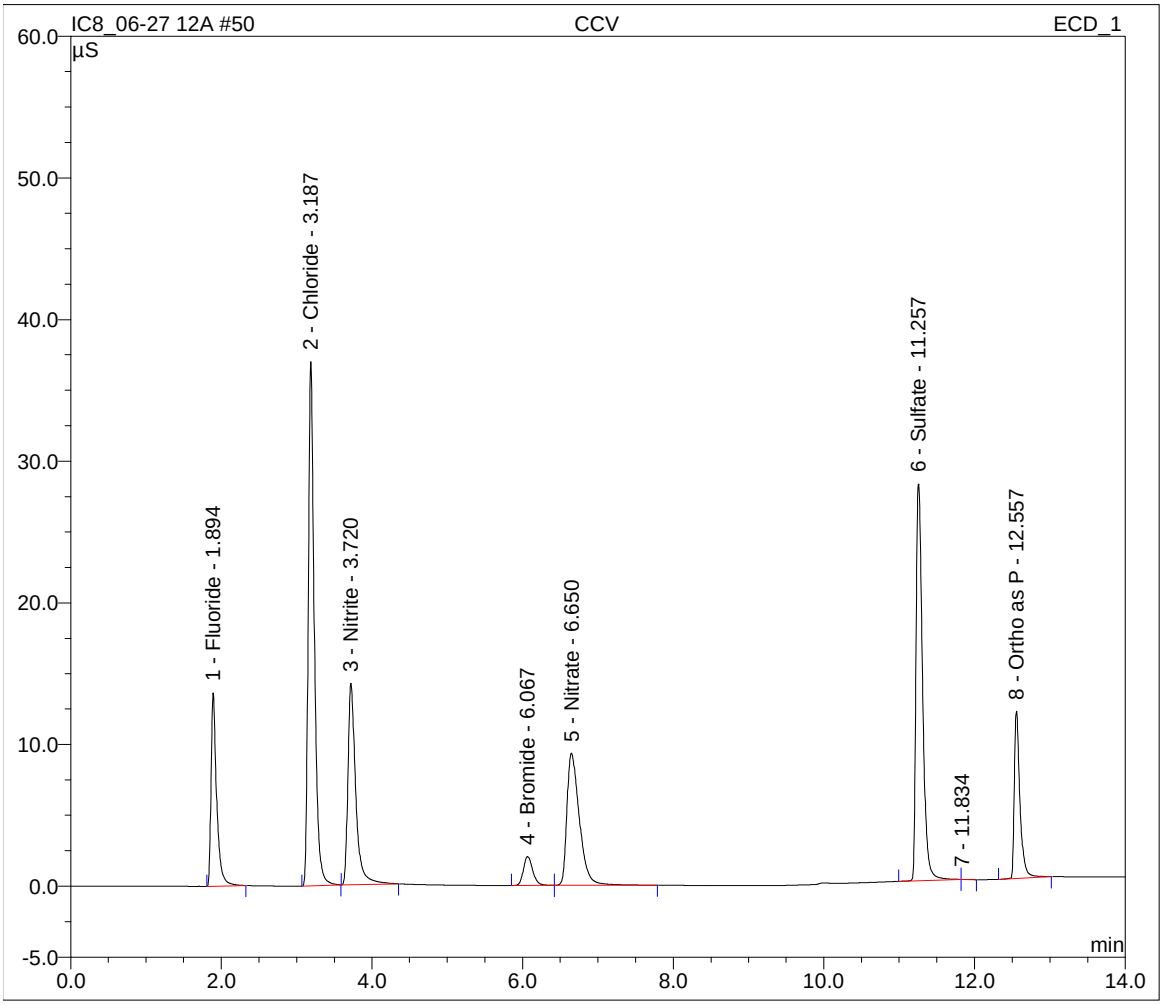
Sample Name:	**280-30459-a-3 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 01:59**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMb	0.012	0.157	0.0958
3	3.19	Chloride	BMB	0.441	4.733	15.7050
4	6.10	Bromide	BMB	0.001	0.006	0.2345
5	6.74	Nitrate	BMB	0.080	0.491	1.2093
6	11.30	Sulfate	BMB	0.549	6.545	23.0429
8	12.59	Ortho as P	BMB	0.105	0.709	-0.9589
		TOTAL:		1.19	12.64	39.33



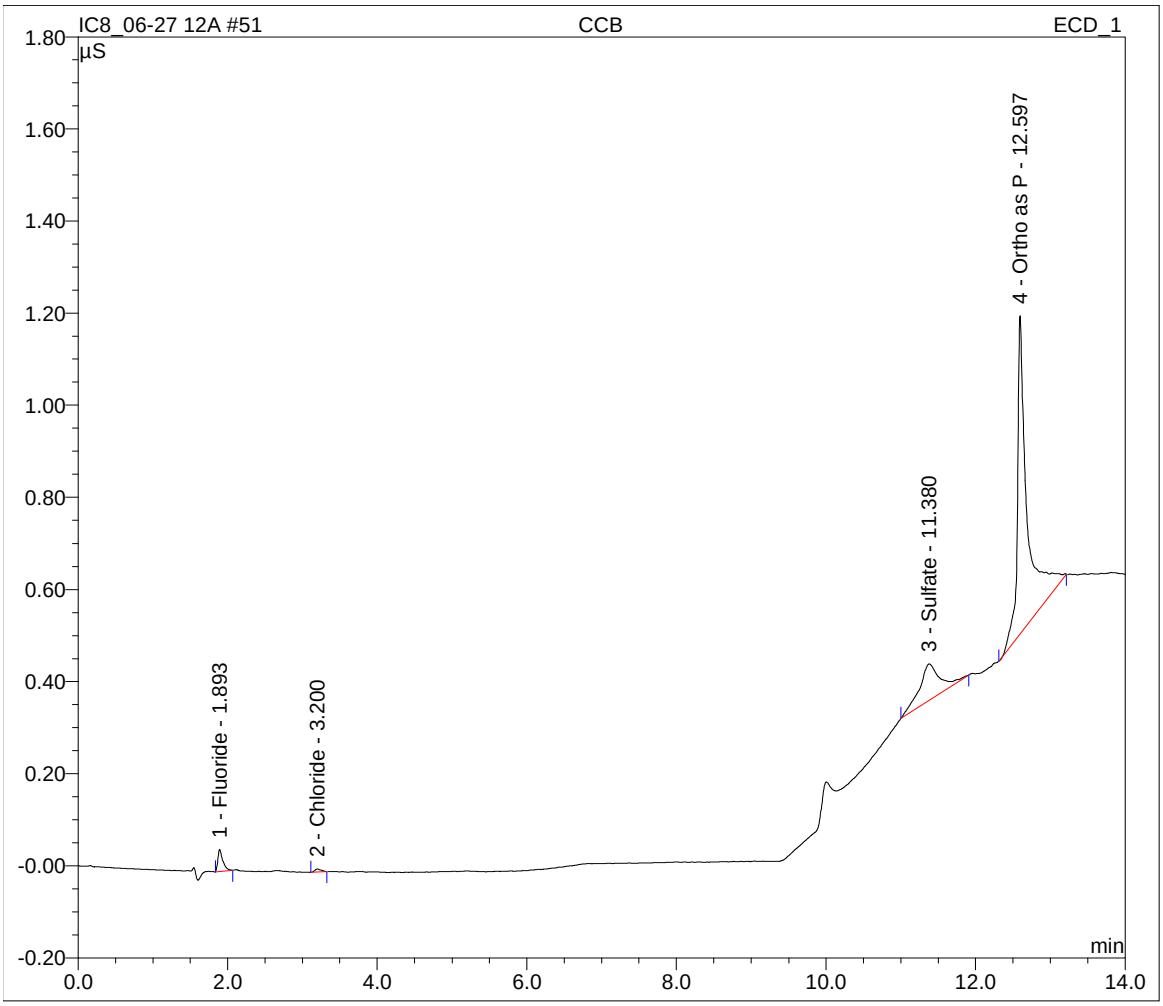
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 02:16**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.178	13.642	4.9134
2	3.19	Chloride	BMB	3.463	36.985	24.5579
3	3.72	Nitrite	BMB	1.718	14.191	4.8308
4	6.07	Bromide	BMB	0.291	2.039	4.8336
5	6.65	Nitrate	bMB	1.785	9.316	4.8807
6	11.26	Sulfate	BMb	2.811	28.003	24.4437
8	12.56	Ortho as P	BMB	1.024	11.800	4.5150
		TOTAL:		12.27	115.98	72.97



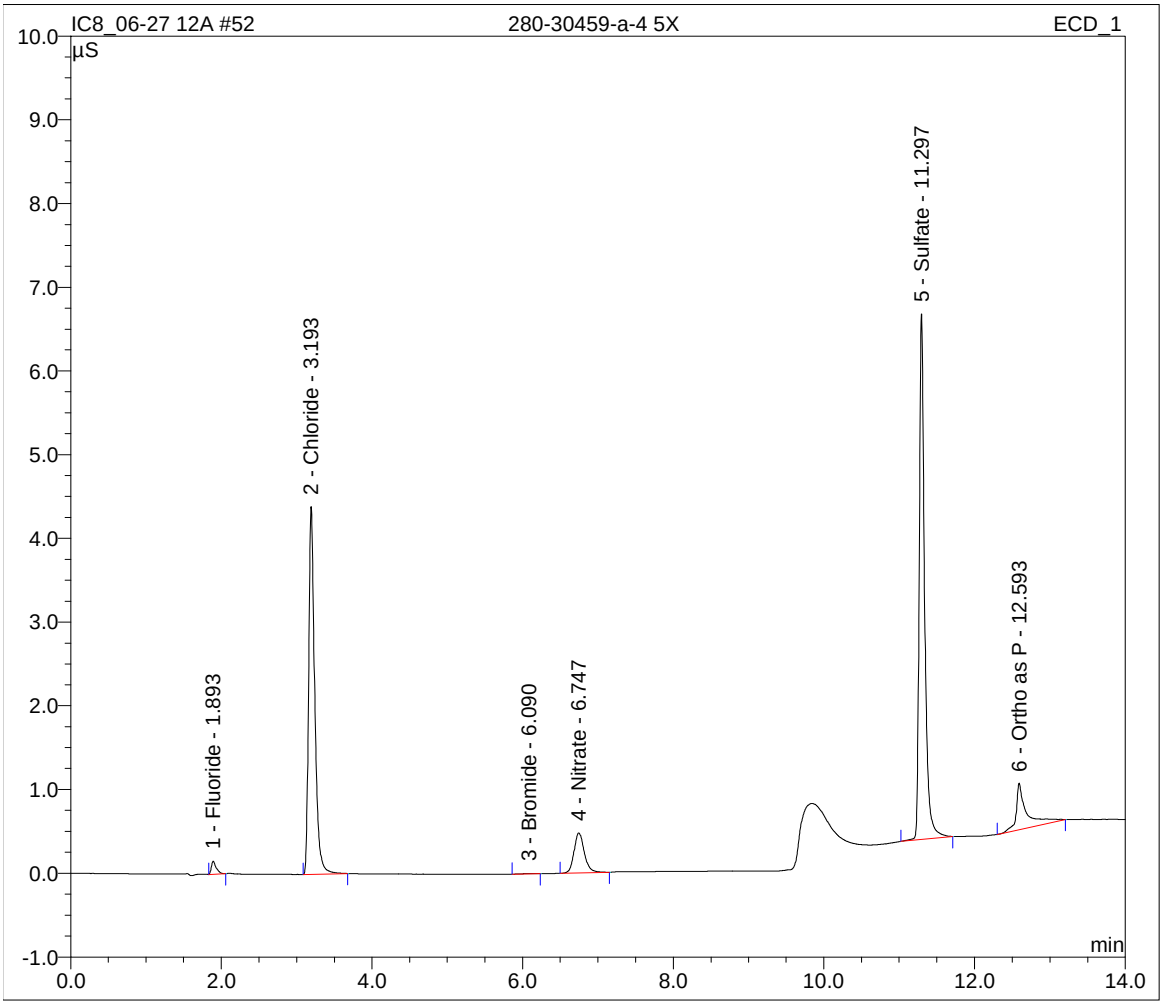
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 02:33**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.004	0.048	-0.0147
2	3.20	Chloride	BMB	0.001	0.007	0.0210
3	11.38	Sulfate	BMB	0.024	0.079	0.0102
4	12.60	Ortho as P	BMB	0.106	0.691	-0.1844
TOTAL:				0.13	0.82	-0.17



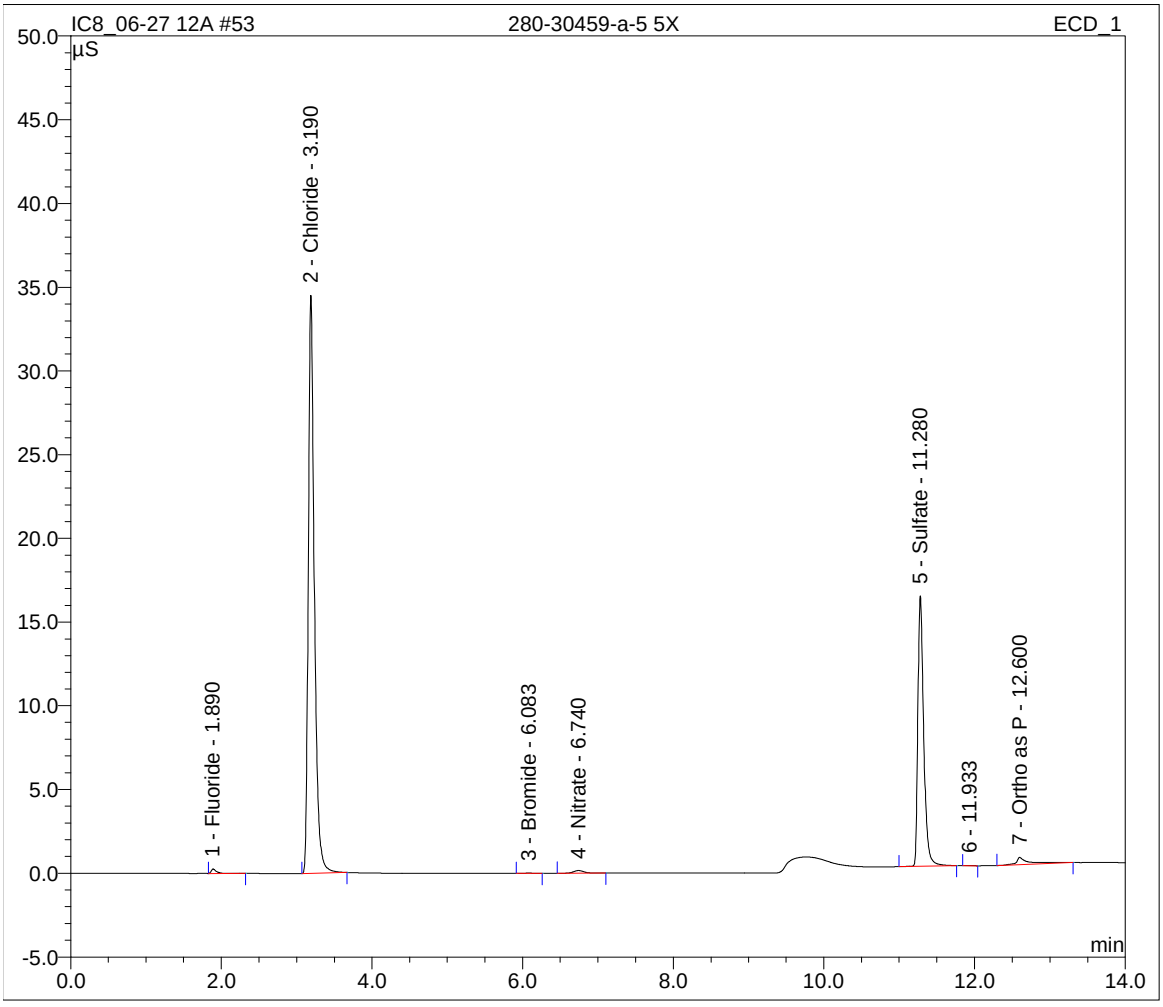
Sample Name:	**280-30459-a-4 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 02:49**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.012	0.156	0.0968
2	3.19	Chloride	BMB	0.410	4.393	14.6083
3	6.09	Bromide	BMB	0.001	0.005	0.2423
4	6.75	Nitrate	BMB	0.076	0.477	1.1589
5	11.30	Sulfate	BMB	0.526	6.281	22.0526
6	12.59	Ortho as P	BMB	0.090	0.554	-1.3256
		TOTAL:		1.12	11.87	36.83



