Integral Consulting Inc.
200 Harry S. Truman Parkway
Suite 330
Annapolis, MD 21401

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LETTER OF TRANSMITTAL

Date:	January 29, 2014	Project No:	C1165-0501
To:	Erica Bergman, NJDEP		
From:	Phil Goodrum, Integral		
Re:	East Greenwich PWS Sampling, Data Report		

The following is enclosed: ☐ for your use ☐ for your files ☒ per your request

Quantity	Item
3	**Data Report - East Greenwich PWS Sampling on December 19, 2013**
3	**CD, including:** - **Data Report** - **Eurofins Laboratory Reports** - **TestAmerica Laboratory Reports** - **EDDs**

Remarks:

Sent via:

☐ U.S. Mail
☐ Fax
☐ Other
☒ Federal Express
☐ Courier

cc: Mitch Gertz, Solvay Specialty Polymers USA, LLC

integral consulting inc.

DATA REPORT

East Greenwich PWS Sampling on December 19, 2013

Prepared for
Solvay Specialty Polymers USA, LLC
10 Leonard Lane
West Deptford, NJ 08086

Prepared by
Integral Consulting Inc.
200 Harry S. Truman Parkway
Suite 330
Annapolis, MD 21401

January 27, 2014

DATA REPORT

East Greenwich PWS
Sampling on December 19, 2013

Prepared for
Solvay Specialty Polymers USA, LLC
10 Leonard Lane
West Deptford, NJ 08086

Prepared by

integral consulting inc.
200 Harry S. Truman Parkway
Suite 330
Annapolis, MD 21401

January 27, 2014

On December 19, 2013, Integral Consulting Inc., consultant to Solvay Specialty Polymers USA, LLC (Solvay), collected water samples from the three water supply wells maintained by the East Greenwich public water system (PWS). The samples were submitted to Eurofins Eaton Analytical, Inc. (Monrovia, CA), a New Jersey-certified analytical testing laboratory for analysis of perfluorinated compounds (PFCs). In addition, split samples were submitted to TestAmerica Laboratories, Inc. (Edison, NJ), also a New Jersey-certified analytical laboratory, for analysis of conventional parameters.

Figure 1 illustrates where samples were collected within the East Greenwich PWS treatment system. Based on our understanding of East Greenwich PWS operations, none of the three wells were active during the sampling event on December 19 and all drinking water was being supplied by New Jersey American Water treatment plant. Nonetheless, both raw and treated water was sampled from Well #3 and raw water was sampled from Well #2 and Well #4.

Table 1 summarizes the concentrations of PFCs measured in each raw and treated water sample. The same are also provided in electronic files, using the electronic data delivery (EDD) format specified by New Jersey Department of Environmental Protection (NJDEP). These EDDs were verified by Solvay to be complete and free of errors with NJDEP's online tool, Electronic Data Submittal Applications (EDSA7) version 7.1.5, available online at www.state.nj.us/dep/srp/hazsite/software/edsa/. All of the laboratory results were validated by Laboratory Data Consultants, Inc. (Carlsbad, CA), an independent third party validator.

PFCs are currently unregulated in drinking water. Table 2 summarizes a range of non-binding drinking water guidelines for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) available from U.S. Environmental Protection Agency, New Jersey, North Carolina, and Minnesota. For this sampling event at East Greenwich PWS, concentrations in all samples were below the New Jersey drinking water guidelines for PFOA (i.e., 40 parts per trillion or ppt) and PFOS (i.e., 20 ppt). Concentration ranges are 0.2–5.9 ppt for PFOA and 2.7–3.4 ppt for PFOS.

One PFC was detected for which drinking water guidelines have not been established. Perfluorononanoic acid (PFNA) was detected in samples from Well #3 but not the other two Wells. At Well #3, PFNA was measured in parent and field duplicates in both raw water (21 and 22 ppt) and treated water (24 and 23 ppt). None of the C10 to C13 compounds (i.e., perfluorodecanoic acid [PFDA] and perfluoroundecanoic acid [PFUnDA]) were detected in any of the samples.

Table 1. PFC Concentrations from Samples Collected December 19, 2013 at the East Greenwich PWS [a]

	Well #2	Well #4	Well #3			
Chemical Name	RW	RW	RW	RW-Dup	TW	TW-Dup
PFOA	--	--	4.1	4.2	4.8	5.9
PFOS	--	--	2.8	2.7	3.3	3.4
PFNA	--	--	21	22	24	23
PFDA	--	--	--	--	--	--
PFUnA	--	--	--	--	--	--
PFDoDA	--	--	--	--	--	--
PFTriA	--	--	--	--	--	--

Notes:

PFC = perfluorinated compound

PWS = public water system

RW = raw water sample collected from well (prior to treatment)

RW-Dup = field duplicate of raw water sample

TW = sample collected from well after treatment but before mixing with water from other wells or supplemental water

TW-Dup = field duplicate of treated well water sample

-- = anlayte was not detected at the calculated method detection limit

[a] Units for all results are parts per trillion (ppt), equivalent to nanograms per liter (ng/L) or $1x10^{-9}$ grams per liter.

Table 2. Federal and State PFC Guidelines for Drinking Water

	Chemical Name [a]						
Agency	PFOA	PFOS	PFNA	PFDA	PFUnA	PFDoDA	PFTriA
U.S. Environmental Protection Agency [b]	400	200	--	--	--	--	--
North Carolina Department of Environmental and Natural Resources [c]	200	--	--	--	--	--	--
New Jersey Department of Environmental Protection [d]	40	20	--	--	--	--	--
Minnesota Department of Health [e]	300	300	--	--	--	--	--

Sources:

USEPA. 2009. Provisional Health advisories for perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). Available at: http://water.epa.gov/action/advisories/drinking/upload/2009_01_15_criteria_drinking_pha-PFOA_PFOS.pdf. U.S. Environmental Protection Agency. 5 pp. January 8.

NJDEP. 2007. Determination of perfluorooctanoic acid (PFOA) in aqueous samples. Final Report. New Jersey Department of Environmental Protection, Division of Water Supply, Bureau of Safe Drinking Water, Trenton, NJ. 17 pp. January.

NCDENR. 2013. Appendix #1: Interim maximum allowable concentrations (IMACs). pp. 23-24. In: North Carolina Administrative Code Title 15A - Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina. Last amended April 1. Available at: http://portal.ncdenr.org/web/wq/ps/csu/gwstandards. North Carolina Department of Environmental and Natural Resources, Division of Water Quality, Raleigh, NC. 31 pp.

MDH. 2013. Health guidelines for perfluorochemicals (PFCs) in drinking water. www.health.state.mn.us/divs/eh/hazardous/topics/pfcs/drinkingwater.html. Minnesota Department of Health, Environmental Health Division, St. Paul, MN.

Notes:

PFC = perfluorinated compound

-- = provisional guidelines are not available for drinking water

[a] Units for all results are parts per trillion (ppt).

[b] USEPA (2009) provisional drinking water advisory for short-term exposure.

[c] NCDENR (2013) recommended interim maximum allowable concentration (IMAC) in drinking water, effective date December 6, 2006.

[d] NJDEP (2007) health-based guidance value intended to protect for chronic (lifetime) exposure.

[e] MDH (2011) health risk limit (HRL) in drinking water for chronic exposure.

Eurofins Laboratory Reports

- LDC Validation Report – East Greenwich, National Park Backflow Preventer (462349)
- Eurofins Laboratory Report (462349 1/9/2014)
- Eurofins Laboratory Report (LCMS 12/30/2013)
- Eurofins Laboratory Report (LCMS 1/6/2014)

***All Eurofins Laboratory Reports include documentation for both East Greenwich and National Park. Printed reports can be found in the National Park PWS Data Report

TestAmerica Laboratory Reports

- LDC Validation Report – East Greenwich, National Park (460-68763-1)
- TestAmerica Laboratory Report (J68763-1)
- LDC Validation Report – East Greenwich (460-68764-1)
- TestAmerica Laboratory Report (460-68764-1)
- LDC Validation Report – East Greenwich (460-68878-1)
- TestAmerica Laboratory Report (460-68878-1)

LDC Validation Report

– East Greenwich, National Park (460-68763-1)

LABORATORY DATA CONSULTANTS, INC.
2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Integral Consulting Inc.
1205 West Bay Drive NW
Olympia, WA 98502
ATTN: Mr. Craig Hutchings

January 17, 2014

SUBJECT: PFCs, Project #C1165, Data Validation

Dear Mr. Hutchings,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received January 10, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31147:

SDG#	Fraction
460-68760-1	Perfluorinated Alkyl Acids & Wet Chemistry
460-68763-1	
460-68764-1	
460-68878-1	
462349	

The data validation was performed under Stage 2B & 4 guidelines. The laboratory data packages were correct and complete.

Perfluorooctanoic acid was detected in the field blank samples GW0034 and GW0041, however, the concentration was less than 1/3 of the method reporting limit.

100% verification was performed on the sample results in the Electronic Data Deliverable against hardcopy results and no discrepancies were found.

The analyses were validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, QAPP, dated November 15, 2013

- TAL-DEN DV-LC-0002 for Perfluorinated Alkyl Acids
  4500 H+B for pH
  2320B for Alkalinity
  2340C for Hardness
  5310B for Total Organic Carbon
  353.2 for Nitrate/Nitrite as Nitrogen
  2540 D for Total Suspended Solids
  4500 NH3-H for Ammonia as Nitrogen
  4500 P E for Orthophosphate as Phosphorus
  300.0 for Bromide, Chloride, Fluoride, and Sulfate
  Eurofins Eaton Analytical SOP 537

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008

- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

1,602 pages-SF 1 WEEK TAT

Attachment 1

EDD 90/10

LDC #31147 (Integral Consulting, Inc.-Olympia, WA / PFCs, Project #C1165)

LDC	SDG#	DATE REC'D	(3) DATE DUE	PFCs (537)		Alk. (2320B)		NH_3-N (4500 NH3 H)		Br,Cl F,SO_4 (300.0)		NO_3/ NO_2-N (300.0)		Hard. (2340C)		O-PO_4 (4500 P E)		pH (4500 H+B)		TSS (2540D)		TOC (5310B)											
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	460-68760-1	01/10/14	01/17/14	-	-	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0										
B	460-68763-1	01/10/14	01/17/14	-	-	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0										
C	460-68764-1	01/10/14	01/17/14	-	-	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0										
C	460-68764-1	01/10/14	01/17/14	-	-	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0										
D	460-68878-1	01/10/14	01/17/14	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
D	460-68878-1	01/10/14	01/17/14	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
E	462349	01/10/14	01/17/14	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
E	462349	01/10/14	01/17/14	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Total	T/SC			21	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	0	0	0	0	0	0	0	0	0	129

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

31147ST.wpd

LDC Report# 31147B6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: PFCs, Project #C1165

LDC Report Date: January 14, 2014

Matrix: Water

Parameters: Wet Chemistry

Validation Level: Stage 2B

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 460-68763-1

Sample Identification	Collection Date	Laboratory Sample Identification
GW0034	12/19/13	460-68763-1
GW0033	12/19/13	460-68763-2
GW0036	12/19/13	460-68763-3
GW0039	12/19/13	460-68763-4
GW0036DUP	12/19/13	460-68763-3DUP

Introduction

This data review covers 5 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Standard Method 2320B for Alkalinity, Standard Method 4500 NH3-H for Ammonia as Nitrogen, EPA Method 300.0 for Bromide, Chloride, Fluoride, and Sulfate, EPA Method 353.2 for Nitrate/Nitrite as Nitrogen, Standard Method 2340C for Hardness, Standard Method 4500 P E for Orthophosphate as Phosphorus, Standard Method 4500 H+B for pH, Standard Method 2540D for Total Suspended Solids, and Standard Method 5310B for Total Organic Carbon.

This review follows the Site Specific Quality Assurance Project Plan (QAPP) dated November 15, 2013 and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Raw data were not reviewed for this SDG. The review was based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J+ Data are qualified as estimated, with a high bias likely to occur.

J- Data are qualified as estimated, with a low bias likely to occur.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

Qualification Codes

1 Holding Times
2 Sample Preservation (Cooler Temp)
3 Sample Custody
4 Missing Deliverables
5 Calibration
6 Field Blanks
7 Laboratory Blanks
8 Matrix Spike (%)
9 Matrix Spike Duplicate (RPD or Duplicate Sample Analysis)
10 Laboratory Control Sample
11 ICP Interference Check
12 RPD Between Two Columns
13 Surrogates
14 Field Duplicates
15 Peak Resolution
16 ICP Serial Dilution
17 Chemical Recoveries
18 Trip Blanks
19 Internal Standards
20 Linear Range Exceeded
21 Potential False Positives
22 Do not use, other result more technically sound
23 Estimated Maximum Possible Concentration
24 Less than reporting limit
25 Other

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
GW0034 GW0033 GW0036 GW0039	pH	14 days	48 hours	J- (all detects) UJ (all non-detects)	P

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Continuing Calibration

Continuing calibration frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample GW0034 was identified as a field blank. No contaminant concentrations were found.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QAPP limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QAPP limits.

VIII. Sample Result Verification

Raw data were not reviewed for this SDG.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

Samples GW0035 (from SDG 460-68763-1) and GW0036 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD
	GW0035	GW0036	
Alkalinity	90.8 mg/L	87.0 mg/L	4 (≤35)
Bicarbonate Alkalinity	90.8 mg/L	87.0 mg/L	4 (≤35)
Ammonia as N	0.080U mg/L	0.47 mg/L	200 (≤35)
Chloride	46.9 mg/L	46.7 mg/L	0 (≤35)
Fluoride	0.39 mg/L	0.41 mg/L	5 (≤35)
Hardness	76.0 mg/L	86.0 mg/L	12 (≤35)
Nitrate/Nitrite as N	0.32 mg/L	0.31 mg/L	3 (≤35)
Orthophosphate as P	0.12 mg/L	0.13 mg/L	8 (≤35)
pH	7.56 units	7.47 units	1 (≤35)
Sulfate	16.7 mg/L	16.5 mg/L	1 (≤35)
Total organic carbon	1.2 mg/L	1.3 mg/L	8 (≤35)

PFCs, Project #C1165
Wet Chemistry - Data Qualification Summary - SDG 460-68763-1

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
460-68763-1	GW0034 GW0033 GW0036 GW0039	pH	J- (all detects) UJ (all non-detects)	P	Technical holding time (1)

PFCs, Project #C1165
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 460-68763-1

No Sample Data Qualified in this SDG

PFCs, Project #C1165
Wet Chemistry - Field Blank Data Qualification Summary - SDG 460-68763-1

No Sample Data Qualified in this SDG

LDC #: 31147B6

SDG #: 460-68763-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III

Date: 1/13/14

Page: 1 of 1

Reviewer: [illegible]

2nd Reviewer: [illegible]

METHOD: (Analyte) Alkalinity (SM2320B), Ammonia-N (SM4500 NH3-H), Bromide, Chloride, Fluoride, Sulfate (EPA Method 300.0), Nitrate/Nitrite-N (EPA Method 353.2), Hardness (SM2340C), Orthophosphate (SM4500 P E), pH (SM4500 H+B), TSS (SM2540D), TOC (SM5310B) 18

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A SW	Sampling dates: 12/19/13
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	A	MS/D (460-68760)
VI.	Duplicates	A	DUP
VII.	Laboratory control samples	A	LCS
VIII.	Sample result verification	N	
IX.	Overall assessment of data	A	
X.	Field duplicates	N	
XI	Field blanks	ND	FB = 1 (3, GW0035 (460-68763-1))

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: water

1	GW0034	11		21		31	
2	GW0033	12		22		32	
3	GW0036	13		23		33	
4	GW0039	14		24		34	
5	GW0036DUP	15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

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LDC #: 31147B4

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR

2nd reviewer: M

All circled methods are applicable to each sample.

Sample ID	Parameter
1-4	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Br Hardness TSS
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC:5	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Hardness
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

Comments:

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LDC #: 51147D

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: QR
2nd reviewer: [illegible]

All circled dates have exceeded the technical holding time.
Y N N/A Were all samples preserved as applicable to each method ?
Y N N/A Were all cooler temperatures within validation criteria?

Method:		SM4500H+B					
Parameters:		pH					
Technical holding time:		48hrs					
Sample ID	**Sampling date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Qualifier**
1-4	12/19/13	1/2/14	(14 days)				J/UJ/P

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LDC: 31147B6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: CL
2nd Reviewer: [illegible]

Method: Inorganics (see cover)

Analyte	Concentration (mg/L)		RPD (≤ 35)
	GW0035	3	
Alkalinity	90.8	87.0	4
Bicarbonate Alkalinity	90.8	87.0	4
Ammonia as N	0.080U	0.47	200
Chloride	46.9	46.7	0
Fluoride	0.39	0.41	5
Hardness	76.0	86.0	12
Nitrate/Nitrite as N	0.32	0.31	3
Orthophosphate as P	0.12	0.13	8
pH (units)	7.56	7.47	1
Sulfate	16.7	16.5	1
TOC	1.2	1.3	8

Privileged and Confidential

TestAmerica Laboratory Report

– J68763-1

ANALYTICAL REPORT

Job Number: 460-68763-1

Job Description: NJ Site

For:
Integral Consulting Inc
1205 W Bay Drive NW
Olympia, WA 98502

Attention: Craig Hutchings

Approved for release.
Shalini Isaac
Project Management Assistant II
1/8/2014 2:41 PM

Designee for
Thomas Tanico, Project Manager II
777 New Durham Road, Edison, NJ, 08817
(732)593-2555
thomas.tanico@testamericainc.com
01/08/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

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CASE NARRATIVE

Client: Integral Consulting Inc

Project: NJ Site

Report Number: 460-68763-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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
The samples were received on 12/20/2013 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.1º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

ALKALINITY
Samples 460-68763-1 through 460-68763-4 were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 01/02/2014.

No difficulties were encountered during the alkalinity analyses.

All quality control parameters were within the acceptance limits.

HARDNESS
Samples 460-68763-1 through 460-68763-4 were analyzed for hardness in accordance with SM 2340C. The samples were analyzed on 01/02/2014 and 01/07/2014.

No difficulties were encountered during the hardness analyses.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS
Samples 460-68763-1 through 460-68763-4 were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/24/2013.

No difficulties were encountered during the TSS analyses.

All quality control parameters were within the acceptance limits.

ANIONS
Samples 460-68763-1 through 460-68763-4 were analyzed for anions in accordance with EPA Method 300.0_28D Anions by Ion Chromatograph. The samples were analyzed on 12/26/2013 and 12/28/2013.

No difficulties were encountered during the anions analyses.

All quality control parameters were within the acceptance limits.

NITRATE-NITRITE AS NITROGEN
Samples 460-68763-1 through 460-68763-4 were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 12/21/2013.

No difficulties were encountered during the nitrate-nitrite analyses.

All quality control parameters were within the acceptance limits.

ORTHOPHOSPHATE AS P

Samples 460-68763-1 through 460-68763-4 were analyzed for orthophosphate as P in accordance with SM 4500 P E. The samples were analyzed on 12/21/2013.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: GW0033 (460-68763-2), GW0034 (460-68763-1), GW0036 (460-68763-3), GW0039 (460-68763-4)

No other difficulties were encountered during the orthophosphate analyses.

All quality control parameters were within the acceptance limits.

PH

Samples 460-68763-1 through 460-68763-4 were analyzed for pH in accordance with SM 4500 H+. The samples were analyzed on 01/02/2014.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

AMMONIA

Samples 460-68763-1 through 460-68763-4 were analyzed for ammonia in accordance with SM 4500 NH3 H. The samples were prepared and analyzed on 01/02/2014.

No difficulties were encountered during the ammonia analyses.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Samples 460-68763-1 through 460-68763-4 were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 12/27/2013 and 12/28/2013.

No difficulties were encountered during the TOC analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68763-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-68763-1	GW0034	Water	12/19/2013 1030	12/20/2013 0945
460-68763-2	GW0033	Water	12/19/2013 1018	12/20/2013 0945
460-68763-3	GW0036	Water	12/19/2013 1126	12/20/2013 0945
460-68763-4	GW0039	Water	12/19/2013 1200	12/20/2013 0945

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68763-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-68763-1	**GW0034**					
pH		5.88	HF		SU	SM 4500 H+ B
460-68763-2	**GW0033**					
Chloride		78.1		0.50	mg/L	300.0
Fluoride		0.62		0.050	mg/L	300.0
Sulfate		16.3		2.0	mg/L	300.0
Ammonia (as N)		0.25		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		141		5.0	mg/L	SM 2320B
Alkalinity		141		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		50.0		5.0	mg/L	SM 2340C
pH		8.03	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.20		0.030	mg/L	SM 4500 P E
Total Organic Carbon		0.93	J	1.0	mg/L	SM 5310B
460-68763-3	**GW0036**					
Chloride		46.7		0.50	mg/L	300.0
Fluoride		0.41		0.050	mg/L	300.0
Sulfate		16.5		2.0	mg/L	300.0
Nitrate Nitrite as N		0.31		0.10	mg/L	353.2
Ammonia (as N)		0.47		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		87.0		5.0	mg/L	SM 2320B
Alkalinity		87.0		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		86.0		5.0	mg/L	SM 2340C
pH		7.47	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.13		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.3		1.0	mg/L	SM 5310B
460-68763-4	**GW0039**					
Chloride		29.6		0.50	mg/L	300.0
Fluoride		0.32		0.050	mg/L	300.0
Sulfate		6.1		2.0	mg/L	300.0
Ammonia (as N)		0.44		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		119		5.0	mg/L	SM 2320B
Alkalinity		119		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		80.0		5.0	mg/L	SM 2340C
Total Suspended Solids		7.6		1.1	mg/L	SM 2540D
pH		7.06	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.073		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.2		1.0	mg/L	SM 5310B

METHOD SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68763-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Nitrogen, Nitrate-Nitrite	TAL EDI	MCAWW 353.2	
Ammonia	TAL EDI	SM 4500 NH3 H	
Ammonia, Distillation	TAL EDI		SM SM 4500 NH3 B
Alkalinity	TAL EDI	SM SM 2320B	
Hardness, Total	TAL EDI	SM SM 2340C	
Solids, Total Suspended (TSS)	TAL EDI	SM SM 2540D	
pH	TAL EDI	SM SM 4500 H+ B	
Orthophosphate	TAL EDI	SM SM 4500 P E	
Organic Carbon, Total (TOC)	TAL EDI	SM SM 5310B	
Anions, Ion Chromatography	TAL BUF	MCAWW 300.0	

Lab References:

TAL BUF = TestAmerica Buffalo

TAL EDI = TestAmerica Edison

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

METHOD / ANALYST SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method	Analyst	Analyst ID
MCAWW 300.0	Clark, Kyra R	KRC
MCAWW 300.0	Cudney, Kevin A	KAC
MCAWW 353.2	Leye, Mamadou	MAL
SM 4500 NH3 H	Leye, Mamadou	MAL
SM SM 2320B	Cabanganan, Maria	MCC
SM SM 2340C	Afremova, Izabella	IAA
SM SM 2340C	Kamenetskaya, Raisa	RAK
SM SM 2540D	Staib, Patricia L	PLS
SM SM 4500 H+ B	Hu, Youhao	YAH
SM SM 4500 P E	Kamenetskaya, Raisa	RAK
SM SM 5310B	Vu, Huan	HTV

General Chemistry

Client Sample ID: **GW0034**

Lab Sample ID: 460-68763-1

Client Matrix: Water

Date Sampled: 12/19/2013 1030

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2015						
Chloride	0.28	U	mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2015						
Fluoride	0.0060	U	mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2015						
Sulfate	0.35	U	mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2015						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0800						
Ammonia (as N)	0.080	U	mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1135						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1722						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1722						
Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1722						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1722						
Hardness as calcium carbonate	1.6	U	mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199703	Analysis Date: 12/24/2013 0817						
pH	5.88	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1530						
Orthophosphate as P	0.010	U	mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	0.30	U	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 2121						

General Chemistry

Client Sample ID: **GW0033**

Lab Sample ID: 460-68763-2

Client Matrix: Water

Date Sampled: 12/19/2013 1018

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2025						
Chloride	78.1		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2025						
Fluoride	0.62		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2025						
Sulfate	16.3		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2025						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0801						
Ammonia (as N)	0.25		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1136						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	141		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1729						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1729						
Alkalinity	141		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1729						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1729						
Hardness as calcium carbonate	50.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199703	Analysis Date: 12/24/2013 0817						
pH	8.03	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1532						
Orthophosphate as P	0.20		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	0.93	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 2141						

General Chemistry

Client Sample ID: **GW0036**

Lab Sample ID: 460-68763-3

Client Matrix: Water

Date Sampled: 12/19/2013 1126

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159678	Analysis Date: 12/28/2013 0311						
Chloride	46.7		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159678	Analysis Date: 12/28/2013 0311						
Fluoride	0.41		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159678	Analysis Date: 12/28/2013 0311						
Sulfate	16.5		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159678	Analysis Date: 12/28/2013 0311						
Nitrate Nitrite as N	0.31		mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0809						
Ammonia (as N)	0.47		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1138						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	87.0		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1736						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1736						
Alkalinity	87.0		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1736						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1736						
Hardness as calcium carbonate	86.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201532	Analysis Date: 01/07/2014 1440						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199703	Analysis Date: 12/24/2013 0817						
pH	7.47	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1534						
Orthophosphate as P	0.13		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 1005						
Total Organic Carbon	1.3		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 2200						

General Chemistry

Client Sample ID: **GW0039**

Lab Sample ID: 460-68763-4

Client Matrix: Water

Date Sampled: 12/19/2013 1200

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2035						
Chloride	29.6		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2035						
Fluoride	0.32		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2035						
Sulfate	6.1		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2035						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0810						
Ammonia (as N)	0.44		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1139						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	119		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1743						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1743						
Alkalinity	119		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1743						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1743						
Hardness as calcium carbonate	80.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	7.6		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199703	Analysis Date: 12/24/2013 0817						
pH	7.06	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1537						
Orthophosphate as P	0.073		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 1005						
Total Organic Carbon	1.2		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/28/2013 0605						

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 480-159515

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-159515/4	Analysis Batch:	480-159515	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_004.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 1803	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bromide	0.073	U	0.073	0.20
Chloride	0.28	U	0.28	0.50
Fluoride	0.0060	U	0.0060	0.050
Sulfate	0.35	U	0.35	2.0

Lab Control Sample - Batch: 480-159515

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-159515/3	Analysis Batch:	480-159515	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_003.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 1753	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	2.00	1.91	96	90 - 110	
Chloride	20.0	20.40	102	90 - 110	
Fluoride	2.00	2.09	105	90 - 110	
Sulfate	20.0	20.44	102	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 480-159678

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-159678/52	Analysis Batch:	480-159678	Instrument ID:	IC-2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122713-2_063-20131231-(
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/28/2013 0109	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bromide	0.073	U	0.073	0.20
Chloride	0.28	U	0.28	0.50
Fluoride	0.0060	U	0.0060	0.050
Sulfate	0.35	U	0.35	2.0

Lab Control Sample - Batch: 480-159678

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-159678/51	Analysis Batch:	480-159678	Instrument ID:	IC-2
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122713-2_062.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/28/2013 0059	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	2.00	1.98	99	90 - 110	
Chloride	20.0	19.73	99	90 - 110	
Fluoride	2.00	2.00	100	90 - 110	
Sulfate	20.0	19.70	98	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-199259

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 460-199259/9	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0751	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	0.047	U	0.047	0.10

LCS-Certified Reference Material - Batch: 460-199259

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCSSRM 460-199259/11	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0754	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	1.51	1.51	99.8	87.4 - 112.6	
Nitrate Nitrite as N	1.51	1.51	99.8	85.4 - 109.9	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199259

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	460-68760-D-1 MS	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0803			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68760-D-1 MSD	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0804			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate as N	102	103	67 - 130	1	34		
Nitrate Nitrite as N	101	101	66 - 124	0	19		
Nitrite as N	100	99	84 - 109	1	10		

Client: Integral Consulting Inc

Job Number: 460-68763-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199259

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	460-68760-D-1 MS	Units:	mg/L	MSD Lab Sample ID:	460-68760-D-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/21/2013 0803			Analysis Date:	12/21/2013 0804
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate as N	0.32		0.500	0.500	0.831	0.840
Nitrate Nitrite as N	0.32		1.00	1.00	1.33	1.33
Nitrite as N	0.0041	U	0.500	0.500	0.500	0.495

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

Lab Sample ID:	MB 460-200972/1-A	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1114	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia (as N)	0.080	U	0.080	0.10

Lab Control Sample - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

Lab Sample ID:	LCS 460-200972/2-A	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1116	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia (as N)	1.00	1.10	110	85 - 117	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

MS Lab Sample ID:	460-68228-G-1-B MS	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1119			Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68228-G-1-C MSD	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1120			Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ammonia (as N)	72	71	60 - 147	2	16		

Client: Integral Consulting Inc

Job Number: 460-68763-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

MS Lab Sample ID:	460-68228-G-1-B MS	Units:	mg/L
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	01/02/2014 1119		
Prep Date:	01/02/2014 0630		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68228-G-1-C MSD
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	01/02/2014 1120
Prep Date:	01/02/2014 0630
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Ammonia (as N)	0.080	U	1.00	1.00	0.721	0.710

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-201106

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 460-201106/2	Analysis Batch:	460-201106	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	010214alka.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1623	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Carbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Alkalinity	5.0	U	5.0	5.0
Hydroxide Alkalinity	5.0	U	5.0	5.0

LCS-Certified Reference Material - Batch: 460-201106

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201106/3	Analysis Batch:	460-201106	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	010214alka.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1629	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	69.4	69.80	100.6	91.1 - 110.1	

Duplicate - Batch: 460-201106

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	460-68760-F-1 DU	Analysis Batch:	460-201106	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	010214alka.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1701	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bicarbonate Alkalinity as CaCO3	90.8		88.48	3	27	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	27	U
Alkalinity	90.8		88.48	3	27	
Hydroxide Alkalinity	5.0	U	5.0	NC	27	U

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-201028

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	MB 460-201028/1	Analysis Batch:	460-201028	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1200	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Hardness as calcium carbonate	1.6	U	1.6	5.0

LCS-Certified Reference Material - Batch: 460-201028

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201028/2	Analysis Batch:	460-201028	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1200	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hardness as calcium carbonate	77.7	78.00	100.4	91.4 - 109.0	

Duplicate - Batch: 460-201028

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	460-68764-E-5 DU	Analysis Batch:	460-201028	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1200	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Hardness as calcium carbonate	52.0	52.00	0	10	

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-201532

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	MB 460-201532/1	Analysis Batch:	460-201532	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/07/2014 1440	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Hardness as calcium carbonate	1.6	U	1.6	5.0

LCS-Certified Reference Material - Batch: 460-201532

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201532/2	Analysis Batch:	460-201532	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/07/2014 1440	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hardness as calcium carbonate	77.7	76.00	97.8	91.4 - 109.0	

Duplicate - Batch: 460-201532

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	460-68763-3	Analysis Batch:	460-201532	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	01/07/2014 1440	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Hardness as calcium carbonate	86.0	86.00	0	10	

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-199703

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 460-199703/1	Analysis Batch:	460-199703	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/24/2013 0817	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	1.0	U	1.0	1.0

LCS-Certified Reference Material - Batch: 460-199703

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCSSRM 460-199703/2	Analysis Batch:	460-199703	Instrument ID:	No Equipment Assigned
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:	12/24/2013 0817	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	75.5	68.00	90.1	82.7 - 107.9	

Duplicate - Batch: 460-199703

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	460-68694-C-2 DU	Analysis Batch:	460-199703	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	10 mL
Analysis Date:	12/24/2013 0817	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Total Suspended Solids	1540	1510	2	5	

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-201069

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID:	MB 460-201069/2	Analysis Batch:	460-201069	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1507	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
pH	6.050			

LCS-Certified Reference Material - Batch: 460-201069

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201069/3	Analysis Batch:	460-201069	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1509	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH	7.03	7.020	99.9	98.0 - 102.0	

Duplicate - Batch: 460-201069

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID:	460-68717-A-1 DU	Analysis Batch:	460-201069	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1515	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.70	7.690	0.1	10	

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

Lab Sample ID:	MB 460-199287/3	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0900	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Orthophosphate as P	0.010	U	0.010	0.030

LCS-Certified Reference Material - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

Lab Sample ID:	LCSSRM 460-199287/4	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0900	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Orthophosphate as P	5.34	5.76	107.8	86.1 - 109.0	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

MS Lab Sample ID:	460-68764-F-3 MS	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 1005			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68764-F-3 MSD	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 1005			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Orthophosphate as P	99	101	82 - 118	1	10		

Client: Integral Consulting Inc

Job Number: 460-68763-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

MS Lab Sample ID:	460-68764-F-3 MS	Units: mg/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	12/21/2013 1005		
Prep Date:	N/A		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68764-F-3 MSD
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	12/21/2013 1005
Prep Date:	N/A
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Orthophosphate as P	0.14	0.200	0.200	0.337	0.342

Client: Integral Consulting Inc

Job Number: 460-68763-1

Method Blank - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	MB 460-200410/3	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1515	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.30	U	0.30	1.0

LCS-Certified Reference Material - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-200410/4	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1535	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	72.0	72.28	100.4	86.9 - 113.1	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-68764-B-1 MS	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1712			Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68764-B-1 MSD	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1732			Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Total Organic Carbon	100	100	80 - 120	0	10		

Client: Integral Consulting Inc

Job Number: 460-68763-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-68764-B-1 MS	Units:	mg/L	MSD Lab Sample ID:	460-68764-B-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/27/2013 1712			Analysis Date:	12/27/2013 1732
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Total Organic Carbon	1.5	50.0	50.0	51.58	51.66

DATA REPORTING QUALIFIERS

Client: Integral Consulting Inc

Job Number: 460-68763-1

Lab Section	Qualifier	Description
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Integral Consulting Inc

Job Number: 460-68763-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:480-159515					
LCS 480-159515/3	Lab Control Sample	T	Water	300.0	
MB 480-159515/4	Method Blank	T	Water	300.0	
460-68763-1	GW0034	T	Water	300.0	
460-68763-2	GW0033	T	Water	300.0	
460-68763-4	GW0039	T	Water	300.0	
Analysis Batch:480-159678					
LCS 480-159678/51	Lab Control Sample	T	Water	300.0	
MB 480-159678/52	Method Blank	T	Water	300.0	
460-68763-3	GW0036	T	Water	300.0	
Analysis Batch:460-199259					
LCSSRM 460-199259/11	LCS-Certified Reference Material	T	Water	353.2	
MB 460-199259/9	Method Blank	T	Water	353.2	
460-68760-D-1 MS	Matrix Spike	T	Water	353.2	
460-68760-D-1 MSD	Matrix Spike Duplicate	T	Water	353.2	
460-68763-1	GW0034	T	Water	353.2	
460-68763-2	GW0033	T	Water	353.2	
460-68763-3	GW0036	T	Water	353.2	
460-68763-4	GW0039	T	Water	353.2	
Analysis Batch:460-199287					
LCSSRM 460-199287/4	LCS-Certified Reference Material	T	Water	SM 4500 P E	
MB 460-199287/3	Method Blank	T	Water	SM 4500 P E	
460-68763-1	GW0034	T	Water	SM 4500 P E	
460-68763-2	GW0033	T	Water	SM 4500 P E	
460-68763-3	GW0036	T	Water	SM 4500 P E	
460-68763-4	GW0039	T	Water	SM 4500 P E	
460-68764-F-3 MS	Matrix Spike	T	Water	SM 4500 P E	
460-68764-F-3 MSD	Matrix Spike Duplicate	T	Water	SM 4500 P E	
Analysis Batch:460-199703					
LCSSRM 460-199703/2	LCS-Certified Reference Material	T	Water	SM 2540D	
MB 460-199703/1	Method Blank	T	Water	SM 2540D	
460-68694-C-2 DU	Duplicate	T	Water	SM 2540D	
460-68763-1	GW0034	T	Water	SM 2540D	
460-68763-2	GW0033	T	Water	SM 2540D	
460-68763-3	GW0036	T	Water	SM 2540D	
460-68763-4	GW0039	T	Water	SM 2540D	

Client: Integral Consulting Inc

Job Number: 460-68763-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-200410					
LCSSRM 460-200410/4	LCS-Certified Reference Material	T	Water	SM 5310B	
MB 460-200410/3	Method Blank	T	Water	SM 5310B	
460-68763-1	GW0034	T	Water	SM 5310B	
460-68763-2	GW0033	T	Water	SM 5310B	
460-68763-3	GW0036	T	Water	SM 5310B	
460-68763-4	GW0039	T	Water	SM 5310B	
460-68764-B-1 MS	Matrix Spike	T	Water	SM 5310B	
460-68764-B-1 MSD	Matrix Spike Duplicate	T	Water	SM 5310B	
Prep Batch: 460-200972					
LCS 460-200972/2-A	Lab Control Sample	T	Water	SM 4500 NH3 B	
MB 460-200972/1-A	Method Blank	T	Water	SM 4500 NH3 B	
460-68228-G-1-B MS	Matrix Spike	T	Water	SM 4500 NH3 B	
460-68228-G-1-C MSD	Matrix Spike Duplicate	T	Water	SM 4500 NH3 B	
460-68763-1	GW0034	T	Water	SM 4500 NH3 B	
460-68763-2	GW0033	T	Water	SM 4500 NH3 B	
460-68763-3	GW0036	T	Water	SM 4500 NH3 B	
460-68763-4	GW0039	T	Water	SM 4500 NH3 B	
Analysis Batch:460-201012					
LCS 460-200972/2-A	Lab Control Sample	T	Water	4500 NH3 H	460-200972
MB 460-200972/1-A	Method Blank	T	Water	4500 NH3 H	460-200972
460-68228-G-1-B MS	Matrix Spike	T	Water	4500 NH3 H	460-200972
460-68228-G-1-C MSD	Matrix Spike Duplicate	T	Water	4500 NH3 H	460-200972
460-68763-1	GW0034	T	Water	4500 NH3 H	460-200972
460-68763-2	GW0033	T	Water	4500 NH3 H	460-200972
460-68763-3	GW0036	T	Water	4500 NH3 H	460-200972
460-68763-4	GW0039	T	Water	4500 NH3 H	460-200972
Analysis Batch:460-201028					
LCSSRM 460-201028/2	LCS-Certified Reference Material	T	Water	SM 2340C	
MB 460-201028/1	Method Blank	T	Water	SM 2340C	
460-68763-1	GW0034	T	Water	SM 2340C	
460-68763-2	GW0033	T	Water	SM 2340C	
460-68763-4	GW0039	T	Water	SM 2340C	
460-68764-E-5 DU	Duplicate	T	Water	SM 2340C	
Analysis Batch:460-201069					
LCSSRM 460-201069/3	LCS-Certified Reference Material	T	Water	SM 4500 H+ B	
MB 460-201069/2	Method Blank	T	Water	SM 4500 H+ B	
460-68717-A-1 DU	Duplicate	T	Water	SM 4500 H+ B	
460-68763-1	GW0034	T	Water	SM 4500 H+ B	
460-68763-2	GW0033	T	Water	SM 4500 H+ B	
460-68763-3	GW0036	T	Water	SM 4500 H+ B	
460-68763-4	GW0039	T	Water	SM 4500 H+ B	

Client: Integral Consulting Inc

Job Number: 460-68763-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-201106					
LCSSRM 460-201106/3	LCS-Certified Reference Material	T	Water	SM 2320B	
MB 460-201106/2	Method Blank	T	Water	SM 2320B	
460-68760-F-1 DU	Duplicate	T	Water	SM 2320B	
460-68763-1	GW0034	T	Water	SM 2320B	
460-68763-2	GW0033	T	Water	SM 2320B	
460-68763-3	GW0036	T	Water	SM 2320B	
460-68763-4	GW0039	T	Water	SM 2320B	
Analysis Batch:460-201532					
LCSSRM 460-201532/2	LCS-Certified Reference Material	T	Water	SM 2340C	
MB 460-201532/1	Method Blank	T	Water	SM 2340C	
460-68763-3	GW0036	T	Water	SM 2340C	
460-68763-3DU	Duplicate	T	Water	SM 2340C	

Report Basis

T = Total

Client: Integral Consulting Inc

Job Number: 460-68763-1

Laboratory Chronicle

Lab ID: **460-68763-1** **Client ID:** **GW0034**

Sample Date/Time: 12/19/2013 10:30 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68763-A-1		480-159515		12/26/2013 20:15	1	TAL BUF	KAC
A:353.2	460-68763-D-1		460-199259		12/21/2013 08:00	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68763-C-1-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68763-C-1-A		460-201012	460-200972	01/02/2014 11:35	1	TAL EDI	MAL
A:SM 2320B	460-68763-D-1		460-201106		01/02/2014 17:22	1	TAL EDI	MCC
A:SM 2340C	460-68763-E-1		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68763-G-1		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68763-F-1		460-201069		01/02/2014 15:30	1	TAL EDI	YAH
A:SM 4500 P E	460-68763-F-1		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68763-B-1		460-200410		12/27/2013 21:21	1	TAL EDI	HTV

Lab ID: **460-68763-2** **Client ID:** **GW0033**

Sample Date/Time: 12/19/2013 10:18 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68763-A-2		480-159515		12/26/2013 20:25	1	TAL BUF	KAC
A:353.2	460-68763-D-2		460-199259		12/21/2013 08:01	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68763-C-2-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68763-C-2-A		460-201012	460-200972	01/02/2014 11:36	1	TAL EDI	MAL
A:SM 2320B	460-68763-D-2		460-201106		01/02/2014 17:29	1	TAL EDI	MCC
A:SM 2340C	460-68763-E-2		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68763-G-2		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68763-F-2		460-201069		01/02/2014 15:32	1	TAL EDI	YAH
A:SM 4500 P E	460-68763-F-2		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68763-B-2		460-200410		12/27/2013 21:41	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68763-1

Laboratory Chronicle

Lab ID: **460-68763-3** **Client ID:** **GW0036**

Sample Date/Time: 12/19/2013 11:26 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68763-A-3		480-159678		12/28/2013 03:11	1	TAL BUF	KRC
A:353.2	460-68763-D-3		460-199259		12/21/2013 08:09	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68763-C-3-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68763-C-3-A		460-201012	460-200972	01/02/2014 11:38	1	TAL EDI	MAL
A:SM 2320B	460-68763-D-3		460-201106		01/02/2014 17:36	1	TAL EDI	MCC
A:SM 2340C	460-68763-E-3		460-201532		01/07/2014 14:40	1	TAL EDI	RAK
A:SM 2540D	460-68763-G-3		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68763-F-3		460-201069		01/02/2014 15:34	1	TAL EDI	YAH
A:SM 4500 P E	460-68763-F-3		460-199287		12/21/2013 10:05	1	TAL EDI	RAK
A:SM 5310B	460-68763-B-3		460-200410		12/27/2013 22:00	1	TAL EDI	HTV

Lab ID: **460-68763-3 DU** **Client ID:** **GW0036**

Sample Date/Time: 12/19/2013 11:26 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2340C	460-68763-E-3 DU		460-201532		01/07/2014 14:40	1	TAL EDI	RAK

Lab ID: **460-68763-4** **Client ID:** **GW0039**

Sample Date/Time: 12/19/2013 12:00 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68763-A-4		480-159515		12/26/2013 20:35	1	TAL BUF	KAC
A:353.2	460-68763-D-4		460-199259		12/21/2013 08:10	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68763-C-4-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68763-C-4-A		460-201012	460-200972	01/02/2014 11:39	1	TAL EDI	MAL
A:SM 2320B	460-68763-D-4		460-201106		01/02/2014 17:43	1	TAL EDI	MCC
A:SM 2340C	460-68763-E-4		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68763-G-4		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68763-F-4		460-201069		01/02/2014 15:37	1	TAL EDI	YAH
A:SM 4500 P E	460-68763-F-4		460-199287		12/21/2013 10:05	1	TAL EDI	RAK
A:SM 5310B	460-68763-B-4		460-200410		12/28/2013 06:05	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68763-1

Laboratory Chronicle

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
A:300.0	MB 480-159515/4		480-159515		12/26/2013 18:03	1	TAL BUF	KAC
A:300.0	MB 480-159678/52		480-159678		12/28/2013 01:09	1	TAL BUF	KRC
A:353.2	MB 460-199259/9		460-199259		12/21/2013 07:51	1	TAL EDI	MAL
P:SM 4500 NH3 B	MB 460-200972/1-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	MB 460-200972/1-A		460-201012	460-200972	01/02/2014 11:14	1	TAL EDI	MAL
A:SM 2320B	MB 460-201106/2		460-201106		01/02/2014 16:23	1	TAL EDI	MCC
A:SM 2340C	MB 460-201028/1		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2340C	MB 460-201532/1		460-201532		01/07/2014 14:40	1	TAL EDI	RAK
A:SM 2540D	MB 460-199703/1		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	MB 460-201069/2		460-201069		01/02/2014 15:07	1	TAL EDI	YAH
A:SM 4500 P E	MB 460-199287/3		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	MB 460-200410/3		460-200410		12/27/2013 15:15	1	TAL EDI	HTV

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
A:300.0	LCS 480-159515/3		480-159515		12/26/2013 17:53	1	TAL BUF	KAC
A:300.0	LCS 480-159678/51		480-159678		12/28/2013 00:59	1	TAL BUF	KRC
P:SM 4500 NH3 B	LCS 460-200972/2-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	LCS 460-200972/2-A		460-201012	460-200972	01/02/2014 11:16	1	TAL EDI	MAL

Lab ID: **LCSSRM** **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:353.2	LCSSRM 460-199259/11		460-199259		12/21/2013 07:54	1	TAL EDI	MAL
A:SM 2320B	LCSSRM 460-201106/3		460-201106		01/02/2014 16:29	1	TAL EDI	MCC
A:SM 2340C	LCSSRM 460-201028/2		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2340C	LCSSRM 460-201532/2		460-201532		01/07/2014 14:40	1	TAL EDI	RAK
A:SM 2540D	LCSSRM 460-199703/2		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	LCSSRM 460-201069/3		460-201069		01/02/2014 15:09	1	TAL EDI	YAH
A:SM 4500 P E	LCSSRM 460-199287/4		460-199287		12/21/2013 09:00	25	TAL EDI	RAK
A:SM 5310B	LCSSRM 460-200410/4		460-200410		12/27/2013 15:35	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68763-1

Laboratory Chronicle

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

Sample Date/Time: 12/19/2013 11:21 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:353.2	460-68760-D-1 MS		460-199259		12/21/2013 08:03	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68228-G-1-B MS		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68228-G-1-B MS		460-201012	460-200972	01/02/2014 11:19	1	TAL EDI	MAL
A:SM 4500 P E	460-68764-F-3 MS		460-199287		12/21/2013 10:05	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-1 MS		460-200410		12/27/2013 17:12	1	TAL EDI	HTV

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

Sample Date/Time: 12/19/2013 11:21 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:353.2	460-68760-D-1 MSD		460-199259		12/21/2013 08:04	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68228-G-1-C MSD		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68228-G-1-C MSD		460-201012	460-200972	01/02/2014 11:20	1	TAL EDI	MAL
A:SM 4500 P E	460-68764-F-3 MSD		460-199287		12/21/2013 10:05	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-1 MSD		460-200410		12/27/2013 17:32	1	TAL EDI	HTV

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

Sample Date/Time: 12/19/2013 11:21 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2320B	460-68760-F-1 DU		460-201106		01/02/2014 17:01	1	TAL EDI	MCC
A:SM 2340C	460-68764-E-5 DU		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68694-C-2 DU		460-199703		12/24/2013 08:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68717-A-1 DU		460-201069		01/02/2014 15:15	1	TAL EDI	YAH

Lab References:

TAL BUF = TestAmerica Buffalo

TAL EDI = TestAmerica Edison

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG No.:

Project: NJ Site

Client Sample ID	Lab Sample ID
GW0034	460-68763-1
GW0033	460-68763-2
GW0036	460-68763-3
GW0039	460-68763-4

Comments:

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68763-1

SDG No.:

Project: NJ Site

Client Sample ID	Lab Sample ID
GW0034	460-68763-1
GW0033	460-68763-2
GW0036	460-68763-3
GW0039	460-68763-4

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0034 | Lab Sample ID: 460-68763-1

Lab Name: TestAmerica Edison | Job No.: 460-68763-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 10:30

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	1.6	5.0	1.6	mg/L	U		1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.1	1.1	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.010	0.030	0.010	mg/L	U		1	SM 4500 P E
7440-44-0	Total Organic Carbon	0.30	1.0	0.30	mg/L	U		1	SM 5310B
7664-41-7	Ammonia (as N)	0.080	0.10	0.080	mg/L	U		1	4500 NH3 H
	pH	5.88			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0033 | Lab Sample ID: 460-68763-2

Lab Name: TestAmerica Edison | Job No.: 460-68763-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 10:18

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	50.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	141	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	141	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.1	1.1	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.20	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	0.93	1.0	0.30	mg/L	J		1	SM 5310B
7664-41-7	Ammonia (as N)	0.25	0.10	0.080	mg/L			1	4500 NH3 H
	pH	8.03			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0036 | Lab Sample ID: 460-68763-3

Lab Name: TestAmerica Edison | Job No.: 460-68763-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 11:26

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.31	0.10	0.047	mg/L			1	353.2
	Hardness as calcium carbonate	86.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	87.0	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	87.0	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.1	1.1	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.13	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.3	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.47	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.47			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0039 | Lab Sample ID: 460-68763-4

Lab Name: TestAmerica Edison | Job No.: 460-68763-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 12:00

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	80.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	119	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	119	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	7.6	1.1	1.1	mg/L			1	SM 2540D
	Orthophosphate as P	0.073	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.2	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.44	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.06			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0034
Lab Sample ID: 460-68763-1
Lab Name: TestAmerica Buffalo
Job No.: 460-68763-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 10:30
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	0.28	0.50	0.28	mg/L	U		1	300.0
16984-48-8	Fluoride	0.0060	0.050	0.0060	mg/L	U		1	300.0
14808-79-8	Sulfate	0.35	2.0	0.35	mg/L	U		1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0033
Lab Sample ID: 460-68763-2
Lab Name: TestAmerica Buffalo
Job No.: 460-68763-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 10:18
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	78.1	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.62	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	16.3	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0036
Lab Sample ID: 460-68763-3
Lab Name: TestAmerica Buffalo
Job No.: 460-68763-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 11:26
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	46.7	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.41	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	16.5	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0039
Lab Sample ID: 460-68763-4
Lab Name: TestAmerica Buffalo
Job No.: 460-68763-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 12:00
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	29.6	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.32	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	6.1	2.0	0.35	mg/L			1	300.0

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Analyst: MAL Batch Start Date: 12/21/2013

Reporting Units: mg/L Analytical Batch No.: 199259

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	07:48	Nitrate Nitrite as N	0.989	1.00	99	90-110		WTno3+2IM2_00243
8	ICB	07:50	Nitrate Nitrite as N	0.047				U	
19	CCV	08:06	Nitrate Nitrite as N	0.959	1.00	96	90-110		WTno3+2IM2_00243
20	CCB	08:07	Nitrate Nitrite as N	0.047				U	
31	CCV	08:23	Nitrate Nitrite as N	0.979	1.00	98	90-110		WTno3+2IM2_00243
32	CCB	08:25	Nitrate Nitrite as N	0.047				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 Edison Job No.: 460-68763-1

SDG No.:

Analyst: RAK Batch Start Date: 12/21/2013

Reporting Units: mg/L Analytical Batch No.: 199287

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:00	Orthophosphate as P	0.203	0.200	101	90-110		WTphosSS1_00018
2	ICB	09:00	Orthophosphate as P	0.010				U	
13	CCV	09:00	Orthophosphate as P	0.201	0.200	101	90-110		WTphosSS1_00018
14	CCB	10:05	Orthophosphate as P	0.010				U	
25	CCV	10:05	Orthophosphate as P	0.201	0.200	101	90-110		WTphosSS1_00018
26	CCB	10:05	Orthophosphate as P	0.010				U	
28	CCV	10:05	Orthophosphate as P	0.201	0.200	101	90-110		WTphosSS1_00018
29	CCB	10:05	Orthophosphate as P	0.010				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 Edison Job No.: 460-68763-1

SDG No.:

Analyst: HTV Batch Start Date: 12/27/2013

Reporting Units: mg/L Analytical Batch No.: 200410

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	14:27	Total Organic Carbon	51.21	50.0	102	90-110		WTtocSP2_00019
2	ICB	14:56	Total Organic Carbon	0.30				U	
13	CCV	19:30	Total Organic Carbon	49.45	50.0	99	90-110		WTtocSP2_00019
14	CCB	19:50	Total Organic Carbon	0.30				U	
25	CCV	23:58	Total Organic Carbon	48.68	50.0	97	90-110		WTtocSP2_00019
26	CCB	00:18	Total Organic Carbon	0.30				U	
33	CCV	05:06	Total Organic Carbon	49.50	50.0	99	90-110		WTtocSP2_00019
34	CCB	05:26	Total Organic Carbon	0.30				U	
37	CCV	06:25	Total Organic Carbon	49.46	50.0	99	90-110		WTtocSP2_00019
38	CCB	06:45	Total Organic Carbon	0.30				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 Edison Job No.: 460-68763-1

SDG No.:

Analyst: MAL Batch Start Date: 01/02/2014

Reporting Units: mg/L Analytical Batch No.: 201012

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	11:12	Ammonia (as N)	2.00	2.00	100	90-110		WTamnSS1_00007
8	ICB	11:13	Ammonia (as N)	0.080				U	
17	CCV	11:26	Ammonia (as N)	2.05	2.00	103	90-110		WTamnSS1_00007
18	CCB	11:28	Ammonia (as N)	0.080				U	
29	CCV	11:45	Ammonia (as N)	2.05	2.00	103	90-110		WTamnSS1_00007
30	CCB	11:47	Ammonia (as N)	0.080				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 Edison Job No.: 460-68763-1

SDG No.:

Analyst: YAH Batch Start Date: 01/02/2014

Reporting Units: SU Analytical Batch No.: 201069

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:05	pH	7.030	7.00	100	99-101		WTpHCCV_00020
11	CCV	15:28	pH	7.000	7.00	100	99-101		WTpHCCV_00020
21	CCV	15:48	pH	7.000	7.00	100	99-101		WTpHCCV_00020
26	CCV	16:00	pH	7.000	7.00	100	99-101		WTpHCCV_00020

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 Buffalo Job No.: 460-68763-1

SDG No.:

Analyst: KAC Batch Start Date: 12/26/2013

Reporting Units: mg/L Analytical Batch No.: 159515

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:33	Bromide	1.94	2.00	97	90-110		IC_ANION_LCS__00024
			Chloride	20.35	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.06	2.00	103	90-110		IC_ANION_LCS__00024
			Sulfate	20.36	20.0	102	90-110		IC_ANION_LCS__00024
2	CCB	17:43	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
13	CCV	19:34	Bromide	1.91	2.00	96	90-110		IC_ANION_LCS__00024
			Chloride	20.41	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.09	2.00	105	90-110		IC_ANION_LCS__00024
			Sulfate	20.36	20.0	102	90-110		IC_ANION_LCS__00024
14	CCB	19:44	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
25	CCV	21:36	Bromide	1.92	2.00	96	90-110		IC_ANION_LCS__00024
			Chloride	20.50	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.11	2.00	105	90-110		IC_ANION_LCS__00024
			Sulfate	20.46	20.0	102	90-110		IC_ANION_LCS__00024
26	CCB	21:46	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				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 Buffalo Job No.: 460-68763-1

SDG No.:

Analyst: KRC Batch Start Date: 12/28/2013

Reporting Units: mg/L Analytical Batch No.: 159678

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
49	CCV	00:39	Bromide	2.01	2.00	101	90-110		IC_ANION_LCS__00024
			Chloride	20.04	20.0	100	90-110		IC_ANION_LCS__00024
			Fluoride	2.01	2.00	101	90-110		IC_ANION_LCS__00024
			Sulfate	19.87	20.0	99	90-110		IC_ANION_LCS__00024
50	CCB	00:49	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
61	CCV	02:41	Bromide	2.01	2.00	100	90-110		IC_ANION_LCS__00024
			Chloride	19.96	20.0	100	90-110		IC_ANION_LCS__00024
			Fluoride	2.01	2.00	100	90-110		IC_ANION_LCS__00024
			Sulfate	19.73	20.0	99	90-110		IC_ANION_LCS__00024
62	CCB	02:51	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
73	CCV	04:42	Bromide	2.02	2.00	101	90-110		IC_ANION_LCS__00024
			Chloride	19.82	20.0	99	90-110		IC_ANION_LCS__00024
			Fluoride	2.01	2.00	101	90-110		IC_ANION_LCS__00024
			Sulfate	19.51	20.0	98	90-110		IC_ANION_LCS__00024
74	CCB	04:52	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	

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 Edison Job No.: 460-68763-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 199259 Date: 12/21/2013 07:51							
353.2	MB 460-199259/9	Nitrate as N	0.047	U	mg/L	0.10	1
353.2	MB 460-199259/9	Nitrate Nitrite as N	0.047	U	mg/L	0.10	1
353.2	MB 460-199259/9	Nitrite as N	0.0041	U	mg/L	0.10	1
Batch ID: 201012 Date: 01/02/2014 11:14 Prep Batch: 200972 Date: 01/02/2014 06:30							
4500 NH3 H	MB 460-200972/1-A	Ammonia (as N)	0.080	U	mg/L	0.10	1
Batch ID: 201106 Date: 01/02/2014 16:23							
SM 2320B	MB 460-201106/2	Bicarbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-201106/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-201106/2	Alkalinity	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-201106/2	Hydroxide Alkalinity	5.0	U	mg/L	5.0	1
Batch ID: 201028 Date: 01/02/2014 12:00							
SM 2340C	MB 460-201028/1	Hardness as calcium carbonate	1.6	U	mg/L	5.0	1
Batch ID: 201532 Date: 01/07/2014 14:40							
SM 2340C	MB 460-201532/1	Hardness as calcium carbonate	1.6	U	mg/L	5.0	1
Batch ID: 199703 Date: 12/24/2013 08:17							
SM 2540D	MB 460-199703/1	Total Suspended Solids	1.0	U	mg/L	1.0	1
Batch ID: 201069 Date: 01/02/2014 15:07							
SM 4500 H+ B	MB 460-201069/2	pH	6.050		SU		1
Batch ID: 199287 Date: 12/21/2013 09:00							
SM 4500 P E	MB 460-199287/3	Orthophosphate as P	0.010	U	mg/L	0.030	1
Batch ID: 200410 Date: 12/27/2013 15:15							
SM 5310B	MB 460-200410/3	Total Organic Carbon	0.30	U	mg/L	1.0	1

FORM III-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 159515 Date: 12/26/2013 18:03							
300.0	MB 480-159515/4	Bromide	0.073	U	mg/L	0.20	1
300.0	MB 480-159515/4	Chloride	0.28	U	mg/L	0.50	1
300.0	MB 480-159515/4	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-159515/4	Sulfate	0.35	U	mg/L	2.0	1
Batch ID: 159678 Date: 12/28/2013 01:09							
300.0	MB 480-159678/52	Bromide	0.073	U	mg/L	0.20	1
300.0	MB 480-159678/52	Chloride	0.28	U	mg/L	0.50	1
300.0	MB 480-159678/52	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-159678/52	Sulfate	0.35	U	mg/L	2.0	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199259	Date: 12/21/2013 08:03										
353.2	460-68760-D-1	Nitrate as N	0.32		mg/L						
353.2	460-68760-D-1 MS	Nitrate as N	0.831		mg/L	0.500	102	67-130			
353.2	460-68760-D-1	Nitrate Nitrite as N	0.32		mg/L						
353.2	460-68760-D-1 MS	Nitrate Nitrite as N	1.33		mg/L	1.00	101	66-124			
353.2	460-68760-D-1	Nitrite as N	0.0041	U	mg/L						
353.2	460-68760-D-1 MS	Nitrite as N	0.500		mg/L	0.500	100	84-109			
Batch ID: 201012	Date: 01/02/2014 11:19	Prep Batch: 200972	Date: 01/02/2014 06:30								
4500 NH3 H	460-68228-G-1 -B	Ammonia (as N)	0.080	U	mg/L						
4500 NH3 H	460-68228-G-1 -B MS	Ammonia (as N)	0.721		mg/L	1.00	72	60-147			
Batch ID: 199287	Date: 12/21/2013 10:05										
SM 4500 P E	460-68764-F-3	Orthophosphate as P	0.14		mg/L						
SM 4500 P E	460-68764-F-3 MS	Orthophosphate as P	0.337		mg/L	0.200	99	82-118			
Batch ID: 200410	Date: 12/27/2013 17:12										
SM 5310B	460-68764-B-1	Total Organic Carbon	1.5		mg/L						
SM 5310B	460-68764-B-1 MS	Total Organic Carbon	51.58		mg/L	50.0	100	80-120			

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199259 Date: 12/21/2013 08:04											
353.2	460-68760-D-1 MSD	Nitrate as N	0.840		mg/L	0.500	103	67-130	1	34	
353.2	460-68760-D-1 MSD	Nitrate Nitrite as N	1.33		mg/L	1.00	101	66-124	0	19	
353.2	460-68760-D-1 MSD	Nitrite as N	0.495		mg/L	0.500	99	84-109	1	10	
Batch ID: 201012 Date: 01/02/2014 11:20 Prep Batch: 200972 Date: 01/02/2014 06:30											
4500 NH3 H	460-68228-G-1 -C MSD	Ammonia (as N)	0.710		mg/L	1.00	71	60-147	2	16	
Batch ID: 199287 Date: 12/21/2013 10:05											
SM 4500 P E	460-68764-F-3 MSD	Orthophosphate as P	0.342		mg/L	0.200	101	82-118	1	10	
Batch ID: 200410 Date: 12/27/2013 17:32											
SM 5310B	460-68764-B-1 MSD	Total Organic Carbon	51.66		mg/L	50.0	100	80-120	0	10	

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

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 201106	Date: 01/02/2014 17:01							
SM 2320B		460-68760-F-1	Bicarbonate Alkalinity as CaCO3	90.8	mg/L			
SM 2320B		460-68760-F-1 DU	Bicarbonate Alkalinity as CaCO3	88.48	mg/L	3	27	
SM 2320B		460-68760-F-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B		460-68760-F-1 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	27	U
SM 2320B		460-68760-F-1	Alkalinity	90.8	mg/L			
SM 2320B		460-68760-F-1 DU	Alkalinity	88.48	mg/L	3	27	
SM 2320B		460-68760-F-1	Hydroxide Alkalinity	5.0	mg/L			U
SM 2320B		460-68760-F-1 DU	Hydroxide Alkalinity	5.0	mg/L	NC	27	U
Batch ID: 201028	Date: 01/02/2014 12:00							
SM 2340C		460-68764-E-5	Hardness as calcium carbonate	52.0	mg/L			
SM 2340C		460-68764-E-5 DU	Hardness as calcium carbonate	52.00	mg/L	0	10	
Batch ID: 201532	Date: 01/07/2014 14:40							
SM 2340C	GW0036	460-68763-3	Hardness as calcium carbonate	86.0	mg/L			
SM 2340C	GW0036	460-68763-3 DU	Hardness as calcium carbonate	86.00	mg/L	0	10	
Batch ID: 199703	Date: 12/24/2013 08:17							
SM 2540D		460-68694-C-2	Total Suspended Solids	1540	mg/L			
SM 2540D		460-68694-C-2 DU	Total Suspended Solids	1510	mg/L	2	5	
Batch ID: 201069	Date: 01/02/2014 15:15							
SM 4500 H+ B		460-68717-A-1	pH	7.70	SU			
SM 4500 H+ B		460-68717-A-1 DU	pH	7.690	SU	0.1	10	

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 201012	Date: 01/02/2014 11:16		Prep Batch: 200972			Date: 01/02/2014 06:30					
						LCS Source: WTamnIM1_00035					
4500 NH3 H	LCS 460-200972/2-A	Ammonia (as N)	1.10		mg/L	1.00	110	85-117			

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

FORM VIIA-IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199259	Date: 12/21/2013 07:54										
						LCS Source:	WTno3LCS_00014				
353.2	LCSSRM 460-199259/11	Nitrate as N	1.51		mg/L	1.51	99.8	87.4-11 2.6			
353.2	LCSSRM 460-199259/11	Nitrate Nitrite as N	1.51		mg/L	1.51	99.8	85.4-10 9.9			
Batch ID: 201106	Date: 01/02/2014 16:29										
						LCS Source:	WTalkLCS_00095				
SM 2320B	LCSSRM 460-201106/3	Alkalinity	69.80		mg/L	69.4	100.6	91.1-11 0.1			
Batch ID: 201028	Date: 01/02/2014 12:00										
						LCS Source:	WThardLCS0001_00013				
SM 2340C	LCSSRM 460-201028/2	Hardness as calcium carbonate	78.00		mg/L	77.7	100.4	91.4-10 9.0			
Batch ID: 201532	Date: 01/07/2014 14:40										
						LCS Source:	WThardLCS0001_00013				
SM 2340C	LCSSRM 460-201532/2	Hardness as calcium carbonate	76.00		mg/L	77.7	97.8	91.4-10 9.0			
Batch ID: 199703	Date: 12/24/2013 08:17										
						LCS Source:	WTtssLCS_00045				
SM 2540D	LCSSRM 460-199703/2	Total Suspended Solids	68.00		mg/L	75.5	90.1	82.7-10 7.9			
Batch ID: 201069	Date: 01/02/2014 15:09										
						LCS Source:	WTpHLCS_00015				
SM 4500 H+ B	LCSSRM 460-201069/3	pH	7.020		SU	7.03	99.9	98.0-10 2.0			
Batch ID: 199287	Date: 12/21/2013 09:00										
						LCS Source:	WTophosLCS_00004				
SM 4500 P E	LCSSRM 460-199287/4	Orthophosphate as P	5.76		mg/L	5.34	107.8	86.1-10 9.0			
Batch ID: 200410	Date: 12/27/2013 15:35										
						LCS Source:	WTtocLCS_00022				
SM 5310B	LCSSRM 460-200410/4	Total Organic Carbon	72.28		mg/L	72.0	100.4	86.9-11 3.1			

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 159515	Date: 12/26/2013 17:53										
						LCS Source: IC_ANION_LCS__00024					
300.0	LCS 480-159515/3	Bromide	1.91		mg/L	2.00	96	90-110			
300.0	LCS 480-159515/3	Chloride	20.40		mg/L	20.0	102	90-110			
300.0	LCS 480-159515/3	Fluoride	2.09		mg/L	2.00	105	90-110			
300.0	LCS 480-159515/3	Sulfate	20.44		mg/L	20.0	102	90-110			
Batch ID: 159678	Date: 12/28/2013 00:59										
						LCS Source: IC_ANION_LCS__00024					
300.0	LCS 480-159678/51	Bromide	1.98		mg/L	2.00	99	90-110			
300.0	LCS 480-159678/51	Chloride	19.73		mg/L	20.0	99	90-110			
300.0	LCS 480-159678/51	Fluoride	2.00		mg/L	2.00	100	90-110			
300.0	LCS 480-159678/51	Sulfate	19.70		mg/L	20.0	98	90-110			

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 Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: Lachat1

Method: 353.2 MDL Date: 04/22/2013 11:28

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Nitrate Nitrite as N		0.1	0.0474

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: Lachat1

Method: 353.2 XMDL Date: 04/22/2013 11:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate Nitrite as N		0.1	0.0474

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C MDL Date: 12/12/2012 12:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Hardness as calcium carbonate		5	1.62

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 12/12/2012 12:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness as calcium carbonate		5	1.62

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: Auto_Titrator

Method: SM 2320B MDL Date: 01/03/2013 12:46

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	3.54
Bicarbonate Alkalinity as CaCO3		5	3.54
Carbonate Alkalinity as CaCO3		5	3.54
Hydroxide Alkalinity		5	3.54

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: Auto_Titrator

Method: SM 2320B XMDL Date: 01/03/2013 12:46

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	3.54
Bicarbonate Alkalinity as CaCO3		5	3.54
Carbonate Alkalinity as CaCO3		5	3.54
Hydroxide Alkalinity		5	3.54

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540D MDL Date: 11/21/2012 16:34

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Suspended Solids		10	2.57

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540D XMDL Date: 11/21/2012 16:34

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Suspended Solids		10	2.57

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: WetPhosSpec

Method: SM 4500 P E MDL Date: 01/04/2013 09:20

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.03	0.01

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: WetPhosSpec

Method: SM 4500 P E XMDL Date: 01/04/2013 09:21

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.03	0.01

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: TOC_Shimadzu

Method: SM 5310B MDL Date: 10/16/2012 11:56

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Organic Carbon		1	0.296

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: TOC_Shimadzu

Method: SM 5310B XMDL Date: 10/16/2012 11:57

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon		1	0.296

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: Lachat2

Method: 4500 NH3 H MDL Date: 02/07/2013 21:40

Prep Method: SM 4500 NH3 B

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		0.1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: Lachat2

Method: 4500 NH3 H XMDL Date: 02/07/2013 21:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		0.1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 4500 H+ B RL Date: 01/01/2007 10:02

Analyte	Wavelength/ Mass	RL (SU)	
pH		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: IC-1

Method: 300.0 MDL Date: 02/09/2012 15:09

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.2	0.073
Chloride		0.5	0.282
Fluoride		0.05	0.006
Sulfate		2	0.349

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: IC-1

Method: 300.0 XMDL Date: 02/09/2012 15:10

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.2	0.073
Chloride		0.5	0.282
Fluoride		0.05	0.006
Sulfate		2	0.349

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: IC-2

Method: 300.0 MDL Date: 02/09/2012 15:09

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.2	0.073
Chloride		0.5	0.282
Fluoride		0.05	0.006
Sulfate		2	0.349

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68763-1

SDG Number:

Matrix: Water Instrument ID: IC-2

Method: 300.0 XMDL Date: 02/09/2012 15:10

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.2	0.073
Chloride		0.5	0.282
Fluoride		0.05	0.006
Sulfate		2	0.349

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Prep Method: SM 4500 NH3 B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 460-200972/1-A	01/02/2014 06:30	200972		50.0	50.0
LCS 460-200972/2-A	01/02/2014 06:30	200972		50.0	50.0
460-68228-G-1-B MS	01/02/2014 06:30	200972		50.0	50.0
460-68228-G-1-C MSD	01/02/2014 06:30	200972		50.0	50.0
460-68763-1	01/02/2014 06:30	200972		50.0	50.0
460-68763-2	01/02/2014 06:30	200972		50.0	50.0
460-68763-3	01/02/2014 06:30	200972		50.0	50.0
460-68763-4	01/02/2014 06:30	200972		50.0	50.0

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/21/2013 07:39 End Date: 12/21/2013 09:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3																	
ZZZZZZ			07:39																				
ZZZZZZ			07:40																				
ZZZZZZ			07:42																				
ZZZZZZ			07:43																				
ZZZZZZ			07:45																				
ZZZZZZ			07:46																				
ICV 460-199259/7	1		07:48	X	X	X																	
ICB 460-199259/8	1		07:50		X																		
MB 460-199259/9	1	T	07:51		X																		
ZZZZZZ			07:53																				
LCSSRM 460-199259/11	1	T	07:54		X	X																	
ZZZZZZ			07:56																				
ZZZZZZ			07:57																				
ZZZZZZ			07:58																				
460-68763-1	1	T	08:00		X																		
460-68763-2	1	T	08:01		X																		
460-68760-D-1 MS	1	T	08:03	X	X	X																	
460-68760-D-1 MSD	1	T	08:04	X	X	X																	
CCV 460-199259/19	1		08:06	X	X	X																	
CCB 460-199259/20	1		08:07		X																		
460-68763-3	1	T	08:09		X																		
460-68763-4	1	T	08:10		X																		
ZZZZZZ			08:12																				
ZZZZZZ			08:13																				
ZZZZZZ			08:14																				
ZZZZZZ			08:16																				
ZZZZZZ			08:17																				
ZZZZZZ			08:19																				
ZZZZZZ			08:20																				
ZZZZZZ			08:22																				
CCV 460-199259/31	1		08:23	X	X	X																	
CCB 460-199259/32	1		08:25		X																		
ZZZZZZ			08:26																				
ZZZZZZ			08:28																				
ZZZZZZ			08:29																				
ZZZZZZ			08:30																				
ZZZZZZ			08:32																				
ZZZZZZ			08:33																				
ZZZZZZ			08:35																				
ZZZZZZ			08:36																				
ZZZZZZ			08:38																				
ZZZZZZ			08:39																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/21/2013 07:39 End Date: 12/21/2013 09:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3																	
CCV 460-199259/43			08:41																				
CCB 460-199259/44			08:42																				
ZZZZZZ			08:44																				
ZZZZZZ			08:45																				
ZZZZZZ			08:47																				
ZZZZZZ			08:48																				
ZZZZZZ			08:49																				
ZZZZZZ			08:51																				
ZZZZZZ			08:52																				
ZZZZZZ			08:54																				
ZZZZZZ			08:55																				
ZZZZZZ			08:57																				
CCV 460-199259/55			08:58																				
CCB 460-199259/56			09:00																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2340C

Start Date: 01/02/2014 12:00 End Date: 01/02/2014 12:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				HardCC																			
MB 460-201028/1	1	T	12:00	X																			
LCSSRM 460-201028/2	1	T	12:00	X																			
ZZZZZZ			12:00																				
460-68764-E-5 DU	1	T	12:00	X																			
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
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ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
460-68763-1	1	T	12:00	X																			
460-68763-2	1	T	12:00	X																			
460-68763-4	1	T	12:00	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2340C

Start Date: 01/07/2014 14:40 End Date: 01/07/2014 14:40

Lab Sample ID	D/F	Type	Time	Analytes																			
				HardCC																			
MB 460-201532/1	1	T	14:40	X																			
LCSSRM 460-201532/2	1	T	14:40	X																			
460-68763-3	1	T	14:40	X																			
460-68763-3 DU	1	T	14:40	X																			
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				
ZZZZZZ			14:40																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: Auto_Titrator Method: SM 2320B

Start Date: 01/02/2014 16:16 End Date: 01/02/2014 21:27

Lab Sample ID	D/F	Type	Time	Analytes																			
				Alk	BALKCC	CarAlk	OHAlk																
RINSE 460-201106/1			16:16																				
MB 460-201106/2	1	T	16:23	X	X	X	X																
LCSSRM 460-201106/3	1	T	16:29	X																			
ZZZZZZ			16:54																				
460-68760-F-1 DU	1	T	17:01	X	X	X	X																
ZZZZZZ			17:08																				
ZZZZZZ			17:15																				
460-68763-1	1	T	17:22	X	X	X	X																
460-68763-2	1	T	17:29	X	X	X	X																
460-68763-3	1	T	17:36	X	X	X	X																
460-68763-4	1	T	17:43	X	X	X	X																
ZZZZZZ			17:49																				
ZZZZZZ			17:57																				
ZZZZZZ			18:04																				
ZZZZZZ			18:11																				
ZZZZZZ			18:18																				
ZZZZZZ			18:25																				
ZZZZZZ			18:32																				
ZZZZZZ			18:39																				
ZZZZZZ			18:46																				
ZZZZZZ			18:53																				
ZZZZZZ			19:00																				
ZZZZZZ			19:06																				
ZZZZZZ			19:13																				
ZZZZZZ			19:20																				
ZZZZZZ			19:26																				
ZZZZZZ			19:32																				
ZZZZZZ			19:39																				
ZZZZZZ			19:46																				
ZZZZZZ			19:53																				
ZZZZZZ			19:59																				
ZZZZZZ			20:06																				
ZZZZZZ			20:12																				
ZZZZZZ			20:18																				
ZZZZZZ			20:25																				
ZZZZZZ			20:31																				
ZZZZZZ			20:38																				
ZZZZZZ			20:44																				
ZZZZZZ			20:52																				
ZZZZZZ			20:58																				
ZZZZZZ			21:06																				
ZZZZZZ			21:13																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: Auto_Titrator Method: SM 2320B

Start Date: 01/02/2014 16:16 End Date: 01/02/2014 21:27

Lab Sample ID	D/F	Type	Time	Analytes																			
				Alk	BALKCC	CarAlk	OHAlk																
ZZZZZZ			21:20																				
ZZZZZZ			21:27																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2540D

Start Date: 12/24/2013 08:17 End Date: 12/24/2013 08:17

Lab Sample ID	D/F	Type	Time	Analytes																			
				TSS																			
MB 460-199703/1	1	T	08:17	X																			
LCSSRM 460-199703/2	1	T	08:17	X																			
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
460-68694-C-2 DU	1	T	08:17	X																			
460-68763-1	1	T	08:17	X																			
460-68763-2	1	T	08:17	X																			
460-68763-3	1	T	08:17	X																			
460-68763-4	1	T	08:17	X																			
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				
ZZZZZZ			08:17																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: WetPhosSpec Method: SM 4500 P E

Start Date: 12/21/2013 09:00 End Date: 12/21/2013 10:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Orthop																			
ICV 460-199287/1	1		09:00	X																			
ICB 460-199287/2	1		09:00	X																			
MB 460-199287/3	1	T	09:00	X																			
LCSSRM 460-199287/4	25	T	09:00	X																			
ZZZZZZ			09:00																				
ZZZZZZ			09:00																				
ZZZZZZ			09:00																				
ZZZZZZ			09:00																				
460-68763-2	1	T	09:00	X																			
460-68763-1	1	T	09:00	X																			
ZZZZZZ			09:00																				
ZZZZZZ			09:00																				
CCV 460-199287/13	1		09:00	X																			
CCB 460-199287/14	1		10:05	X																			
460-68763-3	1	T	10:05	X																			
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
460-68763-4	1	T	10:05	X																			
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
460-68764-F-3 MS	1	T	10:05	X																			
CCV 460-199287/25	1		10:05	X																			
CCB 460-199287/26	1		10:05	X																			
460-68764-F-3 MSD	1	T	10:05	X																			
CCV 460-199287/28	1		10:05	X																			
CCB 460-199287/29	1		10:05	X																			
ZZZZZZ			10:05																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: TOC_Shimadzu Method: SM 5310B

Start Date: 12/27/2013 14:27 End Date: 12/28/2013 06:45

Lab Sample ID	D/F	Type	Time	Analytes																			
				TOC																			
ICV 460-200410/1	1		14:27	X																			
ICB 460-200410/2	1		14:56	X																			
MB 460-200410/3	1	T	15:15	X																			
LCSSRM 460-200410/4	1	T	15:35	X																			
ZZZZZZ			16:52																				
460-68764-B-1 MS	1	T	17:12	X																			
460-68764-B-1 MSD	1	T	17:32	X																			
ZZZZZZ			17:53																				
ZZZZZZ			18:12																				
ZZZZZZ			18:31																				
ZZZZZZ			18:51																				
ZZZZZZ			19:10																				
CCV 460-200410/13	1		19:30	X																			
CCB 460-200410/14	1		19:50	X																			
ZZZZZZ			20:09																				
ZZZZZZ			20:51																				
460-68763-1	1	T	21:21	X																			
460-68763-2	1	T	21:41	X																			
460-68763-3	1	T	22:00	X																			
ZZZZZZ			22:19																				
ZZZZZZ			22:39																				
ZZZZZZ			22:58																				
ZZZZZZ			23:18																				
ZZZZZZ			23:38																				
CCV 460-200410/25	1		23:58	X																			
CCB 460-200410/26	1		00:18	X																			
ZZZZZZ			00:38																				
ZZZZZZ			00:57																				
ZZZZZZ			01:16																				
ZZZZZZ			01:36																				
CCV 460-200410/31			01:56																				
CCB 460-200410/32			02:16																				
CCV 460-200410/33	1		05:06	X																			
CCB 460-200410/34	1		05:26	X																			
ZZZZZZ			05:45																				
460-68763-4	1	T	06:05	X																			
CCV 460-200410/37	1		06:25	X																			
CCB 460-200410/38	1		06:45	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: Lachat2 Method: 4500 NH3 H

Start Date: 01/02/2014 11:01 End Date: 01/02/2014 11:54

Lab Sample ID	D/F	Type	Time	Analytes																			
				NH3																			
ICV 460-201012/7	1		11:12	X																			
ICB 460-201012/8	1		11:13	X																			
MB 460-200972/1-A	1	T	11:14	X																			
LCS 460-200972/2-A	1	T	11:16	X																			
460-68228-G-1-B MS	1	T	11:19	X																			
460-68228-G-1-C MSD	1	T	11:20	X																			
CCV 460-201012/17	1		11:26	X																			
CCB 460-201012/18	1		11:28	X																			
460-68763-1	1	T	11:35	X																			
460-68763-2	1	T	11:36	X																			
460-68763-3	1	T	11:38	X																			
460-68763-4	1	T	11:39	X																			
CCV 460-201012/29	1		11:45	X																			
CCB 460-201012/30	1		11:47	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 4500 H+ B

Start Date: 01/02/2014 15:05 End Date: 01/02/2014 16:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				pH																			
CCV 460-201069/1	1		15:05	X																			
MB 460-201069/2	1	T	15:07	X																			
LCSSRM 460-201069/3	1	T	15:09	X																			
460-68717-A-1 DU	1	T	15:15	X																			
CCV 460-201069/11	1		15:28	X																			
460-68763-1	1	T	15:30	X																			
460-68763-2	1	T	15:32	X																			
460-68763-3	1	T	15:34	X																			
460-68763-4	1	T	15:37	X																			
CCV 460-201069/21	1		15:48	X																			
CCV 460-201069/26	1		16:00	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Instrument ID: IC-1 Method: 300.0

Start Date: 12/26/2013 17:33 End Date: 12/26/2013 21:46

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-159515/1	1		17:33	X	X	X	X																
CCB 480-159515/2	1		17:43	X	X	X	X																
LCS 480-159515/3	1	T	17:53	X	X	X	X																
MB 480-159515/4	1	T	18:03	X	X	X	X																
ZZZZZZ			18:13																				
ZZZZZZ			18:23																				
ZZZZZZ			18:34																				
ZZZZZZ			18:44																				
ZZZZZZ			18:54																				
ZZZZZZ			19:04																				
ZZZZZZ			19:14																				
ZZZZZZ			19:24																				
CCV 480-159515/13	1		19:34	X	X	X	X																
CCB 480-159515/14	1		19:44	X	X	X	X																
ZZZZZZ			19:55																				
ZZZZZZ			20:05																				
460-68763-1	1	T	20:15	X	X	X	X																
460-68763-2	1	T	20:25	X	X	X	X																
460-68763-4	1	T	20:35	X	X	X	X																
ZZZZZZ			20:45																				
ZZZZZZ			20:55																				
ZZZZZZ			21:06																				
ZZZZZZ			21:16																				
ZZZZZZ			21:26																				
CCV 480-159515/25	1		21:36	X	X	X	X																
CCB 480-159515/26	1		21:46	X	X	X	X																

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Instrument ID: IC-2 Method: 300.0

Start Date: 12/28/2013 00:39 End Date: 12/28/2013 04:52

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-159678/49	1		00:39	X	X	X	X																
CCB 480-159678/50	1		00:49	X	X	X	X																
LCS 480-159678/51	1	T	00:59	X	X	X	X																
MB 480-159678/52	1	T	01:09	X	X	X	X																
ZZZZZZ			01:20																				
ZZZZZZ			01:30																				
ZZZZZZ			01:40																				
ZZZZZZ			01:50																				
ZZZZZZ			02:00																				
ZZZZZZ			02:10																				
ZZZZZZ			02:20																				
ZZZZZZ			02:30																				
CCV 480-159678/61	1		02:41	X	X	X	X																
CCB 480-159678/62	1		02:51	X	X	X	X																
ZZZZZZ			03:01																				
460-68763-3	1	T	03:11	X	X	X	X																
ZZZZZZ			03:21																				
ZZZZZZ			03:31																				
ZZZZZZ			03:41																				
ZZZZZZ			03:52																				
ZZZZZZ			04:02																				
CCV 480-159678/73	1		04:42	X	X	X	X																
CCB 480-159678/74	1		04:52	X	X	X	X																

Prep Types

T = Total/NA

OPERATOR:	laura	Method - Ch. 1 (NO3+NO2)
ACQ. TIME:	Dec 21, 2013 7:39:07	
DATA FILENAME:PTION:	C:\OMNION\DATA\NITRATE\2013DA~1\N131221A.FDT	
METHOD FILENAME:	C:\OMNION\METHODS\NO3NO2A.MET	
TRAY FILENAME:	Dec 20, 2013 10:24:32	
NO3+NO2a.met		
TRAY DESCRIPTION:		
Created:TE DATA:	Oct 18, 2013 14:04:36	
Modified:ame:	Dec 21, 2013 8:31:46	
360 trayration Units:	mg /L	
DATA DESCRIPTION:	Direct	
Created: Peak Start (s):	Dec 21, 2013 7:39:07	
Modified:: Width (s):	Dec 21, 2013 7:39:07	
% Width Tolerance:	100.000	
Threshold:	1371.000	
Autodilution Trigger:	Off	
QuikChem Method:	10-107-04-1-C	

CALIBRATION DATA:
Levels:
1 : 2.000 2 : 1.500 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000

Calibration Rep Handling:	Average
Calibration Fit Type:	1st Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	90.0
Min. Probe in Wash Period:	14.0
Probe in Sample Period:	25.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

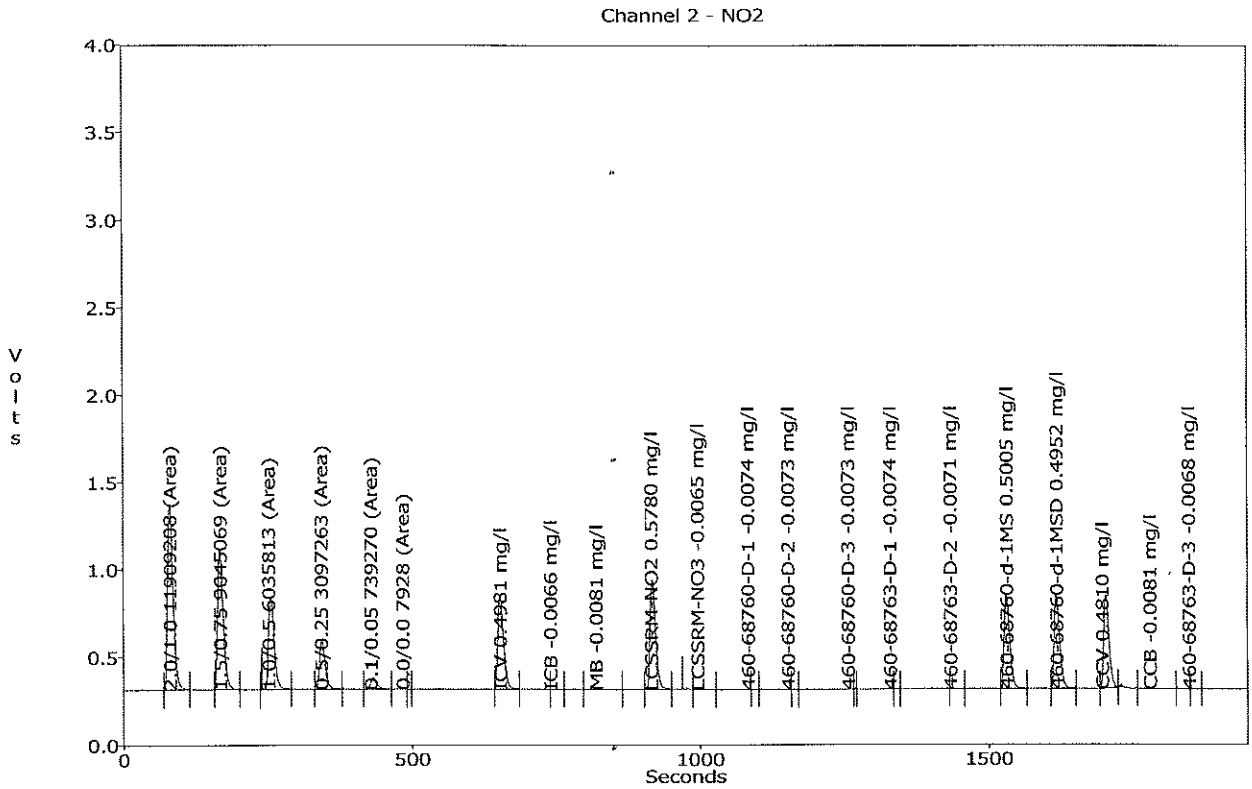
Method Cycle Period:	90.0
Sample Reaches 1st Valve:	37.0
Valve:	On
Load Time:	0.0
Load Period:	10.0
Inject Period:	80.0

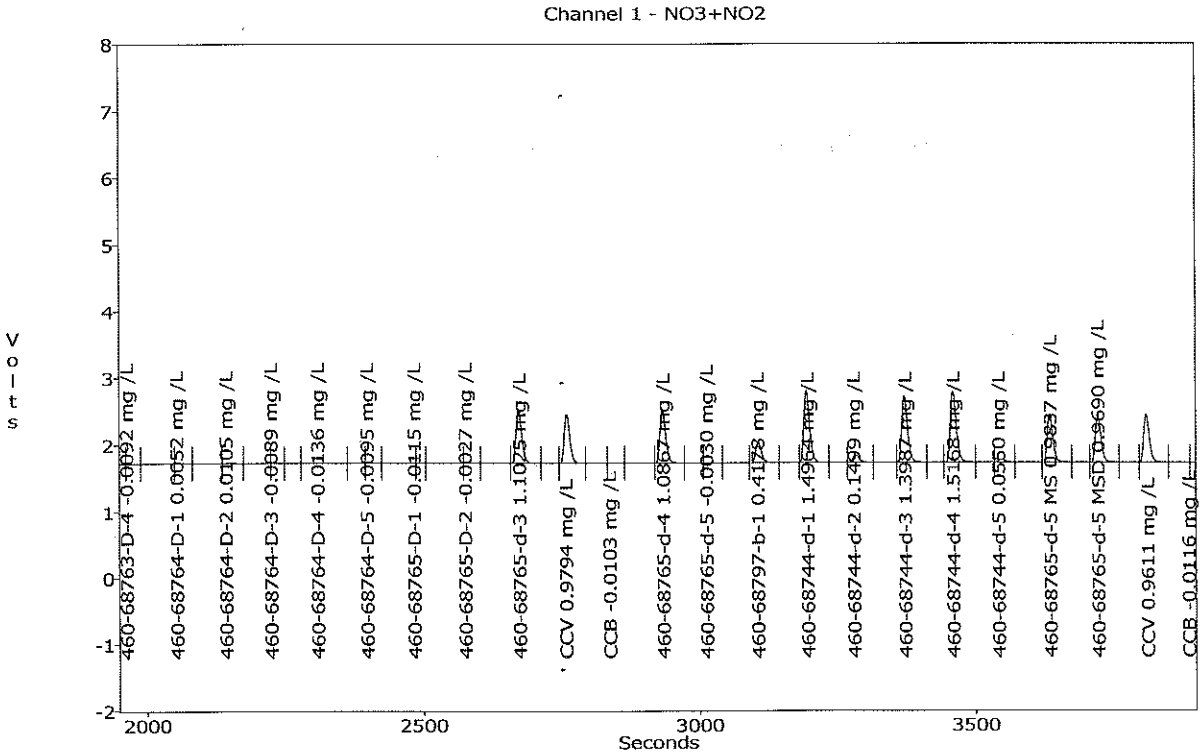
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

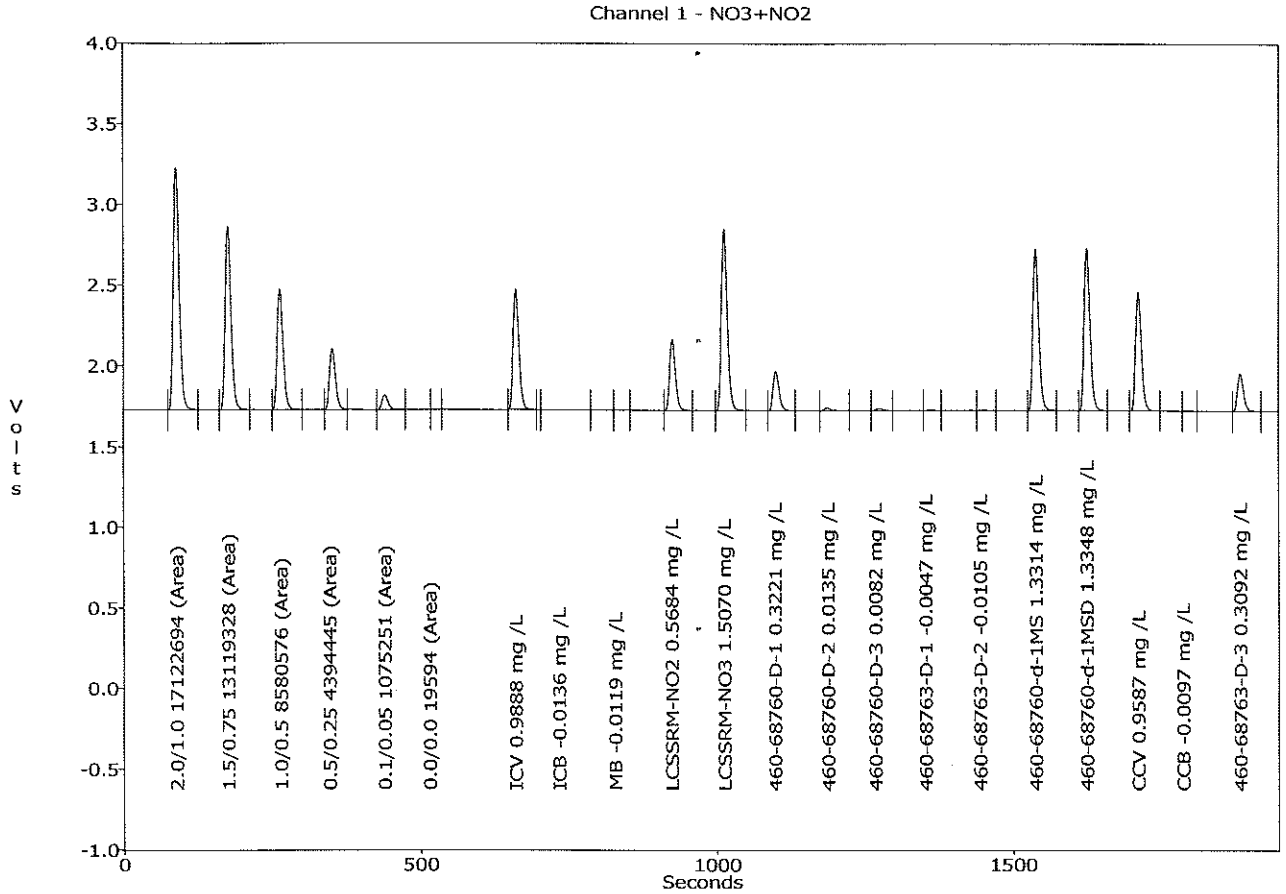
Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	NO2 (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	2.0/1.0	21 Dec 2013	07:39:08	1	17122694.00	11909208.00	1.0	1.00	1.00000	g
2	1.5/0.75	21 Dec 2013	07:40:35	1	13119328.00	9045069.00	1.0	1.00	1.00000	g
3	1.0/0.5	21 Dec 2013	07:42:03	1	8580576.00	6035813.00	1.0	1.00	1.00000	g
4	0.5/0.25	21 Dec 2013	07:43:32	1	4394445.00	3097263.00	1.0	1.00	1.00000	g
5	0.1/0.05	21 Dec 2013	07:45:00	1	1075251.00	739270.00	1.0	1.00	1.00000	g
6	0.0/0.0	21 Dec 2013	07:46:29	1	19594.00	7928.00	1.0	1.00	1.00000	g

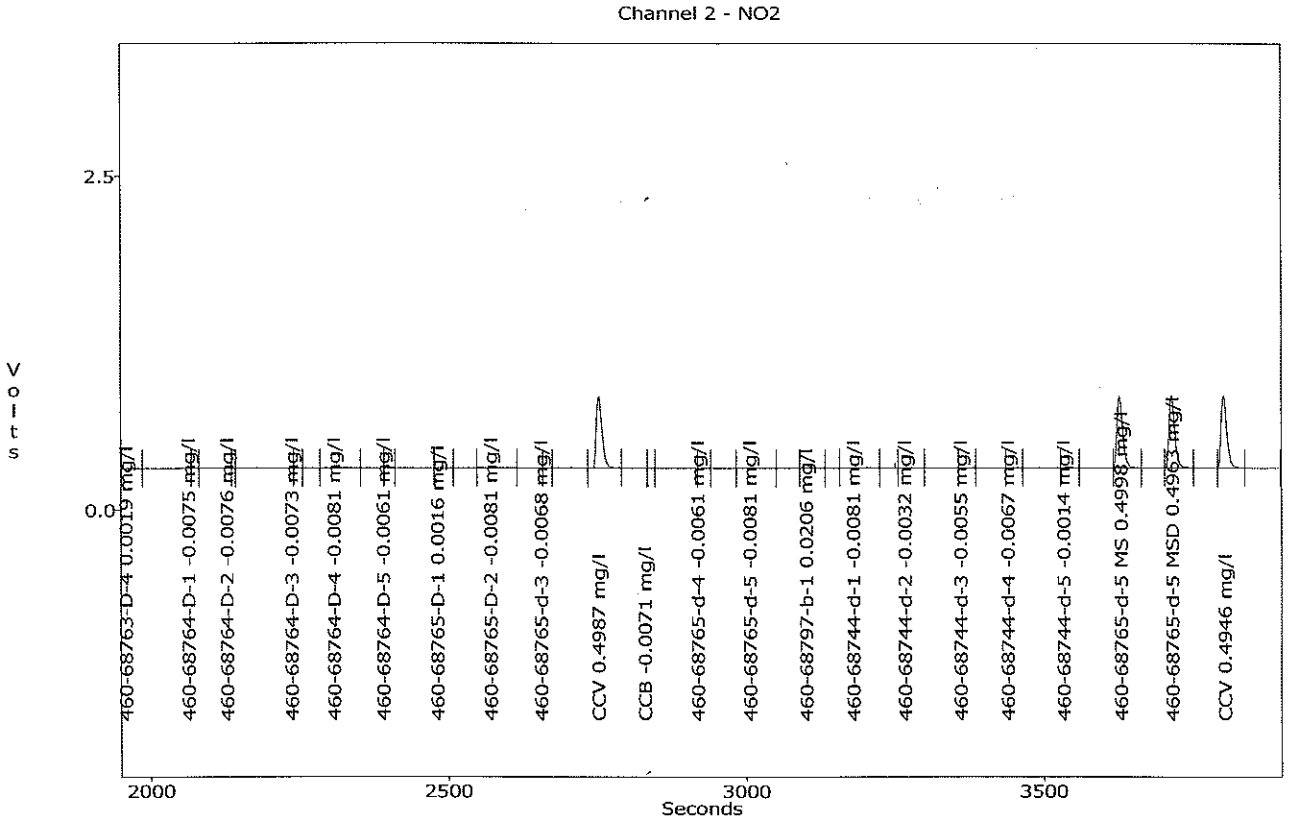
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg /L)	NO2 (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	ICV	21 Dec 2013	07:48:40	1	0.9888	0.4981	1.0	1.00	1.00000	g
2	ICB	21 Dec 2013	07:50:09	1	-0.0136	-0.0066	1.0	1.00	1.00000	g
3	MB	21 Dec 2013	07:51:37	1	-0.0119	-0.0081	1.0	1.00	1.00000	g
4	LCSSRM-NO2	21 Dec 2013	07:53:04	1	0.5684	0.5780	1.0	1.00	1.00000	g
5	LCSSRM-NO3	21 Dec 2013	07:54:32	1	1.5070	-0.0065	1.0	1.00	1.00000	g
6	460-68760-D-1	21 Dec 2013	07:56:00	1	0.3221	-0.0074	1.0	1.00	1.00000	g
7	460-68760-D-2	21 Dec 2013	07:57:28	1	0.0135	-0.0073	1.0	1.00	1.00000	g
8	460-68760-D-3	21 Dec 2013	07:58:55	1	0.0082	-0.0073	1.0	1.00	1.00000	g
9	460-68763-D-1	21 Dec 2013	08:00:23	1	-0.0047	-0.0074	1.0	1.00	1.00000	g
10	460-68763-D-2	21 Dec 2013	08:01:50	1	-0.0105	-0.0071	1.0	1.00	1.00000	g
11	460-68760-d-1MS	21 Dec 2013	08:03:18	1	1.3314	0.5005	1.0	1.00	1.00000	g
12	460-68760-d-1MSD	21 Dec 2013	08:04:45	1	1.3348	0.4952	1.0	1.00	1.00000	g
13	CCV	21 Dec 2013	08:06:11	1	0.9587	0.4810	1.0	1.00	1.00000	g
14	CCB	21 Dec 2013	08:07:38	1	-0.0097	-0.0081	1.0	1.00	1.00000	g
15	460-68763-D-3	21 Dec 2013	08:09:05	1	0.3092	-0.0068	1.0	1.00	1.00000	g
16	460-68763-D-4	21 Dec 2013	08:10:33	1	-0.0092	0.0019	1.0	1.00	1.00000	g
17	460-68764-D-1	21 Dec 2013	08:12:02	1	0.0052	-0.0075	1.0	1.00	1.00000	g
18	460-68764-D-2	21 Dec 2013	08:13:30	1	0.0105	-0.0076	1.0	1.00	1.00000	g
19	460-68764-D-3	21 Dec 2013	08:14:57	1	-0.0089	-0.0073	1.0	1.00	1.00000	g
20	460-68764-D-4	21 Dec 2013	08:16:25	1	-0.0136	-0.0081	1.0	1.00	1.00000	g
21	460-68764-D-5	21 Dec 2013	08:17:53	1	-0.0095	-0.0061	1.0	1.00	1.00000	g
22	460-68765-D-1	21 Dec 2013	08:19:20	1	-0.0115	0.0016	1.0	1.00	1.00000	g
23	460-68765-D-2	21 Dec 2013	08:20:48	1	-0.0027	-0.0081	1.0	1.00	1.00000	g
24	460-68765-d-3	21 Dec 2013	08:22:16	1	1.1025	-0.0068	1.0	1.00	1.00000	g
25	CCV	21 Dec 2013	08:23:43	1	0.9794	0.4987	1.0	1.00	1.00000	g
26	CCB	21 Dec 2013	08:25:10	1	-0.0103	-0.0071	1.0	1.00	1.00000	g
27	460-68765-d-4	21 Dec 2013	08:26:36	1	1.0867	-0.0061	1.0	1.00	1.00000	g
28	460-68765-d-5	21 Dec 2013	08:28:04	1	-0.0030	-0.0081	1.0	1.00	1.00000	g
29	460-68797-b-1	21 Dec 2013	08:29:31	1	0.4178	0.0206	1.0	1.00	1.00000	g
30	460-68744-d-1	21 Dec 2013	08:30:58	1	1.4964	-0.0081	1.0	1.00	1.00000	g
31	460-68744-d-2	21 Dec 2013	08:32:26	1	0.1499	-0.0032	1.0	1.00	1.00000	g
32	460-68744-d-3	21 Dec 2013	08:33:55	1	1.3987	-0.0055	1.0	1.00	1.00000	g
33	460-68744-d-4	21 Dec 2013	08:35:23	1	1.5168	-0.0067	1.0	1.00	1.00000	g
34	460-68744-d-5	21 Dec 2013	08:36:50	1	0.0550	-0.0014	1.0	1.00	1.00000	g
35	460-68765-d-5 MS	21 Dec 2013	08:38:18	1	0.9837	0.4998	1.0	1.00	1.00000	g
36	460-68765-d-5 MSD	21 Dec 2013	08:39:46	1	0.9690	0.4963	1.0	1.00	1.00000	g
37	CCV	21 Dec 2013	08:41:14	1	0.9611	0.4946	1.0	1.00	1.00000	g
38	CCB	21 Dec 2013	08:42:41	1	-0.0116	-0.0067	1.0	1.00	1.00000	g
39	MB	21 Dec 2013	08:44:09	1	-0.0123	-0.0073	1.0	1.00	1.00000	g
40	LCSSRM-NO2	21 Dec 2013	08:45:37	1	0.5558	0.5627	1.0	1.00	1.00000	g
41	LCSSRM-NO3	21 Dec 2013	08:47:04	1	1.4290	-0.0065	1.0	1.00	1.00000	g
42	460-68772-g-1	21 Dec 2013	08:48:31	1	2.0128	-0.0013	1.0	1.00	1.00000	g
43	460-68772-h-2	21 Dec 2013	08:49:58	1	-0.0127	-0.0068	1.0	1.00	1.00000	g
44	460-68766-d-1	21 Dec 2013	08:51:24	1	0.0126	0.0305	1.0	1.00	1.00000	g
45	460-68766-d-2	21 Dec 2013	08:52:51	1	0.0135	0.0120	1.0	1.00	1.00000	g
46	460-68766-d-3	21 Dec 2013	08:54:19	1	0.0159	0.0154	1.0	1.00	1.00000	g
47	460-68766-d-4	21 Dec 2013	08:55:47	1	0.0214	0.0142	1.0	1.00	1.00000	g
48	460-67898-g-2	21 Dec 2013	08:57:15	1	0.7593	-0.0039	1.0	1.00	1.00000	g
49	CCV	21 Dec 2013	08:58:43	1	0.9793	0.4981	1.0	1.00	1.00000	g
50	CCB	21 Dec 2013	09:00:10	1	-0.0116	-0.0070	1.0	1.00	1.00000	g


Channel 2 - NO2
Volts
Seconds
2.0/1.0 11909208 (Area)
1.5/0.75 9045069 (Area)
1.0/0.5 6035813 (Area)
0.5/0.25 3097263 (Area)
0.1/0.05 739270 (Area)
0.0/0.0 7928 (Area)
ICV 0.4981 mg/l
ICB -0.0066 mg/l
MB -0.0081 mg/l
LCSSRM-NO2 0.5780 mg/l
LCSSRM-NO3 -0.0065 mg/l
460-68760-D-1 -0.0074 mg/l
460-68760-D-2 -0.0073 mg/l
460-68760-D-3 -0.0073 mg/l
460-68763-D-1 -0.0074 mg/l
460-68763-D-2 -0.0071 mg/l
460-68760-d-1MS 0.5005 mg/l
460-68760-d-1MSD 0.4952 mg/l
CCV 0.4810 mg/l
CCB -0.0081 mg/l
460-68763-D-3 -0.0068 mg/l


Channel 1 - NO3+NO2
Volts
Seconds
460-68763-D-4 -0.0092 mg /L
460-68764-D-1 0.0052 mg /L
460-68764-D-2 0.0105 mg /L
460-68764-D-3 -0.0089 mg /L
460-68764-D-4 -0.0136 mg /L
460-68764-D-5 -0.0095 mg /L
460-68765-D-1 -0.0115 mg /L
460-68765-D-2 -0.0027 mg /L
460-68765-d-3 1.1075 mg /L
CCV 0.9794 mg /L
CCB -0.0103 mg /L
460-68765-d-4 1.0867 mg /L
460-68765-d-5 -0.0030 mg /L
460-68797-b-1 0.4178 mg /L
460-68744-d-1 1.4954 mg /L
460-68744-d-2 0.1499 mg /L
460-68744-d-3 1.3987 mg /L
460-68744-d-4 1.5168 mg /L
460-68744-d-5 0.0560 mg /L
460-68765-d-5 MS 0.9837 mg /L
460-68765-d-5 MSD 0.9690 mg /L
CCV 0.9611 mg /L
CCB -0.0116 mg /L


Channel 1 - NO3+NO2
Volts
Seconds
2.0/1.0 17122694 (Area)
1.5/0.75 13119328 (Area)
1.0/0.5 8580576 (Area)
0.5/0.25 4394445 (Area)
0.1/0.05 1075251 (Area)
0.0/0.0 19594 (Area)
ICV 0.9888 mg /L
ICB -0.0136 mg /L
MB -0.0119 mg /L
LCSSRM-NO2 0.5684 mg /L
LCSSRM-NO3 1.5070 mg /L
460-68760-D-1 0.3221 mg /L
460-68760-D-2 0.0135 mg /L
460-68760-D-3 0.0082 mg /L
460-68763-D-1 -0.0047 mg /L
460-68763-D-2 -0.0105 mg /L
460-68760-d-1MS 1.3314 mg /L
460-68760-d-1MSD 1.3348 mg /L
CCV 0.9587 mg /L
CCB -0.0097 mg /L
460-68763-D-3 0.3092 mg /L


Channel 2 - NO2
Volts
Seconds
460-68763-D-4 0.0019 mg/l
460-68764-D-1 -0.0075 mg/l
460-68764-D-2 -0.0076 mg/l
460-68764-D-3 -0.0073 mg/l
460-68764-D-4 -0.0081 mg/l
460-68764-D-5 -0.0061 mg/l
460-68765-D-1 0.0016 mg/l
460-68765-D-2 -0.0081 mg/l
460-68765-d-3 -0.0068 mg/l
CCV 0.4987 mg/l
CCB -0.0071 mg/l
460-68765-d-4 -0.0061 mg/l
460-68765-d-5 -0.0081 mg/l
460-68797-b-1 0.0206 mg/l
460-68744-d-1 -0.0081 mg/l
460-68744-d-2 -0.0032 mg/l
460-68744-d-3 -0.0055 mg/l
460-68744-d-4 -0.0067 mg/l
460-68744-d-5 -0.0014 mg/l
460-68765-d-5 MS 0.4998 mg/l
460-68765-d-5 MSD 0.4963 mg/l
CCV 0.4946 mg/l

Sample Information/Results: Ch. 1
!NO3+NO2 (Cup Range: 1 - 19))

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: 0.9888 mg /LL

Cup: 2, Sample ID: ICB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0136 mg /L

Cup: 3, Sample ID: MB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0119 mg /L

Cup: 4, Sample ID: LCSSRM-NO2, Sample Type: Unknownwn
Rep 1/1, Result: 0.5684 mg /LL

Cup: 5, Sample ID: LCSSRM-NO3, Sample Type: Unknownwn
Rep 1/1, Result: 1.5070 mg /L

Cup: 6, Sample ID: 460-68760-D-1, Sample Type: Unknownn
Rep 1/1, Result: 0.3221 mg /L

Cup: 7, Sample ID: 460-68760-D-2, Sample Type: Unknownn
Rep 1/1, Result: 0.0135 mg /LL

Cup: 8, Sample ID: 460-68760-D-3, Sample Type: Unknownn
Rep 1/1, Result: 0.0082 mg /L

Cup: 9, Sample ID: 460-68763-D-1, Sample Type: Unknownn
Rep 1/1, Result: -0.0047 mg /L

Cup: 10, Sample ID: 460-68763-D-2, Sample Type: Unknown
Rep 1/1, Result: -0.0105 mg /L

Cup: 11, Sample ID: 460-68760-d-1MS, Sample Type: Unknown
Rep 1/1, Result: 1.3314 mg /LL

Cup: 12, Sample ID: 460-68760-d-1MSD, Sample Type: Unknown
Rep 1/1, Result: 1.3348 mg /L

Cup: 13, Sample ID: CCV, Sample Type: Unknown: Unknown
Rep 1/1, Result: 0.9587 mg /L

Cup: 14, Sample ID: CCB, Sample Type: Unknown: Unknown
Rep 1/1, Result: -0.0097 mg /L

Cup: 15, Sample ID: 460-68763-D-3, Sample Type: Unknown
Rep 1/1, Result: 0.3092 mg /L

Cup: 16, Sample ID: 460-68763-D-4, Sample Type: Unknownwn
Rep 1/1, Result: -0.0092 mg /L

Cup: 17, Sample ID: 460-68764-D-1, Sample Type: Unknownown
Rep 1/1, Result: 0.0052 mg /L

Cup: 18, Sample ID: 460-68764-D-2, Sample Type: Unknown
Rep 1/1, Result: 0.0105 mg /L

Cup: 19, Sample ID: 460-68764-D-3, Sample Type: Unknown
Rep 1/1, Result: -0.0089 mg /L

Cup: 39, Sample ID: MB, Sample Type: Unknown
Rep 1/1, Result: -0.0123 mg /L

Sample Information/Results: Ch. 2
INO2 (Cup Range: 1 - 19))

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: 0.4981 mg/ll

Cup: 2, Sample ID: ICB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0066 mg/l

Cup: 3, Sample ID: MB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0081 mg/l

Cup: 4, Sample ID: LCSSRM-NO2, Sample Type: Unknownwn
Rep 1/1, Result: 0.5780 mg/ll

Cup: 5, Sample ID: LCSSRM-NO3, Sample Type: Unknownwn
Rep 1/1, Result: -0.0065 mg/l

Cup: 6, Sample ID: 460-68760-D-1, Sample Type: Unknownn
Rep 1/1, Result: -0.0074 mg/l

Cup: 7, Sample ID: 460-68760-D-2, Sample Type: Unknownn
Rep 1/1, Result: -0.0073 mg/l

Cup: 8, Sample ID: 460-68760-D-3, Sample Type: Unknownn
Rep 1/1, Result: -0.0073 mg/l

Cup: 9, Sample ID: 460-68763-D-1, Sample Type: Unknownn
Rep 1/1, Result: -0.0074 mg/l

Cup: 10, Sample ID: 460-68763-D-2, Sample Type: Unknown
Rep 1/1, Result: -0.0071 mg/l

Cup: 11, Sample ID: 460-68760-d-1MS, Sample Type: Unknown
Rep 1/1, Result: 0.5005 mg/ll

Cup: 12, Sample ID: 460-68760-d-1MSD, Sample Type: Unknown
Rep 1/1, Result: 0.4952 mg/ll

Cup: 13, Sample ID: CCV, Sample Type: Unknown: Unknown
Rep 1/1, Result: 0.4810 mg/ll

Cup: 14, Sample ID: CCB, Sample Type: Unknown: Unknown
Rep 1/1, Result: -0.0081 mg/l

Cup: 15, Sample ID: 460-68763-D-3, Sample Type: Unknown
Rep 1/1, Result: -0.0068 mg/l

Cup: 16, Sample ID: 460-68763-D-4, Sample Type: Unknownwn
Rep 1/1, Result: 0.0019 mg/l

Cup: 17, Sample ID: 460-68764-D-1, Sample Type: Unknownown
Rep 1/1, Result: -0.0075 mg/l

Cup: 18, Sample ID: 460-68764-D-2, Sample Type: Unknown
Rep 1/1, Result: -0.0076 mg/l

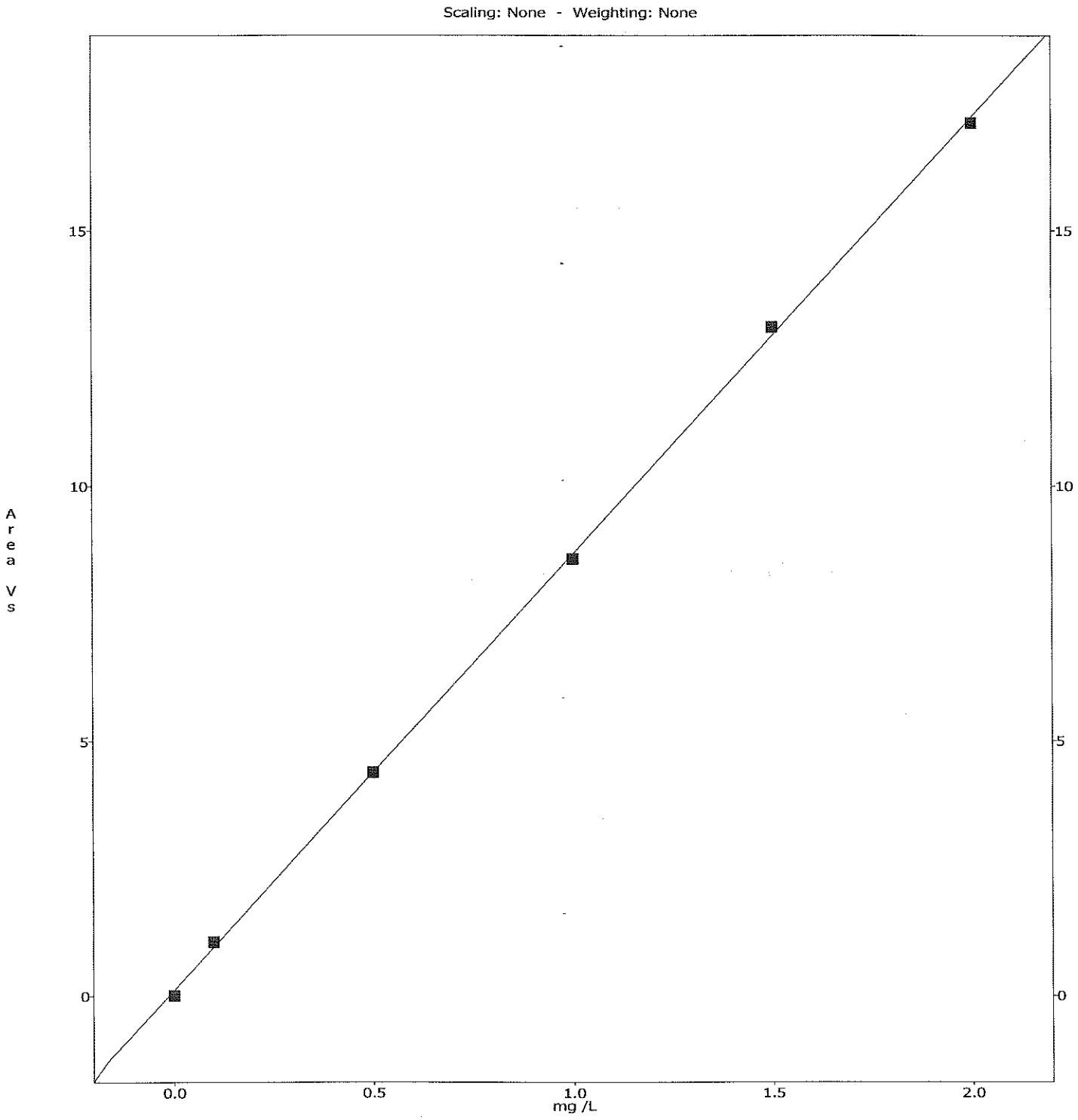
Cup: 19, Sample ID: 460-68764-D-3, Sample Type: Unknown
Rep 1/1, Result: -0.0073 mg/l

Cup: 39, Sample ID: MB, Sample Type: Unknown
Rep 1/1, Result: -0.0073 mg/l

NO3+NO2

Lvl	Area	mg /L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	17122694	2.0	17122694					0.0	0.0	0.6
2	13119328	1.5	13119328					0.0	0.0	-1.4
3	8580576	1.0	8580576					0.0	0.0	1.0
4	4394445	0.5	4394445					0.0	0.0	-0.1
5	1075251	0.1	1075251					0.0	0.0	-12.2
6	19594	0.0	19594					0.0	0.0	

1st Order Poly
Conc = 1.169e-007 Area - 1.358e-002
r = 0.9999



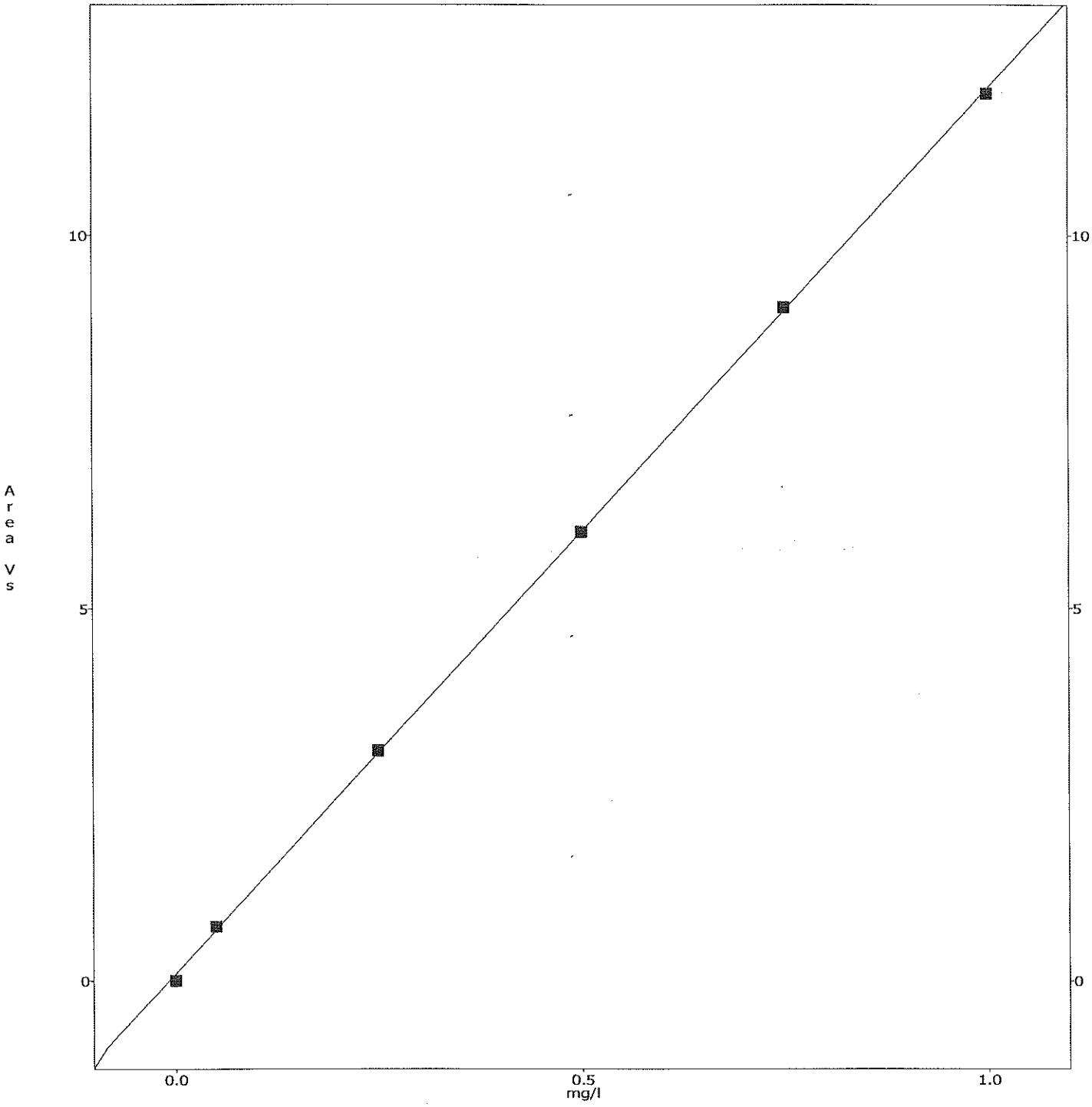
Printed: Saturday, December 21, 2013 - 10:42 AM

NO2

Lvl	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	11909208	1.00	11909208					0.0	0.0	0.4
2	9045069	0.75	9045069					0.0	0.0	-0.6
3	6035813	0.50	6035813					0.0	0.0	-0.1
4	3097263	0.25	3097263					0.0	0.0	-1.2
5	739270	0.05	739270					0.0	0.0	-8.4
6	7928	0.00	7928					0.0	0.0	

1st Order Poly
Conc = 8.427e-008 Area - 8.081e-003
r = 0.9999

Scaling: None Weighting: None



Printed: Saturday, December 21, 2013 - 09:03 AM

TA EDISON- HISTORICAL DATA

Total Alkalinity (SM 2320B), Free Co2 (4500CO2-D)

SampleID	Run Number	RunDate	RunTime	Temp	pH	pH2	palk (mg/L) as CaCO3	talk (mg/L) as CaCO3	bcarb (mg/L) as CaCO3	carb (mg/L) as CaCO3	hydr (mg/L) as CaCO3	Free CO2 (mg/L) as CaCO3	(mL) H2S04 @ 8.3	(mL) H2S04 @ 4.5	(mL) H2S04 @ 4.2
rinse	*4458*	1/2/2014	4:16 PM	18.50	5.587	.00	0.000	2.635	2.635	0.000	0.000	13.656	0.0000	0.1071	0.1478
mb	*4458*	1/2/2014	4:23 PM	18.25	5.581	.00	0.000	0.596	0.596	0.000	0.000	3.128	0.0000	0.0647	0.1143
lcssrm	*4458*	1/2/2014	4:29 PM	18.11	8.989	.00	15.200	69.804	39.404	30.401	0.000	0.081	0.3835	1.7610	1.8698
460-68760-F-1	*4459*	1/2/2014	4:54 PM	16.84	7.282	.00	0.000	90.826	90.826	0.000	0.000	9.496	0.0000	2.2914	2.4476
460-68760-F-1du	*4459*	1/2/2014	5:01 PM	16.82	7.325	.00	0.000	88.481	88.481	0.000	0.000	8.367	0.0000	2.2322	2.3846
460-68760-F-2	*4459*	1/2/2014	5:08 PM	16.06	7.270	.00	0.000	121.220	121.220	0.000	0.000	13.014	0.0000	3.0582	3.2410
460-68760-F-3	*4459*	1/2/2014	5:15 PM	16.57	7.290	.00	0.000	115.461	115.461	0.000	0.000	11.834	0.0000	2.9129	3.0930
460-68763-D-1	*4459*	1/2/2014	5:22 PM	16.91	5.662	.00	0.000	-0.306	-0.306	0.000	0.000	-1.331	0.0000	0.0668	0.1414
460-68763-D-2	*4459*	1/2/2014	5:29 PM	17.15	8.070	.00	0.000	141.099	141.099	0.000	0.000	2.402	0.0000	3.5597	3.7361
460-68763-D-3	*4459*	1/2/2014	5:36 PM	17.09	7.512	.00	0.000	86.970	86.970	0.000	0.000	5.352	0.0000	2.1941	2.3622
460-68763-D-4	*4459*	1/2/2014	5:43 PM	17.15	7.391	.00	0.000	118.916	118.916	0.000	0.000	9.658	0.0000	3.0000	3.2170
460-68764-D-1	*4459*	1/2/2014	5:49 PM	17.24	7.951	.00	0.000	105.455	105.455	0.000	0.000	2.359	0.0000	2.6605	2.8192
460-68764-D-2	*4459*	1/2/2014	5:57 PM	16.65	7.945	.00	0.000	101.085	101.085	0.000	0.000	2.295	0.0000	2.5502	2.7283
460-68764-D-3	*4459*	1/2/2014	6:04 PM	16.34	7.965	.00	0.000	100.752	100.752	0.000	0.000	2.185	0.0000	2.5418	2.6903
460-68764-D-4	*4459*	1/2/2014	6:11 PM	16.83	8.011	.00	0.000	97.698	97.698	0.000	0.000	1.905	0.0000	2.4648	2.6162
460-68764-D-5	*4459*	1/2/2014	6:18 PM	17.17	7.908	.00	0.000	81.342	81.342	0.000	0.000	2.010	0.0000	2.0521	2.1617
460-68765-D-1	*4459*	1/2/2014	6:25 PM	17.37	7.300	.00	0.000	93.551	93.551	0.000	0.000	9.380	0.0000	2.3601	2.5247
460-68765-D-2	*4459*	1/2/2014	6:32 PM	17.34	5.699	.00	0.000	0.841	0.841	0.000	0.000	3.362	0.0000	0.0679	0.1145
460-68765-D-3	*4459*	1/2/2014	6:39 PM	17.32	7.621	.00	0.000	51.579	51.579	0.000	0.000	2.467	0.0000	1.3013	1.3823
460-68765-D-4	*4459*	1/2/2014	6:46 PM	16.69	7.639	.00	0.000	52.226	52.226	0.000	0.000	2.396	0.0000	1.3176	1.3981
460-68765-D-5	*4459*	1/2/2014	6:53 PM	16.25	5.648	.00	0.000	0.614	0.614	0.000	0.000	2.759	0.0000	0.0723	0.1292
460-68744-D-1	*4459*	1/2/2014	7:00 PM	16.74	7.835	.00	0.000	203.664	203.664	0.000	0.000	5.962	0.0000	5.1381	5.3857
460-68744-D-2	*4459*	1/2/2014	7:06 PM	17.12	8.072	.00	0.000	239.601	239.601	0.000	0.000	4.058	0.0000	6.0447	6.3416
460-68744-D-3	*4459*	1/2/2014	7:13 PM	17.31	7.962	.00	0.000	371.925	371.925	0.000	0.000	8.127	0.0000	9.3831	9.8377
mb	*4459*	1/2/2014	7:20 PM	17.06	5.818	.00	0.000	0.120	0.120	0.000	0.000	0.364	0.0000	0.0742	0.1454
lcssrm	*4459*	1/2/2014	7:26 PM	17.15	8.996	.00	15.074	69.660	39.513	30.147	0.000	0.080	0.3803	1.7574	1.8661
460-68772-H-1	*4459*	1/2/2014	7:32 PM	16.41	6.548	.00	0.000	86.082	86.082	0.000	0.000	48.759	0.0000	2.1717	2.4548

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SampleID	Run Number	RunDate	RunTime	Temp	pH	pH2	palk (mg/L) as CaCO3	talk (mg/L) as CaCO3	bcarb (mg/L) as CaCO3	carb (mg/L) as CaCO3	hydr (mg/L) as CaCO3	Free CO2 (mg/L) as CaCO3	(mL) H2S04 @ 8.3	(mL) H2S04 @ 4.5	(mL) H2S04 @ 4.2
460-68772-H-1 du	*4459*	1/2/2014	7:39 PM	16.27	6.614	.00	0.000	66.165	66.165	0.000	0.000	32.160	0.0000	1.6692	1.8726
460-68772-G-2	*4459*	1/2/2014	7:46 PM	16.75	5.665	.00	0.000	0.131	0.131	0.000	0.000	0.567	0.0000	0.0718	0.1402
460-68744-D-4	*4459*	1/2/2014	7:53 PM	17.10	7.786	.00	0.000	206.143	206.143	0.000	0.000	6.752	0.0000	5.2006	5.4587
460-68744-D-5	*4459*	1/2/2014	7:59 PM	17.37	8.069	.00	0.000	286.036	286.036	0.000	0.000	4.878	0.0000	7.2162	7.6147
460-68610-E-1	*4459*	1/2/2014	8:06 PM	17.32	7.522	.00	0.000	219.728	219.728	0.000	0.000	13.216	0.0000	5.5434	5.8574
460-68610-E-2	*4459*	1/2/2014	8:12 PM	17.34	6.464	.00	0.000	125.202	125.202	0.000	0.000	85.948	0.0000	3.1586	3.5985
460-68610-F-3	*4459*	1/2/2014	8:18 PM	16.33	8.169	.00	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000	0.0000
460-68610-E-4	*4459*	1/2/2014	8:25 PM	16.44	5.922	.00	0.000	-0.168	-0.168	0.000	0.000	-0.401	0.0000	0.0734	0.1510
460-68610-E-5	*4459*	1/2/2014	8:31 PM	16.88	7.662	.00	0.000	55.440	55.440	0.000	0.000	2.416	0.0000	1.3987	1.4946
460-68610-F-7	*4459*	1/2/2014	8:38 PM	17.15	6.742	.00	0.000	221.469	221.469	0.000	0.000	80.231	0.0000	5.5873	6.2770
460-68572-B-1	*4459*	1/2/2014	8:44 PM	17.48	7.967	.00	0.000	203.424	203.424	0.000	0.000	4.387	0.0000	5.1320	5.3934
460-68520-F-7	*4459*	1/2/2014	8:52 PM	17.56	5.733	.00	0.000	0.694	0.694	0.000	0.000	2.567	0.0000	0.0841	0.1507
460-68536-I-5	*4459*	1/2/2014	8:58 PM	17.63	8.207	.00	0.000	151.285	151.285	0.000	0.000	1.878	0.0000	3.8167	4.0166
460-68536-I-6	*4459*	1/2/2014	9:06 PM	17.61	7.878	.00	0.000	62.894	62.894	0.000	0.000	1.667	0.0000	1.5867	1.6965
460-68536-I-7	*4459*	1/2/2014	9:13 PM	16.46	7.748	.00	0.000	53.156	53.156	0.000	0.000	1.899	0.0000	1.3410	1.4314
460-68527-A-1	*4459*	1/2/2014	9:20 PM	16.97	7.882	.00	0.000	101.046	101.046	0.000	0.000	2.653	0.0000	2.5492	2.6884
460-68504-N-4	*4459*	1/2/2014	9:27 PM	17.24	7.250	.00	0.000	420.406	420.406	0.000	0.000	47.240	0.0000	10.6061	11.1834

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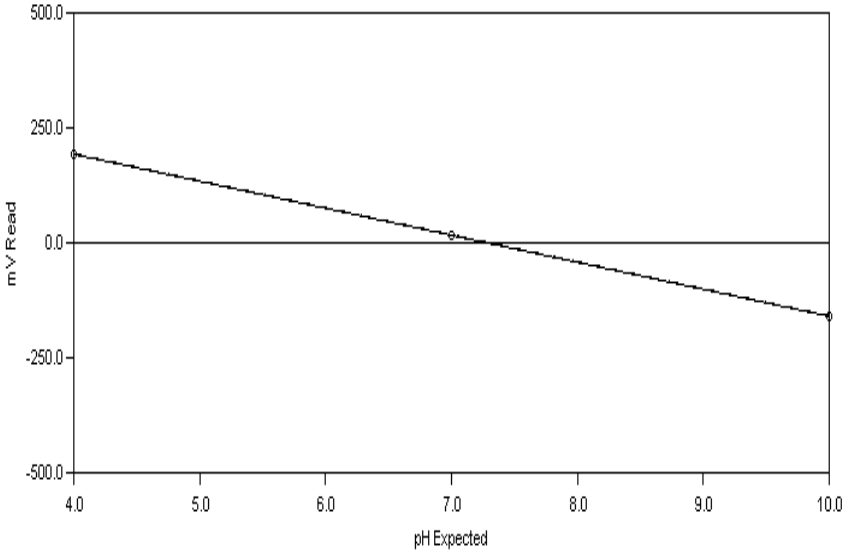
PC-TitratION PLUS
Calibration Report

Calibration Record # 1156



Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	1/2/2014	
Channel	1	Time	10:27 AM	
Probe Type	pH	Temperature	289.87 K	16.72 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-58.735	CorrCoeff	1.0000
Intercept	16.193	Equation: Y = (-58.735) X + (16.193)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-58.735	-65.00	-53.00
Intercept	16.193	-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	192.26
	7.00	16.47
	10.00	-160.15

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BATCH	JOB	SAMPLE	DIL	ABS	BG	RESULT	SPIKE	% REC	TIME
		0		0					
		0.03		0.020					
		0.05		0.034					
		0.10		0.070					
		0.20		0.140					
		0.50		0.359					
		CCV		0.145		0.204	0.200	102%	5:30PM
		CCB		0		ND			5:31
		HB		0		ND			5:32
		LCS	2/50	0.159		5.58	5.34	104%	5:34
177439	61610	61610-11i		0.033		0.048			5:35
		61610-11iMS		0.173		0.243	0.200	97.5%	5:36
		61610-11iMSD		0.173		0.243	0.200	97.5%	5:37
		61610-11		-0.001		ND			5:38
		61610-2i		0.319		0.45			5:39
		61610-3i		0.191	0.031	0.22			5:40
		61610-5i		0.011		ND			5:41
		61610-9i		0.077		0.11			5:42
		CCV		0.143		0.201	0.200	101%	5:44
		CCB		0		ND			5:45
		61610-10i		0.009		ND			5:47
		61610-12i		0.040		0.058			5:48
		61610-13i		0.010		ND			5:49
		CCV		0.143		0.201	0.200	101%	5:51
		CCB		0		ND			5:52PM

	Exp.
# Calibration on : 08/21/13	(02/14/14)
# B-2886-13: 5N H_2SO_4	(02/15/14)
# B-2862-13: NH_4MOLYBDATE	(01/23/14)
# B-2812-13: ANT. POT. TARTRATE	(12/14/13)
# B-2887-13: ASCORBIC ACID	(08/22/13)
# LCS (P203-505): 5.34 ppm (4.60 - 5.82)	(03/31/15)

Continued on Page

Read and Understood By

Signed 08/21/13 Signed

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
RF Rounding:	0

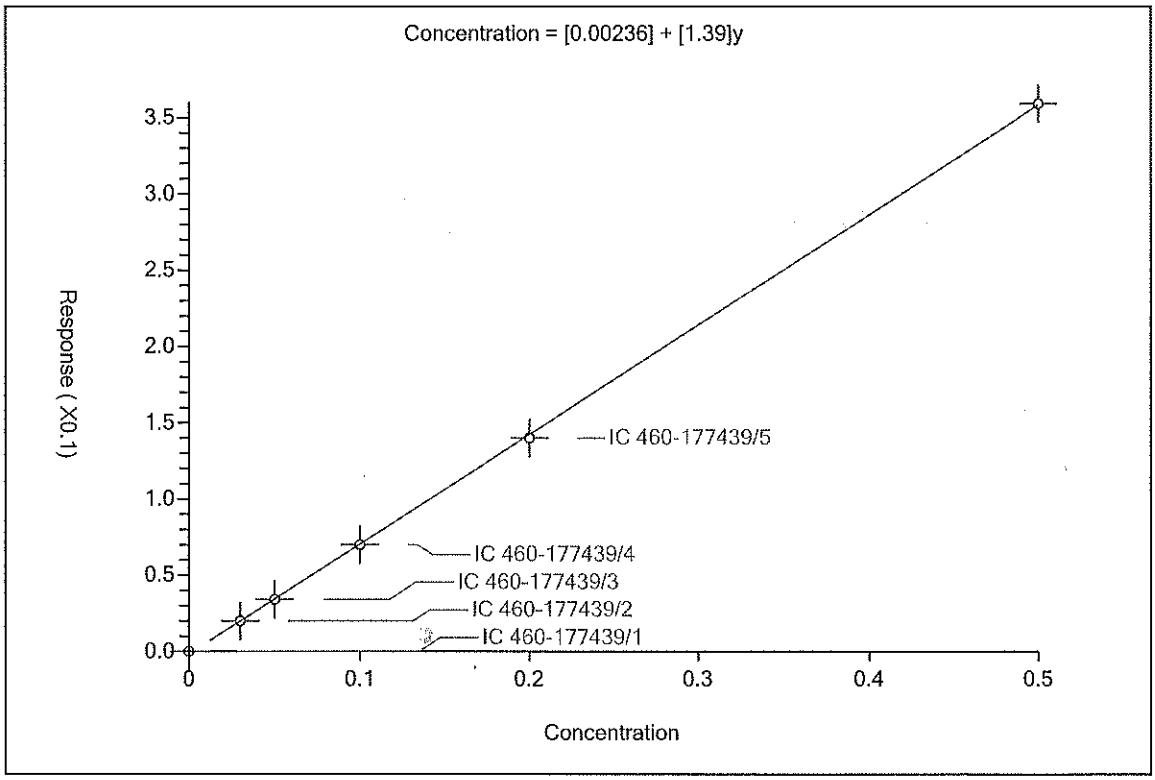
Curve Coefficients

Intercept:	0.00236
Slope:	1.39

Error Coefficients

Standard Error:	0.00206
Relative Standard Error:	NC
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 460-177439/1	0.0	0.0			NaN	Y
2	IC 460-177439/2	0.03	0.02			0.666667	Y
3	IC 460-177439/3	0.05	0.034			0.68	Y
4	IC 460-177439/4	0.1	0.07			0.7	Y
5	IC 460-177439/5	0.2	0.14			0.7	Y
6	IC 460-177439/6	0.5	0.359			0.718	Y



Batch	Sample	Dil	Abs	BG	Result	
	0.0		0.00			
	0.03		0.020			
	0.05		0.034			
	0.1		0.070			
	0.2		0.140			
	0.5		0.359			
	ICV		0.144			8:45
	ICB		0.00			
	MB		0.00			
	LCS	2/50	0.164		5.76	
199281	68764-1		0.101		0.14	
	68764-2		0.100		0.14	
	68764-3		0.099		0.14	
	68764-4		0.100		0.14	
	68763-2		0.142		0.20	
	68763-1		0.00		0	
	68764-5		0.229		0.32	
	68760-1		0.087		0.12	
	CCV		0.143		0.20	
	CCB		0.00			9:00
	68763-3		0.089		0.13	9:30
	68760-2		0.005			
	68760-3		0.002			
	68763-4		0.063	0.012	~~0.090~~ Re 0.073	
	68765-1		0.069		0.098	
	68765-2		0.00			
	68765-3		0.100		0.14	
	68765-4		0.091		0.13	
	68765-5		0.00			
	68764-3 MS		0.241		0.34	
	CCV		0.143			
	CCB		0.00			
	68764-3 MSD		0.244		0.34	

Continued on Page

Read and Understood By

Re 12/21/13

Signed Date Signed

PROJECT Ortho phosphate

Notebook No. 06559

Continued From Page

Sample	Dil	Abs	BG	Result	Time
CAL		0.143			
CCB		0.000			10:05

Asc. acid BF 3023-13 exp. 12/28/13

Continued on Page

Read and Understood By

RR 12/20/13

Signed Date Signed Date

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
RF Rounding:	0

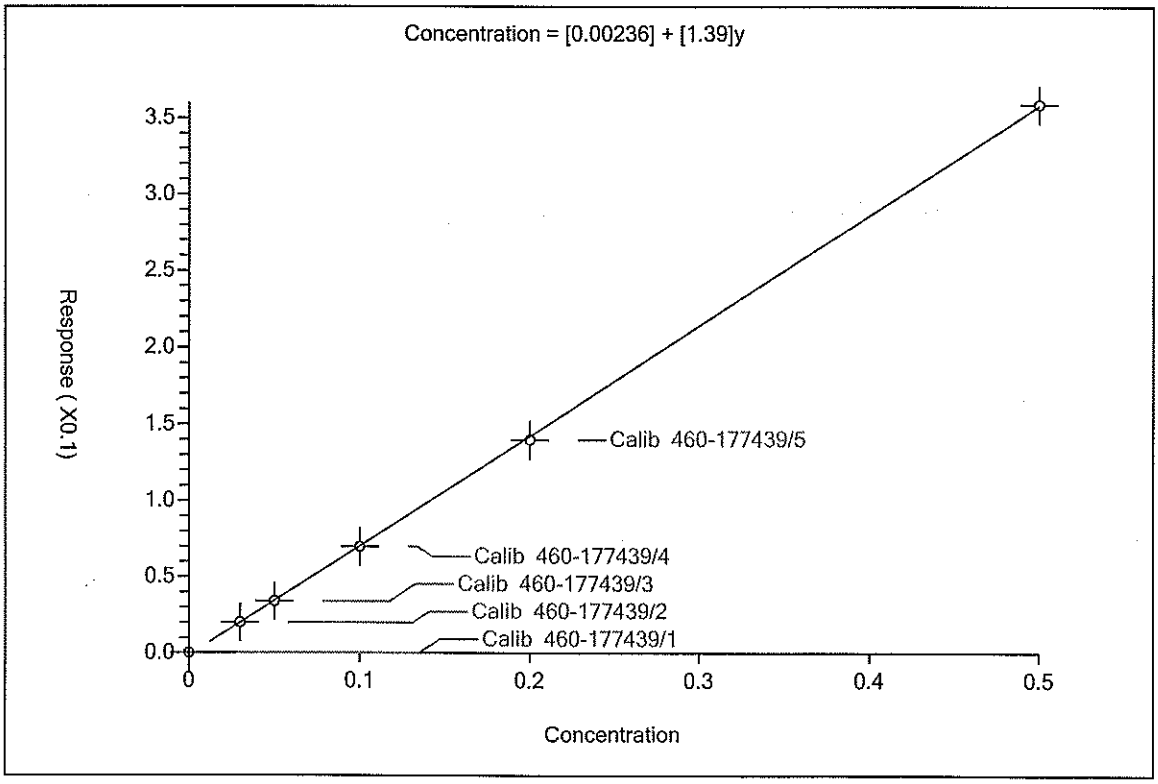
Curve Coefficients

Intercept:	0.00236
Slope:	1.39

Error Coefficients

Standard Error:	0.00206
Relative Standard Error:	NC
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 460-177439/1	0.0	0.0			NaN	Y
2	Calib 460-177439/2	0.03	0.02			0.666667	Y
3	Calib 460-177439/3	0.05	0.034			0.68	Y
4	Calib 460-177439/4	0.1	0.07			0.7	Y
5	Calib 460-177439/5	0.2	0.14			0.7	Y
6	Calib 460-177439/6	0.5	0.359			0.718	Y



Instr.Information

System	TOC-V CSH
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Sample

Sample Name:	ICV
Sample ID:	<Untitled>
Origin:	method 5310b.met
Status	Completed
Chk. Result	

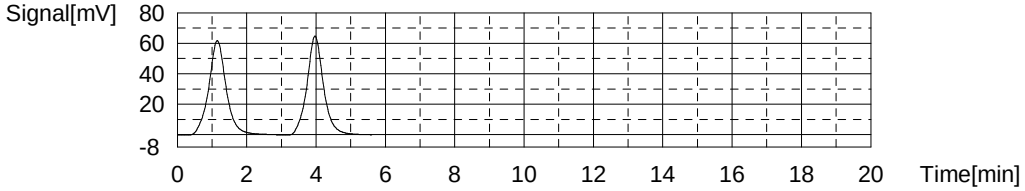
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.21mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	217.8	51.17mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:27:05 PM
2	218.1	51.25mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:29:59 PM

Mean Area 218.0
Mean Conc. 51.21mg/L



Sample

Sample Name:	ICB
Sample ID:	<Untitled>
Origin:	method 5310b.met
Status	Completed
Chk. Result	

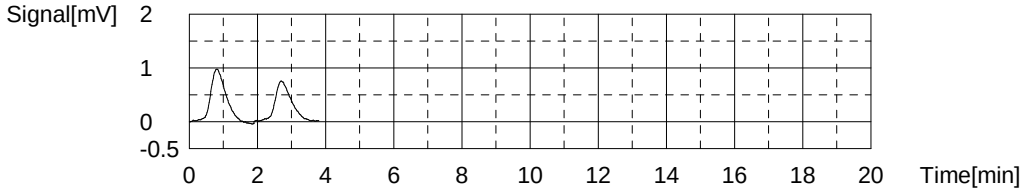
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2183mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.861	0.2953mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:56:23 PM
2	2.210	0.1412mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:58:26 PM

Mean Area 2.535
Mean Conc. 0.2183mg/L



Sample

Sample Name: MB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

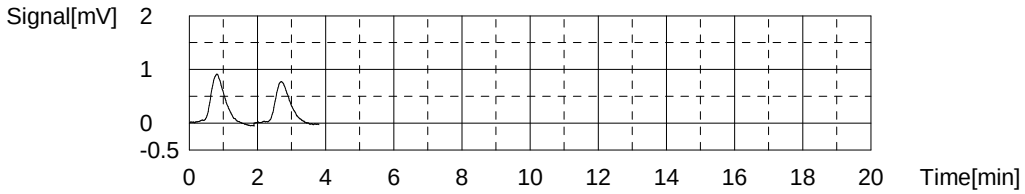
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1745mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.499	0.2096mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:15:35 PM
2	2.202	0.1393mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:17:38 PM

Mean Area 2.351
Mean Conc. 0.1745mg/L



Sample

Sample Name: LCSSRM
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

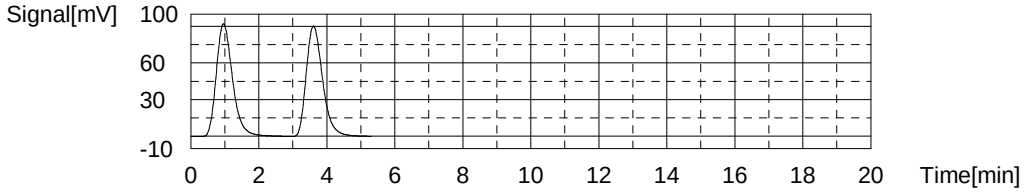
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:72.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	308.2	72.57mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:35:33 PM
2	305.7	71.98mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:38:20 PM

Mean Area 306.9
Mean Conc. 72.28mg/L



Sample

Sample Name: 460-68764-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

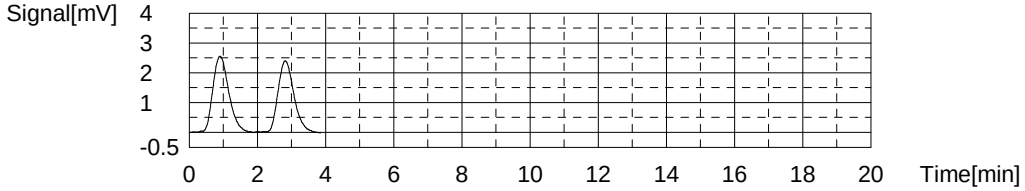
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.510mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.200	1.559mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 4:52:03 PM
2	7.782	1.460mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 4:54:09 PM

Mean Area 7.991
Mean Conc. 1.510mg/L



Sample

Sample Name: 460-68764-b-1 MS
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

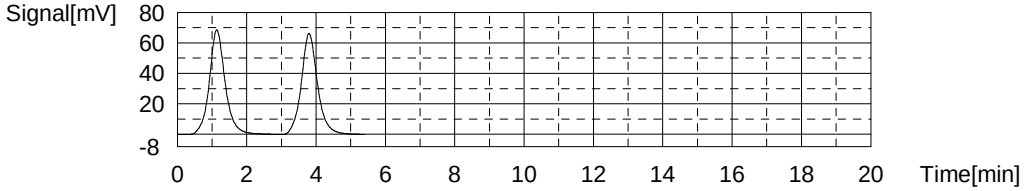
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	220.4	51.79mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:12:04 PM
2	218.6	51.36mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:14:57 PM

Mean Area 219.5
Mean Conc. 51.58mg/L



Sample

Sample Name: 460-68764-b-1 MSD
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

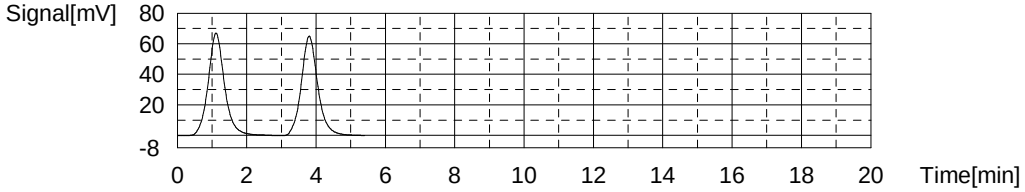
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	221.7	52.10mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:32:55 PM
2	218.0	51.22mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:35:45 PM

Mean Area 219.9
Mean Conc. 51.66mg/L



Sample

Sample Name: 460-68764-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

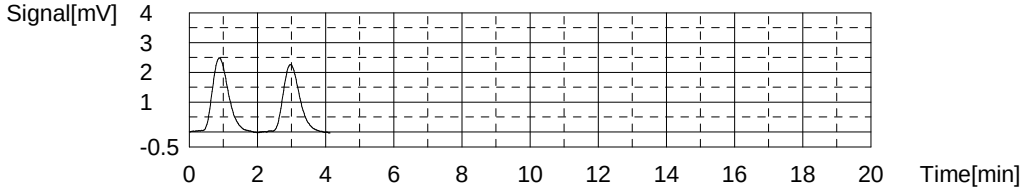
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.458mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.017	1.516mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:53:04 PM
2	7.532	1.401mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:55:17 PM

Mean Area 7.775
Mean Conc. 1.458mg/L



Sample

Sample Name: 460-68764-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

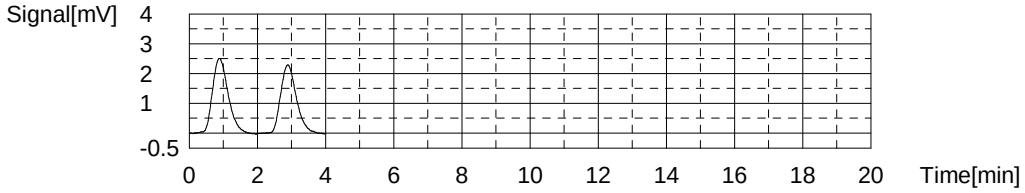
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.445mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.005	1.513mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:12:31 PM
2	7.431	1.377mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:14:40 PM

Mean Area 7.718
Mean Conc. 1.445mg/L



Sample

Sample Name: 460-68764-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

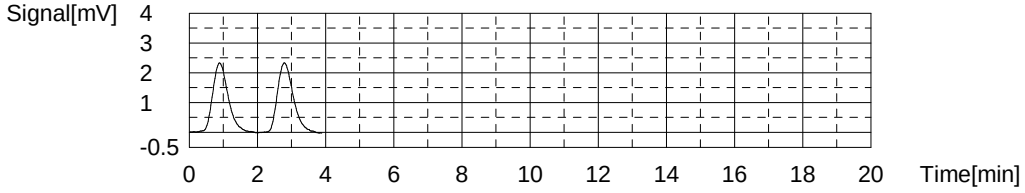
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.360mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.157	1.312mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:31:50 PM
2	7.563	1.408mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:33:58 PM

Mean Area 7.360
Mean Conc. 1.360mg/L



Sample

Sample Name: 460-68764-b-5
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

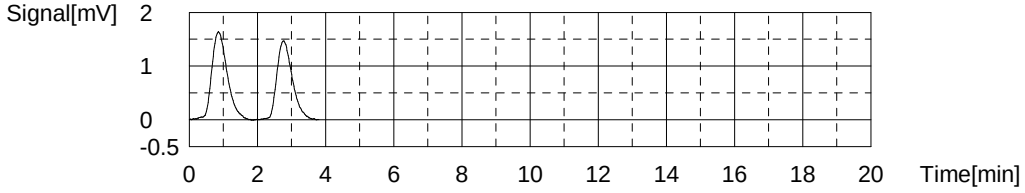
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7425mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.996	0.8007mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:51:08 PM
2	4.504	0.6842mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:53:11 PM

Mean Area 4.750
Mean Conc. 0.7425mg/L



Sample

Sample Name: 460-68760-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

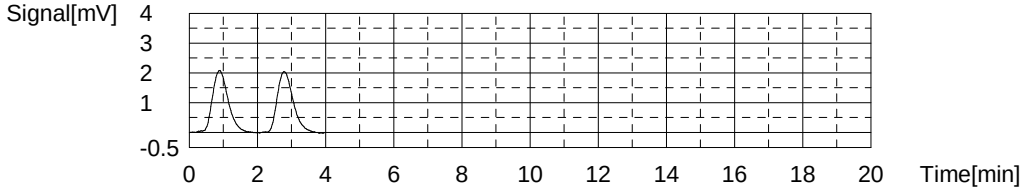
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.165mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.450	1.145mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:10:20 PM
2	6.622	1.186mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:12:32 PM

Mean Area 6.536
Mean Conc. 1.165mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

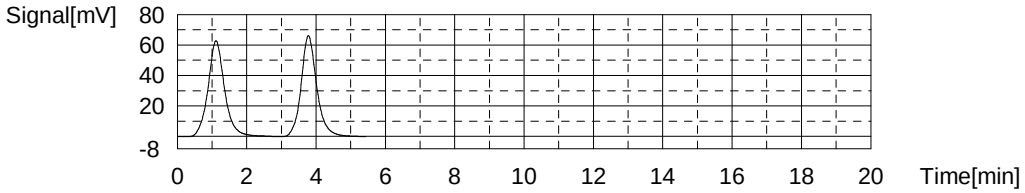
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	210.3	49.40mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:30:30 PM
2	210.7	49.49mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:33:23 PM

Mean Area 210.5
Mean Conc. 49.45mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

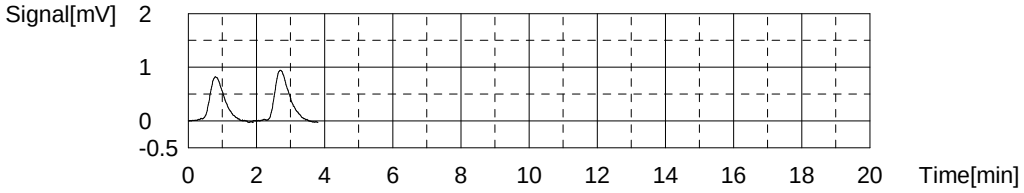
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2154mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.275	0.1566mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:50:32 PM
2	2.772	0.2742mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:52:35 PM

Mean Area 2.524
Mean Conc. 0.2154mg/L



Sample

Sample Name: 460-68760-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

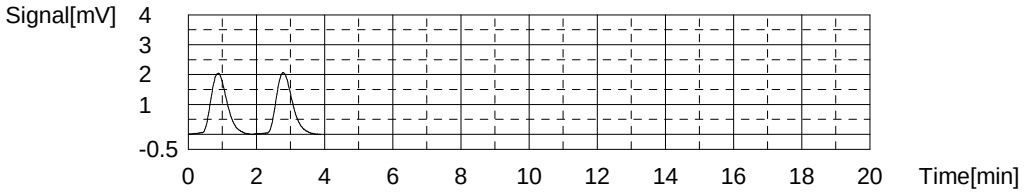
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.184mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.534	1.165mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:09:44 PM
2	6.700	1.204mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:11:52 PM

Mean Area 6.617
Mean Conc. 1.184mg/L



Sample

Sample Name: 460-68760-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

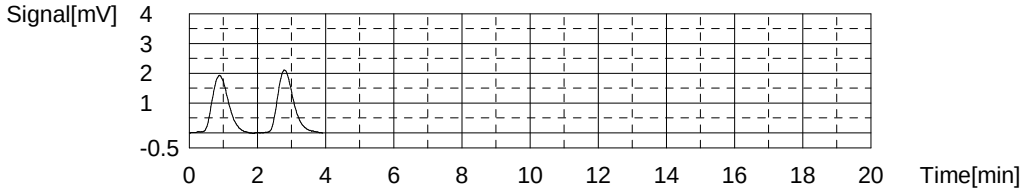
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.168mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.290	1.107mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:51:00 PM
2	6.803	1.228mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:53:09 PM

Mean Area 6.547
Mean Conc. 1.168mg/L



Sample

Sample Name: 460-68763-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

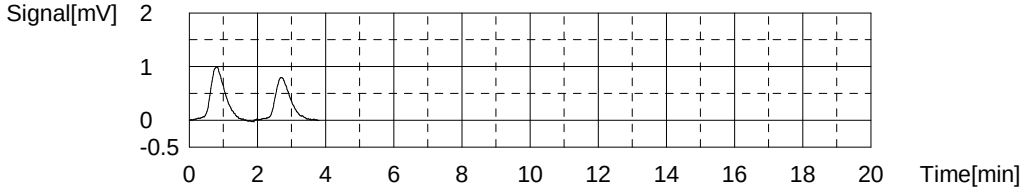
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1959mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.686	0.2539mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:21:57 PM
2	2.196	0.1379mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:24:00 PM

Mean Area 2.441
Mean Conc. 0.1959mg/L



Sample

Sample Name: 460-68763-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

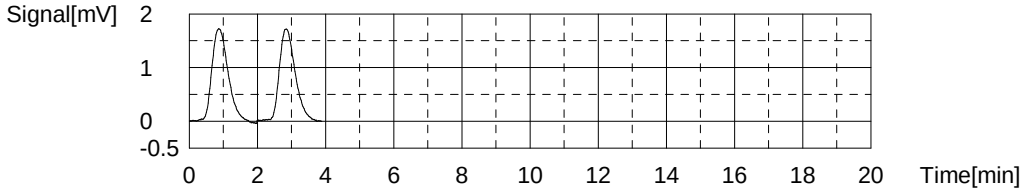
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9338mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.692	0.9654mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:41:14 PM
2	5.425	0.9022mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:43:17 PM

Mean Area 5.559
Mean Conc. 0.9338mg/L



Sample

Sample Name: 460-68763-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

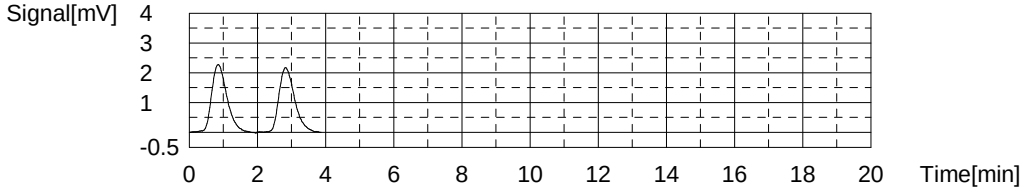
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.261mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.019	1.280mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:00:30 PM
2	6.866	1.243mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:02:33 PM

Mean Area 6.943
Mean Conc. 1.261mg/L



Sample

Sample Name: 460-68763-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

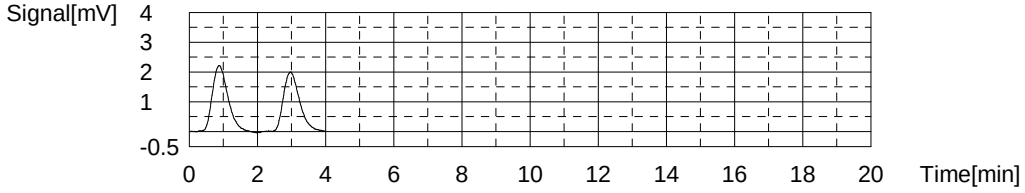
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.231mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.085	1.295mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:19:53 PM
2	6.540	1.166mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:21:56 PM

Mean Area 6.813
Mean Conc. 1.231mg/L



Sample

Sample Name: 460-68818-e-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

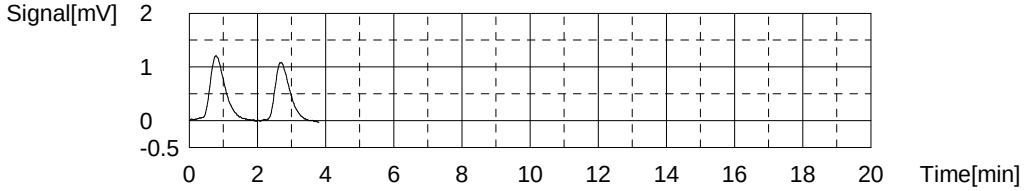
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4085mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.440	0.4324mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:39:05 PM
2	3.238	0.3845mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:41:08 PM

Mean Area 3.339
Mean Conc. 0.4085mg/L



Sample

Sample Name: 460-68818-e-16
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

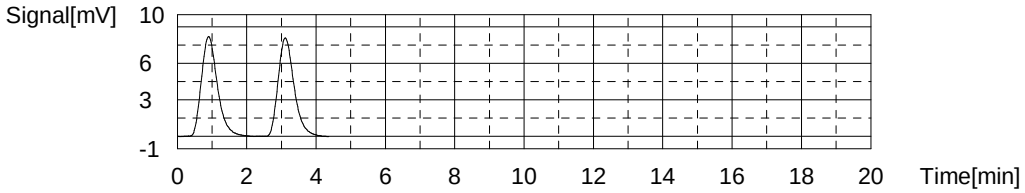
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.857mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.50	5.891mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:58:35 PM
2	26.21	5.822mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:00:54 PM

Mean Area 26.36
Mean Conc. 5.857mg/L



Sample

Sample Name: 460-68818-e-17
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

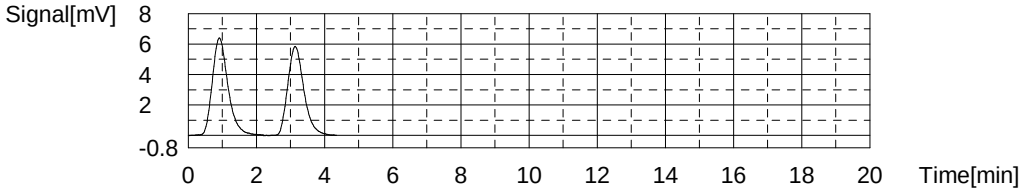
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.319mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.37	4.440mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:18:21 PM
2	19.35	4.198mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:20:39 PM

Mean Area 19.86
Mean Conc. 4.319mg/L



Sample

Sample Name: 460-68818-e-18
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

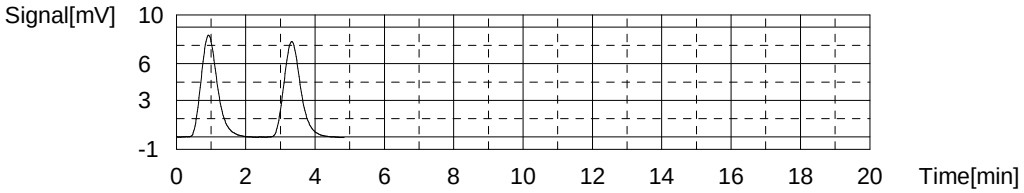
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.029mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.50	6.128mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:38:16 PM
2	26.67	5.931mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:40:53 PM

Mean Area 27.09
Mean Conc. 6.029mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

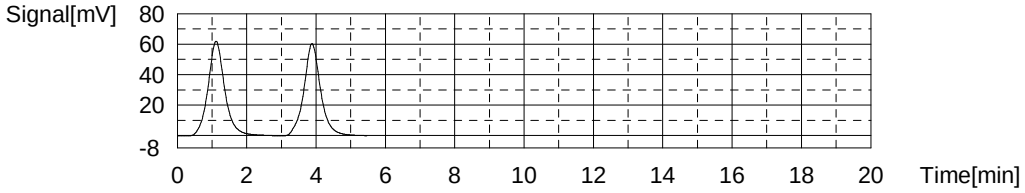
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	209.0	49.09mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:58:51 PM
2	205.5	48.26mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:01:45 AM

Mean Area 207.3
Mean Conc. 48.68mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

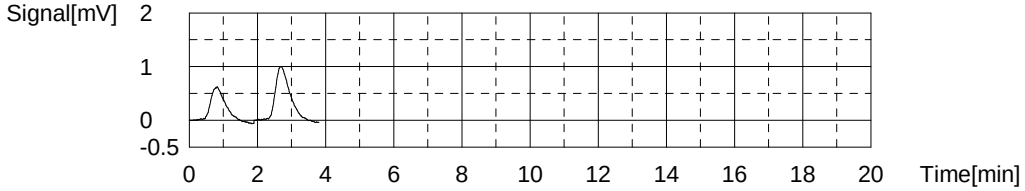
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1761mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.798	0.04368mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:18:54 AM
2	2.917	0.3086mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:20:57 AM

Mean Area 2.357
Mean Conc. 0.1761mg/L



Sample

Sample Name: 460-68772-d-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

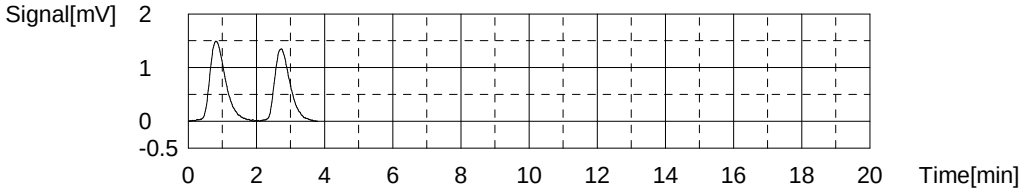
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6494mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.571	0.7001mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:38:06 AM
2	4.143	0.5988mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:40:09 AM

Mean Area 4.357
Mean Conc. 0.6494mg/L



Sample

Sample Name: 460-68772-d-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

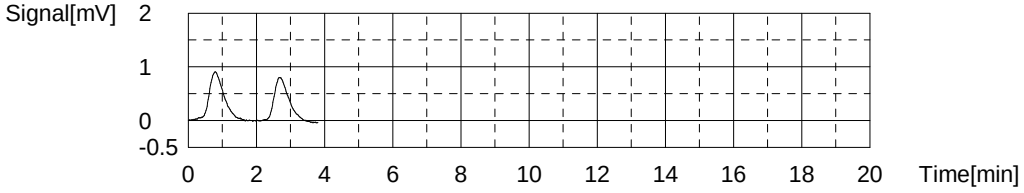
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1907mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.493	0.2082mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:57:19 AM
2	2.345	0.1732mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:59:22 AM

Mean Area 2.419
Mean Conc. 0.1907mg/L



Sample

Sample Name: 460-68799-d-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

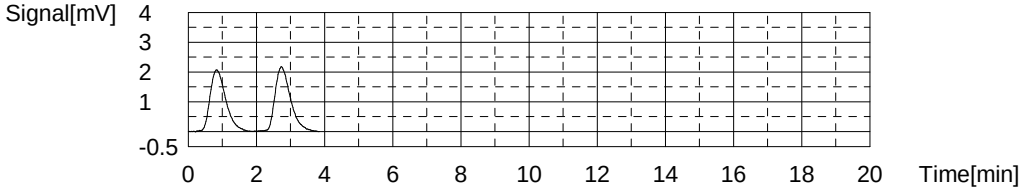
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.181mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.497	1.156mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:16:32 AM
2	6.707	1.206mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:18:38 AM

Mean Area 6.602
Mean Conc. 1.181mg/L



Sample

Sample Name: 460-68760-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

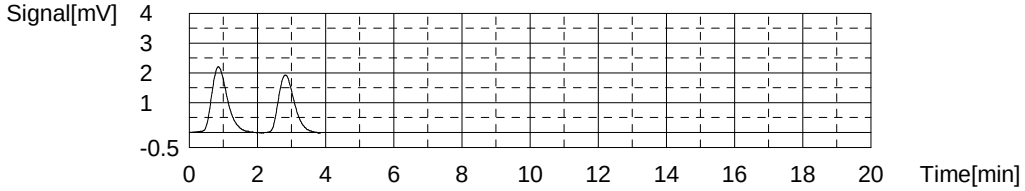
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.180mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.881	1.247mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:36:01 AM
2	6.317	1.113mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:38:04 AM

Mean Area 6.599
Mean Conc. 1.180mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

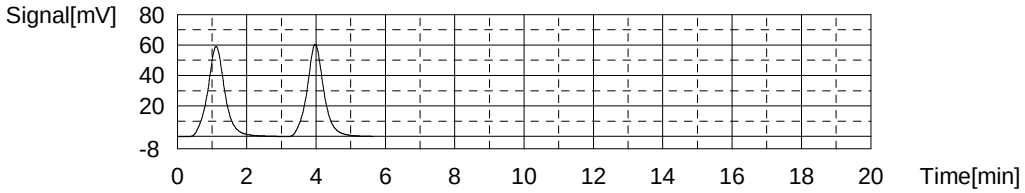
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	206.0	48.38mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:56:11 AM
2	207.0	48.62mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:59:08 AM

Mean Area 206.5
Mean Conc. 48.50mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

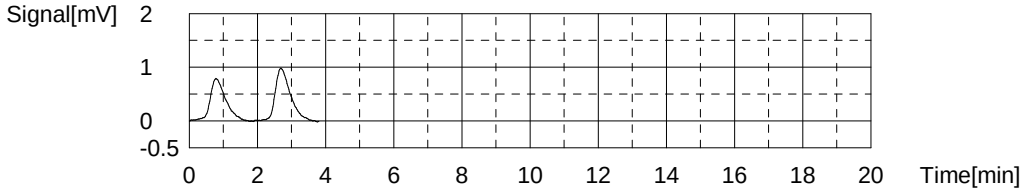
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2178mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.199	0.1386mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 2:16:18 AM
2	2.868	0.2970mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 2:18:21 AM

Mean Area 2.534
Mean Conc. 0.2178mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

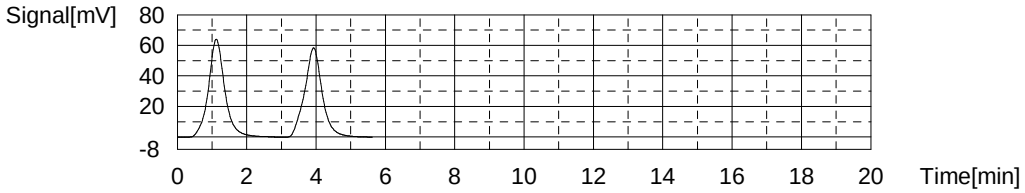
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	212.2	49.85mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:06:28 AM
2	209.2	49.14mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:09:26 AM

Mean Area 210.7
Mean Conc. 49.49mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

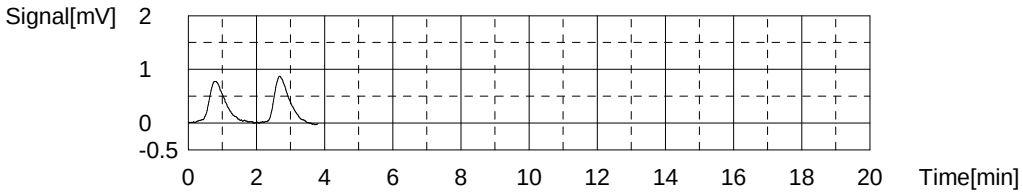
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1932mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.214	0.1422mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:26:36 AM
2	2.645	0.2442mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:28:39 AM

Mean Area 2.430
Mean Conc. 0.1932mg/L



Sample

Sample Name: 460-68760-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

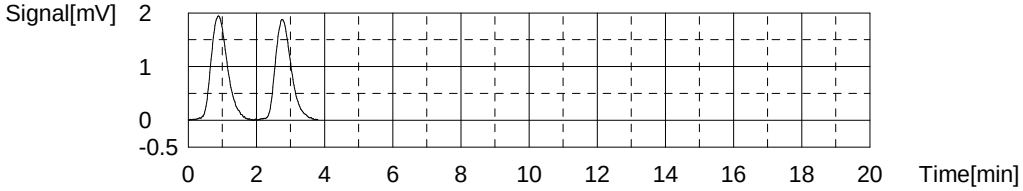
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.067mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.347	1.120mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:45:49 AM
2	5.891	1.013mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:47:52 AM

Mean Area 6.119
Mean Conc. 1.067mg/L



Sample

Sample Name: 460-68763-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

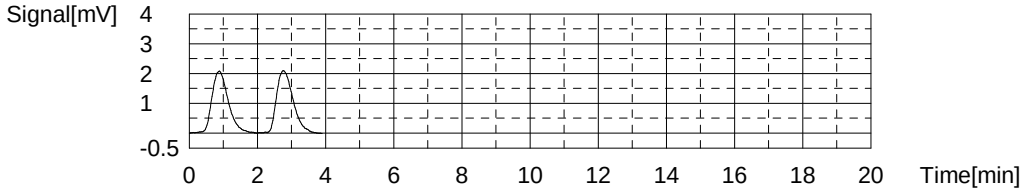
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.244mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.690	1.202mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:05:04 AM
2	7.048	1.286mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:07:12 AM

Mean Area 6.869
Mean Conc. 1.244mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

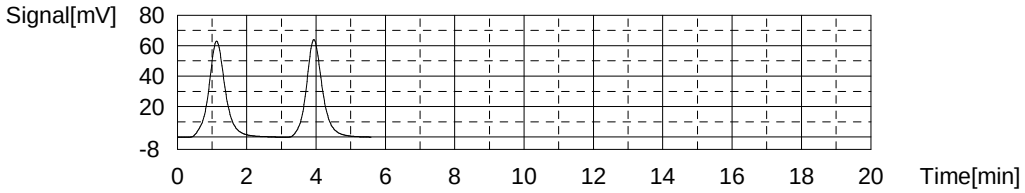
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	211.6	49.71mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:25:21 AM
2	209.5	49.21mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:28:15 AM

Mean Area 210.6
Mean Conc. 49.46mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

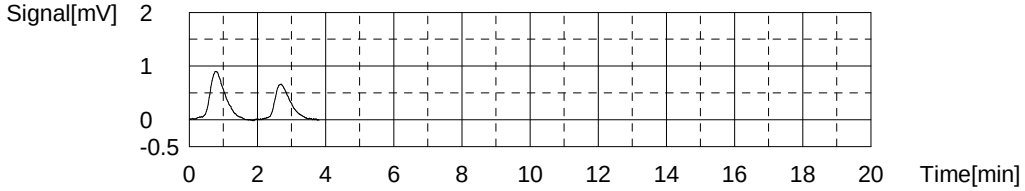
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1420mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.517	0.2139mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:45:26 AM
2	1.910	0.07019mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:47:29 AM

Mean Area 2.213
Mean Conc. 0.1420mg/L



	Sample Name	Origin	Dil	Result	Status	Date / Time	Vial
1	ICV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:51.21mg/L	Complete	12/27/2013 2:29:59 PM	1
2	ICB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2183mg/L	Complete	12/27/2013 2:58:26 PM	2
3	MB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1745mg/L	Complete	12/27/2013 3:17:38 PM	3
4	LCSSRM	C:\TOC3201\Methods\method 5310b	1.0	NPOC:72.28mg/L	Complete	12/27/2013 3:38:20 PM	4
5	460-68764-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.510mg/L	Complete	12/27/2013 4:54:09 PM	5
6	460-68764-b-1 MS	C:\TOC3201\Methods\method 5310b	1.0	NPOC:51.58mg/L	Complete	12/27/2013 5:14:57 PM	6
7	460-68764-b-1 MSD	C:\TOC3201\Methods\method 5310b	1.0	NPOC:51.66mg/L	Complete	12/27/2013 5:35:45 PM	7
8	460-68764-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.458mg/L	Complete	12/27/2013 5:55:17 PM	8
9	460-68764-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.445mg/L	Complete	12/27/2013 6:14:40 PM	9
10	460-68764-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.360mg/L	Complete	12/27/2013 6:33:58 PM	10
11	460-68764-b-5	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.7425mg/L	Complete	12/27/2013 6:53:11 PM	11
12	460-68760-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.165mg/L	Complete	12/27/2013 7:12:32 PM	12
13	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:49.45mg/L	Complete	12/27/2013 7:33:23 PM	13
14	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2154mg/L	Complete	12/27/2013 7:52:35 PM	14
15	460-68760-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.184mg/L	Complete	12/27/2013 8:11:52 PM	15
16	460-68760-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.168mg/L	Complete	12/27/2013 8:53:09 PM	16
17	460-68763-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1959mg/L	Complete	12/27/2013 9:24:00 PM	17
18	460-68763-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.9338mg/L	Complete	12/27/2013 9:43:17 PM	18
19	460-68763-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.261mg/L	Complete	12/27/2013 10:02:33 PM	19
20	460-68763-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.231mg/L	Complete	12/27/2013 10:21:56 PM	20
21	460-68818-e-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.4085mg/L	Complete	12/27/2013 10:41:08 PM	21
22	460-68818-e-16	C:\TOC3201\Methods\method 5310b	1.0	NPOC:5.857mg/L	Complete	12/27/2013 11:00:54 PM	22
23	460-68818-e-17	C:\TOC3201\Methods\method 5310b	1.0	NPOC:4.319mg/L	Complete	12/27/2013 11:20:39 PM	23
24	460-68818-e-18	C:\TOC3201\Methods\method 5310b	1.0	NPOC:6.029mg/L	Complete	12/27/2013 11:40:53 PM	24
25	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.68mg/L	Complete	12/28/2013 12:01:45 AM	25
26	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1761mg/L	Complete	12/28/2013 12:20:57 AM	26
27	460-68772-d-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.6494mg/L	Complete	12/28/2013 12:40:09 AM	27
28	460-68772-d-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1907mg/L	Complete	12/28/2013 12:59:22 AM	28
29	460-68799-d-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.181mg/L	Complete	12/28/2013 1:18:38 AM	29
30	460-68760-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.180mg/L	Complete	12/28/2013 1:38:04 AM	30
31	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.50mg/L	Complete	12/28/2013 1:59:08 AM	31
32	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2178mg/L	Complete	12/28/2013 2:18:21 AM	32
33	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:49.49mg/L	Complete	12/28/2013 5:09:26 AM	33
34	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1932mg/L	Complete	12/28/2013 5:28:39 AM	34
35	460-68760-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.067mg/L	Complete	12/28/2013 5:47:52 AM	35
36	460-68763-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.244mg/L	Complete	12/28/2013 6:07:12 AM	36
37	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:49.46mg/L	Complete	12/28/2013 6:28:15 AM	37
38	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1420mg/L	Complete	12/28/2013 6:47:29 AM	38

Instr.Information

System	TOC-V CSH
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

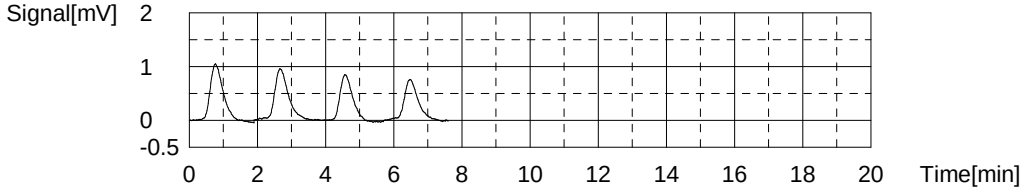
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	HV131205.2013_12_05_13_43_06.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.691	50uL	1	*******		12/5/2013 1:59:23 PM
2	2.457	50uL	1	*******		12/5/2013 2:01:26 PM
3	2.206	50uL	1	*******		12/5/2013 2:03:30 PM
4	1.880	50uL	1	*******		12/5/2013 2:05:33 PM

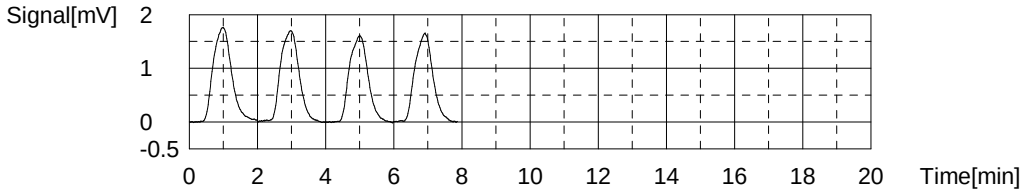
Acid Add.	1.500%
Sp. Time	600.0sec
Mean Area	2.309



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.448	50uL	1	*******		12/5/2013 2:22:45 PM
2	6.276	50uL	1	*******		12/5/2013 2:24:54 PM
3	6.018	50uL	1	*******		12/5/2013 2:26:59 PM
4	6.005	50uL	1	*******		12/5/2013 2:29:05 PM

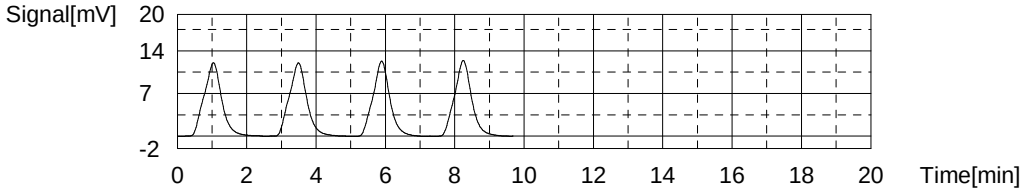
Acid Add.	1.500%
Sp. Time	600.0sec
Mean Area	6.187



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	42.94	50uL	1	*******		12/5/2013 2:46:45 PM
2	42.44	50uL	1	*******		12/5/2013 2:49:18 PM
3	42.25	50uL	1	*******		12/5/2013 2:51:48 PM
4	43.18	50uL	1	*******		12/5/2013 2:54:26 PM

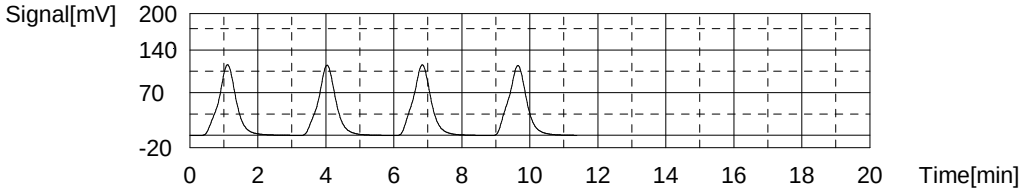
Acid Add.	1.500%
Sp. Time	600.0sec
Mean Area	42.70



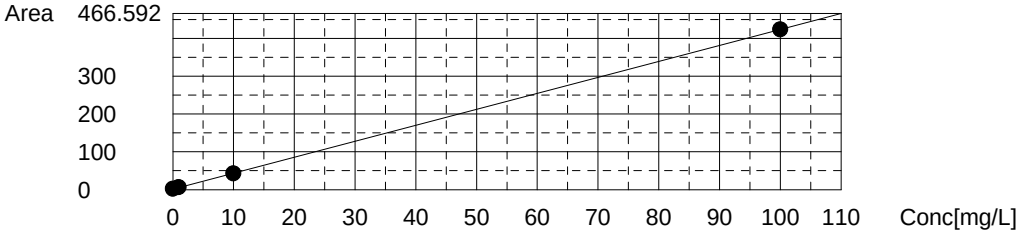
Conc: 100.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	420.5	50uL	1	*******		12/5/2013 3:12:35 PM
2	418.0	50uL	1	*******		12/5/2013 3:15:34 PM
3	430.6	50uL	1	*******		12/5/2013 3:18:34 PM
4	427.6	50uL	1	*******		12/5/2013 3:21:33 PM

Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 424.2



Slope: 4.224
Intercept 1.613
r^2 0.999984
Zero Shift No



OPERATOR: huan
ACQ. TIME: Jan 2, 2014 11:01:53
DATA FILENAME: C:\OMNION\DATA\AMMONIA\DATA2013\A140102.FDT
METHOD FILENAME: C:\OMNION\METHODS\AMMONIA.MET
TRAY FILENAME:

TRAY DESCRIPTION:
Created: Jan 28, 2013 14:17:09
Modified: Dec 31, 2013 14:19:56

DATA DESCRIPTION:
Created: Jan 2, 2014 11:01:53
Modified: Jan 2, 2014 11:01:53

Method - Ch. 1 (ammonia)

METHOD DESCRIPTION:
Created: Oct 20, 2012 10:22:20
Modified: Dec 31, 2013 11:15:26
ammonia

ANALYTE DATA:
Analyte Name: ammonia
Concentration Units: mg/l
Chemistry: Direct
Inject to Peak Start (s): 22.0
Peak Base Width (s): 45.567
% Width Tolerance: 100.000
Threshold: 300.000
Autodilution Trigger: Off
QuikChem Method: 10-107-06-1-c

CALIBRATION DATA:
Levels:
1 : 4.000 2 : 2.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000
Calibration Rep Handling: Replace
Calibration Fit Type: 1st Order Poly
Force Though Zero: No
Weighting Method: None
Concentration Scaling: None

SAMPLER TIMING:
Method Cycle Period: 90.0
Min. Probe in Wash Period: 5.0
Probe in Sample Period: 24.0

*** Prep Sequence Not Enabled ***

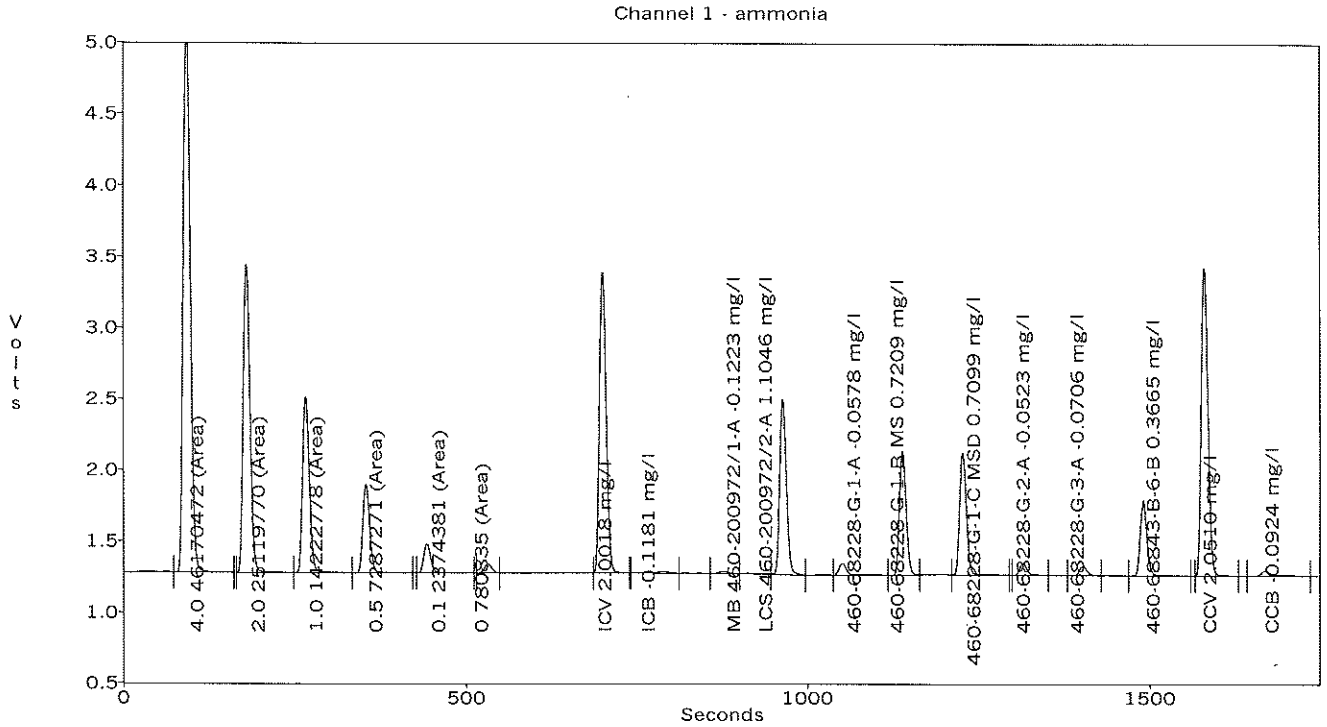
VALVE TIMING:
Method Cycle Period: 90.0
Sample Reaches 1st Valve: 30.0
Valve: On
Load Time: 0.0
Load Period: 18.0
Inject Period: 72.0

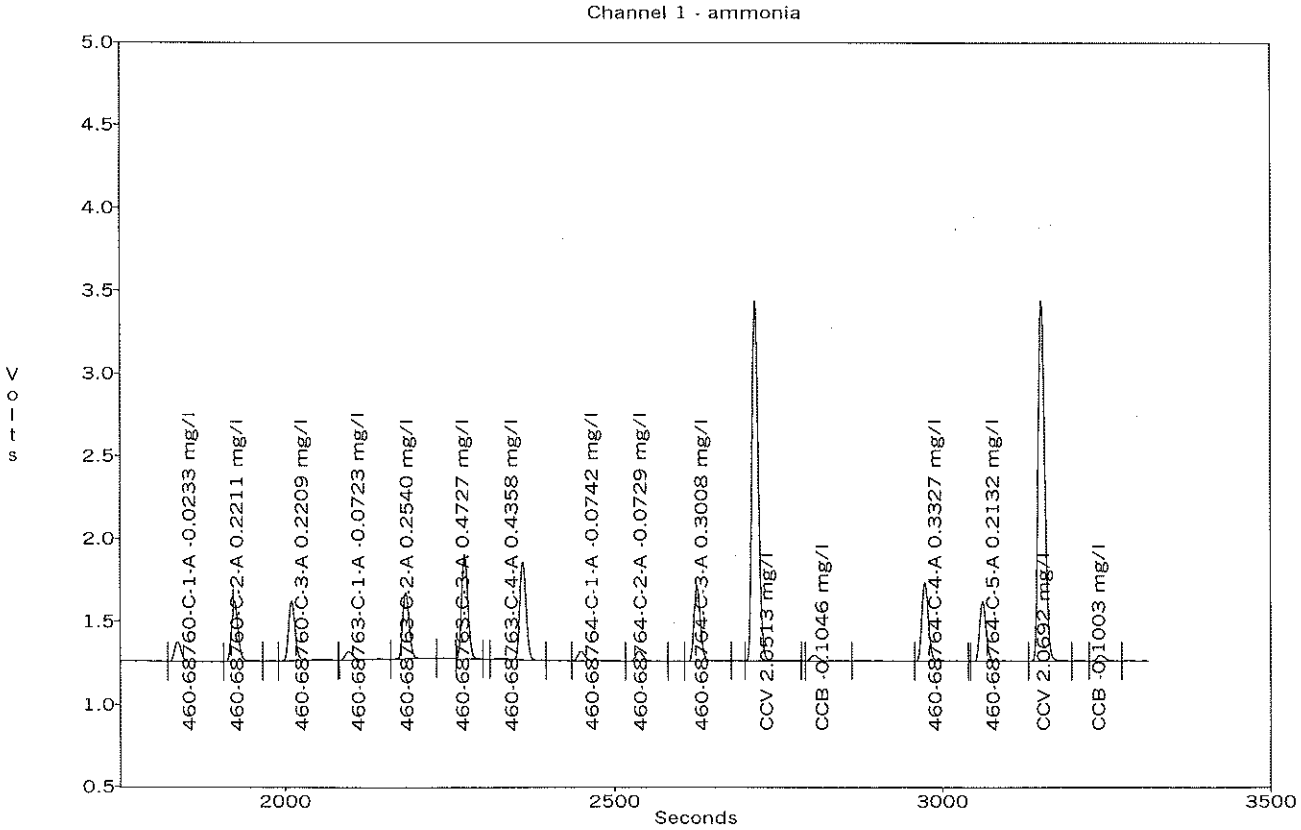
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 1 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	ammonia (uv-s)	Man Dil Factor	Weight	Unit
1	4.0	02 Jan 2014	11:01:54	1	46170472.00	1.0	1.00000	g
2	2.0	02 Jan 2014	11:03:21	1	25119770.00	1.0	1.00000	g
3	1.0	02 Jan 2014	11:04:48	1	14222778.00	1.0	1.00000	g
4	0.5	02 Jan 2014	11:06:16	1	7287271.00	1.0	1.00000	g
5	0.1	02 Jan 2014	11:07:45	1	2374381.00	1.0	1.00000	g
6	0	02 Jan 2014	11:09:14	1	780835.00	1.0	1.00000	g

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 46

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	ammonia (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	ICV	02 Jan 2014	11:12:02	1	2.0018	1.0	1.00	1.00000	g
2	ICB	02 Jan 2014	11:13:31	1	-0.1181	1.0	1.00	1.00000	g
3	MB 460-200972/1-A	02 Jan 2014	11:14:59	1	-0.1223	1.0	1.00	1.00000	g
4	LCS 460-200972/2-A	02 Jan 2014	11:16:27	1	1.1046	1.0	1.00	1.00000	g
5	460-68228-G-1-A	02 Jan 2014	11:17:54	1	-0.0578	1.0	1.00	1.00000	g
6	460-68228-G-1-B MS	02 Jan 2014	11:19:22	1	0.7209	1.0	1.00	1.00000	g
7	460-68228-G-1-C MSD	02 Jan 2014	11:20:50	1	0.7099	1.0	1.00	1.00000	g
8	460-68228-G-2-A	02 Jan 2014	11:22:17	1	-0.0523	1.0	1.00	1.00000	g
9	460-68228-G-3-A	02 Jan 2014	11:23:45	1	-0.0706	1.0	1.00	1.00000	g
10	460-68843-B-6-B	02 Jan 2014	11:25:13	1	0.3665	1.0	1.00	1.00000	g
11	460-68760-C-1-A	02 Jan 2014	11:31:00	1	-0.0233	1.0	1.00	1.00000	g
12	460-68760-C-2-A	02 Jan 2014	11:32:26	1	0.2211	1.0	1.00	1.00000	g
13	460-68760-C-3-A	02 Jan 2014	11:33:53	1	0.2209	1.0	1.00	1.00000	g
14	460-68763-C-1-A	02 Jan 2014	11:35:19	1	-0.0723	1.0	1.00	1.00000	g
15	460-68763-C-2-A	02 Jan 2014	11:36:46	1	0.2540	1.0	1.00	1.00000	g
16	460-68763-C-3-A	02 Jan 2014	11:38:15	1	0.4727	1.0	1.00	1.00000	g
17	460-68763-C-4-A	02 Jan 2014	11:39:44	1	0.4358	1.0	1.00	1.00000	g
18	460-68764-C-1-A	02 Jan 2014	11:41:12	1	-0.0742	1.0	1.00	1.00000	g
19	460-68764-C-2-A	02 Jan 2014	11:42:41	1	-0.0729	1.0	1.00	1.00000	g
20	460-68764-C-3-A	02 Jan 2014	11:44:10	1	0.3008	1.0	1.00	1.00000	g
21	460-68764-C-4-A	02 Jan 2014	11:49:56	1	0.3327	1.0	1.00	1.00000	g
22	460-68764-C-5-A	02 Jan 2014	11:51:24	1	0.2132	1.0	1.00	1.00000	g


Channel 1 - ammonia
Volts
Seconds
4.0 46170472 (Area)
2.0 25119770 (Area)
1.0 14222778 (Area)
0.5 7287271 (Area)
0.1 2374381 (Area)
0 780535 (Area)
ICV 2.0018 mg/l
ICB -0.1181 mg/l
MB 460-200972/1-A -0.1223 mg/l
LCS 460-200972/2-A 1.1046 mg/l
460-68228-G-1-A -0.0578 mg/l
460-68228-G-1-B MS 0.7209 mg/l
460-68228-G-1-C MSD 0.7099 mg/l
460-68228-G-2-A -0.0523 mg/l
460-68228-G-3-A -0.0706 mg/l
460-68843-B-6-B 0.3665 mg/l
CCV 2.0510 mg/l
CCB -0.0924 mg/l


Channel 1 - ammonia
Volts
Seconds
460-68760-C-1-A -0.0233 mg/l
460-68760-C-2-A 0.2211 mg/l
460-68760-C-3-A 0.2209 mg/l
460-68763-C-1-A -0.0723 mg/l
460-68763-C-2-A 0.2540 mg/l
460-68763-C-3-A 0.4727 mg/l
460-68763-C-4-A 0.4358 mg/l
460-68764-C-1-A -0.0742 mg/l
460-68764-C-2-A -0.0729 mg/l
460-68764-C-3-A 0.3008 mg/l
CCV 2.0513 mg/l
CCB -0.1046 mg/l
460-68764-C-4-A 0.3327 mg/l
460-68764-C-5-A 0.2132 mg/l
CCV 2.0692 mg/l
CCB -0.1003 mg/l

Sample Information/Results: Ch. 1
ammonia (Cup Range: 1 - 25)

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknown
Rep 1/1, Result: 2.0018 mg/l

Cup: 2, Sample ID: ICB, Sample Type: Unknown
Rep 1/1, Result: -0.1181 mg/l

Cup: 3, Sample ID: MB 460-200972/1-A, Sample Type: Unknown
Rep 1/1, Result: -0.1223 mg/l

Cup: 4, Sample ID: LCS 460-200972/2-A, Sample Type: Unknown
Rep 1/1, Result: 1.1046 mg/l

Cup: 5, Sample ID: 460-68228-G-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0578 mg/l

Cup: 6, Sample ID: 460-68228-G-1-B MS, Sample Type: Unknown
Rep 1/1, Result: 0.7209 mg/l

Cup: 7, Sample ID: 460-68228-G-1-C MSD, Sample Type: Unknown
Rep 1/1, Result: 0.7099 mg/l

Cup: 8, Sample ID: 460-68228-G-2-A, Sample Type: Unknown
Rep 1/1, Result: -0.0523 mg/l

Cup: 9, Sample ID: 460-68228-G-3-A, Sample Type: Unknown
Rep 1/1, Result: -0.0706 mg/l

Cup: 10, Sample ID: 460-68843-B-6-B, Sample Type: Unknown
Rep 1/1, Result: 0.3665 mg/l

Cup: 11, Sample ID: 460-68760-C-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0233 mg/l

Cup: 12, Sample ID: 460-68760-C-2-A, Sample Type: Unknown
Rep 1/1, Result: 0.2211 mg/l

Cup: 13, Sample ID: 460-68760-C-3-A, Sample Type: Unknown
Rep 1/1, Result: 0.2209 mg/l

Cup: 14, Sample ID: 460-68763-C-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0723 mg/l

Cup: 15, Sample ID: 460-68763-C-2-A, Sample Type: Unknown
Rep 1/1, Result: 0.2540 mg/l

Cup: 16, Sample ID: 460-68763-C-3-A, Sample Type: Unknown
Rep 1/1, Result: 0.4727 mg/l

Cup: 17, Sample ID: 460-68763-C-4-A, Sample Type: Unknown
Rep 1/1, Result: 0.4358 mg/l

Cup: 18, Sample ID: 460-68764-C-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0742 mg/l

Cup: 19, Sample ID: 460-68764-C-2-A, Sample Type: Unknown
Rep 1/1, Result: -0.0729 mg/l

Cup: 20, Sample ID: 460-68764-C-3-A, Sample Type: Unknown
Rep 1/1, Result: 0.3008 mg/l

Cup: 21, Sample ID: 460-68764-C-4-A, Sample Type: Unknown
Rep 1/1, Result: 0.3327 mg/l

Cup: 22, Sample ID: 460-68764-C-5-A, Sample Type: Unknown
Rep 1/1, Result: 0.2132 mg/l

Sample Information/Results: Ch. 1
ammonia (Cup Range: 26 - 51)

Unknowns:

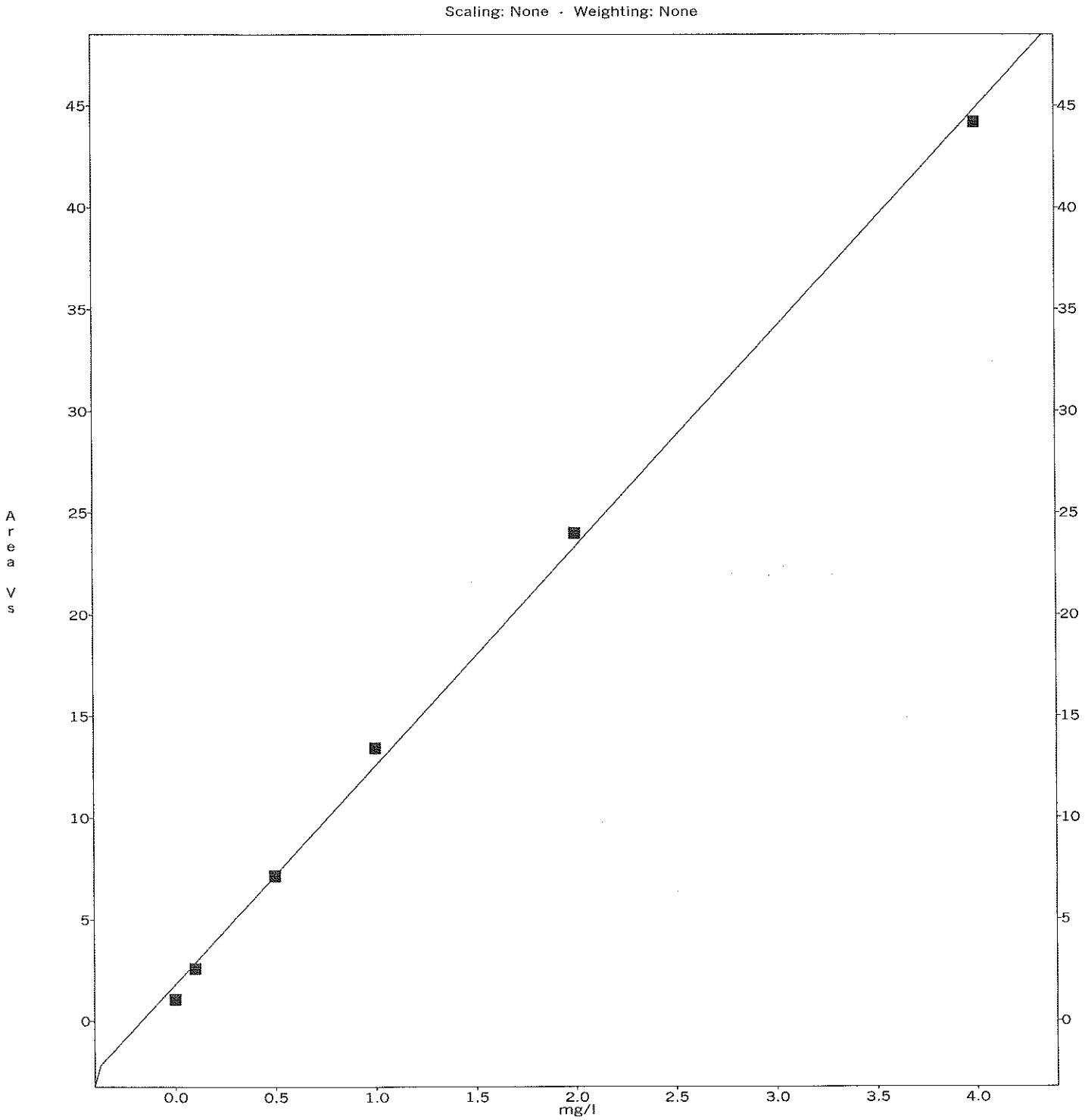
Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	ammonia (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV	RelChkStd	02 Jan 2014	11:26:43	1	2.05	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		2.55				
15	CCV	RelChkStd	02 Jan 2014	11:45:39	1	2.05	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		2.57				
15	CCV	RelChkStd	02 Jan 2014	11:52:53	1	2.07	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		3.46				
16	CCB	Blank	02 Jan 2014	11:28:13	1	-0.09	1.0	1.00	1.00000	g
16	CCB	Blank	02 Jan 2014	11:47:09	1	-0.10	1.0	1.00	1.00000	g
16	CCB	Blank	02 Jan 2014	11:54:24	1	-0.10	1.0	1.00	1.00000	g

ammonia

Lvl	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	44205180	4.0	44205180					0.0	0.0	1.4
2	24012154	2.0	24012154					0.0	0.0	-3.3
3	13444775	1.0	13444775					0.0	0.0	-8.3
4	7170106	0.5	7170106					0.0	0.0	-0.1
5	2597152	0.1	2597152					0.0	0.0	24.7
6	1069405	0.0	1069405					0.0	0.0	

1st Order Poly
Conc = 9.293e-008 Area - 1.660e-001
r = 0.9992



Printed: Thursday, January 02, 2014 - 02:31 PM

PROJECT pH/ corrosivity

Notebook No. 6507 1

Continued from Page

Buffer	BATCH	Job	Sample	Matrix	DIL	pH1	pH2	Temp	Time
7.00			CCV			7.04	7.03	23.2	3:05
4.01			MB			6.03	6.05	22.1	3:07
12.03			LCSSRM			7.02	7.02	23.2	3:09
			68717-1A		H_2O	7.71	7.70	22.5	3:13
			-1 Dup			7.68	7.69	22.2	3:15
			-2			8.15	8.17	22.4	3:17
			-3			8.12	8.12	22.4	3:20
			68760-1D			7.55	7.56	22.6	3:22
			-2			7.36	7.34	22.4	3:24
			-3			7.25	7.26	22.0	3:26
			CCV			7.01	7.00	23.4	3:28
			68763-1F			5.89	5.88	21.9	3:30
			-2			8.05	8.03	22.4	3:32
			-3			7.48	7.47	21.9	3:34
			-4			7.08	7.06	22.0	3:37
			68764-1F			7.87	7.87	22.4	3:39
			-2			7.88	7.88	22.6	3:40
			-3			8.08	8.07	22.1	3:42
			-4			7.96	7.96	22.4	3:44
			-5			7.92	7.93	21.9	3:46
			CCV			7.00	7.00	23.5	3:48
			68904-1G			7.48	7.49	21.8	3:50
			68914-1E			4.82	4.81	23.4	3:53
			68962-1E			7.46	7.47	21.8	3:55
			68983-1D			8.24	8.25	22.0	3:57
			CCV			7.00	7.00	23.4	4:00

201069

pH meter G
Pengar IN TBLS

Continued on Page

Read and Understood By

Signed 1/2/14 Date Signed Date

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d
Lims ID: STD0 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 0
Inject. Date: 17-Dec-2013 15:19:57 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028206-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:14 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.447	2.360	2.600	598	57.78	3.78		2 Chloride
4.940	4.843	5.093	437	42.22	4.91		5 Sulfate
			1035			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

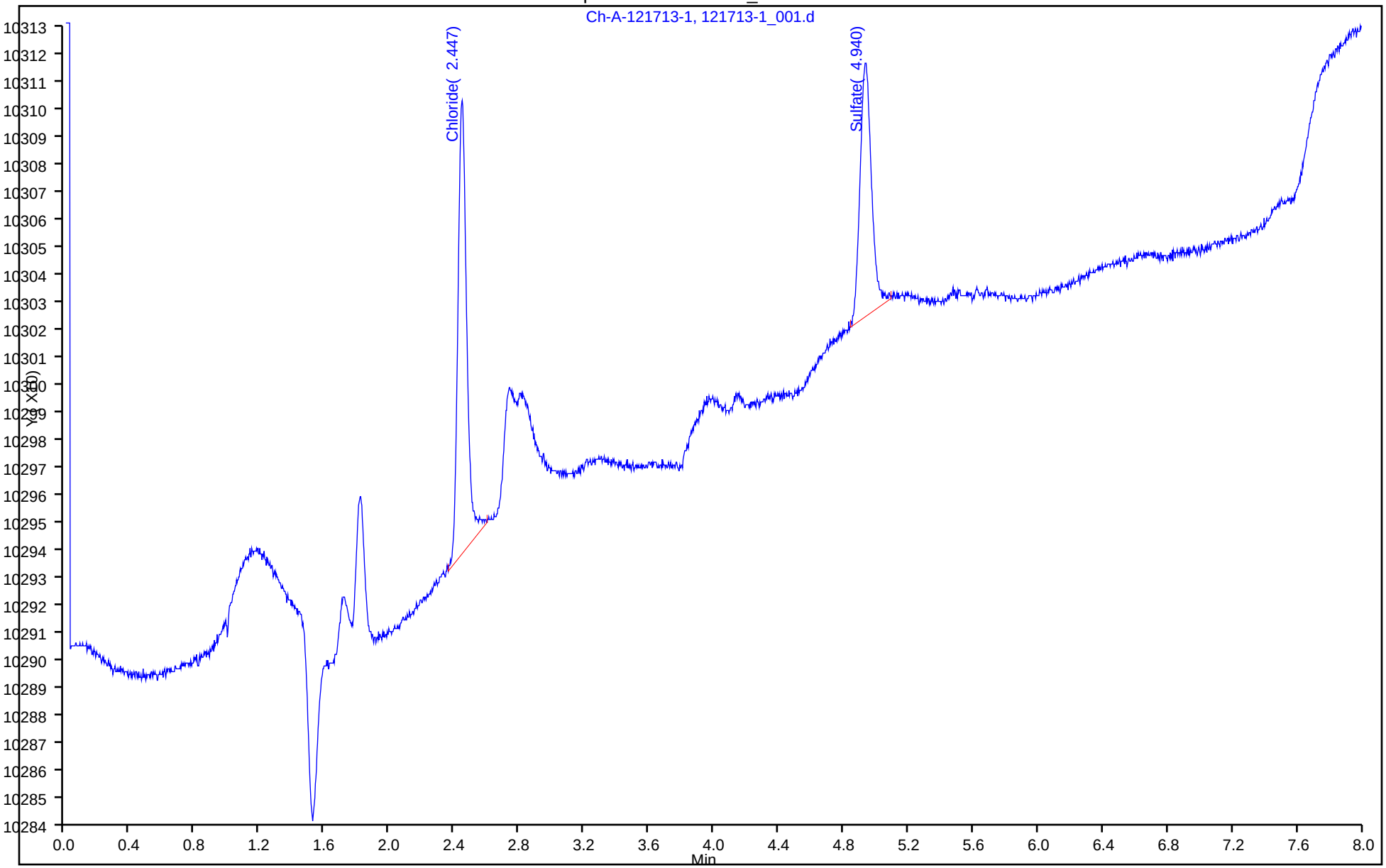
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d				
Lims ID:	STD0	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	0		
Inject. Date:	17-Dec-2013 15:19:57	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 001 Name: 480-0028206-001				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:14	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.447	2.467	-0.020	598	0.000010	
5 Sulfate					
4.940	4.897	0.043	437	0.000009	

Report Date: 17-Dec-2013 17:07:15 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d				
Injection Date:	17-Dec-2013 15:19:57	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD0	Lab Sample ID:		Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d
Lims ID: STD1 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-Dec-2013 15:30:05 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 002 Name: 480-0028206-002
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:14 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 15:54:31

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.697	1.617	1.867	1492	6.93	3.64		1 Fluoride
2.457	2.353	2.693	9488	44.05	3.59		2 Chloride
3.887	3.803	4.047	468	2.17	6.41		3 Bromide
4.157	4.047	4.447	2805	13.02	4.94		
4.930	4.810	5.307	7288	33.83	4.73		5 Sulfate
			21541			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d				
Lims ID:	STD1	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	17-Dec-2013 15:30:05	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 002 Name: 480-0028206-002				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:14	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				

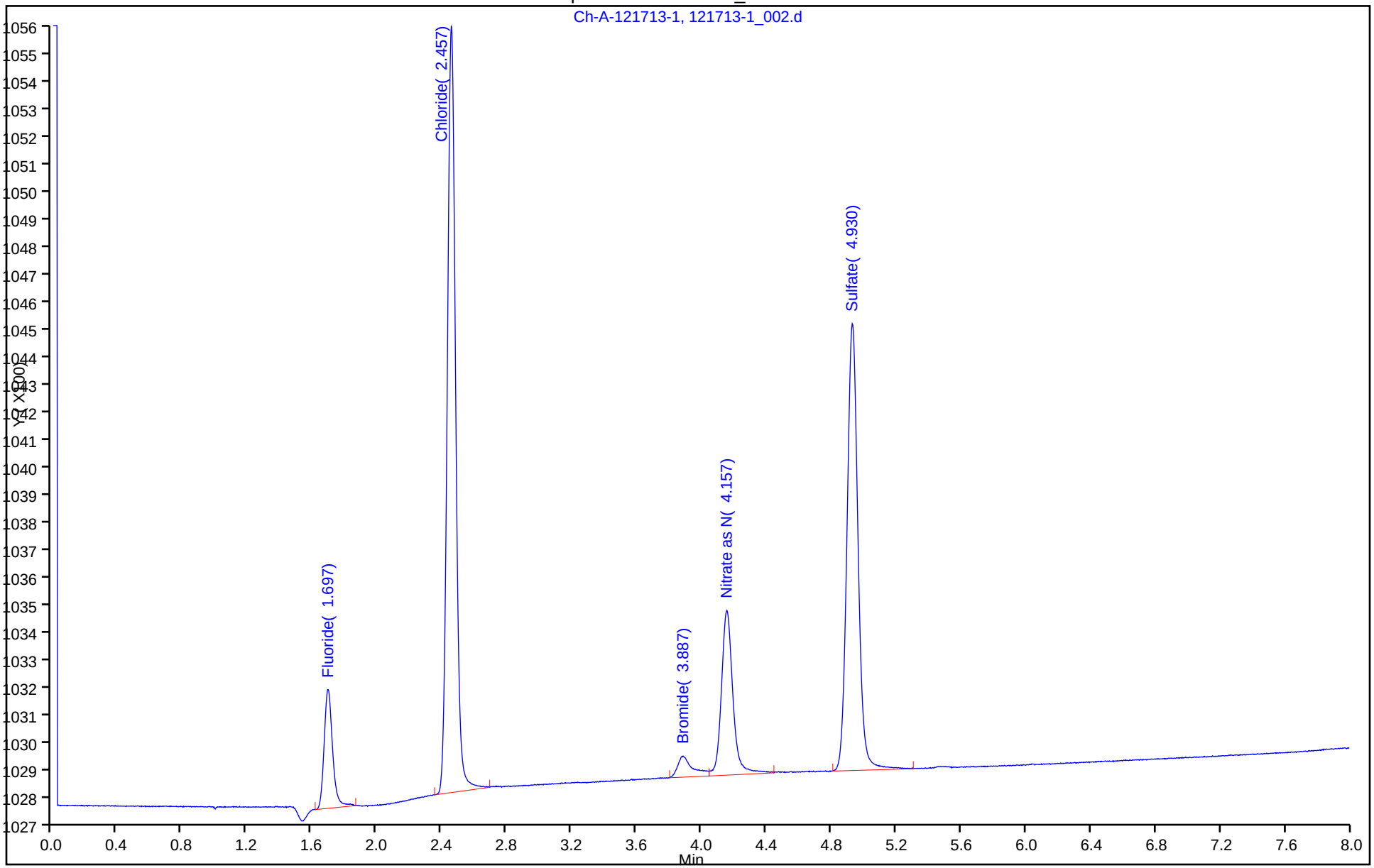
First Level Reviewer: cudneyk Date: 17-Dec-2013 15:54:31

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.697	1.717	-0.020	1492	0.0496	
2 Chloride					
2.457	2.467	-0.010	9488	0.4771	
3 Bromide					
3.887	3.887	0.0	468	0.0589	
4 Nitrate as N					
4.157	4.127	0.030	2805	0	
5 Sulfate					
4.930	4.897	0.033	7288	0.4973	

Report Date: 17-Dec-2013 17:07:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d				
Injection Date:	17-Dec-2013 15:30:05	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD1	Lab Sample ID:		Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d
Lims ID: STD2 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-Dec-2013 15:40:13 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028206-003
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:13 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 15:55:08

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.700	1.613	1.923	3154	7.37	3.63		1 Fluoride
2.463	2.357	2.803	19509	45.57	3.70		2 Chloride
3.890	3.800	4.053	766	1.79	5.63		3 Bromide
4.160	4.053	4.510	4521	10.56	4.87		
4.950	4.813	5.347	14858	34.71	4.78		5 Sulfate
			42808			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

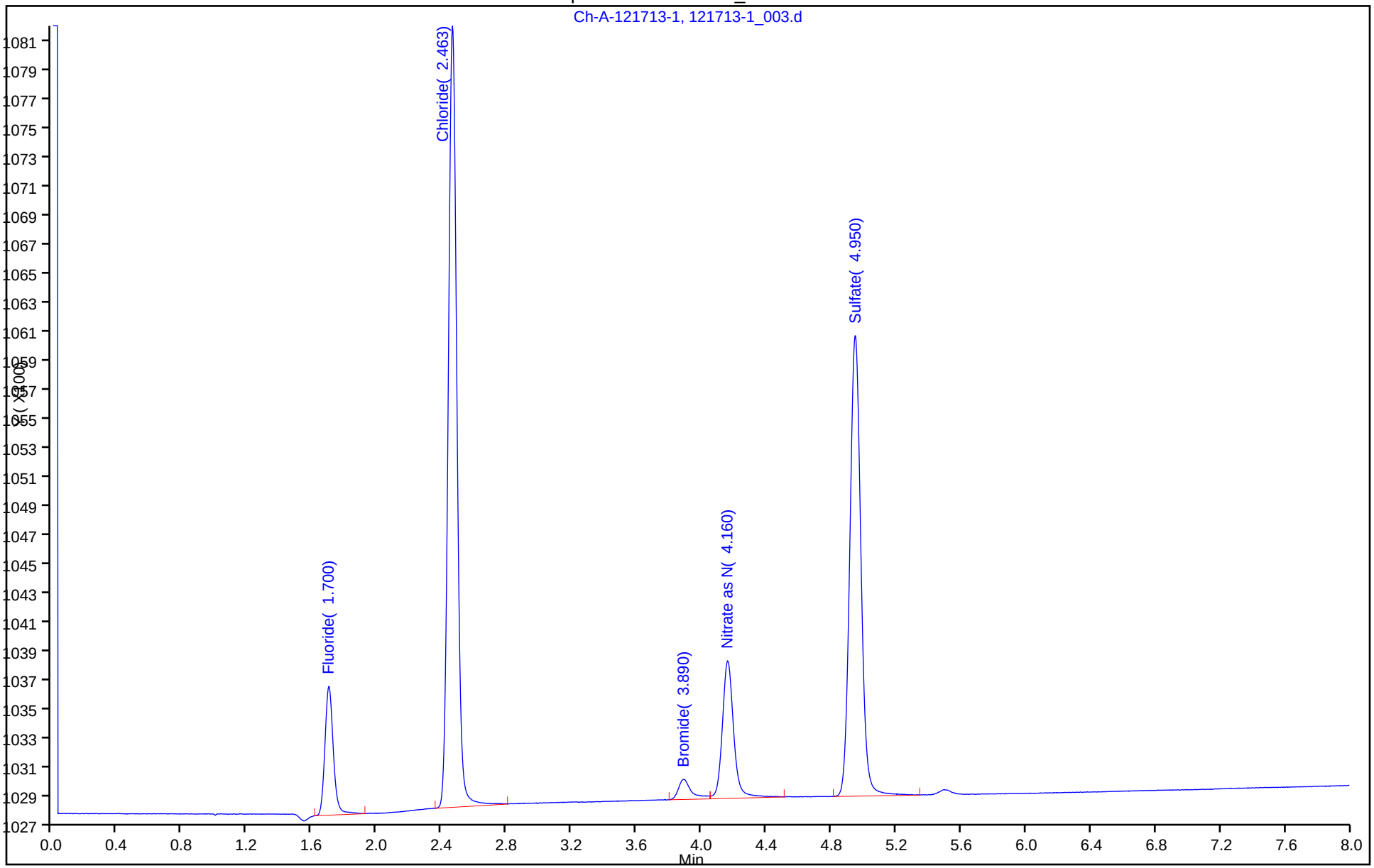
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d				
Lims ID:	STD2	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	17-Dec-2013 15:40:13	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 003 Name: 480-0028206-003				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:13	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				
First Level Reviewer: cudneyk		Date:	17-Dec-2013 15:55:08		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.700	1.717	-0.017	3154	0.1049	
2 Chloride					
2.463	2.467	-0.004	19509	1.01	
3 Bromide					
3.890	3.887	0.003	766	0.0964	
4 Nitrate as N					
4.160	4.127	0.033	4521	0	
5 Sulfate					
4.950	4.897	0.053	14858	1.05	

Report Date: 17-Dec-2013 17:07:13 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d				
Injection Date:	17-Dec-2013 15:40:13	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD2	Lab Sample ID:		Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Dec-2013 15:50:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028206-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:12 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.710	1.617	1.997	15997	7.78	3.74		1 Fluoride
2.470	2.353	2.847	93080	45.27	3.81		2 Chloride
3.890	3.783	4.037	3462	1.68	4.54		3 Bromide
4.157	4.037	4.560	22727	11.05	4.90		
4.940	4.793	5.413	70340	34.21	5.30		5 Sulfate
			205606			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
IC, ICal Standard Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Dec-2013 15:50:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028206-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:12 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	0.5000	-0.007	0.5321	31994	6.4	0
2 Chloride	5.00	0.003	4.96	18616	-0.7	0
3 Bromide	0.5000	0.003	0.4357	6924.00	-12.9	0
5 Sulfate	5.00	0.043	5.07	14068	1.5	0

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Dec-2013 15:50:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028206-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:12 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

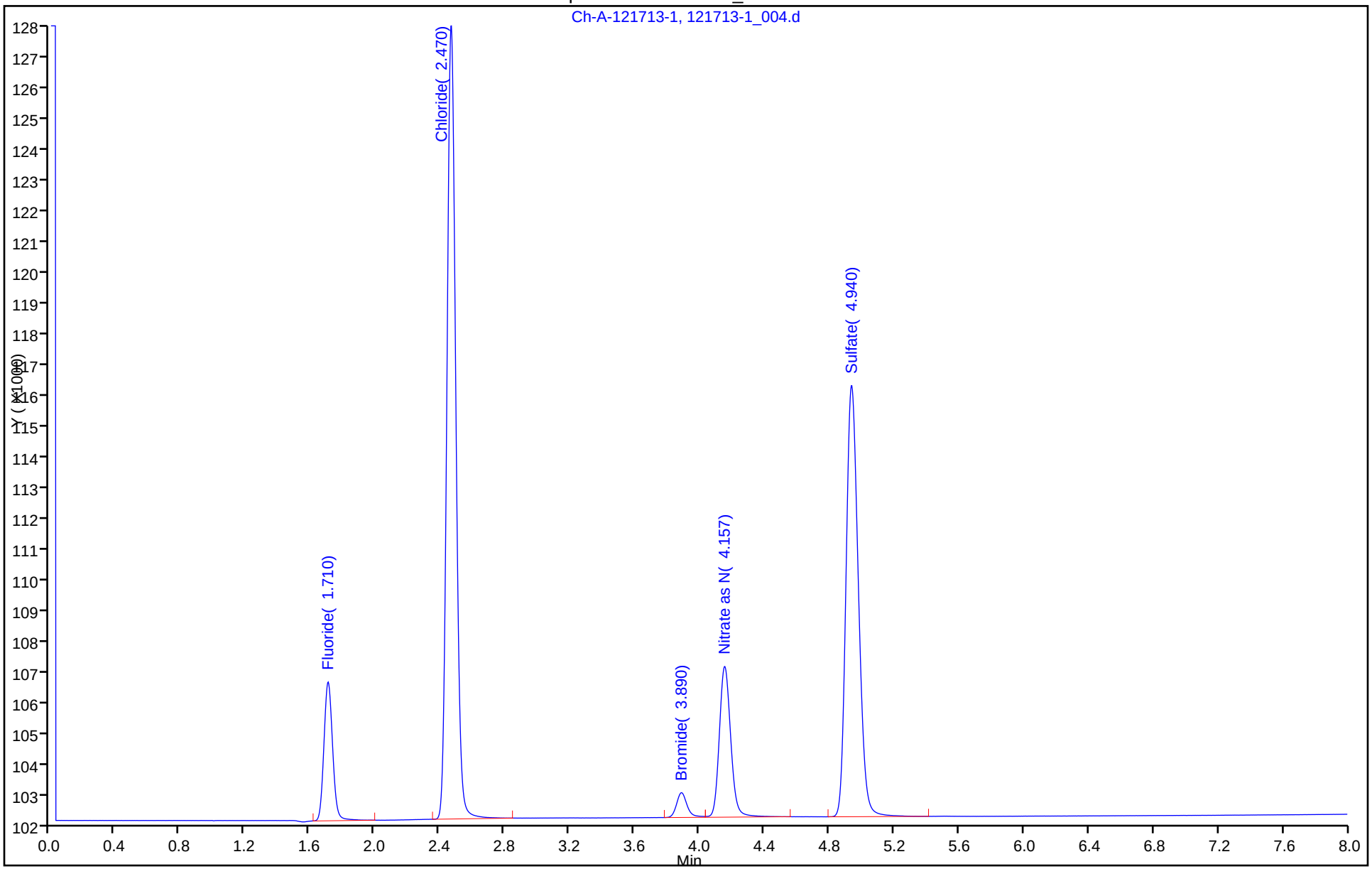
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.710	1.717	-0.007	15997	0.5321	
2 Chloride					
2.470	2.467	0.003	93080	4.96	
3 Bromide					
3.890	3.887	0.003	3462	0.4357	
4 Nitrate as N					
4.157	4.127	0.030	22727	0	
5 Sulfate					
4.940	4.897	0.043	70340	5.07	

Report Date: 17-Dec-2013 17:07:12 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d				
Injection Date:	17-Dec-2013 15:50:21	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD3	Lab Sample ID:		Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d
Lims ID: STD4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Dec-2013 16:00:29 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 005 Name: 480-0028206-005
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:10 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:27:55

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.617	2.127	61502	7.50	4.17		1 Fluoride
2.467	2.337	2.970	371918	45.36	3.90		2 Chloride
3.887	3.757	4.023	15407	1.88	4.41		3 Bromide
4.127	4.023	4.767	93657	11.42	5.60		
4.897	4.767	5.463	277357	33.83	7.05		5 Sulfate
			819841			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d
Lims ID: STD4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Dec-2013 16:00:29 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 005 Name: 480-0028206-005
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:10 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

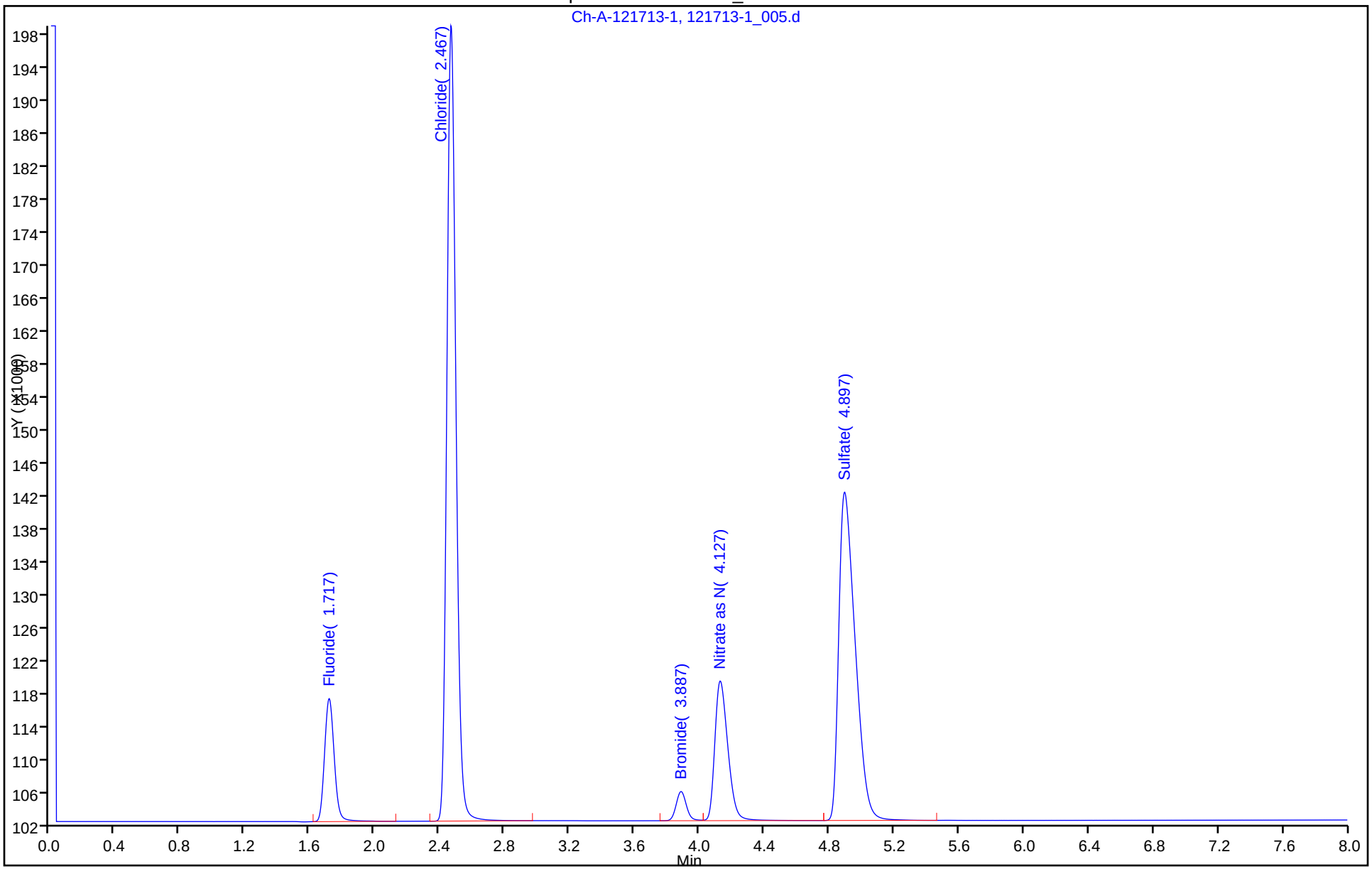
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:27:55

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	61502	2.05	
2 Chloride					
2.467	2.467	0.0	371918	19.9	
3 Bromide					
3.887	3.887	0.0	15407	1.94	
4 Nitrate as N					
4.127	4.127	0.0	93657	0	
5 Sulfate					
4.897	4.897	0.0	277357	20.1	

Report Date: 17-Dec-2013 17:07:10 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d				
Injection Date:	17-Dec-2013 16:00:29	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD4	Lab Sample ID:		Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Dec-2013 16:10:36 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028206-006
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:14

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.720	1.613	2.350	145503	7.11	4.72		1 Fluoride
2.460	2.350	3.410	934841	45.70	4.01		2 Chloride
3.867	3.753	3.980	39975	1.95	4.47		3 Bromide
4.080	3.980	4.687	233451	11.41	6.72		
4.823	4.690	5.527	691760	33.82	9.57		5 Sulfate
			2045530			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Dec-2013 16:10:36 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028206-006
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

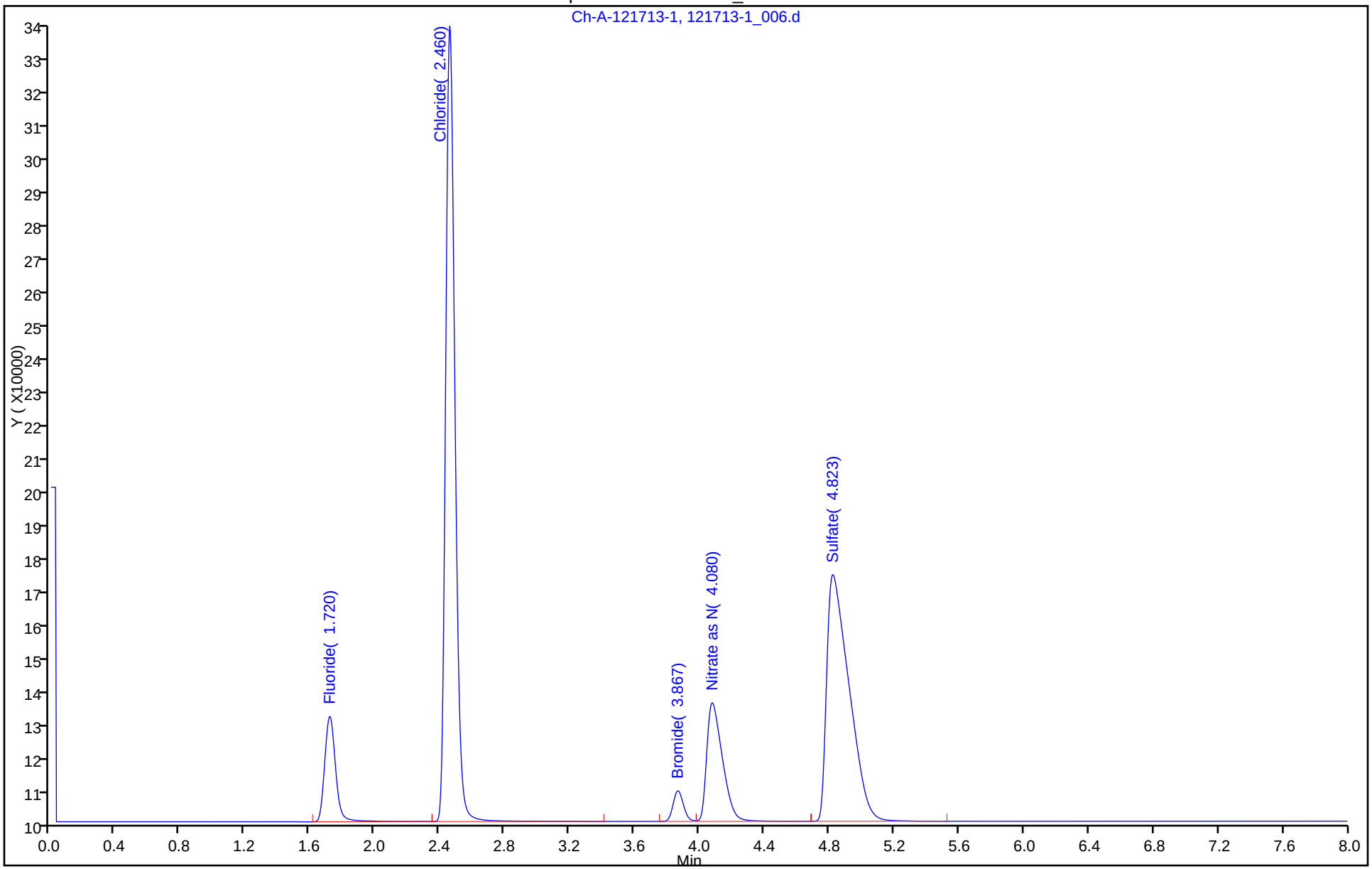
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:14

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.720	1.720	0.0	145503	4.84	
2 Chloride					
2.460	2.460	0.0	934841	50.1	
3 Bromide					
3.867	3.867	0.0	39975	5.03	
4 Nitrate as N					
4.080	4.080	0.0	233451	0	
5 Sulfate					
4.823	4.823	0.0	691760	50.2	

Report Date: 17-Dec-2013 17:07:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_006.d				
Injection Date:	17-Dec-2013 16:10:36	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD5	Lab Sample ID:		Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Lims ID: STD6 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Dec-2013 16:20:44 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 007 Name: 480-0028206-007
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:08 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:31:02

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.723	1.613	2.347	271651	6.70	5.36		1 Fluoride
2.453	2.347	3.593	1863317	45.95	4.08		2 Chloride
3.837	3.720	3.930	80344	1.98	4.56		3 Bromide
4.020	3.930	4.597	467216	11.52	8.16		
4.740	4.597	5.703	1372396	33.85	12.49		5 Sulfate
			4054924			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

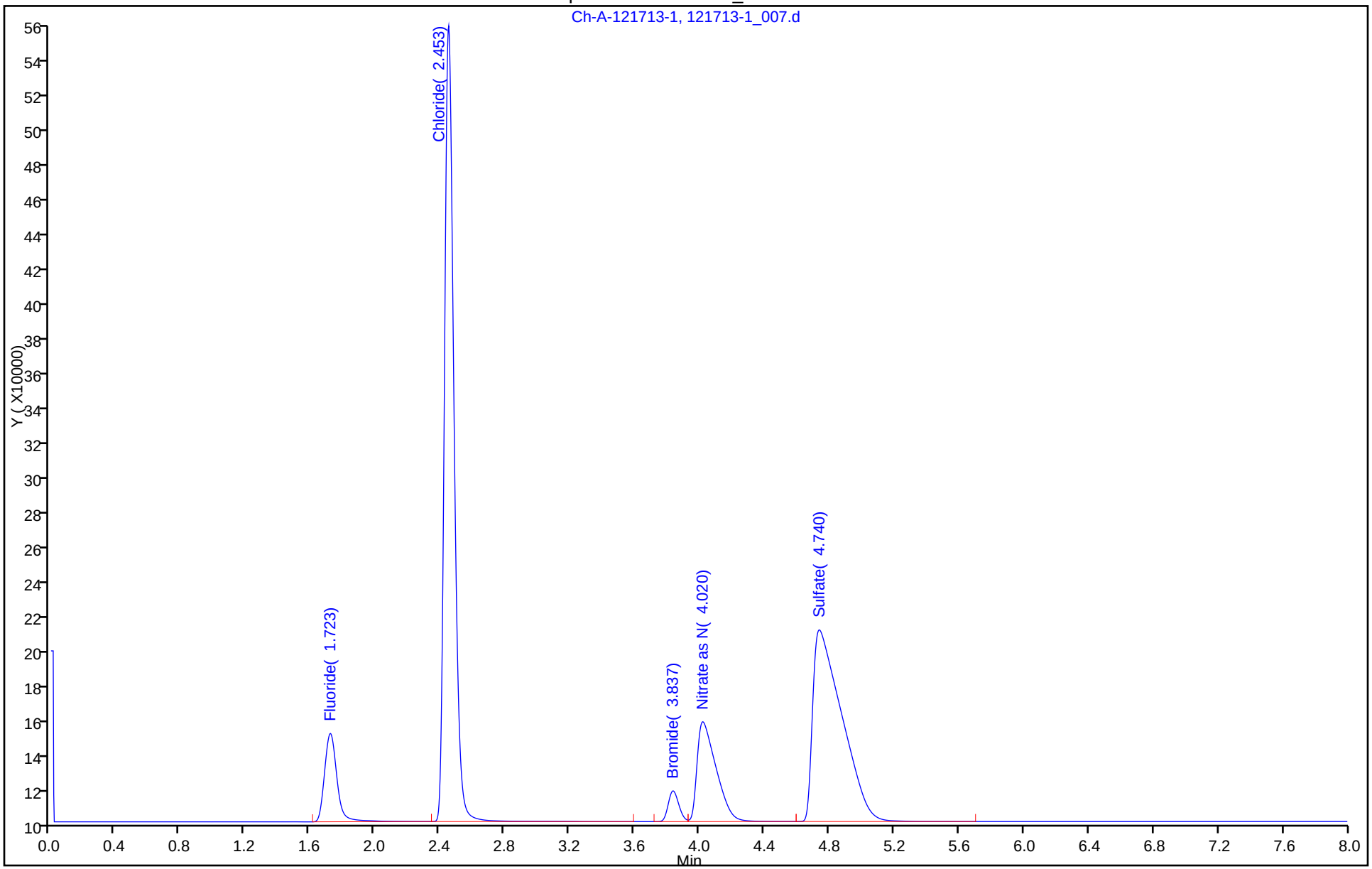
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Lims ID:	STD6	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	17-Dec-2013 16:20:44	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 007 Name: 480-0028206-007				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:08	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				
First Level Reviewer: cudneyk		Date:	17-Dec-2013 16:31:02		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.723	1.723	0.0	271651	9.04	
2 Chloride					
2.453	2.453	0.0	1863317	100.0	
3 Bromide					
3.837	3.837	0.0	80344	10.1	
4 Nitrate as N					
4.020	4.020	0.0	467216	0	
5 Sulfate					
4.740	4.740	0.0	1372396	99.6	

Report Date: 17-Dec-2013 17:07:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Injection Date:	17-Dec-2013 16:20:44	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD6	Lab Sample ID:		Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 17:33:17 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028424-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:20:42

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.987	1.877	2.420	61862	7.47	4.23		1 Fluoride
2.833	2.693	3.383	379785	45.83	4.24		2 Chloride
4.373	4.233	4.523	15445	1.86	5.00		3 Bromide
4.643	4.523	5.203	90606	10.93	6.18		
5.443	5.310	6.013	280913	33.90	7.22		5 Sulfate
			828611			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 17:33:17 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028424-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:20:42

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.0	2.06	30931	2.9	10
2 Chloride	20.0	0.0	20.4	18989	1.8	10
3 Bromide	2.00	0.0	1.94	7722.50	-2.8	10
5 Sulfate	20.0	0.0	20.4	14046	1.8	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 17:33:17 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028424-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

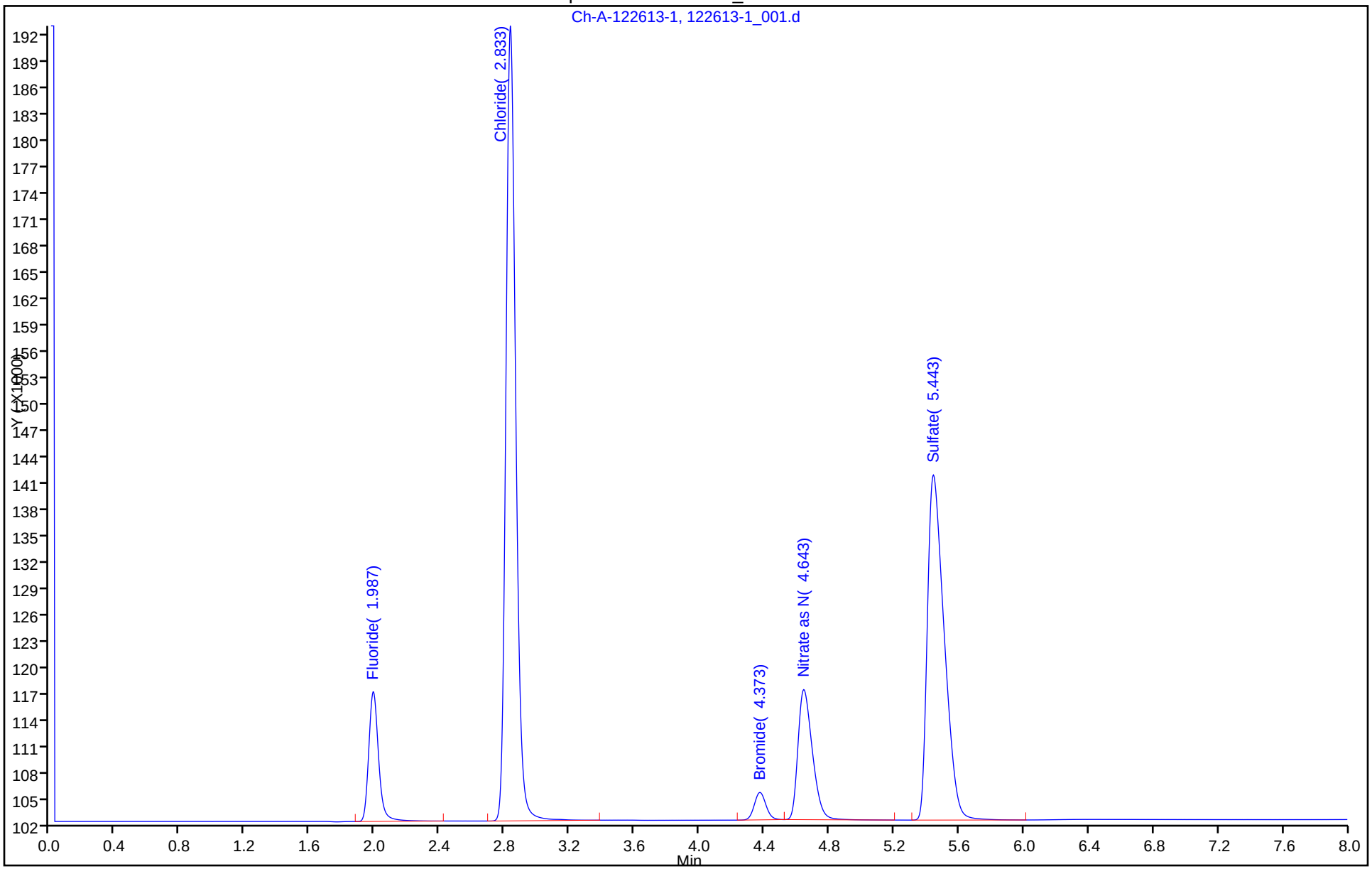
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:20:42

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.987	1.987	0.0	61862	2.06	
2 Chloride					
2.833	2.833	0.0	379785	20.4	
3 Bromide					
4.373	4.373	0.0	15445	1.94	
4 Nitrate as N					
4.643	4.643	0.0	90606	0	
5 Sulfate					
5.443	5.443	0.0	280913	20.4	

Report Date: 27-Dec-2013 09:20:43 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d				
Injection Date:	26-Dec-2013 17:33:17	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_002.d
Lims ID: CCB Lab Sample ID: CCB 480-159518/2-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 17:43:24 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 002 Name: 480-0028424-002
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:41

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.837	2.750	2.917	345	50.00	4.01		2 Chloride
5.537	5.447	5.697	345	50.00	5.56		5 Sulfate
			690			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

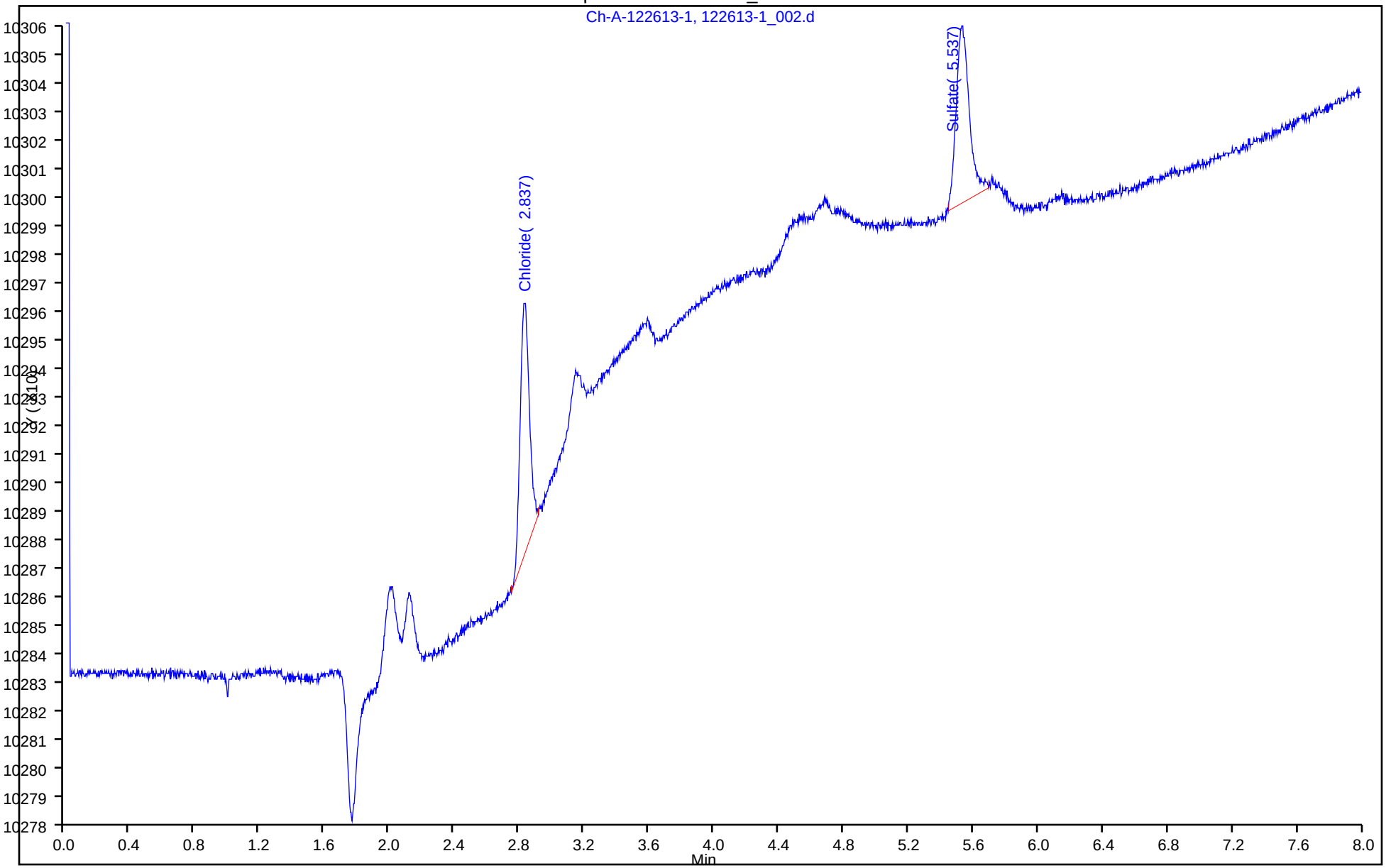
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_002.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/2-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 17:43:24	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 002 Name: 480-0028424-002				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:20:42	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:22:41		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.837	2.833	0.004	345	-0.0136	
5 Sulfate					
5.537	5.443	0.094	345	-0.006669	

Report Date: 27-Dec-2013 09:22:42 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_002.d				
Injection Date:	26-Dec-2013 17:43:24	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/2-A	Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_003.d
Lims ID: LCS Lab Sample ID: LCS 480-159518/3-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Dec-2013 17:53:32 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028424-003
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:46

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.990	1.873	2.463	62868	7.56	4.19		1 Fluoride
2.837	2.710	3.390	380690	45.80	4.25		2 Chloride
4.377	4.247	4.527	15209	1.83	4.98		3 Bromide
4.650	4.527	5.137	90408	10.88	6.19		
5.440	5.303	6.033	281954	33.92	7.22		5 Sulfate
			831129			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_003.d
Lims ID: LCS Lab Sample ID: LCS 480-159518/3-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Dec-2013 17:53:32 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028424-003
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

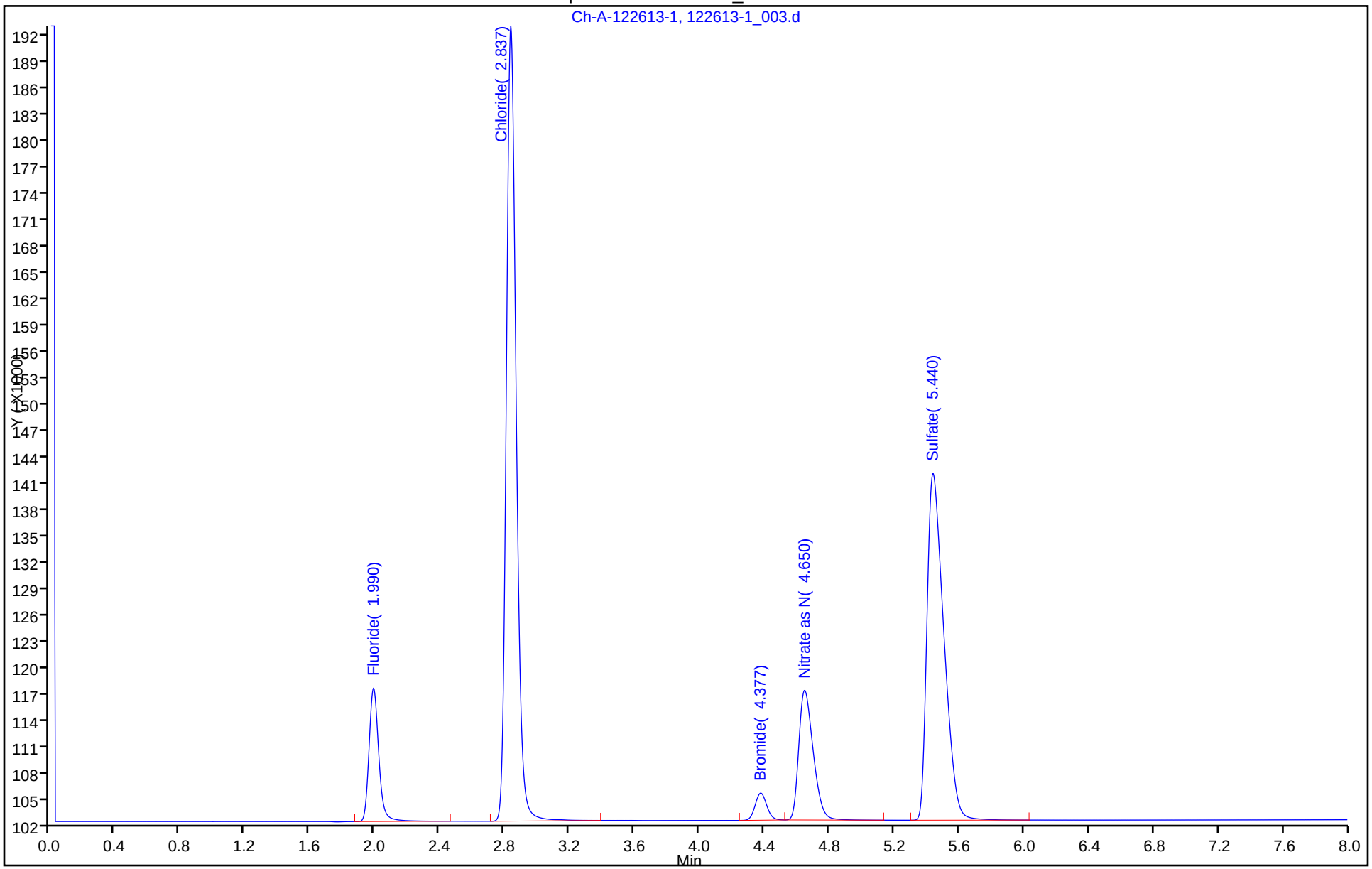
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:46

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.990	1.987	0.003	62868	2.09	
2 Chloride					
2.837	2.833	0.004	380690	20.4	
3 Bromide					
4.377	4.373	0.004	15209	1.91	
4 Nitrate as N					
4.650	4.643	0.007	90408	0	
5 Sulfate					
5.440	5.443	-0.003	281954	20.4	

Report Date: 27-Dec-2013 09:22:46 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_003.d				
Injection Date:	26-Dec-2013 17:53:32	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-159518/3-A	Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_004.d
Lims ID: MB Lab Sample ID: MB 480-159518/4-A
Client ID:
Sample Type: MB
Inject. Date: 26-Dec-2013 18:03:40 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028424-004
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:47

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.833	2.757	2.920	338	45.86	3.98		2 Chloride
5.527	5.440	5.747	399	54.14	5.62		5 Sulfate
			737			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

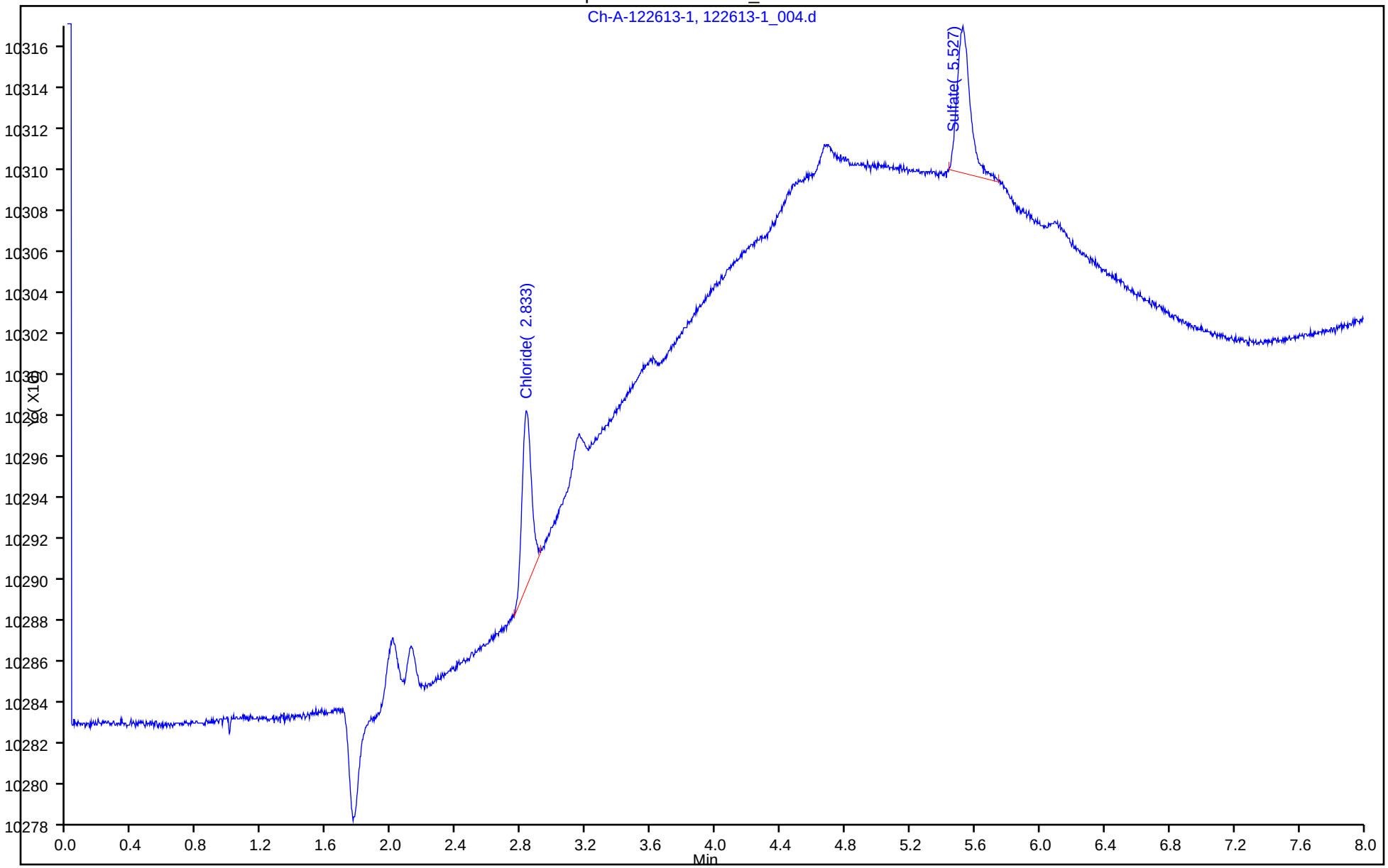
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_004.d				
Lims ID:	MB	Lab Sample ID:	MB 480-159518/4-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	26-Dec-2013 18:03:40	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 004 Name: 480-0028424-004				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:20:42	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:22:47		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.833	2.833	0.0	338	-0.0139	
5 Sulfate					
5.527	5.443	0.084	399	-0.002749	

Report Date: 27-Dec-2013 09:22:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_004.d				
Injection Date:	26-Dec-2013 18:03:40	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-159518/4-A	Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 19:34:51 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028424-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:17

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.990	1.773	2.410	62951	7.58	4.20		1 Fluoride
2.837	2.693	3.383	380790	45.87	4.25		2 Chloride
4.377	4.247	4.530	15178	1.83	4.98		3 Bromide
4.650	4.530	5.133	90429	10.89	6.20		
5.430	5.293	6.137	280867	33.83	7.20		5 Sulfate
			830215			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 19:34:51 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028424-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:17

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.003	2.09	31476	4.7	10
2 Chloride	20.0	0.004	20.4	19040	2.0	10
3 Bromide	2.00	0.004	1.91	7589.00	-4.5	10
5 Sulfate	20.0	-0.013	20.4	14043	1.8	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 19:34:51 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028424-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

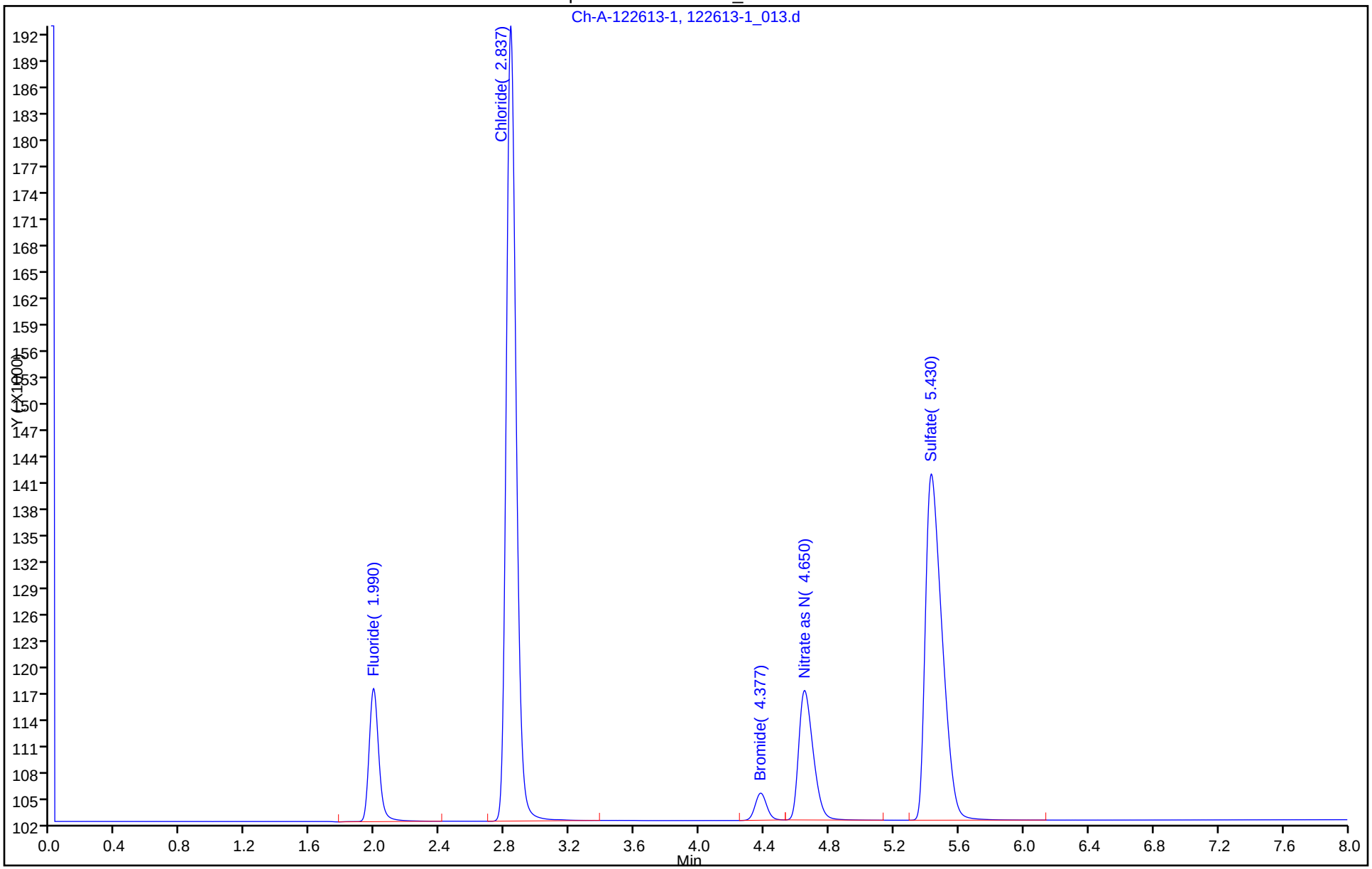
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:17

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.990	1.987	0.003	62951	2.09	
2 Chloride					
2.837	2.833	0.004	380790	20.4	
3 Bromide					
4.377	4.373	0.004	15178	1.91	
4 Nitrate as N					
4.650	4.643	0.007	90429	0	
5 Sulfate					
5.430	5.443	-0.013	280867	20.4	

Report Date: 27-Dec-2013 09:25:17 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d				
Injection Date:	26-Dec-2013 19:34:51	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	13
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_014.d
Lims ID: CCB Lab Sample ID: CCB 480-159518/14-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 19:44:59 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 014 Name: 480-0028424-014
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:18

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.833	2.747	2.910	329	58.23	3.83		2 Chloride
5.520	5.443	5.680	236	41.77	5.24		5 Sulfate
			565			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

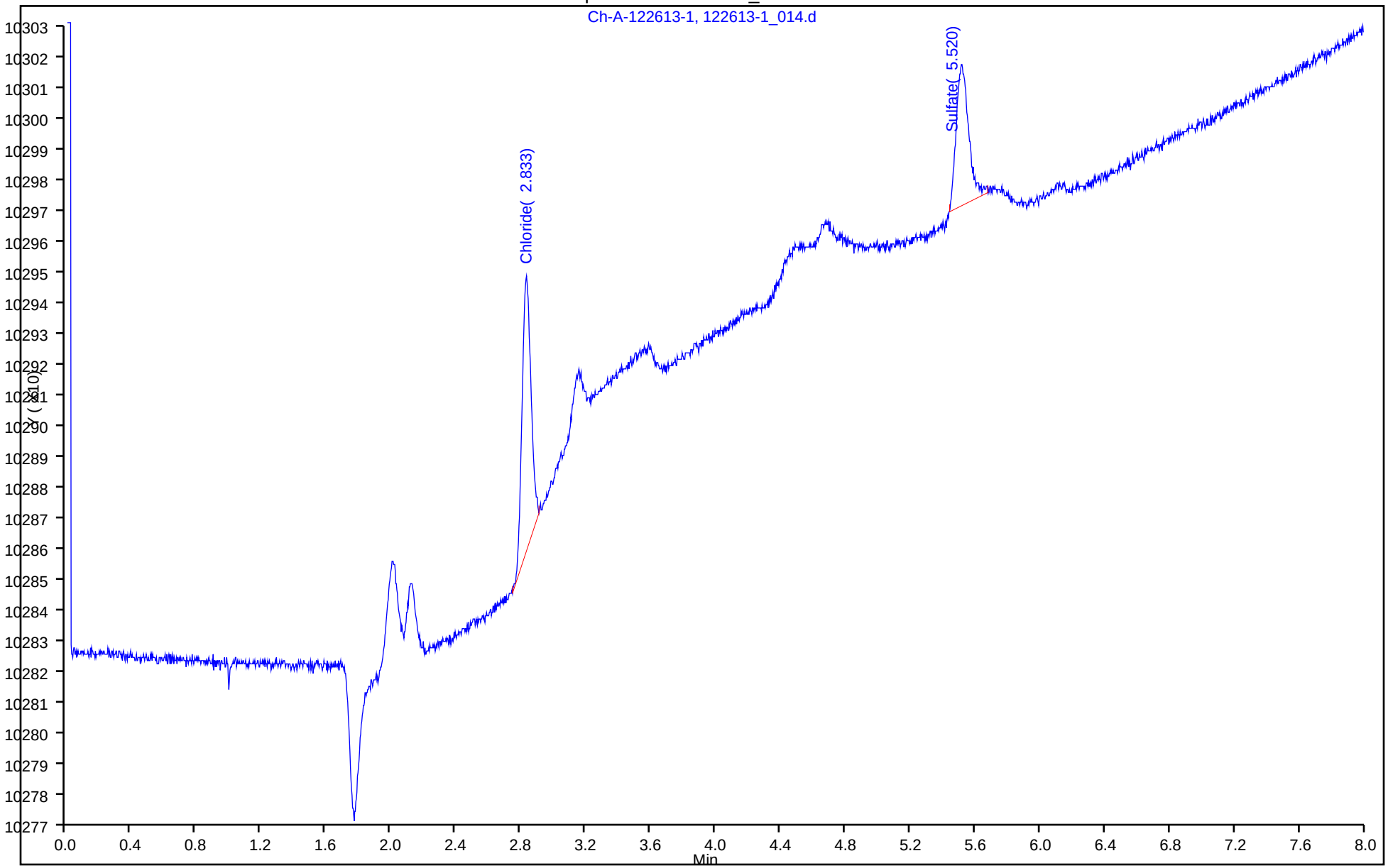
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_014.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/14-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 19:44:59	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 014 Name: 480-0028424-014				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:25:17	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:25:18		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.833	2.833	0.0	329	-0.0144	
5 Sulfate					
5.520	5.443	0.077	236	-0.0146	

Report Date: 27-Dec-2013 09:25:18 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_014.d				
Injection Date:	26-Dec-2013 19:44:59	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/14-A	Worklist Smp#:	14
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_017.d
Lims ID: 460-68763-A-1 Lab Sample ID: 480-68763-1
Client ID: GW0034
Sample Type: Client
Inject. Date: 26-Dec-2013 20:15:23 ALS Bottle#: 0 Worklist Smp#: 17
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 017 Name: 480-0028424-017
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:26:30 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:26:33

Detector: Ch-A-092410-2
Number of peaks found: 0

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
			0			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

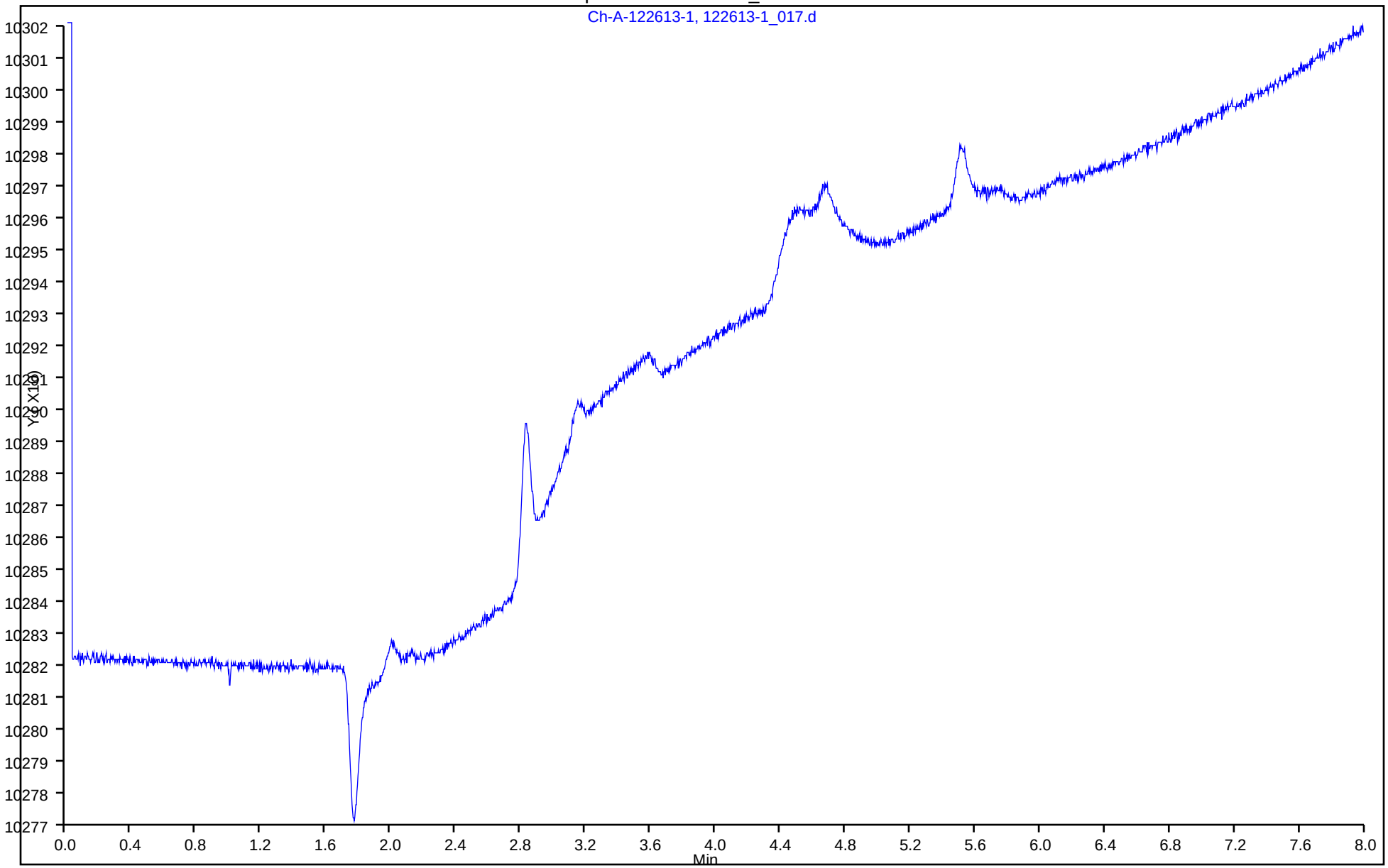
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_017.d				
Lims ID:	460-68763-A-1	Lab Sample ID:	480-68763-1		
Client ID:	GW0034				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 20:15:23	ALS Bottle#:	0	Worklist Smp#:	17
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 017 Name: 480-0028424-017				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:26:30	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:26:33		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags

Report Date: 27-Dec-2013 09:26:33 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_017.d				
Injection Date:	26-Dec-2013 20:15:23	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68763-A-1	Lab Sample ID:	480-68763-1	Worklist Smp#:	17
Client ID:	GW0034				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_018.d
Lims ID: 460-68763-A-2 Lab Sample ID: 480-68763-2
Client ID: GW0033
Sample Type: Client
Inject. Date: 26-Dec-2013 20:25:31 ALS Bottle#: 0 Worklist Smp#: 18
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 018 Name: 480-0028424-018
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:29:03 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:28:02

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.980	1.870	2.417	18544	1.09	3.97		1 Fluoride
2.827	2.680	3.830	1455492	85.56	4.34		2 Chloride
4.277	4.173	4.450	1959	0.12	8.10	M	
5.447	5.297	6.063	225123	13.23	6.86		5 Sulfate
			1701118			Totals	

Total Unknown Area% = 0.12

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_018.d				
Lims ID:	460-68763-A-2	Lab Sample ID:	480-68763-2		
Client ID:	GW0033				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 20:25:31	ALS Bottle#:	0	Worklist Smp#:	18
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 018 Name: 480-0028424-018				
Operator ID:	TCHROM	Instrument ID:	IC-1		

Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 09:29:03	Calib Date:	17-Dec-2013 16:20:44
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d		

Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

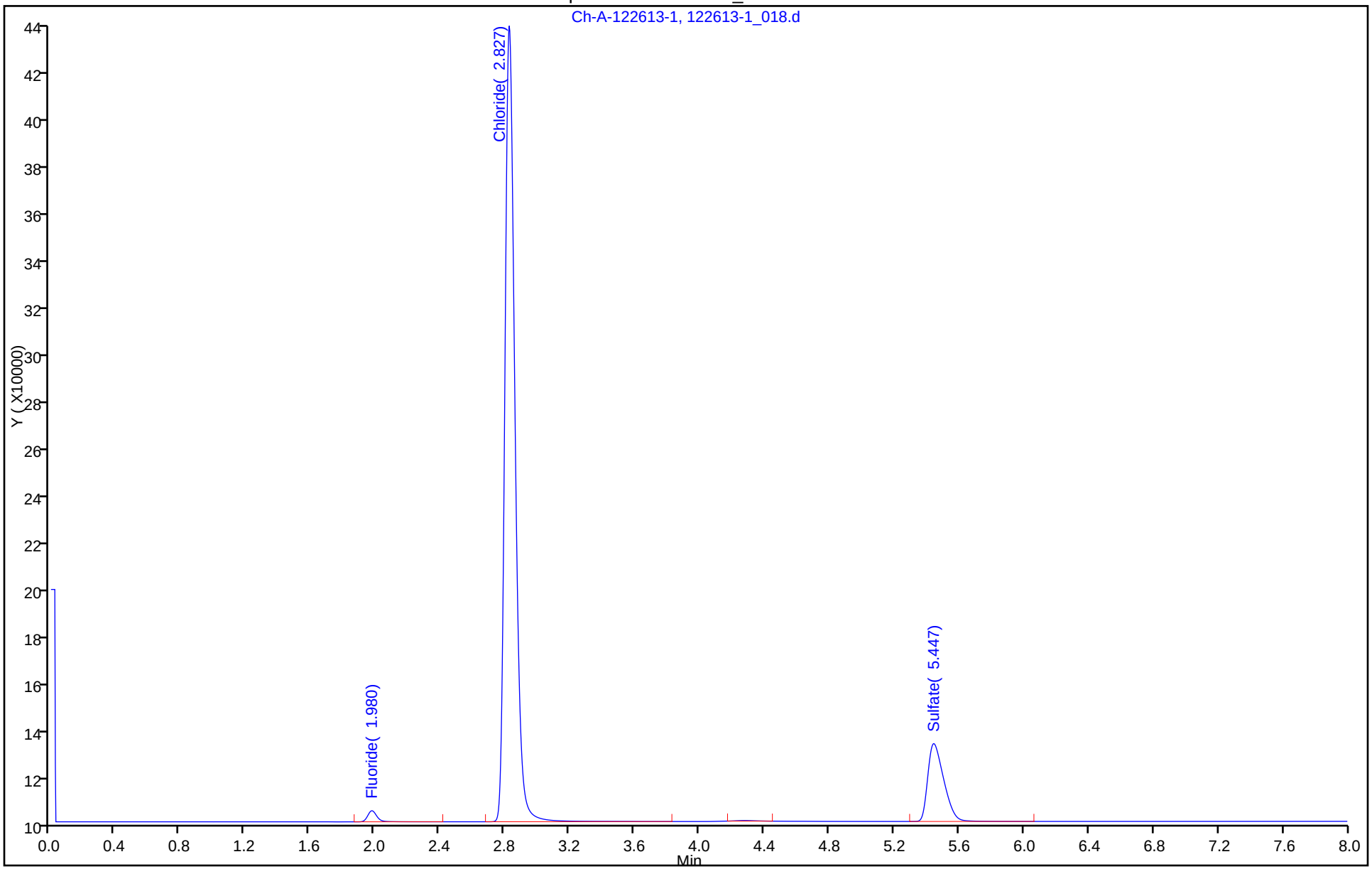
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:28:02

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.980	1.987	-0.007	18544	0.6168	
2 Chloride					
2.827	2.833	-0.006	1455492	78.1	
5 Sulfate					
5.447	5.443	0.004	225123	16.3	

Report Date: 27-Dec-2013 09:29:03 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_018.d				
Injection Date:	26-Dec-2013 20:25:31	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68763-A-2	Lab Sample ID:	480-68763-2	Worklist Smp#:	18
Client ID:	GW0033				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_019.d
Lims ID: 460-68763-A-4 Lab Sample ID: 480-68763-4
Client ID: GW0039
Sample Type: Client
Inject. Date: 26-Dec-2013 20:35:39 ALS Bottle#: 0 Worklist Smp#: 19
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 019 Name: 480-0028424-019
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:29:33 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:28:52

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.980	1.773	2.230	9658	1.49	3.90		1 Fluoride
2.833	2.700	3.403	552001	85.31	4.24		2 Chloride
4.277	4.190	4.447	1096	0.17	7.66	M	
5.480	5.330	5.937	84324	13.03	5.84		5 Sulfate
			647079			Totals	

Total Unknown Area% = 0.17

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

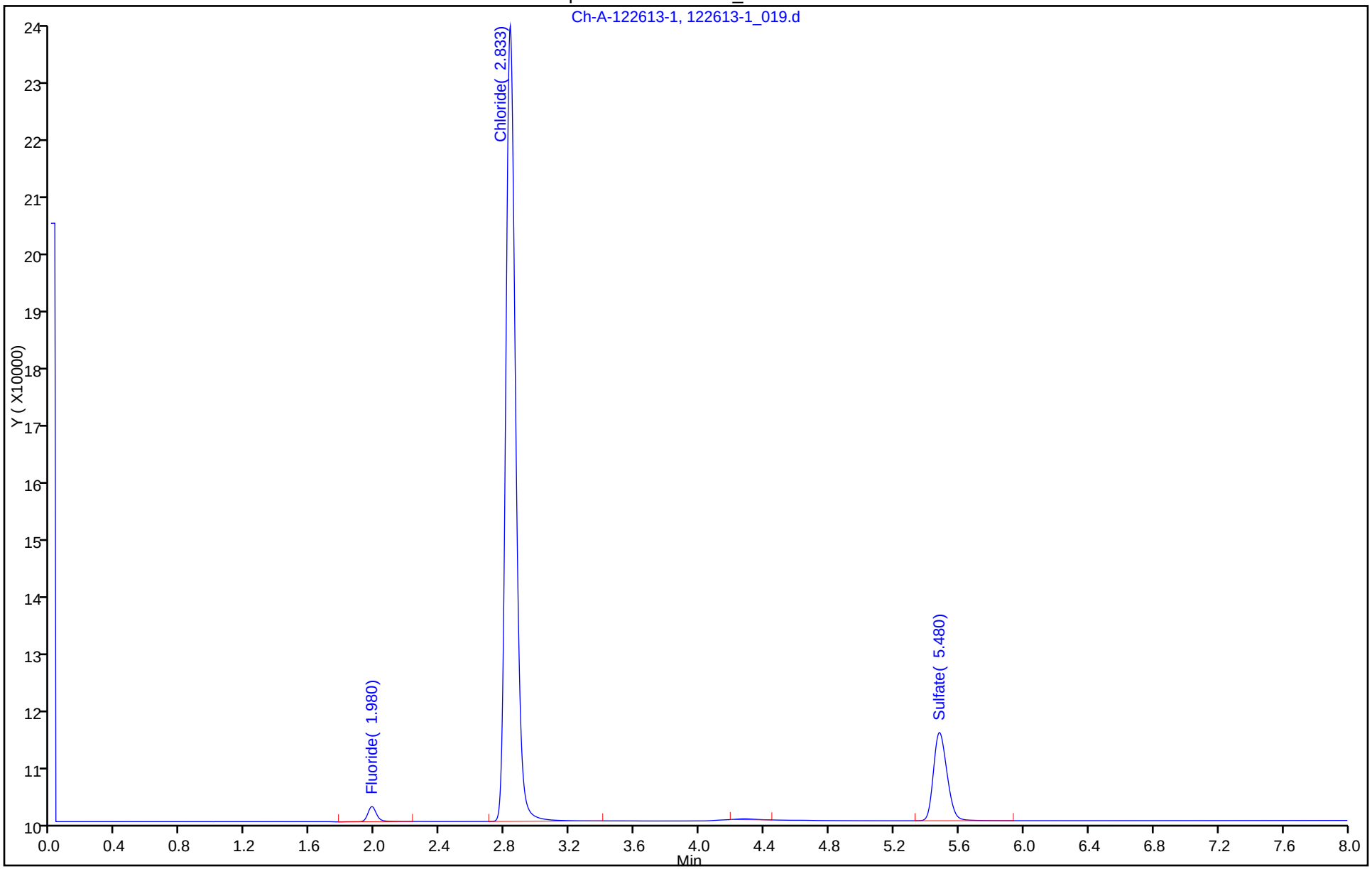
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_019.d				
Lims ID:	460-68763-A-4	Lab Sample ID:	480-68763-4		
Client ID:	GW0039				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 20:35:39	ALS Bottle#:	0	Worklist Smp#:	19
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 019 Name: 480-0028424-019				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:29:33	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:28:52		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.980	1.987	-0.007	9658	0.3212	
2 Chloride					
2.833	2.833	0.0	552001	29.6	
5 Sulfate					
5.480	5.443	0.037	84324	6.09	

Report Date: 27-Dec-2013 09:29:37 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_019.d				
Injection Date:	26-Dec-2013 20:35:39	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68763-A-4	Lab Sample ID:	480-68763-4	Worklist Smp#:	19
Client ID:	GW0039				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.997	1.777	2.470	63428	7.60	4.20		1 Fluoride
2.843	2.710	3.407	382518	45.85	4.26		2 Chloride
4.387	4.257	4.537	15279	1.83	4.98		3 Bromide
4.660	4.537	5.167	90850	10.89	6.22		
5.420	5.283	6.047	282244	33.83	7.20		5 Sulfate
			834319			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.010	2.11	31714	5.5	10
2 Chloride	20.0	0.010	20.5	19126	2.5	10
3 Bromide	2.00	0.014	1.92	7639.50	-3.9	10
5 Sulfate	20.0	-0.023	20.5	14112	2.3	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

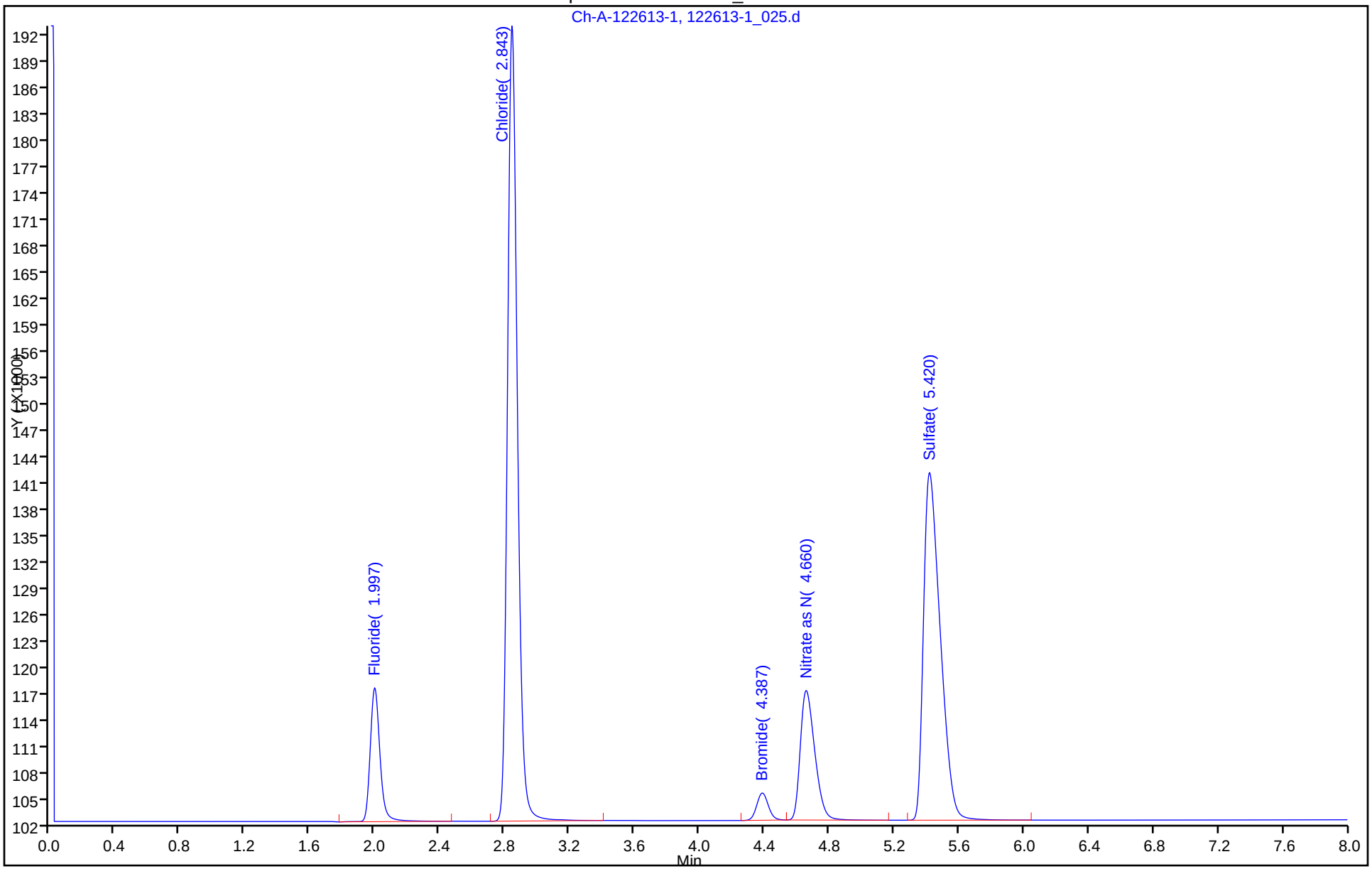
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.987	0.010	63428	2.11	
2 Chloride					
2.843	2.833	0.010	382518	20.5	
3 Bromide					
4.387	4.373	0.014	15279	1.92	
4 Nitrate as N					
4.660	4.643	0.017	90850	0	
5 Sulfate					
5.420	5.443	-0.023	282244	20.5	

Report Date: 27-Dec-2013 09:30:36 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d				
Injection Date:	26-Dec-2013 21:36:26	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	25
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d
Lims ID: CCB Lab Sample ID: CCB 480-159519/26-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 21:46:34 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 026 Name: 480-0028424-026
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:38

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.840	2.757	2.927	280	52.73	3.94		2 Chloride
5.493	5.413	5.703	251	47.27	5.46		5 Sulfate
			531			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

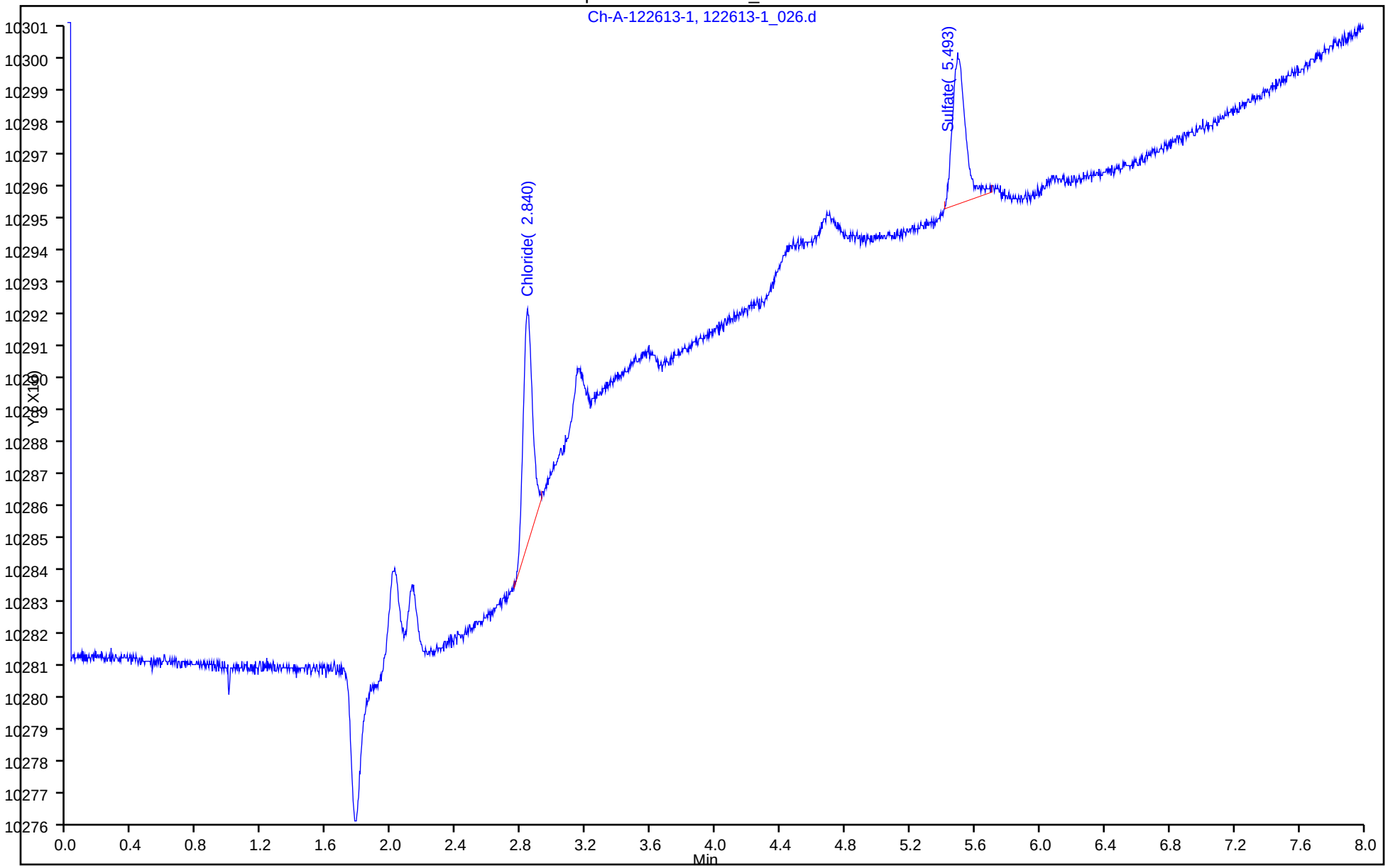
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/26-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 21:46:34	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 026 Name: 480-0028424-026				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:30:36	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:30:38		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.840	2.833	0.007	280	-0.0171	
5 Sulfate					
5.493	5.443	0.050	251	-0.0135	

Report Date: 27-Dec-2013 09:30:38 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d				
Injection Date:	26-Dec-2013 21:46:34	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/26-A	Worklist Smp#:	26
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 27-Dec-2013 15:32:12 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028452-006
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28452.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 16:39:08 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 16:37:15

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.077	1.910	2.570	270132	7.24	6.97		4 Fluoride
2.807	2.650	3.703	1690245	45.29	6.47		2 Chloride
4.147	3.940	4.243	67498	1.81	6.68		1 Bromide
4.357	4.243	4.633	424742	11.38	9.29		
4.817	4.633	5.650	1279659	34.29	12.62		3 Sulfate
			3732276			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

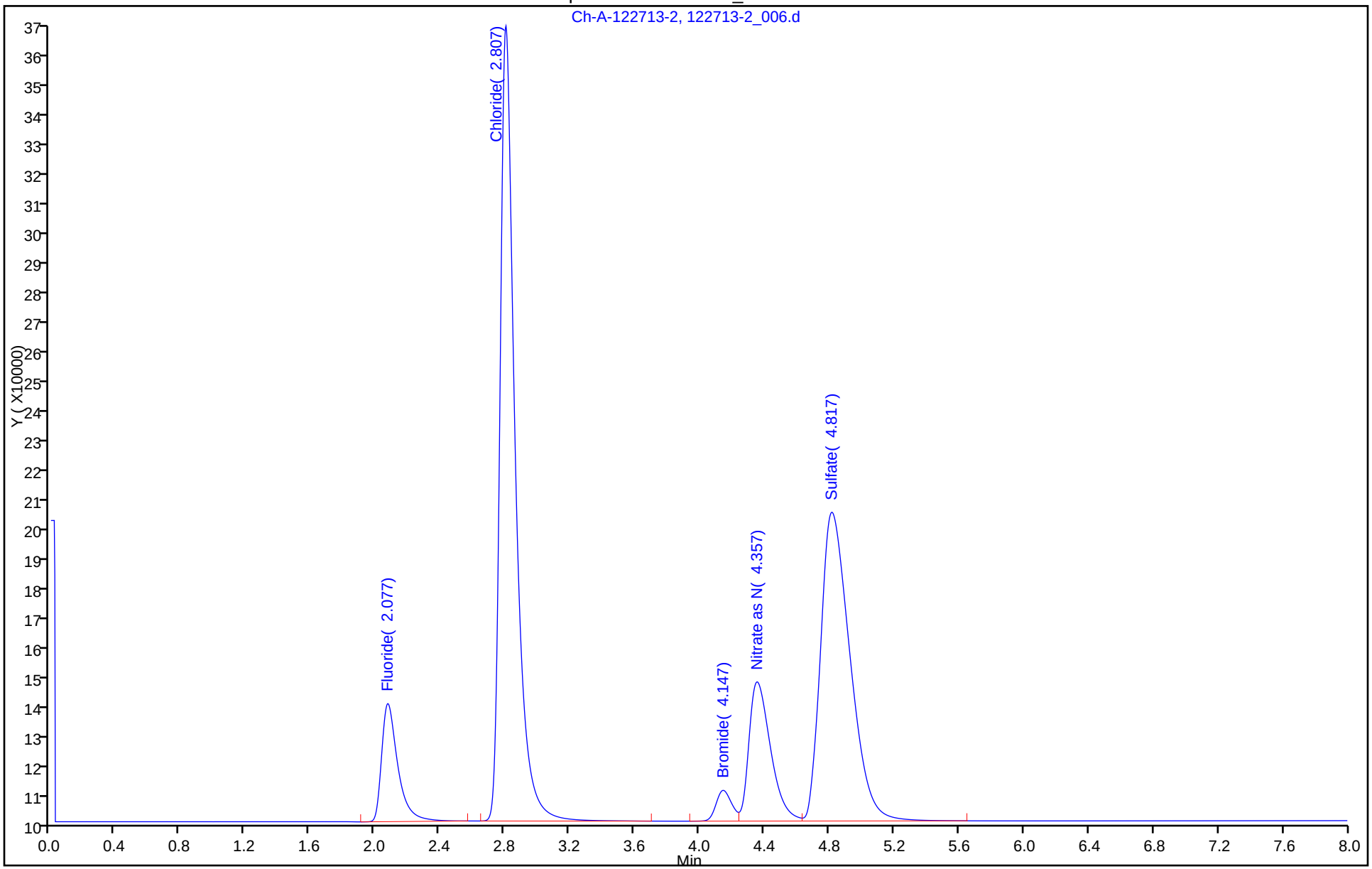
Data File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_006.d				
Lims ID:	STD5	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	5		
Inject. Date:	27-Dec-2013 15:32:12	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 006 Name: 480-0028452-006				
Operator ID:	TCHROM	Instrument ID:	IC-2		
Sublist:	chrom-IC2-300*sub2				
Method:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\IC2-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 16:39:08	Calib Date:	27-Dec-2013 15:42:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 16:37:15		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.077	2.080	-0.003	270132	4.83	
2 Chloride					
2.807	2.803	0.004	1690245	50.1	
1 Bromide					
4.147	4.117	0.030	67498	5.16	
5 Nitrate as N					
4.357	4.303	0.054	424742	0	
3 Sulfate					
4.817	4.743	0.074	1279659	50.5	

Report Date: 27-Dec-2013 16:39:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_006.d				
Injection Date:	27-Dec-2013 15:32:12	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	STD5	Lab Sample ID:		Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Lims ID: STD6 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 27-Dec-2013 15:42:20 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 007 Name: 480-0028452-007
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28452.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 16:39:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK005

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.080	1.920	2.553	497612	6.78	7.53		4 Fluoride
2.803	2.637	3.833	3354972	45.69	6.47		2 Chloride
4.117	3.907	4.193	127038	1.73	6.26		1 Bromide
4.303	4.193	4.567	849802	11.57	10.70		
4.743	4.567	5.743	2512813	34.22	15.17		3 Sulfate
			7342237			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Lims ID:	STD6	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	27-Dec-2013 15:42:20	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 007 Name: 480-0028452-007				
Operator ID:	TCHROM	Instrument ID:	IC-2		
Sublist:	chrom-IC2-300*sub2				

Method:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\IC2-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 16:39:07	Calib Date:	27-Dec-2013 15:42:20
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d		

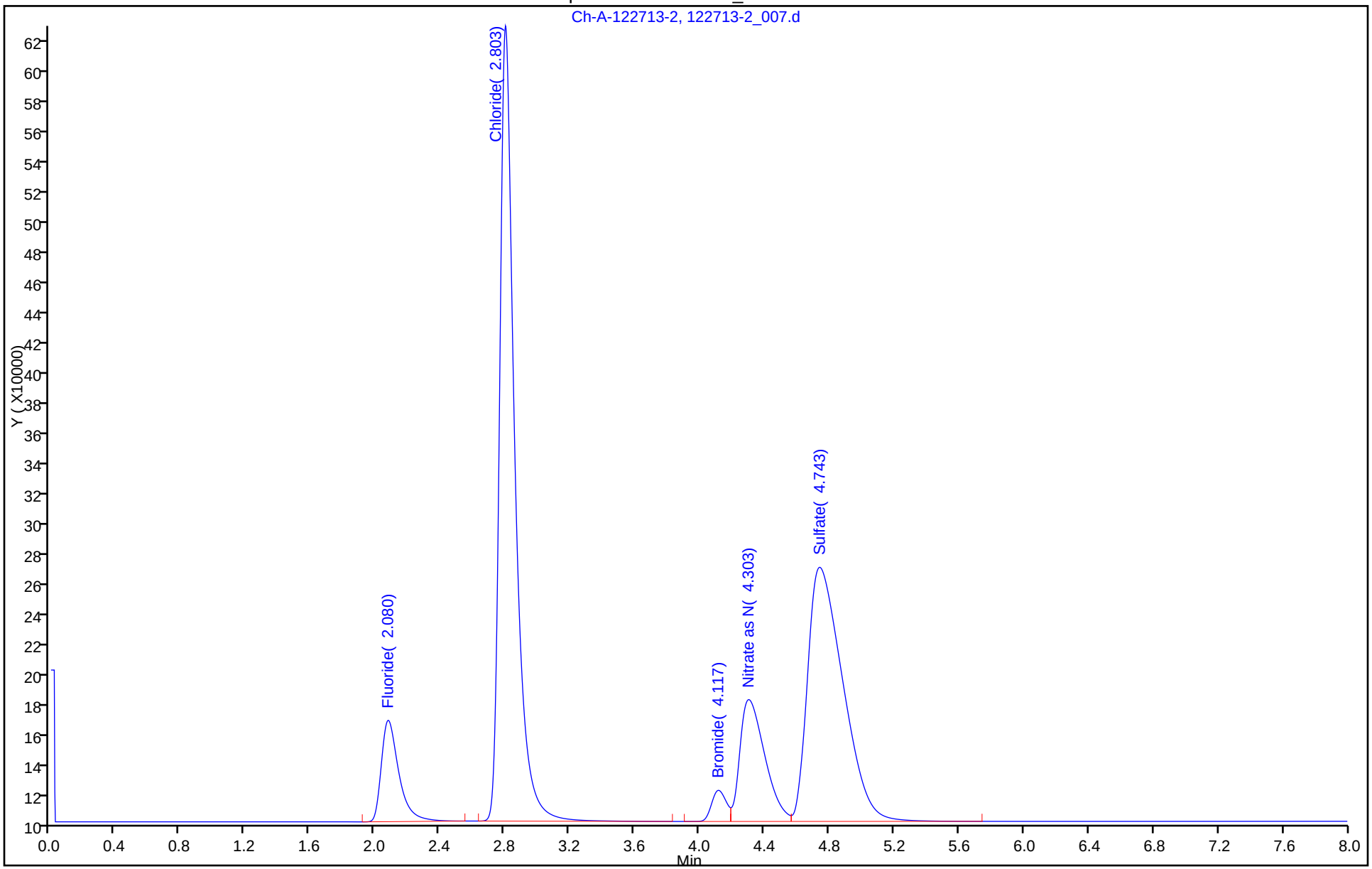
Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.080	2.080	0.0	497612	8.90	
2 Chloride					
2.803	2.803	0.0	3354972	99.5	
1 Bromide					
4.117	4.117	0.0	127038	9.71	
5 Nitrate as N					
4.303	4.303	0.0	849802	0	
3 Sulfate					
4.743	4.743	0.0	2512813	99.6	

Report Date: 27-Dec-2013 16:39:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Injection Date:	27-Dec-2013 15:42:20	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	STD6	Lab Sample ID:		Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_060.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 00:39:30 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 060 Name: 480-0028453-049
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 30-Dec-2013 10:08:25 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK020

First Level Reviewer: clarkk Date: 30-Dec-2013 10:08:25

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.080	1.920	2.570	112495	7.56	6.49		4 Fluoride
2.813	2.663	3.483	675793	45.44	6.57		2 Chloride
4.183	3.973	4.297	26341	1.77	6.85		1 Bromide
4.417	4.297	4.667	161445	10.86	8.32		
4.847	4.667	5.570	511067	34.37	11.02		3 Sulfate
			1487141			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_060.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 00:39:30 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 060 Name: 480-0028453-049
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 30-Dec-2013 10:08:25 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK020

First Level Reviewer: clarkk Date: 30-Dec-2013 10:08:25

Start Cal Date: 27-Dec-2013 14:41:31
End Cal Date: 27-Dec-2013 15:42:20

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
4 Fluoride	2.00	0.0	2.01	56248	0.7	10
2 Chloride	20.0	0.0	20.0	33790	0.2	10
1 Bromide	2.00	0.0	2.01	13171	0.7	10
3 Sulfate	20.0	0.0	19.9	25553	-0.7	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_060.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 00:39:30 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 060 Name: 480-0028453-049
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 30-Dec-2013 10:08:25 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK020

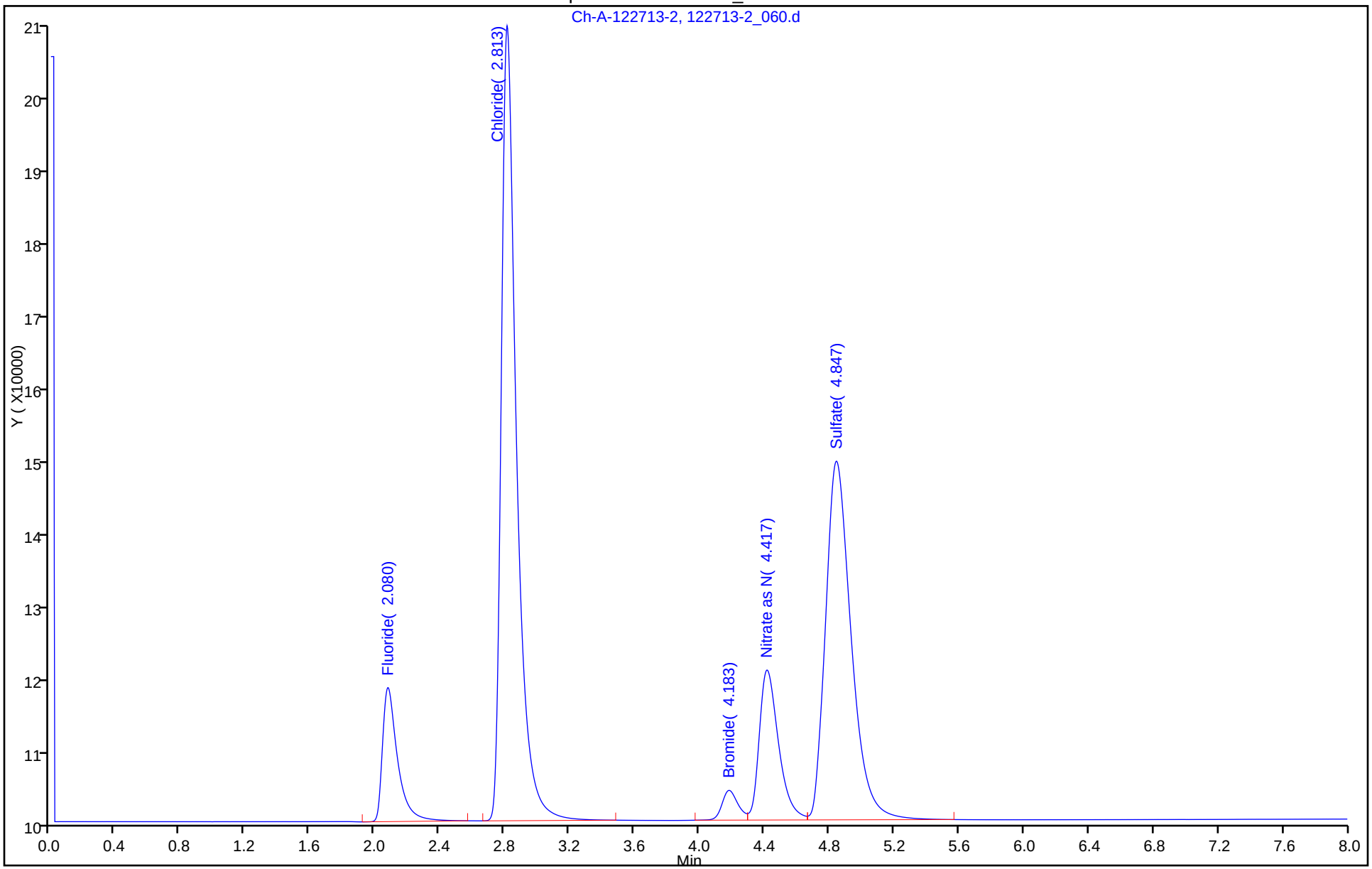
First Level Reviewer: clarkk Date: 30-Dec-2013 10:08:25

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.080	2.080	0.0	112495	2.01	
2 Chloride					
2.813	2.813	0.0	675793	20.0	
1 Bromide					
4.183	4.183	0.0	26341	2.01	
5 Nitrate as N					
4.417	4.417	0.0	161445	0	
3 Sulfate					
4.847	4.847	0.0	511067	19.9	

Report Date: 30-Dec-2013 10:08:26 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_060.d				
Injection Date:	28-Dec-2013 00:39:30	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	49
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_061.d
Lims ID: CCB Lab Sample ID: CCB 480-159682/50-A
Client ID:
Sample Type: CCB
Inject. Date: 28-Dec-2013 00:49:38 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 061 Name: 480-0028453-050
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 30-Dec-2013 10:08:25 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK020

First Level Reviewer: clarkk Date: 30-Dec-2013 10:08:28

Detector: Ch-A-092410-2
Number of peaks found: 1

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
4.940	4.763	5.157	1060	100.00	11.16		3 Sulfate
			1060			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

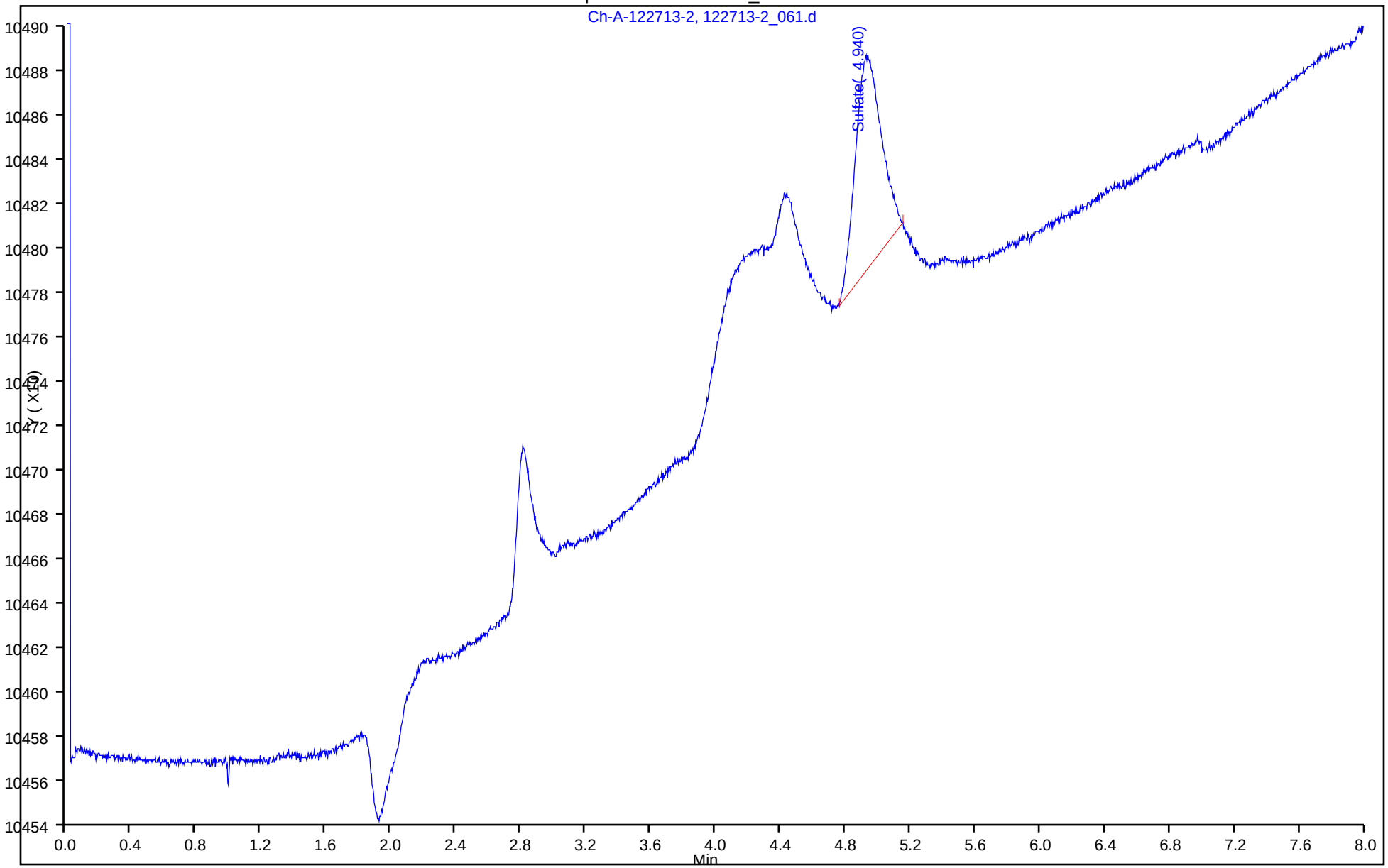
Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_061.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159682/50-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	28-Dec-2013 00:49:38	ALS Bottle#:	0	Worklist Smp#:	50
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 061 Name: 480-0028453-050				
Operator ID:	TCHROM	Instrument ID:	IC-2		
Method:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	30-Dec-2013 10:08:25	Calib Date:	27-Dec-2013 15:42:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK020				
First Level Reviewer: clarkk		Date:	30-Dec-2013 10:08:28		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
3 Sulfate					
4.940	4.847	0.093	1060	-0.4593	

Report Date: 30-Dec-2013 10:08:28 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_061.d				
Injection Date:	28-Dec-2013 00:49:38	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159682/50-A	Worklist Smp#:	50
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_062.d
Lims ID: LCS Lab Sample ID: LCS 480-159682/51-A
Client ID:
Sample Type: LCS
Inject. Date: 28-Dec-2013 00:59:46 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 062 Name: 480-0028453-051
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 30-Dec-2013 10:08:25 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK020

First Level Reviewer: clarkk Date: 30-Dec-2013 10:08:34

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.047	1.913	2.543	111713	7.60	6.42		4 Fluoride
2.780	2.637	3.407	665316	45.29	6.49		2 Chloride
4.147	3.933	4.257	25860	1.76	6.77		1 Bromide
4.380	4.257	4.647	159419	10.85	8.32		
4.833	4.647	5.567	506815	34.50	10.99		3 Sulfate
			1469123			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_062.d
Lims ID: LCS Lab Sample ID: LCS 480-159682/51-A
Client ID:
Sample Type: LCS
Inject. Date: 28-Dec-2013 00:59:46 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 062 Name: 480-0028453-051
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 30-Dec-2013 10:08:25 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK020

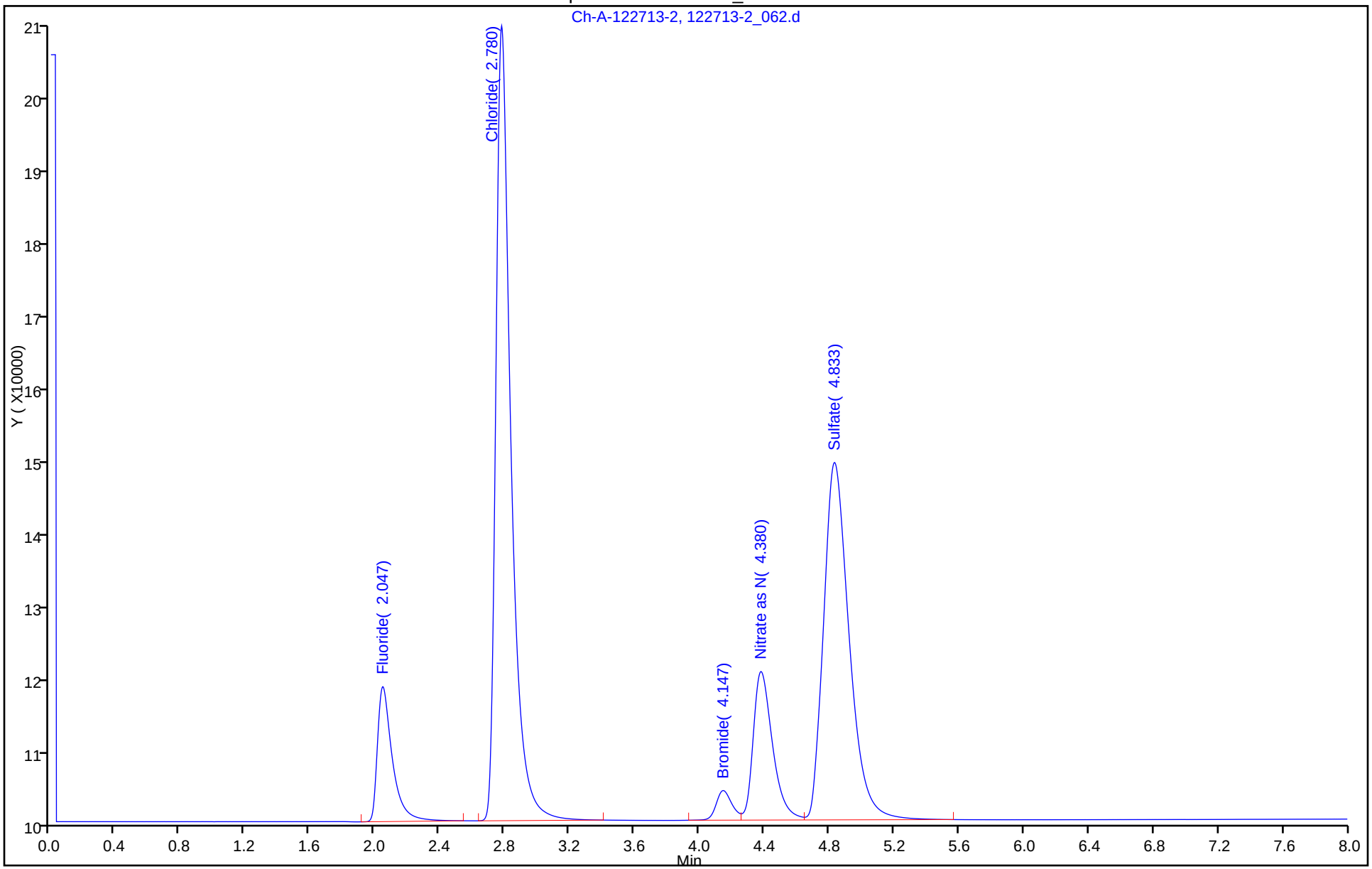
First Level Reviewer: clarkk Date: 30-Dec-2013 10:08:34

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.047	2.080	-0.033	111713	2.00	
2 Chloride					
2.780	2.813	-0.033	665316	19.7	
1 Bromide					
4.147	4.183	-0.036	25860	1.98	
5 Nitrate as N					
4.380	4.417	-0.037	159419	0	
3 Sulfate					
4.833	4.847	-0.014	506815	19.7	

Report Date: 30-Dec-2013 10:08:35 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_062.d				
Injection Date:	28-Dec-2013 00:59:46	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-159682/51-A	Worklist Smp#:	51
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_063-20131231-082158.d
Lims ID: MB Lab Sample ID: MB 480-159682/52-A
Client ID:
Sample Type: MB
Inject. Date: 28-Dec-2013 01:09:54 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 063 Name: 480-0028453-052
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 06:23:47 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:32:17

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.783	2.660	2.930	640	29.51	6.27		2 Chloride
4.933	4.757	5.183	1529	70.49	11.16		3 Sulfate
			2169			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

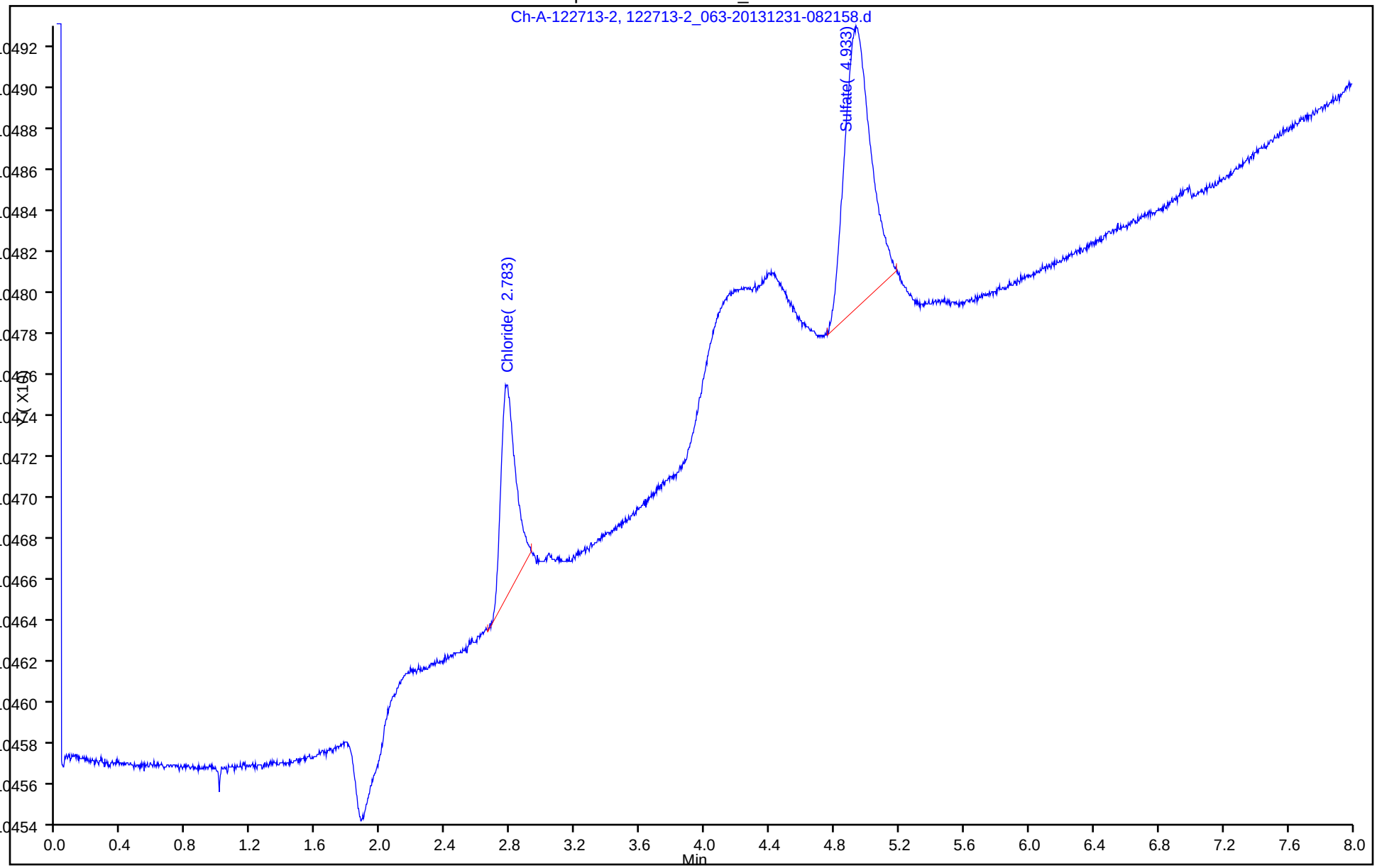
Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_063-20131231-082158.d				
Lims ID:	MB	Lab Sample ID:	MB 480-159682/52-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	28-Dec-2013 01:09:54	ALS Bottle#:	0	Worklist Smp#:	52
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 063 Name: 480-0028453-052				
Operator ID:	TCHROM	Instrument ID:	IC-2		
Method:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	31-Dec-2013 06:23:47	Calib Date:	27-Dec-2013 15:42:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK016				
First Level Reviewer: clarkk		Date:	31-Dec-2013 08:32:17		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.783	2.783	0.0	640	0.004163	
3 Sulfate					
4.933	4.890	0.043	1529	-0.4406	

Report Date: 31-Dec-2013 08:32:17 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_063-20131231-082158.d				
Injection Date:	28-Dec-2013 01:09:54	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-159682/52-A	Worklist Smp#:	52
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_072-20131231-082200.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 02:41:07 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 072 Name: 480-0028453-061
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:33:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:33:07

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.073	1.917	2.557	112298	7.59	6.49		4 Fluoride
2.807	2.650	3.477	673039	45.47	6.55		2 Chloride
4.177	3.973	4.290	26274	1.78	6.83		1 Bromide
4.413	4.290	4.670	160974	10.88	8.34		
4.850	4.670	5.597	507492	34.29	11.10		3 Sulfate
			1480077			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_072-20131231-082200.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 02:41:07 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 072 Name: 480-0028453-061
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:33:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:33:07

Start Cal Date: 27-Dec-2013 14:41:31
End Cal Date: 27-Dec-2013 15:42:20

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
4 Fluoride	2.00	0.0	2.01	56149	0.5	10
2 Chloride	20.0	0.0	20.0	33652	-0.2	10
1 Bromide	2.00	0.0	2.01	13137	0.4	10
3 Sulfate	20.0	0.0	19.7	25375	-1.4	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_072-20131231-082200.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 02:41:07 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 072 Name: 480-0028453-061
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:33:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK016

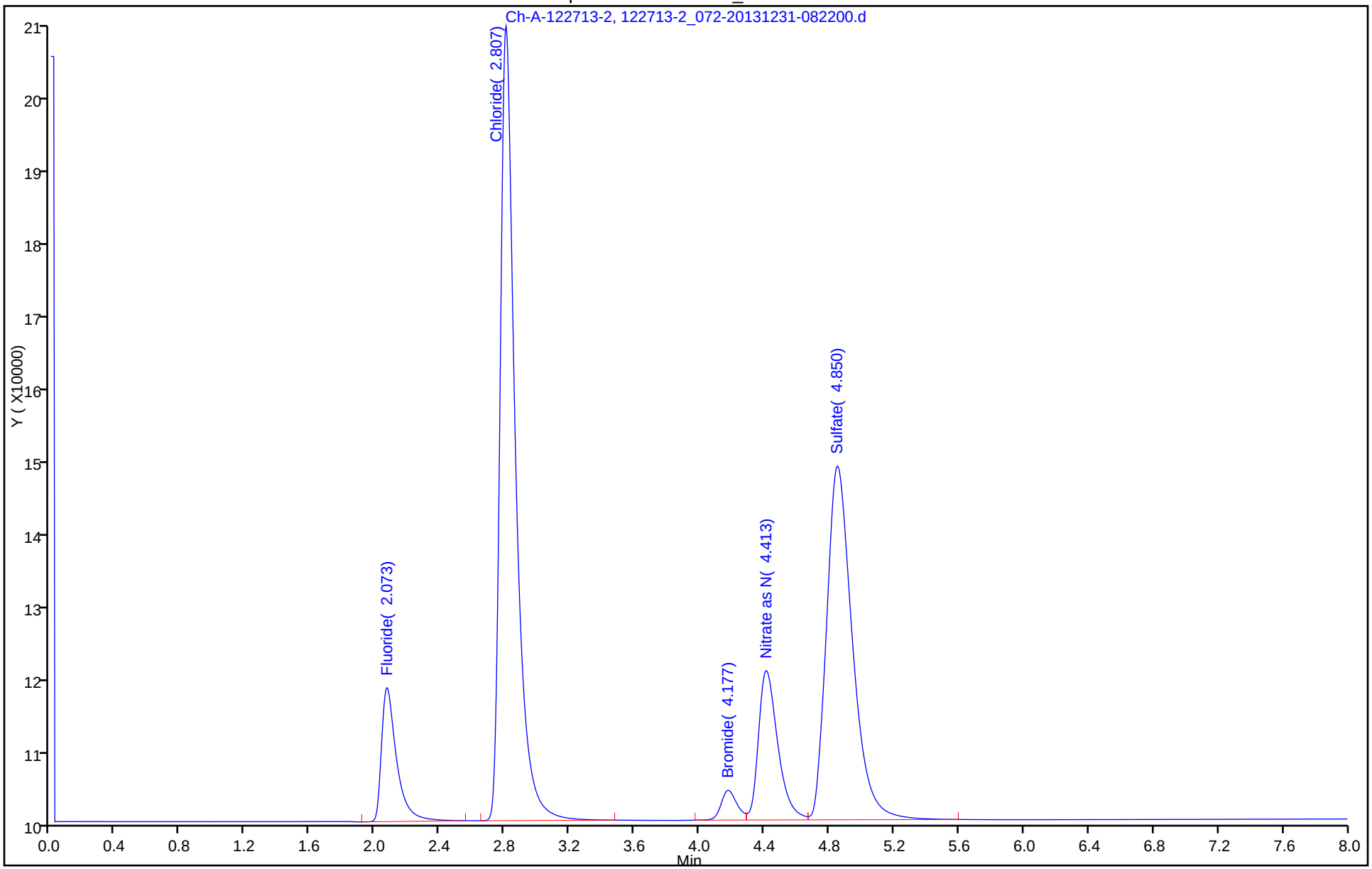
First Level Reviewer: clarkk Date: 31-Dec-2013 08:33:07

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.073	2.073	0.0	112298	2.01	
2 Chloride					
2.807	2.807	0.0	673039	20.0	
1 Bromide					
4.177	4.177	0.0	26274	2.01	
5 Nitrate as N					
4.413	4.413	0.0	160974	0	
3 Sulfate					
4.850	4.850	0.0	507492	19.7	

Report Date: 31-Dec-2013 08:33:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_072-20131231-082200.d				
Injection Date:	28-Dec-2013 02:41:07	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	61
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_073-20131231-082200.d
Lims ID: CCB Lab Sample ID: CCB 480-159682/62-A
Client ID:
Sample Type: CCB
Inject. Date: 28-Dec-2013 02:51:15 ALS Bottle#: 0 Worklist Smp#: 62
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 073 Name: 480-0028453-062
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:33:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:33:09

Detector: Ch-A-092410-2
Number of peaks found: 1

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
4.967	4.780	5.220	1508	100.00	12.26		3 Sulfate
			1508			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

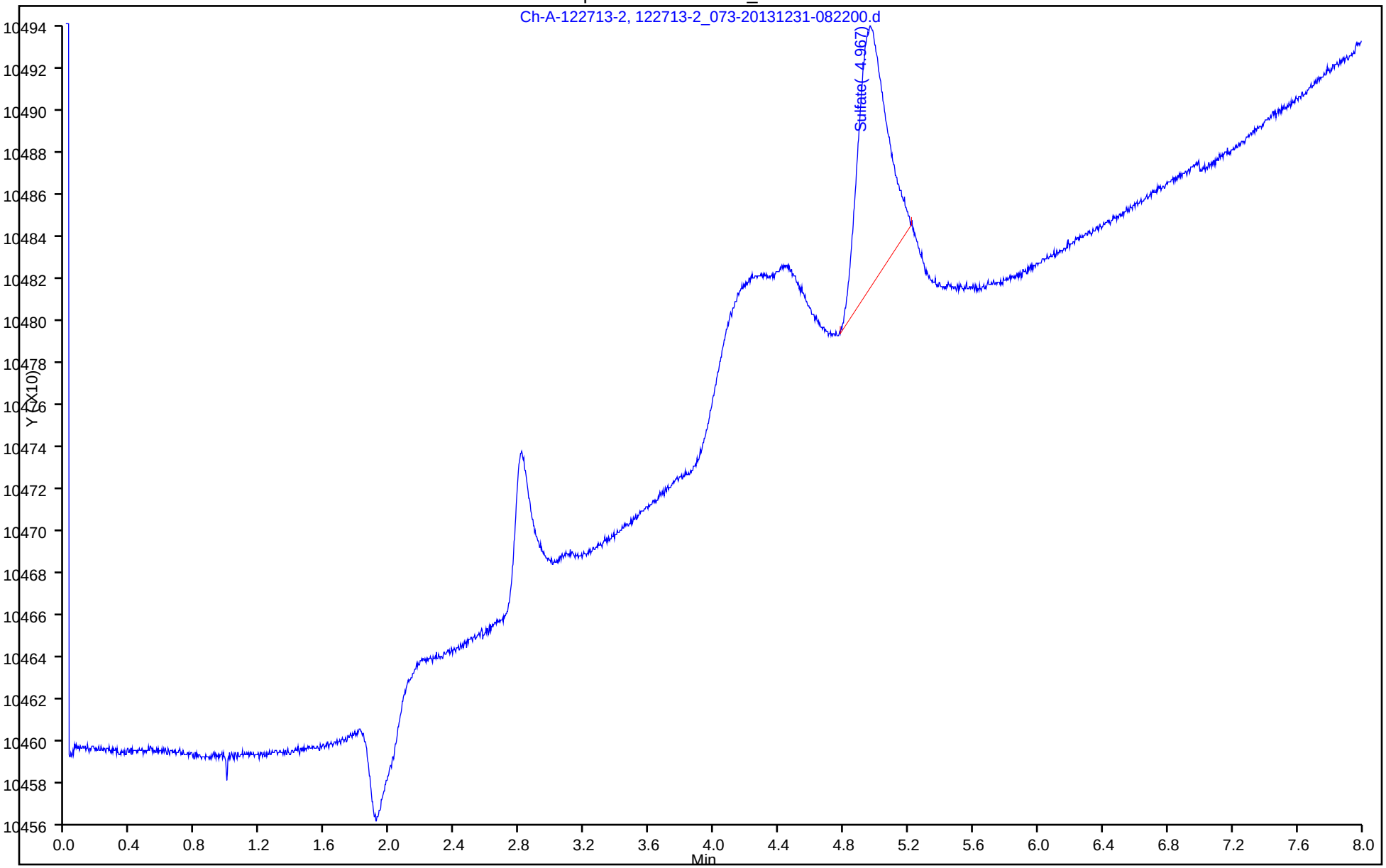
Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_073-20131231-082200.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159682/62-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	28-Dec-2013 02:51:15	ALS Bottle#:	0	Worklist Smp#:	62
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 073 Name: 480-0028453-062				
Operator ID:	TCHROM	Instrument ID:	IC-2		
Method:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	31-Dec-2013 08:33:07	Calib Date:	27-Dec-2013 15:42:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK016				
First Level Reviewer: clarkk		Date:	31-Dec-2013 08:33:09		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
3 Sulfate					
4.967	4.850	0.117	1508	-0.4414	

Report Date: 31-Dec-2013 08:33:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_073-20131231-082200.d				
Injection Date:	28-Dec-2013 02:51:15	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159682/62-A	Worklist Smp#:	62
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_075-20131231-082200.d
Lims ID: 460-68763-A-3 Lab Sample ID: 480-68763-3
Client ID: GW0036
Sample Type: Client
Inject. Date: 28-Dec-2013 03:11:32 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 075 Name: 480-0028453-064
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:33:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:33:18

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.070	1.927	2.463	23068	1.13	6.56		4 Fluoride
2.807	2.643	3.650	1573399	76.77	6.57		2 Chloride
3.933	3.670	4.083	1682	0.08	14.50		
4.430	4.277	4.650	25197	1.23	7.37		
4.853	4.650	5.637	426220	20.80	10.80		3 Sulfate
			2049566			Totals	

Total Unknown Area% = 0.08

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_075-20131231-082200.d
Lims ID: 460-68763-A-3 Lab Sample ID: 480-68763-3
Client ID: GW0036
Sample Type: Client
Inject. Date: 28-Dec-2013 03:11:32 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 075 Name: 480-0028453-064
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:33:07 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK016

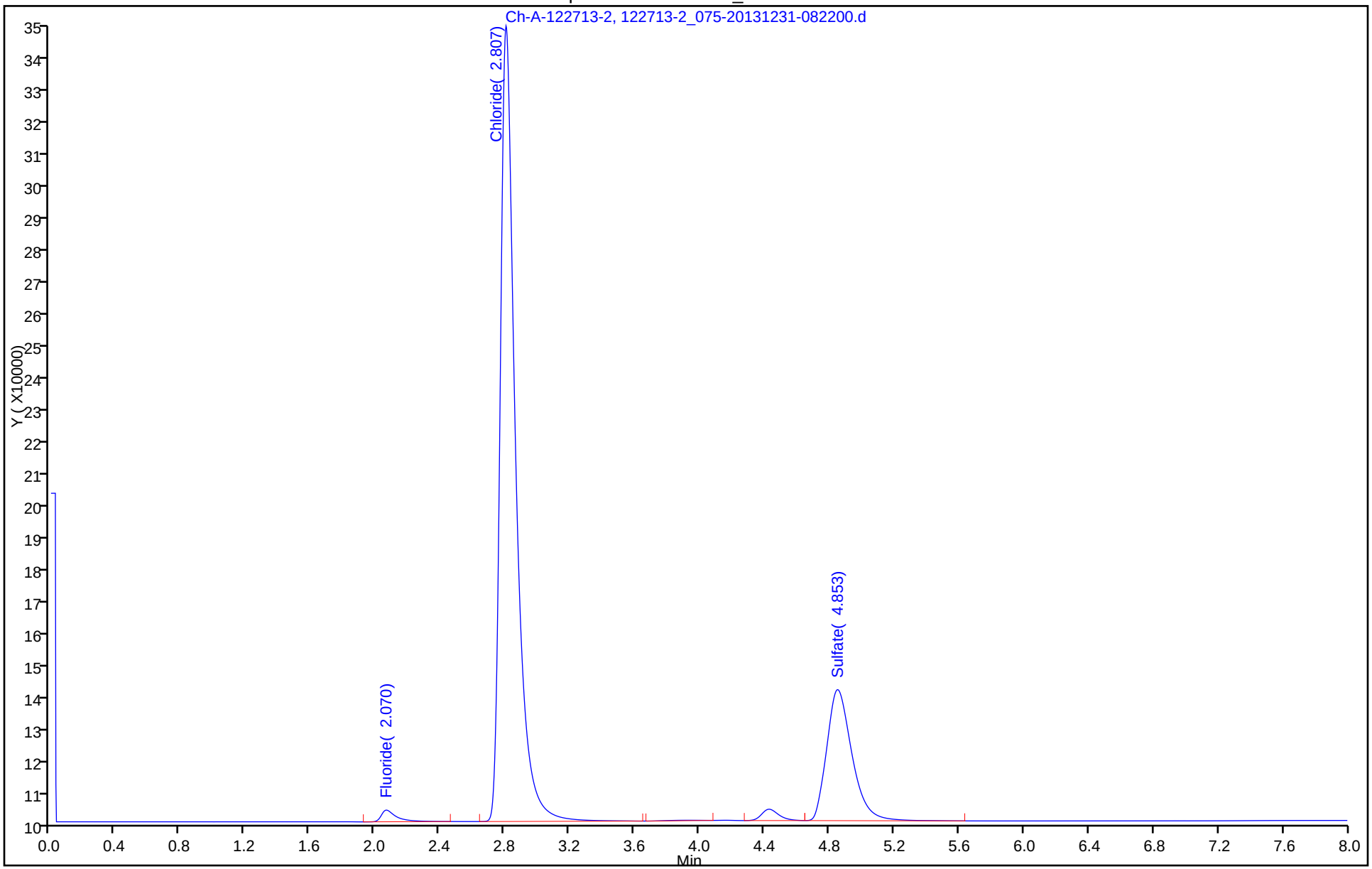
First Level Reviewer: clarkk Date: 31-Dec-2013 08:33:18

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.070	2.073	-0.003	23068	0.4128	
2 Chloride					
2.807	2.807	0.0	1573399	46.7	
3 Sulfate					
4.853	4.850	0.003	426220	16.5	

Report Date: 31-Dec-2013 08:33:18 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_075-20131231-082200.d				
Injection Date:	28-Dec-2013 03:11:32	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	460-68763-A-3	Lab Sample ID:	480-68763-3	Worklist Smp#:	64
Client ID:	GW0036				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_084-20131231-082202.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 04:42:45 ALS Bottle#: 0 Worklist Smp#: 73
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 084 Name: 480-0028453-073
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:34:24 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:34:24

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.057	1.913	2.527	112342	7.64	6.52		4 Fluoride
2.790	2.640	3.410	668461	45.48	6.52		2 Chloride
4.157	3.947	4.267	26386	1.80	6.82		1 Bromide
4.390	4.267	4.673	160507	10.92	8.36		
4.860	4.673	5.580	501992	34.16	11.15		3 Sulfate
			1469688			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_084-20131231-082202.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 04:42:45 ALS Bottle#: 0 Worklist Smp#: 73
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 084 Name: 480-0028453-073
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:34:24 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:34:24

Start Cal Date: 27-Dec-2013 14:41:31
End Cal Date: 27-Dec-2013 15:42:20

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
4 Fluoride	2.00	0.0	2.01	56171	0.5	10
2 Chloride	20.0	0.0	19.8	33423	-0.9	10
1 Bromide	2.00	0.0	2.02	13193	0.8	10
3 Sulfate	20.0	0.0	19.5	25100	-2.5	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_084-20131231-082202.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 28-Dec-2013 04:42:45 ALS Bottle#: 0 Worklist Smp#: 73
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 084 Name: 480-0028453-073
Operator ID: TCHROM Instrument ID: IC-2
Sublist: chrom-IC2-300*sub2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:34:24 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:34:24

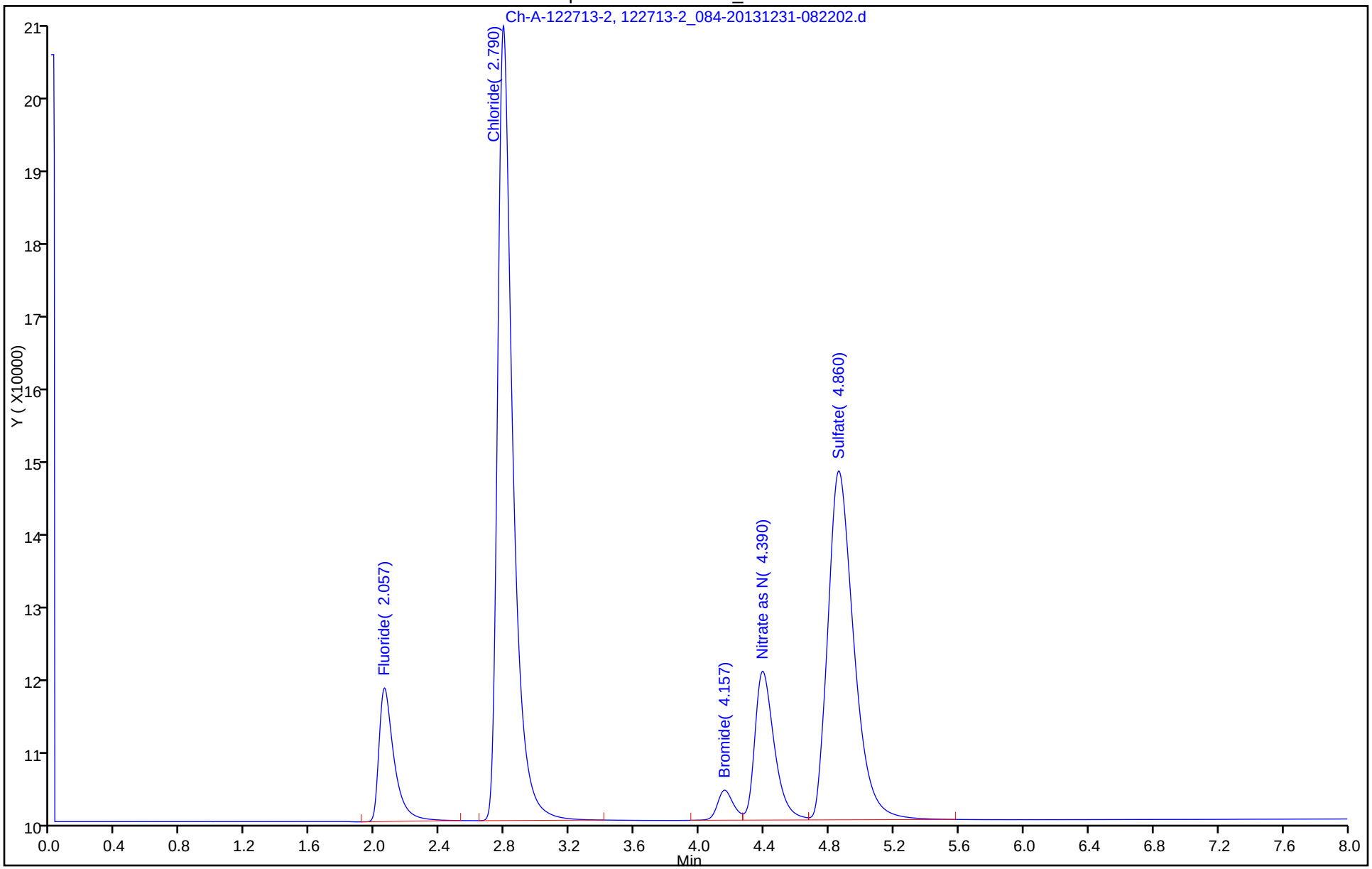
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
4 Fluoride					
2.057	2.057	0.0	112342	2.01	
2 Chloride					
2.790	2.790	0.0	668461	19.8	
1 Bromide					
4.157	4.157	0.0	26386	2.02	
5 Nitrate as N					
4.390	4.390	0.0	160507	0	
3 Sulfate					
4.860	4.860	0.0	501992	19.5	

Report Date: 31-Dec-2013 08:34:24 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_084-20131231-082202.d

Injection Date:	28-Dec-2013 04:42:45	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	73
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_085-20131231-082202.d
Lims ID: CCB Lab Sample ID: CCB 480-159682/74-A
Client ID:
Sample Type: CCB
Inject. Date: 28-Dec-2013 04:52:53 ALS Bottle#: 0 Worklist Smp#: 74
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 085 Name: 480-0028453-074
Operator ID: TCHROM Instrument ID: IC-2

Method: \\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 31-Dec-2013 08:34:24 Calib Date: 27-Dec-2013 15:42:20
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d
Process Host: XAWRK016

First Level Reviewer: clarkk Date: 31-Dec-2013 08:34:26

Detector: Ch-A-092410-2
Number of peaks found: 1

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
4.977	4.793	5.180	1027	100.00	11.29		3 Sulfate
			1027			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_085-20131231-082202.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159682/74-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	28-Dec-2013 04:52:53	ALS Bottle#:	0	Worklist Smp#:	74
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 085 Name: 480-0028453-074				
Operator ID:	TCHROM	Instrument ID:	IC-2		
Method:	\\Bufchrom\ChromData\IC-2\20131227-28453.b\IC2-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	31-Dec-2013 08:34:24	Calib Date:	27-Dec-2013 15:42:20		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-2\20131227-28452.b\122713-2_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK016				
First Level Reviewer: clarkk		Date:	31-Dec-2013 08:34:26		

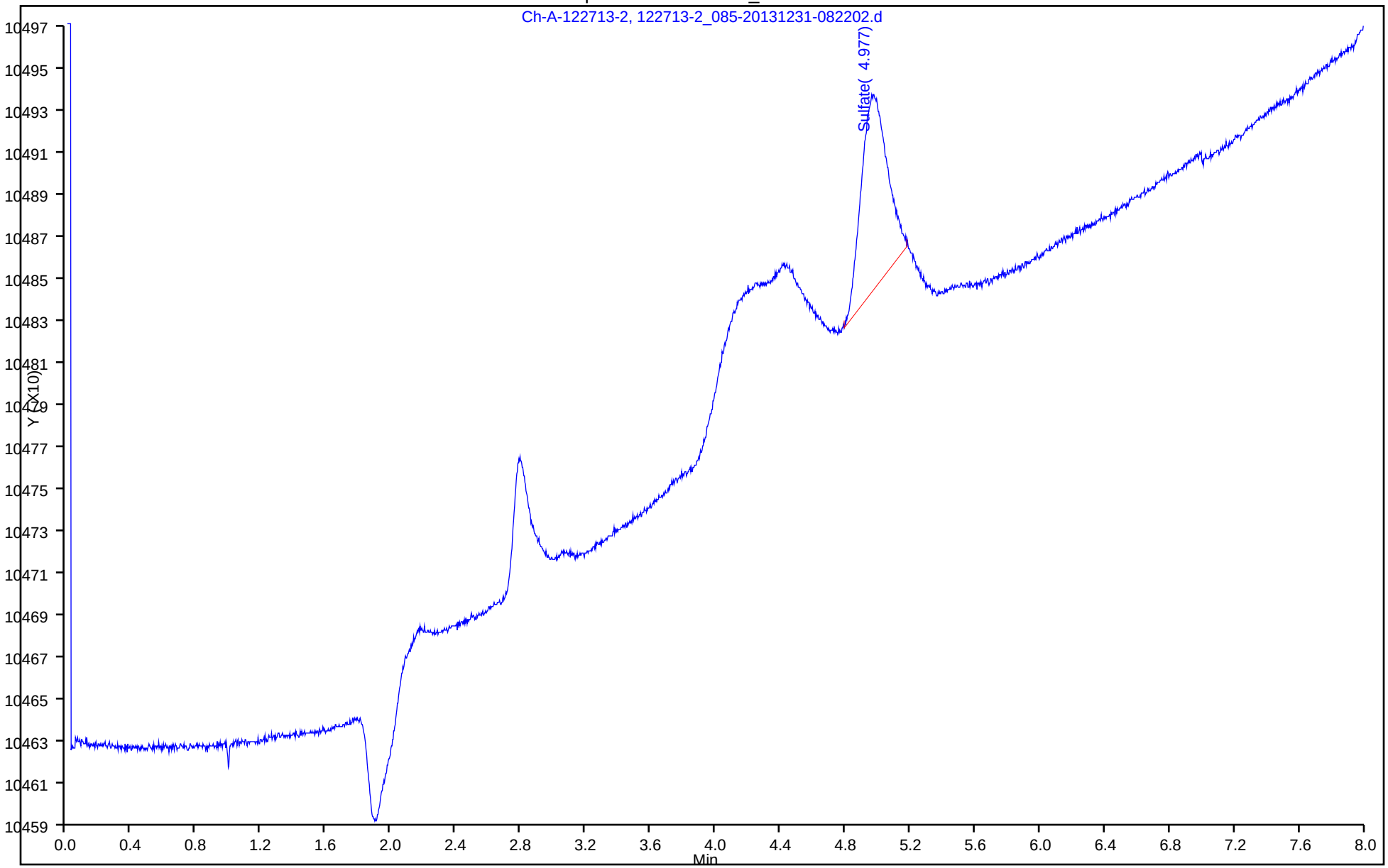
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
3 Sulfate					
4.977	4.860	0.117	1027	-0.4606	

Report Date: 31-Dec-2013 08:34:26 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File: \\Bufchrom\ChromData\IC-2\20131227-28453.b\122713-2_085-20131231-082202.d

Injection Date:	28-Dec-2013 04:52:53	Instrument ID:	IC-2	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159682/74-A	Worklist Smp#:	74
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC2-300	Limit Group:	MB 300.0_28D ICAL		



GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 199259 Batch Start Date: 12/21/13 07:39 Batch Analyst: Leye, Mamadou

Batch Method: 353.2 Batch End Date: 12/21/13 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTno3+2IM1 00238	WTno3+2IM2 00243	WTno3LCS 00014		
ICV 460-199259/7		353.2		100 mL		5 mL			
LCSSRM 460-199259/11		353.2		10 mL			10 mL		
460-68760-D-1 MS		353.2	T	50 mL	2.5 mL				
460-68760-D-1 MSD		353.2	T	50 mL	2.5 mL				
CCV 460-199259/19		353.2		100 mL		5 mL			
CCV 460-199259/31		353.2		100 mL		5 mL			

Batch Notes	
Batch Comment	Curve A(58745-58750)-13 ; CCV : A(58751)-13 exp 12/27/13
Buffer Solution ID	C0171-13 exp 06/20/14
Color Reagent ID Number	C0168-13 exp 01/20/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 201028 Batch Start Date: 01/02/14 12:00 Batch Analyst: Afremova, Izabella

Batch Method: SM 2340C Batch End Date: 01/02/14 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BuretStart1	BuretStop1	TitrantVolume1	CalcMsg
MB 460-201028/1		SM 2340C		50.0 mL	50.0 mL	0 mL	0 mL	0 mL	OK
LCSSRM 460-201028/2		SM 2340C		50.0 mL	50.0 mL	0 mL	3.9 mL	3.9 mL	OK
460-68764-E-5 DU		SM 2340C	T	50.0 mL	50.0 mL	0 mL	2.6 mL	2.6 mL	OK
460-68763-E-1	GW0034	SM 2340C	T	50.0 mL	50.0 mL	0 mL	0 mL	0 mL	OK
460-68763-E-2	GW0033	SM 2340C	T	50.0 mL	50.0 mL	0 mL	2.5 mL	2.5 mL	OK
460-68763-E-4	GW0039	SM 2340C	T	50.0 mL	50.0 mL	0 mL	4.0 mL	4 mL	OK

Lab Sample ID	Client Sample ID	Method Chain	Basis	WThardLCS0001 00013					
MB 460-201028/1		SM 2340C							
LCSSRM 460-201028/2		SM 2340C		50 mL					
460-68764-E-5 DU		SM 2340C	T						
460-68763-E-1	GW0034	SM 2340C	T						
460-68763-E-2	GW0033	SM 2340C	T						
460-68763-E-4	GW0039	SM 2340C	T						

Batch Notes	
Buffer Lot #	Fisher/132206 exp.05/30/15
EDTA Lot Number	AQUA SOLUTION/2111362
Indicator Lot	Eriochrome Black-T indicator # C - 9981-13 exp.04/16/14
Nominal Amount Used	50 mL
Perform Calculation (0=No, 1=Yes)	1
Normality of first Titrant	0.02 N
Titrant Standardization Date	Stand.11/22/13 exp.STD 02/22/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 201532 Batch Start Date: 01/07/14 13:40 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 2340C Batch End Date: 01/07/14 14:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BuretStart1	BuretStop1	TitrantVolume1	CalcMsg
MB 460-201532/1		SM 2340C		50 mL	50 mL	0 mL	0.05 mL	0.05 mL	OK
LCSSRM 460-201532/2		SM 2340C		50 mL	50 mL	0 mL	3.8 mL	3.8 mL	OK
460-68763-E-3	GW0036	SM 2340C	T	50 mL	50 mL	0 mL	4.3 mL	4.3 mL	OK
460-68763-E-3 DU	GW0036	SM 2340C	T	50 mL	50 mL	0 mL	4.3 mL	4.3 mL	OK

Lab Sample ID	Client Sample ID	Method Chain	Basis	WThardLCS0001 00013					
MB 460-201532/1		SM 2340C							
LCSSRM 460-201532/2		SM 2340C		50 mL					
460-68763-E-3	GW0036	SM 2340C	T						
460-68763-E-3 DU	GW0036	SM 2340C	T						

Batch Notes	
Buffer Lot #	132206 (Fisher) exp;05/31/15
EDTA Lot Number	Aqua Solution/2111362 exp 5/30/14
Inhibitor 1 Lot #	C-9981-13 : Eriochrome Black T exp;04/16/14
Nominal Amount Used	50 mL
Perform Calculation (0=No, 1=Yes)	1
Normality of first Titrant	0.02 N
Titrant Standardization Date	Stand. 11/22/13 exp.d 2/22/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 201106 Batch Start Date: 01/02/14 16:16 Batch Analyst: Cabanganan, Maria

Batch Method: SM 2320B Batch End Date: 01/02/14 21:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WTalkLCS 00095			
MB 460-201106/2		SM 2320B		InitialAmount is blank					
LCSSRM 460-201106/3		SM 2320B		InitialAmount is blank	25 mL	25 mL			
460-68760-F-1 DU		SM 2320B	T	InitialAmount is blank					
460-68763-D-1	GW0034	SM 2320B	T	InitialAmount is blank					
460-68763-D-2	GW0033	SM 2320B	T	InitialAmount is blank					
460-68763-D-3	GW0036	SM 2320B	T	InitialAmount is blank					
460-68763-D-4	GW0039	SM 2320B	T	InitialAmount is blank					

Batch Notes	
pH Buffer 1 ID	4buffer: 910104 exp. 07/2015 Thermo
pH Buffer 2 ID	7buffer: 133435 exp. 06/2015 Fisher
pH Buffer 3 ID	10buffer: 133437 exp. 06/2015 Fisher
Lot # of hydrochloric acid	A3283
HCl Vendor	HACH
Nominal Amount Used	25 mL
Normality of first Titrant	0.0198192 N
Titrant Standardization Date	prep: 11/20/13 exp. 02/20/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 199703 Batch Start Date: 12/24/13 08:17 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/26/13 07:53

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 460-199703/1		SM 2540D		100 mL	a08WY 0.1193	0.1193 g	1000 mL	0.1193 g	0.1193 g
LCSSRM 460-199703/2		SM 2540D		100 mL	a08WZ 0.1215	0.1215 g	100 mL	0.1287 g	0.1287 g
460-68694-C-2 DU		SM 2540D	T	100 mL	a08XC 0.1206	0.1206 g	10 mL	0.1354 g	0.1357 g
460-68763-G-1	GW0034	SM 2540D	T	100 mL	a08XD 0.1198	0.1198 g	880 mL	0.1199 g	0.1198 g
460-68763-G-2	GW0033	SM 2540D	T	100 mL	a08XE 0.1193	0.1193 g	940 mL	0.1197 g	0.1194 g
460-68763-G-3	GW0036	SM 2540D	T	100 mL	a08XF 0.1181	0.1181 g	920 mL	0.1183 g	0.1184 g
460-68763-G-4	GW0039	SM 2540D	T	100 mL	a08XG 0.1217	0.1217 g	920 mL	0.1288 g	0.1287 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Residue	Residue2	Residue3
MB 460-199703/1		SM 2540D		0.1192 g	PASS <0.5mg	PASS <0.5mg	0 g	0 g	-0.0001 g
LCSSRM 460-199703/2		SM 2540D		0.1283 g	PASS <0.5mg	PASS <0.5mg	0.0072 g	0.0072 g	0.0068 g
460-68694-C-2 DU		SM 2540D	T	0 g	PASS <0.5mg		0.0148 g	0.0151 g	
460-68763-G-1	GW0034	SM 2540D	T	0 g	PASS <0.5mg		0.0001 g	0 g	
460-68763-G-2	GW0033	SM 2540D	T	0 g	PASS <0.5mg		0.0004 g	0.0001 g	
460-68763-G-3	GW0036	SM 2540D	T	0 g	PASS <0.5mg		0.0002 g	0.0003 g	
460-68763-G-4	GW0039	SM 2540D	T	0 g	PASS <0.5mg		0.0071 g	0.007 g	

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResDishWt	DishWeight	WTtssLCS 00045			
MB 460-199703/1		SM 2540D		0.1192 g	0.1193 g				
LCSSRM 460-199703/2		SM 2540D		0.1283 g	0.1215 g	100 mL			
460-68694-C-2 DU		SM 2540D	T	0.1357 g	0.1206 g				
460-68763-G-1	GW0034	SM 2540D	T	0.1198 g	0.1198 g				
460-68763-G-2	GW0033	SM 2540D	T	0.1194 g	0.1193 g				
460-68763-G-3	GW0036	SM 2540D	T	0.1184 g	0.1181 g				
460-68763-G-4	GW0039	SM 2540D	T	0.1287 g	0.1217 g				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 199703 Batch Start Date: 12/24/13 08:17 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/26/13 07:53

Batch Notes	
Balance ID	27
Constant Weight (WT2) Date/Time in Oven	12-24-13@12:26
Constant Weight (WT2) Date/Time Out	12-24-13@13:38
Constant Weight (WT2) Temp In	104 Celsius
Constant Weight (WT2) Temp Out	104 Celsius
Uncorrected CW (Wt2) Temp In	102 Celsius
Uncorrected CW (Wt2) Temp Out	102 Celsius
Constant Weight (WT3) Date/time In	12-24-13@14:00
Constant Weight (WT3) Date/Time Out	12-24-13@14:35
Constant Weight (WT3) Temp In	104 Celsius
Constant Weight (WT3) Temp Out	104 Celsius
Uncorrected CW (Wt3) Temp In	102 Celsius
Uncorrected CW (Wt3) Temp Out	102 Celsius
Filter Paper Lot Number	EnviroExpress 60006 3281R2
Date samples were placed in the oven	12-24-13@9:20
Oven Temp when samples are put in oven	104 Celsius
Nominal Amount Used	100 mL
Date samples were removed from oven	12-24-13@10:28
Oven Temp when samples removed from oven	104 Celsius
Oven ID	36221
Perform Calculation (0=No, 1=Yes)	1
Uncorrected In Temperature	102 Celsius
Uncorrected Out Temperature	102 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 177439 Batch Start Date: 08/21/13 16:45 Batch Analyst: Vu, Huan

Batch Method: SM 4500 P E Batch End Date: 08/21/13 18:31

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	WTphosSP1 00020		
IC 460-177439/1		SM 4500 P E		0 mL	50 mL	Not Calculated. RunCalculation not set to Run			
IC 460-177439/2		SM 4500 P E		0.03 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.03 mL		
IC 460-177439/3		SM 4500 P E		0.05 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.05 mL		
IC 460-177439/4		SM 4500 P E		0.10 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.1 mL		
IC 460-177439/5		SM 4500 P E		0.20 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.2 mL		
IC 460-177439/6		SM 4500 P E		0.50 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.5 mL		

Batch Notes	
Ammonium Molybdate Reagent ID Number	B-2862-13 exp;01/23/14
Ascorbic Acid Reagent ID Number	B-2887-13 exp;08/22/13
Batch Comment	Calibration on : 08/21/13 / Cal curve exp;02/14/14
Potassium Antimonyl Tartrate Reagent ID	B-2812-13 exp;12/14/13
Perform Calculation (0=No, 1=Yes)	1
Sulfuric Acid Reagent ID Number	B-2886-13 : 5N exp;02/15/14

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 199287 Batch Start Date: 12/21/13 08:00 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 4500 P E Batch End Date: 12/21/13 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WTophosLCS 00004	WTphosSP1 00020	WTphosSS1 00018	
ICV 460-199287/1		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
ICB 460-199287/2		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
MB 460-199287/3		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
LCSSRM 460-199287/4		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run	2 mL			
460-68763-F-2	GW0033	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68763-F-1	GW0034	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
CCV 460-199287/13		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-199287/14		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
460-68763-F-3	GW0036	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68763-F-4	GW0039	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-3 MS		SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run		0.2 mL		
CCV 460-199287/25		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-199287/26		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-3 MSD		SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run		0.2 mL		

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 199287 Batch Start Date: 12/21/13 08:00 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 4500 P E Batch End Date: 12/21/13 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WTophosLCS 00004	WTphosSP1 00020	WTphosSS1 00018	
CCV 460-199287/28		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-199287/29		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				

Batch Notes	
Ammonium Molybdate Reagent ID Number	B-3010-13 exp;06/05/14
Ascorbic Acid Reagent ID Number	B 3025-13 exp 12/28/13
Batch Comment	See batch 177439 for Cal. info. / Cal curve exp;02/14/14
Potassium Antimonyl Tartrate Reagent ID	B-2948-13 exp;04/14/14
Perform Calculation (0=No, 1=Yes)	1
Sulfuric Acid Reagent ID Number	5N H2SO4 B 3014-13 exp 6/14/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 200410 Batch Start Date: 12/27/13 14:27 Batch Analyst: Vu, Huan

Batch Method: SM 5310B Batch End Date: 12/30/13 13:38

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTtocLCS 00022	WTtocSP1 00021	WTtocSP2 00019		
ICV 460-200410/1		SM 5310B		50			1.25 mL		
ICB 460-200410/2		SM 5310B		50					
MB 460-200410/3		SM 5310B		50					
LCSSRM 460-200410/4		SM 5310B		50	50 mL				
460-68764-B-1 MS		SM 5310B	T	50		1.25 mL			
460-68764-B-1 MSD		SM 5310B	T	50		1.25 mL			
CCV 460-200410/13		SM 5310B		50			1.25 mL		
CCB 460-200410/14		SM 5310B		50					
460-68763-B-1	GW0034	SM 5310B	T	50					
460-68763-B-2	GW0033	SM 5310B	T	50					
460-68763-B-3	GW0036	SM 5310B	T	50					
CCV 460-200410/25		SM 5310B		50			1.25 mL		
CCB 460-200410/26		SM 5310B		50					
CCV 460-200410/33		SM 5310B		50			1.25 mL		
CCB 460-200410/34		SM 5310B		50					
460-68763-B-4	GW0039	SM 5310B	T	50					
CCV 460-200410/37		SM 5310B		50			1.25 mL		
CCB 460-200410/38		SM 5310B		50					

Batch Notes	
Batch Comment	T(1425-1428)-13 CAL exp;03/05/14 / H2SO4 : 35166

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 200972 Batch Start Date: 01/02/14 06:30 Batch Analyst: Afremova, Izabella

Batch Method: SM 4500 NH3 B Batch End Date: 01/02/14 10:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Final pH	WTamnIM1 00035		
MB 460-200972/1		SM 4500 NH3 B, 4500 NH3 H		50.0 mL	50.0 mL	ph=9.5 SU			
LCS 460-200972/2		SM 4500 NH3 B, 4500 NH3 H		50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68228-G-1 MS		SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68228-G-1 MSD		SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68763-C-1	GW0034	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68763-C-2	GW0033	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68763-C-3	GW0036	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68763-C-4	GW0039	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			

Batch Notes	
Acid used for pH adjustment	11 N H2SO4 # B - 2933-13 exp.03/25/14
Base used for pH adjustment	15 N NaOH # C - 9902-13 exp.02/17/14
Buffer Reagent ID Number	# C - 9857-13 exp.03/04/14
Distillation End Time	10:00 am
Distillation Start Time	8:30 am
Distillation Temperature	210
Sulfuric Acid Lot Number	Macron Fine Chemicals/35166
NaOH Lot #	Fisher/122989
Sulfuric Acid Reagent ID Number	0.04 N H2SO4 # C - 9816-13 exp.02/22/14

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 200972 Batch Start Date: 01/02/14 06:30 Batch Analyst: Afremova, Izabella

Batch Method: SM 4500 NH3 B Batch End Date: 01/02/14 10:00

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 201012 Batch Start Date: 01/02/14 11:01 Batch Analyst: Leye, Mamadou

Batch Method: 4500 NH3 H Batch End Date: 01/02/14 11:54

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTamnSS1 00007				
ICV 460-201012/7		4500 NH3 H		100	0.2 mL				
CCV 460-201012/17		4500 NH3 H		100	0.2 mL				
CCV 460-201012/29		4500 NH3 H		100	0.2 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 201069 Batch Start Date: 01/02/14 15:05 Batch Analyst: Hu, Youhao

Batch Method: SM 4500 H+ B Batch End Date: 01/02/14 17:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SampleTemp	pHread1	pHRead2	CalcMsg	WTpHCCV 00020
CCV 460-201069/1		SM 4500 H+ B		20 mL	23.2 Celsius	7.04 SU	7.03 SU	Read 2 Pass	20 mL
MB 460-201069/2		SM 4500 H+ B		20 mL	22.1 Celsius	6.03 SU	6.05 SU	Read 2 Pass	
LCSSRM 460-201069/3		SM 4500 H+ B		20 mL	23.2 Celsius	7.02 SU	7.02 SU	Read 2 Pass	
460-68717-A-1 DU		SM 4500 H+ B	T	20 mL	22.2 Celsius	7.68 SU	7.69 SU	Read 2 Pass	
CCV 460-201069/11		SM 4500 H+ B		20 mL	23.4 Celsius	7.01 SU	7.00 SU	Read 2 Pass	20 mL
460-68763-F-1	GW0034	SM 4500 H+ B	T	20 mL	21.9 Celsius	5.89 SU	5.88 SU	Read 2 Pass	
460-68763-F-2	GW0033	SM 4500 H+ B	T	20 mL	22.4 Celsius	8.05 SU	8.03 SU	Read 2 Pass	
460-68763-F-3	GW0036	SM 4500 H+ B	T	20 mL	21.9 Celsius	7.48 SU	7.47 SU	Read 2 Pass	
460-68763-F-4	GW0039	SM 4500 H+ B	T	20 mL	22.0 Celsius	7.08 SU	7.06 SU	Read 2 Pass	
CCV 460-201069/21		SM 4500 H+ B		20 mL	23.5 Celsius	7.00 SU	7.00 SU	Read 2 Pass	20 mL
CCV 460-201069/26		SM 4500 H+ B		20 mL	23.4 Celsius	7.00 SU	7.00 SU	Read 2 Pass	20 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	WTpHLCS 00015					
CCV 460-201069/1		SM 4500 H+ B							
MB 460-201069/2		SM 4500 H+ B							
LCSSRM 460-201069/3		SM 4500 H+ B		20 mL					
460-68717-A-1 DU		SM 4500 H+ B	T						
CCV 460-201069/11		SM 4500 H+ B							
460-68763-F-1	GW0034	SM 4500 H+ B	T						
460-68763-F-2	GW0033	SM 4500 H+ B	T						
460-68763-F-3	GW0036	SM 4500 H+ B	T						
460-68763-F-4	GW0039	SM 4500 H+ B	T						
CCV 460-201069/21		SM 4500 H+ B							
CCV 460-201069/26		SM 4500 H+ B							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68763-1

SDG No.:

Batch Number: 201069 Batch Start Date: 01/02/14 15:05 Batch Analyst: Hu, Youhao

Batch Method: SM 4500 H+ B Batch End Date: 01/02/14 17:52

Batch Notes	
pH Buffer 1 ID	7.00Fisher: 133435 exp. 06/2015
pH Buffer 2 ID	4.00Thermo: 910104 exp. 04/31/15
pH Buffer 3 ID	10.00Fisher: 120213 exp. 06/2015
Instrument ID	PH meter: G

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Batch Number: 158037 Batch Start Date: 12/17/13 15:19 Batch Analyst: Cudney, Kevin A

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_STD 00003				
STD0 480-158037/1		300.0		1 mL	0.001 uL				
STD1 480-158037/2		300.0		1 mL	50 uL				
STD2 480-158037/3		300.0		1 mL	100 uL				
STD3 480-158037/4		300.0		1 mL	500 uL				
STD4 480-158037/5		300.0		1 mL	2 mL				
STD5 480-158037/6		300.0		1 mL	5 mL				
STD6 480-158037/7		300.0		1 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Batch Number: 159515 Batch Start Date: 12/26/13 17:33 Batch Analyst: Cudney, Kevin A

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_LCS_ 00024				
CCV 480-159515/1		300.0		1 mL	5 mL				
CCB 480-159515/2		300.0		1 mL					
LCS 480-159515/3		300.0		1 mL	5 mL				
MB 480-159515/4		300.0		1 mL					
CCV 480-159515/13		300.0		1 mL	5 mL				
CCB 480-159515/14		300.0		1 mL					
460-68763-A-1	GW0034	300.0	T	1 mL					
460-68763-A-2	GW0033	300.0	T	1 mL					
460-68763-A-4	GW0039	300.0	T	1 mL					
CCV 480-159515/25		300.0		1 mL	5 mL				
CCB 480-159515/26		300.0		1 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Batch Number: 159673 Batch Start Date: 12/27/13 14:41 Batch Analyst: Cudney, Kevin A

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_STD 00003				
STD0 480-159673/1		300.0		1 mL	0.001 uL				
STD1 480-159673/2		300.0		1 mL	50 uL				
STD2 480-159673/3		300.0		1 mL	100 uL				
STD3 480-159673/4		300.0		1 mL	500 uL				
STD4 480-159673/5		300.0		1 mL	2 mL				
STD5 480-159673/6		300.0		1 mL	5 mL				
STD6 480-159673/7		300.0		1 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68763-1

SDG No.:

Batch Number: 159678 Batch Start Date: 12/28/13 00:39 Batch Analyst: Clark, Kyra R

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_LCS_00024				
CCV 480-159678/49		300.0		1 mL	5 mL				
CCB 480-159678/50		300.0		1 mL					
LCS 480-159678/51		300.0		1 mL	5 mL				
MB 480-159678/52		300.0		1 mL					
CCV 480-159678/61		300.0		1 mL	5 mL				
CCB 480-159678/62		300.0		1 mL					
460-68763-A-3	GW0036	300.0	T	1 mL					
CCV 480-159678/73		300.0		1 mL	5 mL				
CCB 480-159678/74		300.0		1 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

TestAmerica

Client Information	Sampler: Matthew Bohm	Lab PM: Tanico, Thomas	Carrier Tracking No(s):	COC No. 460-41358-26297.1
Client Contact: Craig Hutchings	Phone: 443-454-1615	E-Mail: thomas.tanico@testamericainc.com		Page: Page 1 of 2
Company: Integral Consulting Inc				Job # 68763
Address: 1205 W Bay Drive NW	Due Date Requested:			
City: Olympia	TAT Requested (days):			
State, Zip: WA, 98502				
Phone: 360-705-3534(Tel)	PO #: Purchase Order not required			
Email: chutchings@integral-corp.com	WO #			
Project Name: NJ Site	Project #: 46013363			
Site:	SSOW#			

Analysis Requested

460-68763 Chain of Custody

Preservation Codes:
K - EDTA
L - EDA
W - ph 4-5
Z - other (specify)
Other:

Sample Identification	Tag #	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2340C - Hardness as calcium carbonate	300.0_28D - Br,Cl, SO4 & Fl	2320B, 353.2, 4500_P_E_Ortho, 4500_NO2_NO3 - Nitrate / Nitrite	SM4500_H+ - pH	2540D - Total Suspended Solids	SM5310B - Organic Carbon, Total (TOC)	SM4500_NH3_H - Ammonia (as N)	Total Number of container	Special Instructions/Note:
				Preservation Code:				D	N	N	N	N	S	S		
GW0034	1034	12/19/13	1030	G	Water			x	x	x	x	x	x	x		-1
GW0033	1033	↓	1018	↓	Water			↓	↓	↓	↓	↓	↓	↓		-2
GW0036	1036	↓	1126	↓	Water			↓	↓	↓	↓	↓	↓	↓		-3
GW0039	1039	↓	1200	↓	Water			↓	↓	↓	↓	↓	↓	↓		-4
					Water											
					Water											
					Water											
					Water											
					Water											
					Water											
					Water											

SUB Work

SHORT HOLD

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment: FedEx Overnight

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
[signature]	12/19/13 1600	Integral	[signature] (Fedex)	12/20/13 9:45	TAEO
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: ~~[illegible]~~ 979688	Cooler Temperature(s) °C and Other Remarks: IR #4 ~~[illegible]~~ 3/3.1

TestAmerica Edison Receipt Temperature and pH Log

Job Number: ~~68760~~ 68763

Number of Coolers:	1	IR Gun #	4		
Temp. Cooler #1 (Deg C) (Raw/Corrected)	3/3.1°C	Temp. Cooler #4 (Deg C) (Raw/Corrected)		Temp. Cooler #7 (Deg C) (Raw/Corrected)	
Temp. Cooler #2 (Deg C) (Raw/Corrected)		Temp. Cooler #5 (Deg C) (Raw/Corrected)		Temp. Cooler #8 (Deg C) (Raw/Corrected)	
Temp. Cooler #3 (Deg C) (Raw/Corrected)		Temp. Cooler #6 (Deg C) (Raw/Corrected)		Temp. Cooler #9 (Deg C) (Raw/Corrected)	

Sample No.	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	*Metals (pH<2)	Pest (pH 5-9)	PHC (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other Hardness
1	<2									<2			<2
2	<2									<2			<2
3	<2									<2			<2
4	<2									<2			<2

If pH adjustments are required record the information below:

Sample No(s). adjusted: N/A

Preservative Name/Conc.: N/A

Volume of Preservative used (ml): N/A

Lot # of Preservative: N/A

Expiration Date: N/A

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

EDS-WI-038, Rev 3, 10/8/12

Initials: KR

Date: 12/20/12

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68763-1

Login Number: 68763

List Source: TestAmerica Edison

List Number: 1

Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	979688
Sample custody seals, if present, are intact.	N/A	
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	3.1°C, IR #4
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68763-1

Login Number: 68763
List Number: 1
Creator: Wienke, Robert K

List Source: TestAmerica Buffalo
List Creation: 12/23/13 04:07 PM

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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

LDC Validation Report

– East Greenwich (460-68764-1)

LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Integral Consulting Inc.
1205 West Bay Drive NW
Olympia, WA 98502
ATTN: Mr. Craig Hutchings

January 17, 2014

SUBJECT: PFCs, Project #C1165, Data Validation

Dear Mr. Hutchings,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received January 10, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31147:

SDG#	Fraction
460-68760-1	Perfluorinated Alkyl Acids & Wet Chemistry
460-68763-1	
460-68764-1	
460-68878-1	
462349	

The data validation was performed under Stage 2B & 4 guidelines. The laboratory data packages were correct and complete.

Perfluorooctanoic acid was detected in the field blank samples GW0034 and GW0041, however, the concentration was less than 1/3 of the method reporting limit.

100% verification was performed on the sample results in the Electronic Data Deliverable against hardcopy results and no discrepancies were found.

The analyses were validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, QAPP, dated November 15, 2013

- TAL-DEN DV-LC-0002 for Perfluorinated Alkyl Acids
  4500 H+B for pH
  2320B for Alkalinity
  2340C for Hardness
  5310B for Total Organic Carbon
  353.2 for Nitrate/Nitrite as Nitrogen
  2540 D for Total Suspended Solids
  4500 NH3-H for Ammonia as Nitrogen
  4500 P E for Orthophosphate as Phosphorus
  300.0 for Bromide, Chloride, Fluoride, and Sulfate
  Eurofins Eaton Analytical SOP 537

Legally Privileged & Confidential

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008

- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

1,602 pages-SF 1 WEEK TAT

Attachment 1

EDD 90/10

LDC #31147 (Integral Consulting, Inc.-Olympia, WA / PFCs, Project #C1165)

LDC	SDG#	DATE REC'D	(3) DATE DUE	PFCs (537)		Alk. (2320B)		NH_3-N (4500 NH3 H)		Br,Cl F,SO_4 (300.0)		NO_3/ NO_2-N (300.0)		Hard. (2340C)		O-PO_4 (4500 P E)		pH (4500 H+B)		TSS (2540D)		TOC (5310B)											
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	460-68760-1	01/10/14	01/17/14	-	-	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0										
B	460-68763-1	01/10/14	01/17/14	-	-	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0										
C	460-68764-1	01/10/14	01/17/14	-	-	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0										
C	460-68764-1	01/10/14	01/17/14	-	-	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0										
D	460-68878-1	01/10/14	01/17/14	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
D	460-68878-1	01/10/14	01/17/14	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
E	462349	01/10/14	01/17/14	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
E	462349	01/10/14	01/17/14	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Total	T/SC			21	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	0	0	0	0	0	0	0	0	0	129

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

31147ST.wpd

LDC Report# 31147C6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: PFCs, Project #C1165

LDC Report Date: January 14, 2014

Matrix: Water

Parameters: Wet Chemistry

Validation Level: Stage 2B & 4

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 460-68764-1

Sample Identification	Collection Date	Laboratory Sample Identification
GW0028**	12/19/13	460-68764-1**
GW0029	12/19/13	460-68764-2
GW0030	12/19/13	460-68764-3
GW0031	12/19/13	460-68764-4
GW0032	12/19/13	460-68764-5
GW0028MS	12/19/13	460-68764-1MS
GW0028MSD	12/19/13	460-68764-1MSD
GW0030MS	12/19/13	460-68764-3MS
GW0030MSD	12/19/13	460-68764-3MSD
GW0032DUP	12/19/13	460-68764-5DUP

**Indicates sample underwent Stage 4 review

Introduction

This data review covers 10 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Standard Method 2320B for Alkalinity, Standard Method 4500 NH3-H for Ammonia as Nitrogen, EPA Method 300.0 for Bromide, Chloride, Fluoride, and Sulfate, EPA Method 353.2 for Nitrate/Nitrite as Nitrogen, Standard Method 2340C for Hardness, Standard Method 4500 P E for Orthophosphate as Phosphorus, Standard Method 4500 H+B for pH, Standard Method 2540D for Total Suspended Solids, and Standard Method 5310B for Total Organic Carbon.

This review follows the Site Specific Quality Assurance Project Plan (QAPP) dated November 15, 2013 and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review (January 2010).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Samples indicated by a double asterisk on the front cover underwent a Stage 4 review. A Stage 2B review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Stage 2B criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J+ Data are qualified as estimated, with a high bias likely to occur.

J- Data are qualified as estimated, with a low bias likely to occur.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

Qualification Codes

1 Holding Times
2 Sample Preservation (Cooler Temp)
3 Sample Custody
4 Missing Deliverables
5 Calibration
6 Field Blanks
7 Laboratory Blanks
8 Matrix Spike (%)
9 Matrix Spike Duplicate (RPD or Duplicate Sample Analysis)
10 Laboratory Control Sample
11 ICP Interference Check
12 RPD Between Two Columns
13 Surrogates
14 Field Duplicates
15 Peak Resolution
16 ICP Serial Dilution
17 Chemical Recoveries
18 Trip Blanks
19 Internal Standards
20 Linear Range Exceeded
21 Potential False Positives
22 Do not use, other result more technically sound
23 Estimated Maximum Possible Concentration
24 Less than reporting limit
25 Other

I. Technical Holding Times

All technical holding time requirements were met with the following exceptions:

Sample	Analyte	Total Time From Sample Collection Until Analysis	Required Holding Time From Sample Collection Until Analysis	Flag	A or P
GW0028** GW0029 GW0030 GW0031 GW0032	pH	14 days	48 hours	J- (all detects) UJ (all non-detects)	P

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. Initial Calibration

All criteria for the initial calibration of each method were met.

III. Continuing Calibration

Continuing calibration frequency and analysis criteria were met for each method when applicable.

IV. Blanks

Method blanks were reviewed for each matrix as applicable. No contaminant concentrations were found in the initial, continuing and preparation blanks.

Sample GW0034 (from SDG 460-68763-1) was identified as a field blank. No contaminant concentrations were found.

V. Matrix Spike/Matrix Spike Duplicates

Matrix spike (MS) and matrix spike duplicate (MSD) samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QC limits.

VI. Duplicates

Duplicate (DUP) sample analyses were reviewed for each matrix as applicable. Results were within QAPP limits.

VII. Laboratory Control Samples

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) were within QAPP limits.

VIII. Sample Result Verification

All sample result verifications were acceptable for samples on which a Stage 4 review was performed. Raw data were not evaluated for the samples reviewed by Stage 2B criteria.

IX. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

X. Field Duplicates

Samples GW0028** and GW0029 and samples GW0030 and GW0031 were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD (Limits)
	GW0028**	GW0029	
Alkalinity	105 mg/L	101 mg/L	4 (≤35)
Bicarbonate Alkalinity	105 mg/L	101 mg/L	4 (≤35)
Chloride	38.5 mg/L	38.8 mg/L	1 (≤35)
Fluoride	0.54 mg/L	0.54 mg/L	0 (≤35)
Hardness	78.0 mg/L	72.0 mg/L	8 (≤35)
pH	7.87 units	7.88 units	0 (≤35)
Orthophosphate as P	0.14 mg/L	0.14 mg/L	0 (≤35)
Sulfate	22.3 mg/L	22.4 mg/L	0 (≤35)
Total suspended solids	1.1 mg/L	1.2 mg/L	9 (≤35)
Total organic carbon	1.5 mg/L	1.5 mg/L	0 (≤35)

Analyte	Concentration		RPD (Limits)
	GW0030	GW0031	
Alkalinity	101 mg/L	97.7 mg/L	3 (≤35)
Bicarbonate Alkalinity	101 mg/L	97.7 mg/L	3 (≤35)
Ammonia as N	0.30 mg/L	0.33 mg/L	10 (≤35)
Chloride	34.5 mg/L	34.6 mg/L	0 (≤35)

Analyte	Concentration		RPD (Limits)
	GW0030	GW0031	
Fluoride	0.58 mg/L	0.58 mg/L	0 (≤35)
Hardness	70.0 mg/L	64.0 mg/L	9 (≤35)
Orthophosphate as P	0.14 mg/L	0.14 mg/L	0 (≤35)
pH	8.07 units	7.96 units	1 (≤35)
Sulfate	22.5 mg/L	22.7 mg/L	1 (≤35)
Total organic carbon	1.4 mg/L	1.4 mg/L	0 (≤35)

PFCs, Project #C1165
Wet Chemistry - Data Qualification Summary - SDG 460-68764-1

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
460-68764-1	GW0028** GW0029 GW0030 GW0031 GW0032	pH	J- (all detects) UJ (all non-detects)	P	Technical holding time (1)

PFCs, Project #C1165
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 460-68764-1

No Sample Data Qualified in this SDG

PFCs, Project #C1165
Wet Chemistry - Field Blank Data Qualification Summary - SDG 460-68764-1

No Sample Data Qualified in this SDG

LDC #: 31147C6

SDG #: 460-68764-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 1/13/14

Page: 1 of 1

Reviewer: CR

2nd Reviewer: [illegible]

METHOD: (Analyte) Alkalinity (SM2320B), Ammonia-N (SM4500 NH3-H), Bromide, Chloride, Fluoride, Sulfate (EPA Method 300.0), Nitrate/Nitrite-N (EPA Method 353.2), Hardness (SM2340C), Orthophosphate (SM4500 P E), pH (SM4500 H+B), TSS (SM2540D), TOC (SM5310B) P

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/19/13
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Blanks	A	
V	Matrix Spike/Matrix Spike Duplicates	A	MS/D
VI.	Duplicates	A	Dup
VII.	Laboratory control samples	A	LCS
VIII.	Sample result verification	A	Not reviewed for Level III validation.
IX.	Overall assessment of data	A	
X.	Field duplicates	SW	(1,2) (3,4)
XI.	Field blanks	ND	FB= GW0034 (460-68763-1)

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples:** Indicates sample underwent Level IV validation

water

1	GW0028**	11		21		31	
2	GW0029	12		22		32	
3	GW0030	13		23		33	
4	GW0031	14		24		34	
5	GW0032	15		25		35	
6	GW0028MS	16		26		36	
7	GW0028MSD	17		27		37	
8	GW0030MS	18		28		38	
9	GW0030MSD	19		29		39	
10	GW0032DUP	20		30		40	

Notes:

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LDC #: 311476

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: A

Method: Inorganics (EPA Method See cover)

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.		✓		
Cooler temperature criteria was met.	✓			
II. Calibration				
Were all instruments calibrated daily, each set-up time?	✓			
Were the proper number of standards used?	✓			
Were all initial calibration correlation coefficients ≥ 0.995?	✓			
Were all initial and continuing calibration verification %Rs within the 90-110% QC limits?	✓			
Were titrant checks performed as required? (Level IV only)			✓	
Were balance checks performed as required? (Level IV only)	✓			
III. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
IV. Matrix spike/Matrix spike duplicates and Duplicates				
Were a matrix spike (MS) and duplicate (DUP) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD or MS/DUP. Soil / Water.	✓			
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the 75-125 QC limits? If the sample concentration exceeded the spike concentration by a factor of 4 or more, no action was taken.	✓			
Were the MS/MSD or duplicate relative percent differences (RPD) ≤ 20% for waters and ≤ 35% for soil samples? A control limit of ≤ CRDL(≤ 2X CRDL for soil) was used for samples that were ≤ 5X the CRDL, including when only one of the duplicate sample values were ≤ 5X the CRDL.	✓			
V. Laboratory control samples				
Was an LCS anaylzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the 80-120% (85-115% for Method 300.0) QC limits?	✓			
VI. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

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LDC #: 31147C6

VALIDATION FINDINGS CHECKLIST

Reviewer: CL
2nd Reviewer: AL

Validation Area	Yes	No	NA	Findings/Comments
VII. Sample Result Verification				
Were RLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
Were detection limits < RL?	✓			
VIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
IX. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target analytes were detected in the field duplicates.	✓			
X. Field blanks				
Field blanks were identified in this SDG.	✓			
Target analytes were detected in the field blanks.		✓		

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LDC #: 31147C6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-5	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Br Hardness TSS
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
QC:6,7	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
8,9	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Br
10	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Hardness
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4

Comments:

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LDC #: 314766

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: QR
2nd reviewer: [illegible]

All circled dates have exceeded the technical holding time.
(Y) N N/A Were all samples preserved as applicable to each method ?
(Y) N N/A Were all cooler temperatures within validation criteria?

Method:		SM4500H+B					
Parameters:		pH					
Technical holding time:		48hrs					
Sample ID	**Sampling date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Qualifier**
1-5	12/19/13	1/2/14	(14 days)				J/UJ/P

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LDC: 31147C6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CL

2nd Reviewer: [illegible]

Method: Inorganics (see cover)

Analyte	Concentration (mg/L)		RPD (≤ 35)
	1	2	
Alkalinity	105	101	4
Bicarbonate Alkalinity	105	101	4
Chloride	38.5	38.8	1
Fluoride	0.54	0.54	0
Hardness	78.0	72.0	8
pH (units)	7.87	7.88	0
Orthophosphate as P	0.14	0.14	0
Sulfate	22.3	22.4	0
TSS	1.1	1.2	9
TOC	1.5	1.5	0

Analyte	Concentration (mg/L)		RPD (≤ 35)
	3	4	
Alkalinity	101	97.7	3
Bicarbonate Alkalinity	101	97.7	3
Ammonia as N	0.30	0.33	10
Chloride	34.5	34.6	0
Fluoride	0.58	0.58	0
Hardness	70.0	64.0	9
Orthophosphate as P	0.14	0.14	0
pH (units)	8.07	7.96	1
Sulfate	22.5	22.7	1
TOC	1.4	1.4	0

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LDC #: 31476C

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

Page: 1 of 1
Reviewer: OR
2nd Reviewer: K

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of NO_3/NO_2-N was recalculated. Calibration date: 12/21/13

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

%R = Found X 100 / True

Where, Found = concentration of each analyte measured in the analysis of the ICV or CCV solution
True = concentration of each analyte in the ICV or CCV source

Type of analysis	Analyte	Standard	Conc. (mg/L)	Area	Recalculated r or r^2	Reported r or r^2	Acceptable (Y/N)
Initial calibration	NO_3/NO_2-N	s1	0.0	19594	0.9999	0.9999	Y
		s2	0.1	1075251			
		s3	0.5	4394445			
		s4	1	8580576			
		s5	1.5	13119328			
		s6	2	17122694			
Calibration verification	↓	CCV	1	09587	96	96	
Calibration verification	OPO4	↓	0.2	0201	101	101	
Calibration verification	TOC	ICV	50	51.21	102	102	✓

Comments: Refer to Calibration Verification findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

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LDC #: 31147C6

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: GR
2nd Reviewer: K

METHOD: Inorganics, Method Secover

Percent recoveries (%R) for a laboratory control sample and a matrix spike sample were recalculated using the following formula:

$\%R = \frac{Found}{True} \times 100$ Where, Found = concentration of each analyte measured in the analysis of the sample. For the matrix spike calculation, Found = SSR (spiked sample result) - SR (sample result).
True = concentration of each analyte in the source.

A sample and duplicate relative percent difference (RPD) was recalculated using the following formula:

$RPD = \frac{|S-D|}{(S+D)/2} \times 100$ Where, S = Original sample concentration
D = Duplicate sample concentration

Sample ID	Type of Analysis	Element	Found / S (units)	True / D (units)	Recalculated %R / RPD	Reported %R / RPD	Acceptable (Y/N)
LCS	Laboratory control sample	NH_3N	1.10	1	110	110	Y
8	Matrix spike sample	Br	(SSR-SR) 2.50	2.50	100	100	↓
10	Duplicate sample	Hardness	52	52	0	0	↓

Comments: Refer to appropriate worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

TOTCLC.6

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LDC #: 31147C6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: M

METHOD: Inorganics, Method See cover

Please see qualifications below for all questions answered "N". Not applicable questions are identified as "N/A".

Y N N/A Have results been reported and calculated correctly?
Y N N/A Are results within the calibrated range of the instruments?
Y N N/A Are all detection limits below the CRQL?

Compound (analyte) results for TOC reported with a positive detect were recalculated and verified using the following equation:

Concentration =

$cy = 4.224x + 1.613$

Recalculation:

$\frac{7.991 - 1.613}{4.224} = 1.51 \text{ mg/L}$

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
	1	Cl	38.5	38.5	Y
		F	0.54	0.54	
		SO_4	22.3	22.3	
		Alk	105	105	
		Hardness	78.0	78.0	
		TSS	1.1	1.1	
		pH (units)	7.87	7.87	
		ortho-P	0.14	0.14	
		TOC	1.5	1.5	

Note:

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TestAmerica Laboratory Report

– J68764-1

ANALYTICAL REPORT

Job Number: 460-68764-1

Job Description: NJ Site

For:
Integral Consulting Inc
1205 W Bay Drive NW
Olympia, WA 98502

Attention: Craig Hutchings

Approved for release.
Shalini Isaac
Project Management Assistant II
1/7/2014 3:04 PM

Designee for
Thomas Tanico, Project Manager II
777 New Durham Road, Edison, NJ, 08817
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thomas.tanico@testamericainc.com
01/07/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

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CASE NARRATIVE

Client: Integral Consulting Inc

Project: NJ Site

Report Number: 460-68764-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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
The samples were received on 12/20/2013 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 2.1º C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

ALKALINITY
Samples 460-68764-1 through 460-68764-5 were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 01/02/2014.

No difficulties were encountered during the alkalinity analyses.

All quality control parameters were within the acceptance limits.

HARDNESS
Samples 460-68764-1 through 460-68764-5 were analyzed for hardness in accordance with SM 2340C. The samples were analyzed on 01/02/2014.

No difficulties were encountered during the hardness analyses.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS
Samples 460-68764-1 through 460-68764-5 were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/26/2013.

No difficulties were encountered during the TSS analyses.

All quality control parameters were within the acceptance limits.

ANIONS
Samples 460-68764-1 through 460-68764-5 were analyzed for anions in accordance with EPA Method 300.0_28D Anions by Ion Chromatograph. The samples were analyzed on 12/26/2013.

No difficulties were encountered during the anions analyses.

All quality control parameters were within the acceptance limits.

NITRATE-NITRITE AS NITROGEN
Samples 460-68764-1 through 460-68764-5 were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 12/21/2013.

No difficulties were encountered during the nitrate-nitrite analyses.

All quality control parameters were within the acceptance limits.

ORTHOPHOSPHATE AS P

Samples 460-68764-1 through 460-68764-5 were analyzed for orthophosphate as P in accordance with SM 4500 P E. The samples were analyzed on 12/21/2013.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following samples have been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: GW0028 (460-68764-1), GW0029 (460-68764-2), GW0030 (460-68764-3), GW0031 (460-68764-4), GW0032 (460-68764-5)

No other difficulties were encountered during the orthophosphate analyses.

All quality control parameters were within the acceptance limits.

PH

Samples 460-68764-1 through 460-68764-5 were analyzed for pH in accordance with SM 4500 H+. The samples were analyzed on 01/02/2014.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

AMMONIA

Samples 460-68764-1 through 460-68764-5 were analyzed for ammonia in accordance with SM 4500 NH3 H. The samples were prepared and analyzed on 01/02/2014.

No difficulties were encountered during the ammonia analyses.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Samples 460-68764-1 through 460-68764-5 were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 12/27/2013.