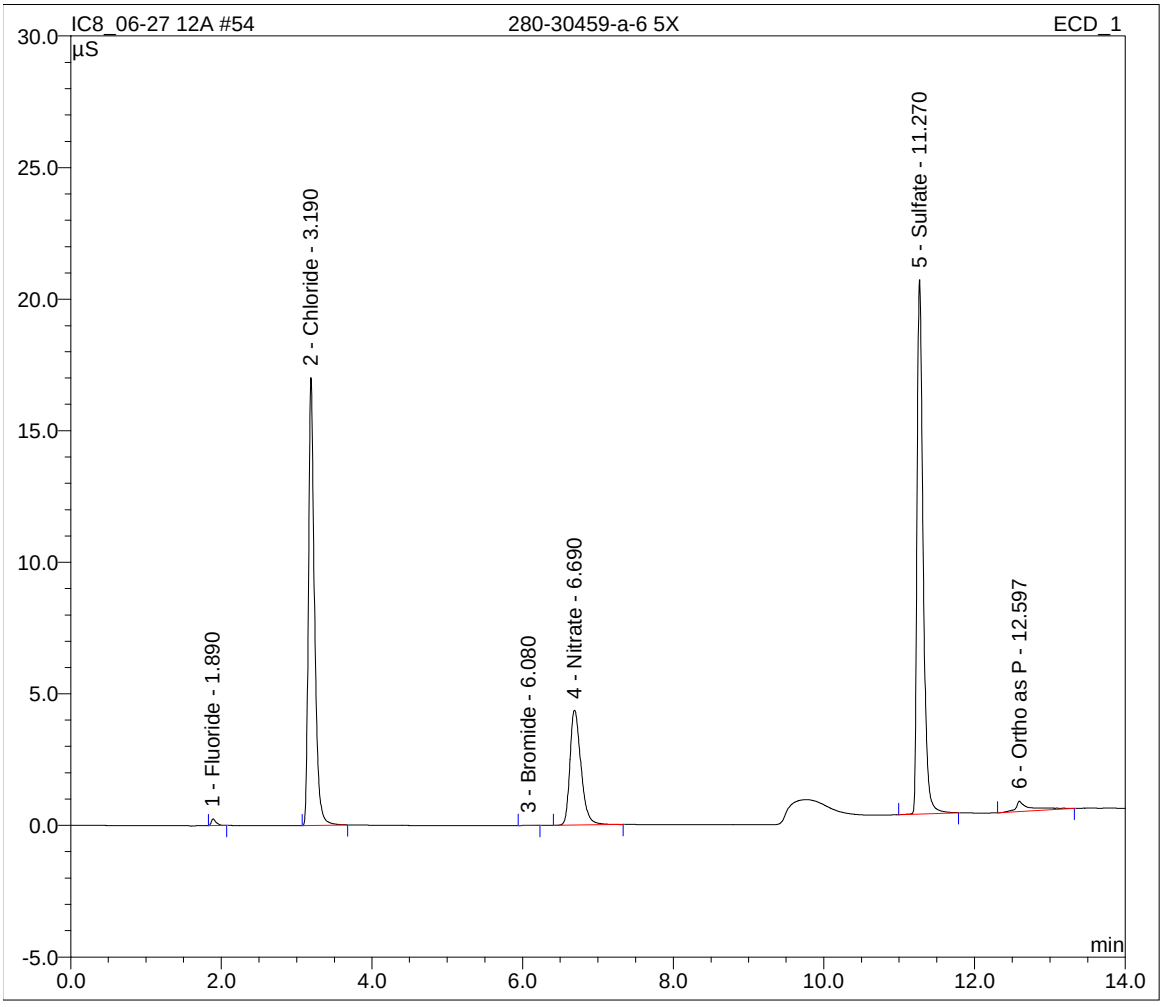
Sample Name:	**280-30459-a-5 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:06**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.023	0.272	0.3324
2	3.19	Chloride	BMB	3.227	34.532	114.4166
3	6.08	Bromide	BMB	0.002	0.016	0.3600
4	6.74	Nitrate	BMB	0.026	0.160	0.4823
5	11.28	Sulfate	BMB	1.453	16.151	62.6617
7	12.60	Ortho as P	BMB	0.087	0.433	-1.4059
		TOTAL:		4.82	51.56	176.85



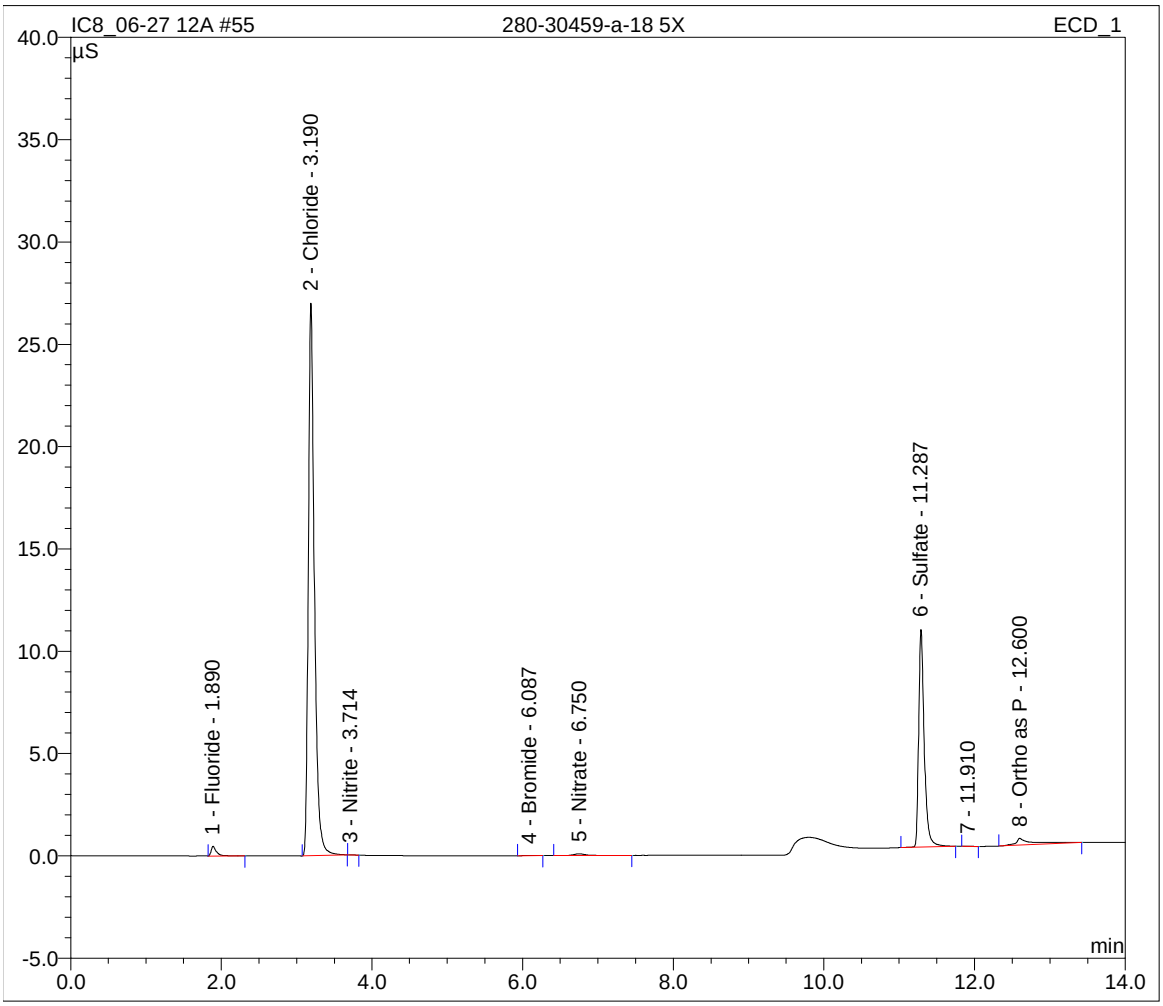
Sample Name:	**280-30459-a-6 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:23**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.020	0.258	0.2635
2	3.19	Chloride	BMB	1.585	17.019	56.2407
3	6.08	Bromide	BMB	0.002	0.012	0.3000
4	6.69	Nitrate	BMB	0.739	4.361	10.1728
5	11.27	Sulfate	BMB	1.900	20.309	82.2955
6	12.60	Ortho as P	BMB	0.085	0.394	-1.4553
		TOTAL:		4.33	42.35	147.82



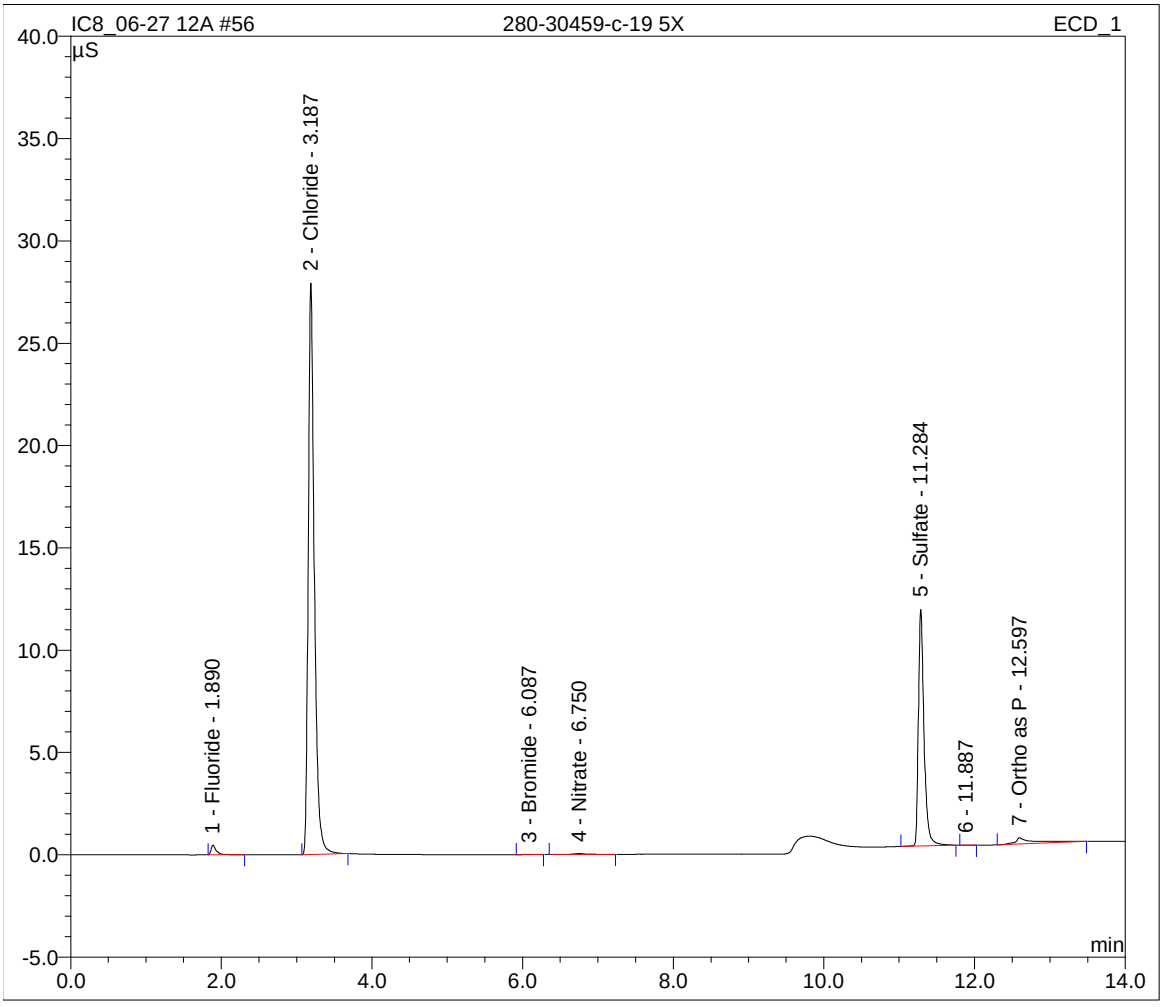
Sample Name:	**280-30459-a-18 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:40**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.039	0.473	0.6697
2	3.19	Chloride	BMB	2.527	27.008	89.6254
3	3.71	Nitrite	BMB	0.001	0.007	0.0448
4	6.09	Bromide	BMB	0.002	0.015	0.3471
5	6.75	Nitrate	BMB	0.016	0.086	0.3467
6	11.29	Sulfate	BMB	0.919	10.637	39.2869
8	12.60	Ortho as P	BMB	0.087	0.333	-1.4012
TOTAL:				3.59	38.56	128.92



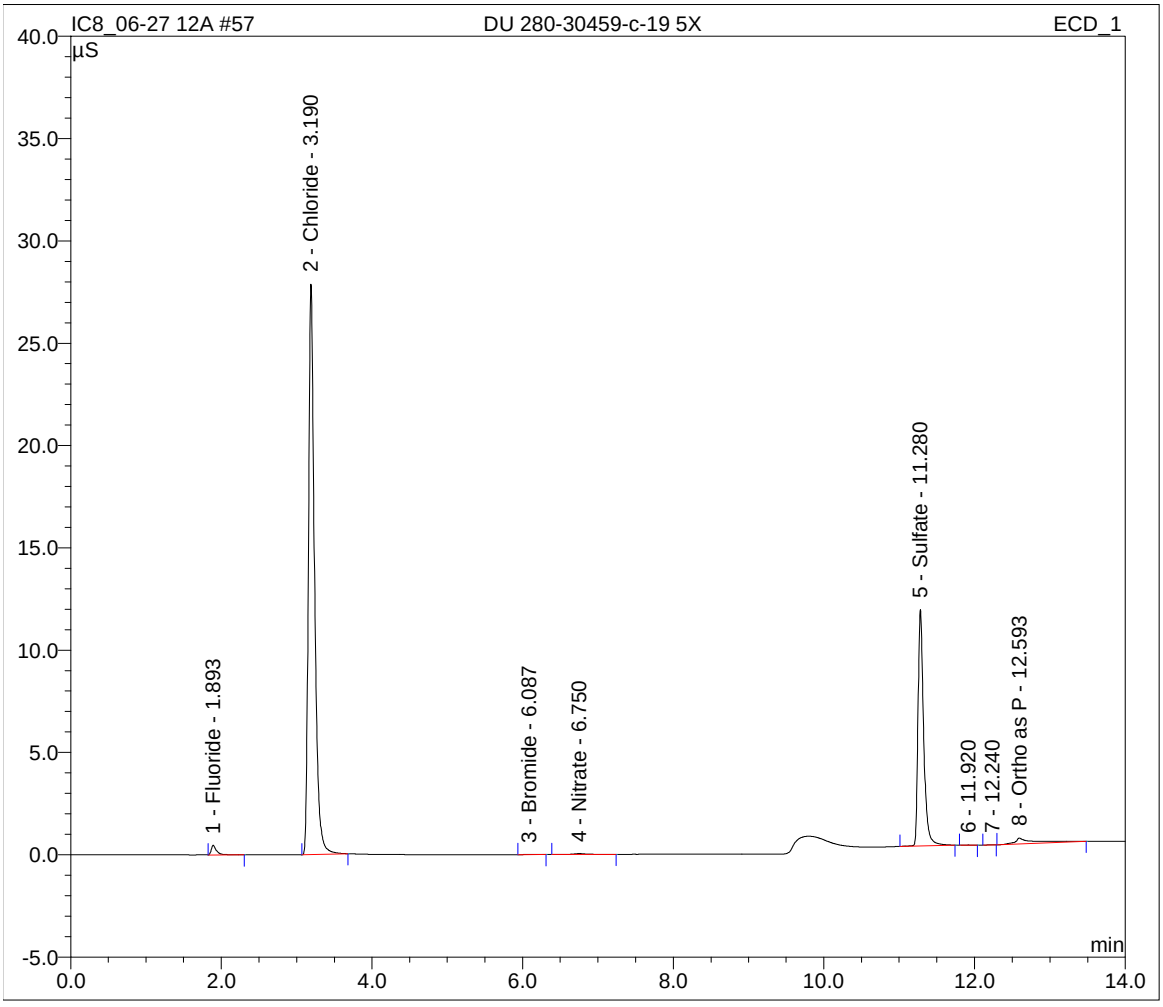
Sample Name:	**280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 03:57**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.039	0.472	0.6670
2	3.19	Chloride	BMB	2.624	27.939	93.0532
3	6.09	Bromide	BMB	0.002	0.016	0.3577
4	6.75	Nitrate	BMB	0.008	0.043	0.2417
5	11.28	Sulfate	BMB	1.005	11.557	43.0602
7	12.60	Ortho as P	BMB	0.090	0.306	-1.3397
		TOTAL:		3.77	40.33	136.04



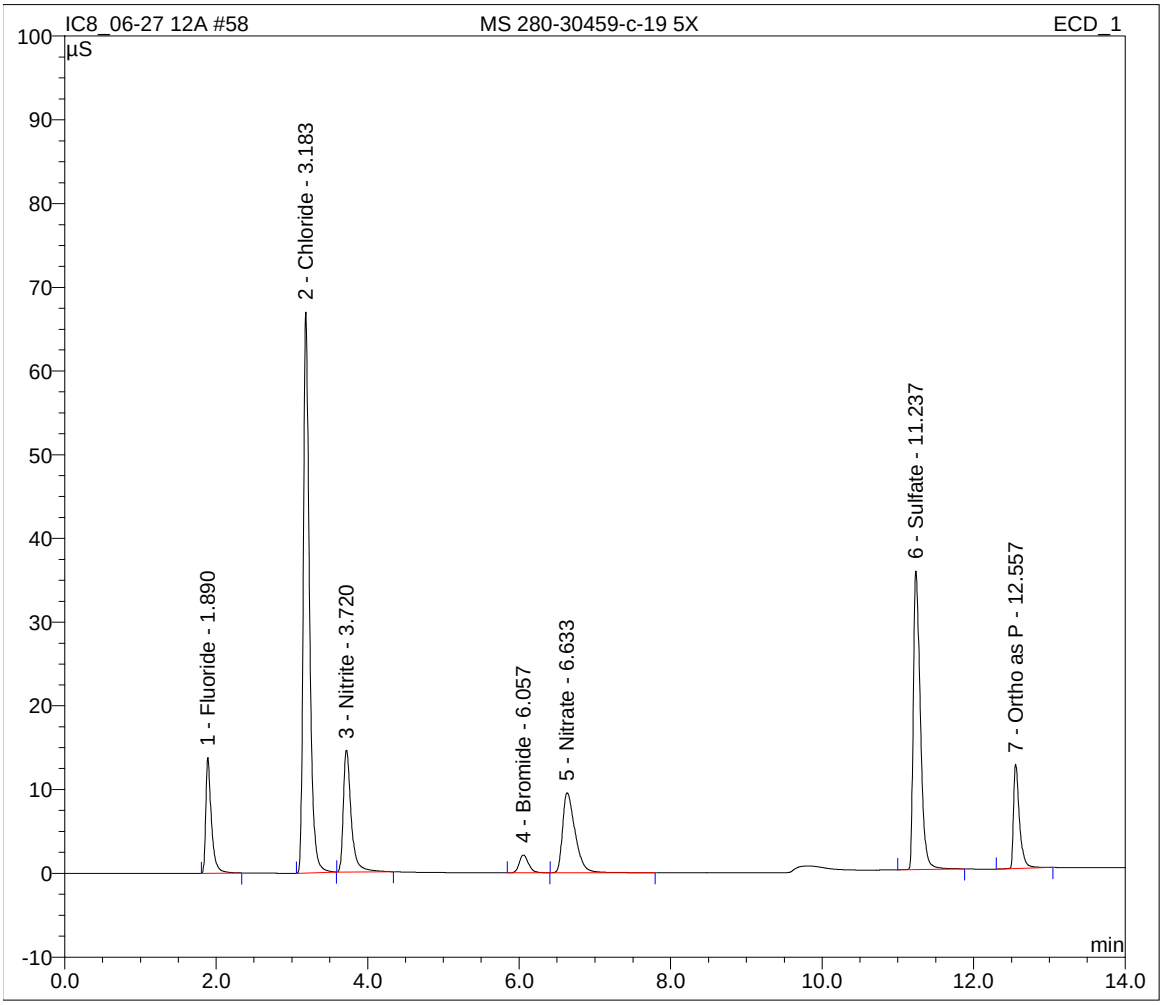
Sample Name:	**DU 280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 04:13**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.039	0.470	0.6638
2	3.19	Chloride	BMB	2.617	27.889	92.8082
3	6.09	Bromide	BMB	0.002	0.016	0.3543
4	6.75	Nitrate	BMB	0.008	0.042	0.2403
5	11.28	Sulfate	BMB	1.003	11.547	42.9618
8	12.59	Ortho as P	BMB	0.084	0.285	-1.4743
		TOTAL:		3.75	40.25	135.55