No difficulties were encountered during the TOC analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68764-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-68764-1	GW0028	Water	12/19/2013 0908	12/20/2013 0945
460-68764-2	GW0029	Water	12/19/2013 0911	12/20/2013 0945
460-68764-3	GW0030	Water	12/19/2013 0920	12/20/2013 0945
460-68764-4	GW0031	Water	12/19/2013 0930	12/20/2013 0945
460-68764-5	GW0032	Water	12/19/2013 1032	12/20/2013 0945

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68764-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-68764-1	**GW0028**					
Chloride		38.5		0.50	mg/L	300.0
Fluoride		0.54		0.050	mg/L	300.0
Sulfate		22.3		2.0	mg/L	300.0
Bicarbonate Alkalinity as CaCO3		105		5.0	mg/L	SM 2320B
Alkalinity		105		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		78.0		5.0	mg/L	SM 2340C
Total Suspended Solids		1.1		1.0	mg/L	SM 2540D
pH		7.87	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.14		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.5		1.0	mg/L	SM 5310B
460-68764-2	**GW0029**					
Chloride		38.8		0.50	mg/L	300.0
Fluoride		0.54		0.050	mg/L	300.0
Sulfate		22.4		2.0	mg/L	300.0
Bicarbonate Alkalinity as CaCO3		101		5.0	mg/L	SM 2320B
Alkalinity		101		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		72.0		5.0	mg/L	SM 2340C
Total Suspended Solids		1.2		1.1	mg/L	SM 2540D
pH		7.88	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.14		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.5		1.0	mg/L	SM 5310B
460-68764-3	**GW0030**					
Chloride		34.5		0.50	mg/L	300.0
Fluoride		0.58		0.050	mg/L	300.0
Sulfate		22.5		2.0	mg/L	300.0
Ammonia (as N)		0.30		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		101		5.0	mg/L	SM 2320B
Alkalinity		101		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		70.0		5.0	mg/L	SM 2340C
pH		8.07	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.14		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.4		1.0	mg/L	SM 5310B

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68764-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-68764-4	**GW0031**					
Chloride		34.6		0.50	mg/L	300.0
Fluoride		0.58		0.050	mg/L	300.0
Sulfate		22.7		2.0	mg/L	300.0
Ammonia (as N)		0.33		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		97.7		5.0	mg/L	SM 2320B
Alkalinity		97.7		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		64.0		5.0	mg/L	SM 2340C
pH		7.96	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.14		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.4		1.0	mg/L	SM 5310B
460-68764-5	**GW0032**					
Chloride		14.7		0.50	mg/L	300.0
Fluoride		0.58		0.050	mg/L	300.0
Sulfate		33.3		2.0	mg/L	300.0
Ammonia (as N)		0.21		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		81.3		5.0	mg/L	SM 2320B
Alkalinity		81.3		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		52.0		5.0	mg/L	SM 2340C
pH		7.93	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.32		0.030	mg/L	SM 4500 P E
Total Organic Carbon		0.74	J	1.0	mg/L	SM 5310B

METHOD SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68764-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Nitrogen, Nitrate-Nitrite	TAL EDI	MCAWW 353.2	
Ammonia	TAL EDI	SM 4500 NH3 H	
Ammonia, Distillation	TAL EDI		SM SM 4500 NH3 B
Alkalinity	TAL EDI	SM SM 2320B	
Hardness, Total	TAL EDI	SM SM 2340C	
Solids, Total Suspended (TSS)	TAL EDI	SM SM 2540D	
pH	TAL EDI	SM SM 4500 H+ B	
Orthophosphate	TAL EDI	SM SM 4500 P E	
Organic Carbon, Total (TOC)	TAL EDI	SM SM 5310B	
Anions, Ion Chromatography	TAL BUF	MCAWW 300.0	

Lab References:

TAL BUF = TestAmerica Buffalo

TAL EDI = TestAmerica Edison

Method References:

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

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

METHOD / ANALYST SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method	Analyst	Analyst ID
MCAWW 300.0	Cudney, Kevin A	KAC
MCAWW 353.2	Leye, Mamadou	MAL
SM 4500 NH3 H	Leye, Mamadou	MAL
SM SM 2320B	Cabanganan, Maria	MCC
SM SM 2340C	Afremova, Izabella	IAA
SM SM 2540D	Staib, Patricia L	PLS
SM SM 4500 H+ B	Hu, Youhao	YAH
SM SM 4500 P E	Kamenetskaya, Raisa	RAK
SM SM 5310B	Vu, Huan	HTV

General Chemistry

Client Sample ID: **GW0028**

Lab Sample ID: 460-68764-1

Client Matrix: Water

Date Sampled: 12/19/2013 0908

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2045						
Chloride	38.5		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2045						
Fluoride	0.54		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2045						
Sulfate	22.3		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2045						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0812						
Ammonia (as N)	0.080	U	mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1141						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	105		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1749						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1749						
Alkalinity	105		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1749						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1749						
Hardness as calcium carbonate	78.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.1		mg/L	1.0	1.0	1.0	SM 2540D
Analysis Batch: 460-199952	Analysis Date: 12/26/2013 0757						
pH	7.87	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1539						
Orthophosphate as P	0.14		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	1.5		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 1652						

General Chemistry

Client Sample ID: **GW0029**

Lab Sample ID: 460-68764-2

Client Matrix: Water

Date Sampled: 12/19/2013 0911

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2055						
Chloride	38.8		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2055						
Fluoride	0.54		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2055						
Sulfate	22.4		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2055						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0813						
Ammonia (as N)	0.080	U	mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1142						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	101		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1757						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1757						
Alkalinity	101		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1757						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1757						
Hardness as calcium carbonate	72.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.2		mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199952	Analysis Date: 12/26/2013 0757						
pH	7.88	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1540						
Orthophosphate as P	0.14		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	1.5		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 1753						

General Chemistry

Client Sample ID: **GW0030**

Lab Sample ID: 460-68764-3

Client Matrix: Water

Date Sampled: 12/19/2013 0920

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2106						
Chloride	34.5		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2106						
Fluoride	0.58		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2106						
Sulfate	22.5		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159515	Analysis Date: 12/26/2013 2106						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0814						
Ammonia (as N)	0.30		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1144						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	101		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1804						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1804						
Alkalinity	101		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1804						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1804						
Hardness as calcium carbonate	70.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199952	Analysis Date: 12/26/2013 0757						
pH	8.07	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1542						
Orthophosphate as P	0.14		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	1.4		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 1812						

General Chemistry

Client Sample ID: **GW0031**

Lab Sample ID: 460-68764-4

Client Matrix: Water

Date Sampled: 12/19/2013 0930

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2216						
Chloride	34.6		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2216						
Fluoride	0.58		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2216						
Sulfate	22.7		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2216						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0816						
Ammonia (as N)	0.33		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1149						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	97.7		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1811						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1811						
Alkalinity	97.7		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1811						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1811						
Hardness as calcium carbonate	64.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199952	Analysis Date: 12/26/2013 0757						
pH	7.96	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1544						
Orthophosphate as P	0.14		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	1.4		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 1831						

General Chemistry

Client Sample ID: **GW0032**

Lab Sample ID: 460-68764-5

Client Matrix: Water

Date Sampled: 12/19/2013 1032

Date Received: 12/20/2013 0945

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Bromide	0.073	U	mg/L	0.073	0.20	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2227						
Chloride	14.7		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2227						
Fluoride	0.58		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2227						
Sulfate	33.3		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-159518	Analysis Date: 12/26/2013 2227						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-199259	Analysis Date: 12/21/2013 0817						
Ammonia (as N)	0.21		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-201012	Analysis Date: 01/02/2014 1151						
Prep Batch: 460-200972	Prep Date: 01/02/2014 0630						
Bicarbonate Alkalinity as CaCO3	81.3		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1818						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1818						
Alkalinity	81.3		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1818						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-201106	Analysis Date: 01/02/2014 1818						
Hardness as calcium carbonate	52.0		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-201028	Analysis Date: 01/02/2014 1200						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-199952	Analysis Date: 12/26/2013 0757						
pH	7.93	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-201069	Analysis Date: 01/02/2014 1546						
Orthophosphate as P	0.32		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-199287	Analysis Date: 12/21/2013 0900						
Total Organic Carbon	0.74	J	mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-200410	Analysis Date: 12/27/2013 1851						

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 480-159515

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-159515/4	Analysis Batch:	480-159515	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_004.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 1803	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bromide	0.073	U	0.073	0.20
Chloride	0.28	U	0.28	0.50
Fluoride	0.0060	U	0.0060	0.050
Sulfate	0.35	U	0.35	2.0

Lab Control Sample - Batch: 480-159515

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-159515/3	Analysis Batch:	480-159515	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_003.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 1753	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	2.00	1.91	96	90 - 110	
Chloride	20.0	20.40	102	90 - 110	
Fluoride	2.00	2.09	105	90 - 110	
Sulfate	20.0	20.44	102	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68764-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-159515

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	460-68764-3	Analysis Batch:	480-159515	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_023.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 2116			Final Weight/Volume:	
Prep Date:	N/A				1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	460-68764-3	Analysis Batch:	480-159515	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_024.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 2126			Final Weight/Volume:	
Prep Date:	N/A				1 uL
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Bromide	100	101	90 - 110	1	20		
Chloride	97	98	90 - 110	0	20		
Fluoride	100	100	90 - 110	0	20		
Sulfate	98	99	90 - 110	0	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-159515

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	460-68764-3	Units: mg/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	12/26/2013 2116		
Prep Date:	N/A		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68764-3
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	12/26/2013 2126
Prep Date:	N/A
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Bromide	0.073	U	2.50	2.50	2.50	2.52
Chloride	34.5		25.0	25.0	58.89	59.00
Fluoride	0.58		2.50	2.50	3.08	3.08
Sulfate	22.5		25.0	25.0	47.15	47.23

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 480-159518

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-159518/28	Analysis Batch:	480-159518	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_028.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 2206	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bromide	0.073	U	0.073	0.20
Chloride	0.28	U	0.28	0.50
Fluoride	0.0060	U	0.0060	0.050
Sulfate	0.35	U	0.35	2.0

Lab Control Sample - Batch: 480-159518

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-159518/27	Analysis Batch:	480-159518	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613-1_027.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/26/2013 2156	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	2.00	1.92	96	90 - 110	
Chloride	20.0	20.49	102	90 - 110	
Fluoride	2.00	2.10	105	90 - 110	
Sulfate	20.0	20.52	103	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-199259

Method: 353.2
Preparation: N/A

Lab Sample ID:	MB 460-199259/9	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0751	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Nitrate Nitrite as N	0.047	U	0.047	0.10

LCS-Certified Reference Material - Batch: 460-199259

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCSSRM 460-199259/11	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0754	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrate as N	1.51	1.51	99.8	87.4 - 112.6	
Nitrate Nitrite as N	1.51	1.51	99.8	85.4 - 109.9	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199259

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	460-68760-D-1 MS	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0803			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68760-D-1 MSD	Analysis Batch:	460-199259	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131221A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0804			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrate as N	102	103	67 - 130	1	34		
Nitrate Nitrite as N	101	101	66 - 124	0	19		
Nitrite as N	100	99	84 - 109	1	10		

Client: Integral Consulting Inc

Job Number: 460-68764-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199259

Method: 353.2
Preparation: N/A

MS Lab Sample ID:	460-68760-D-1 MS	Units:	mg/L	MSD Lab Sample ID:	460-68760-D-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/21/2013 0803			Analysis Date:	12/21/2013 0804
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Nitrate as N	0.32		0.500	0.500	0.831	0.840
Nitrate Nitrite as N	0.32		1.00	1.00	1.33	1.33
Nitrite as N	0.0041	U	0.500	0.500	0.500	0.495

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

Lab Sample ID:	MB 460-200972/1-A	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1114	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Ammonia (as N)	0.080	U	0.080	0.10

Lab Control Sample - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

Lab Sample ID:	LCS 460-200972/2-A	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1116	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia (as N)	1.00	1.10	110	85 - 117	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

MS Lab Sample ID:	460-68228-G-1-B MS	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1119			Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68228-G-1-C MSD	Analysis Batch:	460-201012	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-200972	Lab File ID:	A140102.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1120			Final Weight/Volume:	50.0 mL
Prep Date:	01/02/2014 0630				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ammonia (as N)	72	71	60 - 147	2	16		

Client: Integral Consulting Inc

Job Number: 460-68764-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200972

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

MS Lab Sample ID:	460-68228-G-1-B MS	Units:	mg/L	MSD Lab Sample ID:	460-68228-G-1-C MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	01/02/2014 1119			Analysis Date:	01/02/2014 1120
Prep Date:	01/02/2014 0630			Prep Date:	01/02/2014 0630
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Ammonia (as N)	0.080	U	1.00	1.00	0.721	0.710

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-201106

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 460-201106/2	Analysis Batch:	460-201106	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	010214alka.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1623	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Bicarbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Carbonate Alkalinity as CaCO3	5.0	U	5.0	5.0
Alkalinity	5.0	U	5.0	5.0
Hydroxide Alkalinity	5.0	U	5.0	5.0

LCS-Certified Reference Material - Batch: 460-201106

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201106/3	Analysis Batch:	460-201106	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	010214alka.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1629	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	69.4	69.80	100.6	91.1 - 110.1	

Duplicate - Batch: 460-201106

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	460-68760-F-1 DU	Analysis Batch:	460-201106	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	010214alka.TXT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1701	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Bicarbonate Alkalinity as CaCO3	90.8		88.48	3	27	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	27	U
Alkalinity	90.8		88.48	3	27	
Hydroxide Alkalinity	5.0	U	5.0	NC	27	U

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-201028

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	MB 460-201028/1	Analysis Batch:	460-201028	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1200	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Hardness as calcium carbonate	1.6	U	1.6	5.0

LCS-Certified Reference Material - Batch: 460-201028

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201028/2	Analysis Batch:	460-201028	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1200	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Hardness as calcium carbonate	77.7	78.00	100.4	91.4 - 109.0	

Duplicate - Batch: 460-201028

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	460-68764-5	Analysis Batch:	460-201028	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	01/02/2014 1200	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Hardness as calcium carbonate	52.0	52.00	0	10	

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-199952

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 460-199952/1	Analysis Batch:	460-199952	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1000 mL
Analysis Date:	12/26/2013 0757	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Suspended Solids	1.0	U	1.0	1.0

LCS-Certified Reference Material - Batch: 460-199952

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCSSRM 460-199952/3	Analysis Batch:	460-199952	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50 mL
Analysis Date:	12/26/2013 0757	Units:	mg/L	Final Weight/Volume:	100 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Suspended Solids	75.5	68.00	90.1	82.6 - 107.9	

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-201069

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID:	MB 460-201069/2	Analysis Batch:	460-201069	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1507	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
pH	6.050			

LCS-Certified Reference Material - Batch: 460-201069

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-201069/3	Analysis Batch:	460-201069	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1509	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
pH	7.03	7.020	99.9	98.0 - 102.0	

Duplicate - Batch: 460-201069

Method: SM 4500 H+ B
Preparation: N/A

Lab Sample ID:	460-68717-A-1 DU	Analysis Batch:	460-201069	Instrument ID:	No Equipment Assigned
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	01/02/2014 1515	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.70	7.690	0.1	10	

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

Lab Sample ID:	MB 460-199287/3	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0900	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Orthophosphate as P	0.010	U	0.010	0.030

LCS-Certified Reference Material - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

Lab Sample ID:	LCSSRM 460-199287/4	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	25	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 0900	Units:	mg/L	Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Orthophosphate as P	5.34	5.76	107.8	86.1 - 109.0	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

MS Lab Sample ID:	460-68764-3	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 1005			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68764-3	Analysis Batch:	460-199287	Instrument ID:	WetPhosSpec
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/21/2013 1005			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Orthophosphate as P	99	101	82 - 118	1	10		

Client: Integral Consulting Inc

Job Number: 460-68764-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199287

Method: SM 4500 P E
Preparation: N/A

MS Lab Sample ID:	460-68764-3	Units: mg/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	12/21/2013 1005		
Prep Date:	N/A		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68764-3
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	12/21/2013 1005
Prep Date:	N/A
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Orthophosphate as P	0.14	0.200	0.200	0.337	0.342

Client: Integral Consulting Inc

Job Number: 460-68764-1

Method Blank - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	MB 460-200410/3	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1515	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Total Organic Carbon	0.30	U	0.30	1.0

LCS-Certified Reference Material - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-200410/4	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1535	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	72.0	72.28	100.4	86.9 - 113.1	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-68764-1	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1712			Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68764-1	Analysis Batch:	460-200410	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131227.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/27/2013 1732			Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Total Organic Carbon	100	100	80 - 120	0	10		

Client: Integral Consulting Inc

Job Number: 460-68764-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-200410

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-68764-1	Units:	mg/L	MSD Lab Sample ID:	460-68764-1
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/27/2013 1712			Analysis Date:	12/27/2013 1732
Prep Date:	N/A			Prep Date:	N/A
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Total Organic Carbon	1.5	50.0	50.0	51.58	51.66

DATA REPORTING QUALIFIERS

Client: Integral Consulting Inc

Job Number: 460-68764-1

Lab Section	Qualifier	Description
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Integral Consulting Inc

Job Number: 460-68764-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:480-159515					
LCS 480-159515/3	Lab Control Sample	T	Water	300.0	
MB 480-159515/4	Method Blank	T	Water	300.0	
460-68764-1	GW0028	T	Water	300.0	
460-68764-2	GW0029	T	Water	300.0	
460-68764-3	GW0030	T	Water	300.0	
460-68764-3MS	Matrix Spike	T	Water	300.0	
460-68764-3MSD	Matrix Spike Duplicate	T	Water	300.0	
Analysis Batch:480-159518					
LCS 480-159518/27	Lab Control Sample	T	Water	300.0	
MB 480-159518/28	Method Blank	T	Water	300.0	
460-68764-4	GW0031	T	Water	300.0	
460-68764-5	GW0032	T	Water	300.0	
Analysis Batch:460-199259					
LCSSRM 460-199259/11	LCS-Certified Reference Material	T	Water	353.2	
MB 460-199259/9	Method Blank	T	Water	353.2	
460-68760-D-1 MS	Matrix Spike	T	Water	353.2	
460-68760-D-1 MSD	Matrix Spike Duplicate	T	Water	353.2	
460-68764-1	GW0028	T	Water	353.2	
460-68764-2	GW0029	T	Water	353.2	
460-68764-3	GW0030	T	Water	353.2	
460-68764-4	GW0031	T	Water	353.2	
460-68764-5	GW0032	T	Water	353.2	
Analysis Batch:460-199287					
LCSSRM 460-199287/4	LCS-Certified Reference Material	T	Water	SM 4500 P E	
MB 460-199287/3	Method Blank	T	Water	SM 4500 P E	
460-68764-1	GW0028	T	Water	SM 4500 P E	
460-68764-2	GW0029	T	Water	SM 4500 P E	
460-68764-3	GW0030	T	Water	SM 4500 P E	
460-68764-3MS	Matrix Spike	T	Water	SM 4500 P E	
460-68764-3MSD	Matrix Spike Duplicate	T	Water	SM 4500 P E	
460-68764-4	GW0031	T	Water	SM 4500 P E	
460-68764-5	GW0032	T	Water	SM 4500 P E	
Analysis Batch:460-199952					
LCSSRM 460-199952/3	LCS-Certified Reference Material	T	Water	SM 2540D	
MB 460-199952/1	Method Blank	T	Water	SM 2540D	
460-68764-1	GW0028	T	Water	SM 2540D	
460-68764-2	GW0029	T	Water	SM 2540D	
460-68764-3	GW0030	T	Water	SM 2540D	
460-68764-4	GW0031	T	Water	SM 2540D	
460-68764-5	GW0032	T	Water	SM 2540D	

Client: Integral Consulting Inc

Job Number: 460-68764-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-200410					
LCSSRM 460-200410/4	LCS-Certified Reference Material	T	Water	SM 5310B	
MB 460-200410/3	Method Blank	T	Water	SM 5310B	
460-68764-1	GW0028	T	Water	SM 5310B	
460-68764-1MS	Matrix Spike	T	Water	SM 5310B	
460-68764-1MSD	Matrix Spike Duplicate	T	Water	SM 5310B	
460-68764-2	GW0029	T	Water	SM 5310B	
460-68764-3	GW0030	T	Water	SM 5310B	
460-68764-4	GW0031	T	Water	SM 5310B	
460-68764-5	GW0032	T	Water	SM 5310B	
Prep Batch: 460-200972					
LCS 460-200972/2-A	Lab Control Sample	T	Water	SM 4500 NH3 B	
MB 460-200972/1-A	Method Blank	T	Water	SM 4500 NH3 B	
460-68228-G-1-B MS	Matrix Spike	T	Water	SM 4500 NH3 B	
460-68228-G-1-C MSD	Matrix Spike Duplicate	T	Water	SM 4500 NH3 B	
460-68764-1	GW0028	T	Water	SM 4500 NH3 B	
460-68764-2	GW0029	T	Water	SM 4500 NH3 B	
460-68764-3	GW0030	T	Water	SM 4500 NH3 B	
460-68764-4	GW0031	T	Water	SM 4500 NH3 B	
460-68764-5	GW0032	T	Water	SM 4500 NH3 B	
Analysis Batch:460-201012					
LCS 460-200972/2-A	Lab Control Sample	T	Water	4500 NH3 H	460-200972
MB 460-200972/1-A	Method Blank	T	Water	4500 NH3 H	460-200972
460-68228-G-1-B MS	Matrix Spike	T	Water	4500 NH3 H	460-200972
460-68228-G-1-C MSD	Matrix Spike Duplicate	T	Water	4500 NH3 H	460-200972
460-68764-1	GW0028	T	Water	4500 NH3 H	460-200972
460-68764-2	GW0029	T	Water	4500 NH3 H	460-200972
460-68764-3	GW0030	T	Water	4500 NH3 H	460-200972
460-68764-4	GW0031	T	Water	4500 NH3 H	460-200972
460-68764-5	GW0032	T	Water	4500 NH3 H	460-200972
Analysis Batch:460-201028					
LCSSRM 460-201028/2	LCS-Certified Reference Material	T	Water	SM 2340C	
MB 460-201028/1	Method Blank	T	Water	SM 2340C	
460-68764-1	GW0028	T	Water	SM 2340C	
460-68764-2	GW0029	T	Water	SM 2340C	
460-68764-3	GW0030	T	Water	SM 2340C	
460-68764-4	GW0031	T	Water	SM 2340C	
460-68764-5	GW0032	T	Water	SM 2340C	
460-68764-5DU	Duplicate	T	Water	SM 2340C	

Client: Integral Consulting Inc

Job Number: 460-68764-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-201069					
LCSSRM 460-201069/3	LCS-Certified Reference Material	T	Water	SM 4500 H+ B	
MB 460-201069/2	Method Blank	T	Water	SM 4500 H+ B	
460-68717-A-1 DU	Duplicate	T	Water	SM 4500 H+ B	
460-68764-1	GW0028	T	Water	SM 4500 H+ B	
460-68764-2	GW0029	T	Water	SM 4500 H+ B	
460-68764-3	GW0030	T	Water	SM 4500 H+ B	
460-68764-4	GW0031	T	Water	SM 4500 H+ B	
460-68764-5	GW0032	T	Water	SM 4500 H+ B	
Analysis Batch:460-201106					
LCSSRM 460-201106/3	LCS-Certified Reference Material	T	Water	SM 2320B	
MB 460-201106/2	Method Blank	T	Water	SM 2320B	
460-68760-F-1 DU	Duplicate	T	Water	SM 2320B	
460-68764-1	GW0028	T	Water	SM 2320B	
460-68764-2	GW0029	T	Water	SM 2320B	
460-68764-3	GW0030	T	Water	SM 2320B	
460-68764-4	GW0031	T	Water	SM 2320B	
460-68764-5	GW0032	T	Water	SM 2320B	

Report Basis

T = Total

Client: Integral Consulting Inc

Job Number: 460-68764-1

Laboratory Chronicle

Lab ID: 460-68764-1 **Client ID:** GW0028

Sample Date/Time: 12/19/2013 09:08 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-1		480-159515		12/26/2013 20:45	1	TAL BUF	KAC
A:353.2	460-68764-D-1		460-199259		12/21/2013 08:12	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68764-C-1-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68764-C-1-A		460-201012	460-200972	01/02/2014 11:41	1	TAL EDI	MAL
A:SM 2320B	460-68764-D-1		460-201106		01/02/2014 17:49	1	TAL EDI	MCC
A:SM 2340C	460-68764-E-1		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68764-G-1		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68764-F-1		460-201069		01/02/2014 15:39	1	TAL EDI	YAH
A:SM 4500 P E	460-68764-F-1		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-1		460-200410		12/27/2013 16:52	1	TAL EDI	HTV

Lab ID: 460-68764-1 MS **Client ID:** GW0028

Sample Date/Time: 12/19/2013 09:08 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 5310B	460-68764-B-1 MS		460-200410		12/27/2013 17:12	1	TAL EDI	HTV

Lab ID: 460-68764-1 MSD **Client ID:** GW0028

Sample Date/Time: 12/19/2013 09:08 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 5310B	460-68764-B-1 MSD		460-200410		12/27/2013 17:32	1	TAL EDI	HTV

Lab ID: 460-68764-2 **Client ID:** GW0029

Sample Date/Time: 12/19/2013 09:11 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-2		480-159515		12/26/2013 20:55	1	TAL BUF	KAC
A:353.2	460-68764-D-2		460-199259		12/21/2013 08:13	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68764-C-2-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68764-C-2-A		460-201012	460-200972	01/02/2014 11:42	1	TAL EDI	MAL
A:SM 2320B	460-68764-D-2		460-201106		01/02/2014 17:57	1	TAL EDI	MCC
A:SM 2340C	460-68764-E-2		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68764-G-2		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68764-F-2		460-201069		01/02/2014 15:40	1	TAL EDI	YAH
A:SM 4500 P E	460-68764-F-2		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-2		460-200410		12/27/2013 17:53	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68764-1

Laboratory Chronicle

Lab ID: **460-68764-3** **Client ID:** **GW0030**

Sample Date/Time: 12/19/2013 09:20 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-3		480-159515		12/26/2013 21:06	1	TAL BUF	KAC
A:353.2	460-68764-D-3		460-199259		12/21/2013 08:14	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68764-C-3-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68764-C-3-A		460-201012	460-200972	01/02/2014 11:44	1	TAL EDI	MAL
A:SM 2320B	460-68764-D-3		460-201106		01/02/2014 18:04	1	TAL EDI	MCC
A:SM 2340C	460-68764-E-3		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68764-G-3		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68764-F-3		460-201069		01/02/2014 15:42	1	TAL EDI	YAH
A:SM 4500 P E	460-68764-F-3		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-3		460-200410		12/27/2013 18:12	1	TAL EDI	HTV

Lab ID: **460-68764-3 MS** **Client ID:** **GW0030**

Sample Date/Time: 12/19/2013 09:20 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-3 MS		480-159515		12/26/2013 21:16	1	TAL BUF	KAC
A:SM 4500 P E	460-68764-F-3 MS		460-199287		12/21/2013 10:05	1	TAL EDI	RAK

Lab ID: **460-68764-3 MSD** **Client ID:** **GW0030**

Sample Date/Time: 12/19/2013 09:20 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-3 MSD		480-159515		12/26/2013 21:26	1	TAL BUF	KAC
A:SM 4500 P E	460-68764-F-3 MSD		460-199287		12/21/2013 10:05	1	TAL EDI	RAK

Lab ID: **460-68764-4** **Client ID:** **GW0031**

Sample Date/Time: 12/19/2013 09:30 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-4		480-159518		12/26/2013 22:16	1	TAL BUF	KAC
A:353.2	460-68764-D-4		460-199259		12/21/2013 08:16	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68764-C-4-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68764-C-4-A		460-201012	460-200972	01/02/2014 11:49	1	TAL EDI	MAL
A:SM 2320B	460-68764-D-4		460-201106		01/02/2014 18:11	1	TAL EDI	MCC
A:SM 2340C	460-68764-E-4		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68764-G-4		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68764-F-4		460-201069		01/02/2014 15:44	1	TAL EDI	YAH
A:SM 4500 P E	460-68764-F-4		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-4		460-200410		12/27/2013 18:31	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68764-1

Laboratory Chronicle

Lab ID: **460-68764-5** **Client ID:** **GW0032**

Sample Date/Time: 12/19/2013 10:32 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68764-A-5		480-159518		12/26/2013 22:27	1	TAL BUF	KAC
A:353.2	460-68764-D-5		460-199259		12/21/2013 08:17	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68764-C-5-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68764-C-5-A		460-201012	460-200972	01/02/2014 11:51	1	TAL EDI	MAL
A:SM 2320B	460-68764-D-5		460-201106		01/02/2014 18:18	1	TAL EDI	MCC
A:SM 2340C	460-68764-E-5		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	460-68764-G-5		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68764-F-5		460-201069		01/02/2014 15:46	1	TAL EDI	YAH
A:SM 4500 P E	460-68764-F-5		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	460-68764-B-5		460-200410		12/27/2013 18:51	1	TAL EDI	HTV

Lab ID: **460-68764-5 DU** **Client ID:** **GW0032**

Sample Date/Time: 12/19/2013 10:32 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2340C	460-68764-E-5 DU		460-201028		01/02/2014 12:00	1	TAL EDI	IAA

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
A:300.0	MB 480-159515/4		480-159515		12/26/2013 18:03	1	TAL BUF	KAC
A:300.0	MB 480-159518/28		480-159518		12/26/2013 22:06	1	TAL BUF	KAC
A:353.2	MB 460-199259/9		460-199259		12/21/2013 07:51	1	TAL EDI	MAL
P:SM 4500 NH3 B	MB 460-200972/1-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	MB 460-200972/1-A		460-201012	460-200972	01/02/2014 11:14	1	TAL EDI	MAL
A:SM 2320B	MB 460-201106/2		460-201106		01/02/2014 16:23	1	TAL EDI	MCC
A:SM 2340C	MB 460-201028/1		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	MB 460-199952/1		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	MB 460-201069/2		460-201069		01/02/2014 15:07	1	TAL EDI	YAH
A:SM 4500 P E	MB 460-199287/3		460-199287		12/21/2013 09:00	1	TAL EDI	RAK
A:SM 5310B	MB 460-200410/3		460-200410		12/27/2013 15:15	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68764-1

Laboratory Chronicle

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
A:300.0	LCS 480-159515/3		480-159515		12/26/2013 17:53	1	TAL BUF	KAC
A:300.0	LCS 480-159518/27		480-159518		12/26/2013 21:56	1	TAL BUF	KAC
P:SM 4500 NH3 B	LCS 460-200972/2-A		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	LCS 460-200972/2-A		460-201012	460-200972	01/02/2014 11:16	1	TAL EDI	MAL

Lab ID: **LCSSRM** **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:353.2	LCSSRM 460-199259/11		460-199259		12/21/2013 07:54	1	TAL EDI	MAL
A:SM 2320B	LCSSRM 460-201106/3		460-201106		01/02/2014 16:29	1	TAL EDI	MCC
A:SM 2340C	LCSSRM 460-201028/2		460-201028		01/02/2014 12:00	1	TAL EDI	IAA
A:SM 2540D	LCSSRM 460-199952/3		460-199952		12/26/2013 07:57	1	TAL EDI	PLS
A:SM 4500 H+ B	LCSSRM 460-201069/3		460-201069		01/02/2014 15:09	1	TAL EDI	YAH
A:SM 4500 P E	LCSSRM 460-199287/4		460-199287		12/21/2013 09:00	25	TAL EDI	RAK
A:SM 5310B	LCSSRM 460-200410/4		460-200410		12/27/2013 15:35	1	TAL EDI	HTV

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

Sample Date/Time: 12/19/2013 11:21 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:353.2	460-68760-D-1 MS		460-199259		12/21/2013 08:03	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68228-G-1-B MS		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68228-G-1-B MS		460-201012	460-200972	01/02/2014 11:19	1	TAL EDI	MAL

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

Sample Date/Time: 12/19/2013 11:21 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:353.2	460-68760-D-1 MSD		460-199259		12/21/2013 08:04	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68228-G-1-C MSD		460-201012	460-200972	01/02/2014 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68228-G-1-C MSD		460-201012	460-200972	01/02/2014 11:20	1	TAL EDI	MAL

Client: Integral Consulting Inc

Job Number: 460-68764-1

Laboratory Chronicle

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

Sample Date/Time: 12/19/2013 11:21 Received Date/Time: 12/20/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2320B	460-68760-F-1 DU		460-201106		01/02/2014 17:01	1	TAL EDI	MCC
A:SM 4500 H+ B	460-68717-A-1 DU		460-201069		01/02/2014 15:15	1	TAL EDI	YAH

Lab References:

TAL BUF = TestAmerica Buffalo

TAL EDI = TestAmerica Edison

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG No.:

Project: NJ Site

Client Sample ID	Lab Sample ID
GW0028	460-68764-1
GW0029	460-68764-2
GW0030	460-68764-3
GW0031	460-68764-4
GW0032	460-68764-5

Comments:

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GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68764-1

SDG No.:

Project: NJ Site

Client Sample ID	Lab Sample ID
GW0028	460-68764-1
GW0029	460-68764-2
GW0030	460-68764-3
GW0031	460-68764-4
GW0032	460-68764-5

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0028 | Lab Sample ID: 460-68764-1

Lab Name: TestAmerica Edison | Job No.: 460-68764-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 09:08

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	78.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	105	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	105	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.0	1.0	mg/L			1	SM 2540D
	Orthophosphate as P	0.14	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.5	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.080	0.10	0.080	mg/L	U		1	4500 NH3 H
	pH	7.87			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0029 | Lab Sample ID: 460-68764-2

Lab Name: TestAmerica Edison | Job No.: 460-68764-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 09:11

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	72.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	101	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	101	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.2	1.1	1.1	mg/L			1	SM 2540D
	Orthophosphate as P	0.14	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.5	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.080	0.10	0.080	mg/L	U		1	4500 NH3 H
	pH	7.88			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0030 | Lab Sample ID: 460-68764-3

Lab Name: TestAmerica Edison | Job No.: 460-68764-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 09:20

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	70.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	101	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	101	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.1	1.1	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.14	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.4	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.30	0.10	0.080	mg/L			1	4500 NH3 H
	pH	8.07			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0031 | Lab Sample ID: 460-68764-4

Lab Name: TestAmerica Edison | Job No.: 460-68764-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 09:30

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	64.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	97.7	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	97.7	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.1	1.1	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.14	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.4	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.33	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.96			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0032 | Lab Sample ID: 460-68764-5

Lab Name: TestAmerica Edison | Job No.: 460-68764-1

SDG ID.:

Matrix: Water | Date Sampled: 12/19/2013 10:32

Reporting Basis: WET | Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	0.047	0.10	0.047	mg/L	U		1	353.2
	Hardness as calcium carbonate	52.0	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	81.3	5.0	5.0	mg/L			1	SM 2320B
	Carbonate Alkalinity as CaCO3	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Alkalinity	81.3	5.0	5.0	mg/L			1	SM 2320B
	Hydroxide Alkalinity	5.0	5.0	5.0	mg/L	U		1	SM 2320B
	Total Suspended Solids	1.1	1.1	1.1	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.32	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	0.74	1.0	0.30	mg/L	J		1	SM 5310B
7664-41-7	Ammonia (as N)	0.21	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.93			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0028
Lab Sample ID: 460-68764-1
Lab Name: TestAmerica Buffalo
Job No.: 460-68764-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 09:08
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	38.5	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.54	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	22.3	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0029
Lab Sample ID: 460-68764-2
Lab Name: TestAmerica Buffalo
Job No.: 460-68764-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 09:11
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	38.8	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.54	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	22.4	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0030
Lab Sample ID: 460-68764-3
Lab Name: TestAmerica Buffalo
Job No.: 460-68764-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 09:20
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	34.5	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.58	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	22.5	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0031
Lab Sample ID: 460-68764-4
Lab Name: TestAmerica Buffalo
Job No.: 460-68764-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 09:30
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	34.6	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.58	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	22.7	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0032
Lab Sample ID: 460-68764-5
Lab Name: TestAmerica Buffalo
Job No.: 460-68764-1
SDG ID.:
Matrix: Water
Date Sampled: 12/19/2013 10:32
Reporting Basis: WET
Date Received: 12/20/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
24959-67-9	Bromide	0.073	0.20	0.073	mg/L	U		1	300.0
16887-00-6	Chloride	14.7	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.58	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	33.3	2.0	0.35	mg/L			1	300.0

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Analyst: MAL Batch Start Date: 12/21/2013

Reporting Units: mg/L Analytical Batch No.: 199259

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	07:48	Nitrate Nitrite as N	0.989	1.00	99	90-110		WTno3+2IM2_00243
8	ICB	07:50	Nitrate Nitrite as N	0.047				U	
19	CCV	08:06	Nitrate Nitrite as N	0.959	1.00	96	90-110		WTno3+2IM2_00243
20	CCB	08:07	Nitrate Nitrite as N	0.047				U	
31	CCV	08:23	Nitrate Nitrite as N	0.979	1.00	98	90-110		WTno3+2IM2_00243
32	CCB	08:25	Nitrate Nitrite as N	0.047				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 Edison Job No.: 460-68764-1

SDG No.:

Analyst: RAK Batch Start Date: 12/21/2013

Reporting Units: mg/L Analytical Batch No.: 199287

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:00	Orthophosphate as P	0.203	0.200	101	90-110		WTphosSS1_00018
2	ICB	09:00	Orthophosphate as P	0.010				U	
13	CCV	09:00	Orthophosphate as P	0.201	0.200	101	90-110		WTphosSS1_00018
14	CCB	10:05	Orthophosphate as P	0.010				U	
25	CCV	10:05	Orthophosphate as P	0.201	0.200	101	90-110		WTphosSS1_00018
26	CCB	10:05	Orthophosphate as P	0.010				U	
28	CCV	10:05	Orthophosphate as P	0.201	0.200	101	90-110		WTphosSS1_00018
29	CCB	10:05	Orthophosphate as P	0.010				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 Edison Job No.: 460-68764-1

SDG No.:

Analyst: HTV Batch Start Date: 12/27/2013

Reporting Units: mg/L Analytical Batch No.: 200410

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	14:27	Total Organic Carbon	51.21	50.0	102	90-110		WTtocSP2_00019
2	ICB	14:56	Total Organic Carbon	0.30				U	
13	CCV	19:30	Total Organic Carbon	49.45	50.0	99	90-110		WTtocSP2_00019
14	CCB	19:50	Total Organic Carbon	0.30				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 Edison Job No.: 460-68764-1

SDG No.:

Analyst: MAL Batch Start Date: 01/02/2014

Reporting Units: mg/L Analytical Batch No.: 201012

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	11:12	Ammonia (as N)	2.00	2.00	100	90-110		WTamnSS1_00007
8	ICB	11:13	Ammonia (as N)	0.080				U	
17	CCV	11:26	Ammonia (as N)	2.05	2.00	103	90-110		WTamnSS1_00007
18	CCB	11:28	Ammonia (as N)	0.080				U	
29	CCV	11:45	Ammonia (as N)	2.05	2.00	103	90-110		WTamnSS1_00007
30	CCB	11:47	Ammonia (as N)	0.080				U	
33	CCV	11:52	Ammonia (as N)	2.07	2.00	103	90-110		WTamnSS1_00007
34	CCB	11:54	Ammonia (as N)	0.080				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 Edison Job No.: 460-68764-1

SDG No.:

Analyst: YAH Batch Start Date: 01/02/2014

Reporting Units: SU Analytical Batch No.: 201069

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	15:05	pH	7.030	7.00	100	99-101		WTpHCCV_00020
11	CCV	15:28	pH	7.000	7.00	100	99-101		WTpHCCV_00020
21	CCV	15:48	pH	7.000	7.00	100	99-101		WTpHCCV_00020
26	CCV	16:00	pH	7.000	7.00	100	99-101		WTpHCCV_00020

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 Buffalo Job No.: 460-68764-1

SDG No.:

Analyst: KAC Batch Start Date: 12/26/2013

Reporting Units: mg/L Analytical Batch No.: 159515

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:33	Bromide	1.94	2.00	97	90-110		IC_ANION_LCS__00024
			Chloride	20.35	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.06	2.00	103	90-110		IC_ANION_LCS__00024
			Sulfate	20.36	20.0	102	90-110		IC_ANION_LCS__00024
2	CCB	17:43	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
13	CCV	19:34	Bromide	1.91	2.00	96	90-110		IC_ANION_LCS__00024
			Chloride	20.41	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.09	2.00	105	90-110		IC_ANION_LCS__00024
			Sulfate	20.36	20.0	102	90-110		IC_ANION_LCS__00024
14	CCB	19:44	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
25	CCV	21:36	Bromide	1.92	2.00	96	90-110		IC_ANION_LCS__00024
			Chloride	20.50	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.11	2.00	105	90-110		IC_ANION_LCS__00024
			Sulfate	20.46	20.0	102	90-110		IC_ANION_LCS__00024
26	CCB	21:46	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				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 Buffalo Job No.: 460-68764-1

SDG No.:

Analyst: KAC Batch Start Date: 12/26/2013

Reporting Units: mg/L Analytical Batch No.: 159518

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
25	CCV	21:36	Bromide	1.92	2.00	96	90-110		IC_ANION_LCS__00024
			Chloride	20.50	20.0	102	90-110		IC_ANION_LCS__00024
			Fluoride	2.11	2.00	105	90-110		IC_ANION_LCS__00024
			Sulfate	20.46	20.0	102	90-110		IC_ANION_LCS__00024
26	CCB	21:46	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
37	CCV	23:38	Bromide	1.93	2.00	96	90-110		IC_ANION_LCS__00024
			Chloride	20.64	20.0	103	90-110		IC_ANION_LCS__00024
			Fluoride	2.11	2.00	105	90-110		IC_ANION_LCS__00024
			Sulfate	20.63	20.0	103	90-110		IC_ANION_LCS__00024
38	CCB	23:48	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	

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 Edison Job No.: 460-68764-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 199259 Date: 12/21/2013 07:51							
353.2	MB 460-199259/9	Nitrate as N	0.047	U	mg/L	0.10	1
353.2	MB 460-199259/9	Nitrate Nitrite as N	0.047	U	mg/L	0.10	1
353.2	MB 460-199259/9	Nitrite as N	0.0041	U	mg/L	0.10	1
Batch ID: 201012 Date: 01/02/2014 11:14 Prep Batch: 200972 Date: 01/02/2014 06:30							
4500 NH3 H	MB 460-200972/1-A	Ammonia (as N)	0.080	U	mg/L	0.10	1
Batch ID: 201106 Date: 01/02/2014 16:23							
SM 2320B	MB 460-201106/2	Bicarbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-201106/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-201106/2	Alkalinity	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-201106/2	Hydroxide Alkalinity	5.0	U	mg/L	5.0	1
Batch ID: 201028 Date: 01/02/2014 12:00							
SM 2340C	MB 460-201028/1	Hardness as calcium carbonate	1.6	U	mg/L	5.0	1
Batch ID: 199952 Date: 12/26/2013 07:57							
SM 2540D	MB 460-199952/1	Total Suspended Solids	1.0	U	mg/L	1.0	1
Batch ID: 201069 Date: 01/02/2014 15:07							
SM 4500 H+ B	MB 460-201069/2	pH	6.050		SU		1
Batch ID: 199287 Date: 12/21/2013 09:00							
SM 4500 P E	MB 460-199287/3	Orthophosphate as P	0.010	U	mg/L	0.030	1
Batch ID: 200410 Date: 12/27/2013 15:15							
SM 5310B	MB 460-200410/3	Total Organic Carbon	0.30	U	mg/L	1.0	1

FORM III-IN

3-IN
METHOD BLANK
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 159515 Date: 12/26/2013 18:03							
300.0	MB 480-159515/4	Bromide	0.073	U	mg/L	0.20	1
300.0	MB 480-159515/4	Chloride	0.28	U	mg/L	0.50	1
300.0	MB 480-159515/4	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-159515/4	Sulfate	0.35	U	mg/L	2.0	1
Batch ID: 159518 Date: 12/26/2013 22:06							
300.0	MB 480-159518/28	Bromide	0.073	U	mg/L	0.20	1
300.0	MB 480-159518/28	Chloride	0.28	U	mg/L	0.50	1
300.0	MB 480-159518/28	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-159518/28	Sulfate	0.35	U	mg/L	2.0	1

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199259	Date: 12/21/2013 08:03										
353.2	460-68760-D-1	Nitrate as N	0.32		mg/L						
353.2	460-68760-D-1 MS	Nitrate as N	0.831		mg/L	0.500	102	67-130			
353.2	460-68760-D-1	Nitrate Nitrite as N	0.32		mg/L						
353.2	460-68760-D-1 MS	Nitrate Nitrite as N	1.33		mg/L	1.00	101	66-124			
353.2	460-68760-D-1	Nitrite as N	0.0041	U	mg/L						
353.2	460-68760-D-1 MS	Nitrite as N	0.500		mg/L	0.500	100	84-109			
Batch ID: 201012	Date: 01/02/2014 11:19	Prep Batch: 200972	Date: 01/02/2014 06:30								
4500 NH3 H	460-68228-G-1 -B	Ammonia (as N)	0.080	U	mg/L						
4500 NH3 H	460-68228-G-1 -B MS	Ammonia (as N)	0.721		mg/L	1.00	72	60-147			
Batch ID: 199287	Date: 12/21/2013 10:05										
SM 4500 P E	460-68764-3	Orthophosphate as P	0.14		mg/L						
SM 4500 P E	460-68764-3 MS	Orthophosphate as P	0.337		mg/L	0.200	99	82-118			
Batch ID: 200410	Date: 12/27/2013 17:12										
SM 5310B	460-68764-1	Total Organic Carbon	1.5		mg/L						
SM 5310B	460-68764-1 MS	Total Organic Carbon	51.58		mg/L	50.0	100	80-120			

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199259	Date: 12/21/2013 08:04										
353.2	460-68760-D-1 MSD	Nitrate as N	0.840		mg/L	0.500	103	67-130	1	34	
353.2	460-68760-D-1 MSD	Nitrate Nitrite as N	1.33		mg/L	1.00	101	66-124	0	19	
353.2	460-68760-D-1 MSD	Nitrite as N	0.495		mg/L	0.500	99	84-109	1	10	
Batch ID: 201012	Date: 01/02/2014 11:20	Prep Batch: 200972	Date: 01/02/2014 06:30								
4500 NH3 H	460-68228-G-1 -C MSD	Ammonia (as N)	0.710		mg/L	1.00	71	60-147	2	16	
Batch ID: 199287	Date: 12/21/2013 10:05										
SM 4500 P E	460-68764-3 MSD	Orthophosphate as P	0.342		mg/L	0.200	101	82-118	1	10	
Batch ID: 200410	Date: 12/27/2013 17:32										
SM 5310B	460-68764-1 MSD	Total Organic Carbon	51.66		mg/L	50.0	100	80-120	0	10	

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

FORM V-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 159515	Date: 12/26/2013 21:16										
300.0	460-68764-3	Bromide	0.073	U	mg/L						
300.0	460-68764-3 MS	Bromide	2.50		mg/L	2.50	100	90-110			
300.0	460-68764-3	Chloride	34.5		mg/L						
300.0	460-68764-3 MS	Chloride	58.89		mg/L	25.0	97	90-110			
300.0	460-68764-3	Fluoride	0.58		mg/L						
300.0	460-68764-3 MS	Fluoride	3.08		mg/L	2.50	100	90-110			
300.0	460-68764-3	Sulfate	22.5		mg/L						
300.0	460-68764-3 MS	Sulfate	47.15		mg/L	25.0	98	90-110			

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

FORM V-IN

5-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 159515	Date: 12/26/2013 21:26										
300.0	460-68764-3 MSD	Bromide	2.52		mg/L	2.50	101	90-110	1	20	
300.0	460-68764-3 MSD	Chloride	59.00		mg/L	25.0	98	90-110	0	20	
300.0	460-68764-3 MSD	Fluoride	3.08		mg/L	2.50	100	90-110	0	20	
300.0	460-68764-3 MSD	Sulfate	47.23		mg/L	25.0	99	90-110	0	20	

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

FORM V-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 201106	Date: 01/02/2014 17:01							
SM 2320B		460-68760-F-1	Bicarbonate Alkalinity as CaCO3	90.8	mg/L			
SM 2320B		460-68760-F-1 DU	Bicarbonate Alkalinity as CaCO3	88.48	mg/L	3	27	
SM 2320B		460-68760-F-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B		460-68760-F-1 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	27	U
SM 2320B		460-68760-F-1	Alkalinity	90.8	mg/L			
SM 2320B		460-68760-F-1 DU	Alkalinity	88.48	mg/L	3	27	
SM 2320B		460-68760-F-1	Hydroxide Alkalinity	5.0	mg/L			U
SM 2320B		460-68760-F-1 DU	Hydroxide Alkalinity	5.0	mg/L	NC	27	U
Batch ID: 201028	Date: 01/02/2014 12:00							
SM 2340C	GW0032	460-68764-5	Hardness as calcium carbonate	52.0	mg/L			
SM 2340C	GW0032	460-68764-5 DU	Hardness as calcium carbonate	52.00	mg/L	0	10	
Batch ID: 201069	Date: 01/02/2014 15:15							
SM 4500 H+ B		460-68717-A-1	pH	7.70	SU			
SM 4500 H+ B		460-68717-A-1 DU	pH	7.690	SU	0.1	10	

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

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 201012	Date: 01/02/2014 11:16		Prep Batch: 200972			Date: 01/02/2014 06:30					
						LCS Source: WTamnIM1_00035					
4500 NH3 H	LCS 460-200972/2-A	Ammonia (as N)	1.10		mg/L	1.00	110	85-117			

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

FORM VIIA-IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199259		Date: 12/21/2013 07:54									
						LCS Source:		WTno3LCS_00014			
353.2	LCSSRM 460-199259/11	Nitrate as N	1.51		mg/L	1.51	99.8	87.4-11 2.6			
353.2	LCSSRM 460-199259/11	Nitrate Nitrite as N	1.51		mg/L	1.51	99.8	85.4-10 9.9			
Batch ID: 201106		Date: 01/02/2014 16:29									
						LCS Source:		WTalkLCS_00095			
SM 2320B	LCSSRM 460-201106/3	Alkalinity	69.80		mg/L	69.4	100.6	91.1-11 0.1			
Batch ID: 201028		Date: 01/02/2014 12:00									
						LCS Source:		WThardLCS0001_00013			
SM 2340C	LCSSRM 460-201028/2	Hardness as calcium carbonate	78.00		mg/L	77.7	100.4	91.4-10 9.0			
Batch ID: 199952		Date: 12/26/2013 07:57									
						LCS Source:		WTtssLCS_00045			
SM 2540D	LCSSRM 460-199952/3	Total Suspended Solids	68.00		mg/L	75.5	90.1	82.6-10 7.9			
Batch ID: 201069		Date: 01/02/2014 15:09									
						LCS Source:		WTpHLCS_00015			
SM 4500 H+ B	LCSSRM 460-201069/3	pH	7.020		SU	7.03	99.9	98.0-10 2.0			
Batch ID: 199287		Date: 12/21/2013 09:00									
						LCS Source:		WTophosLCS_00004			
SM 4500 P E	LCSSRM 460-199287/4	Orthophosphate as P	5.76		mg/L	5.34	107.8	86.1-10 9.0			
Batch ID: 200410		Date: 12/27/2013 15:35									
						LCS Source:		WTtocLCS_00022			
SM 5310B	LCSSRM 460-200410/4	Total Organic Carbon	72.28		mg/L	72.0	100.4	86.9-11 3.1			

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

FORM VIIA-IN

7A-IN
LAB CONTROL SAMPLE
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 159515	Date: 12/26/2013 17:53										
						LCS Source:	IC_ANION_LCS__00024				
300.0	LCS 480-159515/3	Bromide	1.91		mg/L	2.00	96	90-110			
300.0	LCS 480-159515/3	Chloride	20.40		mg/L	20.0	102	90-110			
300.0	LCS 480-159515/3	Fluoride	2.09		mg/L	2.00	105	90-110			
300.0	LCS 480-159515/3	Sulfate	20.44		mg/L	20.0	102	90-110			
Batch ID: 159518	Date: 12/26/2013 21:56										
						LCS Source:	IC_ANION_LCS__00024				
300.0	LCS 480-159518/27	Bromide	1.92		mg/L	2.00	96	90-110			
300.0	LCS 480-159518/27	Chloride	20.49		mg/L	20.0	102	90-110			
300.0	LCS 480-159518/27	Fluoride	2.10		mg/L	2.00	105	90-110			
300.0	LCS 480-159518/27	Sulfate	20.52		mg/L	20.0	103	90-110			

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 Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: Lachat1

Method: 353.2 MDL Date: 04/22/2013 11:28

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Nitrate Nitrite as N		0.1	0.0474

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: Lachat1

Method: 353.2 XMDL Date: 04/22/2013 11:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Nitrate Nitrite as N		0.1	0.0474

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C MDL Date: 12/12/2012 12:42

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Hardness as calcium carbonate		5	1.62

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2340C XMDL Date: 12/12/2012 12:43

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Hardness as calcium carbonate		5	1.62

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: Auto_Titrator

Method: SM 2320B MDL Date: 01/03/2013 12:46

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Alkalinity		5	3.54
Bicarbonate Alkalinity as CaCO3		5	3.54
Carbonate Alkalinity as CaCO3		5	3.54
Hydroxide Alkalinity		5	3.54

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: Auto_Titrator

Method: SM 2320B XMDL Date: 01/03/2013 12:46

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Alkalinity		5	3.54
Bicarbonate Alkalinity as CaCO3		5	3.54
Carbonate Alkalinity as CaCO3		5	3.54
Hydroxide Alkalinity		5	3.54

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540D MDL Date: 11/21/2012 16:34

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Suspended Solids		10	2.57

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 2540D XMDL Date: 11/21/2012 16:34

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Suspended Solids		10	2.57

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: WetPhosSpec

Method: SM 4500 P E MDL Date: 01/04/2013 09:20

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Orthophosphate as P		0.03	0.01

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: WetPhosSpec

Method: SM 4500 P E XMDL Date: 01/04/2013 09:21

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Orthophosphate as P		0.03	0.01

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: TOC_Shimadzu

Method: SM 5310B MDL Date: 10/16/2012 11:56

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Total Organic Carbon		1	0.296

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: TOC_Shimadzu

Method: SM 5310B XMDL Date: 10/16/2012 11:57

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Total Organic Carbon		1	0.296

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: Lachat2

Method: 4500 NH3 H MDL Date: 02/07/2013 21:40

Prep Method: SM 4500 NH3 B

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Ammonia (as N)		0.1	0.08

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: Lachat2

Method: 4500 NH3 H XMDL Date: 02/07/2013 21:40

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Ammonia (as N)		0.1	0.08

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: NOEQUIP

Method: SM 4500 H+ B RL Date: 01/01/2007 10:02

Analyte	Wavelength/ Mass	RL (SU)	
pH		0.1	

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: IC-1

Method: 300.0 MDL Date: 02/09/2012 15:09

Analyte	Wavelength/ Mass	RL (mg/L)	MDL (mg/L)
Bromide		0.2	0.073
Chloride		0.5	0.282
Fluoride		0.05	0.006
Sulfate		2	0.349

9-IN
CALIBRATION BLANK DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68764-1

SDG Number:

Matrix: Water Instrument ID: IC-1

Method: 300.0 XMDL Date: 02/09/2012 15:10

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Bromide		0.2	0.073
Chloride		0.5	0.282
Fluoride		0.05	0.006
Sulfate		2	0.349

12-IN
PREPARATION LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Prep Method: SM 4500 NH3 B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 460-200972/1-A	01/02/2014 06:30	200972		50.0	50.0
LCS 460-200972/2-A	01/02/2014 06:30	200972		50.0	50.0
460-68228-G-1-B MS	01/02/2014 06:30	200972		50.0	50.0
460-68228-G-1-C MSD	01/02/2014 06:30	200972		50.0	50.0
460-68764-1	01/02/2014 06:30	200972		50.0	50.0
460-68764-2	01/02/2014 06:30	200972		50.0	50.0
460-68764-3	01/02/2014 06:30	200972		50.0	50.0
460-68764-4	01/02/2014 06:30	200972		50.0	50.0
460-68764-5	01/02/2014 06:30	200972		50.0	50.0

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/21/2013 07:39 End Date: 12/21/2013 09:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3																	
ZZZZZZ			07:39																				
ZZZZZZ			07:40																				
ZZZZZZ			07:42																				
ZZZZZZ			07:43																				
ZZZZZZ			07:45																				
ZZZZZZ			07:46																				
ICV 460-199259/7	1		07:48	X	X	X																	
ICB 460-199259/8	1		07:50		X																		
MB 460-199259/9	1	T	07:51		X																		
ZZZZZZ			07:53																				
LCSSRM 460-199259/11	1	T	07:54		X	X																	
ZZZZZZ			07:56																				
ZZZZZZ			07:57																				
ZZZZZZ			07:58																				
ZZZZZZ			08:00																				
ZZZZZZ			08:01																				
460-68760-D-1 MS	1	T	08:03	X	X	X																	
460-68760-D-1 MSD	1	T	08:04	X	X	X																	
CCV 460-199259/19	1		08:06	X	X	X																	
CCB 460-199259/20	1		08:07		X																		
ZZZZZZ			08:09																				
ZZZZZZ			08:10																				
460-68764-1	1	T	08:12		X																		
460-68764-2	1	T	08:13		X																		
460-68764-3	1	T	08:14		X																		
460-68764-4	1	T	08:16		X																		
460-68764-5	1	T	08:17		X																		
ZZZZZZ			08:19																				
ZZZZZZ			08:20																				
ZZZZZZ			08:22																				
CCV 460-199259/31	1		08:23	X	X	X																	
CCB 460-199259/32	1		08:25		X																		
ZZZZZZ			08:26																				
ZZZZZZ			08:28																				
ZZZZZZ			08:29																				
ZZZZZZ			08:30																				
ZZZZZZ			08:32																				
ZZZZZZ			08:33																				
ZZZZZZ			08:35																				
ZZZZZZ			08:36																				
ZZZZZZ			08:38																				
ZZZZZZ			08:39																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/21/2013 07:39 End Date: 12/21/2013 09:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3																	
CCV 460-199259/43			08:41																				
CCB 460-199259/44			08:42																				
ZZZZZZ			08:44																				
ZZZZZZ			08:45																				
ZZZZZZ			08:47																				
ZZZZZZ			08:48																				
ZZZZZZ			08:49																				
ZZZZZZ			08:51																				
ZZZZZZ			08:52																				
ZZZZZZ			08:54																				
ZZZZZZ			08:55																				
ZZZZZZ			08:57																				
CCV 460-199259/55			08:58																				
CCB 460-199259/56			09:00																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2340C

Start Date: 01/02/2014 12:00 End Date: 01/02/2014 12:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				HardCC																			
MB 460-201028/1	1	T	12:00	X																			
LCSSRM 460-201028/2	1	T	12:00	X																			
460-68764-5	1	T	12:00	X																			
460-68764-5 DU	1	T	12:00	X																			
460-68764-1	1	T	12:00	X																			
460-68764-2	1	T	12:00	X																			
460-68764-3	1	T	12:00	X																			
460-68764-4	1	T	12:00	X																			
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
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ZZZZZZ			12:00																				
ZZZZZZ			12:00																				
ZZZZZZ			12:00																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: Auto_Titrator Method: SM 2320B

Start Date: 01/02/2014 16:16 End Date: 01/02/2014 21:27

Lab Sample ID	D/F	Type	Time	Analytes																			
				Alk	BALKCC	CarAlk	OHAlk																
RINSE 460-201106/1			16:16																				
MB 460-201106/2	1	T	16:23	X	X	X	X																
LCSSRM 460-201106/3	1	T	16:29	X																			
ZZZZZZ			16:54																				
460-68760-F-1 DU	1	T	17:01	X	X	X	X																
ZZZZZZ			17:08																				
ZZZZZZ			17:15																				
ZZZZZZ			17:22																				
ZZZZZZ			17:29																				
ZZZZZZ			17:36																				
ZZZZZZ			17:43																				
460-68764-1	1	T	17:49	X	X	X	X																
460-68764-2	1	T	17:57	X	X	X	X																
460-68764-3	1	T	18:04	X	X	X	X																
460-68764-4	1	T	18:11	X	X	X	X																
460-68764-5	1	T	18:18	X	X	X	X																
ZZZZZZ			18:25																				
ZZZZZZ			18:32																				
ZZZZZZ			18:39																				
ZZZZZZ			18:46																				
ZZZZZZ			18:53																				
ZZZZZZ			19:00																				
ZZZZZZ			19:06																				
ZZZZZZ			19:13																				
ZZZZZZ			19:20																				
ZZZZZZ			19:26																				
ZZZZZZ			19:32																				
ZZZZZZ			19:39																				
ZZZZZZ			19:46																				
ZZZZZZ			19:53																				
ZZZZZZ			19:59																				
ZZZZZZ			20:06																				
ZZZZZZ			20:12																				
ZZZZZZ			20:18																				
ZZZZZZ			20:25																				
ZZZZZZ			20:31																				
ZZZZZZ			20:38																				
ZZZZZZ			20:44																				
ZZZZZZ			20:52																				
ZZZZZZ			20:58																				
ZZZZZZ			21:06																				
ZZZZZZ			21:13																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: Auto_Titrator Method: SM 2320B

Start Date: 01/02/2014 16:16 End Date: 01/02/2014 21:27

Lab Sample ID	D/F	Type	Time	Analytes																			
				Alk	BALKCC	CarAlk	OHAlk																
ZZZZZZ			21:20																				
ZZZZZZ			21:27																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2540D

Start Date: 12/26/2013 07:57 End Date: 12/26/2013 07:57

Lab Sample ID	D/F	Type	Time	Analytes																			
				TSS																			
MB 460-199952/1	1	T	07:57	X																			
ZZZZZZ			07:57																				
LCSSRM 460-199952/3	1	T	07:57	X																			
ZZZZZZ			07:57																				
460-68764-1	1	T	07:57	X																			
460-68764-2	1	T	07:57	X																			
460-68764-3	1	T	07:57	X																			
460-68764-4	1	T	07:57	X																			
460-68764-5	1	T	07:57	X																			
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				
ZZZZZZ			07:57																				

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: WetPhosSpec Method: SM 4500 P E

Start Date: 12/21/2013 09:00 End Date: 12/21/2013 10:05

Lab Sample ID	D/F	Type	Time	Analytes																			
				Orthop																			
ICV 460-199287/1	1		09:00	X																			
ICB 460-199287/2	1		09:00	X																			
MB 460-199287/3	1	T	09:00	X																			
LCSSRM 460-199287/4	25	T	09:00	X																			
460-68764-1	1	T	09:00	X																			
460-68764-2	1	T	09:00	X																			
460-68764-3	1	T	09:00	X																			
460-68764-4	1	T	09:00	X																			
ZZZZZZ			09:00																				
ZZZZZZ			09:00																				
460-68764-5	1	T	09:00	X																			
ZZZZZZ			09:00																				
CCV 460-199287/13	1		09:00	X																			
CCB 460-199287/14	1		10:05	X																			
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
ZZZZZZ			10:05																				
460-68764-3 MS	1	T	10:05	X																			
CCV 460-199287/25	1		10:05	X																			
CCB 460-199287/26	1		10:05	X																			
460-68764-3 MSD	1	T	10:05	X																			
CCV 460-199287/28	1		10:05	X																			
CCB 460-199287/29	1		10:05	X																			
ZZZZZZ			10:05																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: TOC_Shimadzu Method: SM 5310B

Start Date: 12/27/2013 14:27 End Date: 12/28/2013 06:45

Lab Sample ID	D/F	Type	Time	Analytes																			
				TOC																			
ICV 460-200410/1	1		14:27	X																			
ICB 460-200410/2	1		14:56	X																			
MB 460-200410/3	1	T	15:15	X																			
LCSSRM 460-200410/4	1	T	15:35	X																			
460-68764-1	1	T	16:52	X																			
460-68764-1 MS	1	T	17:12	X																			
460-68764-1 MSD	1	T	17:32	X																			
460-68764-2	1	T	17:53	X																			
460-68764-3	1	T	18:12	X																			
460-68764-4	1	T	18:31	X																			
460-68764-5	1	T	18:51	X																			
ZZZZZZ			19:10																				
CCV 460-200410/13	1		19:30	X																			
CCB 460-200410/14	1		19:50	X																			
ZZZZZZ			20:09																				
ZZZZZZ			20:51																				
ZZZZZZ			21:21																				
ZZZZZZ			21:41																				
ZZZZZZ			22:00																				
ZZZZZZ			22:19																				
ZZZZZZ			22:39																				
ZZZZZZ			22:58																				
ZZZZZZ			23:18																				
ZZZZZZ			23:38																				
CCV 460-200410/25			23:58																				
CCB 460-200410/26			00:18																				
ZZZZZZ			00:38																				
ZZZZZZ			00:57																				
ZZZZZZ			01:16																				
ZZZZZZ			01:36																				
CCV 460-200410/31			01:56																				
CCB 460-200410/32			02:16																				
CCV 460-200410/33			05:06																				
CCB 460-200410/34			05:26																				
ZZZZZZ			05:45																				
ZZZZZZ			06:05																				
CCV 460-200410/37			06:25																				
CCB 460-200410/38			06:45																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: Lachat2 Method: 4500 NH3 H

Start Date: 01/02/2014 11:01 End Date: 01/02/2014 11:54

Lab Sample ID	D/F	Type	Time	Analytes																			
				NH3																			
ICV 460-201012/7	1		11:12	X																			
ICB 460-201012/8	1		11:13	X																			
MB 460-200972/1-A	1	T	11:14	X																			
LCS 460-200972/2-A	1	T	11:16	X																			
460-68228-G-1-B MS	1	T	11:19	X																			
460-68228-G-1-C MSD	1	T	11:20	X																			
CCV 460-201012/17	1		11:26	X																			
CCB 460-201012/18	1		11:28	X																			
460-68764-1	1	T	11:41	X																			
460-68764-2	1	T	11:42	X																			
460-68764-3	1	T	11:44	X																			
CCV 460-201012/29	1		11:45	X																			
CCB 460-201012/30	1		11:47	X																			
460-68764-4	1	T	11:49	X																			
460-68764-5	1	T	11:51	X																			
CCV 460-201012/33	1		11:52	X																			
CCB 460-201012/34	1		11:54	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 4500 H+ B

Start Date: 01/02/2014 15:05 End Date: 01/02/2014 16:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				pH																			
CCV 460-201069/1	1		15:05	X																			
MB 460-201069/2	1	T	15:07	X																			
LCSSRM 460-201069/3	1	T	15:09	X																			
460-68717-A-1 DU	1	T	15:15	X																			
CCV 460-201069/11	1		15:28	X																			
460-68764-1	1	T	15:39	X																			
460-68764-2	1	T	15:40	X																			
460-68764-3	1	T	15:42	X																			
460-68764-4	1	T	15:44	X																			
460-68764-5	1	T	15:46	X																			
CCV 460-201069/21	1		15:48	X																			
CCV 460-201069/26	1		16:00	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Instrument ID: IC-1 Method: 300.0

Start Date: 12/26/2013 17:33 End Date: 12/26/2013 21:46

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-159515/1	1		17:33	X	X	X	X																
CCB 480-159515/2	1		17:43	X	X	X	X																
LCS 480-159515/3	1	T	17:53	X	X	X	X																
MB 480-159515/4	1	T	18:03	X	X	X	X																
ZZZZZZ			18:13																				
ZZZZZZ			18:23																				
ZZZZZZ			18:34																				
ZZZZZZ			18:44																				
ZZZZZZ			18:54																				
ZZZZZZ			19:04																				
ZZZZZZ			19:14																				
ZZZZZZ			19:24																				
CCV 480-159515/13	1		19:34	X	X	X	X																
CCB 480-159515/14	1		19:44	X	X	X	X																
ZZZZZZ			19:55																				
ZZZZZZ			20:05																				
ZZZZZZ			20:15																				
ZZZZZZ			20:25																				
ZZZZZZ			20:35																				
460-68764-1	1	T	20:45	X	X	X	X																
460-68764-2	1	T	20:55	X	X	X	X																
460-68764-3	1	T	21:06	X	X	X	X																
460-68764-3 MS	1	T	21:16	X	X	X	X																
460-68764-3 MSD	1	T	21:26	X	X	X	X																
CCV 480-159515/25	1		21:36	X	X	X	X																
CCB 480-159515/26	1		21:46	X	X	X	X																

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Instrument ID: IC-1 Method: 300.0

Start Date: 12/26/2013 21:36 End Date: 12/27/2013 01:29

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-159518/25	1		21:36	X	X	X	X																
CCB 480-159518/26	1		21:46	X	X	X	X																
LCS 480-159518/27	1	T	21:56	X	X	X	X																
MB 480-159518/28	1	T	22:06	X	X	X	X																
460-68764-4	1	T	22:16	X	X	X	X																
460-68764-5	1	T	22:27	X	X	X	X																
ZZZZZZ			22:37																				
ZZZZZZ			22:47																				
ZZZZZZ			22:57																				
ZZZZZZ			23:07																				
ZZZZZZ			23:17																				
ZZZZZZ			23:27																				
CCV 480-159518/37	1		23:38	X	X	X	X																
CCB 480-159518/38	1		23:48	X	X	X	X																
ZZZZZZ			23:58																				
ZZZZZZ			00:08																				
ZZZZZZ			00:18																				
ZZZZZZ			00:28																				
ZZZZZZ			00:38																				
ZZZZZZ			00:48																				
ZZZZZZ			00:59																				
ZZZZZZ			01:09																				
CCV 480-159518/47			01:19																				
CCB 480-159518/48			01:29																				

Prep Types

T = Total/NA

Method - Ch. 1 (NO3+NO2)

OPERATOR:	laura
ACQ. TIME:	Dec 21, 2013 7:39:07
DATA FILENAME:PTION:	C:\OMNION\DATA\NITRATE\2013DA~1\N131221A.FDT
METHOD FILENAME:	C:\OMNION\METHODS\NO3NO2A.MET
TRAY FILENAME:	Dec 20, 2013 10:24:32
NO3+NO2a.met	
TRAY DESCRIPTION:	
Created:TE DATA:	Oct 18, 2013 14:04:36
Modified:ame:	Dec 21, 2013 8:31:46
360 trayration Units:	mg /L
DATA DESCRIPTION:	Direct
Created: Peak Start (s):	Dec 21, 2013 7:39:07
Modified:: Width (s):	Dec 21, 2013 7:39:07
% Width Tolerance:	100.000
Threshold:	1371.000
Autodilution Trigger:	Off
QuikChem Method:	10-107-04-1-C

CALIBRATION DATA:

Levels:

1 : 2.000 2 : 1.500 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000

Calibration Rep Handling:	Average
Calibration Fit Type:	1st Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	90.0
Min. Probe in Wash Period:	14.0
Probe in Sample Period:	25.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

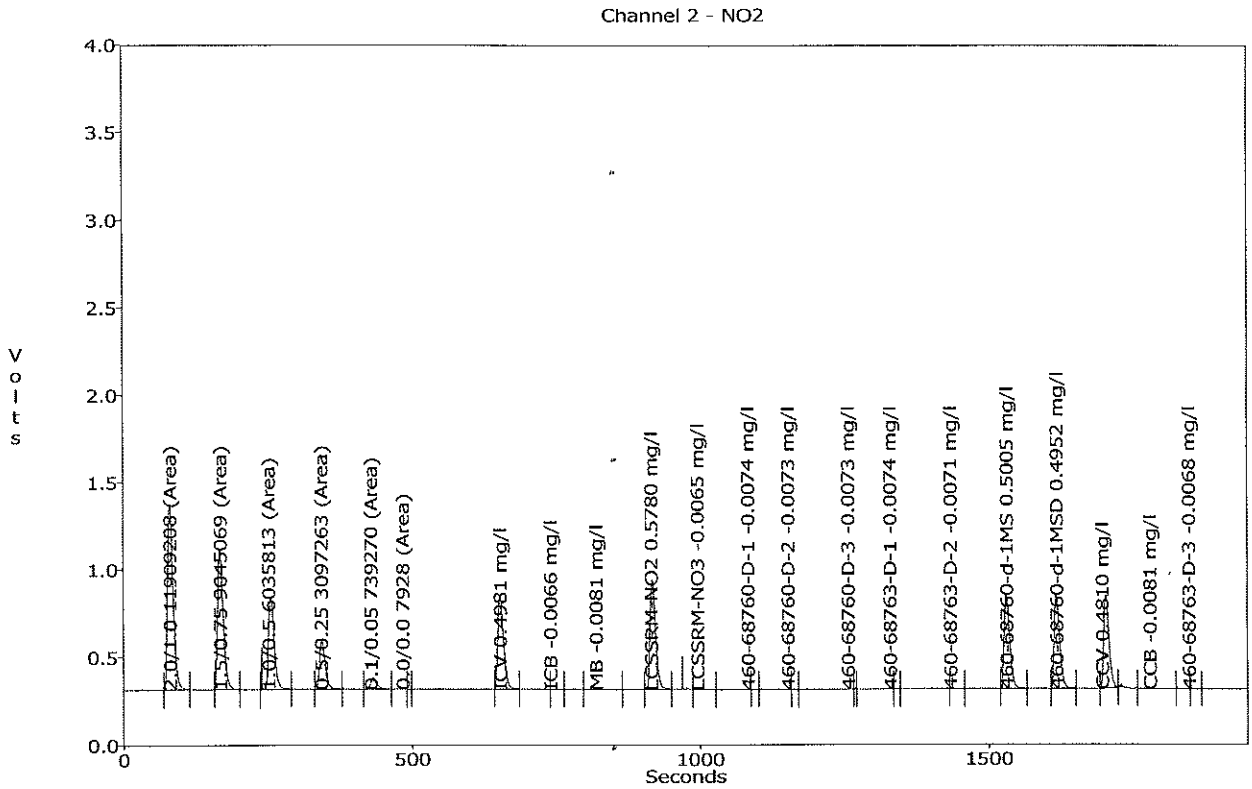
Method Cycle Period:	90.0
Sample Reaches 1st Valve:	37.0
Valve:	On
Load Time:	0.0
Load Period:	10.0
Inject Period:	80.0

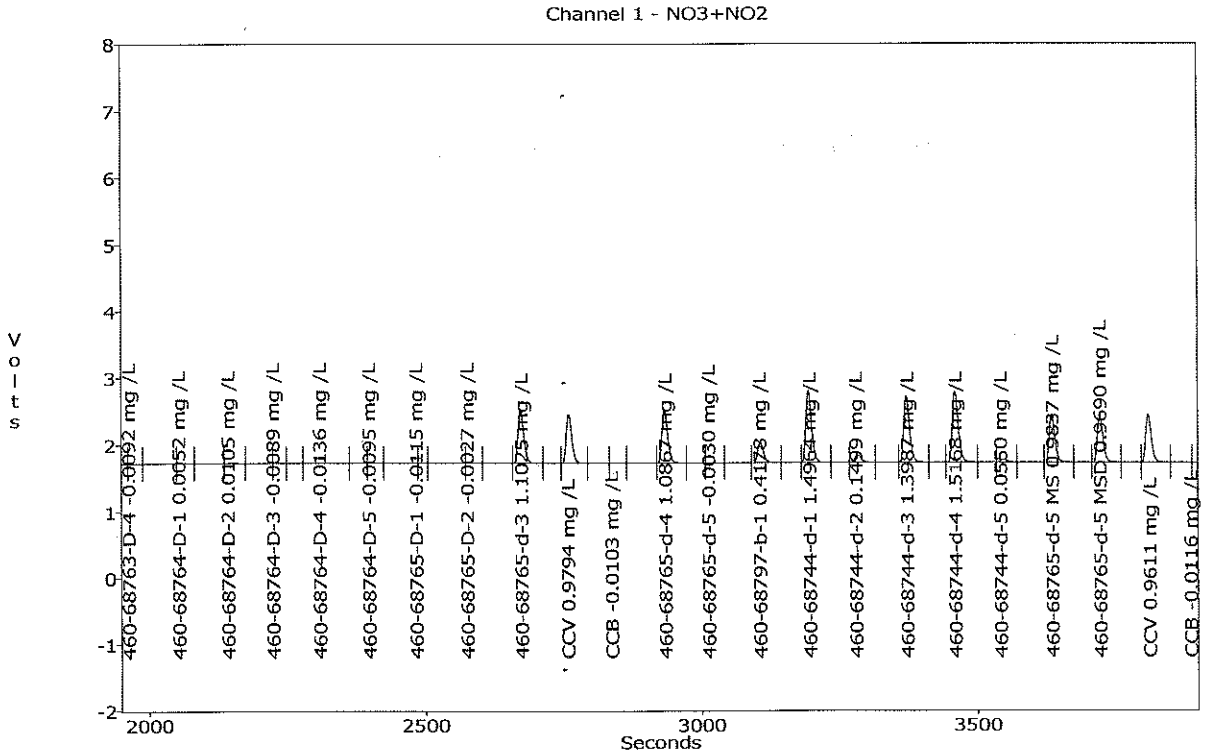
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (uv-s)	NO2 (uv-s)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	2.0/1.0	21 Dec 2013	07:39:08	1	17122694.00	11909208.00	1.0	1.00	1.00000	g
2	1.5/0.75	21 Dec 2013	07:40:35	1	13119328.00	9045069.00	1.0	1.00	1.00000	g
3	1.0/0.5	21 Dec 2013	07:42:03	1	8580576.00	6035813.00	1.0	1.00	1.00000	g
4	0.5/0.25	21 Dec 2013	07:43:32	1	4394445.00	3097263.00	1.0	1.00	1.00000	g
5	0.1/0.05	21 Dec 2013	07:45:00	1	1075251.00	739270.00	1.0	1.00	1.00000	g
6	0.0/0.0	21 Dec 2013	07:46:29	1	19594.00	7928.00	1.0	1.00	1.00000	g

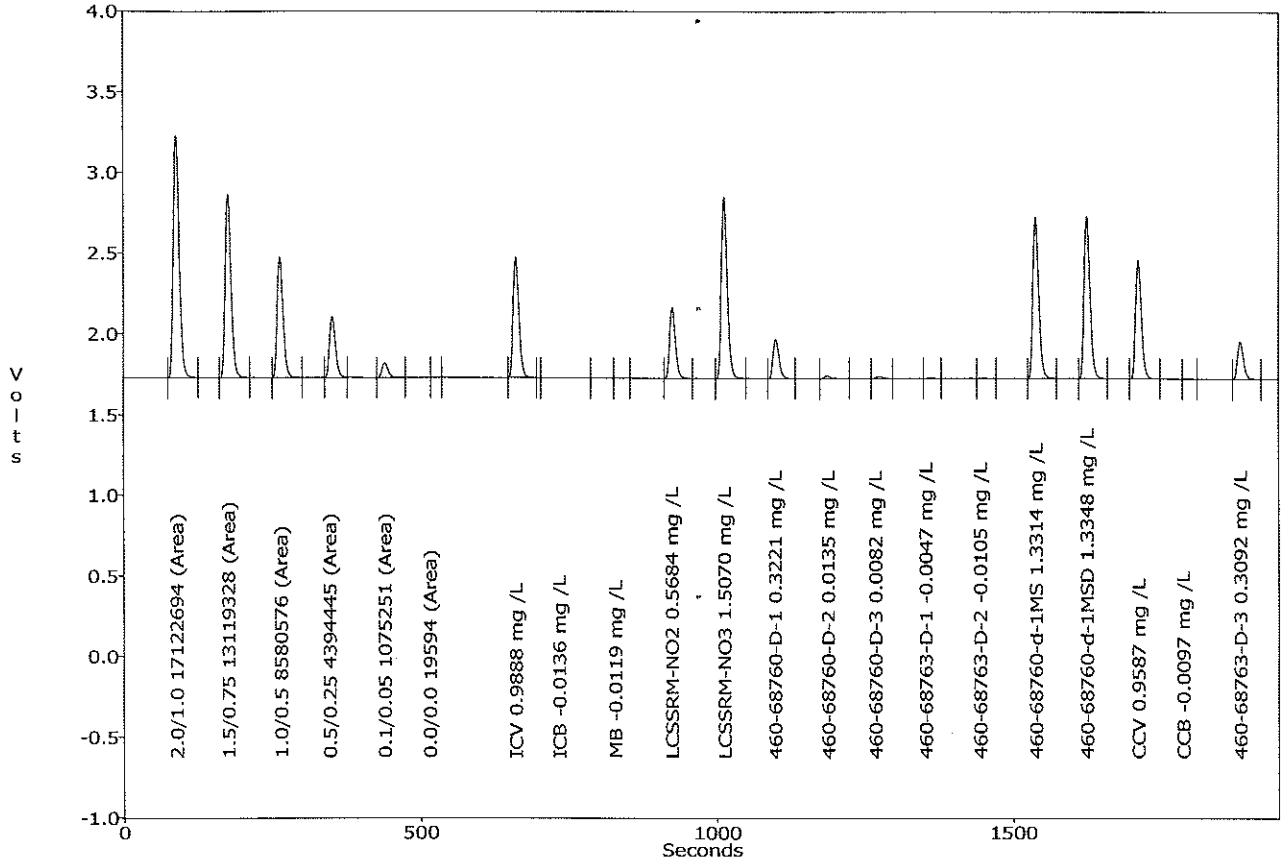
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	NO3+NO2 (mg /L)	NO2 (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	ICV	21 Dec 2013	07:48:40	1	0.9888	0.4981	1.0	1.00	1.00000	g
2	ICB	21 Dec 2013	07:50:09	1	-0.0136	-0.0066	1.0	1.00	1.00000	g
3	MB	21 Dec 2013	07:51:37	1	-0.0119	-0.0081	1.0	1.00	1.00000	g
4	LCSSRM-NO2	21 Dec 2013	07:53:04	1	0.5684	0.5780	1.0	1.00	1.00000	g
5	LCSSRM-NO3	21 Dec 2013	07:54:32	1	1.5070	-0.0065	1.0	1.00	1.00000	g
6	460-68760-D-1	21 Dec 2013	07:56:00	1	0.3221	-0.0074	1.0	1.00	1.00000	g
7	460-68760-D-2	21 Dec 2013	07:57:28	1	0.0135	-0.0073	1.0	1.00	1.00000	g
8	460-68760-D-3	21 Dec 2013	07:58:55	1	0.0082	-0.0073	1.0	1.00	1.00000	g
9	460-68763-D-1	21 Dec 2013	08:00:23	1	-0.0047	-0.0074	1.0	1.00	1.00000	g
10	460-68763-D-2	21 Dec 2013	08:01:50	1	-0.0105	-0.0071	1.0	1.00	1.00000	g
11	460-68760-d-1MS	21 Dec 2013	08:03:18	1	1.3314	0.5005	1.0	1.00	1.00000	g
12	460-68760-d-1MSD	21 Dec 2013	08:04:45	1	1.3348	0.4952	1.0	1.00	1.00000	g
13	CCV	21 Dec 2013	08:06:11	1	0.9587	0.4810	1.0	1.00	1.00000	g
14	CCB	21 Dec 2013	08:07:38	1	-0.0097	-0.0081	1.0	1.00	1.00000	g
15	460-68763-D-3	21 Dec 2013	08:09:05	1	0.3092	-0.0068	1.0	1.00	1.00000	g
16	460-68763-D-4	21 Dec 2013	08:10:33	1	-0.0092	0.0019	1.0	1.00	1.00000	g
17	460-68764-D-1	21 Dec 2013	08:12:02	1	0.0052	-0.0075	1.0	1.00	1.00000	g
18	460-68764-D-2	21 Dec 2013	08:13:30	1	0.0105	-0.0076	1.0	1.00	1.00000	g
19	460-68764-D-3	21 Dec 2013	08:14:57	1	-0.0089	-0.0073	1.0	1.00	1.00000	g
20	460-68764-D-4	21 Dec 2013	08:16:25	1	-0.0136	-0.0081	1.0	1.00	1.00000	g
21	460-68764-D-5	21 Dec 2013	08:17:53	1	-0.0095	-0.0061	1.0	1.00	1.00000	g
22	460-68765-D-1	21 Dec 2013	08:19:20	1	-0.0115	0.0016	1.0	1.00	1.00000	g
23	460-68765-D-2	21 Dec 2013	08:20:48	1	-0.0027	-0.0081	1.0	1.00	1.00000	g
24	460-68765-d-3	21 Dec 2013	08:22:16	1	1.1025	-0.0068	1.0	1.00	1.00000	g
25	CCV	21 Dec 2013	08:23:43	1	0.9794	0.4987	1.0	1.00	1.00000	g
26	CCB	21 Dec 2013	08:25:10	1	-0.0103	-0.0071	1.0	1.00	1.00000	g
27	460-68765-d-4	21 Dec 2013	08:26:36	1	1.0867	-0.0061	1.0	1.00	1.00000	g
28	460-68765-d-5	21 Dec 2013	08:28:04	1	-0.0030	-0.0081	1.0	1.00	1.00000	g
29	460-68797-b-1	21 Dec 2013	08:29:31	1	0.4178	0.0206	1.0	1.00	1.00000	g
30	460-68744-d-1	21 Dec 2013	08:30:58	1	1.4964	-0.0081	1.0	1.00	1.00000	g
31	460-68744-d-2	21 Dec 2013	08:32:26	1	0.1499	-0.0032	1.0	1.00	1.00000	g
32	460-68744-d-3	21 Dec 2013	08:33:55	1	1.3987	-0.0055	1.0	1.00	1.00000	g
33	460-68744-d-4	21 Dec 2013	08:35:23	1	1.5168	-0.0067	1.0	1.00	1.00000	g
34	460-68744-d-5	21 Dec 2013	08:36:50	1	0.0550	-0.0014	1.0	1.00	1.00000	g
35	460-68765-d-5 MS	21 Dec 2013	08:38:18	1	0.9837	0.4998	1.0	1.00	1.00000	g
36	460-68765-d-5 MSD	21 Dec 2013	08:39:46	1	0.9690	0.4963	1.0	1.00	1.00000	g
37	CCV	21 Dec 2013	08:41:14	1	0.9611	0.4946	1.0	1.00	1.00000	g
38	CCB	21 Dec 2013	08:42:41	1	-0.0116	-0.0067	1.0	1.00	1.00000	g
39	MB	21 Dec 2013	08:44:09	1	-0.0123	-0.0073	1.0	1.00	1.00000	g
40	LCSSRM-NO2	21 Dec 2013	08:45:37	1	0.5558	0.5627	1.0	1.00	1.00000	g
41	LCSSRM-NO3	21 Dec 2013	08:47:04	1	1.4290	-0.0065	1.0	1.00	1.00000	g
42	460-68772-g-1	21 Dec 2013	08:48:31	1	2.0128	-0.0013	1.0	1.00	1.00000	g
43	460-68772-h-2	21 Dec 2013	08:49:58	1	-0.0127	-0.0068	1.0	1.00	1.00000	g
44	460-68766-d-1	21 Dec 2013	08:51:24	1	0.0126	0.0305	1.0	1.00	1.00000	g
45	460-68766-d-2	21 Dec 2013	08:52:51	1	0.0135	0.0120	1.0	1.00	1.00000	g
46	460-68766-d-3	21 Dec 2013	08:54:19	1	0.0159	0.0154	1.0	1.00	1.00000	g
47	460-68766-d-4	21 Dec 2013	08:55:47	1	0.0214	0.0142	1.0	1.00	1.00000	g
48	460-67898-g-2	21 Dec 2013	08:57:15	1	0.7593	-0.0039	1.0	1.00	1.00000	g
49	CCV	21 Dec 2013	08:58:43	1	0.9793	0.4981	1.0	1.00	1.00000	g
50	CCB	21 Dec 2013	09:00:10	1	-0.0116	-0.0070	1.0	1.00	1.00000	g

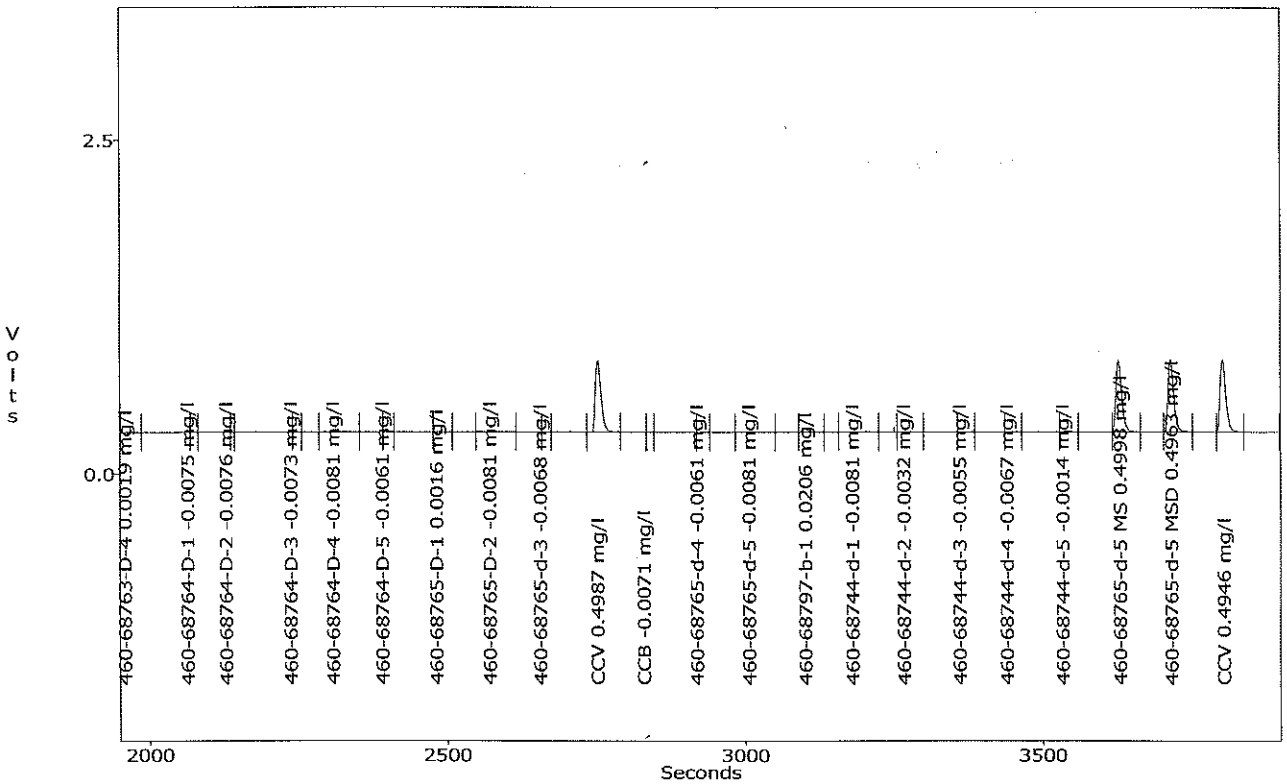

Channel 2 - NO2
Volts
Seconds
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
0
500
1000
1500
2.0/1.0 11909208 (Area)
TC 0.75 9045069 (Area)
TC 0.5 6035813 (Area)
0.5/0.25 3097263 (Area)
0.1/0.05 739270 (Area)
0.0/0.0 7928 (Area)
CCV 0.4981 mg/l
ICB -0.0066 mg/l
MB -0.0081 mg/l
LCSSRM-NO2 0.5780 mg/l
LCSSRM-NO3 -0.0065 mg/l
460-68760-D-1 -0.0074 mg/l
460-68760-D-2 -0.0073 mg/l
460-68760-D-3 -0.0073 mg/l
460-68763-D-1 -0.0074 mg/l
460-68763-D-2 -0.0071 mg/l
460-68760-d-1MS 0.5005 mg/l
460-68760-d-1MSD 0.4952 mg/l
CCV 0.4810 mg/l
CCB -0.0081 mg/l
460-68763-D-3 -0.0068 mg/l


Channel 1 - NO3+NO2
Volts
Seconds
-2
-1
0
1
2
3
4
5
6
7
8
2000
2500
3000
3500
460-68763-D-4 -0.0092 mg /L
460-68764-D-1 0.0052 mg /L
460-68764-D-2 0.0105 mg /L
460-68764-D-3 -0.0089 mg /L
460-68764-D-4 -0.0136 mg /L
460-68764-D-5 -0.0095 mg /L
460-68765-D-1 -0.0115 mg /L
460-68765-D-2 -0.0027 mg /L
460-68765-d-3 1.1075 mg /L
CCV 0.9794 mg /L
CCB -0.0103 mg /L
460-68765-d-4 1.0867 mg /L
460-68765-d-5 -0.0030 mg /L
460-68797-b-1 0.4178 mg /L
460-68744-d-1 1.4954 mg /L
460-68744-d-2 0.1499 mg /L
460-68744-d-3 1.3987 mg /L
460-68744-d-4 1.5168 mg /L
460-68744-d-5 0.0560 mg /L
460-68765-d-5 MS 0.9837 mg /L
460-68765-d-5 MSD 0.9690 mg /L
CCV 0.9611 mg /L
CCB -0.0116 mg /L

Channel 1 - NO3+NO2



Channel 2 - NO2



Sample Information/Results: Ch. 1
!NO3+NO2 (Cup Range: 1 - 19))

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: 0.9888 mg /LL

Cup: 2, Sample ID: ICB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0136 mg /L

Cup: 3, Sample ID: MB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0119 mg /L

Cup: 4, Sample ID: LCSSRM-NO2, Sample Type: Unknownwn
Rep 1/1, Result: 0.5684 mg /LL

Cup: 5, Sample ID: LCSSRM-NO3, Sample Type: Unknownwn
Rep 1/1, Result: 1.5070 mg /L

Cup: 6, Sample ID: 460-68760-D-1, Sample Type: Unknownn
Rep 1/1, Result: 0.3221 mg /L

Cup: 7, Sample ID: 460-68760-D-2, Sample Type: Unknownn
Rep 1/1, Result: 0.0135 mg /LL

Cup: 8, Sample ID: 460-68760-D-3, Sample Type: Unknownn
Rep 1/1, Result: 0.0082 mg /L

Cup: 9, Sample ID: 460-68763-D-1, Sample Type: Unknownn
Rep 1/1, Result: -0.0047 mg /L

Cup: 10, Sample ID: 460-68763-D-2, Sample Type: Unknown
Rep 1/1, Result: -0.0105 mg /L

Cup: 11, Sample ID: 460-68760-d-1MS, Sample Type: Unknown
Rep 1/1, Result: 1.3314 mg /LL

Cup: 12, Sample ID: 460-68760-d-1MSD, Sample Type: Unknown
Rep 1/1, Result: 1.3348 mg /L

Cup: 13, Sample ID: CCV, Sample Type: Unknown: Unknown
Rep 1/1, Result: 0.9587 mg /L

Cup: 14, Sample ID: CCB, Sample Type: Unknown: Unknown
Rep 1/1, Result: -0.0097 mg /L

Cup: 15, Sample ID: 460-68763-D-3, Sample Type: Unknown
Rep 1/1, Result: 0.3092 mg /L

Cup: 16, Sample ID: 460-68763-D-4, Sample Type: Unknownwn
Rep 1/1, Result: -0.0092 mg /L

Cup: 17, Sample ID: 460-68764-D-1, Sample Type: Unknownown
Rep 1/1, Result: 0.0052 mg /L

Cup: 18, Sample ID: 460-68764-D-2, Sample Type: Unknown
Rep 1/1, Result: 0.0105 mg /L

Cup: 19, Sample ID: 460-68764-D-3, Sample Type: Unknown
Rep 1/1, Result: -0.0089 mg /L

Cup: 39, Sample ID: MB, Sample Type: Unknown
Rep 1/1, Result: -0.0123 mg /L

Sample Information/Results: Ch. 2
INO2 (Cup Range: 1 - 19))

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: 0.4981 mg/ll

Cup: 2, Sample ID: ICB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0066 mg/l

Cup: 3, Sample ID: MB, Sample Type: Unknownpe: Unknown
Rep 1/1, Result: -0.0081 mg/l

Cup: 4, Sample ID: LCSSRM-NO2, Sample Type: Unknownwn
Rep 1/1, Result: 0.5780 mg/ll

Cup: 5, Sample ID: LCSSRM-NO3, Sample Type: Unknownwn
Rep 1/1, Result: -0.0065 mg/l

Cup: 6, Sample ID: 460-68760-D-1, Sample Type: Unknownn
Rep 1/1, Result: -0.0074 mg/l

Cup: 7, Sample ID: 460-68760-D-2, Sample Type: Unknownn
Rep 1/1, Result: -0.0073 mg/l

Cup: 8, Sample ID: 460-68760-D-3, Sample Type: Unknownn
Rep 1/1, Result: -0.0073 mg/l

Cup: 9, Sample ID: 460-68763-D-1, Sample Type: Unknownn
Rep 1/1, Result: -0.0074 mg/l

Cup: 10, Sample ID: 460-68763-D-2, Sample Type: Unknown
Rep 1/1, Result: -0.0071 mg/l

Cup: 11, Sample ID: 460-68760-d-1MS, Sample Type: Unknown
Rep 1/1, Result: 0.5005 mg/ll

Cup: 12, Sample ID: 460-68760-d-1MSD, Sample Type: Unknown
Rep 1/1, Result: 0.4952 mg/ll

Cup: 13, Sample ID: CCV, Sample Type: Unknown: Unknown
Rep 1/1, Result: 0.4810 mg/ll

Cup: 14, Sample ID: CCB, Sample Type: Unknown: Unknown
Rep 1/1, Result: -0.0081 mg/l

Cup: 15, Sample ID: 460-68763-D-3, Sample Type: Unknown
Rep 1/1, Result: -0.0068 mg/l

Cup: 16, Sample ID: 460-68763-D-4, Sample Type: Unknownwn
Rep 1/1, Result: 0.0019 mg/l

Cup: 17, Sample ID: 460-68764-D-1, Sample Type: Unknownown
Rep 1/1, Result: -0.0075 mg/l

Cup: 18, Sample ID: 460-68764-D-2, Sample Type: Unknown
Rep 1/1, Result: -0.0076 mg/l

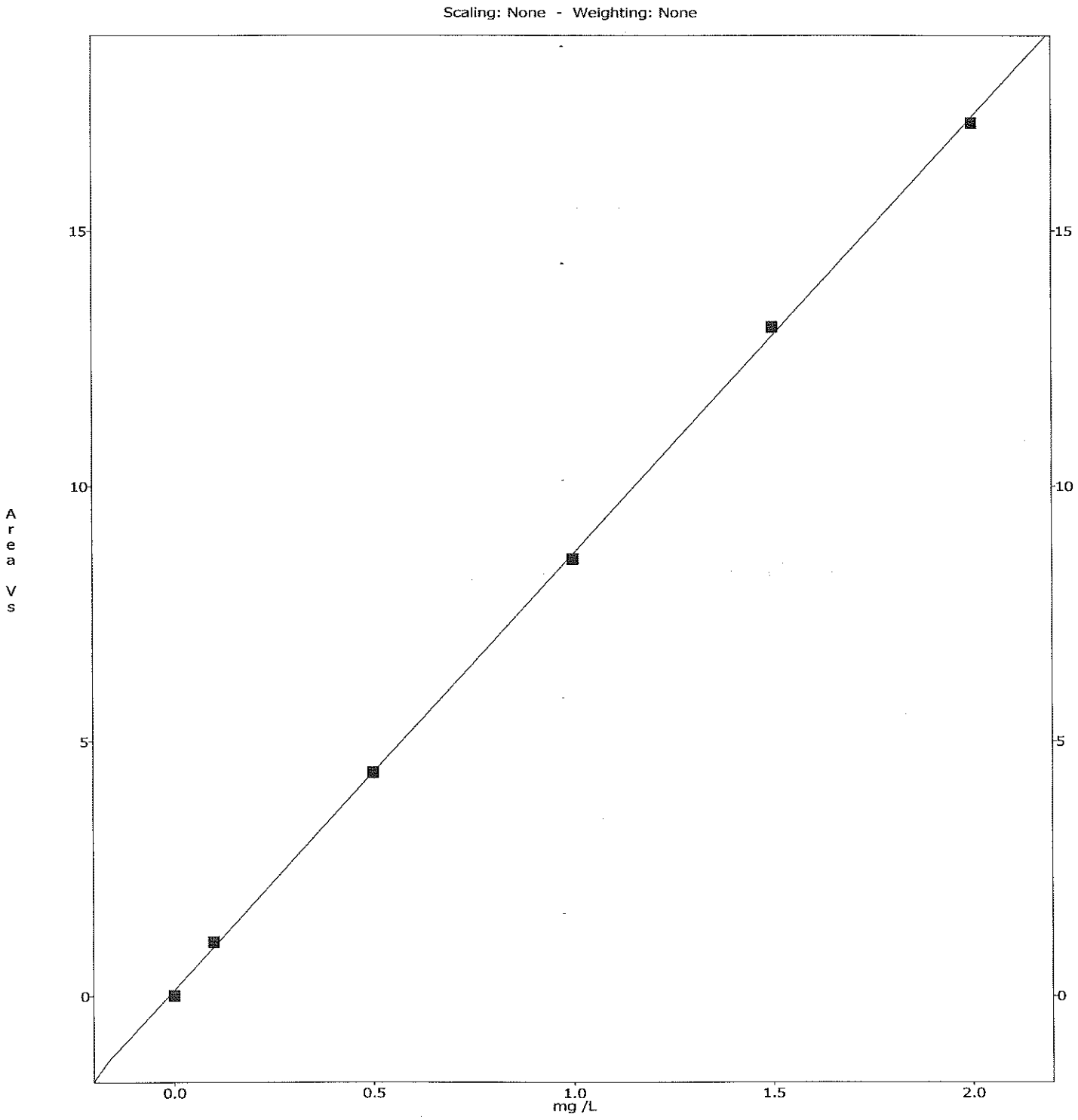
Cup: 19, Sample ID: 460-68764-D-3, Sample Type: Unknown
Rep 1/1, Result: -0.0073 mg/l

Cup: 39, Sample ID: MB, Sample Type: Unknown
Rep 1/1, Result: -0.0073 mg/l

NO3+NO2

Lvl	Area	mg /L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	17122694	2.0	17122694					0.0	0.0	0.6
2	13119328	1.5	13119328					0.0	0.0	-1.4
3	8580576	1.0	8580576					0.0	0.0	1.0
4	4394445	0.5	4394445					0.0	0.0	-0.1
5	1075251	0.1	1075251					0.0	0.0	-12.2
6	19594	0.0	19594					0.0	0.0	

1st Order Poly
Conc = 1.169e-007 Area - 1.358e-002
r = 0.9999



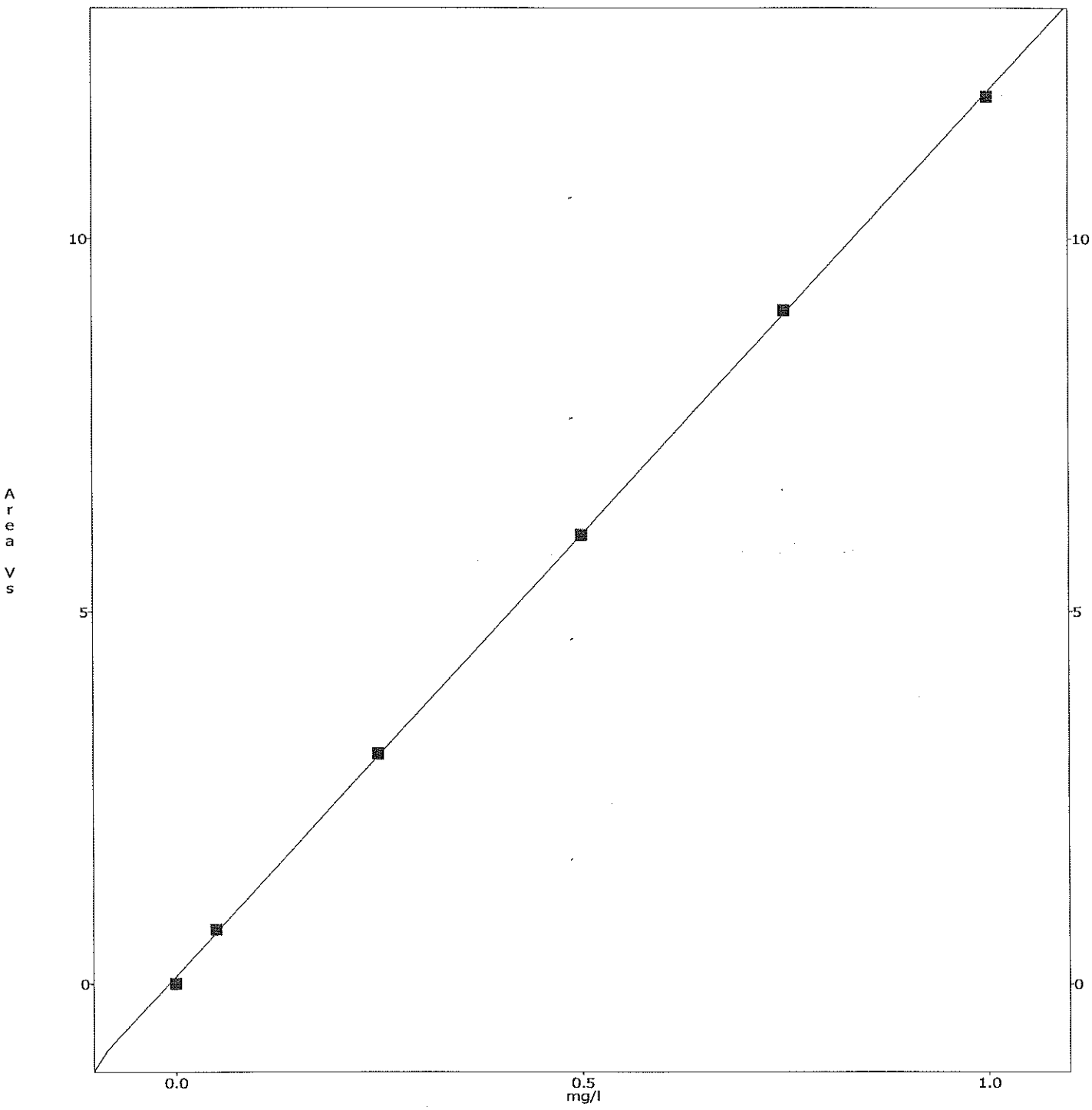
Printed: Saturday, December 21, 2013 - 10:42 AM

NO2

Lvl	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	11909208	1.00	11909208					0.0	0.0	0.4
2	9045069	0.75	9045069					0.0	0.0	-0.6
3	6035813	0.50	6035813					0.0	0.0	-0.1
4	3097263	0.25	3097263					0.0	0.0	-1.2
5	739270	0.05	739270					0.0	0.0	-8.4
6	7928	0.00	7928					0.0	0.0	

1st Order Poly
Conc = 8.427e-008 Area - 8.081e-003
r = 0.9999

Scaling: None Weighting: None



Printed: Saturday, December 21, 2013 - 09:03 AM

TA EDISON- HISTORICAL DATA

Total Alkalinity (SM 2320B), Free Co2 (4500CO2-D)

SampleID	Run Number	RunDate	RunTime	Temp	pH	pH2	palk (mg/L) as CaCO3	talk (mg/L) as CaCO3	bcarb (mg/L) as CaCO3	carb (mg/L) as CaCO3	hydr (mg/L) as CaCO3	Free CO2 (mg/L) as CaCO3	(mL) H2S04 @ 8.3	(mL) H2S04 @ 4.5	(mL) H2S04 @ 4.2
rinse	*4458*	1/2/2014	4:16 PM	18.50	5.587	.00	0.000	2.635	2.635	0.000	0.000	13.656	0.0000	0.1071	0.1478
mb	*4458*	1/2/2014	4:23 PM	18.25	5.581	.00	0.000	0.596	0.596	0.000	0.000	3.128	0.0000	0.0647	0.1143
lcssrm	*4458*	1/2/2014	4:29 PM	18.11	8.989	.00	15.200	69.804	39.404	30.401	0.000	0.081	0.3835	1.7610	1.8698
460-68760-F-1	*4459*	1/2/2014	4:54 PM	16.84	7.282	.00	0.000	90.826	90.826	0.000	0.000	9.496	0.0000	2.2914	2.4476
460-68760-F-1du	*4459*	1/2/2014	5:01 PM	16.82	7.325	.00	0.000	88.481	88.481	0.000	0.000	8.367	0.0000	2.2322	2.3846
460-68760-F-2	*4459*	1/2/2014	5:08 PM	16.06	7.270	.00	0.000	121.220	121.220	0.000	0.000	13.014	0.0000	3.0582	3.2410
460-68760-F-3	*4459*	1/2/2014	5:15 PM	16.57	7.290	.00	0.000	115.461	115.461	0.000	0.000	11.834	0.0000	2.9129	3.0930
460-68763-D-1	*4459*	1/2/2014	5:22 PM	16.91	5.662	.00	0.000	-0.306	-0.306	0.000	0.000	-1.331	0.0000	0.0668	0.1414
460-68763-D-2	*4459*	1/2/2014	5:29 PM	17.15	8.070	.00	0.000	141.099	141.099	0.000	0.000	2.402	0.0000	3.5597	3.7361
460-68763-D-3	*4459*	1/2/2014	5:36 PM	17.09	7.512	.00	0.000	86.970	86.970	0.000	0.000	5.352	0.0000	2.1941	2.3622
460-68763-D-4	*4459*	1/2/2014	5:43 PM	17.15	7.391	.00	0.000	118.916	118.916	0.000	0.000	9.658	0.0000	3.0000	3.2170
460-68764-D-1	*4459*	1/2/2014	5:49 PM	17.24	7.951	.00	0.000	105.455	105.455	0.000	0.000	2.359	0.0000	2.6605	2.8192
460-68764-D-2	*4459*	1/2/2014	5:57 PM	16.65	7.945	.00	0.000	101.085	101.085	0.000	0.000	2.295	0.0000	2.5502	2.7283
460-68764-D-3	*4459*	1/2/2014	6:04 PM	16.34	7.965	.00	0.000	100.752	100.752	0.000	0.000	2.185	0.0000	2.5418	2.6903
460-68764-D-4	*4459*	1/2/2014	6:11 PM	16.83	8.011	.00	0.000	97.698	97.698	0.000	0.000	1.905	0.0000	2.4648	2.6162
460-68764-D-5	*4459*	1/2/2014	6:18 PM	17.17	7.908	.00	0.000	81.342	81.342	0.000	0.000	2.010	0.0000	2.0521	2.1617
460-68765-D-1	*4459*	1/2/2014	6:25 PM	17.37	7.300	.00	0.000	93.551	93.551	0.000	0.000	9.380	0.0000	2.3601	2.5247
460-68765-D-2	*4459*	1/2/2014	6:32 PM	17.34	5.699	.00	0.000	0.841	0.841	0.000	0.000	3.362	0.0000	0.0679	0.1145
460-68765-D-3	*4459*	1/2/2014	6:39 PM	17.32	7.621	.00	0.000	51.579	51.579	0.000	0.000	2.467	0.0000	1.3013	1.3823
460-68765-D-4	*4459*	1/2/2014	6:46 PM	16.69	7.639	.00	0.000	52.226	52.226	0.000	0.000	2.396	0.0000	1.3176	1.3981
460-68765-D-5	*4459*	1/2/2014	6:53 PM	16.25	5.648	.00	0.000	0.614	0.614	0.000	0.000	2.759	0.0000	0.0723	0.1292
460-68744-D-1	*4459*	1/2/2014	7:00 PM	16.74	7.835	.00	0.000	203.664	203.664	0.000	0.000	5.962	0.0000	5.1381	5.3857
460-68744-D-2	*4459*	1/2/2014	7:06 PM	17.12	8.072	.00	0.000	239.601	239.601	0.000	0.000	4.058	0.0000	6.0447	6.3416
460-68744-D-3	*4459*	1/2/2014	7:13 PM	17.31	7.962	.00	0.000	371.925	371.925	0.000	0.000	8.127	0.0000	9.3831	9.8377
mb	*4459*	1/2/2014	7:20 PM	17.06	5.818	.00	0.000	0.120	0.120	0.000	0.000	0.364	0.0000	0.0742	0.1454
lcssrm	*4459*	1/2/2014	7:26 PM	17.15	8.996	.00	15.074	69.660	39.513	30.147	0.000	0.080	0.3803	1.7574	1.8661
460-68772-H-1	*4459*	1/2/2014	7:32 PM	16.41	6.548	.00	0.000	86.082	86.082	0.000	0.000	48.759	0.0000	2.1717	2.4548

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SampleID	Run Number	RunDate	RunTime	Temp	pH	pH2	palk (mg/L) as CaCO3	talk (mg/L) as CaCO3	bcarb (mg/L) as CaCO3	carb (mg/L) as CaCO3	hydr (mg/L) as CaCO3	Free CO2 (mg/L) as CaCO3	(mL) H2S04 @ 8.3	(mL) H2S04 @ 4.5	(mL) H2S04 @ 4.2
460-68772-H-1 du	*4459*	1/2/2014	7:39 PM	16.27	6.614	.00	0.000	66.165	66.165	0.000	0.000	32.160	0.0000	1.6692	1.8726
460-68772-G-2	*4459*	1/2/2014	7:46 PM	16.75	5.665	.00	0.000	0.131	0.131	0.000	0.000	0.567	0.0000	0.0718	0.1402
460-68744-D-4	*4459*	1/2/2014	7:53 PM	17.10	7.786	.00	0.000	206.143	206.143	0.000	0.000	6.752	0.0000	5.2006	5.4587
460-68744-D-5	*4459*	1/2/2014	7:59 PM	17.37	8.069	.00	0.000	286.036	286.036	0.000	0.000	4.878	0.0000	7.2162	7.6147
460-68610-E-1	*4459*	1/2/2014	8:06 PM	17.32	7.522	.00	0.000	219.728	219.728	0.000	0.000	13.216	0.0000	5.5434	5.8574
460-68610-E-2	*4459*	1/2/2014	8:12 PM	17.34	6.464	.00	0.000	125.202	125.202	0.000	0.000	85.948	0.0000	3.1586	3.5985
460-68610-F-3	*4459*	1/2/2014	8:18 PM	16.33	8.169	.00	0.000	0.000	0.000	0.000	0.000	0.000	0.0000	0.0000	0.0000
460-68610-E-4	*4459*	1/2/2014	8:25 PM	16.44	5.922	.00	0.000	-0.168	-0.168	0.000	0.000	-0.401	0.0000	0.0734	0.1510
460-68610-E-5	*4459*	1/2/2014	8:31 PM	16.88	7.662	.00	0.000	55.440	55.440	0.000	0.000	2.416	0.0000	1.3987	1.4946
460-68610-F-7	*4459*	1/2/2014	8:38 PM	17.15	6.742	.00	0.000	221.469	221.469	0.000	0.000	80.231	0.0000	5.5873	6.2770
460-68572-B-1	*4459*	1/2/2014	8:44 PM	17.48	7.967	.00	0.000	203.424	203.424	0.000	0.000	4.387	0.0000	5.1320	5.3934
460-68520-F-7	*4459*	1/2/2014	8:52 PM	17.56	5.733	.00	0.000	0.694	0.694	0.000	0.000	2.567	0.0000	0.0841	0.1507
460-68536-I-5	*4459*	1/2/2014	8:58 PM	17.63	8.207	.00	0.000	151.285	151.285	0.000	0.000	1.878	0.0000	3.8167	4.0166
460-68536-I-6	*4459*	1/2/2014	9:06 PM	17.61	7.878	.00	0.000	62.894	62.894	0.000	0.000	1.667	0.0000	1.5867	1.6965
460-68536-I-7	*4459*	1/2/2014	9:13 PM	16.46	7.748	.00	0.000	53.156	53.156	0.000	0.000	1.899	0.0000	1.3410	1.4314
460-68527-A-1	*4459*	1/2/2014	9:20 PM	16.97	7.882	.00	0.000	101.046	101.046	0.000	0.000	2.653	0.0000	2.5492	2.6884
460-68504-N-4	*4459*	1/2/2014	9:27 PM	17.24	7.250	.00	0.000	420.406	420.406	0.000	0.000	47.240	0.0000	10.6061	11.1834

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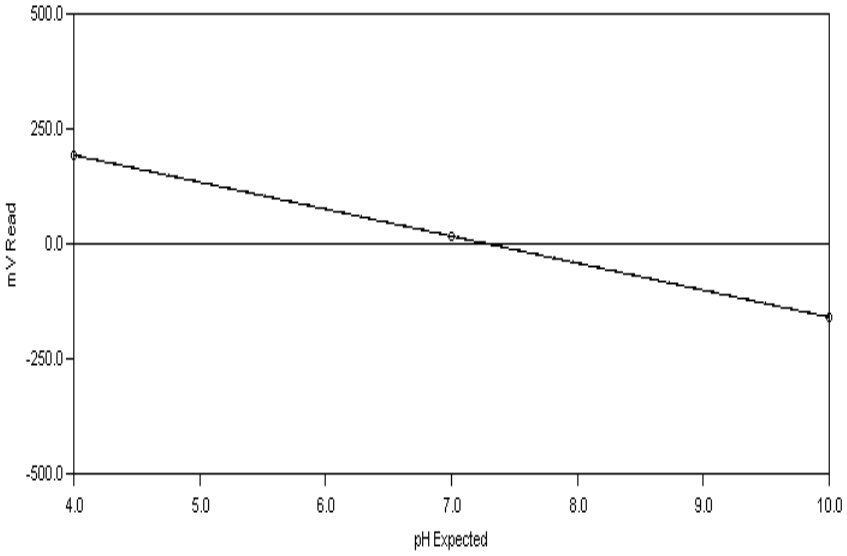
PC-TitratION PLUS
Calibration Report

Calibration Record # 1156



Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	1/2/2014	
Channel	1	Time	10:27 AM	
Probe Type	pH	Temperature	289.87 K	16.72 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-58.735	CorrCoeff	1.0000
Intercept	16.193	Equation: Y = (-58.735) X + (16.193)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-58.735	-65.00	-53.00
Intercept	16.193	-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	192.26
	7.00	16.47
	10.00	-160.15

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BATCH	JOB	SAMPLE	DIL	ABS	BG	RESULT	SPIKE	% REC	TIME
		0		0					
		0.03		0.020					
		0.05		0.034					
		0.10		0.070					
		0.20		0.140					
		0.50		0.359					
		CCV		0.145		0.204	0.200	102%	5:30PM
		CCB		0		ND			5:31
		HB		0		ND			5:32
		LCS	2/50	0.159		5.58	5.34	104%	5:34
177439	61610	61610-11i		0.033		0.048			5:35
		61610-11iMS		0.173		0.243	0.200	97.5%	5:36
		61610-11iMSD		0.173		0.243	0.200	97.5%	5:37
		61610-1i		-0.001		ND			5:38
		61610-2i		0.319		0.45			5:39
		61610-3i		0.191	0.031	0.22			5:40
		61610-5i		0.011		ND			5:41
		61610-9i		0.077		0.11			5:42
		CCV		0.143		0.201	0.200	101%	5:44
		CCB		0		ND			5:45
		61610-10i		0.009		ND			5:47
		61610-12i		0.040		0.058			5:48
		61610-13i		0.010		ND			5:49
		CCV		0.143		0.201	0.200	101%	5:51
		CCB		0		ND			5:52PM

	Exp.
# Calibration on : 08/21/13	(02/14/14)
# B-2886-13: 5N H_2SO_4	(02/15/14)
# B-2862-13: NH_4MOLYBDATE	(01/23/14)
# B-2812-13: ANT. POT. TARTRATE	(12/14/13)
# B-2887-13: ASCORBIC ACID	(08/22/13)
# LCS (P203-505): 5.34 ppm (4.60 - 5.82)	(03/31/15)

Continued on Page

Read and Understood By

Signed 08/21/13 Signed

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
RF Rounding:	0

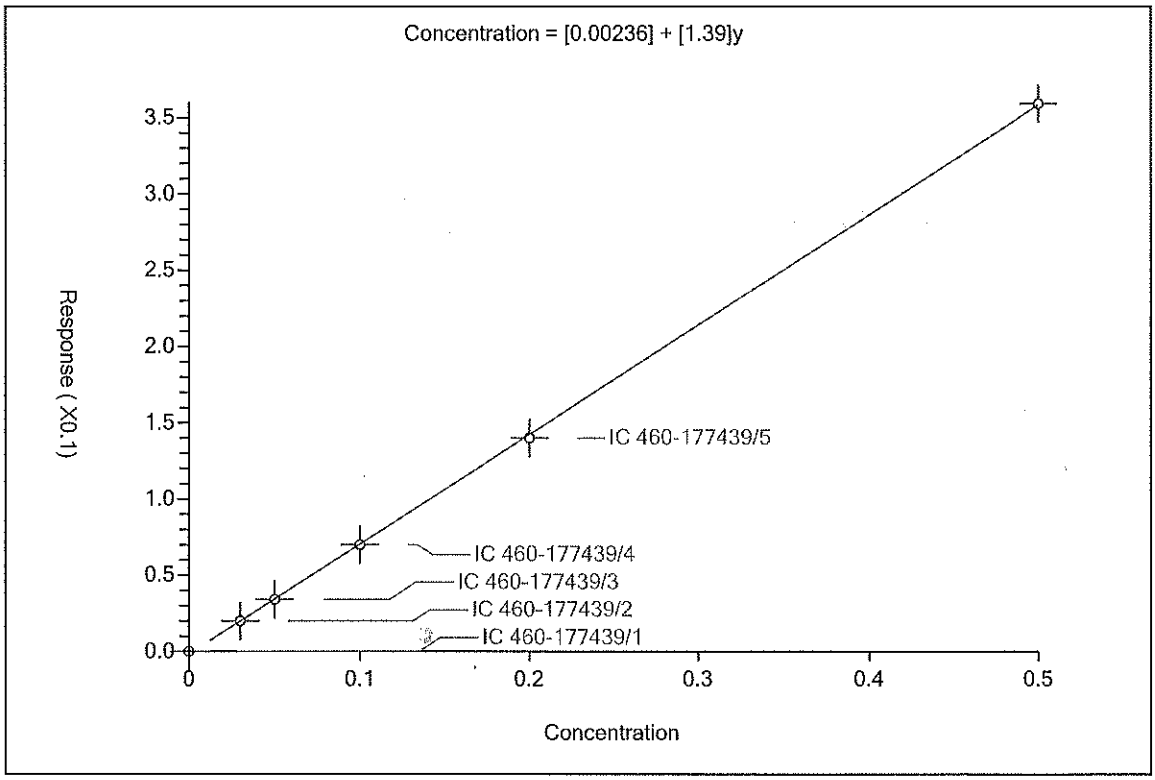
Curve Coefficients

Intercept:	0.00236
Slope:	1.39

Error Coefficients

Standard Error:	0.00206
Relative Standard Error:	NC
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	IC 460-177439/1	0.0	0.0			NaN	Y
2	IC 460-177439/2	0.03	0.02			0.666667	Y
3	IC 460-177439/3	0.05	0.034			0.68	Y
4	IC 460-177439/4	0.1	0.07			0.7	Y
5	IC 460-177439/5	0.2	0.14			0.7	Y
6	IC 460-177439/6	0.5	0.359			0.718	Y



Batch	Sample	Dil	Abs	BG	Result	
	0.0		0.00			
	0.03		0.020			
	0.05		0.034			
	0.1		0.070			
	0.2		0.140			
	0.5		0.359			
	ICV		0.144			8:45
	ICB		0.00			
	MB		0.00			
	LCS	2/50	0.164		5.76	
199281	68764-1		0.101		0.14	
	68764-2		0.100		0.14	
	68764-3		0.099		0.14	
	68764-4		0.100		0.14	
	68763-2		0.142		0.20	
	68763-1		0.00		0	
	68764-5		0.229		0.32	
	68760-1		0.087		0.12	
	CCV		0.143		0.20	
	CCB		0.00			9:00
	68763-3		0.089		0.13	9:30
	68760-2		0.005			
	68760-3		0.002			
	68763-4		0.063	0.012	~~0.090~~ Re 0.073	
	68765-1		0.069		0.098	
	68765-2		0.00			
	68765-3		0.100		0.14	
	68765-4		0.091		0.13	
	68765-5		0.00			
	68764-3 MS		0.241		0.34	
	CCV		0.143			
	CCB		0.00			
	68764-3 MSD		0.244		0.34	

Continued on Page

Read and Understood By

Re 12/21/13

Signed Date Signed

PROJECT Ortho phosphate

Notebook No. 06559

Continued From Page

Sample	Dil	Abs	BG	Result	Time
CAL		0.143			
CCB		0.000			10:05

Asc. acid BF 3023-13 exp. 12/28/13

Continued on Page

Read and Understood By

RR 12/20/13

Signed Date Signed Date

Curve Type:	Linear
Weighting:	None
Origin:	None
Dependency:	Concentration
Calib Mode:	ESTD
RF Rounding:	0

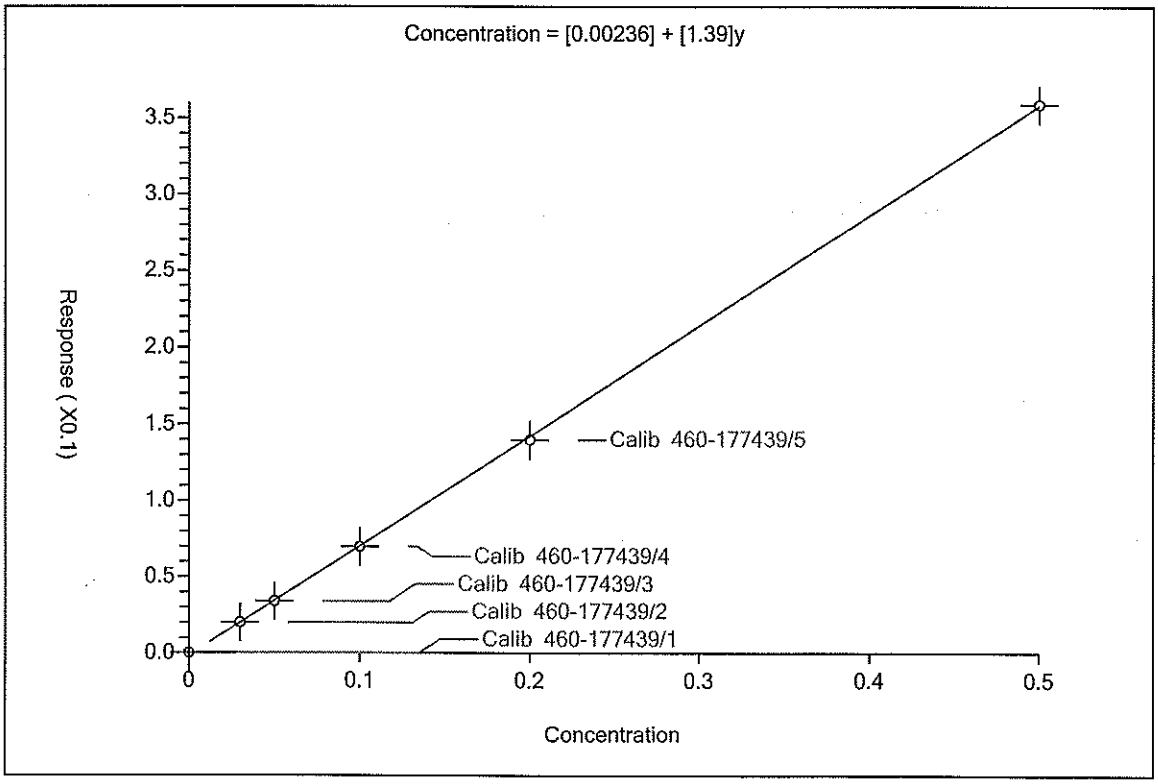
Curve Coefficients

Intercept:	0.00236
Slope:	1.39

Error Coefficients

Standard Error:	0.00206
Relative Standard Error:	NC
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000 (1.000)

ID	Level	Concentration	Response	IS Amount	IS Response	RF	Used
1	Calib 460-177439/1	0.0	0.0			NaN	Y
2	Calib 460-177439/2	0.03	0.02			0.666667	Y
3	Calib 460-177439/3	0.05	0.034			0.68	Y
4	Calib 460-177439/4	0.1	0.07			0.7	Y
5	Calib 460-177439/5	0.2	0.14			0.7	Y
6	Calib 460-177439/6	0.5	0.359			0.718	Y



Instr.Information

System	TOC-V CSH
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Sample

Sample Name:	ICV
Sample ID:	<Untitled>
Origin:	method 5310b.met
Status	Completed
Chk. Result	

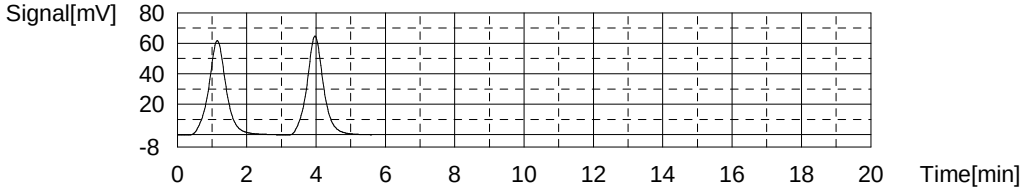
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.21mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	217.8	51.17mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:27:05 PM
2	218.1	51.25mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:29:59 PM

Mean Area 218.0
Mean Conc. 51.21mg/L



Sample

Sample Name:	ICB
Sample ID:	<Untitled>
Origin:	method 5310b.met
Status	Completed
Chk. Result	

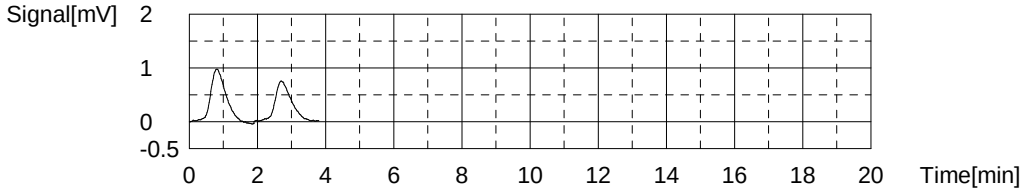
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2183mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.861	0.2953mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:56:23 PM
2	2.210	0.1412mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 2:58:26 PM

Mean Area 2.535
Mean Conc. 0.2183mg/L



Sample

Sample Name: MB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

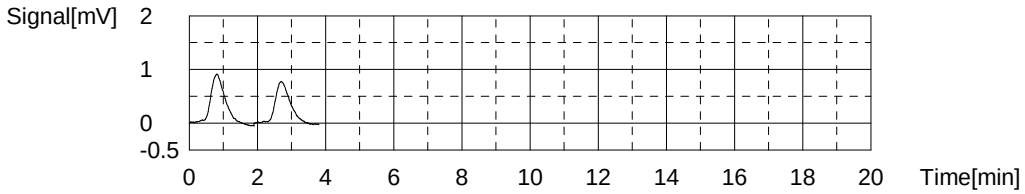
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1745mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.499	0.2096mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:15:35 PM
2	2.202	0.1393mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:17:38 PM

Mean Area 2.351
Mean Conc. 0.1745mg/L



Sample

Sample Name: LCSSRM
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

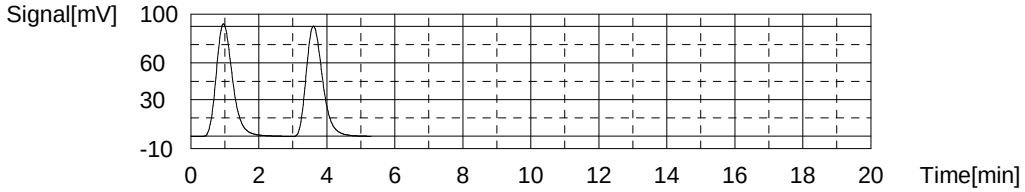
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:72.28mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	308.2	72.57mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:35:33 PM
2	305.7	71.98mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 3:38:20 PM

Mean Area 306.9
Mean Conc. 72.28mg/L



Sample

Sample Name: 460-68764-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

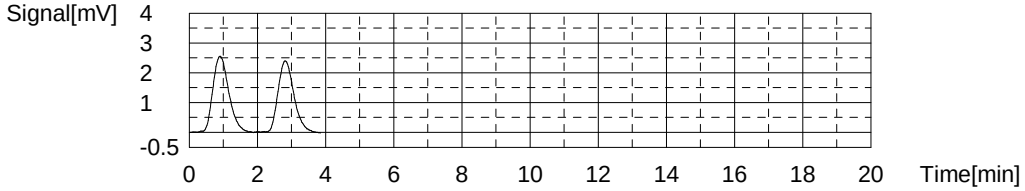
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.510mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.200	1.559mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 4:52:03 PM
2	7.782	1.460mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 4:54:09 PM

Mean Area 7.991
Mean Conc. 1.510mg/L



Sample

Sample Name: 460-68764-b-1 MS
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

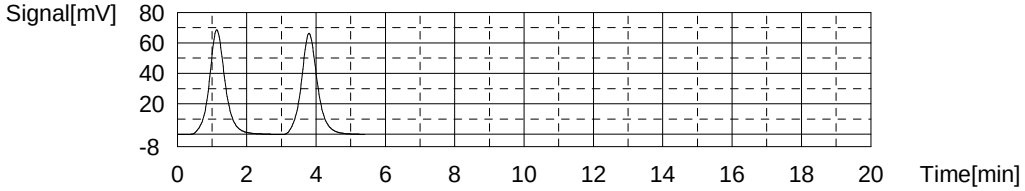
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.58mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	220.4	51.79mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:12:04 PM
2	218.6	51.36mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:14:57 PM

Mean Area 219.5
Mean Conc. 51.58mg/L



Sample

Sample Name: 460-68764-b-1 MSD
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

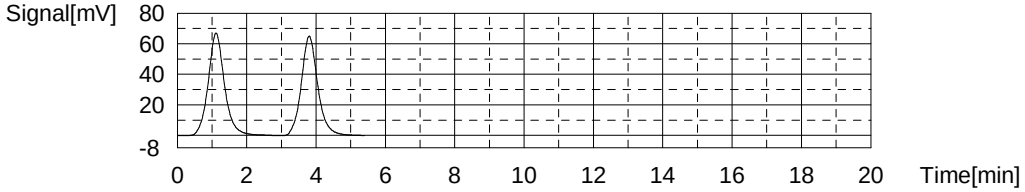
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:51.66mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	221.7	52.10mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:32:55 PM
2	218.0	51.22mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:35:45 PM

Mean Area 219.9
Mean Conc. 51.66mg/L



Sample

Sample Name: 460-68764-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

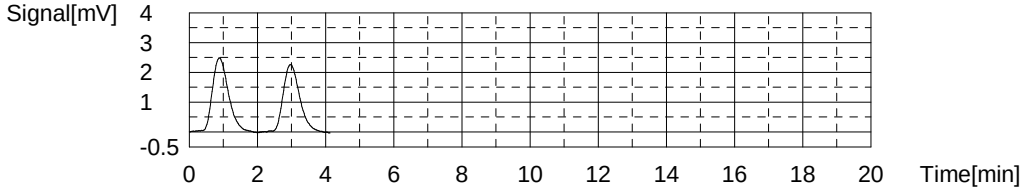
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.458mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.017	1.516mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:53:04 PM
2	7.532	1.401mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 5:55:17 PM

Mean Area 7.775
Mean Conc. 1.458mg/L



Sample

Sample Name: 460-68764-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

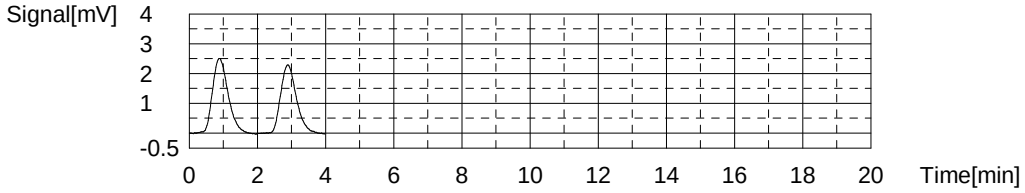
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.445mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.005	1.513mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:12:31 PM
2	7.431	1.377mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:14:40 PM

Mean Area 7.718
Mean Conc. 1.445mg/L



Sample

Sample Name: 460-68764-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

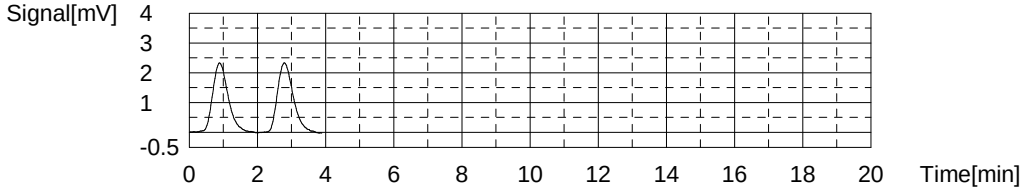
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.360mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.157	1.312mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:31:50 PM
2	7.563	1.408mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:33:58 PM

Mean Area 7.360
Mean Conc. 1.360mg/L



Sample

Sample Name: 460-68764-b-5
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

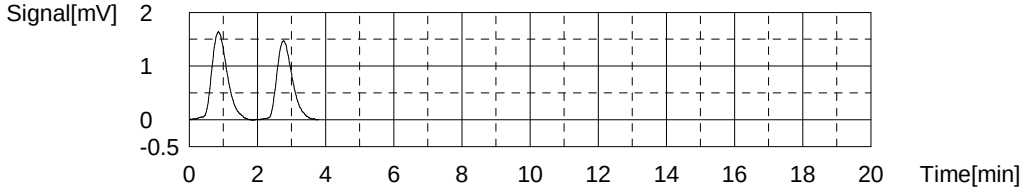
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.7425mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.996	0.8007mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:51:08 PM
2	4.504	0.6842mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 6:53:11 PM

Mean Area 4.750
Mean Conc. 0.7425mg/L



Sample

Sample Name: 460-68760-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

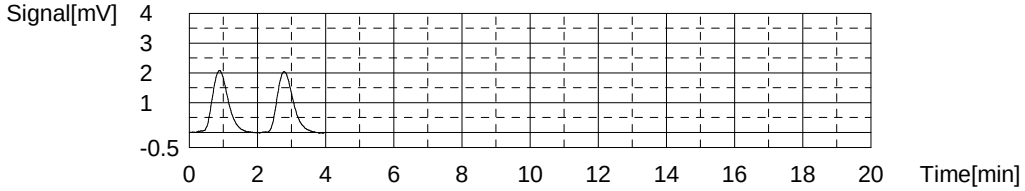
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.165mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.450	1.145mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:10:20 PM
2	6.622	1.186mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:12:32 PM

Mean Area 6.536
Mean Conc. 1.165mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

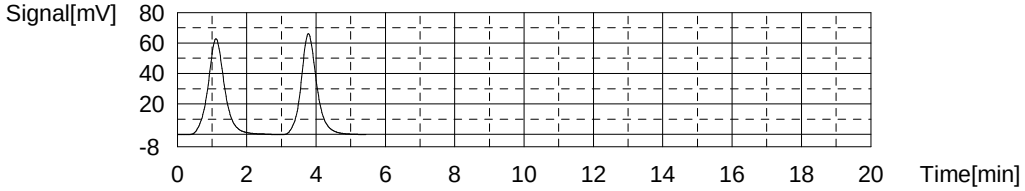
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.45mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	210.3	49.40mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:30:30 PM
2	210.7	49.49mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:33:23 PM

Mean Area 210.5
Mean Conc. 49.45mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

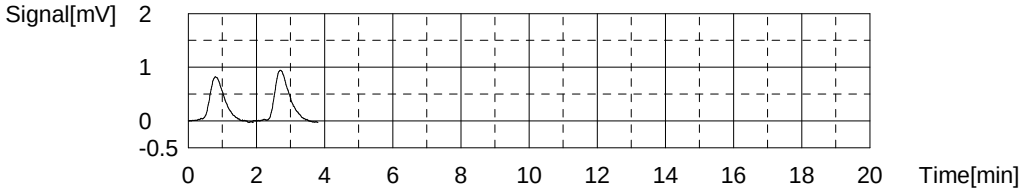
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2154mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.275	0.1566mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:50:32 PM
2	2.772	0.2742mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 7:52:35 PM

Mean Area 2.524
Mean Conc. 0.2154mg/L



Sample

Sample Name: 460-68760-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

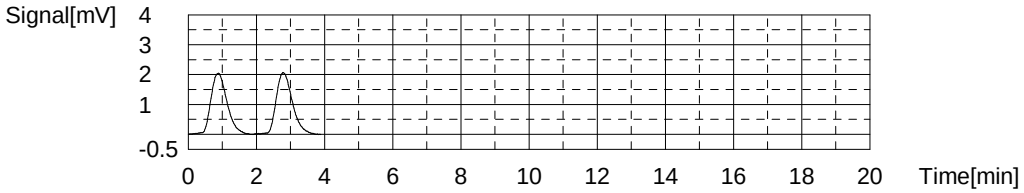
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.184mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.534	1.165mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:09:44 PM
2	6.700	1.204mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:11:52 PM

Mean Area 6.617
Mean Conc. 1.184mg/L



Sample

Sample Name: 460-68760-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

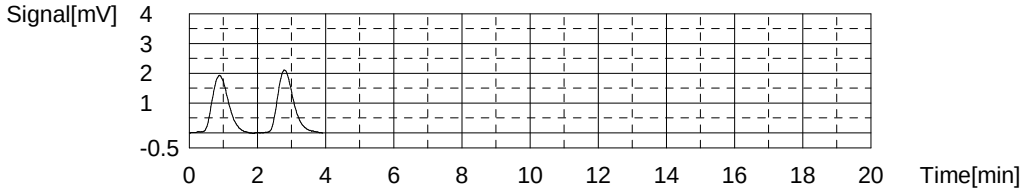
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.168mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.290	1.107mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:51:00 PM
2	6.803	1.228mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 8:53:09 PM

Mean Area 6.547
Mean Conc. 1.168mg/L



Sample

Sample Name: 460-68763-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

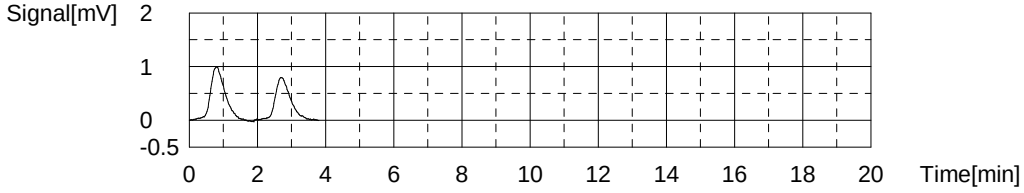
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1959mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.686	0.2539mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:21:57 PM
2	2.196	0.1379mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:24:00 PM

Mean Area 2.441
Mean Conc. 0.1959mg/L



Sample

Sample Name: 460-68763-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

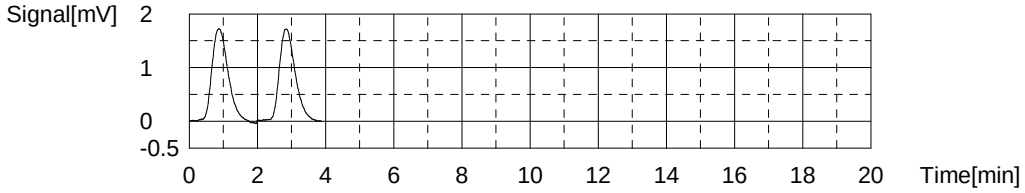
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.9338mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.692	0.9654mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:41:14 PM
2	5.425	0.9022mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 9:43:17 PM

Mean Area 5.559
Mean Conc. 0.9338mg/L



Sample

Sample Name: 460-68763-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

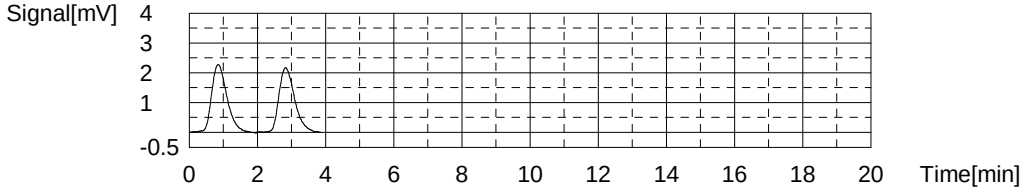
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.261mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.019	1.280mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:00:30 PM
2	6.866	1.243mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:02:33 PM

Mean Area 6.943
Mean Conc. 1.261mg/L



Sample

Sample Name: 460-68763-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

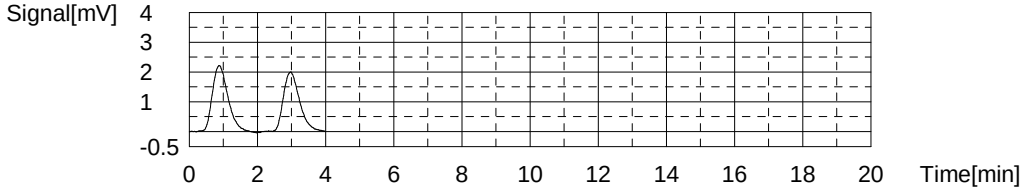
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.231mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.085	1.295mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:19:53 PM
2	6.540	1.166mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:21:56 PM

Mean Area 6.813
Mean Conc. 1.231mg/L



Sample

Sample Name: 460-68818-e-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

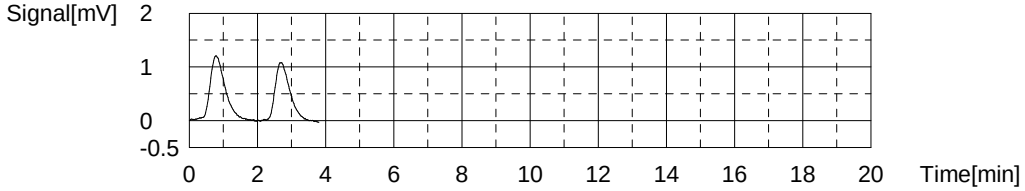
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4085mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.440	0.4324mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:39:05 PM
2	3.238	0.3845mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:41:08 PM

Mean Area 3.339
Mean Conc. 0.4085mg/L



Sample

Sample Name: 460-68818-e-16
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

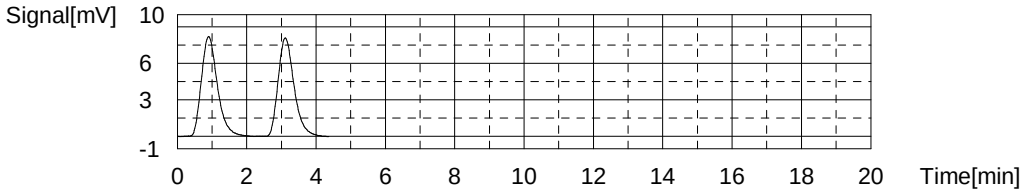
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.857mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	26.50	5.891mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 10:58:35 PM
2	26.21	5.822mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:00:54 PM

Mean Area 26.36
Mean Conc. 5.857mg/L



Sample

Sample Name: 460-68818-e-17
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

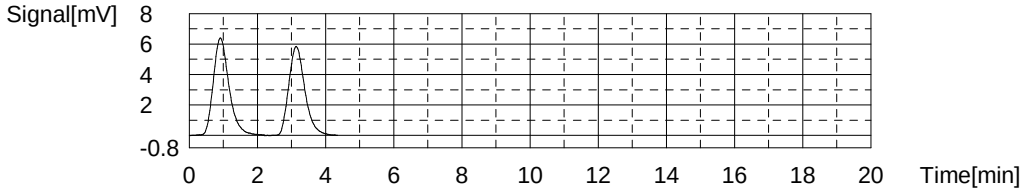
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:4.319mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	20.37	4.440mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:18:21 PM
2	19.35	4.198mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:20:39 PM

Mean Area 19.86
Mean Conc. 4.319mg/L



Sample

Sample Name: 460-68818-e-18
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

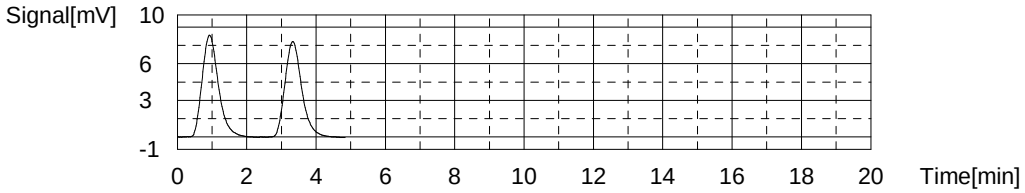
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:6.029mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	27.50	6.128mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:38:16 PM
2	26.67	5.931mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:40:53 PM

Mean Area 27.09
Mean Conc. 6.029mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

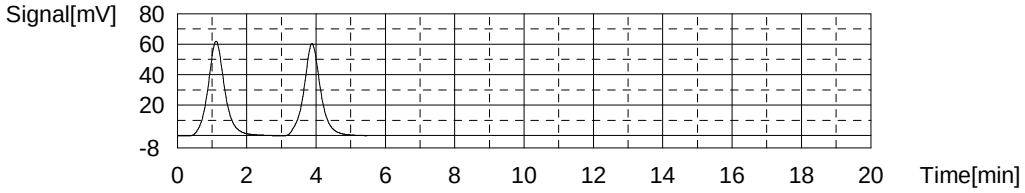
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.68mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	209.0	49.09mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/27/2013 11:58:51 PM
2	205.5	48.26mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:01:45 AM

Mean Area 207.3
Mean Conc. 48.68mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

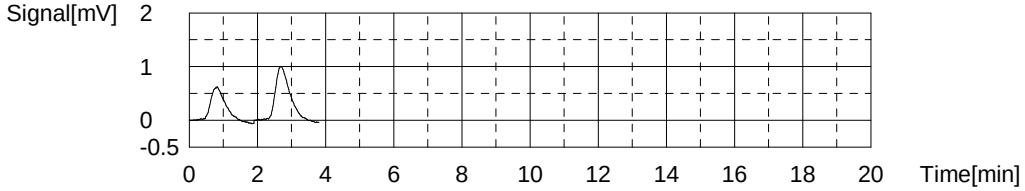
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1761mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	1.798	0.04368mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:18:54 AM
2	2.917	0.3086mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:20:57 AM

Mean Area 2.357
Mean Conc. 0.1761mg/L



Sample

Sample Name: 460-68772-d-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

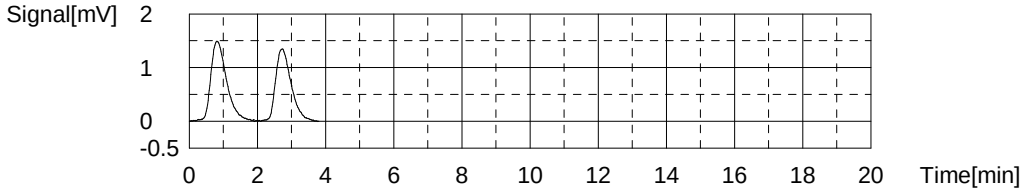
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6494mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.571	0.7001mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:38:06 AM
2	4.143	0.5988mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:40:09 AM

Mean Area 4.357
Mean Conc. 0.6494mg/L



Sample

Sample Name: 460-68772-d-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

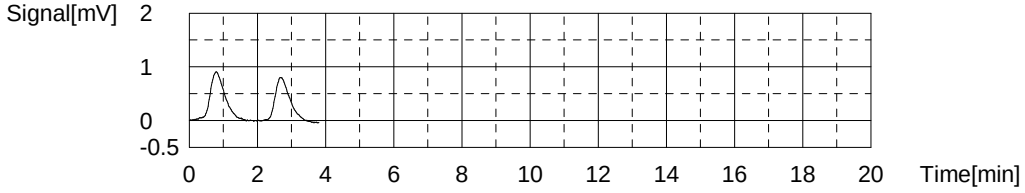
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1907mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.493	0.2082mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:57:19 AM
2	2.345	0.1732mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 12:59:22 AM

Mean Area 2.419
Mean Conc. 0.1907mg/L



Sample

Sample Name: 460-68799-d-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

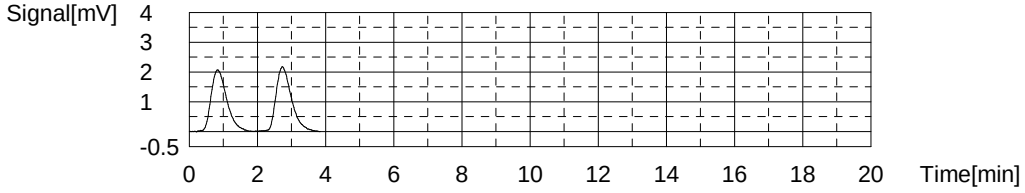
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.181mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.497	1.156mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:16:32 AM
2	6.707	1.206mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:18:38 AM

Mean Area 6.602
Mean Conc. 1.181mg/L



Sample

Sample Name: 460-68760-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

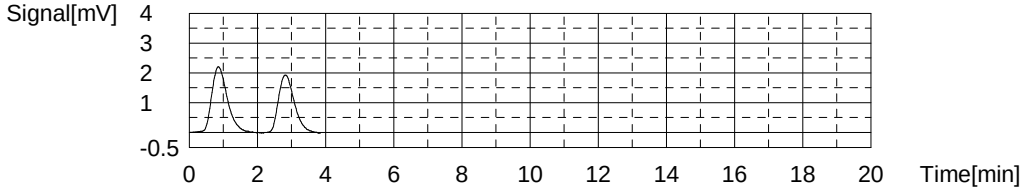
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.180mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.881	1.247mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:36:01 AM
2	6.317	1.113mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:38:04 AM

Mean Area 6.599
Mean Conc. 1.180mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

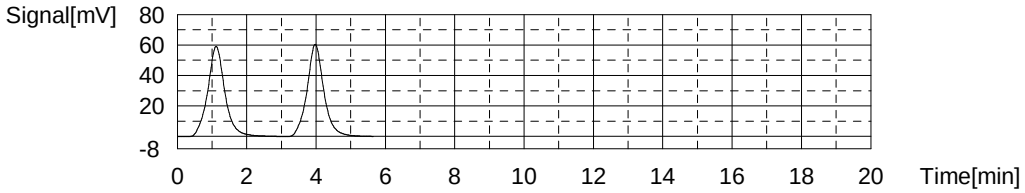
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.50mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	206.0	48.38mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:56:11 AM
2	207.0	48.62mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 1:59:08 AM

Mean Area 206.5
Mean Conc. 48.50mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

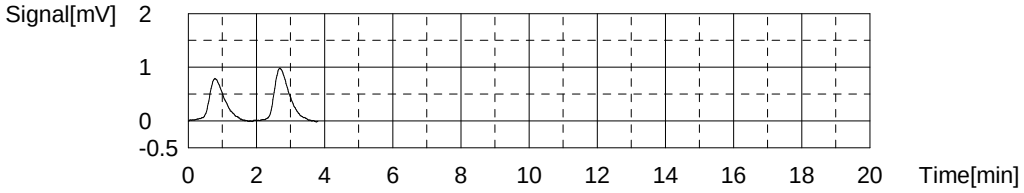
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2178mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.199	0.1386mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 2:16:18 AM
2	2.868	0.2970mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 2:18:21 AM

Mean Area 2.534
Mean Conc. 0.2178mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

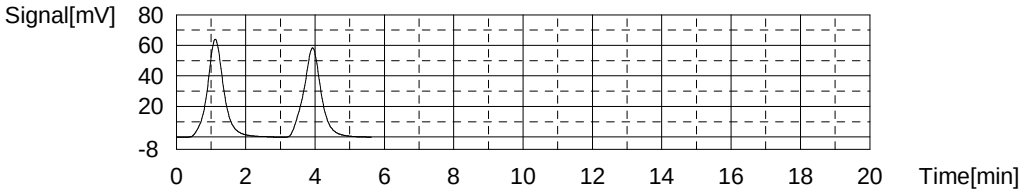
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.49mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	212.2	49.85mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:06:28 AM
2	209.2	49.14mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:09:26 AM

Mean Area 210.7
Mean Conc. 49.49mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

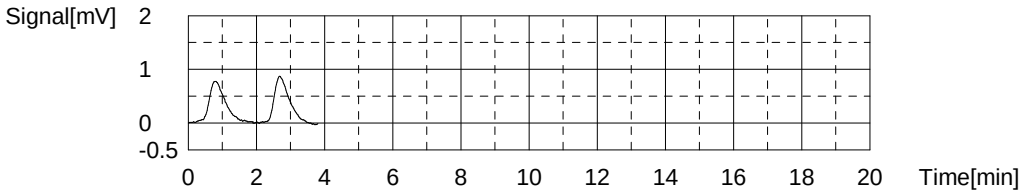
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1932mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.214	0.1422mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:26:36 AM
2	2.645	0.2442mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:28:39 AM

Mean Area 2.430
Mean Conc. 0.1932mg/L



Sample

Sample Name: 460-68760-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

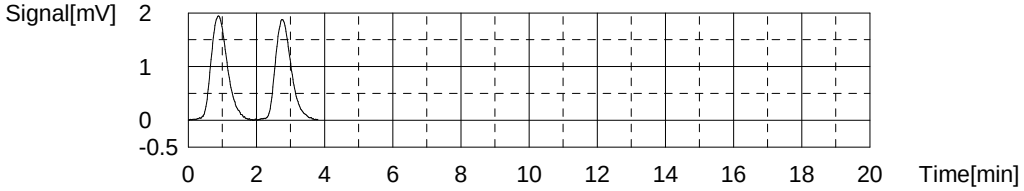
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.067mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.347	1.120mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:45:49 AM
2	5.891	1.013mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 5:47:52 AM

Mean Area 6.119
Mean Conc. 1.067mg/L



Sample

Sample Name: 460-68763-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

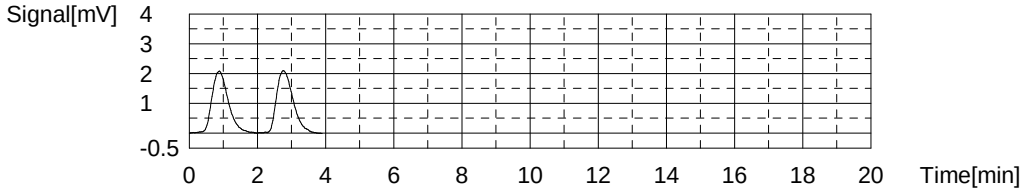
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.244mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.690	1.202mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:05:04 AM
2	7.048	1.286mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:07:12 AM

Mean Area 6.869
Mean Conc. 1.244mg/L



Sample

Sample Name: CCV
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

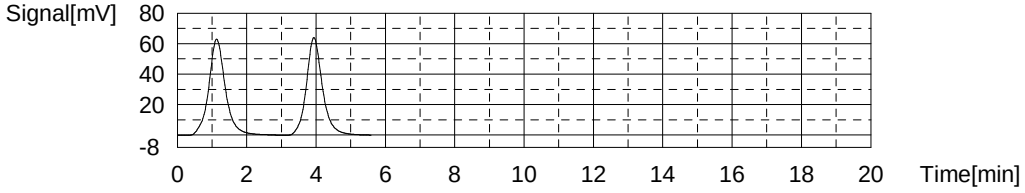
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:49.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	211.6	49.71mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:25:21 AM
2	209.5	49.21mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:28:15 AM

Mean Area 210.6
Mean Conc. 49.46mg/L



Sample

Sample Name: CCB
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

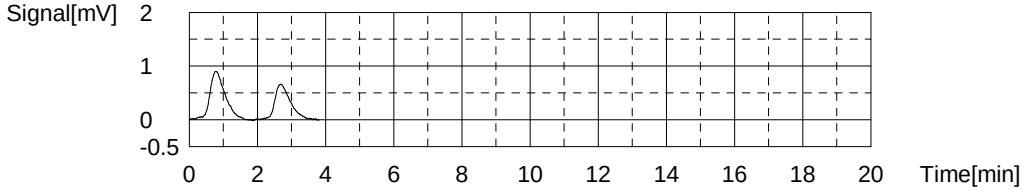
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.1420mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.517	0.2139mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:45:26 AM
2	1.910	0.07019mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/28/2013 6:47:29 AM

Mean Area 2.213
Mean Conc. 0.1420mg/L



	Sample Name	Origin	Dil	Result	Status	Date / Time	Vial
1	ICV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:51.21mg/L	Complete	12/27/2013 2:29:59 PM	1
2	ICB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2183mg/L	Complete	12/27/2013 2:58:26 PM	2
3	MB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1745mg/L	Complete	12/27/2013 3:17:38 PM	3
4	LCSSRM	C:\TOC3201\Methods\method 5310b	1.0	NPOC:72.28mg/L	Complete	12/27/2013 3:38:20 PM	4
5	460-68764-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.510mg/L	Complete	12/27/2013 4:54:09 PM	5
6	460-68764-b-1 MS	C:\TOC3201\Methods\method 5310b	1.0	NPOC:51.58mg/L	Complete	12/27/2013 5:14:57 PM	6
7	460-68764-b-1 MSD	C:\TOC3201\Methods\method 5310b	1.0	NPOC:51.66mg/L	Complete	12/27/2013 5:35:45 PM	7
8	460-68764-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.458mg/L	Complete	12/27/2013 5:55:17 PM	8
9	460-68764-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.445mg/L	Complete	12/27/2013 6:14:40 PM	9
10	460-68764-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.360mg/L	Complete	12/27/2013 6:33:58 PM	10
11	460-68764-b-5	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.7425mg/L	Complete	12/27/2013 6:53:11 PM	11
12	460-68760-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.165mg/L	Complete	12/27/2013 7:12:32 PM	12
13	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:49.45mg/L	Complete	12/27/2013 7:33:23 PM	13
14	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2154mg/L	Complete	12/27/2013 7:52:35 PM	14
15	460-68760-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.184mg/L	Complete	12/27/2013 8:11:52 PM	15
16	460-68760-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.168mg/L	Complete	12/27/2013 8:53:09 PM	16
17	460-68763-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1959mg/L	Complete	12/27/2013 9:24:00 PM	17
18	460-68763-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.9338mg/L	Complete	12/27/2013 9:43:17 PM	18
19	460-68763-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.261mg/L	Complete	12/27/2013 10:02:33 PM	19
20	460-68763-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.231mg/L	Complete	12/27/2013 10:21:56 PM	20
21	460-68818-e-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.4085mg/L	Complete	12/27/2013 10:41:08 PM	21
22	460-68818-e-16	C:\TOC3201\Methods\method 5310b	1.0	NPOC:5.857mg/L	Complete	12/27/2013 11:00:54 PM	22
23	460-68818-e-17	C:\TOC3201\Methods\method 5310b	1.0	NPOC:4.319mg/L	Complete	12/27/2013 11:20:39 PM	23
24	460-68818-e-18	C:\TOC3201\Methods\method 5310b	1.0	NPOC:6.029mg/L	Complete	12/27/2013 11:40:53 PM	24
25	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.68mg/L	Complete	12/28/2013 12:01:45 AM	25
26	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1761mg/L	Complete	12/28/2013 12:20:57 AM	26
27	460-68772-d-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.6494mg/L	Complete	12/28/2013 12:40:09 AM	27
28	460-68772-d-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1907mg/L	Complete	12/28/2013 12:59:22 AM	28
29	460-68799-d-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.181mg/L	Complete	12/28/2013 1:18:38 AM	29
30	460-68760-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.180mg/L	Complete	12/28/2013 1:38:04 AM	30
31	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.50mg/L	Complete	12/28/2013 1:59:08 AM	31
32	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2178mg/L	Complete	12/28/2013 2:18:21 AM	32
33	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:49.49mg/L	Complete	12/28/2013 5:09:26 AM	33
34	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1932mg/L	Complete	12/28/2013 5:28:39 AM	34
35	460-68760-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.067mg/L	Complete	12/28/2013 5:47:52 AM	35
36	460-68763-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.244mg/L	Complete	12/28/2013 6:07:12 AM	36
37	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:49.46mg/L	Complete	12/28/2013 6:28:15 AM	37
38	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.1420mg/L	Complete	12/28/2013 6:47:29 AM	38

Instr.Information

System	TOC-V CSH
Detector	Combustion
Catalyst	Regular Sensitivity
Cell Length	long

Cal. Curve

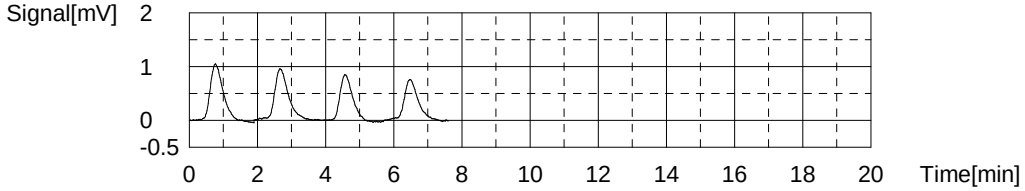
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	HV131205.2013_12_05_13_43_06.cal
Status	Completed

Type	Anal.
Standard	NPOC

Conc: 0.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	2.691	50uL	1	*******		12/5/2013 1:59:23 PM
2	2.457	50uL	1	*******		12/5/2013 2:01:26 PM
3	2.206	50uL	1	*******		12/5/2013 2:03:30 PM
4	1.880	50uL	1	*******		12/5/2013 2:05:33 PM

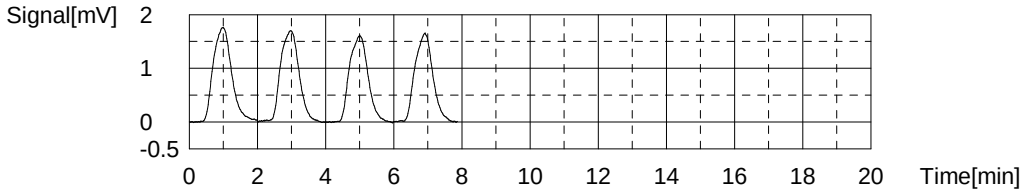
Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 2.309



Conc: 1.000mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	6.448	50uL	1	*******		12/5/2013 2:22:45 PM
2	6.276	50uL	1	*******		12/5/2013 2:24:54 PM
3	6.018	50uL	1	*******		12/5/2013 2:26:59 PM
4	6.005	50uL	1	*******		12/5/2013 2:29:05 PM

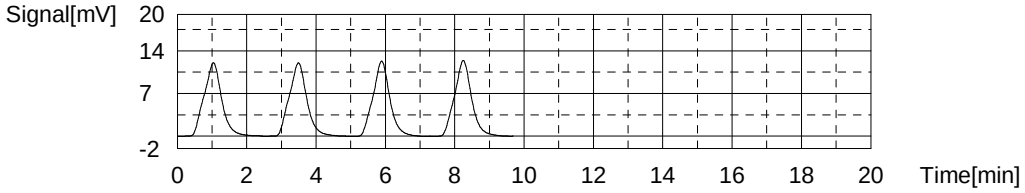
Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 6.187



Conc: 10.00mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	42.94	50uL	1	*******		12/5/2013 2:46:45 PM
2	42.44	50uL	1	*******		12/5/2013 2:49:18 PM
3	42.25	50uL	1	*******		12/5/2013 2:51:48 PM
4	43.18	50uL	1	*******		12/5/2013 2:54:26 PM

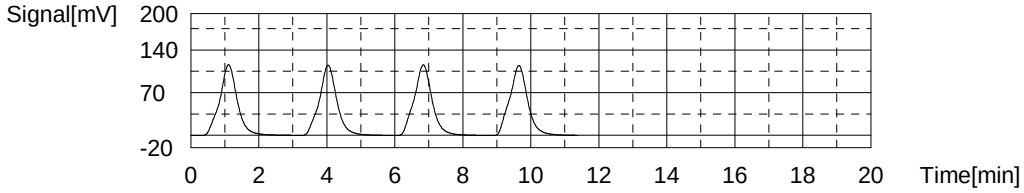
Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 42.70



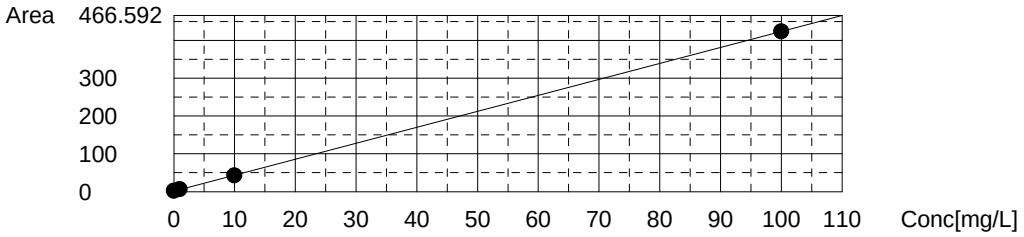
Conc: 100.0mg/L

No.	Area	Inj. Vol.	Aut. Dil.	Rem.	Ex.	Date / Time
1	420.5	50uL	1	*******		12/5/2013 3:12:35 PM
2	418.0	50uL	1	*******		12/5/2013 3:15:34 PM
3	430.6	50uL	1	*******		12/5/2013 3:18:34 PM
4	427.6	50uL	1	*******		12/5/2013 3:21:33 PM

Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 424.2



Slope: 4.224
Intercept 1.613
r^2 0.999984
Zero Shift No



OPERATOR:	huan
ACQ. TIME:	Jan 2, 2014 11:01:53
DATA FILENAME:	C:\OMNION\DATA\AMMONIA\DATA2013\A140102.FDT
METHOD FILENAME:	C:\OMNION\METHODS\AMMONIA.MET
TRAY FILENAME:	

TRAY DESCRIPTION:

Created:	Jan 28, 2013 14:17:09
Modified:	Dec 31, 2013 14:19:56

DATA DESCRIPTION:

Created:	Jan 2, 2014 11:01:53
Modified:	Jan 2, 2014 11:01:53

Method - Ch. 1 (ammonia)

METHOD DESCRIPTION:

Created:	Oct 20, 2012 10:22:20
Modified:	Dec 31, 2013 11:15:26

ammonia

ANALYTE DATA:

Analyte Name:	ammonia
Concentration Units:	mg/l
Chemistry:	Direct
Inject to Peak Start (s):	22.0
Peak Base Width (s):	45.567
% Width Tolerance:	100.000
Threshold:	300.000
Autodilution Trigger:	Off
QuikChem Method:	10-107-06-1-c

CALIBRATION DATA:

Levels:

1 : 4.000 2 : 2.000 3 : 1.000 4 : 0.500
5 : 0.100 6 : 0.000

Calibration Rep Handling:	Replace
Calibration Fit Type:	1st Order Poly
Force Though Zero:	No
Weighting Method:	None
Concentration Scaling:	None

SAMPLER TIMING:

Method Cycle Period:	90.0
Min. Probe in Wash Period:	5.0
Probe in Sample Period:	24.0

*** Prep Sequence Not Enabled ***

VALVE TIMING:

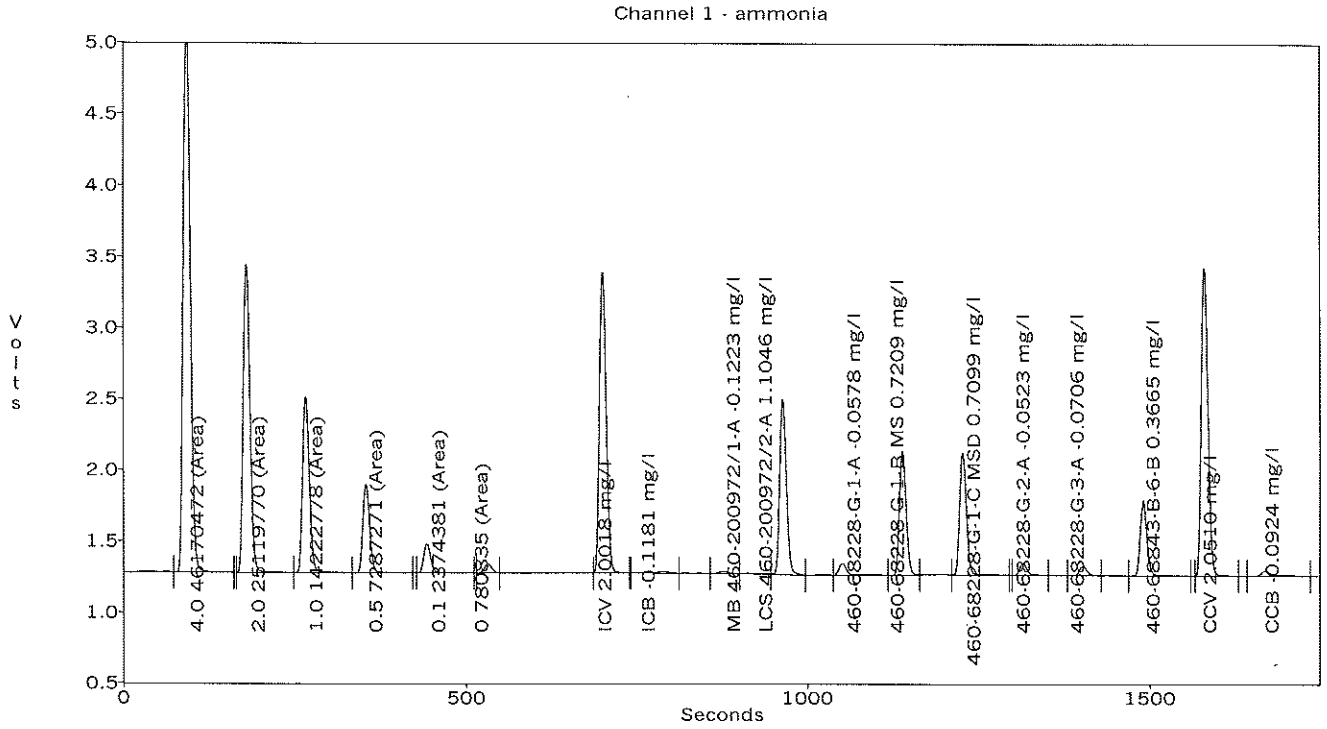
Method Cycle Period:	90.0
Sample Reaches 1st Valve:	30.0
Valve:	On
Load Time:	0.0
Load Period:	18.0
Inject Period:	72.0

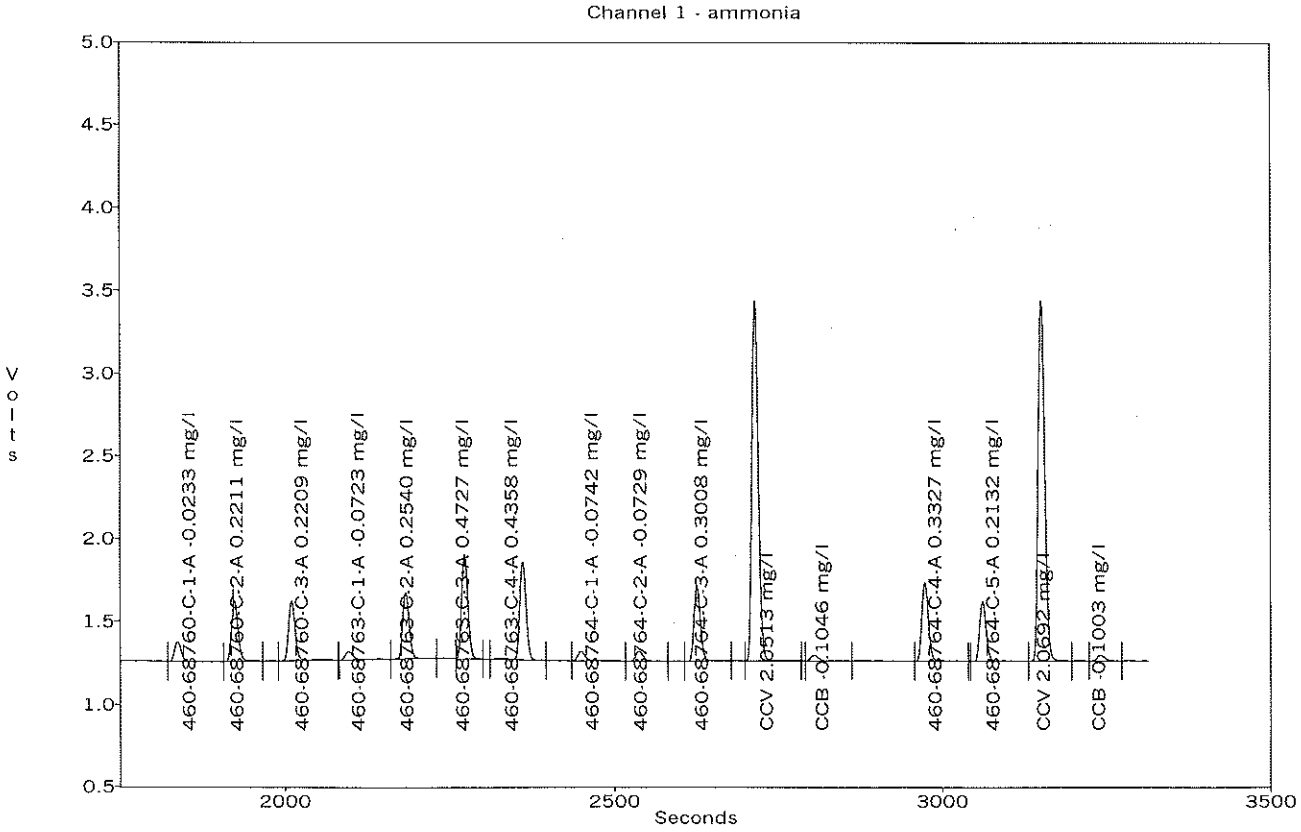
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 1 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	ammonia (uv-s)	Man Dil Factor	Weight	Unit
1	4.0	02 Jan 2014	11:01:54	1	46170472.00	1.0	1.00000	g
2	2.0	02 Jan 2014	11:03:21	1	25119770.00	1.0	1.00000	g
3	1.0	02 Jan 2014	11:04:48	1	14222778.00	1.0	1.00000	g
4	0.5	02 Jan 2014	11:06:16	1	7287271.00	1.0	1.00000	g
5	0.1	02 Jan 2014	11:07:45	1	2374381.00	1.0	1.00000	g
6	0	02 Jan 2014	11:09:14	1	780835.00	1.0	1.00000	g

Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 1 -- Cup Range: 1 to 46

Cup	Sample ID	Sampling Date	Sampling Time	Rep #	ammonia (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
1	ICV	02 Jan 2014	11:12:02	1	2.0018	1.0	1.00	1.00000	g
2	ICB	02 Jan 2014	11:13:31	1	-0.1181	1.0	1.00	1.00000	g
3	MB 460-200972/1-A	02 Jan 2014	11:14:59	1	-0.1223	1.0	1.00	1.00000	g
4	LCS 460-200972/2-A	02 Jan 2014	11:16:27	1	1.1046	1.0	1.00	1.00000	g
5	460-68228-G-1-A	02 Jan 2014	11:17:54	1	-0.0578	1.0	1.00	1.00000	g
6	460-68228-G-1-B MS	02 Jan 2014	11:19:22	1	0.7209	1.0	1.00	1.00000	g
7	460-68228-G-1-C MSD	02 Jan 2014	11:20:50	1	0.7099	1.0	1.00	1.00000	g
8	460-68228-G-2-A	02 Jan 2014	11:22:17	1	-0.0523	1.0	1.00	1.00000	g
9	460-68228-G-3-A	02 Jan 2014	11:23:45	1	-0.0706	1.0	1.00	1.00000	g
10	460-68843-B-6-B	02 Jan 2014	11:25:13	1	0.3665	1.0	1.00	1.00000	g
11	460-68760-C-1-A	02 Jan 2014	11:31:00	1	-0.0233	1.0	1.00	1.00000	g
12	460-68760-C-2-A	02 Jan 2014	11:32:26	1	0.2211	1.0	1.00	1.00000	g
13	460-68760-C-3-A	02 Jan 2014	11:33:53	1	0.2209	1.0	1.00	1.00000	g
14	460-68763-C-1-A	02 Jan 2014	11:35:19	1	-0.0723	1.0	1.00	1.00000	g
15	460-68763-C-2-A	02 Jan 2014	11:36:46	1	0.2540	1.0	1.00	1.00000	g
16	460-68763-C-3-A	02 Jan 2014	11:38:15	1	0.4727	1.0	1.00	1.00000	g
17	460-68763-C-4-A	02 Jan 2014	11:39:44	1	0.4358	1.0	1.00	1.00000	g
18	460-68764-C-1-A	02 Jan 2014	11:41:12	1	-0.0742	1.0	1.00	1.00000	g
19	460-68764-C-2-A	02 Jan 2014	11:42:41	1	-0.0729	1.0	1.00	1.00000	g
20	460-68764-C-3-A	02 Jan 2014	11:44:10	1	0.3008	1.0	1.00	1.00000	g
21	460-68764-C-4-A	02 Jan 2014	11:49:56	1	0.3327	1.0	1.00	1.00000	g
22	460-68764-C-5-A	02 Jan 2014	11:51:24	1	0.2132	1.0	1.00	1.00000	g


Channel 1 - ammonia
Volts
Seconds
4.0 46170472 (Area)
2.0 25119770 (Area)
1.0 14222778 (Area)
0.5 7287271 (Area)
0.1 2374381 (Area)
0 780535 (Area)
ICV 2.0018 mg/l
ICB -0.1181 mg/l
MB 460-200972/1-A -0.1223 mg/l
LCS 460-200972/2-A 1.1046 mg/l
460-68228-G-1-A -0.0578 mg/l
460-68228-G-1-B MS 0.7209 mg/l
460-68228-G-1-C MSD 0.7099 mg/l
460-68228-G-2-A -0.0523 mg/l
460-68228-G-3-A -0.0706 mg/l
460-68843-B-6-B 0.3665 mg/l
CCV 2.0510 mg/l
CCB -0.0924 mg/l


Channel 1 - ammonia
Volts
Seconds
460-68760-C-1-A -0.0233 mg/l
460-68760-C-2-A 0.2211 mg/l
460-68760-C-3-A 0.2209 mg/l
460-68763-C-1-A -0.0723 mg/l
460-68763-C-2-A 0.2540 mg/l
460-68763-C-3-A 0.4727 mg/l
460-68763-C-4-A 0.4358 mg/l
460-68764-C-1-A -0.0742 mg/l
460-68764-C-2-A -0.0729 mg/l
460-68764-C-3-A 0.3008 mg/l
CCV 2.0513 mg/l
CCB -0.1046 mg/l
460-68764-C-4-A 0.3327 mg/l
460-68764-C-5-A 0.2132 mg/l
CCV 2.0692 mg/l
CCB -0.1003 mg/l

Sample Information/Results: Ch. 1
ammonia (Cup Range: 1 - 25)

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknown
Rep 1/1, Result: 2.0018 mg/l

Cup: 2, Sample ID: ICB, Sample Type: Unknown
Rep 1/1, Result: -0.1181 mg/l

Cup: 3, Sample ID: MB 460-200972/1-A, Sample Type: Unknown
Rep 1/1, Result: -0.1223 mg/l

Cup: 4, Sample ID: LCS 460-200972/2-A, Sample Type: Unknown
Rep 1/1, Result: 1.1046 mg/l

Cup: 5, Sample ID: 460-68228-G-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0578 mg/l

Cup: 6, Sample ID: 460-68228-G-1-B MS, Sample Type: Unknown
Rep 1/1, Result: 0.7209 mg/l

Cup: 7, Sample ID: 460-68228-G-1-C MSD, Sample Type: Unknown
Rep 1/1, Result: 0.7099 mg/l

Cup: 8, Sample ID: 460-68228-G-2-A, Sample Type: Unknown
Rep 1/1, Result: -0.0523 mg/l

Cup: 9, Sample ID: 460-68228-G-3-A, Sample Type: Unknown
Rep 1/1, Result: -0.0706 mg/l

Cup: 10, Sample ID: 460-68843-B-6-B, Sample Type: Unknown
Rep 1/1, Result: 0.3665 mg/l

Cup: 11, Sample ID: 460-68760-C-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0233 mg/l

Cup: 12, Sample ID: 460-68760-C-2-A, Sample Type: Unknown
Rep 1/1, Result: 0.2211 mg/l

Cup: 13, Sample ID: 460-68760-C-3-A, Sample Type: Unknown
Rep 1/1, Result: 0.2209 mg/l

Cup: 14, Sample ID: 460-68763-C-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0723 mg/l

Cup: 15, Sample ID: 460-68763-C-2-A, Sample Type: Unknown
Rep 1/1, Result: 0.2540 mg/l

Cup: 16, Sample ID: 460-68763-C-3-A, Sample Type: Unknown
Rep 1/1, Result: 0.4727 mg/l

Cup: 17, Sample ID: 460-68763-C-4-A, Sample Type: Unknown
Rep 1/1, Result: 0.4358 mg/l

Cup: 18, Sample ID: 460-68764-C-1-A, Sample Type: Unknown
Rep 1/1, Result: -0.0742 mg/l

Cup: 19, Sample ID: 460-68764-C-2-A, Sample Type: Unknown
Rep 1/1, Result: -0.0729 mg/l

Cup: 20, Sample ID: 460-68764-C-3-A, Sample Type: Unknown
Rep 1/1, Result: 0.3008 mg/l

Cup: 21, Sample ID: 460-68764-C-4-A, Sample Type: Unknown
Rep 1/1, Result: 0.3327 mg/l

Cup: 22, Sample ID: 460-68764-C-5-A, Sample Type: Unknown
Rep 1/1, Result: 0.2132 mg/l

Sample Information/Results: Ch. 1
ammonia (Cup Range: 26 - 51)

Unknowns:

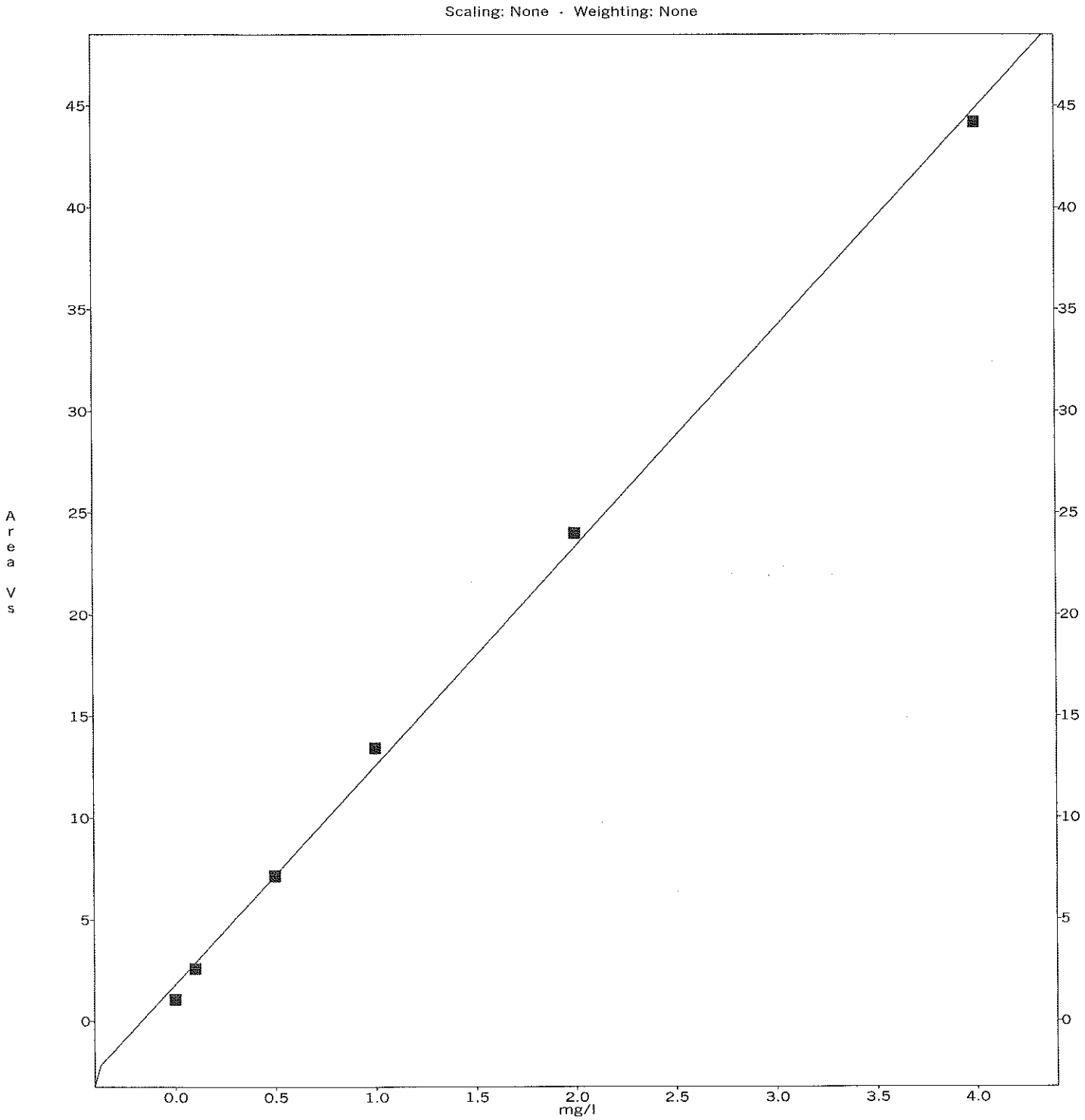
Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	ammonia (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV	RelChkStd	02 Jan 2014	11:26:43	1	2.05	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		2.55				
15	CCV	RelChkStd	02 Jan 2014	11:45:39	1	2.05	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		2.57				
15	CCV	RelChkStd	02 Jan 2014	11:52:53	1	2.07	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		3.46				
16	CCB	Blank	02 Jan 2014	11:28:13	1	-0.09	1.0	1.00	1.00000	g
16	CCB	Blank	02 Jan 2014	11:47:09	1	-0.10	1.0	1.00	1.00000	g
16	CCB	Blank	02 Jan 2014	11:54:24	1	-0.10	1.0	1.00	1.00000	g

ammonia

Lvl	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	44205180	4.0	44205180					0.0	0.0	1.4
2	24012154	2.0	24012154					0.0	0.0	-3.3
3	13444775	1.0	13444775					0.0	0.0	-8.3
4	7170106	0.5	7170106					0.0	0.0	-0.1
5	2597152	0.1	2597152					0.0	0.0	24.7
6	1069405	0.0	1069405					0.0	0.0	

1st Order Poly
Conc = 9.293e-008 Area - 1.660e-001
r = 0.9992



Printed: Thursday, January 02, 2014 - 02:31 PM

PROJECT pH/ corrosivity

Notebook No. 6507 1

Continued from Page

Buffer	BATCH	Job	Sample	Matrix	DIL	pH1	pH2	Temp	Time
7.00			CCV			7.04	7.03	23.2	3:05
4.01			MB			6.03	6.05	22.1	3:07
12.03			LCSSRM			7.02	7.02	23.2	3:09
			68717-1A		H2O	7.71	7.70	22.5	3:13
			-1 Dup			7.68	7.69	22.2	3:15
			-2			8.15	8.17	22.4	3:17
			-3			8.12	8.12	22.4	3:20
			68760-1D			7.55	7.56	22.6	3:22
			-2			7.36	7.34	22.4	3:24
			-3			7.25	7.26	22.0	3:26
			CCV			7.01	7.00	23.4	3:28
			68763-1F			5.89	5.88	21.9	3:30
			-2			8.05	8.03	22.4	3:32
			-3			7.48	7.47	21.9	3:34
			-4			7.08	7.06	22.0	3:37
			68764-1F			7.87	7.87	22.4	3:39
			-2			7.88	7.88	22.6	3:40
			-3			8.08	8.07	22.1	3:42
			-4			7.96	7.96	22.4	3:44
			-5			7.92	7.93	21.9	3:46
			CCV			7.00	7.00	23.5	3:48
			68904-1G			7.48	7.49	21.8	3:50
			68914-1E			4.82	4.81	23.4	3:53
			68962-1E			7.46	7.47	21.8	3:55
			68983-1D			8.24	8.25	22.0	3:57
			CCV			7.00	7.00	23.4	4:00

201069

pH meter G
Beaker IN TBLS

Continued on Page

Read and Understood By

Signed 1/2/14 Date Signed Date

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d
Lims ID: STD0 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 0
Inject. Date: 17-Dec-2013 15:19:57 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028206-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:14 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.447	2.360	2.600	598	57.78	3.78		2 Chloride
4.940	4.843	5.093	437	42.22	4.91		5 Sulfate
			1035			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

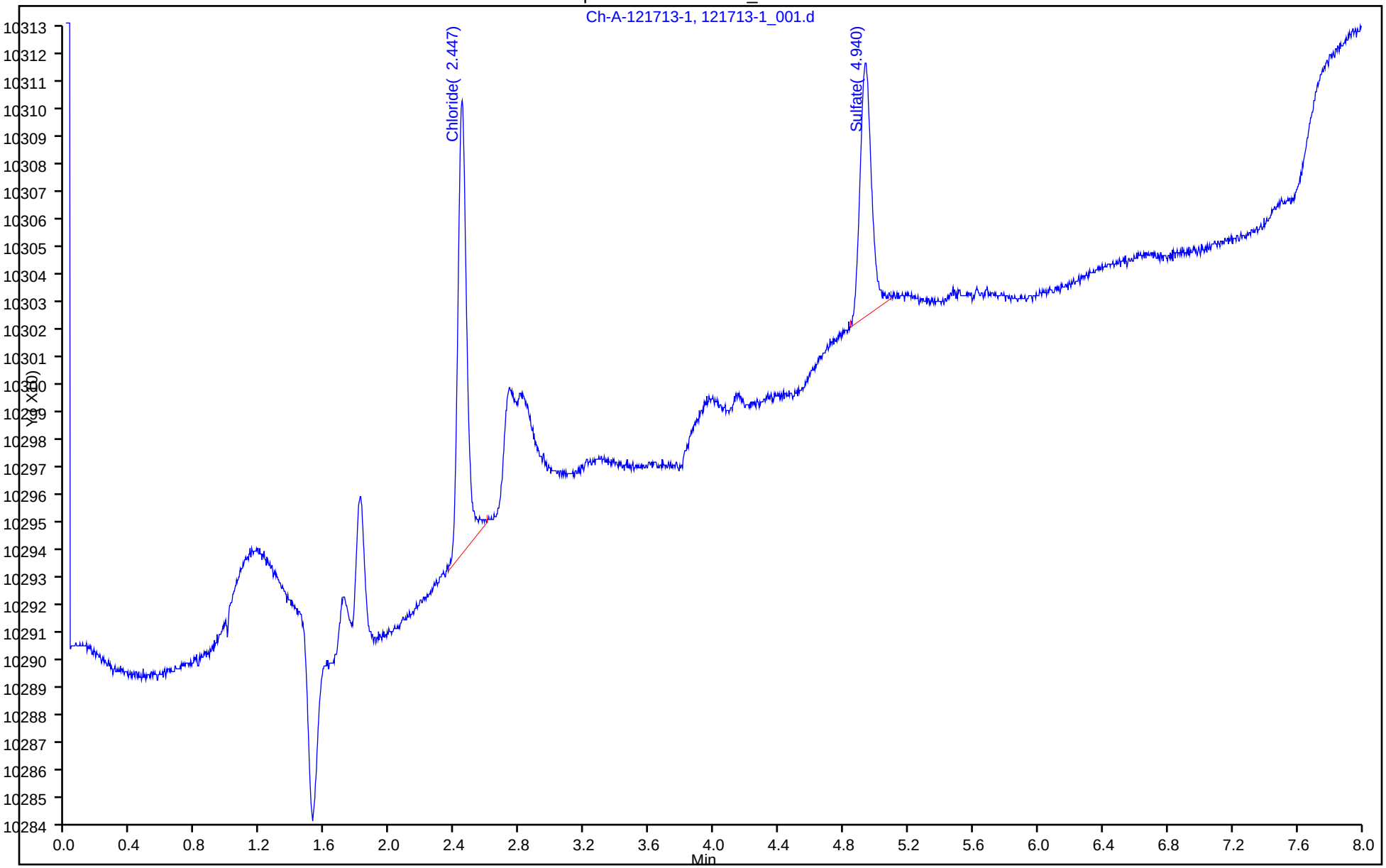
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d				
Lims ID:	STD0	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	0		
Inject. Date:	17-Dec-2013 15:19:57	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 001 Name: 480-0028206-001				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:14	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.447	2.467	-0.020	598	0.000010	
5 Sulfate					
4.940	4.897	0.043	437	0.000009	

Report Date: 17-Dec-2013 17:07:15 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d				
Injection Date:	17-Dec-2013 15:19:57	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD0	Lab Sample ID:		Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d
Lims ID: STD1 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 17-Dec-2013 15:30:05 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 002 Name: 480-0028206-002
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:14 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 15:54:31

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.697	1.617	1.867	1492	6.93	3.64		1 Fluoride
2.457	2.353	2.693	9488	44.05	3.59		2 Chloride
3.887	3.803	4.047	468	2.17	6.41		3 Bromide
4.157	4.047	4.447	2805	13.02	4.94		
4.930	4.810	5.307	7288	33.83	4.73		5 Sulfate
			21541			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

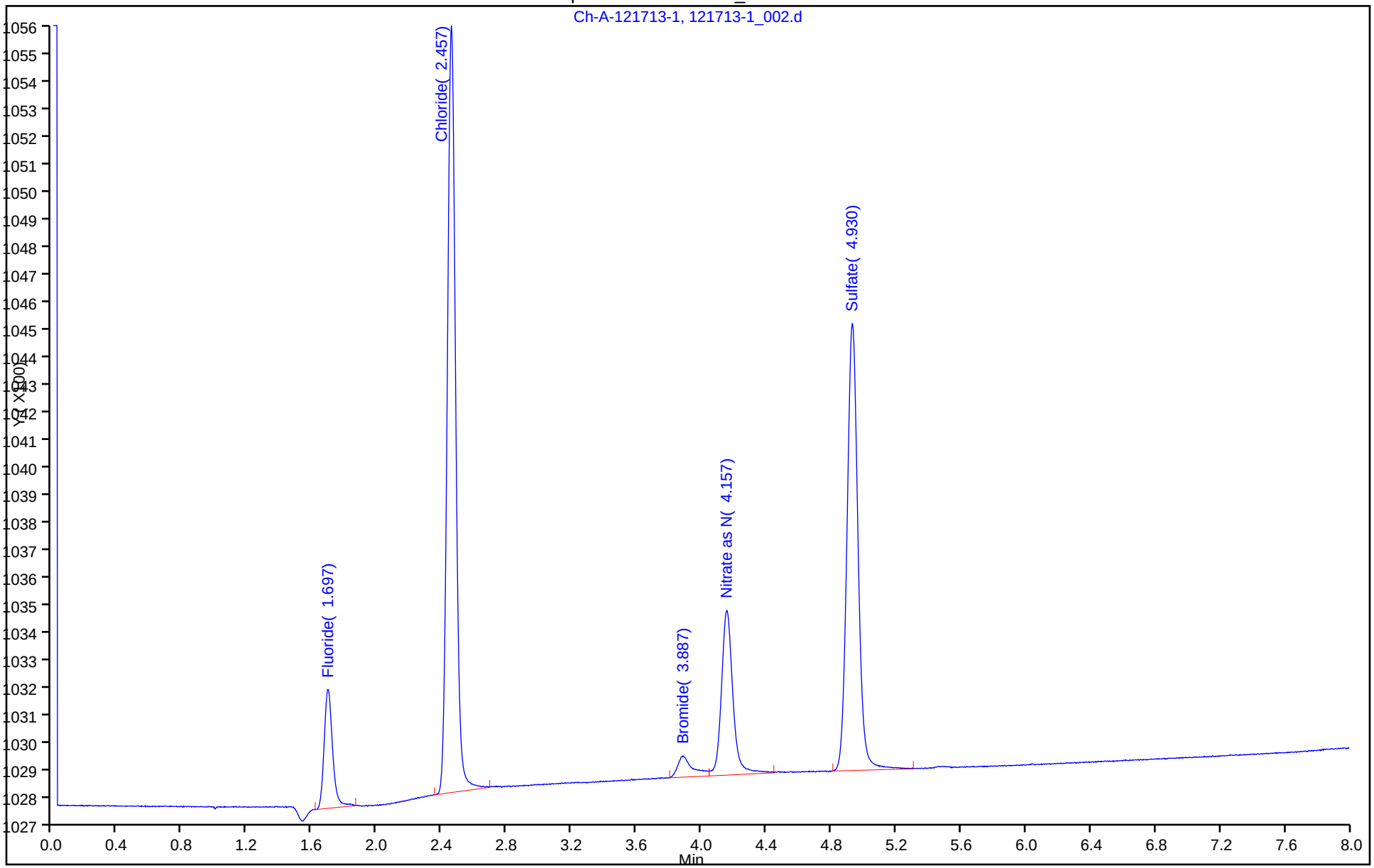
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d				
Lims ID:	STD1	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	17-Dec-2013 15:30:05	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 002 Name: 480-0028206-002				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:14	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				
First Level Reviewer: cudneyk		Date:	17-Dec-2013 15:54:31		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.697	1.717	-0.020	1492	0.0496	
2 Chloride					
2.457	2.467	-0.010	9488	0.4771	
3 Bromide					
3.887	3.887	0.0	468	0.0589	
4 Nitrate as N					
4.157	4.127	0.030	2805	0	
5 Sulfate					
4.930	4.897	0.033	7288	0.4973	

Report Date: 17-Dec-2013 17:07:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d				
Injection Date:	17-Dec-2013 15:30:05	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD1	Lab Sample ID:		Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d
Lims ID: STD2 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 17-Dec-2013 15:40:13 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028206-003
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:13 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 15:55:08

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.700	1.613	1.923	3154	7.37	3.63		1 Fluoride
2.463	2.357	2.803	19509	45.57	3.70		2 Chloride
3.890	3.800	4.053	766	1.79	5.63		3 Bromide
4.160	4.053	4.510	4521	10.56	4.87		
4.950	4.813	5.347	14858	34.71	4.78		5 Sulfate
			42808			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

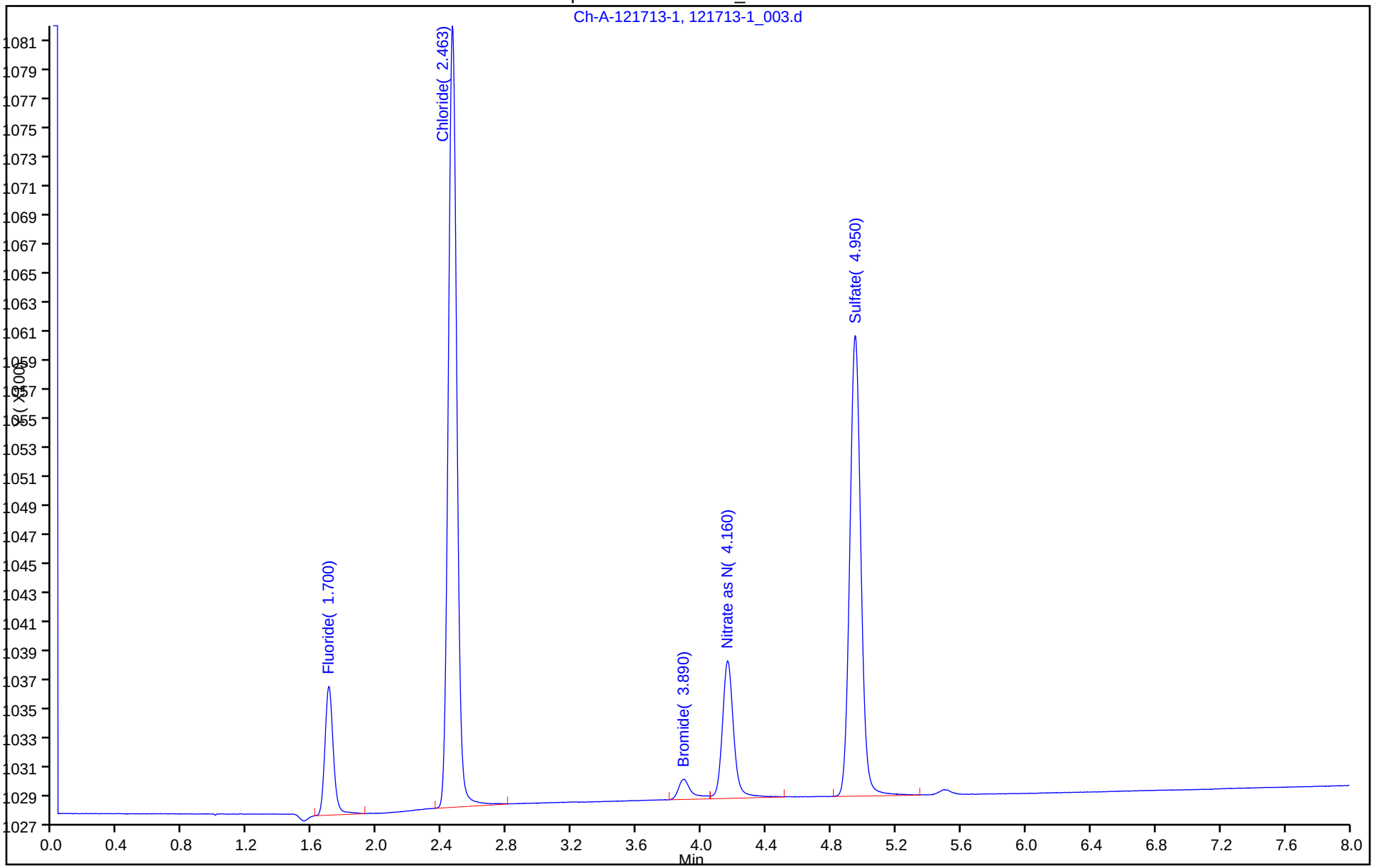
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d				
Lims ID:	STD2	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	17-Dec-2013 15:40:13	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 003 Name: 480-0028206-003				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:07:13	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK040				
First Level Reviewer: cudneyk		Date:	17-Dec-2013 15:55:08		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.700	1.717	-0.017	3154	0.1049	
2 Chloride					
2.463	2.467	-0.004	19509	1.01	
3 Bromide					
3.890	3.887	0.003	766	0.0964	
4 Nitrate as N					
4.160	4.127	0.033	4521	0	
5 Sulfate					
4.950	4.897	0.053	14858	1.05	

Report Date: 17-Dec-2013 17:07:13 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d				
Injection Date:	17-Dec-2013 15:40:13	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD2	Lab Sample ID:		Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Dec-2013 15:50:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028206-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:12 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.710	1.617	1.997	15997	7.78	3.74		1 Fluoride
2.470	2.353	2.847	93080	45.27	3.81		2 Chloride
3.890	3.783	4.037	3462	1.68	4.54		3 Bromide
4.157	4.037	4.560	22727	11.05	4.90		
4.940	4.793	5.413	70340	34.21	5.30		5 Sulfate
			205606			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
IC, ICal Standard Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Dec-2013 15:50:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028206-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:12 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	0.5000	-0.007	0.5321	31994	6.4	0
2 Chloride	5.00	0.003	4.96	18616	-0.7	0
3 Bromide	0.5000	0.003	0.4357	6924.00	-12.9	0
5 Sulfate	5.00	0.043	5.07	14068	1.5	0

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 17-Dec-2013 15:50:21 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028206-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:12 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