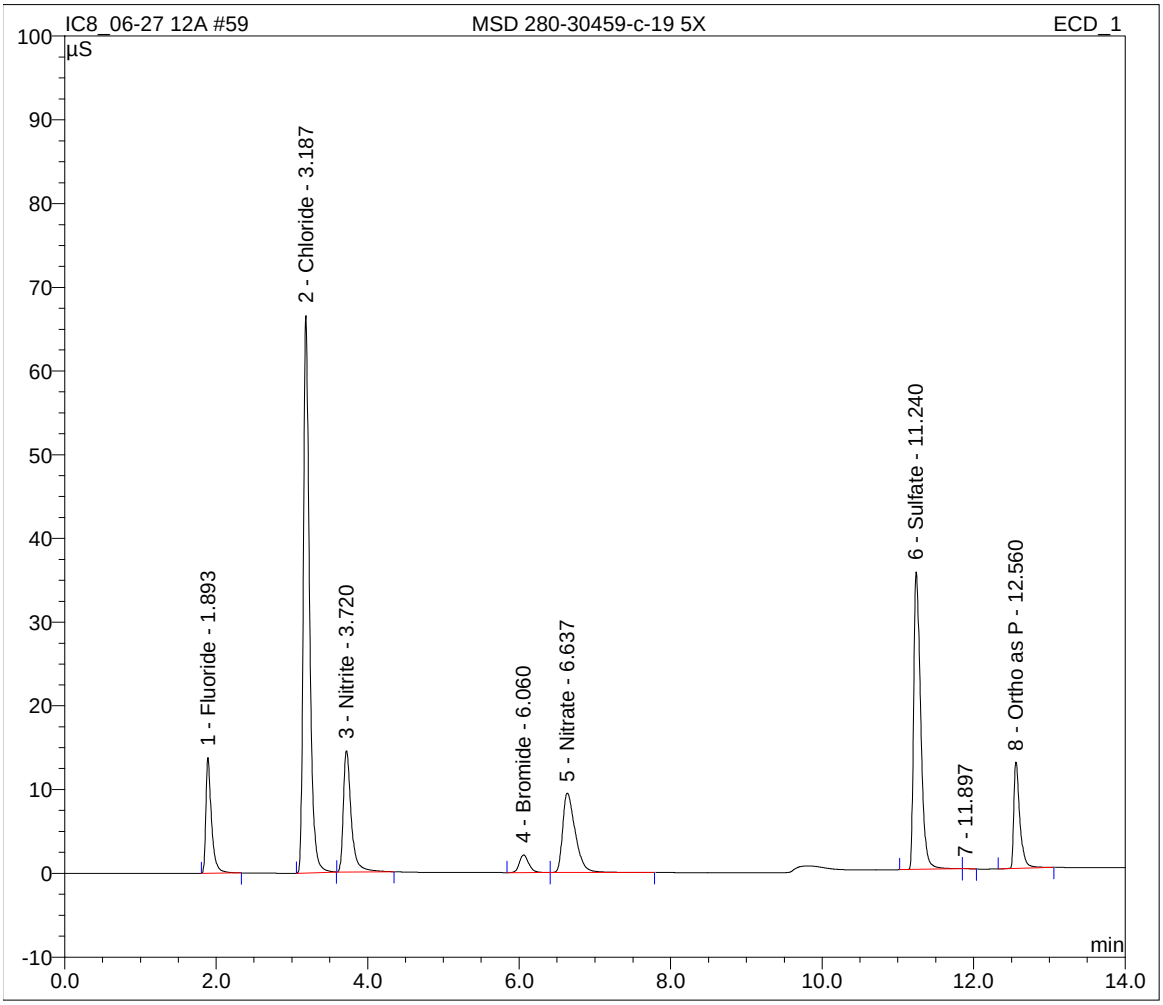
Sample Name:	**MS 280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 04:30**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.197	13.814	24.9804
2	3.18	Chloride	BMB	6.307	67.026	223.5441
3	3.72	Nitrite	BMB	1.751	14.531	24.6224
4	6.06	Bromide	BMB	0.303	2.125	25.1993
5	6.63	Nitrate	BMB	1.825	9.532	24.9517
6	11.24	Sulfate	BMB	3.856	35.686	168.0468
7	12.56	Ortho as P	BMB	1.133	12.430	25.3509
TOTAL:				16.37	155.14	516.70



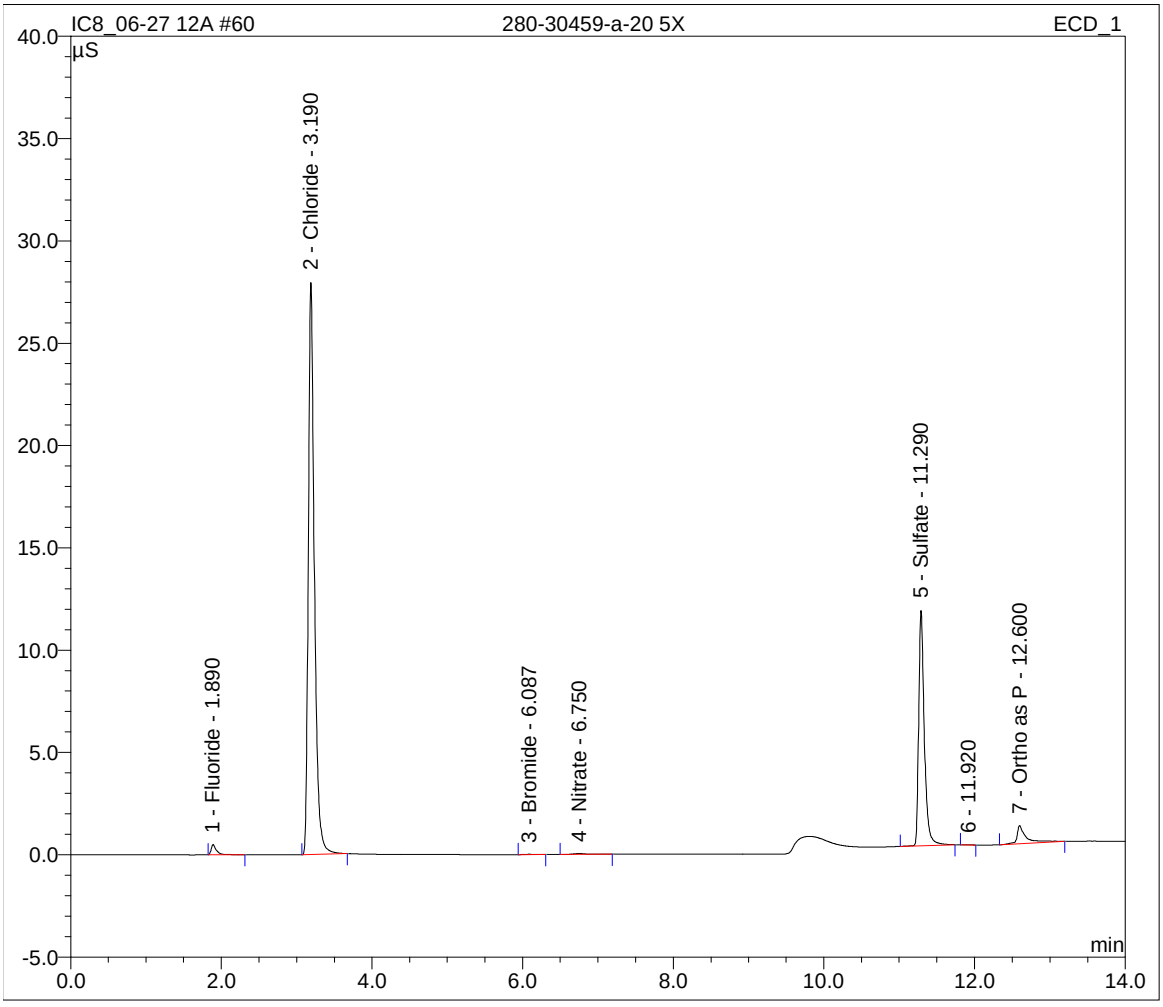
Sample Name:	**MSD 280-30459-c-19 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 04:47**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.199	13.821	25.0073
2	3.19	Chloride	BMB	6.291	66.605	222.9905
3	3.72	Nitrite	BMB	1.747	14.444	24.5578
4	6.06	Bromide	BMB	0.302	2.105	25.1515
5	6.64	Nitrate	bMB	1.821	9.469	24.8962
6	11.24	Sulfate	BMb	3.836	35.534	167.1472
8	12.56	Ortho as P	BMB	1.173	12.693	26.3891
		TOTAL:		16.37	154.67	516.14



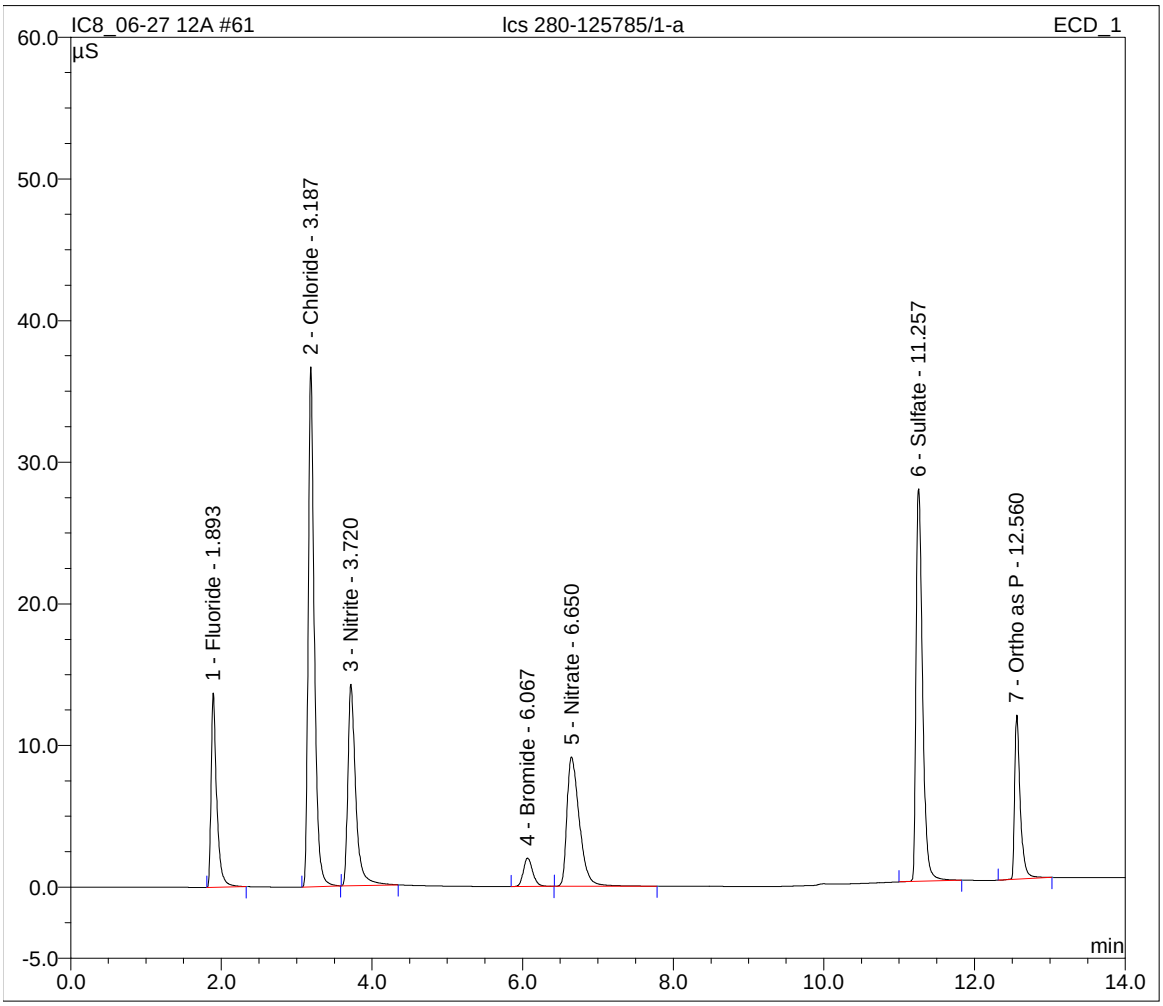
Sample Name:	**280-30459-a-20 5X**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**5.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:04**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.042	0.500	0.7218
2	3.19	Chloride	BMB	2.622	27.968	92.9802
3	6.09	Bromide	BMB	0.002	0.016	0.3586
4	6.75	Nitrate	BMB	0.008	0.043	0.2354
5	11.29	Sulfate	BMB	1.001	11.499	42.8671
7	12.60	Ortho as P	BMB	0.125	0.888	-0.4461
		TOTAL:		3.80	40.92	136.72



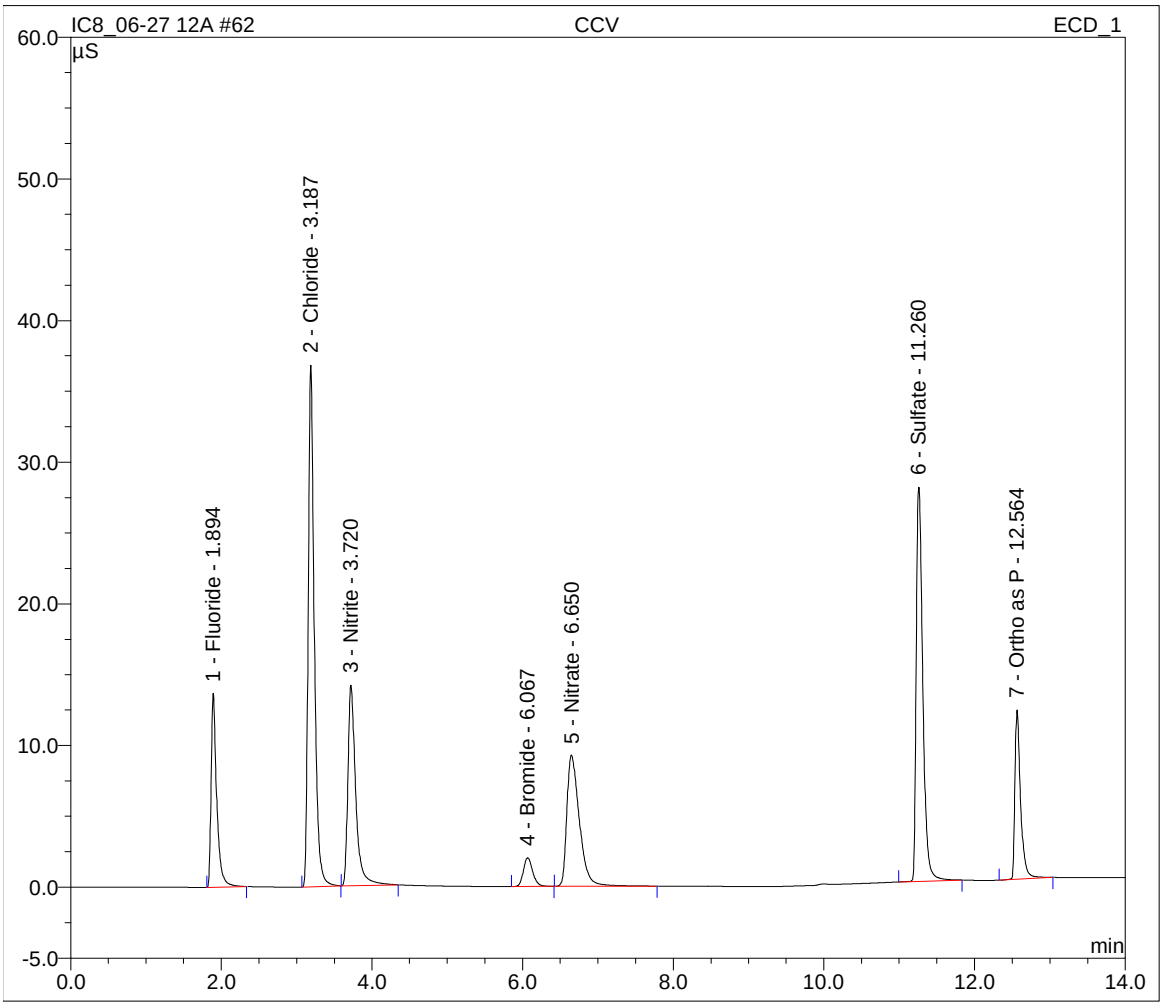
Sample Name:	**lcs 280-125785/1-a**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:21**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.182	13.717	4.9317
2	3.19	Chloride	BMB	3.444	36.701	24.4219
3	3.72	Nitrite	BMB	1.723	14.209	4.8438
4	6.07	Bromide	BMB	0.287	2.005	4.7737
5	6.65	Nitrate	BMB	1.747	9.130	4.7782
6	11.26	Sulfate	BMB	2.768	27.708	24.0648
7	12.56	Ortho as P	BMB	1.004	11.587	4.4094
TOTAL:				12.15	115.06	72.22