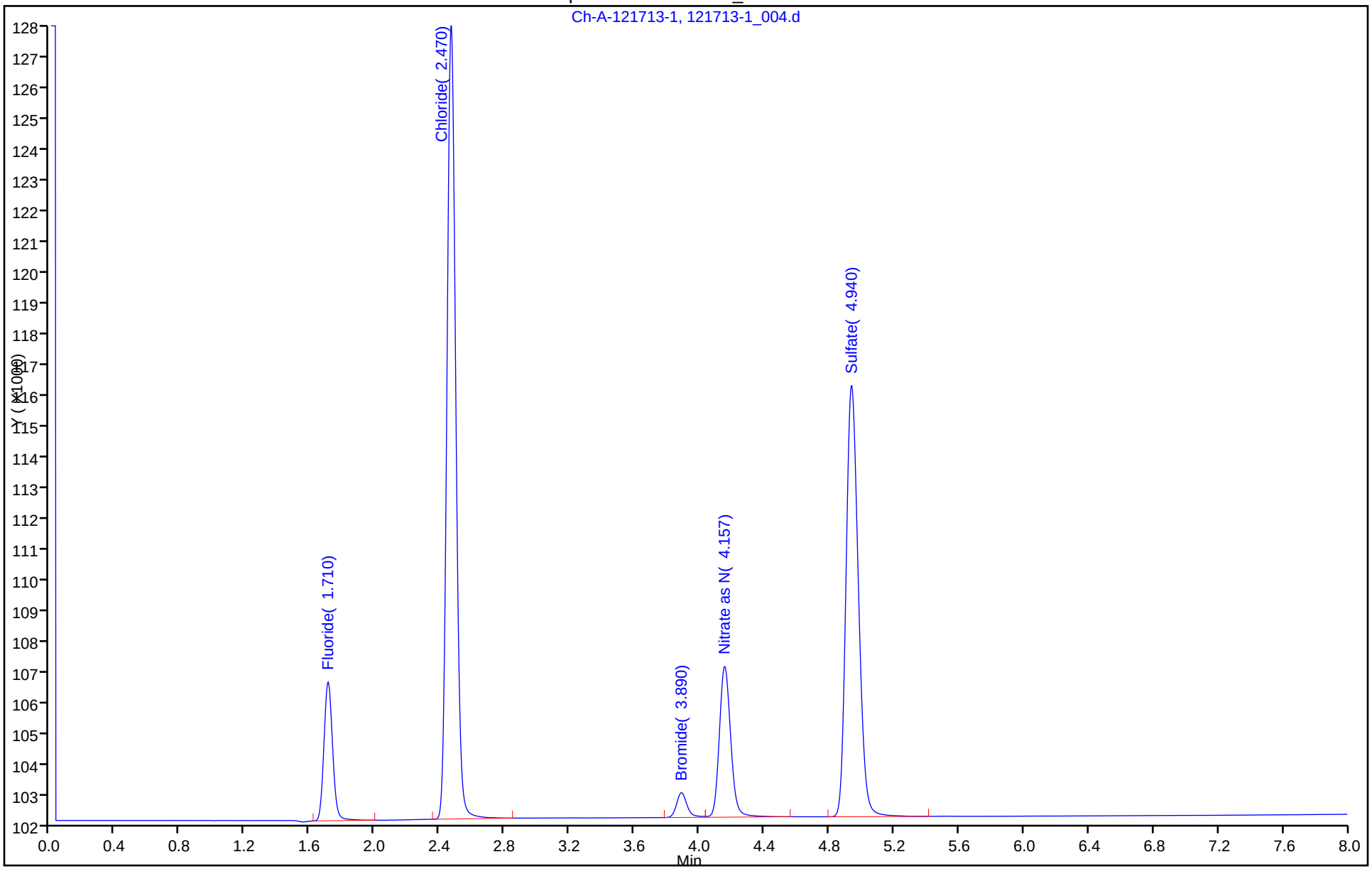
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.710	1.717	-0.007	15997	0.5321	
2 Chloride					
2.470	2.467	0.003	93080	4.96	
3 Bromide					
3.890	3.887	0.003	3462	0.4357	
4 Nitrate as N					
4.157	4.127	0.030	22727	0	
5 Sulfate					
4.940	4.897	0.043	70340	5.07	

Report Date: 17-Dec-2013 17:07:12 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_004.d				
Injection Date:	17-Dec-2013 15:50:21	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD3	Lab Sample ID:		Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d
Lims ID: STD4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Dec-2013 16:00:29 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 005 Name: 480-0028206-005
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:10 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:27:55

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.617	2.127	61502	7.50	4.17		1 Fluoride
2.467	2.337	2.970	371918	45.36	3.90		2 Chloride
3.887	3.757	4.023	15407	1.88	4.41		3 Bromide
4.127	4.023	4.767	93657	11.42	5.60		
4.897	4.767	5.463	277357	33.83	7.05		5 Sulfate
			819841			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d
Lims ID: STD4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 17-Dec-2013 16:00:29 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 005 Name: 480-0028206-005
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:10 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

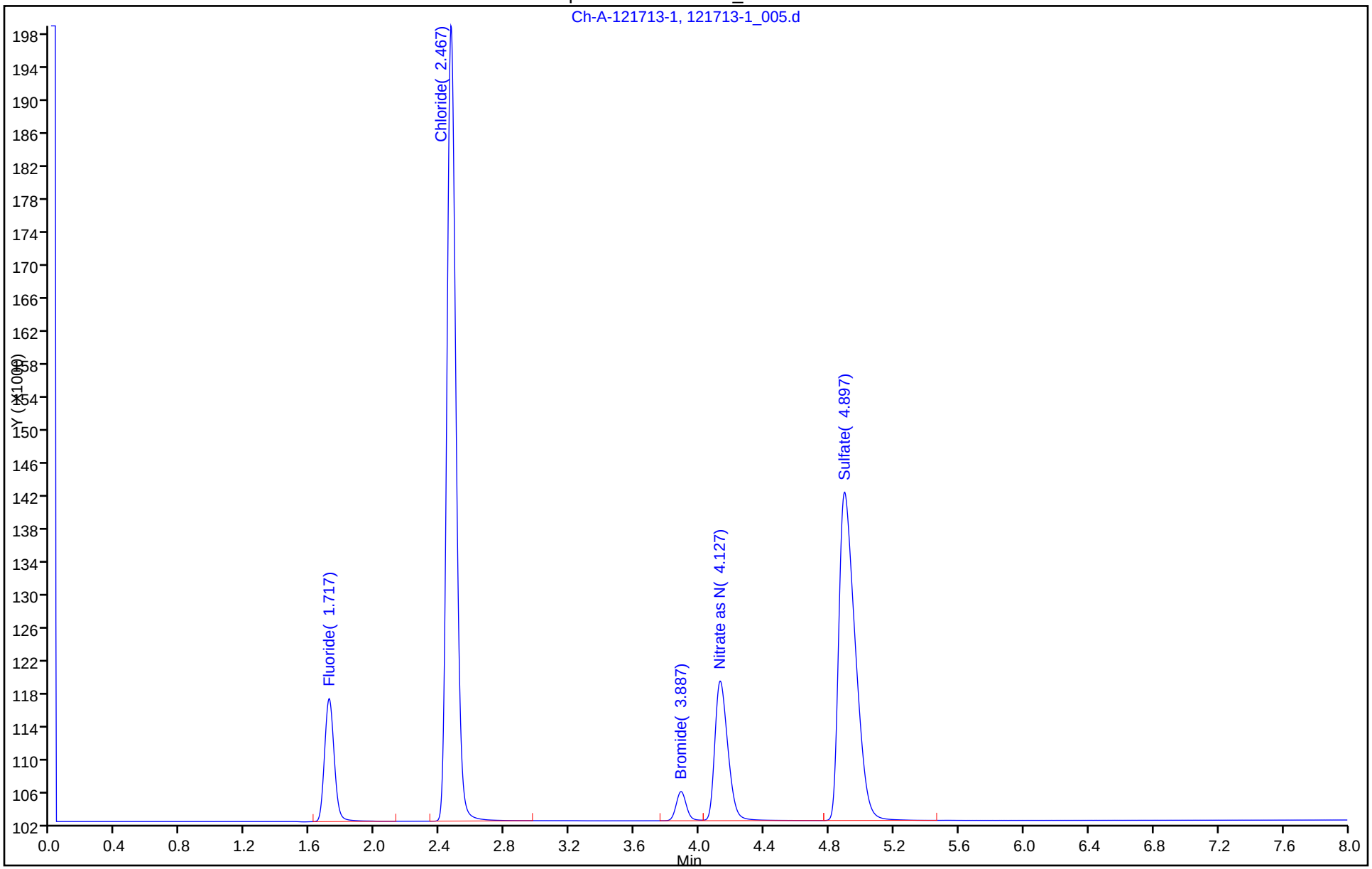
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:27:55

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	61502	2.05	
2 Chloride					
2.467	2.467	0.0	371918	19.9	
3 Bromide					
3.887	3.887	0.0	15407	1.94	
4 Nitrate as N					
4.127	4.127	0.0	93657	0	
5 Sulfate					
4.897	4.897	0.0	277357	20.1	

Report Date: 17-Dec-2013 17:07:10 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d				
Injection Date:	17-Dec-2013 16:00:29	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD4	Lab Sample ID:		Worklist Smp#:	5
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Dec-2013 16:10:36 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028206-006
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:14

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.720	1.613	2.350	145503	7.11	4.72		1 Fluoride
2.460	2.350	3.410	934841	45.70	4.01		2 Chloride
3.867	3.753	3.980	39975	1.95	4.47		3 Bromide
4.080	3.980	4.687	233451	11.41	6.72		
4.823	4.690	5.527	691760	33.82	9.57		5 Sulfate
			2045530			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 17-Dec-2013 16:10:36 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028206-006
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

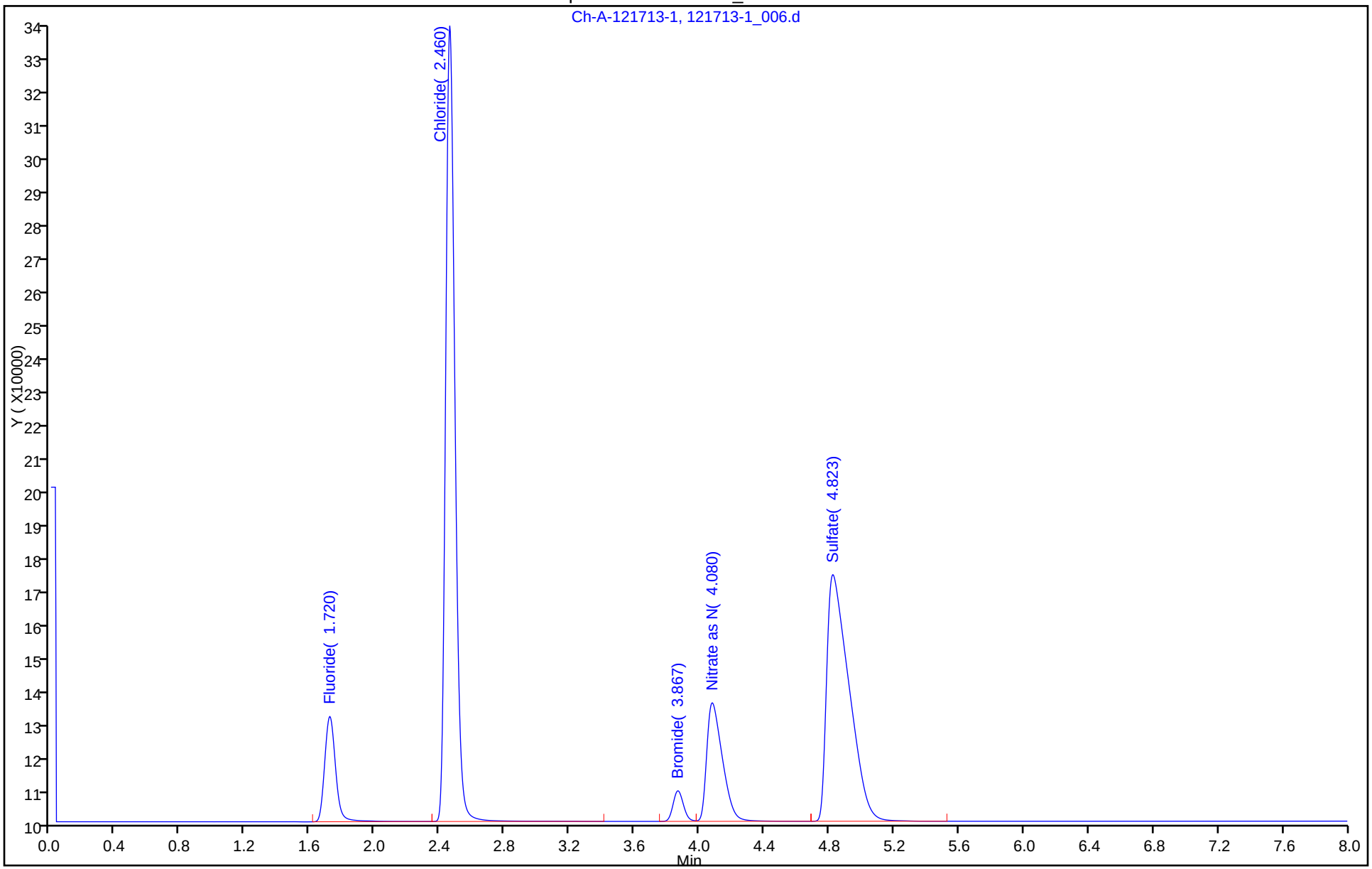
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:14

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.720	1.720	0.0	145503	4.84	
2 Chloride					
2.460	2.460	0.0	934841	50.1	
3 Bromide					
3.867	3.867	0.0	39975	5.03	
4 Nitrate as N					
4.080	4.080	0.0	233451	0	
5 Sulfate					
4.823	4.823	0.0	691760	50.2	

Report Date: 17-Dec-2013 17:07:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_006.d				
Injection Date:	17-Dec-2013 16:10:36	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD5	Lab Sample ID:		Worklist Smp#:	6
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Lims ID: STD6 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Dec-2013 16:20:44 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 007 Name: 480-0028206-007
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:08 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 16:31:02

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.723	1.613	2.347	271651	6.70	5.36		1 Fluoride
2.453	2.347	3.593	1863317	45.95	4.08		2 Chloride
3.837	3.720	3.930	80344	1.98	4.56		3 Bromide
4.020	3.930	4.597	467216	11.52	8.16		
4.740	4.597	5.703	1372396	33.85	12.49		5 Sulfate
			4054924			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Lims ID: STD6 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 17-Dec-2013 16:20:44 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 007 Name: 480-0028206-007
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28206.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:07:08 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK040

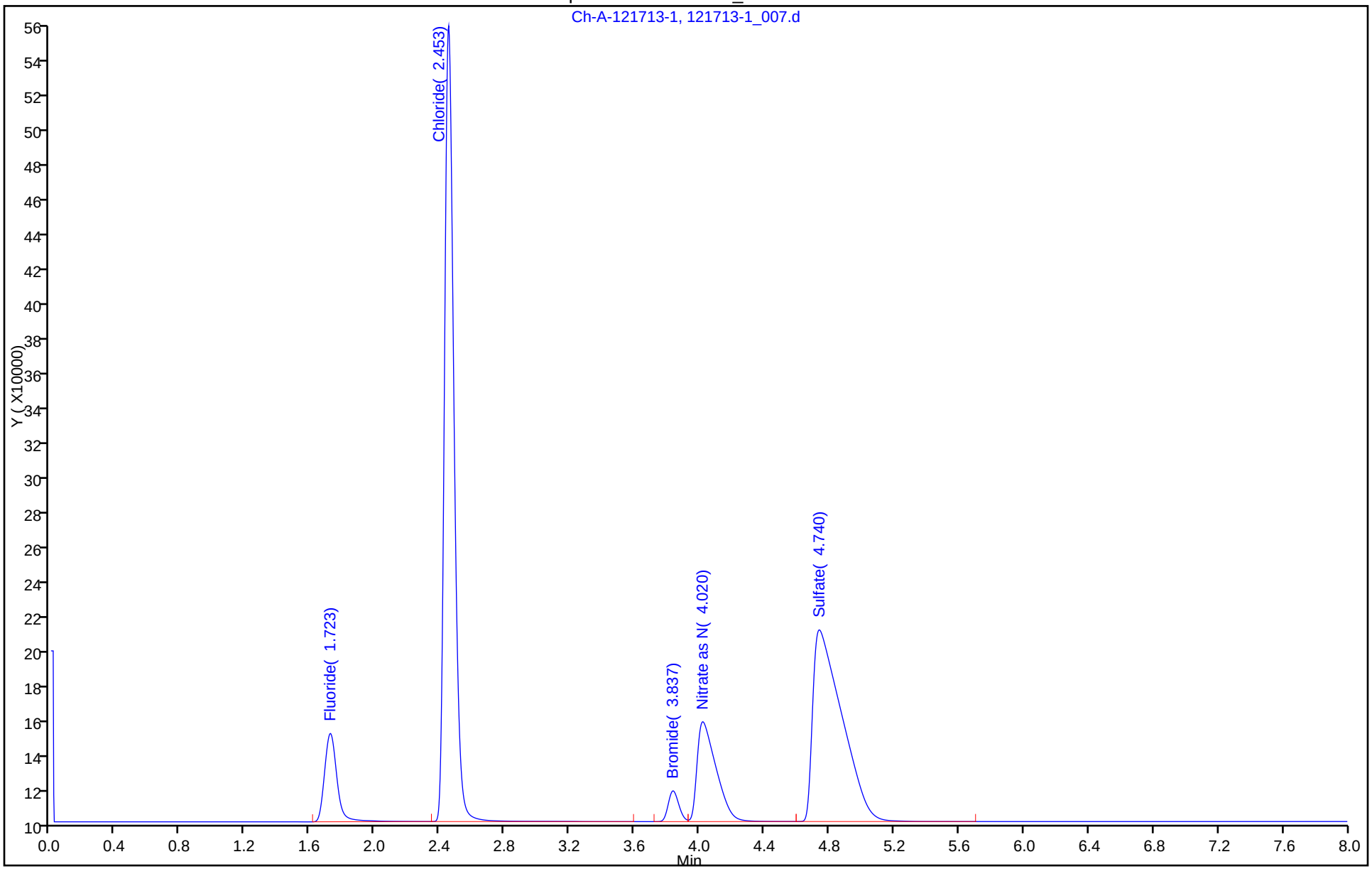
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:31:02

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.723	1.723	0.0	271651	9.04	
2 Chloride					
2.453	2.453	0.0	1863317	100.0	
3 Bromide					
3.837	3.837	0.0	80344	10.1	
4 Nitrate as N					
4.020	4.020	0.0	467216	0	
5 Sulfate					
4.740	4.740	0.0	1372396	99.6	

Report Date: 17-Dec-2013 17:07:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Injection Date:	17-Dec-2013 16:20:44	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	STD6	Lab Sample ID:		Worklist Smp#:	7
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 17:33:17 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028424-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:20:42

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.987	1.877	2.420	61862	7.47	4.23		1 Fluoride
2.833	2.693	3.383	379785	45.83	4.24		2 Chloride
4.373	4.233	4.523	15445	1.86	5.00		3 Bromide
4.643	4.523	5.203	90606	10.93	6.18		
5.443	5.310	6.013	280913	33.90	7.22		5 Sulfate
			828611			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 17:33:17 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028424-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:20:42

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.0	2.06	30931	2.9	10
2 Chloride	20.0	0.0	20.4	18989	1.8	10
3 Bromide	2.00	0.0	1.94	7722.50	-2.8	10
5 Sulfate	20.0	0.0	20.4	14046	1.8	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 17:33:17 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 001 Name: 480-0028424-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

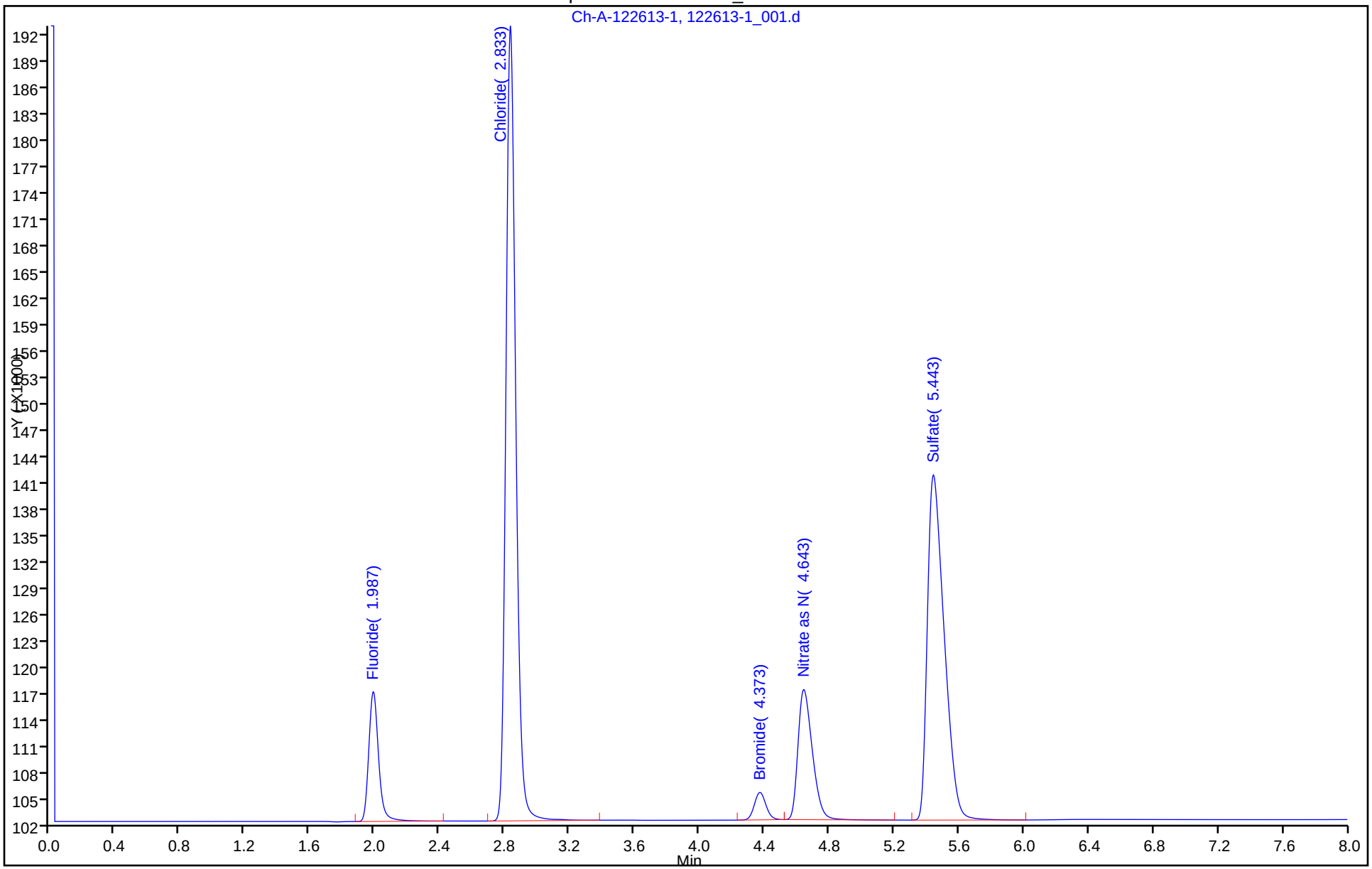
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:20:42

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.987	1.987	0.0	61862	2.06	
2 Chloride					
2.833	2.833	0.0	379785	20.4	
3 Bromide					
4.373	4.373	0.0	15445	1.94	
4 Nitrate as N					
4.643	4.643	0.0	90606	0	
5 Sulfate					
5.443	5.443	0.0	280913	20.4	

Report Date: 27-Dec-2013 09:20:43 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_001.d				
Injection Date:	26-Dec-2013 17:33:17	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_002.d
Lims ID: CCB Lab Sample ID: CCB 480-159518/2-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 17:43:24 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 002 Name: 480-0028424-002
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:41

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.837	2.750	2.917	345	50.00	4.01		2 Chloride
5.537	5.447	5.697	345	50.00	5.56		5 Sulfate
			690			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

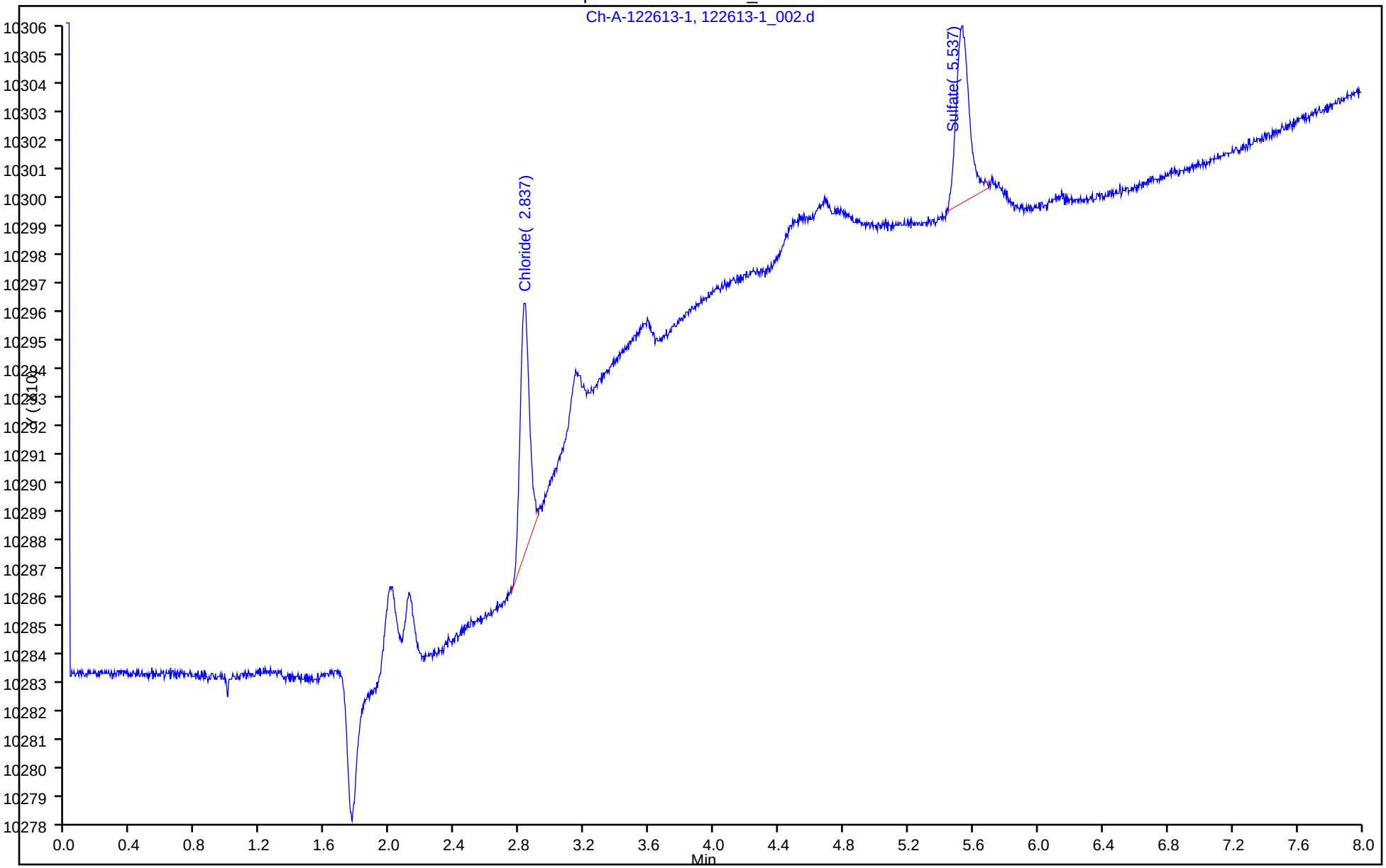
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_002.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/2-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 17:43:24	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 002 Name: 480-0028424-002				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:20:42	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:22:41		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.837	2.833	0.004	345	-0.0136	
5 Sulfate					
5.537	5.443	0.094	345	-0.006669	

Report Date: 27-Dec-2013 09:22:42 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_002.d				
Injection Date:	26-Dec-2013 17:43:24	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/2-A	Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_003.d
Lims ID: LCS Lab Sample ID: LCS 480-159518/3-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Dec-2013 17:53:32 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028424-003
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:46

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.990	1.873	2.463	62868	7.56	4.19		1 Fluoride
2.837	2.710	3.390	380690	45.80	4.25		2 Chloride
4.377	4.247	4.527	15209	1.83	4.98		3 Bromide
4.650	4.527	5.137	90408	10.88	6.19		
5.440	5.303	6.033	281954	33.92	7.22		5 Sulfate
			831129			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_003.d
Lims ID: LCS Lab Sample ID: LCS 480-159518/3-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Dec-2013 17:53:32 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028424-003
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

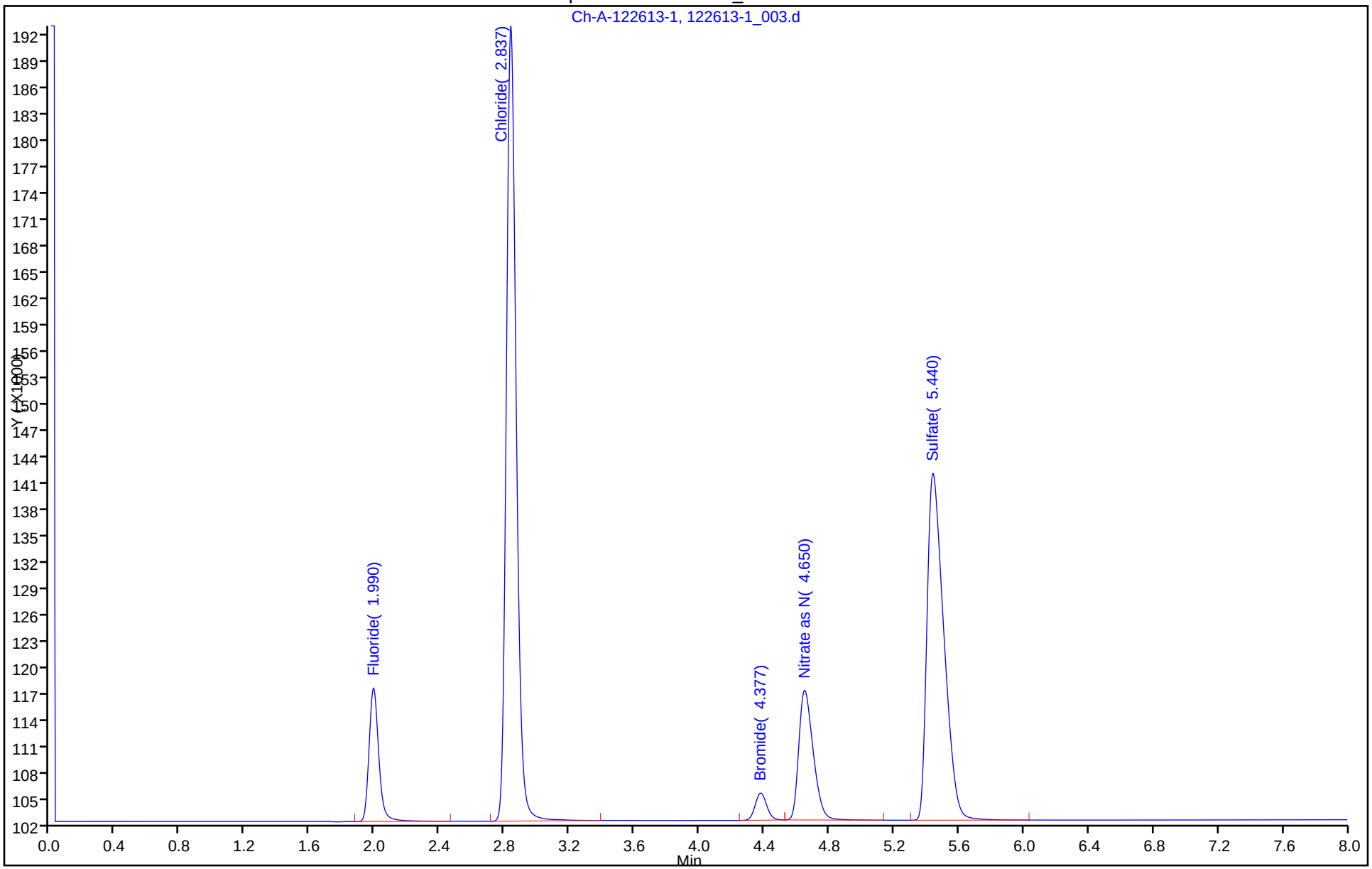
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:46

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.990	1.987	0.003	62868	2.09	
2 Chloride					
2.837	2.833	0.004	380690	20.4	
3 Bromide					
4.377	4.373	0.004	15209	1.91	
4 Nitrate as N					
4.650	4.643	0.007	90408	0	
5 Sulfate					
5.440	5.443	-0.003	281954	20.4	

Report Date: 27-Dec-2013 09:22:46 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_003.d				
Injection Date:	26-Dec-2013 17:53:32	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-159518/3-A	Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_004.d
Lims ID: MB Lab Sample ID: MB 480-159518/4-A
Client ID:
Sample Type: MB
Inject. Date: 26-Dec-2013 18:03:40 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028424-004
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:20:42 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:22:47

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.833	2.757	2.920	338	45.86	3.98		2 Chloride
5.527	5.440	5.747	399	54.14	5.62		5 Sulfate
			737			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

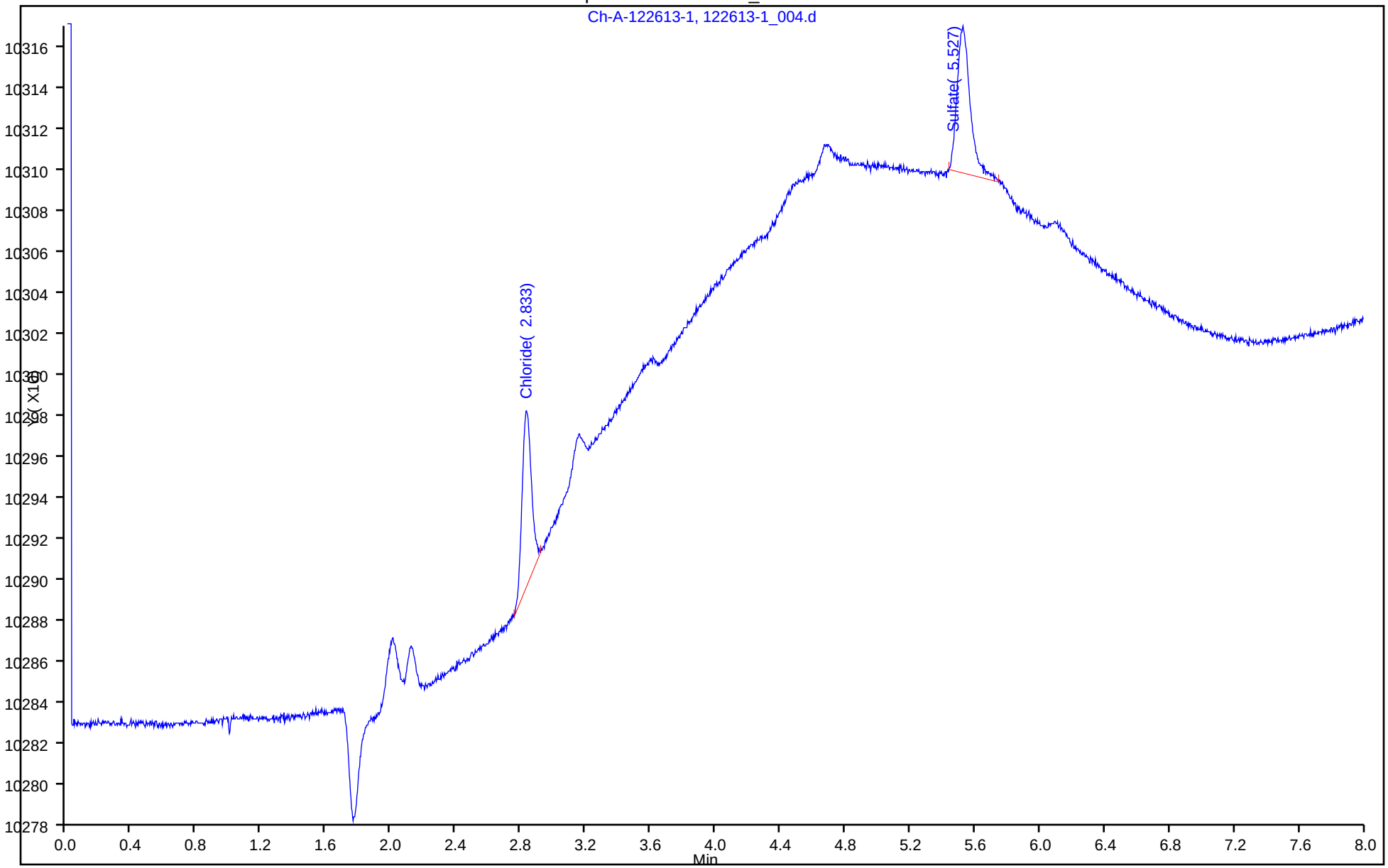
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_004.d				
Lims ID:	MB	Lab Sample ID:	MB 480-159518/4-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	26-Dec-2013 18:03:40	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 004 Name: 480-0028424-004				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:20:42	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:22:47		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.833	2.833	0.0	338	-0.0139	
5 Sulfate					
5.527	5.443	0.084	399	-0.002749	

Report Date: 27-Dec-2013 09:22:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_004.d				
Injection Date:	26-Dec-2013 18:03:40	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-159518/4-A	Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 19:34:51 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028424-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:17

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.990	1.773	2.410	62951	7.58	4.20		1 Fluoride
2.837	2.693	3.383	380790	45.87	4.25		2 Chloride
4.377	4.247	4.530	15178	1.83	4.98		3 Bromide
4.650	4.530	5.133	90429	10.89	6.20		
5.430	5.293	6.137	280867	33.83	7.20		5 Sulfate
			830215			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 19:34:51 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028424-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:17

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.003	2.09	31476	4.7	10
2 Chloride	20.0	0.004	20.4	19040	2.0	10
3 Bromide	2.00	0.004	1.91	7589.00	-4.5	10
5 Sulfate	20.0	-0.013	20.4	14043	1.8	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 19:34:51 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028424-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

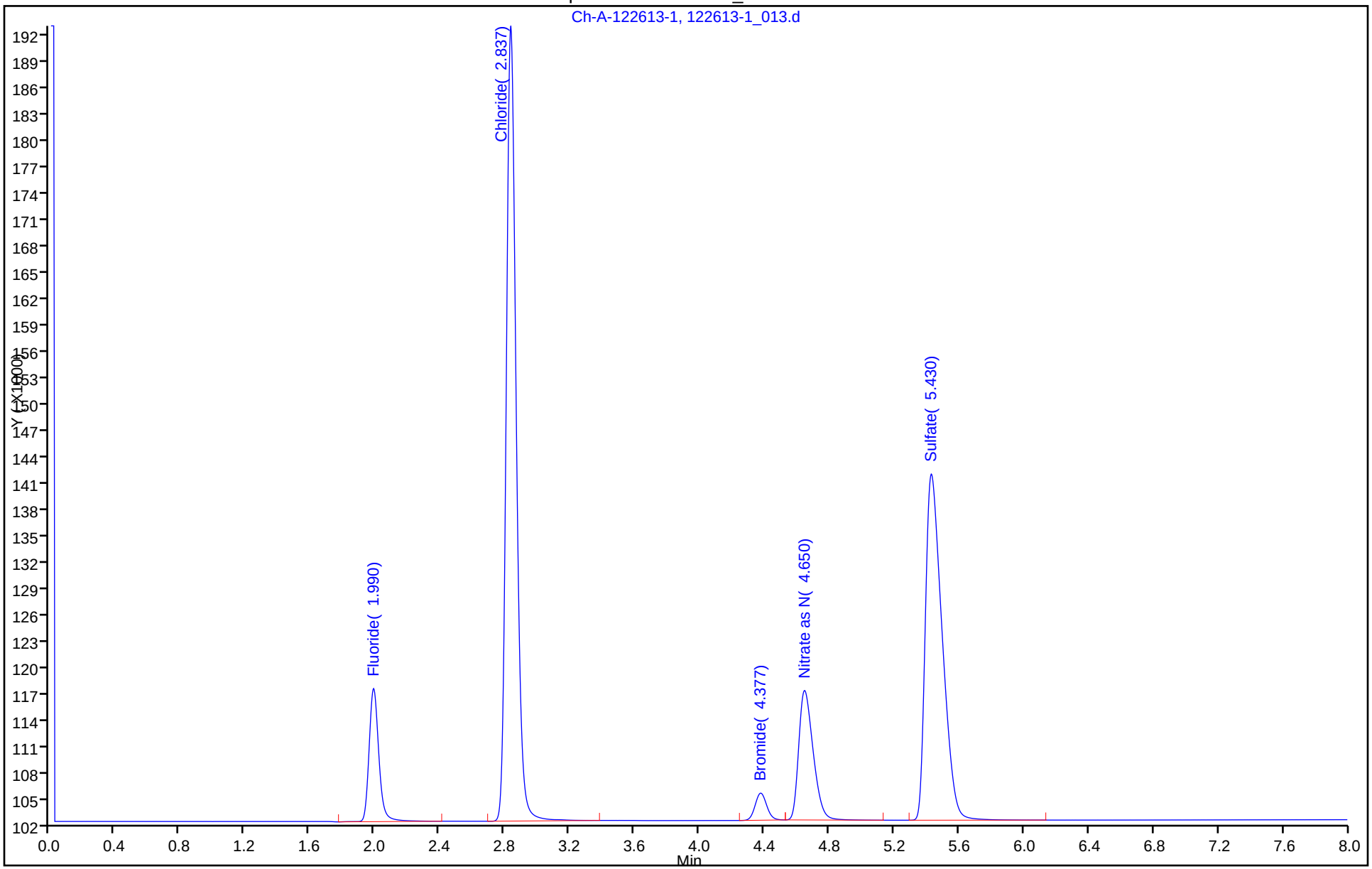
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:17

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.990	1.987	0.003	62951	2.09	
2 Chloride					
2.837	2.833	0.004	380790	20.4	
3 Bromide					
4.377	4.373	0.004	15178	1.91	
4 Nitrate as N					
4.650	4.643	0.007	90429	0	
5 Sulfate					
5.430	5.443	-0.013	280867	20.4	

Report Date: 27-Dec-2013 09:25:17 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_013.d				
Injection Date:	26-Dec-2013 19:34:51	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	13
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_014.d
Lims ID: CCB Lab Sample ID: CCB 480-159518/14-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 19:44:59 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 014 Name: 480-0028424-014
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:25:17 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:25:18

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.833	2.747	2.910	329	58.23	3.83		2 Chloride
5.520	5.443	5.680	236	41.77	5.24		5 Sulfate
			565			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

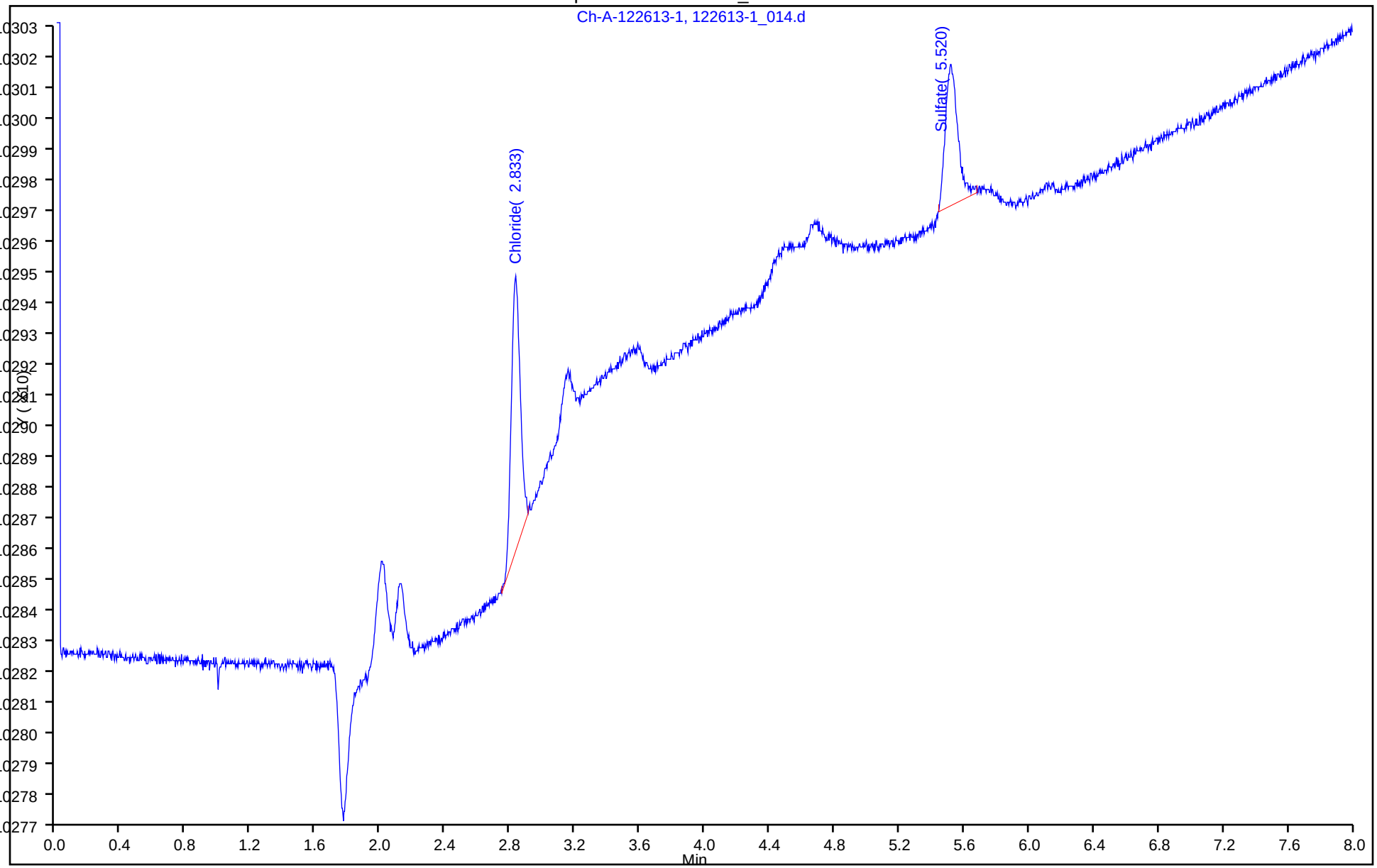
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_014.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/14-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 19:44:59	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 014 Name: 480-0028424-014				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:25:17	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:25:18		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.833	2.833	0.0	329	-0.0144	
5 Sulfate					
5.520	5.443	0.077	236	-0.0146	

Report Date: 27-Dec-2013 09:25:18 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_014.d				
Injection Date:	26-Dec-2013 19:44:59	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159518/14-A	Worklist Smp#:	14
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_020.d
Lims ID: 460-68764-A-1 Lab Sample ID: 480-68764-1
Client ID: GW0028
Sample Type: Client
Inject. Date: 26-Dec-2013 20:45:47 ALS Bottle#: 0 Worklist Smp#: 20
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 020 Name: 480-0028424-020
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:29:33 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:29:33

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.980	1.897	2.087	16183	1.55	3.74	M	1 Fluoride
2.833	2.700	3.430	718390	68.66	4.28		2 Chloride
4.317	4.077	4.567	2395	0.23	16.40		
4.643	4.567	4.757	301	0.03	5.28		
5.007	4.900	5.170	1024	0.10	5.82		
5.427	5.193	5.987	307425	29.38	7.40		5 Sulfate
6.100	5.987	6.310	511	0.05	6.31		
			1046229			Totals	

Total Unknown Area% = 0.38

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_020.d				
Lims ID:	460-68764-A-1	Lab Sample ID:	480-68764-1		
Client ID:	GW0028				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 20:45:47	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 020 Name: 480-0028424-020				
Operator ID:	TCHROM	Instrument ID:	IC-1		

Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 09:29:33	Calib Date:	17-Dec-2013 16:20:44
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d		

Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:29:33

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					M
1.980	1.987	-0.007	16183	0.5383	M
2 Chloride					
2.833	2.833	0.0	718390	38.5	
5 Sulfate					
5.427	5.443	-0.016	307425	22.3	

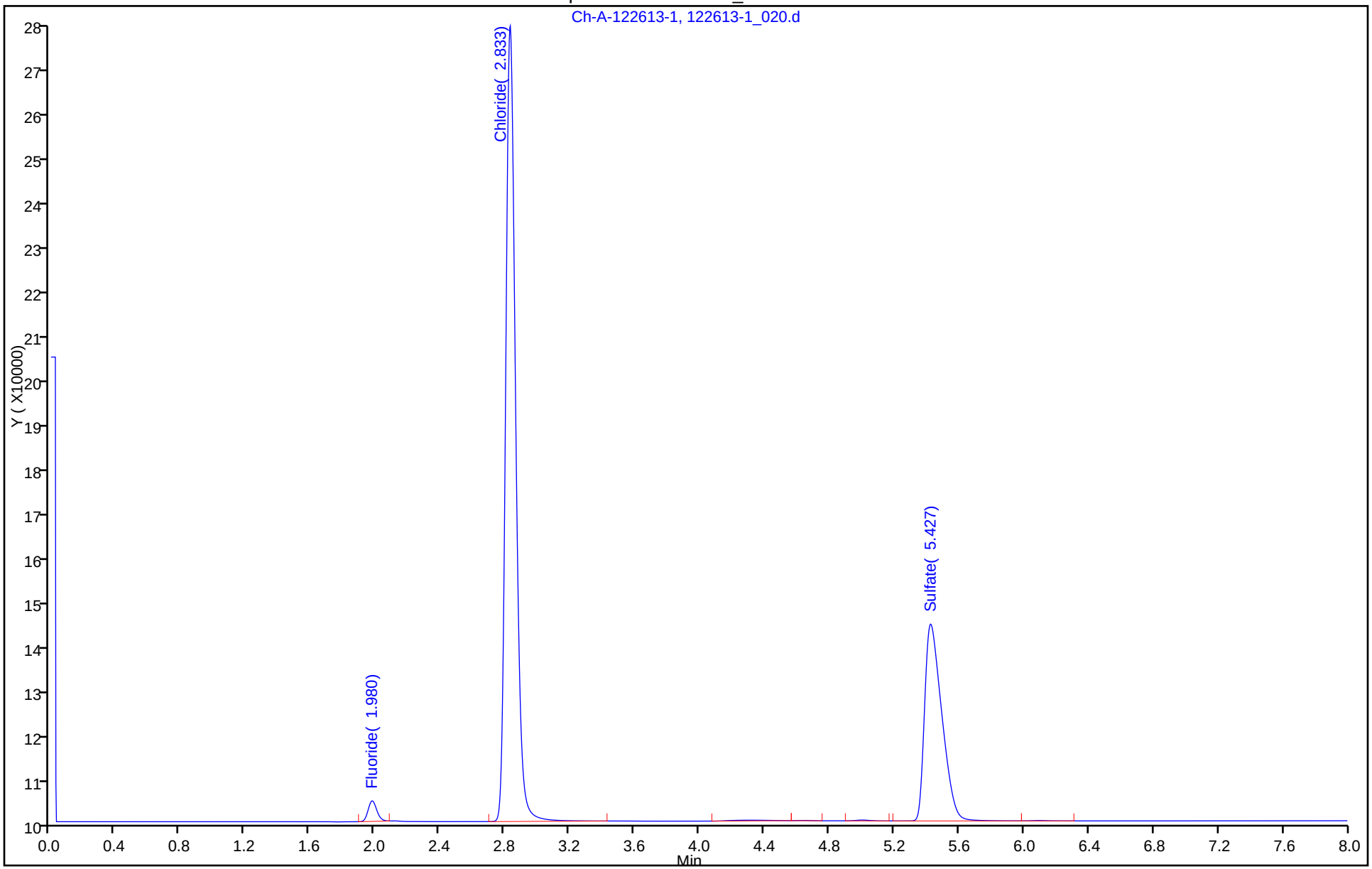
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 27-Dec-2013 09:29:33 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_020.d				
Injection Date:	26-Dec-2013 20:45:47	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-1	Lab Sample ID:	480-68764-1	Worklist Smp#:	20
Client ID:	GW0028				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

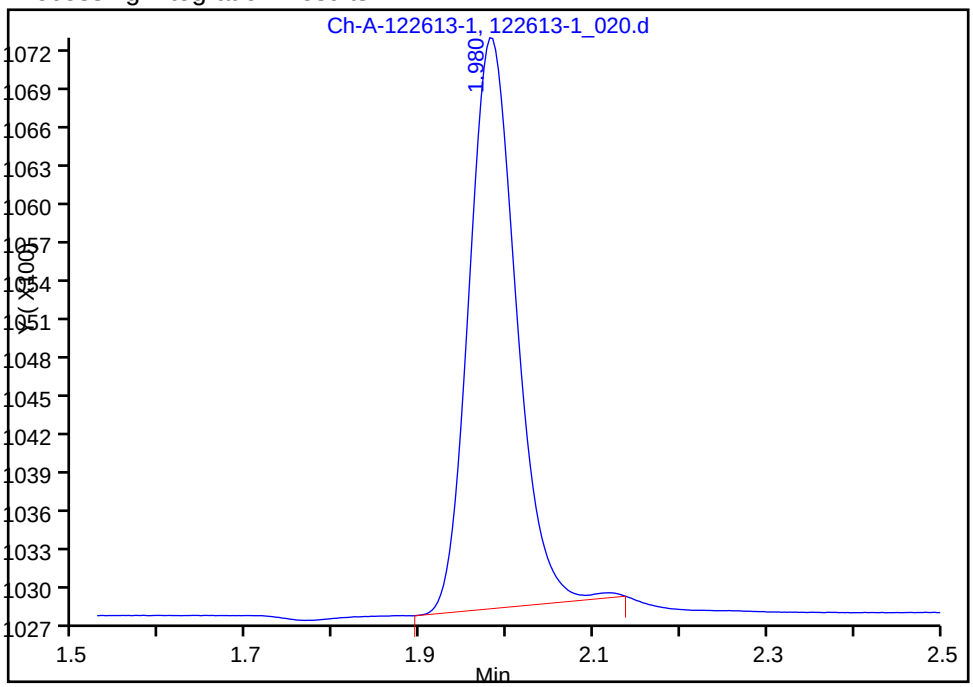
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_020.d				
Injection Date:	26-Dec-2013 20:45:47	Instrument ID:	IC-1		
Lims ID:	460-68764-A-1	Lab Sample ID:	480-68764-1		
Client ID:	GW0028				
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	20
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		
Column:		Detector	Ch-A-092410-2		

1 Fluoride, CAS: 16984-48-8

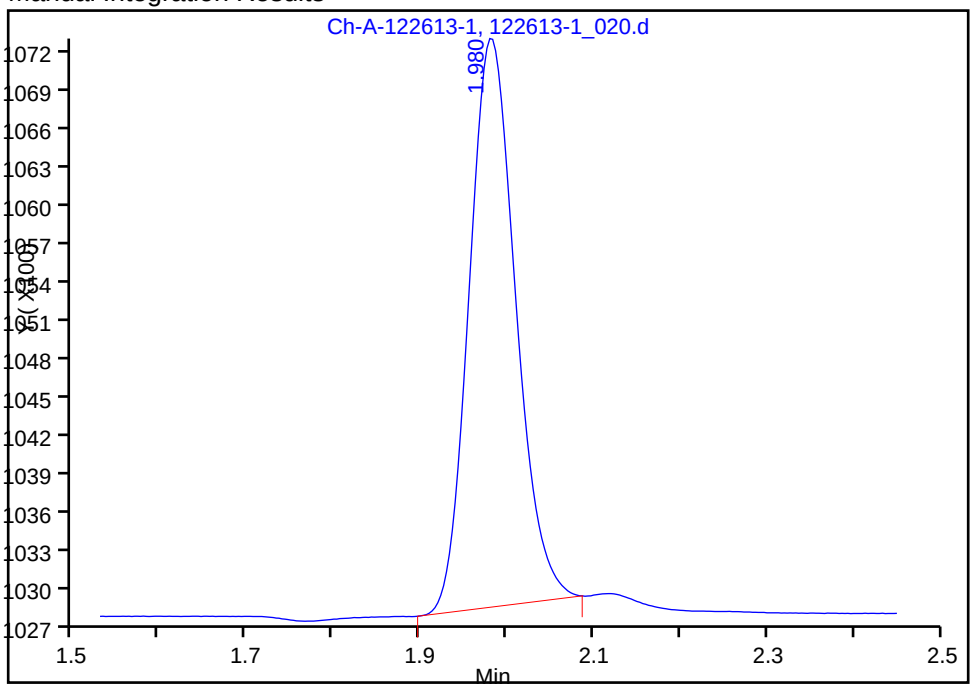
Processing Integration Results

RT: 1.98
Response: 16510
Amount: 0.549139



Manual Integration Results

RT: 1.98
Response: 16183
Amount: 0.538263



Reviewer: cudneyk, 27-Dec-2013 09:29:33
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_021.d
Lims ID: 460-68764-A-2 Lab Sample ID: 480-68764-2
Client ID: GW0029
Sample Type: Client
Inject. Date: 26-Dec-2013 20:55:55 ALS Bottle#: 0 Worklist Smp#: 21
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 021 Name: 480-0028424-021
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:00 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:00

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.983	1.893	2.090	16326	1.55	3.75	M	1 Fluoride
2.837	2.690	3.750	723707	68.71	4.30		2 Chloride
4.320	4.080	4.573	2455	0.23	16.59		
4.653	4.573	4.780	304	0.03	5.24		
5.010	4.897	5.217	1146	0.11	6.00		
5.423	5.233	5.980	308768	29.32	7.40		5 Sulfate
6.090	5.980	6.280	543	0.05	6.54		
			1053249			Totals	

Total Unknown Area% = 0.39

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_021.d				
Lims ID:	460-68764-A-2	Lab Sample ID:	480-68764-2		
Client ID:	GW0029				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 20:55:55	ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 021 Name: 480-0028424-021				
Operator ID:	TCHROM	Instrument ID:	IC-1		

Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 09:30:00	Calib Date:	17-Dec-2013 16:20:44
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d		

Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:00

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					M
1.983	1.987	-0.004	16326	0.5430	M
2 Chloride					
2.837	2.833	0.004	723707	38.8	
5 Sulfate					
5.423	5.443	-0.020	308768	22.4	

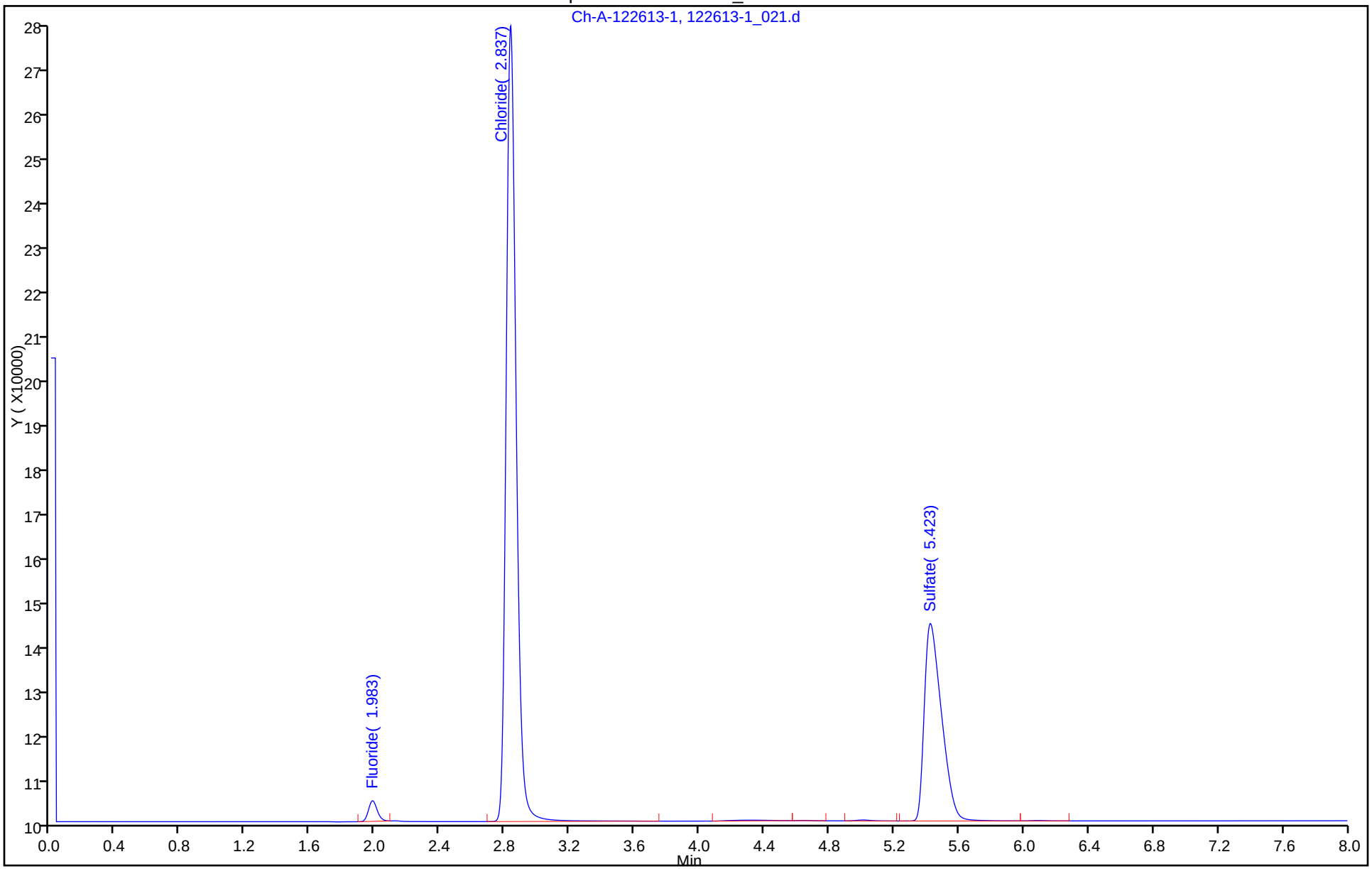
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 27-Dec-2013 09:30:00 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_021.d				
Injection Date:	26-Dec-2013 20:55:55	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-2	Lab Sample ID:	480-68764-2	Worklist Smp#:	21
Client ID:	GW0029				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

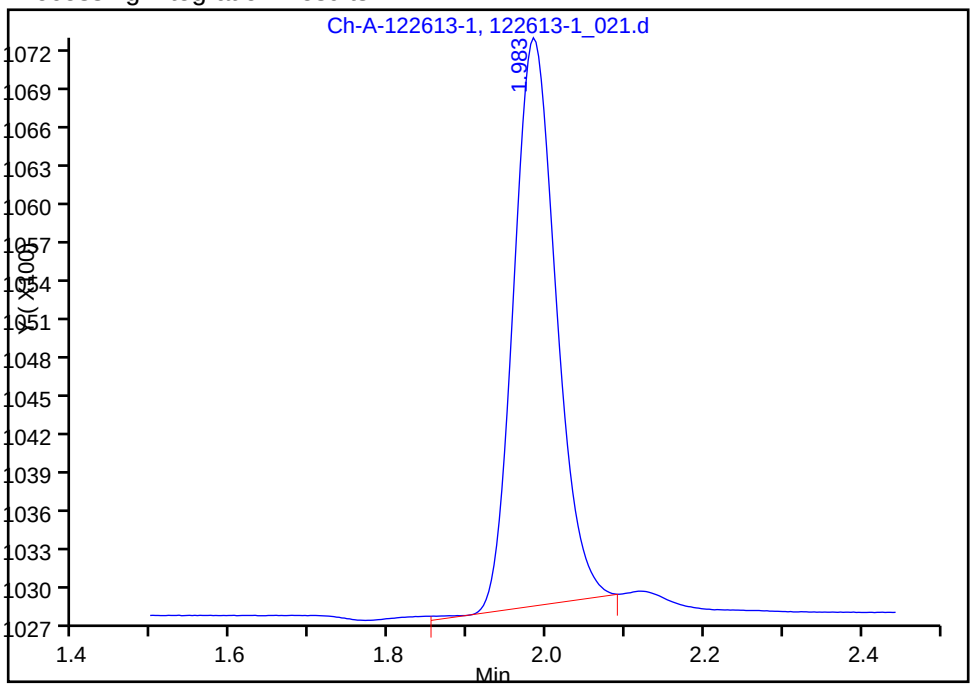
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_021.d				
Injection Date:	26-Dec-2013 20:55:55	Instrument ID:	IC-1		
Lims ID:	460-68764-A-2	Lab Sample ID:	480-68764-2		
Client ID:	GW0029				
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	21
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		
Column:		Detector	Ch-A-092410-2		

1 Fluoride, CAS: 16984-48-8

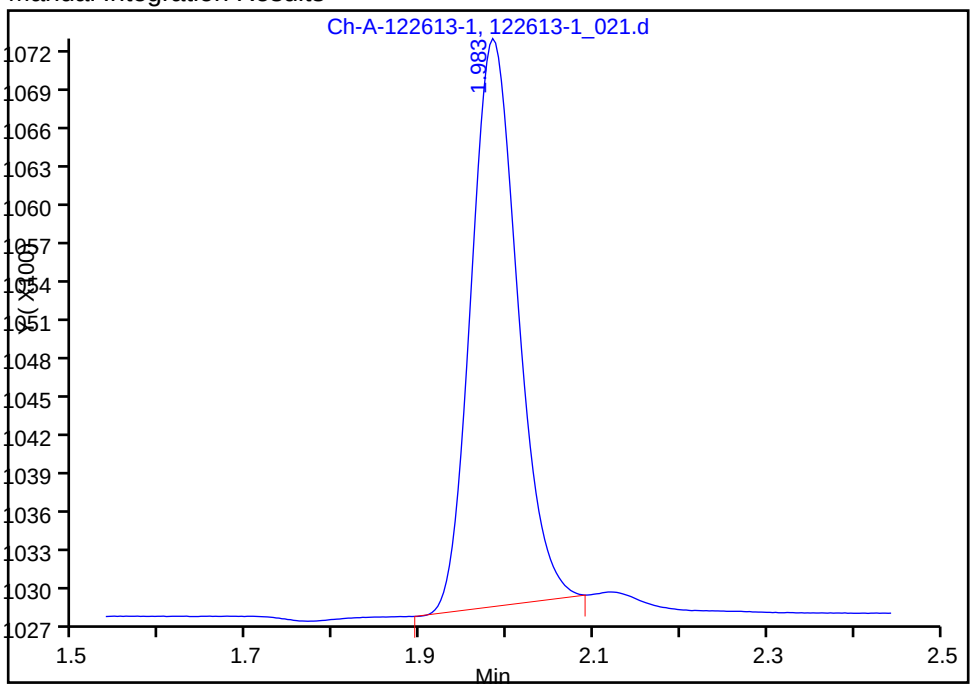
Processing Integration Results

RT: 1.98
Response: 16387
Amount: 0.545048



Manual Integration Results

RT: 1.98
Response: 16326
Amount: 0.543019



Reviewer: cudneyk, 27-Dec-2013 09:30:00
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_022.d
Lims ID: 460-68764-A-3 Lab Sample ID: 480-68764-3
Client ID: GW0030
Sample Type: Client
Inject. Date: 26-Dec-2013 21:06:03 ALS Bottle#: 0 Worklist Smp#: 22
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 022 Name: 480-0028424-022
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:23 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:23

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.987	1.870	2.267	17535	1.79	3.87	M	1 Fluoride
2.837	2.703	3.773	643780	65.88	4.27		2 Chloride
4.300	4.080	5.063	5149	0.53	19.21		
5.417	5.283	6.077	310769	31.80	7.41		5 Sulfate
			977233			Totals	

Total Unknown Area% = 0.53

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_022.d				
Lims ID:	460-68764-A-3	Lab Sample ID:	480-68764-3		
Client ID:	GW0030				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 21:06:03	ALS Bottle#:	0	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 022 Name: 480-0028424-022				
Operator ID:	TCHROM	Instrument ID:	IC-1		

Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 09:30:23	Calib Date:	17-Dec-2013 16:20:44
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d		

Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:23

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					M
1.987	1.987	0.0	17535	0.5832	M
2 Chloride					
2.837	2.833	0.004	643780	34.5	
5 Sulfate					
5.417	5.443	-0.026	310769	22.5	

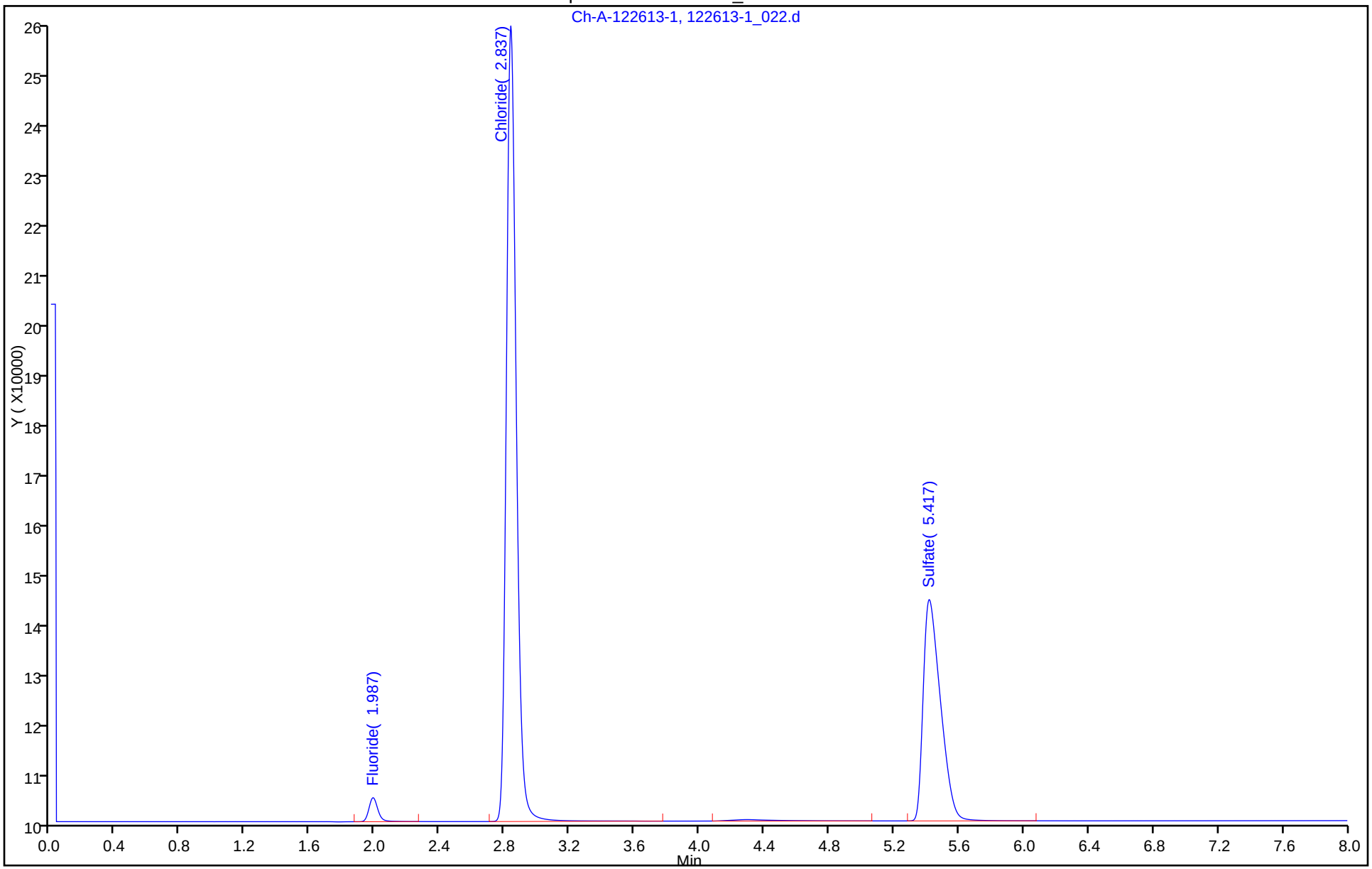
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 27-Dec-2013 09:30:23 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_022.d				
Injection Date:	26-Dec-2013 21:06:03	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-3	Lab Sample ID:	480-68764-3	Worklist Smp#:	22
Client ID:	GW0030				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

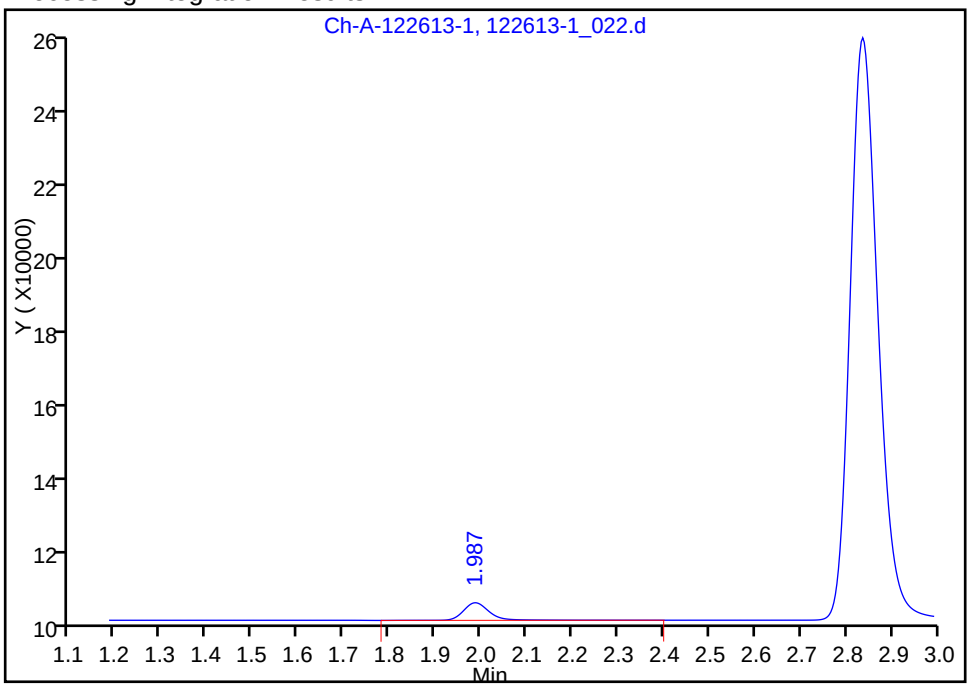
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_022.d				
Injection Date:	26-Dec-2013 21:06:03	Instrument ID:	IC-1		
Lims ID:	460-68764-A-3	Lab Sample ID:	480-68764-3		
Client ID:	GW0030				
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	22
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		
Column:		Detector	Ch-A-092410-2		

1 Fluoride, CAS: 16984-48-8

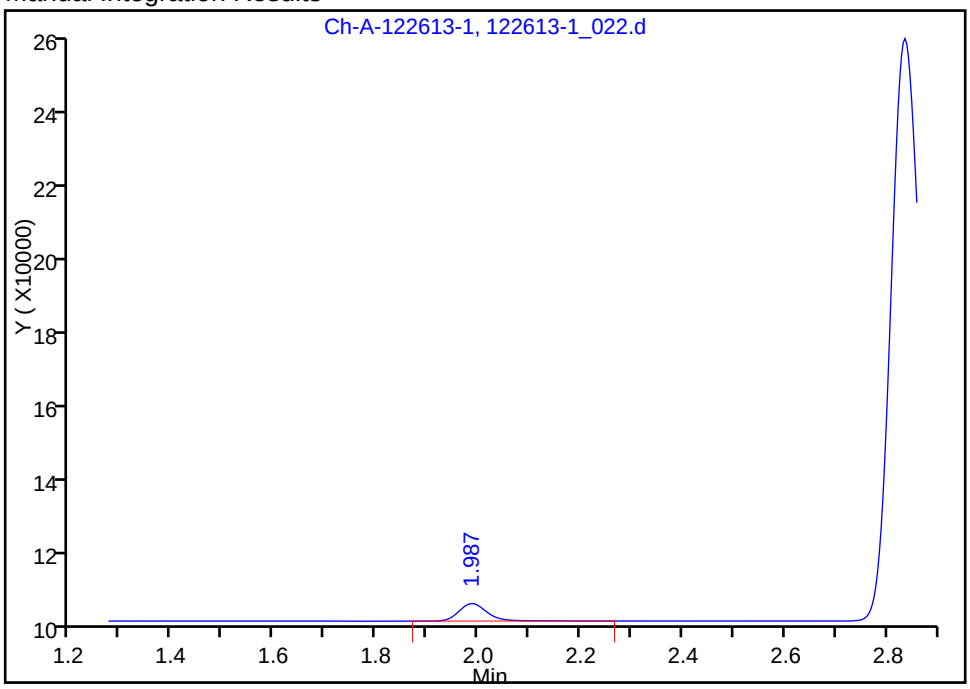
Processing Integration Results

RT: 1.99
Response: 18236
Amount: 0.606548



Manual Integration Results

RT: 1.99
Response: 17535
Amount: 0.583232



Reviewer: cudneyk, 27-Dec-2013 09:30:23
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_023.d
Lims ID: 460-68764-A-3 MS Lab Sample ID: 480-68764-3
Client ID:
Sample Type: MS
Inject. Date: 26-Dec-2013 21:16:11 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 023 Name: 480-0028424-023
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:23 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:30

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.997	1.777	2.447	92515	4.69	4.47		1 Fluoride
2.833	2.700	3.723	1097904	55.63	4.32		2 Chloride
4.283	4.077	4.480	19847	1.01	7.42		3 Bromide
4.620	4.480	5.083	113478	5.75	7.23		
5.357	5.207	6.100	649931	32.93	9.31		5 Sulfate
			1973675			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_023.d
Lims ID: 460-68764-A-3 MS Lab Sample ID: 480-68764-3
Client ID:
Sample Type: MS
Inject. Date: 26-Dec-2013 21:16:11 ALS Bottle#: 0 Worklist Smp#: 23
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 023 Name: 480-0028424-023
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:23 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

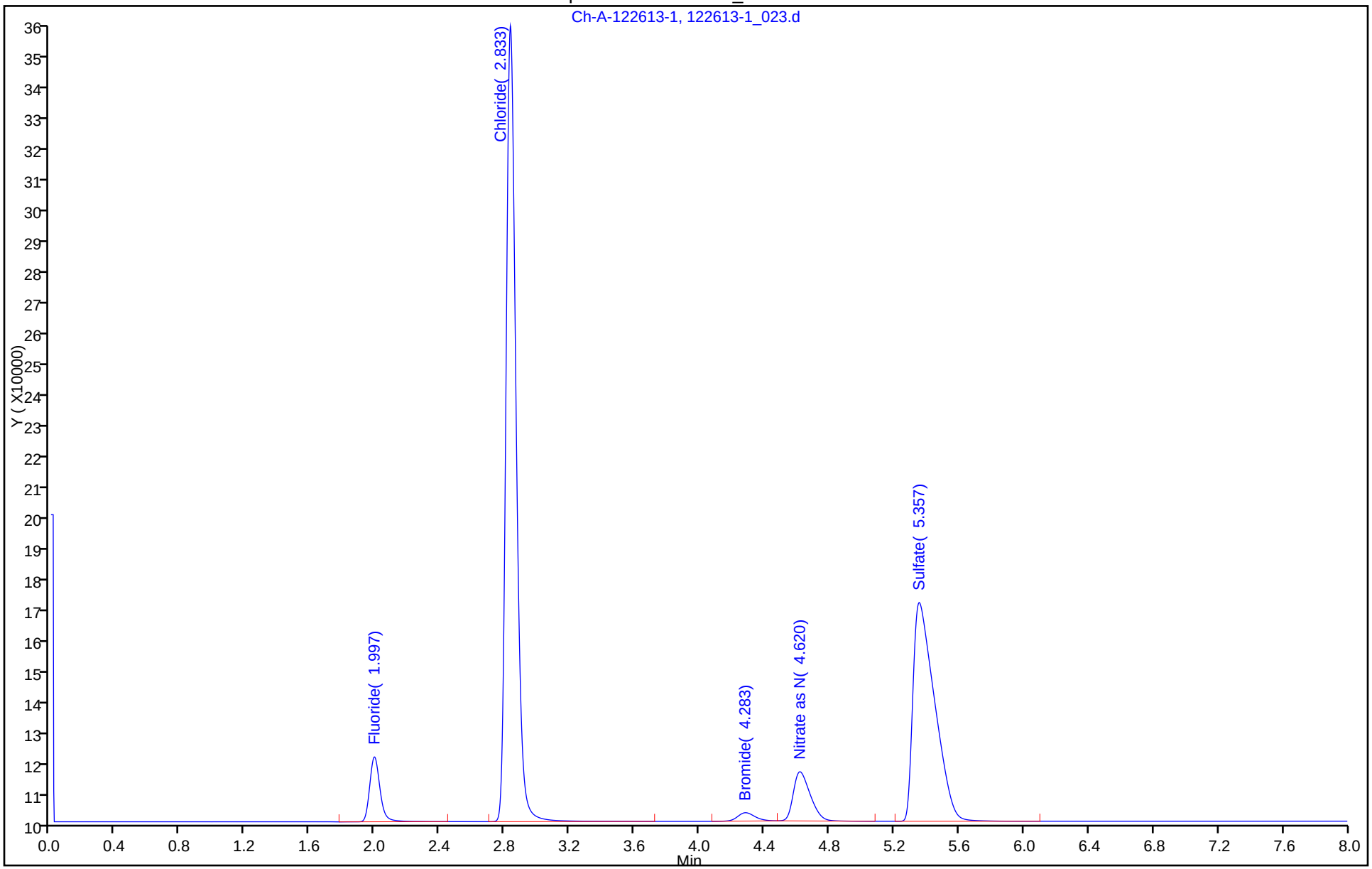
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:30

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.987	0.010	92515	3.08	
2 Chloride					
2.833	2.833	0.0	1097904	58.9	
3 Bromide					
4.283	4.373	-0.090	19847	2.50	
4 Nitrate as N					
4.620	4.643	-0.023	113478	0	
5 Sulfate					
5.357	5.443	-0.086	649931	47.1	

Report Date: 27-Dec-2013 09:30:30 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_023.d				
Injection Date:	26-Dec-2013 21:16:11	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-3 MS	Lab Sample ID:	480-68764-3	Worklist Smp#:	23
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_024.d
Lims ID: 460-68764-A-3 MSD Lab Sample ID: 480-68764-3
Client ID:
Sample Type: MSD
Inject. Date: 26-Dec-2013 21:26:18 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 024 Name: 480-0028424-024
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:23 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:33

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.997	1.867	2.490	92521	4.68	4.45		1 Fluoride
2.833	2.703	3.740	1099838	55.62	4.32		2 Chloride
4.287	4.063	4.483	19987	1.01	7.45		3 Bromide
4.620	4.483	5.083	113906	5.76	7.20		
5.347	5.193	6.133	651006	32.92	9.30		5 Sulfate
			1977258			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_024.d
Lims ID: 460-68764-A-3 MSD Lab Sample ID: 480-68764-3
Client ID:
Sample Type: MSD
Inject. Date: 26-Dec-2013 21:26:18 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 024 Name: 480-0028424-024
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:23 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

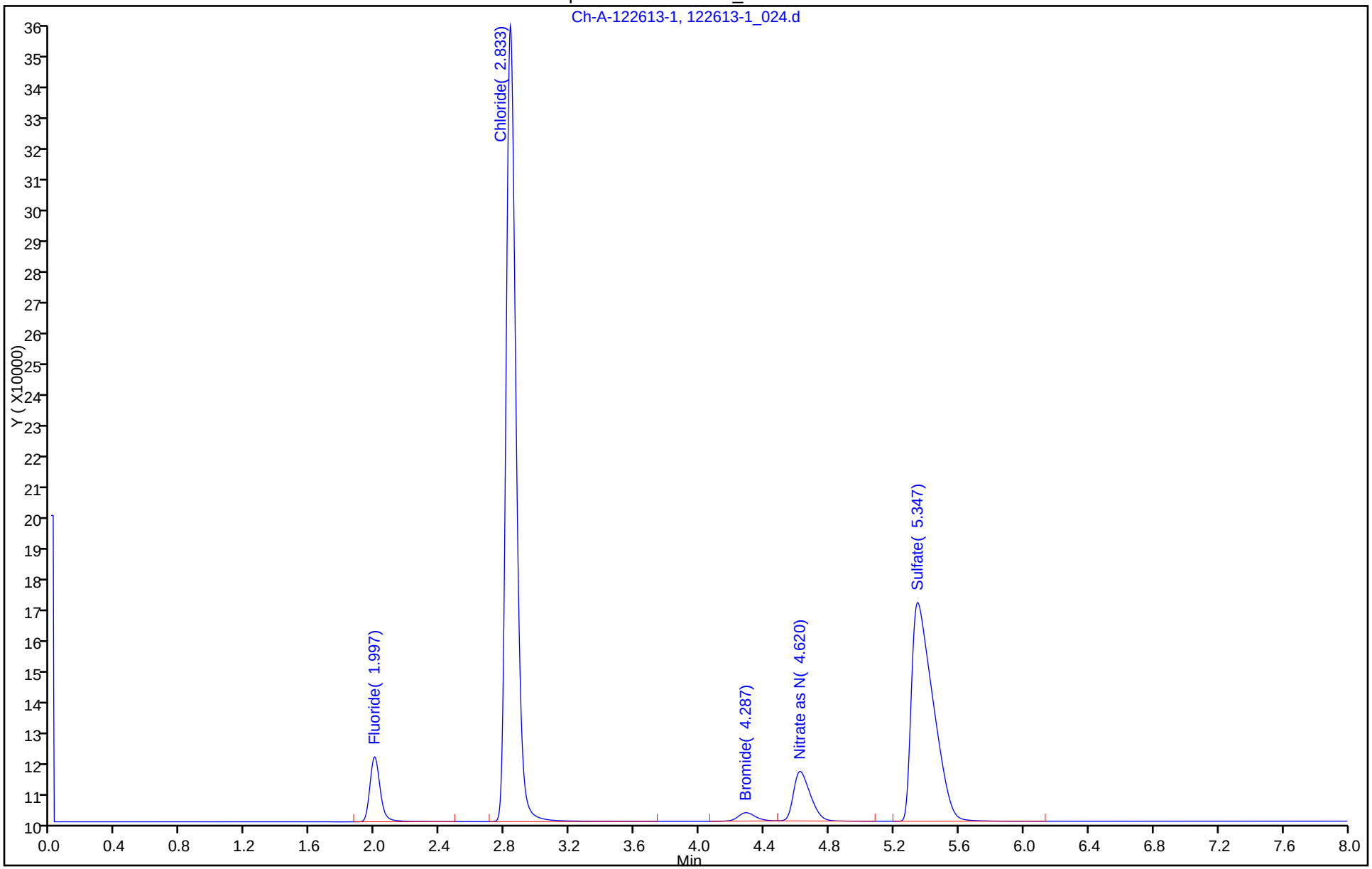
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:33

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.987	0.010	92521	3.08	
2 Chloride					
2.833	2.833	0.0	1099838	59.0	
3 Bromide					
4.287	4.373	-0.086	19987	2.52	
4 Nitrate as N					
4.620	4.643	-0.023	113906	0	
5 Sulfate					
5.347	5.443	-0.096	651006	47.2	

Report Date: 27-Dec-2013 09:30:33 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_024.d				
Injection Date:	26-Dec-2013 21:26:18	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-3 MSD	Lab Sample ID:	480-68764-3	Worklist Smp#:	24
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.997	1.777	2.470	63428	7.60	4.20		1 Fluoride
2.843	2.710	3.407	382518	45.85	4.26		2 Chloride
4.387	4.257	4.537	15279	1.83	4.98		3 Bromide
4.660	4.537	5.167	90850	10.89	6.22		
5.420	5.283	6.047	282244	33.83	7.20		5 Sulfate
			834319			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.010	2.11	31714	5.5	10
2 Chloride	20.0	0.010	20.5	19126	2.5	10
3 Bromide	2.00	0.014	1.92	7639.50	-3.9	10
5 Sulfate	20.0	-0.023	20.5	14112	2.3	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

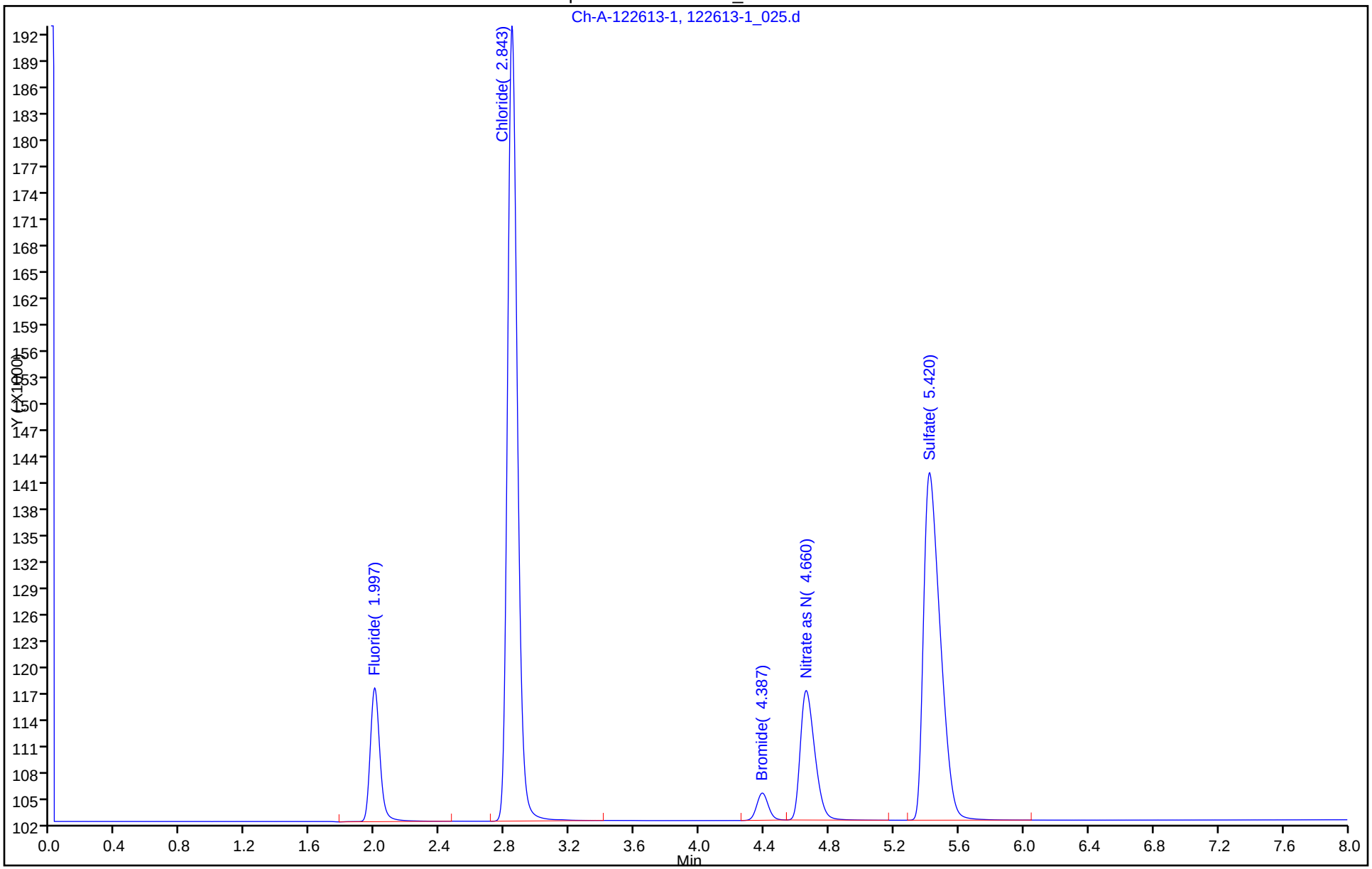
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.987	0.010	63428	2.11	
2 Chloride					
2.843	2.833	0.010	382518	20.5	
3 Bromide					
4.387	4.373	0.014	15279	1.92	
4 Nitrate as N					
4.660	4.643	0.017	90850	0	
5 Sulfate					
5.420	5.443	-0.023	282244	20.5	

Report Date: 27-Dec-2013 09:30:36 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d				
Injection Date:	26-Dec-2013 21:36:26	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	25
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.997	1.777	2.470	63428	7.60	4.20		1 Fluoride
2.843	2.710	3.407	382518	45.85	4.26		2 Chloride
4.387	4.257	4.537	15279	1.83	4.98		3 Bromide
4.660	4.537	5.167	90850	10.89	6.22		
5.420	5.283	6.047	282244	33.83	7.20		5 Sulfate
			834319			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.010	2.11	31714	5.5	10
2 Chloride	20.0	0.010	20.5	19126	2.5	10
3 Bromide	2.00	0.014	1.92	7639.50	-3.9	10
5 Sulfate	20.0	-0.023	20.5	14112	2.3	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 21:36:26 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028424-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

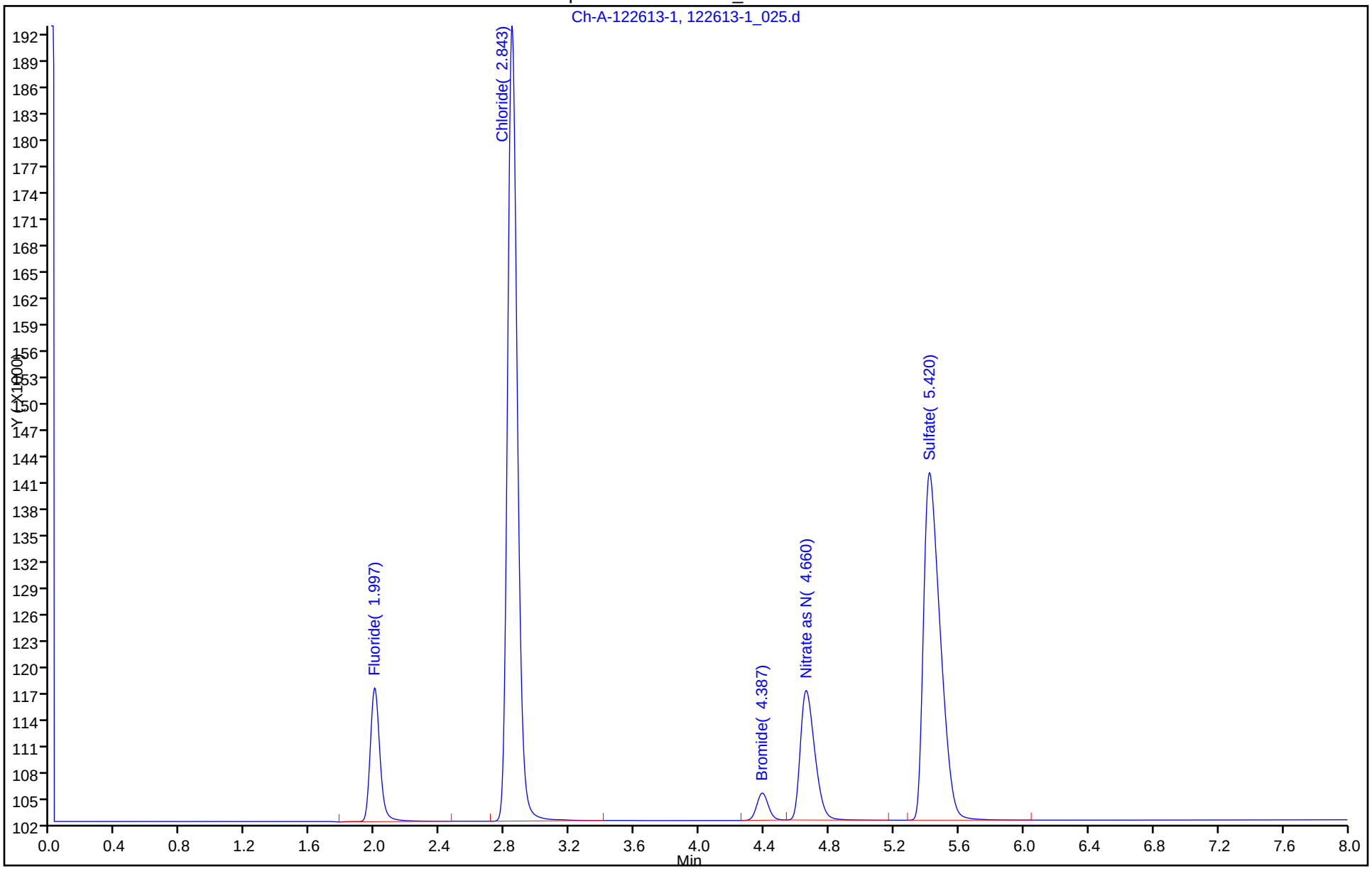
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:36

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.987	0.010	63428	2.11	
2 Chloride					
2.843	2.833	0.010	382518	20.5	
3 Bromide					
4.387	4.373	0.014	15279	1.92	
4 Nitrate as N					
4.660	4.643	0.017	90850	0	
5 Sulfate					
5.420	5.443	-0.023	282244	20.5	

Report Date: 27-Dec-2013 09:30:36 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_025.d				
Injection Date:	26-Dec-2013 21:36:26	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	25
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d
Lims ID: CCB Lab Sample ID: CCB 480-159519/26-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 21:46:34 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 026 Name: 480-0028424-026
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:38

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.840	2.757	2.927	280	52.73	3.94		2 Chloride
5.493	5.413	5.703	251	47.27	5.46		5 Sulfate
			531			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

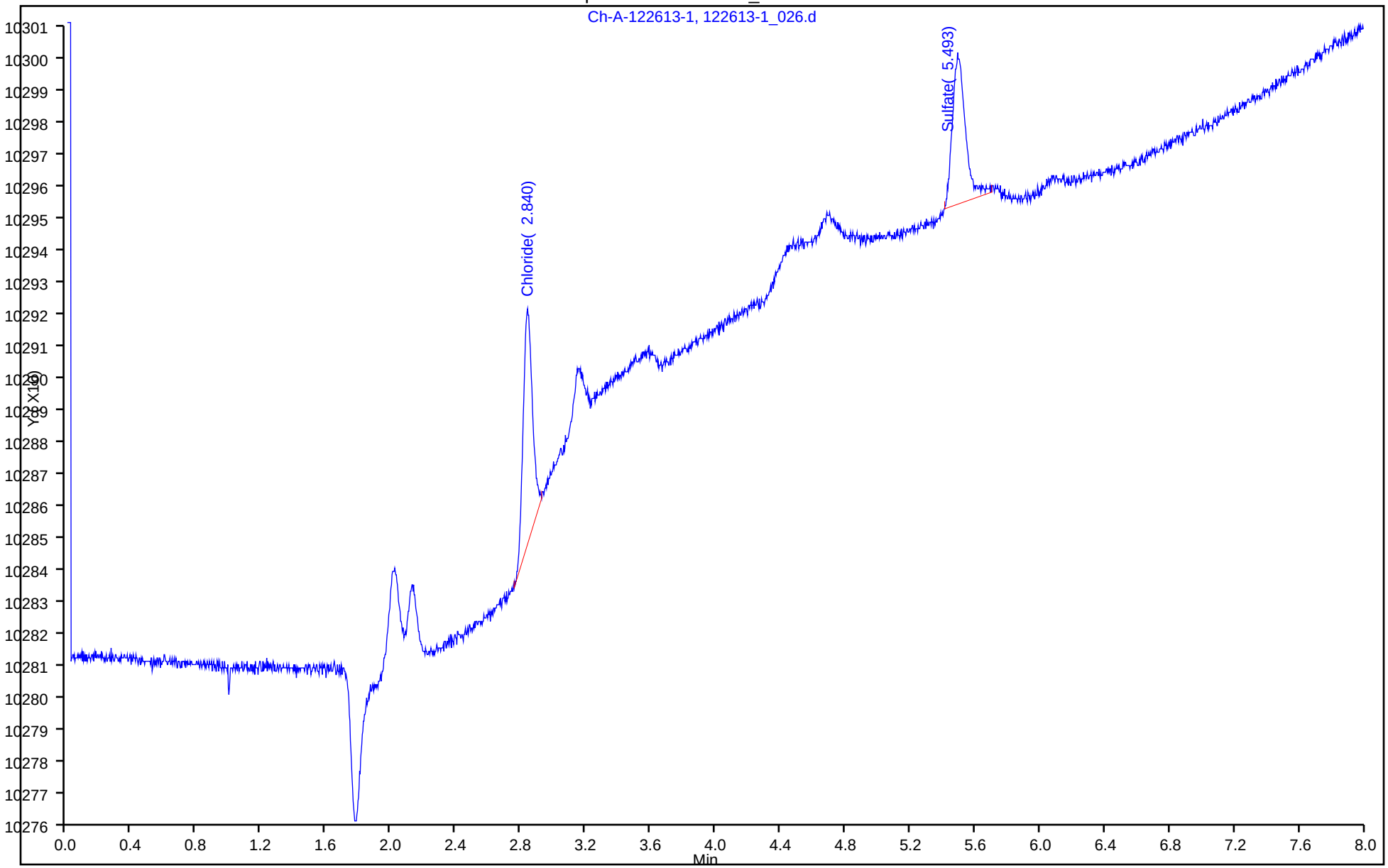
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/26-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 21:46:34	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 026 Name: 480-0028424-026				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:30:36	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:30:38		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.840	2.833	0.007	280	-0.0171	
5 Sulfate					
5.493	5.443	0.050	251	-0.0135	

Report Date: 27-Dec-2013 09:30:38 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d				
Injection Date:	26-Dec-2013 21:46:34	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/26-A	Worklist Smp#:	26
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d
Lims ID: CCB Lab Sample ID: CCB 480-159519/26-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 21:46:34 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 026 Name: 480-0028424-026
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:38

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.840	2.757	2.927	280	52.73	3.94		2 Chloride
5.493	5.413	5.703	251	47.27	5.46		5 Sulfate
			531			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

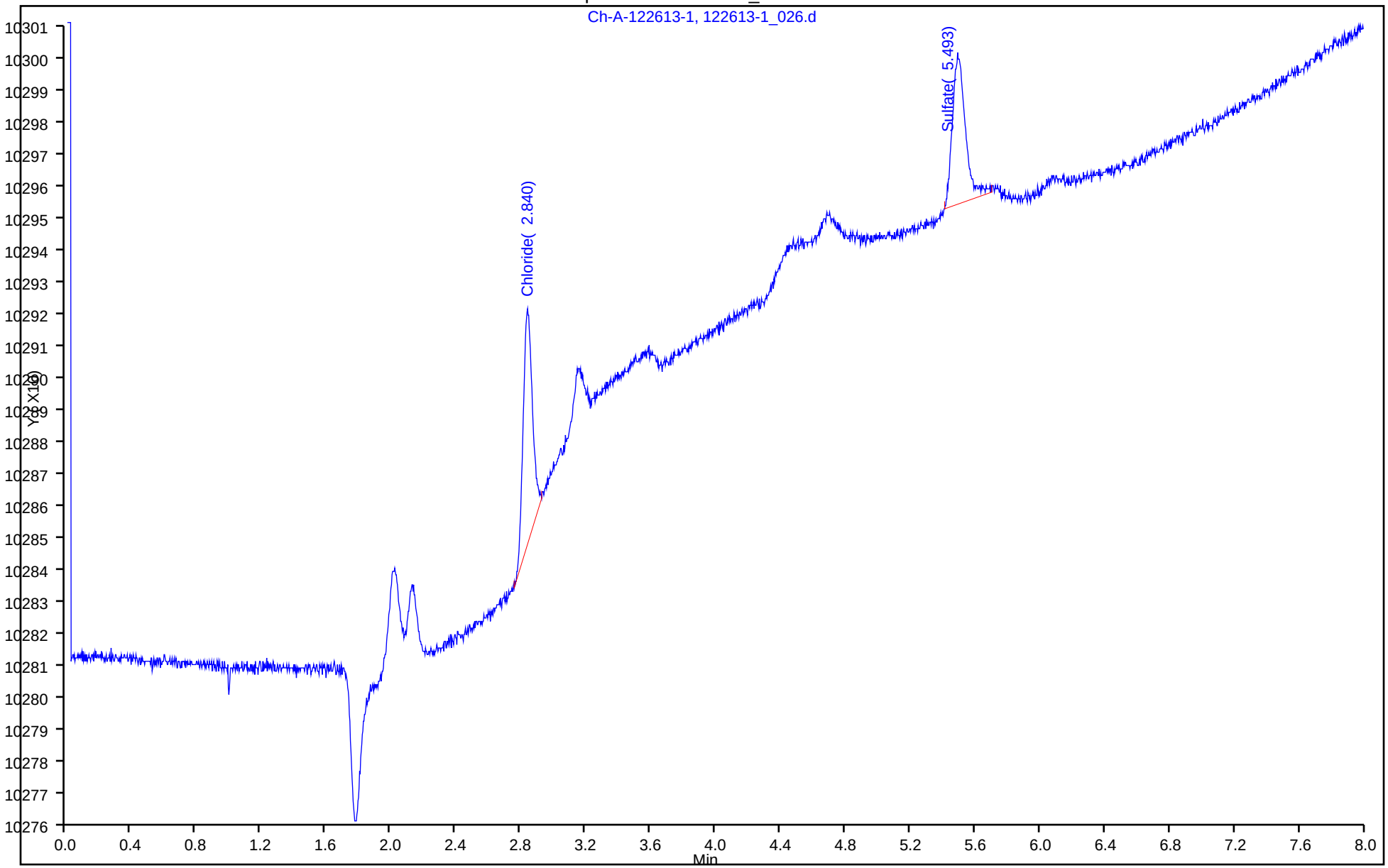
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/26-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 21:46:34	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 026 Name: 480-0028424-026				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:30:36	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:30:38		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.840	2.833	0.007	280	-0.0171	
5 Sulfate					
5.493	5.443	0.050	251	-0.0135	

Report Date: 27-Dec-2013 09:30:38 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_026.d				
Injection Date:	26-Dec-2013 21:46:34	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/26-A	Worklist Smp#:	26
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_027.d
Lims ID: LCS Lab Sample ID: LCS 480-159519/27-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Dec-2013 21:56:42 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 027 Name: 480-0028424-027
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:40

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.997	1.877	2.423	63001	7.55	4.17		1 Fluoride
2.843	2.713	3.410	382429	45.82	4.26		2 Chloride
4.390	4.253	4.533	15266	1.83	4.97		3 Bromide
4.660	4.533	5.193	90814	10.88	6.22		
5.413	5.273	6.030	283174	33.93	7.20		5 Sulfate
			834684			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_027.d
Lims ID: LCS Lab Sample ID: LCS 480-159519/27-A
Client ID:
Sample Type: LCS
Inject. Date: 26-Dec-2013 21:56:42 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 027 Name: 480-0028424-027
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:36 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

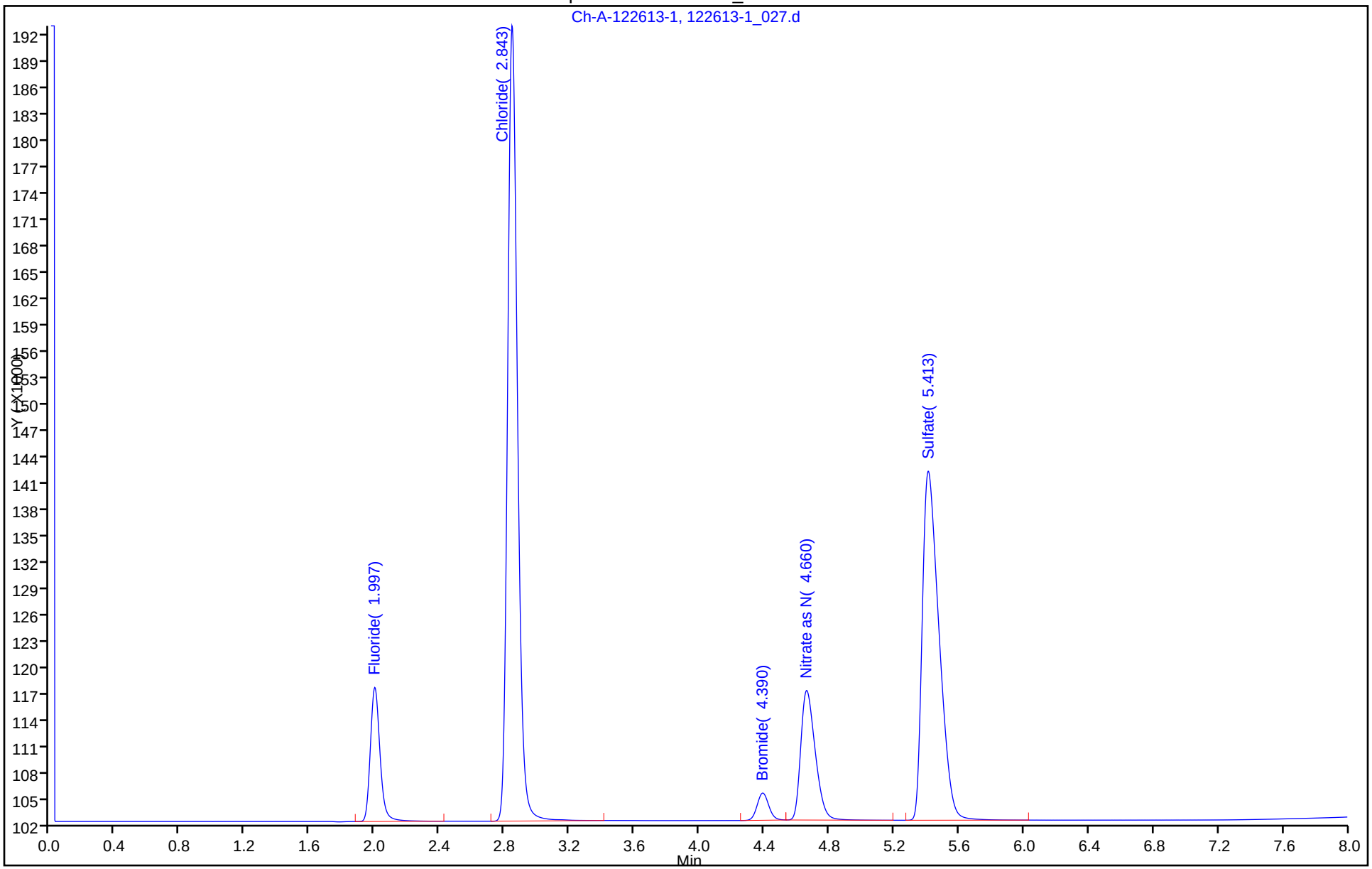
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:40

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.987	0.010	63001	2.10	
2 Chloride					
2.843	2.833	0.010	382429	20.5	
3 Bromide					
4.390	4.373	0.017	15266	1.92	
4 Nitrate as N					
4.660	4.643	0.017	90814	0	
5 Sulfate					
5.413	5.443	-0.030	283174	20.5	

Report Date: 27-Dec-2013 09:30:40 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_027.d				
Injection Date:	26-Dec-2013 21:56:42	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-159519/27-A	Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_028.d
Lims ID: MB Lab Sample ID: MB 480-159519/28-A
Client ID:
Sample Type: MB
Inject. Date: 26-Dec-2013 22:06:50 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 028 Name: 480-0028424-028
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:30:46 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:30:46

Detector: Ch-A-092410-2
Number of peaks found: 3

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.903	1.780	1.923	315	31.25	13.70		
2.847	2.757	2.923	360	35.71	4.00		2 Chloride
5.500	5.387	5.577	333	33.04	5.05		5 Sulfate
			1008			Totals	

Total Unknown Area% = 31.25

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

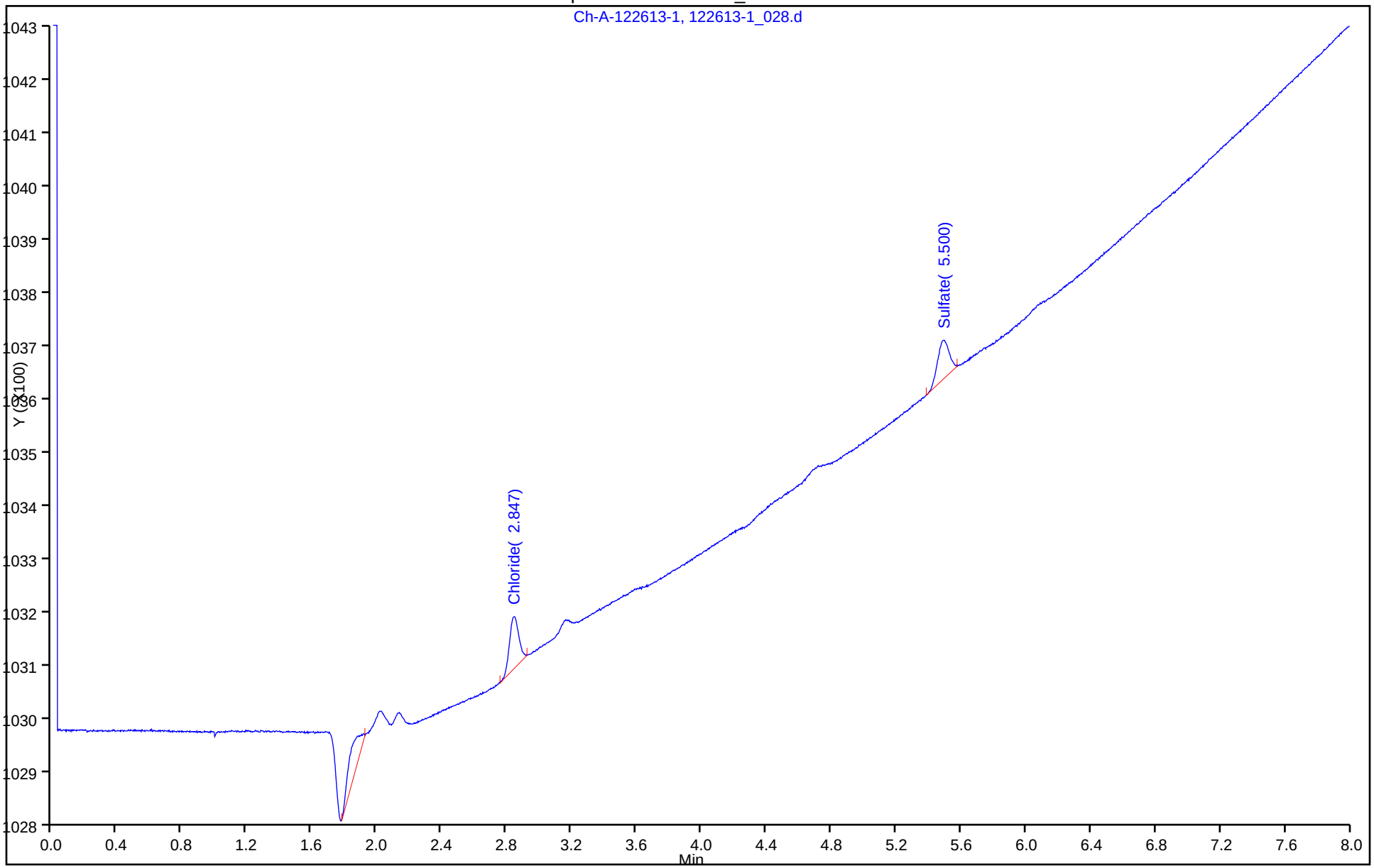
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_028.d				
Lims ID:	MB	Lab Sample ID:	MB 480-159519/28-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	26-Dec-2013 22:06:50	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 028 Name: 480-0028424-028				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:30:46	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:30:46		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.847	2.833	0.014	360	-0.0128	
5 Sulfate					
5.500	5.443	0.057	333	-0.007540	

Report Date: 27-Dec-2013 09:30:46 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_028.d				
Injection Date:	26-Dec-2013 22:06:50	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-159519/28-A	Worklist Smp#:	28
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_029.d
Lims ID: 460-68764-A-4 Lab Sample ID: 480-68764-4
Client ID: GW0031
Sample Type: Client
Inject. Date: 26-Dec-2013 22:16:58 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 029 Name: 480-0028424-029
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:31:08 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:31:08

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.990	1.900	2.137	17494	1.78	3.81	M	1 Fluoride
2.840	2.703	3.373	645916	65.89	4.28		2 Chloride
4.313	3.993	4.623	3511	0.36	14.45		
5.393	5.247	5.867	313326	31.96	7.40		5 Sulfate
			980247			Totals	

Total Unknown Area% = 0.36

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_029.d				
Lims ID:	460-68764-A-4	Lab Sample ID:	480-68764-4		
Client ID:	GW0031				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 22:16:58	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 029 Name: 480-0028424-029				
Operator ID:	TCHROM	Instrument ID:	IC-1		

Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 09:31:08	Calib Date:	17-Dec-2013 16:20:44
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d		

Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:31:08

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					M
1.990	1.987	0.003	17494	0.5819	M
2 Chloride					
2.840	2.833	0.007	645916	34.6	
5 Sulfate					
5.393	5.443	-0.050	313326	22.7	

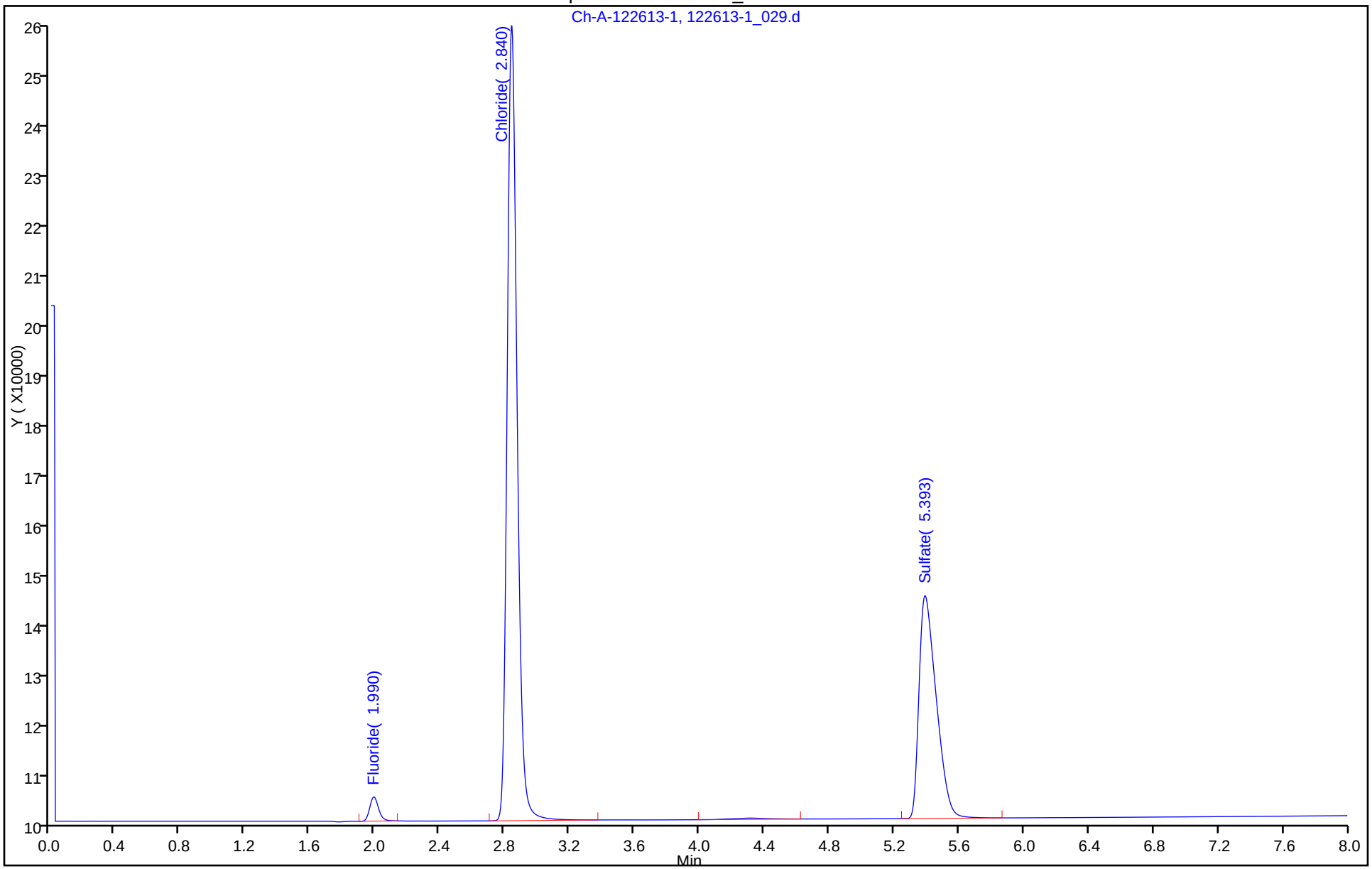
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 27-Dec-2013 09:31:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_029.d				
Injection Date:	26-Dec-2013 22:16:58	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-4	Lab Sample ID:	480-68764-4	Worklist Smp#:	29
Client ID:	GW0031				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

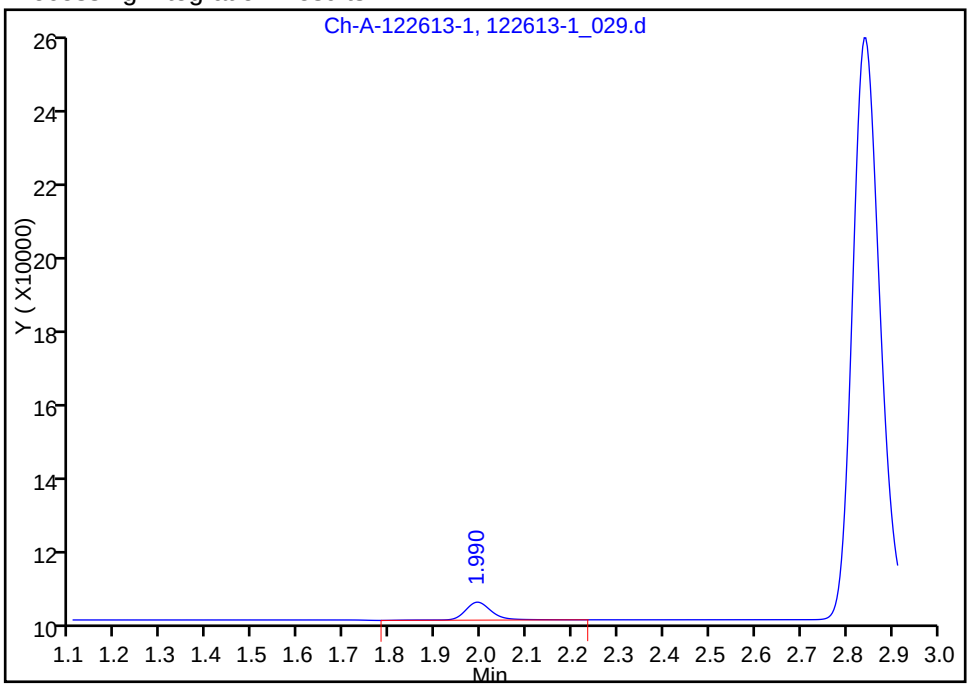
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_029.d				
Injection Date:	26-Dec-2013 22:16:58	Instrument ID:	IC-1		
Lims ID:	460-68764-A-4	Lab Sample ID:	480-68764-4		
Client ID:	GW0031				
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		
Column:		Detector	Ch-A-092410-2		

1 Fluoride, CAS: 16984-48-8

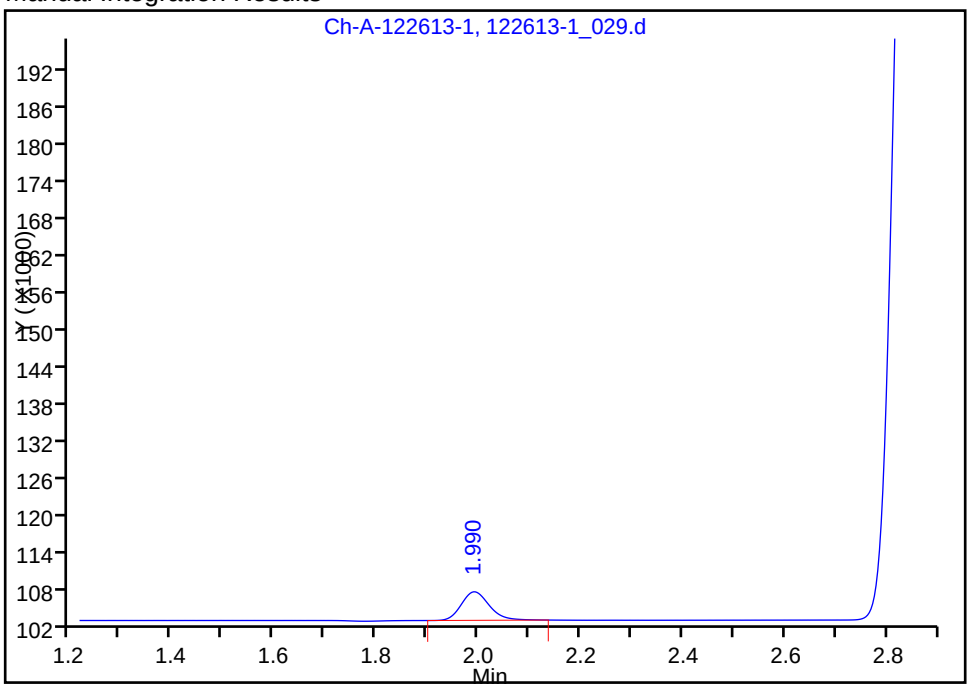
Processing Integration Results

RT: 1.99
Response: 19087
Amount: 0.634853



Manual Integration Results

RT: 1.99
Response: 17494
Amount: 0.581868



Reviewer: cudneyk, 27-Dec-2013 09:31:08
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_030.d
Lims ID: 460-68764-A-5 Lab Sample ID: 480-68764-5
Client ID: GW0032
Sample Type: Client
Inject. Date: 26-Dec-2013 22:27:06 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 030 Name: 480-0028424-030
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:31:28 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:31:28

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.993	1.897	2.283	17519	2.32	3.88		1 Fluoride
2.847	2.713	3.317	275104	36.46	4.22		2 Chloride
4.337	4.097	4.627	2488	0.33	14.38		
5.363	5.213	5.960	459392	60.89	8.27		5 Sulfate
			754503			Totals	

Total Unknown Area% = 0.33

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_030.d				
Lims ID:	460-68764-A-5	Lab Sample ID:	480-68764-5		
Client ID:	GW0032				
Sample Type:	Client				
Inject. Date:	26-Dec-2013 22:27:06	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 030 Name: 480-0028424-030				
Operator ID:	TCHROM	Instrument ID:	IC-1		

Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m		
Limit Group:	MB 300.0_28D ICAL		
Last Update:	27-Dec-2013 09:31:28	Calib Date:	17-Dec-2013 16:20:44
Integrator:	Falcon		
Quant Method:	External Standard	Quant By:	Initial Calibration
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d		

Column 1 :		Detector	Ch-A-092410-2
Process Host:	XAWRK005		

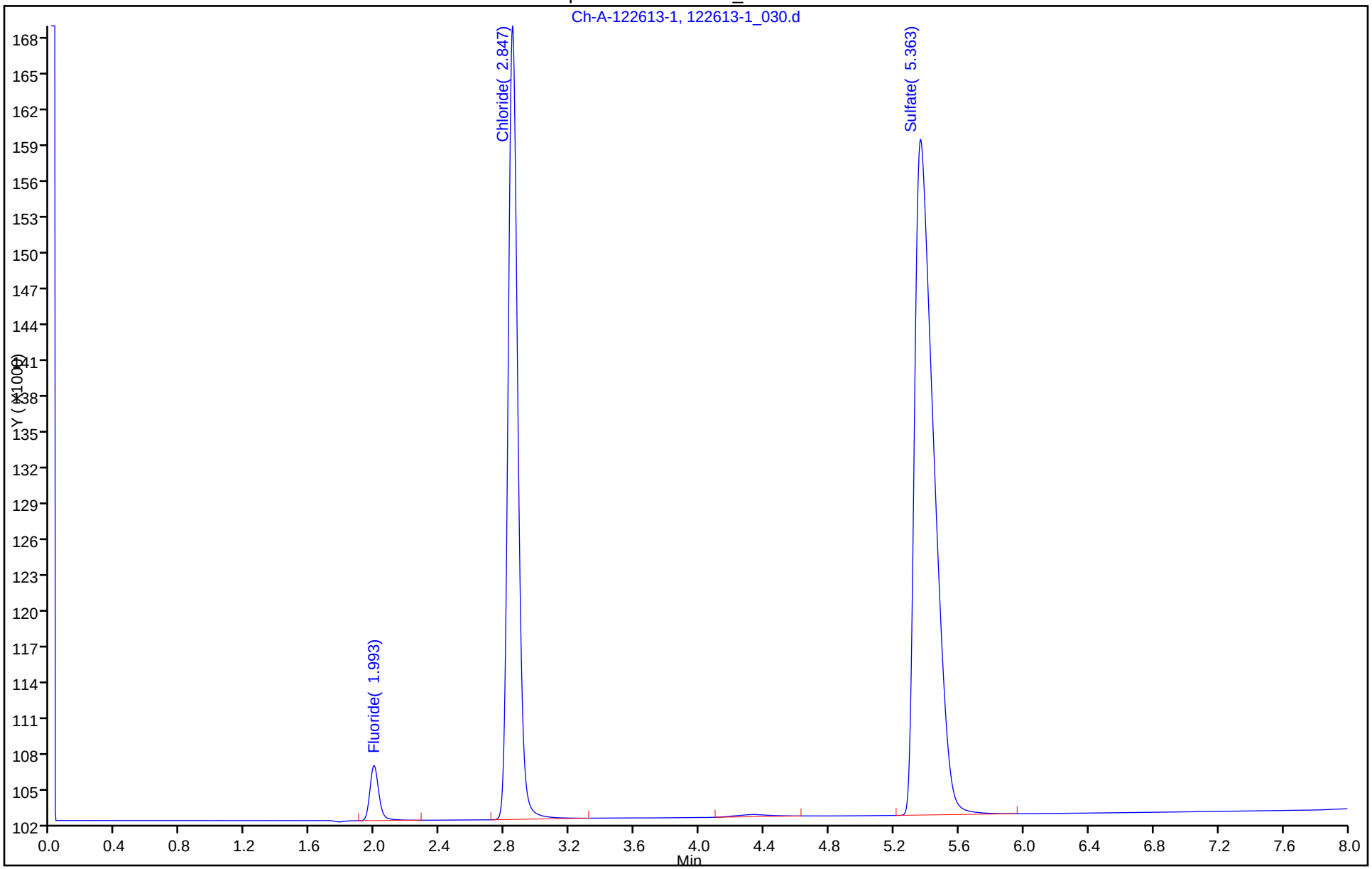
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:31:28

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.993	1.987	0.006	17519	0.5827	
2 Chloride					
2.847	2.833	0.014	275104	14.7	
5 Sulfate					
5.363	5.443	-0.080	459392	33.3	

Report Date: 27-Dec-2013 09:31:28 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_030.d				
Injection Date:	26-Dec-2013 22:27:06	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68764-A-5	Lab Sample ID:	480-68764-5	Worklist Smp#:	30
Client ID:	GW0032				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_037.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 23:38:01 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028424-037
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:33:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:33:09

Detector: Ch-A-092410-2
Number of peaks found: 5

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.007	1.887	2.413	63329	7.54	4.19		1 Fluoride
2.853	2.720	3.440	385209	45.86	4.32		2 Chloride
4.430	4.287	4.583	15324	1.82	5.05		3 Bromide
4.703	4.583	5.197	91461	10.89	6.29		
5.333	5.197	5.927	284596	33.88	7.12		5 Sulfate
			839919			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
CCV, Cal Verification Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_037.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 23:38:01 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028424-037
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:33:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:33:09

Start Cal Date: 17-Dec-2013 15:19:57
End Cal Date: 17-Dec-2013 16:20:44

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.0	2.11	31665	5.3	10
2 Chloride	20.0	0.0	20.6	19260	3.2	10
3 Bromide	2.00	0.0	1.93	7662.00	-3.6	10
5 Sulfate	20.0	0.0	20.6	14230	3.1	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_037.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 26-Dec-2013 23:38:01 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028424-037
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:33:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK005

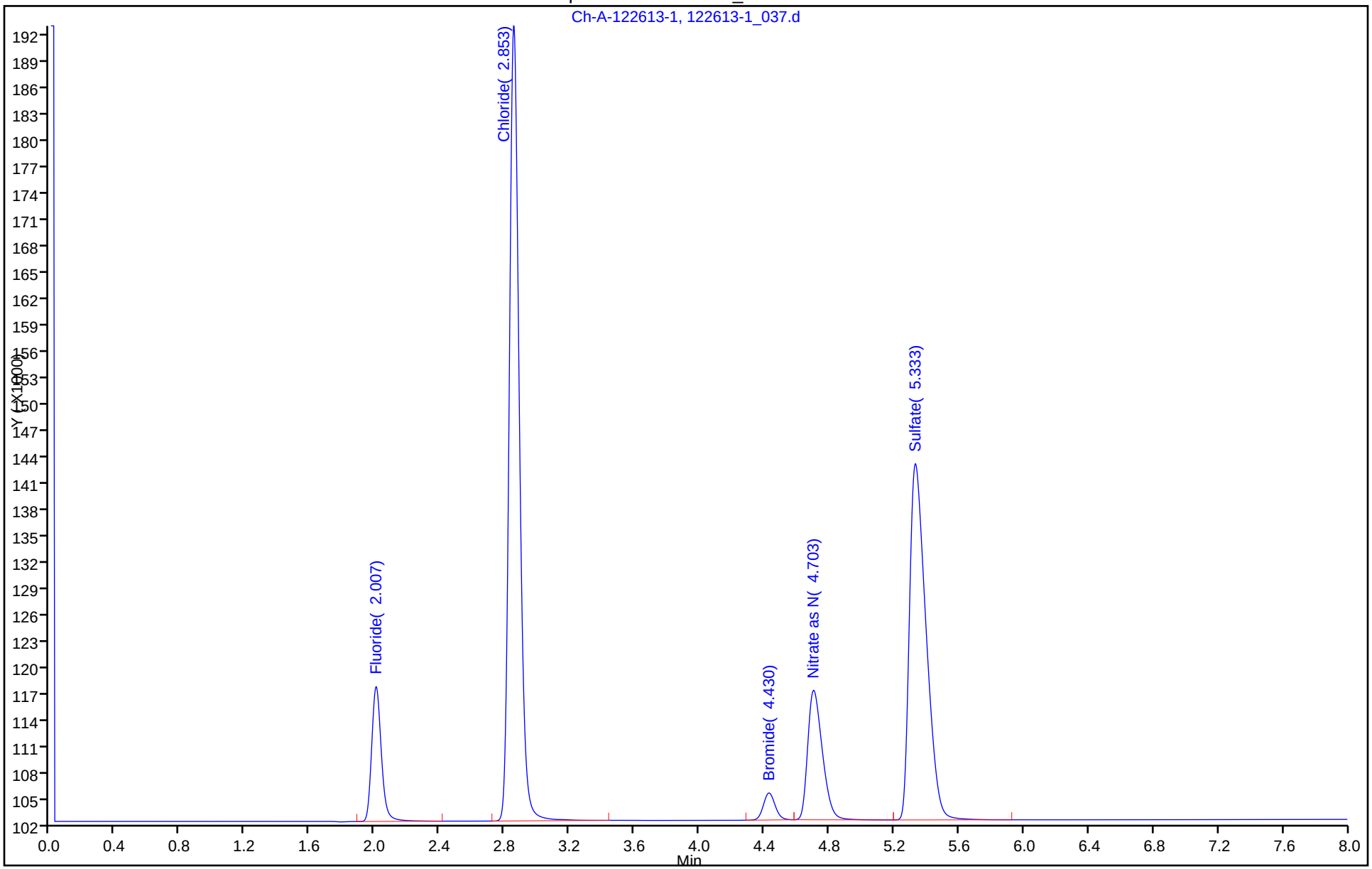
First Level Reviewer: cudneyk Date: 27-Dec-2013 09:33:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
2.007	2.007	0.0	63329	2.11	
2 Chloride					
2.853	2.853	0.0	385209	20.6	
3 Bromide					
4.430	4.430	0.0	15324	1.93	
4 Nitrate as N					
4.703	4.703	0.0	91461	0	
5 Sulfate					
5.333	5.333	0.0	284596	20.6	

Report Date: 27-Dec-2013 09:33:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_037.d				
Injection Date:	26-Dec-2013 23:38:01	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCV	Lab Sample ID:		Worklist Smp#:	37
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_038.d
Lims ID: CCB Lab Sample ID: CCB 480-159519/38-A
Client ID:
Sample Type: CCB
Inject. Date: 26-Dec-2013 23:48:09 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 038 Name: 480-0028424-038
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 27-Dec-2013 09:33:09 Calib Date: 17-Dec-2013 16:20:44
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d
Process Host: XAWRK005

First Level Reviewer: cudneyk Date: 27-Dec-2013 09:33:13

Detector: Ch-A-092410-2
Number of peaks found: 2

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.850	2.763	2.960	313	51.57	4.29		2 Chloride
5.410	5.320	5.583	294	48.43	5.55		5 Sulfate
			607			Totals	

Total Unknown Area% = 0.00

Flag Legend
M - Manually Integrated
A - User Assigned Compound
B - Overlapped Base Peak
O - Overlapping Peak
e - Potential Peak Saturation

TestAmerica Buffalo
Target Compound Quantitation Report

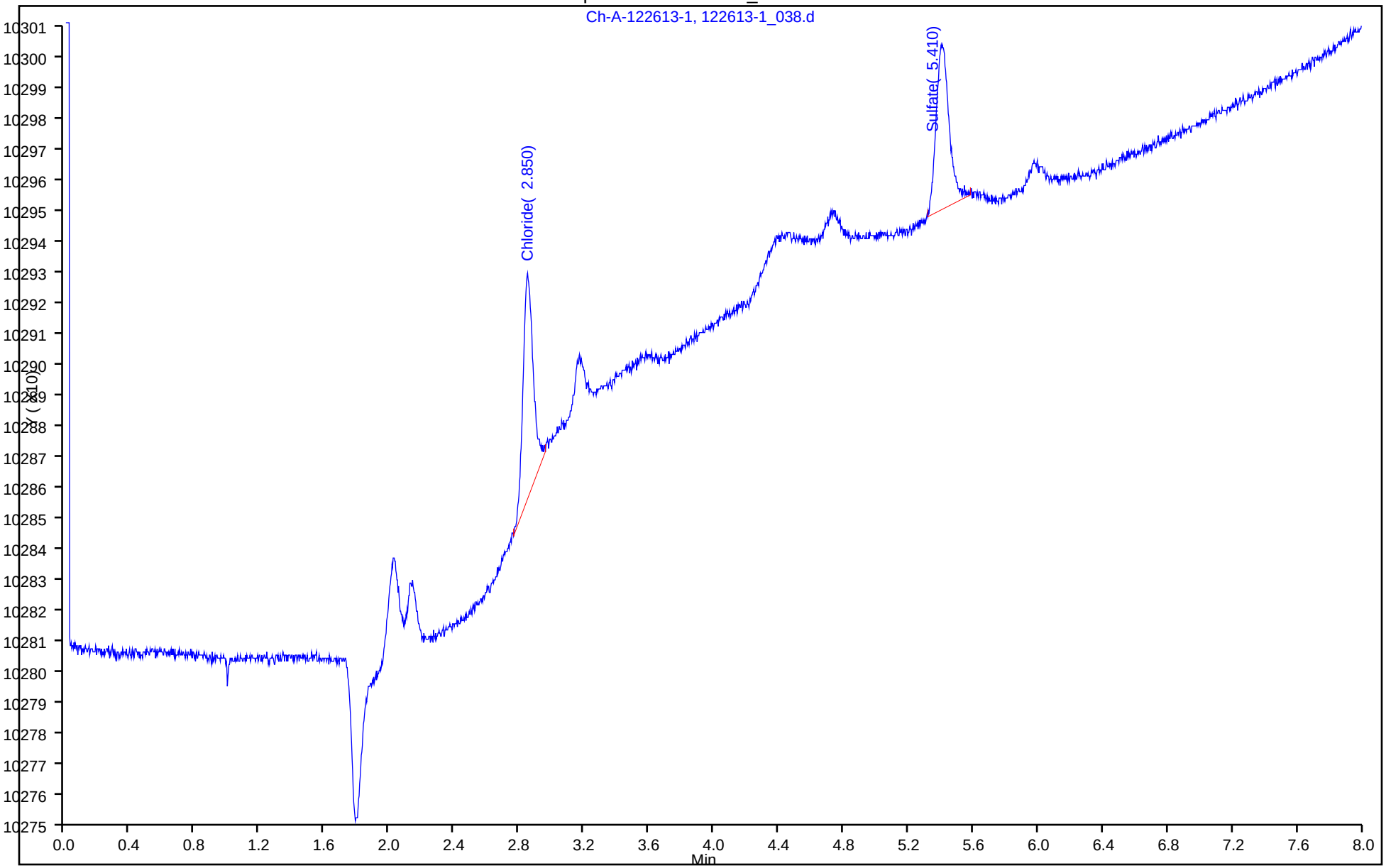
Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_038.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/38-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	26-Dec-2013 23:48:09	ALS Bottle#:	0	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 038 Name: 480-0028424-038				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	27-Dec-2013 09:33:09	Calib Date:	17-Dec-2013 16:20:44		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK005				
First Level Reviewer: cudneyk		Date:	27-Dec-2013 09:33:13		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.850	2.853	-0.003	313	-0.0153	
5 Sulfate					
5.410	5.333	0.077	294	-0.0104	

Report Date: 27-Dec-2013 09:33:13 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131226-28424.b\122613-1_038.d				
Injection Date:	26-Dec-2013 23:48:09	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-159519/38-A	Worklist Smp#:	38
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 199259 Batch Start Date: 12/21/13 07:39 Batch Analyst: Leye, Mamadou

Batch Method: 353.2 Batch End Date: 12/21/13 09:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTno3+2IM1 00238	WTno3+2IM2 00243	WTno3LCS 00014		
ICV 460-199259/7		353.2		100 mL		5 mL			
LCSSRM 460-199259/11		353.2		10 mL			10 mL		
460-68760-D-1 MS		353.2	T	50 mL	2.5 mL				
460-68760-D-1 MSD		353.2	T	50 mL	2.5 mL				
CCV 460-199259/19		353.2		100 mL		5 mL			
CCV 460-199259/31		353.2		100 mL		5 mL			

Batch Notes	
Batch Comment	Curve A(58745-58750)-13 ; CCV : A(58751)-13 exp 12/27/13
Buffer Solution ID	C0171-13 exp 06/20/14
Color Reagent ID Number	C0168-13 exp 01/20/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 201028 Batch Start Date: 01/02/14 12:00 Batch Analyst: Afremova, Izabella

Batch Method: SM 2340C Batch End Date: 01/02/14 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BuretStart1	BuretStop1	TitrantVolume1	CalcMsg
MB 460-201028/1		SM 2340C		50.0 mL	50.0 mL	0 mL	0 mL	0 mL	OK
LCSSRM 460-201028/2		SM 2340C		50.0 mL	50.0 mL	0 mL	3.9 mL	3.9 mL	OK
460-68764-E-5	GW0032	SM 2340C	T	50.0 mL	50.0 mL	0 mL	2.6 mL	2.6 mL	OK
460-68764-E-5 DU	GW0032	SM 2340C	T	50.0 mL	50.0 mL	0 mL	2.6 mL	2.6 mL	OK
460-68764-E-1	GW0028	SM 2340C	T	50.0 mL	50.0 mL	0 mL	3.9 mL	3.9 mL	OK
460-68764-E-2	GW0029	SM 2340C	T	50.0 mL	50.0 mL	0 mL	3.6 mL	3.6 mL	OK
460-68764-E-3	GW0030	SM 2340C	T	50.0 mL	50.0 mL	0 mL	3.5 mL	3.5 mL	OK
460-68764-E-4	GW0031	SM 2340C	T	50.0 mL	50.0 mL	0 mL	3.2 mL	3.2 mL	OK

Lab Sample ID	Client Sample ID	Method Chain	Basis	WThardLCS0001 00013					
MB 460-201028/1		SM 2340C							
LCSSRM 460-201028/2		SM 2340C		50 mL					
460-68764-E-5	GW0032	SM 2340C	T						
460-68764-E-5 DU	GW0032	SM 2340C	T						
460-68764-E-1	GW0028	SM 2340C	T						
460-68764-E-2	GW0029	SM 2340C	T						
460-68764-E-3	GW0030	SM 2340C	T						
460-68764-E-4	GW0031	SM 2340C	T						

Batch Notes	
Buffer Lot #	Fisher/132206 exp.05/30/15
EDTA Lot Number	AQUA SOLUTION/2111362
Indicator Lot	Eriochrome Black-T indicator # C - 9981-13 exp.04/16/14
Nominal Amount Used	50 mL
Perform Calculation (0=No, 1=Yes)	1
Normality of first Titrant	0.02 N
Titrant Standardization Date	Stand.11/22/13 exp.STD 02/22/14

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 201028 Batch Start Date: 01/02/14 12:00 Batch Analyst: Afremova, Izabella

Batch Method: SM 2340C Batch End Date: 01/02/14 13:30

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 201106 Batch Start Date: 01/02/14 16:16 Batch Analyst: Cabanganan, Maria

Batch Method: SM 2320B Batch End Date: 01/02/14 21:27

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WTalkLCS 00095			
MB 460-201106/2		SM 2320B		InitialAmount is blank					
LCSSRM 460-201106/3		SM 2320B		InitialAmount is blank	25 mL	25 mL			
460-68760-F-1 DU		SM 2320B	T	InitialAmount is blank					
460-68764-D-1	GW0028	SM 2320B	T	InitialAmount is blank					
460-68764-D-2	GW0029	SM 2320B	T	InitialAmount is blank					
460-68764-D-3	GW0030	SM 2320B	T	InitialAmount is blank					
460-68764-D-4	GW0031	SM 2320B	T	InitialAmount is blank					
460-68764-D-5	GW0032	SM 2320B	T	InitialAmount is blank					

Batch Notes	
pH Buffer 1 ID	4buffer: 910104 exp. 07/2015 Thermo
pH Buffer 2 ID	7buffer: 133435 exp. 06/2015 Fisher
pH Buffer 3 ID	10buffer: 133437 exp. 06/2015 Fisher
Lot # of hydrochloric acid	A3283
HCl Vendor	HACH
Nominal Amount Used	25 mL
Normality of first Titrant	0.0198192 N
Titrant Standardization Date	prep: 11/20/13 exp. 02/20/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 199952 Batch Start Date: 12/26/13 07:57 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/26/13 14:46

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 460-199952/1		SM 2540D		100 mL	a08XN 0.1200	0.1200 g	1000 mL	0.1196 g	0.1194 g
LCSSRM 460-199952/3		SM 2540D		100 mL	a08XP 0.1202	0.1202 g	50 mL	0.1240 g	0.1232 g
460-68764-G-1	GW0028	SM 2540D	T	100 mL	a08XR 0.1180	0.1180 g	960 mL	0.1190 g	0.1191 g
460-68764-G-2	GW0029	SM 2540D	T	100 mL	a08XS 0.1206	0.1206 g	920 mL	0.1214 g	0.1217 g
460-68764-G-3	GW0030	SM 2540D	T	100 mL	a08XT 0.1191	0.1191 g	920 mL	0.1196 g	0.1194 g
460-68764-G-4	GW0031	SM 2540D	T	100 mL	a08XU 0.1201	0.1201 g	930 mL	0.1204 g	0.1203 g
460-68764-G-5	GW0032	SM 2540D	T	100 mL	a08XV 0.1198	0.1198 g	920 mL	0.1199 g	0.1202 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Residue	Residue2	Residue3
MB 460-199952/1		SM 2540D		0.1194 g	PASS <0.5mg	PASS <0.5mg	-0.0004 g	-0.0006 g	-0.0006 g
LCSSRM 460-199952/3		SM 2540D		0.1236 g	Fail >=0.5mg	PASS <0.5mg	0.0038 g	0.003 g	0.0034 g
460-68764-G-1	GW0028	SM 2540D	T	0 g	PASS <0.5mg		0.001 g	0.0011 g	
460-68764-G-2	GW0029	SM 2540D	T	0 g	PASS <0.5mg		0.0008 g	0.0011 g	
460-68764-G-3	GW0030	SM 2540D	T	0 g	PASS <0.5mg		0.0005 g	0.0003 g	
460-68764-G-4	GW0031	SM 2540D	T	0 g	PASS <0.5mg		0.0003 g	0.0002 g	
460-68764-G-5	GW0032	SM 2540D	T	0 g	PASS <0.5mg		0.0001 g	0.0004 g	

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResDishWt	DishWeight	WTtssLCS 00045			
MB 460-199952/1		SM 2540D		0.1194 g	0.12 g				
LCSSRM 460-199952/3		SM 2540D		0.1236 g	0.1202 g	50 mL			
460-68764-G-1	GW0028	SM 2540D	T	0.1191 g	0.118 g				
460-68764-G-2	GW0029	SM 2540D	T	0.1217 g	0.1206 g				
460-68764-G-3	GW0030	SM 2540D	T	0.1194 g	0.1191 g				
460-68764-G-4	GW0031	SM 2540D	T	0.1203 g	0.1201 g				
460-68764-G-5	GW0032	SM 2540D	T	0.1202 g	0.1198 g				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 199952 Batch Start Date: 12/26/13 07:57 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/26/13 14:46

Batch Notes	
Balance ID	27
Constant Weight (WT2) Date/Time in Oven	12-26-13@10:47
Constant Weight (WT2) Date/Time Out	12-26-13@11:59
Constant Weight (WT2) Temp In	104 Celsius
Constant Weight (WT2) Temp Out	104 Celsius
Uncorrected CW (Wt2) Temp In	102 Celsius
Uncorrected CW (Wt2) Temp Out	102 Celsius
Constant Weight (WT3) Date/time In	12-26-13@13:37
Constant Weight (WT3) Date/Time Out	12-26-13@14:40
Constant Weight (WT3) Temp In	104 Celsius
Constant Weight (WT3) Temp Out	104 Celsius
Uncorrected CW (Wt3) Temp In	102 Celsius
Uncorrected CW (Wt3) Temp Out	102 Celsius
Filter Paper Lot Number	EnviroExpress 600006 3281R2
Date samples were placed in the oven	12-26-13@8:45
Oven Temp when samples are put in oven	104 Celsius
Nominal Amount Used	100 mL
Date samples were removed from oven	12-26-13@9:53
Oven ID	36221
Perform Calculation (0=No, 1=Yes)	1
Uncorrected In Temperature	102 Celsius

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 177439 Batch Start Date: 08/21/13 16:45 Batch Analyst: Vu, Huan

Batch Method: SM 4500 P E Batch End Date: 08/21/13 18:31

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	CalcMsg	WTphosSP1 00020		
IC 460-177439/1		SM 4500 P E		0 mL	50 mL	Not Calculated. RunCalculation not set to Run			
IC 460-177439/2		SM 4500 P E		0.03 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.03 mL		
IC 460-177439/3		SM 4500 P E		0.05 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.05 mL		
IC 460-177439/4		SM 4500 P E		0.10 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.1 mL		
IC 460-177439/5		SM 4500 P E		0.20 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.2 mL		
IC 460-177439/6		SM 4500 P E		0.50 mL	50 mL	Not Calculated. RunCalculation not set to Run	0.5 mL		

Batch Notes	
Ammonium Molybdate Reagent ID Number	B-2862-13 exp;01/23/14
Ascorbic Acid Reagent ID Number	B-2887-13 exp;08/22/13
Batch Comment	Calibration on : 08/21/13 / Cal curve exp;02/14/14
Potassium Antimonyl Tartrate Reagent ID	B-2812-13 exp;12/14/13
Perform Calculation (0=No, 1=Yes)	1
Sulfuric Acid Reagent ID Number	B-2886-13 : 5N exp;02/15/14

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 199287 Batch Start Date: 12/21/13 08:00 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 4500 P E Batch End Date: 12/21/13 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WTophosLCS 00004	WTphosSP1 00020	WTphosSS1 00018	
ICV 460-199287/1		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
ICB 460-199287/2		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
MB 460-199287/3		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
LCSSRM 460-199287/4		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run	2 mL			
460-68764-F-1	GW0028	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-2	GW0029	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-3	GW0030	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-4	GW0031	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-5	GW0032	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
CCV 460-199287/13		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-199287/14		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
460-68764-F-3 MS	GW0030	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run		0.2 mL		
CCV 460-199287/25		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-199287/26		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 199287 Batch Start Date: 12/21/13 08:00 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 4500 P E Batch End Date: 12/21/13 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WTophosLCS 00004	WTphosSP1 00020	WTphosSS1 00018	
460-68764-F-3 MSD	GW0030	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run		0.2 mL		
CCV 460-199287/28		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-199287/29		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				

Batch Notes	
Ammonium Molybdate Reagent ID Number	B-3010-13 exp;06/05/14
Ascorbic Acid Reagent ID Number	B 3025-13 exp 12/28/13
Batch Comment	See batch 177439 for Cal. info. / Cal curve exp;02/14/14
Potassium Antimonyl Tartrate Reagent ID	B-2948-13 exp;04/14/14
Perform Calculation (0=No, 1=Yes)	1
Sulfuric Acid Reagent ID Number	5N H2SO4 B 3014-13 exp 6/14/14

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 200410 Batch Start Date: 12/27/13 14:27 Batch Analyst: Vu, Huan

Batch Method: SM 5310B Batch End Date: 12/30/13 13:38

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTtocLCS 00022	WTtocSP1 00021	WTtocSP2 00019		
ICV 460-200410/1		SM 5310B		50			1.25 mL		
ICB 460-200410/2		SM 5310B		50					
MB 460-200410/3		SM 5310B		50					
LCSSRM 460-200410/4		SM 5310B		50	50 mL				
460-68764-B-1	GW0028	SM 5310B	T	50					
460-68764-B-1 MS	GW0028	SM 5310B	T	50		1.25 mL			
460-68764-B-1 MSD	GW0028	SM 5310B	T	50		1.25 mL			
460-68764-B-2	GW0029	SM 5310B	T	50					
460-68764-B-3	GW0030	SM 5310B	T	50					
460-68764-B-4	GW0031	SM 5310B	T	50					
460-68764-B-5	GW0032	SM 5310B	T	50					
CCV 460-200410/13		SM 5310B		50			1.25 mL		
CCB 460-200410/14		SM 5310B		50					

Batch Notes	
Batch Comment	T(1425-1428)-13 CAL exp;03/05/14 / H2SO4 : 35166

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 200972 Batch Start Date: 01/02/14 06:30 Batch Analyst: Afremova, Izabella

Batch Method: SM 4500 NH3 B Batch End Date: 01/02/14 10:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Final pH	WTamnIM1 00035		
MB 460-200972/1		SM 4500 NH3 B, 4500 NH3 H		50.0 mL	50.0 mL	ph=9.5 SU			
LCS 460-200972/2		SM 4500 NH3 B, 4500 NH3 H		50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68228-G-1 MS		SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68228-G-1 MSD		SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68764-C-1	GW0028	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68764-C-2	GW0029	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68764-C-3	GW0030	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68764-C-4	GW0031	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68764-C-5	GW0032	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			

Batch Notes	
Acid used for pH adjustment	11 N H2SO4 # B - 2933-13 exp.03/25/14
Base used for pH adjustment	15 N NaOH # C - 9902-13 exp.02/17/14
Buffer Reagent ID Number	# C - 9857-13 exp.03/04/14
Distillation End Time	10:00 am
Distillation Start Time	8:30 am
Distillation Temperature	210
Sulfuric Acid Lot Number	Macron Fine Chemicals/35166
NaOH Lot #	Fisher/122989
Sulfuric Acid Reagent ID Number	0.04 N H2SO4 # C - 9816-13 exp.02/22/14

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 200972 Batch Start Date: 01/02/14 06:30 Batch Analyst: Afremova, Izabella

Batch Method: SM 4500 NH3 B Batch End Date: 01/02/14 10:00

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 201012 Batch Start Date: 01/02/14 11:01 Batch Analyst: Leye, Mamadou

Batch Method: 4500 NH3 H Batch End Date: 01/02/14 11:54

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTamnSS1 00007				
ICV 460-201012/7		4500 NH3 H		100	0.2 mL				
CCV 460-201012/17		4500 NH3 H		100	0.2 mL				
CCV 460-201012/29		4500 NH3 H		100	0.2 mL				
CCV 460-201012/33		4500 NH3 H		100	0.2 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 201069 Batch Start Date: 01/02/14 15:05 Batch Analyst: Hu, Youhao

Batch Method: SM 4500 H+ B Batch End Date: 01/02/14 17:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SampleTemp	pHread1	pHRead2	CalcMsg	WTpHCCV 00020
CCV 460-201069/1		SM 4500 H+ B		20 mL	23.2 Celsius	7.04 SU	7.03 SU	Read 2 Pass	20 mL
MB 460-201069/2		SM 4500 H+ B		20 mL	22.1 Celsius	6.03 SU	6.05 SU	Read 2 Pass	
LCSSRM 460-201069/3		SM 4500 H+ B		20 mL	23.2 Celsius	7.02 SU	7.02 SU	Read 2 Pass	
460-68717-A-1 DU		SM 4500 H+ B	T	20 mL	22.2 Celsius	7.68 SU	7.69 SU	Read 2 Pass	
CCV 460-201069/11		SM 4500 H+ B		20 mL	23.4 Celsius	7.01 SU	7.00 SU	Read 2 Pass	20 mL
460-68764-F-1	GW0028	SM 4500 H+ B	T	20 mL	22.4 Celsius	7.87 SU	7.87 SU	Read 2 Pass	
460-68764-F-2	GW0029	SM 4500 H+ B	T	20 mL	22.6 Celsius	7.88 SU	7.88 SU	Read 2 Pass	
460-68764-F-3	GW0030	SM 4500 H+ B	T	20 mL	22.1 Celsius	8.08 SU	8.07 SU	Read 2 Pass	
460-68764-F-4	GW0031	SM 4500 H+ B	T	20 mL	22.4 Celsius	7.96 SU	7.96 SU	Read 2 Pass	
460-68764-F-5	GW0032	SM 4500 H+ B	T	20 mL	21.9 Celsius	7.92 SU	7.93 SU	Read 2 Pass	
CCV 460-201069/21		SM 4500 H+ B		20 mL	23.5 Celsius	7.00 SU	7.00 SU	Read 2 Pass	20 mL
CCV 460-201069/26		SM 4500 H+ B		20 mL	23.4 Celsius	7.00 SU	7.00 SU	Read 2 Pass	20 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	WTpHLCS 00015					
CCV 460-201069/1		SM 4500 H+ B							
MB 460-201069/2		SM 4500 H+ B							
LCSSRM 460-201069/3		SM 4500 H+ B		20 mL					
460-68717-A-1 DU		SM 4500 H+ B	T						
CCV 460-201069/11		SM 4500 H+ B							
460-68764-F-1	GW0028	SM 4500 H+ B	T						
460-68764-F-2	GW0029	SM 4500 H+ B	T						
460-68764-F-3	GW0030	SM 4500 H+ B	T						
460-68764-F-4	GW0031	SM 4500 H+ B	T						
460-68764-F-5	GW0032	SM 4500 H+ B	T						
CCV 460-201069/21		SM 4500 H+ B							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68764-1

SDG No.:

Batch Number: 201069 Batch Start Date: 01/02/14 15:05 Batch Analyst: Hu, Youhao

Batch Method: SM 4500 H+ B Batch End Date: 01/02/14 17:52

Lab Sample ID	Client Sample ID	Method Chain	Basis	WTpHLCS 00015					
CCV 460-201069/26		SM 4500 H+ B							

Batch Notes	
pH Buffer 1 ID	7.00Fisher: 133435 exp. 06/2015
pH Buffer 2 ID	4.00Thermo: 910104 exp. 04/31/15
pH Buffer 3 ID	10.00Fisher: 120213 exp. 06/2015
Instrument ID	PH meter: G

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Batch Number: 158037 Batch Start Date: 12/17/13 15:19 Batch Analyst: Cudney, Kevin A

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_STD 00003				
STD0 480-158037/1		300.0		1 mL	0.001 uL				
STD1 480-158037/2		300.0		1 mL	50 uL				
STD2 480-158037/3		300.0		1 mL	100 uL				
STD3 480-158037/4		300.0		1 mL	500 uL				
STD4 480-158037/5		300.0		1 mL	2 mL				
STD5 480-158037/6		300.0		1 mL	5 mL				
STD6 480-158037/7		300.0		1 mL	5 mL				

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Batch Number: 159515 Batch Start Date: 12/26/13 17:33 Batch Analyst: Cudney, Kevin A

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_LCS_ 00024	IC_ANION_STD 00003			
CCV 480-159515/1		300.0		1 mL	5 mL				
CCB 480-159515/2		300.0		1 mL					
LCS 480-159515/3		300.0		1 mL	5 mL				
MB 480-159515/4		300.0		1 mL					
CCV 480-159515/13		300.0		1 mL	5 mL				
CCB 480-159515/14		300.0		1 mL					
460-68764-A-1	GW0028	300.0	T	1 mL					
460-68764-A-2	GW0029	300.0	T	1 mL					
460-68764-A-3	GW0030	300.0	T	1 mL					
460-68764-A-3 MS	GW0030	300.0	T	1 mL		125 uL			
460-68764-A-3 MSD	GW0030	300.0	T	1 mL		125 uL			
CCV 480-159515/25		300.0		1 mL	5 mL				
CCB 480-159515/26		300.0		1 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Buffalo Job No.: 460-68764-1

SDG No.:

Batch Number: 159518 Batch Start Date: 12/26/13 21:36 Batch Analyst: Cudney, Kevin A

Batch Method: 300.0 Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	IC_ANION_LCS_ 00024				
CCV 480-159518/25		300.0		1 mL	5 mL				
CCB 480-159518/26		300.0		1 mL					
LCS 480-159518/27		300.0		1 mL	5 mL				
MB 480-159518/28		300.0		1 mL					
460-68764-A-4	GW0031	300.0	T	1 mL					
460-68764-A-5	GW0032	300.0	T	1 mL					
CCV 480-159518/37		300.0		1 mL	5 mL				
CCB 480-159518/38		300.0		1 mL					

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

TestAmerica

Client Information	Sampler: Matthew Behrman	Lab PM: Tanico, Thomas	Carrier Tracking No(s):	COC No: 460-41586-26417.1
Client Contact: Craig Hutchings	Phone: 443-454-1615	E-Mail: thomas.tanico@testamericainc.com		Page: Page 1 of 2
Company: Integral Consulting Inc				Job #: 68764
Address: 1205 W Bay Drive NW	Due Date Requested:			
City: Olympia	TAT Requested (days):			
State, Zip: WA, 98502				
Phone: 360-705-3534(Tel)	PO #: Purchase Order not required			
Email: chutchings@integral-corp.com	WO #:			
Project Name: NJ Site	Project #: 46013363			
Site:	SSOW#:			

460-68764 Chain of Custody

Analysis Requested

Preservation Codes:

J - DI Water, K - EDTA, L - EDA, V - MCAA, W - ph 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	2340C - Hardness as calcium carbonate	300.0_28D - Br,Cl, SO4 & Fl	2320B_353.2_4500_P_Ortho Phosphate/nitrate/nitrite	SM4500_H+ - pH	2540D - Total Suspended Solids	SM5310B - Organic Carbon, Total (TOC)	SM4500_NH3_H - Ammonia (as N)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				D	N	N	N	N	S	S		
GW0028	12/19/13	0908	G	Water			X	X	X	X	X	X	X		-1
GW0029		0911		Water											-2
GW0030		0920		Water											-3
GW0031		0930		Water											-4
GW0032		1032		Water											-5
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											

SUB Work

SHORT HOLD

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment: Fed Ex Overnight

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Matthew Behrman	12/19/13 1600	Integral	(Fedex)	12/20/13 9:45	TAGD
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 979690

Cooler Temperature(s) °C and Other Remarks: IR#4 2/2.1°C

TestAmerica Edison Receipt Temperature and pH Log

Job Number: 68764

Number of Coolers:	1	IR Gun #	4		
Temp. Cooler #1 (Deg C) (Raw/Corrected)	2/2.1°C	Temp. Cooler #4 (Deg C) (Raw/Corrected)		Temp. Cooler #7 (Deg C) (Raw/Corrected)	
Temp. Cooler #2 (Deg C) (Raw/Corrected)		Temp. Cooler #5 (Deg C) (Raw/Corrected)		Temp. Cooler #8 (Deg C) (Raw/Corrected)	
Temp. Cooler #3 (Deg C) (Raw/Corrected)		Temp. Cooler #6 (Deg C) (Raw/Corrected)		Temp. Cooler #9 (Deg C) (Raw/Corrected)	

Sample No.	Ammonia (pH<2)	COD (pH<2)	Nitrate Nitrite (pH<2)	*Metals (pH<2)	Pest (pH 5-9)	PHC (pH<2)	Phenols (pH<2)	Sulfide (pH>9)	TKN (pH<2)	TOC (pH<2)	Total Cyanide (pH>12)	Total Phos (pH<2)	Other hardness
1	<2									<2			<2
2	<2									<2			<2
3	<2									<2			<2
4	<2									<2			<2
5	<2									<2			<2

If pH adjustments are required record the information below:

Sample No(s). adjusted: N/A

Preservative Name/Conc.: N/A

Volume of Preservative used (ml): N/A

Lot # of Preservative: N/A

Expiration Date: N/A

Project Manager and the Department Manager should be notified about the samples which were pH adjusted.

** Samples for Metal analysis which are out of compliance must be acidified at least 24 hours prior to analysis.*

Initials: KR

Date: 12/20/13

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68764-1

Login Number: 68764

List Source: TestAmerica Edison

List Number: 1

Creator: Rivera, Kenneth

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	979690
Sample custody seals, if present, are intact.	N/A	
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	2.1°C, IR #4
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	N/A	
Samples do not require splitting or compositing.	N/A	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68764-1

Login Number: 68764
List Number: 1
Creator: Wienke, Robert K

List Source: TestAmerica Buffalo
List Creation: 12/23/13 04:10 PM

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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	N/A	
Chlorine Residual checked.	N/A	

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68764-1

Login Number: 68764
List Number: 2
Creator: Wienke, Robert K

List Source: TestAmerica Buffalo
List Creation: 12/23/13 04:11 PM

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	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Sampling Company provided.	True	
Samples received within 48 hours of sampling.	True	
Samples requiring field filtration have been filtered in the field.	True	
Chlorine Residual checked.	True	

LDC Validation Report

– East Greenwich (460-68878-1)

LABORATORY DATA CONSULTANTS, INC.

2701 Loker Ave. West, Suite 220, Carlsbad, CA 92010 Bus: 760-827-1100 Fax: 760-827-1099

Integral Consulting Inc.
1205 West Bay Drive NW
Olympia, WA 98502
ATTN: Mr. Craig Hutchings

January 17, 2014

SUBJECT: PFCs, Project #C1165, Data Validation

Dear Mr. Hutchings,

Enclosed are the final validation reports for the fractions listed below. These SDGs were received January 10, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31147:

SDG#	Fraction
460-68760-1	Perfluorinated Alkyl Acids & Wet Chemistry
460-68763-1	
460-68764-1	
460-68878-1	
462349	

The data validation was performed under Stage 2B & 4 guidelines. The laboratory data packages were correct and complete.

Perfluorooctanoic acid was detected in the field blank samples GW0034 and GW0041, however, the concentration was less than 1/3 of the method reporting limit.

100% verification was performed on the sample results in the Electronic Data Deliverable against hardcopy results and no discrepancies were found.

The analyses were validated using the following documents, as applicable to each method:

- Quality Assurance Project Plan, QAPP, dated November 15, 2013
- TAL-DEN DV-LC-0002 for Perfluorinated Alkyl Acids
  4500 H+B for pH
  2320B for Alkalinity
  2340C for Hardness
  5310B for Total Organic Carbon
  353.2 for Nitrate/Nitrite as Nitrogen
  2540 D for Total Suspended Solids
  4500 NH3-H for Ammonia as Nitrogen
  4500 P E for Orthophosphate as Phosphorus
  300.0 for Bromide, Chloride, Fluoride, and Sulfate
  Eurofins Eaton Analytical SOP 537

Legally Privileged & Confidential

- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008

- USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review, January 2010

Please feel free to contact us if you have any questions.

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

1,602 pages-SF 1 WEEK TAT

Attachment 1

EDD 90/10

LDC #31147 (Integral Consulting, Inc.-Olympia, WA / PFCs, Project #C1165)

LDC	SDG#	DATE REC'D	(3) DATE DUE	PFCs (537)		Alk. (2320B)		NH_3-N (4500 NH3 H)		Br,Cl F,SO_4 (300.0)		NO_3/ NO_2-N (300.0)		Hard. (2340C)		O-PO_4 (4500 P E)		pH (4500 H+B)		TSS (2540D)		TOC (5310B)											
Matrix:	Water/Sediment			W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S
A	460-68760-1	01/10/14	01/17/14	-	-	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0	3	0										
B	460-68763-1	01/10/14	01/17/14	-	-	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0										
C	460-68764-1	01/10/14	01/17/14	-	-	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0	4	0										
C	460-68764-1	01/10/14	01/17/14	-	-	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0										
D	460-68878-1	01/10/14	01/17/14	3	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
D	460-68878-1	01/10/14	01/17/14	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
E	462349	01/10/14	01/17/14	16	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
E	462349	01/10/14	01/17/14	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-										
Total	T/SC			21	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	12	0	0	0	0	0	0	0	0	0	0	129

Shaded cells indicate Level IV validation (all other cells are Level III validation). These sample counts do not include MS/MSD, and DUPs

31147ST.wpd

LDC Report# 31147D96

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: PFCs, Project #C1165

LDC Report Date: January 14, 2014

Matrix: Water

Parameters: Perfluorinated Alkyl Acids

Validation Level: Stage 2B & 4

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 460-68878-1

Sample Identification	Collection Date	Laboratory Sample Identification
GW0028**	12/19/13	460-68878-1**
GW0029	12/19/13	460-68878-2
GW0030	12/19/13	460-68878-3
GW0044	12/19/13	460-68878-4

**Indicates sample underwent Stage 4 review

Introduction

This data review covers 4 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per Method TAL-DEN DV-LC-0012 for Perfluorinated Alkyl Acids.

This review follows the Site Specific Quality Assurance Project Plan (QAPP) dated November 15, 2013 and a modified outline of the USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review (June 2008).

A qualification summary table is provided at the end of this report if data has been qualified. Flags are classified as P (protocol) or A (advisory) to indicate whether the flag is due to a laboratory deviation from a specified protocol or is of technical advisory nature.

Samples indicated by a double asterisk on the front cover underwent a Stage 4 review. A Stage 2B review was performed on all of the other samples. Raw data were not evaluated for the samples reviewed by Stage 2B criteria since this review is based on QC data.

The following are definitions of the data qualifiers:

U Indicates the compound or analyte was analyzed for but not detected at or above the stated limit.

J+ Data are qualified as estimated, with a high bias likely to occur.

J- Data are qualified as estimated, with a low bias likely to occur.

J Indicates an estimated value.

R Quality control indicates the data is not usable.

NJ Presumptive evidence of presence of the compound at an estimated quantity.

UJ Indicates the compound or analyte was analyzed for but not detected. The sample detection limit is an estimated value.

A Indicates the finding is based upon technical validation criteria.

P Indicates the finding is related to a protocol/contractual deviation.

None Indicates the data was not significantly impacted by the finding, therefore qualification was not required.

Qualification Codes

1 Holding Times
2 Sample Preservation (Cooler Temp)
3 Sample Custody
4 Missing Deliverables
5 Calibration
6 Field Blanks
7 Laboratory Blanks
8 Matrix Spike (%)
9 Matrix Spike Duplicate (RPD or Duplicate Sample Analysis)
10 Laboratory Control Sample
11 ICP Interference Check
12 RPD Between Two Columns
13 Surrogates
14 Field Duplicates
15 Peak Resolution
16 ICP Serial Dilution
17 Chemical Recoveries
18 Trip Blanks
19 Internal Standards
20 Linear Range Exceeded
21 Potential False Positives
22 Do not use, other result more technically sound
23 Estimated Maximum Possible Concentration
24 Less than reporting limit
25 Other

I. Technical Holding Times

All technical holding time requirements were met.

The chain-of-custodies were reviewed for documentation of cooler temperatures. All cooler temperatures met validation criteria.

II. LC/MS Instrument Performance Check

Instrument performance was not required by the laboratory SOP.

III. Initial Calibration

Initial calibration was performed as required by the method.

A curve fit, based on the initial calibration, was established for quantitation. The coefficient of determination (r^2) was greater than or equal to 0.990 .

IV. Continuing Calibration

Continuing calibration was performed at required frequencies.

The percent differences (%D) were less than or equal to 30.0% for all compounds.

The percent differences (%D) of the second source calibration standard were less than or equal to 30.0% for all compounds.

V. Blanks

Method blanks were reviewed for each matrix as applicable. No perfluorinated alkyl acid contaminants were found in the method blanks.

Sample GW0044 was identified as a field blank. No perfluorinated alkyl acid contaminants were found.

VI. Surrogate Spikes

Surrogates were added to all samples and blanks as required by the method. All surrogate recoveries (%R) were within QAPP limits.

VII. Matrix Spike/Matrix Spike Duplicates

The laboratory has indicated that there were no matrix spike (MS) and matrix spike duplicate (MSD) analyses specified for the samples in this SDG, and therefore matrix spike and matrix spike duplicate analyses were not performed for this SDG.

VIII. Laboratory Control Samples (LCS)

Laboratory control samples were reviewed for each matrix as applicable. Percent recoveries (%R) and relative percent differences (RPD) were within QAPP limits.

IX. Regional Quality Assurance and Quality Control

Not applicable.

X. Internal Standards

All internal standard areas and retention times were within QC limits.

XI. Target Compound Identifications

All target compound identifications were within validation criteria for samples on which a Stage 4 review was performed. Raw data were not evaluated for the samples reviewed by Stage 2B criteria.

XII. Compound Quantitation

All compound quantitations were within validation criteria for samples on which a Stage 4 review was performed. Raw data were not evaluated for the samples reviewed by Stage 2B criteria.

XIII. System Performance

The system performance was acceptable for samples on which a Stage 4 review was performed. Raw data were not evaluated for the samples reviewed by Stage 2B criteria.

XIV. Overall Assessment of Data

Data flags are summarized at the end of this report if data has been qualified.

XV. Field Duplicates

Samples GW0028** and GW0029 were identified as field duplicates. No perfluorinated alkyl acids were detected in any of the samples with the following exceptions:

Compound	Concentration (ug/L)		RPD (Limits)
	GW0028**	GW0029	
Perfluorononanoic acid	0.038	0.037	3 (≤35)
Perfluorooctane sulfonate	0.015U	0.016	6 (≤35)

PFCs, Project #C1165
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 460-68878-1

No Sample Data Qualified in this SDG

PFCs, Project #C1165
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 460-68878-1

No Sample Data Qualified in this SDG

PFCs, Project #C1165
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 460-68878-1

No Sample Data Qualified in this SDG

LDC #: 31147D96

SDG #: 460-68878-1

Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 1/13/14

Page: 1 of 1

Reviewer: Q

2nd Reviewer: M

METHOD: LCMS Perfluorinated Alkyl Acids (TAL-~~DEN~~ DV-LC-0012)

The samples listed below were reviewed for each of the following validation areas. Validation findings are noted in attached validation findings worksheets.

	Validation Area		Comments
I.	Technical holding times	A	Sampling dates: 12/19/13
II.	LC/MS Instrument performance check	N	
III.	Initial calibration	A	r^2
IV.	Continuing calibration/ICV	A	ICV/CCV ≤ 30%
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	
VIII.	Laboratory control samples	A	LCS/D
IX.	Regional Quality Assurance and Quality Control	N	
X.	Internal standards	A	
XI.	Target compound identification	A	Not reviewed for Level III validation.
XII.	Compound quantitation/CRQLs	A	Not reviewed for Level III validation.
XIII.	System performance	A	Not reviewed for Level III validation.
XIV.	Overall assessment of data	A	
XV.	Field duplicates	SW	D = 1 + 2
XVI.	Field blanks	ND	FB = 4

Note: A = Acceptable; N = Not provided/applicable; SW = See worksheet; ND = No compounds detected; R = Rinsate; FB = Field blank; D = Duplicate; TB = Trip blank; EB = Equipment blank

Validated Samples: ** Indicates sample underwent Level IV validation

1	GW0028 ** W	11	MB-280-206607/1-A	21		31	
2	GW0029	12		22		32	
3	GW0030	13		23		33	
4	GW0044	14		24		34	
5		15		25		35	
6		16		26		36	
7		17		27		37	
8		18		28		38	
9		19		29		39	
10		20		30		40	

Notes:

LDC #: 31147D96

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: A

Method: _____ GC ✓ HPLC /MS

Validation Area	Yes	No	NA	Findings/Comments
I. Technical holding times				
All technical holding times were met.	✓			
Cooler temperature criteria was met.	✓			
II. Initial calibration				
Did the laboratory perform a 5 point calibration prior to sample analysis?	✓			
Were all percent relative standard deviations (%RSD) ≤ 20%?			✓	
Was a curve fit used for evaluation?	✓			
Did the initial calibration meet the curve fit acceptance criteria of ≥ 0.990?	✓			
Were the RT windows properly established?	✓			
IV. Continuing calibration				
Was a continuing calibration analyzed daily?	✓			
Were all percent differences (%D) ≤ ~~15.0% or ≤ 20.0%~~ ? 30%	✓			
Were all the retention times within the acceptance windows?	✓			
V. Blanks				
Was a method blank associated with every sample in this SDG?	✓			
Was a method blank analyzed for each matrix and concentration?	✓			
Was there contamination in the method blanks? If yes, please see the Blanks validation completeness worksheet.		✓		
VI. Surrogate spikes				
Were all surrogate %R within the QC limits?	✓			
If the percent recovery (%R) for one or more surrogates was out of QC limits, was a reanalysis performed to confirm samples with %R outside of criteria?			✓	
VII. Matrix spike/Matrix spike duplicates				
Were a matrix spike (MS) and matrix spike duplicate (MSD) analyzed for each matrix in this SDG? If no, indicate which matrix does not have an associated MS/MSD. Soil / Water.		✓		
Was a MS/MSD analyzed every 20 samples of each matrix?			✓	
Were the MS/MSD percent recoveries (%R) and the relative percent differences (RPD) within the QC limits?			✓	
VIII. Laboratory control samples				
Was an LCS analyzed for this SDG?	✓			
Was an LCS analyzed per extraction batch?	✓			
Were the LCS percent recoveries (%R) and relative percent difference (RPD) within the QC limits?	✓			
IX. Regional Quality Assurance and Quality Control				
Were performance evaluation (PE) samples performed?		✓		
Were the performance evaluation (PE) samples within the acceptance limits?			✓	

LDC #: 31147 D96

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: A

Validation Area	Yes	No	NA	Findings/Comments
IX. Internal standards				
Were internal standard area counts within -50% or +100% of the associated calibration standard?	✓			
Were retention times within ± 30 seconds from the associated calibration standard?	✓			
X. Target compound identification				
Were relative retention times (RRT's) within ± 0.06 RRT units of the standard?	✓			
Did compound spectra meet specified EPA "Functional Guidelines" criteria?	✓			
Were chromatogram peaks verified and accounted for?	✓			
XI. Compound quantitation/CRQLs				
Were the correct internal standard (IS), quantitation ion and relative response factor (RRF) used to quantitate the compound?	✓			
Were compound quantitation and CRQLs adjusted to reflect all sample dilutions and dry weight factors applicable to level IV validation?	✓			
XII. System performance				
System performance was found to be acceptable.	✓			
XIII. Overall assessment of data				
Overall assessment of data was found to be acceptable.	✓			
XIV. Field duplicates				
Field duplicate pairs were identified in this SDG.	✓			
Target compounds were detected in the field duplicates.	✓			
XV. Field blanks				
Field blanks were identified in this SDG.	✓			
Target compounds were detected in the field blanks.		✓		

LDC#: 31147D96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Page: 1 of 1
Reviewer: 9
2nd Reviewer: 4

METHOD: LC MS PFACs (DV-LC-0012)

Y N NA Were field duplicate pairs identified in this SDG?
Y N NA Were target analytes detected in the field duplicate pairs?

Compound	Concentration (µg/L)		RPD (≤ 35)
	1	2	
Perfluorononanoic acid	0.038	0.037	3
Perfluorooctane Sulfonate	0.015U	0.016	6

V:\FIELD DUPLICATES\31147D96.wpd

LDC#: 31147D96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewer: 9
2nd Reviewer: AC

Method: LC/MS PFCs (TAL-DEN DV-LC-0012)

Calibration Date	System	Compound	Standard	(Y) Response	(X) Concentration
12/31/2013	LC-LCMS5	PFNA	0	0.0238680	0.02
			s1	0.0604014	0.05
			s2	0.1317445	0.100
			s3	0.2399152	0.200
			s4	0.6298493	0.500
			s5	1.2516254	1.000
			s6	2.5631676	2.000
			s7	6.2535191	5.000
			s8	16.2011584	12.500

Regression Output		*Reported*
Constant	*-0.030378*	*-0.015000*
Std Err of Y Est		
R Squared	*0.999821*	*0.999000*
Degrees of Freedom		
X Coefficient(s)	*1.292871*	*1.266000*
Std Err of Coef.		
Correlation Coefficient	*0.999911*	
Coefficient of Determination (r^2)	*0.999821*	*0.999000*

LDC #: 31470D96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Reviewer: 9
2nd Reviewer: 4

METHOD: GC_____ ✓ HPLC/MS

The percent difference (%D) of the initial calibration average Calibration Factors (CF) and the continuing calibration CF were recalculated for the compounds identified below using the following calculation:

% Difference = 100 * (ave. CF - CF)/ave. CF
CF = A/C

Where: ave. CF = initial calibration average CF
CF = continuing calibration CF
A = Area of compound
C = Concentration of compound

#	Standard ID	Calibration Date	Compound	Average CF(Ical)/ CCV Conc.	Reported CF/Conc. CCV	Recalculated CF/Conc. CCV	Reported %D	Recalculated %D
1	PC573L30026	12/31/13	PFNA	5.00	5.36	5.36	7.2	7.2
2	PC573L30060	1/1/14	PFNA	10.0	10.5	10.5	4.5	4.5
3								
4								

Comments: Refer to Continuing Calibration findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31147096

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: 9
2nd reviewer: 4

METHOD: __ GC ✓ HPLC/MS

The percent recoveries (%R) of surrogates were recalculated for the compounds identified below using the following calculation:

% Recovery: SF/SS * 100

Where: SF = Surrogate Found
SS = Surrogate Spiked

Sample ID: 1

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
13C8-PFOA		100	11.3	113	113	0
13C8-PFOS		9.5	7.72	81	81	0

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

Sample ID: _____

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	

LDC #: 31147096

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: 9
2nd Reviewer: 4

METHOD: __ GC ✓ HPLC/MS

The percent recoveries (%R) and Relative Percent difference (RPD) of the laboratory control sample and laboratory control sample duplicate were recalculated for the compounds identified below using the following calculation:

% Recovery = 100* (SSC-SC)/SA

RPD = I SSCLCS - SSCLCSD I * 2/(SSCLCS + SSCLCSD)

Where: SSC = Spiked sample concentration
SA = Spike added
LCS = Laboratory control sample percent recovery
SC = Concentration
LCSD = Laboratory control sample duplicate percent recovery

LCS/LCSD samples: LCS/D 280-206602/2-A

Compound	Spike Added (ug/L)		Spiked Sample Concentration (ug/L)		LCS Percent Recovery		LCSD Percent Recovery		LCS/LCSD RPD	
	LCS	LCSD	LCS	LCSD	Reported	Recalc.	Reported	Recalc.	Reported	Recalc.
Gasoline (8015)										
Diesel (8015)										
Benzene (8021B)										
Methane (RSK-175)										
2,4-D (8151)										
Dinoseb (8151)										
Naphthalene (8310)										
Anthracene (8310)										
HMX (8330)										
2,4,6-Trinitrotoluene (8330)										
PFNA	0.200	0.200	0.215	0.224	108	108	112	112	4	4

Comments: Refer to Laboratory Control Sample/Laboratory Control Sample Duplicate findings worksheet for list of qualifications and associated samples when reported results do not agree within 10.0% of the recalculated results.

LDC #: 31470 96

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Reviewer: 9
2nd Reviewer: K

METHOD: ___ GC ✓ HPLC / MS

Y N N/A Were all reported results recalculated and verified for all level IV samples?
Y N N/A Were all recalculated results for detected target compounds agree within 10% of the reported results?

Concentration= (A)(Fv)(Df) / (RF)(Vs or Ws)(%S/100)

A= Area or height of the compound to be measured
Fv= Final Volume of extract
Df= Dilution Factor
RF= Average response factor of the compound In the initial calibration
Vs= Initial volume of the sample
Ws= Initial weight of the sample
%S= Percent Solid

Example:

Sample ID. 1 Compound Name PFNA

$$\text{Concentration} = \frac{\left[\left(\frac{3611727}{16657125} \times 10\right) + 0.015\right] \times (5) \times (1)}{1.266 \times 226.2}$$

$= 0.038$ µg/L

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

TestAmerica Laboratory Report

– J68878-1

ANALYTICAL REPORT

Job Number: 460-68878-1

Job Description: Solvay NJ

For:
Integral Consulting Inc
1205 W Bay Drive NW
Olympia, WA 98502

Attention: Craig Hutchings

Approved for release.
Janet Mosley
Manager of Project Management Assistants
1/3/2014 6:00 PM

Designee for
Thomas Tanico, Project Manager II
777 New Durham Road, Edison, NJ, 08817
(732)593-2555
thomas.tanico@testamericainc.com
01/03/2014

The test results in this report meet all NELAP requirements unless specified within the case narrative. Pursuant to NELAP, this report may not be reproduced, except in full, without the written approval of the laboratory. All questions regarding this report should be directed to the TestAmerica Edison Project Manager.

TestAmerica Edison Certifications and Approvals: Connecticut: CTDOH #PH-0200, New Jersey: NJDEP (NELAP) #12028, New York: NYDOH (NELAP) #11452, NYDOH (ELAP) #11452, Pennsylvania: PADEP (NELAP) 68-00522 and Rhode Island: RIDOH LAO00132

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CASE NARRATIVE

Client: Integral Consulting Inc

Project: Solvay NJ

Report Number: 460-68878-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) as a result of a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes or interferences which exceed the calibration range of the instrument.

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

The samples were received on 12/23/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

PERFLURONATED HYDROCARBONS

Samples 460-68878-1 through 460-68878-4 were analyzed for Perfluronated Hydrocarbons in accordance with PFC. The samples were prepared on 12/26/2013 and analyzed on 01/01/2014.

No difficulties were encountered during the PFC analyses.

All quality control parameters were within the acceptance limits.

Organic Prep

Method(s) 3535: Insufficient sample volume was available to perform batch matrix spike/matrix spike duplicate (MS/MSD) associated with batch 206602,3535(PFC). The laboratory control sample (LCS) was performed in duplicate to provide precision data for this batch.

SAMPLE SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68878-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-68878-1	GW0028	Water	12/19/2013 0908	12/23/2013 1437
460-68878-2	GW0029	Water	12/19/2013 0911	12/23/2013 1437
460-68878-3	GW0030	Water	12/19/2013 0920	12/23/2013 1437
460-68878-4	GW0044	Water	12/19/2013 1408	12/23/2013 1437

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68878-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-68878-1	**GW0028**					
Perfluorononanoic acid (PFNA)		0.038	J	0.044	ug/L	DV-LC-0012
460-68878-2	**GW0029**					
Perfluorononanoic acid (PFNA)		0.037	J	0.044	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.016	J	0.033	ug/L	DV-LC-0012
460-68878-3	**GW0030**					
Perfluorononanoic acid (PFNA)		0.039		0.039	ug/L	DV-LC-0012
Perfluorooctane Sulfonate (PFOS)		0.013	J	0.029	ug/L	DV-LC-0012

METHOD SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68878-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Perfluorinated Hydrocarbons	TAL DEN	TAL-DEN DV-LC-0012	
Solid-Phase Extraction (SPE)	TAL DEN		SW846 3535

Lab References:

TAL DEN = TestAmerica Denver

Method References:

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

TAL-DEN = TestAmerica Laboratories, Denver, Facility Standard Operating Procedure.

METHOD / ANALYST SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68878-1

Method	Analyst	Analyst ID
TAL-DEN DV-LC-0012	Kellison, Michael P	MK

Client: Integral Consulting Inc

Job Number: 460-68878-1

Client Sample ID: **GW0028**

Lab Sample ID: 460-68878-1

Client Matrix: Water

Date Sampled: 12/19/2013 0908

Date Received: 12/23/2013 1437

DV-LC-0012 Perfluorinated Hydrocarbons

Analysis Method:	DV-LC-0012	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Prep Method:	3535	Prep Batch:	280-206602	Lab File ID:	PC513L30066.d
Dilution:	1.0			Initial Weight/Volume:	226.2 mL
Analysis Date:	01/01/2014 0434			Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluoroundecanoic acid (PFUnA)	0.0076	U	0.0076	0.022
Perfluorooctanoic acid (PFOA)	0.011	U	0.011	0.022
Perfluorotetradecanoic acid (PFTeA)	0.016	U	0.016	0.033
Perfluorodecanoic acid (PFDA)	0.0086	U	0.0086	0.022
Perfluorotridecanoic Acid (PFTriA)	0.020	U	0.020	0.044
Perfluorononanoic acid (PFNA)	0.038	J	0.019	0.044
Perfluorooctane Sulfonate (PFOS)	0.015	U	0.015	0.033
Perfluorododecanoic acid (PFDoA)	0.016	U	0.016	0.033

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	113		60 - 155
13C8 PFOS	81		45 - 130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Client Sample ID: **GW0029**

Lab Sample ID: 460-68878-2

Client Matrix: Water

Date Sampled: 12/19/2013 0911

Date Received: 12/23/2013 1437

DV-LC-0012 Perfluorinated Hydrocarbons

Analysis Method:	DV-LC-0012	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Prep Method:	3535	Prep Batch:	280-206602	Lab File ID:	PC513L30065.d
Dilution:	1.0			Initial Weight/Volume:	229.6 mL
Analysis Date:	01/01/2014 0422			Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluoroundecanoic acid (PFUnA)	0.0075	U	0.0075	0.022
Perfluorooctanoic acid (PFOA)	0.011	U	0.011	0.022
Perfluorotetradecanoic acid (PFTeA)	0.016	U	0.016	0.033
Perfluorodecanoic acid (PFDA)	0.0085	U	0.0085	0.022
Perfluorotridecanoic Acid (PFTriA)	0.019	U	0.019	0.044
Perfluorononanoic acid (PFNA)	0.037	J	0.019	0.044
Perfluorooctane Sulfonate (PFOS)	0.016	J	0.014	0.033
Perfluorododecanoic acid (PFDoA)	0.016	U	0.016	0.033

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	106		60 - 155
13C8 PFOS	87		45 - 130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Client Sample ID: **GW0030**

Lab Sample ID: 460-68878-3

Client Matrix: Water

Date Sampled: 12/19/2013 0920

Date Received: 12/23/2013 1437

DV-LC-0012 Perfluorinated Hydrocarbons

Analysis Method:	DV-LC-0012	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Prep Method:	3535	Prep Batch:	280-206602	Lab File ID:	PC513L30064.d
Dilution:	1.0			Initial Weight/Volume:	255.3 mL
Analysis Date:	01/01/2014 0409			Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluoroundecanoic acid (PFUnA)	0.0067	U	0.0067	0.020
Perfluorooctanoic acid (PFOA)	0.0096	U	0.0096	0.020
Perfluorotetradecanoic acid (PFTeA)	0.014	U	0.014	0.029
Perfluorodecanoic acid (PFDA)	0.0077	U	0.0077	0.020
Perfluorotridecanoic Acid (PFTriA)	0.017	U	0.017	0.039
Perfluorononanoic acid (PFNA)	0.039		0.017	0.039
Perfluorooctane Sulfonate (PFOS)	0.013	J	0.013	0.029
Perfluorododecanoic acid (PFDoA)	0.015	U	0.015	0.029

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	101		60 - 155
13C8 PFOS	104		45 - 130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Client Sample ID: **GW0044**

Lab Sample ID: 460-68878-4

Client Matrix: Water

Date Sampled: 12/19/2013 1408

Date Received: 12/23/2013 1437

DV-LC-0012 Perfluorinated Hydrocarbons

Analysis Method:	DV-LC-0012	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Prep Method:	3535	Prep Batch:	280-206602	Lab File ID:	PC513L30063.d
Dilution:	1.0			Initial Weight/Volume:	251.2 mL
Analysis Date:	01/01/2014 0357			Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL

Analyte	Result (ug/L)	Qualifier	MDL	RL
Perfluoroundecanoic acid (PFUnA)	0.0069	U	0.0069	0.020
Perfluorooctanoic acid (PFOA)	0.0097	U	0.0097	0.020
Perfluorotetradecanoic acid (PFTeA)	0.015	U	0.015	0.030
Perfluorodecanoic acid (PFDA)	0.0078	U	0.0078	0.020
Perfluorotridecanoic Acid (PFTriA)	0.018	U	0.018	0.040
Perfluorononanoic acid (PFNA)	0.017	U	0.017	0.040
Perfluorooctane Sulfonate (PFOS)	0.013	U	0.013	0.030
Perfluorododecanoic acid (PFDoA)	0.015	U	0.015	0.030

Surrogate	%Rec	Qualifier	Acceptance Limits
13C8 PFOA	106		60 - 155
13C8 PFOS	92		45 - 130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Surrogate Recovery Report

DV-LC-0012 Perfluorinated Hydrocarbons

Client Matrix: Water

Lab Sample ID	Client Sample ID	PFOA %Rec	PFOS %Rec
460-68878-1	GW0028	113	81
460-68878-2	GW0029	106	87
460-68878-3	GW0030	101	104
460-68878-4	GW0044	106	92
MB 280-206602/1-A		105	92
LCS 280-206602/2-A		103	92
LCSD 280-206602/3-A		107	97
DLCK 280-207217/13		100	83

Surrogate	Acceptance Limits
PFOA = 13C8 PFOA	60-155
PFOS = 13C8 PFOS	45-130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Method Blank - Batch: 280-206602

Method: DV-LC-0012
Preparation: 3535

Lab Sample ID:	MB 280-206602/1-A	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Client Matrix:	Water	Prep Batch:	280-206602	Lab File ID:	PC513L30030.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/31/2013 2112	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Perfluoroundecanoic acid (PFUnA)	0.0069	U	0.0069	0.020
Perfluorooctanoic acid (PFOA)	0.0098	U	0.0098	0.020
Perfluorotetradecanoic acid (PFTeA)	0.015	U	0.015	0.030
Perfluorodecanoic acid (PFDA)	0.0078	U	0.0078	0.020
Perfluorotridecanoic Acid (PFTriA)	0.018	U	0.018	0.040
Perfluorononanoic acid (PFNA)	0.017	U	0.017	0.040
Perfluorooctane Sulfonate (PFOS)	0.013	U	0.013	0.030
Perfluorododecanoic acid (PFDoA)	0.015	U	0.015	0.030

Surrogate	% Rec	Acceptance Limits
13C8 PFOA	105	60 - 155
13C8 PFOS	92	45 - 130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 280-206602

Method: DV-LC-0012
Preparation: 3535

LCS Lab Sample ID:	LCS 280-206602/2-A	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Client Matrix:	Water	Prep Batch:	280-206602	Lab File ID:	PC513L30031.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/31/2013 2124	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 280-206602/3-A	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Client Matrix:	Water	Prep Batch:	280-206602	Lab File ID:	PC513L30032.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	250 mL
Analysis Date:	12/31/2013 2136	Units:	ug/L	Final Weight/Volume:	5 mL
Prep Date:	12/26/2013 1641			Injection Volume:	25 uL
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Perfluoroundecanoic acid (PFUnA)	116	122	70 - 130	4	30		
Perfluorooctanoic acid (PFOA)	109	117	70 - 130	7	20		
Perfluorotetradecanoic acid (PFTeA)	92	99	23 - 149	7	30		
Perfluorodecanoic acid (PFDA)	113	114	70 - 130	1	30		
Perfluorotridecanoic Acid (PFTriA)	109	113	26 - 136	3	30		
Perfluorononanoic acid (PFNA)	108	112	69 - 143	4	30		
Perfluorooctane Sulfonate (PFOS)	127	127	70 - 130	0	20		
Perfluorododecanoic acid (PFDoA)	115	116	66 - 133	1	30		

Surrogate	LCS % Rec	LCSD % Rec	Acceptance Limits
13C8 PFOA	103	107	60 - 155
13C8 PFOS	92	97	45 - 130

Client: Integral Consulting Inc

Job Number: 460-68878-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 280-206602

Method: DV-LC-0012
Preparation: 3535

LCS Lab Sample ID:	LCS 280-206602/2-A	Units:	ug/L	LCSD Lab Sample ID:	LCSD 280-206602/3-A
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/31/2013 2124			Analysis Date:	12/31/2013 2136
Prep Date:	12/26/2013 1641			Prep Date:	12/26/2013 1641
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Perfluoroundecanoic acid (PFUnA)	0.200	0.200	0.233	0.244
Perfluorooctanoic acid (PFOA)	0.200	0.200	0.219	0.234
Perfluorotetradecanoic acid (PFTeA)	0.200	0.200	0.184	0.197
Perfluorodecanoic acid (PFDA)	0.200	0.200	0.226	0.227
Perfluorotridecanoic Acid (PFTriA)	0.200	0.200	0.218	0.225
Perfluorononanoic acid (PFNA)	0.200	0.200	0.215	0.224
Perfluorooctane Sulfonate (PFOS)	0.191	0.191	0.243	0.243
Perfluorododecanoic acid (PFDoA)	0.200	0.200	0.231	0.232

Client: Integral Consulting Inc

Job Number: 460-68878-1

Detection Limit Check Standard - Batch: 280-207217

Method: DV-LC-0012
Preparation: N/A

Lab Sample ID:	DLCK 280-207217/13	Analysis Batch:	280-207217	Instrument ID:	LC_LCMS5
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	PC513L30015.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/31/2013 1807	Units:	ug/L	Final Weight/Volume:	
Prep Date:	N/A			Injection Volume:	25 uL
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Perfluoroundecanoic acid (PFUnA)	0.500	0.455	91	70 - 130	J
Perfluorooctanoic acid (PFOA)	0.500	0.556	111	70 - 130	J
Perfluorotetradecanoic acid (PFTeA)	0.500	0.73	79	70 - 130	U
Perfluorodecanoic acid (PFDA)	0.500	0.482	96	70 - 130	J
Perfluorotridecanoic Acid (PFTriA)	0.500	0.89	103	70 - 130	U
Perfluorononanoic acid (PFNA)	0.500	0.87	114	70 - 130	U
Perfluorooctane Sulfonate (PFOS)	0.478	0.67	103	70 - 130	U
Perfluorododecanoic acid (PFDoA)	0.500	0.75	95	70 - 130	U

Surrogate	% Rec	Acceptance Limits
13C8 PFOA	100	60 - 155
13C8 PFOS	83	45 - 130

DATA REPORTING QUALIFIERS

Client: Integral Consulting Inc

Job Number: 460-68878-1

Lab Section	Qualifier	Description
LCMS		
	U	Indicates the analyte was analyzed for but not detected.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Integral Consulting Inc

Job Number: 460-68878-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
LCMS					
Prep Batch: 280-206602					
LCS 280-206602/2-A	Lab Control Sample	T	Water	3535	
LCSD 280-206602/3-A	Lab Control Sample Duplicate	T	Water	3535	
MB 280-206602/1-A	Method Blank	T	Water	3535	
460-68878-1	GW0028	T	Water	3535	
460-68878-2	GW0029	T	Water	3535	
460-68878-3	GW0030	T	Water	3535	
460-68878-4	GW0044	T	Water	3535	
Analysis Batch:280-207217					
DLCK 280-207217/13	Detection Limit Check Standard	T	Water	DV-LC-0012	
LCS 280-206602/2-A	Lab Control Sample	T	Water	DV-LC-0012	280-206602
LCSD 280-206602/3-A	Lab Control Sample Duplicate	T	Water	DV-LC-0012	280-206602
MB 280-206602/1-A	Method Blank	T	Water	DV-LC-0012	280-206602
460-68878-1	GW0028	T	Water	DV-LC-0012	280-206602
460-68878-2	GW0029	T	Water	DV-LC-0012	280-206602
460-68878-3	GW0030	T	Water	DV-LC-0012	280-206602
460-68878-4	GW0044	T	Water	DV-LC-0012	280-206602

Report Basis

T = Total

Client: Integral Consulting Inc

Job Number: 460-68878-1

Laboratory Chronicle

Lab ID: 460-68878-1 **Client ID:** GW0028

Sample Date/Time: 12/19/2013 09:08 Received Date/Time: 12/23/2013 14:37

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	460-68878-A-1-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	460-68878-A-1-A		280-207217	280-206602	01/01/2014 04:34	1	TAL DEN	MK

Lab ID: 460-68878-2 **Client ID:** GW0029

Sample Date/Time: 12/19/2013 09:11 Received Date/Time: 12/23/2013 14:37

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	460-68878-A-2-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	460-68878-A-2-A		280-207217	280-206602	01/01/2014 04:22	1	TAL DEN	MK

Lab ID: 460-68878-3 **Client ID:** GW0030

Sample Date/Time: 12/19/2013 09:20 Received Date/Time: 12/23/2013 14:37

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	460-68878-A-3-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	460-68878-A-3-A		280-207217	280-206602	01/01/2014 04:09	1	TAL DEN	MK

Lab ID: 460-68878-4 **Client ID:** GW0044

Sample Date/Time: 12/19/2013 14:08 Received Date/Time: 12/23/2013 14:37

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:3535	460-68878-A-4-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	460-68878-A-4-A		280-207217	280-206602	01/01/2014 03:57	1	TAL DEN	MK

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:3535	MB 280-206602/1-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	MB 280-206602/1-A		280-207217	280-206602	12/31/2013 21:12	1	TAL DEN	MK

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:3535	LCS 280-206602/2-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	LCS 280-206602/2-A		280-207217	280-206602	12/31/2013 21:24	1	TAL DEN	MK

Client: Integral Consulting Inc

Job Number: 460-68878-1

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
P:3535	LCSD 280-206602/3-A		280-207217	280-206602	12/26/2013 16:41	1	TAL DEN	CDC
A:DV-LC-0012	LCSD 280-206602/3-A		280-207217	280-206602	12/31/2013 21:36	1	TAL DEN	MK

Lab ID: **DLCK** **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:DV-LC-0012	DLCK 280-207217/13		280-207217		12/31/2013 18:07	1	TAL DEN	MK

Lab References:

TAL DEN = TestAmerica Denver

Method PFC

Perfluronated Hydrocarbons (LC/MS) by Method PFC

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Gemini-NX ID:

Client Sample ID	Lab Sample ID	PFOA #	PFOS #
GW0028	460-68878-1	113	81
GW0029	460-68878-2	106	87
GW0030	460-68878-3	101	104
GW0044	460-68878-4	106	92
	MB 280-206602/1-A	105	92
	LCS 280-206602/2-A	103	92
	LCSD 280-206602/3-A	107	97
	DLCK 280-207217/13	100	83

	QC LIMITS
PFOA = 13C8 PFOA	60-155
PFOS = 13C8 PFOS	45-130

Column to be used to flag recovery values

FORM II DV-LC-0012

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PC513L30031.d

Lab ID: LCS 280-206602/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perfluoroundecanoic acid (PFUnA)	0.200	0.233	116	70-130	
Perfluorooctanoic acid (PFOA)	0.200	0.219	109	70-130	
Perfluorotetradecanoic acid (PFTeA)	0.200	0.184	92	23-149	
Perfluorodecanoic acid (PFDA)	0.200	0.226	113	70-130	
Perfluorotridecanoic Acid (PFTriA)	0.200	0.218	109	26-136	
Perfluorononanoic acid (PFNA)	0.200	0.215	108	69-143	
Perfluorooctane Sulfonate (PFOS)	0.191	0.243	127	70-130	
Perfluorododecanoic acid (PFDoA)	0.200	0.231	115	66-133	

Column to be used to flag recovery and RPD values

FORM III DV-LC-0012

FORM III
LCMS LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PC513L30032.d

Lab ID: LCSD 280-206602/3-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluoroundecanoic acid (PFUnA)	0.200	0.244	122	4	30	70-130	
Perfluorooctanoic acid (PFOA)	0.200	0.234	117	7	20	70-130	
Perfluorotetradecanoic acid (PFTeA)	0.200	0.197	99	7	30	23-149	
Perfluorodecanoic acid (PFDA)	0.200	0.227	114	1	30	70-130	
Perfluorotridecanoic Acid (PFTriA)	0.200	0.225	113	3	30	26-136	
Perfluorononanoic acid (PFNA)	0.200	0.224	112	4	30	69-143	
Perfluorooctane Sulfonate (PFOS)	0.191	0.243	127	0	20	70-130	
Perfluorododecanoic acid (PFDoA)	0.200	0.232	116	1	30	66-133	

Column to be used to flag recovery and RPD values

FORM III DV-LC-0012

FORM III
LCMS DETECTION LIMIT CHECK STANDARD RECOVERY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Matrix: Water Level: Low Lab File ID: PC513L30015.d

Lab ID: DLCK 280-207217/13 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	DLCK CONCENTRATION (ug/L)	DLCK % REC	QC LIMITS REC	#
Perfluoroundecanoic acid (PFUnA)	0.500	0.455 J	91	70-130	
Perfluorooctanoic acid (PFOA)	0.500	0.556 J	111	70-130	
Perfluorotetradecanoic acid (PFTeA)	0.500	0.73 U	79	70-130	
Perfluorodecanoic acid (PFDA)	0.500	0.482 J	96	70-130	
Perfluorotridecanoic Acid (PFTriA)	0.500	0.89 U	103	70-130	
Perfluorononanoic acid (PFNA)	0.500	0.87 U	114	70-130	
Perfluorooctane Sulfonate (PFOS)	0.478	0.67 U	103	70-130	
Perfluorododecanoic acid (PFDoA)	0.500	0.75 U	95	70-130	

Column to be used to flag recovery and RPD values

FORM III DV-LC-0012

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Lab File ID: PC513L30030.d Lab Sample ID: MB 280-206602/1-A

Matrix: Water Date Extracted: 12/26/2013 16:41

Instrument ID: LC_LCMS5 Date Analyzed: 12/31/2013 21:12

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 280-206602/2-A	PC513L30031.d	12/31/2013 21:24
	LCSD 280-206602/3-A	PC513L30032.d	12/31/2013 21:36
GW0044	460-68878-4	PC513L30063.d	01/01/2014 03:57
GW0030	460-68878-3	PC513L30064.d	01/01/2014 04:09
GW0029	460-68878-2	PC513L30065.d	01/01/2014 04:22
GW0028	460-68878-1	PC513L30066.d	01/01/2014 04:34

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Instrument ID: LC_LCMS5 Calibration Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calibration End Date: 12/31/2013 17:43

Calibration ID: 16657

		BA		HXA		HXS	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		7310049	4.01	13924924	5.75	1741785	6.22
UPPER LIMIT		9503064	4.51	18798647	6.25	2264321	6.72
LOWER LIMIT		2631618	3.51	7658708	5.25	1062489	5.72
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-207217/12		6508341	4.02	15778280	5.74	1714384	6.20
DLCK 280-207217/13		7643509	4.01	14838375	5.74	1821115	6.20
CCV 280-207217/24		6494350	4.01	14670545	5.73	1785416	6.20
MB 280-206602/1-A		5265164	3.96	13512357	5.70	1610781	6.17
LCS 280-206602/2-A		6089633	3.94	13326124	5.70	1532410	6.16
LCSD 280-206602/3-A		6150589	3.94	13628853	5.68	1629608	6.14
CCV 280-207217/37		6059832	3.96	14460364	5.69	1707234	6.15
CCV 280-207217/58		6203338	3.95	14243549	5.67	1689703	6.13
460-68878-4	GW0044	5858355	3.90	14064692	5.65	1412596	6.12
460-68878-3	GW0030	6512297	3.89	14504560	5.64	1605782	6.11
460-68878-2	GW0029	5740226	3.89	13134524	5.64	1741155	6.10
460-68878-1	GW0028	5713637	3.89	13646911	5.63	1506940	6.10
CCV 280-207217/65		6352536	3.92	15106818	5.64	1639762	6.11

BA = 13C4 PFBA (IS)
HXA = 13C2 PFHxA (IS)
HXS = 18O2 PFHxS (IS)

Area Limit = 36%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII DV-LC-0012

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Instrument ID: LC_LCMS5 Calibration Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calibration End Date: 12/31/2013 17:43

Calibration ID: 16657

		OA		PFOS		NA	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		17607419	6.59	8157301	6.89	18103915	6.91
UPPER LIMIT		27291499	7.09	10604491	7.39	23897168	7.41
LOWER LIMIT		10564451	6.09	3670785	6.39	9776114	6.41
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-207217/12		19892470	6.56	8686321	6.86	21774562	6.88
DLCK 280-207217/13		18296972	6.57	8670678	6.87	20757713	6.89
CCV 280-207217/24		18060914	6.57	7518756	6.87	18634160	6.89
MB 280-206602/1-A		17167951	6.54	6703382	6.84	17906047	6.85
LCS 280-206602/2-A		17500509	6.53	6690323	6.83	18221615	6.85
LCSD 280-206602/3-A		17641890	6.51	6940062	6.81	18068354	6.84
CCV 280-207217/37		18610837	6.51	7443548	6.82	17374118	6.83
CCV 280-207217/58		18709977	6.50	7363881	6.80	17937549	6.82
460-68878-4	GW0044	17658808	6.49	6551710	6.78	17729516	6.80
460-68878-3	GW0030	18748807	6.48	5548275	6.77	16977871	6.79
460-68878-2	GW0029	16685986	6.47	5126597	6.77	16602720	6.78
460-68878-1	GW0028	16860343	6.47	5125082	6.77	16657125	6.78
CCV 280-207217/65		18780069	6.48	7408977	6.77	19092136	6.79

OA = 13C4 PFOA (IS)
PFOS = 13C4 PFOS (IS)
NA = 13C5 PFNA (IS)

Area Limit = 60%-155% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII DV-LC-0012

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Instrument ID: LC_LCMS5 Calibration Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calibration End Date: 12/31/2013 17:43

Calibration ID: 16657

		DA		UNA		FOSA	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		27174342	7.18	11258920	7.41	31299476	7.49
UPPER LIMIT		35326645	7.68	14636596	7.91	40689319	7.99
LOWER LIMIT		14402401	6.68	4165800	6.91	11580806	6.99
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-207217/12		32380902	7.15	13814939	7.39	32932694	7.47
DLCK 280-207217/13		27691768	7.16	11879041	7.39	32292995	7.48
CCV 280-207217/24		27105369	7.16	12029959	7.40	30675311	7.46
MB 280-206602/1-A		24073506	7.12	8602280	7.35	647366*	7.43
LCS 280-206602/2-A		23833790	7.12	9032138	7.34	855811*	7.43
LCSD 280-206602/3-A		25297717	7.10	9413103	7.34	979333*	7.43
CCV 280-207217/37		25536393	7.10	11016925	7.34	28821477	7.44
CCV 280-207217/58		26445519	7.09	11045397	7.32	27961845	7.43
460-68878-4	GW0044	24661289	7.06	9085722	7.29	669074*	7.42
460-68878-3	GW0030	19008195	7.05	7347269	7.28	1927478*	7.41
460-68878-2	GW0029	18420753	7.05	6094408	7.28	1902567*	7.41
460-68878-1	GW0028	17582755	7.05	5732673	7.28	831637*	7.42
CCV 280-207217/65		26937605	7.06	11241303	7.29	29878352	7.42

DA = 13C2 PFDA (IS)
UNA = 13C2 PFUnA (IS)
FOSA = 13C8 FOSA (IS)

Area Limit = 53%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII DV-LC-0012

FORM VIII
LCMS INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Instrument ID: LC_LCMS5 Calibration Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calibration End Date: 12/31/2013 17:43

Calibration ID: 16657

		DOA					
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MEAN AREA AND MEAN RT		26883983	7.61				
UPPER LIMIT		34949178	8.11				
LOWER LIMIT		6989836	7.11				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 280-207217/12		30604187	7.59				
DLCK 280-207217/13		27039675	7.59				
CCV 280-207217/24		27836101	7.60				
MB 280-206602/1-A		15873045	7.55				
LCS 280-206602/2-A		18621633	7.55				
LCSD 280-206602/3-A		19662365	7.53				
CCV 280-207217/37		27840715	7.53				
CCV 280-207217/58		26548918	7.51				
460-68878-4	GW0044	16061017	7.49				
460-68878-3	GW0030	15862180	7.48				
460-68878-2	GW0029	12690496	7.47				
460-68878-1	GW0028	13064094	7.47				
CCV 280-207217/65		27666510	7.49				

DOA = 13C2 PFDoA (IS)

Area Limit = 26%-130% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII DV-LC-0012

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: GW0028 | Lab Sample ID: 460-68878-1

Matrix: Water | Lab File ID: PC513L30066.d

Analysis Method: DV-LC-0012 | Date Collected: 12/19/2013 09:08

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 226.2(mL) | Date Analyzed: 01/01/2014 04:34

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.0076	U	0.022	0.0076
335-67-1	Perfluorooctanoic acid (PFOA)	0.011	U	0.022	0.011
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.016	U	0.033	0.016
335-76-2	Perfluorodecanoic acid (PFDA)	0.0086	U	0.022	0.0086
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.020	U	0.044	0.020
375-95-1	Perfluorononanoic acid (PFNA)	0.038	J	0.044	0.019
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.015	U	0.033	0.015
307-55-1	Perfluorododecanoic acid (PFDoA)	0.016	U	0.033	0.016

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	113		60-155
STL01054	13C8 PFOS	81		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30066.d
Lims ID: 460-68878-A-1-A Lab Sample ID: 280-68878-1
Client ID: GW0028
Sample Type: Client
Inject. Date: 01-Jan-2014 04:34:34 ALS Bottle#: 0 Worklist Smp#: 64
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 460-68878-A-1-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:42 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 11:34:34

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.893	3.946	-0.053		5713637	10.0			
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.633	5.669	-0.036		13646911	10.0			
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.098	6.134	-0.036		1506940	9.46			
$ 10 13C8 PFOA									
421.0 > 375.9	6.467	6.502	-0.035	1.000	17692625	11.3			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.459	6.503	-0.044	0.999	694224	0.3818			
413.0 > 169.0	6.450	6.503	-0.053	0.997	170761		4.07(2.38-4.41)		
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.467	6.502	-0.035		16860343	10.0			
$ 15 13C8 PFOS									
506.9 > 80.0	6.764	6.799	-0.035	1.000	2126676	7.72			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.747	6.800	-0.053	0.997	422308	0.6457			
498.9 > 98.9	6.765	6.800	-0.035	1.000	84575		4.99(1.84-3.42)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.765	6.800	-0.035		5125082	9.56			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.783	6.818	-0.035		16657125	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.783	6.818	-0.035	1.000	3611727	1.72			
463.0 > 218.9	6.774	6.818	-0.044	0.999	639657		5.65(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.054	7.089	-0.035		17582755	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
18 Perfluorodecanoic acid									
513.0 > 468.9		7.089							
513.0 > 219.0		7.089							
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.282	7.317	-0.035		5732673	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.256	7.317	-0.061	0.996	190646	0.0764			
563.0 > 268.9	7.282	7.317	-0.035	1.000	23906		7.97(4.08-7.57)		
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.415	7.433	-0.018		831637	10.0			
* 25 13C2 PFDoA (IS)									s
614.9 > 569.9	7.474	7.509	-0.035		13064094	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9		7.510							
613.0 > 168.9		7.510							
27 Perfluorotridecanoic acid									
663.0 > 618.9		7.676							
28 Perfluorotetradecanoic acid									
712.9 > 169.0		7.826							

QC Flag Legend

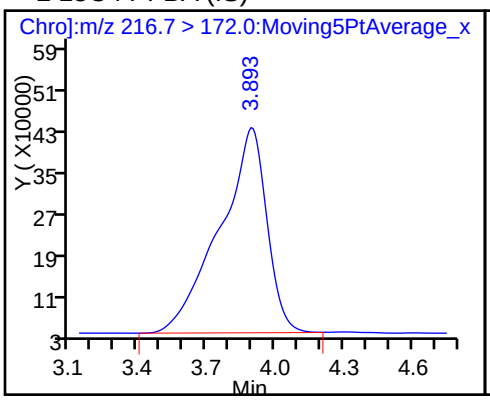
Processing Flags
s - Failed ISTD Recovery Test

Report Date: 02-Jan-2014 11:38:50 Chrom Revision: 2.1 15-Oct-2013 07:52:24

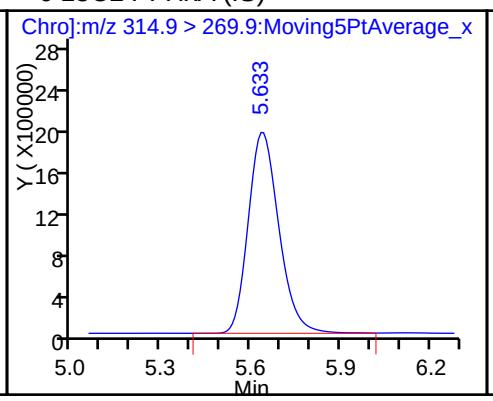
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30066.d				
Injection Date:	01-Jan-2014 04:34:34	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-1-A	Lab Sample ID:	280-68878-1		
Client ID:	GW0028				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	64
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

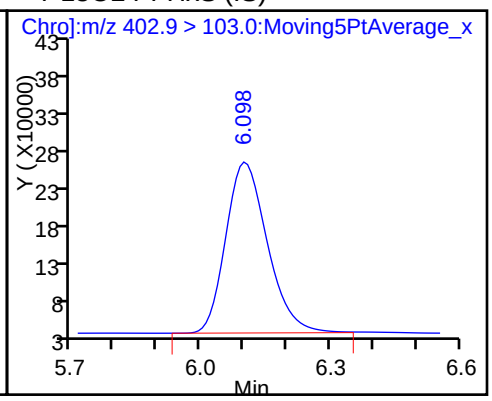
* 2 13C4 PFBA (IS)



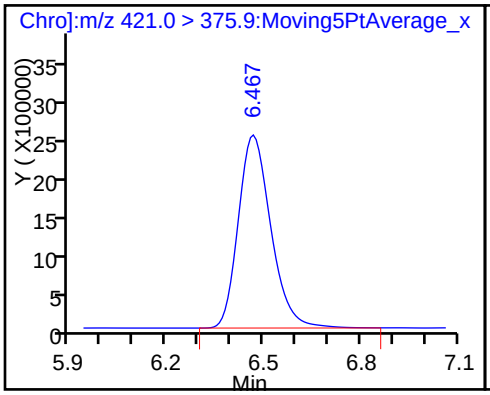
* 6 13C2 PFHxA (IS)



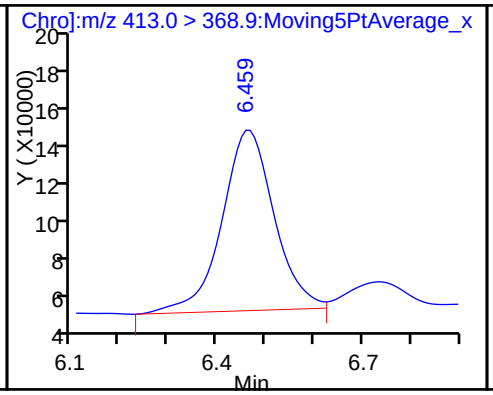
* 7 18O2 PFHxS (IS)



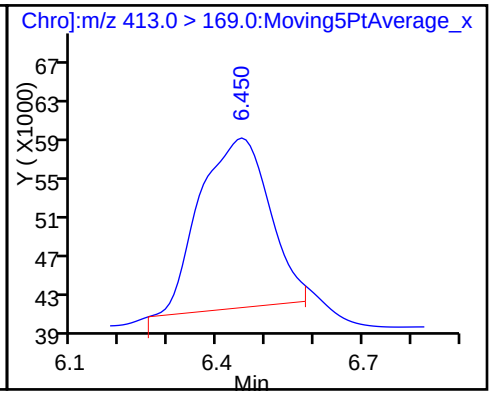
$ 10 13C8 PFOA



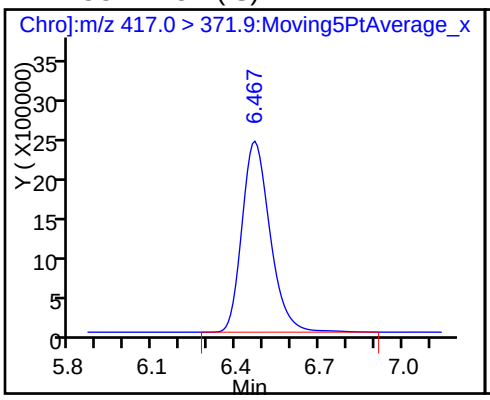
12 Perfluorooctanoic acid



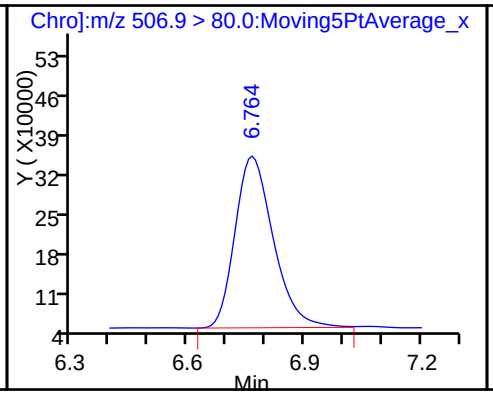
12 Perfluorooctanoic acid



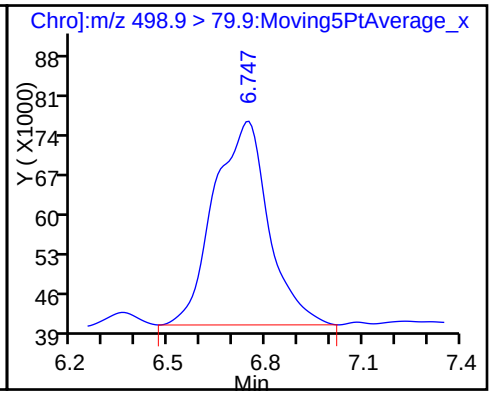
* 11 13C4 PFOA (IS)



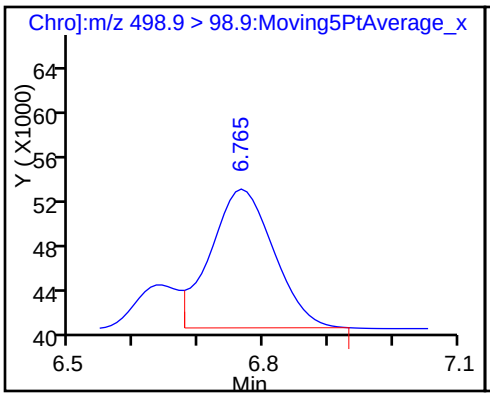
$ 15 13C8 PFOS



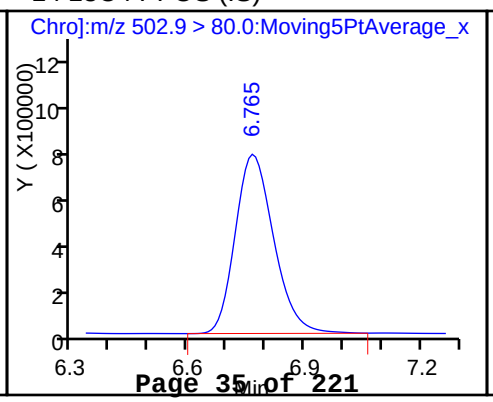
13 Perfluorooctanoic Sulfonate



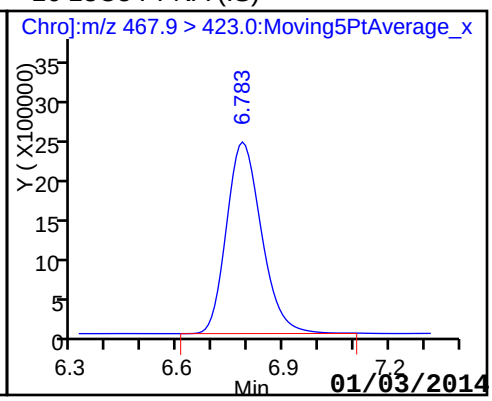
13 Perfluorooctanoic Sulfonate



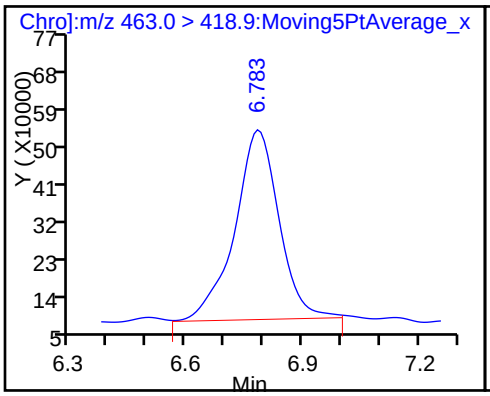
* 14 13C4 PFOS (IS)



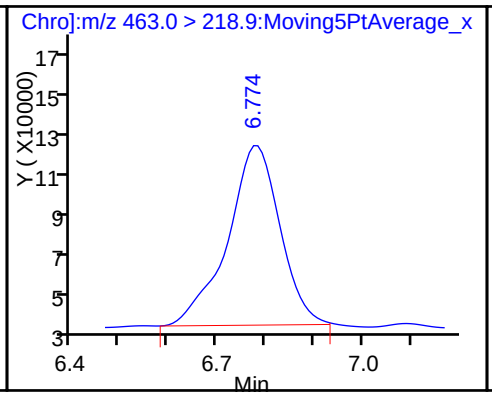
* 16 13C5 PFNA (IS)



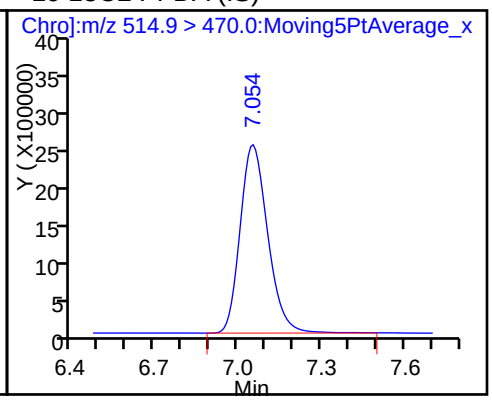
17 Perfluorononanoic acid



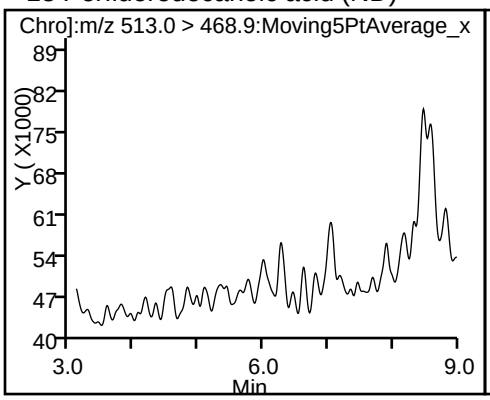
17 Perfluorononanoic acid



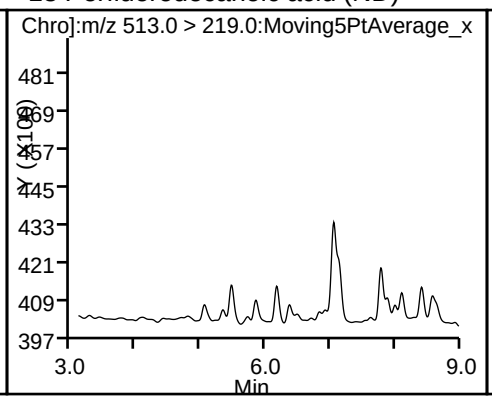
* 19 13C2 PFDA (IS)



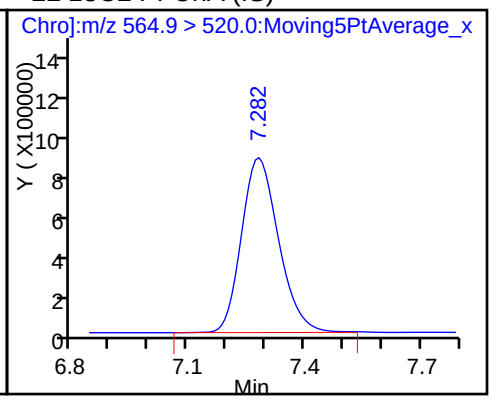
18 Perfluorodecanoic acid (ND)



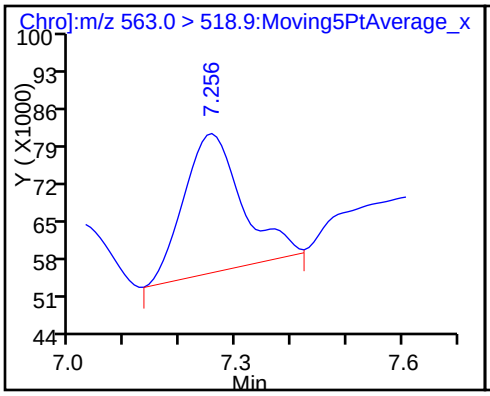
18 Perfluorodecanoic acid (ND)



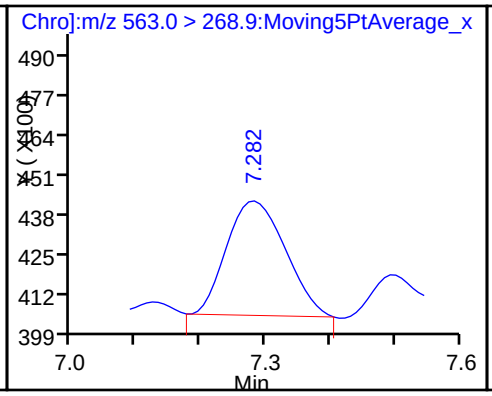
* 22 13C2 PFUnA (IS)



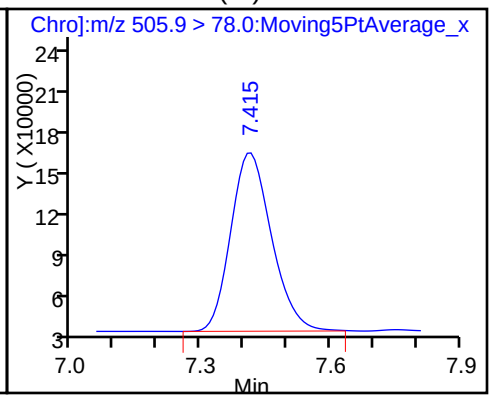
21 Perfluoroundecanoic acid



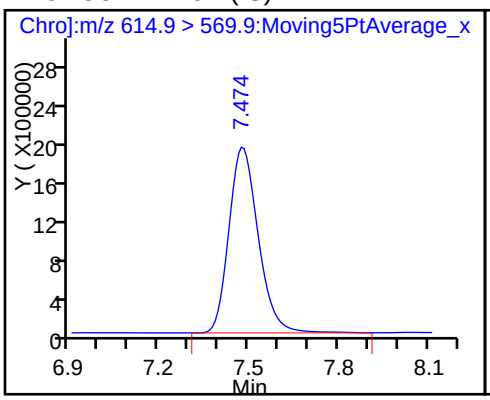
21 Perfluoroundecanoic acid



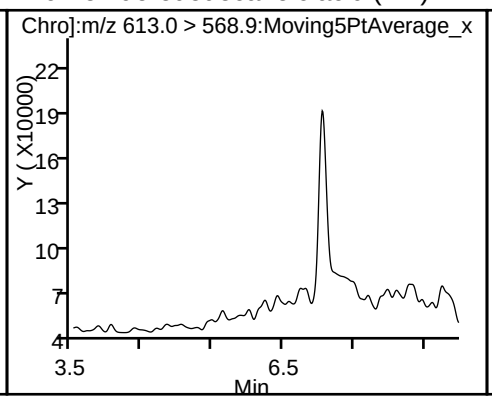
* 23 13C8 FOSA (IS)



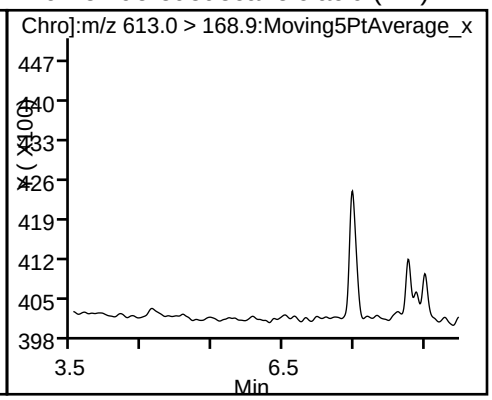
* 25 13C2 PFDoA (IS)



26 Perfluorododecanoic acid (ND)

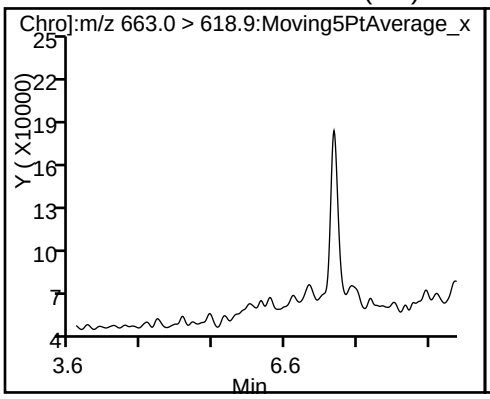


26 Perfluorododecanoic acid (ND)

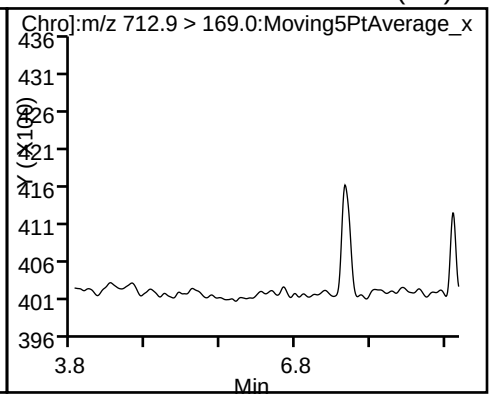


Report Date: 02-Jan-2014 11:38:51 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30066.d

27 Perfluorotridecanoic acid (ND)



28 Perfluorotetradecanoic acid (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: GW0029 | Lab Sample ID: 460-68878-2

Matrix: Water | Lab File ID: PC513L30065.d

Analysis Method: DV-LC-0012 | Date Collected: 12/19/2013 09:11

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 229.6(mL) | Date Analyzed: 01/01/2014 04:22

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.0075	U	0.022	0.0075
335-67-1	Perfluorooctanoic acid (PFOA)	0.011	U	0.022	0.011
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.016	U	0.033	0.016
335-76-2	Perfluorodecanoic acid (PFDA)	0.0085	U	0.022	0.0085
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.019	U	0.044	0.019
375-95-1	Perfluorononanoic acid (PFNA)	0.037	J	0.044	0.019
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.016	J	0.033	0.014
307-55-1	Perfluorododecanoic acid (PFDoA)	0.016	U	0.033	0.016

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	106		60-155
STL01054	13C8 PFOS	87		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30065.d
Lims ID: 460-68878-A-2-A Lab Sample ID: 280-68878-2
Client ID: GW0029
Sample Type: Client
Inject. Date: 01-Jan-2014 04:22:16 ALS Bottle#: 0 Worklist Smp#: 63
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 460-68878-A-2-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:42 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 11:34:15

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.893	3.946	-0.053		5740226	10.0			
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.642	5.669	-0.027		13134524	10.0			
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.098	6.134	-0.036		1741155	9.46			
$ 10 13C8 PFOA									
421.0 > 375.9	6.467	6.502	-0.035	1.000	16508640	10.6			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.467	6.503	-0.036	1.000	735684	0.4113			
413.0 > 169.0	6.467	6.503	-0.036	1.000	174102		4.23(2.38-4.41)		
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.467	6.502	-0.035		16685986	10.0			
$ 15 13C8 PFOS									
506.9 > 80.0	6.773	6.799	-0.026	1.001	2286035	8.30			
13 Perfluorooctanoic Sulfonate									M
498.9 > 79.9	6.765	6.800	-0.035	1.000	488539	0.7448			M
498.9 > 98.9	6.756	6.800	-0.044	0.999	124670		3.92(1.84-3.42)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.765	6.800	-0.035		5126597	9.56			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.783	6.818	-0.035		16602720	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.783	6.818	-0.035	1.000	3544319	1.70			
463.0 > 218.9	6.783	6.818	-0.035	1.000	797456		4.44(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.054	7.089	-0.035		18420753	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
18 Perfluorodecanoic acid									
513.0 > 468.9	7.045	7.089	-0.044	0.999	251058	0.0677			
513.0 > 219.0	7.063	7.089	-0.026	1.001	13589		18.48(4.72-8.77)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.282	7.317	-0.035		6094408	10.0			
21 Perfluoroundecanoic acid									M
563.0 > 518.9	7.282	7.317	-0.035	1.000	129697	-0.002360			M
563.0 > 268.9	7.273	7.317	-0.044	0.999	21613		6.00(4.08-7.57)		
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.407	7.433	-0.027		1902567	10.0			
* 25 13C2 PFDoA (IS)									s
614.9 > 569.9	7.474	7.509	-0.035		12690496	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9		7.510							
613.0 > 168.9		7.510							
27 Perfluorotridecanoic acid									
663.0 > 618.9		7.676							
28 Perfluorotetradecanoic acid									
712.9 > 169.0		7.826							

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

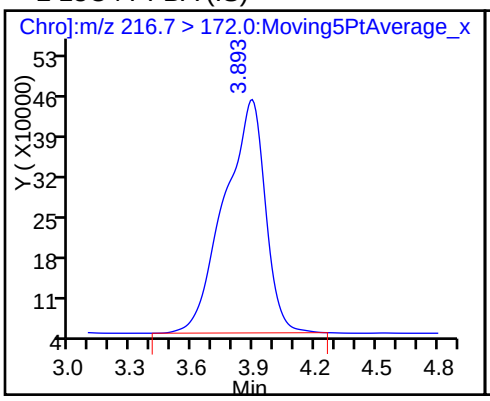
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:38:49 Chrom Revision: 2.1 15-Oct-2013 07:52:24

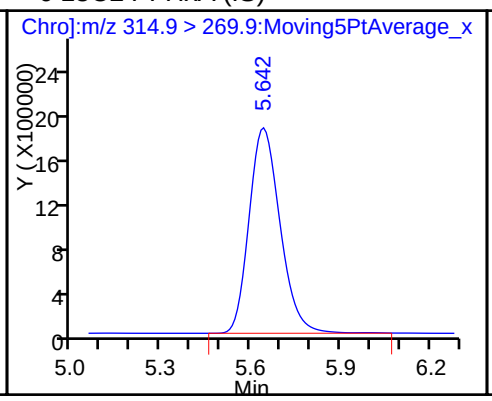
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30065.d				
Injection Date:	01-Jan-2014 04:22:16	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-2-A	Lab Sample ID:	280-68878-2		
Client ID:	GW0029				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	63
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

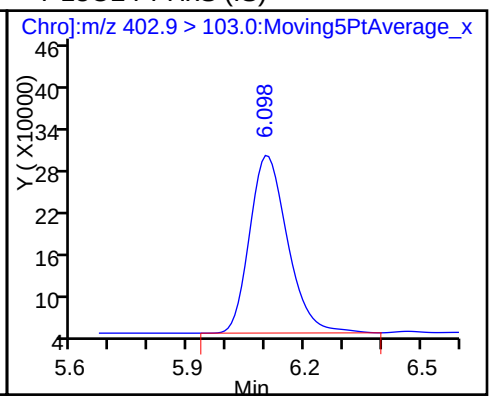
* 2 13C4 PFBA (IS)



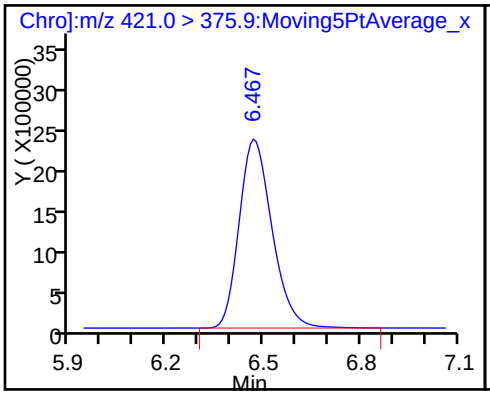
* 6 13C2 PFHxA (IS)



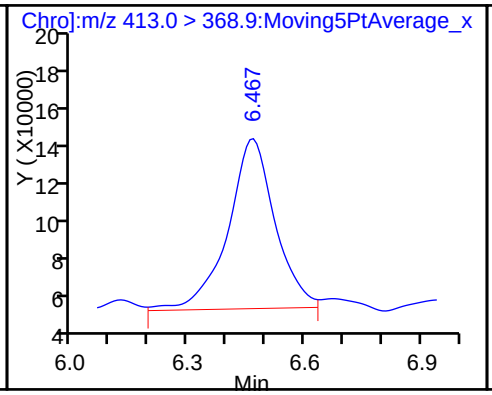
* 7 18O2 PFHxS (IS)



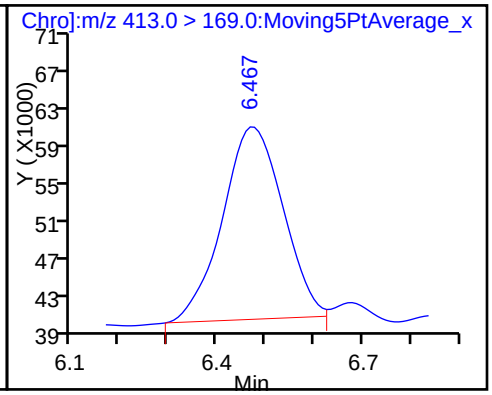
$ 10 13C8 PFOA



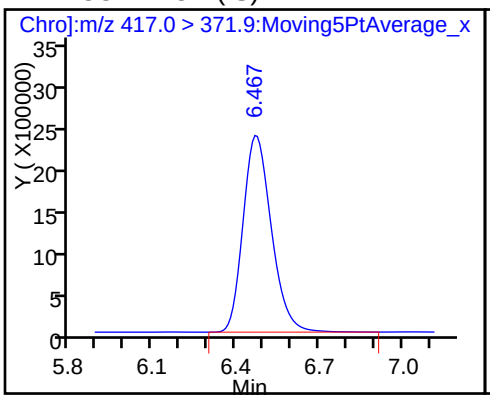
12 Perfluorooctanoic acid



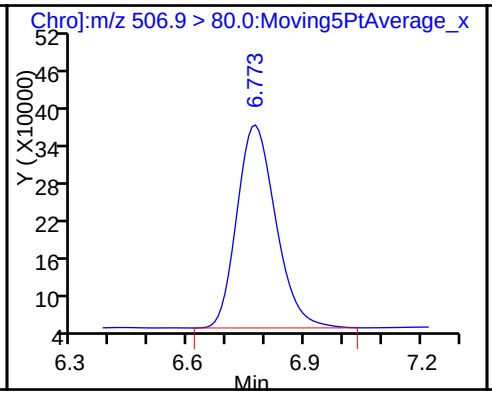
12 Perfluorooctanoic acid



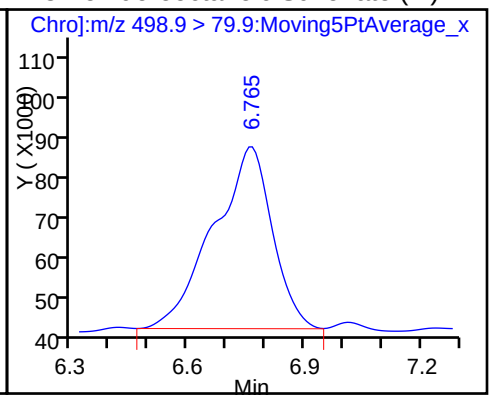
* 11 13C4 PFOA (IS)



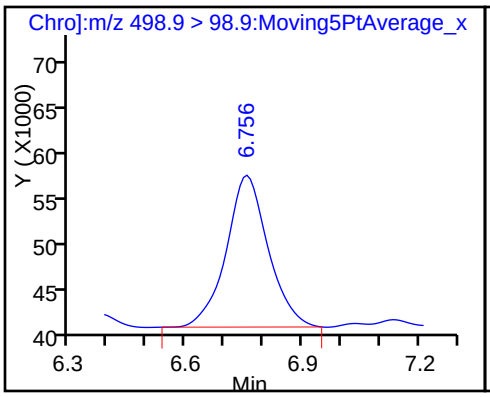
$ 15 13C8 PFOS



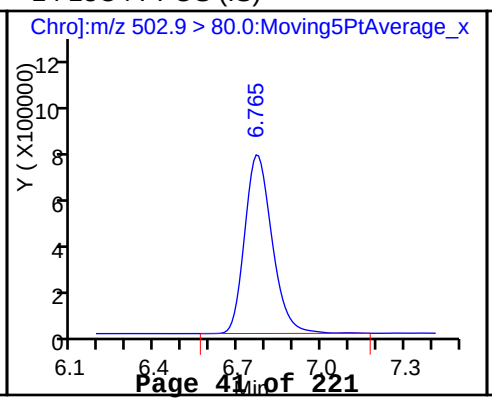
13 Perfluorooctanoic Sulfonate (M)



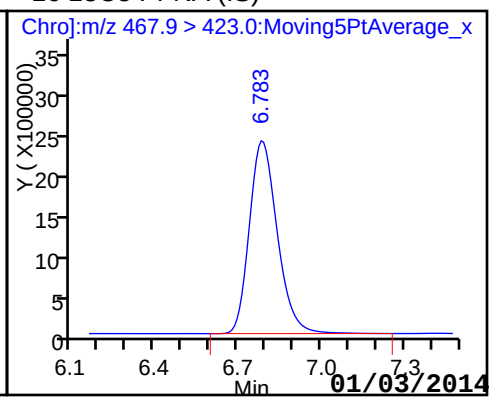
13 Perfluorooctanoic Sulfonate



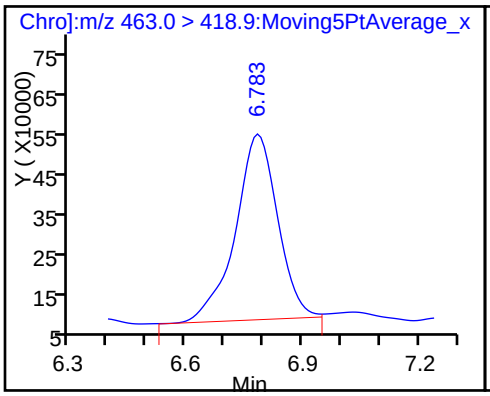
* 14 13C4 PFOS (IS)



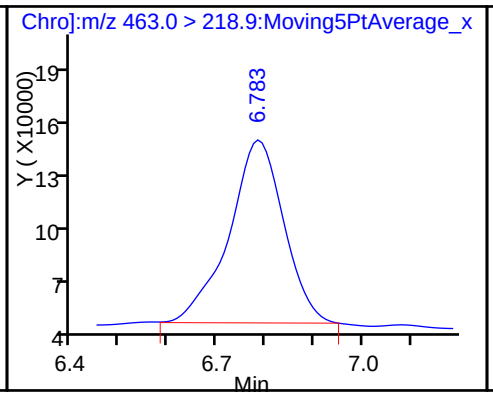
* 16 13C5 PFNA (IS)



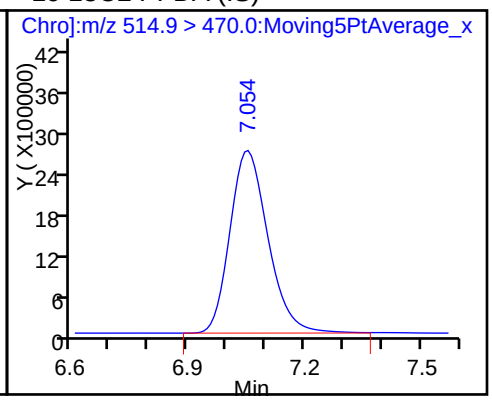
17 Perfluorononanoic acid



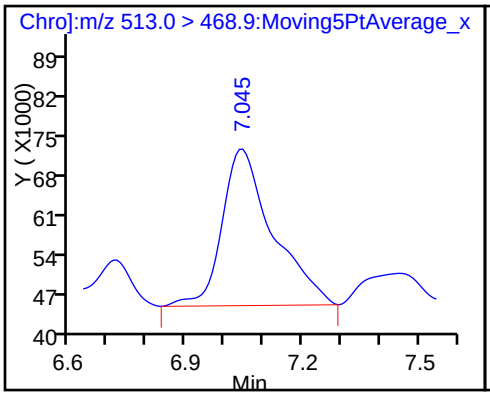
17 Perfluorononanoic acid



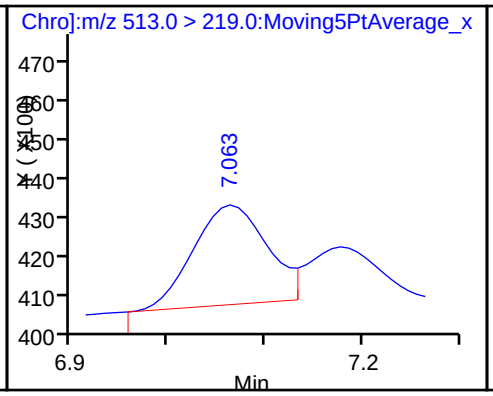
* 19 13C2 PFDA (IS)



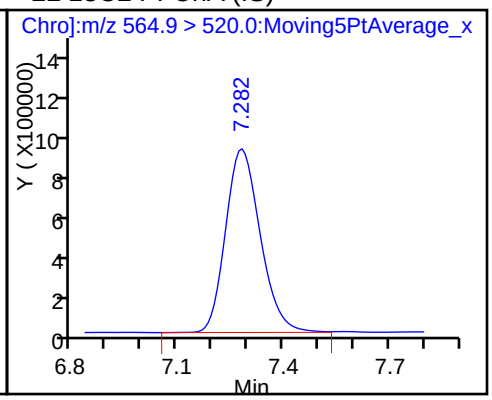
18 Perfluorodecanoic acid



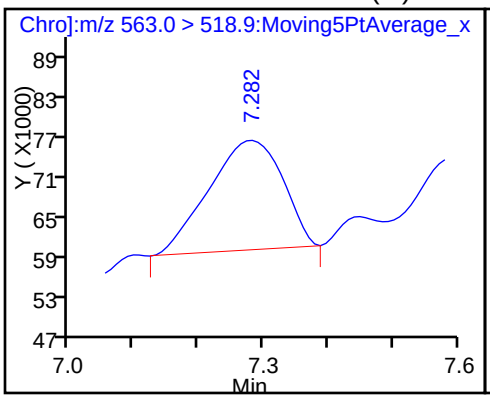
18 Perfluorodecanoic acid



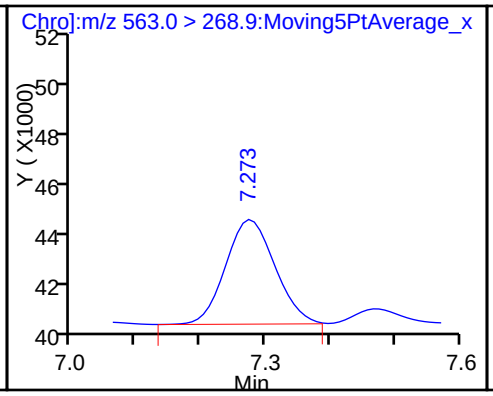
* 22 13C2 PFUnA (IS)



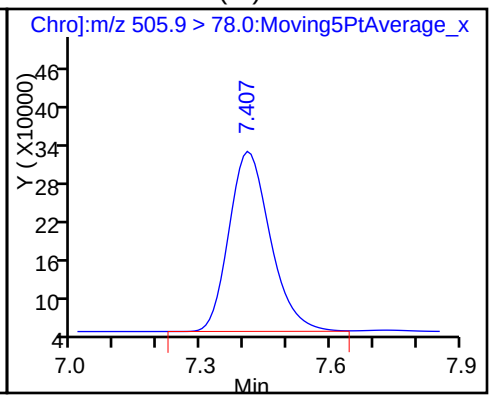
21 Perfluoroundecanoic acid (M)



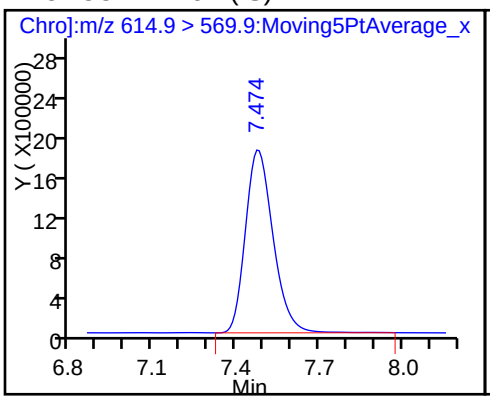
21 Perfluoroundecanoic acid



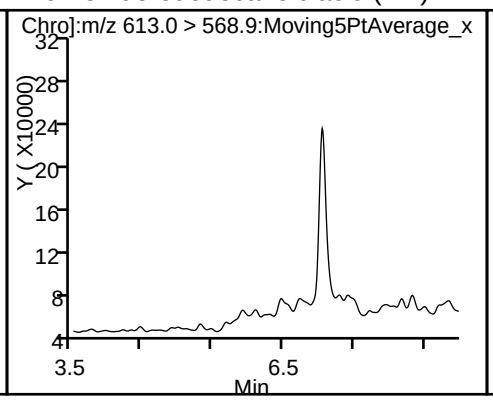
* 23 13C8 FOSA (IS)



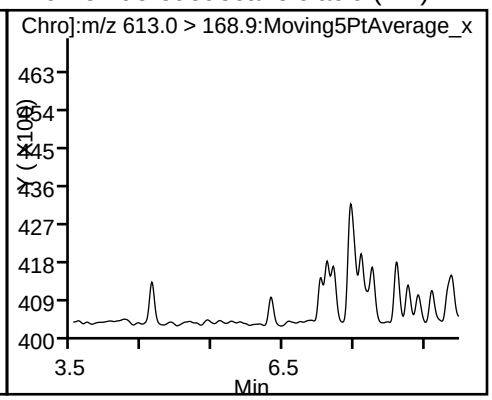
* 25 13C2 PFDoA (IS)



26 Perfluorododecanoic acid (ND)

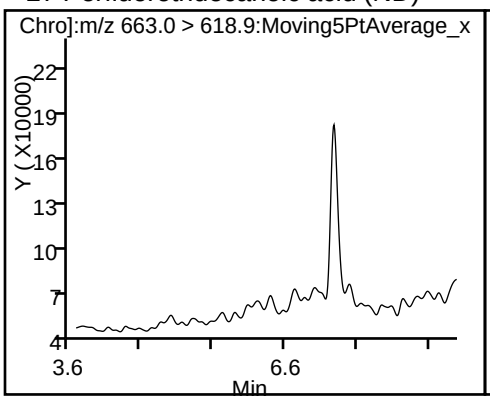


26 Perfluorododecanoic acid (ND)

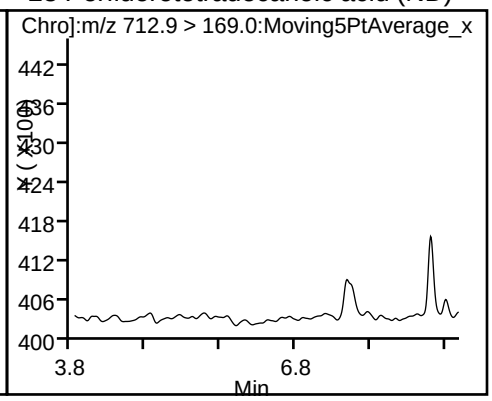


Report Date: 02-Jan-2014 11:38:50 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30065.d

27 Perfluorotridecanoic acid (ND)



28 Perfluorotetradecanoic acid (ND)



Manual Integration/User Assign Peak Report

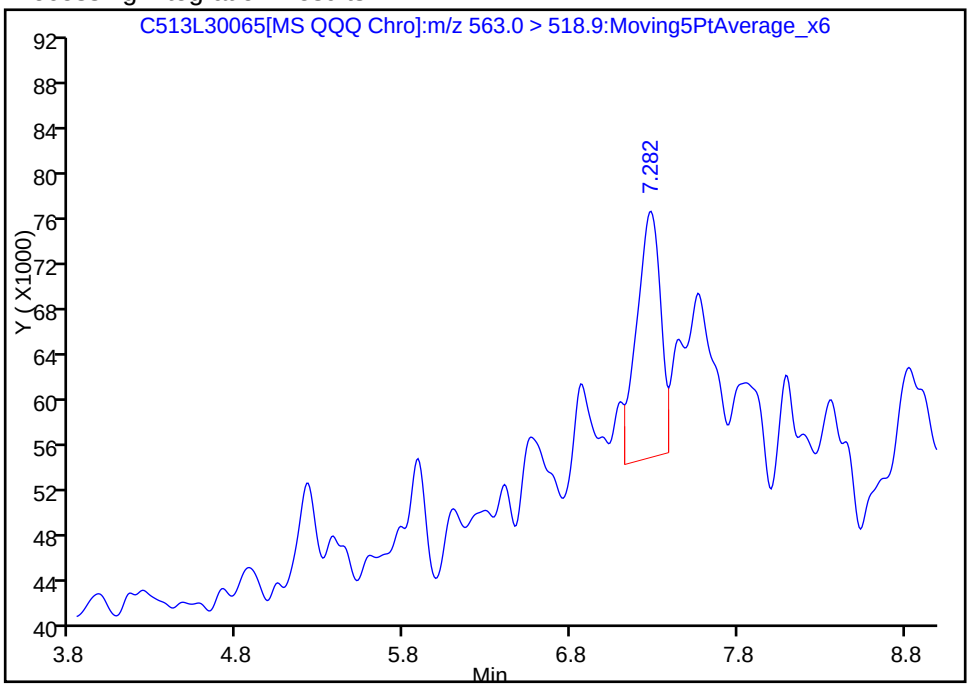
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30065.d				
Injection Date:	01-Jan-2014 04:22:16	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-2-A	Lab Sample ID:	280-68878-2		
Client ID:	GW0029				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	63
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

21 Perfluoroundecanoic acid, CAS: 2058-94-8

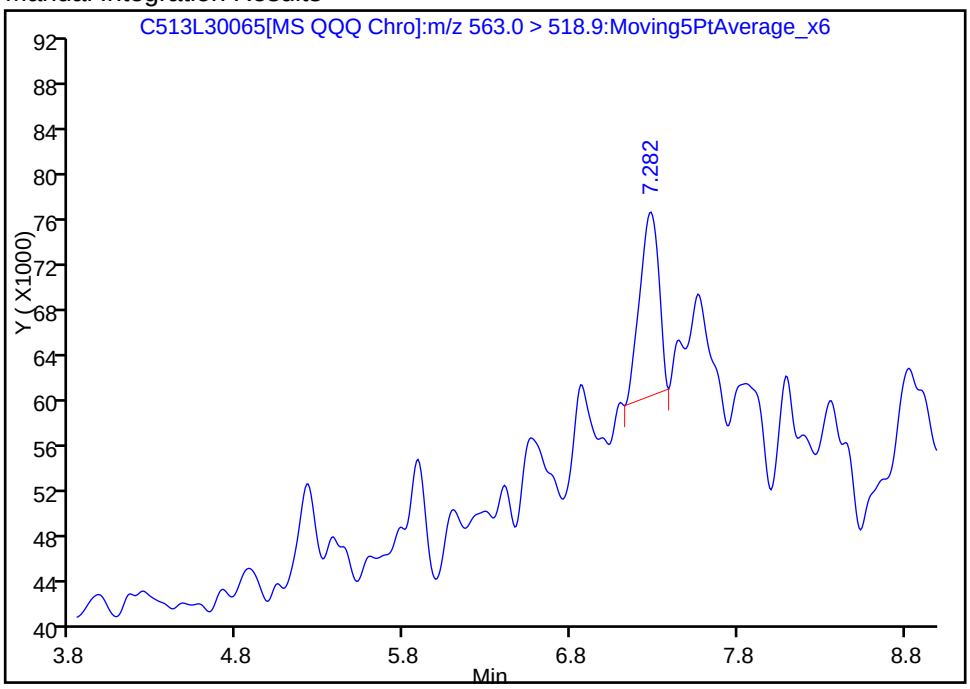
Processing Integration Results

RT: 7.28
Response: 216297
Amount: 0.091050



Manual Integration Results

RT: 7.28
Response: 129697
Amount: -0.002360



Reviewer: kellisonm, 02-Jan-2014 11:34:15
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

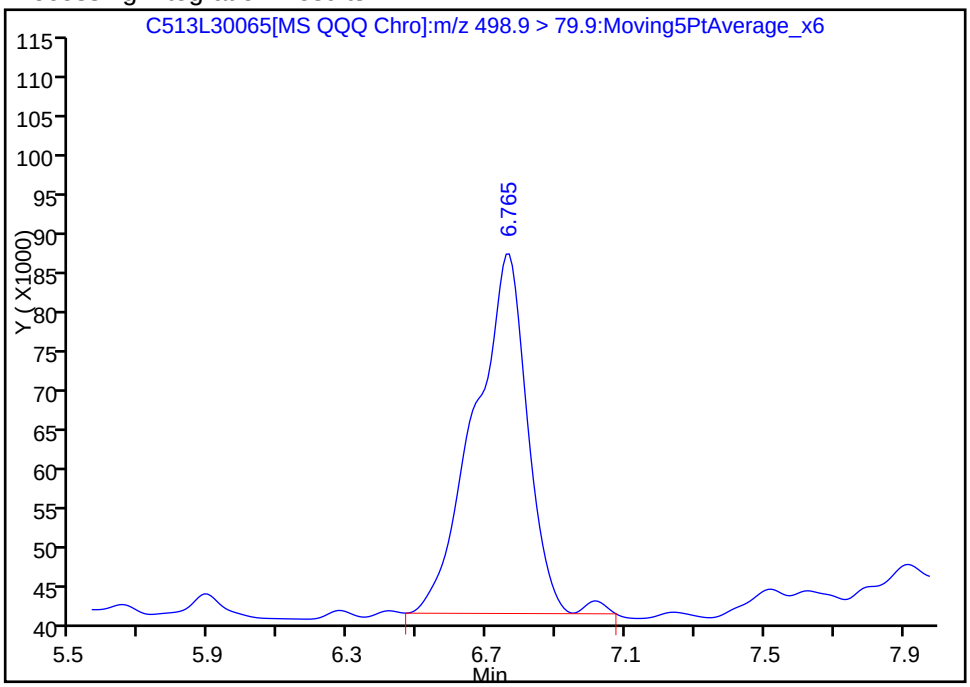
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30065.d				
Injection Date:	01-Jan-2014 04:22:16	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-2-A	Lab Sample ID:	280-68878-2		
Client ID:	GW0029				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	63
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

13 Perfluorooctanoic Sulfonate, CAS: 1763-23-1

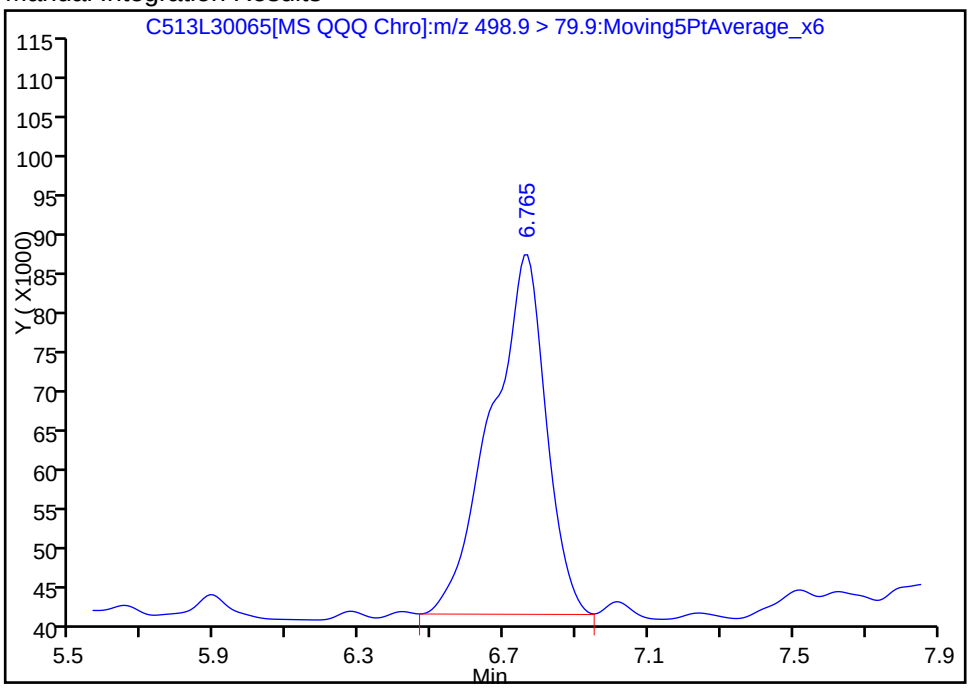
Processing Integration Results

RT: 6.76
Response: 495172
Amount: 0.754726



Manual Integration Results

RT: 6.76
Response: 488539
Amount: 0.744781



Reviewer: kellisonm, 02-Jan-2014 11:34:15
Audit Action: Split an Integrated Peak
Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: GW0030 | Lab Sample ID: 460-68878-3

Matrix: Water | Lab File ID: PC513L30064.d

Analysis Method: DV-LC-0012 | Date Collected: 12/19/2013 09:20

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 255.3(mL) | Date Analyzed: 01/01/2014 04:09

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.0067	U	0.020	0.0067
335-67-1	Perfluorooctanoic acid (PFOA)	0.0096	U	0.020	0.0096
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.014	U	0.029	0.014
335-76-2	Perfluorodecanoic acid (PFDA)	0.0077	U	0.020	0.0077
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.017	U	0.039	0.017
375-95-1	Perfluorononanoic acid (PFNA)	0.039		0.039	0.017
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.013	J	0.029	0.013
307-55-1	Perfluorododecanoic acid (PFDoA)	0.015	U	0.029	0.015

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	101		60-155
STL01054	13C8 PFOS	104		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30064.d
Lims ID: 460-68878-A-3-A Lab Sample ID: 280-68878-3
Client ID: GW0030
Sample Type: Client
Inject. Date: 01-Jan-2014 04:09:58 ALS Bottle#: 0 Worklist Smp#: 62
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 460-68878-A-3-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:42 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 11:33:33

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.893	3.946	-0.053		6512297	10.0			
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.642	5.669	-0.027		14504560	10.0			
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.107	6.134	-0.027		1605782	9.46			
$ 10 13C8 PFOA									
421.0 > 375.9	6.476	6.502	-0.026	1.000	17672672	10.1			
12 Perfluorooctanoic acid									M
413.0 > 368.9	6.467	6.503	-0.036	0.999	715755	0.3514			M
413.0 > 169.0	6.467	6.503	-0.036	0.999	165200		4.33(2.38-4.41)		
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.476	6.502	-0.026		18748807	10.0			
$ 15 13C8 PFOS									
506.9 > 80.0	6.773	6.799	-0.026	1.000	2968737	9.96			
13 Perfluorooctanoic Sulfonate									M
498.9 > 79.9	6.774	6.800	-0.026	1.000	481333	0.6791			M
498.9 > 98.9	6.774	6.800	-0.026	1.000	124661		3.86(1.84-3.42)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.773	6.800	-0.027		5548275	9.56			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.792	6.818	-0.026		16977871	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.783	6.818	-0.035	0.999	4290364	2.01			
463.0 > 218.9	6.783	6.818	-0.035	0.999	771177		5.56(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.054	7.089	-0.035		19008195	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
18 Perfluorodecanoic acid									
513.0 > 468.9		7.089							
513.0 > 219.0		7.089							
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.282	7.317	-0.035		7347269	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.300	7.317	-0.017	1.002	261546	0.0918			
563.0 > 268.9	7.282	7.317	-0.035	1.000	24115		10.85(4.08-7.57)		
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.407	7.433	-0.027		1927478	10.0			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.483	7.509	-0.026		15862180	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9		7.510							
613.0 > 168.9		7.510							
27 Perfluorotridecanoic acid									
663.0 > 618.9		7.676							
28 Perfluorotetradecanoic acid									
712.9 > 169.0		7.826							

QC Flag Legend

Processing Flags
s - Failed ISTD Recovery Test

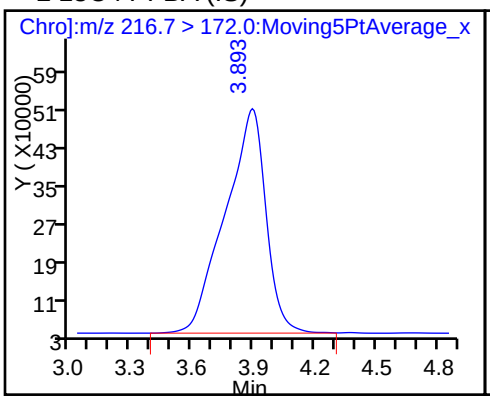
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:38:48 Chrom Revision: 2.1 15-Oct-2013 07:52:24

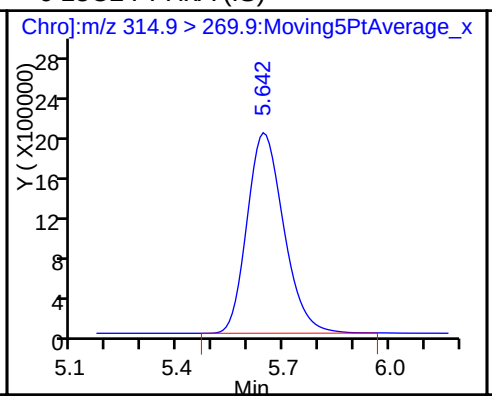
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30064.d				
Injection Date:	01-Jan-2014 04:09:58	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-3-A	Lab Sample ID:	280-68878-3		
Client ID:	GW0030				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	62
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

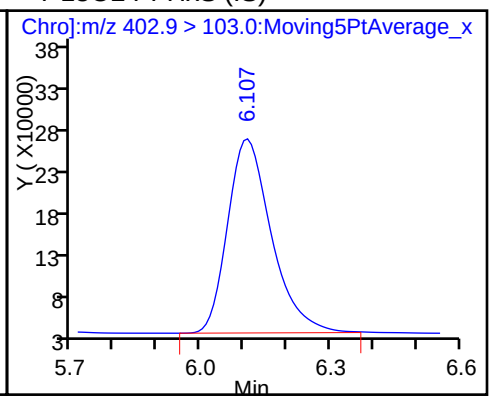
* 2 13C4 PFBA (IS)



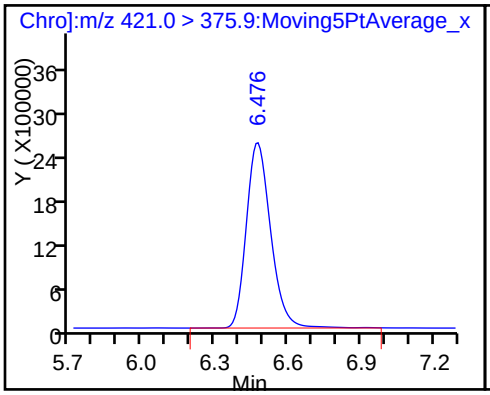
* 6 13C2 PFHxA (IS)



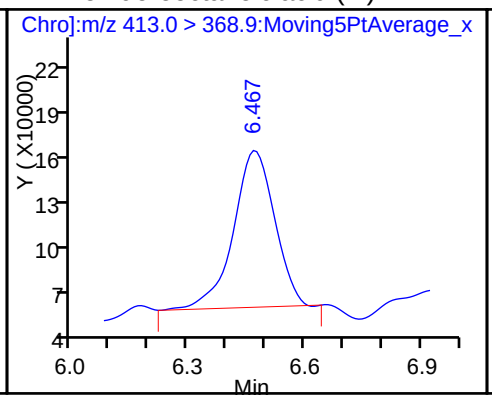
* 7 18O2 PFHxS (IS)



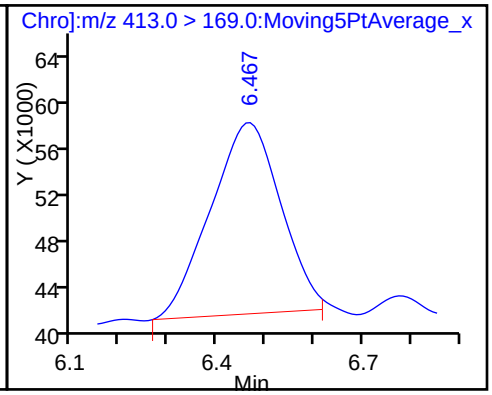
$ 10 13C8 PFOA



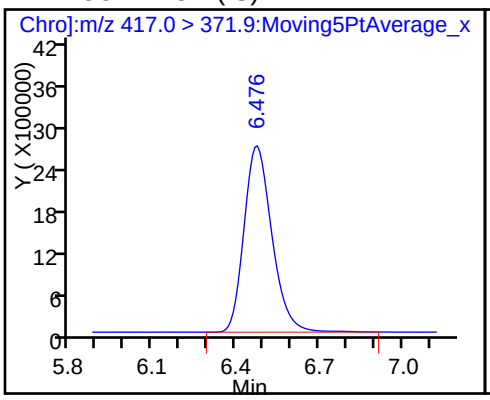
12 Perfluorooctanoic acid (M)



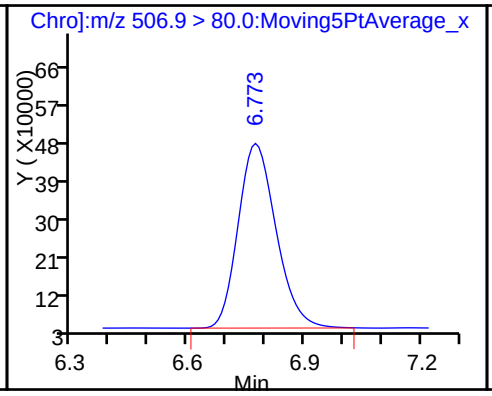
12 Perfluorooctanoic acid



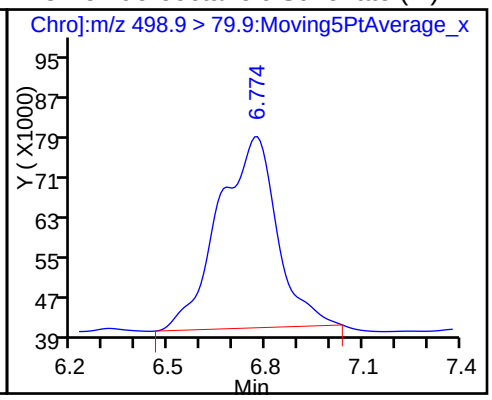
* 11 13C4 PFOA (IS)



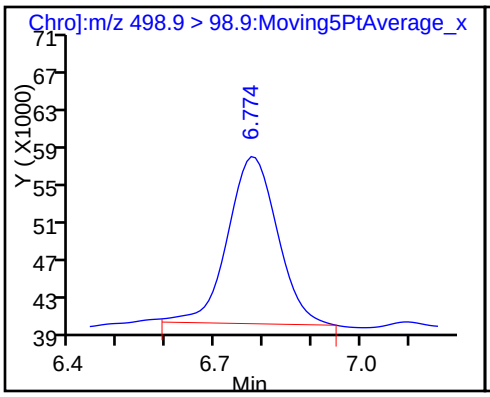
$ 15 13C8 PFOS



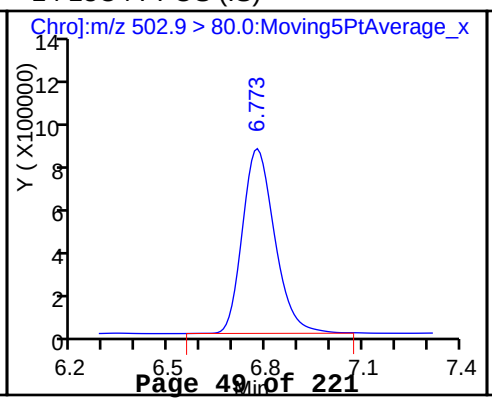
13 Perfluorooctanoic Sulfonate (M)



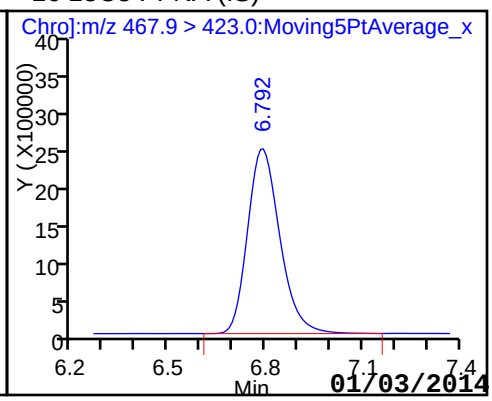
13 Perfluorooctanoic Sulfonate



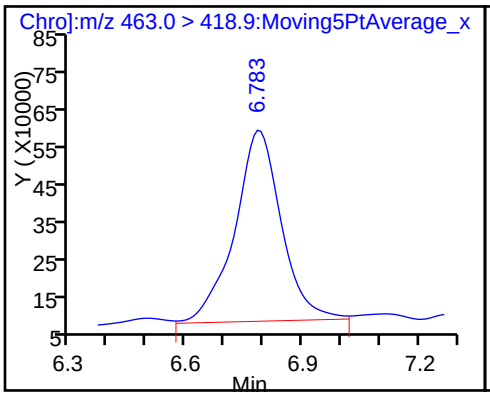
* 14 13C4 PFOS (IS)



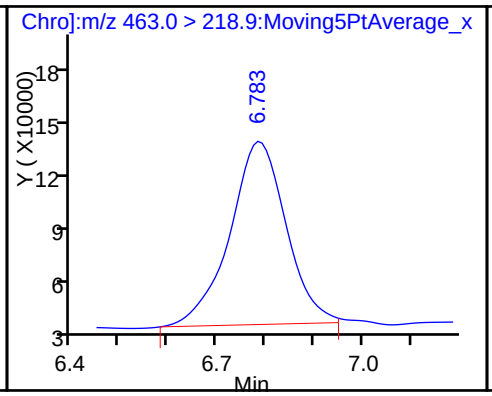
* 16 13C5 PFNA (IS)



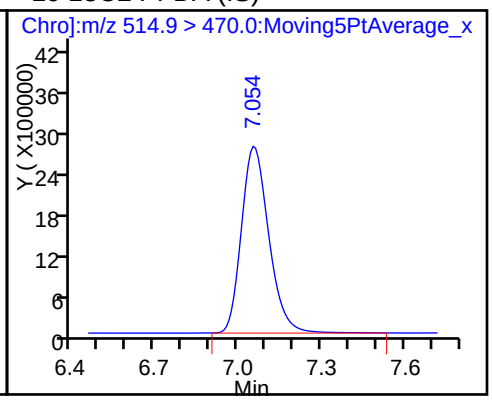
17 Perfluorononanoic acid



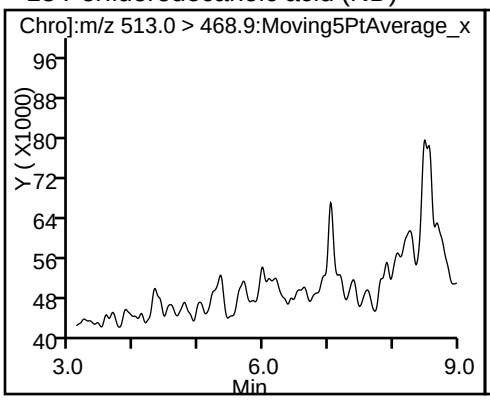
17 Perfluorononanoic acid



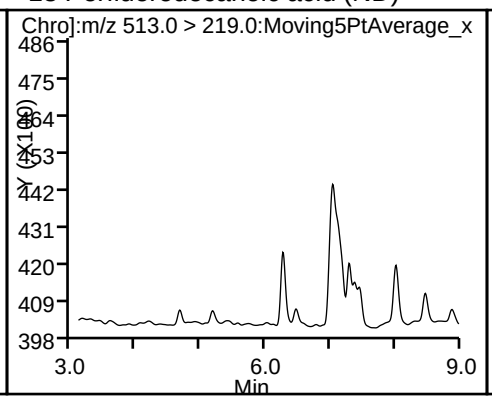
* 19 13C2 PFDA (IS)



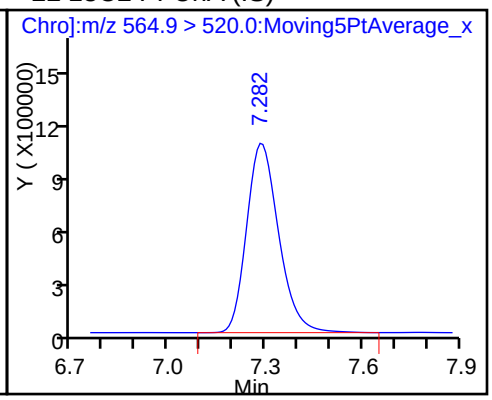
18 Perfluorodecanoic acid (ND)



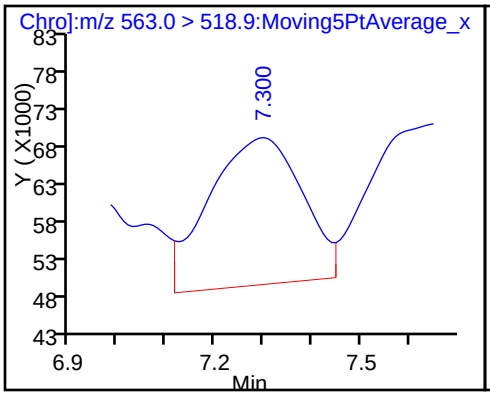
18 Perfluorodecanoic acid (ND)



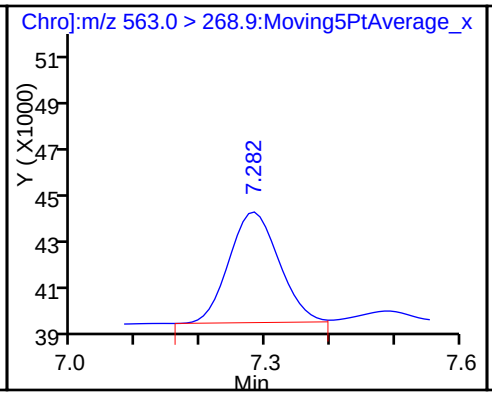
* 22 13C2 PFUnA (IS)



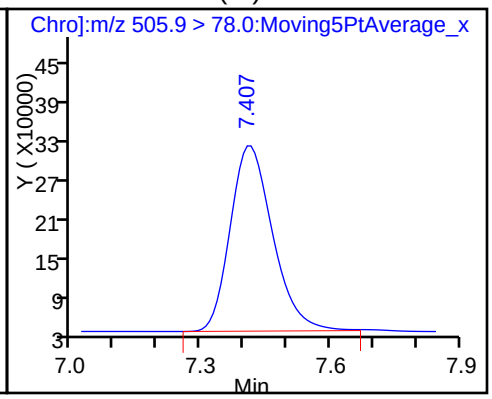
21 Perfluoroundecanoic acid



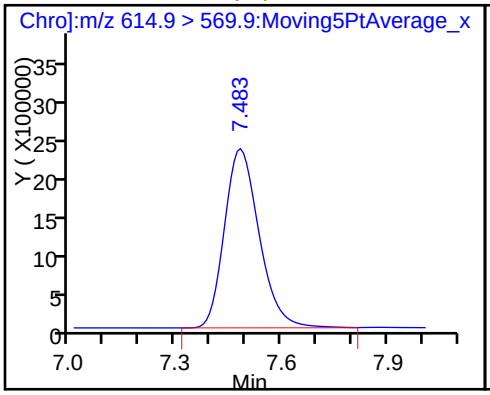
21 Perfluoroundecanoic acid



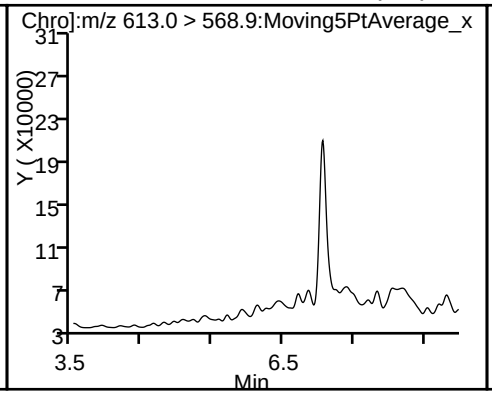
* 23 13C8 FOSA (IS)



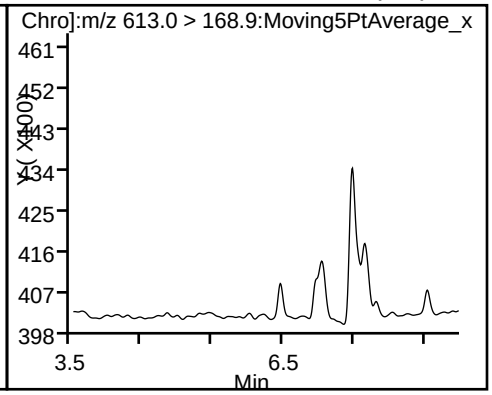
* 25 13C2 PFDoA (IS)



26 Perfluorododecanoic acid (ND)

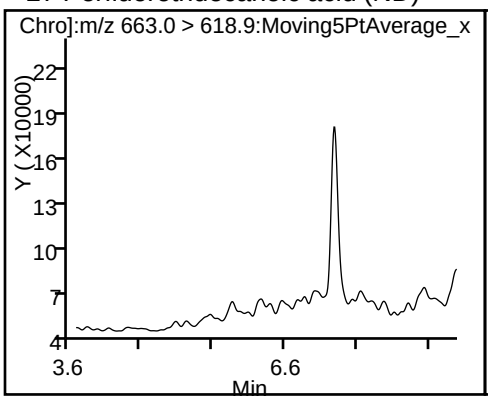


26 Perfluorododecanoic acid (ND)

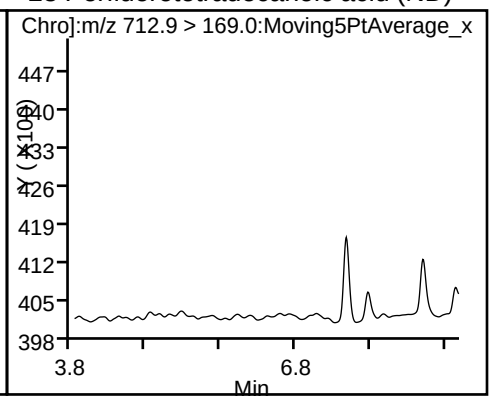


Report Date: 02-Jan-2014 11:38:48 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30064.d

27 Perfluorotridecanoic acid (ND)



28 Perfluorotetradecanoic acid (ND)



Manual Integration/User Assign Peak Report

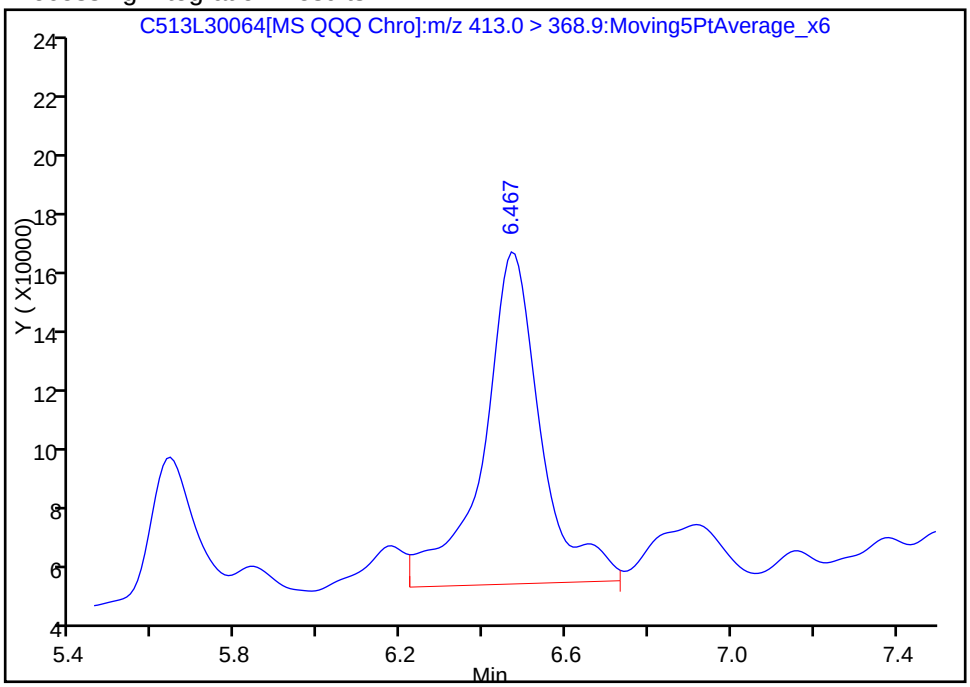
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30064.d				
Injection Date:	01-Jan-2014 04:09:58	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-3-A	Lab Sample ID:	280-68878-3		
Client ID:	GW0030				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	62
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

12 Perfluorooctanoic acid, CAS: 335-67-1

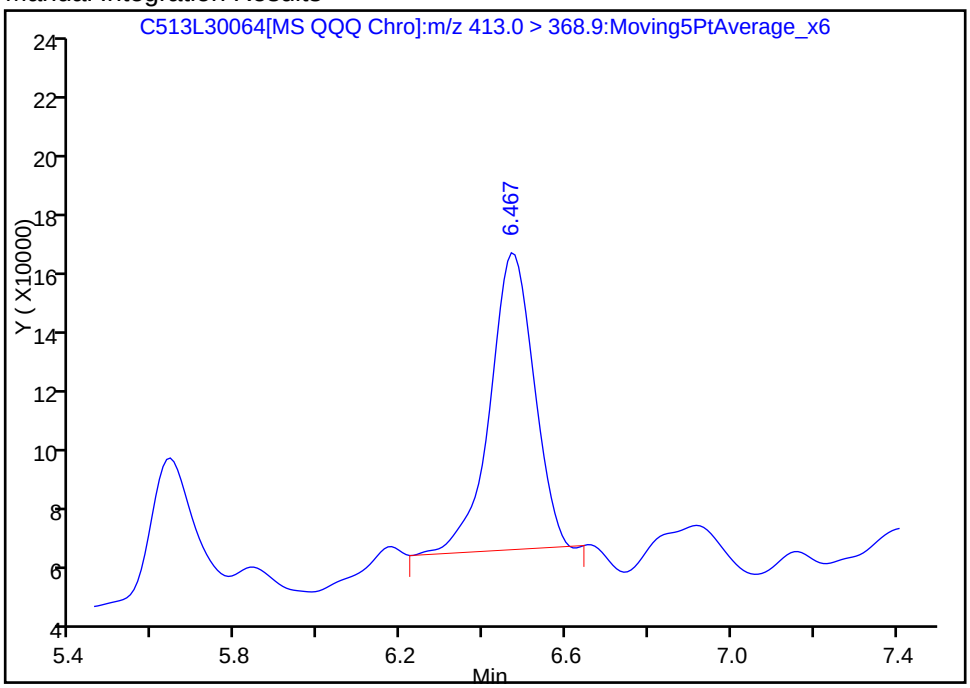
Processing Integration Results

RT: 6.47
Response: 1048633
Amount: 0.531143



Manual Integration Results

RT: 6.47
Response: 715755
Amount: 0.351401



Reviewer: kellisonm, 02-Jan-2014 11:33:33
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

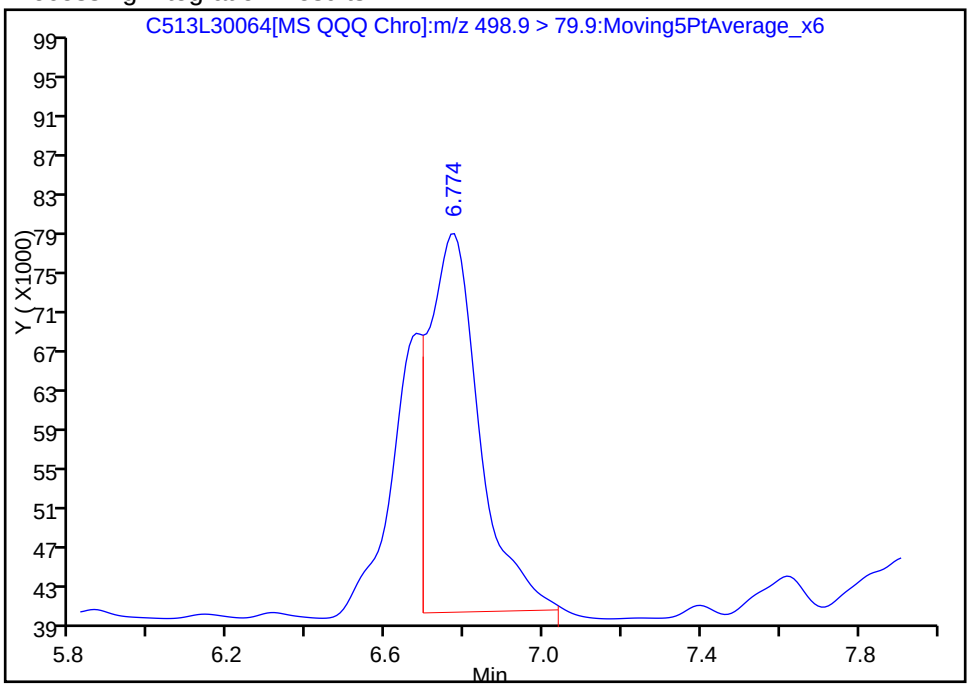
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30064.d				
Injection Date:	01-Jan-2014 04:09:58	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-3-A	Lab Sample ID:	280-68878-3		
Client ID:	GW0030				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	62
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

13 Perfluorooctanoic Sulfonate, CAS: 1763-23-1

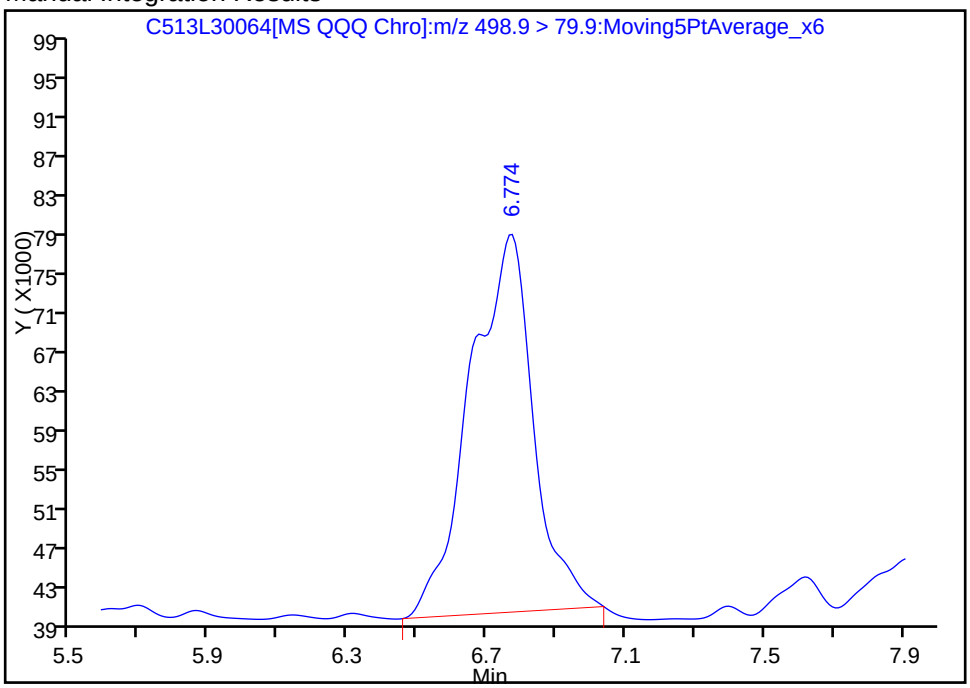
Processing Integration Results

RT: 6.77
Response: 331483
Amount: 0.471535



Manual Integration Results

RT: 6.77
Response: 481333
Amount: 0.679129



Reviewer: kellisonm, 02-Jan-2014 11:33:33
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: GW0044 | Lab Sample ID: 460-68878-4

Matrix: Water | Lab File ID: PC513L30063.d

Analysis Method: DV-LC-0012 | Date Collected: 12/19/2013 14:08

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 251.2(mL) | Date Analyzed: 01/01/2014 03:57

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.0069	U	0.020	0.0069
335-67-1	Perfluorooctanoic acid (PFOA)	0.0097	U	0.020	0.0097
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.015	U	0.030	0.015
335-76-2	Perfluorodecanoic acid (PFDA)	0.0078	U	0.020	0.0078
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.018	U	0.040	0.018
375-95-1	Perfluorononanoic acid (PFNA)	0.017	U	0.040	0.017
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.013	U	0.030	0.013
307-55-1	Perfluorododecanoic acid (PFDoA)	0.015	U	0.030	0.015

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	106		60-155
STL01054	13C8 PFOS	92		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30063.d
Lims ID: 460-68878-A-4-A Lab Sample ID: 280-68878-4
Client ID: GW0044
Sample Type: Client
Inject. Date: 01-Jan-2014 03:57:40 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: 460-68878-A-4-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:42 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 11:33:03

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.902	3.946	-0.044		5858355	10.0			
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.651	5.669	-0.018		14064692	10.0			
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.116	6.134	-0.018		1412596	9.46			
$ 10 13C8 PFOA									
421.0 > 375.9	6.485	6.502	-0.017	1.000	17513315	10.6			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.459	6.503	-0.044	0.996	77142	0.009144			
413.0 > 169.0	6.467	6.503	-0.036	0.997	8007		9.63(2.38-4.41)		
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.485	6.502	-0.017		17658808	10.0			
$ 15 13C8 PFOS									
506.9 > 80.0	6.782	6.799	-0.017	1.000	3109207	8.83			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9		6.800							
498.9 > 98.9		6.800							
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.782	6.800	-0.018		6551710	9.56			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.801	6.818	-0.017		17729516	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9		6.818							
463.0 > 218.9		6.818							
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.063	7.089	-0.026		24661289	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
18 Perfluorodecanoic acid									
513.0 > 468.9		7.089							
513.0 > 219.0		7.089							
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.291	7.317	-0.026		9085722	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.291	7.317	-0.026	1.000	221275	0.0178			
563.0 > 268.9	7.300	7.317	-0.017	1.001	24700		8.96(4.08-7.57)		
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.415	7.433	-0.018		669074	10.0			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.492	7.509	-0.017		16061017	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9		7.510							
613.0 > 168.9		7.510							
27 Perfluorotridecanoic acid									
663.0 > 618.9		7.676							
28 Perfluorotetradecanoic acid									
712.9 > 169.0		7.826							

QC Flag Legend

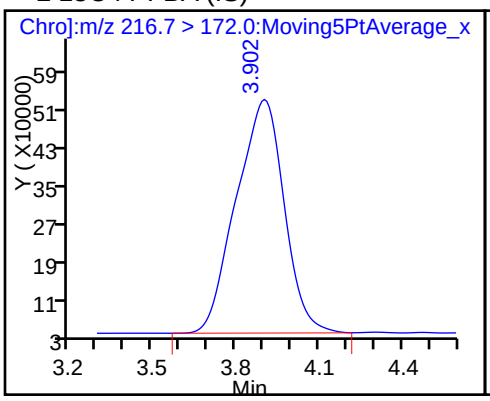
Processing Flags
s - Failed ISTD Recovery Test

Report Date: 02-Jan-2014 11:38:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

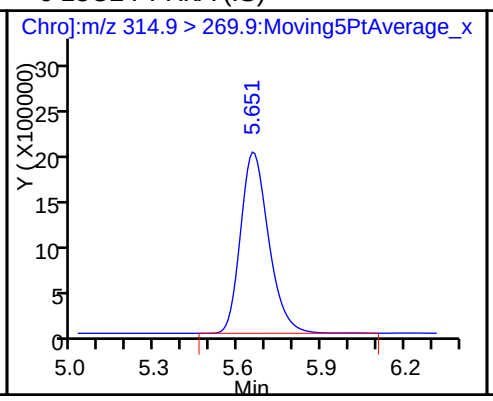
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30063.d				
Injection Date:	01-Jan-2014 03:57:40	Instrument ID:	LC_LCMS5		
Lims ID:	460-68878-A-4-A	Lab Sample ID:	280-68878-4		
Client ID:	GW0044				
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	61
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

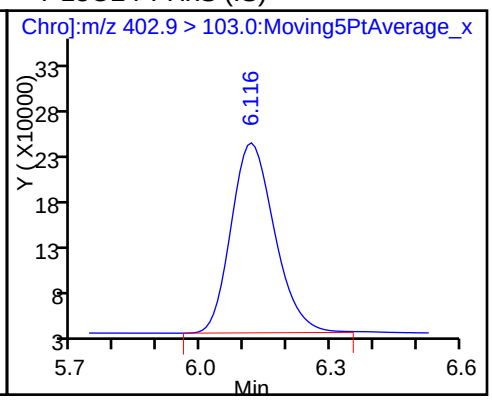
* 2 13C4 PFBA (IS)



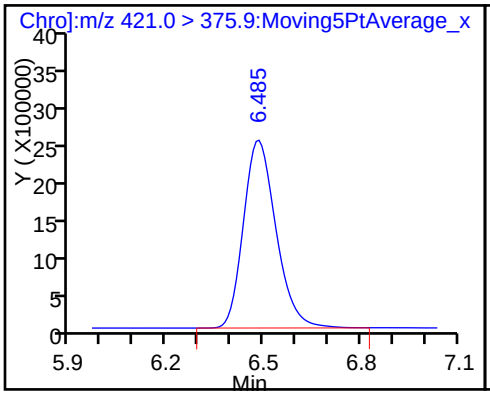
* 6 13C2 PFHxA (IS)



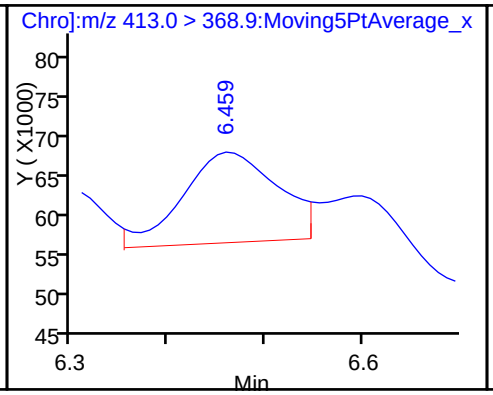
* 7 18O2 PFHxS (IS)



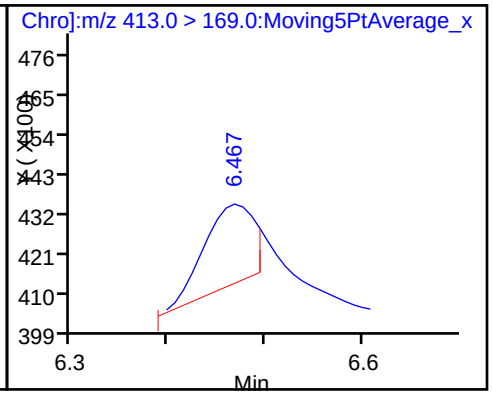
$ 10 13C8 PFOA



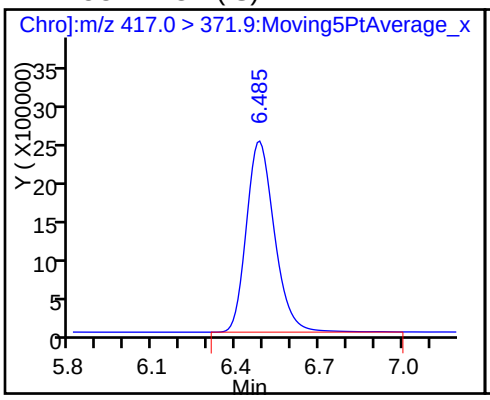
12 Perfluorooctanoic acid



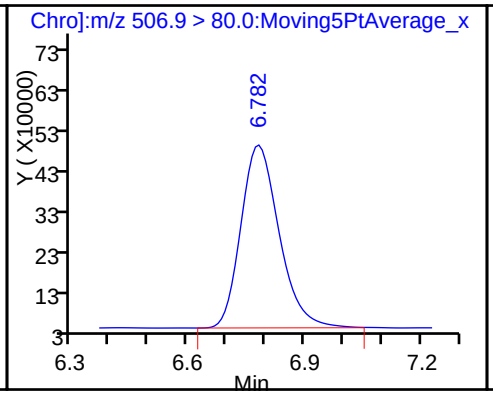
12 Perfluorooctanoic acid



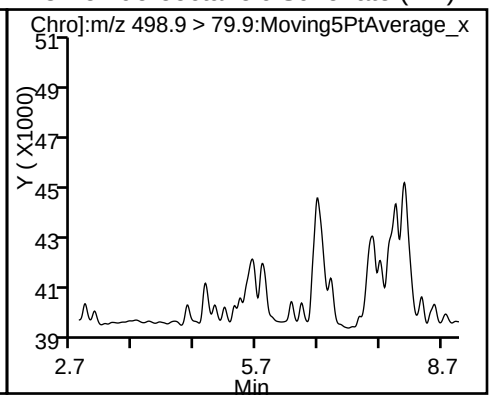
* 11 13C4 PFOA (IS)



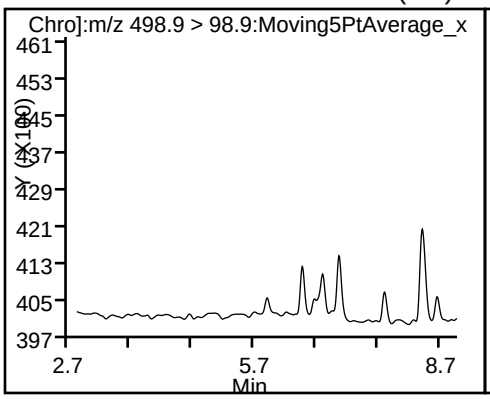
$ 15 13C8 PFOS



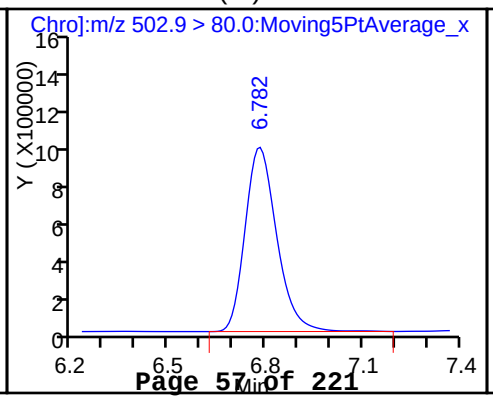
13 Perfluorooctanoic Sulfonate (ND)



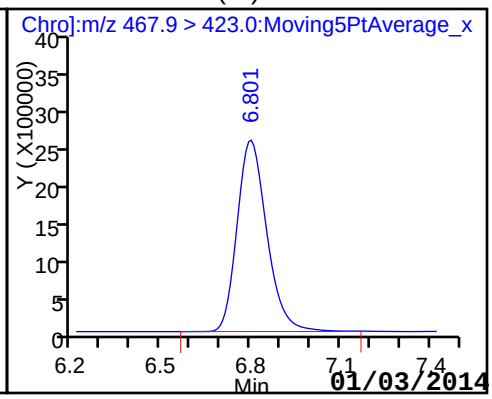
13 Perfluorooctanoic Sulfonate (ND)



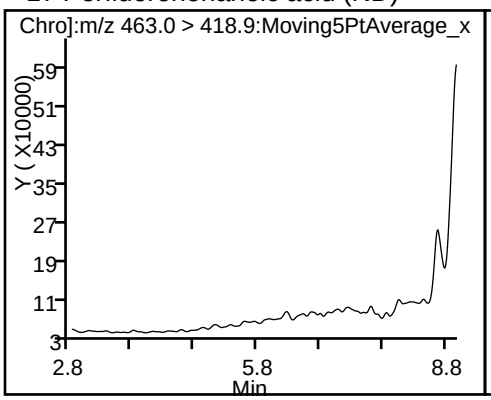
* 14 13C4 PFOS (IS)



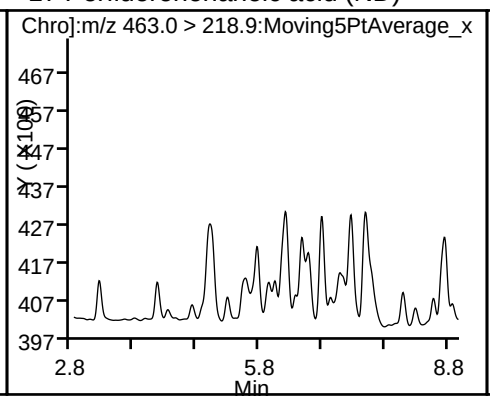
* 16 13C5 PFNA (IS)



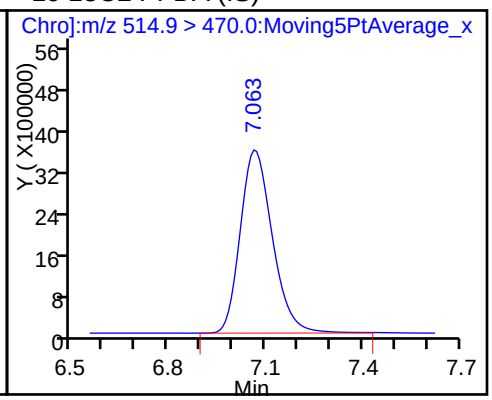
17 Perfluorononanoic acid (ND)



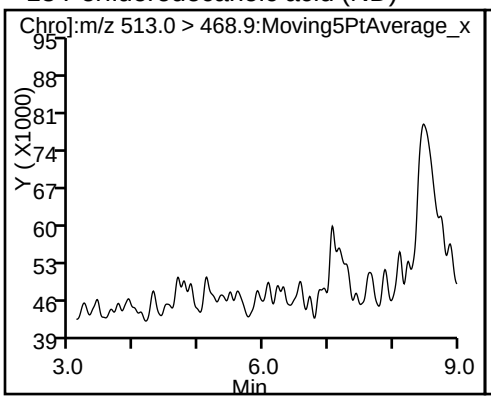
17 Perfluorononanoic acid (ND)



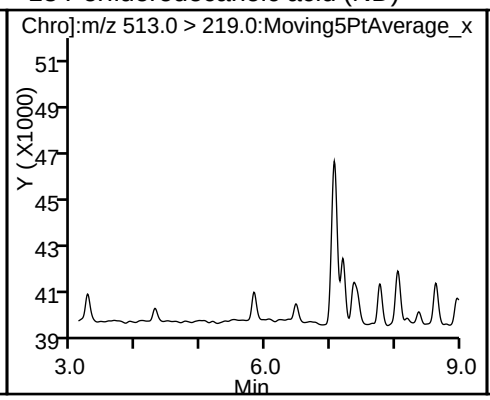
* 19 13C2 PFDA (IS)



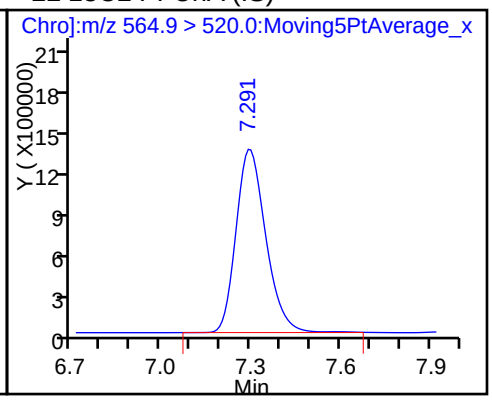
18 Perfluorodecanoic acid (ND)



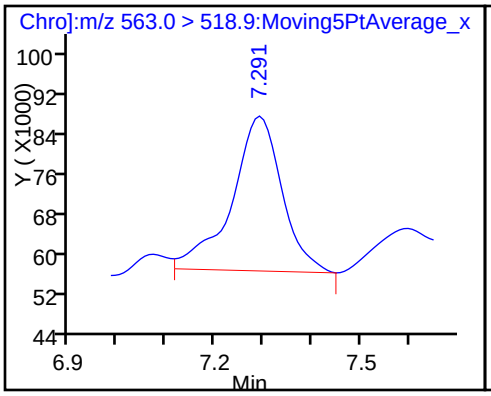
18 Perfluorodecanoic acid (ND)



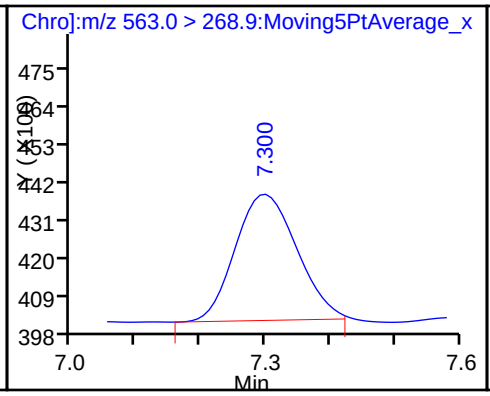
* 22 13C2 PFUnA (IS)



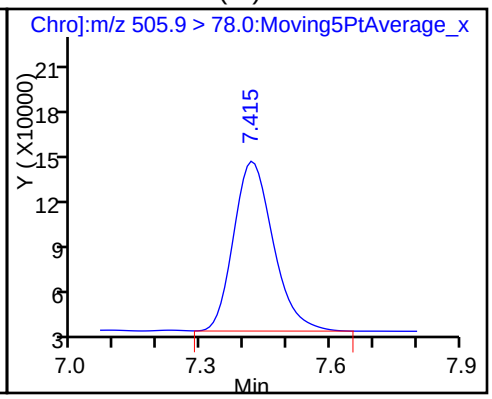
21 Perfluoroundecanoic acid



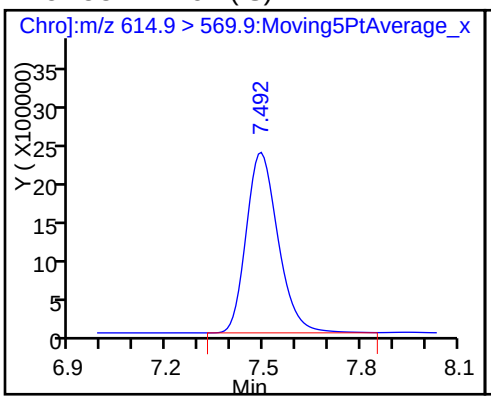
21 Perfluoroundecanoic acid



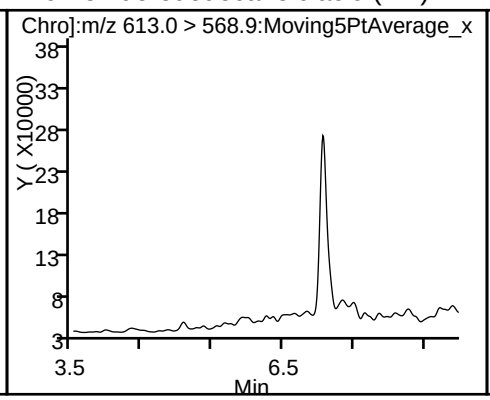
* 23 13C8 FOSA (IS)



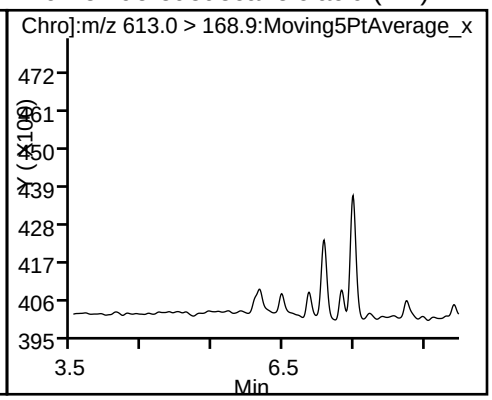
* 25 13C2 PFDoA (IS)



26 Perfluorododecanoic acid (ND)

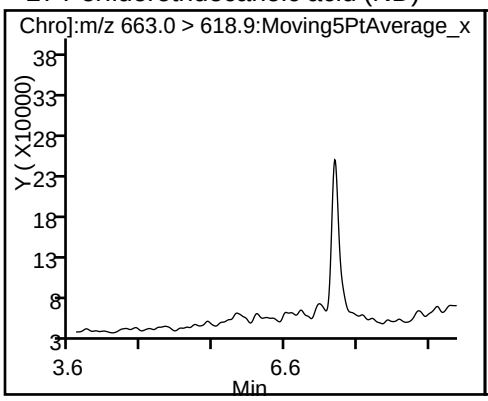


26 Perfluorododecanoic acid (ND)

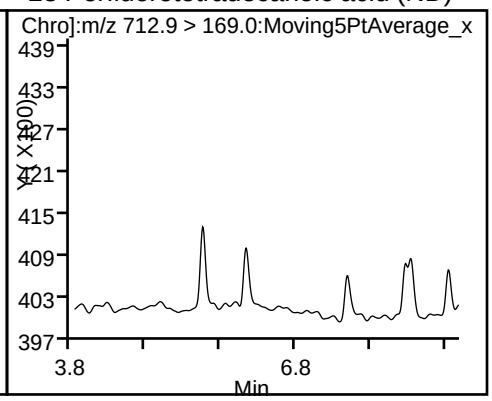


Report Date: 02-Jan-2014 11:38:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30063.d

27 Perfluorotridecanoic acid (ND)



28 Perfluorotetradecanoic acid (ND)



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 460-68878-1 Analy Batch No.: 207217

SDG No.:

Instrument ID: LC_LCMS5 GC Column: Gemini-NX ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/31/2013 16:04 Calibration End Date: 12/31/2013 17:43 Calibration ID: 16657

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0002 280-207217/3	PC513L30005.d
Level 2	STD0005 280-207217/4	PC513L30006.d
Level 3	STD0010 280-207217/5	PC513L30007.d
Level 4	STD0020 280-207217/6	PC513L30008.d
Level 5	STD0050 280-207217/7	PC513L30009.d
Level 6	STD0100 280-207217/8	PC513L30010.d
Level 7	STD0200 280-207217/9	PC513L30011.d
Level 8	STD0500 280-207217/10	PC513L30012.d
Level 9	STD1250 280-207217/11	PC513L30013.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 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Perfluorobutanoic acid (PFBA)	0.9027 0.8388	0.8450 0.8930	0.7483 0.8200	0.7918 0.8328	0.7707	Lin2	0.0145	0.8128							0.9960		0.9800
Perfluoropentanoic acid (PFPA)	0.5373 0.7860	0.8623 0.7465	0.7885 0.7460	0.6520 0.7279	0.7680	Lin2	-0.033	0.7674							0.9880		0.9800
Perfluorobutane Sulfonate (PFBS)	4.6174 5.0953	5.9382 5.6465	4.3491 5.1150	4.3975 5.7503	5.1152	Lin2	-0.079	5.2020							0.9860		0.9800
Perfluorohexanoic acid (PFHxA)	1.6169 1.0770	1.3262 0.9981	1.1592 1.0175	1.0402 0.9902	1.0411	Lin2	0.1245	1.0179							0.9990		0.9800
Perfluoroheptanoic acid (PFHpA)	0.5806 0.4895	0.5336 0.4612	0.5600 0.4181	0.4717 0.3774	0.5005	Lin2	0.0286	0.4598							0.9880		0.9800
Perfluorohexane Sulfonate (PFHxS)	5.9828 4.5250	5.6764 4.7022	4.6993 4.3111	4.6155 4.3887	4.4994	Lin2	0.3145	4.4940							0.9970		0.9800
Perfluorooctanoic acid (PFOA)	1.1101 1.0067	1.1141 1.0155	1.1347 0.9197	1.0402 0.8087	1.0480	Lin2	0.0347	0.9878							0.9900		0.9800
Perfluorooctane Sulfonate (PFOS)	1.1293 1.2638	1.2500 1.2203	1.2513 1.1722	1.3296 1.0625	1.3727	Lin2	-0.015	1.2438							0.9930		0.9800
Perfluorononanoic acid (PFNA)	1.1934 1.2516	1.2080 1.2816	1.3174 1.2507	1.1996 1.2961	1.2597	Lin2	-0.015	1.2660							0.9990		0.9800
Perfluorodecanoic acid (PFDA)	1.3457 0.9831	1.0764 0.9730	0.9282 0.9826	0.9405 1.0087	0.9980	Lin2	0.0716	0.9556							0.9970		0.9800
Perfluorodecane sulfonate (PFDS)	1.2724 1.3522	1.3034 1.5281	1.3557 1.5572	1.3186 1.5295	1.5122	Lin2	-0.045	1.4609							0.9960		0.9800
Perfluoroundecanoic acid (PFUnA)	2.6962 1.5704	1.7046 1.5256	1.7850 1.5621	1.5668 1.5646	1.6370	Lin2	0.2164	1.5212							0.9940		0.9800
Perfluorooctane Sulfonamide (FOSA)	1.0734 1.0313	0.9826 1.0477	1.0128 1.0161	0.9952 1.0623	1.0366	Lin2	0.0047	1.0240							0.9990		0.9800

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

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Denver Job No.: 460-68878-1 Analy Batch No.: 207217

SDG No.:

Instrument ID: LC_LCMS5 GC Column: Gemini-NX ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/31/2013 16:04 Calibration End Date: 12/31/2013 17:43 Calibration ID: 16657

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 8	LVL 4 LVL 9	LVL 5		B	M1	M2								
Perfluorododecanoic acid (PFDoA)	1.5727 1.0063	1.1756 1.0363	1.0596 1.0206	0.9367 0.9983	0.9741	Lin2	0.1147	0.9736							0.9970		0.9800
Perfluorotridecanoic Acid (PFTriA)	1.7143 1.2384	1.3034 1.2587	1.2616 1.1965	1.2725 1.1541	1.2219	Lin2	0.0964	1.1962							0.9980		0.9800
Perfluorotetradecanoic acid (PFTeA)	0.1764 0.1462	0.1880 0.1423	0.1694 0.1412	0.1320 0.1440	0.1351	Lin2	0.0088	0.1440							0.9890		0.9800
13C8 PFOA	1.1597 0.9485	1.1267 0.9509	0.9890 0.8884	1.0144 0.7916	0.9710	Lin2	0.0552	0.9278							0.9940		0.9800
13C8 PFOS	0.5318 0.4963	0.5927 0.5009	0.5778 0.5130	0.5069 0.4770	0.5081	Lin2	0.0100	0.5124							0.9940		0.9800

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

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 460-68878-1 Analy Batch No.: 207217

SDG No.:

Instrument ID: LC_LCMS5 GC Column: Gemini-NX ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/31/2013 16:04 Calibration End Date: 12/31/2013 17:43 Calibration ID: 16657

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	STD0002 280-207217/3	PC513L30005.d
Level 2	STD0005 280-207217/4	PC513L30006.d
Level 3	STD0010 280-207217/5	PC513L30007.d
Level 4	STD0020 280-207217/6	PC513L30008.d
Level 5	STD0050 280-207217/7	PC513L30009.d
Level 6	STD0100 280-207217/8	PC513L30010.d
Level 7	STD0200 280-207217/9	PC513L30011.d
Level 8	STD0500 280-207217/10	PC513L30012.d
Level 9	STD1250 280-207217/11	PC513L30013.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Perfluorobutanoic acid (PFBA)	BA	Lin2	123031 6164405	316056 13093373	547248 31387816	1175152 72545732	2873405	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluoropentanoic acid (PFPA)	HXA	Lin2	148347 10957283	585442 21722033	1084631 50517554	1887817 119540306	5581810	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorobutane Sulfonate (PFBS)	HXS	Lin2	153435 8519715	466066 17811660	767578 40880593	1526142 99452804	4354329	0.177 8.85	0.443 17.7	0.885 44.3	1.77 111	4.43
Perfluorohexanoic acid (PFHxA)	HXA	Lin2	446434 15015128	900451 29042988	1594495 68902040	3011697 162615004	7566814	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluoroheptanoic acid (PFHpA)	OA	Lin2	202548 8707780	481712 16048683	1023659 35547249	1702611 76861100	4542024	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorohexane Sulfonate (PFHxS)	HXS	Lin2	212285 8079077	475726 15838424	885620 36791405	1710371 81050505	4089719	0.189 9.45	0.473 18.9	0.945 47.3	1.89 118	4.72
Perfluorooctanoic acid (PFOA)	OA	Lin2	387314 17909474	1005855 35336180	2074194 78185636	3755037 164707745	9510972	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorooctane Sulfonate (PFOS)	PFOS	Lin2	189118 10805645	521142 19808075	1069847 44325749	2324110 89340728	5752134	0.191 9.55	0.478 19.1	0.955 47.8	1.91 119	4.78
Perfluorononanoic acid (PFNA)	NA	Lin2	481846 22931826	1252101 42876769	2752418 90032909	4924471 183488974	12488147	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorodecanoic acid (PFDA)	DA	Lin2	751735 26850145	1515701 53572927	2601668 125988707	5401999 288897181	14135236	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorodecane sulfonate (PFDS)	PFOS	Lin2	215317 11682437	549135 25063788	1171263 59500766	2329028 129957119	6403412	0.193 9.65	0.483 19.3	0.965 48.3	1.93 121	4.83
Perfluoroundecanoic acid (PFUnA)	UNA	Lin2	569115 18753827	1002729 34529862	2210326 75751885	4019831 155453431	10553619	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorooctane Sulfonamide (FOSA)	FOSA	Lin2	695859 32959961	1611078 64355790	3284934 149493808	6977039 322091405	16919029	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorododecanoic acid (PFDoA)	DOA	Lin2	808279 27776527	1571349 55678901	2888788 128119266	5454756 283422340	15029244	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Denver Job No.: 460-68878-1 Analy Batch No.: 207217

SDG No.:

Instrument ID: LC_LCMS5 GC Column: Gemini-NX ID: Heated Purge: (Y/N) N

Calibration Start Date: 12/31/2013 16:04 Calibration End Date: 12/31/2013 17:43 Calibration ID: 16657

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3 LVL 8	LVL 4 LVL 9	LVL 5
Perfluorotridecanoic Acid (PFTriA)	DOA	Lin2	881051 34185399	1742204 67625987	3439373 150208253	7410145 327648891	18853109	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
Perfluorotetradecanoic acid (PFTeA)	DOA	Lin2	90673 4036437	251339 7643348	461948 17722630	768774 40889168	2085065	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
13C8 PFOA	OA	Lin2	404607 16873824	1017200 33088285	1807826 75526271	3661730 161232691	8812303	0.200 10.0	0.500 20.0	1.00 50.0	2.00 125	5.00
13C8 PFOS	PFOS	Lin2	89156 4248305	247380 8139003	494491 19418752	887016 40146643	2131582	0.191 9.56	0.478 19.1	0.956 47.8	1.91 120	4.78

Curve Type Legend:
Lin2 = Linear 1/conc^2 ISTD

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d
Lims ID: std0002 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 31-Dec-2013 16:04:44 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0002, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:14 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:19:50

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	4.016	3.919	0.097		6814271	10.0			M
1 Perfluorobutyric acid									M
213.0 > 168.9	4.008	3.928	0.080	0.998	123031	0.2044			M
3 Perfluoropentanoic acid									M
263.0 > 218.9	5.124	5.028	0.096	0.890	148347	0.1829			M
4 Perfluorobutane Sulfonate									M
298.9 > 79.9	5.247	5.150	0.097	0.842	153435	0.1723			M
298.9 > 98.9	5.229	5.150	0.079	0.839	68812		2.23(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.757	5.642	0.115		13805131	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.757	5.642	0.115	1.000	446434	0.1954			
313.0 > 118.6	5.713	5.642	0.071	0.992	0		0.00(89.16-165.59)		
9 Perfluoroheptanoic acid									M
363.0 > 318.9	6.222	6.099	0.123	0.942	202548	0.1903			M
363.0 > 168.9	6.231	6.099	0.132	0.943	98925		2.05(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.230	6.107	0.123		1776015	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.239	6.108	0.131	1.001	212285	0.1816			
398.9 > 98.9	6.231	6.108	0.123	1.000	58008		3.66(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.608	6.476	0.132	1.000	404607	0.1905			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.608	6.476	0.132		17444415	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.608	6.476	0.132	1.000	387314	0.1897			
413.0 > 169.0	6.608	6.476	0.132	1.000	76889		5.04(2.38-4.41)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.905	6.773	0.132		8382320	9.56			
13 Perfluorooctanoic Sulfonate									M
498.9 > 79.9	6.906	6.774	0.132	1.000	189118	0.1857			M
498.9 > 98.9	6.906	6.774	0.132	1.000	97532		1.94(1.84-3.42)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.922	6.782	0.140	1.002	89156	0.1789			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.924	6.792	0.132		20187917	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.915	6.792	0.123	0.999	481846	0.2006			
463.0 > 218.9	6.915	6.792	0.123	0.999	102826		4.69(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.194	7.063	0.131		27931450	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.186	7.063	0.123	0.999	751735	0.2067			
513.0 > 219.0	7.186	7.063	0.123	0.999	96701		7.77(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.387	7.264	0.123	1.070	215317	0.1992			
598.9 > 99.0	7.396	7.264	0.132	1.071	51324		4.20(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.423	7.291	0.132		10554018	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.423	7.291	0.132	1.000	569115	0.2122			
563.0 > 268.9	7.414	7.291	0.123	0.999	96086		5.92(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.503	7.424	0.079		32412913	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.504	7.425	0.079	1.000	695859	0.2050			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.624	7.483	0.141	1.000	808279	0.2053			
613.0 > 168.9	7.624	7.483	0.141	1.000	78298		10.32(4.54-8.44)		
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.624	7.492	0.132		25697590	10.0			
27 Perfluorotridecanoic acid									M
663.0 > 618.9	7.799	7.650	0.149	1.023	881051	0.2061			M
28 Perfluorotetradecanoic acid									M
712.9 > 169.0	7.940	7.799	0.141	1.041	90673	0.1837			M

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d

Injection Date: 31-Dec-2013 16:04:44 Instrument ID: LC_LCMS5

Lims ID: std0002 Lab Sample ID:

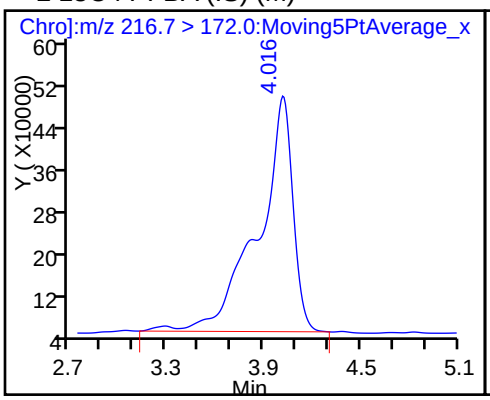
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 3

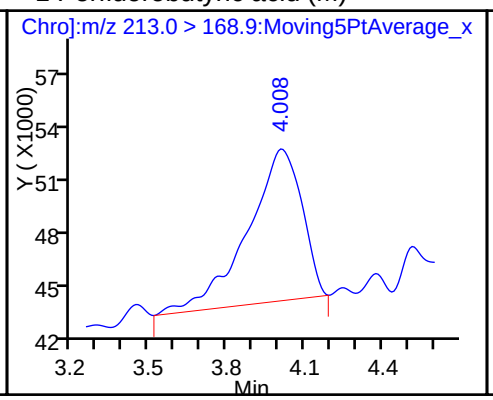
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

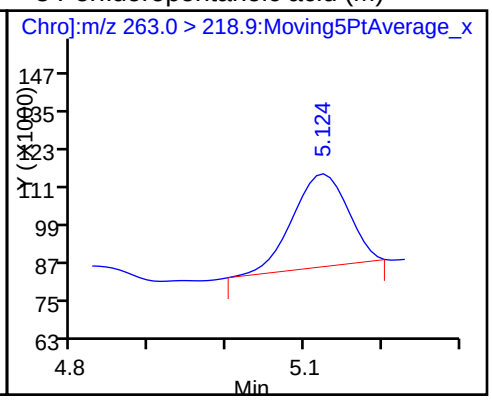
* 2 13C4 PFBA (IS) (M)



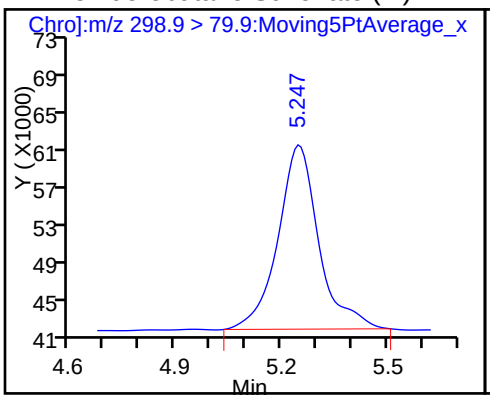
1 Perfluorobutyric acid (M)



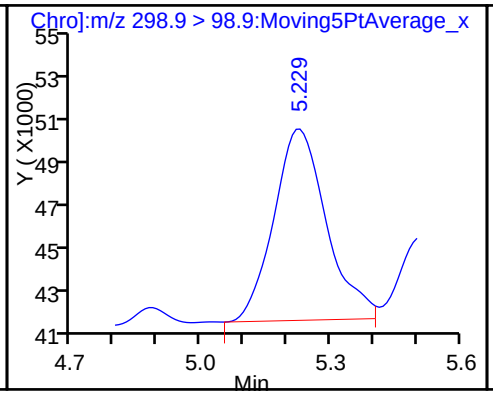
3 Perfluoropentanoic acid (M)



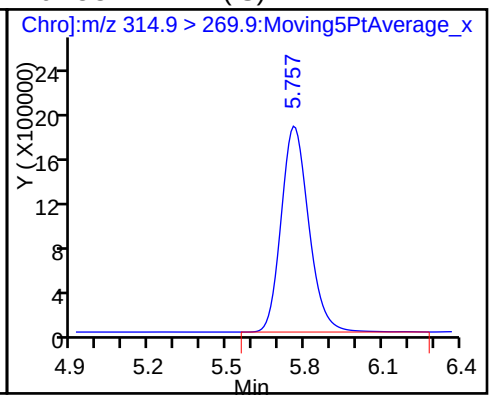
4 Perfluorobutane Sulfonate (M)



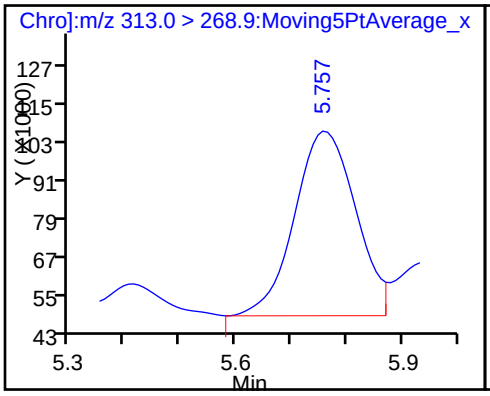
4 Perfluorobutane Sulfonate



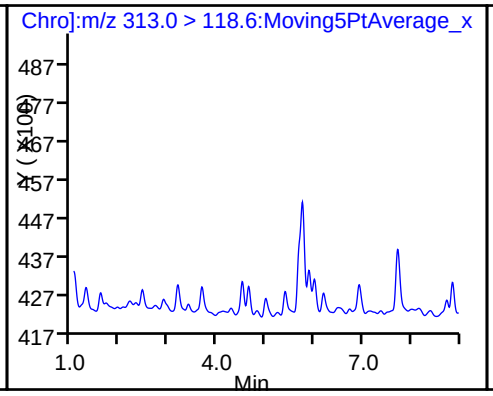
* 6 13C2 PFHxA (IS)



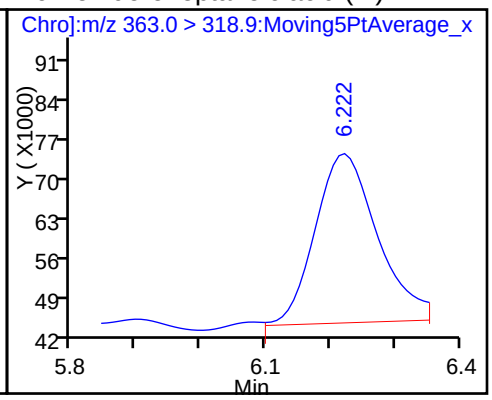
5 Perfluorohexanoic acid



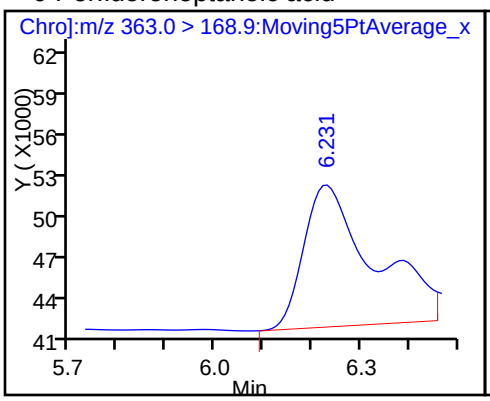
5 Perfluorohexanoic acid



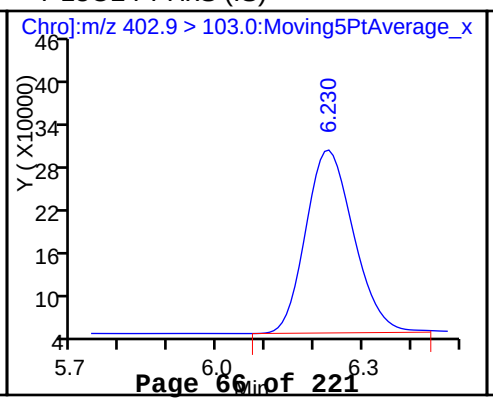
9 Perfluoroheptanoic acid (M)



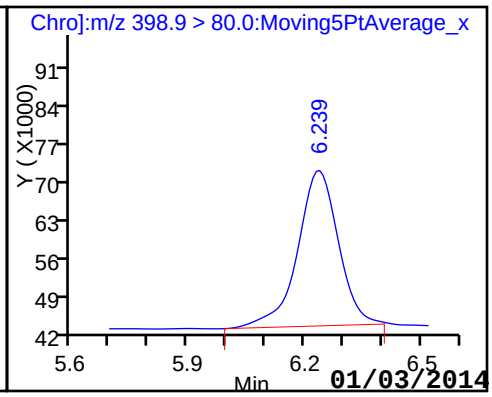
9 Perfluoroheptanoic acid



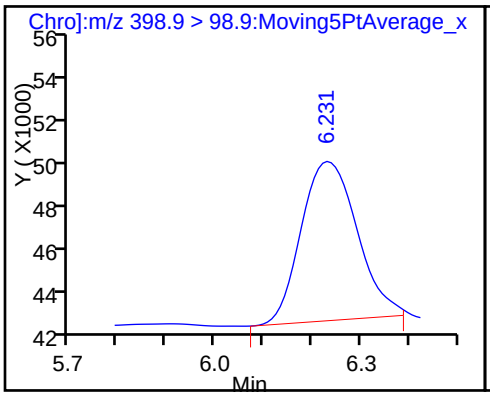
* 7 18O2 PFHxS (IS)



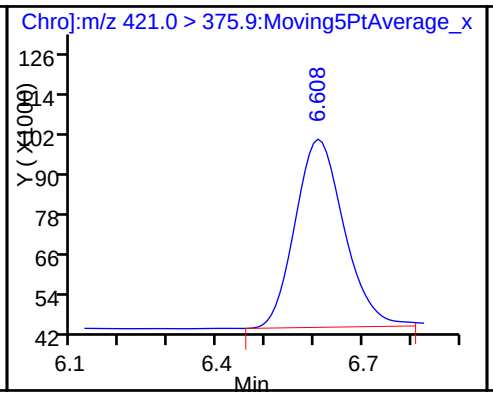
8 Perfluorohexane Sulfonate



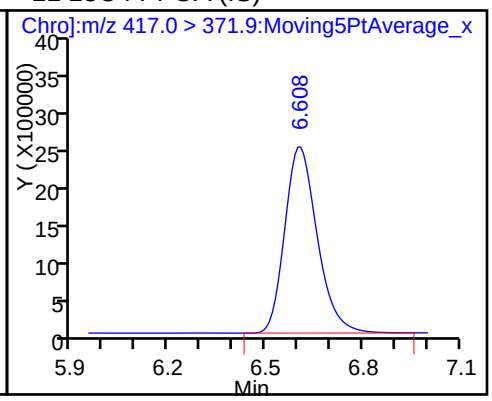
8 Perfluorohexane Sulfonate



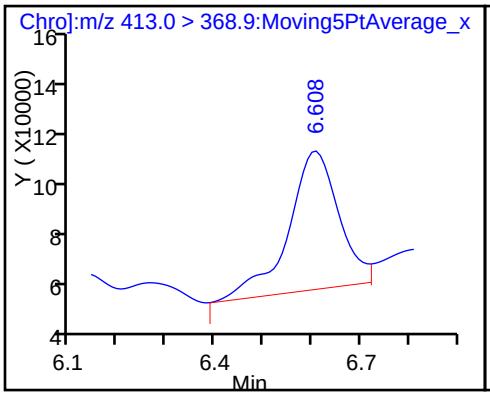
$ 10 13C8 PFOA



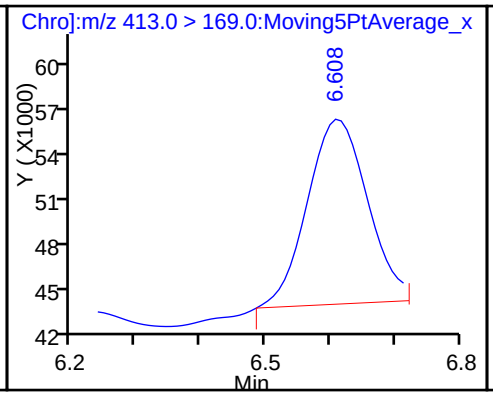
* 11 13C4 PFOA (IS)



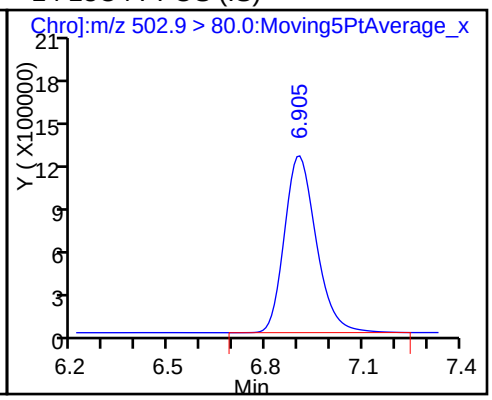
12 Perfluorooctanoic acid



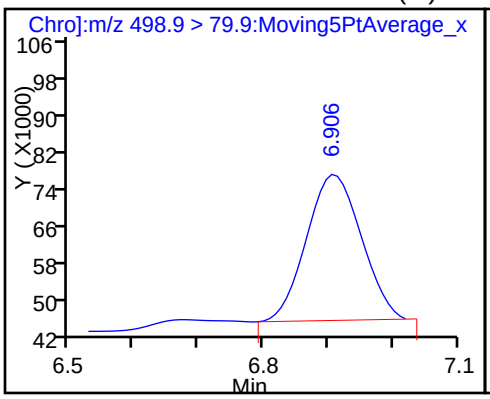
12 Perfluorooctanoic acid



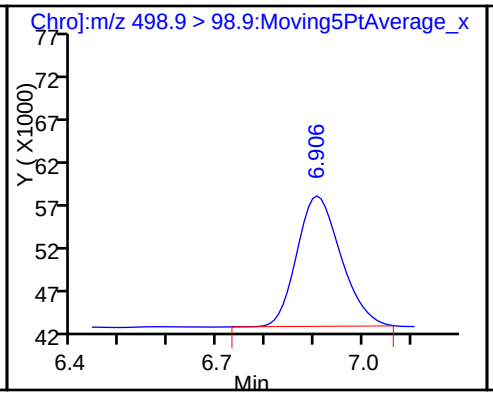
* 14 13C4 PFOS (IS)



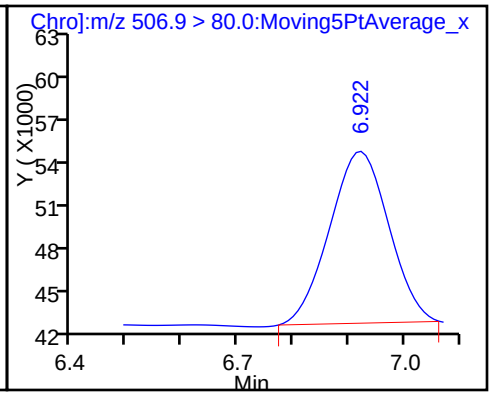
13 Perfluorooctanoic Sulfonate (M)



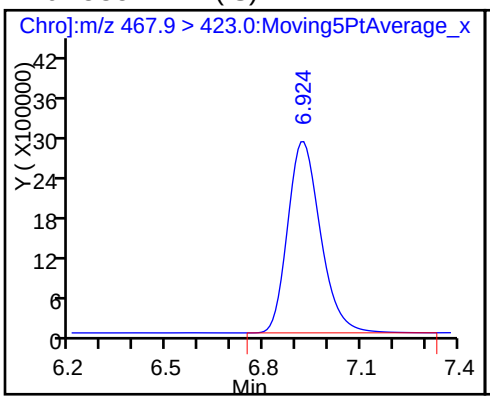
13 Perfluorooctanoic Sulfonate



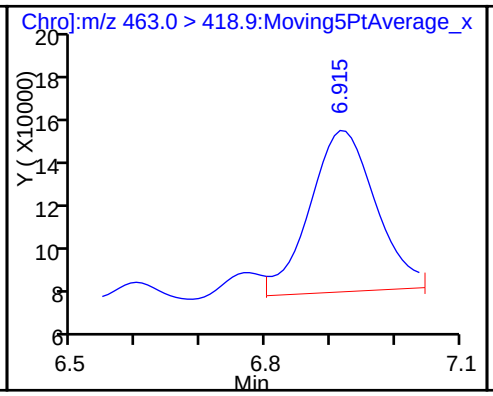
$ 15 13C8 PFOS



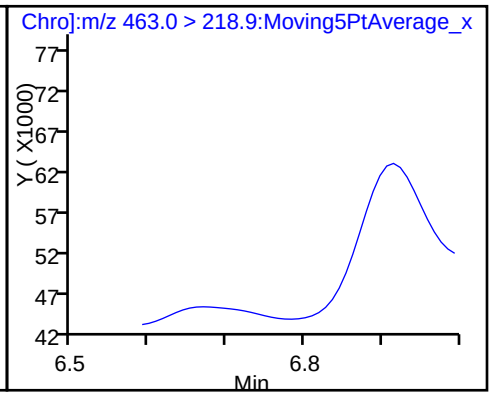
* 16 13C5 PFNA (IS)



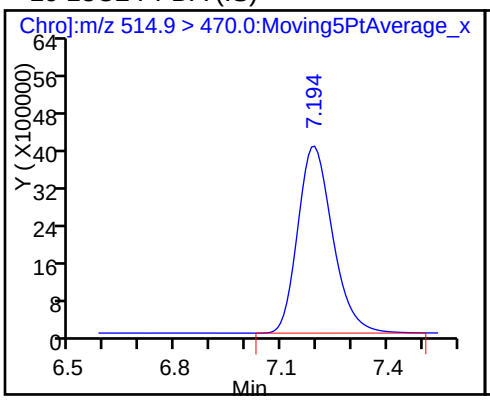
17 Perfluorononanoic acid



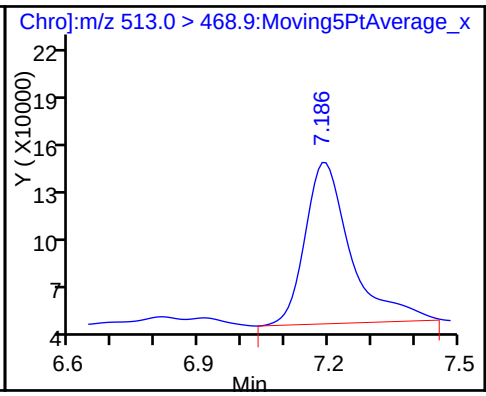
17 Perfluorononanoic acid



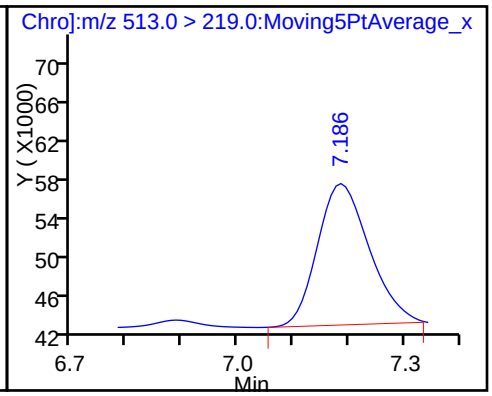
* 19 13C2 PFDA (IS)



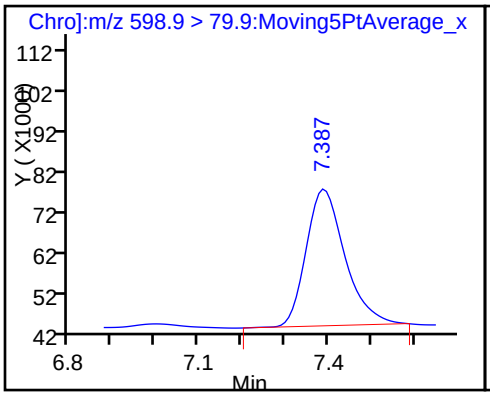
18 Perfluorodecanoic acid



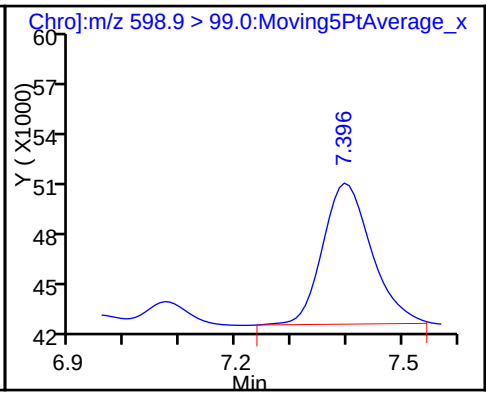
18 Perfluorodecanoic acid



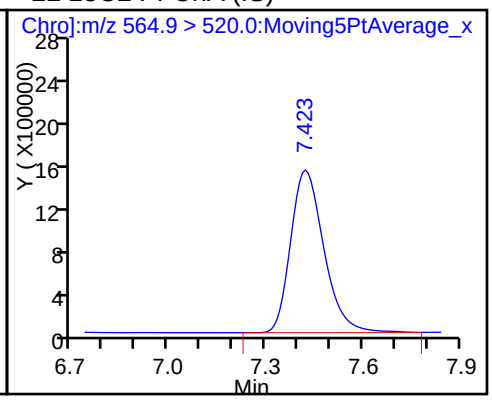
20 Perfluorodecane Sulfonate



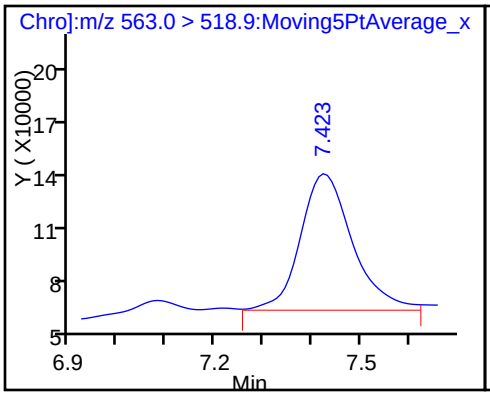
20 Perfluorodecane Sulfonate



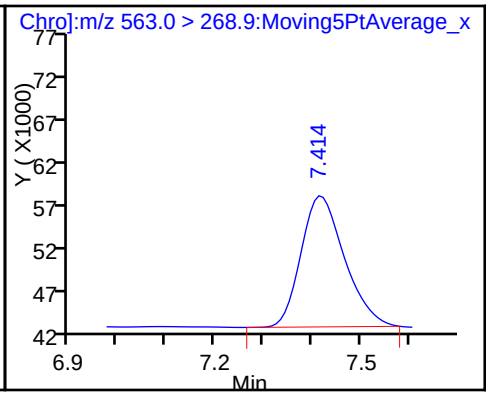
* 22 13C2 PFUnA (IS)



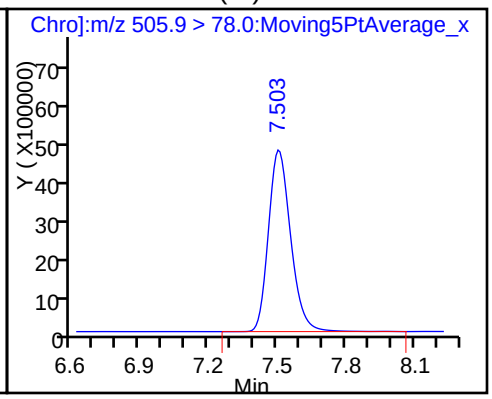
21 Perfluoroundecanoic acid



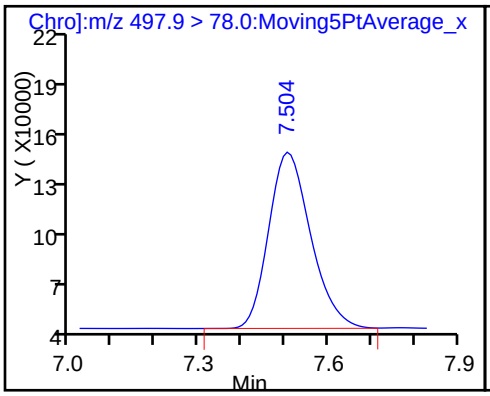
21 Perfluoroundecanoic acid



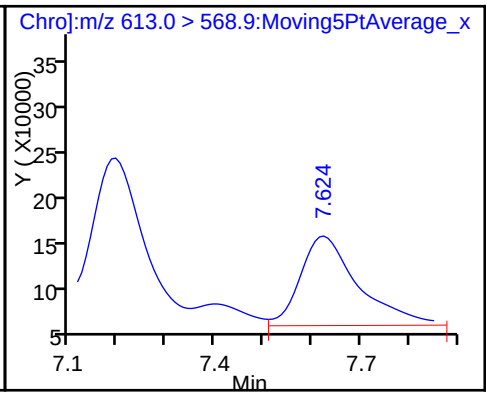
* 23 13C8 FOSA (IS)



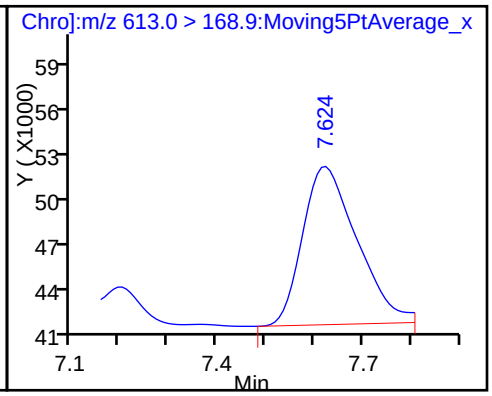
24 Perfluorooctane Sulfonamide



26 Perfluorododecanoic acid

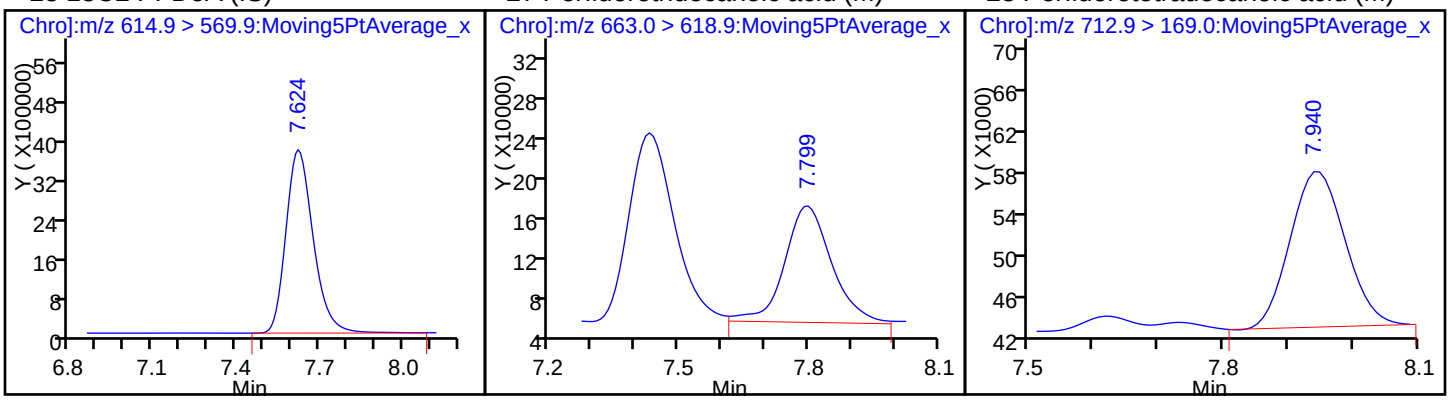


26 Perfluorododecanoic acid



Report Date: 02-Jan-2014 11:37:15 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d

* 25 13C2 PFDoA (IS) | 27 Perfluorotridecanoic acid (M) | 28 Perfluorotetradecanoic acid (M)



Manual Integration/User Assign Peak Report

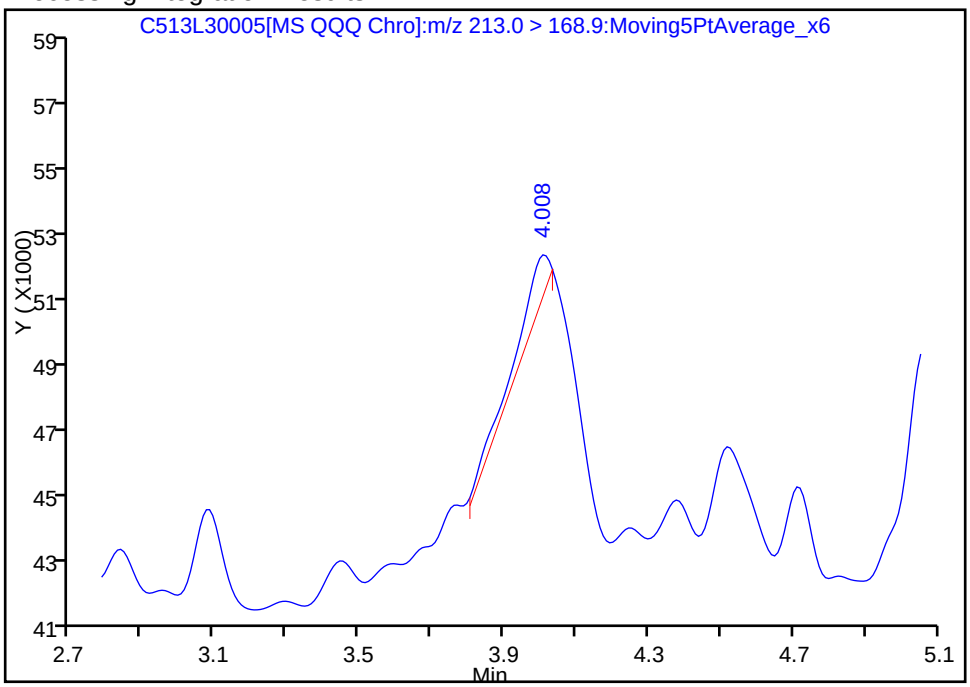
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

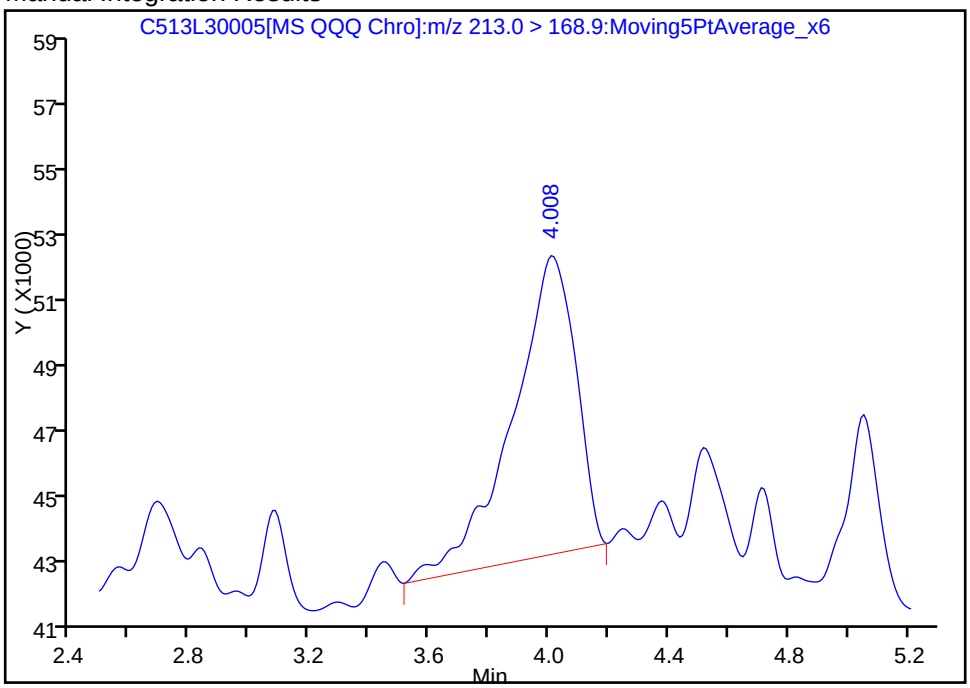
Processing Integration Results

RT: 4.01
Response: 8462
Amount: 0.216320



Manual Integration Results

RT: 4.01
Response: 123031
Amount: 0.204362



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

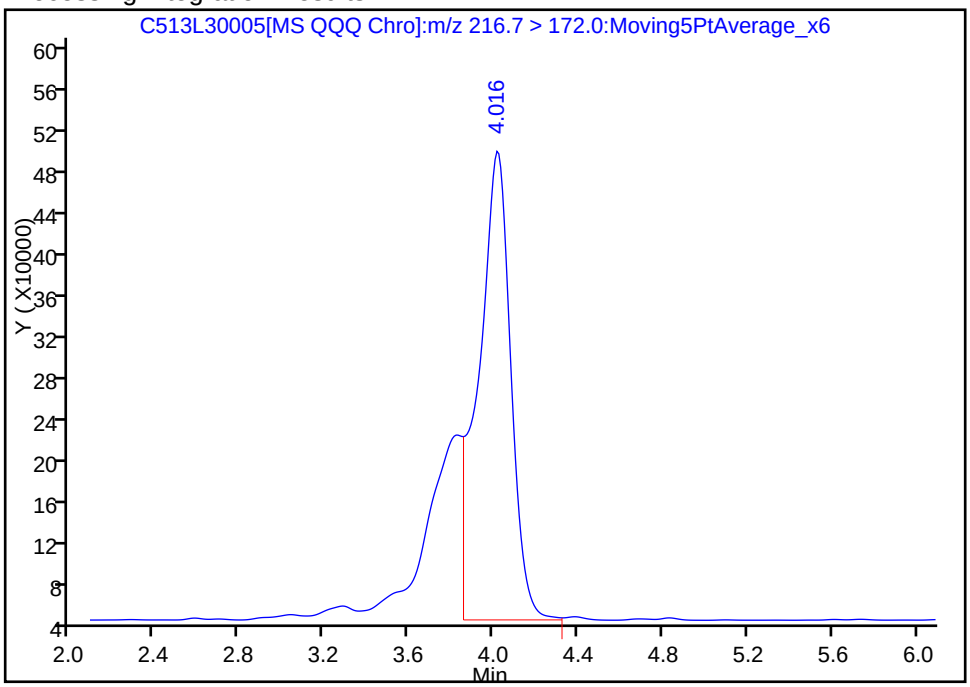
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

* 2 13C4 PFBA (IS), CAS: STL01003

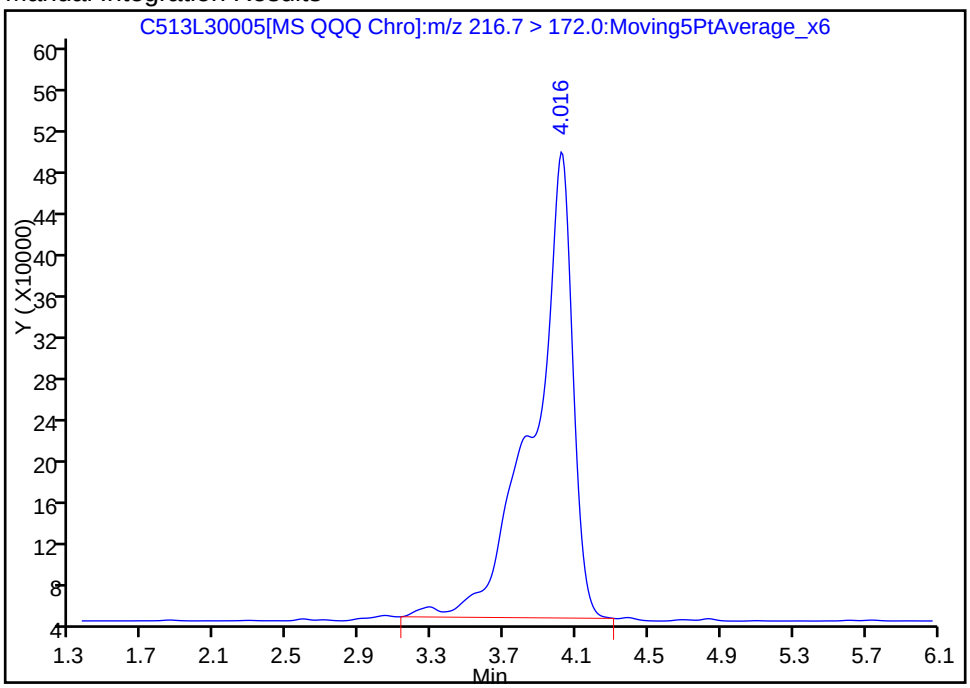
Processing Integration Results

RT: 4.02
Response: 4783281
Amount: 10.000000



Manual Integration Results

RT: 4.02
Response: 6814271
Amount: 10.000000



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

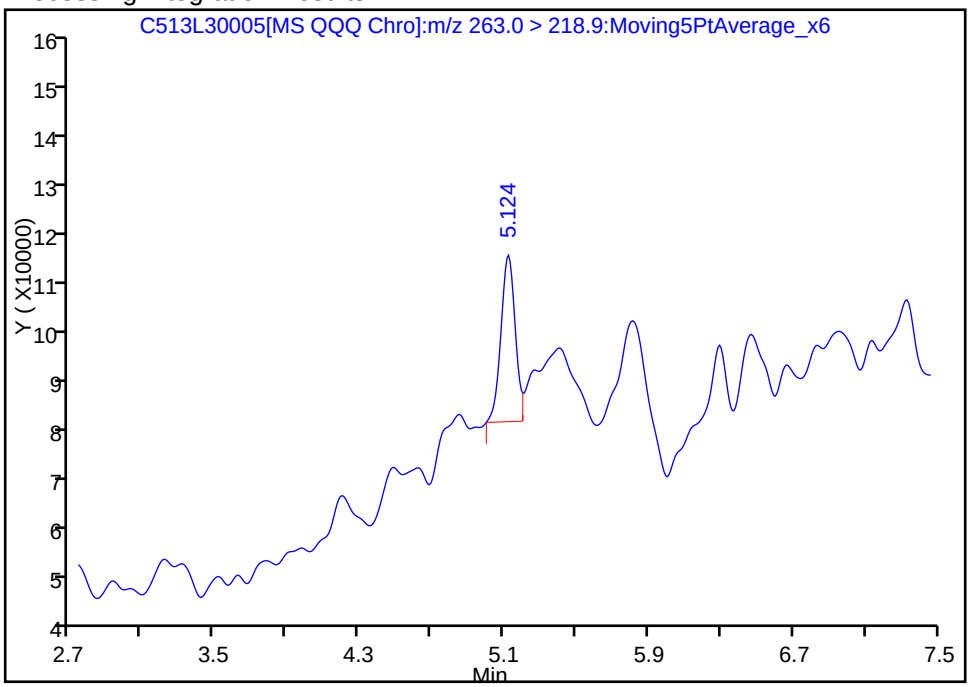
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

3 Perfluoropentanoic acid, CAS: 2706-90-3

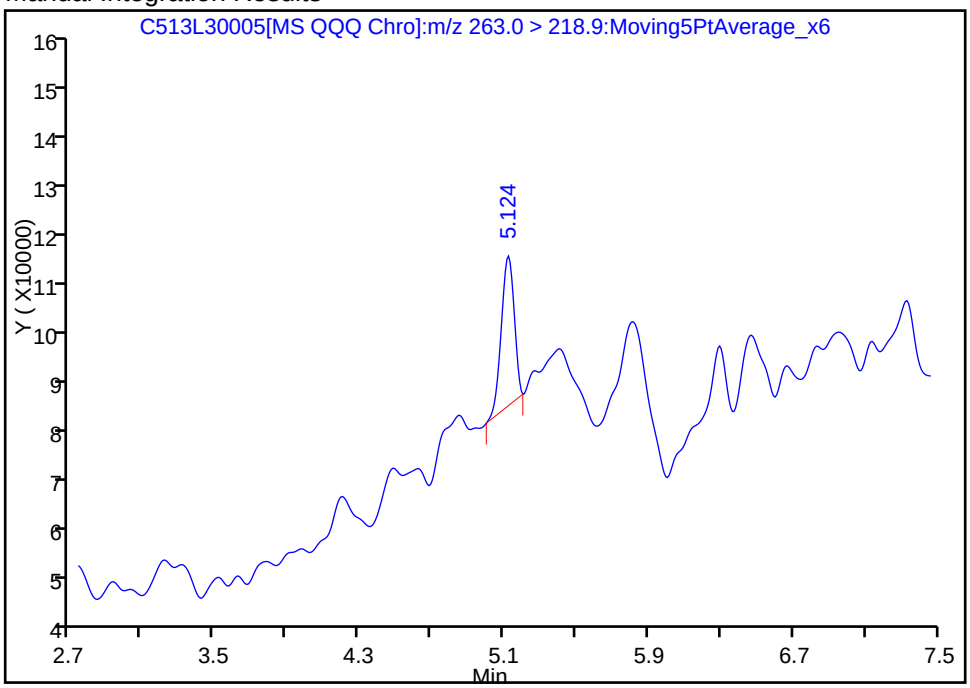
Processing Integration Results

RT: 5.12
Response: 181863
Amount: 0.176988



Manual Integration Results

RT: 5.12
Response: 148347
Amount: 0.182910



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

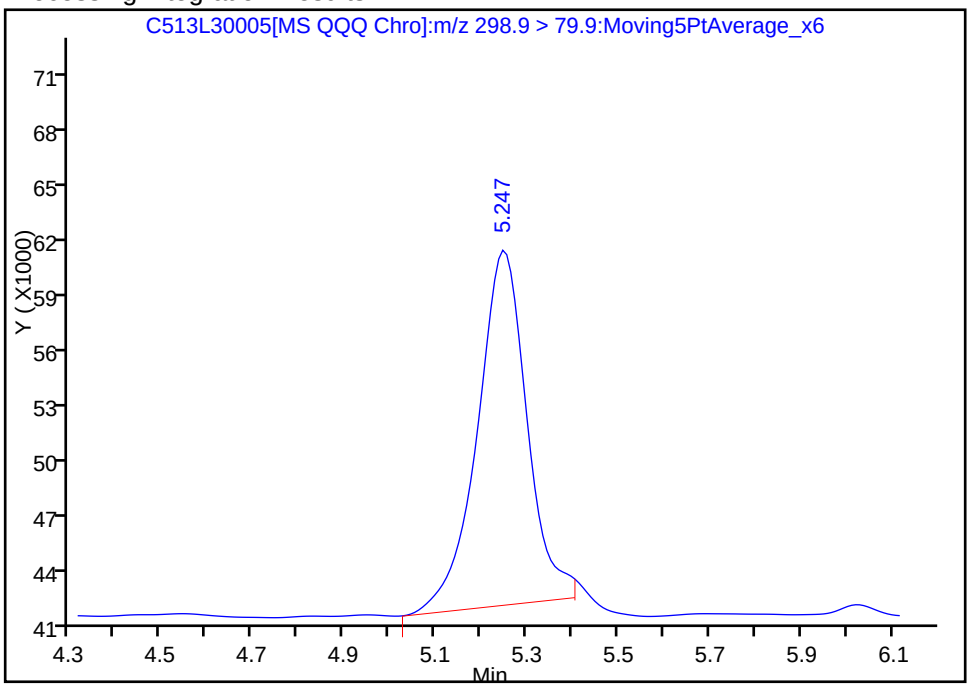
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

4 Perfluorobutane Sulfonate, CAS: 29420-43-3

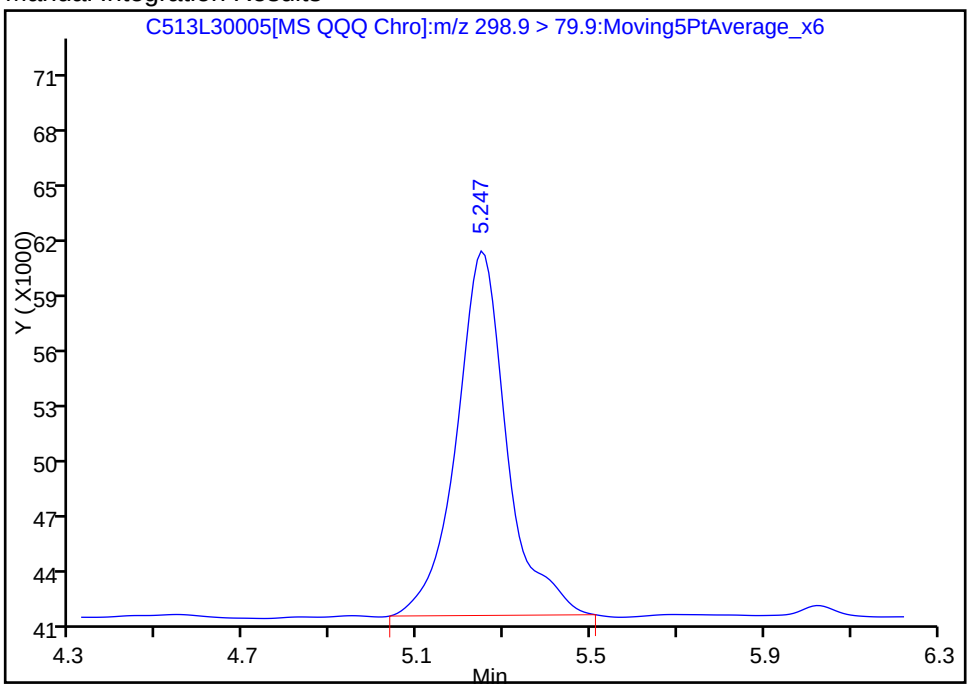
Processing Integration Results

RT: 5.25
Response: 139988
Amount: 0.170410



Manual Integration Results

RT: 5.25
Response: 153435
Amount: 0.172318



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

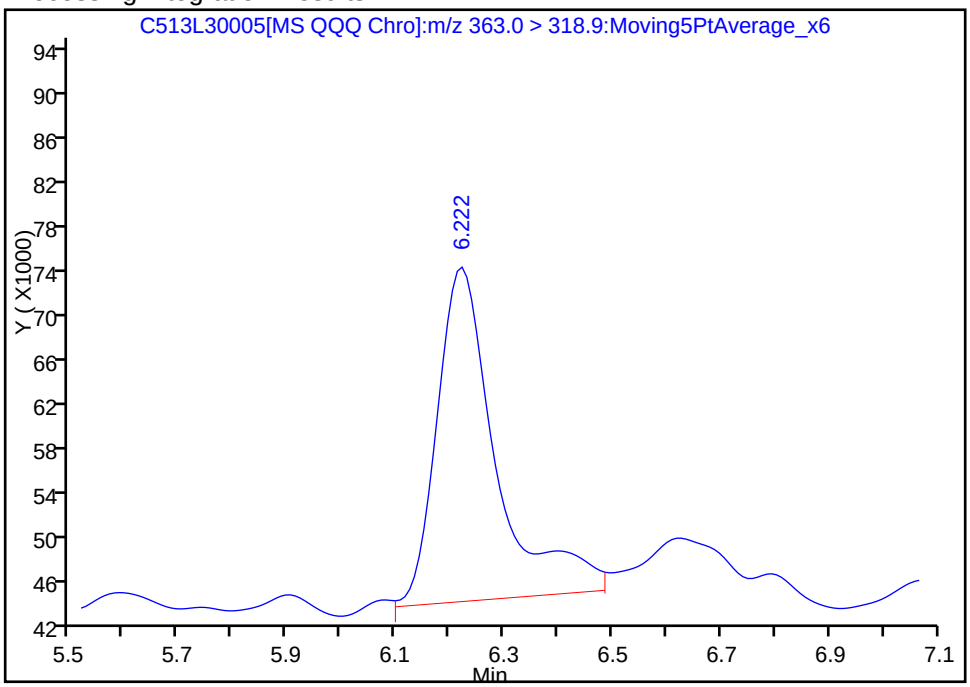
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

9 Perfluoroheptanoic acid, CAS: 375-85-9

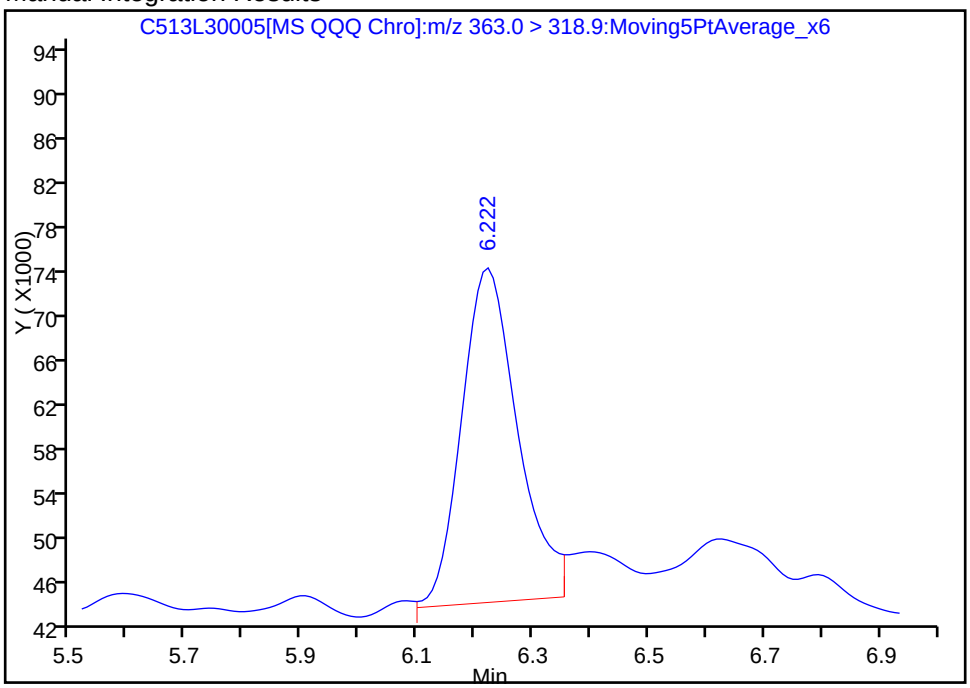
Processing Integration Results

RT: 6.22
Response: 227930
Amount: 0.189454



Manual Integration Results

RT: 6.22
Response: 202548
Amount: 0.190300



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Split an Integrated Peak
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

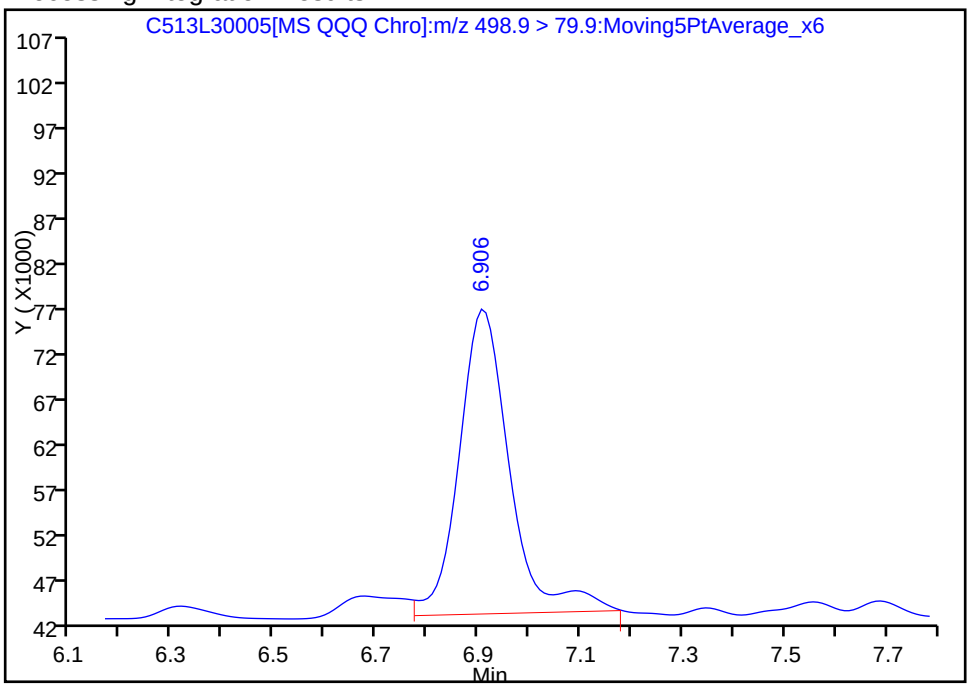
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

13 Perfluorooctanoic Sulfonate, CAS: 1763-23-1

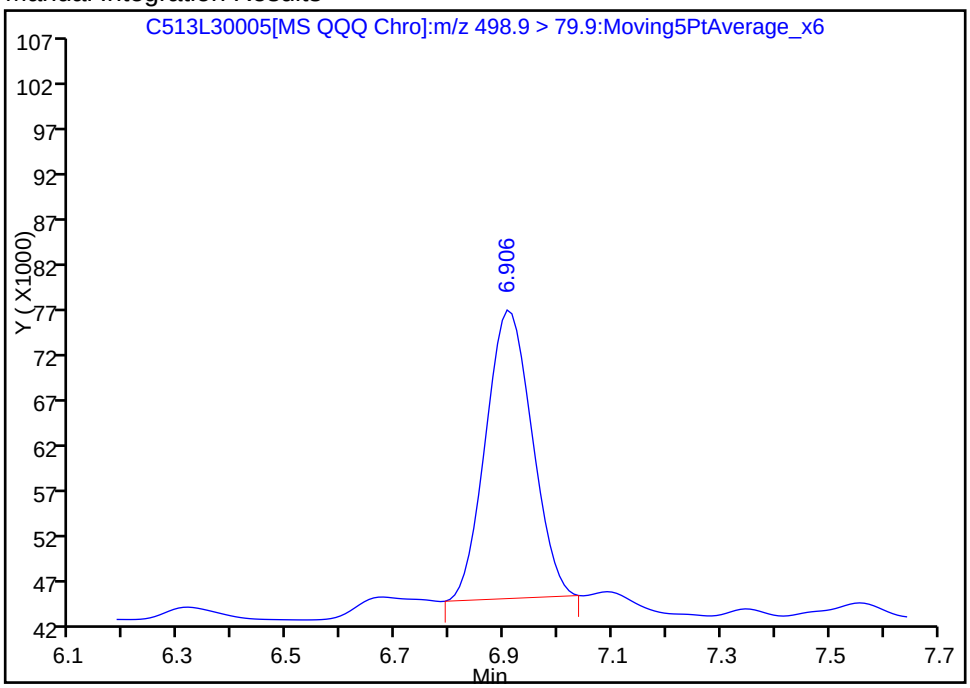
Processing Integration Results

RT: 6.91
Response: 230953
Amount: 0.191149



Manual Integration Results

RT: 6.91
Response: 189118
Amount: 0.185729



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

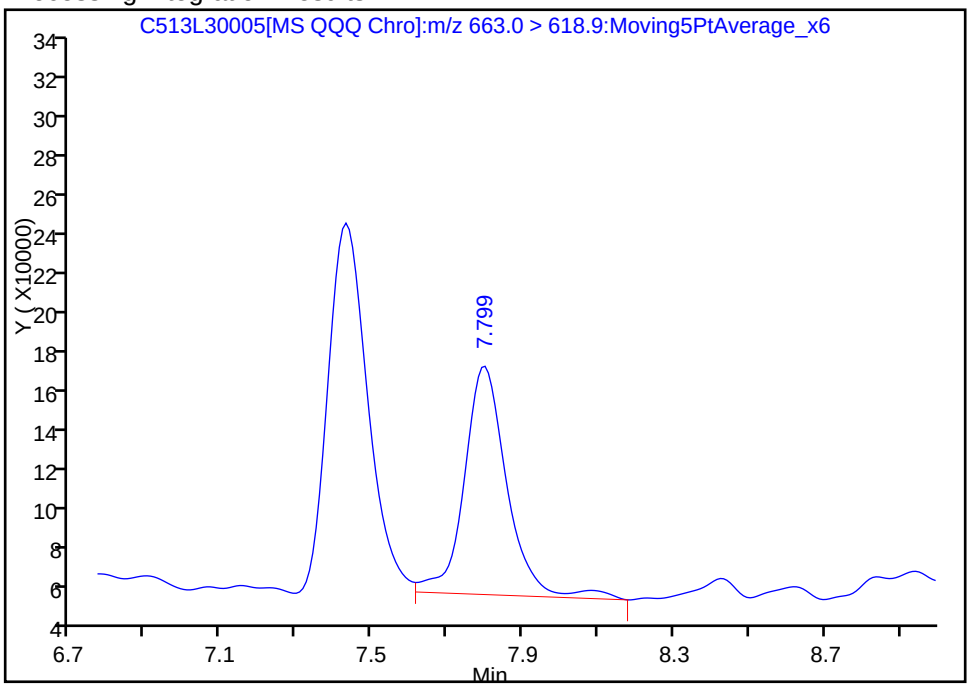
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

27 Perfluorotridecanoic acid, CAS: 72629-94-8

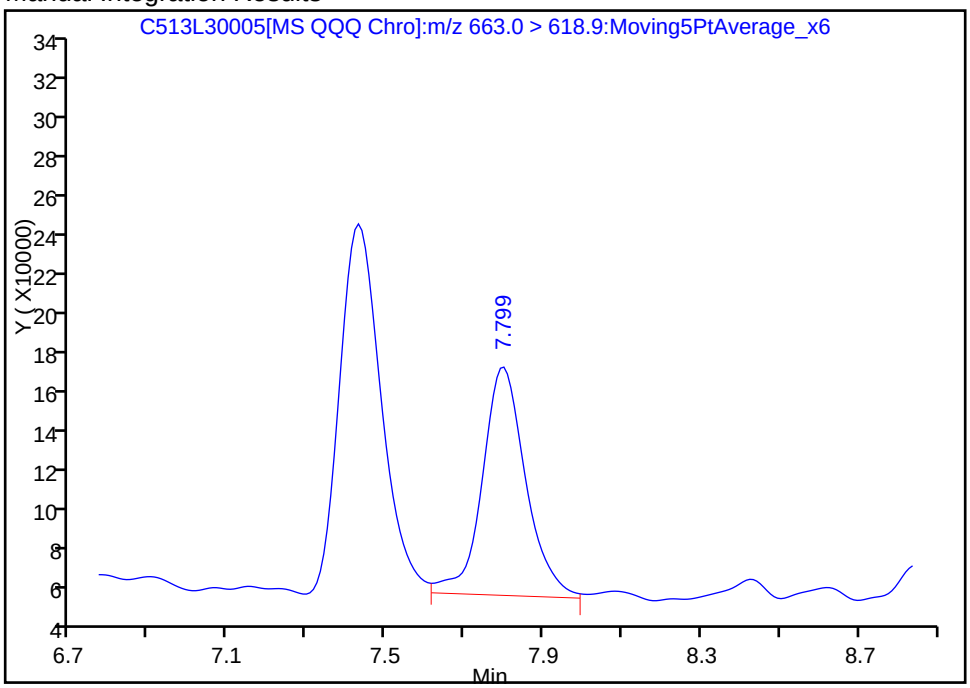
Processing Integration Results

RT: 7.80
Response: 909324
Amount: 0.207374



Manual Integration Results

RT: 7.80
Response: 881051
Amount: 0.206050



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Split an Integrated Peak
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

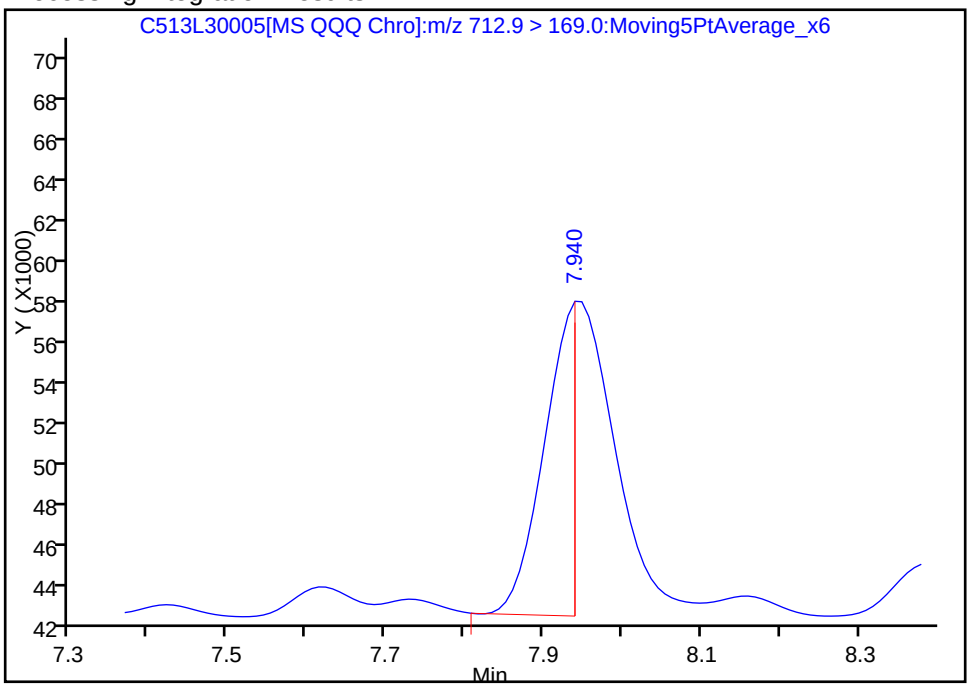
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30005.d				
Injection Date:	31-Dec-2013 16:04:44	Instrument ID:	LC_LCMS5		
Lims ID:	std0002	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

28 Perfluorotetradecanoic acid, CAS: 376-06-7

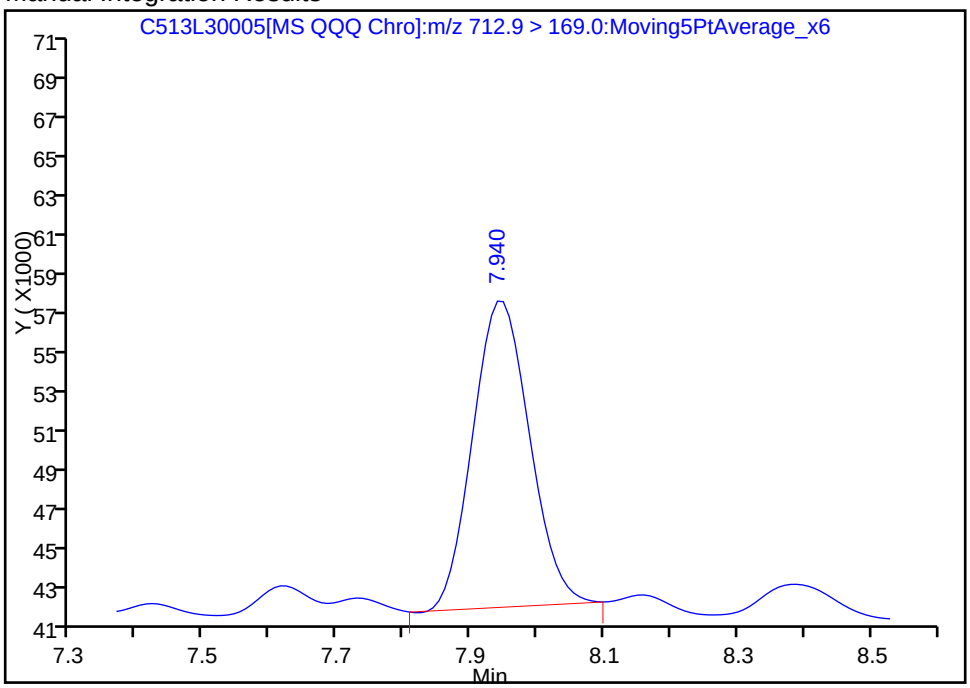
Processing Integration Results

RT: 7.94
Response: 40917
Amount: 0.119660



Manual Integration Results

RT: 7.94
Response: 90673
Amount: 0.183655



Reviewer: kellisonm, 02-Jan-2014 10:19:50
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d
Lims ID: std0005 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 31-Dec-2013 16:17:02 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0005, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:39:44 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:21:13

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	4.007	3.919	0.088		7480978	10.0			
1 Perfluorobutyric acid									M
213.0 > 168.9	4.008	3.928	0.080	1.000	316056	0.5020			M
3 Perfluoropentanoic acid									M
263.0 > 218.9	5.133	5.028	0.105	0.892	585442	0.6047			M
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.265	5.150	0.115	0.846	466066	0.5203			
298.9 > 98.9	5.265	5.150	0.115	0.846	117728		3.96(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.757	5.642	0.115		13579064	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.757	5.642	0.115	1.000	900451	0.5291			
313.0 > 118.6	5.713	5.642	0.071	0.992	0		0.00(89.16-165.59)		
9 Perfluoroheptanoic acid									M
363.0 > 318.9	6.214	6.099	0.115	0.942	481712	0.5180			M
363.0 > 168.9	6.214	6.099	0.115	0.942	130423		3.69(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.222	6.107	0.115		1677921	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.213	6.108	0.105	0.999	475726	0.5268			
398.9 > 98.9	6.231	6.108	0.123	1.001	192417		2.47(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.599	6.476	0.123	1.000	1017200	0.5477			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.599	6.476	0.123		18056752	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.599	6.476	0.123	1.000	1005855	0.5289			
413.0 > 169.0	6.591	6.476	0.115	0.999	313032		3.21(2.38-4.41)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.897	6.773	0.124		8347315	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.897	6.774	0.123	1.000	521142	0.4922			
498.9 > 98.9	6.888	6.774	0.114	0.999	177972		2.93(1.84-3.42)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.896	6.782	0.114	1.000	247380	0.5334			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.915	6.792	0.123		20729650	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.915	6.792	0.123	1.000	1252101	0.4892			
463.0 > 218.9	6.915	6.792	0.123	1.000	199022		6.29(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.186	7.063	0.123		28163464	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.186	7.063	0.123	1.000	1515701	0.4882			
513.0 > 219.0	7.186	7.063	0.123	1.000	223289		6.79(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.396	7.264	0.132	1.072	549135	0.4616			
598.9 > 99.0	7.387	7.264	0.123	1.071	170308		3.22(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.423	7.291	0.132		11764977	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.423	7.291	0.132	1.000	1002729	0.4180			
563.0 > 268.9	7.423	7.291	0.132	1.000	175039		5.73(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.503	7.424	0.079		32793575	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.504	7.425	0.079	1.000	1611078	0.4752			
26 Perfluorododecanoic acid									M
613.0 > 568.9	7.624	7.483	0.141	1.000	1571349	0.4860			M
613.0 > 168.9	7.624	7.483	0.141	1.000	205903		7.63(4.54-8.44)		
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.624	7.492	0.132		26732895	10.0			
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.791	7.650	0.141	1.022	1742204	0.4642			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.940	7.799	0.141	1.041	251339	0.5914			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:39:44 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d

Injection Date: 31-Dec-2013 16:17:02 Instrument ID: LC_LCMS5

Lims ID: std0005 Lab Sample ID:

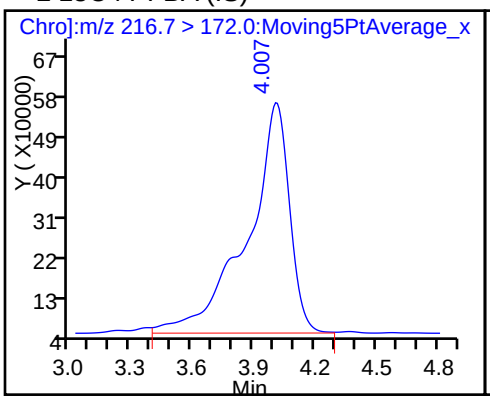
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 4

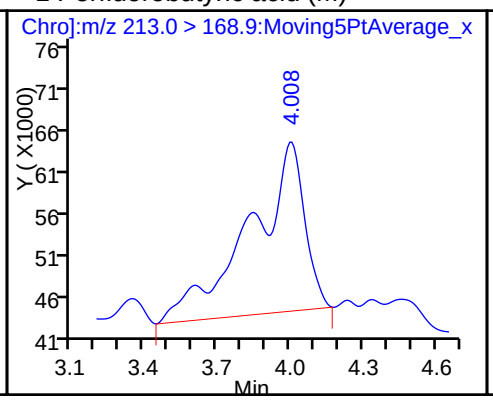
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

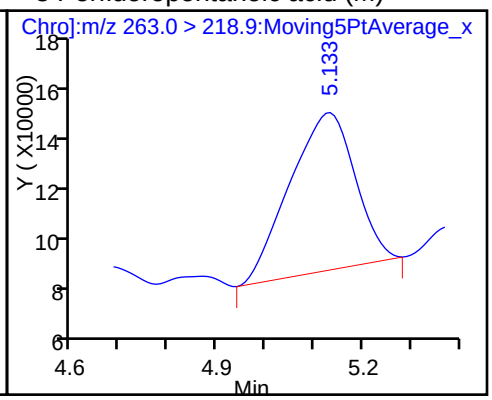
* 2 13C4 PFBA (IS)



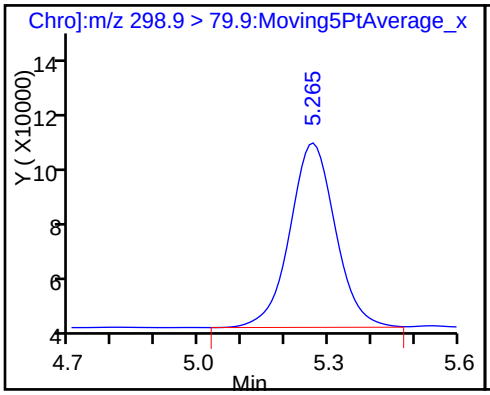
1 Perfluorobutyric acid (M)



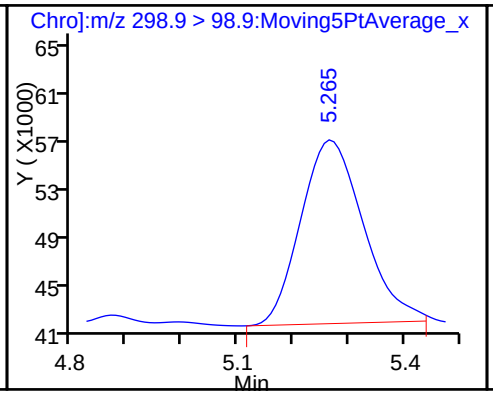
3 Perfluoropentanoic acid (M)



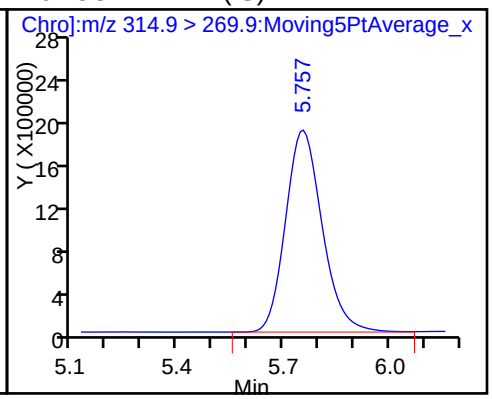
4 Perfluorobutane Sulfonate



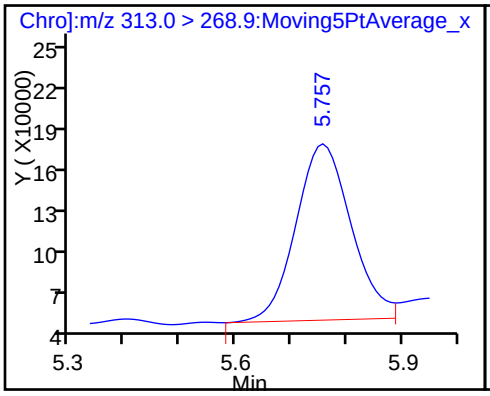
4 Perfluorobutane Sulfonate



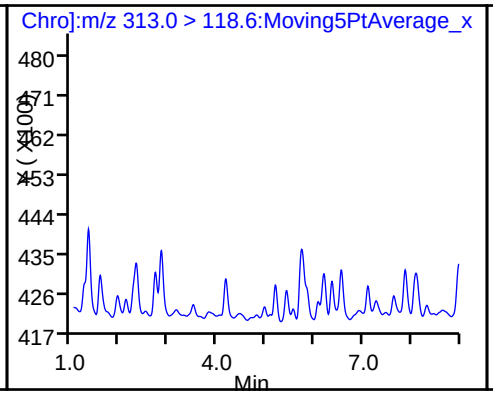
* 6 13C2 PFHxA (IS)