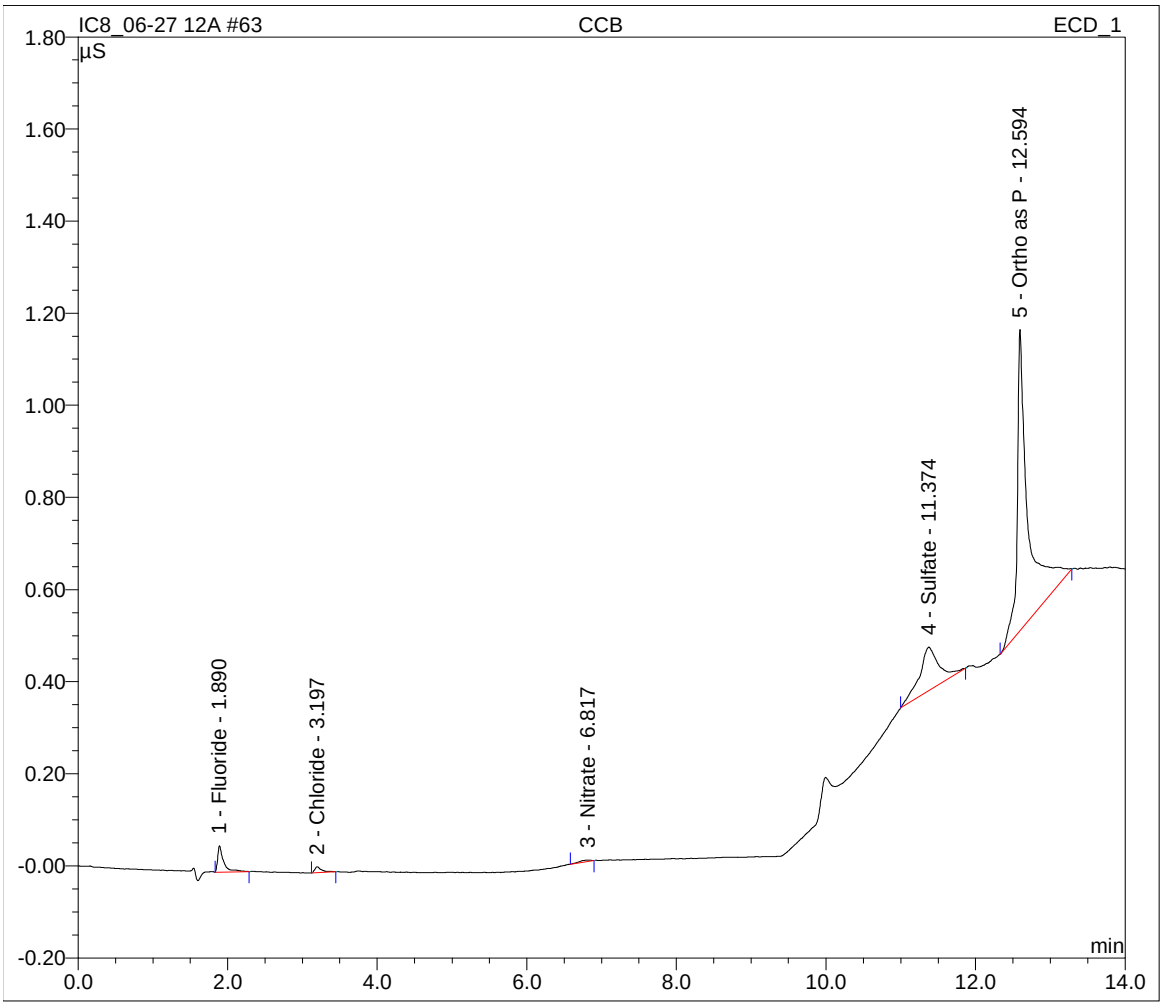
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:37**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.184	13.678	4.9392
2	3.19	Chloride	BMB	3.455	36.813	24.4995
3	3.72	Nitrite	BMB	1.714	14.140	4.8203
4	6.07	Bromide	BMB	0.289	2.023	4.8102
5	6.65	Nitrate	BMB	1.782	9.254	4.8742
6	11.26	Sulfate	BMB	2.802	27.826	24.3680
7	12.56	Ortho as P	BMB	1.052	11.942	4.6560
		TOTAL:		12.28	115.68	72.97



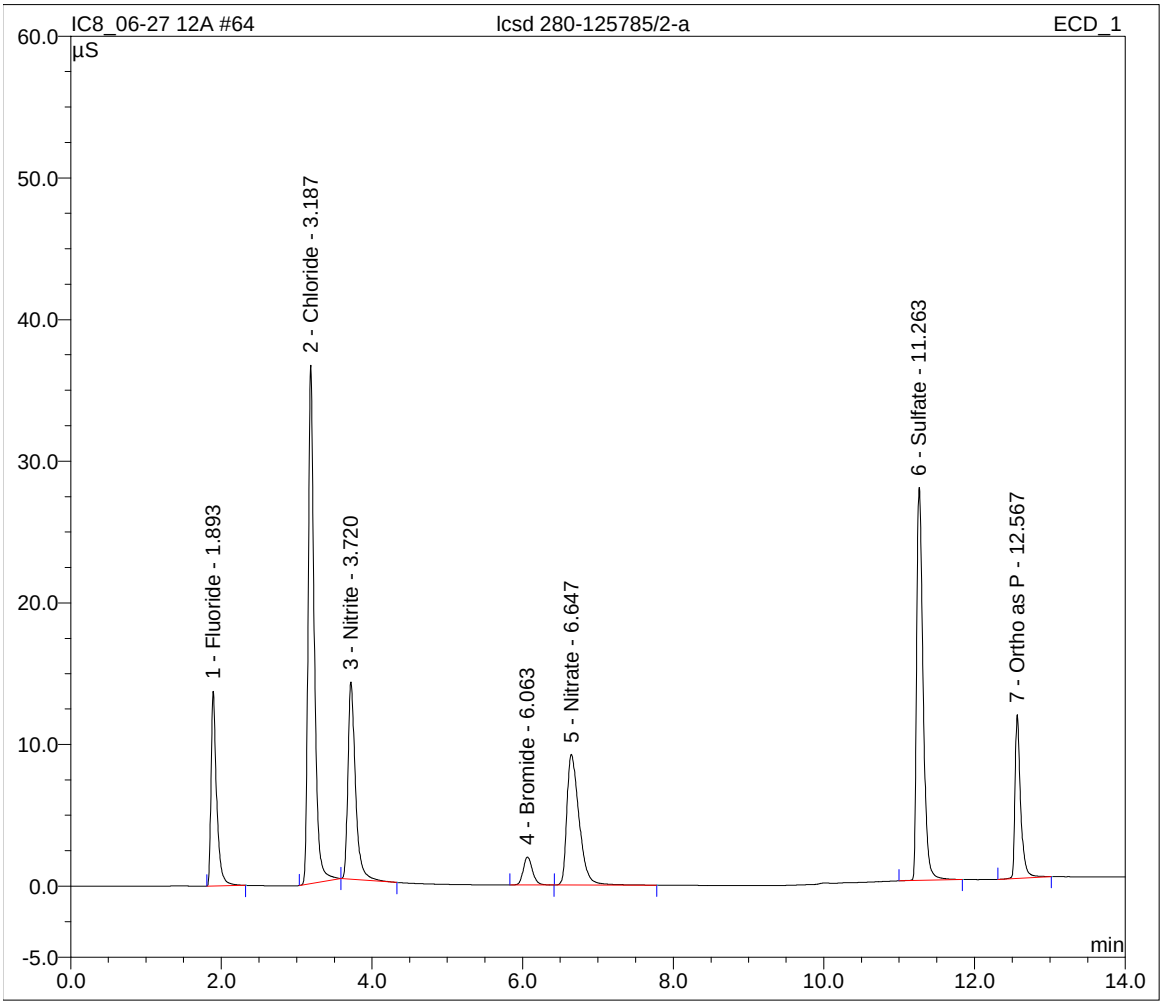
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 05:54**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.005	0.058	-0.0076
2	3.20	Chloride	BMB	0.001	0.013	0.0262
3	6.82	Nitrate	BMB	0.001	0.003	0.0269
4	11.37	Sulfate	BMB	0.028	0.095	0.0435
5	12.59	Ortho as P	BMB	0.112	0.654	-0.1534
		TOTAL:		0.15	0.82	-0.06



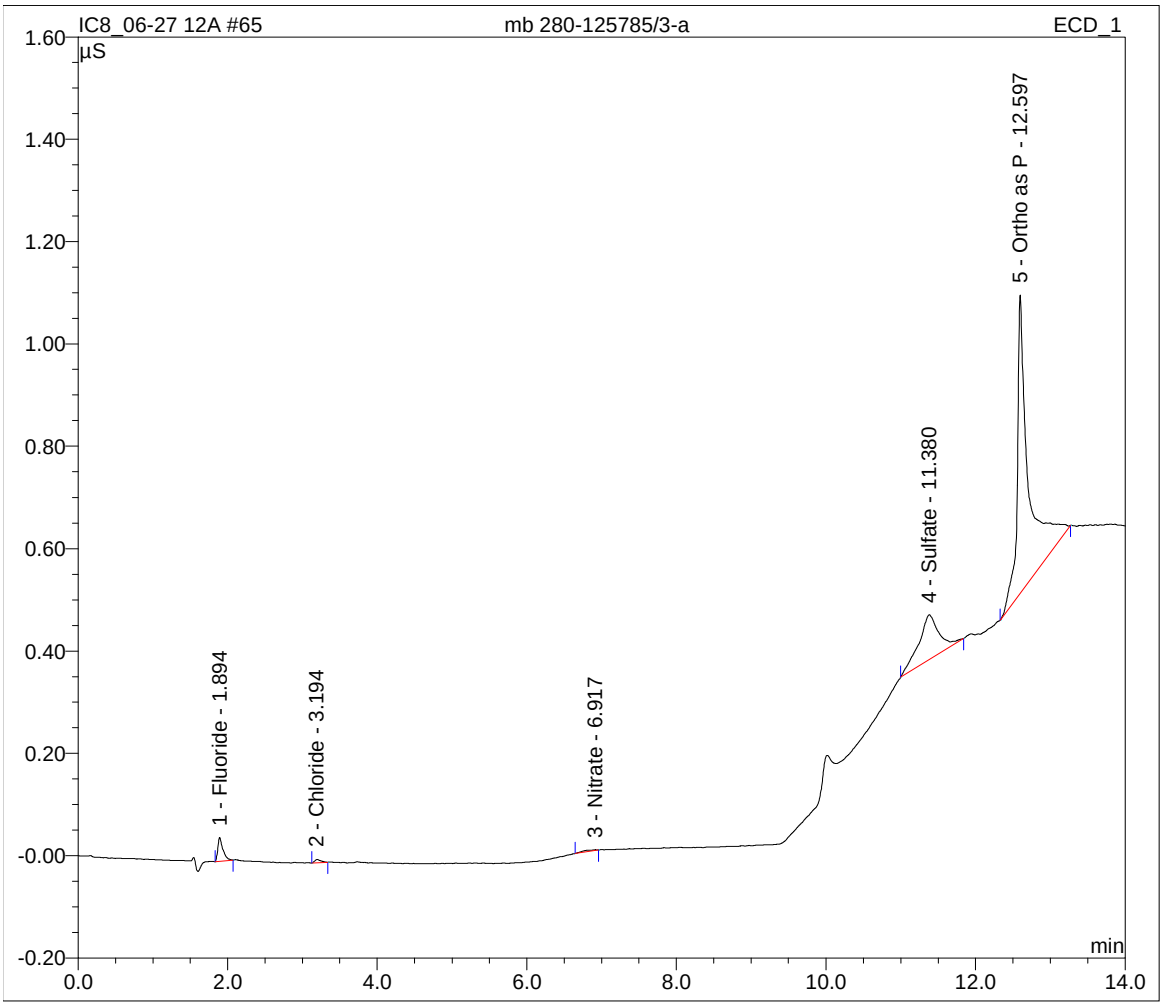
Sample Name:	**lcsd 280-125785/2-a**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 06:18**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.177	13.731	4.9115
2	3.19	Chloride	BMb	3.452	36.590	24.4795
3	3.72	Nitrite	bMB	1.623	13.910	4.5635
4	6.06	Bromide	BMB	0.280	1.981	4.6626
5	6.65	Nitrate	BMB	1.736	9.221	4.7484
6	11.26	Sulfate	BMB	2.750	27.745	23.9094
7	12.57	Ortho as P	BMB	0.995	11.555	4.3650
		TOTAL:		12.01	114.73	71.64



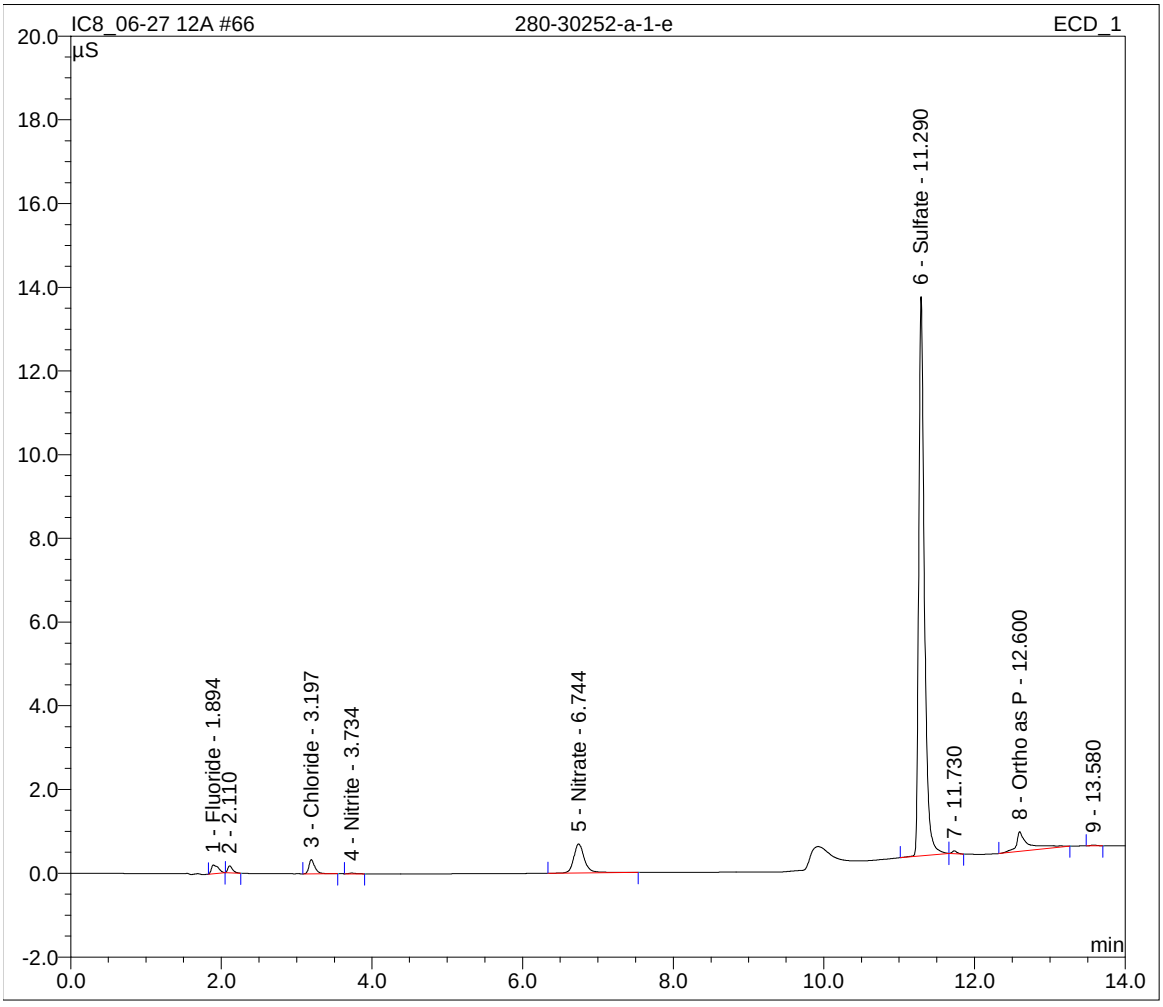
Sample Name:	**mb 280-125785/3-a**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 06:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.004	0.047	-0.0146
2	3.19	Chloride	BMB	0.001	0.006	0.0208
3	6.92	Nitrate	BMB	0.001	0.001	0.0267
4	11.38	Sulfate	BMB	0.027	0.088	0.0350
5	12.60	Ortho as P	BMB	0.102	0.583	-0.2034
		TOTAL:		0.13	0.72	-0.14