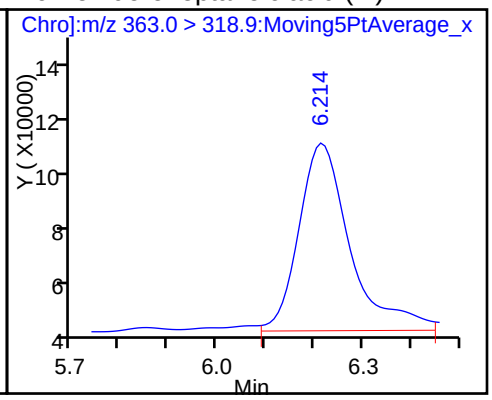
5 Perfluorohexanoic acid



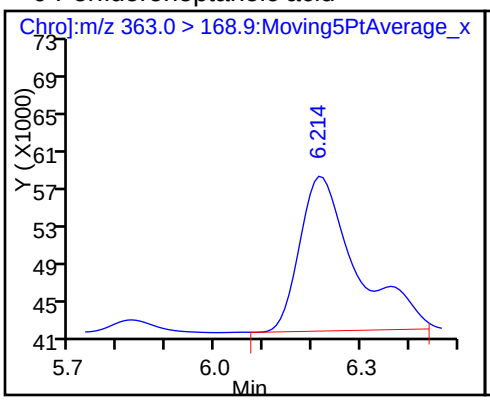
5 Perfluorohexanoic acid



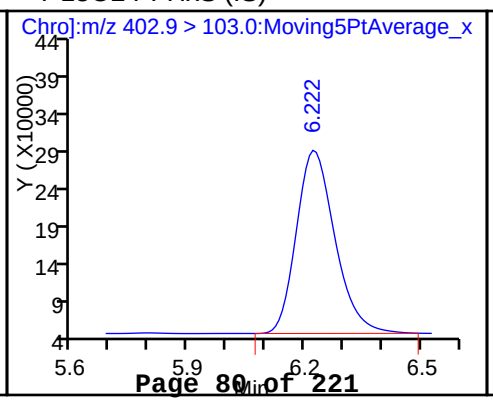
9 Perfluoroheptanoic acid (M)



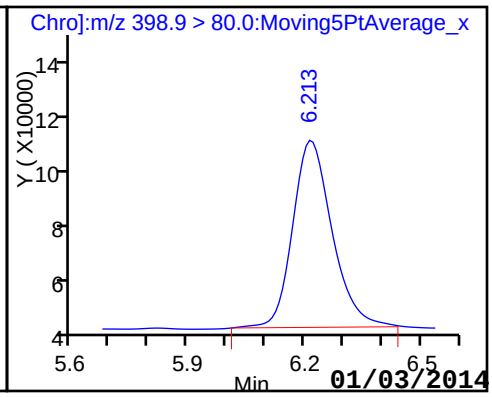
9 Perfluoroheptanoic acid



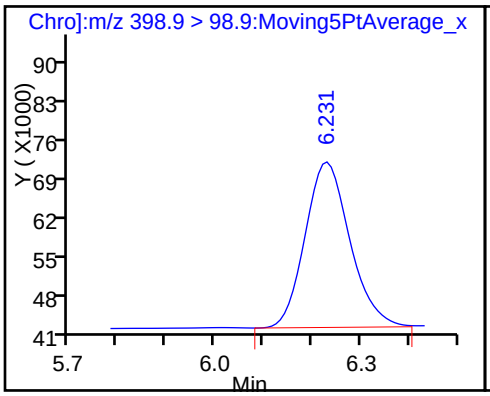
* 7 18O2 PFHxS (IS)



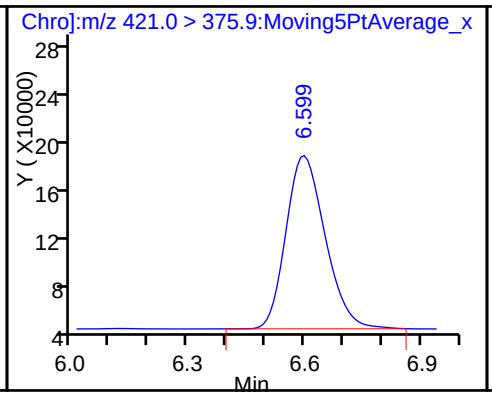
8 Perfluorohexane Sulfonate



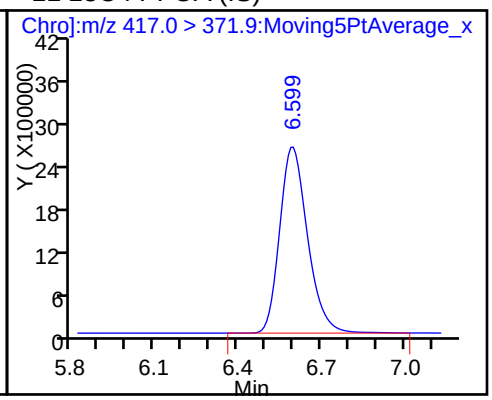
8 Perfluorohexane Sulfonate



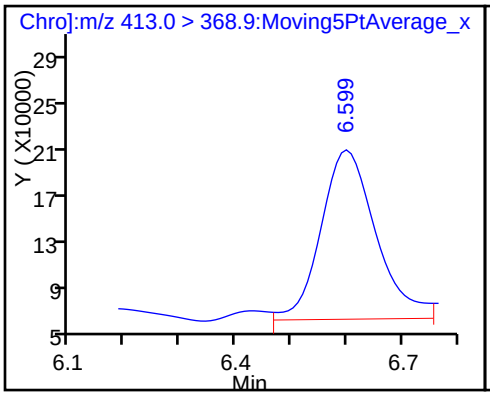
$ 10 13C8 PFOA



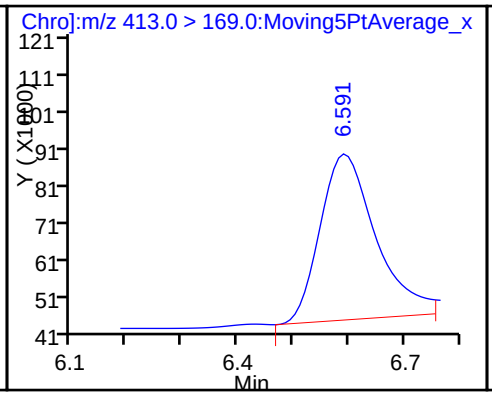
* 11 13C4 PFOA (IS)



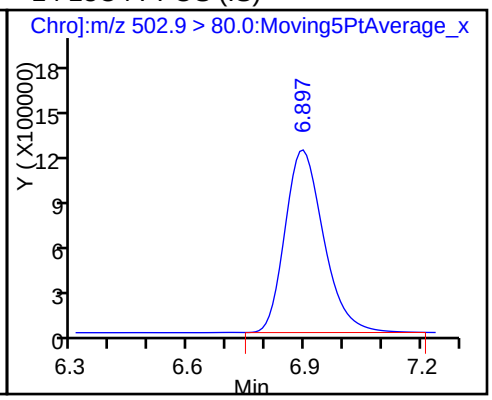
12 Perfluorooctanoic acid



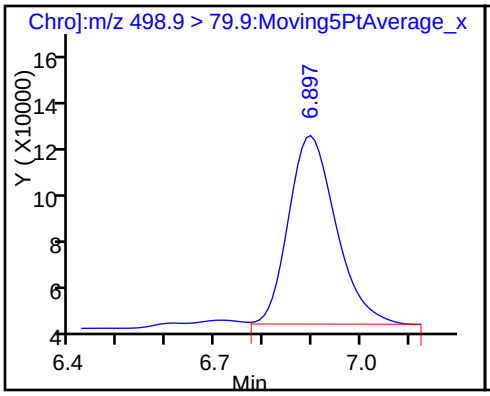
12 Perfluorooctanoic acid



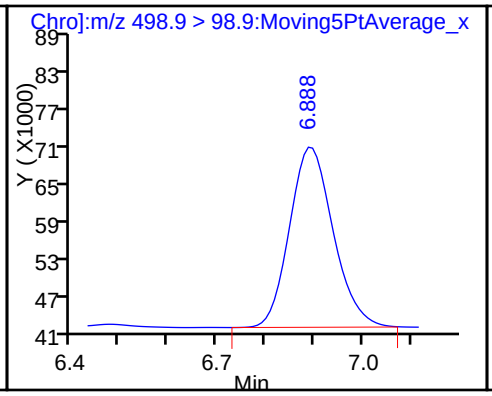
* 14 13C4 PFOS (IS)



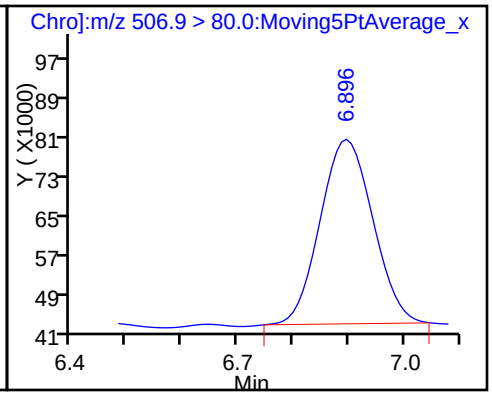
13 Perfluorooctanoic Sulfonate



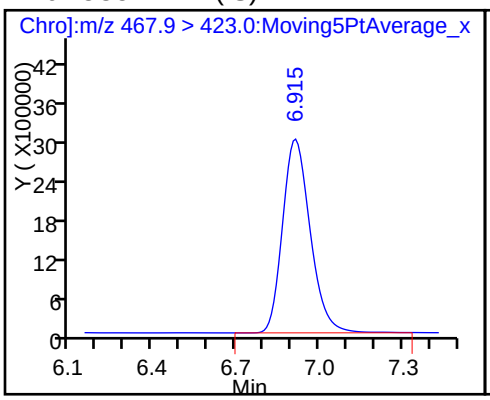
13 Perfluorooctanoic Sulfonate



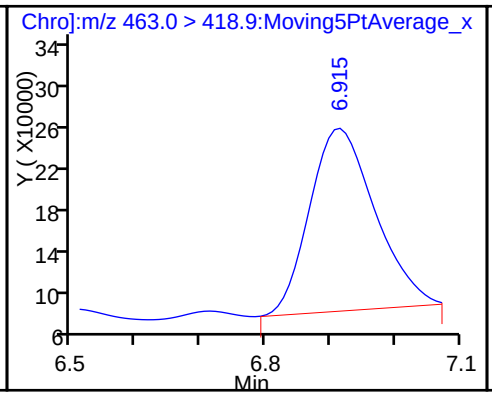
$ 15 13C8 PFOS



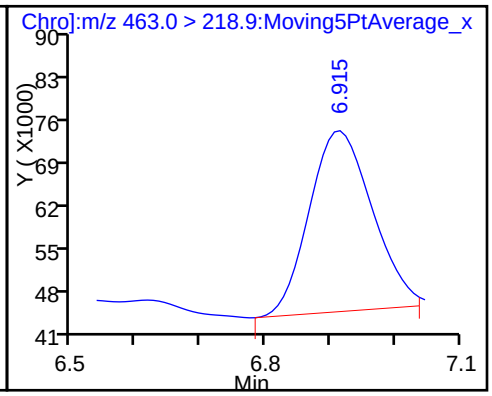
* 16 13C5 PFNA (IS)



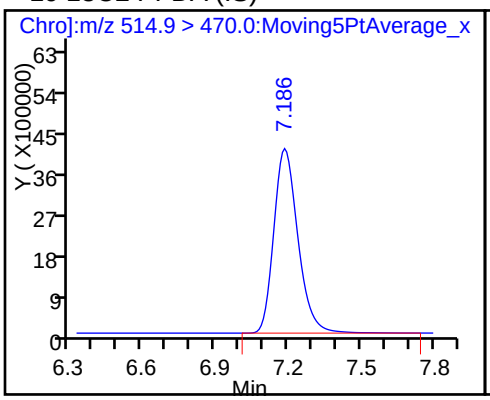
17 Perfluorononanoic acid



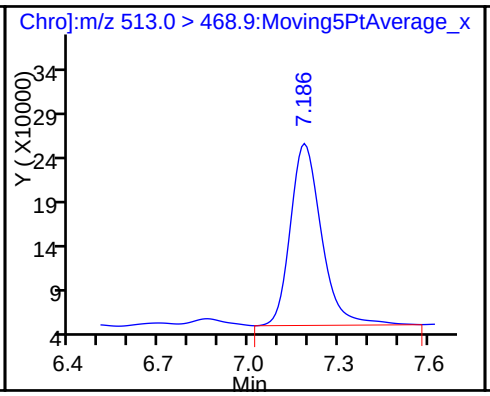
17 Perfluorononanoic acid



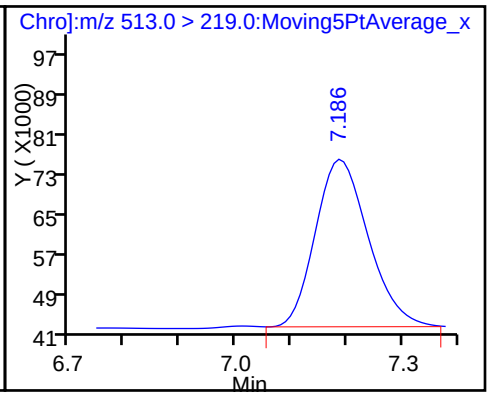
* 19 13C2 PFDA (IS)



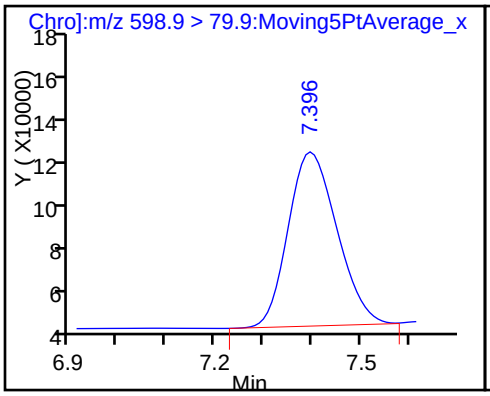
18 Perfluorodecanoic acid



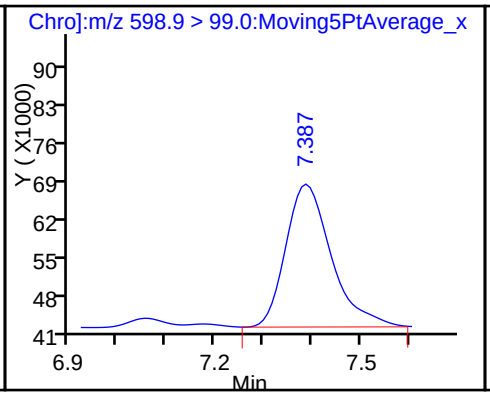
18 Perfluorodecanoic acid



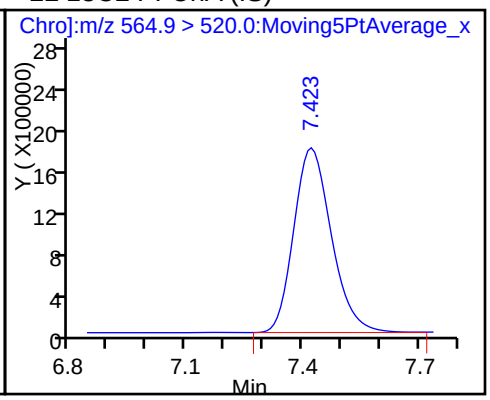
20 Perfluorodecane Sulfonate



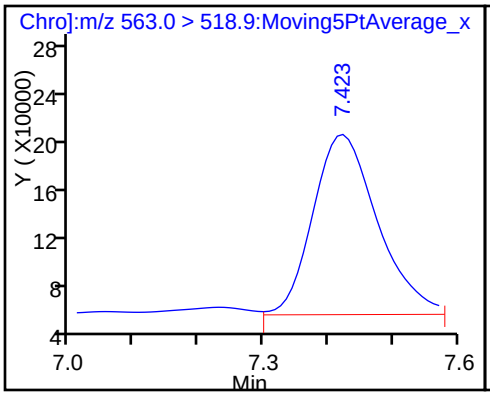
20 Perfluorodecane Sulfonate



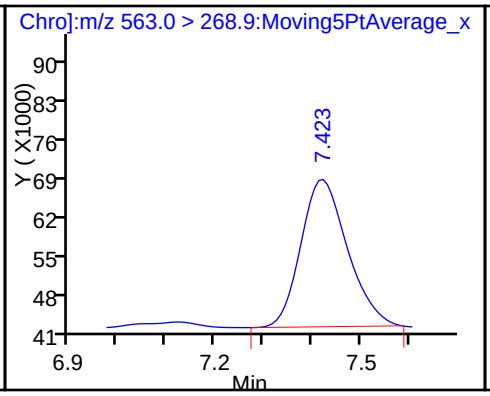
* 22 13C2 PFUnA (IS)



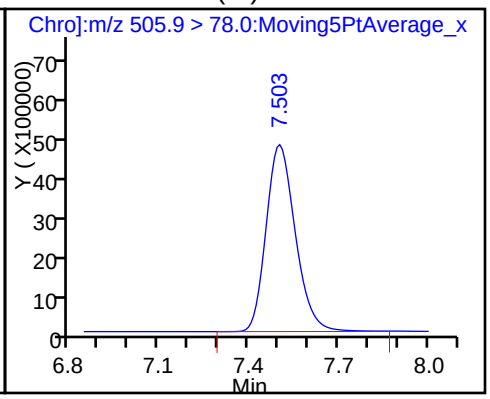
21 Perfluoroundecanoic acid



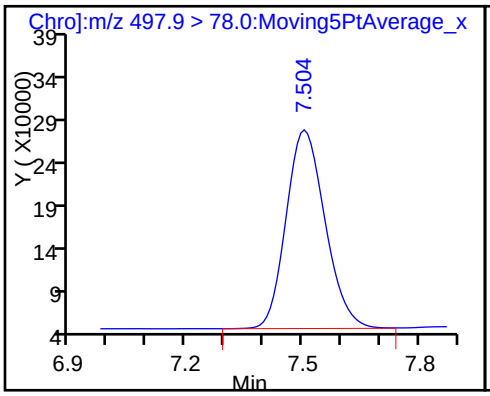
21 Perfluoroundecanoic acid



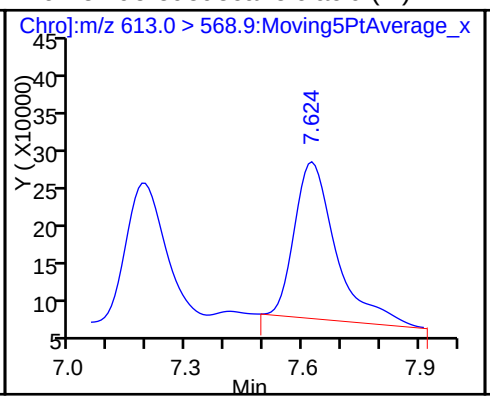
* 23 13C8 FOSA (IS)



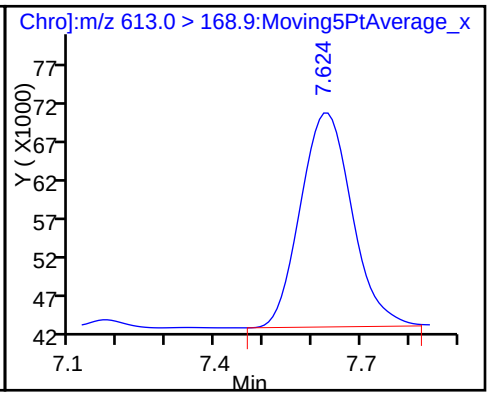
24 Perfluorooctane Sulfonamide



26 Perfluorododecanoic acid (M)

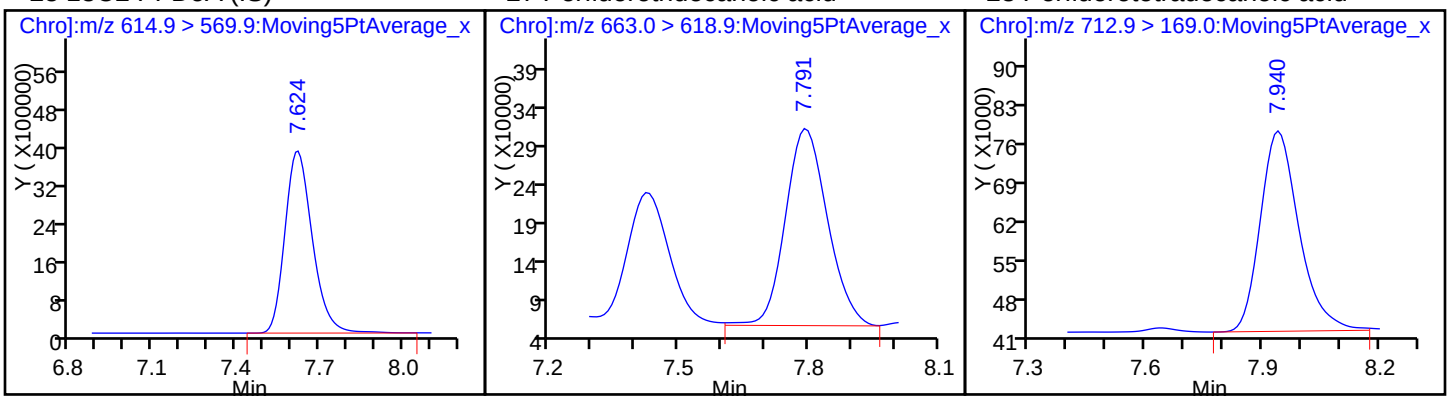


26 Perfluorododecanoic acid



Report Date: 02-Jan-2014 11:39:44 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d

* 25 13C2 PFDoA (IS) | 27 Perfluorotridecanoic acid | 28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

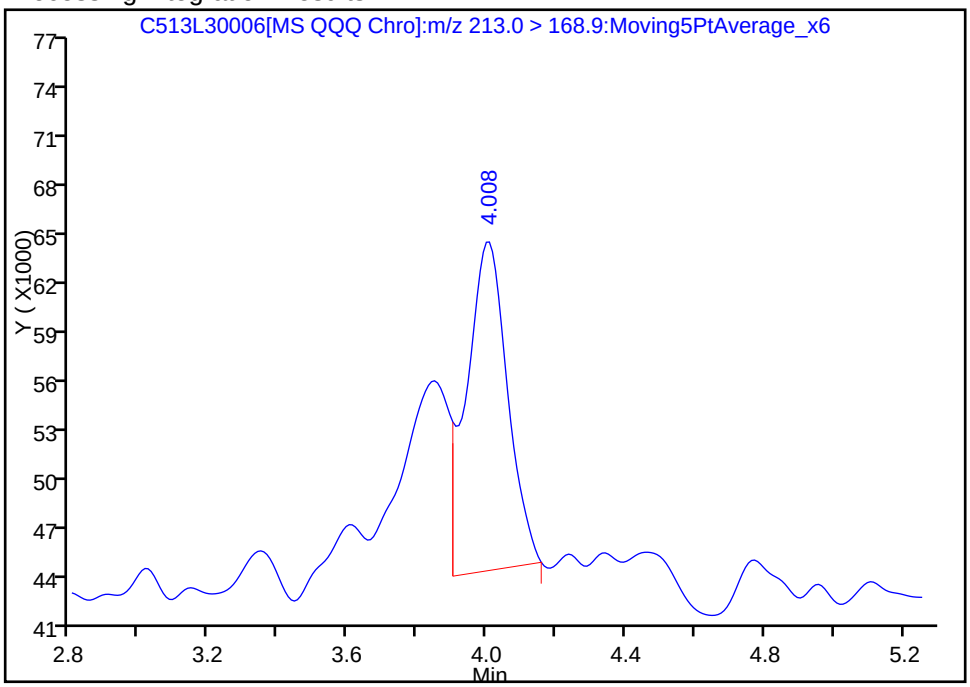
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d				
Injection Date:	31-Dec-2013 16:17:02	Instrument ID:	LC_LCMS5		
Lims ID:	std0005	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

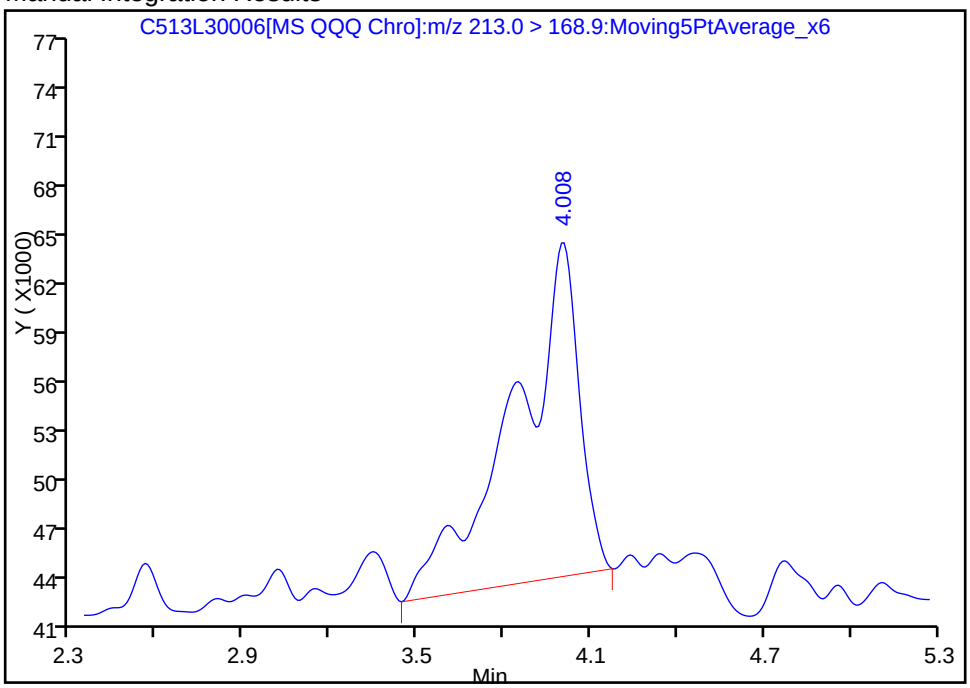
Processing Integration Results

RT: 4.01
Response: 160916
Amount: 0.299948



Manual Integration Results

RT: 4.01
Response: 316056
Amount: 0.502029



Reviewer: kellisonm, 02-Jan-2014 10:21:13
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

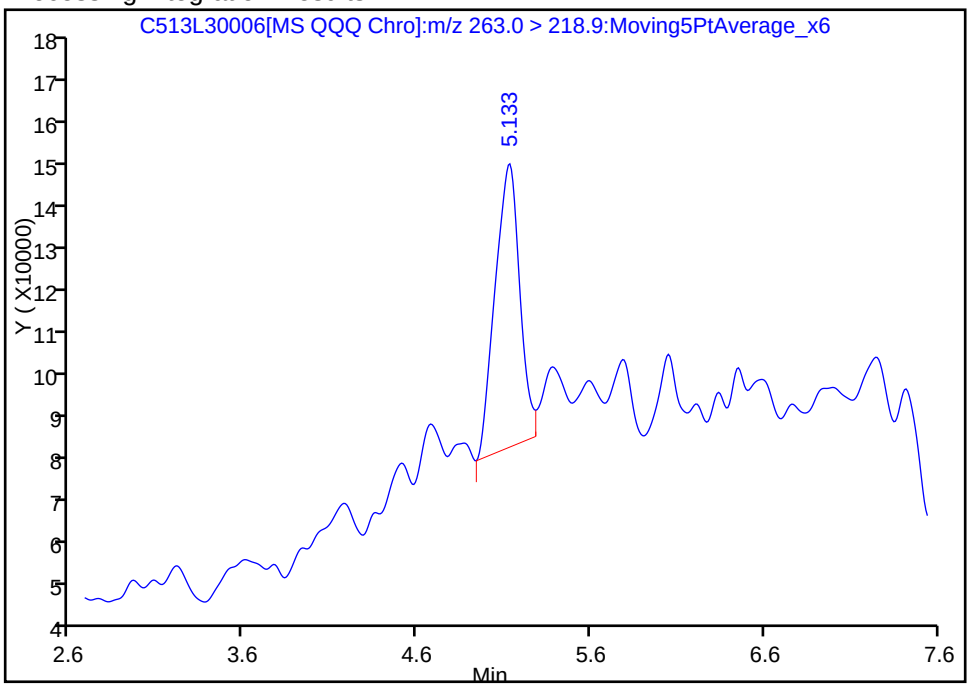
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d				
Injection Date:	31-Dec-2013 16:17:02	Instrument ID:	LC_LCMS5		
Lims ID:	std0005	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

3 Perfluoropentanoic acid, CAS: 2706-90-3

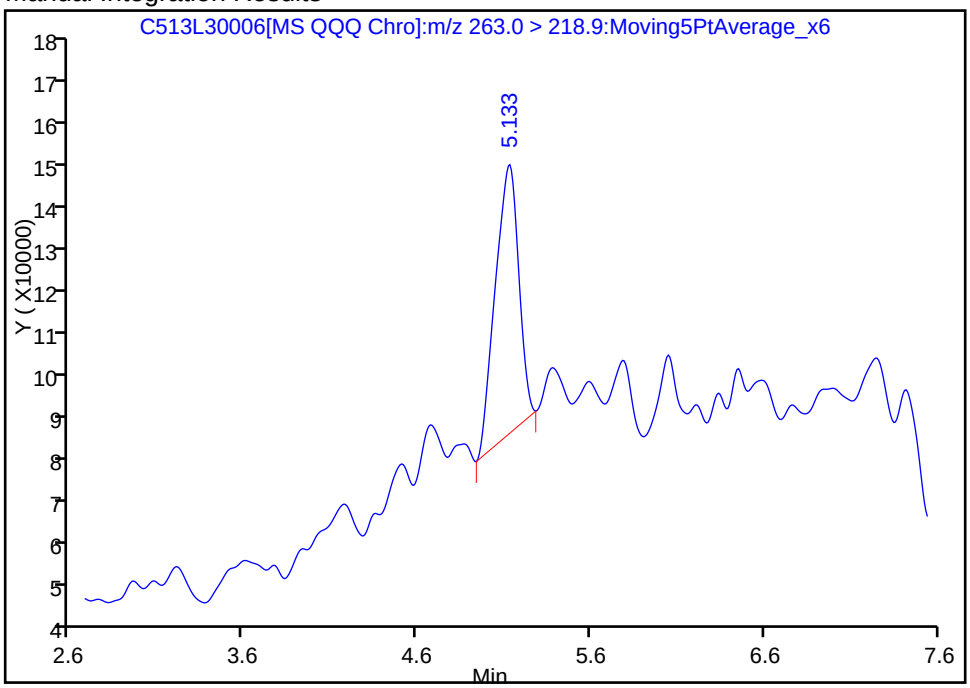
Processing Integration Results

RT: 5.13
Response: 647422
Amount: 0.604743



Manual Integration Results

RT: 5.13
Response: 585442
Amount: 0.604694



Reviewer: kellisonm, 02-Jan-2014 10:21:13
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

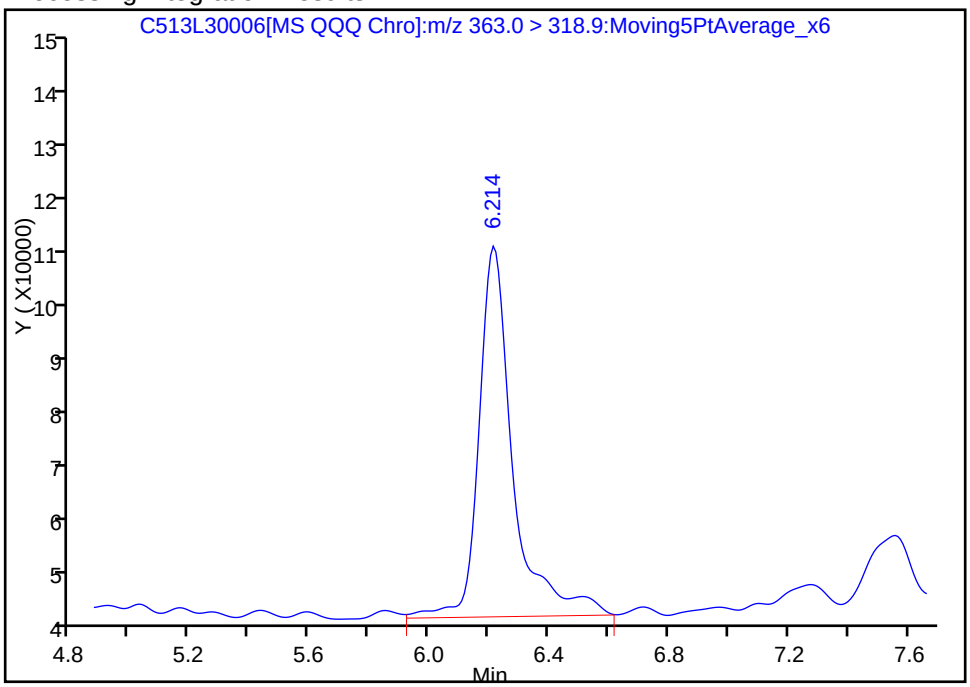
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d				
Injection Date:	31-Dec-2013 16:17:02	Instrument ID:	LC_LCMS5		
Lims ID:	std0005	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

9 Perfluoroheptanoic acid, CAS: 375-85-9

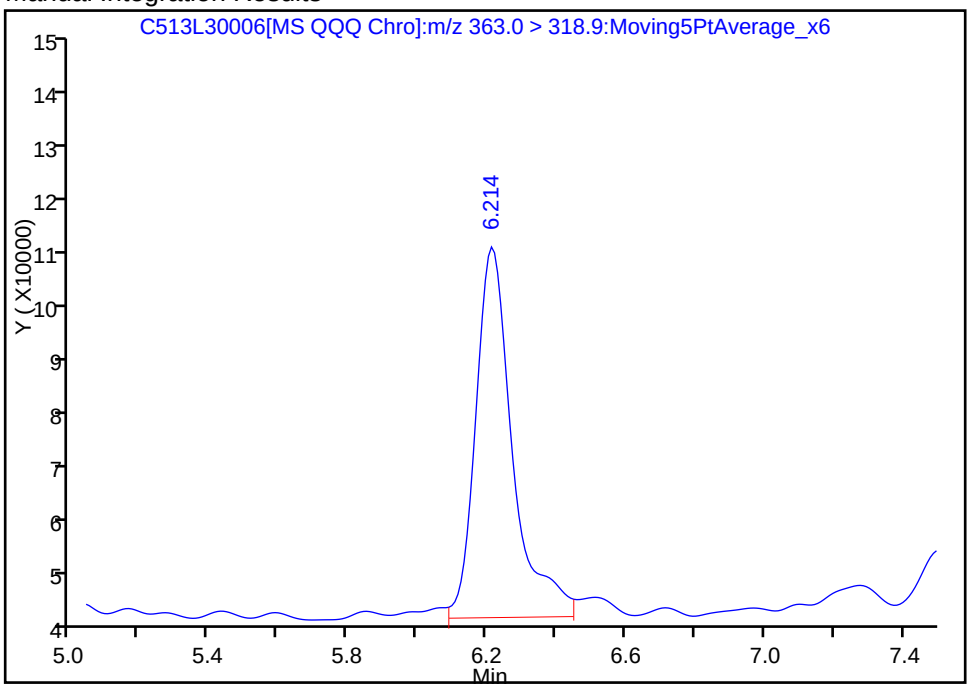
Processing Integration Results

RT: 6.21
Response: 518069
Amount: 0.554483



Manual Integration Results

RT: 6.21
Response: 481712
Amount: 0.517957



Reviewer: kellisonm, 02-Jan-2014 10:21:13
Audit Action: Split an Integrated Peak
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

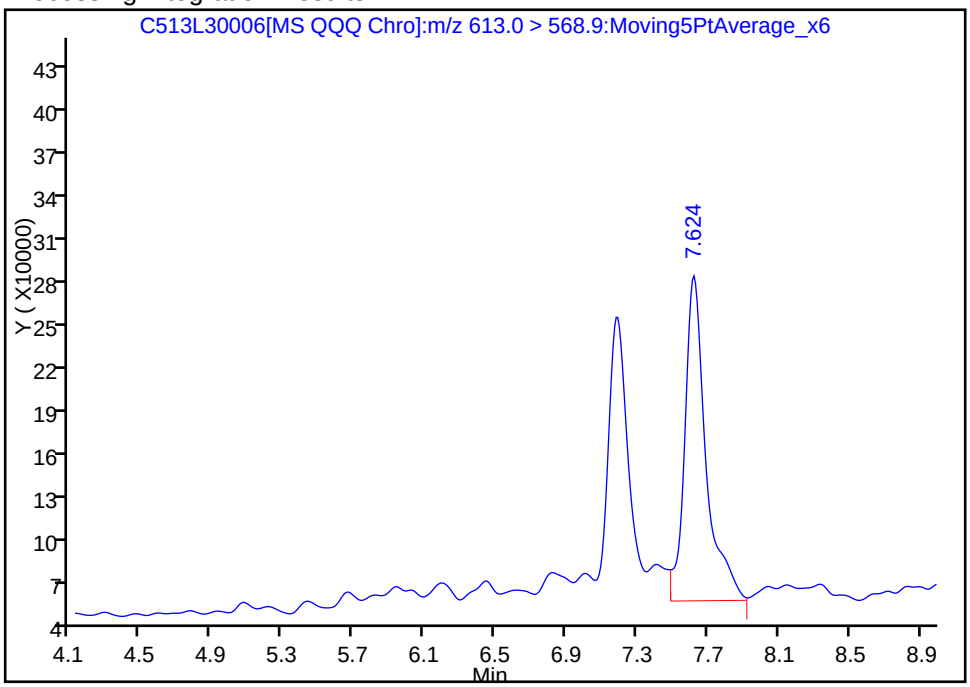
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30006.d				
Injection Date:	31-Dec-2013 16:17:02	Instrument ID:	LC_LCMS5		
Lims ID:	std0005	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

26 Perfluorododecanoic acid, CAS: 307-55-1

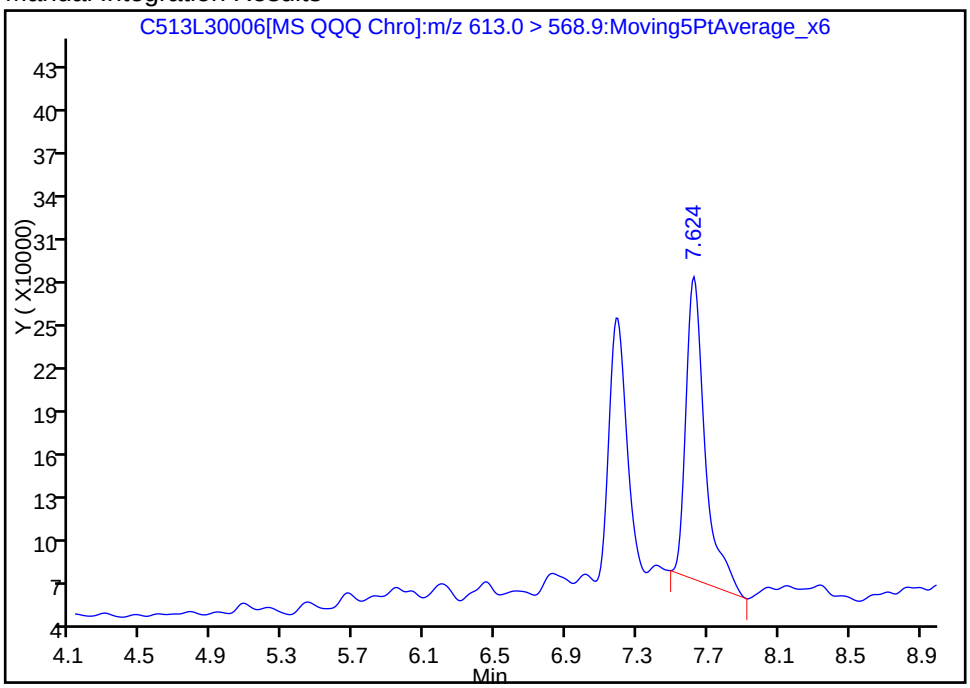
Processing Integration Results

RT: 7.62
Response: 1872167
Amount: 0.581976



Manual Integration Results

RT: 7.62
Response: 1571349
Amount: 0.485972



Reviewer: kellisonm, 02-Jan-2014 10:21:13
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30007.d
Lims ID: std0010 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 31-Dec-2013 16:29:20 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0010, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:16 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:22:28

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	4.016	3.919	0.097		7312904	10.0			M
1 Perfluorobutyric acid									M
213.0 > 168.9	3.999	3.928	0.071	0.996	547248	0.9030			M
3 Perfluoropentanoic acid									M
263.0 > 218.9	5.124	5.028	0.096	0.890	1084631	1.07			M
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.256	5.150	0.106	0.845	767578	0.7551			
298.9 > 98.9	5.247	5.150	0.097	0.843	188641		4.07(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.757	5.642	0.115		13755172	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.757	5.642	0.115	1.000	1594495	1.02			
313.0 > 118.6	5.757	5.642	0.115	1.000	38983		40.90(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.222	6.099	0.123	0.943	1023659	1.16			
363.0 > 168.9	6.214	6.099	0.115	0.942	305795		3.35(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.222	6.107	0.115		1886566	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.222	6.108	0.114	1.000	885620	0.9182			
398.9 > 98.9	6.222	6.108	0.114	1.000	303549		2.92(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.599	6.476	0.123	1.000	1807826	1.01			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.599	6.476	0.123		18279787	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.599	6.476	0.123	1.000	2074194	1.11			
413.0 > 169.0	6.599	6.476	0.123	1.000	534716		3.88(2.38-4.41)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.897	6.773	0.124		8558763	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.897	6.774	0.123	1.000	1069847	0.9731			
498.9 > 98.9	6.888	6.774	0.114	0.999	423620		2.53(1.84-3.42)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.896	6.782	0.114	1.000	494491	1.06			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.915	6.792	0.123		20892088	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.915	6.792	0.123	1.000	2752418	1.05			
463.0 > 218.9	6.915	6.792	0.123	1.000	447596		6.15(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.186	7.063	0.123		28028974	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.186	7.063	0.123	1.000	2601668	0.8964			
513.0 > 219.0	7.177	7.063	0.114	0.999	416646		6.24(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.396	7.264	0.132	1.072	1171263	0.9267			
598.9 > 99.0	7.396	7.264	0.132	1.072	389970		3.00(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.423	7.291	0.132		12382763	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.423	7.291	0.132	1.000	2210326	1.03			
563.0 > 268.9	7.414	7.291	0.123	0.999	320080		6.91(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.503	7.424	0.079		32433726	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.504	7.425	0.079	1.000	3284934	0.9845			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.615	7.483	0.132	1.000	2888788	0.9706			
613.0 > 168.9	7.615	7.483	0.132	1.000	366020		7.89(4.54-8.44)		
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.615	7.492	0.123		27262121	10.0			
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.791	7.650	0.141	1.023	3439373	0.9741			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.931	7.799	0.132	1.042	461948	1.12			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:16 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30007.d

Injection Date: 31-Dec-2013 16:29:20 Instrument ID: LC_LCMS5

Lims ID: std0010 Lab Sample ID:

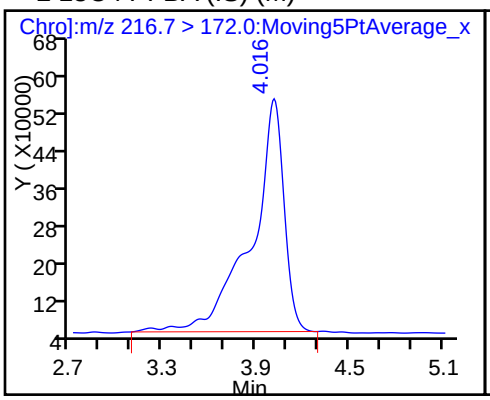
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 5

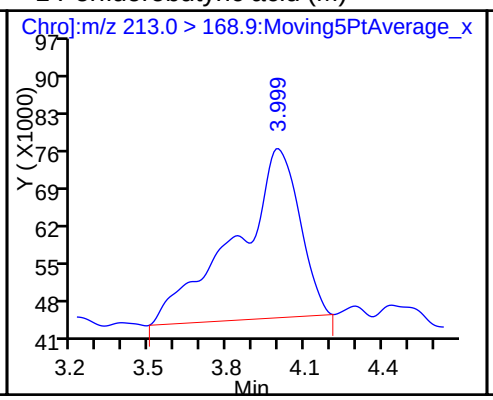
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

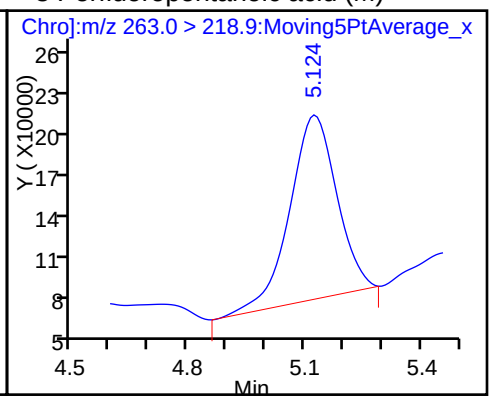
* 2 13C4 PFBA (IS) (M)



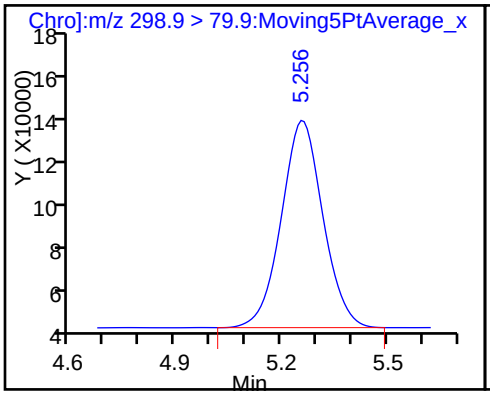
1 Perfluorobutyric acid (M)



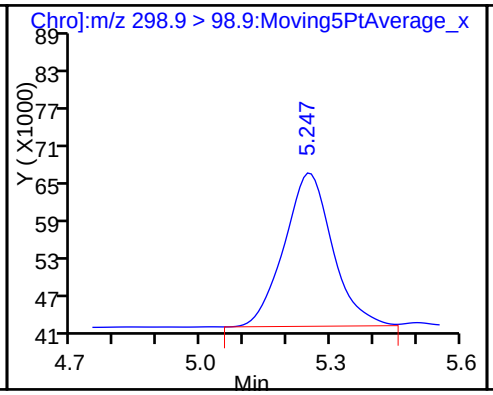
3 Perfluoropentanoic acid (M)



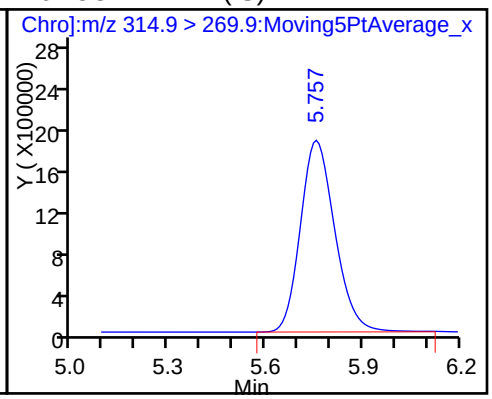
4 Perfluorobutane Sulfonate



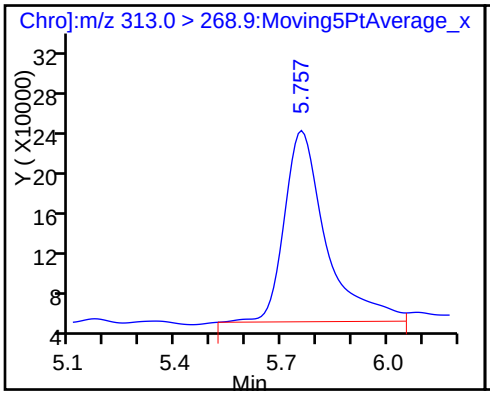
4 Perfluorobutane Sulfonate



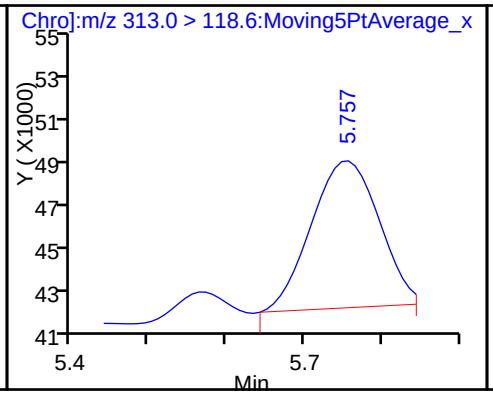
* 6 13C2 PFHxA (IS)



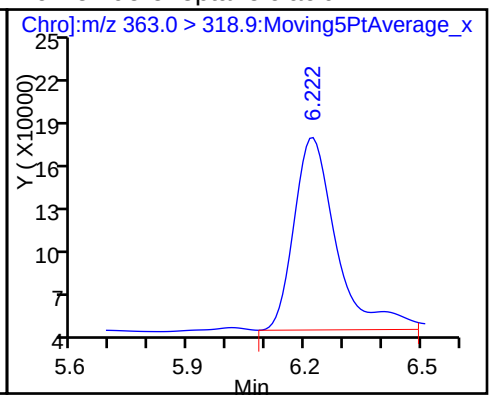
5 Perfluorohexanoic acid



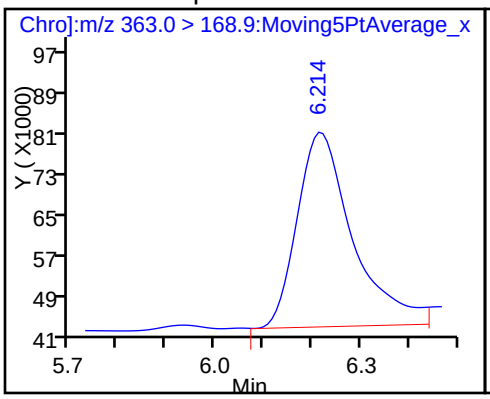
5 Perfluorohexanoic acid



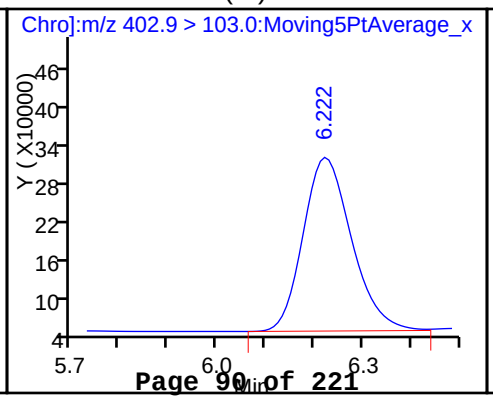
9 Perfluoroheptanoic acid



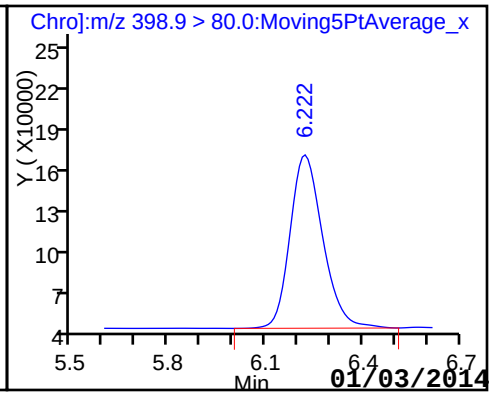
9 Perfluoroheptanoic acid



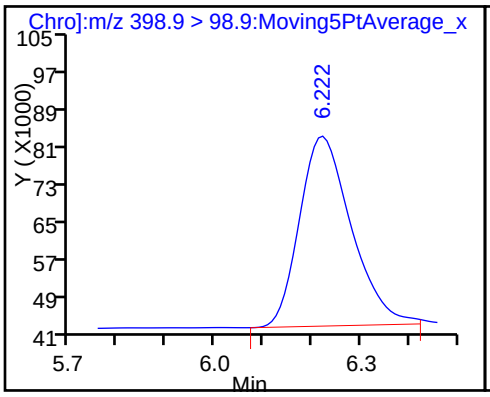
* 7 18O2 PFHxS (IS)



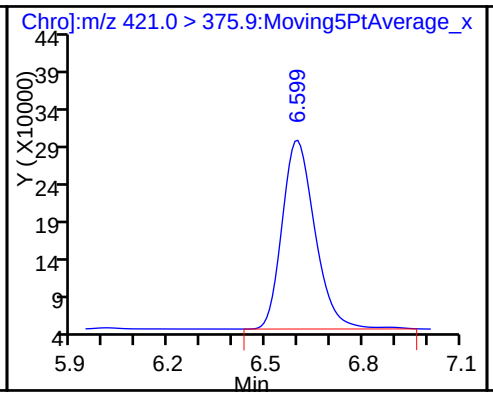
8 Perfluorohexane Sulfonate



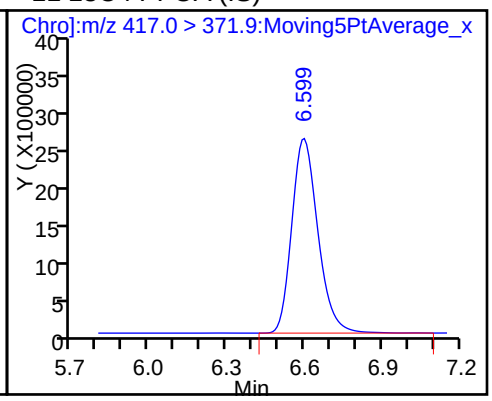
8 Perfluorohexane Sulfonate



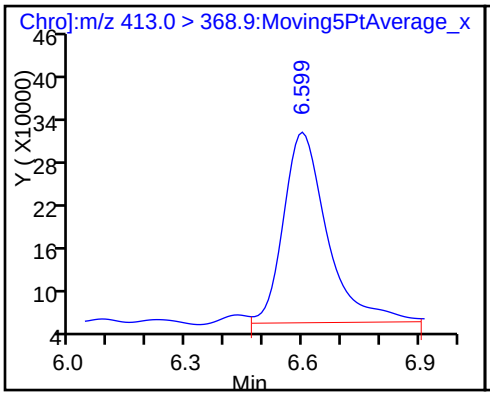
$ 10 13C8 PFOA



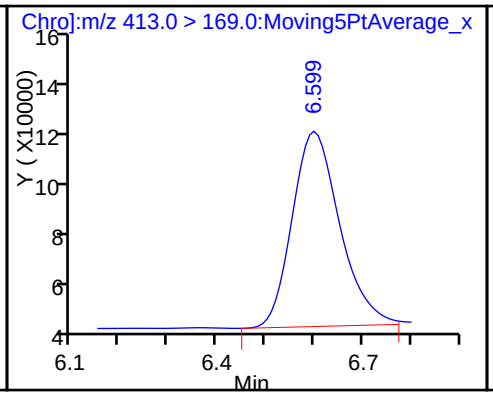
* 11 13C4 PFOA (IS)



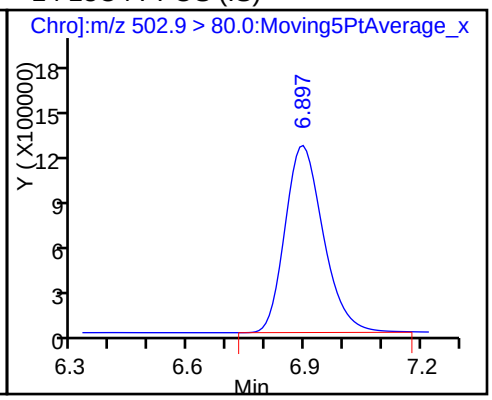
12 Perfluorooctanoic acid



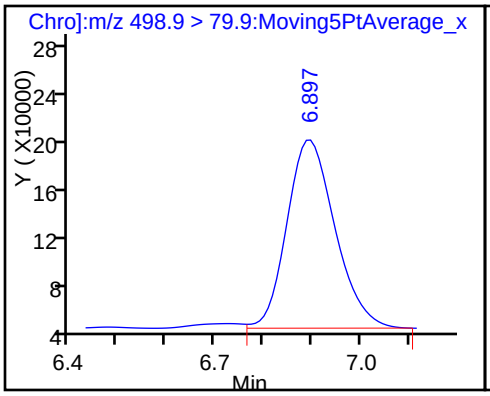
12 Perfluorooctanoic acid



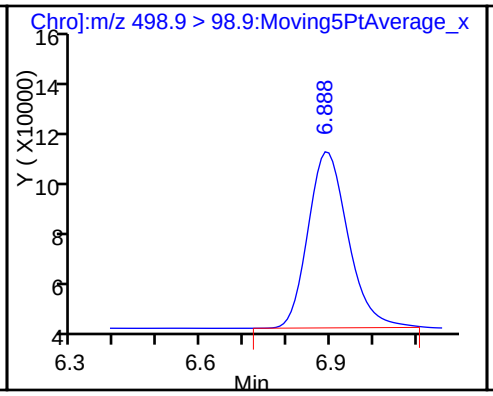
* 14 13C4 PFOS (IS)



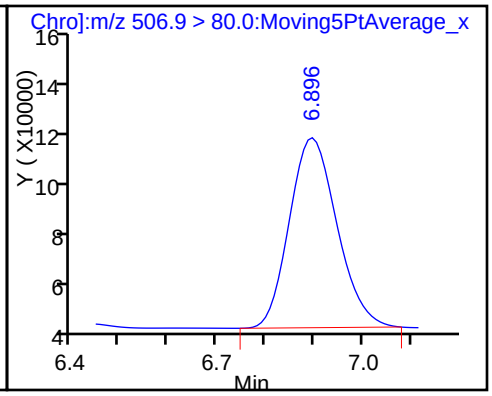
13 Perfluorooctanoic Sulfonate



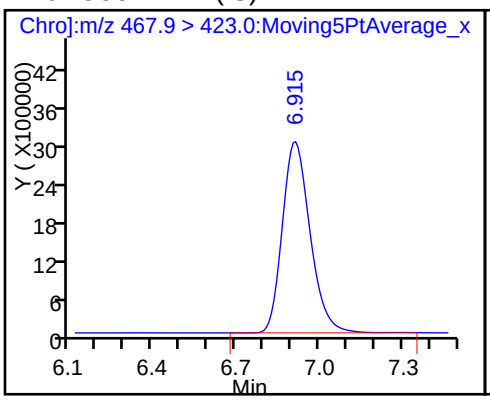
13 Perfluorooctanoic Sulfonate



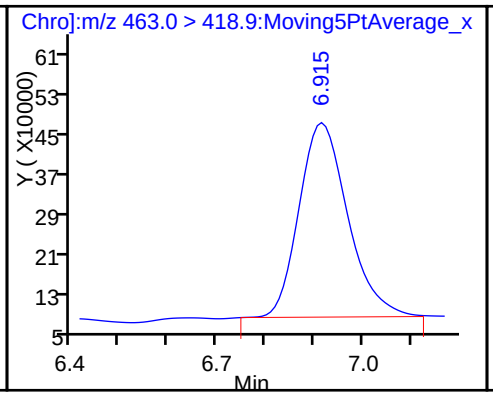
$ 15 13C8 PFOS



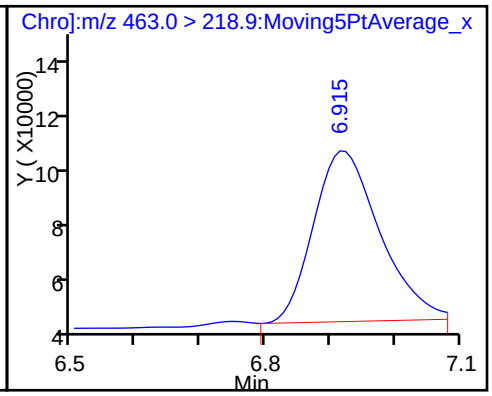
* 16 13C5 PFNA (IS)



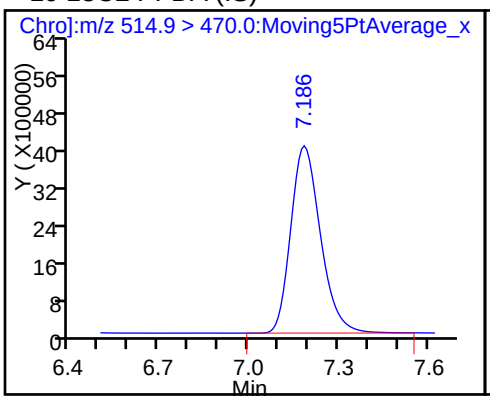
17 Perfluorononanoic acid



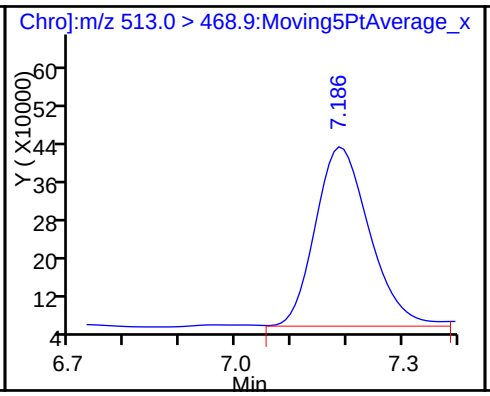
17 Perfluorononanoic acid



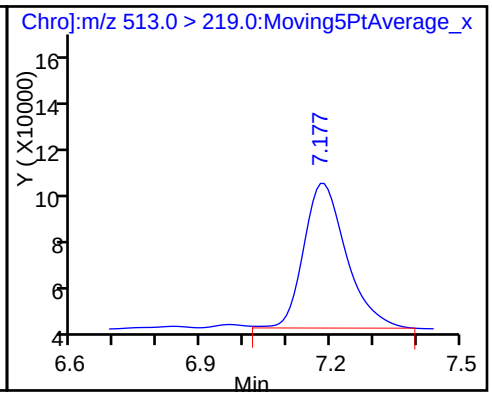
* 19 13C2 PFDA (IS)



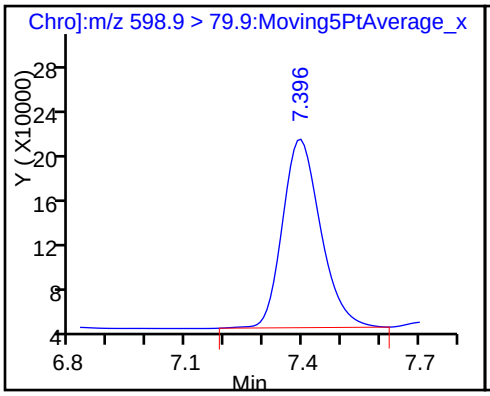
18 Perfluorodecanoic acid



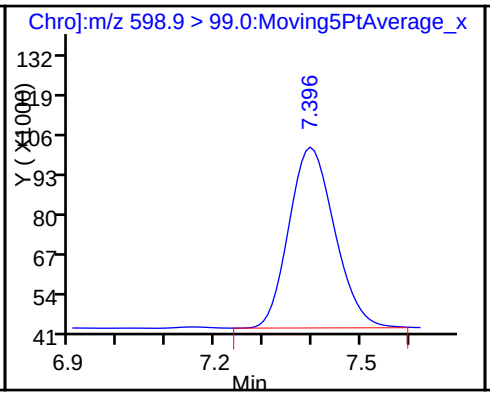
18 Perfluorodecanoic acid



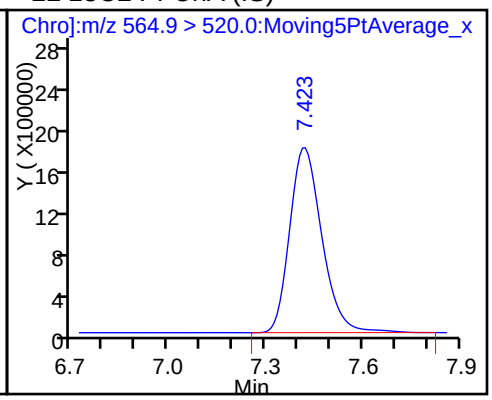
20 Perfluorodecane Sulfonate



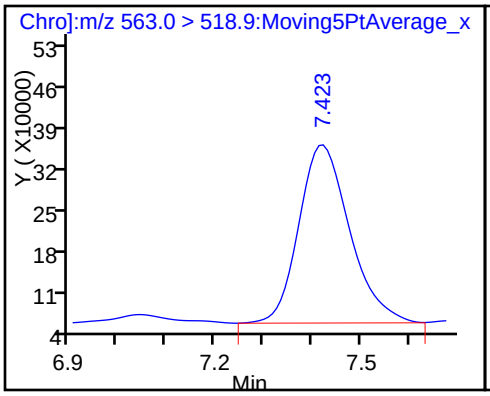
20 Perfluorodecane Sulfonate



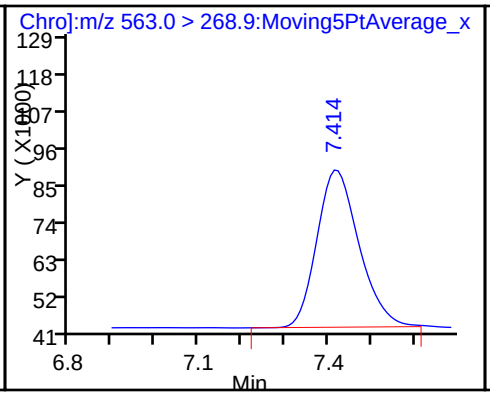
* 22 13C2 PFUnA (IS)



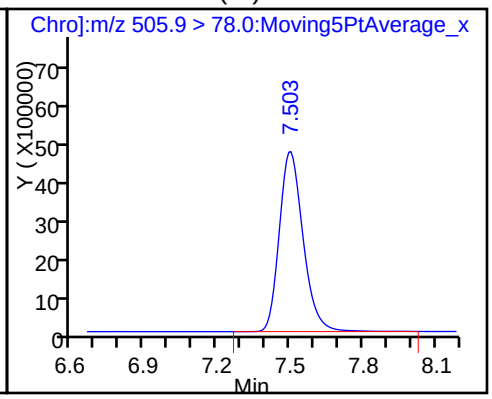
21 Perfluoroundecanoic acid



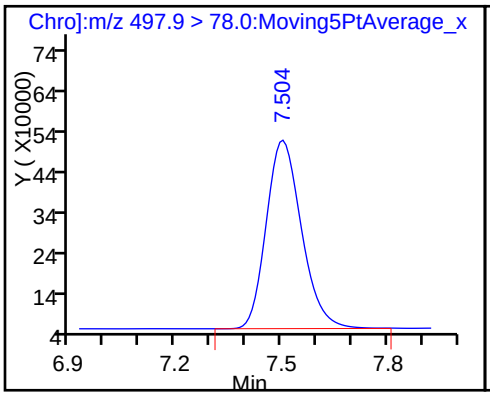
21 Perfluoroundecanoic acid



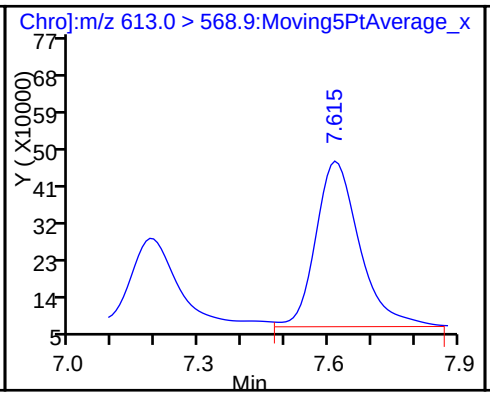
* 23 13C8 FOSA (IS)



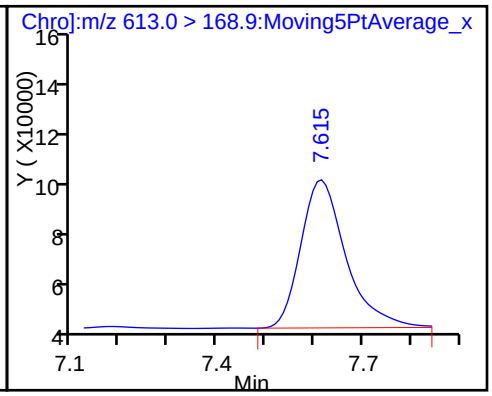
24 Perfluorooctane Sulfonamide



26 Perfluorododecanoic acid

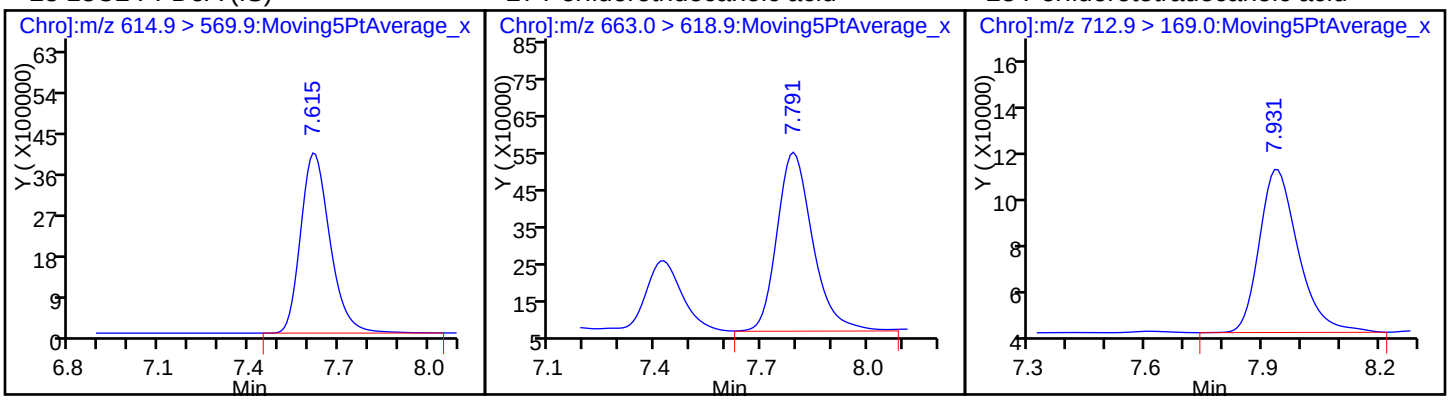


26 Perfluorododecanoic acid



Report Date: 02-Jan-2014 11:37:17 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30007.d

* 25 13C2 PFDoA (IS) | 27 Perfluorotridecanoic acid | 28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

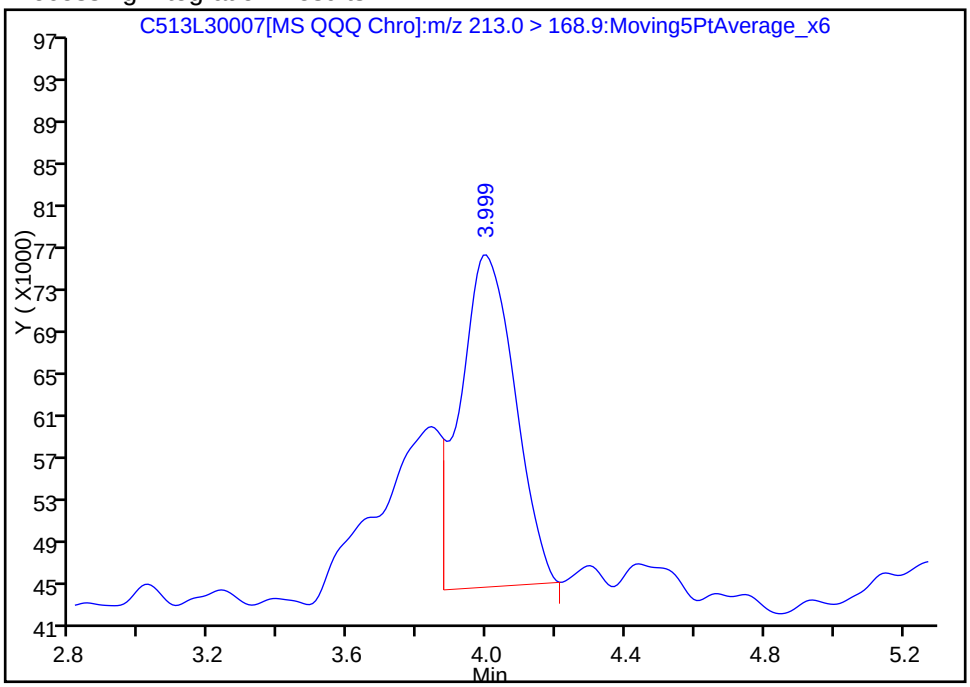
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30007.d				
Injection Date:	31-Dec-2013 16:29:20	Instrument ID:	LC_LCMS5		
Lims ID:	std0010	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

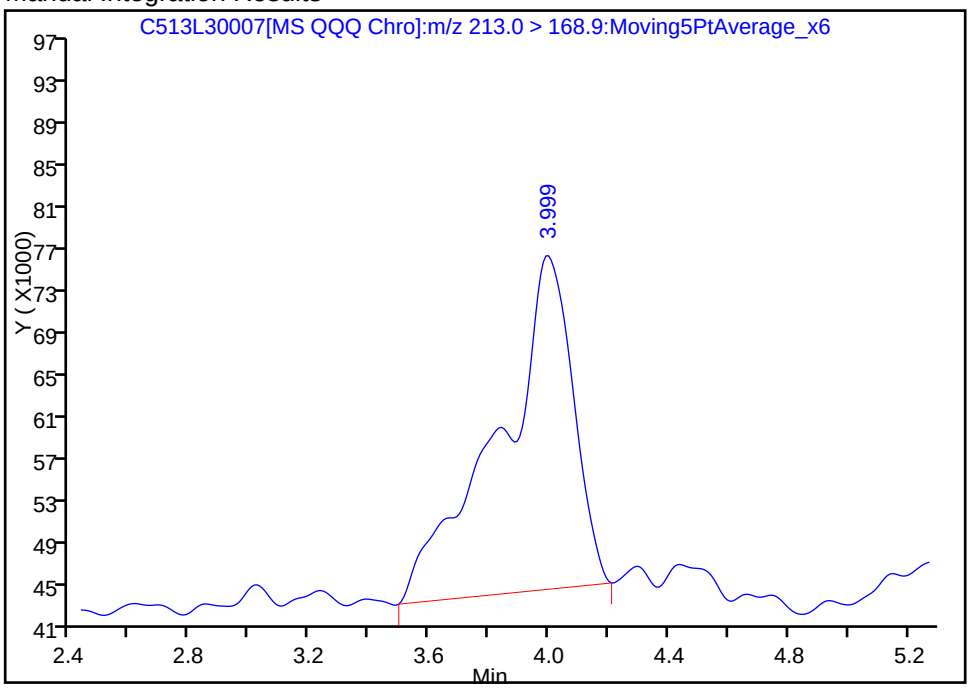
Processing Integration Results

RT: 4.00
Response: 342981
Amount: 0.625490



Manual Integration Results

RT: 4.00
Response: 547248
Amount: 0.902952



Reviewer: kellisonm, 02-Jan-2014 10:22:28
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

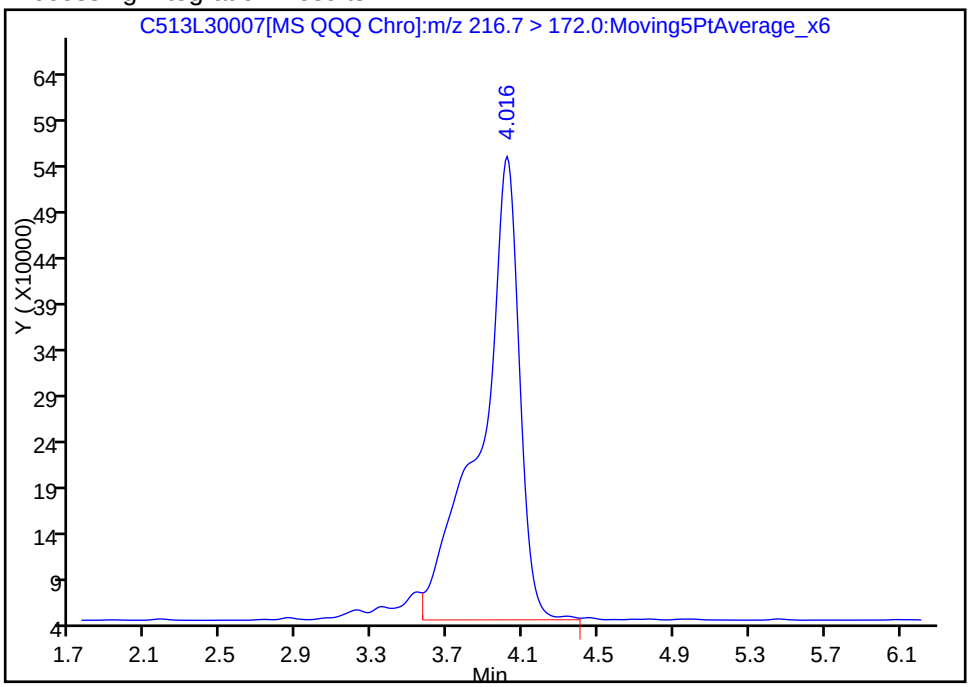
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30007.d				
Injection Date:	31-Dec-2013 16:29:20	Instrument ID:	LC_LCMS5		
Lims ID:	std0010	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

* 2 13C4 PFBA (IS), CAS: STL01003

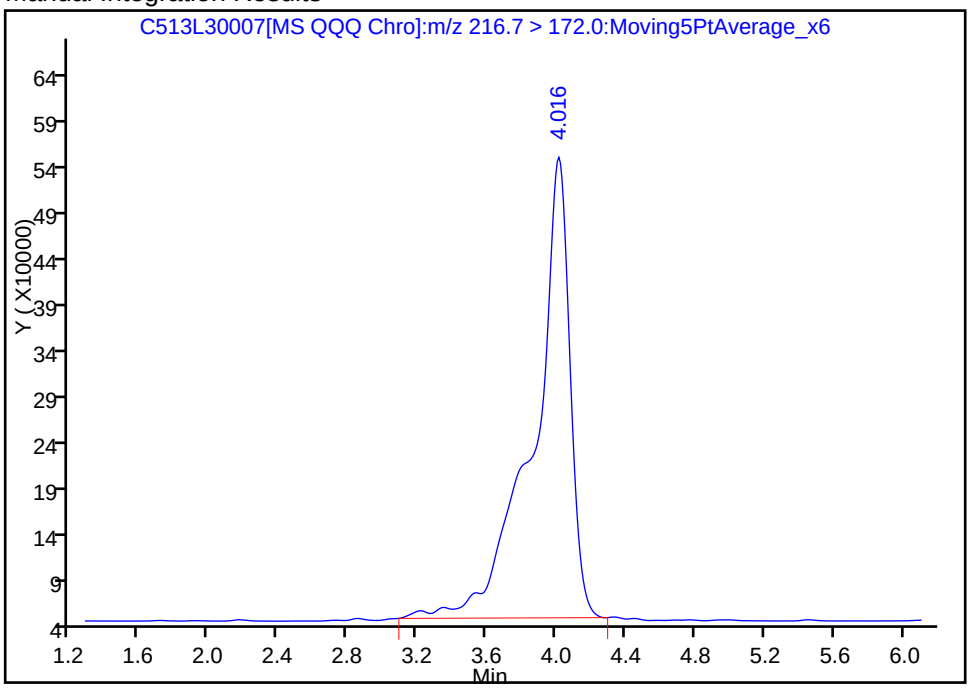
Processing Integration Results

RT: 4.02
Response: 7157535
Amount: 10.000000



Manual Integration Results

RT: 4.02
Response: 7312904
Amount: 10.000000



Reviewer: kellisonm, 02-Jan-2014 10:22:28
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

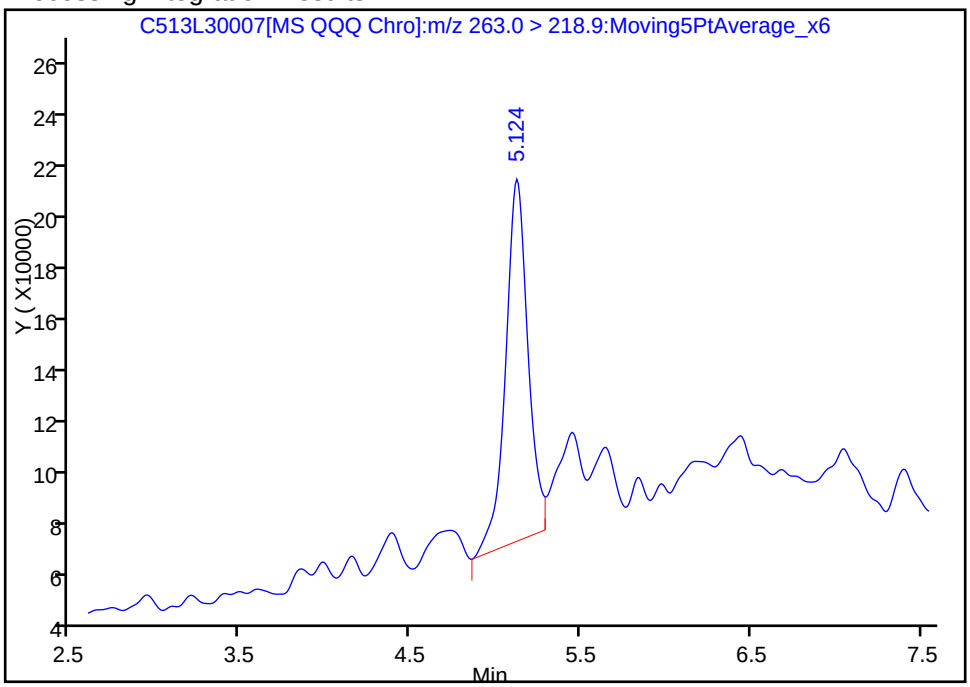
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30007.d				
Injection Date:	31-Dec-2013 16:29:20	Instrument ID:	LC_LCMS5		
Lims ID:	std0010	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

3 Perfluoropentanoic acid, CAS: 2706-90-3

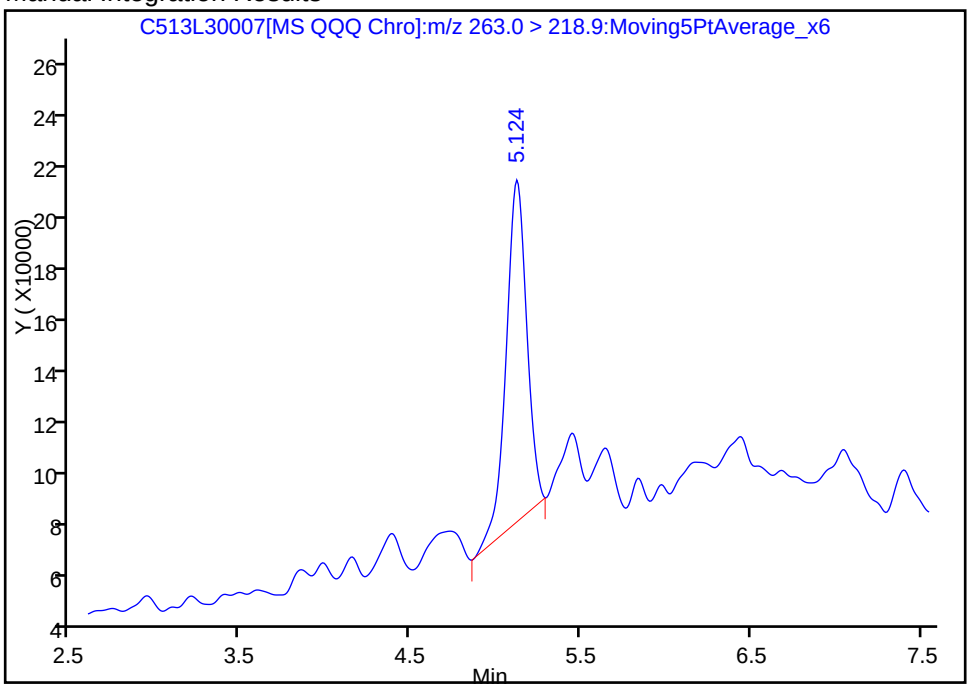
Processing Integration Results

RT: 5.12
Response: 1243963
Amount: 1.185705



Manual Integration Results

RT: 5.12
Response: 1084631
Amount: 1.070409



Reviewer: kellisonm, 02-Jan-2014 10:22:28
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30008.d
Lims ID: std0020 Lab Sample ID: ICISAV 280-207217/6-A
Client ID:
Sample Type: ICISAV Calib Level: 4
Inject. Date: 31-Dec-2013 16:41:38 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0020, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:18 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:23:36

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	4.025	4.025	0.0		7420566	10.0			
1 Perfluorobutyric acid									M
213.0 > 168.9	4.016	4.016	0.0	0.998	1175152	1.93			M
3 Perfluoropentanoic acid									M
263.0 > 218.9	5.133	5.133	0.0	0.892	1887817	1.74			M
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.256	5.256	0.0	0.844	1526142	1.51			
298.9 > 98.9	5.265	5.256	0.009	0.845	509796		2.99(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.757	5.757	0.0		14476361	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.757	5.757	0.0	1.000	3011697	1.92			
313.0 > 118.6	5.730	5.757	-0.027	0.995	23644		127.38(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.214	6.214	0.0	0.942	1702611	1.99			
363.0 > 168.9	6.214	6.214	0.0	0.942	774448		2.20(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.230	6.230	0.0		1854824	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.231	6.231	0.0	1.000	1710371	1.87			
398.9 > 98.9	6.231	6.231	0.0	1.000	581605		2.94(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.590	6.590	0.0	0.999	3661730	2.13			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.599	6.599	0.0		18048911	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.599	6.599	0.0	1.000	3755037	2.07			
413.0 > 169.0	6.599	6.599	0.0	1.000	1105746		3.40(2.38-4.41)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.897	6.897	0.0		8748815	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.897	6.897	0.0	1.000	2324110	2.05			
498.9 > 98.9	6.897	6.897	0.0	1.000	882391		2.63(1.84-3.42)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.896	6.896	0.0	1.000	887016	1.87			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.915	6.915	0.0		20525878	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.915	6.915	0.0	1.000	4924471	1.91			
463.0 > 218.9	6.906	6.915	-0.009	0.999	1020595		4.83(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.186	7.186	0.0		28720168	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.186	7.186	0.0	1.000	5401999	1.89			
513.0 > 219.0	7.186	7.186	0.0	1.000	800445		6.75(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.387	7.387	0.0	1.071	2329028	1.77			
598.9 > 99.0	7.387	7.387	0.0	1.071	720713		3.23(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.414	7.414	0.0		12828091	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.414	7.414	0.0	1.000	4019831	1.92			
563.0 > 268.9	7.414	7.414	0.0	1.000	689902		5.83(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.494	7.494	0.0		35055201	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.495	7.495	0.0	1.000	6977039	1.94			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.615	7.615	0.0	1.000	5454756	1.81			
613.0 > 168.9	7.615	7.615	0.0	1.000	840606		6.49(4.54-8.44)		
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.615	7.615	0.0		29117123	10.0			
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.782	7.782	0.0	1.022	7410145	2.05			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.931	7.931	0.0	1.042	768774	1.77			

QC Flag Legend

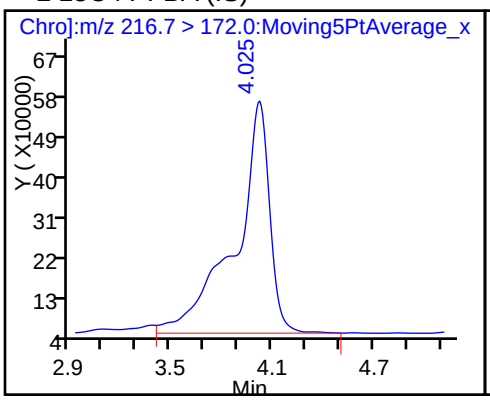
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:18 Chrom Revision: 2.1 15-Oct-2013 07:52:24

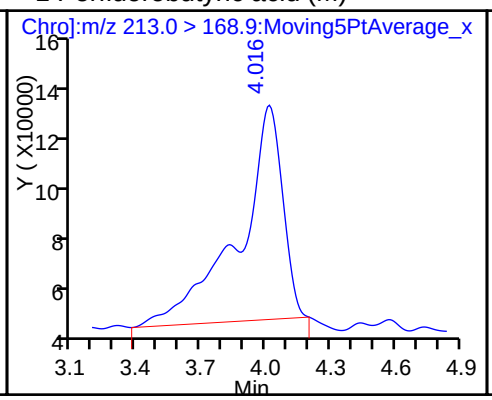
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30008.d				
Injection Date:	31-Dec-2013 16:41:38	Instrument ID:	LC_LCMS5		
Lims ID:	std0020	Lab Sample ID:	ICISAV 280-207217/6-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

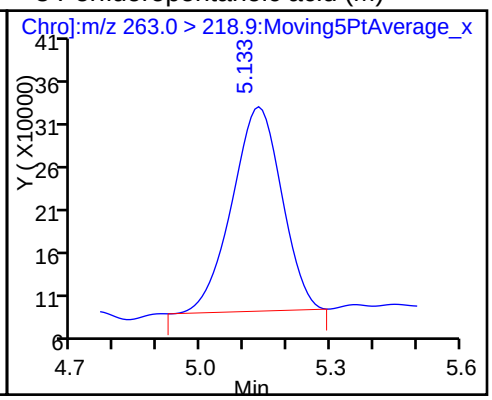
* 2 13C4 PFBA (IS)



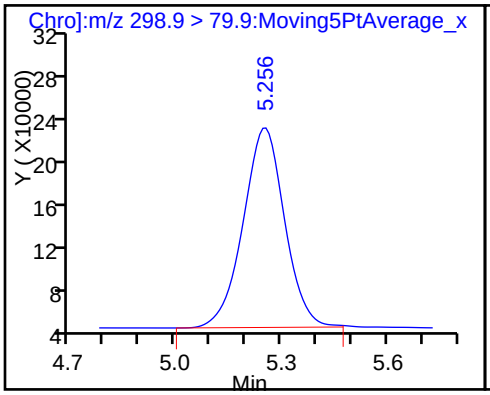
1 Perfluorobutyric acid (M)



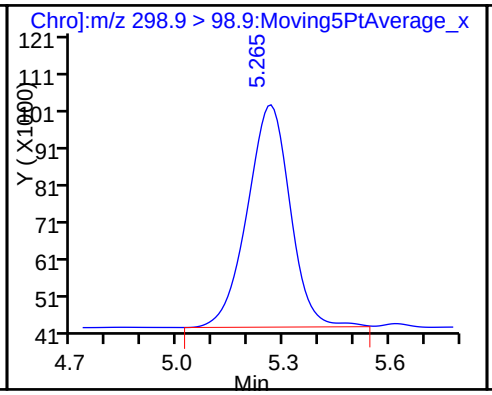
3 Perfluoropentanoic acid (M)



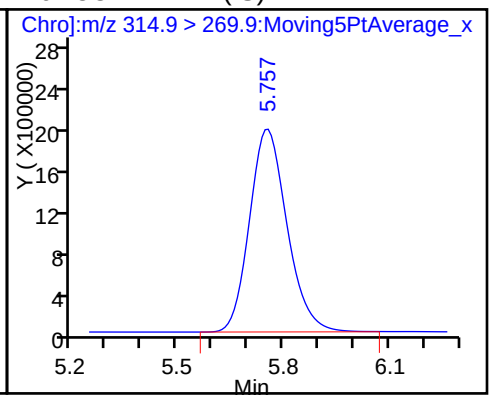
4 Perfluorobutane Sulfonate



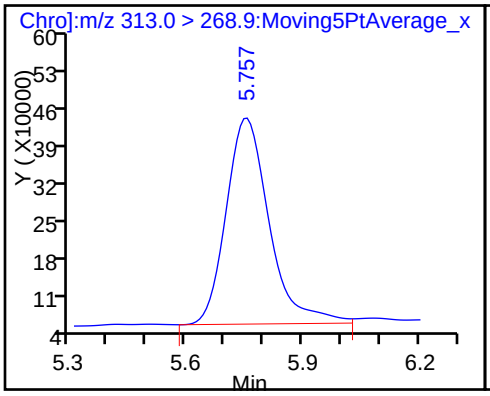
4 Perfluorobutane Sulfonate



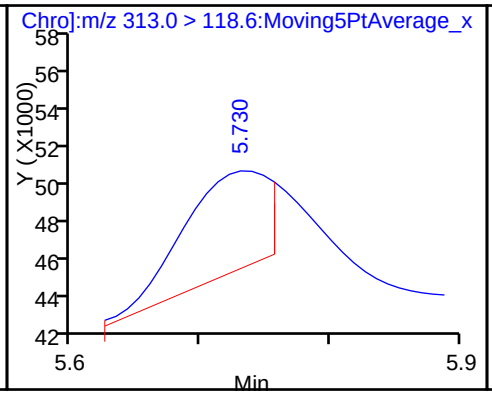
* 6 13C2 PFHxA (IS)



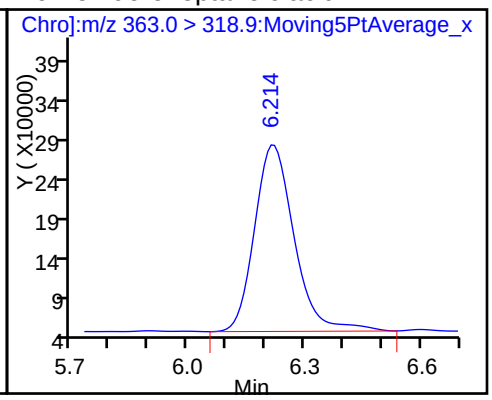
5 Perfluorohexanoic acid



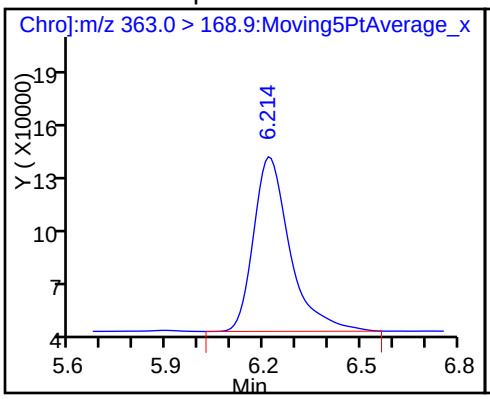
5 Perfluorohexanoic acid



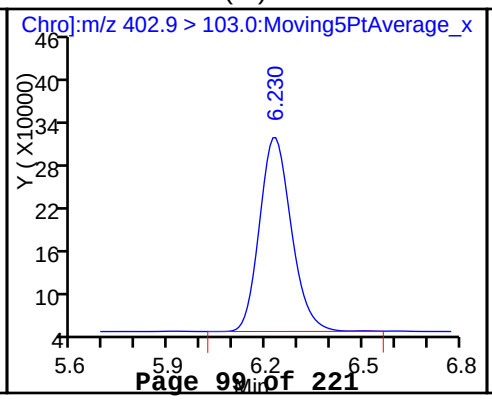
9 Perfluoroheptanoic acid



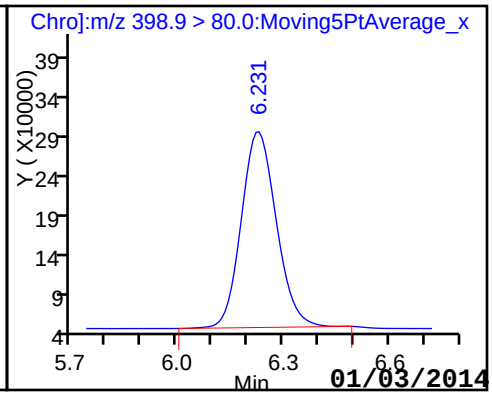
9 Perfluoroheptanoic acid



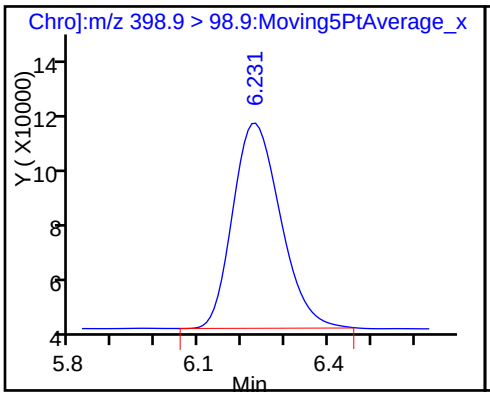
* 7 18O2 PFHxS (IS)



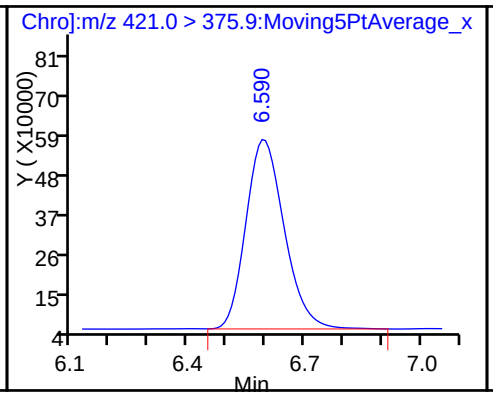
8 Perfluorohexane Sulfonate



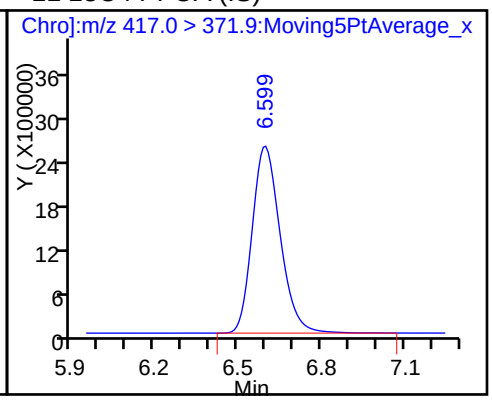
8 Perfluorohexane Sulfonate



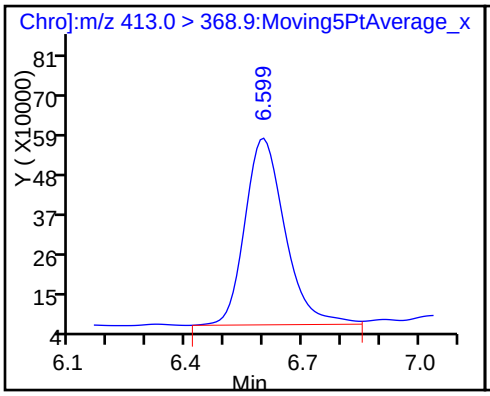
$ 10 13C8 PFOA



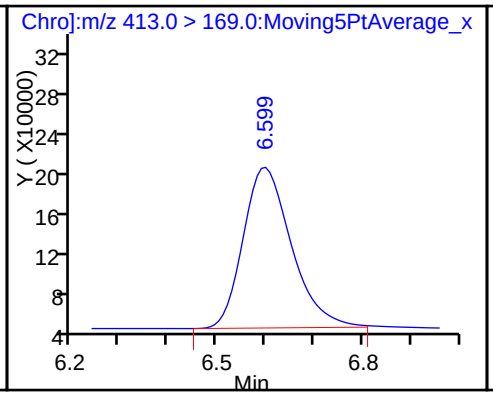
* 11 13C4 PFOA (IS)



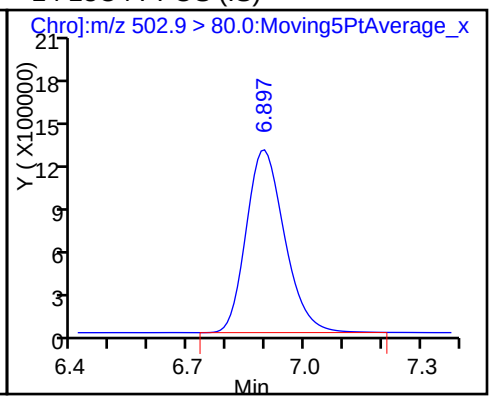
12 Perfluorooctanoic acid



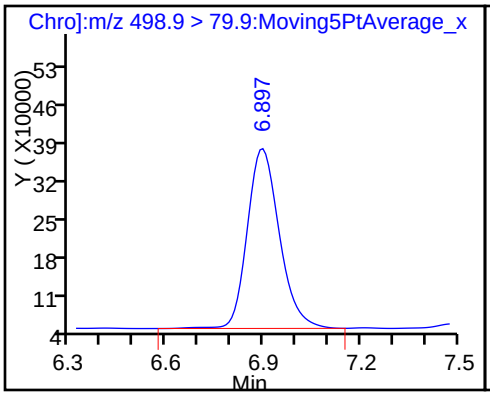
12 Perfluorooctanoic acid



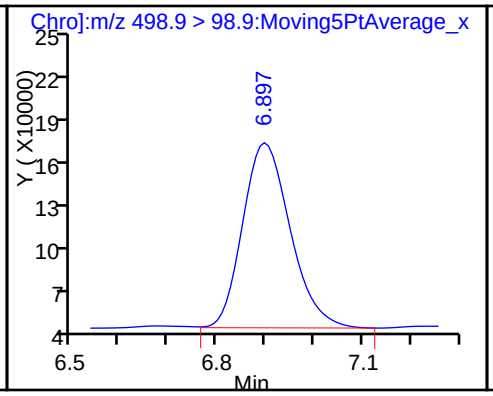
* 14 13C4 PFOS (IS)



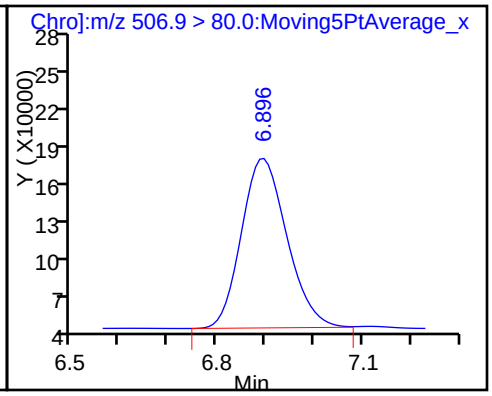
13 Perfluorooctanoic Sulfonate



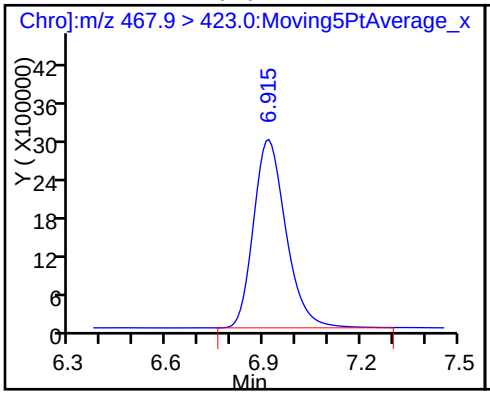
13 Perfluorooctanoic Sulfonate



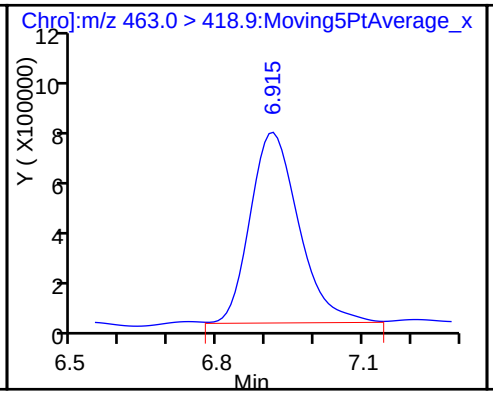
$ 15 13C8 PFOS



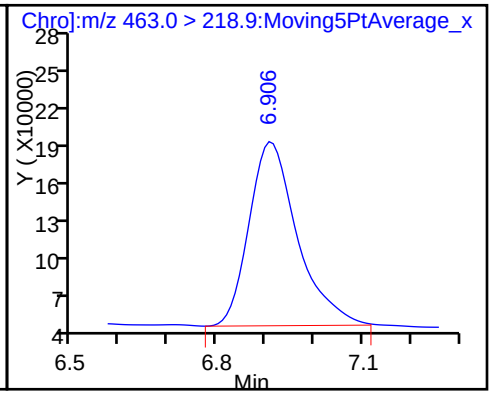
* 16 13C5 PFNA (IS)



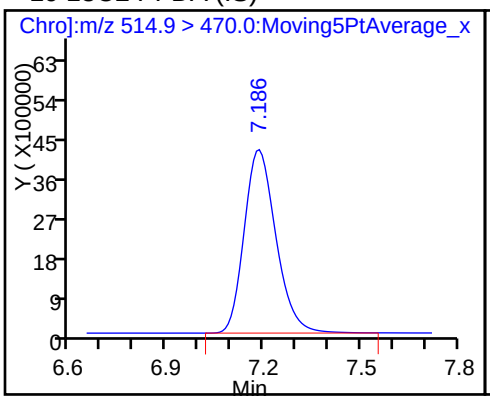
17 Perfluorononanoic acid



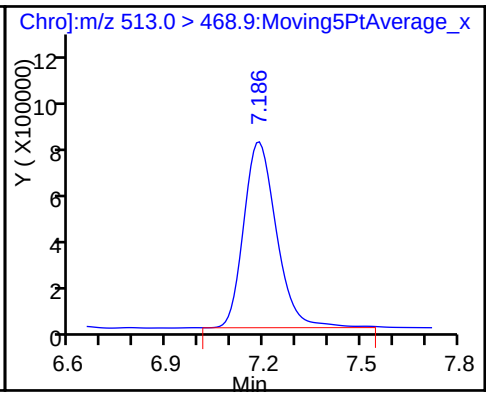
17 Perfluorononanoic acid



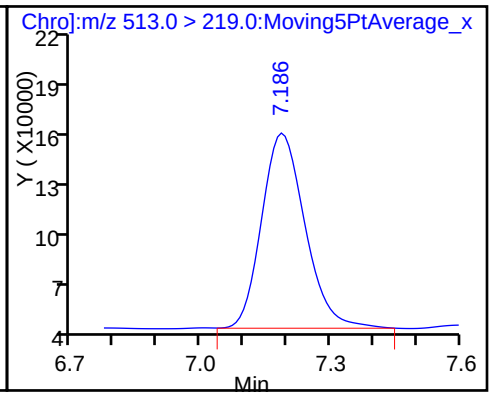
* 19 13C2 PFDA (IS)



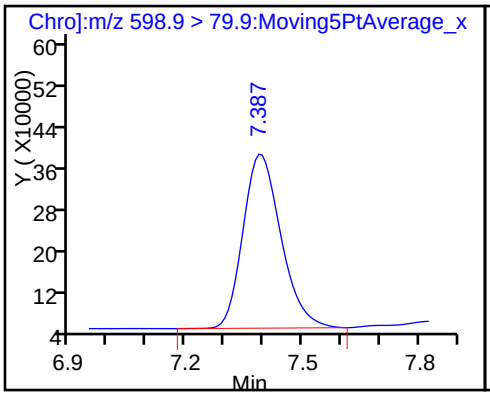
18 Perfluorodecanoic acid



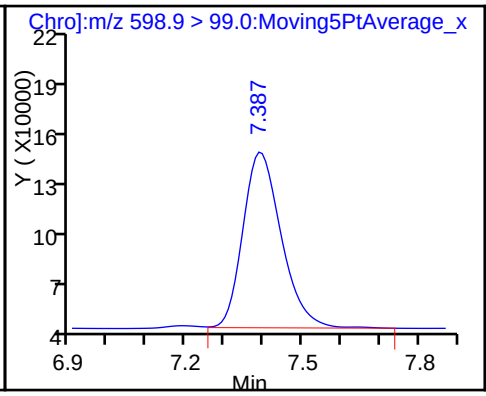
18 Perfluorodecanoic acid



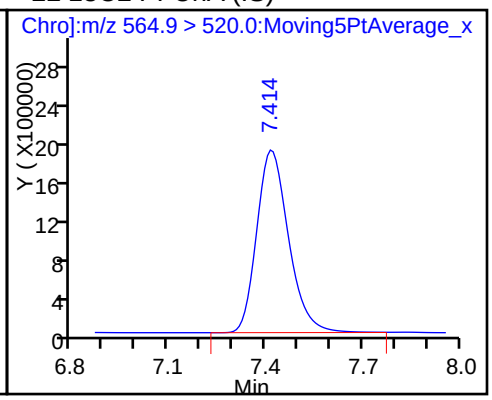
20 Perfluorodecane Sulfonate



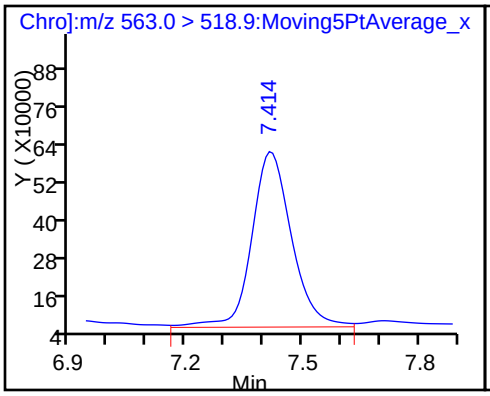
20 Perfluorodecane Sulfonate



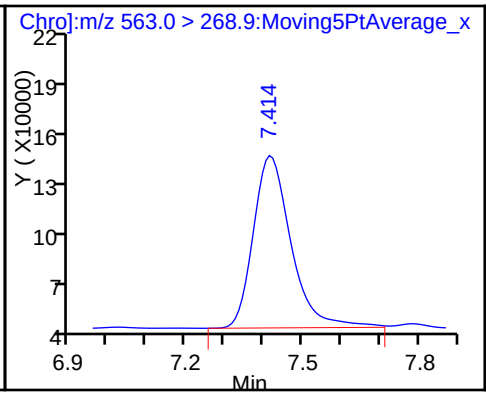
* 22 13C2 PFUnA (IS)



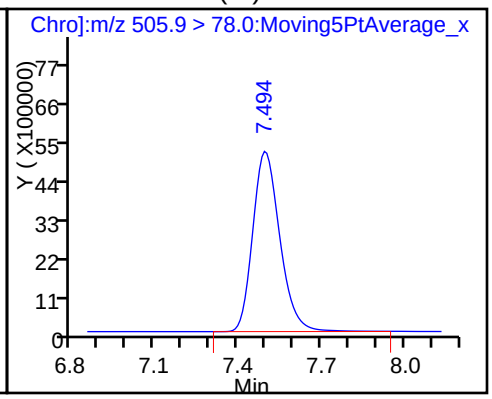
21 Perfluoroundecanoic acid



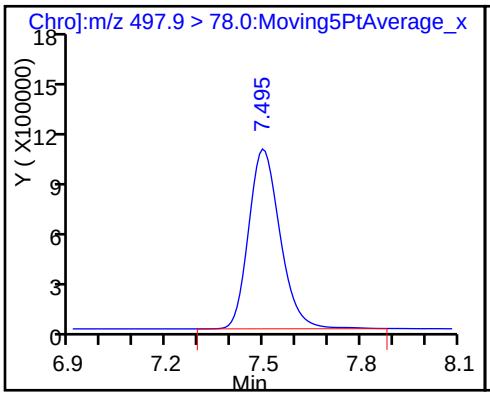
21 Perfluoroundecanoic acid



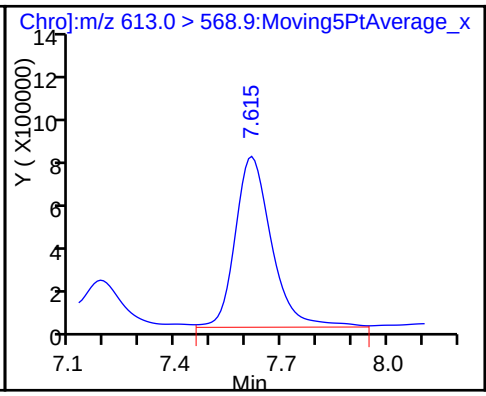
* 23 13C8 FOSA (IS)



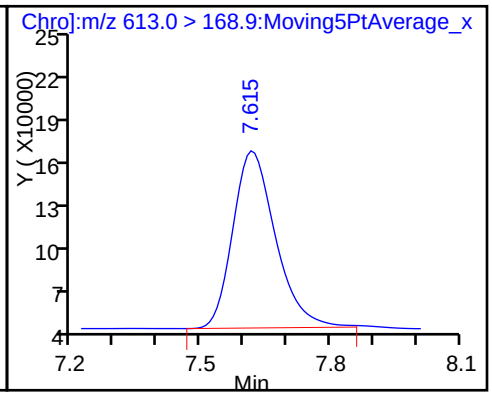
24 Perfluorooctane Sulfonamide



26 Perfluorododecanoic acid

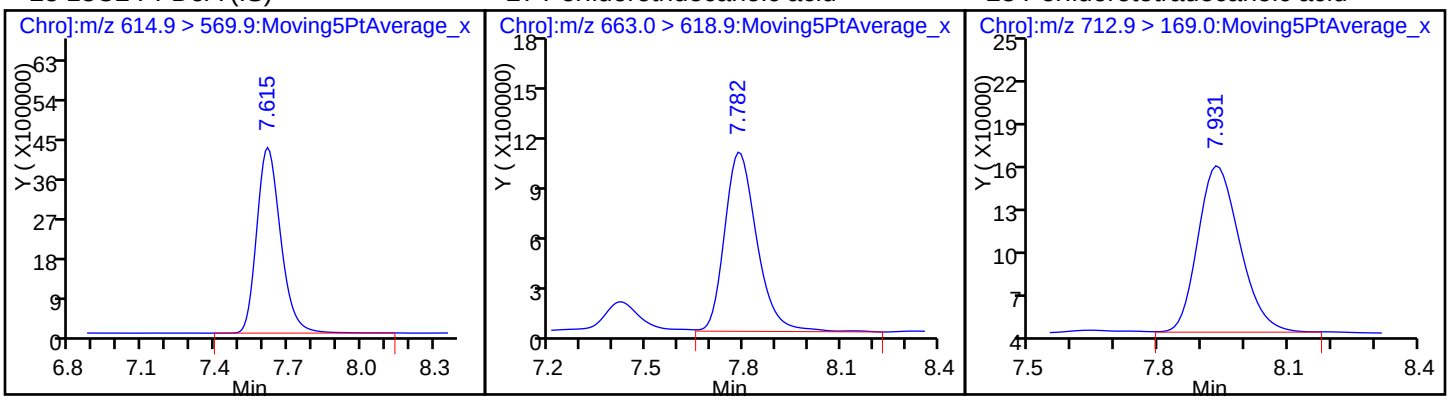


26 Perfluorododecanoic acid



Report Date: 02-Jan-2014 11:37:18 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30008.d

* 25 13C2 PFDoA (IS) | 27 Perfluorotridecanoic acid | 28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

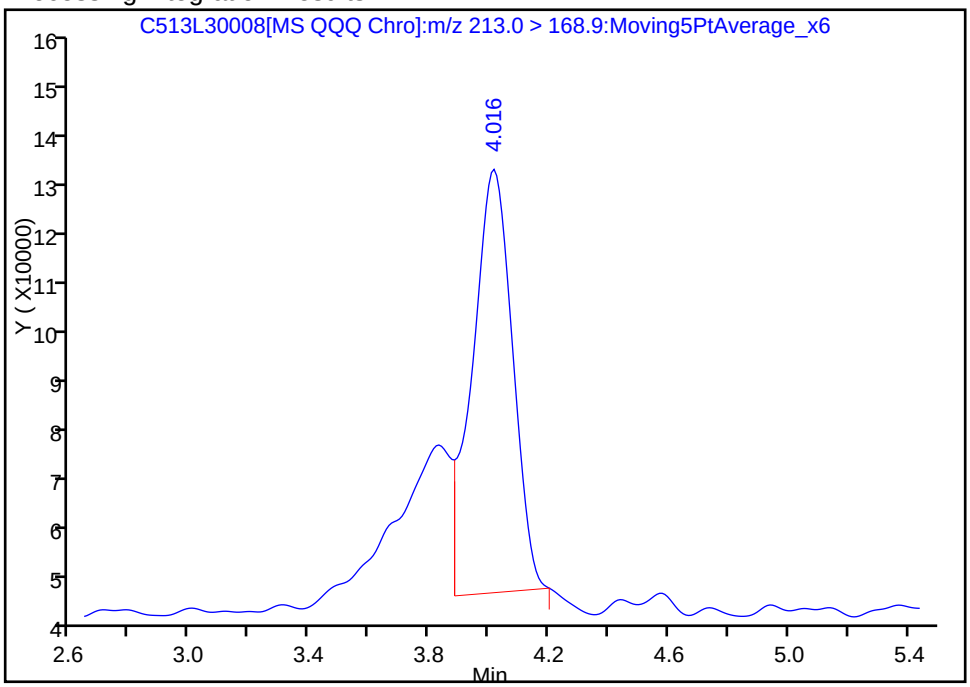
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30008.d				
Injection Date:	31-Dec-2013 16:41:38	Instrument ID:	LC_LCMS5		
Lims ID:	std0020	Lab Sample ID:	ICISAV 280-207217/6-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

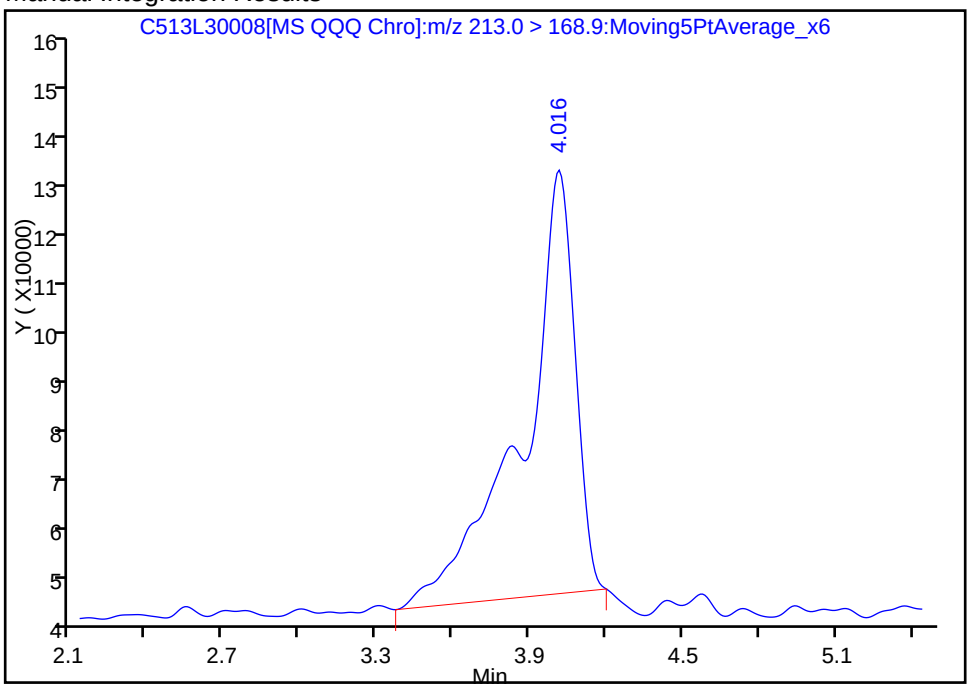
Processing Integration Results

RT: 4.02
Response: 771826
Amount: 1.342344



Manual Integration Results

RT: 4.02
Response: 1175152
Amount: 1.930704



Reviewer: kellisonm, 02-Jan-2014 10:23:36
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

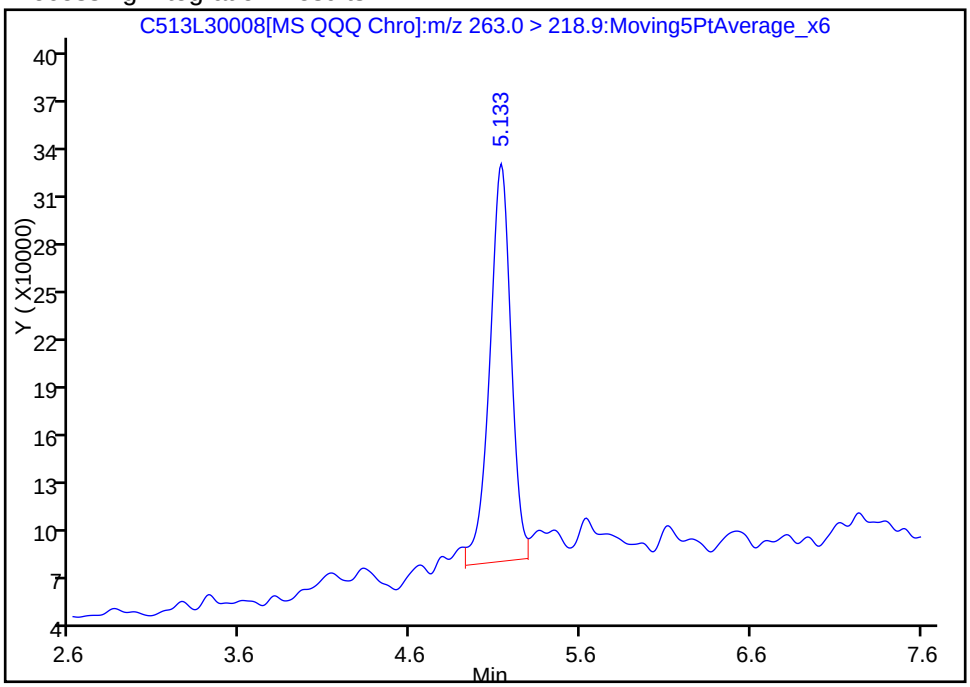
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30008.d				
Injection Date:	31-Dec-2013 16:41:38	Instrument ID:	LC_LCMS5		
Lims ID:	std0020	Lab Sample ID:	ICISAV 280-207217/6-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

3 Perfluoropentanoic acid, CAS: 2706-90-3

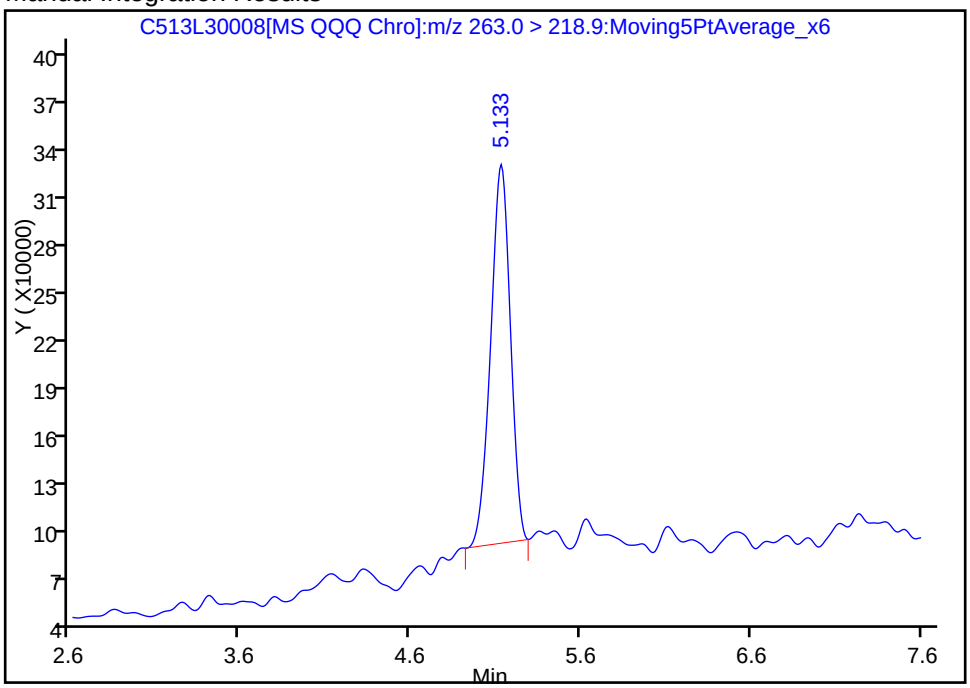
Processing Integration Results

RT: 5.13
Response: 2146399
Amount: 1.947375



Manual Integration Results

RT: 5.13
Response: 1887817
Amount: 1.742213



Reviewer: kellisonm, 02-Jan-2014 10:23:36
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30009.d
Lims ID: std0050 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 31-Dec-2013 16:53:56 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0050, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:19 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:24:13

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									
216.7 > 172.0	4.007	4.025	-0.018		7456853	10.0			
1 Perfluorobutyric acid									M
213.0 > 168.9	4.016	4.016	0.0	1.002	2873405	4.72			M
3 Perfluoropentanoic acid									
263.0 > 218.9	5.124	5.133	-0.009	0.892	5581810	5.05			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.247	5.256	-0.009	0.843	4354329	4.37			
298.9 > 98.9	5.247	5.256	-0.009	0.843	1065871		4.09(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.748	5.757	-0.009		14536056	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.757	5.757	0.0	1.002	7566814	4.99			
313.0 > 118.6	5.739	5.757	-0.018	0.999	164859		45.90(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.214	6.214	0.0	0.943	4542024	5.38			
363.0 > 168.9	6.214	6.214	0.0	0.943	1758990		2.58(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.222	6.230	-0.008		1819836	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.213	6.231	-0.018	0.999	4089719	4.66			
398.9 > 98.9	6.213	6.231	-0.018	0.999	1558076		2.62(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.590	6.590	0.0	1.000	8812303	5.17			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.590	6.599	-0.009		18150758	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.591	6.599	-0.008	1.000	9510972	5.27			
413.0 > 169.0	6.591	6.599	-0.008	1.000	2704258		3.52(2.38-4.41)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.888	6.897	-0.009		8389785	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.888	6.897	-0.009	1.000	5752134	5.28			
498.9 > 98.9	6.888	6.897	-0.009	1.000	2259153		2.55(1.84-3.42)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.887	6.896	-0.009	1.000	2131582	4.72			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.906	6.915	-0.009		19827198	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.906	6.915	-0.009	1.000	12488147	4.99			
463.0 > 218.9	6.906	6.915	-0.009	1.000	2380440		5.25(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.177	7.186	-0.009		28328211	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.177	7.186	-0.009	1.000	14135236	5.15			
513.0 > 219.0	7.177	7.186	-0.009	1.000	1978183		7.15(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.387	7.387	0.0	1.072	6403412	5.03			
598.9 > 99.0	7.387	7.387	0.0	1.072	1685095		3.80(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.414	7.414	0.0		12893998	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.414	7.414	0.0	1.000	10553619	5.24			
563.0 > 268.9	7.414	7.414	0.0	1.000	1689598		6.25(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.494	7.494	0.0		32644667	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.495	7.495	0.0	1.000	16919029	5.06			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.615	7.615	0.0	1.000	15029244	4.88			
613.0 > 168.9	7.615	7.615	0.0	1.000	2542301		5.91(4.54-8.44)		
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.615	7.615	0.0		30858652	10.0			
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.782	7.782	0.0	1.022	18853109	5.03			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.931	7.931	0.0	1.042	2085065	4.63			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:19 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30009.d

Injection Date: 31-Dec-2013 16:53:56 Instrument ID: LC_LCMS5

Lims ID: std0050 Lab Sample ID:

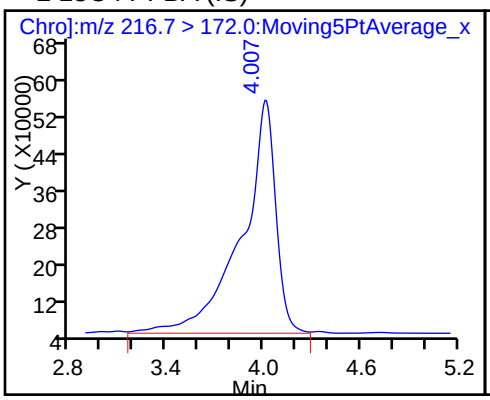
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 7

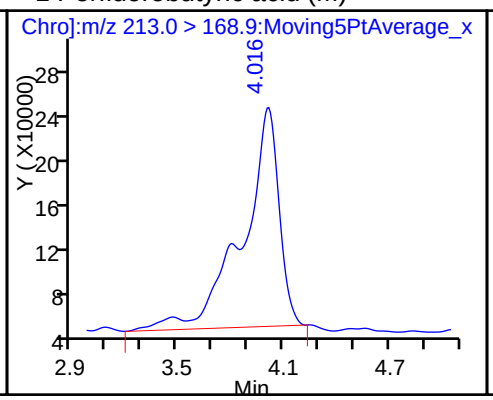
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

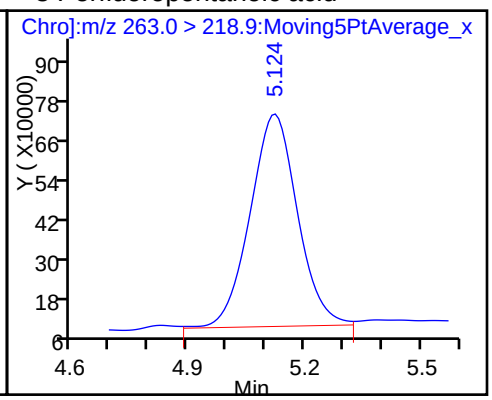
* 2 13C4 PFBA (IS)



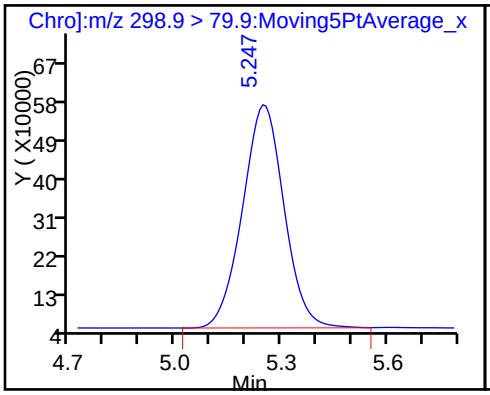
1 Perfluorobutyric acid (M)



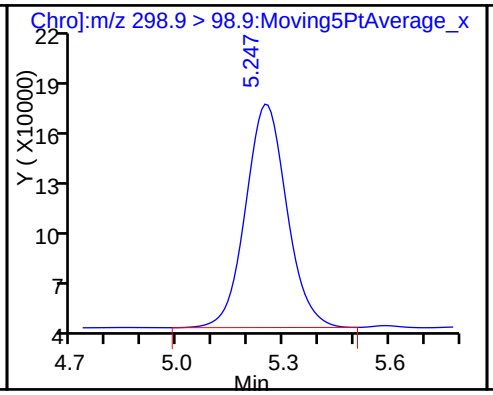
3 Perfluoropentanoic acid



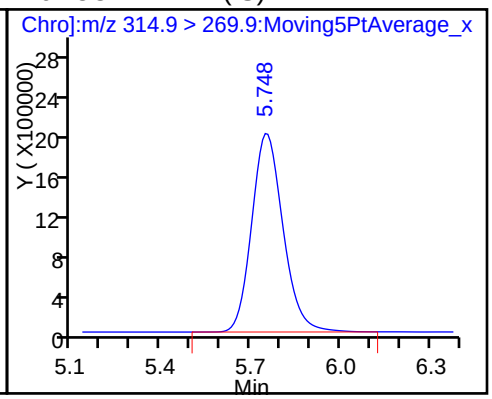
4 Perfluorobutane Sulfonate



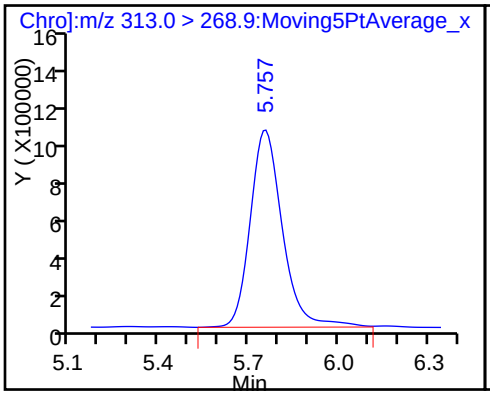
4 Perfluorobutane Sulfonate



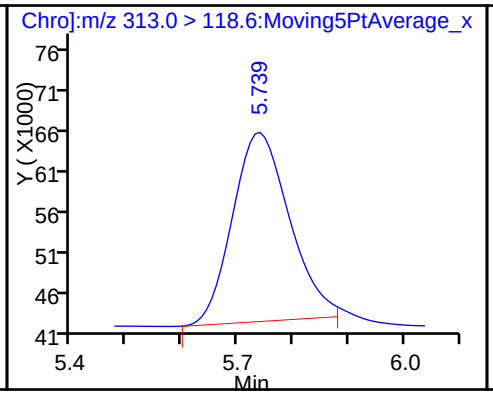
* 6 13C2 PFHxA (IS)



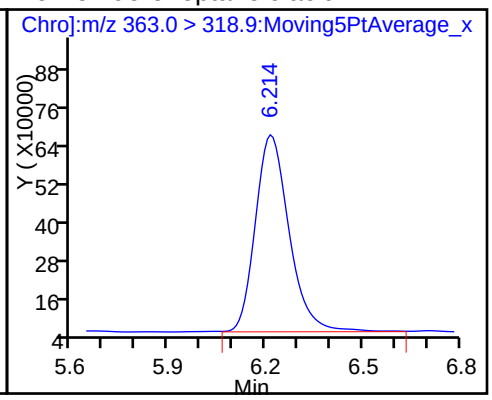
5 Perfluorohexanoic acid



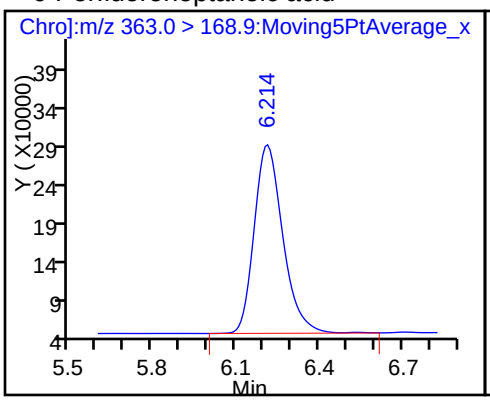
5 Perfluorohexanoic acid



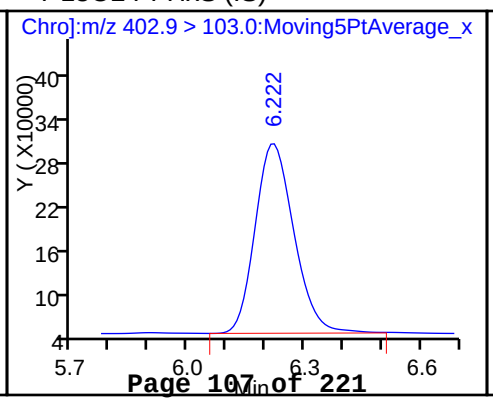
9 Perfluoroheptanoic acid



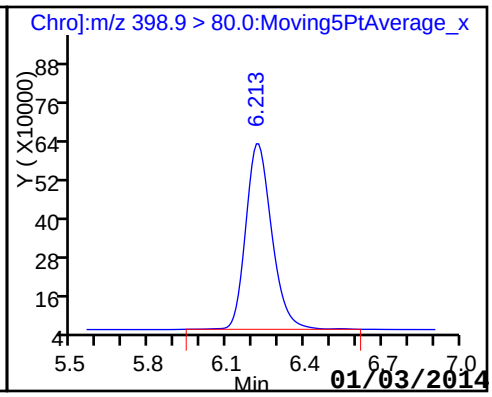
9 Perfluoroheptanoic acid



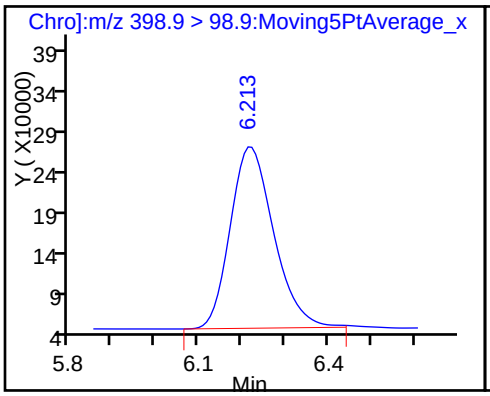
* 7 18O2 PFHxS (IS)



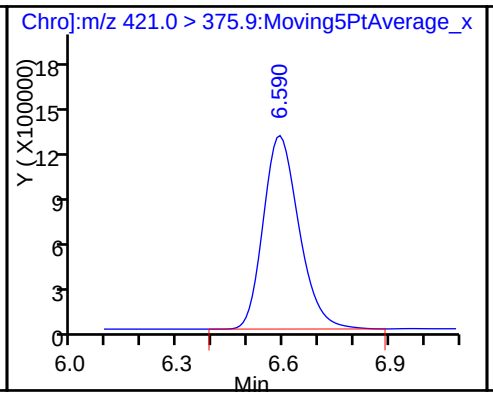
8 Perfluorohexane Sulfonate



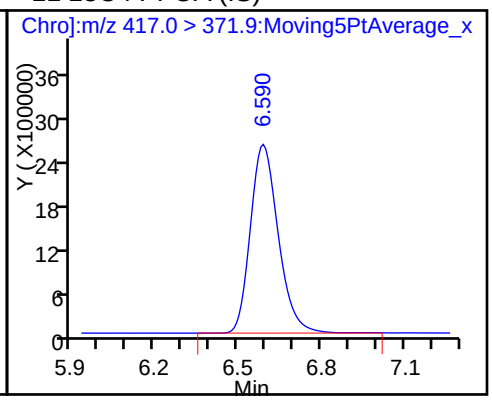
8 Perfluorohexane Sulfonate



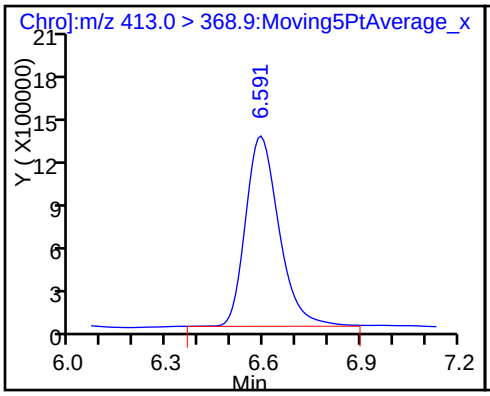
$ 10 13C8 PFOA



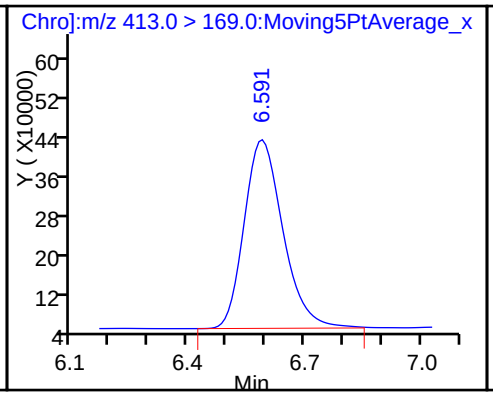
* 11 13C4 PFOA (IS)



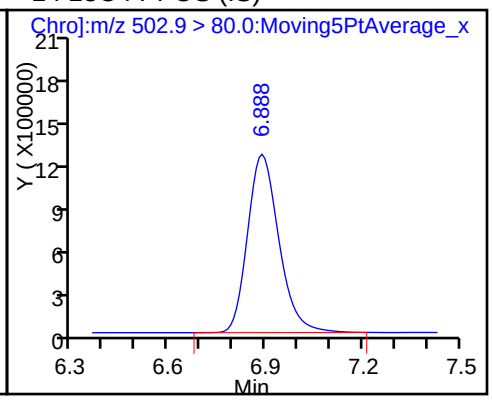
12 Perfluorooctanoic acid



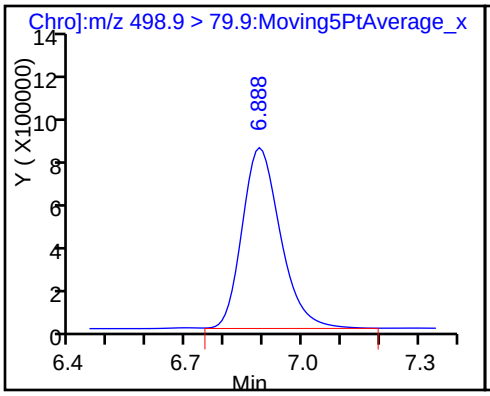
12 Perfluorooctanoic acid



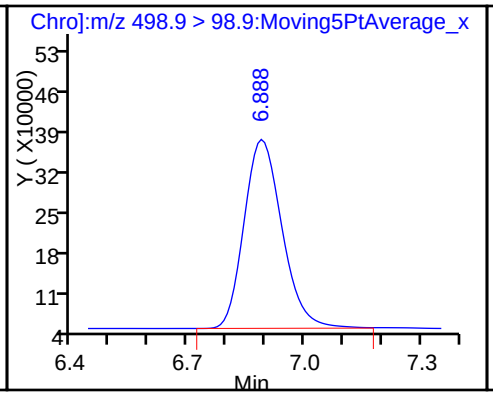
* 14 13C4 PFOS (IS)



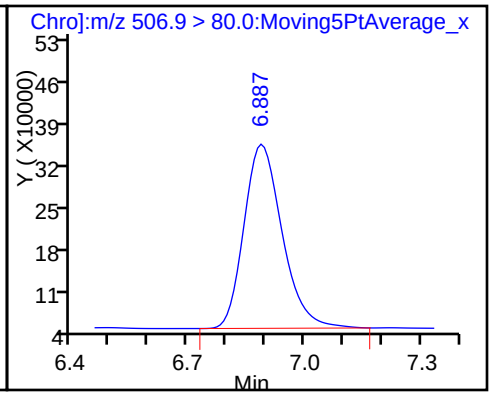
13 Perfluorooctanoic Sulfonate



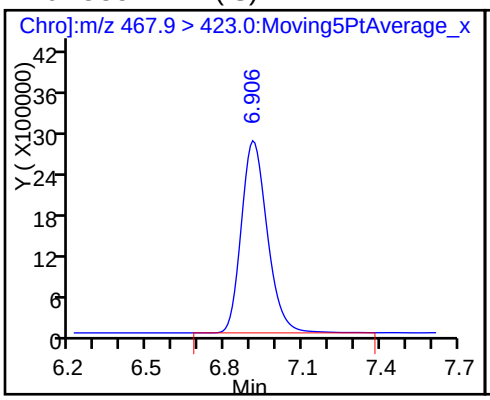
13 Perfluorooctanoic Sulfonate



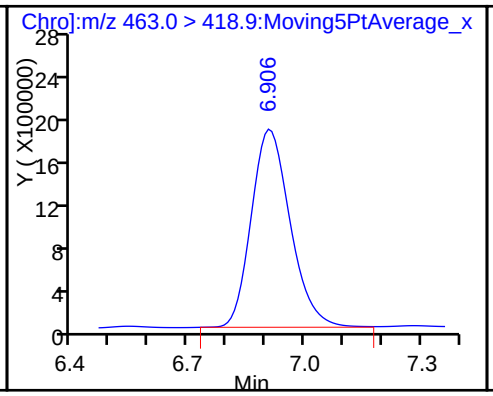
$ 15 13C8 PFOS



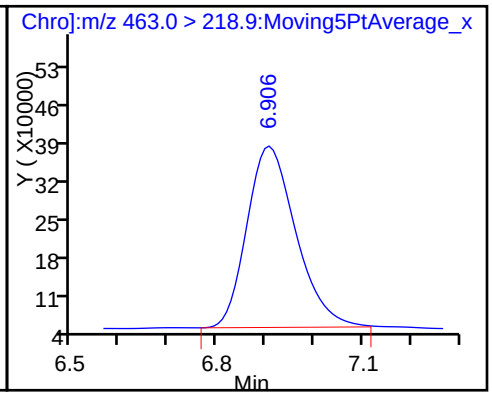
* 16 13C5 PFNA (IS)



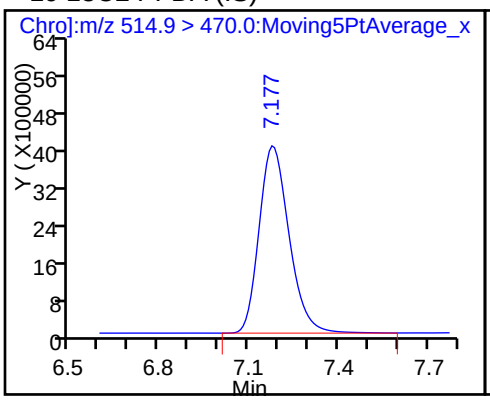
17 Perfluorononanoic acid



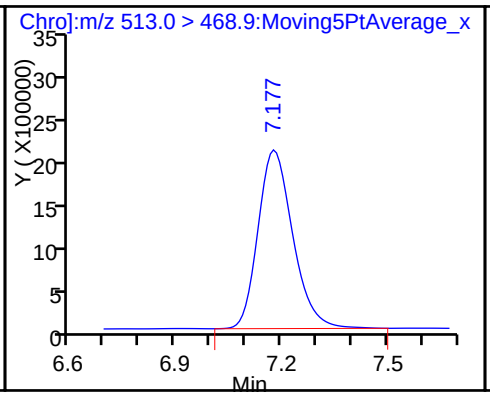
17 Perfluorononanoic acid



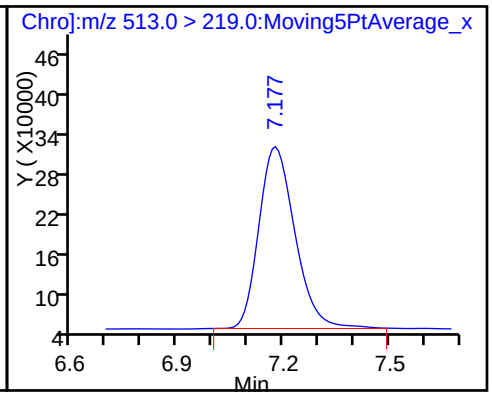
* 19 13C2 PFDA (IS)



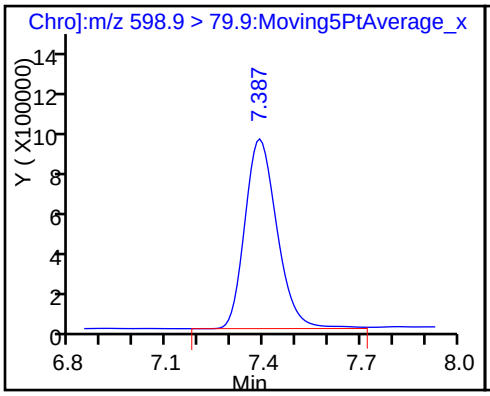
18 Perfluorodecanoic acid



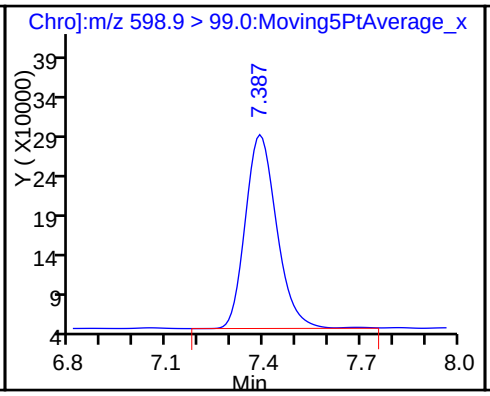
18 Perfluorodecanoic acid



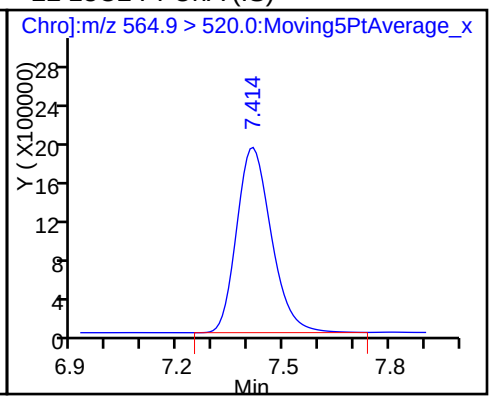
20 Perfluorodecane Sulfonate



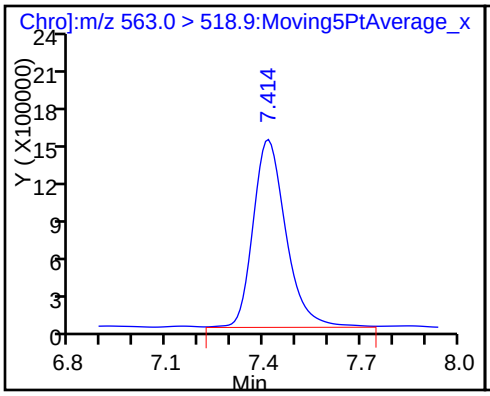
20 Perfluorodecane Sulfonate



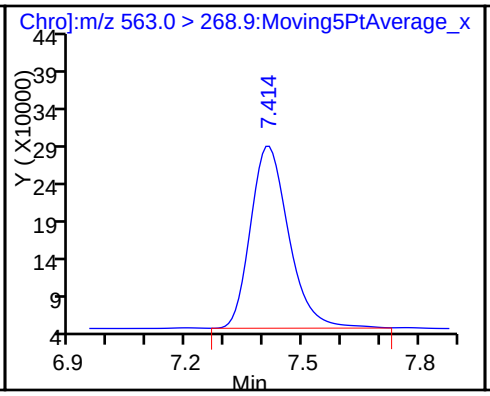
* 22 13C2 PFUnA (IS)



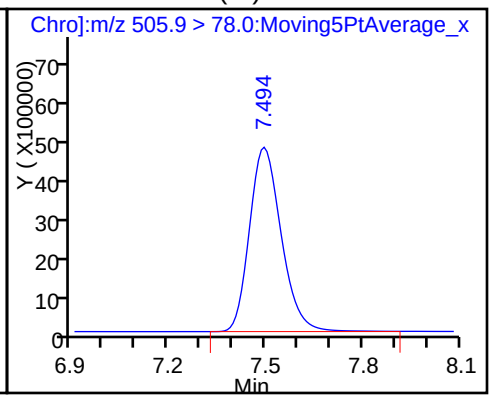
21 Perfluoroundecanoic acid



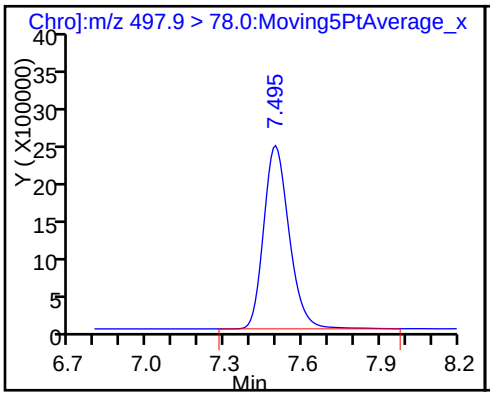
21 Perfluoroundecanoic acid



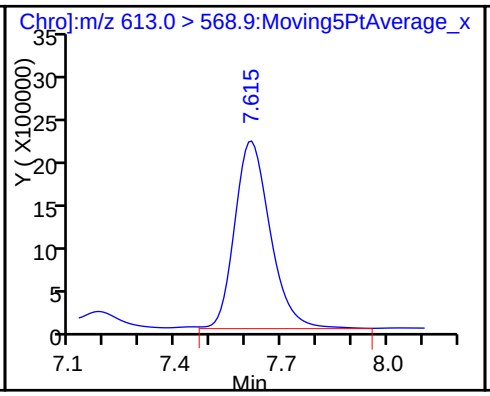
* 23 13C8 FOSA (IS)



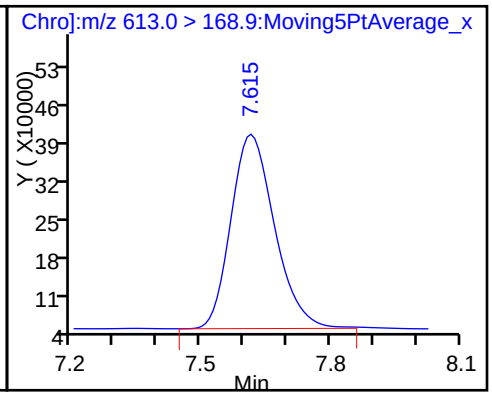
24 Perfluorooctane Sulfonamide



26 Perfluorododecanoic acid

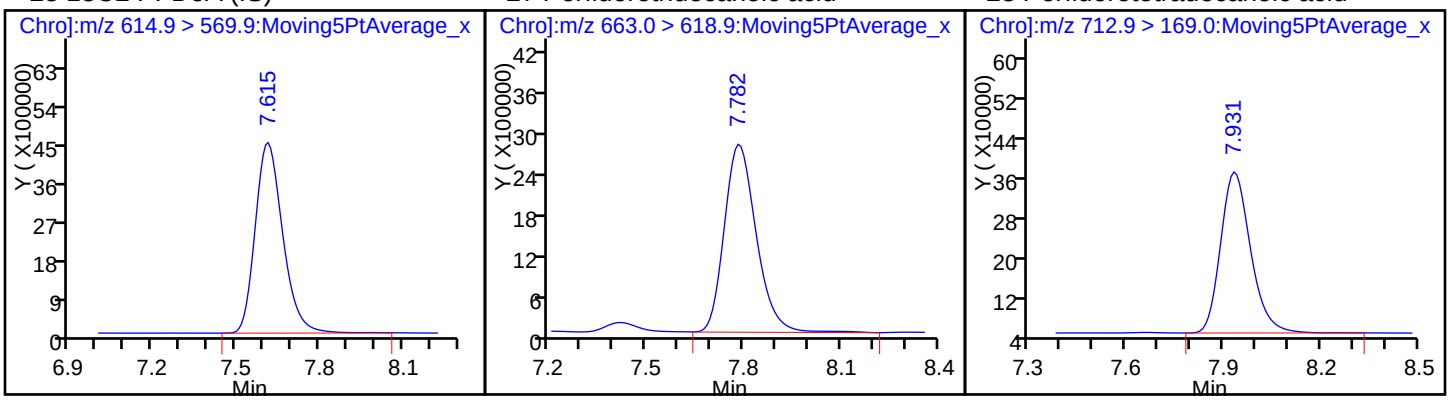


26 Perfluorododecanoic acid



Report Date: 02-Jan-2014 11:37:20 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30009.d

* 25 13C2 PFDoA (IS) | 27 Perfluorotridecanoic acid | 28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

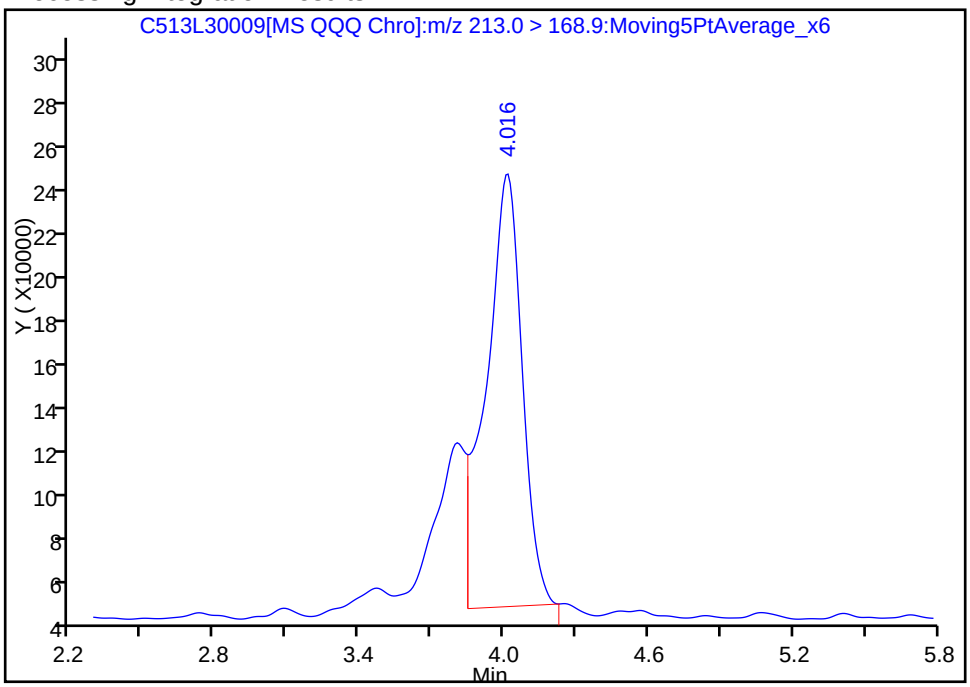
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30009.d				
Injection Date:	31-Dec-2013 16:53:56	Instrument ID:	LC_LCMS5		
Lims ID:	std0050	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

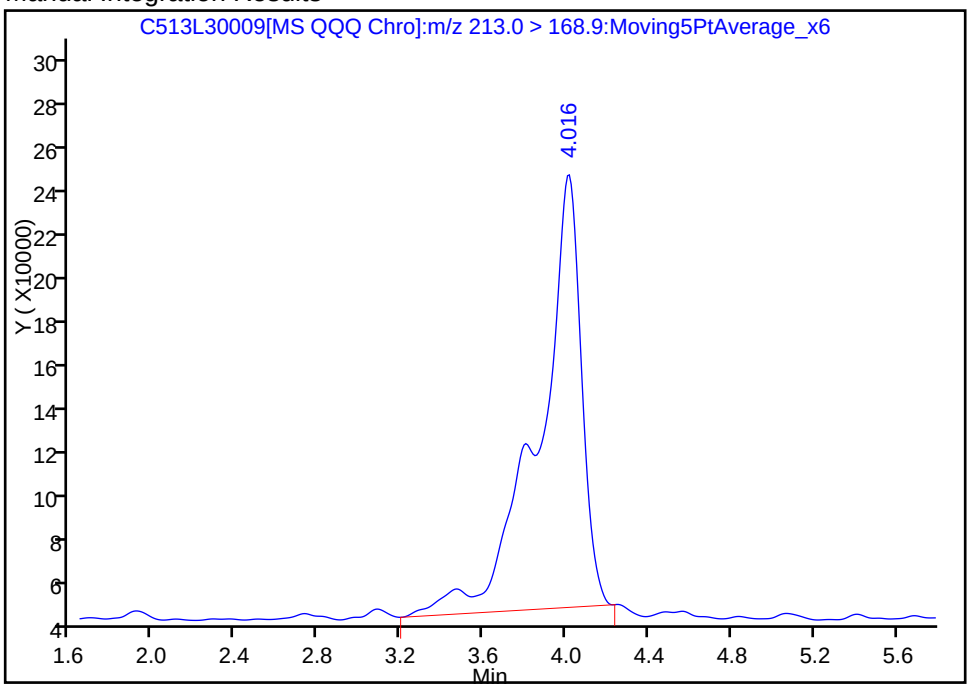
Processing Integration Results

RT: 4.02
Response: 2048211
Amount: 3.442033



Manual Integration Results

RT: 4.02
Response: 2873405
Amount: 4.723346



Reviewer: kellisonm, 02-Jan-2014 10:24:13
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30010.d
Lims ID: std0100 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 31-Dec-2013 17:06:13 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0100, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:21 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:24:54

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.008	4.016	-0.008	1.000	6164405	10.3			M
* 2 13C4 PFBA (IS)									
216.7 > 172.0	4.007	4.025	-0.018		7349390	10.0			
3 Perfluoropentanoic acid									
263.0 > 218.9	5.124	5.133	-0.009	0.892	10957283	10.3			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.247	5.256	-0.009	0.843	8519715	8.68			
298.9 > 98.9	5.247	5.256	-0.009	0.843	2174499		3.92(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.748	5.757	-0.009		13941420	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.748	5.757	-0.009	1.000	15015128	10.5			
313.0 > 118.6	5.748	5.757	-0.009	1.000	322671		46.53(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.214	6.214	0.0	0.943	8707780	10.6			
363.0 > 168.9	6.214	6.214	0.0	0.943	3297391		2.64(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.222	6.230	-0.008		1787331	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.222	6.231	-0.009	1.000	8079077	9.45			
398.9 > 98.9	6.222	6.231	-0.009	1.000	3044908		2.65(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.590	6.590	0.0	1.000	16873824	10.2			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.590	6.599	-0.009		17790481	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.591	6.599	-0.008	1.000	17909474	10.2			
413.0 > 169.0	6.591	6.599	-0.008	1.000	5248401		3.41(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.887	6.896	-0.009	1.000	4248305	9.24			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.888	6.897	-0.009		8559316	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.888	6.897	-0.009	1.000	10805645	9.72			
498.9 > 98.9	6.888	6.897	-0.009	1.000	4401835		2.45(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.906	6.915	-0.009		18321636	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.906	6.915	-0.009	1.000	22931826	9.90			
463.0 > 218.9	6.906	6.915	-0.009	1.000	4095618		5.60(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.177	7.186	-0.009		27311046	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.177	7.186	-0.009	1.000	26850145	10.2			
513.0 > 219.0	7.177	7.186	-0.009	1.000	3630333		7.40(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.387	7.387	0.0	1.072	11682437	8.96			
598.9 > 99.0	7.387	7.387	0.0	1.072	3126808		3.74(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.414	7.414	0.0		11942066	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.414	7.414	0.0	1.000	18753827	10.2			
563.0 > 268.9	7.414	7.414	0.0	1.000	3107465		6.04(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.494	7.494	0.0		31961083	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.495	7.495	0.0	1.000	32959961	10.1			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.606	7.615	-0.009		27603922	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.606	7.615	-0.009	1.000	27776527	10.2			
613.0 > 168.9	7.606	7.615	-0.009	1.000	4258819		6.52(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.782	7.782	0.0	1.023	34185399	10.3			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.931	7.931	0.0	1.043	4036437	10.1			

QC Flag Legend

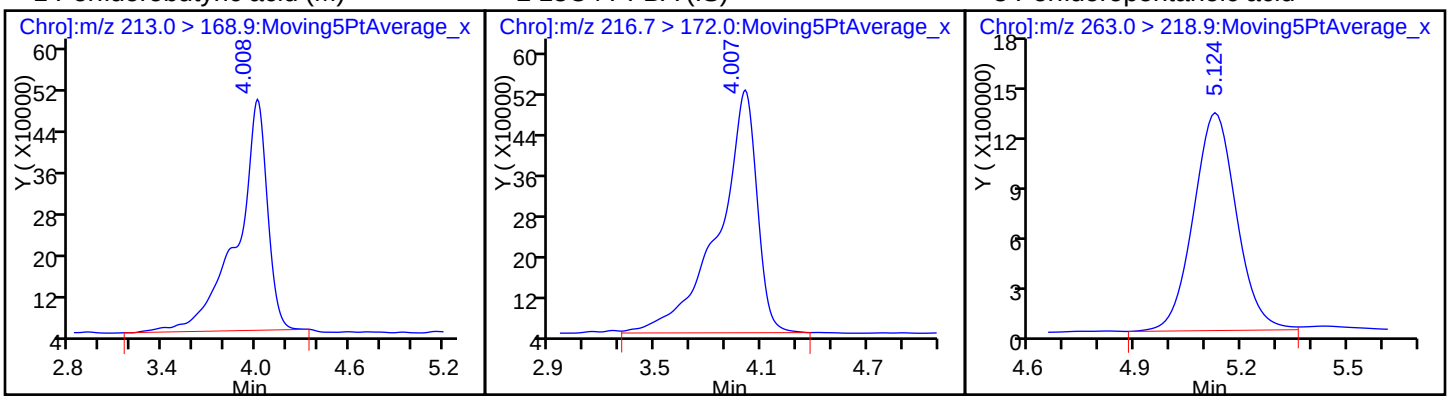
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:21 Chrom Revision: 2.1 15-Oct-2013 07:52:24

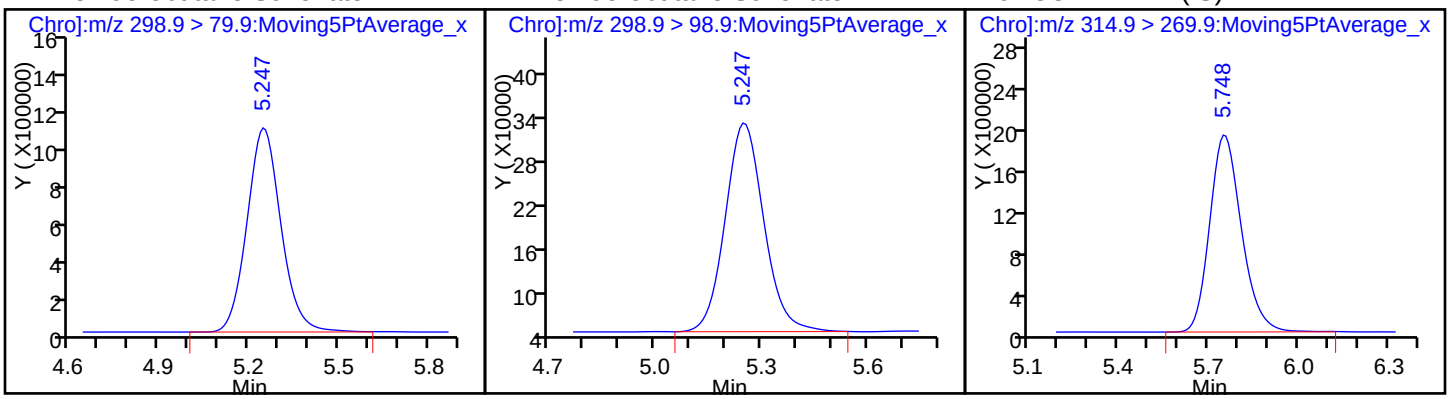
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30010.d				
Injection Date:	31-Dec-2013 17:06:13	Instrument ID:	LC_LCMS5		
Lims ID:	std0100	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

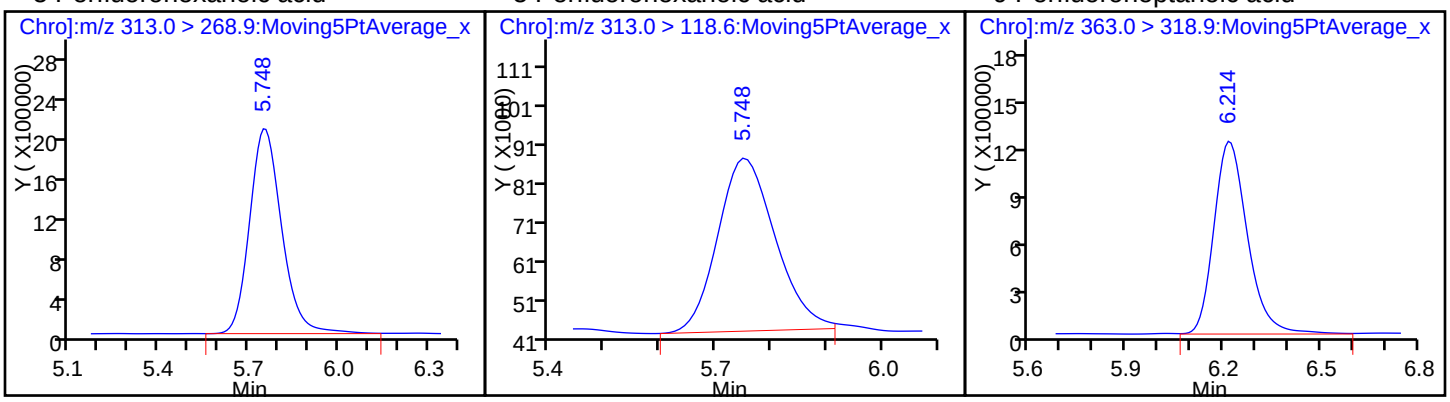
1 Perfluorobutyric acid (M) * 2 13C4 PFBA (IS) 3 Perfluoropentanoic acid



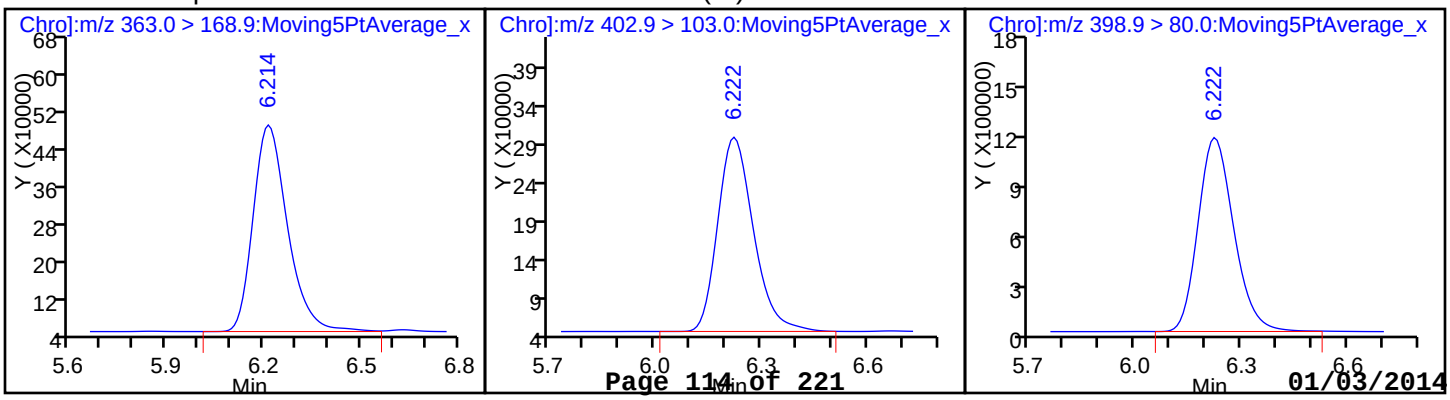
4 Perfluorobutane Sulfonate 4 Perfluorobutane Sulfonate * 6 13C2 PFHxA (IS)



5 Perfluorohexanoic acid 5 Perfluorohexanoic acid 9 Perfluoroheptanoic acid

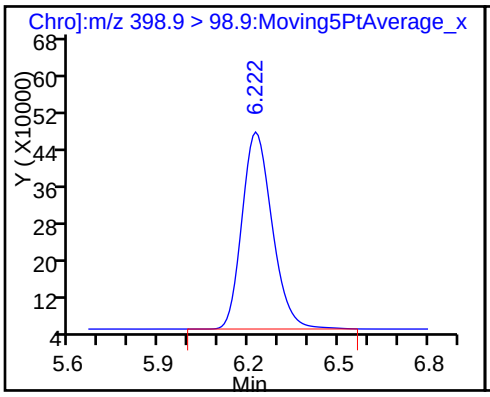


9 Perfluoroheptanoic acid * 7 18O2 PFHxS (IS) 8 Perfluorohexane Sulfonate

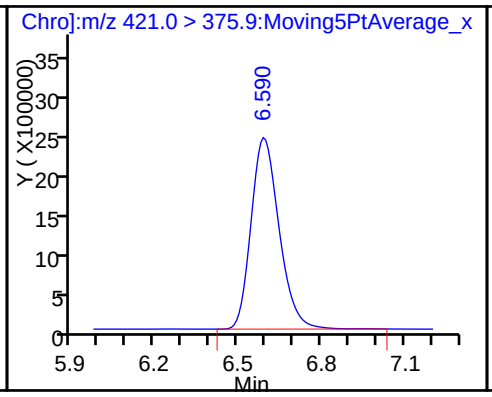


Report Date: 02-Jan-2014 11:37:21 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30010.d

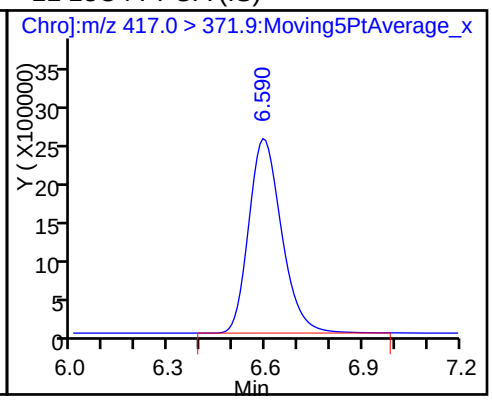
8 Perfluorohexane Sulfonate



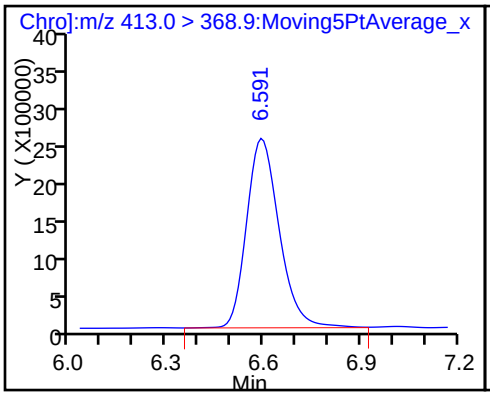
$ 10 13C8 PFOA



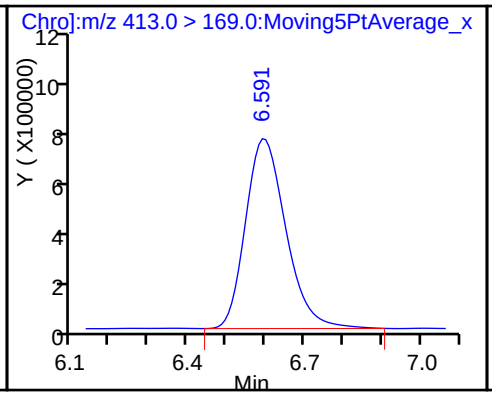
* 11 13C4 PFOA (IS)



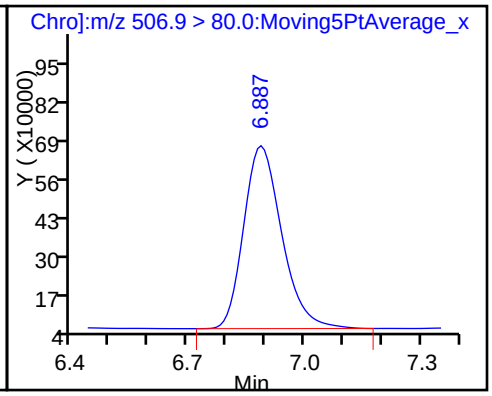
12 Perfluorooctanoic acid



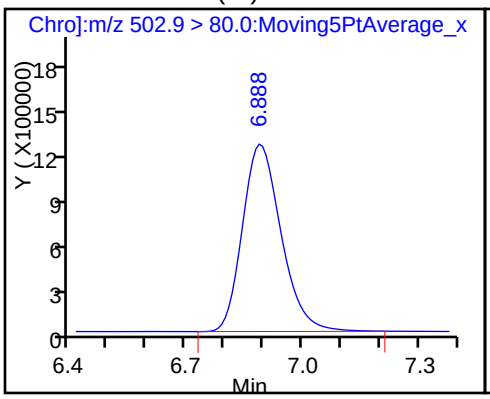
12 Perfluorooctanoic acid



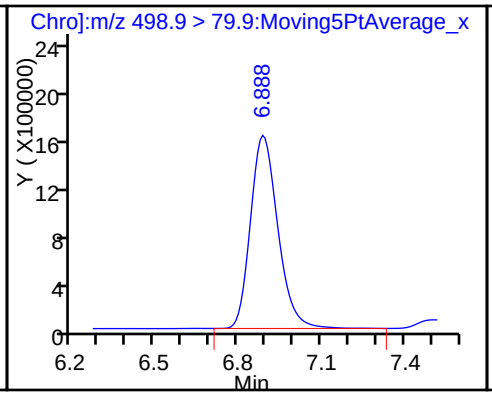
$ 15 13C8 PFOS



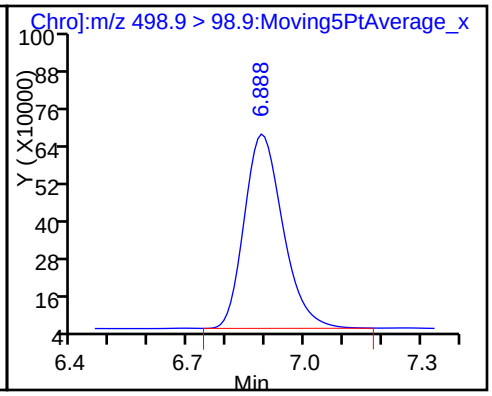
* 14 13C4 PFOS (IS)



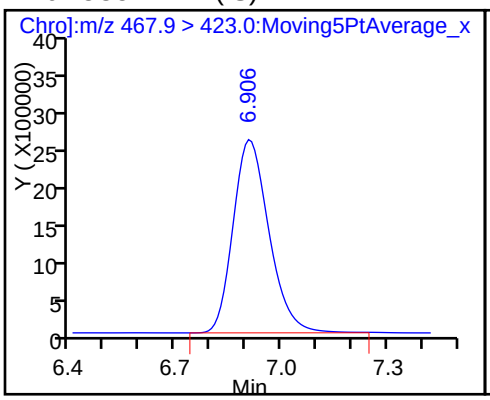
13 Perfluorooctanoic Sulfonate



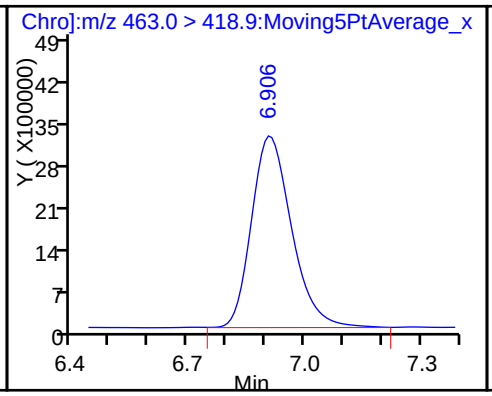
13 Perfluorooctanoic Sulfonate



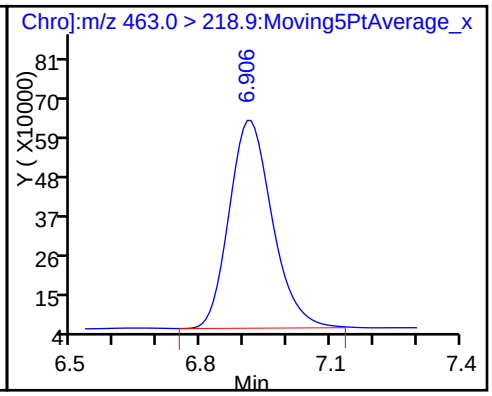
* 16 13C5 PFNA (IS)



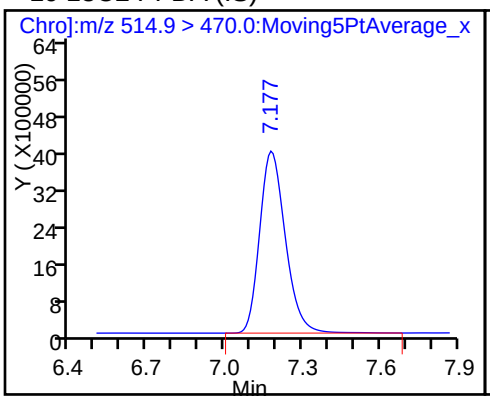
17 Perfluorononanoic acid



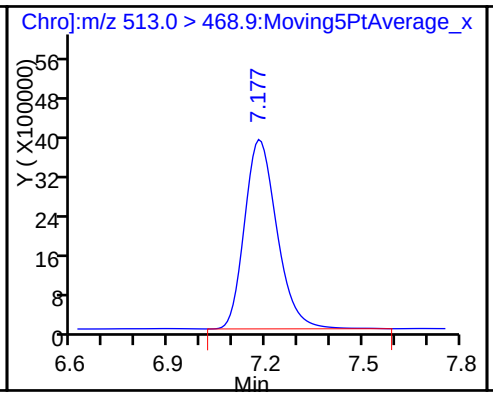
17 Perfluorononanoic acid



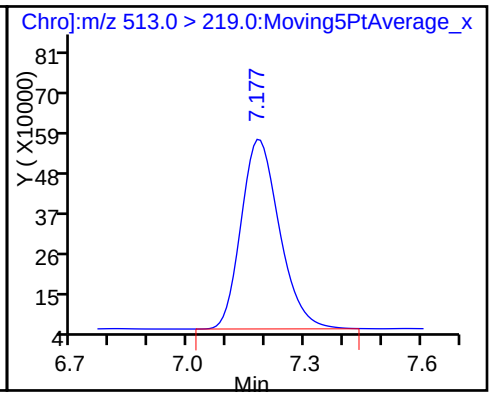
* 19 13C2 PFDA (IS)



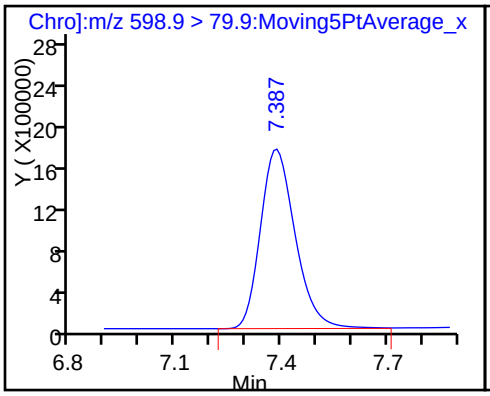
18 Perfluorodecanoic acid



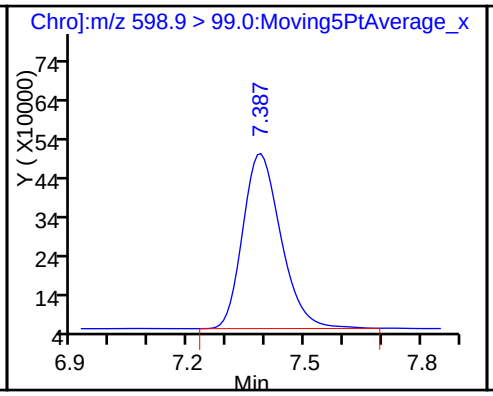
18 Perfluorodecanoic acid



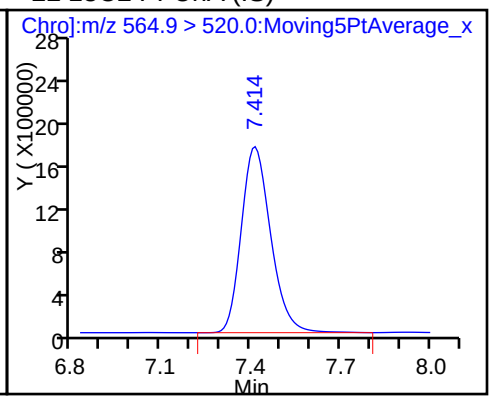
20 Perfluorodecane Sulfonate



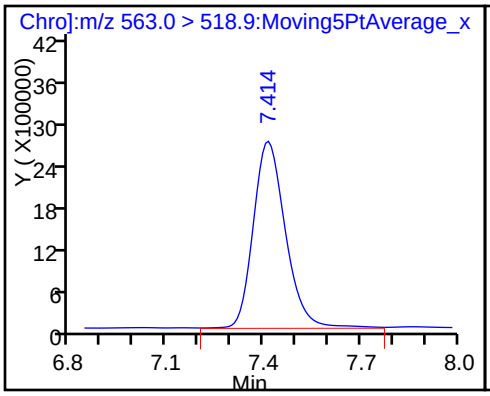
20 Perfluorodecane Sulfonate



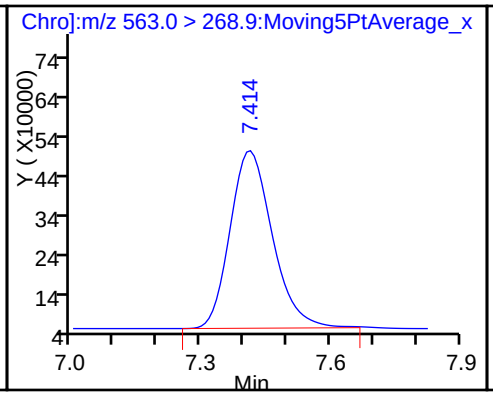
* 22 13C2 PFUnA (IS)



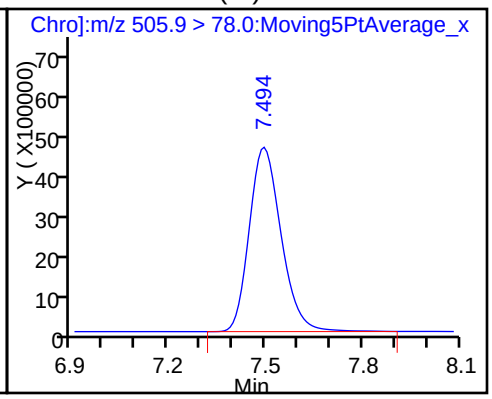
21 Perfluoroundecanoic acid



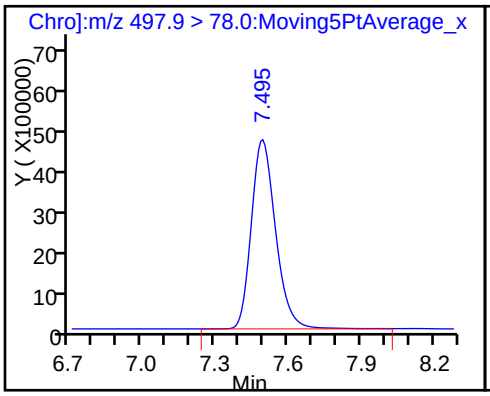
21 Perfluoroundecanoic acid



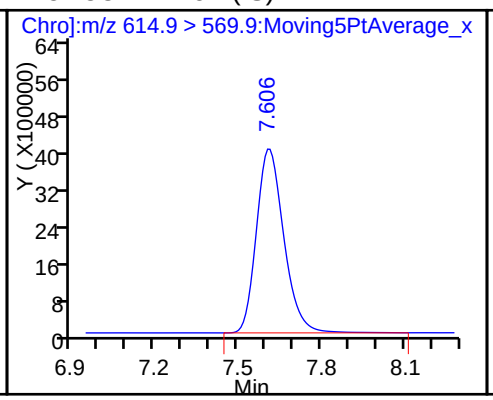
* 23 13C8 FOSA (IS)



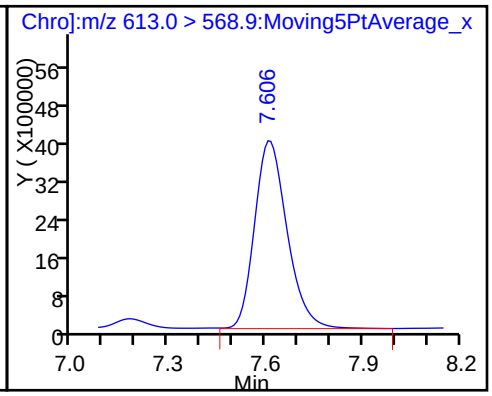
24 Perfluorooctane Sulfonamide



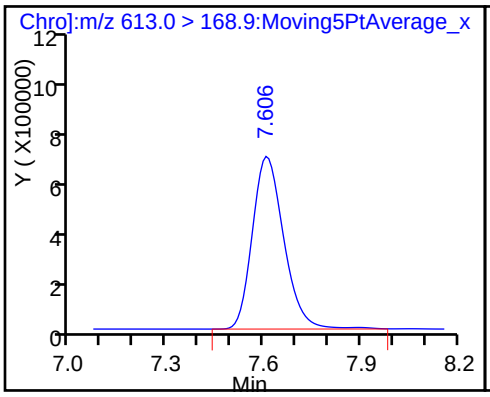
* 25 13C2 PFDoA (IS)



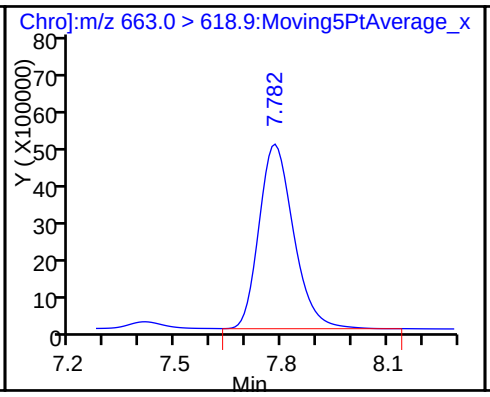
26 Perfluorododecanoic acid



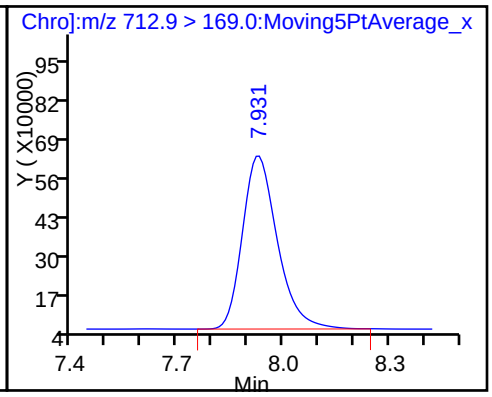
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

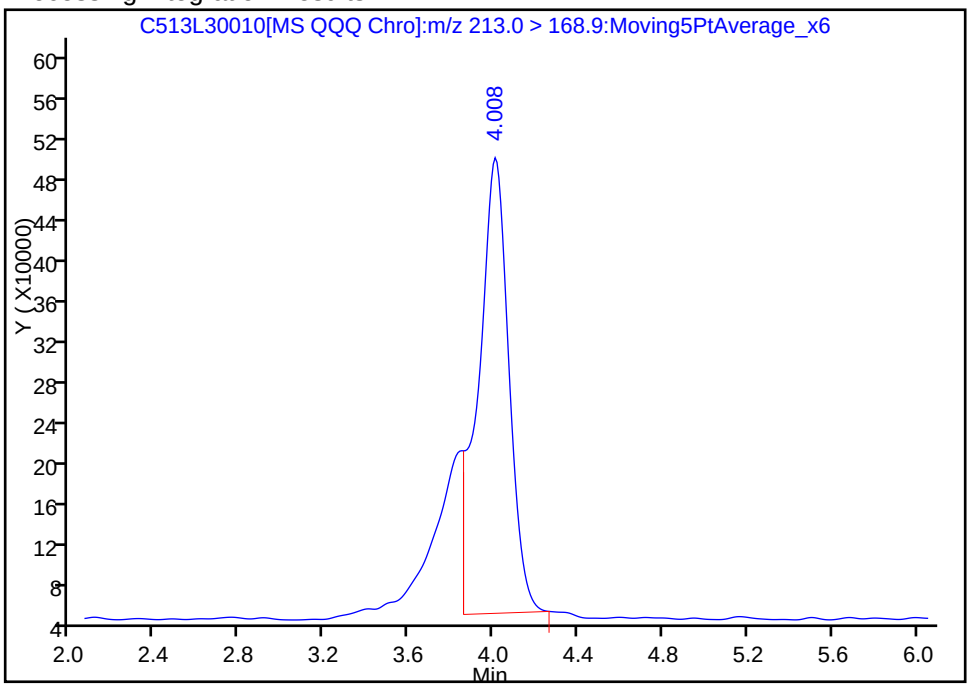
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30010.d				
Injection Date:	31-Dec-2013 17:06:13	Instrument ID:	LC_LCMS5		
Lims ID:	std0100	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

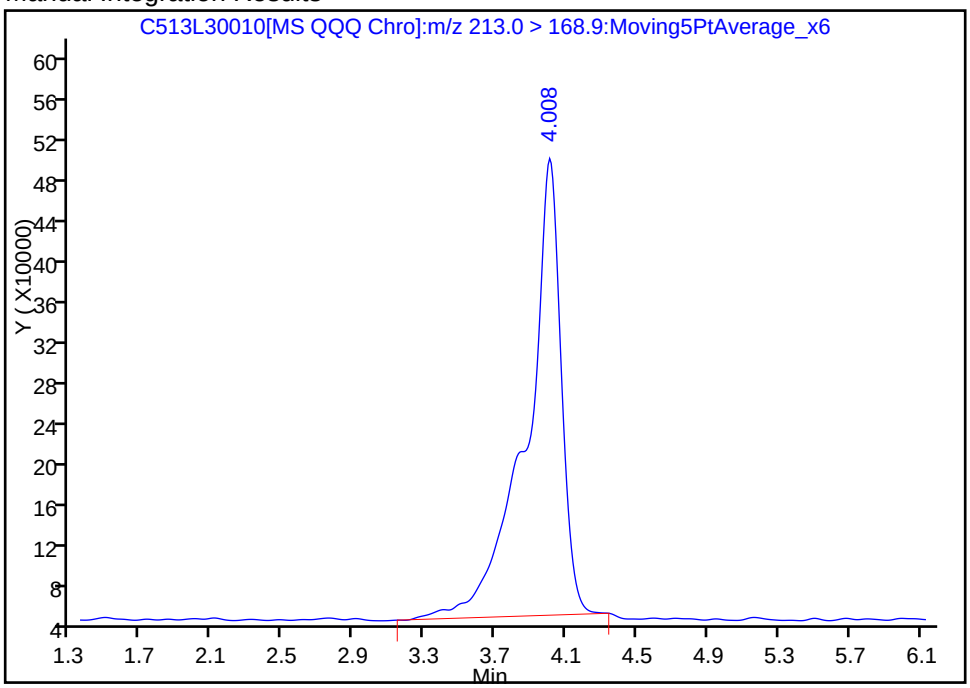
Processing Integration Results

RT: 4.01
Response: 4481551
Amount: 7.377389



Manual Integration Results

RT: 4.01
Response: 6164405
Amount: 10.302233



Reviewer: kellisonm, 02-Jan-2014 10:24:54
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30011.d
Lims ID: std0200 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 31-Dec-2013 17:18:29 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0200, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:22 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:25:36

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.016	4.016	0.0	1.000	13093373	22.0			M
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	4.016	4.025	-0.009		7331057	10.0			M
3 Perfluoropentanoic acid									
263.0 > 218.9	5.124	5.133	-0.009	0.890	21722033	19.5			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.247	5.256	-0.009	0.843	17811660	19.2			
298.9 > 98.9	5.256	5.256	0.0	0.845	4484800		3.97(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.757	5.757	0.0		14549137	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.757	5.757	0.0	1.000	29042988	19.5			
313.0 > 118.6	5.748	5.757	-0.009	0.999	704589		41.22(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.214	6.214	0.0	0.943	16048683	20.0			
363.0 > 168.9	6.214	6.214	0.0	0.943	6597730		2.43(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.222	6.230	-0.008		1685948	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.222	6.231	-0.009	1.000	15838424	19.7			
398.9 > 98.9	6.222	6.231	-0.009	1.000	6252040		2.53(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.590	6.590	0.0	1.000	33088285	20.4			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.590	6.599	-0.009		17398887	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.591	6.599	-0.008	1.000	35336180	20.5			
413.0 > 169.0	6.591	6.599	-0.008	1.000	10173297		3.47(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.887	6.896	-0.009	1.000	8139003	18.7			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.888	6.897	-0.009		8124645	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.888	6.897	-0.009	1.000	19808075	18.8			
498.9 > 98.9	6.888	6.897	-0.009	1.000	8428584		2.35(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.906	6.915	-0.009		16728039	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.906	6.915	-0.009	1.000	42876769	20.3			
463.0 > 218.9	6.906	6.915	-0.009	1.000	7765876		5.52(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.177	7.186	-0.009		27529457	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.177	7.186	-0.009	1.000	53572927	20.3			
513.0 > 219.0	7.177	7.186	-0.009	1.000	7372735		7.27(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.378	7.387	-0.009	1.071	25063788	20.2			
598.9 > 99.0	7.378	7.387	-0.009	1.071	6107228		4.10(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.405	7.414	-0.009		11317082	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.405	7.414	-0.009	1.000	34529862	19.9			
563.0 > 268.9	7.405	7.414	-0.009	1.000	6255745		5.52(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.486	7.494	-0.008		30714024	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.487	7.495	-0.008	1.000	64355790	20.5			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.606	7.615	-0.009		26863780	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.606	7.615	-0.009	1.000	55678901	21.2			
613.0 > 168.9	7.606	7.615	-0.009	1.000	8561315		6.50(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.773	7.782	-0.009	1.022	67625987	21.0			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.922	7.931	-0.009	1.042	7643348	19.7			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:22 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30011.d

Injection Date: 31-Dec-2013 17:18:29 Instrument ID: LC_LCMS5

Lims ID: std0200 Lab Sample ID:

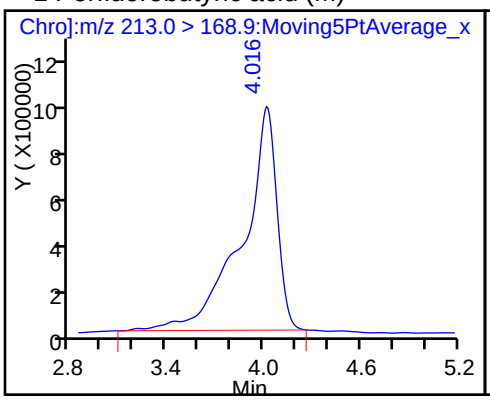
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 9

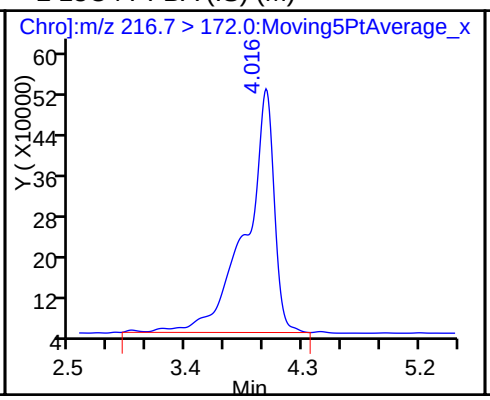
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

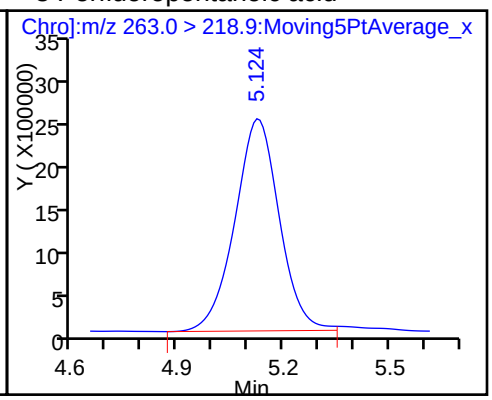
1 Perfluorobutyric acid (M)



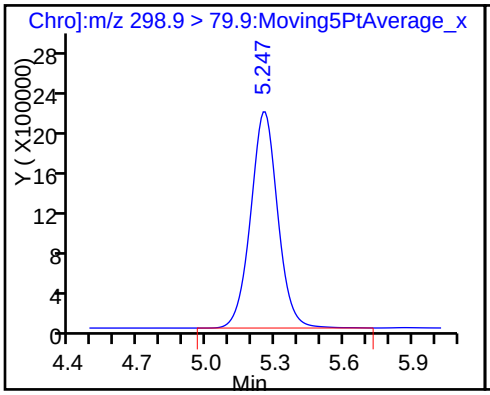
* 2 13C4 PFBA (IS) (M)



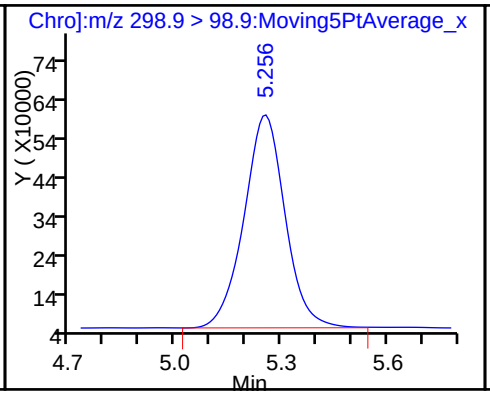
3 Perfluoropentanoic acid



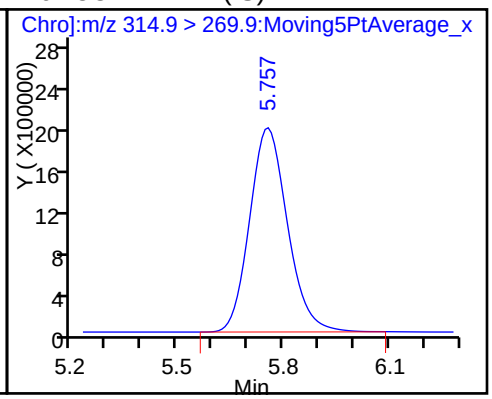
4 Perfluorobutane Sulfonate



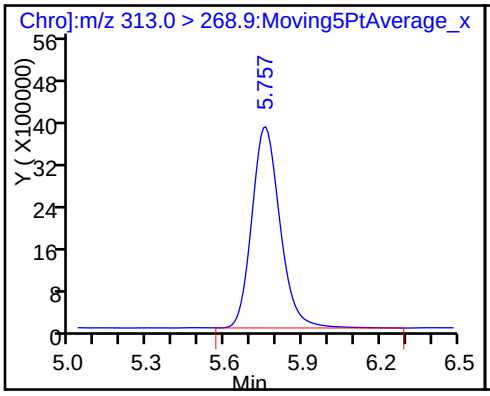
4 Perfluorobutane Sulfonate



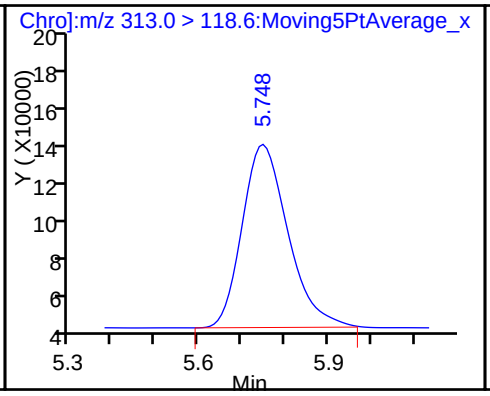
* 6 13C2 PFHxA (IS)



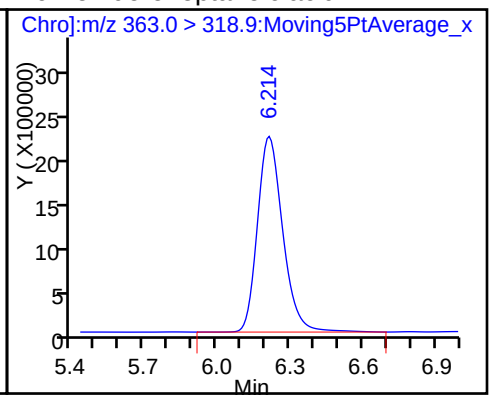
5 Perfluorohexanoic acid



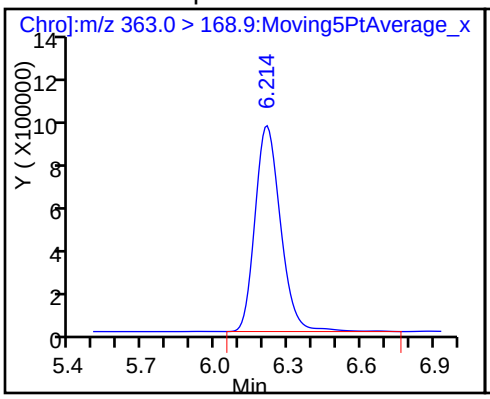
5 Perfluorohexanoic acid



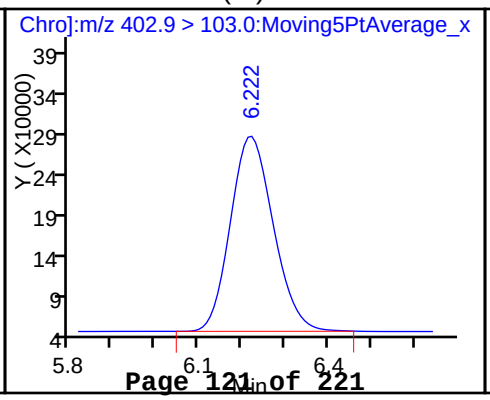
9 Perfluoroheptanoic acid



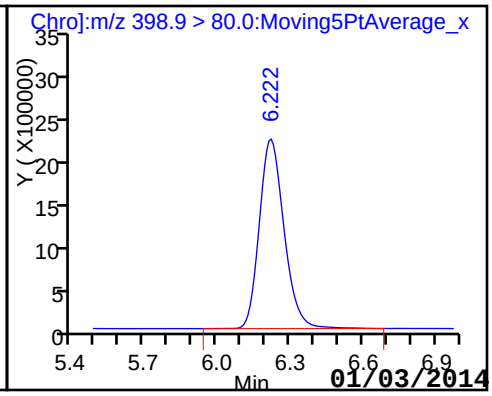
9 Perfluoroheptanoic acid



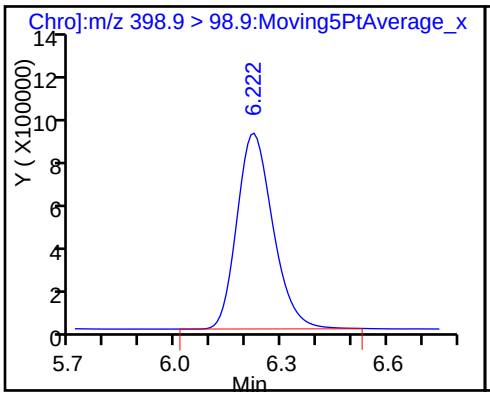
* 7 18O2 PFHxS (IS)



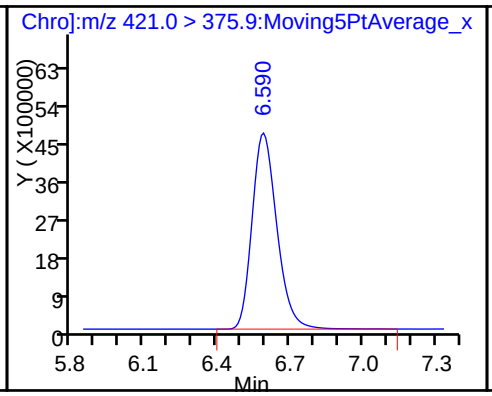
8 Perfluorohexane Sulfonate



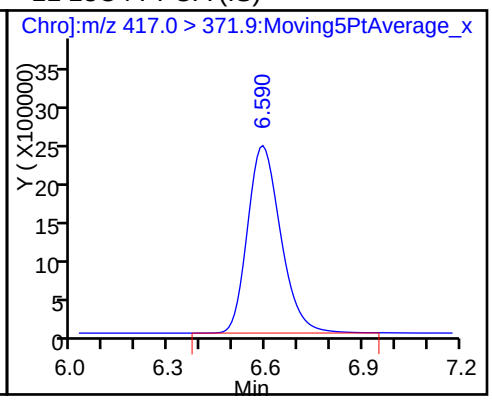
8 Perfluorohexane Sulfonate



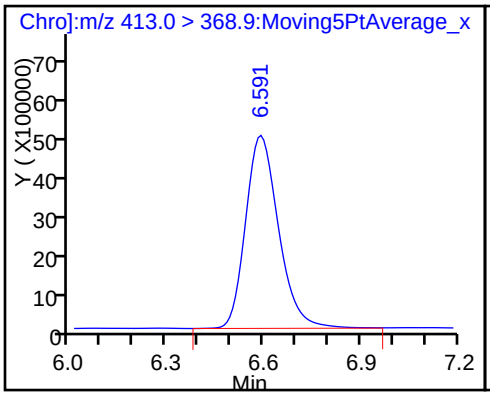
$ 10 13C8 PFOA



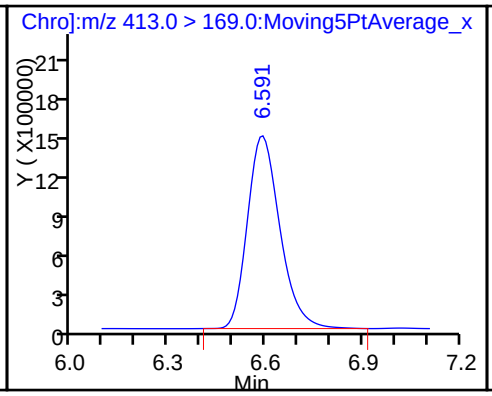
* 11 13C4 PFOA (IS)



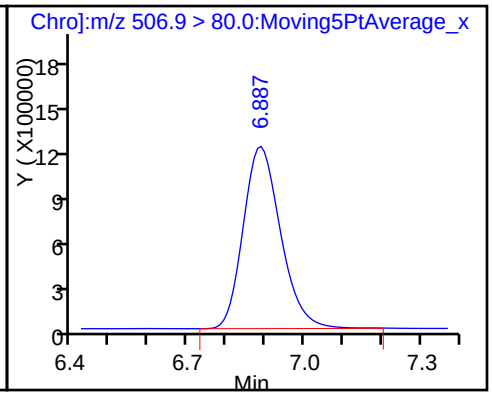
12 Perfluorooctanoic acid



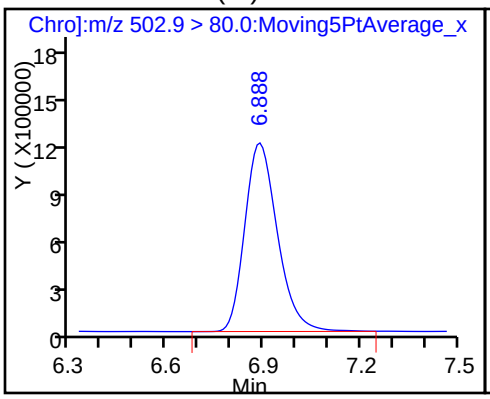
12 Perfluorooctanoic acid



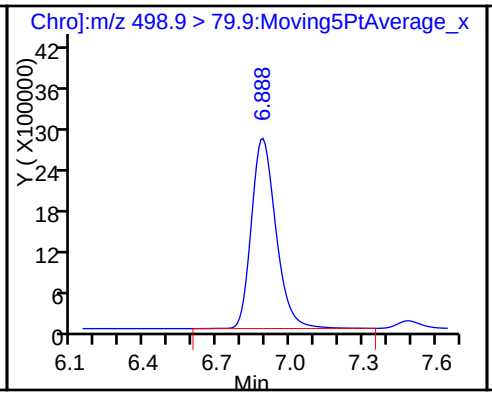
$ 15 13C8 PFOS



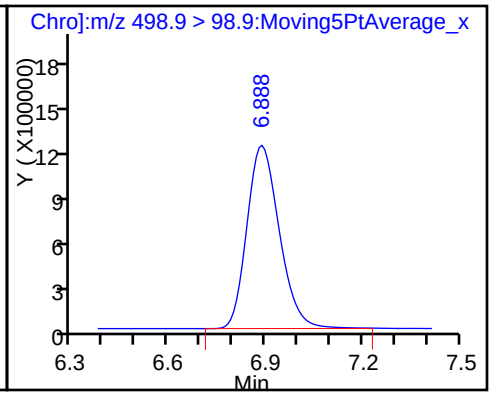
* 14 13C4 PFOS (IS)



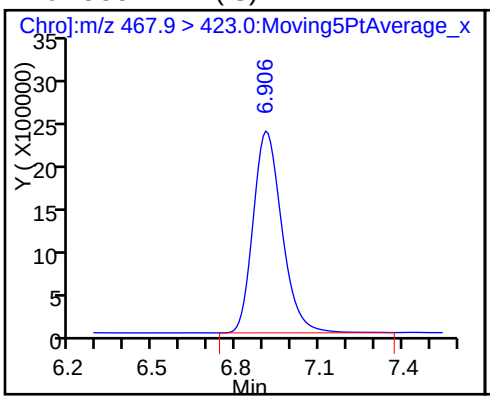
13 Perfluorooctanoic Sulfonate



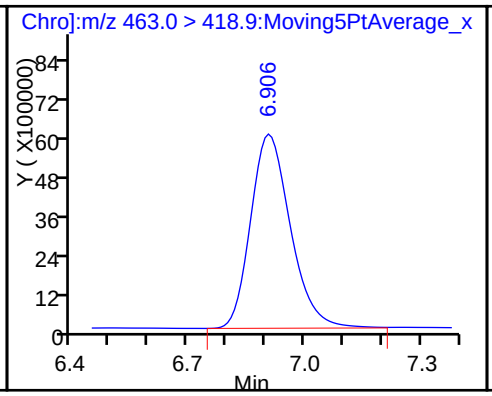
13 Perfluorooctanoic Sulfonate



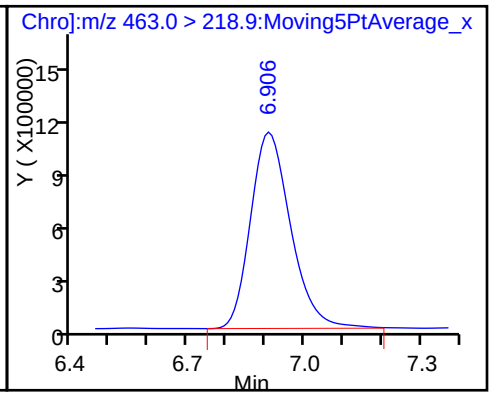
* 16 13C5 PFNA (IS)



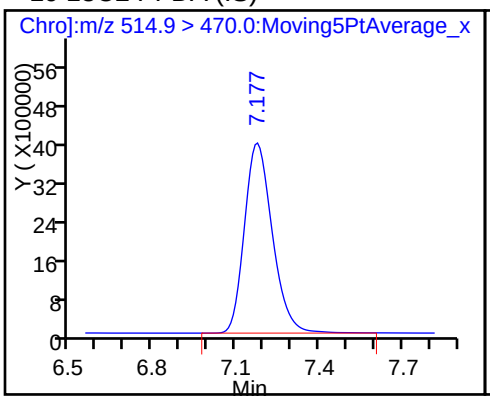
17 Perfluorononanoic acid



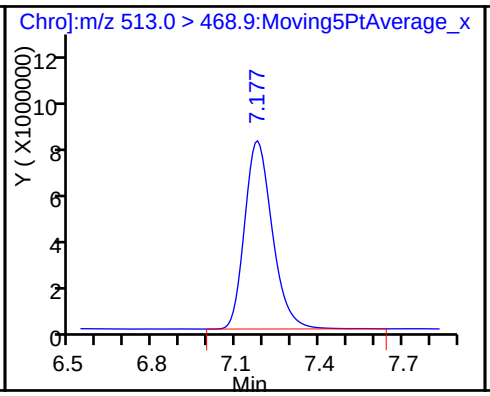
17 Perfluorononanoic acid



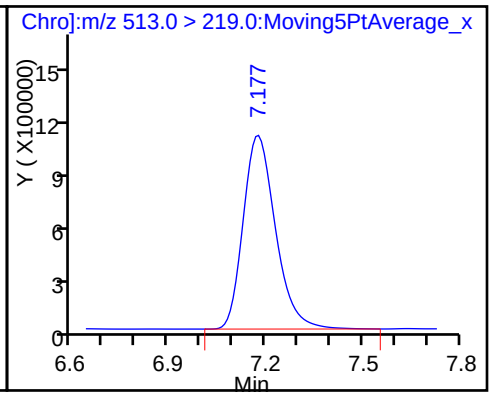
* 19 13C2 PFDA (IS)



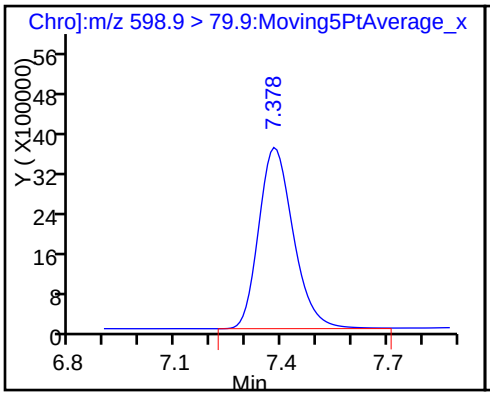
18 Perfluorodecanoic acid



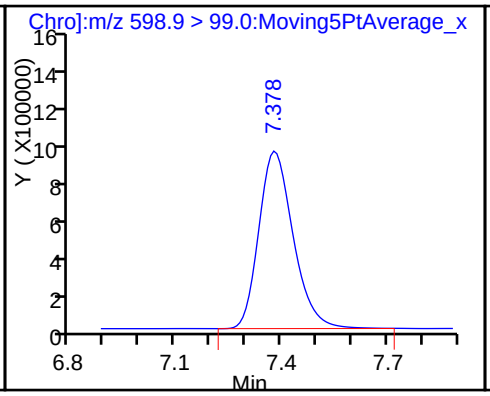
18 Perfluorodecanoic acid



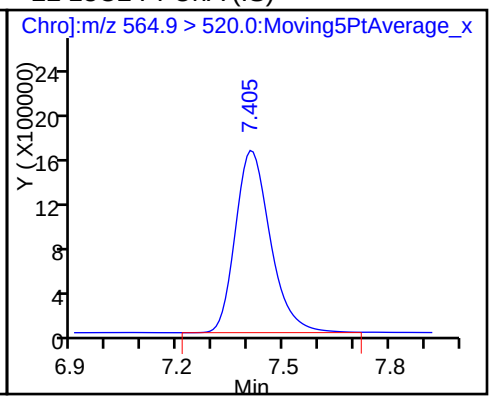
20 Perfluorodecane Sulfonate



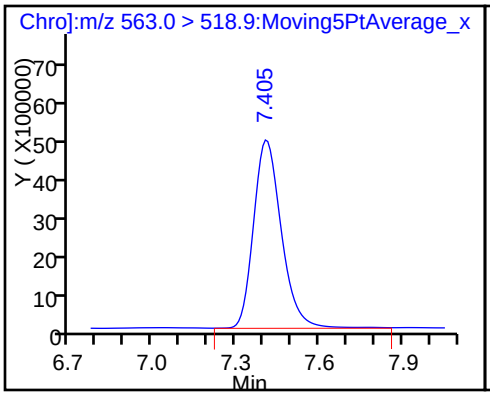
20 Perfluorodecane Sulfonate



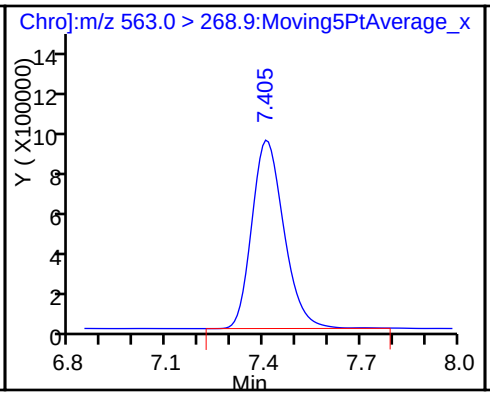
* 22 13C2 PFUnA (IS)



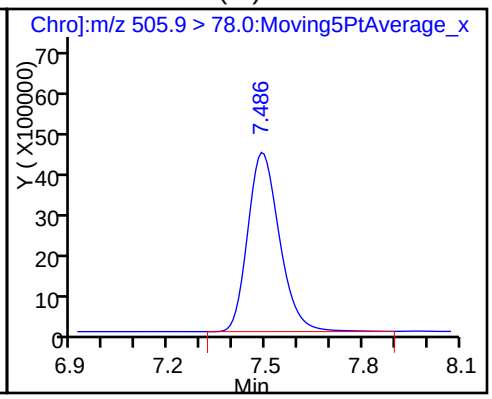
21 Perfluoroundecanoic acid



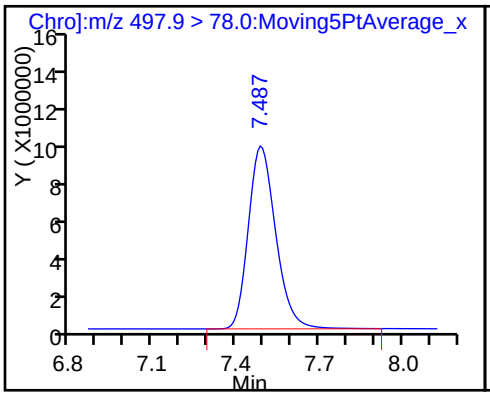
21 Perfluoroundecanoic acid



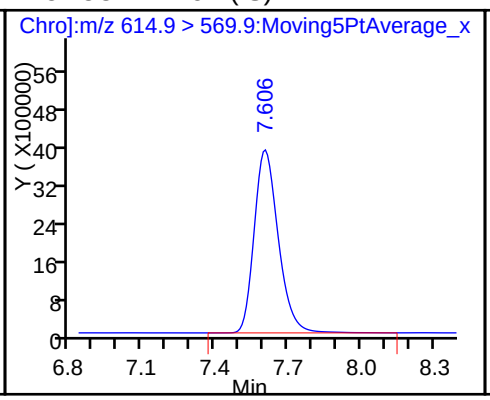
* 23 13C8 FOSA (IS)



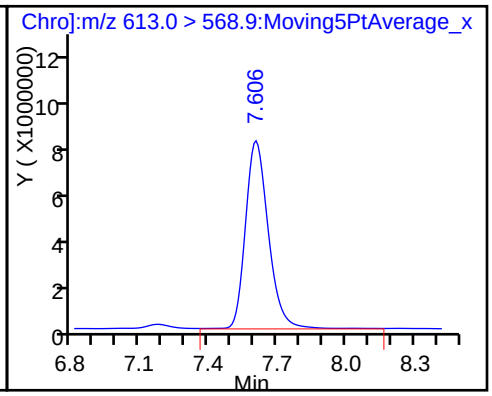
24 Perfluorooctane Sulfonamide



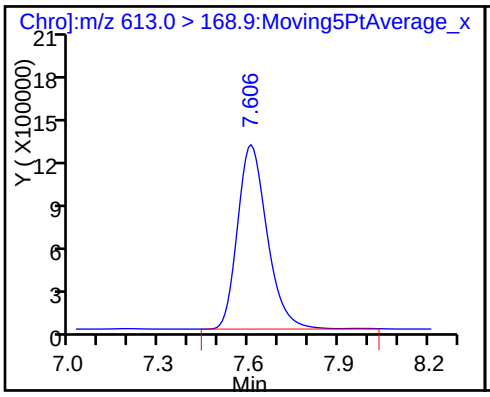
* 25 13C2 PFDoA (IS)



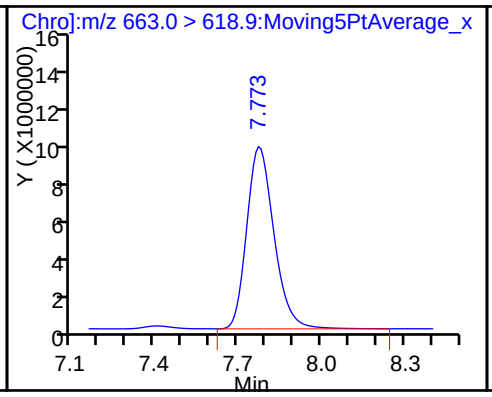
26 Perfluorododecanoic acid



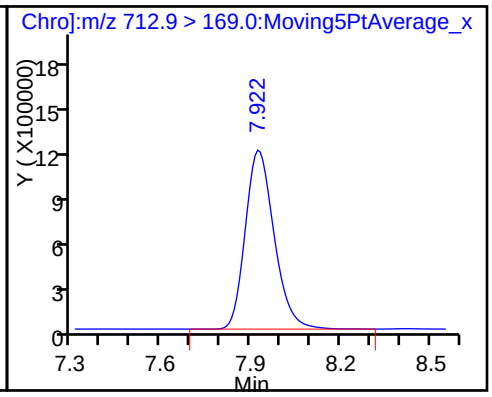
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

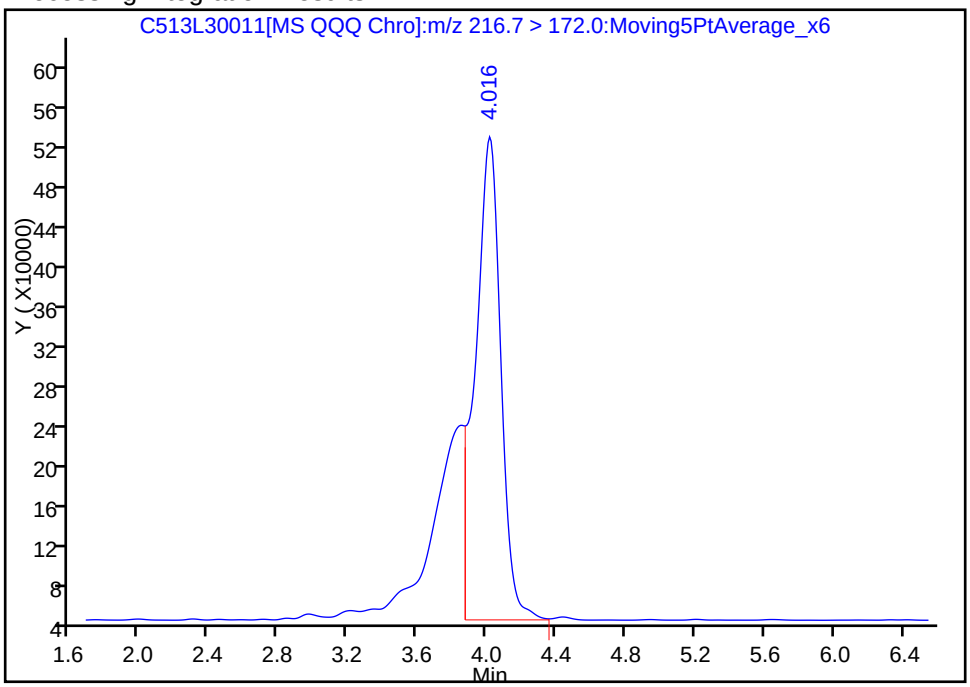
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30011.d				
Injection Date:	31-Dec-2013 17:18:29	Instrument ID:	LC_LCMS5		
Lims ID:	std0200	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

* 2 13C4 PFBA (IS), CAS: STL01003

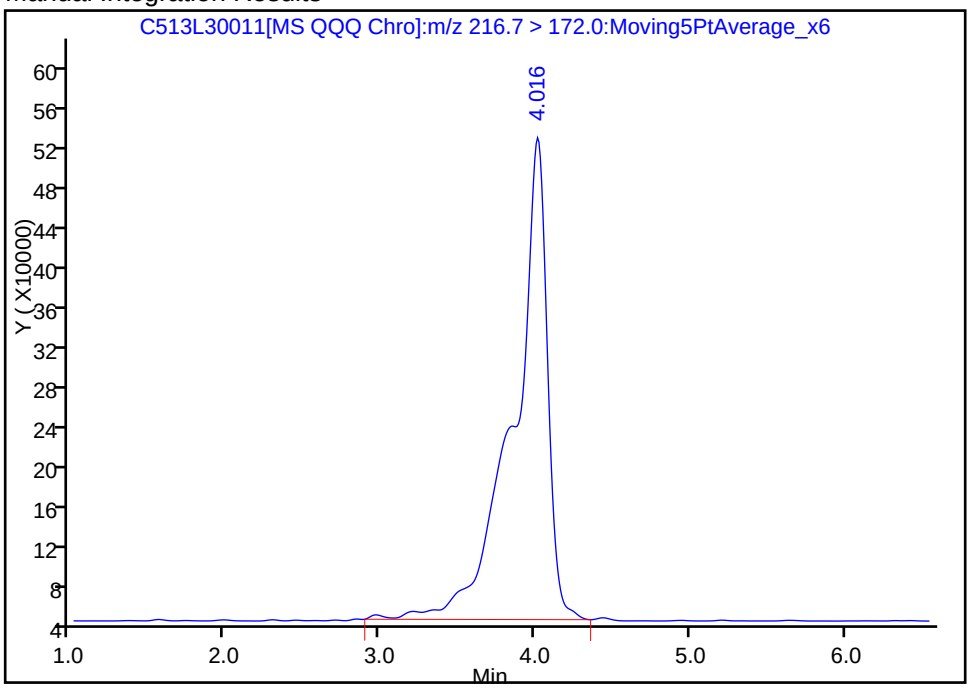
Processing Integration Results

RT: 4.02
Response: 4842850
Amount: 10.000000



Manual Integration Results

RT: 4.02
Response: 7331057
Amount: 10.000000



Reviewer: kellisonm, 02-Jan-2014 10:25:36
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

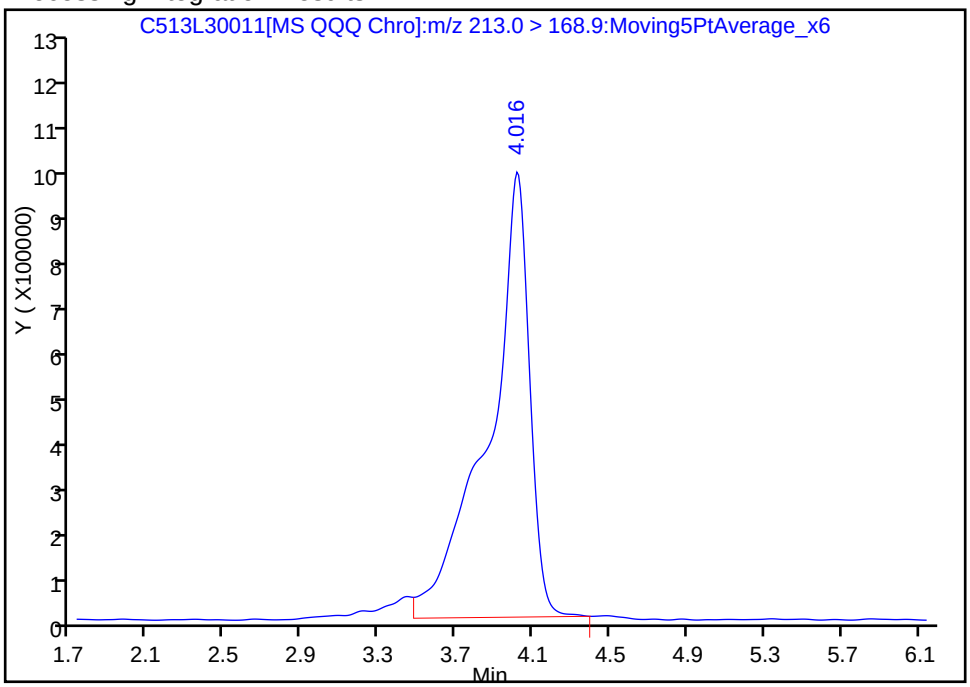
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30011.d				
Injection Date:	31-Dec-2013 17:18:29	Instrument ID:	LC_LCMS5		
Lims ID:	std0200	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

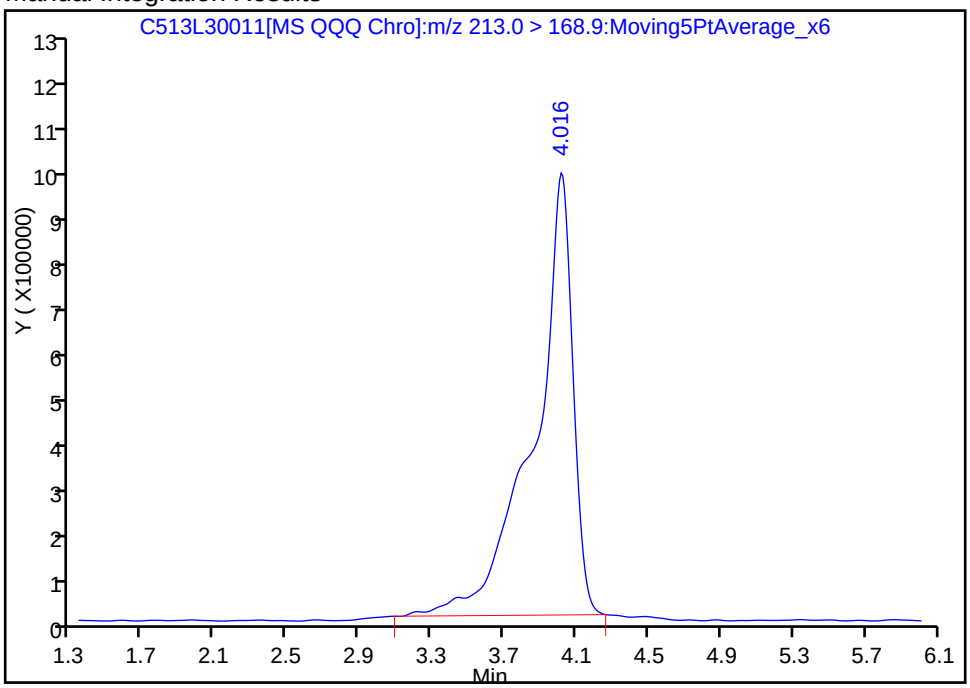
Processing Integration Results

RT: 4.02
Response: 13059561
Amount: 21.985949



Manual Integration Results

RT: 4.02
Response: 13093373
Amount: 21.957043



Reviewer: kellisonm, 02-Jan-2014 10:25:36
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30012.d
Lims ID: std0500 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 8
Inject. Date: 31-Dec-2013 17:30:46 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD0500, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:24 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:26:26

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.016	4.016	0.0	1.000	31387816	50.4			M
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	4.016	4.025	-0.009		7655979	10.0			M
3 Perfluoropentanoic acid									
263.0 > 218.9	5.124	5.133	-0.009	0.892	50517554	48.6			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.247	5.256	-0.009	0.845	40880593	43.5			
298.9 > 98.9	5.247	5.256	-0.009	0.845	10438072		3.92(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.748	5.757	-0.009		13543810	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.748	5.757	-0.009	1.000	68902040	49.9			
313.0 > 118.6	5.748	5.757	-0.009	1.000	1510107		45.63(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.205	6.214	-0.009	0.941	35547249	45.4			
363.0 > 168.9	6.205	6.214	-0.009	0.941	13935477		2.55(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.213	6.230	-0.017		1708634	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.213	6.231	-0.018	1.000	36791405	45.3			
398.9 > 98.9	6.213	6.231	-0.018	1.000	14058661		2.62(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.590	6.590	0.0	1.000	75526271	47.8			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.590	6.599	-0.009		17002863	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.582	6.599	-0.017	0.999	78185636	46.5			
413.0 > 169.0	6.582	6.599	-0.017	0.999	21349983		3.66(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.878	6.896	-0.018	0.999	19418752	47.8			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.888	6.897	-0.009		7570873	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.879	6.897	-0.018	0.999	44325749	45.0			
498.9 > 98.9	6.888	6.897	-0.009	1.000	18218824		2.43(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.906	6.915	-0.009		14397159	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.906	6.915	-0.009	1.000	90032909	49.4			
463.0 > 218.9	6.906	6.915	-0.009	1.000	16937030		5.32(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.177	7.186	-0.009		25644808	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.177	7.186	-0.009	1.000	125988707	51.3			
513.0 > 219.0	7.168	7.186	-0.018	0.999	17355628		7.26(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.378	7.387	-0.009	1.071	59500766	51.5			
598.9 > 99.0	7.378	7.387	-0.009	1.071	14829868		4.01(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.405	7.414	-0.009		9698793	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.405	7.414	-0.009	1.000	75751885	51.2			
563.0 > 268.9	7.405	7.414	-0.009	1.000	13360262		5.67(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.486	7.494	-0.008		29424464	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.487	7.495	-0.008	1.000	149493808	49.6			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.606	7.615	-0.009		25107256	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.606	7.615	-0.009	1.000	128119266	52.3			
613.0 > 168.9	7.606	7.615	-0.009	1.000	19174594		6.68(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.773	7.782	-0.009	1.022	150208253	49.9			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.922	7.931	-0.009	1.042	17722630	48.9			

QC Flag Legend

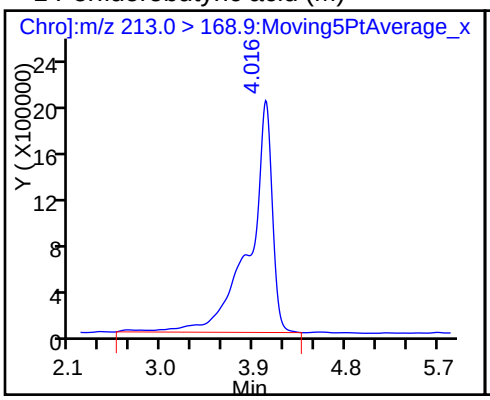
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:24 Chrom Revision: 2.1 15-Oct-2013 07:52:24

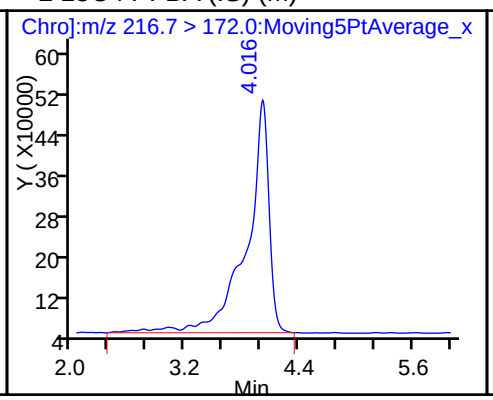
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30012.d				
Injection Date:	31-Dec-2013 17:30:46	Instrument ID:	LC_LCMS5		
Lims ID:	std0500	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

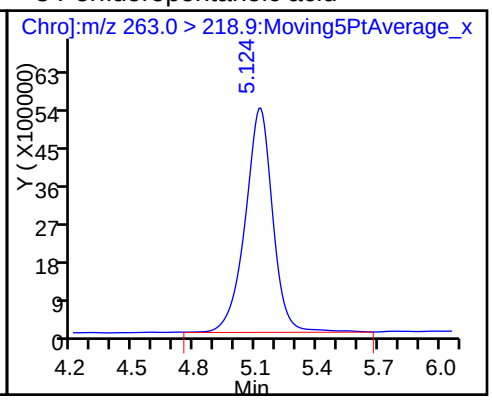
1 Perfluorobutyric acid (M)



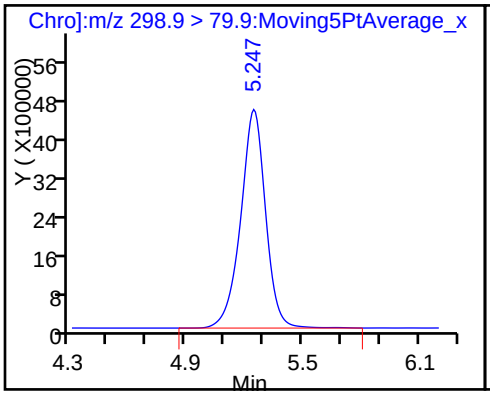
* 2 13C4 PFBA (IS) (M)



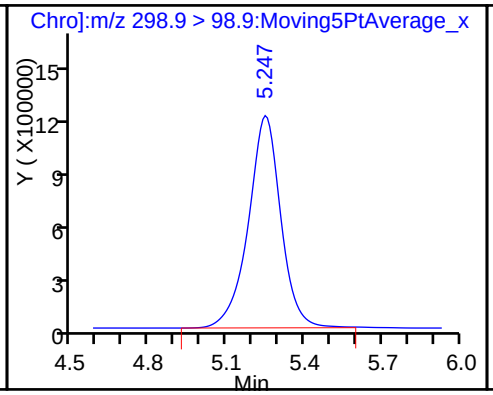
3 Perfluoropentanoic acid



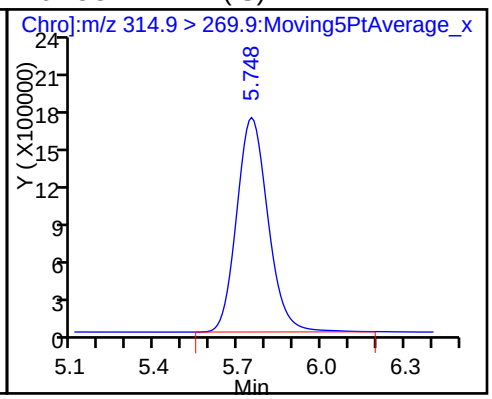
4 Perfluorobutane Sulfonate



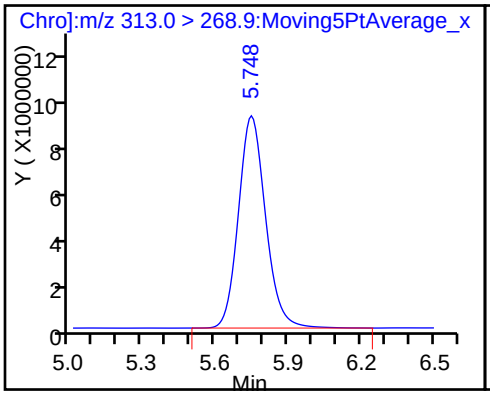
4 Perfluorobutane Sulfonate



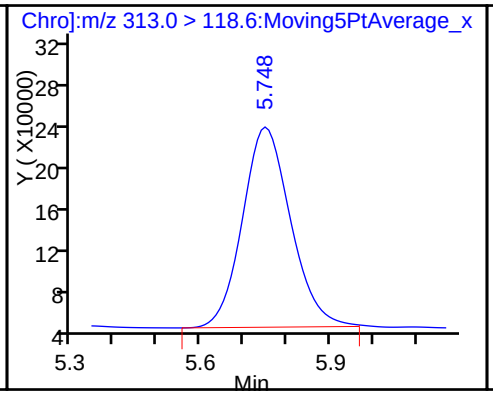
* 6 13C2 PFHxA (IS)



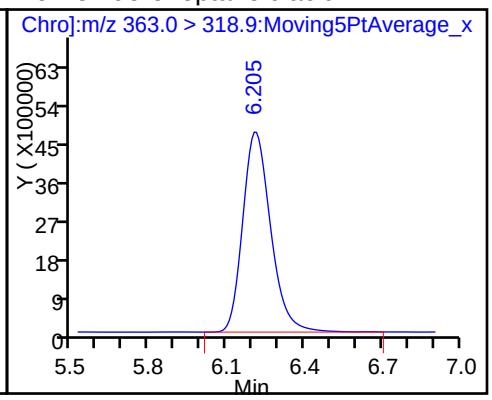
5 Perfluorohexanoic acid



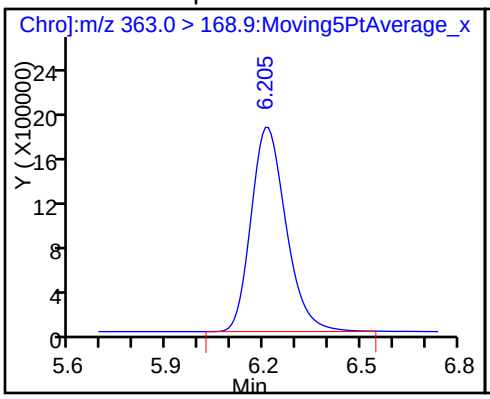
5 Perfluorohexanoic acid



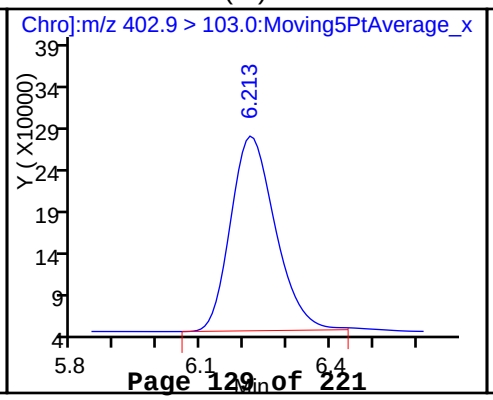
9 Perfluoroheptanoic acid



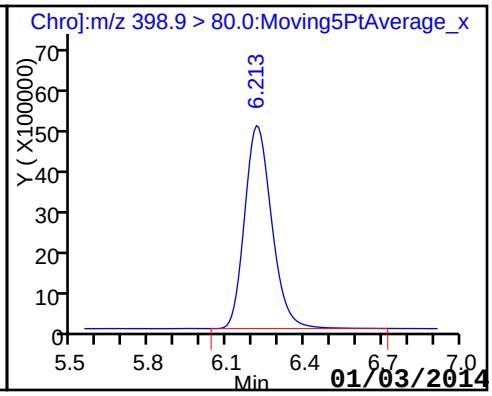
9 Perfluoroheptanoic acid



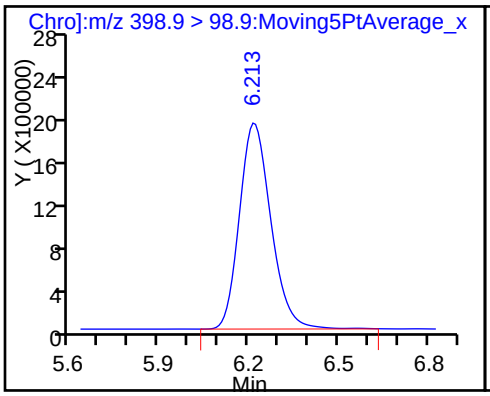
* 7 18O2 PFHxS (IS)



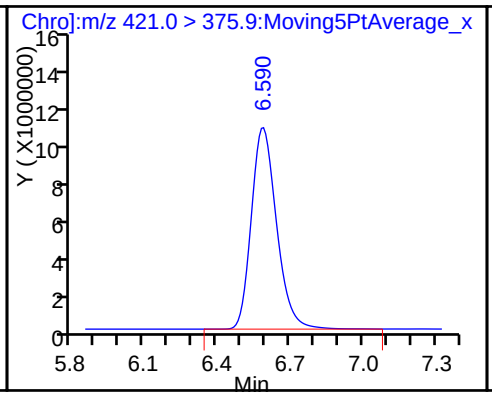
8 Perfluorohexane Sulfonate



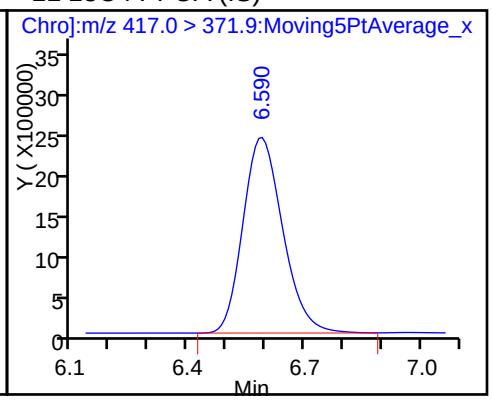
8 Perfluorohexane Sulfonate



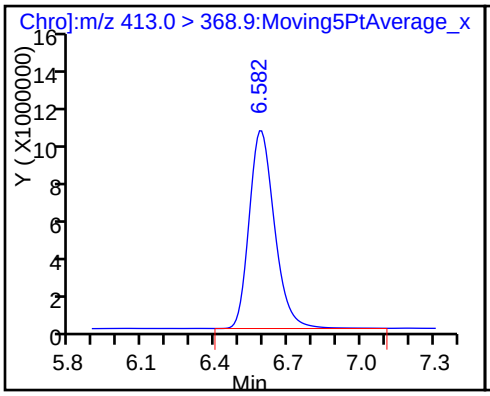
$ 10 13C8 PFOA



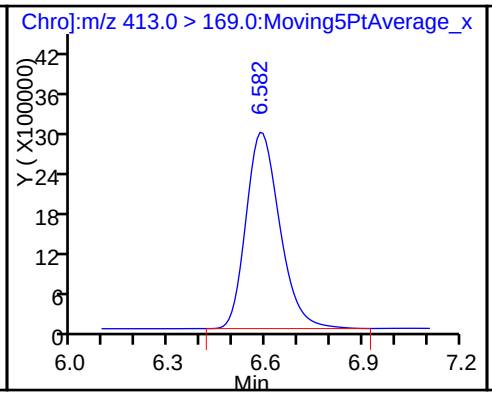
* 11 13C4 PFOA (IS)



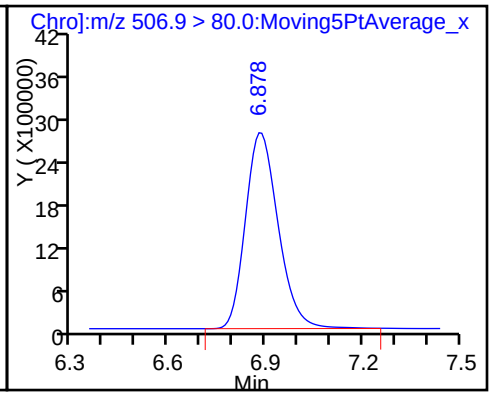
12 Perfluorooctanoic acid



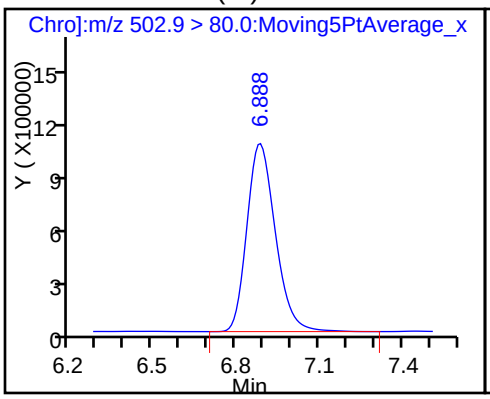
12 Perfluorooctanoic acid



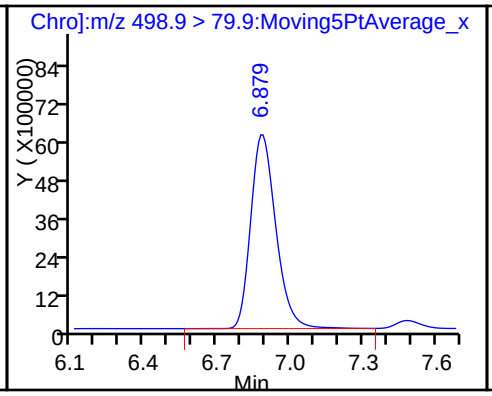
$ 15 13C8 PFOS



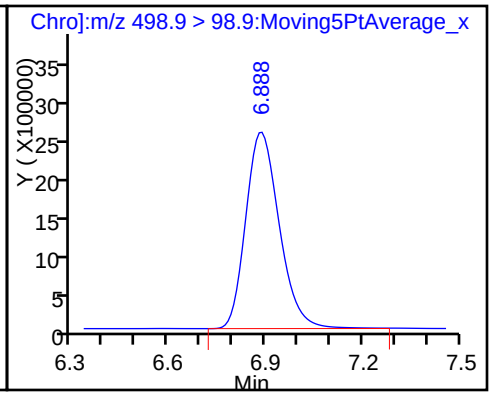
* 14 13C4 PFOS (IS)



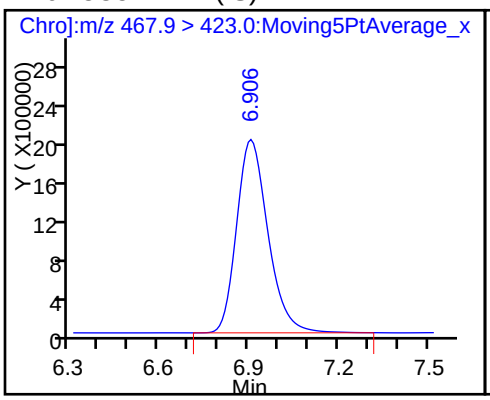
13 Perfluorooctanoic Sulfonate



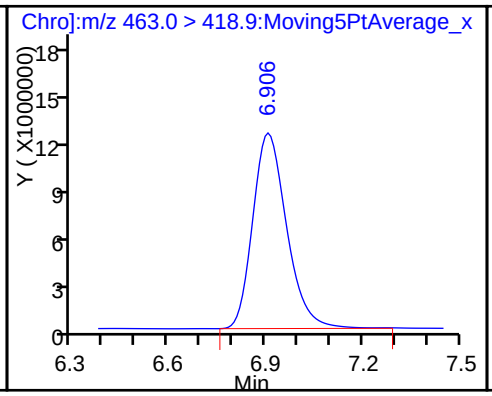
13 Perfluorooctanoic Sulfonate



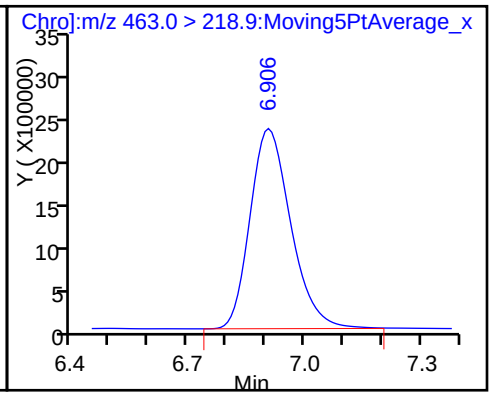
* 16 13C5 PFNA (IS)



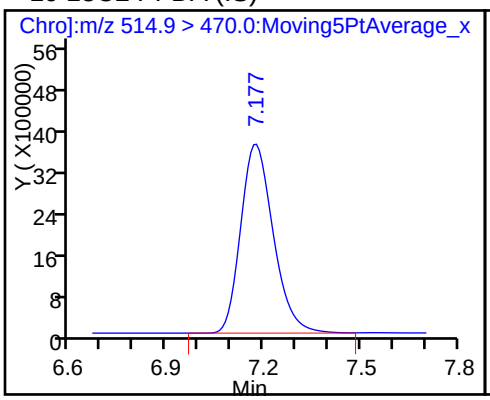
17 Perfluorononanoic acid



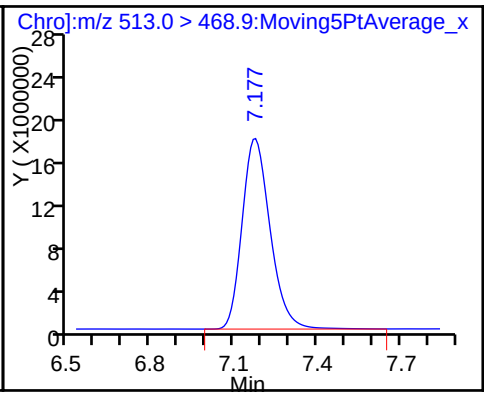
17 Perfluorononanoic acid



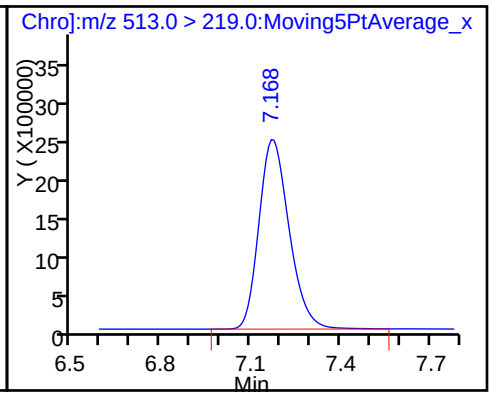
* 19 13C2 PFDA (IS)



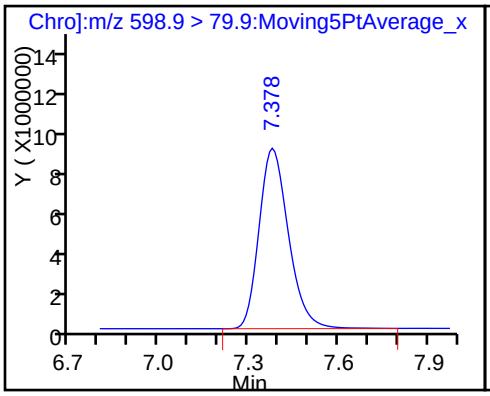
18 Perfluorodecanoic acid



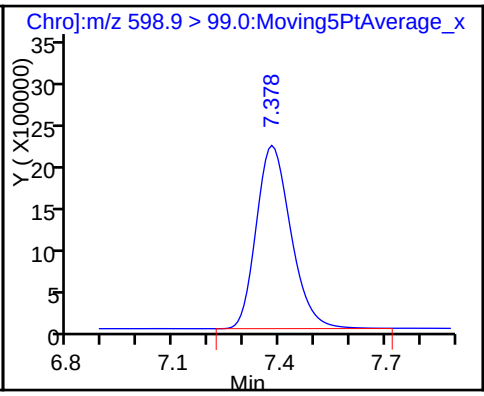
18 Perfluorodecanoic acid



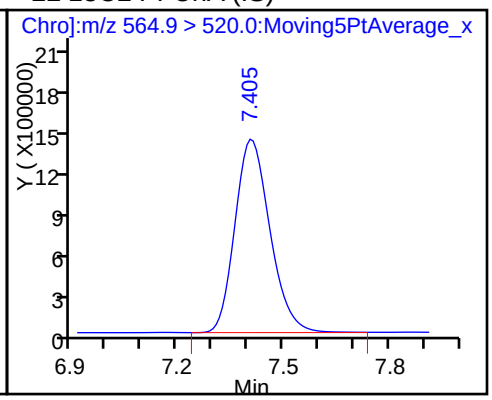
20 Perfluorodecane Sulfonate



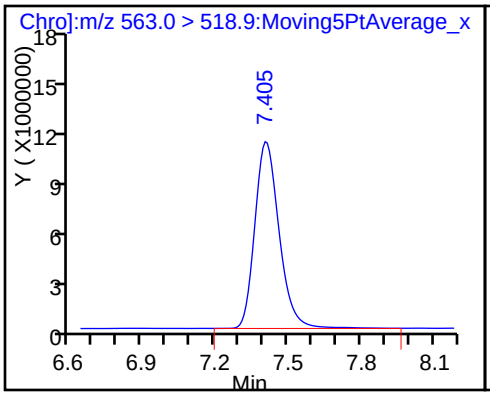
20 Perfluorodecane Sulfonate



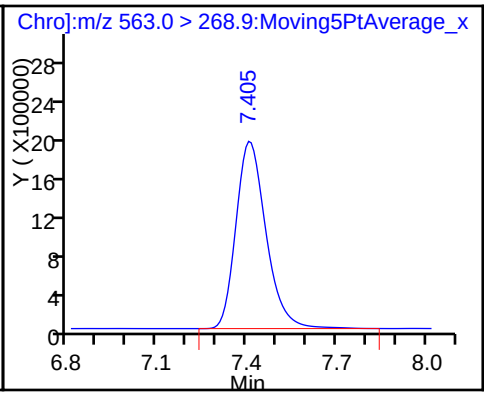
* 22 13C2 PFUnA (IS)



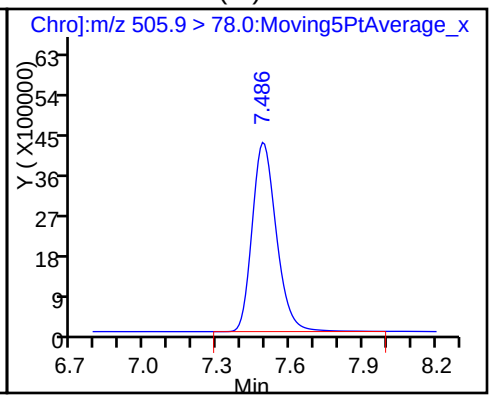
21 Perfluoroundecanoic acid



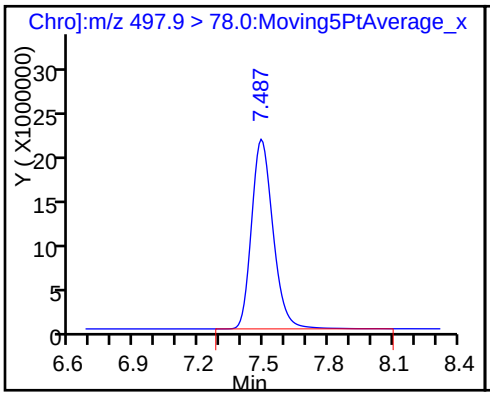
21 Perfluoroundecanoic acid



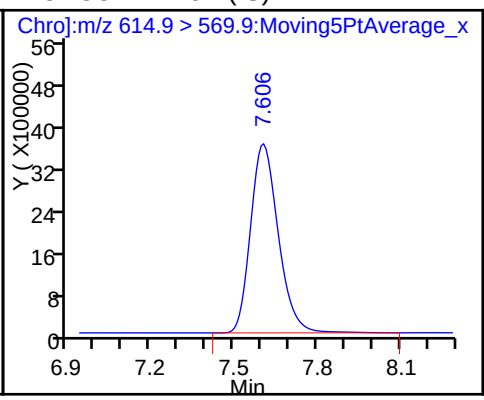
* 23 13C8 FOSA (IS)



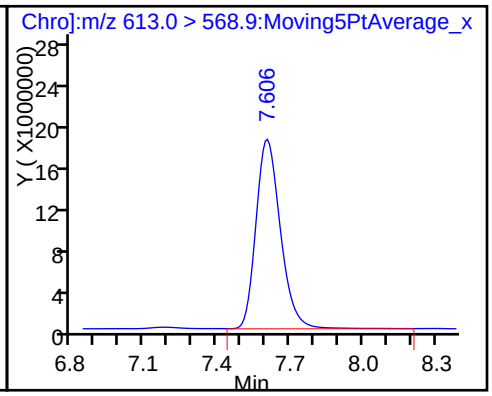
24 Perfluorooctane Sulfonamide



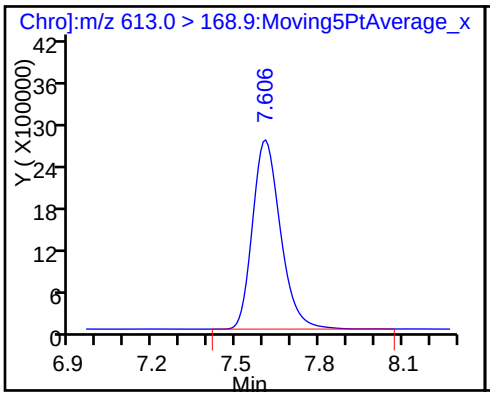
* 25 13C2 PFDoA (IS)



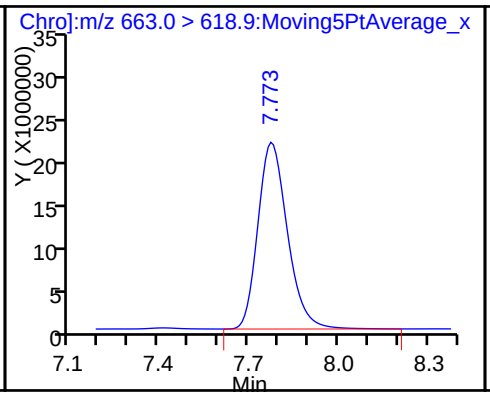
26 Perfluorododecanoic acid



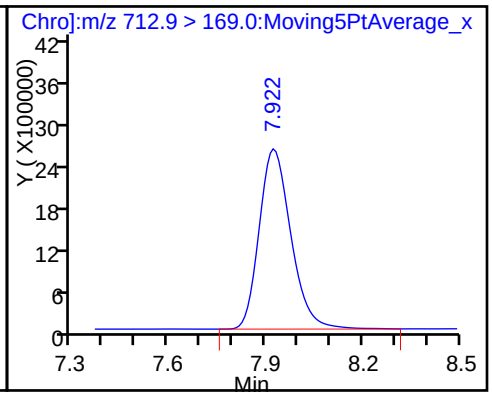
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

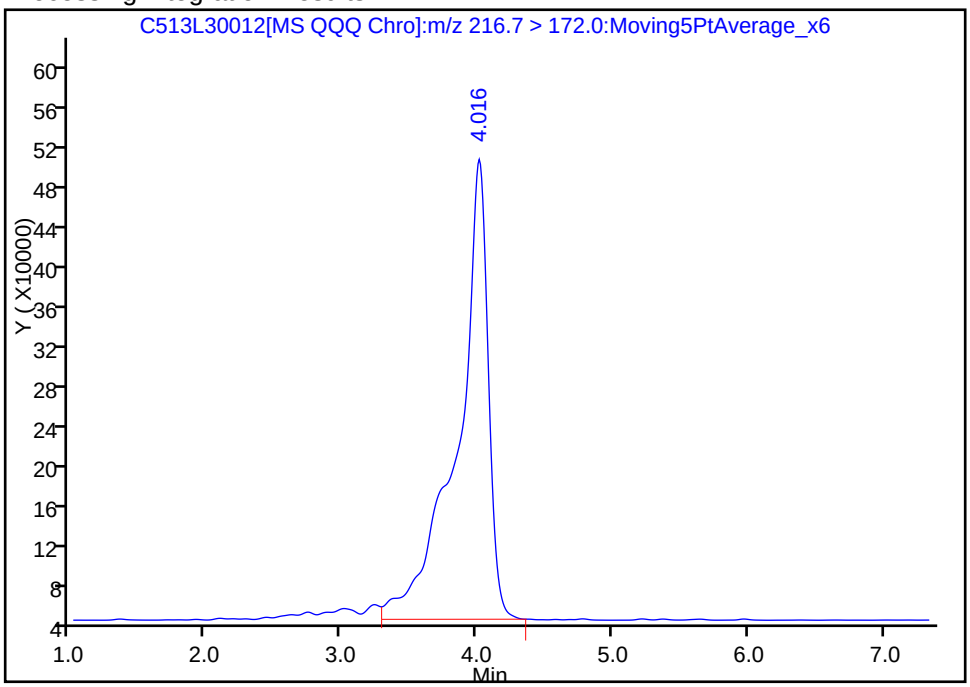
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30012.d				
Injection Date:	31-Dec-2013 17:30:46	Instrument ID:	LC_LCMS5		
Lims ID:	std0500	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

* 2 13C4 PFBA (IS), CAS: STL01003

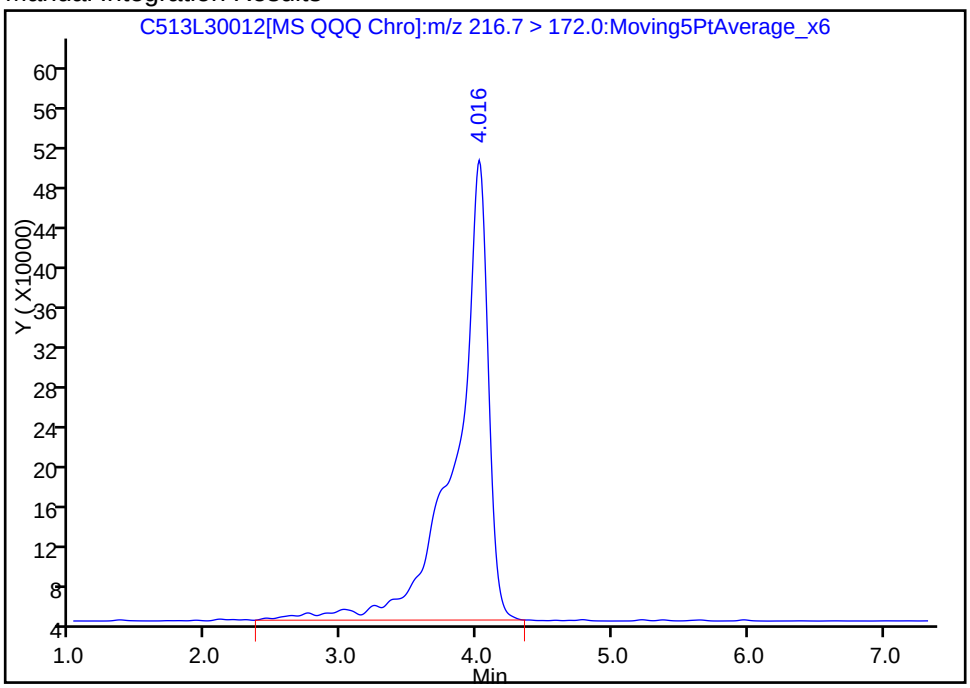
Processing Integration Results

RT: 4.02
Response: 7300597
Amount: 10.000000



Manual Integration Results

RT: 4.02
Response: 7655979
Amount: 10.000000



Reviewer: kellisonm, 02-Jan-2014 10:26:26
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30012.d				
Injection Date:	31-Dec-2013 17:30:46	Instrument ID:	LC_LCMS5		
Lims ID:	std0500	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

Processing Integration Results

RT: 4.02
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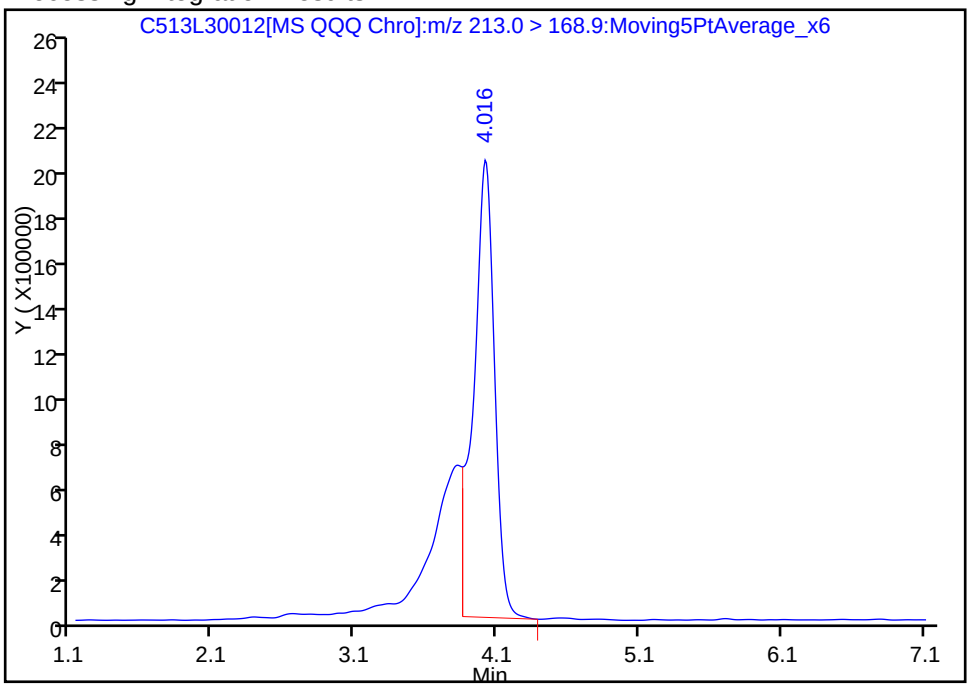
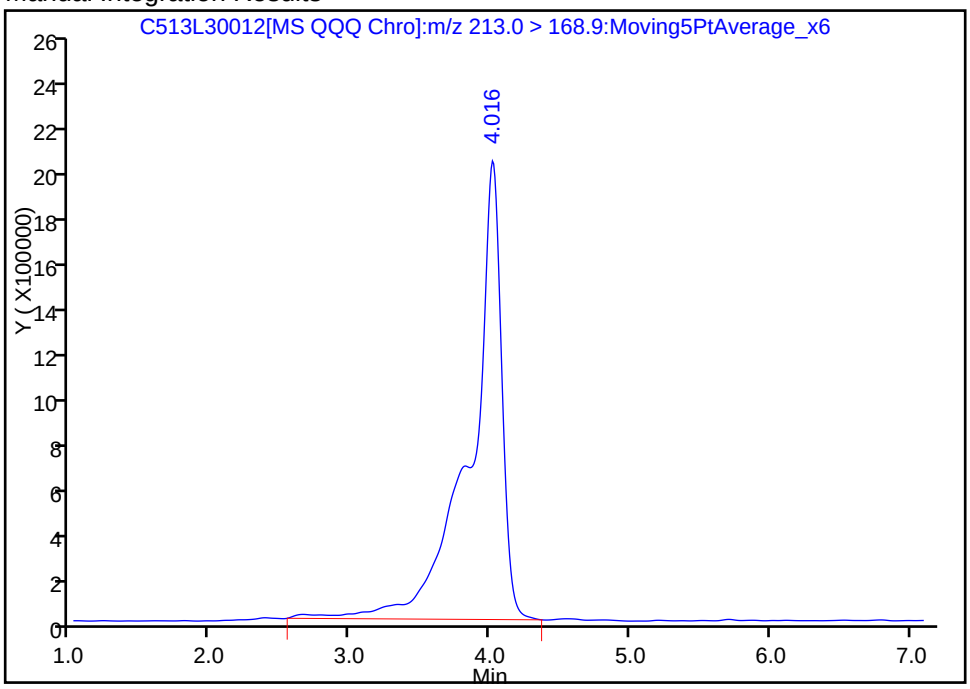
Amount: 34.331649



Manual Integration Results

RT: 4.02
Response: 31387816
Amount: 50.425212



Reviewer: kellisonm, 02-Jan-2014 10:26:26
Audit Action: Manually Integrated
Audit Reason: Baseline

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d
Lims ID: std1250 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 9
Inject. Date: 31-Dec-2013 17:43:04 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: STD1250, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:25 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:27:04

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.016	4.016	0.0	1.000	72545732	128.1			M
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	4.016	4.025	-0.009		6968445	10.0			M
3 Perfluoropentanoic acid									
263.0 > 218.9	5.115	5.133	-0.018	0.891	119540306	118.6			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.247	5.256	-0.009	0.846	99452804	122.3			
298.9 > 98.9	5.247	5.256	-0.009	0.846	25089193		3.96(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.739	5.757	-0.018		13138163	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.739	5.757	-0.018	1.000	162615004	121.5			
313.0 > 118.6	5.739	5.757	-0.018	1.000	3418542		47.57(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.196	6.214	-0.018	0.941	76861100	102.5			
363.0 > 168.9	6.196	6.214	-0.018	0.941	29877031		2.57(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.204	6.230	-0.026		1478992	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.204	6.231	-0.027	1.000	81050505	115.3			
398.9 > 98.9	6.204	6.231	-0.027	1.000	31226037		2.60(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.581	6.590	-0.009	1.000	161232691	106.6			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.582	6.599	-0.017		16293918	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.582	6.599	-0.017	1.000	164707745	102.3			
413.0 > 169.0	6.582	6.599	-0.017	1.000	46860915		3.51(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.878	6.896	-0.018	1.000	40146643	111.2			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.879	6.897	-0.018		6733874	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.879	6.897	-0.018	1.000	89340728	102.0			
498.9 > 98.9	6.879	6.897	-0.018	1.000	36377284		2.46(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.906	6.915	-0.009		11325670	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.906	6.915	-0.009	1.000	183488974	128.0			
463.0 > 218.9	6.906	6.915	-0.009	1.000	33788953		5.43(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.168	7.186	-0.018		22911502	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.168	7.186	-0.018	1.000	288897181	131.9			
513.0 > 219.0	7.168	7.186	-0.018	1.000	37042685		7.80(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.369	7.387	-0.018	1.071	129957119	126.3			
598.9 > 99.0	7.369	7.387	-0.018	1.071	32410136		4.01(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.405	7.414	-0.009		7948488	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.405	7.414	-0.009	1.000	155453431	128.4			
563.0 > 268.9	7.405	7.414	-0.009	1.000	27029566		5.75(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.486	7.494	-0.008		24255628	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.487	7.495	-0.008	1.000	322091405	129.7			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.597	7.615	-0.018		22712509	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.598	7.615	-0.017	1.000	283422340	128.1			
613.0 > 168.9	7.598	7.615	-0.017	1.000	42267088		6.71(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.773	7.782	-0.009	1.023	327648891	120.5			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.922	7.931	-0.009	1.043	40889168	124.9			

QC Flag Legend

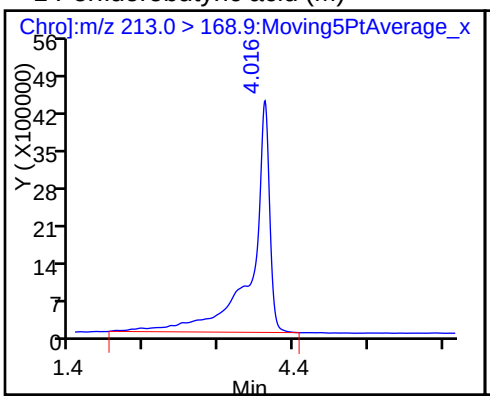
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:25 Chrom Revision: 2.1 15-Oct-2013 07:52:24

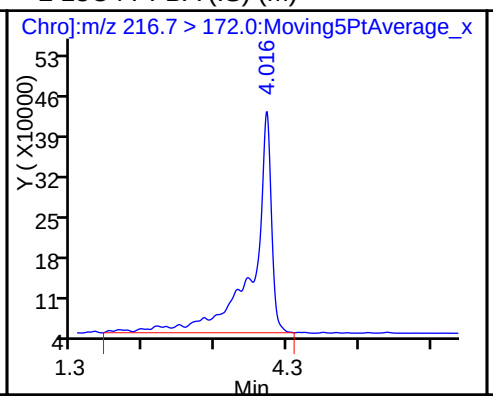
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d				
Injection Date:	31-Dec-2013 17:43:04	Instrument ID:	LC_LCMS5		
Lims ID:	std1250	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

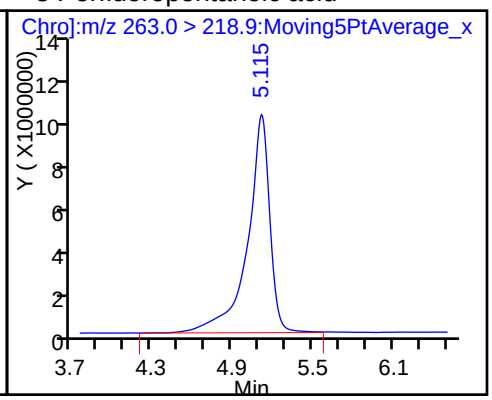
1 Perfluorobutyric acid (M)



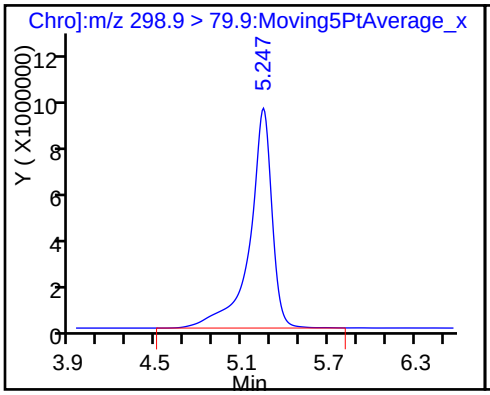
* 2 13C4 PFBA (IS) (M)



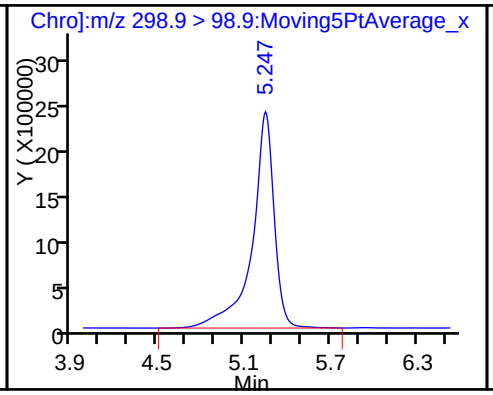
3 Perfluoropentanoic acid



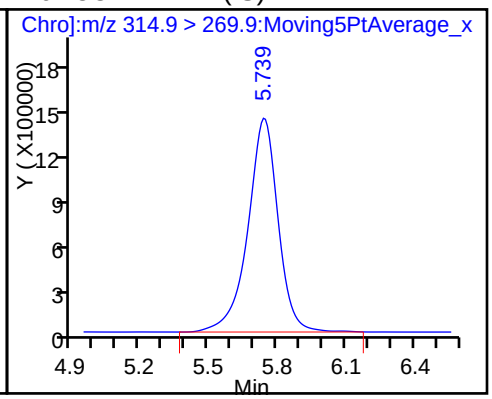
4 Perfluorobutane Sulfonate



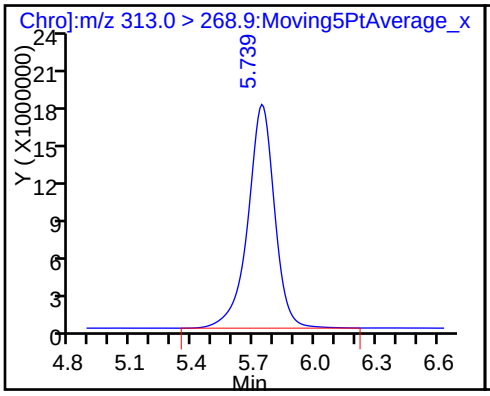
4 Perfluorobutane Sulfonate



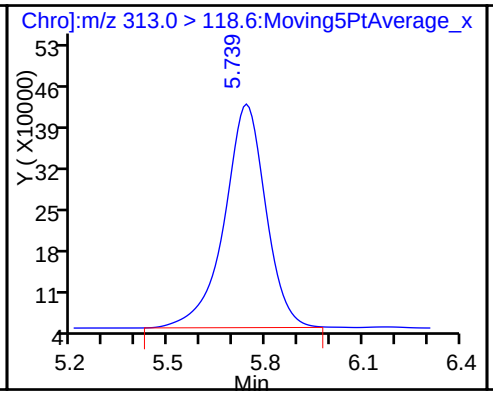
* 6 13C2 PFHxA (IS)



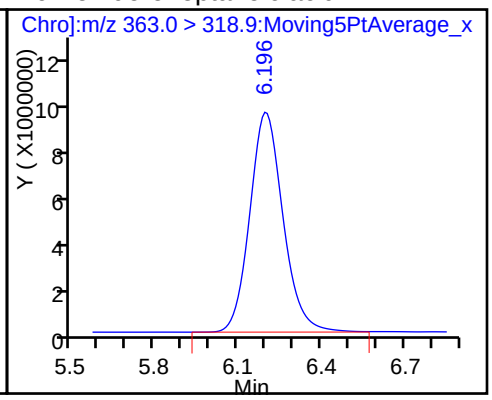
5 Perfluorohexanoic acid



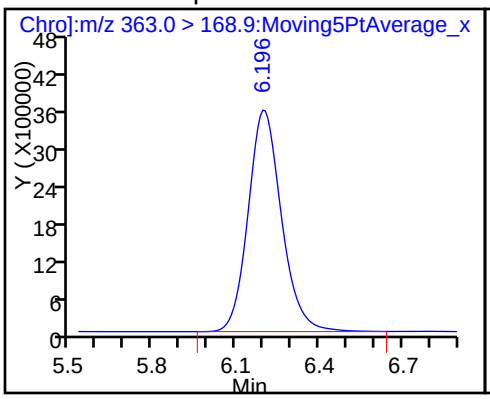
5 Perfluorohexanoic acid



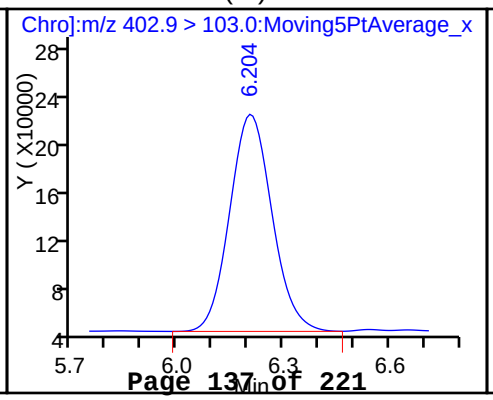
9 Perfluoroheptanoic acid



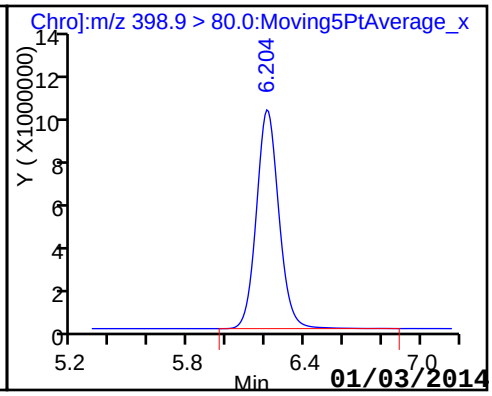
9 Perfluoroheptanoic acid



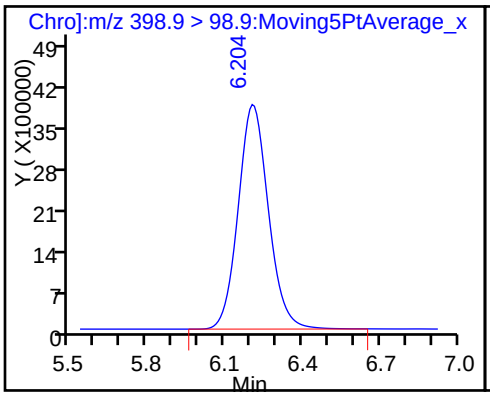
* 7 18O2 PFHxS (IS)



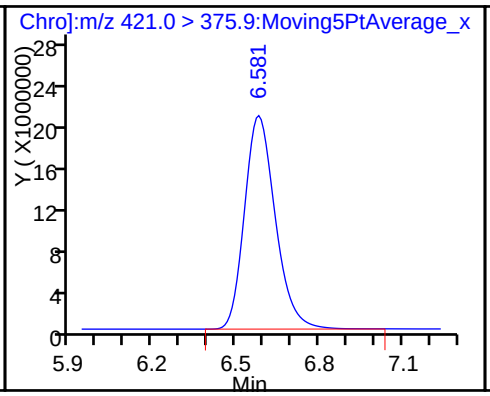
8 Perfluorohexane Sulfonate



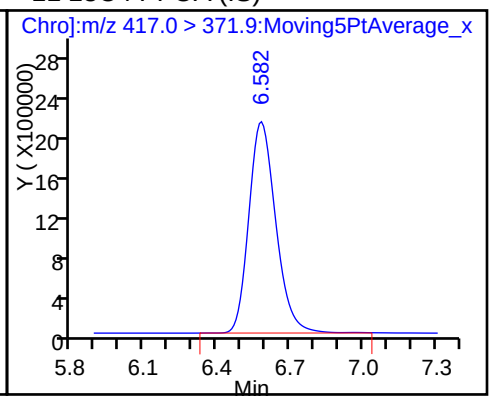
8 Perfluorohexane Sulfonate



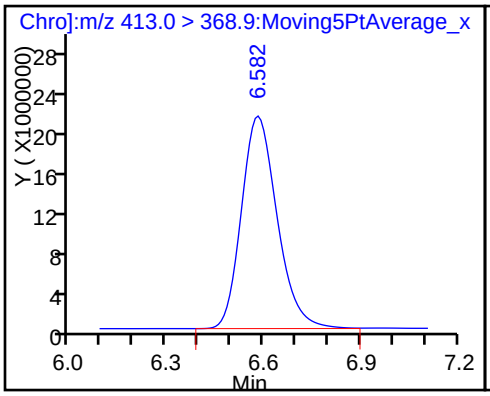
$ 10 13C8 PFOA



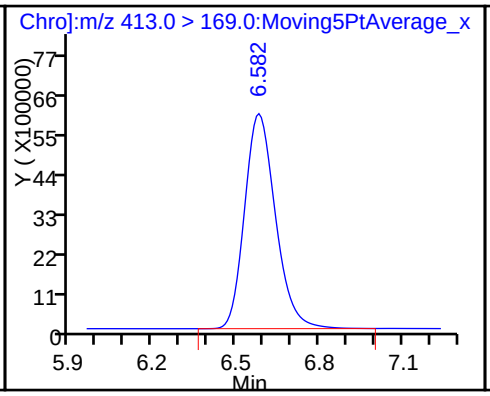
* 11 13C4 PFOA (IS)



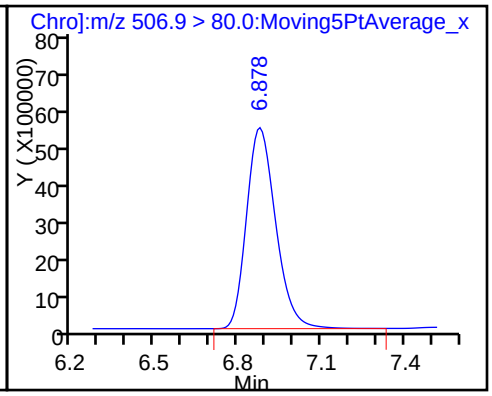
12 Perfluorooctanoic acid



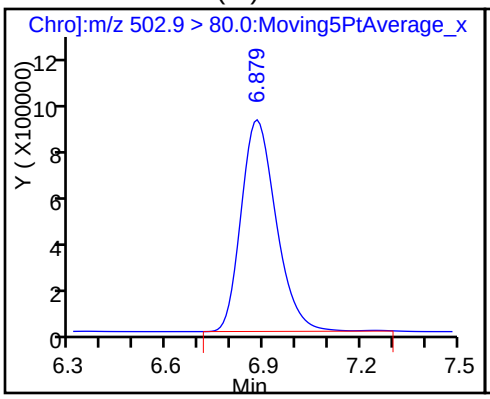
12 Perfluorooctanoic acid



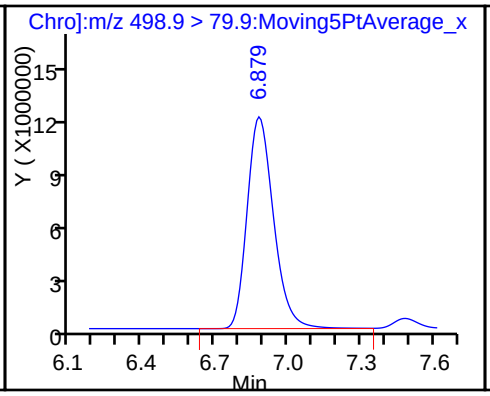
$ 15 13C8 PFOS



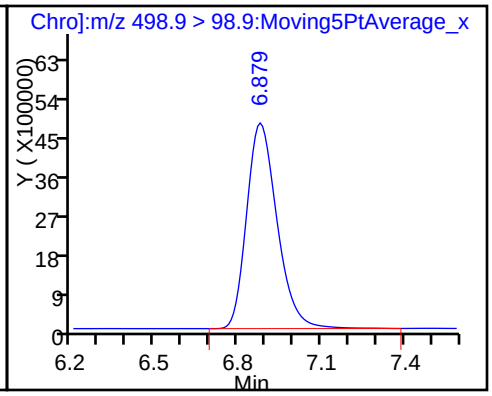
* 14 13C4 PFOS (IS)



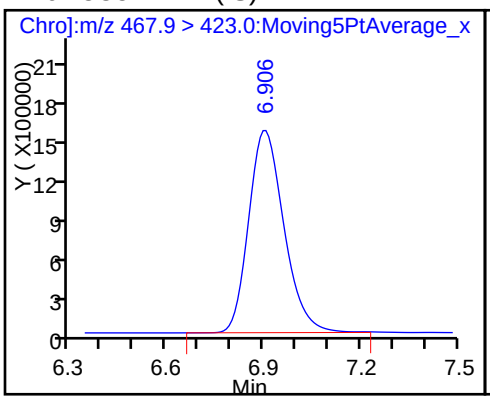
13 Perfluorooctanoic Sulfonate



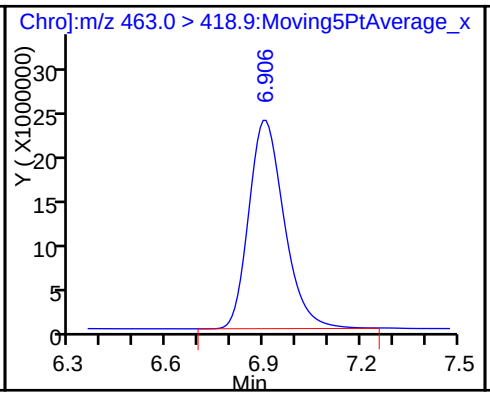
13 Perfluorooctanoic Sulfonate



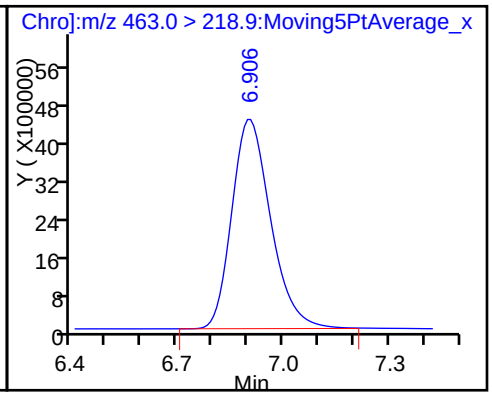
* 16 13C5 PFNA (IS)



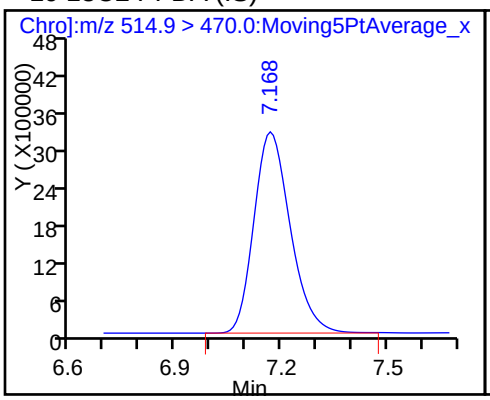
17 Perfluorononanoic acid



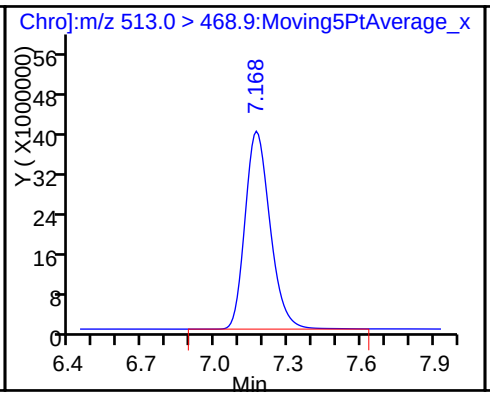
17 Perfluorononanoic acid



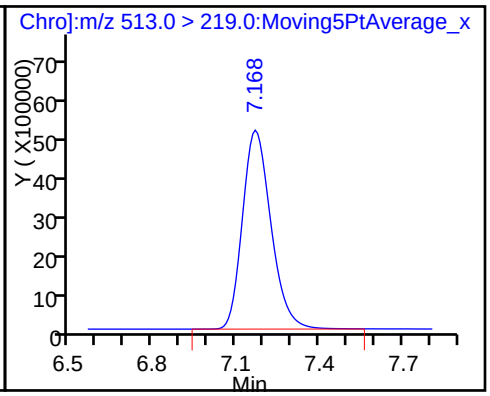
* 19 13C2 PFDA (IS)



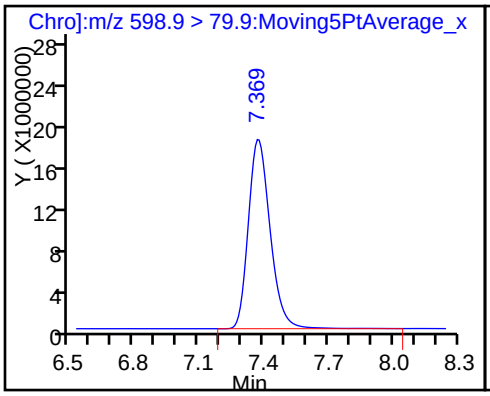
18 Perfluorodecanoic acid



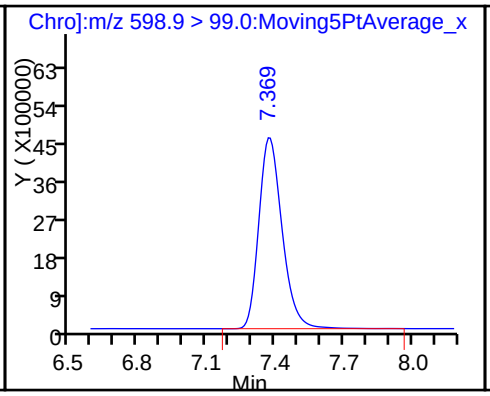
18 Perfluorodecanoic acid



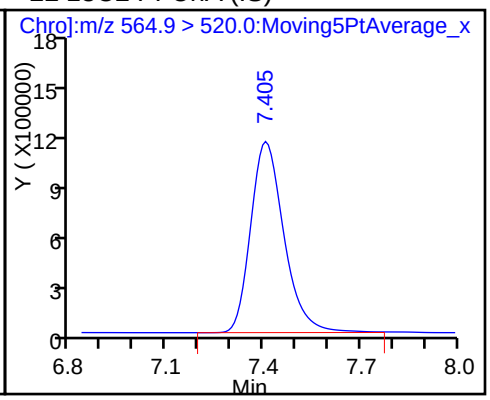
20 Perfluorodecane Sulfonate



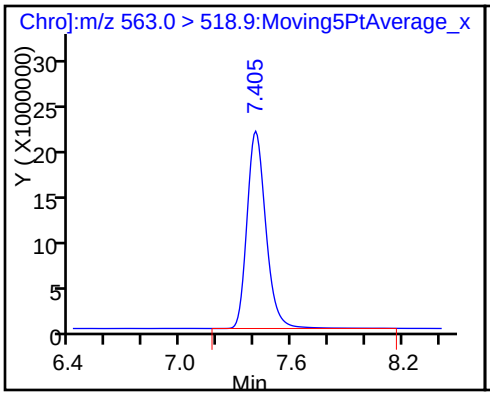
20 Perfluorodecane Sulfonate



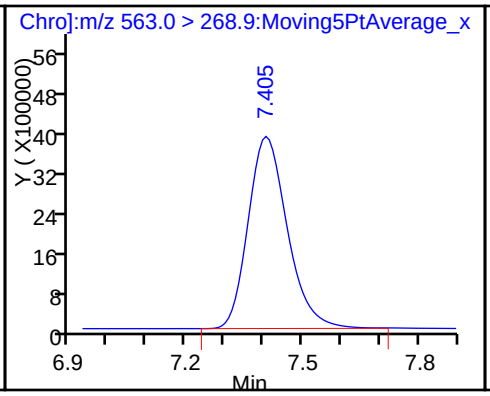
* 22 13C2 PFUnA (IS)



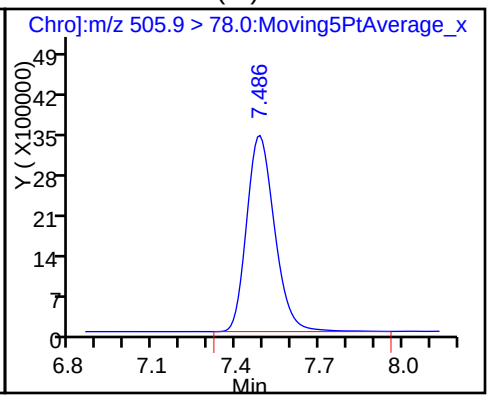
21 Perfluoroundecanoic acid



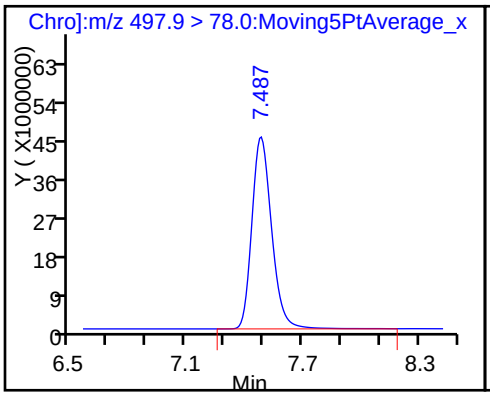
21 Perfluoroundecanoic acid



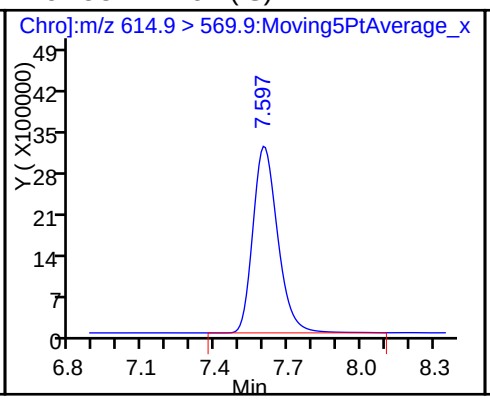
* 23 13C8 FOSA (IS)



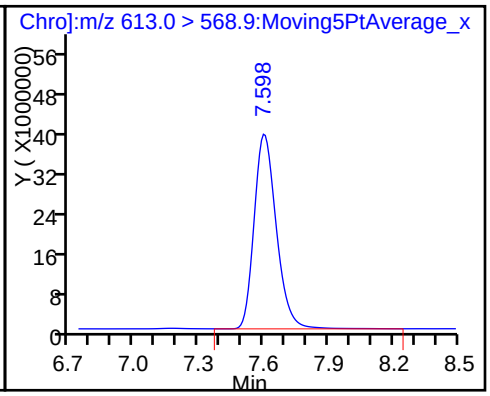
24 Perfluorooctane Sulfonamide



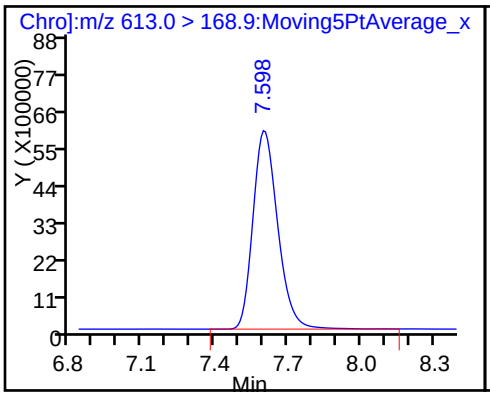
* 25 13C2 PFDoA (IS)



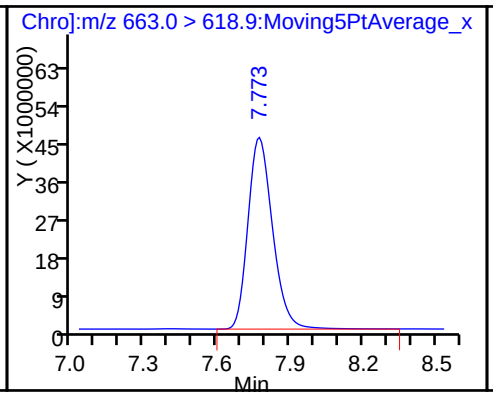
26 Perfluorododecanoic acid



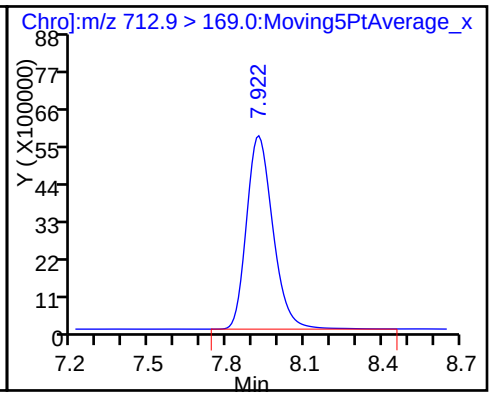
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

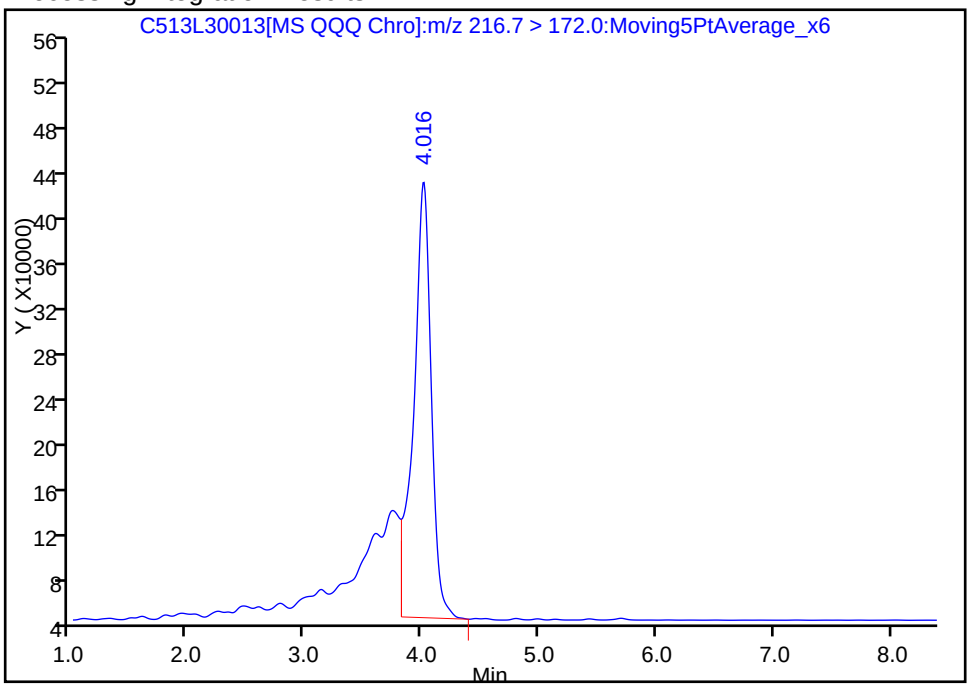
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d				
Injection Date:	31-Dec-2013 17:43:04	Instrument ID:	LC_LCMS5		
Lims ID:	std1250	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

* 2 13C4 PFBA (IS), CAS: STL01003

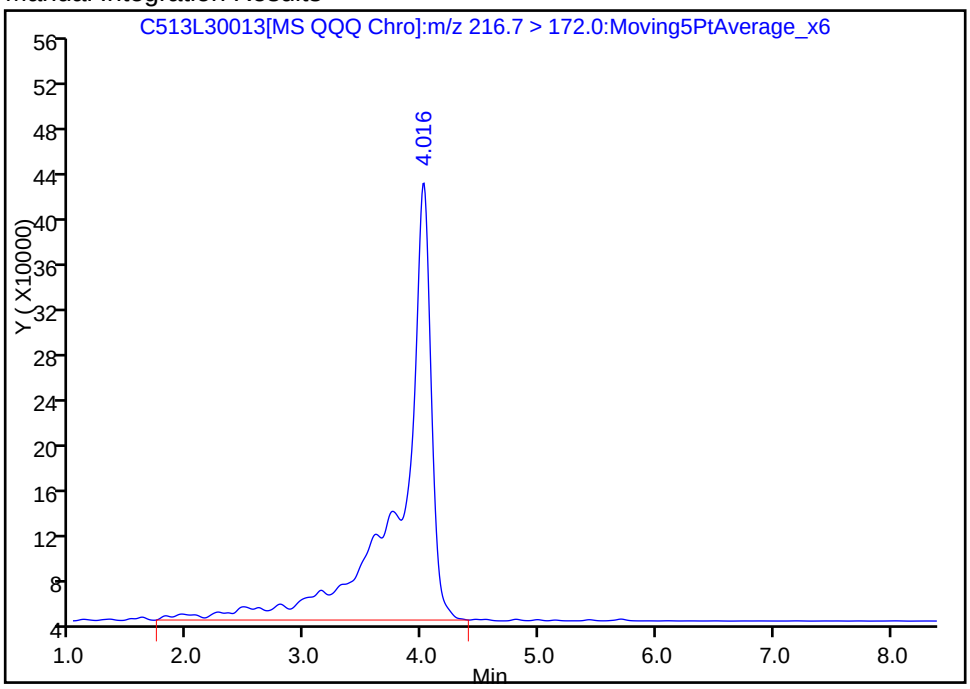
Processing Integration Results

RT: 4.02
Response: 3983367
Amount: 10.000000



Manual Integration Results

RT: 4.02
Response: 6968445
Amount: 10.000000



Reviewer: kellisonm, 02-Jan-2014 10:27:04
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

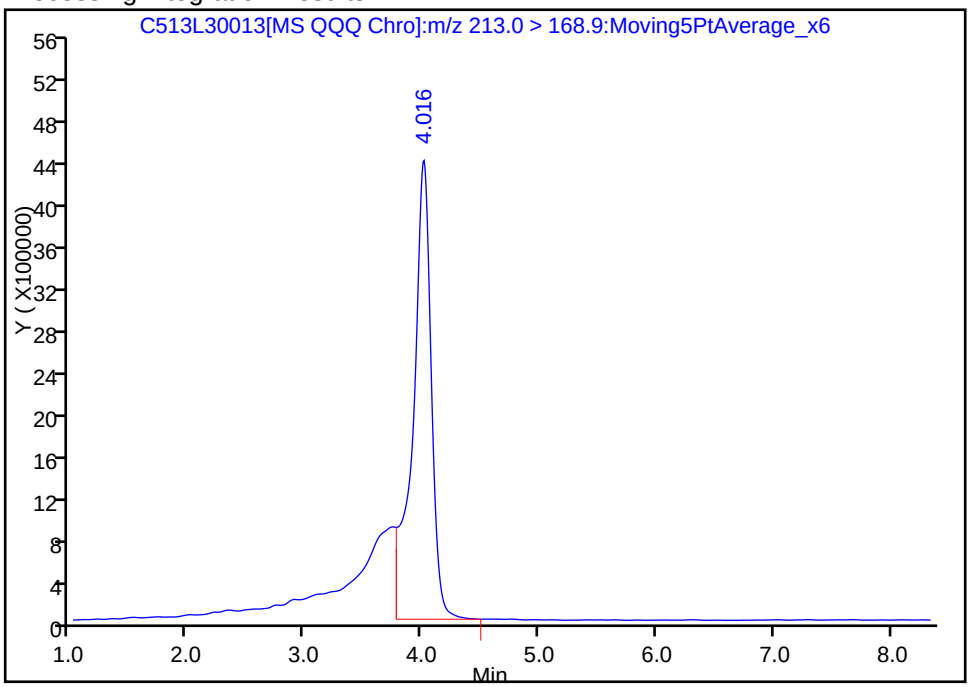
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d				
Injection Date:	31-Dec-2013 17:43:04	Instrument ID:	LC_LCMS5		
Lims ID:	std1250	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

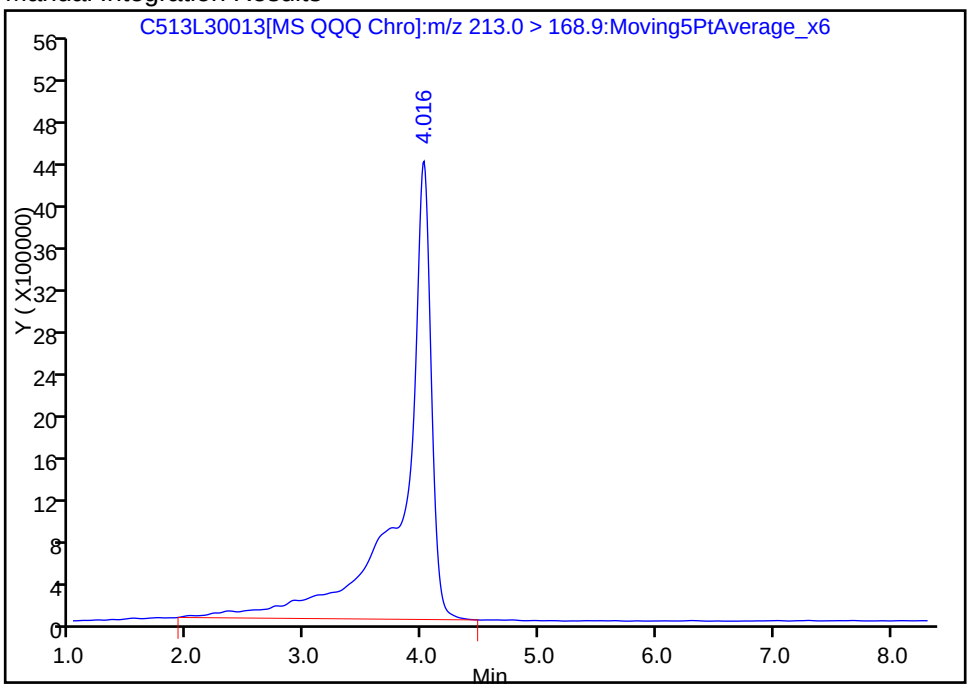
Processing Integration Results

RT: 4.02
Response: 47187813
Amount: 142.6008



Manual Integration Results

RT: 4.02
Response: 72545732
Amount: 128.0726



Reviewer: kellisonm, 02-Jan-2014 10:27:04
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Lab Sample ID: ICV 280-207217/12 Calibration Date: 12/31/2013 17:55

Instrument ID: LC_LCMS5 Calib Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calib End Date: 12/31/2013 17:43

Lab File ID: PC513L30014.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	Lin2		0.9664		2.36	2.00	18.0	30.0
Perfluoropentanoic acid (PFPA)	Lin2		0.7014		1.87	2.00	-6.5	30.0
Perfluorobutane Sulfonate (PFBS)	Lin2		4.776		1.64	1.77	-7.3	30.0
Perfluorohexanoic acid (PFHxA)	Lin2		0.9530		1.75	2.00	-12.5	30.0
Perfluorohexane Sulfonate (PFHxS)	Lin2		4.742		1.85	1.82	1.7	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2		0.4974		2.10	2.00	5.1	30.0
Perfluorooctanoic acid (PFOA)	Lin2		0.9621		1.91	2.00	-4.4	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2		1.293		2.09	2.00	4.6	30.0
Perfluorononanoic acid (PFNA)	Lin2		1.245		1.98	2.00	-1.1	30.0
Perfluorodecanoic acid (PFDA)	Lin2		1.047		2.12	2.00	5.8	30.0
Perfluorodecane sulfonate (PFDS)	Lin2		1.441		1.93	1.93	0.3	30.0
Perfluoroundecanoic acid (PFUnA)	Lin2		1.480		1.80	2.00	-9.8	30.0
Perfluorooctane Sulfonamide (FOSA)	Lin2		1.078		2.10	2.00	5.0	30.0
Perfluorododecanoic acid (PFDoA)	Lin2		0.9080		1.75	2.00	-12.6	30.0
Perfluorotridecanoic Acid (PFTriA)	Lin2		1.035		1.65	2.00	-17.5	30.0
Perfluorotetradecanoic acid (PFTeA)	Lin2		0.1146		1.53	2.00	-23.5	30.0
13C8 PFOA	Lin2		0.9746		10.4	10.0	4.4	30.0
13C8 PFOS	Lin2		0.5001		9.31	9.56	-2.6	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30014.d
Lims ID: icv Lab Sample ID: ICV 280-207217/12-A
Client ID:
Sample Type: ICV
Inject. Date: 31-Dec-2013 17:55:22 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: ICV, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist:
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:25 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:29:06

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.008	4.016	-0.008	0.998	1257889	2.36			M
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	4.016	4.025	-0.009		6508341	10.0			M
3 Perfluoropentanoic acid									M
263.0 > 218.9	5.124	5.133	-0.009	0.893	2213500	1.87			M
4 Perfluorobutane Sulfonate									M
298.9 > 79.9	5.247	5.256	-0.009	0.847	1532005	1.64			M
298.9 > 98.9	5.247	5.256	-0.009	0.847	278326		5.50(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.739	5.757	-0.018		15778280	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.739	5.757	-0.018	1.000	3007367	1.75			
313.0 > 118.6	5.748	5.757	-0.009	1.002	33272		90.39(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.196	6.214	-0.018	0.944	1978762	2.10			
363.0 > 168.9	6.196	6.214	-0.018	0.944	823793		2.40(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.195	6.230	-0.035		1714384	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.195	6.231	-0.036	1.000	1565918	1.85			
398.9 > 98.9	6.195	6.231	-0.036	1.000	684497		2.29(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.564	6.590	-0.026	1.000	19387330	10.4			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.564	6.599	-0.035		19892470	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.564	6.599	-0.035	1.000	3827766	1.91			
413.0 > 169.0	6.564	6.599	-0.035	1.000	1094926		3.50(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.861	6.896	-0.035	1.000	4344014	9.31			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.861	6.897	-0.036		8686321	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.862	6.897	-0.035	1.000	2349783	2.09			
498.9 > 98.9	6.862	6.897	-0.035	1.000	894161		2.63(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.880	6.915	-0.035		21774562	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.880	6.915	-0.035	1.000	5421405	1.98			
463.0 > 218.9	6.889	6.915	-0.026	1.001	993180		5.46(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.151	7.186	-0.036		32380902	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.151	7.186	-0.035	1.000	6780468	2.12			
513.0 > 219.0	7.151	7.186	-0.035	1.000	975142		6.95(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.360	7.387	-0.027	1.073	2524766	1.93			
598.9 > 99.0	7.360	7.387	-0.027	1.073	731846		3.45(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.387	7.414	-0.027		13814939	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.388	7.414	-0.026	1.000	4090479	1.80			
563.0 > 268.9	7.388	7.414	-0.026	1.000	775037		5.28(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.468	7.494	-0.026		32932694	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.469	7.495	-0.026	1.000	7097411	2.10			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.589	7.615	-0.026		30604187	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.589	7.615	-0.026	1.000	5557541	1.75			
613.0 > 168.9	7.589	7.615	-0.026	1.000	805205		6.90(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.764	7.782	-0.018	1.023	6332056	1.65			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.905	7.931	-0.026	1.042	701284	1.53			

QC Flag Legend

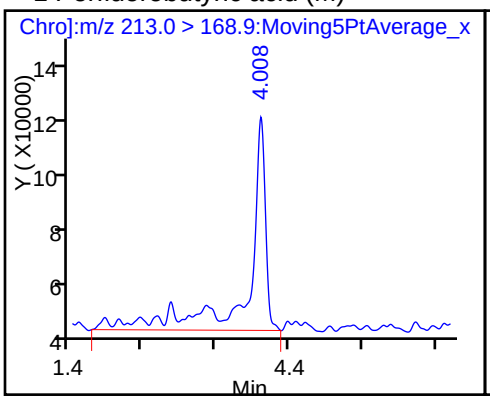
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:27 Chrom Revision: 2.1 15-Oct-2013 07:52:24

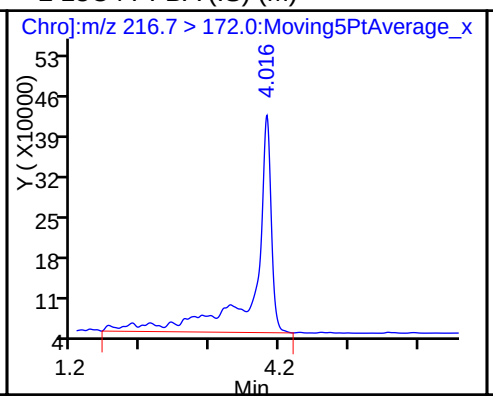
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30014.d				
Injection Date:	31-Dec-2013 17:55:22	Instrument ID:	LC_LCMS5		
Lims ID:	icv	Lab Sample ID:	ICV 280-207217/12-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

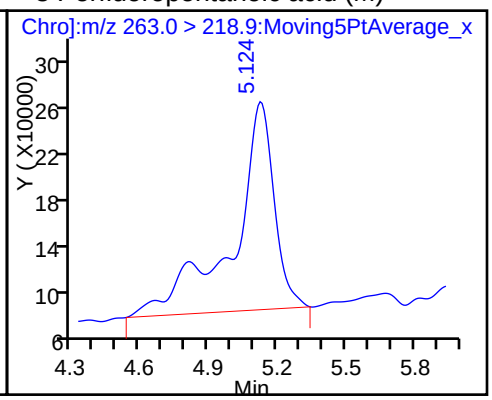
1 Perfluorobutyric acid (M)



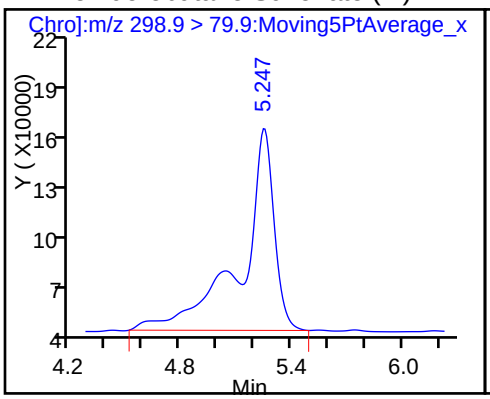
* 2 13C4 PFBA (IS) (M)



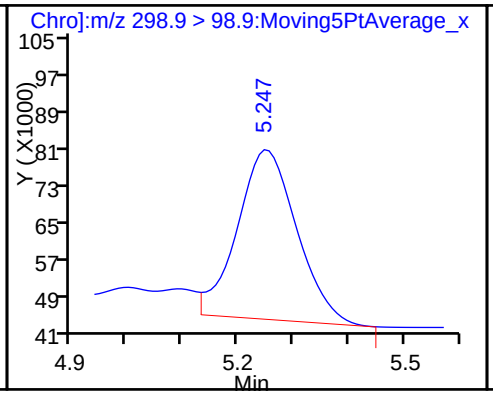
3 Perfluoropentanoic acid (M)



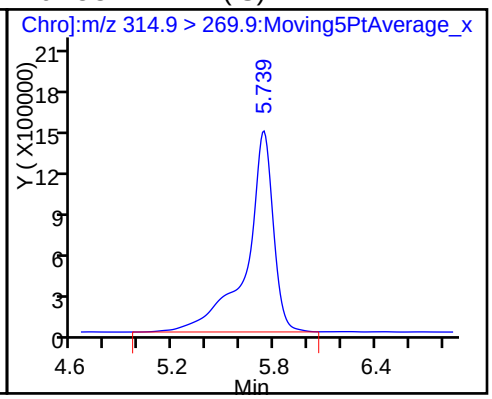
4 Perfluorobutane Sulfonate (M)



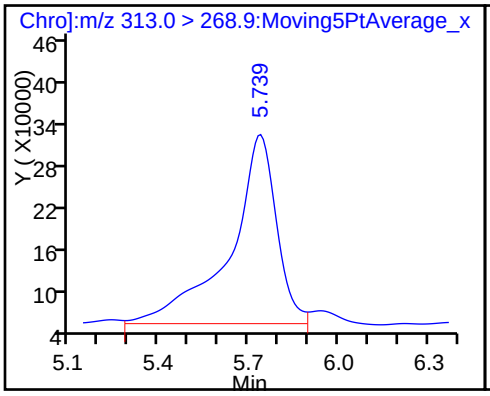
4 Perfluorobutane Sulfonate



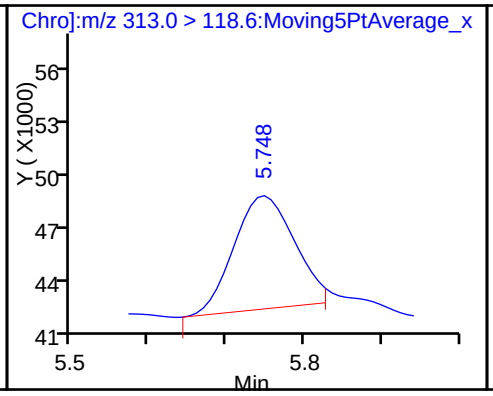
* 6 13C2 PFHxA (IS)



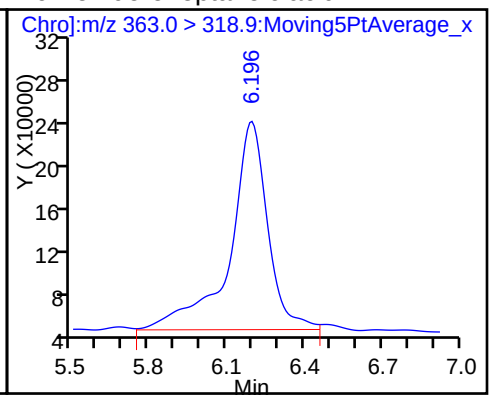
5 Perfluorohexanoic acid



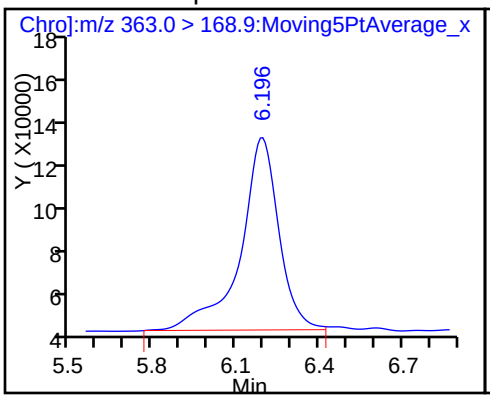
5 Perfluorohexanoic acid



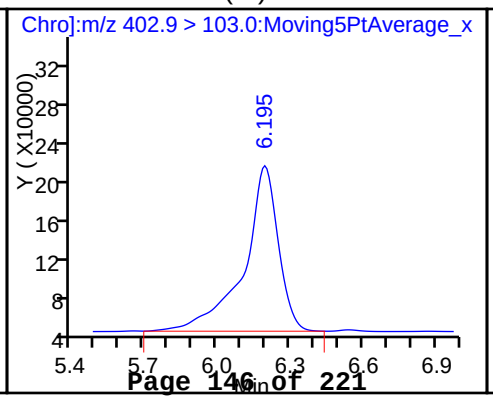
9 Perfluoroheptanoic acid



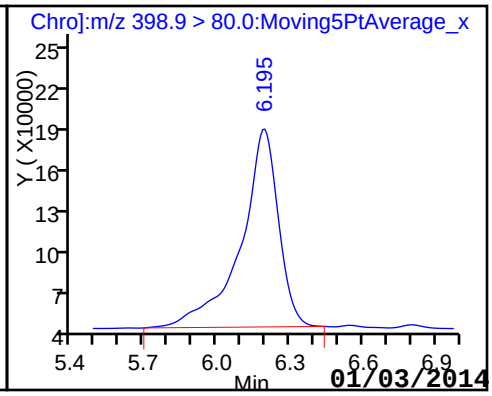
9 Perfluoroheptanoic acid



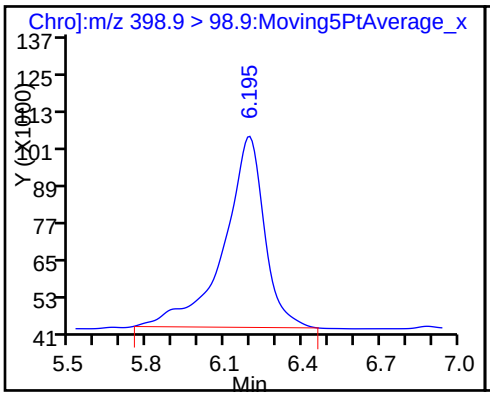
* 7 18O2 PFHxS (IS)



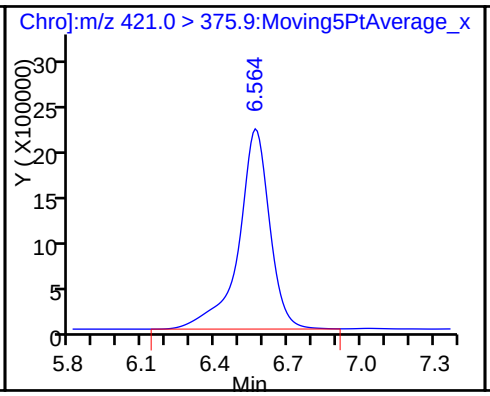
8 Perfluorohexane Sulfonate



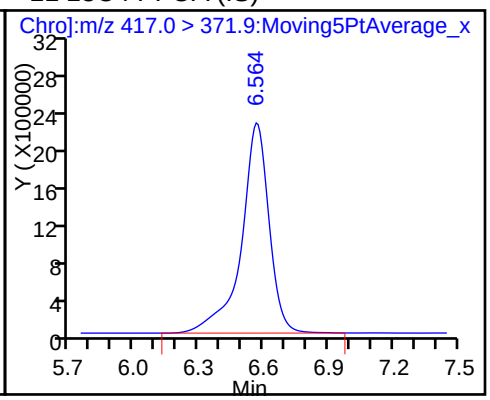
8 Perfluorohexane Sulfonate



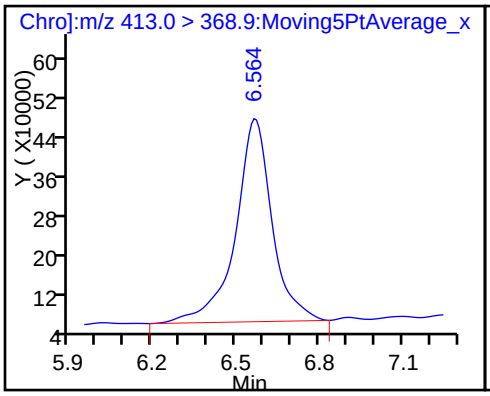
$ 10 13C8 PFOA



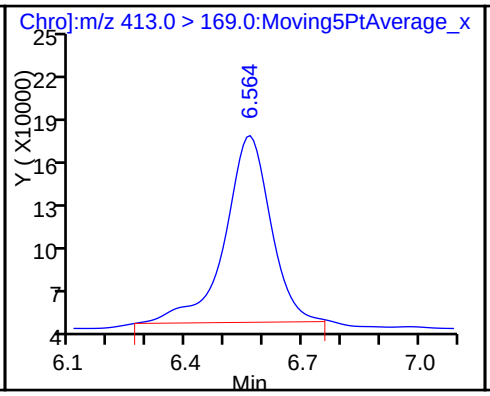
* 11 13C4 PFOA (IS)



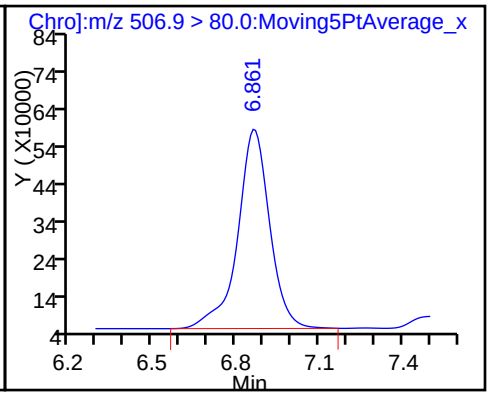
12 Perfluorooctanoic acid



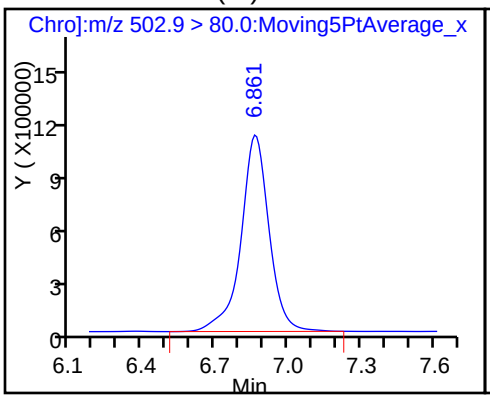
12 Perfluorooctanoic acid



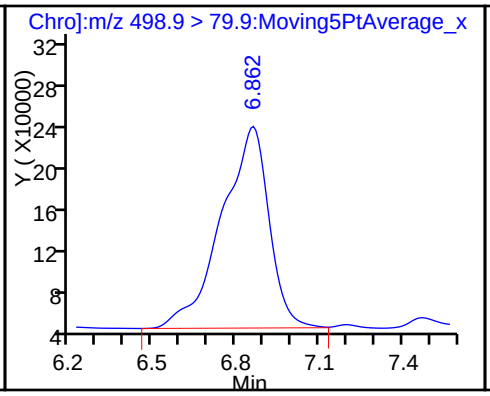
$ 15 13C8 PFOS



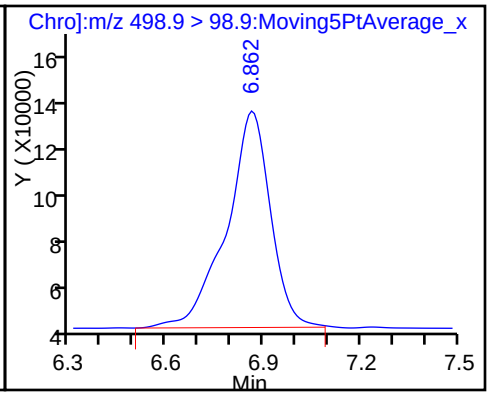
* 14 13C4 PFOS (IS)



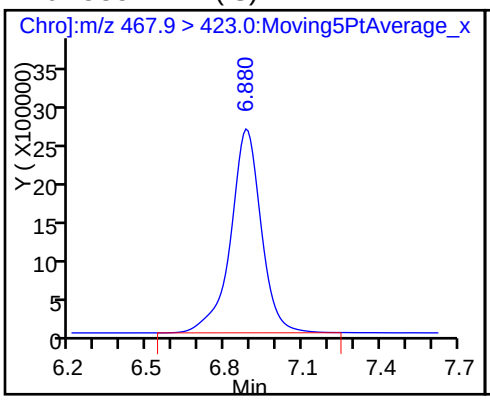
13 Perfluorooctanoic Sulfonate



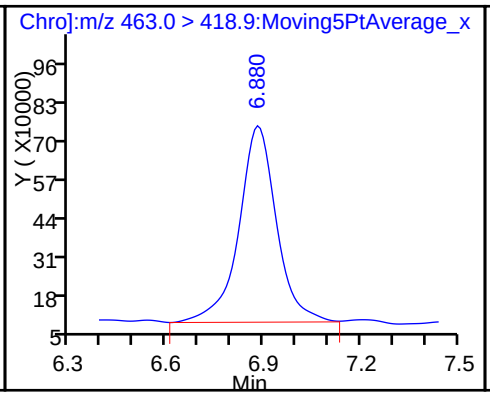
13 Perfluorooctanoic Sulfonate



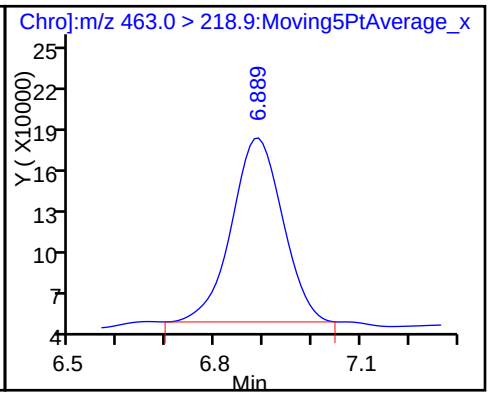
* 16 13C5 PFNA (IS)



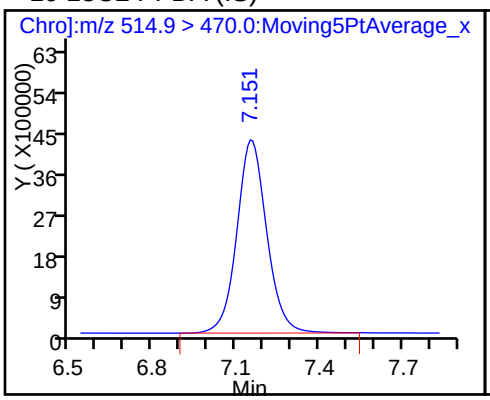
17 Perfluorononanoic acid



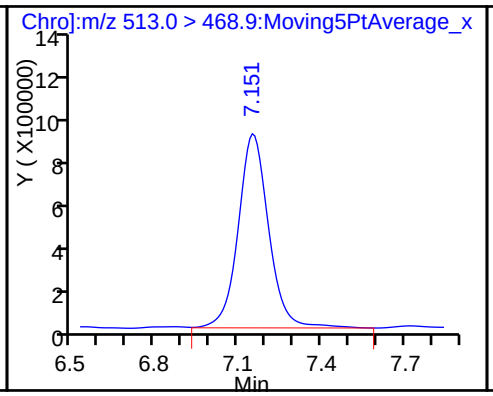
17 Perfluorononanoic acid



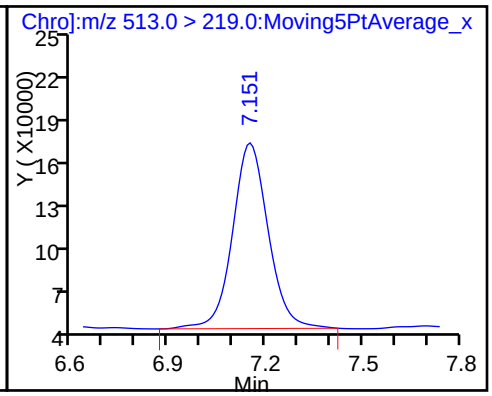
* 19 13C2 PFDA (IS)



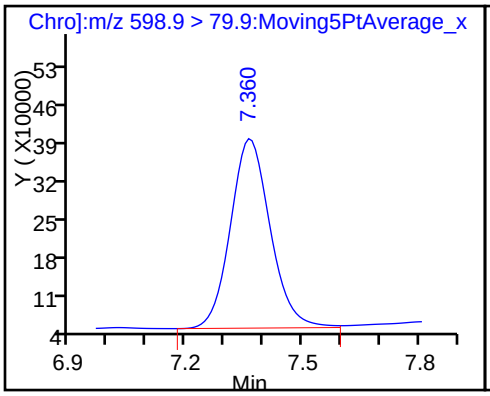
18 Perfluorodecanoic acid



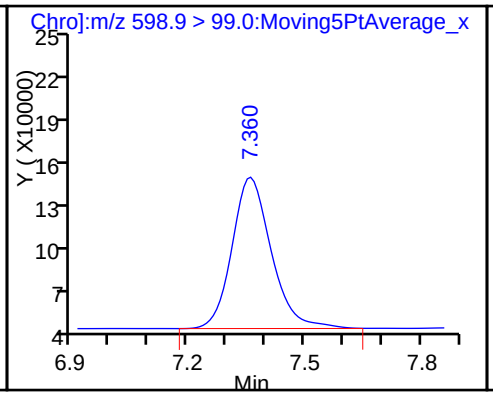
18 Perfluorodecanoic acid



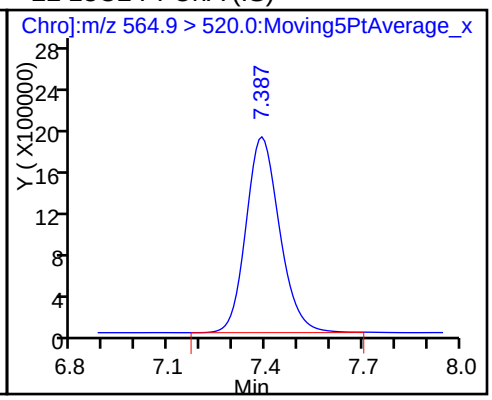
20 Perfluorodecane Sulfonate



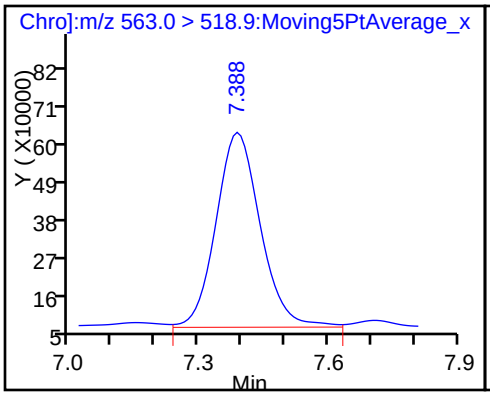
20 Perfluorodecane Sulfonate



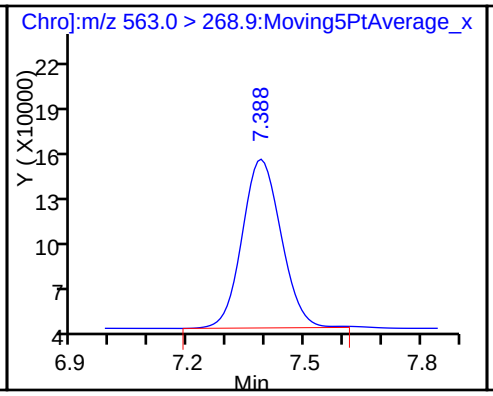
* 22 13C2 PFUnA (IS)



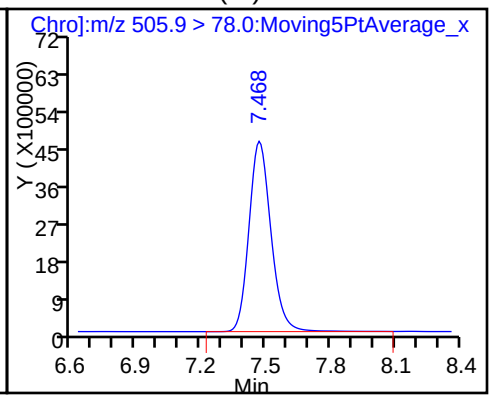
21 Perfluoroundecanoic acid



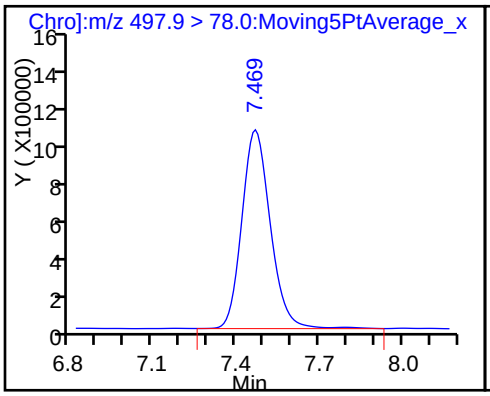
21 Perfluoroundecanoic acid



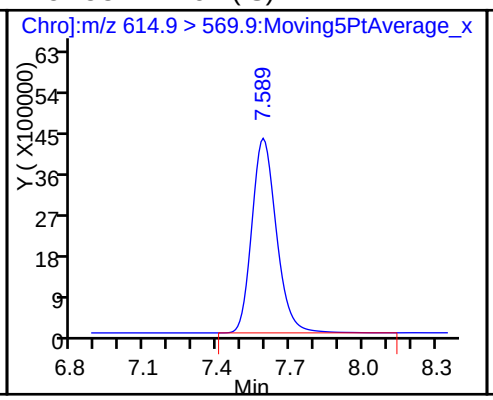
* 23 13C8 FOSA (IS)



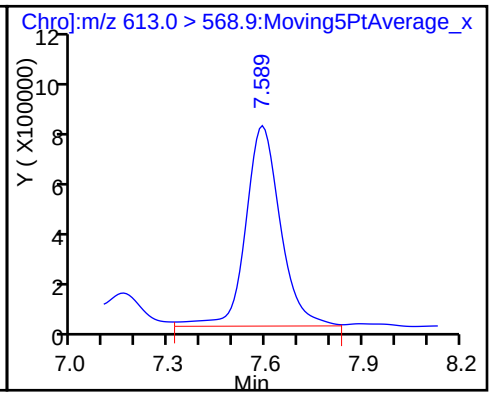
24 Perfluorooctane Sulfonamide



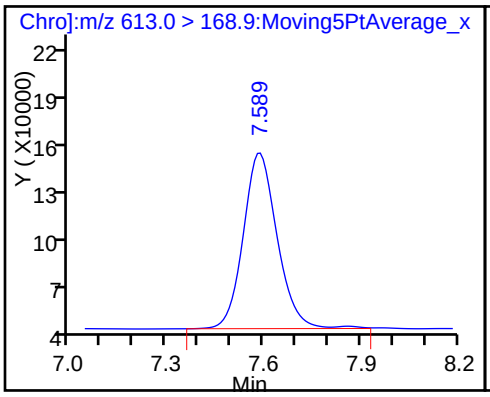
* 25 13C2 PFDoA (IS)



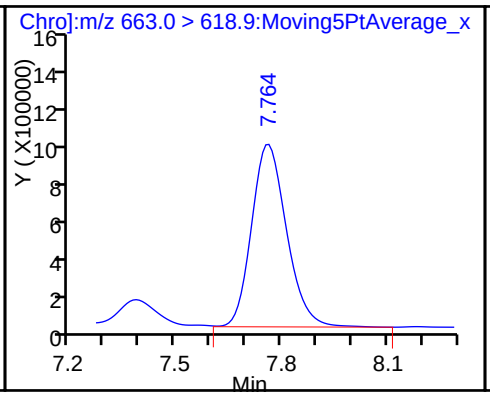
26 Perfluorododecanoic acid



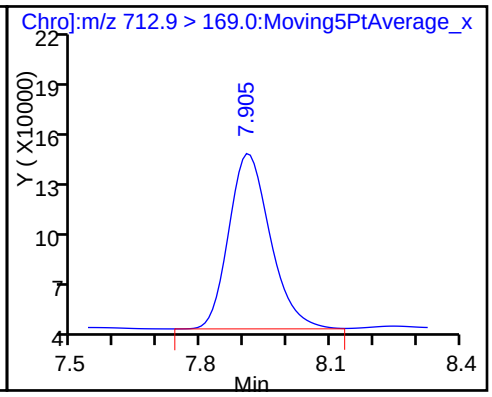
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

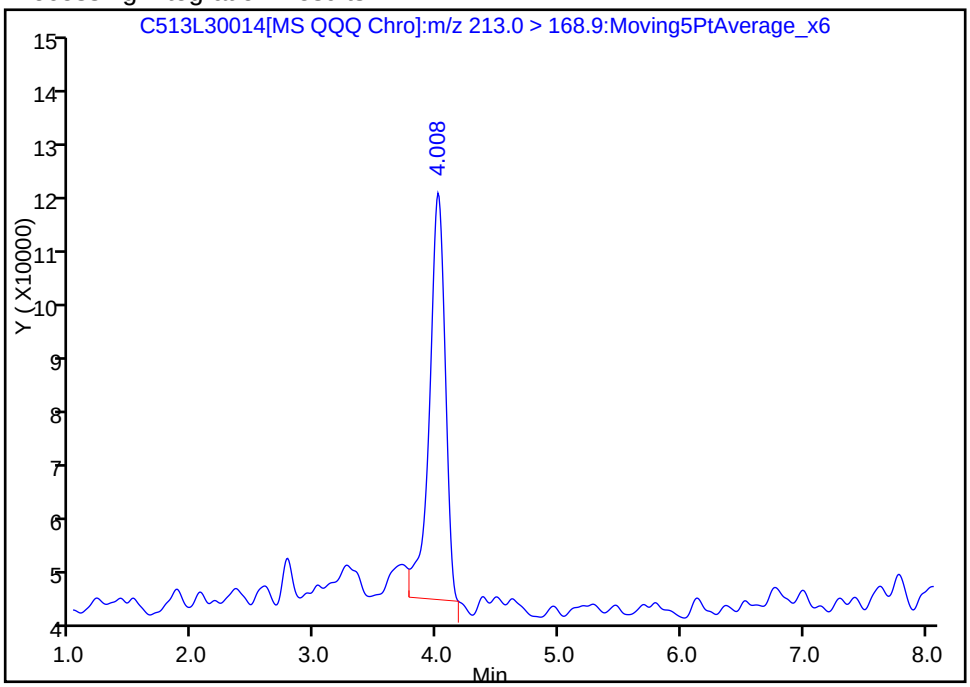
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30014.d				
Injection Date:	31-Dec-2013 17:55:22	Instrument ID:	LC_LCMS5		
Lims ID:	icv	Lab Sample ID:	ICV 280-207217/12-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

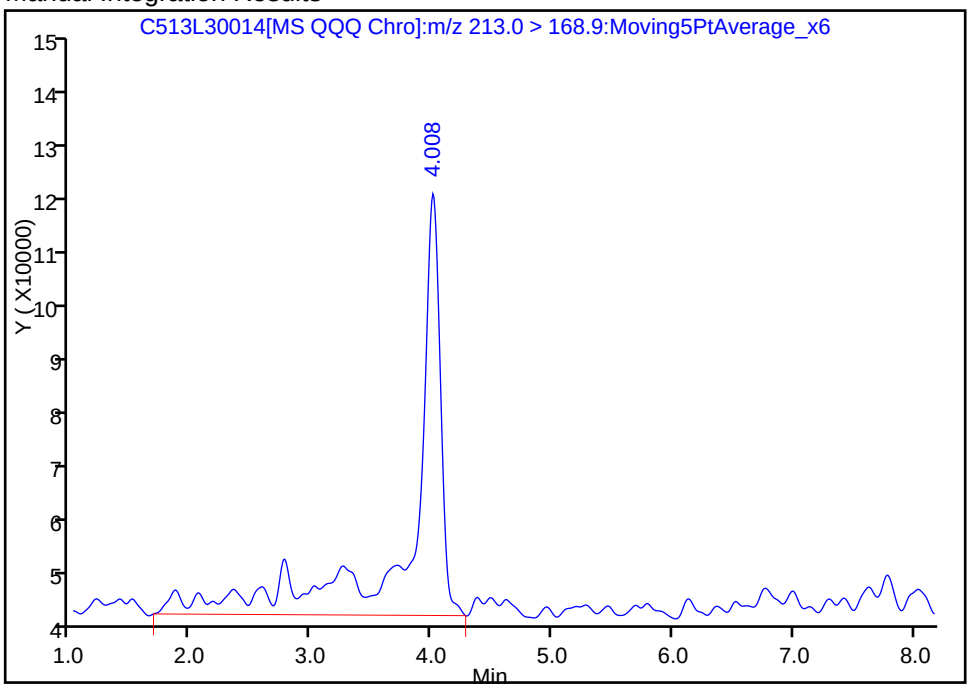
Processing Integration Results

RT: 4.01
Response: 650862
Amount: 1.212653



Manual Integration Results

RT: 4.01
Response: 1257889
Amount: 2.360221



Reviewer: kellisonm, 02-Jan-2014 10:29:56
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

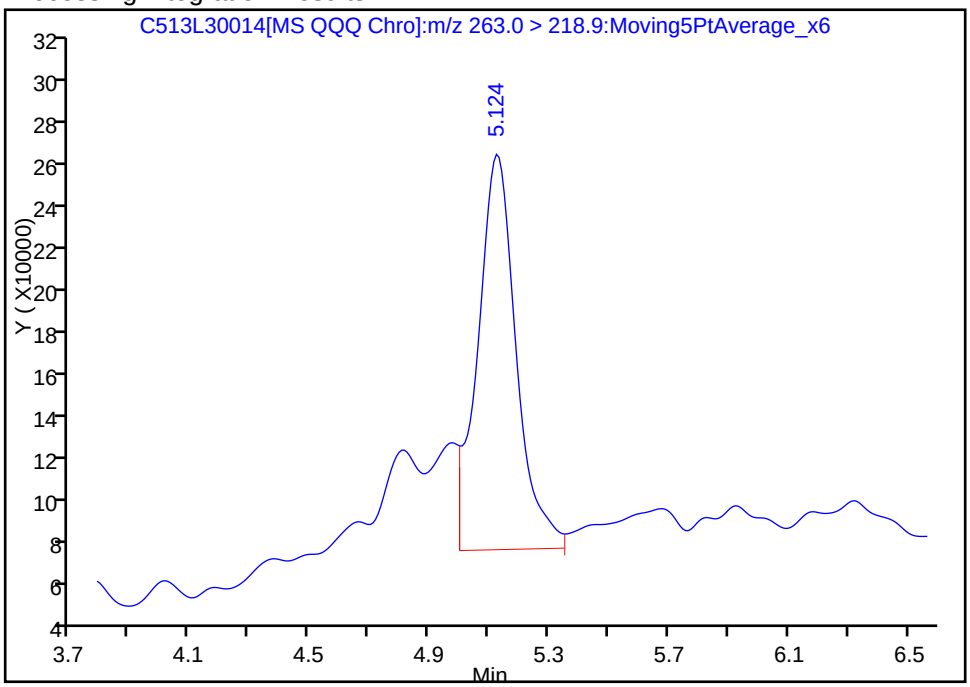
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30014.d				
Injection Date:	31-Dec-2013 17:55:22	Instrument ID:	LC_LCMS5		
Lims ID:	icv	Lab Sample ID:	ICV 280-207217/12-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

3 Perfluoropentanoic acid, CAS: 2706-90-3

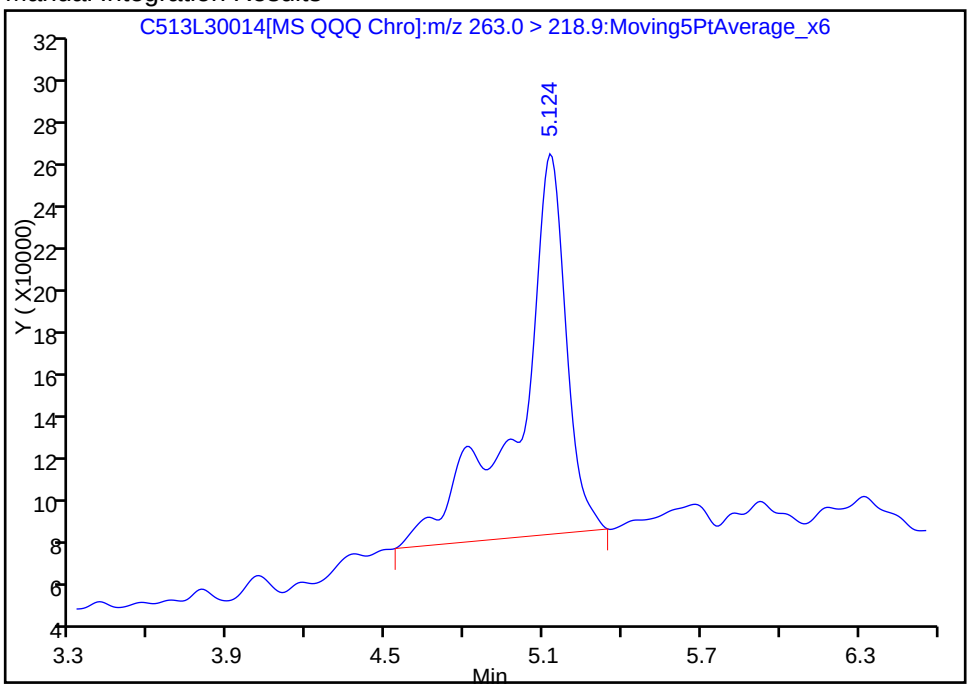
Processing Integration Results

RT: 5.12
Response: 1608982
Amount: 1.371711



Manual Integration Results

RT: 5.12
Response: 2213500
Amount: 1.870971



Reviewer: kellisonm, 02-Jan-2014 10:29:06
Audit Action: Manually Integrated
Audit Reason: Baseline

Manual Integration/User Assign Peak Report

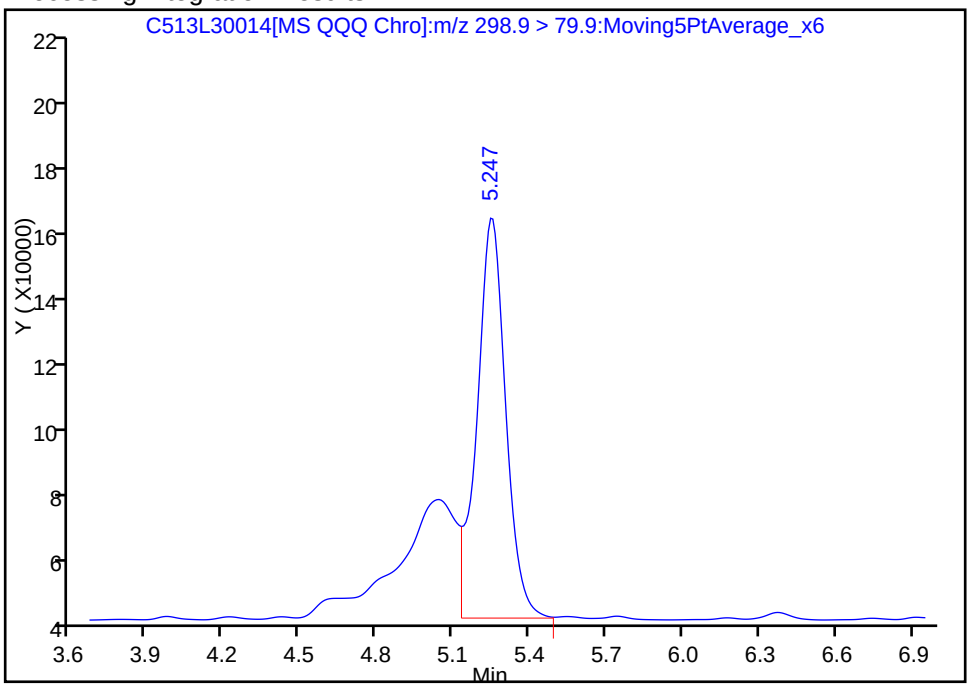
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30014.d				
Injection Date:	31-Dec-2013 17:55:22	Instrument ID:	LC_LCMS5		
Lims ID:	icv	Lab Sample ID:	ICV 280-207217/12-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

4 Perfluorobutane Sulfonate, CAS: 29420-43-3

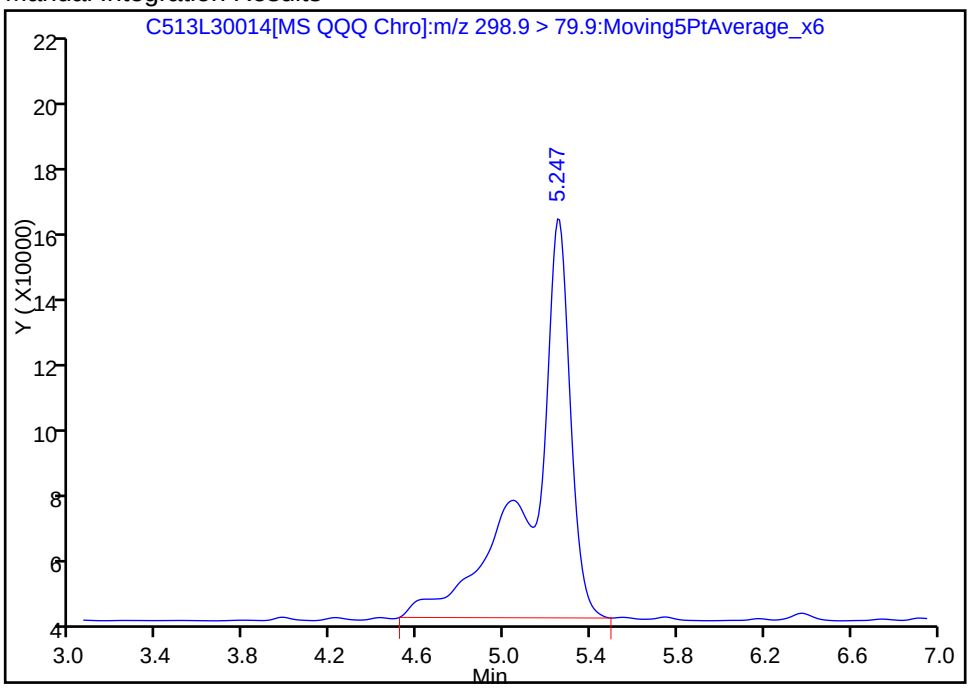
Processing Integration Results

RT: 5.25
Response: 957125
Amount: 1.030475



Manual Integration Results

RT: 5.25
Response: 1532005
Amount: 1.640275



Reviewer: kellisonm, 02-Jan-2014 10:29:06
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Lab Sample ID: CCV 280-207217/24 Calibration Date: 12/31/2013 20:22

Instrument ID: LC_LCMS5 Calib Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calib End Date: 12/31/2013 17:43

Lab File ID: PC513L30026.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	Lin2		0.8344		5.12	5.00	2.3	30.0
Perfluoropentanoic acid (PFPA)	Lin2		0.7391		4.86	5.00	-2.8	30.0
Perfluorobutane Sulfonate (PFBS)	Lin2		5.514		4.71	4.43	6.3	30.0
Perfluorohexanoic acid (PFHxA)	Lin2		1.053		5.05	5.00	1.0	30.0
Perfluorohexane Sulfonate (PFHxS)	Lin2		4.380		4.54	4.73	-4.0	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2		0.4940		5.31	5.00	6.2	30.0
Perfluorooctanoic acid (PFOA)	Lin2		1.077		5.42	5.00	8.3	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2		1.484		5.71	4.78	19.6	30.0
Perfluorononanoic acid (PFNA)	Lin2		1.354		5.36	5.00	7.2	30.0
Perfluorodecanoic acid (PFDA)	Lin2		1.007		5.19	5.00	3.9	30.0
Perfluorodecane sulfonate (PFDS)	Lin2		1.683		5.59	4.83	15.8	30.0
Perfluoroundecanoic acid (PFUnA)	Lin2		1.631		5.22	5.00	4.4	30.0
Perfluorooctane Sulfonamide (FOSA)	Lin2		1.026		5.01	5.00	0.1	30.0
Perfluorododecanoic acid (PFDoA)	Lin2		1.014		5.09	5.00	1.8	30.0
Perfluorotridecanoic Acid (PFTriA)	Lin2		1.262		5.19	5.00	3.9	30.0
Perfluorotetradecanoic acid (PFTeA)	Lin2		0.1474		5.06	5.00	1.1	30.0
13C8 PFOA	Lin2		1.051		5.61	5.00	12.1	30.0
13C8 PFOS	Lin2		0.5422		5.04	4.78	5.4	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30026.d
Lims ID: CCV L5 Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 31-Dec-2013 20:22:57 ALS Bottle#: 0 Worklist Smp#: 24
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: ccv, CCV PFC L5, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:45 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:41:29

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.016	4.016	0.0	1.002	2709321	5.12			M
* 2 13C4 PFBA (IS)									
216.7 > 172.0	4.007	4.007	0.0		6494350	10.0			
3 Perfluoropentanoic acid									
263.0 > 218.9	5.098	5.098	0.0	0.890	5421206	4.86			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.229	5.229	0.0	0.844	4605242	4.71			
298.9 > 98.9	5.229	5.229	0.0	0.844	1233196		3.73(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.730	5.730	0.0		14670545	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.730	5.730	0.0	1.000	7721833	5.05			
313.0 > 118.6	5.722	5.730	-0.008	0.999	130349		59.24(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.196	6.196	0.0	0.943	4460595	5.31			
363.0 > 168.9	6.187	6.196	-0.009	0.941	1980620		2.25(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.195	6.195	0.0		1785416	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.195	6.195	0.0	1.000	3905958	4.54			
398.9 > 98.9	6.195	6.195	0.0	1.000	1596243		2.45(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.573	6.573	0.0	1.000	9493175	5.61			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.573	6.573	0.0		18060914	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.573	6.573	0.0	1.000	9723594	5.42			
413.0 > 169.0	6.564	6.573	-0.009	0.999	2607434		3.73(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.870	6.870	0.0	1.000	2038415	5.04			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.870	6.870	0.0		7518756	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.870	6.870	0.0	1.000	5572567	5.71			
498.9 > 98.9	6.870	6.870	0.0	1.000	2379107		2.34(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.889	6.889	0.0		18634160	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.889	6.889	0.0	1.000	12611939	5.36			
463.0 > 218.9	6.889	6.889	0.0	1.000	2262568		5.57(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.159	7.159	0.0		27105369	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.160	7.160	0.0	1.000	13643682	5.19			
513.0 > 219.0	7.160	7.160	0.0	1.000	1778477		7.67(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.369	7.369	0.0	1.073	6384900	5.59			
598.9 > 99.0	7.369	7.369	0.0	1.073	1503812		4.25(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.396	7.396	0.0		12029959	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.396	7.396	0.0	1.000	9809444	5.22			
563.0 > 268.9	7.396	7.396	0.0	1.000	1862340		5.27(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.459	7.459	0.0		30675311	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.460	7.460	0.0	1.000	15742113	5.01			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.597	7.597	0.0		27836101	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.598	7.598	0.0	1.000	14112445	5.09			
613.0 > 168.9	7.598	7.598	0.0	1.000	2231324		6.32(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.764	7.764	0.0	1.022	17563785	5.19			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.922	7.922	0.0	1.043	2052112	5.06			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:46 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30026.d

Injection Date: 31-Dec-2013 20:22:57 Instrument ID: LC_LCMS5

Lims ID: CCV L5 Lab Sample ID:

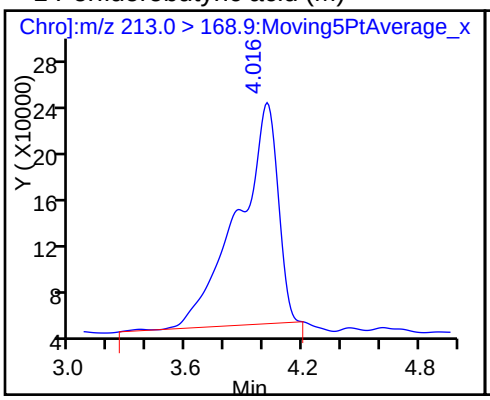
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 24

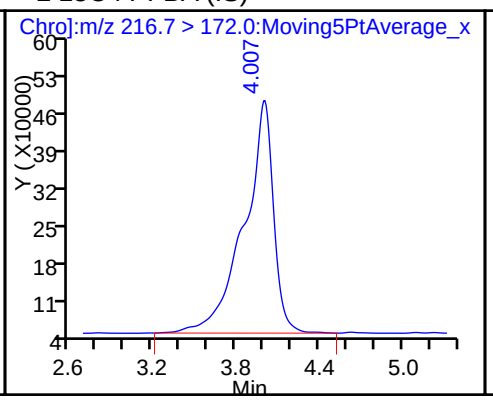
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

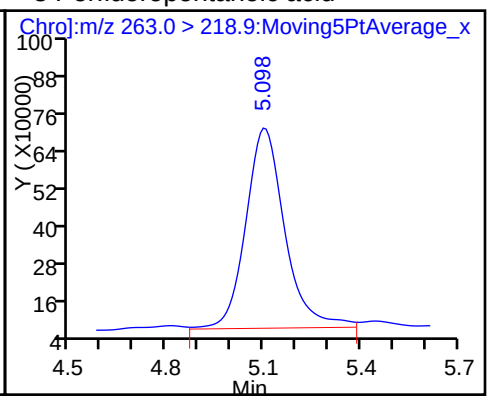
1 Perfluorobutyric acid (M)



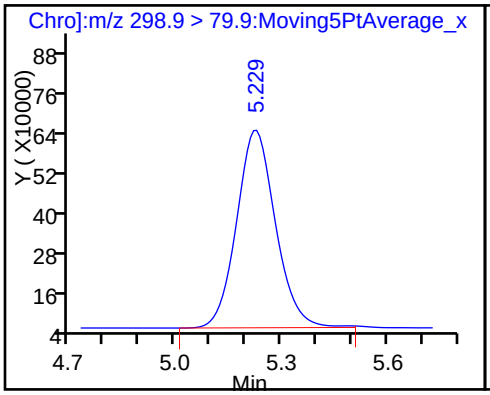
* 2 13C4 PFBA (IS)



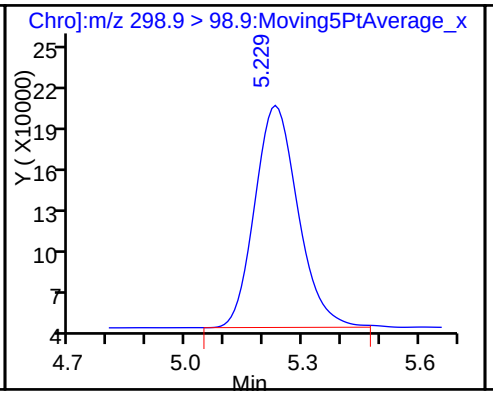
3 Perfluoropentanoic acid



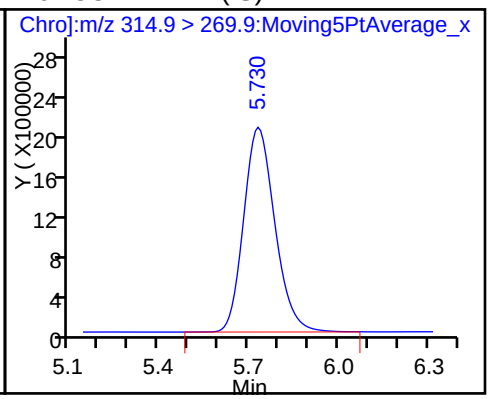
4 Perfluorobutane Sulfonate



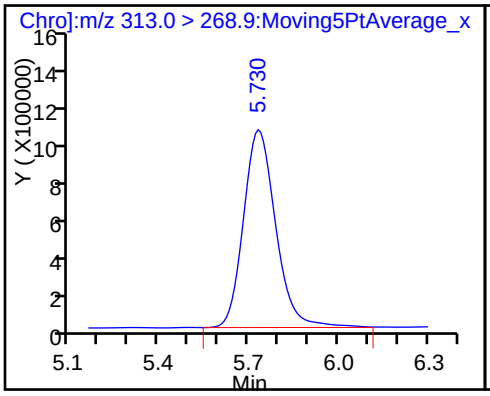
4 Perfluorobutane Sulfonate



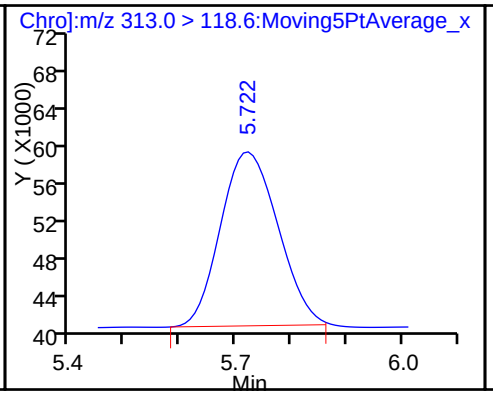
* 6 13C2 PFHxA (IS)



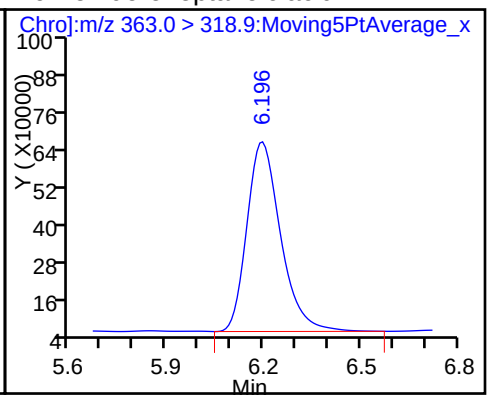
5 Perfluorohexanoic acid



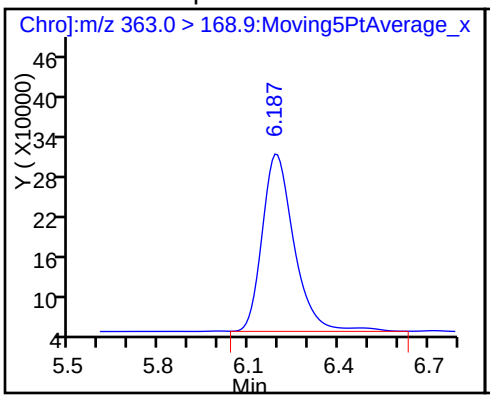
5 Perfluorohexanoic acid



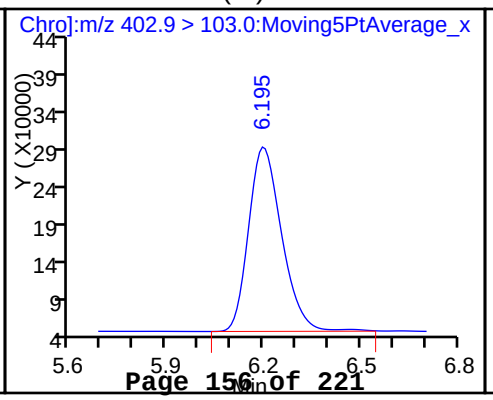
9 Perfluoroheptanoic acid



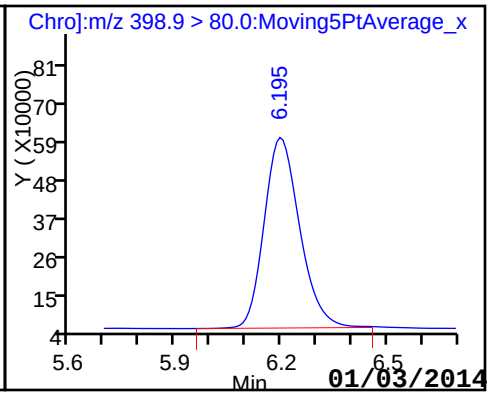
9 Perfluoroheptanoic acid



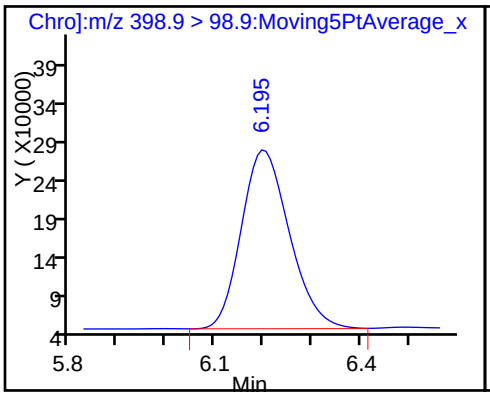
* 7 18O2 PFHxS (IS)



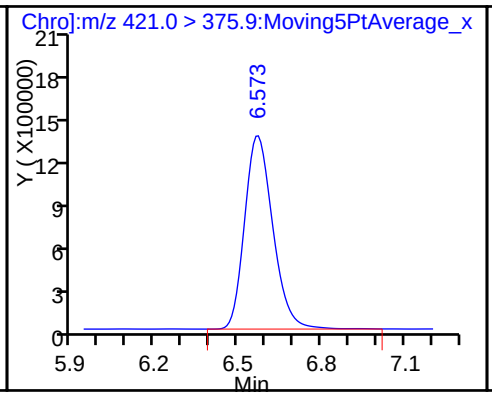
8 Perfluorohexane Sulfonate



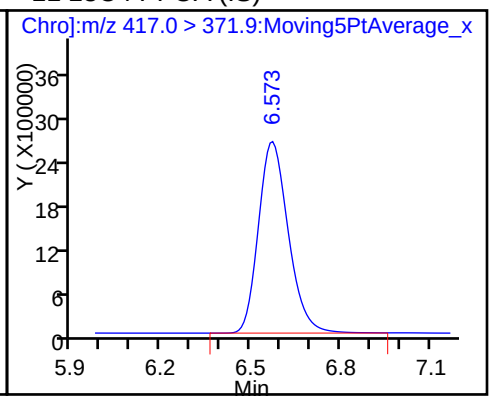
8 Perfluorohexane Sulfonate



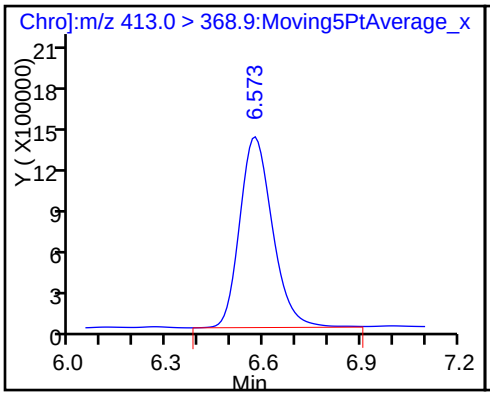
$ 10 13C8 PFOA



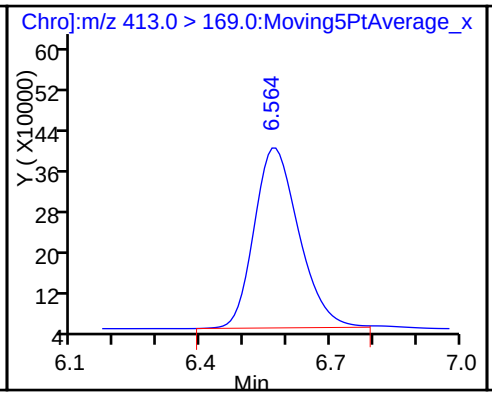
* 11 13C4 PFOA (IS)



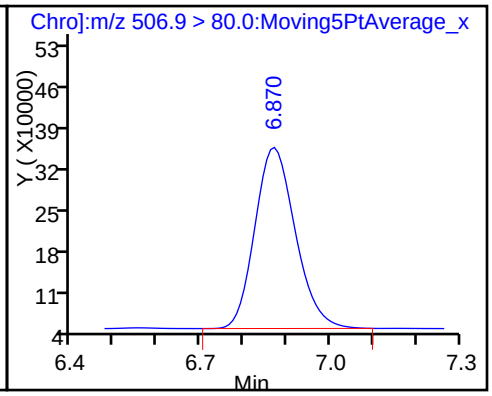
12 Perfluorooctanoic acid



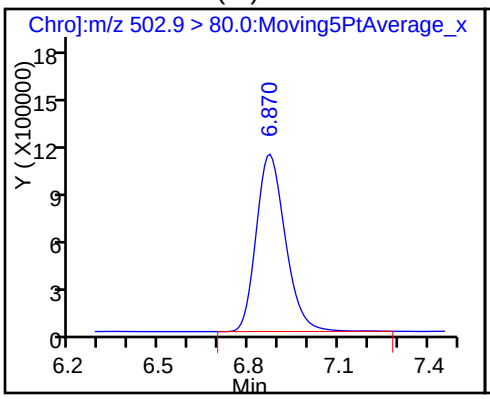
12 Perfluorooctanoic acid



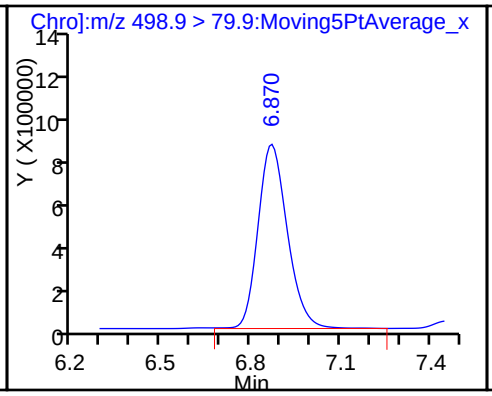
$ 15 13C8 PFOS



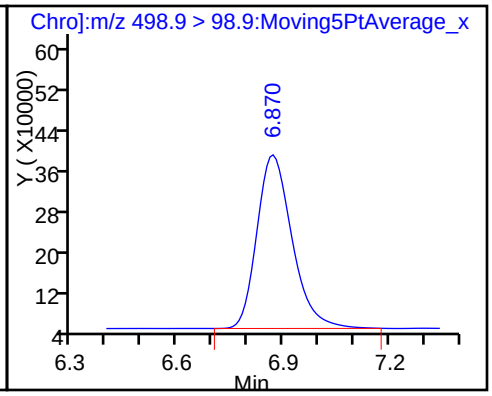
* 14 13C4 PFOS (IS)



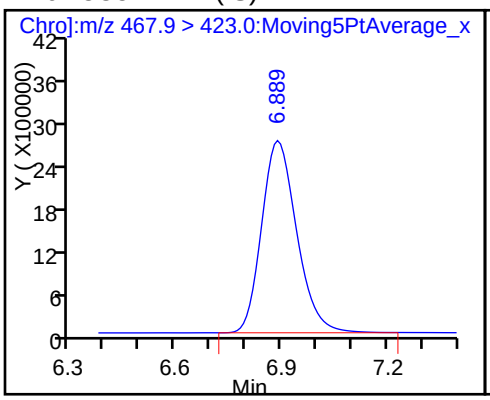
13 Perfluorooctanoic Sulfonate



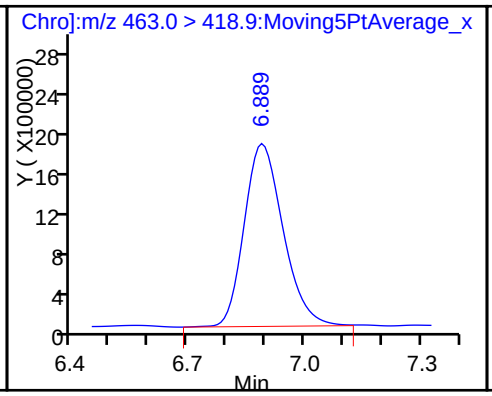
13 Perfluorooctanoic Sulfonate



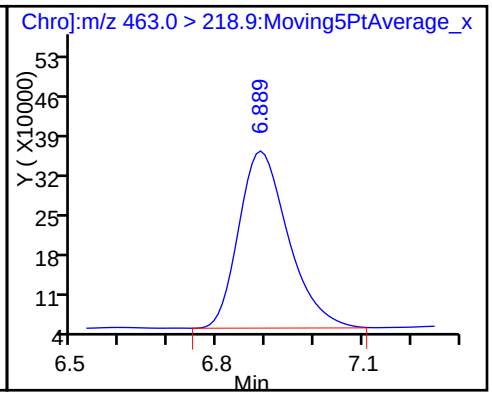
* 16 13C5 PFNA (IS)



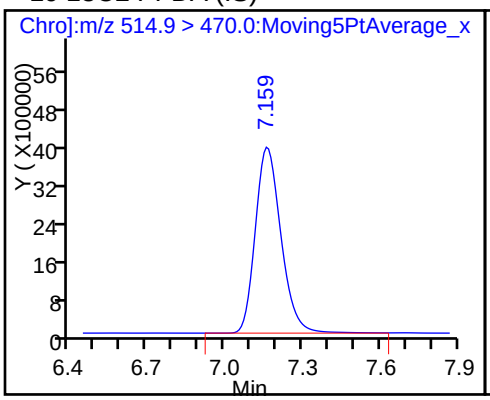
17 Perfluorononanoic acid



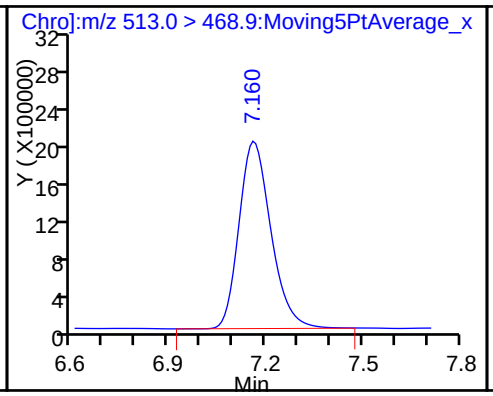
17 Perfluorononanoic acid



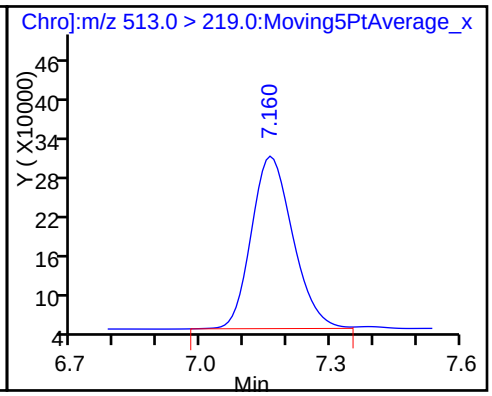
* 19 13C2 PFDA (IS)



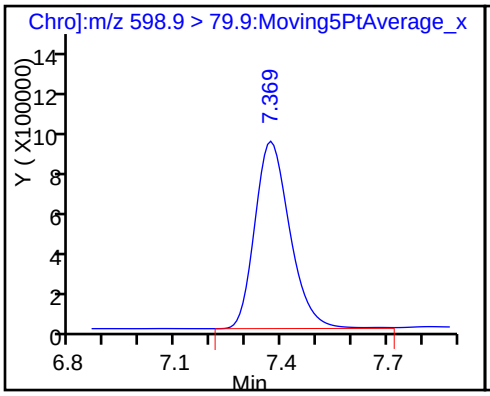
18 Perfluorodecanoic acid



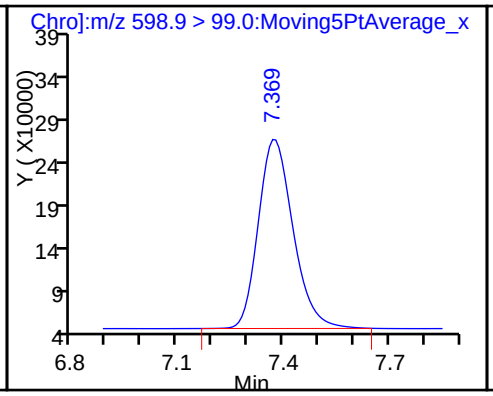
18 Perfluorodecanoic acid



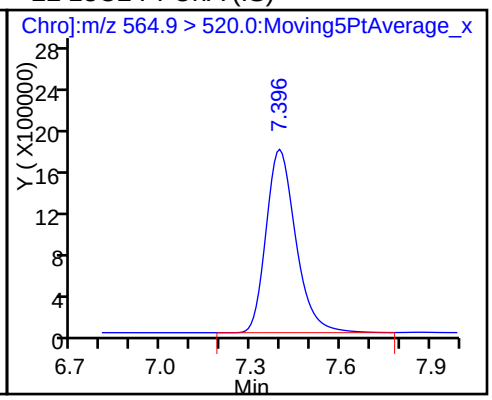
20 Perfluorodecane Sulfonate



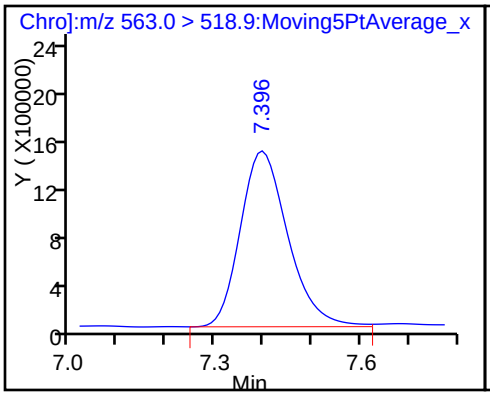
20 Perfluorodecane Sulfonate



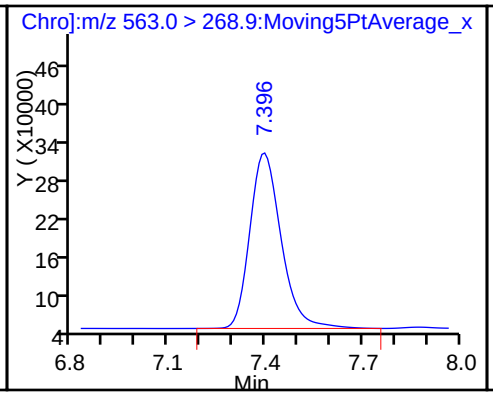
* 22 13C2 PFUnA (IS)



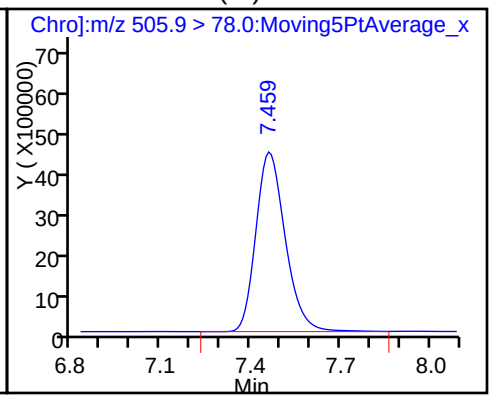
21 Perfluoroundecanoic acid



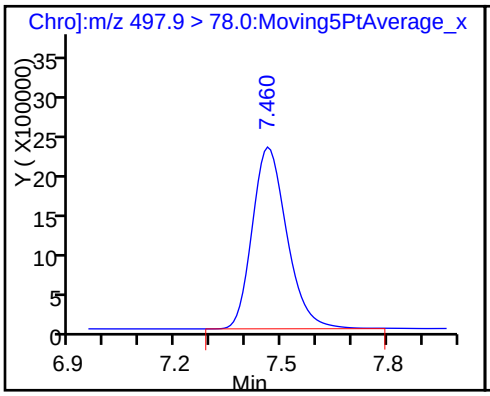
21 Perfluoroundecanoic acid



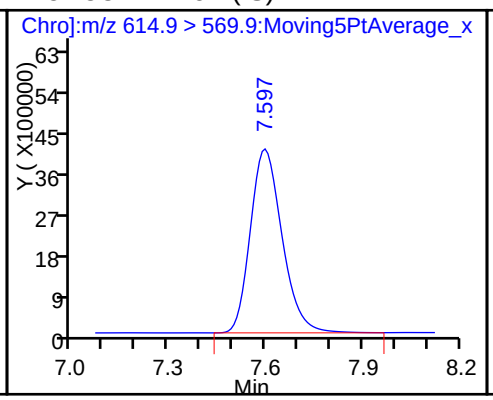
* 23 13C8 FOSA (IS)



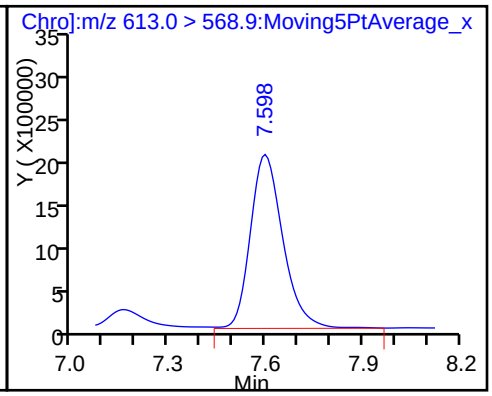
24 Perfluorooctane Sulfonamide



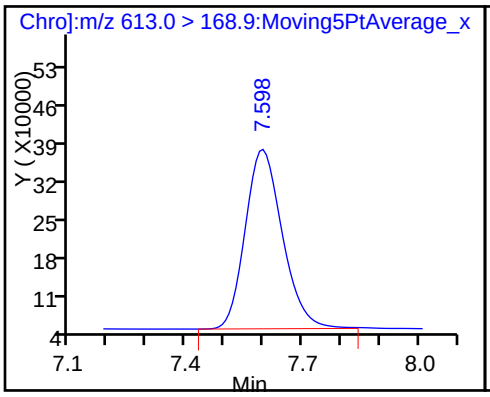
* 25 13C2 PFDoA (IS)



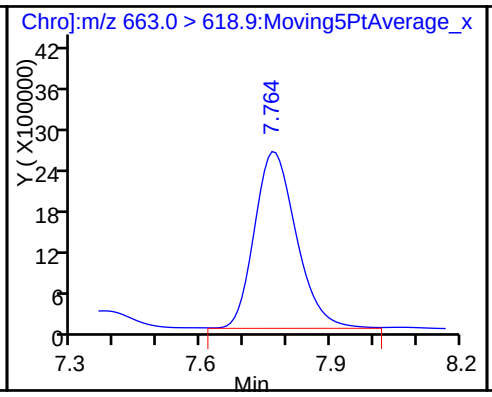
26 Perfluorododecanoic acid



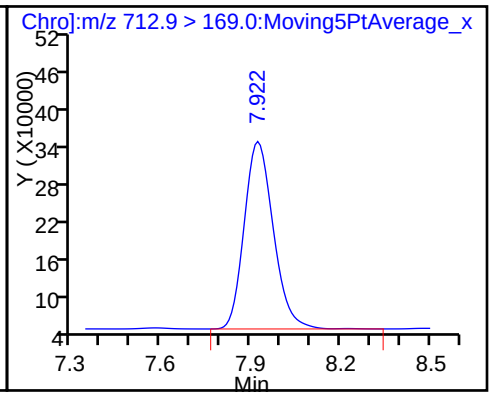
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

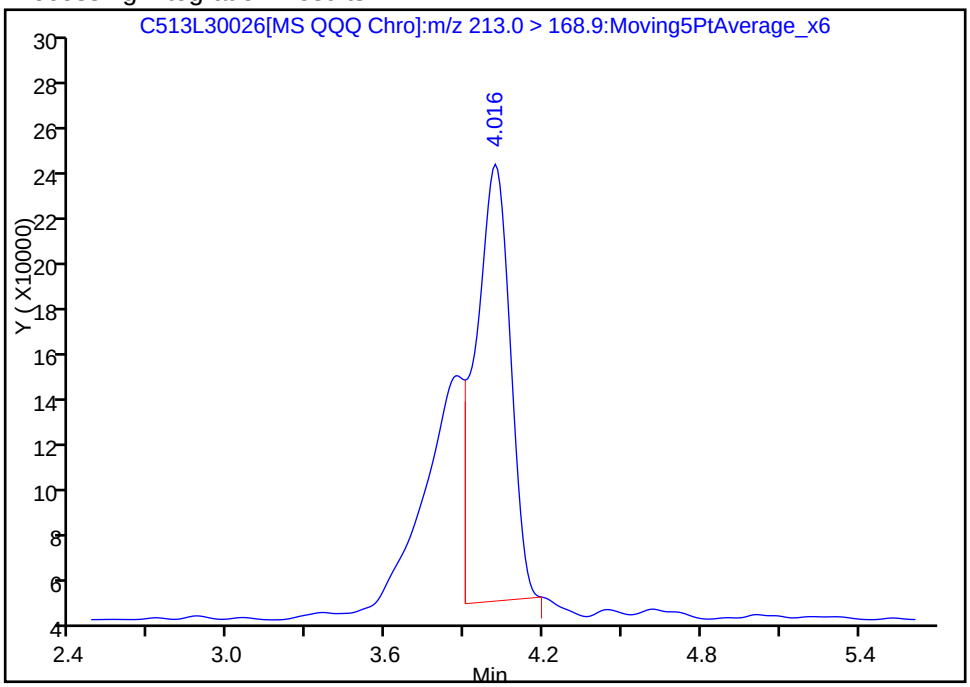
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30026.d				
Injection Date:	31-Dec-2013 20:22:57	Instrument ID:	LC_LCMS5		
Lims ID:	CCV L5	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	24
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

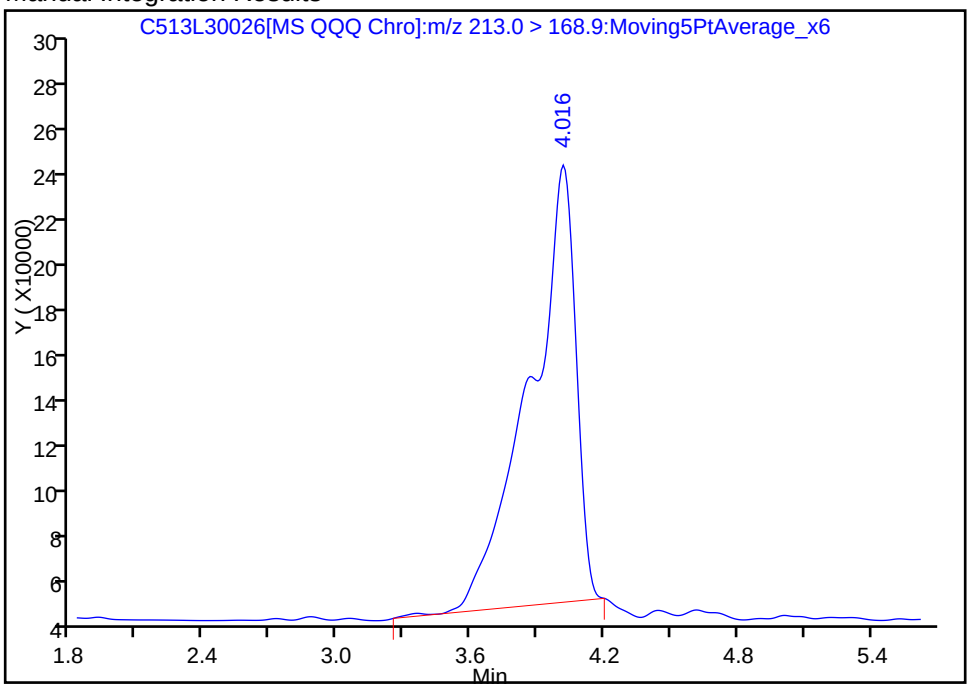
Processing Integration Results

RT: 4.02
Response: 1683728
Amount: 3.172115



Manual Integration Results

RT: 4.02
Response: 2709321
Amount: 5.115146



Reviewer: kellisonm, 02-Jan-2014 10:41:29
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Lab Sample ID: CCV 280-207217/37 Calibration Date: 12/31/2013 23:02

Instrument ID: LC_LCMS5 Calib Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calib End Date: 12/31/2013 17:43

Lab File ID: PC513L30039.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	Lin2		0.9947		12.2	10.0	22.2	30.0
Perfluoropentanoic acid (PFPA)	Lin2		0.7275		9.52	10.0	-4.8	30.0
Perfluorobutane Sulfonate (PFBS)	Lin2		5.462		9.31	8.85	5.2	30.0
Perfluorohexanoic acid (PFHxA)	Lin2		0.9585		9.30	10.0	-7.1	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2		0.4635		10.0	10.0	0.2	30.0
Perfluorohexane Sulfonate (PFHxS)	Lin2		4.135		8.63	9.45	-8.7	30.0
Perfluorooctanoic acid (PFOA)	Lin2		1.014		10.2	10.0	2.4	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2		1.441		11.1	9.55	16.0	30.0
Perfluorononanoic acid (PFNA)	Lin2		1.270		10.1	10.0	0.5	30.0
Perfluorodecanoic acid (PFDA)	Lin2		1.047		10.9	10.0	8.8	30.0
Perfluorodecane sulfonate (PFDS)	Lin2		1.516		10.0	9.65	4.1	30.0
Perfluoroundecanoic acid (PFUnA)	Lin2		1.677		10.9	10.0	8.8	30.0
Perfluorooctane Sulfonamide (FOSA)	Lin2		1.031		10.1	10.0	0.7	30.0
Perfluorododecanoic acid (PFDoA)	Lin2		0.9742		9.89	10.0	-1.1	30.0
Perfluorotridecanoic Acid (PFTriA)	Lin2		1.220		10.1	10.0	1.2	30.0
Perfluorotetradecanoic acid (PFTeA)	Lin2		0.1299		8.96	10.0	-10.4	30.0
13C8 PFOA	Lin2		0.9792		10.5	10.0	4.9	30.0
13C8 PFOS	Lin2		0.4851		9.03	9.56	-5.5	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30039.d
Lims ID: CCV L6 Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 31-Dec-2013 23:02:44 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: ccv, CCV PFC L6, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:07 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:42:36

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	3.964	3.964	0.0	1.002	6027548	12.2			M
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.955	3.955	0.0		6059832	10.0			
3 Perfluoropentanoic acid									
263.0 > 218.9	5.063	5.063	0.0	0.890	10519221	9.52			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.185	5.185	0.0	0.843	8723930	9.31			
298.9 > 98.9	5.185	5.185	0.0	0.843	2102189		4.15(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.686	5.686	0.0		14460364	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.686	5.686	0.0	1.000	13860448	9.29			
313.0 > 118.6	5.686	5.686	0.0	1.000	423442		32.73(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.143	6.143	0.0	0.943	8626223	10.0			
363.0 > 168.9	6.143	6.143	0.0	0.943	3629289		2.38(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.151	6.151	0.0		1707234	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.151	6.151	0.0	1.000	7052578	8.63			
398.9 > 98.9	6.151	6.151	0.0	1.000	2952558		2.39(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.511	6.511	0.0	1.000	18222791	10.5			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.511	6.511	0.0		18610837	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.511	6.511	0.0	1.000	18880032	10.2			
413.0 > 169.0	6.511	6.511	0.0	1.000	4827910		3.91(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.808	6.808	0.0	0.999	3610893	9.03			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.817	6.817	0.0		7443548	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.818	6.818	0.0	1.000	10715273	11.1			
498.9 > 98.9	6.809	6.818	-0.009	0.999	4382083		2.45(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.827	6.827	0.0		17374118	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.836	6.836	0.0	1.001	22069001	10.0			
463.0 > 218.9	6.827	6.836	-0.009	1.000	4311535		5.12(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.098	7.098	0.0		25536393	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.098	7.098	0.0	1.000	26737892	10.9			
513.0 > 219.0	7.098	7.098	0.0	1.000	3343933		8.00(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.299	7.299	0.0	1.071	11388157	10.0			
598.9 > 99.0	7.308	7.299	0.009	1.072	2705825		4.21(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.335	7.335	0.0		11016925	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.335	7.335	0.0	1.000	18480238	10.9			
563.0 > 268.9	7.335	7.335	0.0	1.000	3039423		6.08(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.442	7.442	0.0		28821477	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.443	7.443	0.0	1.000	29718828	10.1			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.527	7.527	0.0		27840715	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.527	7.527	0.0	1.000	27123064	9.89			
613.0 > 168.9	7.527	7.527	0.0	1.000	4023683		6.74(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.694	7.694	0.0	1.022	33964933	10.1			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.843	7.843	0.0	1.042	3617757	8.96			

QC Flag Legend

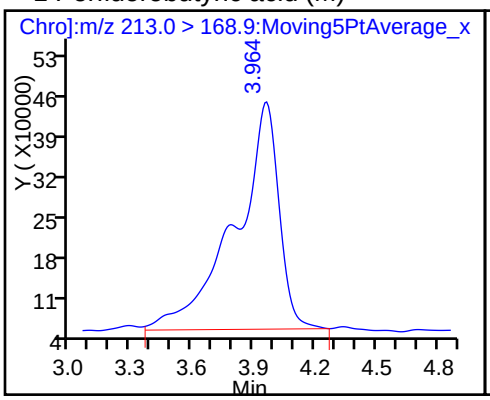
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:38:07 Chrom Revision: 2.1 15-Oct-2013 07:52:24

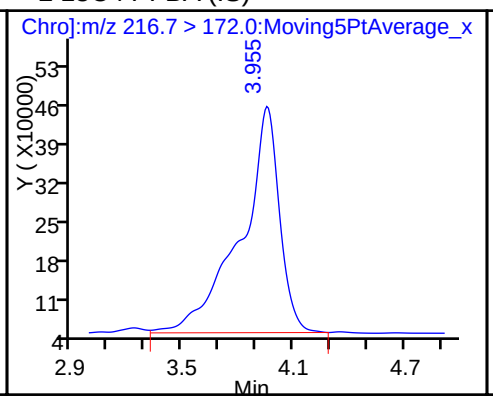
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30039.d				
Injection Date:	31-Dec-2013 23:02:44	Instrument ID:	LC_LCMS5		
Lims ID:	CCV L6	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	37
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

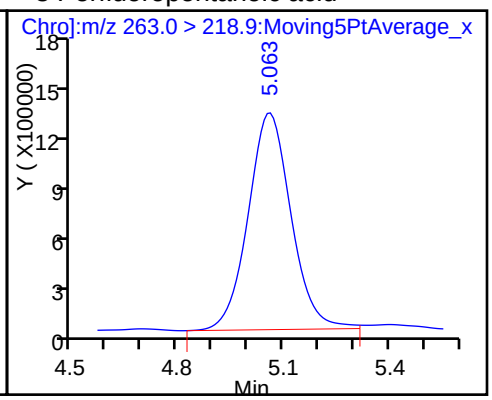
1 Perfluorobutyric acid (M)



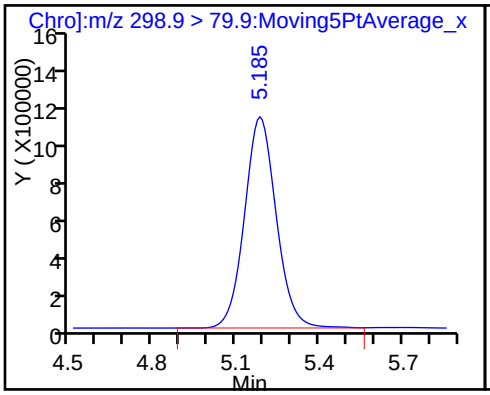
* 2 13C4 PFBA (IS)



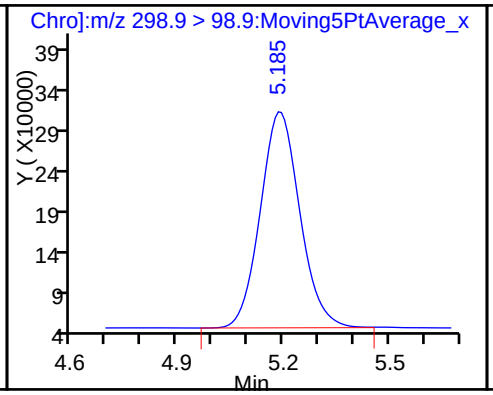
3 Perfluoropentanoic acid



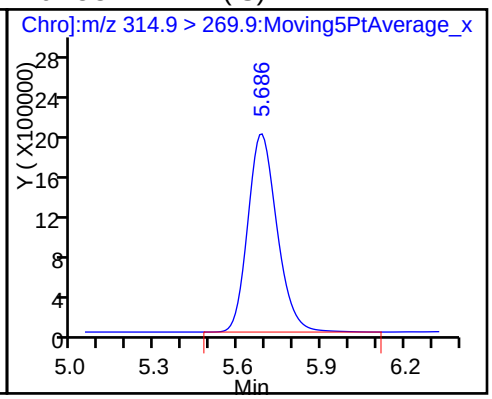
4 Perfluorobutane Sulfonate



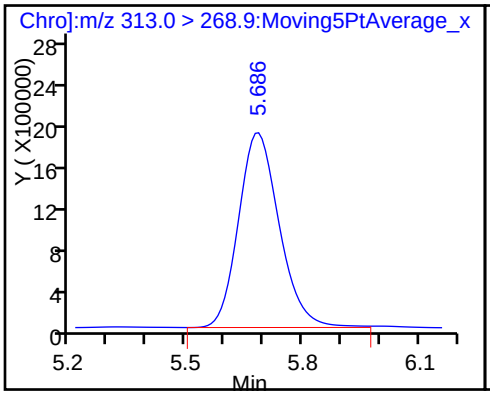
4 Perfluorobutane Sulfonate



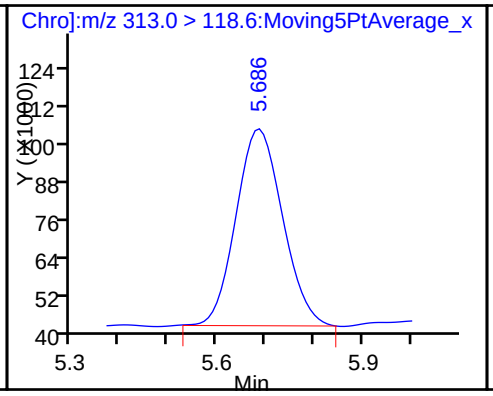
* 6 13C2 PFHxA (IS)