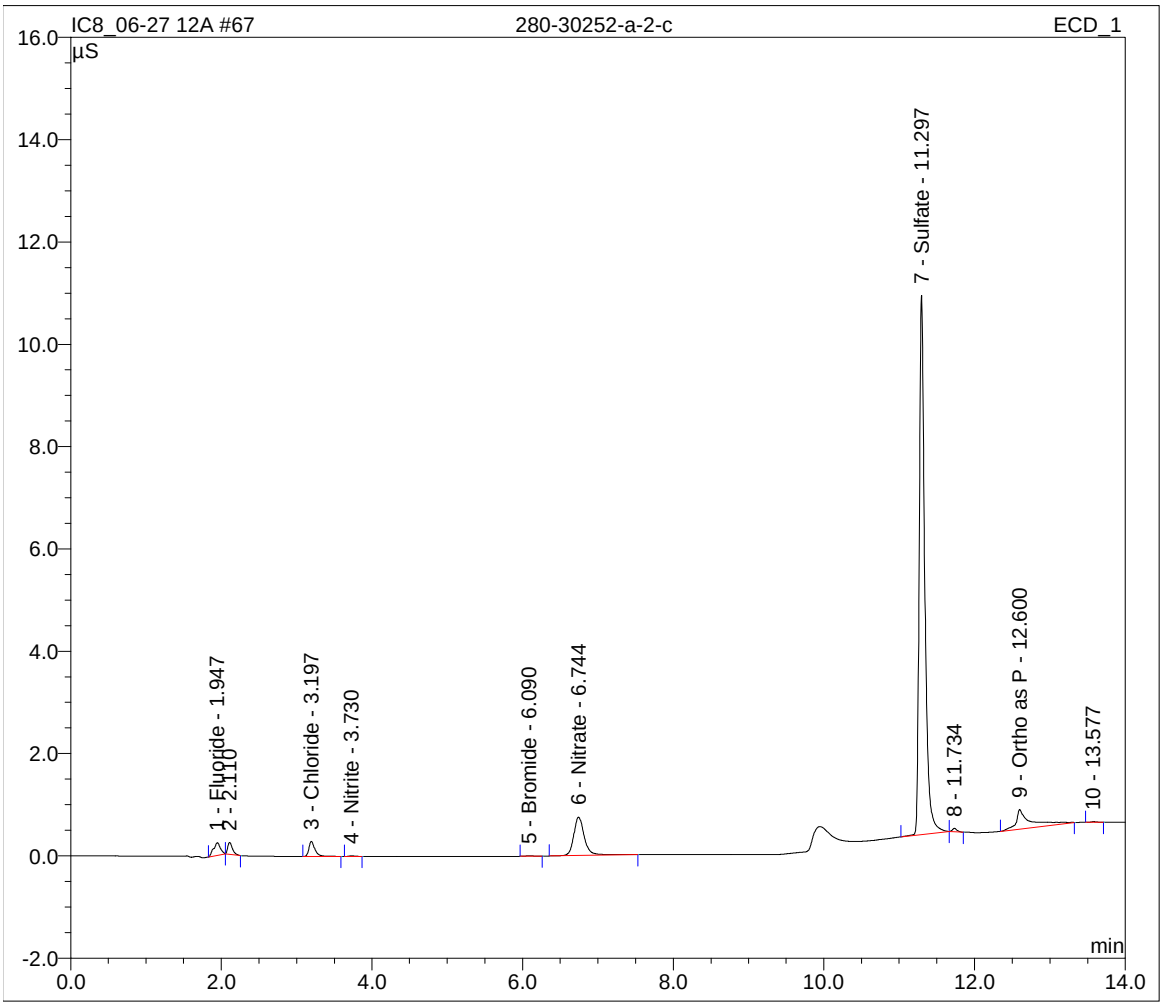
Sample Name:	**280-30252-a-1-e**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 06:51**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.023	0.213	0.0646
3	3.20	Chloride	BMB	0.031	0.338	0.2380
4	3.73	Nitrite	BMB	0.002	0.017	0.0119
5	6.74	Nitrate	BMB	0.116	0.695	0.3411
6	11.29	Sulfate	BMb	1.170	13.364	10.0562
8	12.60	Ortho as P	BMB	0.090	0.470	-0.2681
		TOTAL:		1.43	15.10	10.44



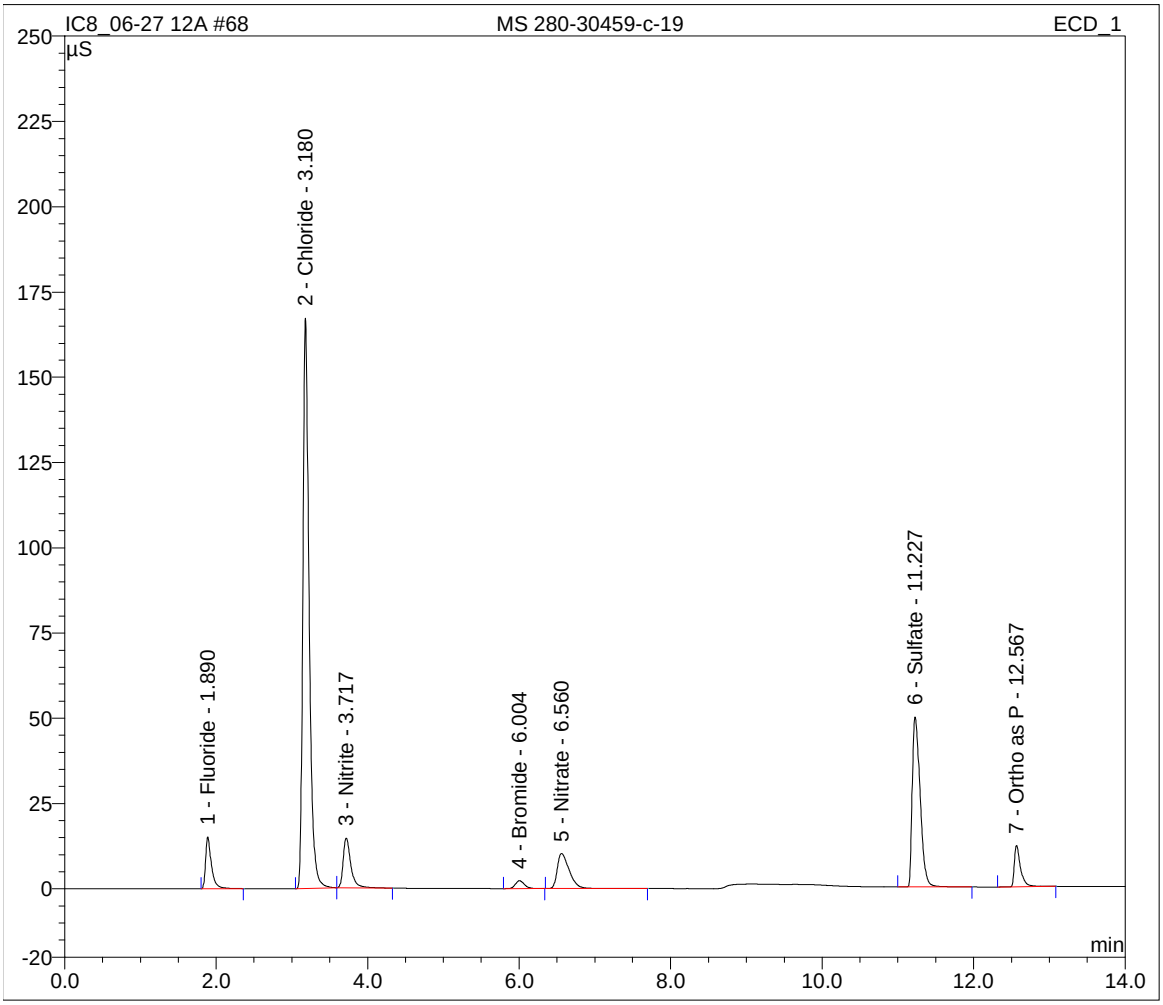
Sample Name:	**280-30252-a-2-c**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:08**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.95	Fluoride	BMb	0.026	0.247	0.0778
3	3.20	Chloride	BMB	0.027	0.294	0.2104
4	3.73	Nitrite	BMB	0.001	0.010	0.0100
5	6.09	Bromide	BMB	0.001	0.007	0.0488
6	6.74	Nitrate	BMB	0.123	0.751	0.3612
7	11.30	Sulfate	BMb	0.911	10.540	7.7859
9	12.60	Ortho as P	BMB	0.086	0.383	-0.2875
		TOTAL:		1.18	12.23	8.21



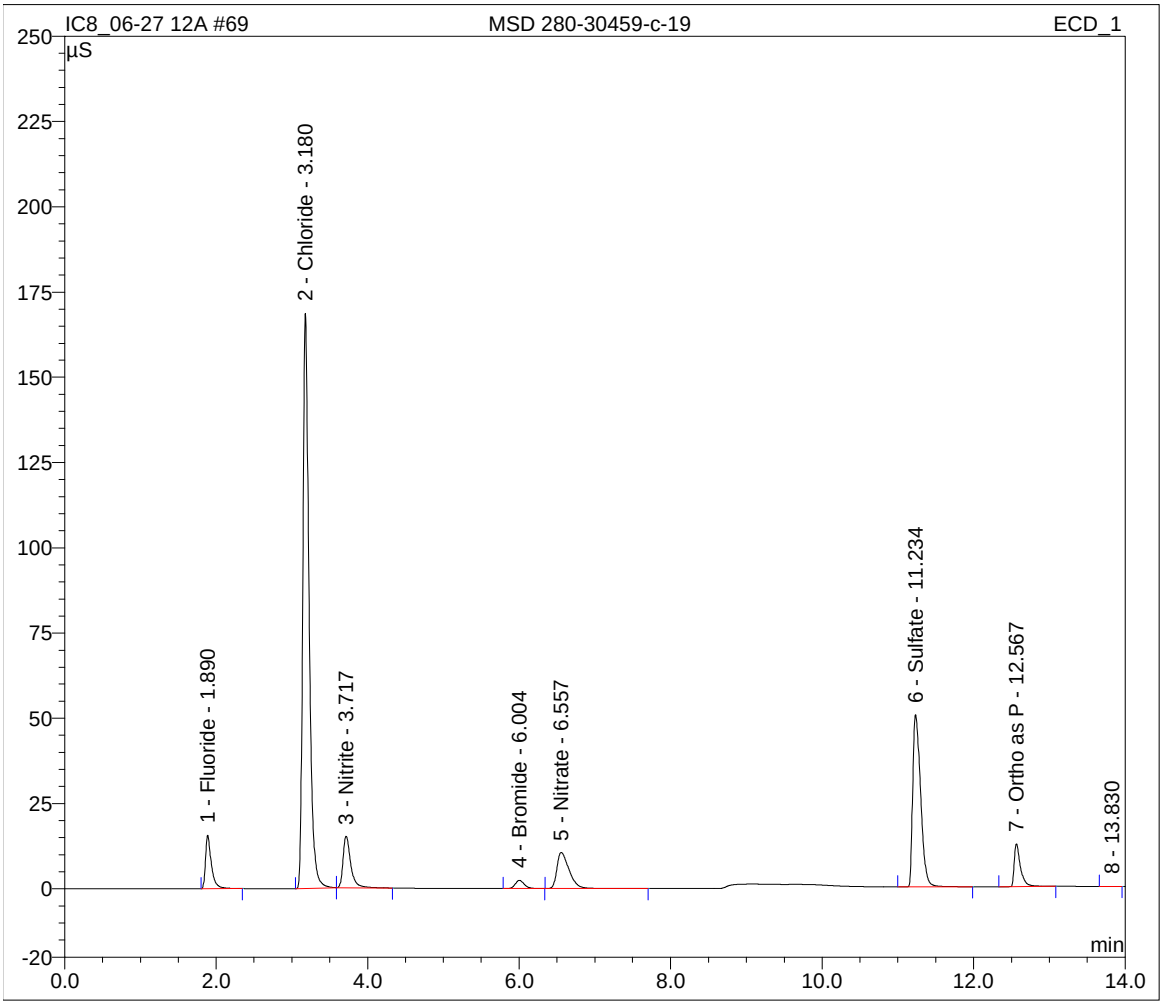
Sample Name:	**MS 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:25**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.381	15.231	5.7675
2	3.18	Chloride	BMB	15.896	167.249	112.6635
3	3.72	Nitrite	bMB	1.708	14.530	4.8030
4	6.00	Bromide	BMB	0.319	2.321	5.3114
5	6.56	Nitrate	BMB	1.884	10.265	5.1496
6	11.23	Sulfate	BMB	6.020	49.780	52.5787
7	12.57	Ortho as P	BMB	1.145	12.108	5.1298
		TOTAL:		28.35	271.48	191.40



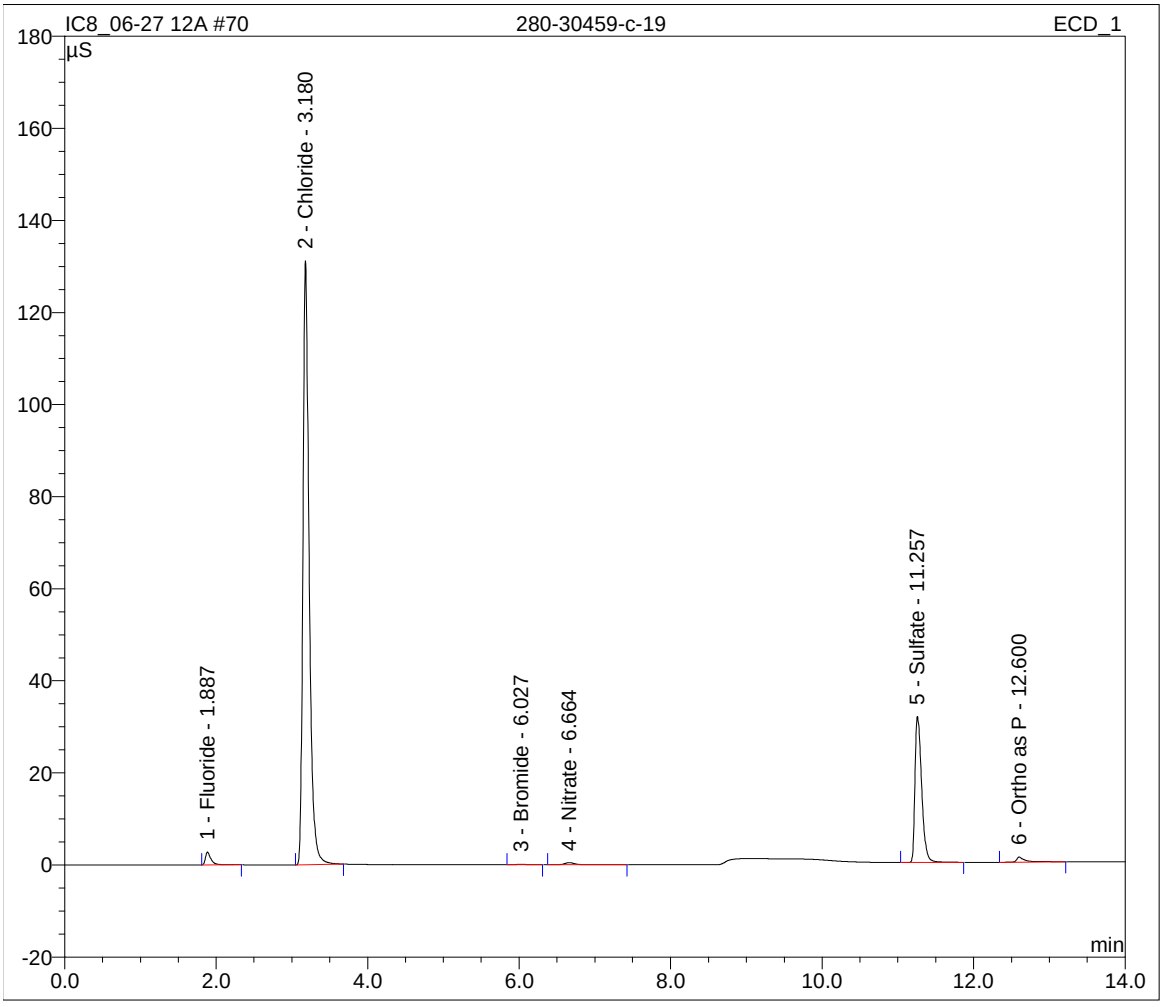
Sample Name:	**MSD 280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:42**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.429	15.721	5.9698
2	3.18	Chloride	BMb	16.054	168.703	113.7881
3	3.72	Nitrite	bMB	1.777	15.041	4.9973
4	6.00	Bromide	BMB	0.332	2.409	5.5252
5	6.56	Nitrate	BMB	1.960	10.568	5.3584
6	11.23	Sulfate	BMB	6.128	50.431	53.5292
7	12.57	Ortho as P	BMB	1.205	12.501	5.4393
TOTAL:				28.89	275.37	194.61



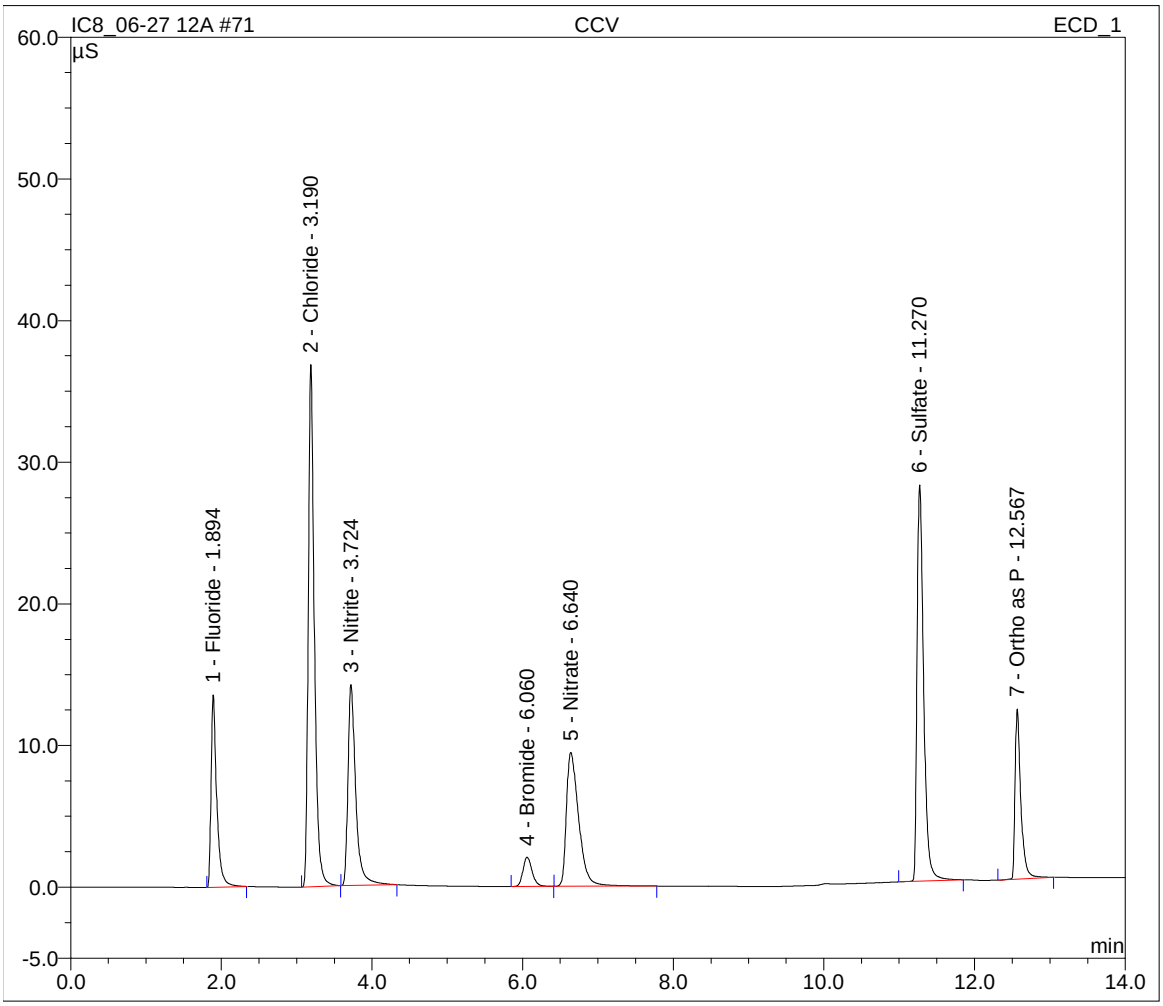
Sample Name:	**280-30459-c-19**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 07:59**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.241	2.801	0.9821
2	3.18	Chloride	BMB	12.447	131.186	88.2264
3	6.03	Bromide	BMB	0.016	0.120	0.3066
4	6.66	Nitrate	BMB	0.074	0.463	0.2253
5	11.26	Sulfate	BMB	3.246	31.686	28.2567
6	12.60	Ortho as P	BMB	0.159	1.147	0.0870
		TOTAL:		16.18	167.40	118.08



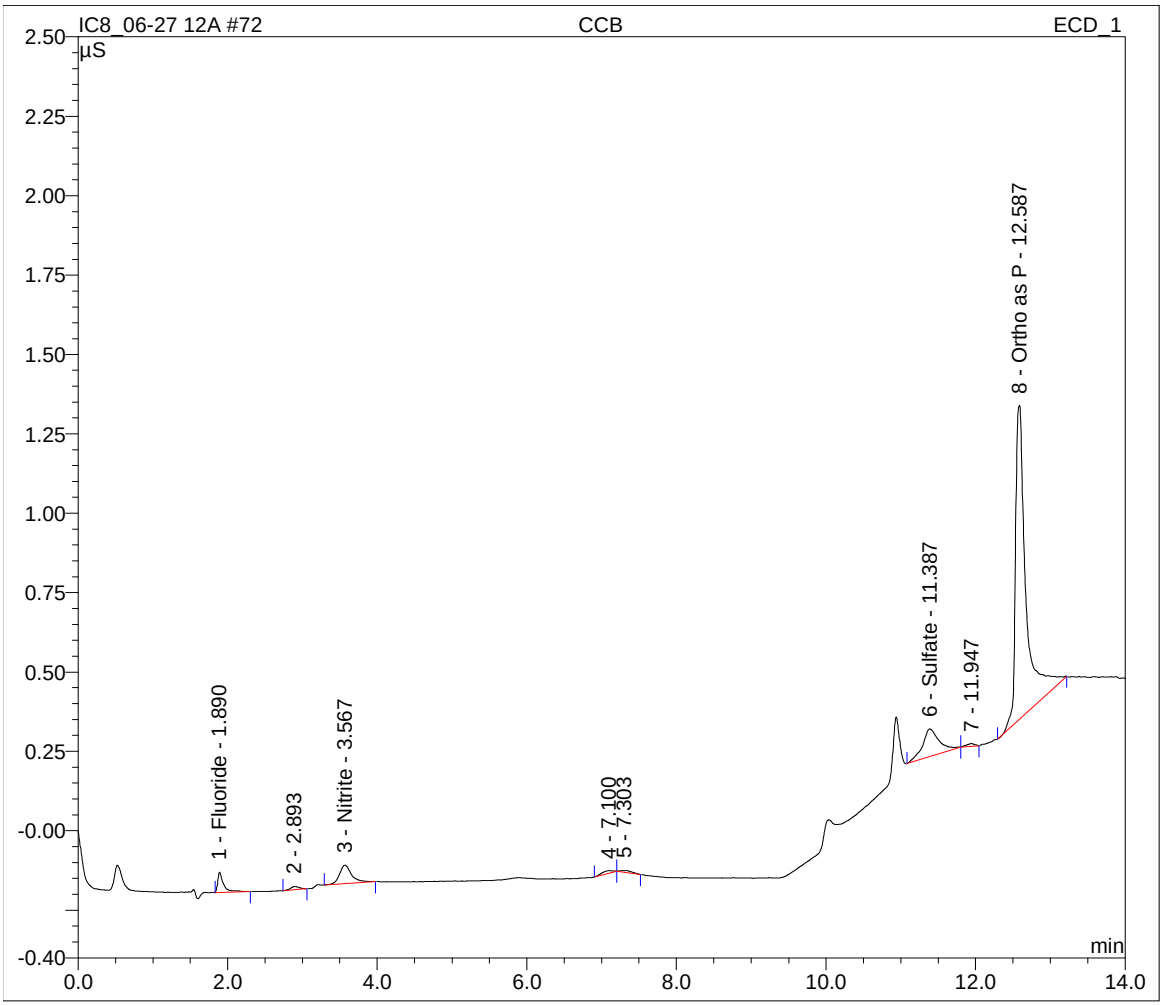
Sample Name:	**CCV**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 08:15**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	1.189	13.576	4.9607
2	3.19	Chloride	BMB	3.457	36.858	24.5168
3	3.72	Nitrite	BMB	1.708	14.176	4.8016
4	6.06	Bromide	BMB	0.290	2.066	4.8232
5	6.64	Nitrate	BMB	1.789	9.450	4.8916
6	11.27	Sulfate	BMB	2.835	27.973	24.6497
7	12.57	Ortho as P	BMB	1.076	12.010	4.7795
TOTAL:				12.34	116.11	73.42



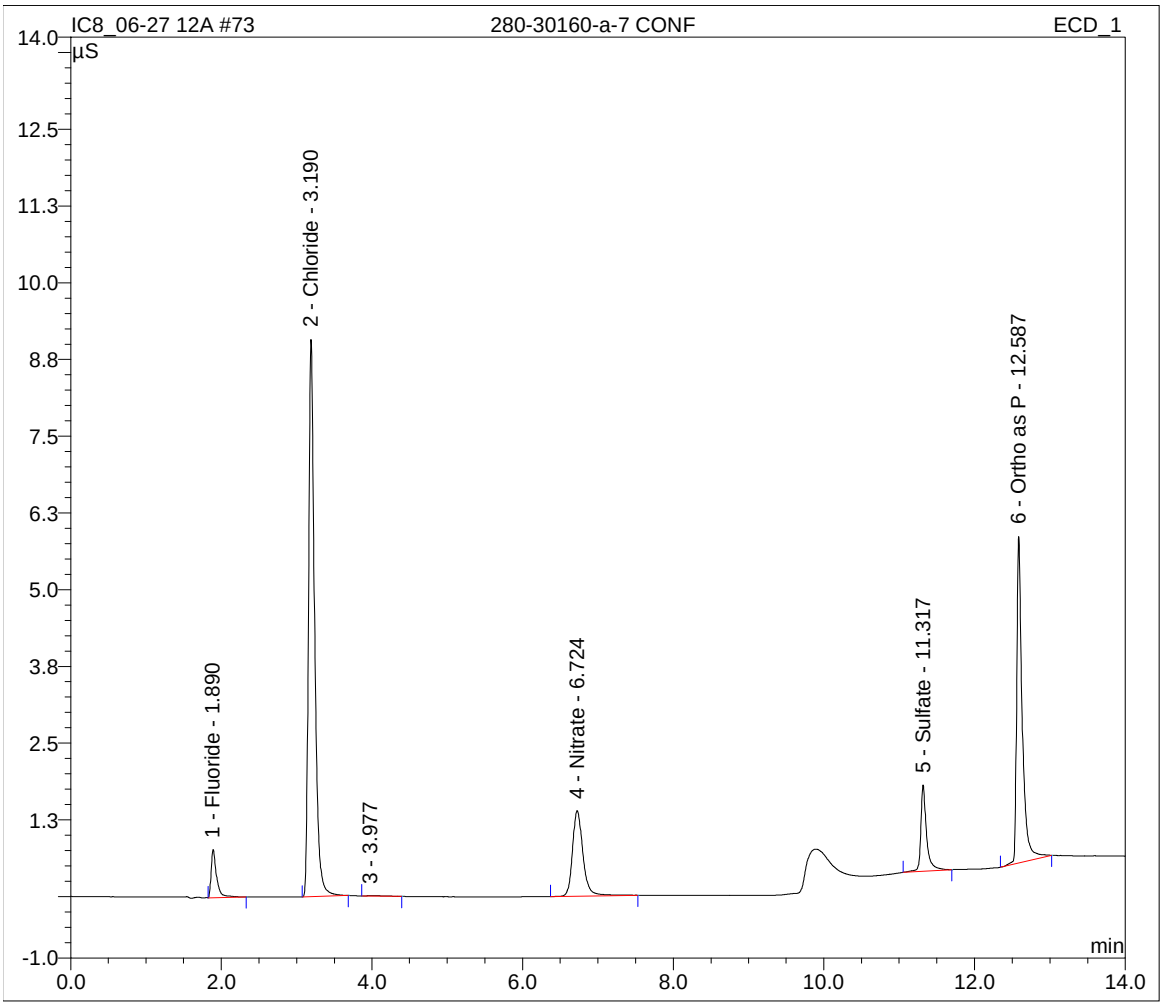
Sample Name:	**CCB**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 08:35**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.006	0.064	-0.0057
3	3.57	Nitrite	BMB	0.011	0.058	0.0378
6	11.39	Sulfate	BMB	0.022	0.087	-0.0116
8	12.59	Ortho as P	BMB	0.161	0.988	0.0992
		TOTAL:		0.20	1.20	0.12



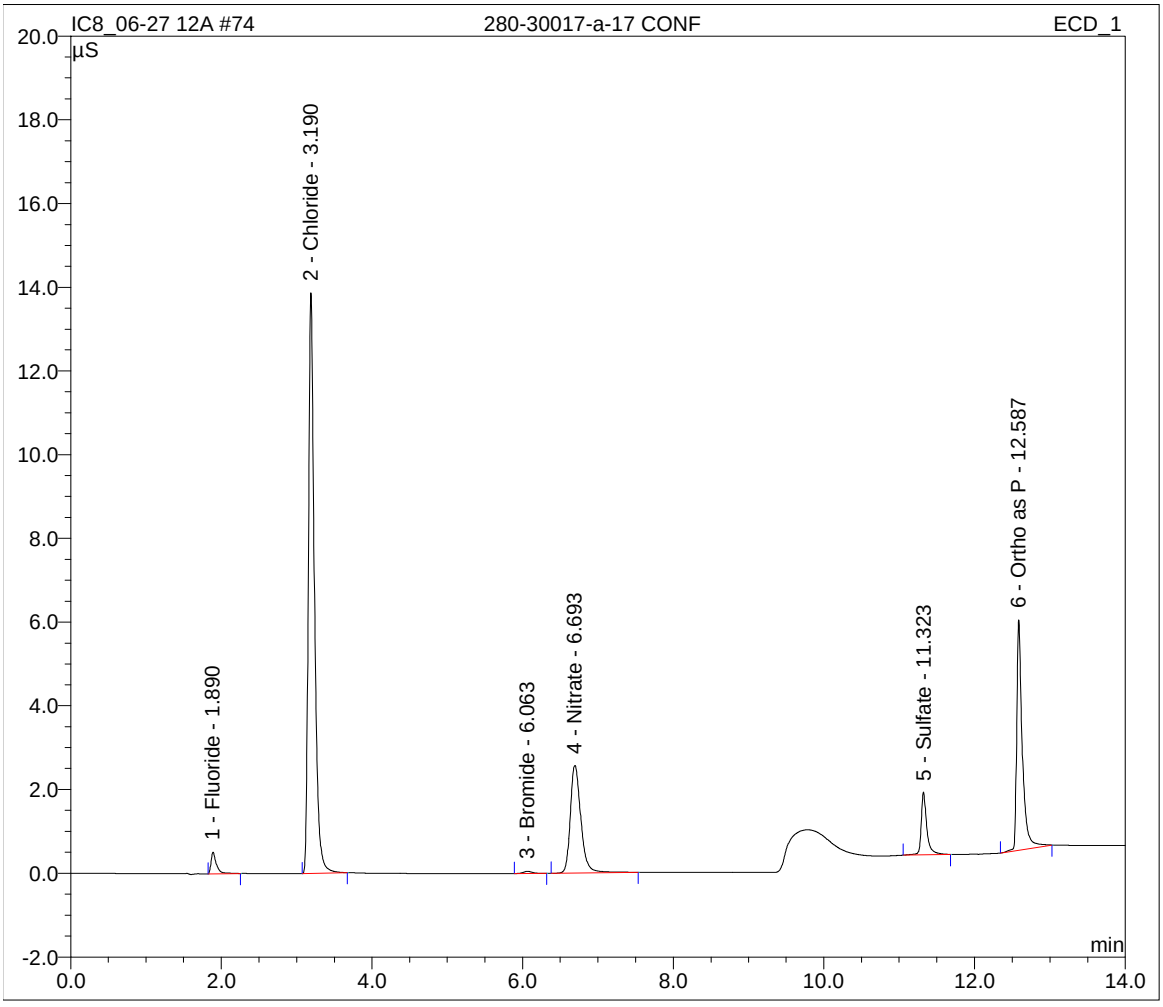
Sample Name:	**280-30160-a-7 CONF**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 08:52**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.066	0.784	0.2462
2	3.19	Chloride	BMB	0.848	9.079	6.0266
4	6.72	Nitrate	BMB	0.224	1.391	0.6357
5	11.32	Sulfate	BMB	0.125	1.404	0.8959
6	12.59	Ortho as P	BMB	0.459	5.319	1.6221
		TOTAL:		1.72	17.98	9.43



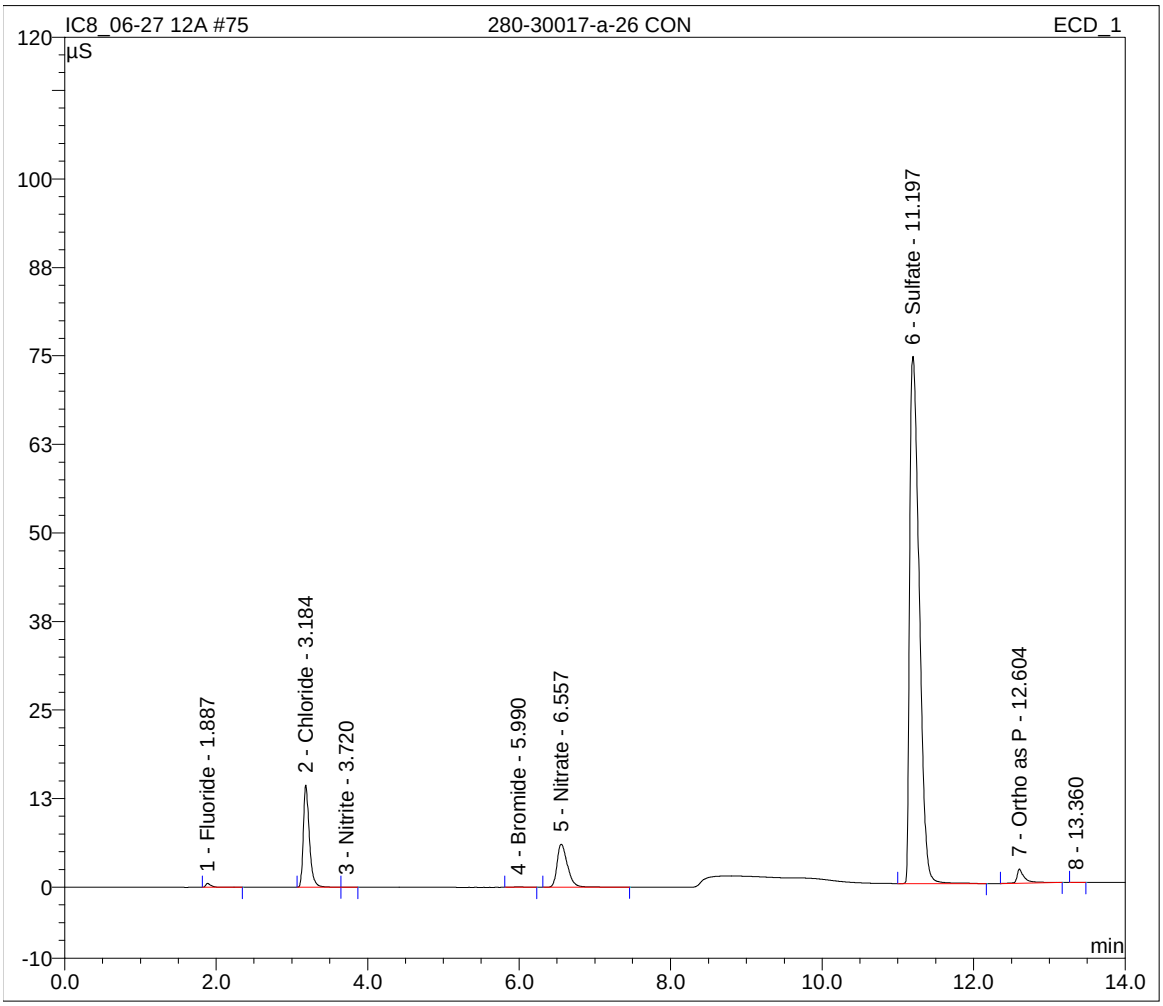
Sample Name:	**280-30017-a-17 CONF**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 09:09**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.043	0.518	0.1511
2	3.19	Chloride	BMB	1.290	13.881	9.1558
3	6.06	Bromide	BMB	0.007	0.050	0.1489
4	6.69	Nitrate	BMB	0.415	2.570	1.1554
5	11.32	Sulfate	BMB	0.130	1.497	0.9350
6	12.59	Ortho as P	BMB	0.478	5.506	1.7189
		TOTAL:		2.36	24.02	13.27



Sample Name:	**280-30017-a-26 CON**	*Inj. Vol.:*	**10.0**
Sample Type:	**unknown**	*Dilution Factor:*	**1.0000**
Program:	**7 Anion**	*Operator:*	**n.a.**
Inj. Date/Time:	**28.06.12 09:26**	*Run Time:*	**14.00**

No.	Time min	Peak Name	Type	Area µS*min	Height µS	Amount mg/L
1	1.89	Fluoride	BMB	0.049	0.555	0.1756
2	3.18	Chloride	BMb	1.333	14.426	9.4632
3	3.72	Nitrite	bMB	0.002	0.018	0.0118
4	5.99	Bromide	BMB	0.011	0.083	0.2129
5	6.56	Nitrate	BMB	0.968	6.061	2.6586
6	11.20	Sulfate	BMB	10.880	74.398	95.1944
7	12.60	Ortho as P	BMB	0.232	1.998	0.4630
		TOTAL:		13.47	97.54	108.18



Wet Chemistry Data Review Checklist
For Tests with Calibration Curves

Test Name/ Method #: DOC/TOC **SOP #** NV-WC-0006

Instrument: SHI 2 **Analyst:** D.B. **Analysis Date:** 07-18-12

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
30753	Aq.	128355	128578	5310B	Filter + Preserve
30697	↓	—	128577	9060A	QU
30455	↓	↓	↓	↓	QU
30461	↓	↓	↓	↓	QU
31139	↓	↓	↓	↓	—
30818	↓	↓	↓	5310B	—
30955	↓	↓	↓	↓	—

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
1. Minimum of five standards in ICAL or as specified in method?	✓			—
2. Correlation coefficient ≥ 0.995 ?	✓			—
3. Second-source ICV analyzed, and recovery within acceptance limits?	✓			—
4. ICB analyzed immediately after the ICV & results < the RL	✓			—
5. CCV analyzed after every ten samples & recovery within acceptance limits?	✓			—
6. CCB analyzed after every CCV & results < RL?	✓			—
7. Absolute value of the intercept is < ± ½ the RL?	✓			—
B. Sample Results				
1. All samples greater than highest calibration standard diluted and reanalyzed?	✓			—
2. Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			—
3. All reported results bracketed by in control CCV results?	✓			—
4. Sample analyses done within holding time?	✓			—
5. Initial pH check documented for all samples? (If Applicable)	✓			—
6. Preparation benchsheet completed and included in package?	✓			—
7. Client requirements reviewed and met?	✓			—
8. Were data manually transcribed from instrument printouts into TALS verified 100% including significant figures and correct units? (If Applicable)			✓	—
9. Do the prep and analysis dates in TALS reflect the actual dates?	✓			—
11. Raw data copies prepared, scanned, and uploaded?	✓			—
12. Manual integrations done properly and initialed and dated?			✓	—
13. STD/True Value information is updated and included?	✓			—
C. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10x blank have NCM?	✓			—
2. Method blank < ½ RL or NCM provided?	✓			—
3. LCS/LCSD run for batch and within QC limits?	✓			—
4. MS/MSD run at required frequency and within limits or NCM written?	✓			—
5. DUP run at required frequency and RPD within acceptance limits or NCM written?			✓	—

Analyst: D.B. **Date:** 07-19-12

2nd Level Reviewer : [signature] **Date:** 7/20/12

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Denver Wet Chemistry Data Review Checklist
For Titration Methods

ANALYTE: Alk ANALYST: AA ANALYSIS DATE: 7/5 SOP: WC-0025

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
30648, 30424	W	N/A	126771	2320B	
30503, 30635					
30602, 30522					
30623, 30697					
30499, 30497					
30459, 30457					
30461, 30529					
30619					

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
1. Was the normality of the titrant verified and found acceptable?			✓	—
B. Sample Results				
1. Are all sample dilutions appropriate and do associated RLs/MDLs reflect required dilutions or limited sample volume?	✓			—
2. All reported results bracketed by in control CCV/CCB?	✓			—
3. Sample analyses done within holding time?	✓			—
4. Initial pH check documented for all samples (if required)?	✓			—
5. Preparation benchsheet completed and included in package (if applicable)?			✓	—
6. Special client requirements checked?	✓			—
7. Was data manually transcribed from instrument printouts into TALS verified 100% including significant figures? (If Applicable)	✓			—
8. Do the prep and analysis dates in TALS reflect the actual dates?	✓			—
9. STD/True Value information is updated and included?	✓			—
10. Raw data copies prepared, scanned, and uploaded?	✓			—
C. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10x blank have NCM?	✓			—
2. Method blank < ½ RL or NCM provided?	✓			—
3. LCS/LCSD run for batch and within QC limits?	✓			—
4. MS/MSD run at required frequency and within limits or NCM written?			✓	—
5. DUP run at required frequency and RPD within 20% or NCM written?	✓			—

Analyst: _____ **Date:** 7/6/12

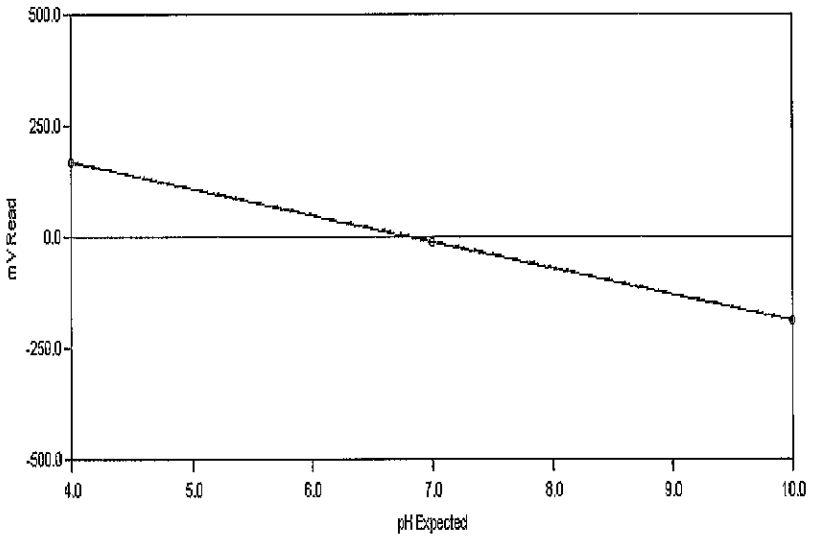
Comments: _____

2nd Level Reviewer : _____ **Date:** 7/6/12

Comments: _____

PC-TitratION PLUS
Calibration Report

Calibration Record # 134



Calibration Settings

Calibration ID	PH	Date	07/05/2012
Channel	1	Time	8:22 AM
Probe Type	pH	Temperature	294.59 K 21.44 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit

Calibration Results

Slope	-59.162	CorrCoeff	1.0000
Intercept	-10.337	Equation: Y = (-59.162) X + (-10.337)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-59.162	-65.00	-53.00
Intercept	-10.337	-100.00	100.00
Correlation Coefficient	1.0000	0.99	1.00

Note: "True" means the calibration was within the specified ranges
"False" means the calibration was NOT within the specified ranges

Calibration Data	Standard	Reading
	4.00	167.96
	7.00	-11.96
	10.00	-187.01

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Analyst:	AA	SOP Information	ERA Minerals Water Informati		STL MINERALS STD		
Date:	7/6/2012	Number: DV-WC-002	Vendor: N/A		MADE	STD#00256	
Batch #:			pH True Value:		Alkalinity (mg/L):	200	
METHOD 2320B		Revision: 6.0	Conductivity True Value (umho):				
CONDUCTIVITY CAL STD		Titrant Information	PH Calibration Information				
Vendor	LAB CHEM	Titrant (N H_2SO_4): 0.020 N/A	Buffer	Vendor	Lot #:	EXP DATE	
STD#		Vendor: RICCA	pH 4 Buffer	Ricca	00072	May-13	
True Value:		STD# 00073	pH 7 Buffer	Ricca	00082	August-13	
Expiration Date:		Expires: 9/30/2013	pH 10 Buffer	Ricca	00060	Nov-12	
CONDUCTIVITY SECOND STD		LOT. 4111431					
Vendor	Fisher		ICV 7 BUFFER	FISHER	00044	EX: 1/2014	
STD#							
True Value:							
Expiration Date:							

CONDUCTIVITY CALIB:1000

$$\text{TOTAL ALK= mg/l= CACO3=} \quad \frac{2C \times N \times 5000}{10 \text{ ml}}$$

C - TOTAL VOLUME OF ADDED TITRANT
N - NORMALITY OF ACID
10ml= VOLUME OF SAMPLE

Test America

Water Analysis Report

Run Number 478 **Order Number** 20120705-3

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
Rinse	07/05/2012	11:09 AM	22.52	-1.00	5.76	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00	-1.00
Buffer 7	07/05/2012	11:16 AM	22.28	-1.00	7.01	.00	2,332.07	2,332.07	.00	.00	.00	23.32	-1.00	.02
Initial Check	07/05/2012	11:22 AM	22.25	-1.00	10.58	103.72	208.96	1.52	207.44	.00	1.04	2.09	-1.00	.02
LCS	07/05/2012	11:27 AM	22.25	-1.00	10.60	108.15	209.78	.00	203.28	6.51	1.08	2.10	-1.00	.02
LCSD	07/05/2012	11:33 AM	22.28	-1.00	10.60	104.40	207.56	.00	206.31	1.25	1.04	2.08	-1.00	.02
MB	07/05/2012	11:37 AM	22.40	-1.00	6.42	.00	.98	.98	.00	.00	.00	.03	.04	.02
280-30648-A-1	07/05/2012	11:41 AM	21.73	-1.00	7.22	.00	236.60	236.60	.00	.00	.00	2.37	-1.00	.02
280-30648-A-1 du	07/05/2012	11:46 AM	21.53	-1.00	7.19	.00	236.11	236.11	.00	.00	.00	2.36	-1.00	.02
280-30503-D-1	07/05/2012	11:50 AM	21.48	-1.00	7.51	.00	284.45	284.45	.00	.00	.00	2.84	-1.00	.02
280-30602-K-1	07/05/2012	11:55 AM	21.67	-1.00	7.59	.00	130.09	130.09	.00	.00	.00	1.30	-1.00	.02
280-30602-K-2	07/05/2012	12:00 PM	21.96	-1.00	8.25	.00	104.24	104.24	.00	.00	.00	1.04	-1.00	.02
280-30623-A-1	07/05/2012	12:06 PM	21.83	-1.00	8.33	5.43	1,127.83	1,116.97	10.86	.00	.05	11.28	-1.00	.02
280-30499-A-1	07/05/2012	12:11 PM	21.66	-1.00	7.42	.00	362.85	362.85	.00	.00	.00	3.63	-1.00	.02
280-30499-A-2	07/05/2012	12:16 PM	21.44	-1.00	7.93	.00	188.60	188.60	.00	.00	.00	1.89	-1.00	.02
280-30499-A-3	07/05/2012	12:21 PM	21.56	-1.00	7.86	.00	153.37	153.37	.00	.00	.00	1.53	-1.00	.02
280-30499-A-4	07/05/2012	12:25 PM	21.92	-1.00	7.84	.00	154.07	154.07	.00	.00	.00	1.54	-1.00	.02
CCV	07/05/2012	12:30 PM	22.39	-1.00	10.59	103.31	206.30	.00	205.98	.32	1.03	2.06	-1.00	.02
CCB	07/05/2012	12:34 PM	22.58	-1.00	6.21	.00	.77	.77	.00	.00	.00	.02	.04	.02
280-30499-A-5	07/05/2012	12:39 PM	22.28	-1.00	7.94	.00	189.31	189.31	.00	.00	.00	1.89	-1.00	.02
280-30499-A-6	07/05/2012	12:44 PM	22.03	-1.00	7.54	.00	414.39	414.39	.00	.00	.00	4.14	-1.00	.02
280-30499-A-7	07/05/2012	12:48 PM	21.90	-1.00	6.08	.00	.54	.54	.00	.00	.00	.02	.04	.02
280-30459-C-1	07/05/2012	12:53 PM	21.95	-1.00	7.67	.00	224.05	224.05	.00	.00	.00	2.24	-1.00	.02
280-30459-A-2	07/05/2012	12:57 PM	22.22	-1.00	7.41	.00	258.52	258.52	.00	.00	.00	2.59	-1.00	.02
280-30459-A-3	07/05/2012	1:03 PM	22.61	-1.00	7.85	.00	173.74	173.74	.00	.00	.00	1.74	-1.00	.02
280-30459-A-4	07/05/2012	1:08 PM	22.74	-1.00	7.87	.00	167.14	167.14	.00	.00	.00	1.67	-1.00	.02
280-30459-A-5	07/05/2012	1:12 PM	22.46	-1.00	7.48	.00	299.05	299.05	.00	.00	.00	2.99	-1.00	.02
280-30459-A-6	07/05/2012	1:17 PM	22.28	-1.00	7.56	.00	290.99	290.99	.00	.00	.00	2.91	-1.00	.02

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Run Number 478 **Order Number** 20120705-3

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-30459-A-18	07/05/2012	1:22 PM	22.29	-1.00	8.01	.00	223.91	223.91	.00	.00	.00	2.24	-1.00	.02
CCV2	07/05/2012	1:27 PM	22.35	-1.00	10.57	102.82	207.08	1.45	205.63	.00	1.03	2.07	-1.00	.02
CCB2	07/05/2012	1:31 PM	22.72	-1.00	6.21	.00	.78	.78	.00	.00	.00	.02	.04	.02
LCS.	07/05/2012	1:36 PM	22.98	-1.00	10.54	100.51	205.99	4.97	201.02	.00	1.01	2.06	-1.00	.02
LCSD.	07/05/2012	1:41 PM	23.17	-1.00	10.54	100.79	205.78	4.20	201.58	.00	1.01	2.06	-1.00	.02
MB.	07/05/2012	1:45 PM	22.98	-1.00	6.17	.00	.68	.68	.00	.00	.00	.02	.04	.02
280-30459-C-19	07/05/2012	1:50 PM	22.74	-1.00	8.11	.00	219.89	219.89	.00	.00	.00	2.20	-1.00	.02
280-30459-C-19 DU	07/05/2012	1:55 PM	22.72	-1.00	8.16	.00	221.82	221.82	.00	.00	.00	2.22	-1.00	.02
280-30459-A-20	07/05/2012	2:00 PM	22.78	-1.00	8.14	.00	224.95	224.95	.00	.00	.00	2.25	-1.00	.02
280-30461-A-1	07/05/2012	2:05 PM	22.96	-1.00	7.82	.00	212.08	212.08	.00	.00	.00	2.12	-1.00	.02
280-30424-A-4	07/05/2012	2:10 PM	23.25	-1.00	8.17	.00	458.16	458.16	.00	.00	.00	4.58	-1.00	.02
280-30635-D-1	07/05/2012	2:15 PM	23.36	-1.00	7.49	.00	457.05	457.05	.00	.00	.00	4.57	-1.00	.02
280-30635-C-2	07/05/2012	2:20 PM	23.15	-1.00	6.80	.00	933.09	933.09	.00	.00	.00	9.33	-1.00	.02
CCV3	07/05/2012	2:25 PM	23.06	-1.00	10.49	97.62	207.54	12.30	195.24	.00	.98	2.08	-1.00	.02
CCB3	07/05/2012	2:29 PM	22.98	-1.00	6.41	.00	1.31	1.31	.00	.00	.00	.03	.05	.02
280-30522-G-1	07/05/2012	2:34 PM	23.11	-1.00	7.96	.00	286.15	286.15	.00	.00	.00	2.86	-1.00	.02
280-30697-A-1	07/05/2012	2:39 PM	23.41	-1.00	7.70	.00	206.66	206.66	.00	.00	.00	2.07	-1.00	.02
280-30497-A-13	07/05/2012	2:44 PM	23.65	-1.00	7.31	.00	57.24	57.24	.00	.00	.00	.57	-1.00	.02
280-30497-A-14	07/05/2012	2:49 PM	23.80	-1.00	7.62	.00	115.70	115.70	.00	.00	.00	1.16	-1.00	.02
280-30497-A-15	07/05/2012	2:54 PM	23.62	-1.00	7.78	.00	140.16	140.16	.00	.00	.00	1.40	-1.00	.02
280-30497-A-16	07/05/2012	2:59 PM	23.49	-1.00	7.94	.00	117.75	117.75	.00	.00	.00	1.18	-1.00	.02
280-30497-A-17	07/05/2012	3:04 PM	23.38	-1.00	7.84	.00	117.39	117.39	.00	.00	.00	1.17	-1.00	.02
280-30497-A-18	07/05/2012	3:08 PM	23.38	-1.00	7.06	.00	102.62	102.62	.00	.00	.00	1.03	-1.00	.02
280-30457-B-8	07/05/2012	3:13 PM	23.44	-1.00	7.60	.00	224.30	224.30	.00	.00	.00	2.24	-1.00	.02
280-30457-B-9	07/05/2012	3:17 PM	23.59	-1.00	7.63	.00	224.57	224.57	.00	.00	.00	2.25	-1.00	.02
CCV4	07/05/2012	3:23 PM	23.72	-1.00	10.46	96.17	206.74	14.41	192.33	.00	.96	2.07	-1.00	.02
CCB4	07/05/2012	3:27 PM	23.56	-1.00	6.32	.00	.84	.84	.00	.00	.00	.03	.04	.02
280-30457-B-10	07/05/2012	3:31 PM	23.43	-1.00	6.49	.00	164.45	164.45	.00	.00	.00	1.64	-1.00	.02
280-30457-A-11	07/05/2012	3:35 PM	23.41	-1.00	7.19	.00	397.38	397.38	.00	.00	.00	3.97	-1.00	.02
280-30457-A-12	07/05/2012	3:41 PM	23.46	-1.00	7.56	.00	275.18	275.18	.00	.00	.00	2.75	-1.00	.02

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Run Number 478 **Order Number** 20120705-3

SampleID	RunDate	RunTime	Temp	cond (uS)	pH	palk-ppm	talk-ppm	bcarb-ppm	carb-ppm	hydr-ppm	(mL) @ 8.3	(mL) @ 4.5	(mL) @ 4.2	Conc (N)
280-30457-A-13	07/05/2012	3:45 PM	23.64	-1.00	7.18	.00	269.19	269.19	.00	.00	.00	2.69	-1.00	.02
CCV5	07/05/2012	3:50 PM	23.72	-1.00	10.43	94.57	208.17	19.03	189.13	.00	.95	2.08	-1.00	.02
CCB5	07/05/2012	3:54 PM	23.92	-1.00	6.11	.00	.59	.59	.00	.00	.00	.02	.04	.02
LCS..	07/05/2012	3:58 PM	23.76	-1.00	10.42	93.19	206.23	19.85	186.39	.00	.93	2.06	-1.00	.02
LCSD..	07/05/2012	4:03 PM	23.60	-1.00	10.50	98.02	208.03	12.00	196.04	.00	.98	2.08	-1.00	.02
MB..	07/05/2012	4:07 PM	23.57	-1.00	6.38	.00	1.06	1.06	.00	.00	.00	.03	.04	.02
280-30529-A-1	07/05/2012	4:12 PM	23.56	-1.00	7.82	.00	223.23	223.23	.00	.00	.00	2.23	-1.00	.02
280-30529-A-1 DU	07/05/2012	4:17 PM	23.65	-1.00	7.83	.00	224.56	224.56	.00	.00	.00	2.25	-1.00	.02
280-30529-A-2	07/05/2012	4:21 PM	23.72	-1.00	7.65	.00	242.30	242.30	.00	.00	.00	2.42	-1.00	.02
280-30529-A-3	07/05/2012	4:26 PM	23.94	-1.00	8.04	.00	167.08	167.08	.00	.00	.00	1.67	-1.00	.02
280-30529-A-4	07/05/2012	4:31 PM	23.89	-1.00	7.67	.00	230.60	230.60	.00	.00	.00	2.31	-1.00	.02
280-30529-A-5	07/05/2012	4:34 PM	23.76	-1.00	6.09	.00	.69	.69	.00	.00	.00	.02	.04	.02
280-30619-A-1	07/05/2012	4:39 PM	23.75	-1.00	8.34	2.66	301.55	296.22	5.33	.00	.03	3.02	-1.00	.02
CCV6	07/05/2012	4:45 PM	23.68	-1.00	10.49	102.09	214.36	10.19	204.17	.00	1.02	2.14	-1.00	.02
CCB6	07/05/2012	4:49 PM	23.76	-1.00	6.04	.00	.79	.79	.00	.00	.00	.02	.04	.02

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GENERAL RESULTS REPORT.SRW
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Wet Chemistry Data Review Checklist
For Tests with Calibration Curves

Test Name/ Method #: Chloride SM 9251/4500 SOP # DVWC 0034

Instrument: ALP 1 Analyst: MK Analysis Date: 7/9/12

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
30550 30522	AQ	N/A	126987	4500	N/A
30619 30623	↓	↓	↓	↓	↓
30785				9251	
30777				4500	
30745	↓	↓	↓	↓	↓

A. Calibration/Instrument Run QC	Yes	No	N/A	2nd Level
1. Minimum of five standards in ICAL or as specified in method?	✓			✓
2. Correlation coefficient ≥ 0.995 ?	✓			✓
3. Second-source ICV analyzed, and recovery within acceptance limits?	✓			✓
4. ICB analyzed immediately after the ICV & results < the RL	✓			✓
5. CCV analyzed after every ten samples & recovery within acceptance limits?	✓			✓
6. CCB analyzed after every CCV & results < RL?	✓			✓
7. Absolute value of the intercept is < ± ½ the RL?	✓			✓
B. Sample Results				
1. All samples greater than highest calibration standard diluted and reanalyzed?	✓			✓
2. Do associated RLs/MDLs reflect dilutions or limited sample volume?	✓			✓
3. All reported results bracketed by in control CCV results?	✓			✓
4. Sample analyses done within holding time?	✓			✓
5. Initial pH check documented for all samples? (If Applicable)			✓	✓
6. Preparation benchsheet completed and included in package? MK 7/9/12	✓		✓	✓
7. Client requirements reviewed and met?	✓			✓
8. Were data manually transcribed from instrument printouts into TALS verified 100% including significant figures and correct units? (If Applicable)	✓			✓
9. Do the prep and analysis dates in TALS reflect the actual dates?	✓			✓
11. Raw data copies prepared, scanned, and uploaded?	✓			✓
12. Manual integrations done properly and initialed and dated?			✓	✓
13. STD/True Value information is updated and included?	✓			✓
C. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10x blank have NCM?	✓			✓
2. Method blank < ½ RL or NCM provided?	✓			✓
3. LCS/LCSD run for batch and within QC limits?	✓			✓
4. MS/MSD run at required frequency and within limits or NCM written?	✓			✓
5. DUP run at required frequency and RPD within acceptance limits or NCM written?			✓	✓

Analyst: [signature] Date: 7/9/12

2nd Level Reviewer : [signature] Date: 7/9/12

DUE 7/10/12

TestAmerica Denver

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THE LEADER IN ENVIRONMENTAL TESTING

Wet Chemistry Data Review Checklist For Gravimetric Methods

Test Name/Method #: TDS Analysis Date: 7/2/12

SOP #: DV-WC-2064 Analyst: BT Instrument: BA1

Lot / Sample Numbers	Matrix	Prep Batch	Batch	Method	Special Inst
30457 30459, 30461, 30497	Water	—	126315	—	—

7/6/12 BT

A. Balance, Oven, and DI Water QC Checks	Yes	No	N/A	2nd Level
1. Was the balance calibration verified before and after processing samples and noted in the "Balance Calibration Log" for the date(s) the samples were processed?	—			—
2. Was the oven temperature within method requirements and recorded in the "Oven Temperature" logbook for the date(s) the samples were processed?	—			—
3. Was the daily conductivity check of the deionized water recorded in the "Conductivity Logbook"?		X		—
B. Method Requirements				
1. If sample is visibly oily, was this noted on the benchsheet?		X		—
2. Was final residue weight within minimum/maximum requirements?	—			—
3. Were the initial and final drying dates and times recorded on the benchsheet and were all samples dried for at least one hour?	—			—
C. Sample Results				
1. TDS/Conductivity ratio or historical data checked?		X		—
2. For % Moisture, was the Final Dried Weight < the Initial Pan Weight or is the result greater than 100%?			X	—
3. Were sample analyses done within holding time?	—			—
4. Were special client requirements met?	—			—
5. Were data that were manually transcribed from instrument printouts into TALS verified 100% including significant figures and units?	—			—
6. Do the prep and analysis dates in TALS reflect the actual dates? Lots/Dates report checked?	—			—
7. STD/True Value information is updated and included?	—			—
8. Are raw data copies prepared, scanned, and uploaded?	—			—
D. Preparation/Matrix QC				
1. Method blank < RL or all reported samples > 10 X RL?	—			—
2. Method blank < ½ RL or NCM provided?	—			—
3. LCS/LCSD run for batch and within QC limits?	—			—
4. DUP run for batch and RPD < 20% for samples >5 X RL?	—			—

Analyst: BT Date: 7/6/12

Comments: _____

2nd Level Reviewer : _____ Date: 7/9/12

Comments: _____

7/13/12

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 126223 Batch Start Date: 06/27/12 13:00 Batch Analyst: Ayala, Delaina

Batch Method: SM 2120B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	TurbidityRemoved				
MB 280-126223/1		SM 2120B		50 mL	N				
280-30461-A-1	B035M0411HA	SM 2120B	T	50 mL	N				

Batch Notes	
Batch Comment	NESSLER TUBES
Color Standards Lot #	1316339

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 125972 Batch Start Date: 06/27/12 10:46 Batch Analyst: Kudla, Ewa

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	IC CAL INT1 00160	IC daily cal 00825	IC ICV daily 00825		
ICV 280-125972/9		9056A					5 mL		
MRL 280-125972/12		9056A		5 mL	0.02 mL				
LCS 280-125972/13		9056A				5 mL			
LCSD 280-125972/14		9056A				5 mL			
CCV 280-125972/26		9056A				5 mL			
CCV 280-125972/38		9056A				5 mL			
CCV 280-125972/50		9056A				5 mL			

Batch Notes	
Eluent 1 Lot	120272705019
Filter Lot #	koja5815-2111
Pipette ID	wc5000-ic, wc1000-u, wc100-c

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 125973 Batch Start Date: 06/27/12 10:46 Batch Analyst: Kudla, Ewa

Batch Method: 9056A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	IC CAL INT1 00160	IC daily cal 00825	IC ICV daily 00825	
ICV 280-125973/9		9056A			OK			5 mL	
ICB 280-125973/10		9056A			OK				
MRL 280-125973/11		9056A		5 mL	OK	0.05 mL			
MRL 280-125973/12		9056A		5 mL	OK	0.02 mL			
LCS 280-125973/13		9056A			OK		5 mL		
LCSD 280-125973/14		9056A			OK		5 mL		
MB 280-125973/15		9056A			OK				
280-30461-A-1	B035M0411HA	9056A	T		OK				
CCV 280-125973/26		9056A			OK		5 mL		
CCB 280-125973/27		9056A			OK				
CCV 280-125973/62		9056A			OK		5 mL		
CCB 280-125973/63		9056A			OK				
CCV 280-125973/71		9056A			OK		5 mL		
CCB 280-125973/72		9056A			OK				

Batch Notes	
Perform Calculation (0=No, 1=Yes)	1

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 128577 Batch Start Date: 07/18/12 19:41 Batch Analyst: Bandy, Darlene F

Batch Method: 9060A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	TOC ICV Std 00012	TOC LCS Std 00013	AnalysisComment		
ICV 280-128577/1		9060A		50 mL	1 mL		pH <2		
ICB 280-128577/2		9060A					pH <2		
LCS 280-128577/9		9060A		200 mL		5 mL	pH <2		
LCSD 280-128577/10		9060A		200 mL		5 mL	pH <2		
MB 280-128577/11		9060A					pH <2		
CCV 280-128577/16		9060A		200 mL		5 mL	pH <2		
CCB 280-128577/17		9060A					pH <2		
280-30461-B-1	B035M0411HA	9060A	T				pH <2		
CCV 280-128577/28		9060A		200 mL		5 mL	pH <2		
CCB 280-128577/29		9060A					pH <2		

Batch Notes	
Batch Comment	0.2% H2SO4_00044, 0.2%H2SO4_00055
Pipette ID	wc5000-x, wc1000-t

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 126771 Batch Start Date: 07/05/12 11:09 Batch Analyst: Allen, Andrew J

Batch Method: SM 2320B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	Alk daily lcs 00256				
MB 280-126771/6		SM 2320B		InitialAmount is blank					
CCV 280-126771/17		SM 2320B		InitialAmount is blank	10 mL				
CCB 280-126771/18		SM 2320B		InitialAmount is blank					
CCV2 280-126771/29		SM 2320B		InitialAmount is blank	10 mL				
CCB2 280-126771/30		SM 2320B		InitialAmount is blank					
LCS 280-126771/31		SM 2320B		InitialAmount is blank	10 mL				
LCSD 280-126771/32		SM 2320B		InitialAmount is blank	10 mL				
MB 280-126771/33		SM 2320B		InitialAmount is blank					
280-30461-A-1	B035M0411HA	SM 2320B	T	InitialAmount is blank					
CCV3 280-126771/41		SM 2320B		InitialAmount is blank					
CCB3 280-126771/42		SM 2320B		InitialAmount is blank					

Batch Notes	
Batch Comment	ICV pH 7.0 Buffer 00044
pH Buffer 1 ID	pH 4.0 Buffer 00072
pH Buffer 2 ID	pH 7.0 Buffer 00082
pH Buffer 3 ID	pH 10.0 Buffer 00060
First End time	1649
Sulfuric Acid Lot Number	0.02 H2SO4 00073
Sulfuric Acid Vendor	Ricca
Nominal Amount Used	10 mL
Probe ID	pH Probe 3
First Start time	1109
Normality of first Titrant	0.02 N

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 126315 Batch Start Date: 07/02/12 10:31 Batch Analyst: Domnick, Brandon J

Batch Method: SM 2540C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	Conductivity	InitialAmount	TareWeight	Weight1	Weight2	Weight3
MB 280-126315/1		SM 2540C		0.78 umhos/cm	100 mL	65.9707 g	65.9712 g	65.9710 g	0 g
LCS 280-126315/2		SM 2540C			100 mL	65.8118 g	65.8618 g	65.8618 g	0 g
LCSD 280-126315/3		SM 2540C			100 mL	65.4857 g	65.5353 g	65.5354 g	0 g
280-30461-A-1	B035M0411HA	SM 2540C	T	597 umhos/cm	100 mL	65.8026 g	65.8358 g	65.8362 g	0 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	WeightOne%Diff	Residue	Residue2	FinalAmount	TDS LCS 00281	
MB 280-126315/1		SM 2540C		PASS_D No Unit	0.00050 g	0.00030 g	100 mL		
LCS 280-126315/2		SM 2540C		PASS_D No Unit	0.05000 g	0.05000 g	100 mL	100 mL	
LCSD 280-126315/3		SM 2540C		PASS_D No Unit	0.04960 g	0.04970 g	100 mL	100 mL	
280-30461-A-1	B035M0411HA	SM 2540C	T	PASS_D No Unit	0.03320 g	0.03360 g	100 mL		

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 280-30461-1

SDG No.:

Batch Number: 126315 Batch Start Date: 07/02/12 10:31 Batch Analyst: Domnick, Brandon J

Batch Method: SM 2540C Batch End Date:

Batch Notes	
Balance ID	D91301
Constant Weight (WT2) Date/Time in Oven	7/3/12 13:40
Constant Weight (WT2) Date/Time Out	7/3/12 15:40
Constant Weight (WT2) Temp In	181 Celsius
Constant Weight (WT2) Temp Out	181 Celsius
Constant Weight (WT3) Date/time In	7/5/12 11:55
Constant Weight (WT3) Date/Time Out	7/5/12 13:20
Constant Weight (WT3) Temp In	178 Celsius
Constant Weight (WT3) Temp Out	178 Celsius
Filter Paper Lot Number	millipore lot# r2ca94093
Date samples were placed in the oven	7/2/12 15:40
Oven Temp when samples are put in oven	180 Celsius
Nominal Amount Used	100 mL
Date samples were removed from oven	7/3/12 7:45
Oven Temp when samples removed from oven	181 Celsius
Oven ID	A
Oven Temperature Verification	180 Celsius
ID number of the thermometer	14-983-17c
Uncorrected In Temperature	180 Celsius
Uncorrected Out Temperature	181 Celsius

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

0/8, 2/A, 1/C, 1.0 FP MF 6/27

AFCEE
CHAIN OF CUSTODY RECORD

COC#: _1_ SDG#: _ _ Cooler ID: _A_

Ship to: Elaine Walker Test America Laboratories, Inc. 4955 Yarrow Street Arvada, Colorado Tel: 303-736-0156	Project Name: Griffiss AFB B 35 LTM Sampler Name: Josh Wenzel	Send Results to: Daniel Baldyga FPM Remediations, Inc. 584 Phoenix Drive Rome, NY 13441 Phone: (315) 336-7721 Ext. 207
Carrier: Test America Inc. courier.	Sampler Signature:	

Analyses Requested

Field Sample ID	Location ID (LOCID)	Date 2012	Time	MATRIX	SMCODE	SBD/SED	SACODE	Preservative	Filt./UnFilt.	No. of Containers	VOCs Note 1 40 mL vial (HCl)	Anions, TDS, color Alkalinity note 2 500 mL poly	TOC note3 2 50mL amber (H_2SO_4)	Comments
B035M0411HA	B035MW04	6/26	1600	WG	LF	0/0	N	HCl	Unf.	5	3	1	1	

ALL MONITORING WELLS GROUNDWATER ELEVATIONS SHOULD BE MEASURED.

Sample Condition Upon Receipt at Laboratory: Cooler Temperature:
Special Instructions/Comments: Analyses to be conducted in compliance with AFCEE QAPP 4.0
Note 1: VOC: method SW 8260: Target COCs: PCE, TCE, DCE, Vinyl Chloride and Chloroform.
Note 2: Anions: SW9056, TDS: SM2540C, Color:110.2, Alkalinity: SM2320B
Note 3: TOC: SW9060.

#1 Released by: (Sig)	Date:	#2 Released by: (Sig)	Date: 6/26/12	#3 Released by: (Sig) R English	Date: 6-26-12
Company Name:	Time:	Company Name: FPM Remediations, Inc.	Time: 1630	Company Name: TA Syr	Time: 9:10
#1 Received by: (Sig)	Date:	#2 Received by: (Sig) R English	Date: 6-26-12	#3 Received by: (Sig)	Date: 6/27/12
Company Name: FPM Remediations, Inc.	Time:	Company Name: TA Syr	Time: 1630	Company Name: TAD	Time: 0945

MATRIX
WG = Ground water
WQ = Water Quality Control Matrix
SO = Soil

SMCODE
B = Bailer
G = Grab (only for EB).
NA = Not Applicable (only for AB/TB)
PP = Peristaltic Pump
BP = Bladder Pump
SP = Submersible Pump
SS = Split spoon

SACODE
N = Normal Sample
AB = Ambient Blank
TB = Trip Blank
EB = Equipment Blank
FD = Field Duplicate
MS = Matrix Spike
SD = Matrix Spike Duplicate

Login Sample Receipt Checklist

Client: FPM Remediations Inc

Job Number: 280-30461-1

Login Number: 30461

List Source: TestAmerica Denver

List Number: 1

Creator: Lazarte, Noah M

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	