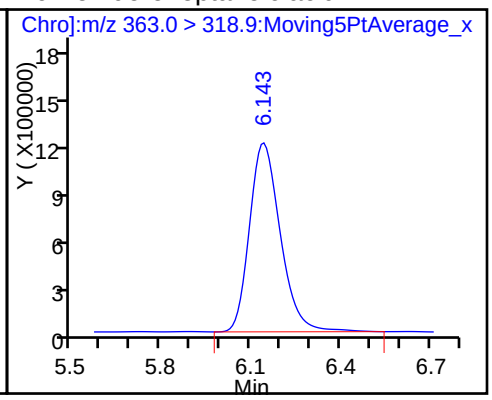
5 Perfluorohexanoic acid



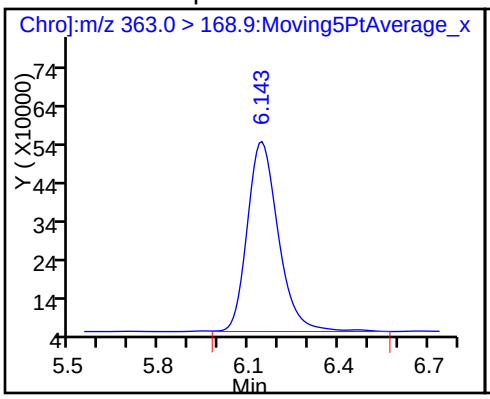
5 Perfluorohexanoic acid



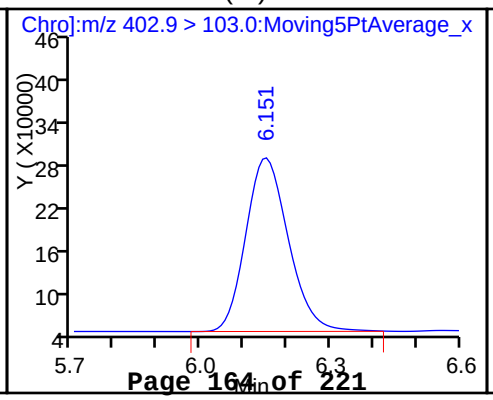
9 Perfluoroheptanoic acid



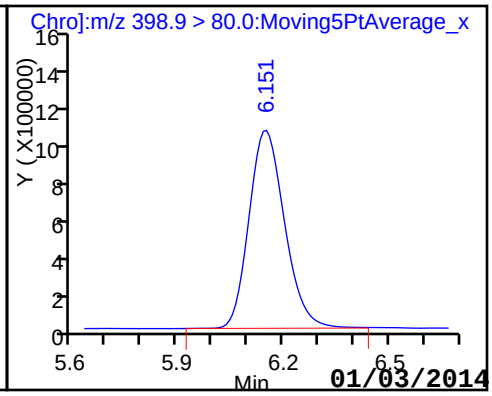
9 Perfluoroheptanoic acid



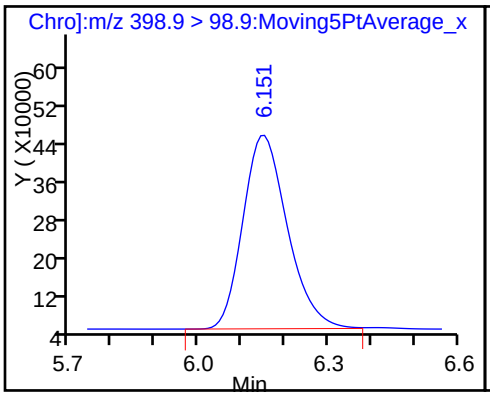
* 7 18O2 PFHxS (IS)



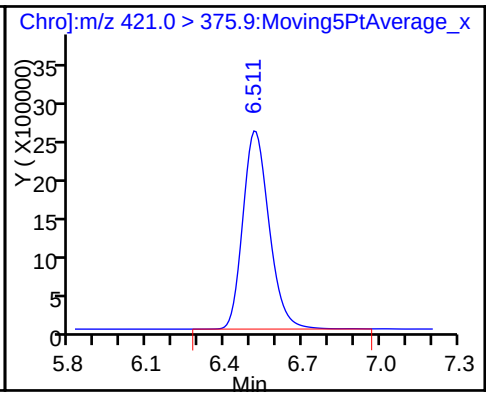
8 Perfluorohexane Sulfonate



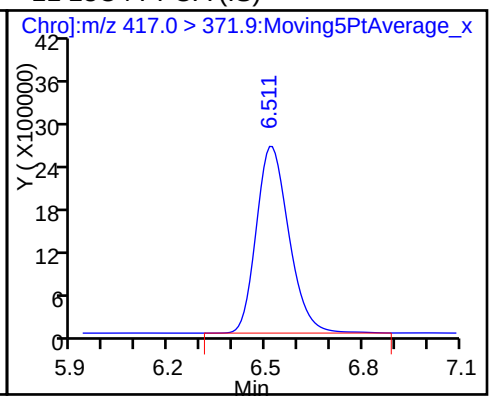
8 Perfluorohexane Sulfonate



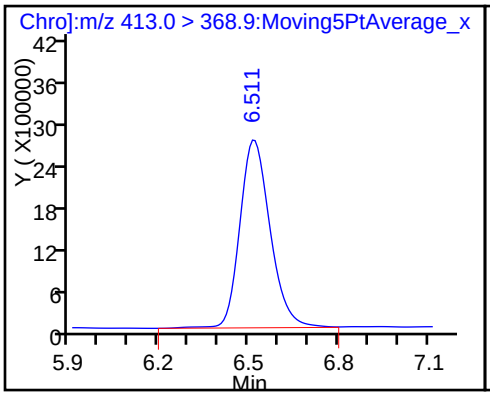
$ 10 13C8 PFOA



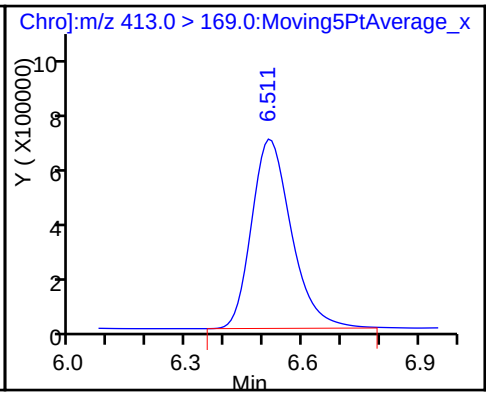
* 11 13C4 PFOA (IS)



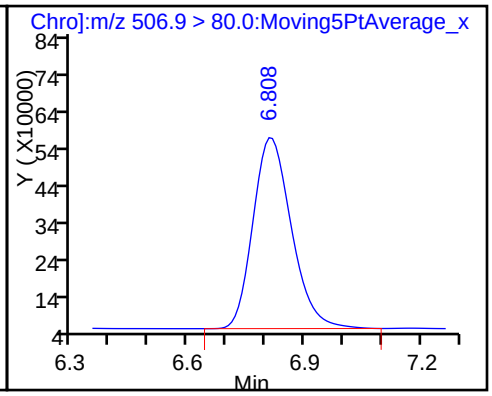
12 Perfluorooctanoic acid



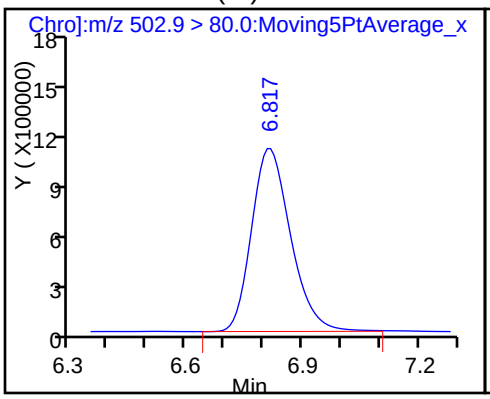
12 Perfluorooctanoic acid



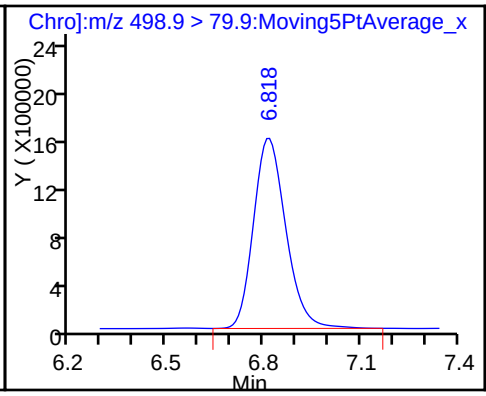
$ 15 13C8 PFOS



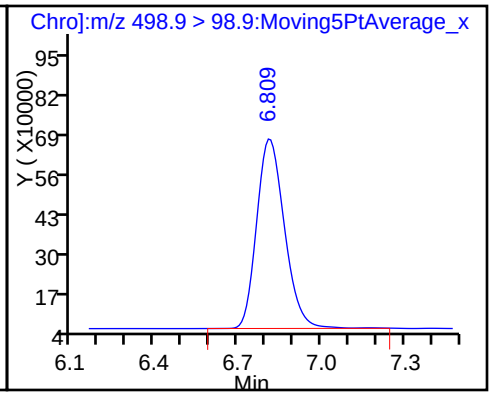
* 14 13C4 PFOS (IS)



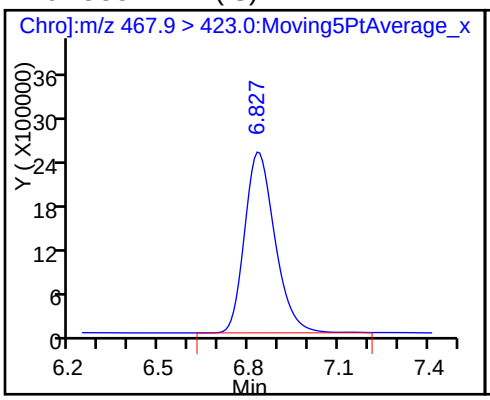
13 Perfluorooctanoic Sulfonate



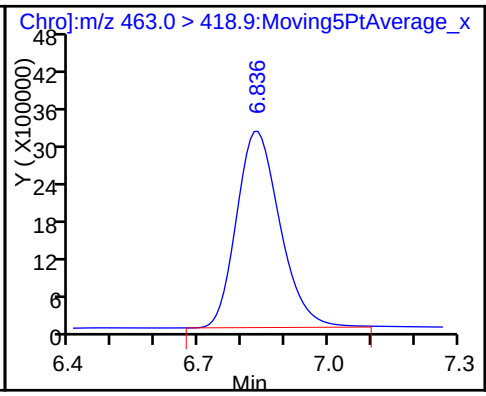
13 Perfluorooctanoic Sulfonate



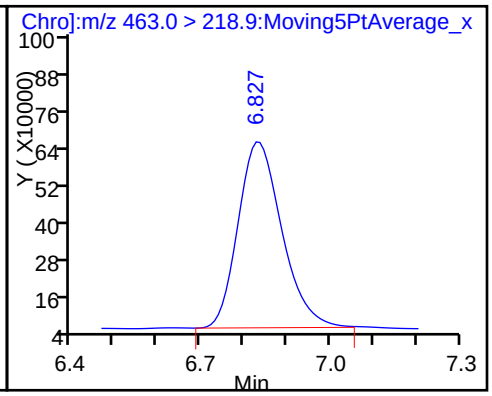
* 16 13C5 PFNA (IS)



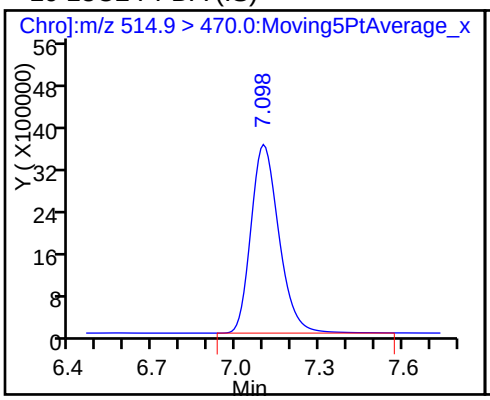
17 Perfluorononanoic acid



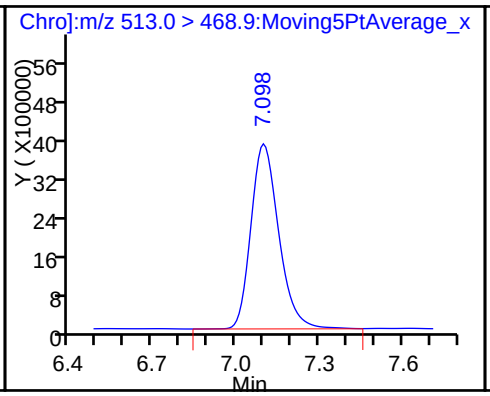
17 Perfluorononanoic acid



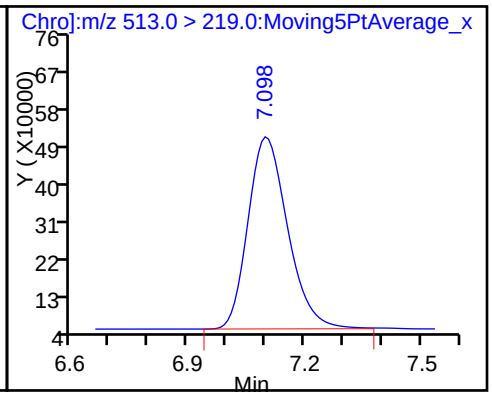
* 19 13C2 PFDA (IS)



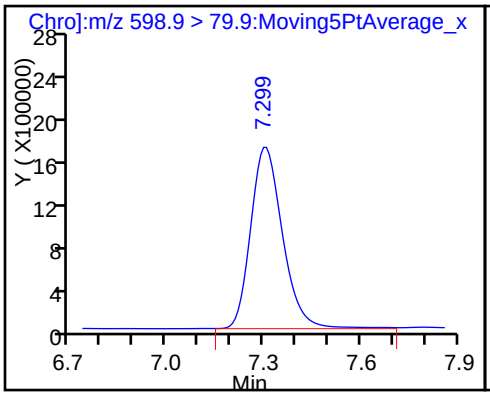
18 Perfluorodecanoic acid



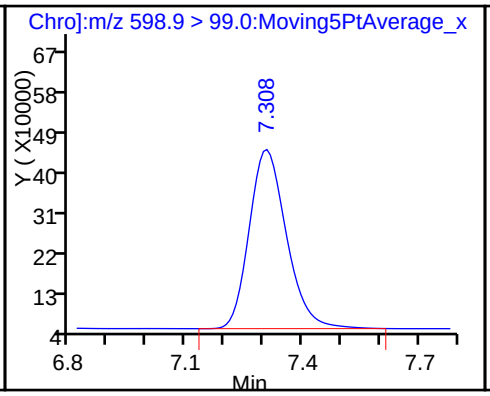
18 Perfluorodecanoic acid



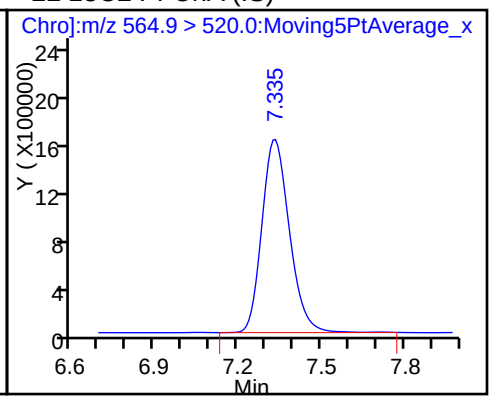
20 Perfluorodecane Sulfonate



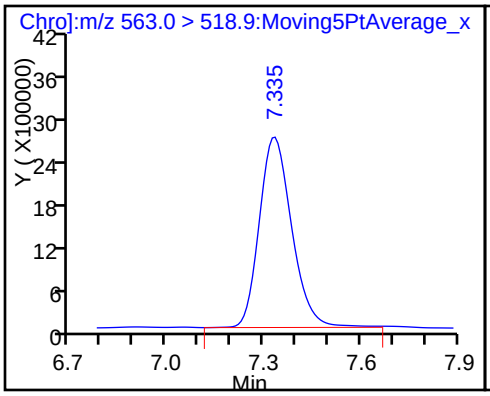
20 Perfluorodecane Sulfonate



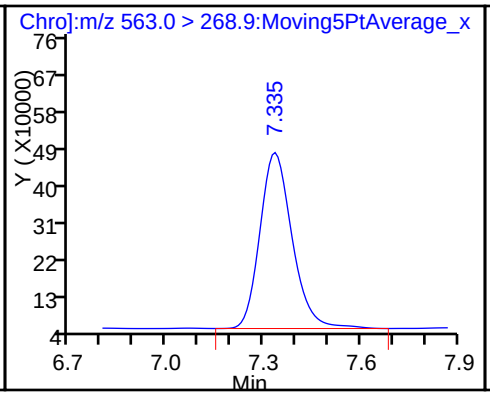
* 22 13C2 PFUnA (IS)



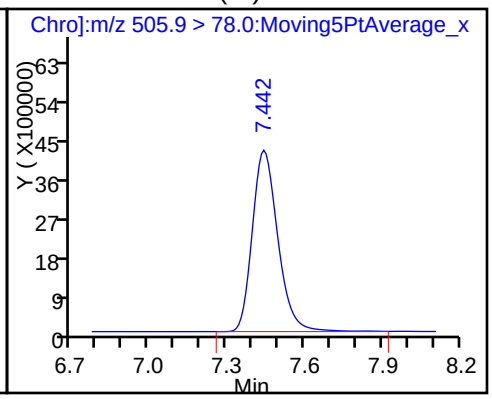
21 Perfluoroundecanoic acid



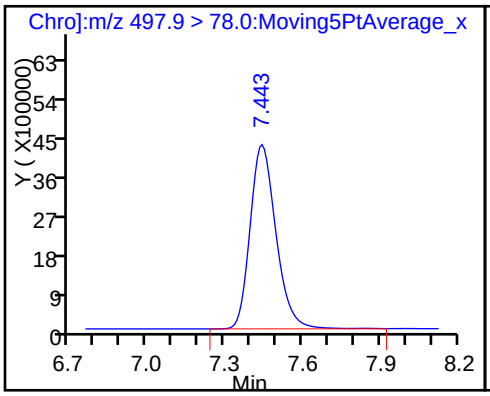
21 Perfluoroundecanoic acid



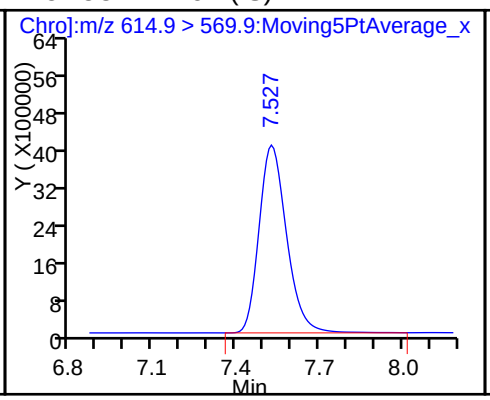
* 23 13C8 FOSA (IS)



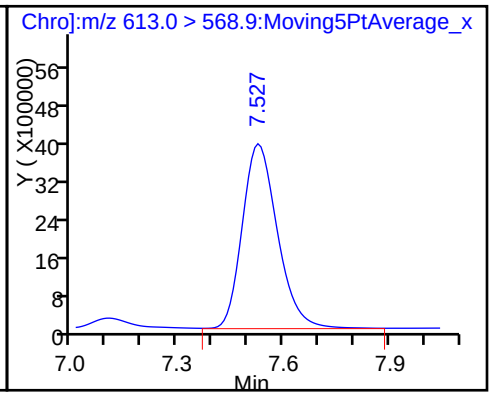
24 Perfluorooctane Sulfonamide



* 25 13C2 PFDoA (IS)

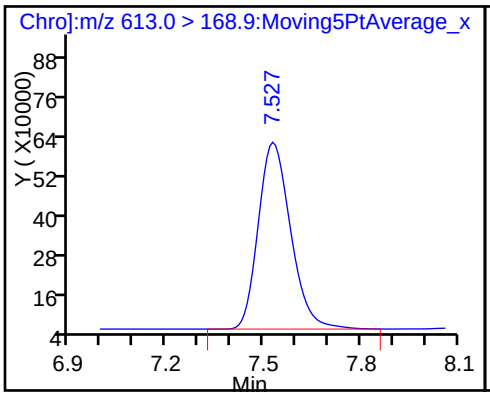


26 Perfluorododecanoic acid

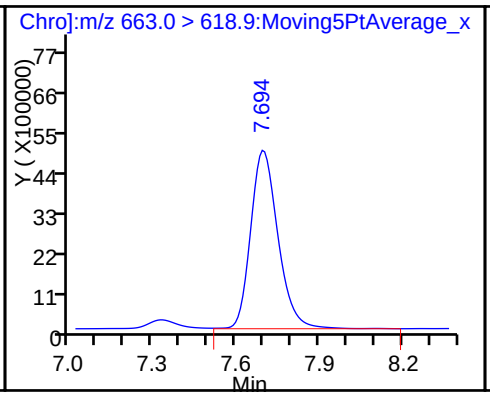


Report Date: 02-Jan-2014 11:38:08 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30039.d

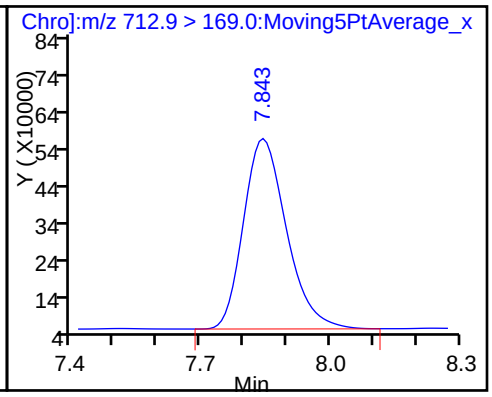
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

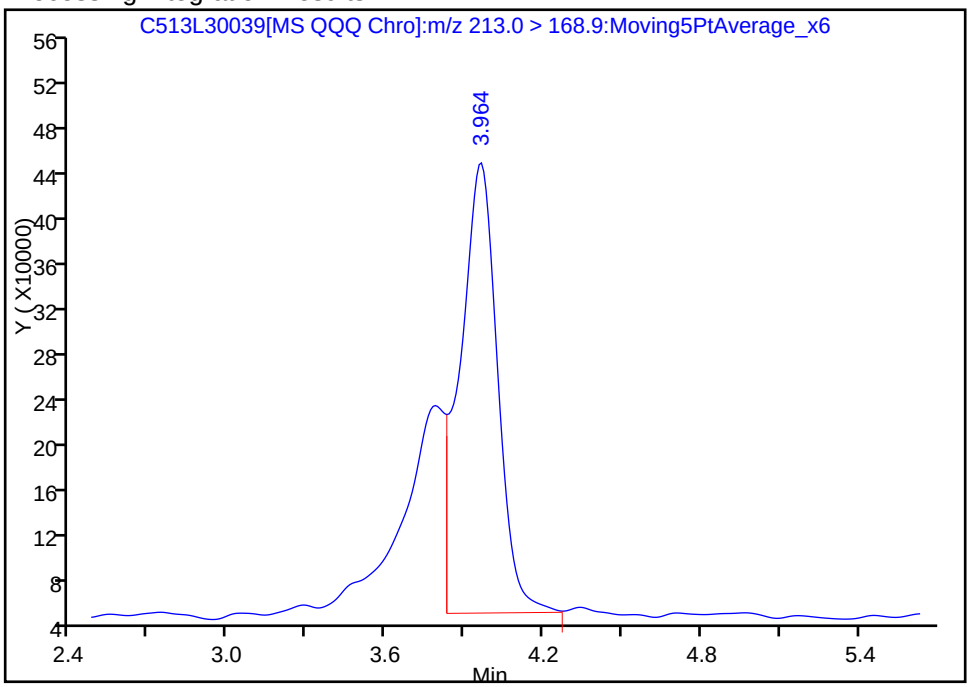
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30039.d				
Injection Date:	31-Dec-2013 23:02:44	Instrument ID:	LC_LCMS5		
Lims ID:	CCV L6	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	37
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

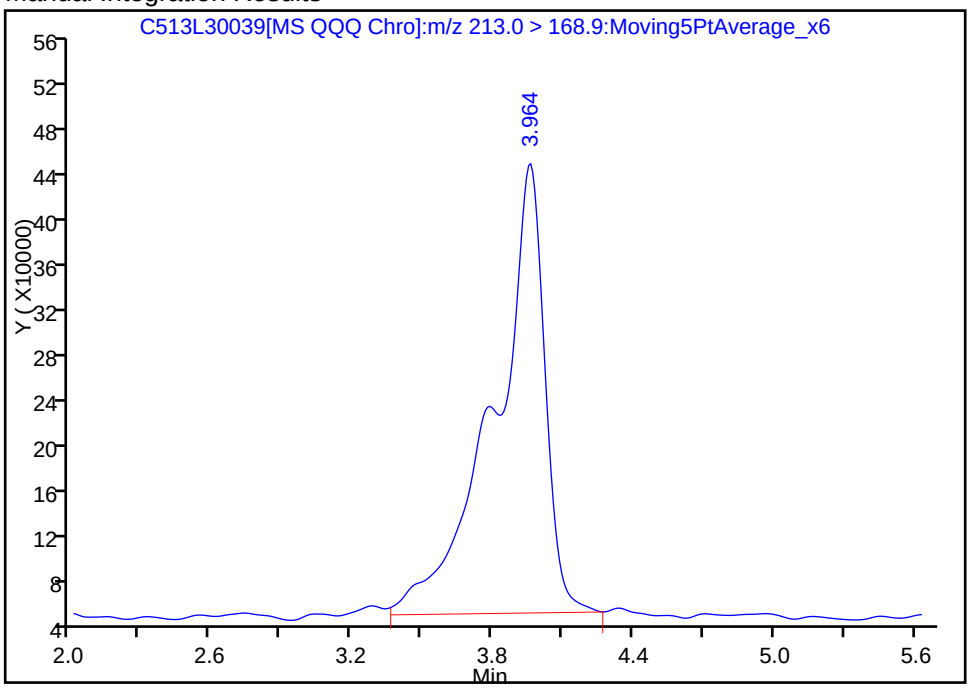
Processing Integration Results

RT: 3.96
Response: 3935026
Amount: 7.971863



Manual Integration Results

RT: 3.96
Response: 6027548
Amount: 12.220503



Reviewer: kellisonm, 02-Jan-2014 10:42:36
Audit Action: Split an Integrated Peak
Audit Reason: Baseline

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Lab Sample ID: CCV 280-207217/58 Calibration Date: 01/01/2014 03:20

Instrument ID: LC_LCMS5 Calib Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calib End Date: 12/31/2013 17:43

Lab File ID: PC513L30060.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	Lin2		0.9364		11.5	10.0	15.0	30.0
Perfluoropentanoic acid (PFPA)	Lin2		0.7222		9.45	10.0	-5.5	30.0
Perfluorobutane Sulfonate (PFBS)	Lin2		5.479		9.34	8.85	5.5	30.0
Perfluorohexanoic acid (PFHxA)	Lin2		0.9750		9.46	10.0	-5.4	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2		0.4888		10.6	10.0	5.7	30.0
Perfluorohexane Sulfonate (PFHxS)	Lin2		4.282		8.94	9.45	-5.5	30.0
Perfluorooctanoic acid (PFOA)	Lin2		0.9897		9.98	10.0	-0.2	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2		1.485		11.4	9.55	19.5	30.0
Perfluorononanoic acid (PFNA)	Lin2		1.322		10.5	10.0	4.5	30.0
Perfluorodecanoic acid (PFDA)	Lin2		1.031		10.7	10.0	7.2	30.0
Perfluorodecane sulfonate (PFDS)	Lin2		1.524		10.1	9.65	4.7	30.0
Perfluoroundecanoic acid (PFUnA)	Lin2		1.677		10.9	10.0	8.8	30.0
Perfluorooctane Sulfonamide (FOSA)	Lin2		1.073		10.5	10.0	4.8	30.0
Perfluorododecanoic acid (PFDoA)	Lin2		1.001		10.2	10.0	1.7	30.0
Perfluorotridecanoic Acid (PFTriA)	Lin2		1.245		10.3	10.0	3.2	30.0
Perfluorotetradecanoic acid (PFTeA)	Lin2		0.1278		8.81	10.0	-11.9	30.0
13C8 PFOA	Lin2		0.995		10.7	10.0	6.7	30.0
13C8 PFOS	Lin2		0.4638		8.63	9.56	-9.7	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30060.d
Lims ID: CCV L6 Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 01-Jan-2014 03:20:47 ALS Bottle#: 0 Worklist Smp#: 58
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: ccv, CCV PFC L6, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:42 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:44:37

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	3.946	3.946	0.0		6203338	10.0			M
1 Perfluorobutyric acid									M
213.0 > 168.9	3.946	3.946	0.0	1.000	5808806	11.5			M
3 Perfluoropentanoic acid									
263.0 > 218.9	5.045	5.045	0.0	0.890	10286156	9.45			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.168	5.168	0.0	0.843	8660294	9.34			
298.9 > 98.9	5.177	5.168	0.009	0.844	2256329		3.84(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.669	5.669	0.0		14243549	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.669	5.669	0.0	1.000	13887826	9.46			
313.0 > 118.6	5.669	5.669	0.0	1.000	350329		39.64(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.126	6.126	0.0	0.942	9146133	10.6			
363.0 > 168.9	6.126	6.126	0.0	0.942	3747086		2.44(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.134	6.134	0.0		1689703	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.134	6.134	0.0	1.000	7227861	8.93			
398.9 > 98.9	6.134	6.134	0.0	1.000	3100952		2.33(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.502	6.502	0.0	1.000	18622369	10.7			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.502	6.502	0.0		18709977	10.0			

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
12 Perfluorooctanoic acid									
413.0 > 368.9	6.503	6.503	0.0	1.000	18516575	9.98			
413.0 > 169.0	6.503	6.503	0.0	1.000	4783078		3.87(2.38-4.41)		
$ 15 13C8 PFOS									
506.9 > 80.0	6.799	6.799	0.0	1.000	3415317	8.63			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.800	6.800	0.0		7363881	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.800	6.800	0.0	1.000	10923469	11.4			
498.9 > 98.9	6.800	6.800	0.0	1.000	4405346		2.48(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.818	6.818	0.0		17937549	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.818	6.818	0.0	1.000	23712419	10.5			
463.0 > 218.9	6.818	6.818	0.0	1.000	4178125		5.68(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.089	7.089	0.0		26445519	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.089	7.089	0.0	1.000	27267737	10.7			
513.0 > 219.0	7.089	7.089	0.0	1.000	3351411		8.14(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.290	7.290	0.0	1.072	11329228	10.1			
598.9 > 99.0	7.290	7.290	0.0	1.072	2572285		4.40(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.317	7.317	0.0		11045397	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.317	7.317	0.0	1.000	18522791	10.9			
563.0 > 268.9	7.317	7.317	0.0	1.000	3232347		5.73(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.433	7.433	0.0		27961845	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.434	7.434	0.0	1.000	30016388	10.5			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.509	7.509	0.0		26548918	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.510	7.510	0.0	1.000	26583004	10.2			
613.0 > 168.9	7.510	7.510	0.0	1.000	4246526		6.26(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.676	7.676	0.0	1.022	33045030	10.3			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.826	7.826	0.0	1.042	3391981	8.81			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:38:42 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30060.d

Injection Date: 01-Jan-2014 03:20:47 Instrument ID: LC_LCMS5

Lims ID: CCV L6 Lab Sample ID:

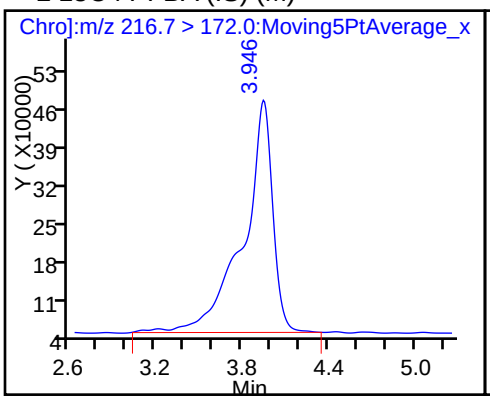
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 58

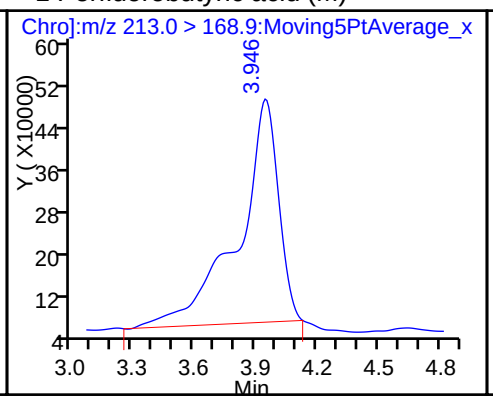
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

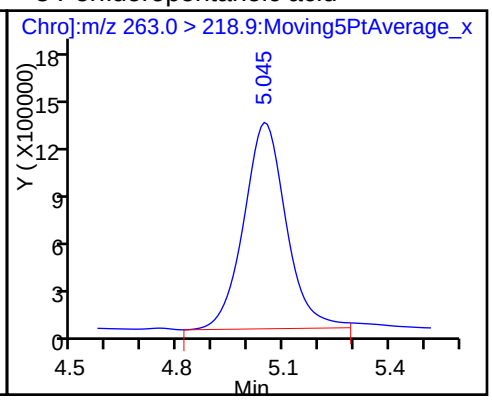
* 2 13C4 PFBA (IS) (M)



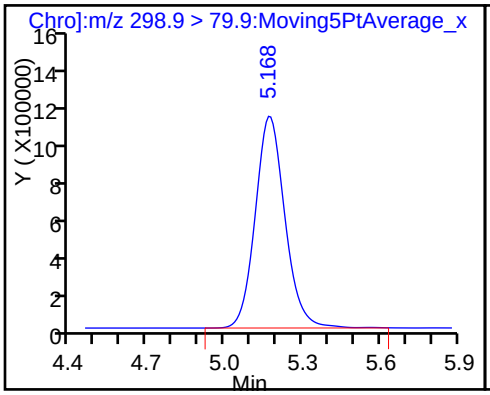
1 Perfluorobutyric acid (M)



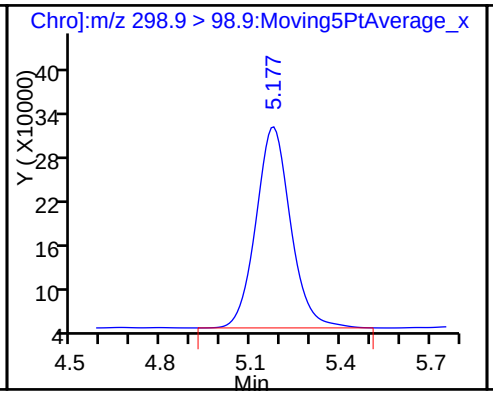
3 Perfluoropentanoic acid



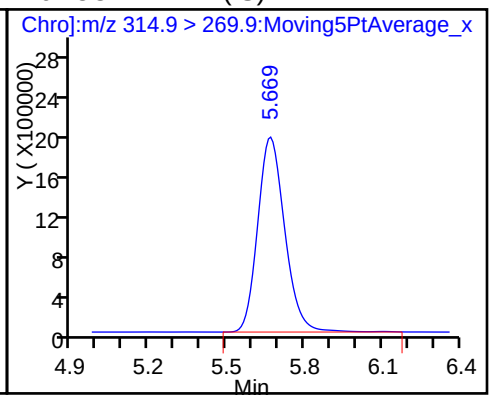
4 Perfluorobutane Sulfonate



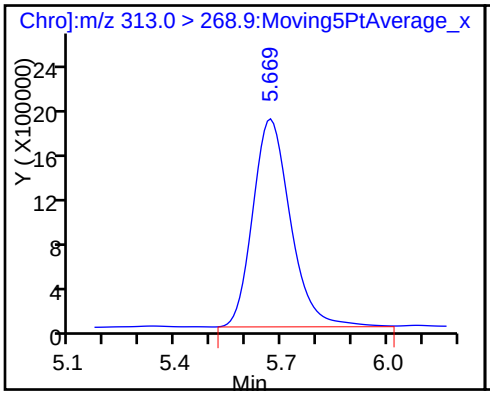
4 Perfluorobutane Sulfonate



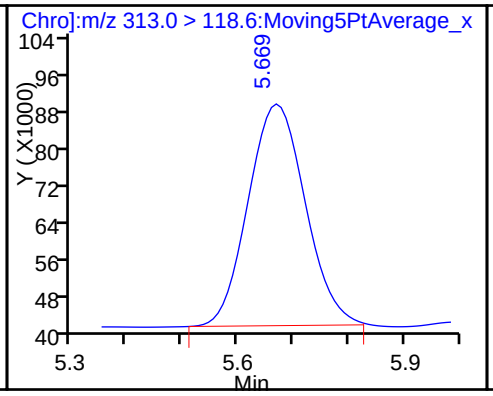
* 6 13C2 PFHxA (IS)



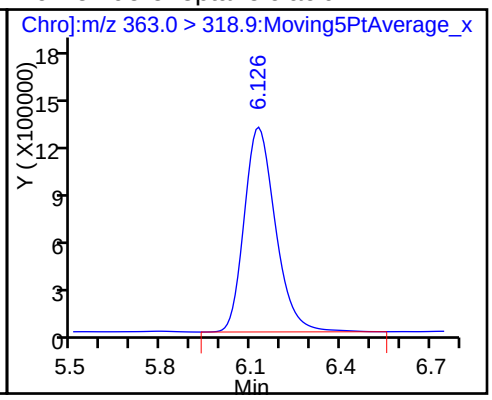
5 Perfluorohexanoic acid



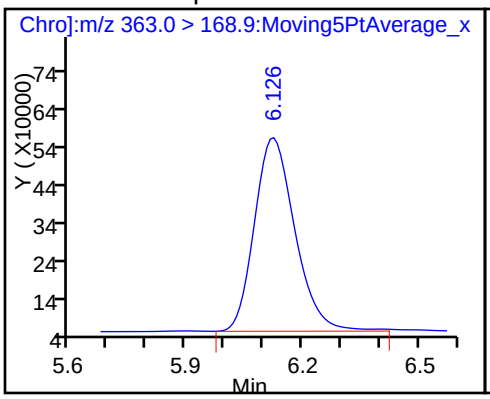
5 Perfluorohexanoic acid



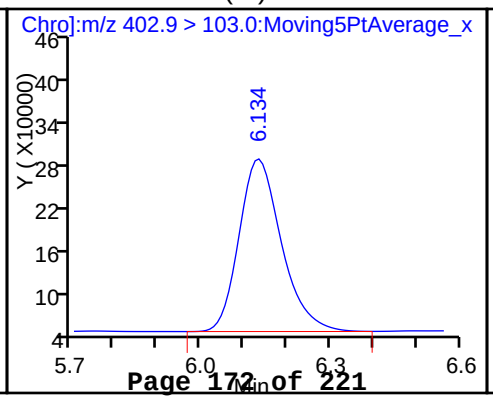
9 Perfluoroheptanoic acid



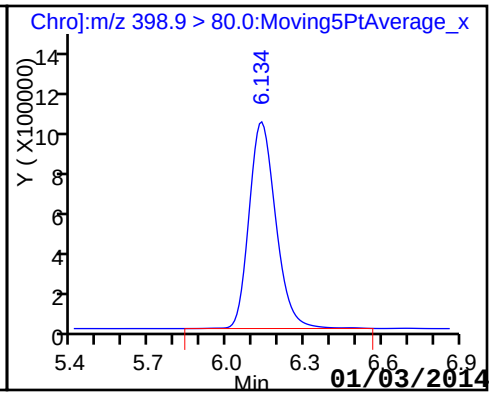
9 Perfluoroheptanoic acid



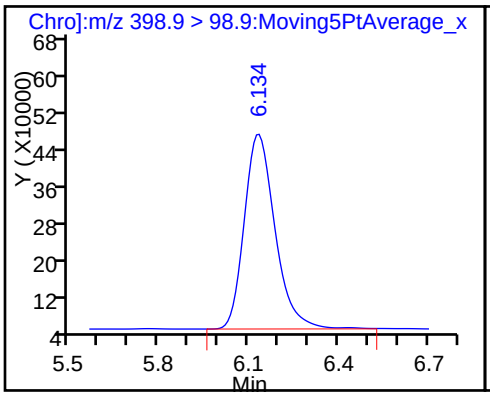
* 7 18O2 PFHxS (IS)



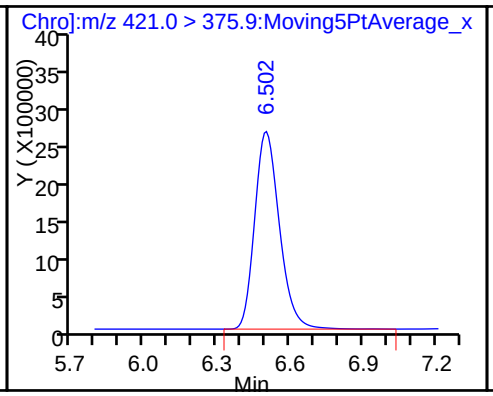
8 Perfluorohexane Sulfonate



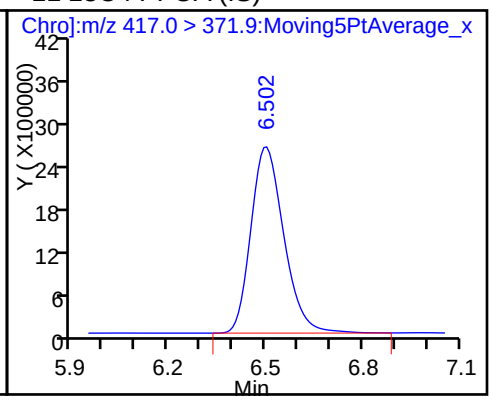
8 Perfluorohexane Sulfonate



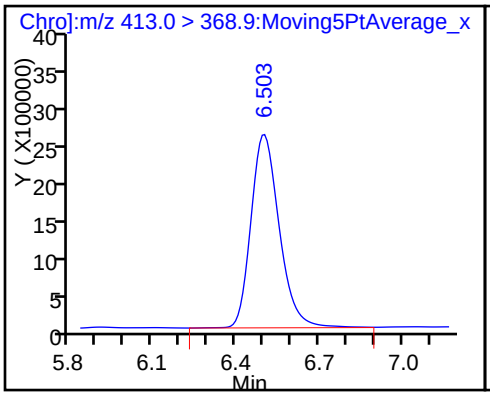
$ 10 13C8 PFOA



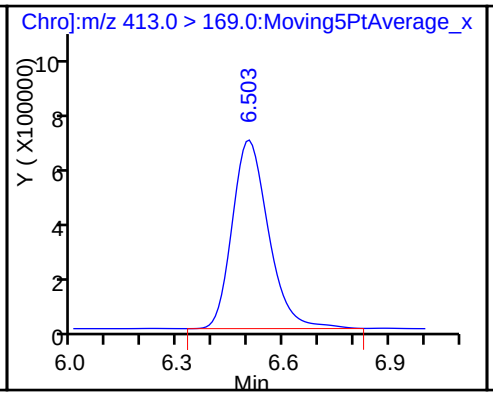
* 11 13C4 PFOA (IS)



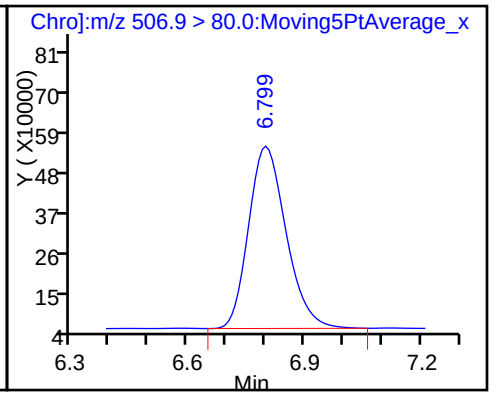
12 Perfluorooctanoic acid



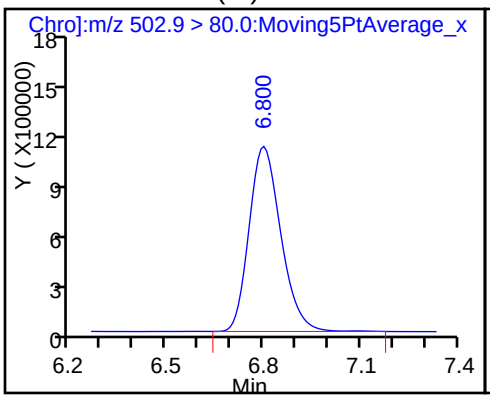
12 Perfluorooctanoic acid



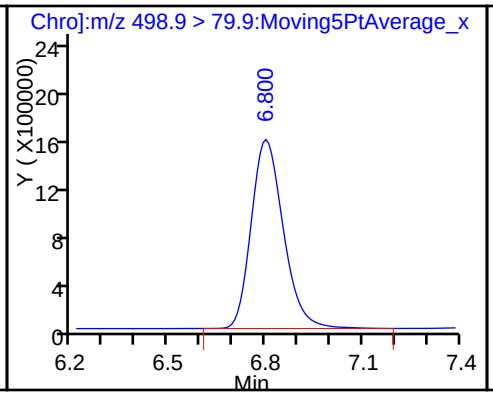
$ 15 13C8 PFOS



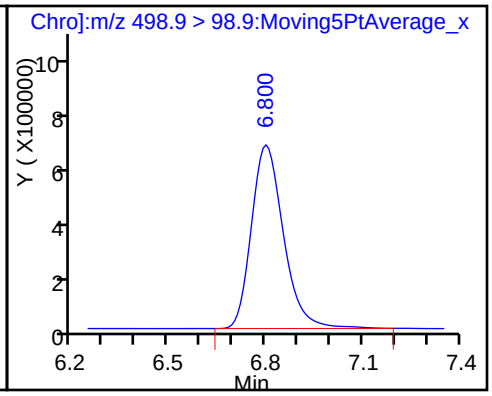
* 14 13C4 PFOS (IS)



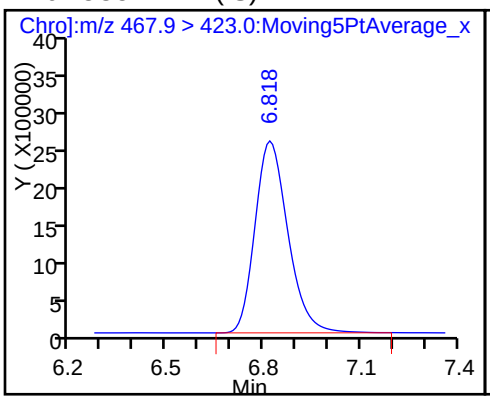
13 Perfluorooctanoic Sulfonate



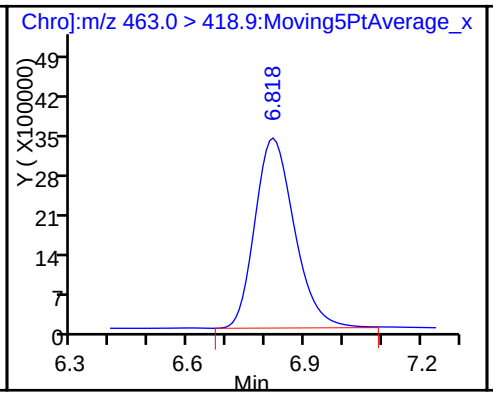
13 Perfluorooctanoic Sulfonate



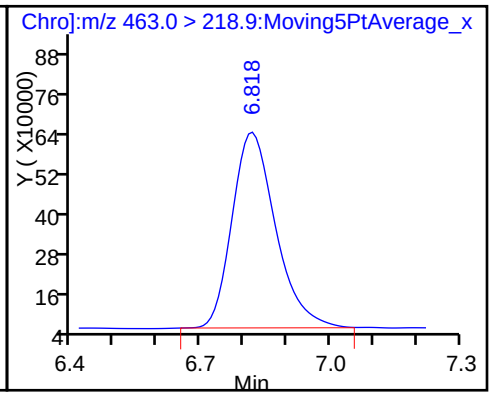
* 16 13C5 PFNA (IS)



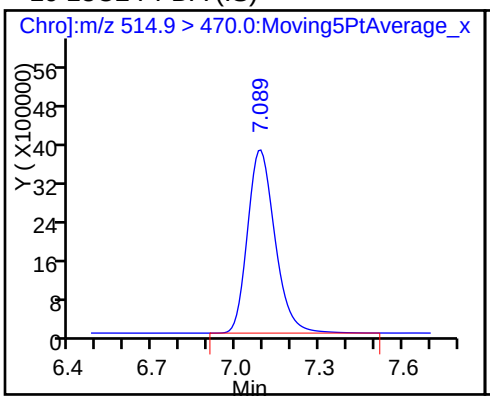
17 Perfluorononanoic acid



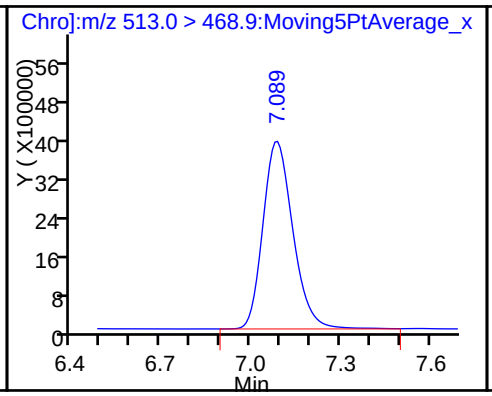
17 Perfluorononanoic acid



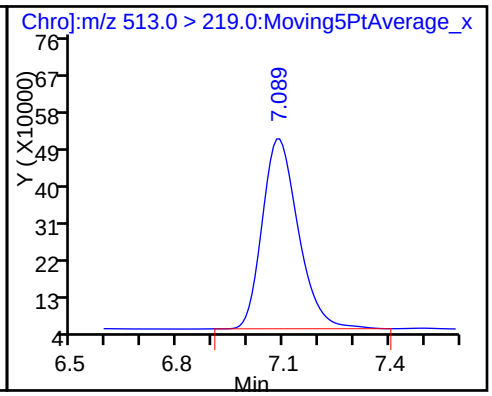
* 19 13C2 PFDA (IS)



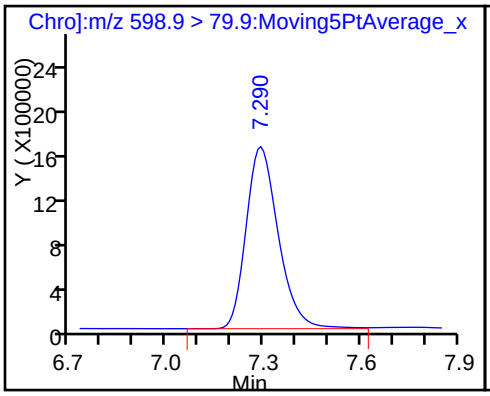
18 Perfluorodecanoic acid



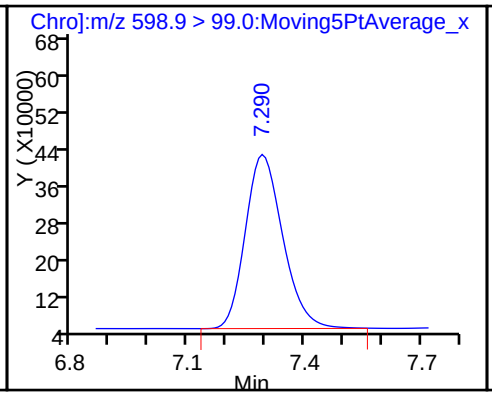
18 Perfluorodecanoic acid



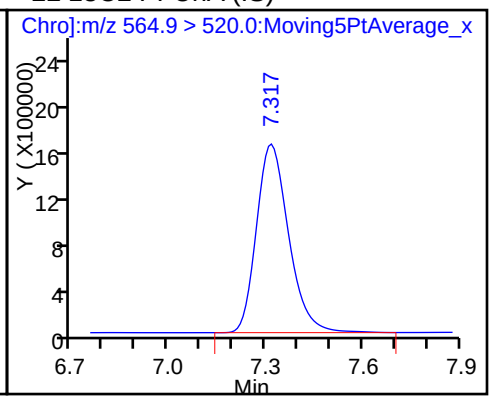
20 Perfluorodecane Sulfonate



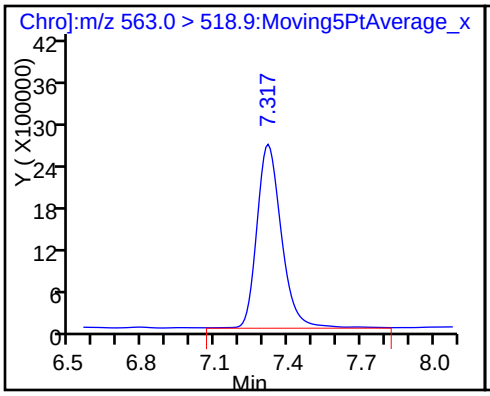
20 Perfluorodecane Sulfonate



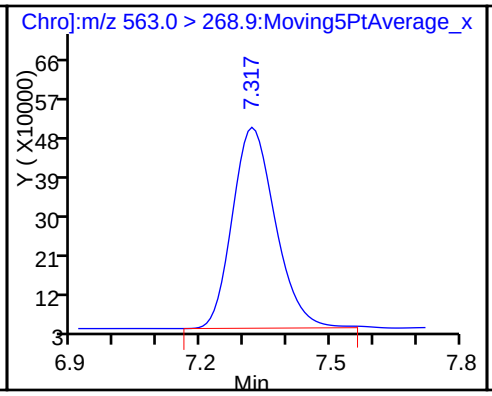
* 22 13C2 PFUnA (IS)



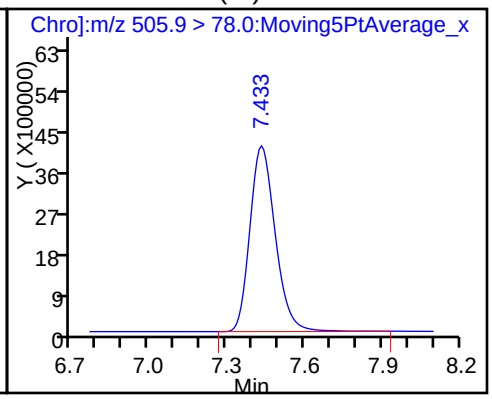
21 Perfluoroundecanoic acid



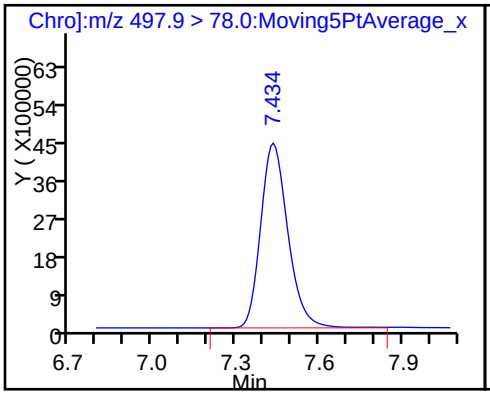
21 Perfluoroundecanoic acid



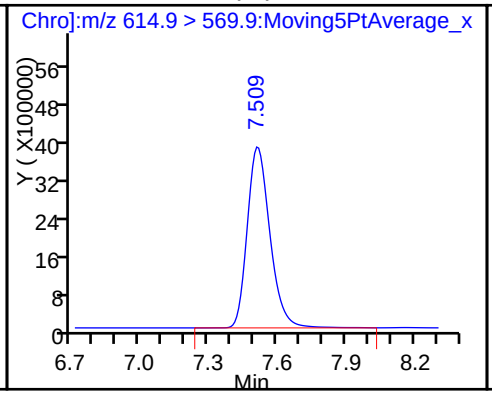
* 23 13C8 FOSA (IS)



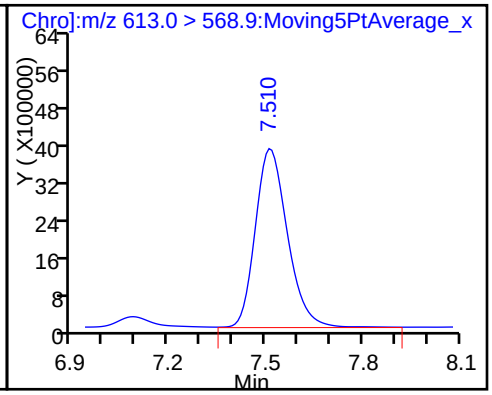
24 Perfluorooctane Sulfonamide



* 25 13C2 PFDoA (IS)

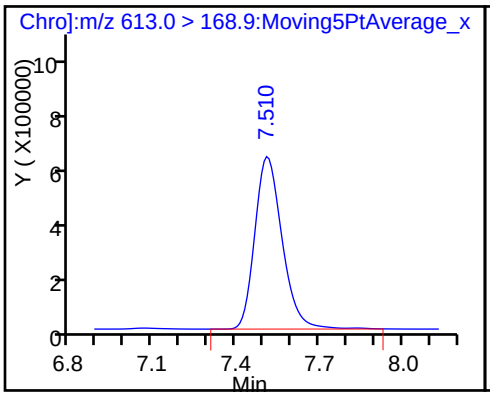


26 Perfluorododecanoic acid

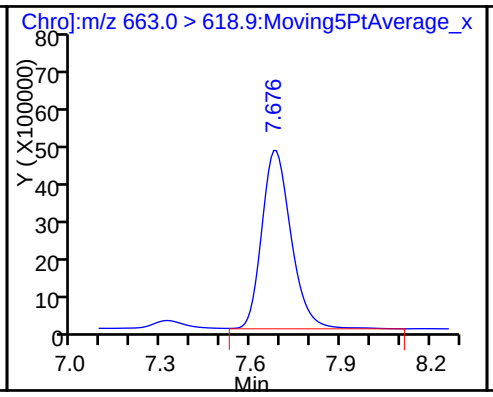


Report Date: 02-Jan-2014 11:38:43 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30060.d

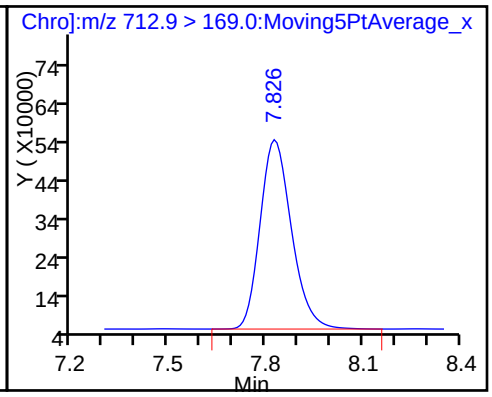
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

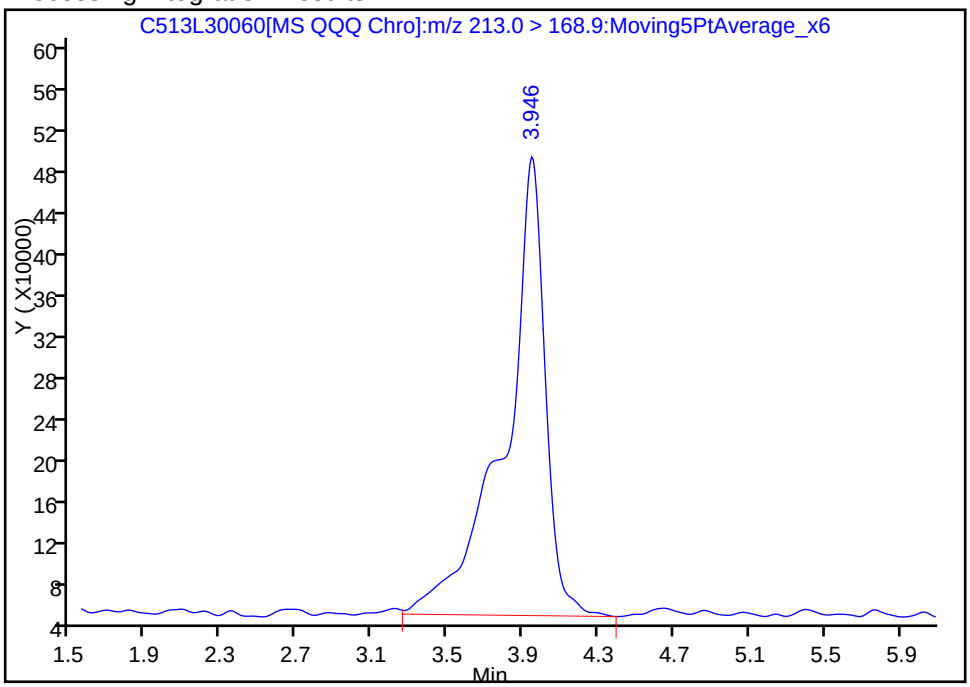
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30060.d				
Injection Date:	01-Jan-2014 03:20:47	Instrument ID:	LC_LCMS5		
Lims ID:	CCV L6	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	58
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

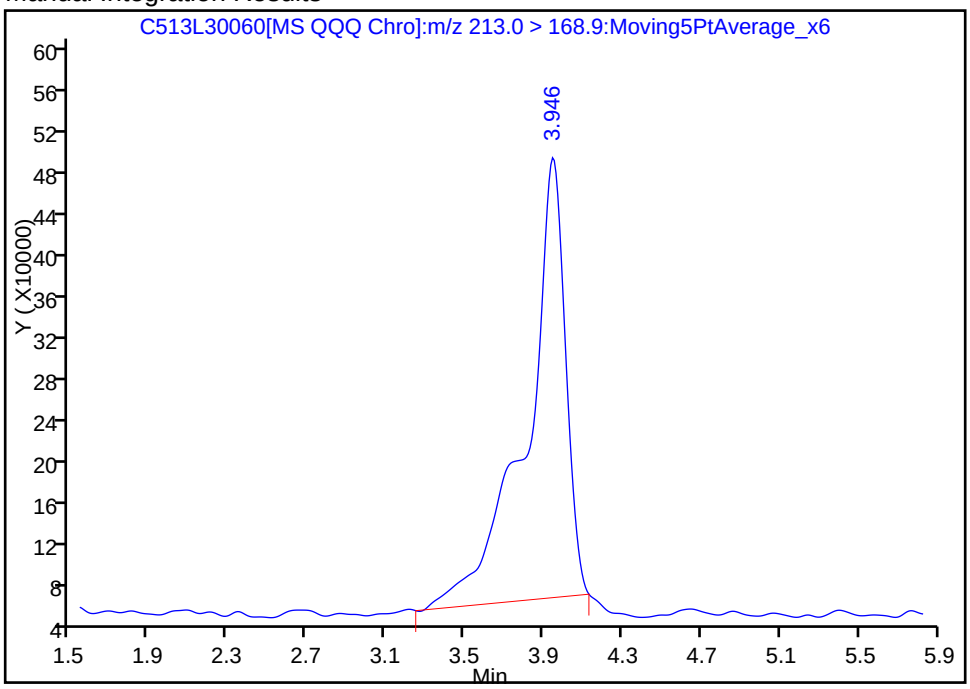
Processing Integration Results

RT: 3.95
Response: 6593454
Amount: 13.071591



Manual Integration Results

RT: 3.95
Response: 5808806
Amount: 11.503529



Reviewer: kellisonm, 02-Jan-2014 10:44:37
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Lab Sample ID: CCV 280-207217/65 Calibration Date: 01/01/2014 04:46

Instrument ID: LC_LCMS5 Calib Start Date: 12/31/2013 16:04

GC Column: Gemini-NX ID: Calib End Date: 12/31/2013 17:43

Lab File ID: PC513L30067.d Conc. Units: ug/L

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanoic acid (PFBA)	Lin2		1.007		6.18	5.00	23.5	30.0
Perfluoropentanoic acid (PFPA)	Lin2		0.6972		4.59	5.00	-8.3	30.0
Perfluorobutane Sulfonate (PFBS)	Lin2		5.975		5.10	4.43	15.2	30.0
Perfluorohexanoic acid (PFHxA)	Lin2		1.037		4.97	5.00	-0.5	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2		0.5082		5.46	5.00	9.3	30.0
Perfluorohexane Sulfonate (PFHxS)	Lin2		4.741		4.91	4.73	4.0	30.0
Perfluorooctanoic acid (PFOA)	Lin2		1.075		5.41	5.00	8.2	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2		1.502		5.78	4.78	21.0	30.0
Perfluorononanoic acid (PFNA)	Lin2		1.390		5.50	5.00	10.0	30.0
Perfluorodecanoic acid (PFDA)	Lin2		1.038		5.35	5.00	7.1	30.0
Perfluorodecane sulfonate (PFDS)	Lin2		1.644		5.46	4.83	13.2	30.0
Perfluoroundecanoic acid (PFUnA)	Lin2		1.669		5.34	5.00	6.9	30.0
Perfluorooctane Sulfonamide (FOSA)	Lin2		1.018		4.97	5.00	-0.7	30.0
Perfluorododecanoic acid (PFDoA)	Lin2		1.035		5.20	5.00	4.0	30.0
Perfluorotridecanoic Acid (PFTriA)	Lin2		1.268		5.22	5.00	4.4	30.0
Perfluorotetradecanoic acid (PFTeA)	Lin2		0.1269		4.34	5.00	-13.1	30.0
13C8 PFOA	Lin2		1.042		5.56	5.00	11.1	30.0
13C8 PFOS	Lin2		0.4557		4.23	4.78	-11.5	30.0

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30067.d
Lims ID: CCV L5 Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 01-Jan-2014 04:46:53 ALS Bottle#: 0 Worklist Smp#: 65
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: ccv, CCV PFC L5, Sample
Misc. Info.: End PFC
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Sublist: chrom-8321_PFC*sub2
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:38:51 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:46:19

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 2 13C4 PFBA (IS)									M
216.7 > 172.0	3.919	3.919	0.0		6352536	10.0			M
1 Perfluorobutyric acid									M
213.0 > 168.9	3.928	3.928	0.0	1.002	3197398	6.18			M
3 Perfluoropentanoic acid									
263.0 > 218.9	5.028	5.028	0.0	0.891	5265921	4.59			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.150	5.150	0.0	0.843	4583179	5.10			
298.9 > 98.9	5.150	5.150	0.0	0.843	1114789		4.11(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.642	5.642	0.0		15106818	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.642	5.642	0.0	1.000	7834703	4.97			
313.0 > 118.6	5.651	5.642	0.009	1.002	129443		60.53(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.099	6.099	0.0	0.942	4772312	5.46			
363.0 > 168.9	6.099	6.099	0.0	0.942	1897602		2.51(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.107	6.107	0.0		1639762	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.108	6.108	0.0	1.000	3882673	4.91			
398.9 > 98.9	6.108	6.108	0.0	1.000	1506440		2.58(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.476	6.476	0.0	1.000	9783804	5.56			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.476	6.476	0.0	1.000	10098781	5.41			
413.0 > 169.0	6.476	6.476	0.0	1.000	2393309		4.22(2.38-4.41)		

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.476	6.476	0.0		18780069	10.0			
$ 15 13C8 PFOS									
506.9 > 80.0	6.782	6.782	0.0	1.001	1688267	4.23			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.774	6.774	0.0	1.000	5556804	5.78			
498.9 > 98.9	6.774	6.774	0.0	1.000	2326436		2.39(1.84-3.42)		
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.773	6.773	0.0		7408977	9.56			
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.792	6.792	0.0		19092136	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.792	6.792	0.0	1.000	13267410	5.50			
463.0 > 218.9	6.792	6.792	0.0	1.000	2439327		5.44(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.063	7.063	0.0		26937605	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.063	7.063	0.0	1.000	13975544	5.35			
513.0 > 219.0	7.063	7.063	0.0	1.000	1849578		7.56(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.264	7.264	0.0	1.072	6147804	5.46			
598.9 > 99.0	7.264	7.264	0.0	1.072	1368775		4.49(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.291	7.291	0.0		11241303	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.291	7.291	0.0	1.000	9382575	5.34			
563.0 > 268.9	7.291	7.291	0.0	1.000	1607412		5.84(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.424	7.424	0.0		29878352	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.425	7.425	0.0	1.000	15211687	4.97			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.492	7.492	0.0		27666510	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.483	7.483	0.0	0.999	14322501	5.20			
613.0 > 168.9	7.483	7.483	0.0	0.999	2124359		6.74(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.650	7.650	0.0	1.021	17537031	5.22			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.799	7.799	0.0	1.041	1754934	4.34			

QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:38:52 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Denver

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30067.d

Injection Date: 01-Jan-2014 04:46:53 Instrument ID: LC_LCMS5

Lims ID: CCV L5 Lab Sample ID:

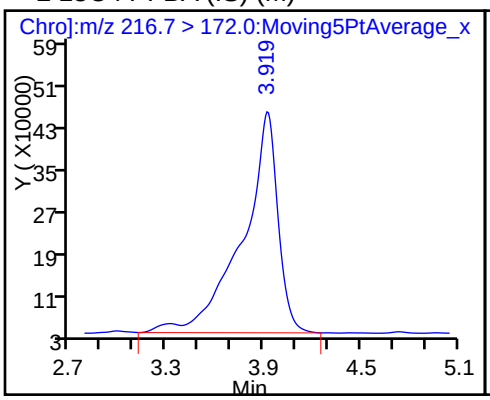
Client ID:

Operator ID: TW/MPK ALS Bottle#: 0 Worklist Smp#: 65

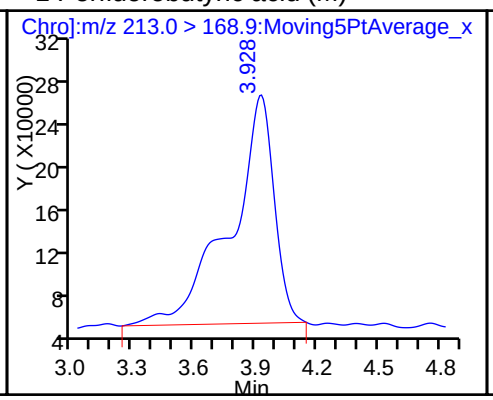
Injection Vol: 25.0 ul Dil. Factor: 1.0000

Method: 8321_PFC Limit Group: LC - PFC

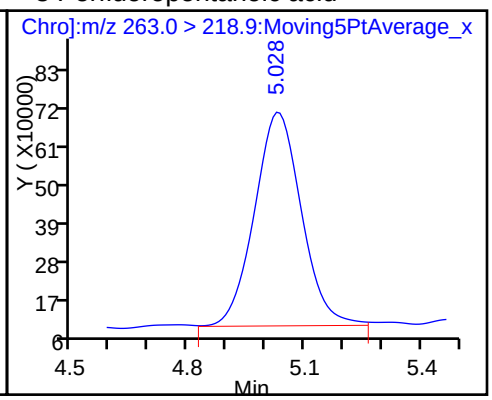
* 2 13C4 PFBA (IS) (M)



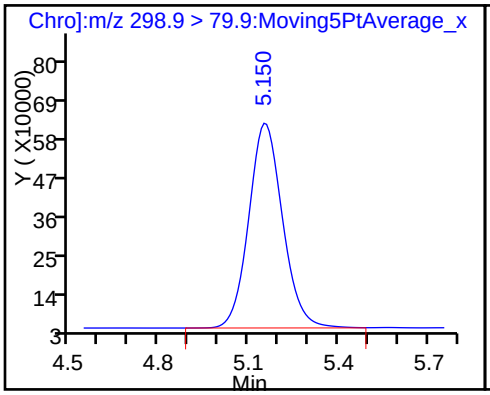
1 Perfluorobutyric acid (M)



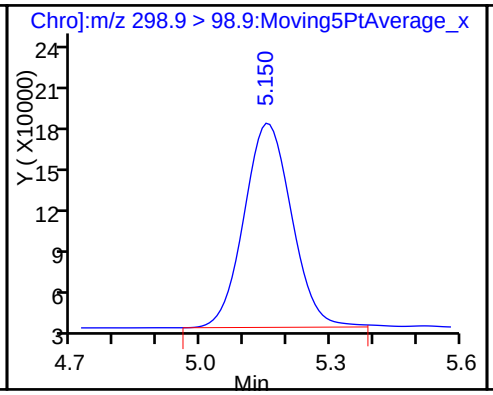
3 Perfluoropentanoic acid



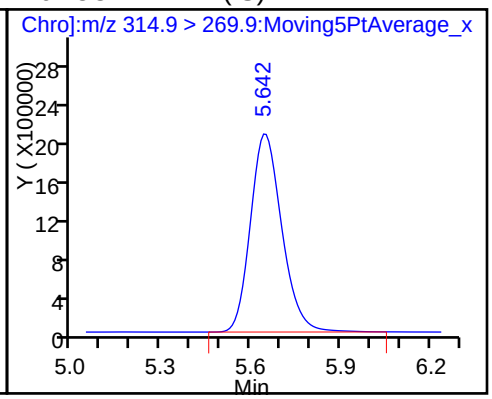
4 Perfluorobutane Sulfonate



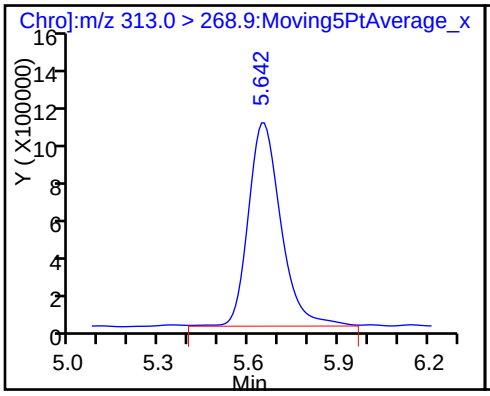
4 Perfluorobutane Sulfonate



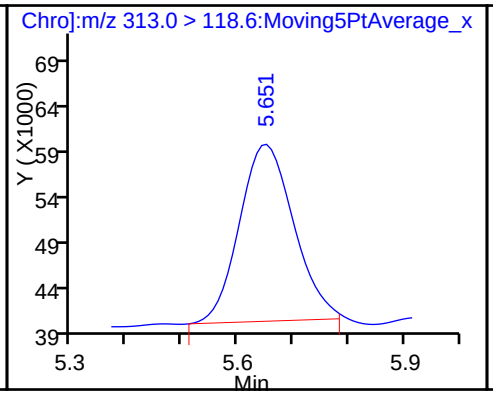
* 6 13C2 PFHxA (IS)



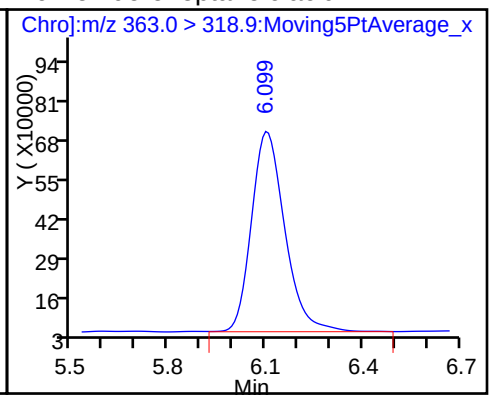
5 Perfluorohexanoic acid



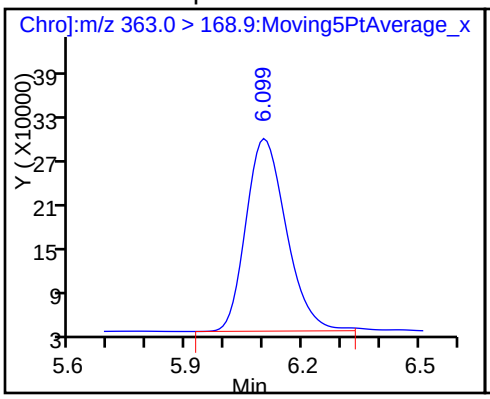
5 Perfluorohexanoic acid



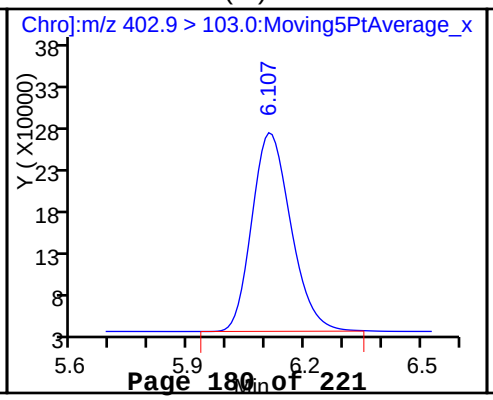
9 Perfluoroheptanoic acid



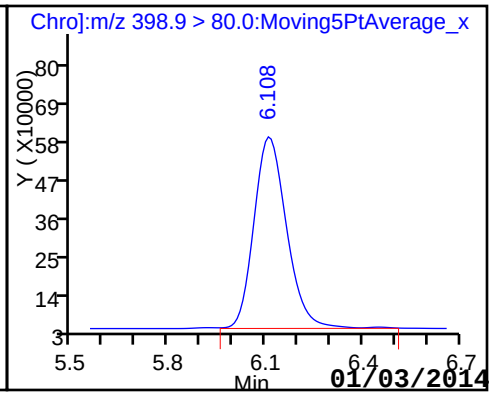
9 Perfluoroheptanoic acid



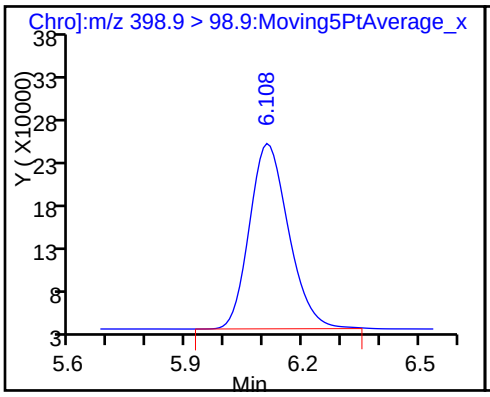
* 7 18O2 PFHxS (IS)



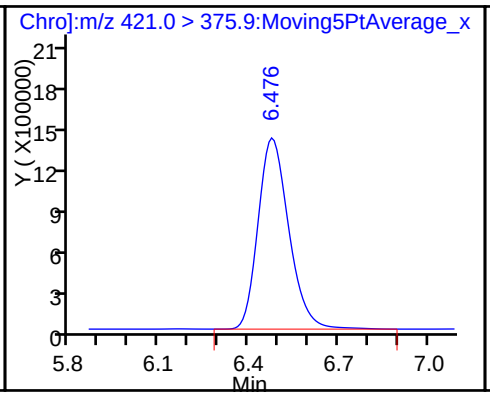
8 Perfluorohexane Sulfonate



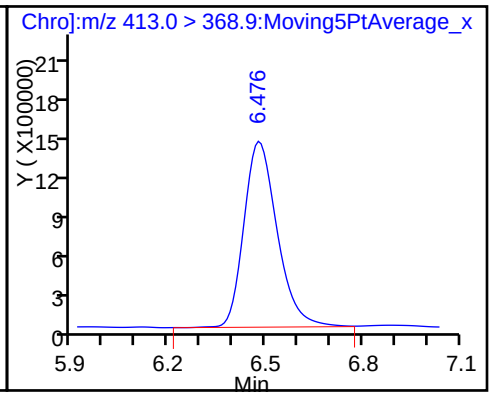
8 Perfluorohexane Sulfonate



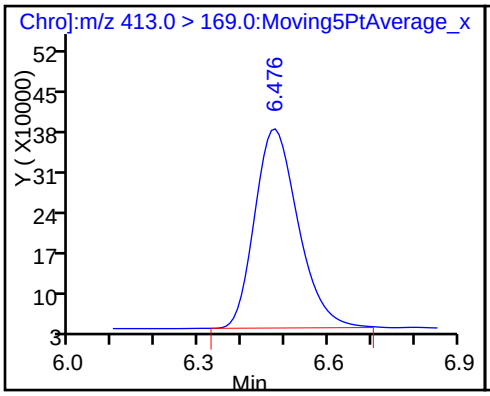
$ 10 13C8 PFOA



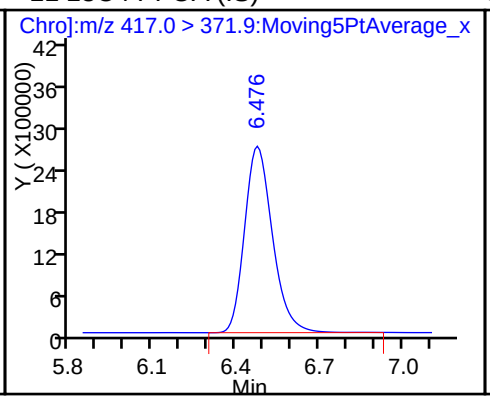
12 Perfluorooctanoic acid



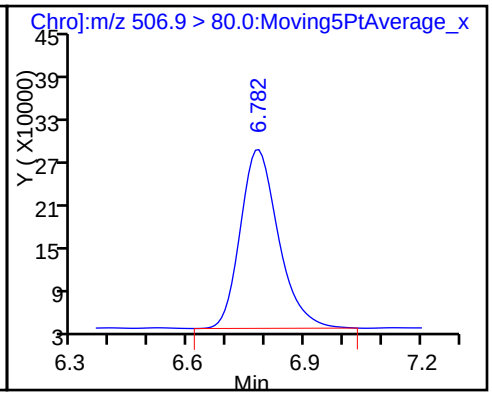
12 Perfluorooctanoic acid



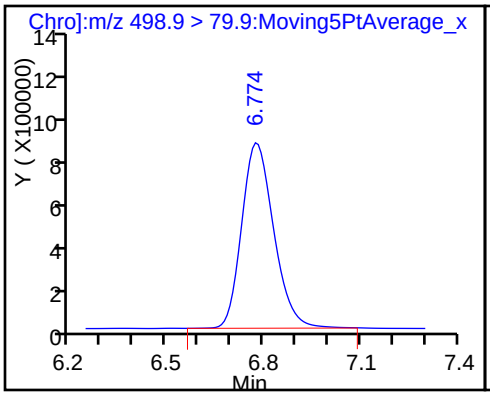
* 11 13C4 PFOA (IS)



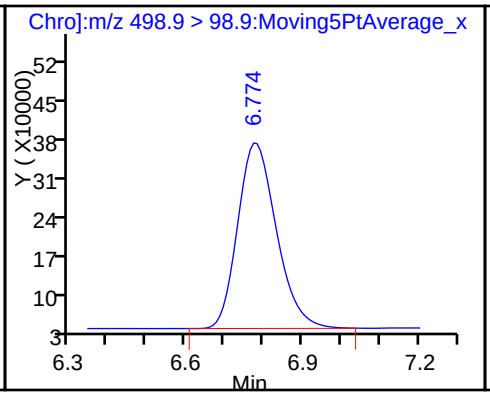
$ 15 13C8 PFOS



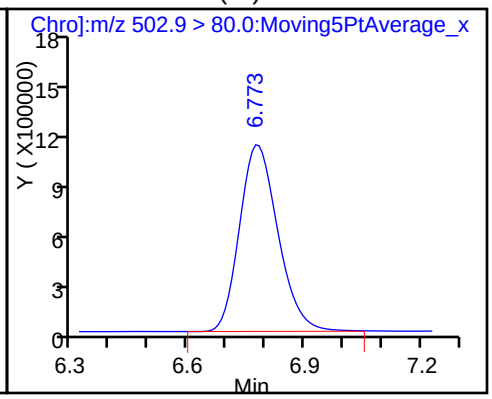
13 Perfluorooctanoic Sulfonate



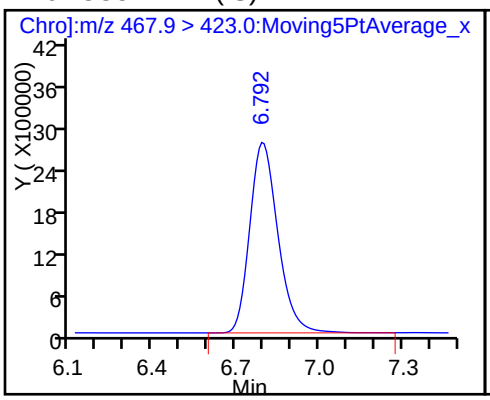
13 Perfluorooctanoic Sulfonate



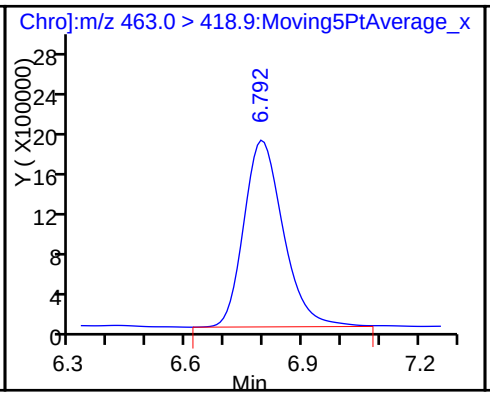
* 14 13C4 PFOS (IS)



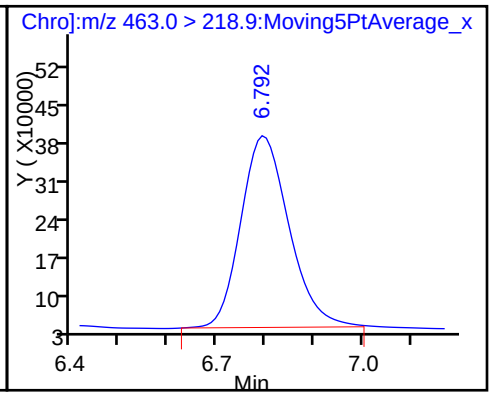
* 16 13C5 PFNA (IS)



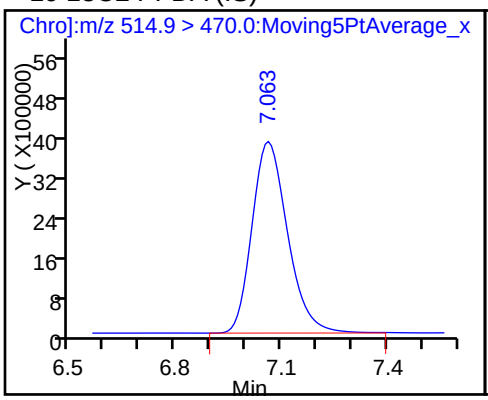
17 Perfluorononanoic acid



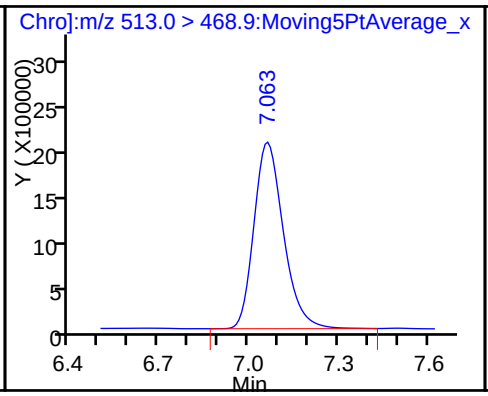
17 Perfluorononanoic acid



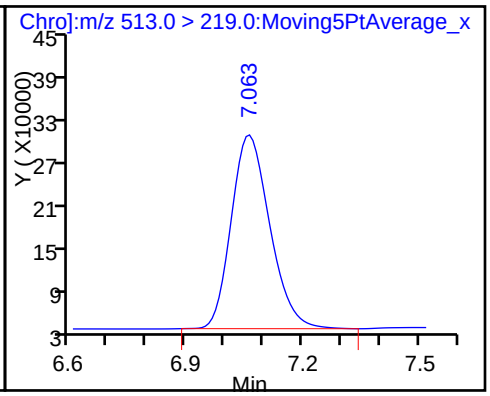
* 19 13C2 PFDA (IS)



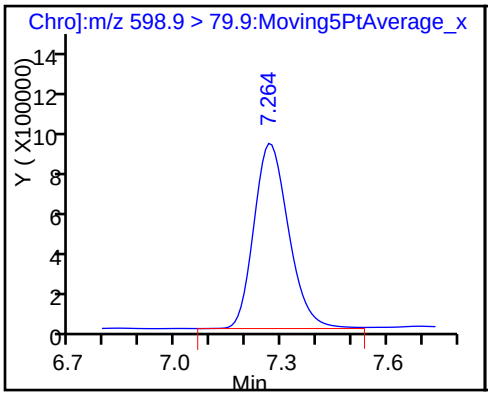
18 Perfluorodecanoic acid



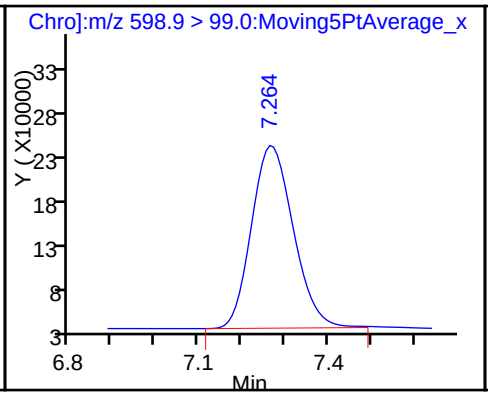
18 Perfluorodecanoic acid



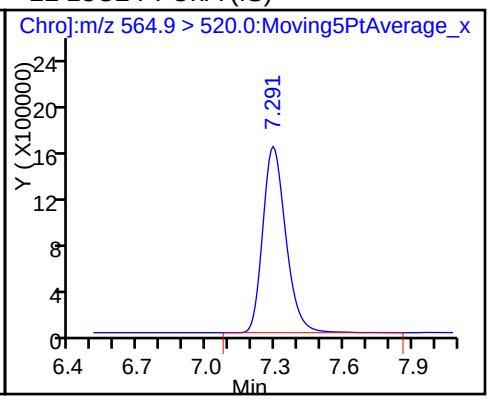
20 Perfluorodecane Sulfonate



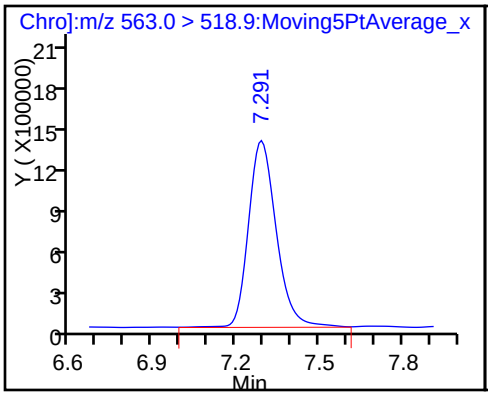
20 Perfluorodecane Sulfonate



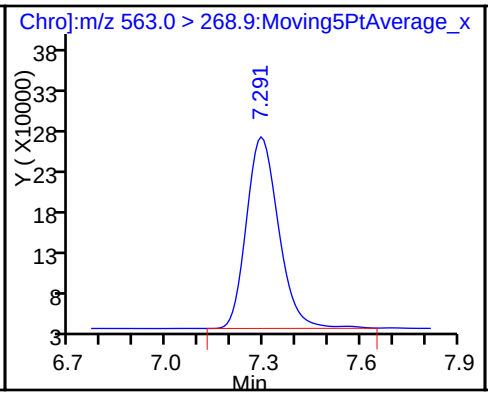
* 22 13C2 PFUnA (IS)



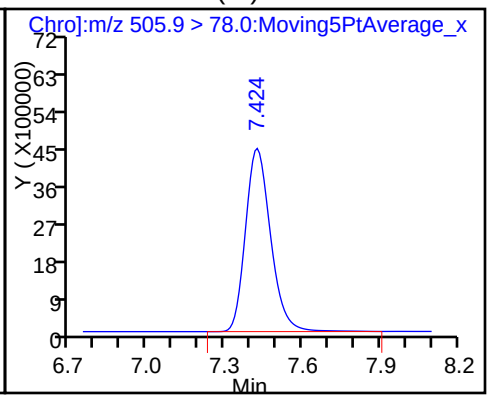
21 Perfluoroundecanoic acid



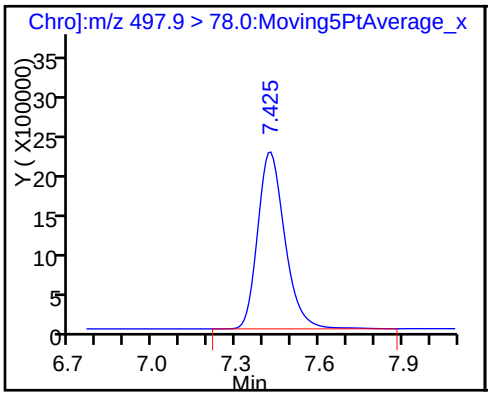
21 Perfluoroundecanoic acid



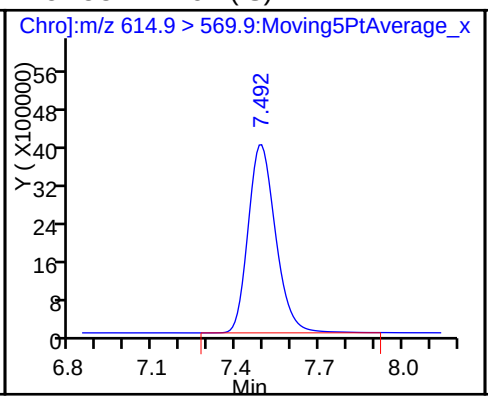
* 23 13C8 FOSA (IS)



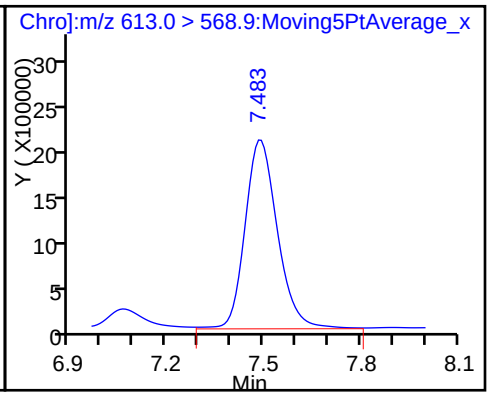
24 Perfluorooctane Sulfonamide



* 25 13C2 PFDoA (IS)

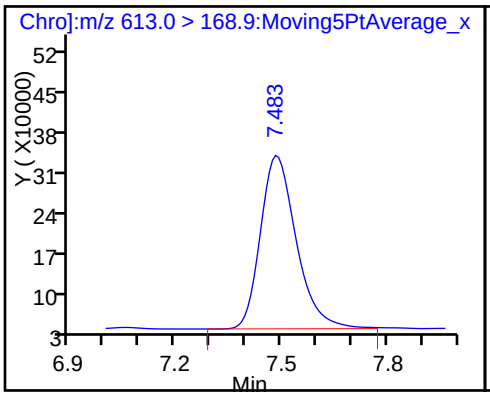


26 Perfluorododecanoic acid

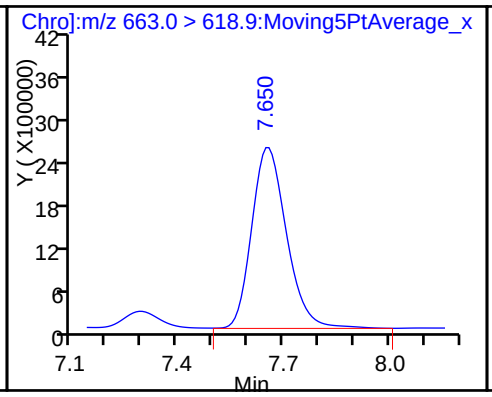


Report Date: 02-Jan-2014 11:38:52 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30067.d

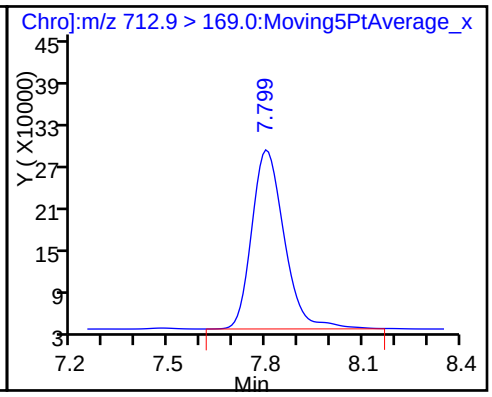
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



Manual Integration/User Assign Peak Report

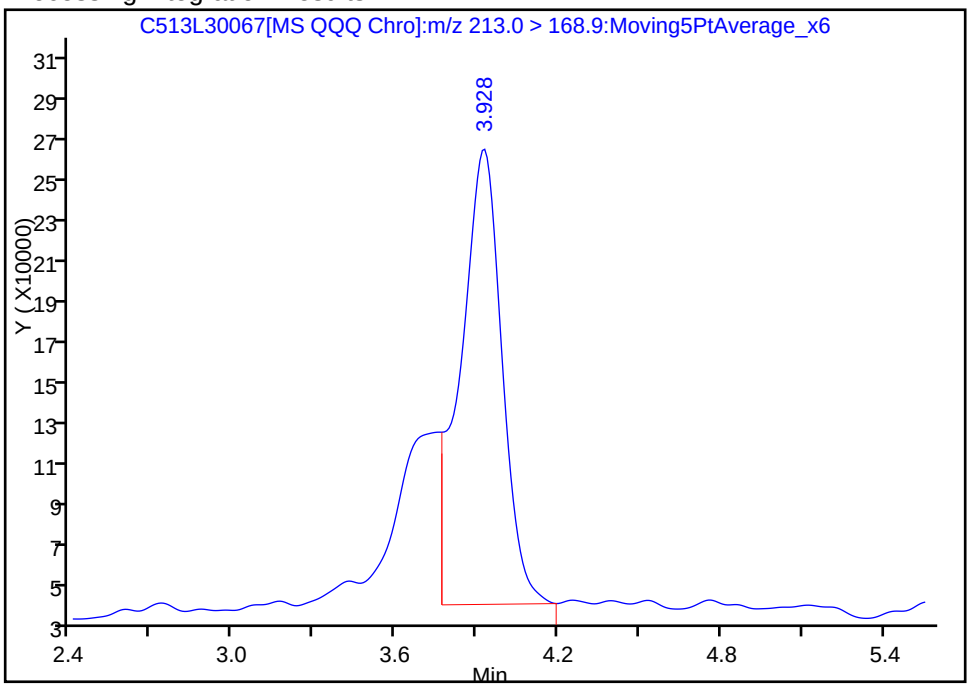
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30067.d				
Injection Date:	01-Jan-2014 04:46:53	Instrument ID:	LC_LCMS5		
Lims ID:	CCV L5	Lab Sample ID:			
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	65
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		
Column:		Detector	MS QQQ		

1 Perfluorobutyric acid, CAS: 375-22-4

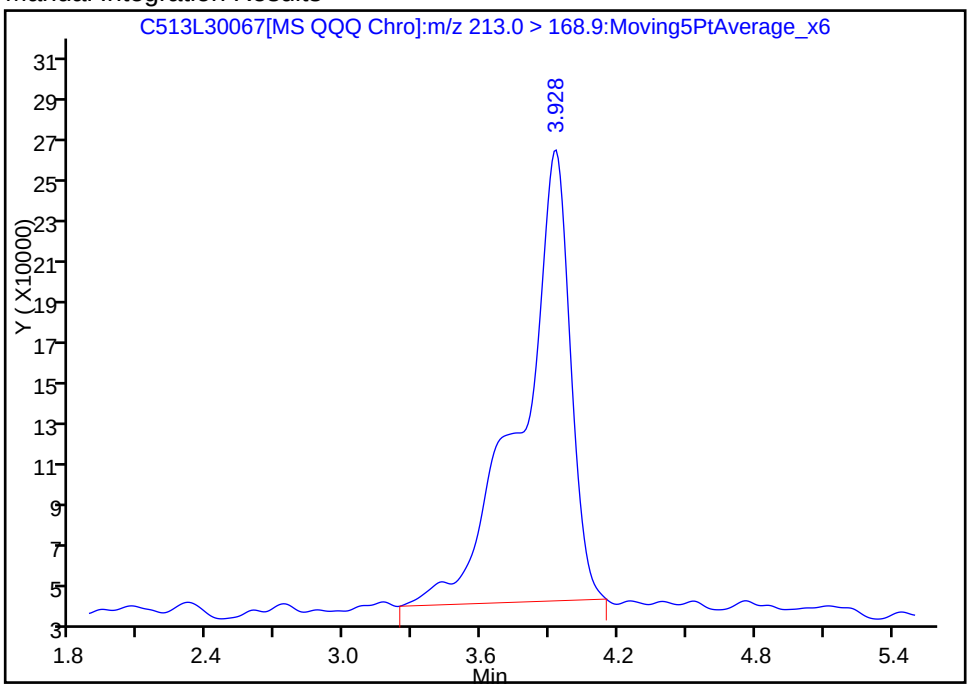
Processing Integration Results

RT: 3.93
Response: 2284145
Amount: 4.406237



Manual Integration Results

RT: 3.93
Response: 3197398
Amount: 6.175060



Reviewer: kellisonm, 02-Jan-2014 10:46:19
Audit Action: Manually Integrated
Audit Reason: Baseline

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: | Lab Sample ID: MB 280-206602/1-A

Matrix: Water | Lab File ID: PC513L30030.d

Analysis Method: DV-LC-0012 | Date Collected:

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/31/2013 21:12

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.0069	U	0.020	0.0069
335-67-1	Perfluorooctanoic acid (PFOA)	0.0098	U	0.020	0.0098
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.015	U	0.030	0.015
335-76-2	Perfluorodecanoic acid (PFDA)	0.0078	U	0.020	0.0078
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.018	U	0.040	0.018
375-95-1	Perfluorononanoic acid (PFNA)	0.017	U	0.040	0.017
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.013	U	0.030	0.013
307-55-1	Perfluorododecanoic acid (PFDoA)	0.015	U	0.030	0.015

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	105		60-155
STL01054	13C8 PFOS	92		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30030.d
Lims ID: MB 280-206602/1-A Lab Sample ID: MB 280-206602/1-A
Client ID:
Sample Type: MB
Inject. Date: 31-Dec-2013 21:12:08 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: MB 280-206602/1-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:45 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:55:35

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									
213.0 > 168.9		4.016							
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.955	4.007	-0.052		5265164	10.0			
3 Perfluoropentanoic acid									
263.0 > 218.9		5.098							
4 Perfluorobutane Sulfonate									
298.9 > 79.9		5.229							
298.9 > 98.9		5.229							
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.704	5.730	-0.026		13512357	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9		5.730							
313.0 > 118.6		5.730							
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.389	6.196	0.193	0.977	52979	0.004902			
363.0 > 168.9	6.354	6.196	0.158	0.972	25273		2.10(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.169	6.195	-0.026		1610781	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0		6.195							
398.9 > 98.9		6.195							
$ 10 13C8 PFOA									
421.0 > 375.9	6.537	6.573	-0.036	1.000	16793239	10.5			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.538	6.573	-0.035		17167951	10.0			
12 Perfluorooctanoic acid									
413.0 > 368.9		6.573							
413.0 > 169.0		6.573							

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
$ 15 13C8 PFOS									
506.9 > 80.0	6.834	6.870	-0.036	1.000	3158677	8.77			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.835	6.870	-0.035		6703382	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9		6.870							
498.9 > 98.9		6.870							
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.853	6.889	-0.036		17906047	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9		6.889							
463.0 > 218.9		6.889							
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.124	7.159	-0.035		24073506	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9		7.160							
513.0 > 219.0		7.160							
20 Perfluorodecane Sulfonate									
598.9 > 79.9		7.369							
598.9 > 99.0		7.369							
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.352	7.396	-0.044		8602280	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9		7.396							
563.0 > 268.9		7.396							
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.433	7.459	-0.026		647366	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0		7.460							
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.553	7.597	-0.044		15873045	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9		7.598							
613.0 > 168.9		7.598							
27 Perfluorotridecanoic acid									
663.0 > 618.9		7.764							
28 Perfluorotetradecanoic acid									
712.9 > 169.0		7.922							

QC Flag Legend

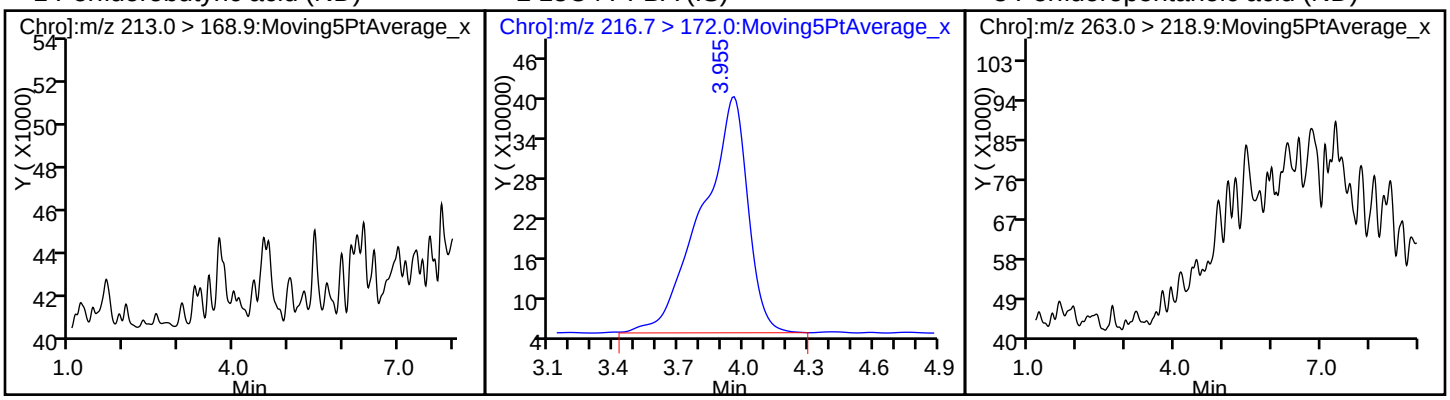
Processing Flags
s - Failed ISTD Recovery Test

Report Date: 02-Jan-2014 11:37:52 Chrom Revision: 2.1 15-Oct-2013 07:52:24

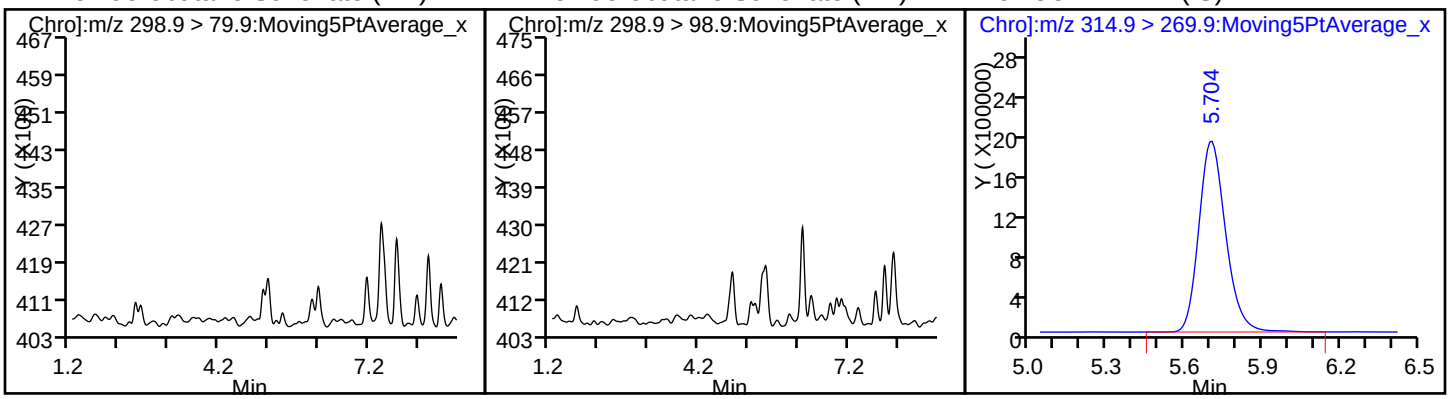
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30030.d				
Injection Date:	31-Dec-2013 21:12:08	Instrument ID:	LC_LCMS5		
Lims ID:	MB 280-206602/1-A	Lab Sample ID:	MB 280-206602/1-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

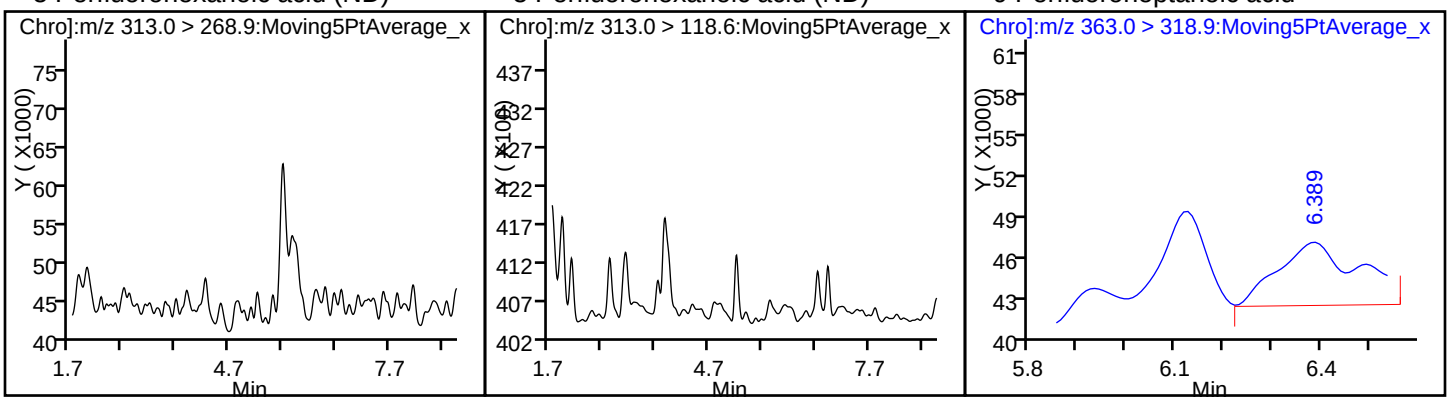
1 Perfluorobutyric acid (ND) * 2 13C4 PFBA (IS) 3 Perfluoropentanoic acid (ND)



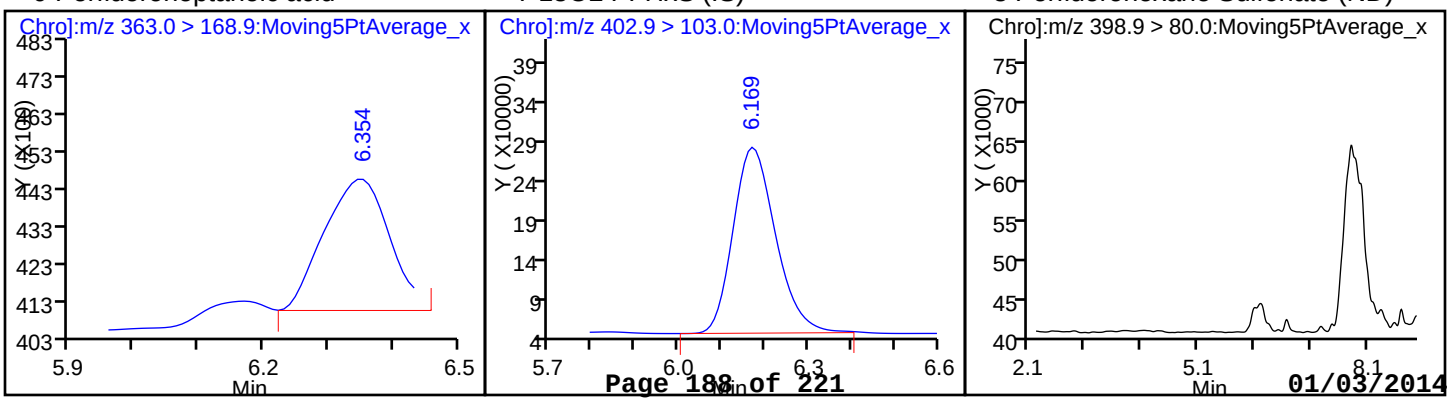
4 Perfluorobutane Sulfonate (ND) 4 Perfluorobutane Sulfonate (ND) * 6 13C2 PFHxA (IS)



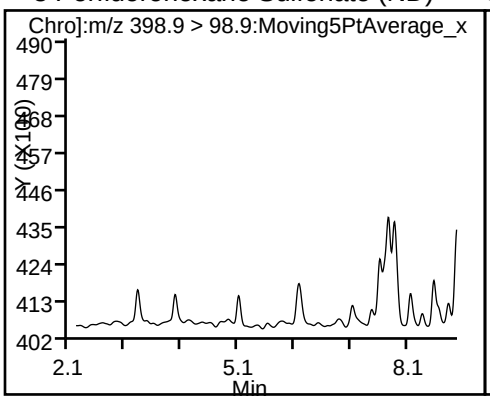
5 Perfluorohexanoic acid (ND) 5 Perfluorohexanoic acid (ND) 9 Perfluoroheptanoic acid



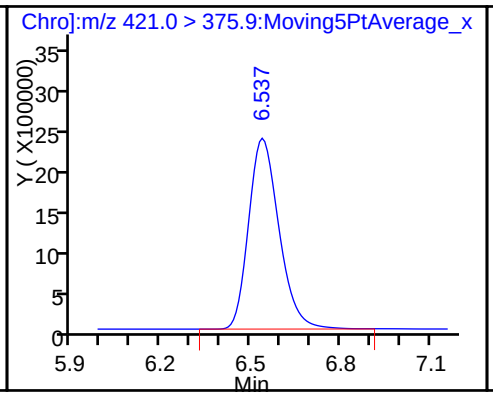
9 Perfluoroheptanoic acid * 7 18O2 PFHxS (IS) 8 Perfluorohexane Sulfonate (ND)



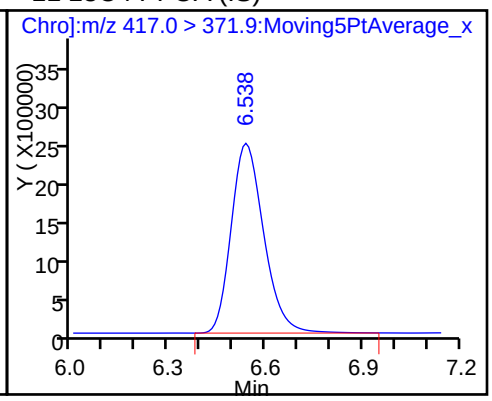
8 Perfluorohexane Sulfonate (ND)



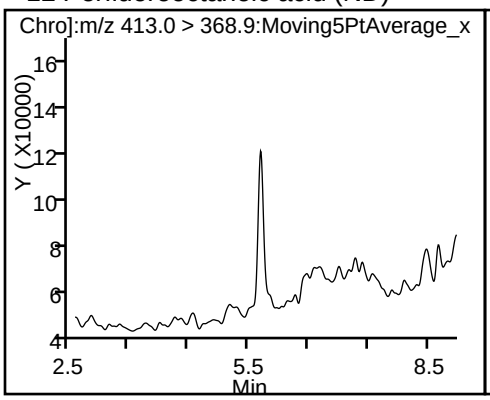
$ 10 13C8 PFOA



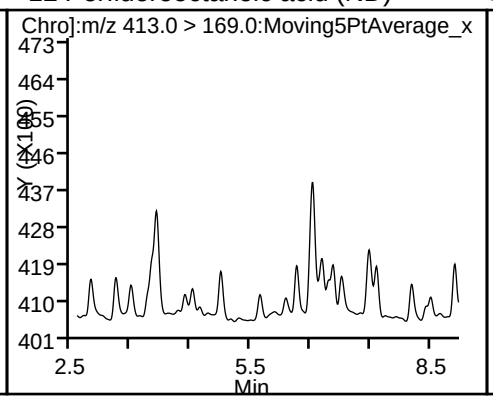
* 11 13C4 PFOA (IS)



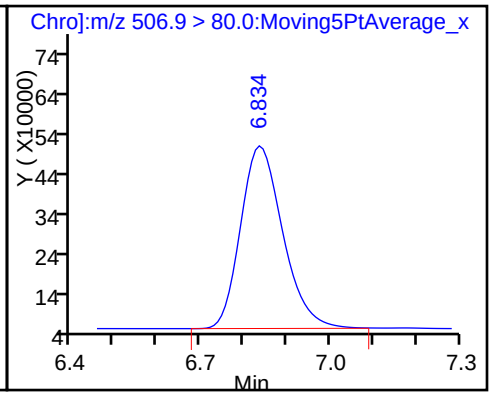
12 Perfluorooctanoic acid (ND)



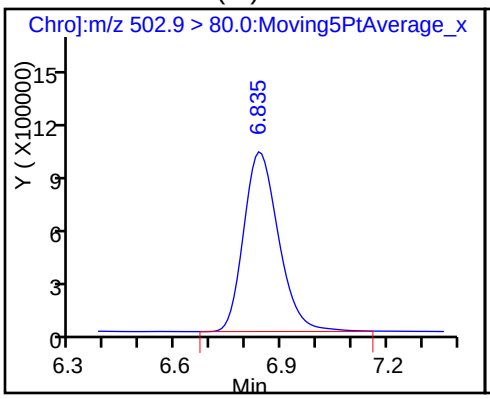
12 Perfluorooctanoic acid (ND)



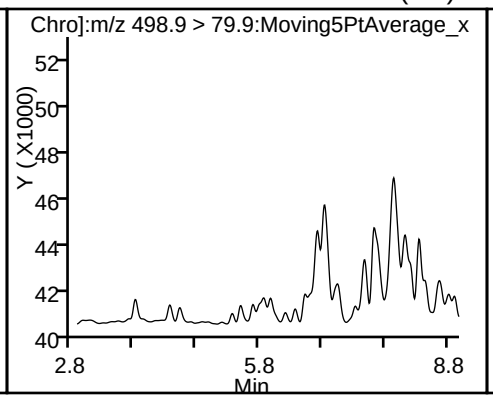
$ 15 13C8 PFOS



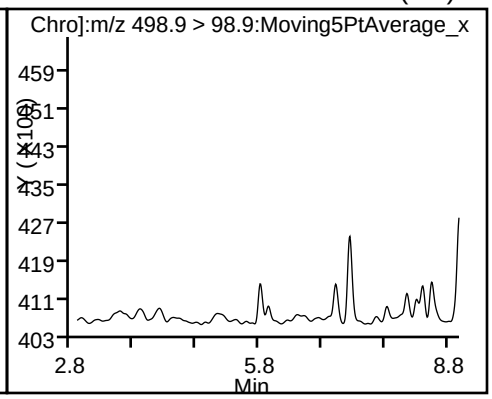
* 14 13C4 PFOS (IS)



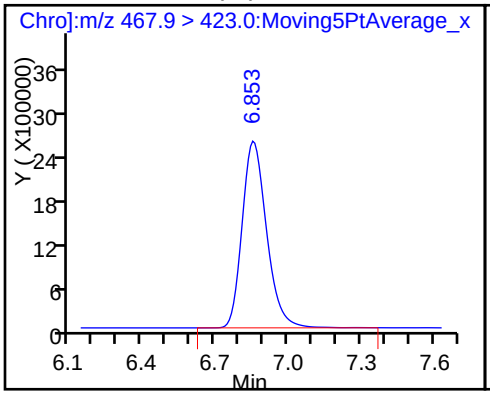
13 Perfluorooctanoic Sulfonate (ND)



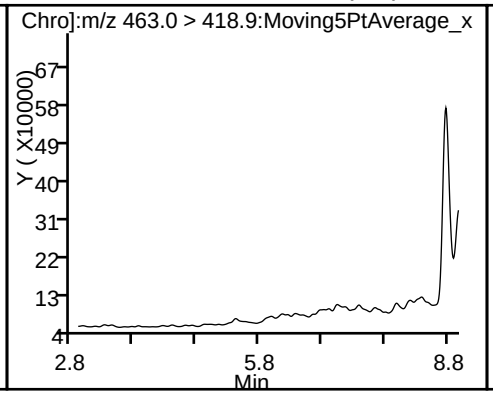
13 Perfluorooctanoic Sulfonate (ND)



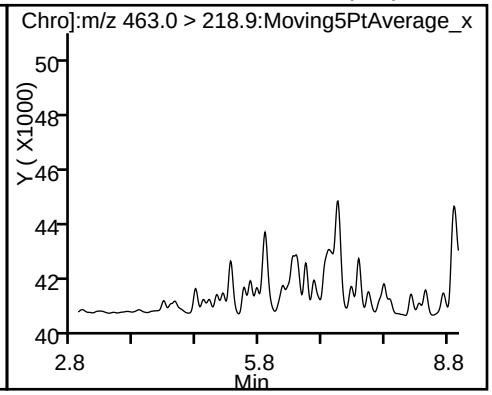
* 16 13C5 PFNA (IS)



17 Perfluorononanoic acid (ND)

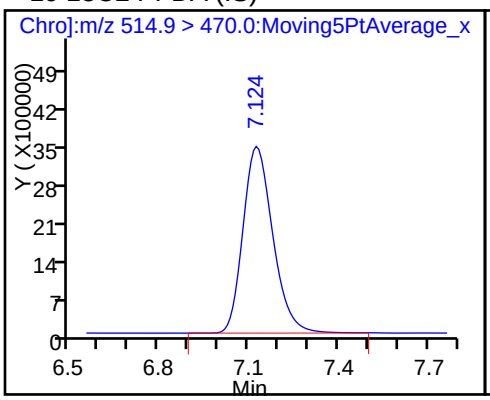


17 Perfluorononanoic acid (ND)

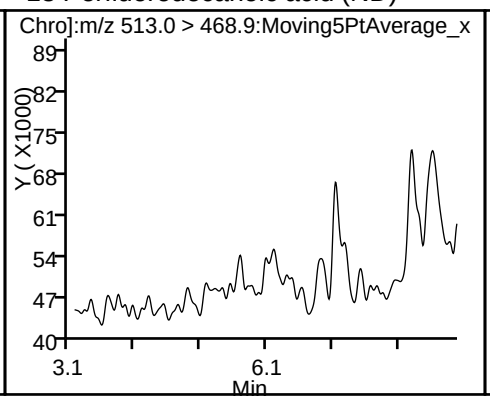


Report Date: 02-Jan-2014 11:37:52 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30030.d

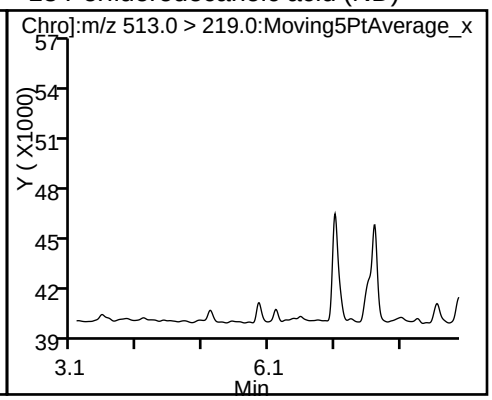
* 19 13C2 PFDA (IS)



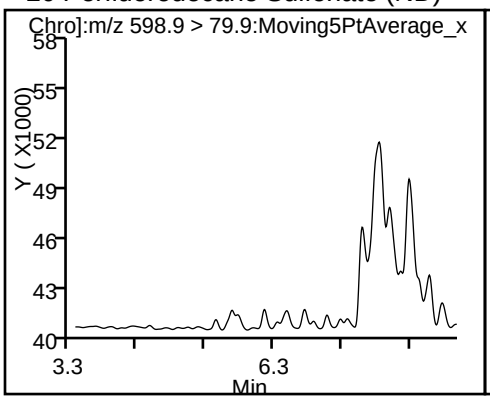
18 Perfluorodecanoic acid (ND)



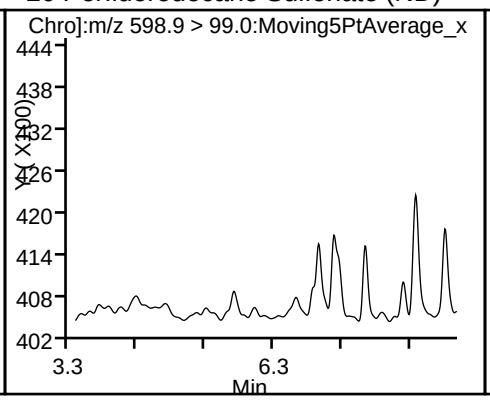
18 Perfluorodecanoic acid (ND)



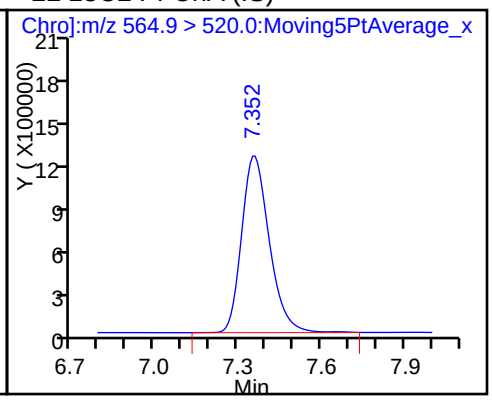
20 Perfluorodecane Sulfonate (ND)



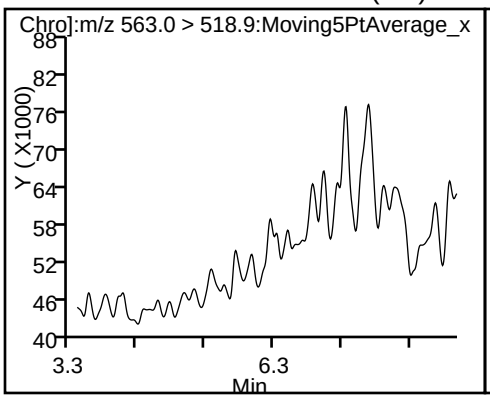
20 Perfluorodecane Sulfonate (ND)



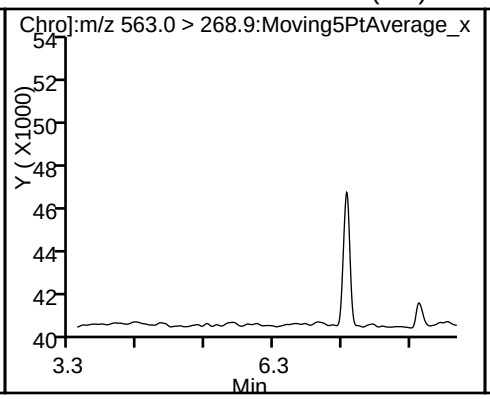
* 22 13C2 PFUnA (IS)



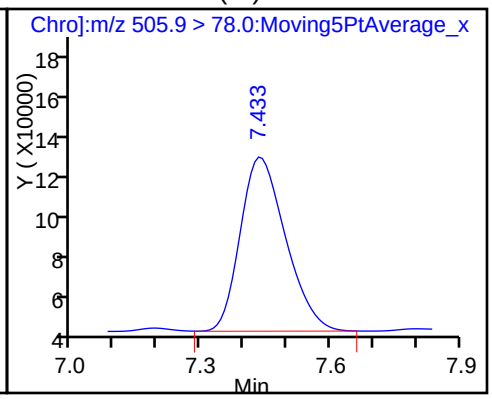
21 Perfluoroundecanoic acid (ND)



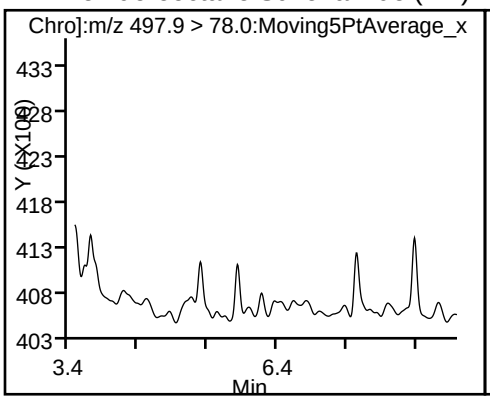
21 Perfluoroundecanoic acid (ND)



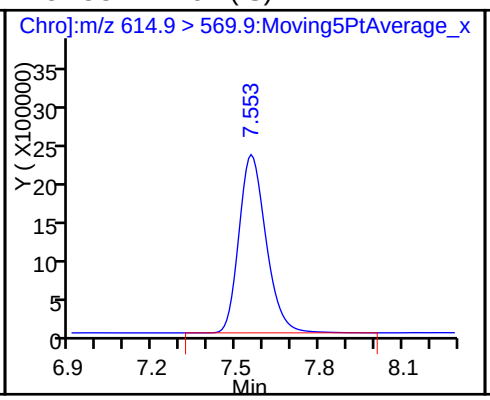
* 23 13C8 FOSA (IS)



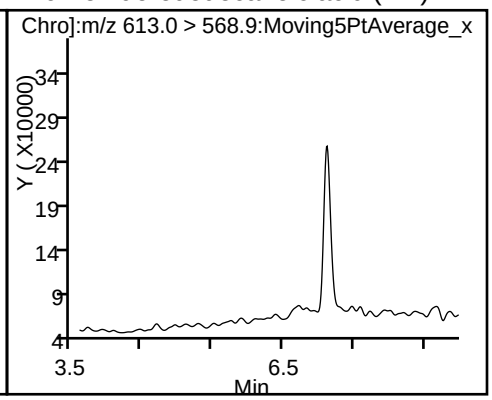
24 Perfluorooctane Sulfonamide (ND)



* 25 13C2 PFDoA (IS)

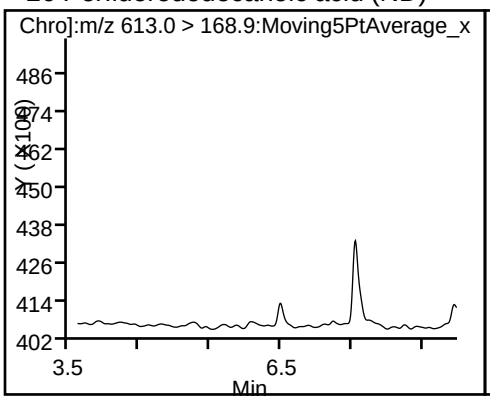


26 Perfluorododecanoic acid (ND)

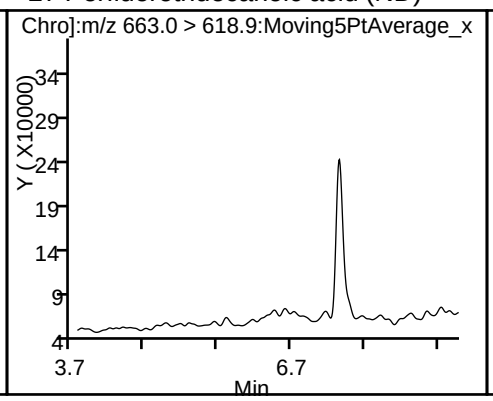


Report Date: 02-Jan-2014 11:37:53 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30030.d

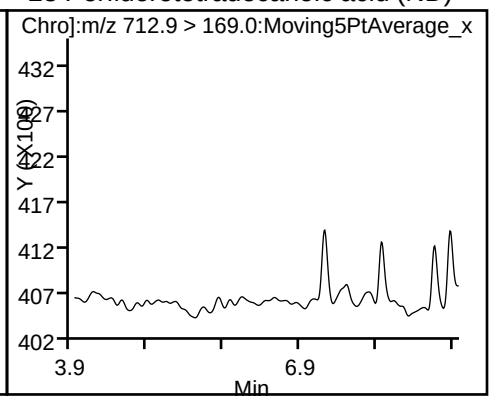
26 Perfluorododecanoic acid (ND)



27 Perfluorotridecanoic acid (ND)



28 Perfluorotetradecanoic acid (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCS 280-206602/2-A

Matrix: Water | Lab File ID: PC513L30031.d

Analysis Method: DV-LC-0012 | Date Collected:

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/31/2013 21:24

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.233		0.020	0.0069
335-67-1	Perfluorooctanoic acid (PFOA)	0.219		0.020	0.0098
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.184		0.030	0.015
335-76-2	Perfluorodecanoic acid (PFDA)	0.226		0.020	0.0078
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.218		0.040	0.018
375-95-1	Perfluorononanoic acid (PFNA)	0.215		0.040	0.017
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.243		0.030	0.013
307-55-1	Perfluorododecanoic acid (PFDoA)	0.231		0.030	0.015

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	103		60-155
STL01054	13C8 PFOS	92		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30031.d
Lims ID: LCS 280-206602/2-A Lab Sample ID: LCS 280-206602/2-A
Client ID:
Sample Type: LCS
Inject. Date: 31-Dec-2013 21:24:26 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: LCS 280-206602/2-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:45 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									
213.0 > 168.9	3.937	4.016	-0.079	1.000	6209066	12.5			
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.937	4.007	-0.070		6089633	10.0			
3 Perfluoropentanoic acid									
263.0 > 218.9	5.063	5.098	-0.035	0.889	11052046	10.9			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.194	5.229	-0.035	0.843	9030665	10.7			
298.9 > 98.9	5.194	5.229	-0.035	0.843	2412928		3.74(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.695	5.730	-0.035		13326124	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.695	5.730	-0.035	1.000	14585643	10.6			
313.0 > 118.6	5.695	5.730	-0.035	1.000	313522		46.52(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.152	6.196	-0.044	0.942	9823613	12.1			
363.0 > 168.9	6.152	6.196	-0.044	0.942	3666151		2.68(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.160	6.195	-0.035		1532410	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.160	6.195	-0.035	1.000	7365667	10.0			
398.9 > 98.9	6.160	6.195	-0.035	1.000	3203317		2.30(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.529	6.573	-0.044	1.000	16886420	10.3			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.529	6.573	-0.044		17500509	10.0			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.529	6.573	-0.044	1.000	18971415	10.9			
413.0 > 169.0	6.529	6.573	-0.044	1.000	4803266		3.95(2.38-4.41)		

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
$ 15 13C8 PFOS									
506.9 > 80.0	6.826	6.870	-0.044	1.000	3169603	8.82			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.826	6.870	-0.044		6690323	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.826	6.870	-0.044	1.000	10569345	12.2			
498.9 > 98.9	6.826	6.870	-0.044	1.000	4439508		2.38(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.845	6.889	-0.044		18221615	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.845	6.889	-0.044	1.000	24804748	10.8			
463.0 > 218.9	6.845	6.889	-0.044	1.000	4649035		5.34(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.115	7.159	-0.044		23833790	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.116	7.160	-0.044	1.000	25891481	11.3			
513.0 > 219.0	7.116	7.160	-0.044	1.000	3268040		7.92(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.317	7.369	-0.053	1.072	9437220	9.26			
598.9 > 99.0	7.317	7.369	-0.053	1.072	2133477		4.42(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.343	7.396	-0.053		9032138	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.344	7.396	-0.052	1.000	16195339	11.6			
563.0 > 268.9	7.344	7.396	-0.052	1.000	2885984		5.61(4.08-7.57)		
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.433	7.459	-0.026		855811	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.434	7.460	-0.026	1.000	887017	10.1			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.545	7.597	-0.052		18621633	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.545	7.598	-0.053	1.000	21112849	11.5			
613.0 > 168.9	7.545	7.598	-0.053	1.000	3266929		6.46(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.711	7.764	-0.053	1.022	24436471	10.9			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.861	7.922	-0.061	1.042	2481297	9.19			

QC Flag Legend

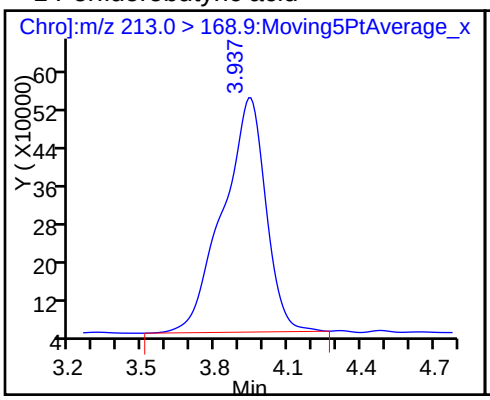
Processing Flags
s - Failed ISTD Recovery Test

Report Date: 02-Jan-2014 11:37:54 Chrom Revision: 2.1 15-Oct-2013 07:52:24

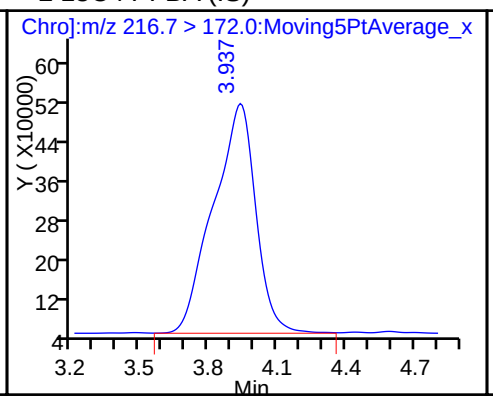
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30031.d				
Injection Date:	31-Dec-2013 21:24:26	Instrument ID:	LC_LCMS5		
Lims ID:	LCS 280-206602/2-A	Lab Sample ID:	LCS 280-206602/2-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	29
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

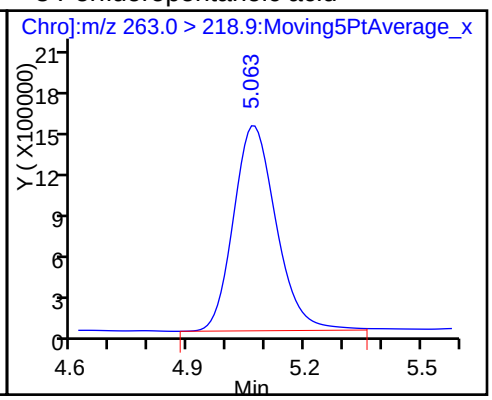
1 Perfluorobutyric acid



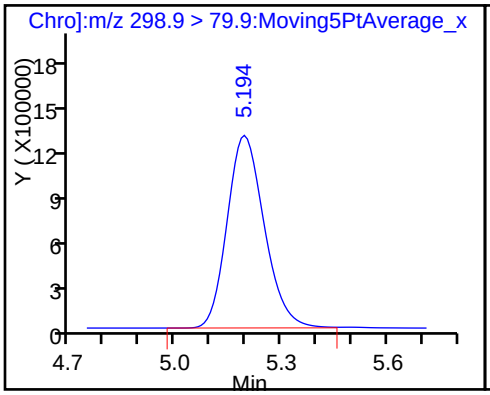
* 2 13C4 PFBA (IS)



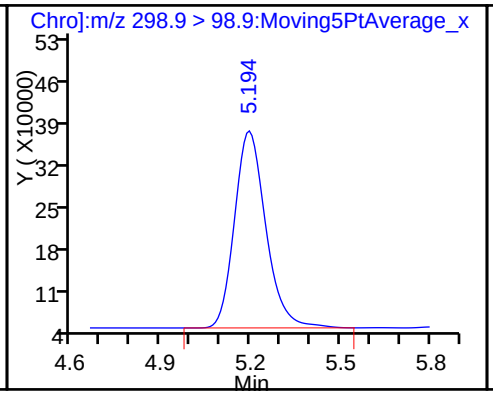
3 Perfluoropentanoic acid



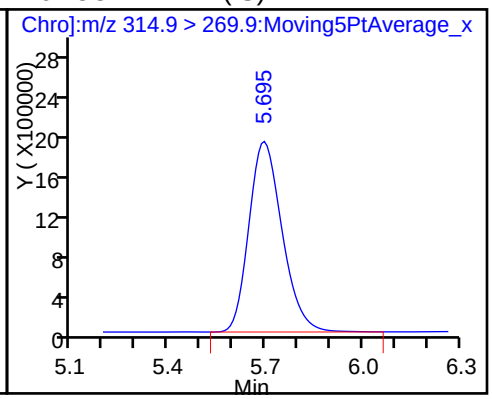
4 Perfluorobutane Sulfonate



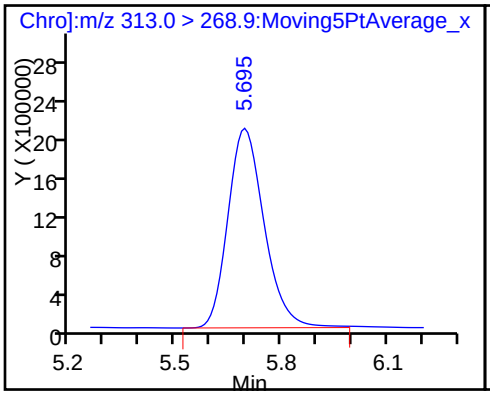
4 Perfluorobutane Sulfonate



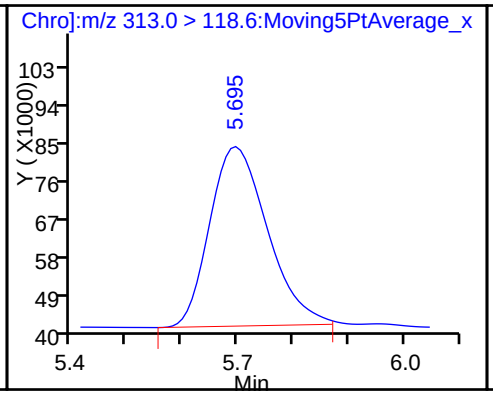
* 6 13C2 PFHxA (IS)



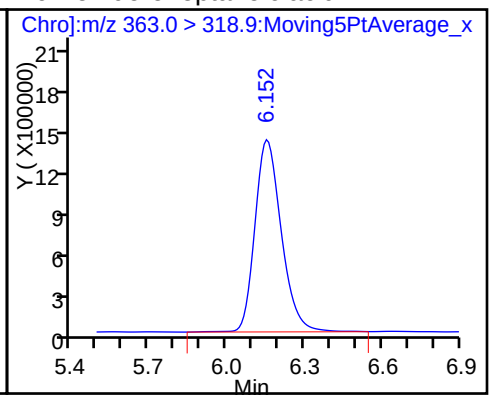
5 Perfluorohexanoic acid



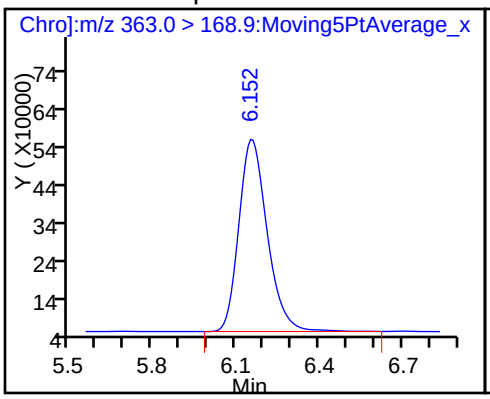
5 Perfluorohexanoic acid



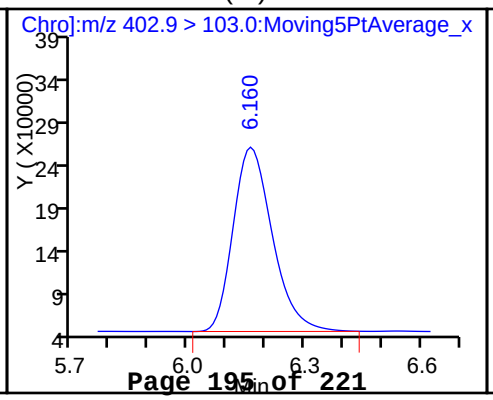
9 Perfluoroheptanoic acid



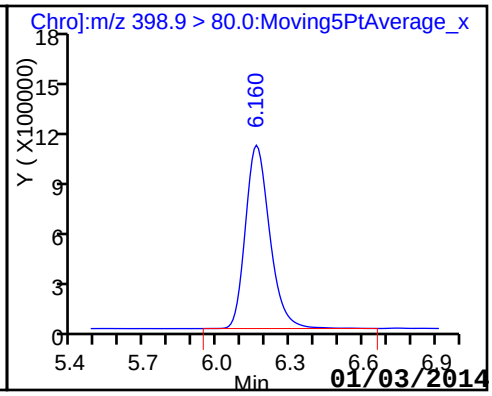
9 Perfluoroheptanoic acid



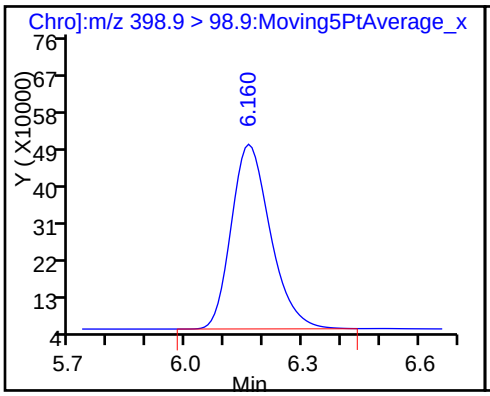
* 7 18O2 PFHxS (IS)



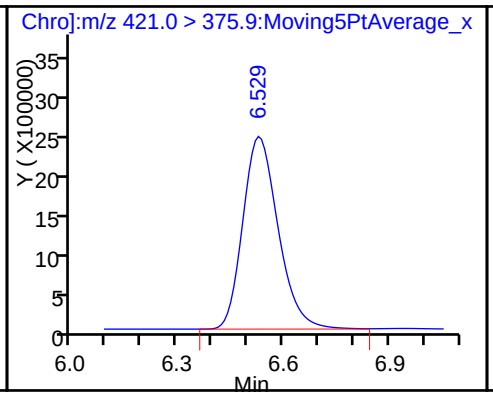
8 Perfluorohexane Sulfonate



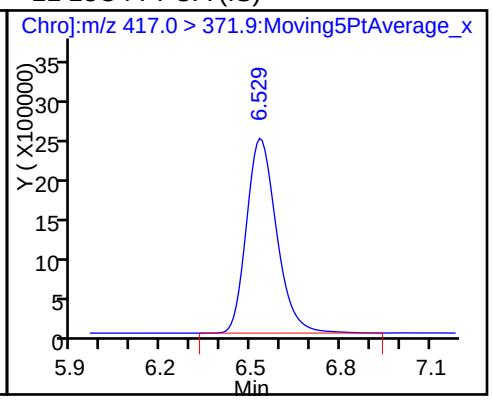
8 Perfluorohexane Sulfonate



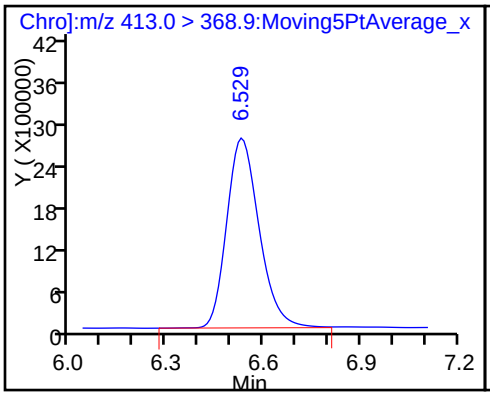
$ 10 13C8 PFOA



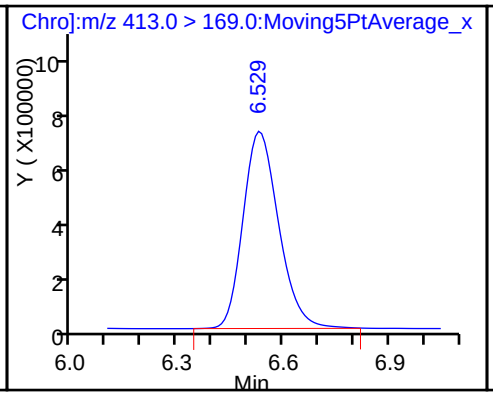
* 11 13C4 PFOA (IS)



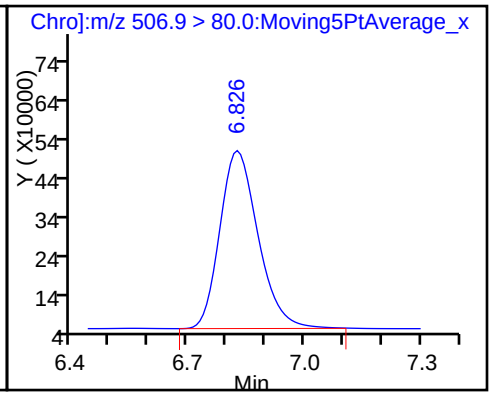
12 Perfluorooctanoic acid



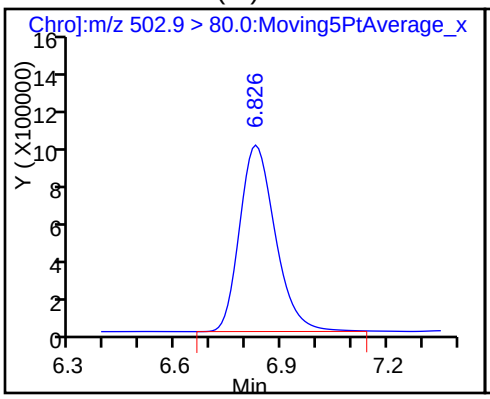
12 Perfluorooctanoic acid



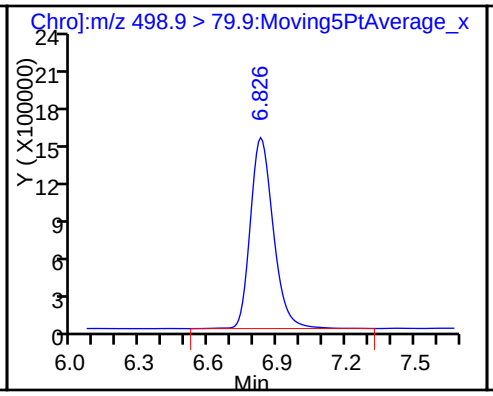
$ 15 13C8 PFOS



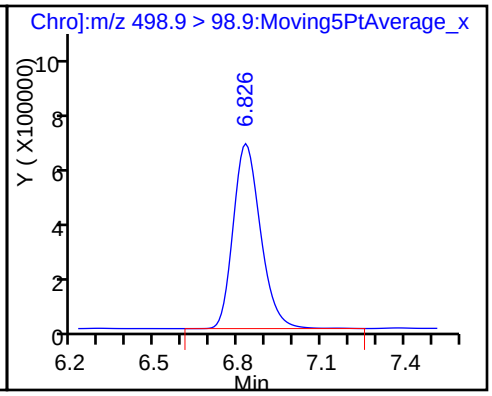
* 14 13C4 PFOS (IS)



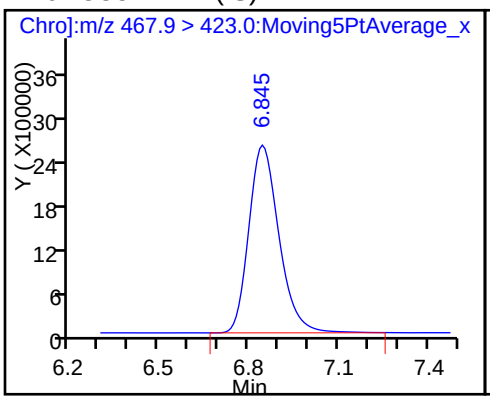
13 Perfluorooctanoic Sulfonate



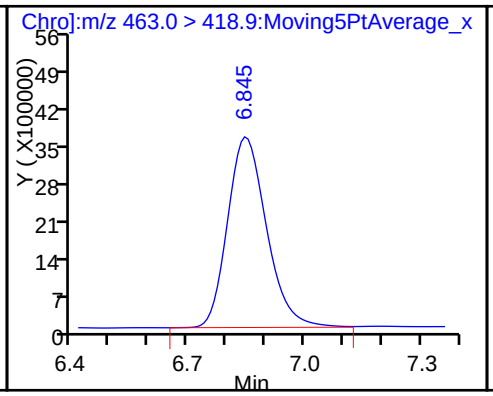
13 Perfluorooctanoic Sulfonate



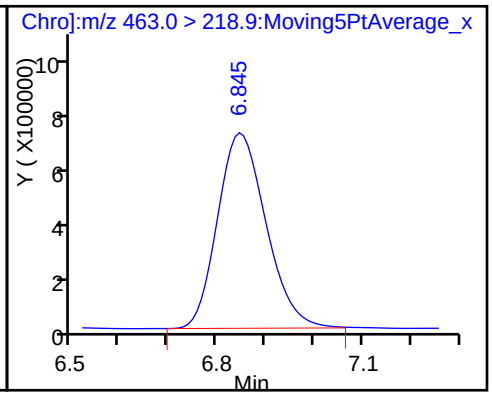
* 16 13C5 PFNA (IS)



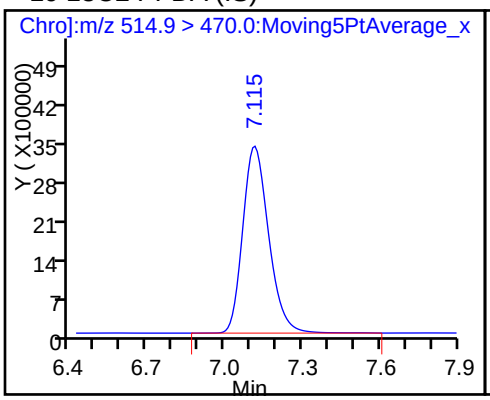
17 Perfluorononanoic acid



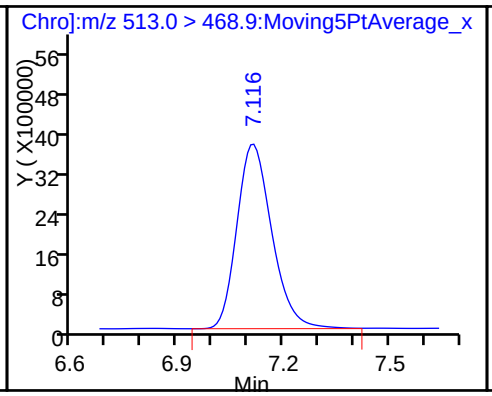
17 Perfluorononanoic acid



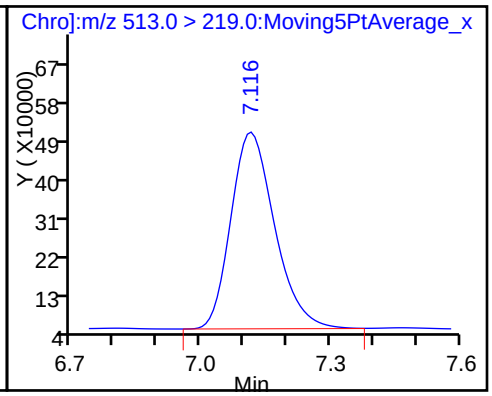
* 19 13C2 PFDA (IS)



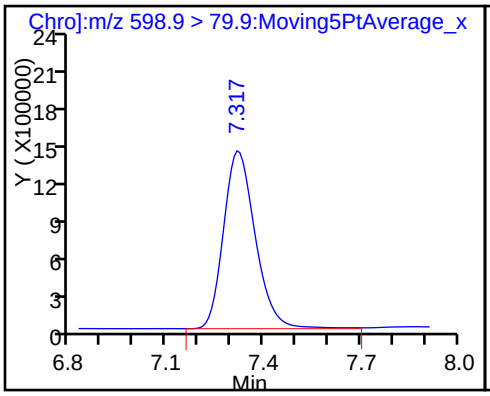
18 Perfluorodecanoic acid



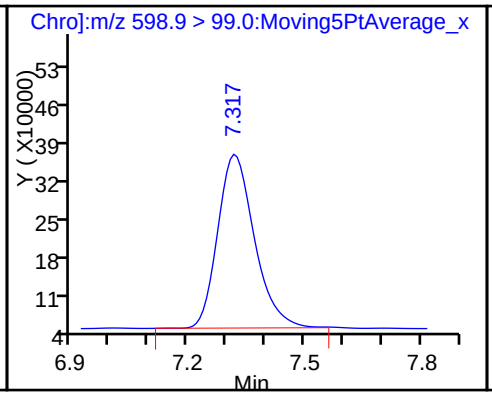
18 Perfluorodecanoic acid



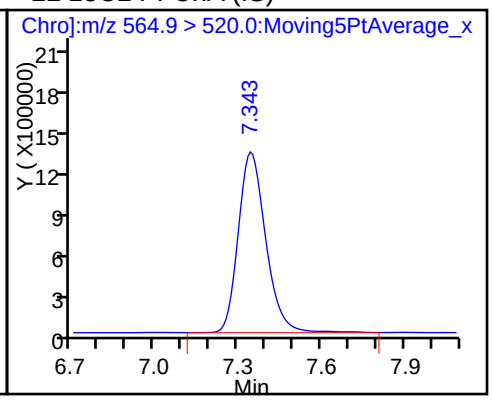
20 Perfluorodecane Sulfonate



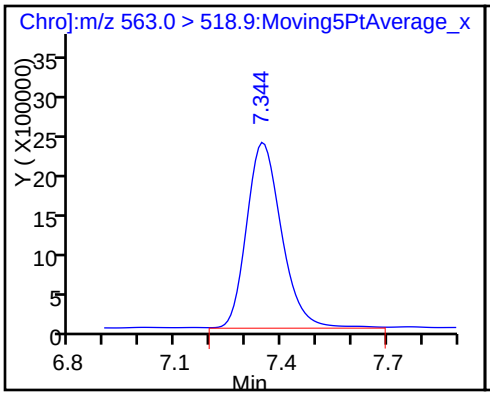
20 Perfluorodecane Sulfonate



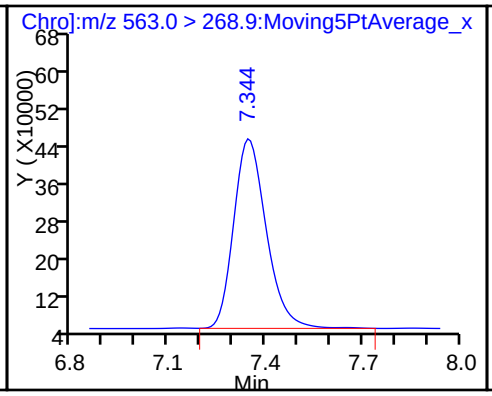
* 22 13C2 PFUnA (IS)



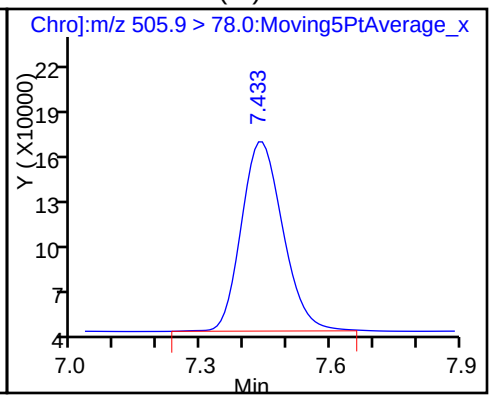
21 Perfluoroundecanoic acid



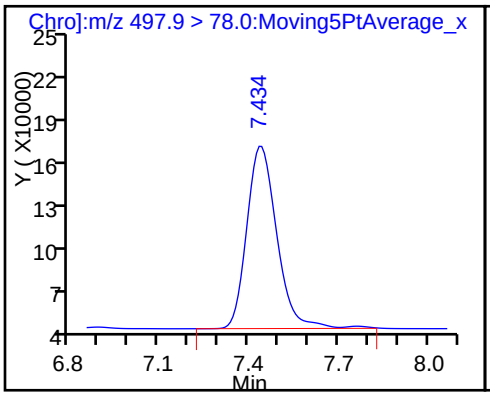
21 Perfluoroundecanoic acid



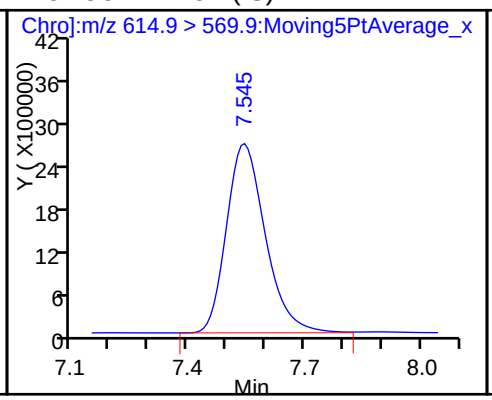
* 23 13C8 FOSA (IS)



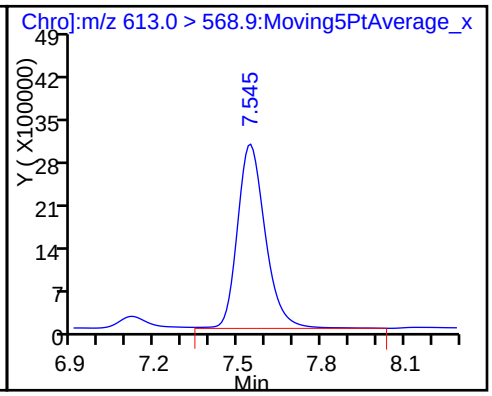
24 Perfluorooctane Sulfonamide



* 25 13C2 PFDoA (IS)

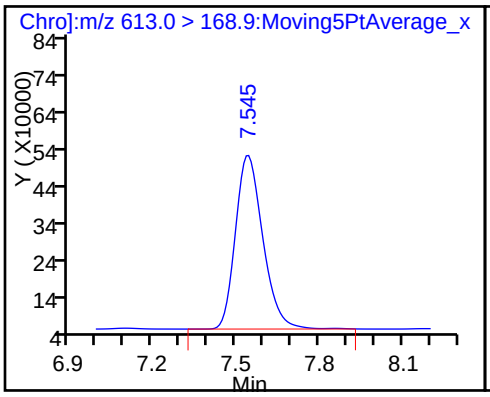


26 Perfluorododecanoic acid

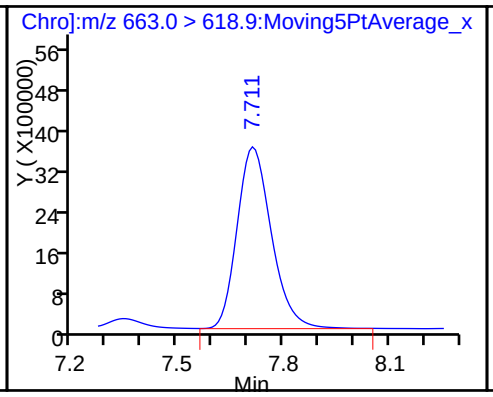


Report Date: 02-Jan-2014 11:37:54 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30031.d

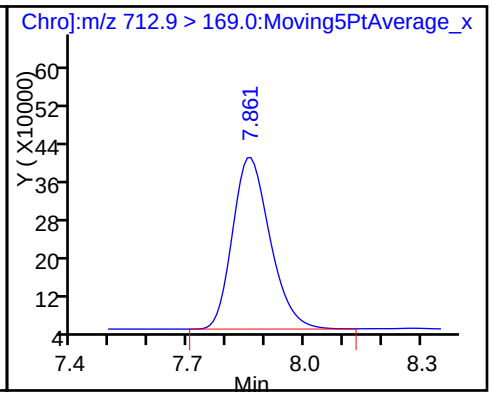
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver | Job No.: 460-68878-1

SDG No.:

Client Sample ID: | Lab Sample ID: LCSD 280-206602/3-A

Matrix: Water | Lab File ID: PC513L30032.d

Analysis Method: DV-LC-0012 | Date Collected:

Extraction Method: 3535 | Date Extracted: 12/26/2013 16:41

Sample wt/vol: 250(mL) | Date Analyzed: 12/31/2013 21:36

Con. Extract Vol.: 5(mL) | Dilution Factor: 1

Injection Volume: 25(uL) | GC Column: Gemini-NX ID:

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 207217 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.244		0.020	0.0069
335-67-1	Perfluorooctanoic acid (PFOA)	0.234		0.020	0.0098
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.197		0.030	0.015
335-76-2	Perfluorodecanoic acid (PFDA)	0.227		0.020	0.0078
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.225		0.040	0.018
375-95-1	Perfluorononanoic acid (PFNA)	0.224		0.040	0.017
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.243		0.030	0.013
307-55-1	Perfluorododecanoic acid (PFDoA)	0.232		0.030	0.015

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	107		60-155
STL01054	13C8 PFOS	97		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30032.d
Lims ID: LCSD 280-206602/3-A Lab Sample ID: LCSD 280-206602/3-A
Client ID:
Sample Type: LCSD
Inject. Date: 31-Dec-2013 21:36:44 ALS Bottle#: 0 Worklist Smp#: 30
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: LCSD 280-206602/3-A, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:45 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:57:09

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									
213.0 > 168.9	3.937	4.016	-0.079	1.000	6457286	12.9			
* 2 13C4 PFBA (IS)									
216.7 > 172.0	3.937	4.007	-0.070		6150589	10.0			
3 Perfluoropentanoic acid									
263.0 > 218.9	5.054	5.098	-0.044	0.890	11138344	10.7			
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.177	5.229	-0.052	0.843	9689961	10.8			
298.9 > 98.9	5.185	5.229	-0.044	0.844	2357251		4.11(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.677	5.730	-0.053		13628853	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.678	5.730	-0.052	1.000	15386988	11.0			
313.0 > 118.6	5.678	5.730	-0.052	1.000	323302		47.59(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.134	6.196	-0.062	0.942	10026549	12.3			
363.0 > 168.9	6.134	6.196	-0.062	0.942	3977675		2.52(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.142	6.195	-0.053		1629608	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.143	6.195	-0.052	1.000	7596734	9.74			
398.9 > 98.9	6.143	6.195	-0.052	1.000	3276529		2.32(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.511	6.573	-0.062	1.000	17639283	10.7			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.511	6.573	-0.062		17641890	10.0			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.511	6.573	-0.062	1.000	20442707	11.7			
413.0 > 169.0	6.511	6.573	-0.062	1.000	5228220		3.91(2.38-4.41)		

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
$ 15 13C8 PFOS									
506.9 > 80.0	6.817	6.870	-0.053	1.001	3467393	9.30			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.809	6.870	-0.061		6940062	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.809	6.870	-0.061	1.000	10979950	12.2			
498.9 > 98.9	6.809	6.870	-0.061	1.000	4732959		2.32(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.836	6.889	-0.053		18068354	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.827	6.889	-0.062	0.999	25630718	11.2			
463.0 > 218.9	6.836	6.889	-0.053	1.000	4810690		5.33(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.098	7.159	-0.061		25297717	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.098	7.160	-0.062	1.000	27648289	11.4			
513.0 > 219.0	7.098	7.160	-0.062	1.000	3344379		8.27(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.308	7.369	-0.061	1.073	10158977	9.61			
598.9 > 99.0	7.308	7.369	-0.061	1.073	2086616		4.87(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.335	7.396	-0.061		9413103	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.335	7.396	-0.061	1.000	17643016	12.2			
563.0 > 268.9	7.335	7.396	-0.061	1.000	2947581		5.99(4.08-7.57)		
* 23 13C8 FOSA (IS)									s
505.9 > 78.0	7.433	7.459	-0.026		979333	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.425	7.460	-0.035	0.999	1057311	10.5			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.527	7.597	-0.070		19662365	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.527	7.598	-0.071	1.000	22447032	11.6			
613.0 > 168.9	7.527	7.598	-0.071	1.000	3449842		6.51(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.703	7.764	-0.061	1.023	26701118	11.3			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.843	7.922	-0.079	1.042	2812507	9.87			

QC Flag Legend

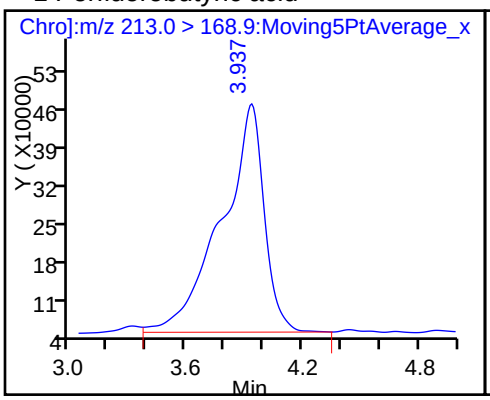
Processing Flags
s - Failed ISTD Recovery Test

Report Date: 02-Jan-2014 11:37:55 Chrom Revision: 2.1 15-Oct-2013 07:52:24

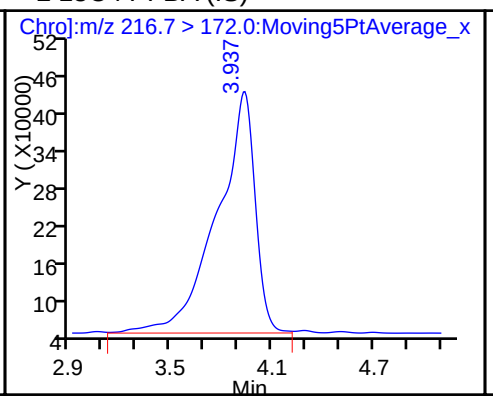
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30032.d				
Injection Date:	31-Dec-2013 21:36:44	Instrument ID:	LC_LCMS5		
Lims ID:	LCSD 280-206602/3-A	Lab Sample ID:	LCSD 280-206602/3-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	30
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

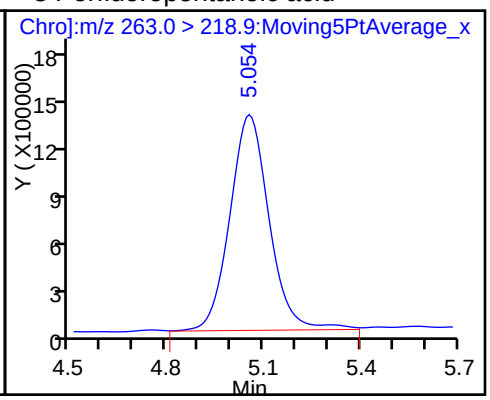
1 Perfluorobutyric acid



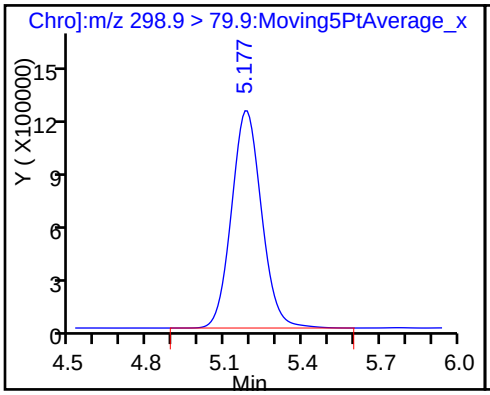
* 2 13C4 PFBA (IS)



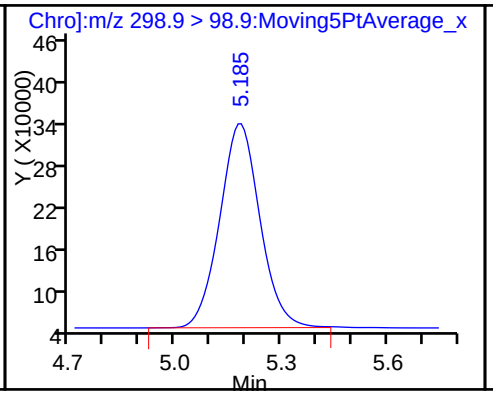
3 Perfluoropentanoic acid



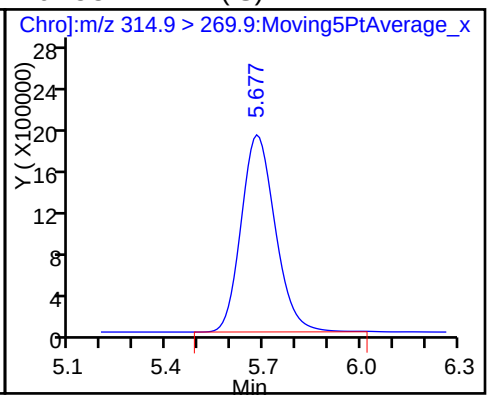
4 Perfluorobutane Sulfonate



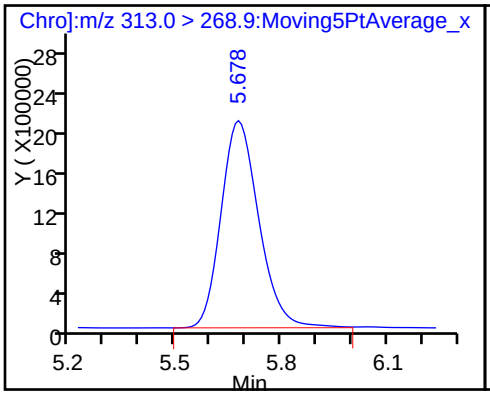
4 Perfluorobutane Sulfonate



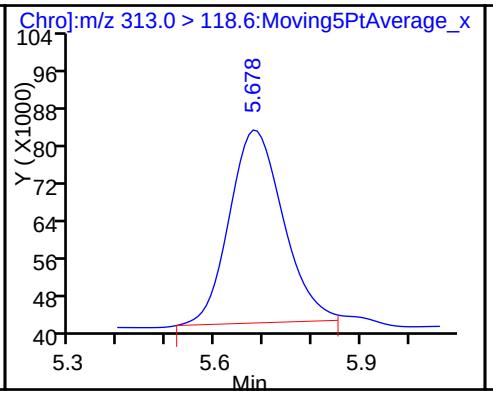
* 6 13C2 PFHxA (IS)



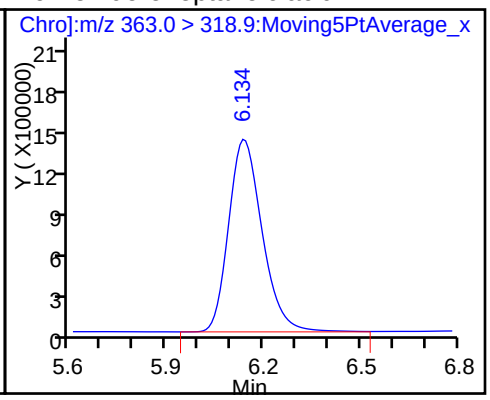
5 Perfluorohexanoic acid



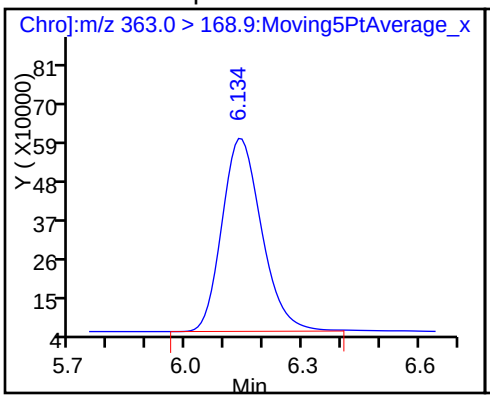
5 Perfluorohexanoic acid



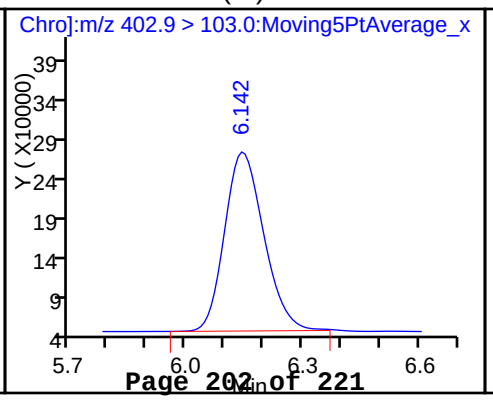
9 Perfluoroheptanoic acid



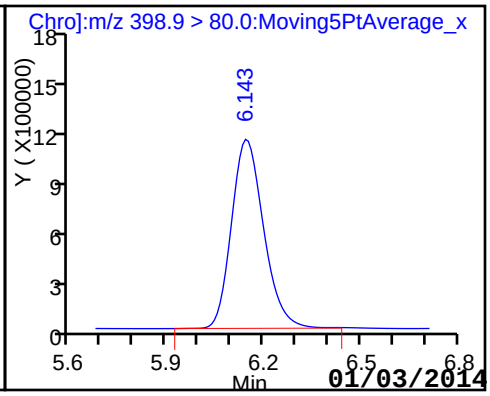
9 Perfluoroheptanoic acid



* 7 18O2 PFHxS (IS)

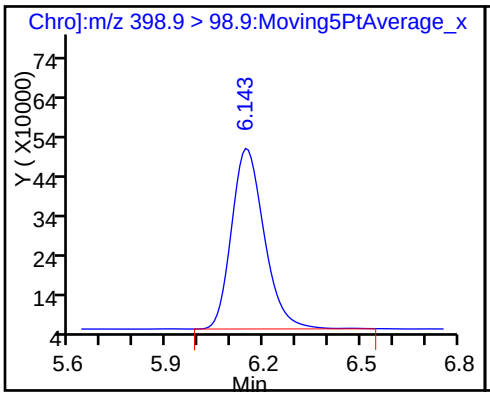


8 Perfluorohexane Sulfonate

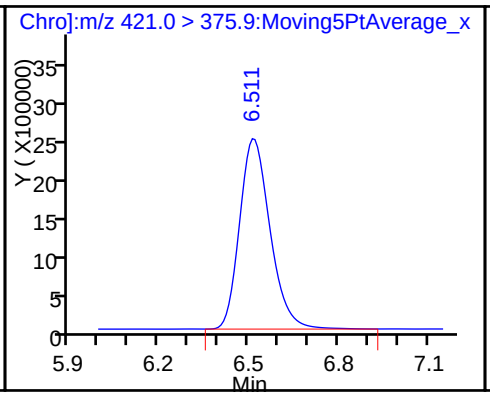


Report Date: 02-Jan-2014 11:37:55 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30032.d

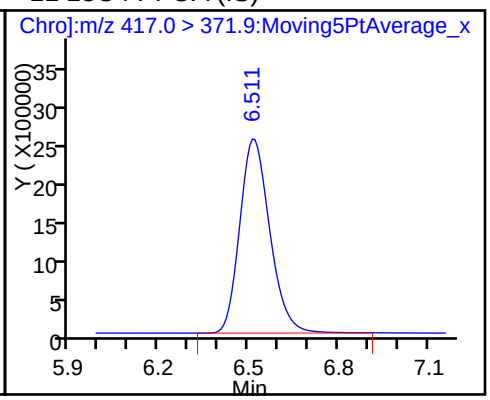
8 Perfluorohexane Sulfonate



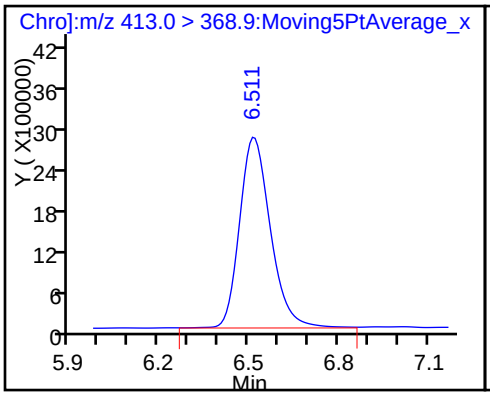
$ 10 13C8 PFOA



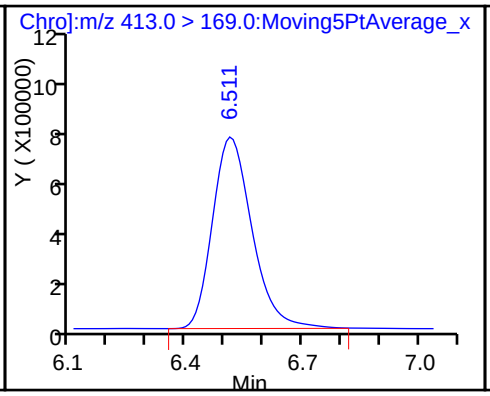
* 11 13C4 PFOA (IS)



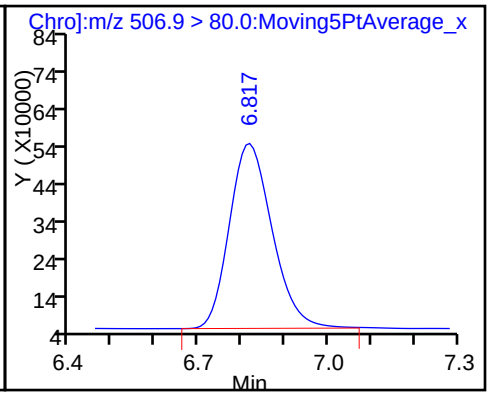
12 Perfluorooctanoic acid



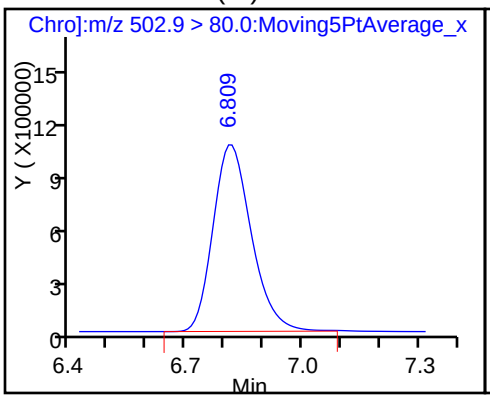
12 Perfluorooctanoic acid



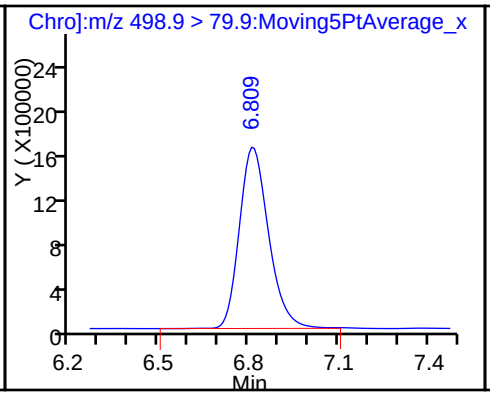
$ 15 13C8 PFOS



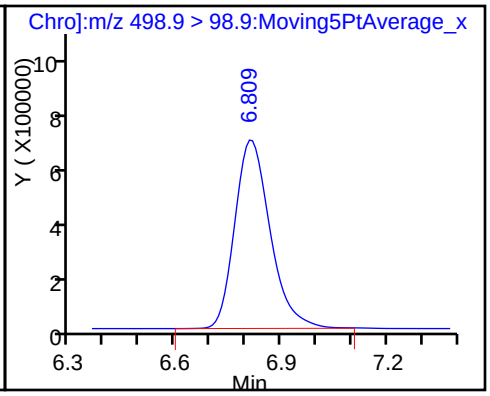
* 14 13C4 PFOS (IS)



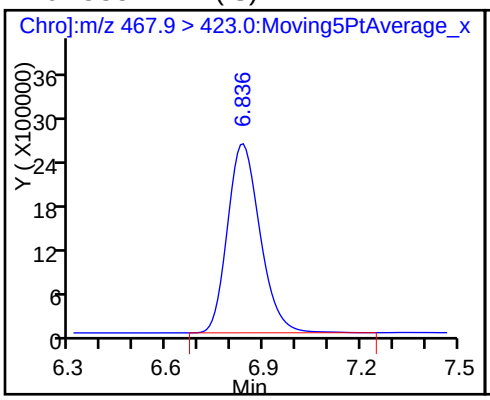
13 Perfluorooctanoic Sulfonate



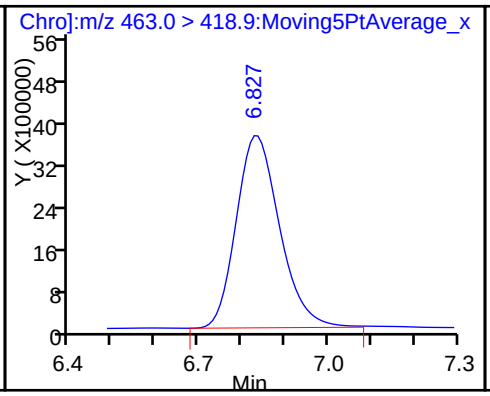
13 Perfluorooctanoic Sulfonate



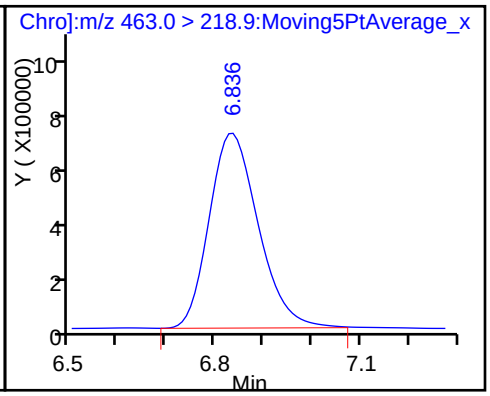
* 16 13C5 PFNA (IS)



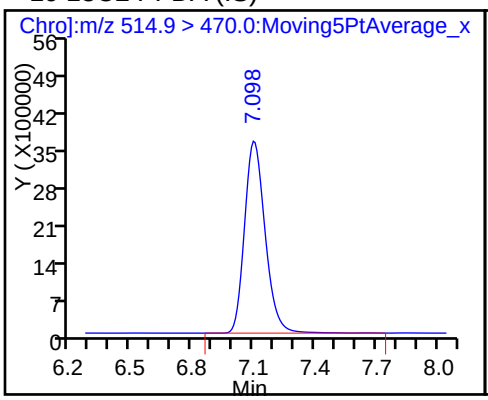
17 Perfluorononanoic acid



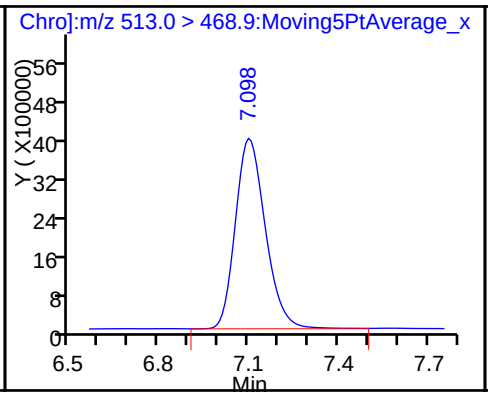
17 Perfluorononanoic acid



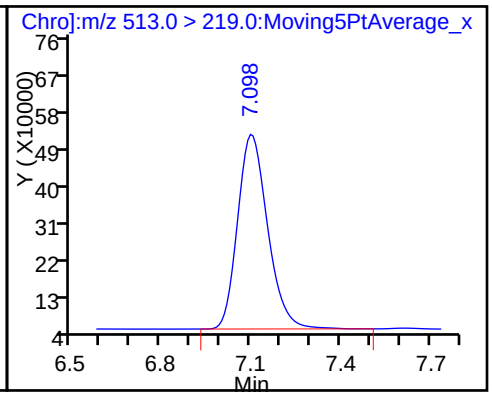
* 19 13C2 PFDA (IS)



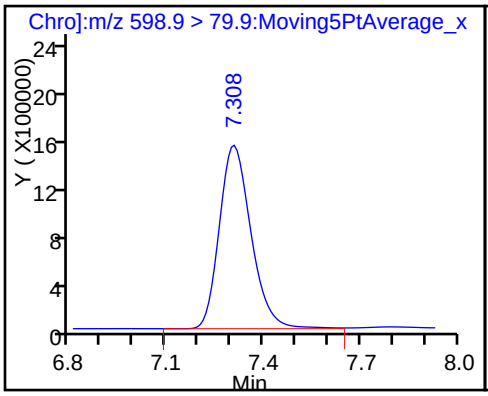
18 Perfluorodecanoic acid



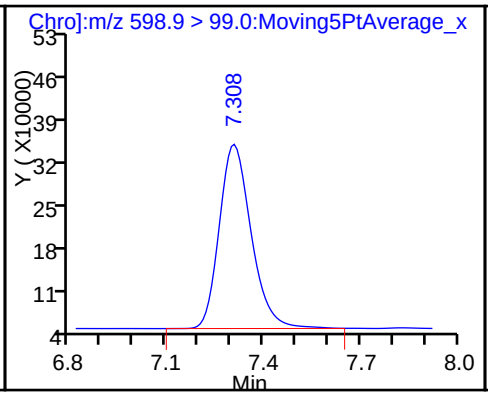
18 Perfluorodecanoic acid



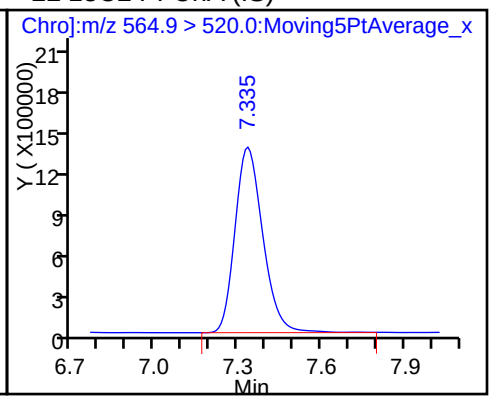
20 Perfluorodecane Sulfonate



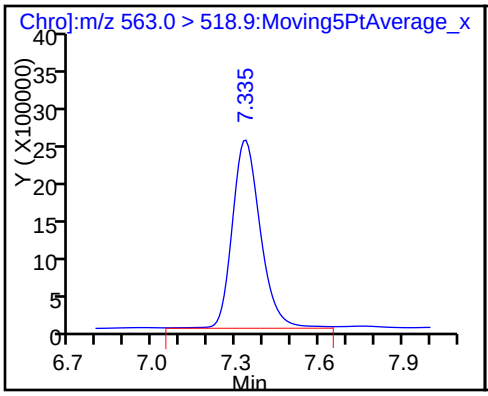
20 Perfluorodecane Sulfonate



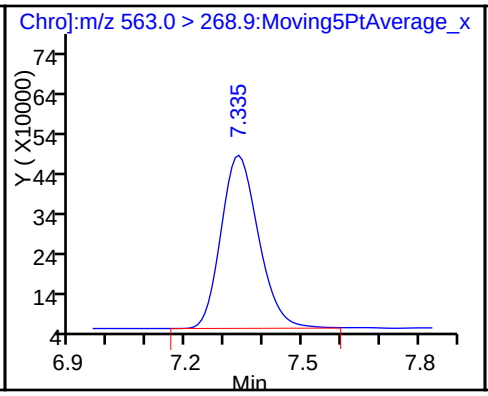
* 22 13C2 PFUnA (IS)



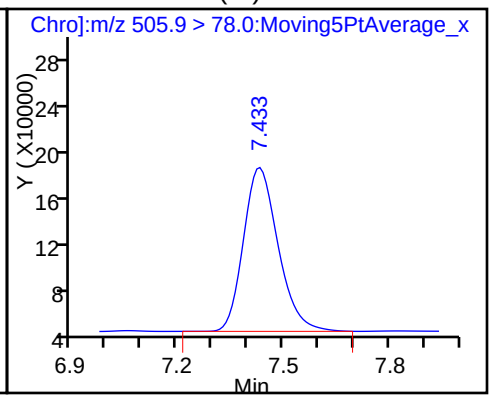
21 Perfluoroundecanoic acid



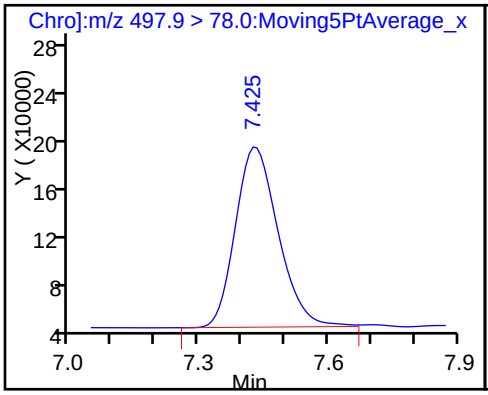
21 Perfluoroundecanoic acid



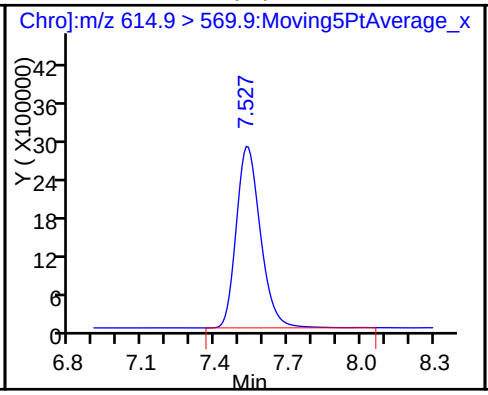
* 23 13C8 FOSA (IS)



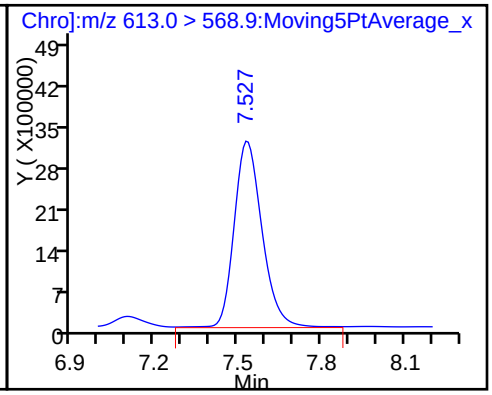
24 Perfluorooctane Sulfonamide



* 25 13C2 PFDoA (IS)

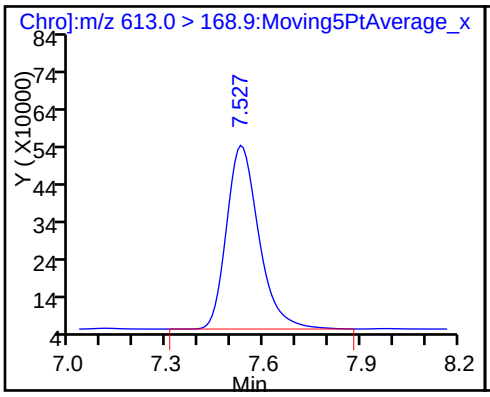


26 Perfluorododecanoic acid

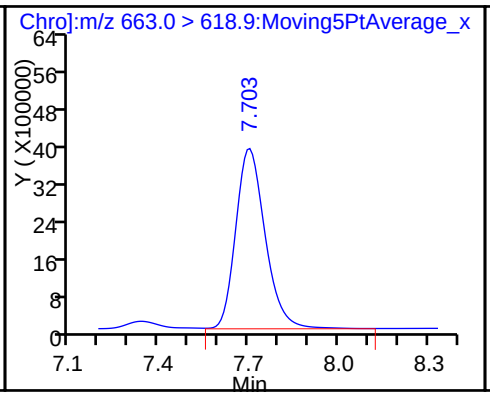


Report Date: 02-Jan-2014 11:37:56 Chrom Revision: 2.1 15-Oct-2013 07:52:24
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30032.d

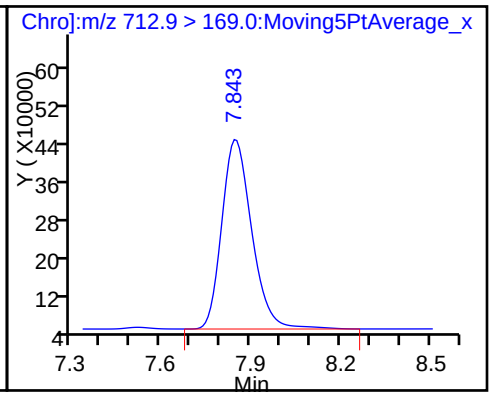
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Denver
Job No.: 460-68878-1
SDG No.:
Client Sample ID:
Lab Sample ID: DLCK 280-207217/13
Matrix: Water
Lab File ID: PC513L30015.d
Analysis Method: DV-LC-0012
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 1(mL)
Date Analyzed: 12/31/2013 18:07
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 25(uL)
GC Column: Gemini-NX ID:
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 207217
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
2058-94-8	Perfluoroundecanoic acid (PFUnA)	0.455	J	2.00	0.34
335-67-1	Perfluorooctanoic acid (PFOA)	0.556	J	1.50	0.49
376-06-7	Perfluorotetradecanoic acid (PFTeA)	0.73	U	1.50	0.73
335-76-2	Perfluorodecanoic acid (PFDA)	0.482	J	1.00	0.39
72629-94-8	Perfluorotridecanoic Acid (PFTriA)	0.89	U	1.00	0.89
375-95-1	Perfluorononanoic acid (PFNA)	0.87	U	2.00	0.87
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.67	U	1.50	0.67
307-55-1	Perfluorododecanoic acid (PFDoA)	0.75	U	1.50	0.75

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL01052	13C8 PFOA	100		60-155
STL01054	13C8 PFOS	83		45-130

TestAmerica Denver
Target Compound Quantitation Report

Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30015.d
Lims ID: dlck l2 Lab Sample ID: DLCK 280-207217/13-A
Client ID:
Sample Type: DLCK
Inject. Date: 31-Dec-2013 18:07:41 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 25.0 ul Dil. Factor: 1.0000
Sample Info: DLCK L2, Sample
Operator ID: TW/MPK Instrument ID: LC_LCMS5
Raw Data: Smoothed

Method: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\8321_PFC.m
Limit Group: LC - PFC
Last Update: 02-Jan-2014 11:37:25 Calib Date: 31-Dec-2013 17:43:04
Integrator: Falcon
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30013.d

Column 1 : Detector MS QQQ
Process Host: XAWRK016

First Level Reviewer: kellisonm Date: 02-Jan-2014 10:33:32

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
1 Perfluorobutyric acid									M
213.0 > 168.9	4.025	4.016	0.009	1.004	321602	0.4999			M
* 2 13C4 PFBA (IS)									
216.7 > 172.0	4.007	4.025	-0.018		7643509	10.0			
3 Perfluoropentanoic acid									M
263.0 > 218.9	5.115	5.133	-0.018	0.891	571074	0.5444			M
4 Perfluorobutane Sulfonate									
298.9 > 79.9	5.238	5.256	-0.018	0.844	457957	0.4725			
298.9 > 98.9	5.238	5.256	-0.018	0.844	75463		6.07(2.10-3.89)		
* 6 13C2 PFHxA (IS)									
314.9 > 269.9	5.739	5.757	-0.018		14838375	10.0			
5 Perfluorohexanoic acid									
313.0 > 268.9	5.739	5.757	-0.018	1.000	820332	0.4208			
313.0 > 118.6	5.757	5.757	0.0	1.003	0		0.00(89.16-165.59)		
9 Perfluoroheptanoic acid									
363.0 > 318.9	6.196	6.214	-0.018	0.943	503455	0.5362			
363.0 > 168.9	6.196	6.214	-0.018	0.943	162331		3.10(1.54-2.86)		
* 7 18O2 PFHxS (IS)									
402.9 > 103.0	6.204	6.230	-0.026		1821115	9.46			
8 Perfluorohexane Sulfonate									
398.9 > 80.0	6.204	6.231	-0.027	1.000	450173	0.4504			
398.9 > 98.9	6.195	6.231	-0.036	0.999	156732		2.87(2.06-3.82)		
$ 10 13C8 PFOA									
421.0 > 375.9	6.564	6.590	-0.026	0.999	948440	0.4992			
* 11 13C4 PFOA (IS)									
417.0 > 371.9	6.573	6.599	-0.026		18296972	10.0			
12 Perfluorooctanoic acid									
413.0 > 368.9	6.573	6.599	-0.026	1.000	1068082	0.5559			
413.0 > 169.0	6.573	6.599	-0.026	1.000	227733		4.69(2.38-4.41)		

Signal	RT	ADJ RT	DLT RT	REL RT	Response	Amount ug/L	Ratio(Limits)	S/N	Flags
$ 15 13C8 PFOS									
506.9 > 80.0	6.870	6.896	-0.026	1.000	194511	0.3990			
* 14 13C4 PFOS (IS)									
502.9 > 80.0	6.870	6.897	-0.027		8670678	9.56			
13 Perfluorooctanoic Sulfonate									
498.9 > 79.9	6.870	6.897	-0.027	1.000	543450	0.4941			
498.9 > 98.9	6.870	6.897	-0.027	1.000	277732		1.96(1.84-3.42)		
* 16 13C5 PFNA (IS)									
467.9 > 423.0	6.889	6.915	-0.026		20757713	10.0			
17 Perfluorononanoic acid									
463.0 > 418.9	6.889	6.915	-0.026	1.000	1472080	0.5722			
463.0 > 218.9	6.889	6.915	-0.026	1.000	251606		5.85(3.38-6.27)		
* 19 13C2 PFDA (IS)									
514.9 > 470.0	7.159	7.186	-0.027		27691768	10.0			
18 Perfluorodecanoic acid									
513.0 > 468.9	7.160	7.186	-0.026	1.000	1474782	0.4824			
513.0 > 219.0	7.151	7.186	-0.035	0.999	222018		6.64(4.72-8.77)		
20 Perfluorodecane Sulfonate									
598.9 > 79.9	7.360	7.387	-0.027	1.071	660728	0.5298			
598.9 > 99.0	7.360	7.387	-0.027	1.071	158005		4.18(2.26-4.20)		
* 22 13C2 PFUnA (IS)									
564.9 > 520.0	7.387	7.414	-0.027		11879041	10.0			
21 Perfluoroundecanoic acid									
563.0 > 518.9	7.388	7.414	-0.026	1.000	1079657	0.4552			
563.0 > 268.9	7.396	7.414	-0.018	1.001	262249		4.12(4.08-7.57)		
* 23 13C8 FOSA (IS)									
505.9 > 78.0	7.477	7.494	-0.017		32292995	10.0			
24 Perfluorooctane Sulfonamide									
497.9 > 78.0	7.469	7.495	-0.026	0.999	1436338	0.4297			
* 25 13C2 PFDoA (IS)									
614.9 > 569.9	7.589	7.615	-0.026		27039675	10.0			
26 Perfluorododecanoic acid									
613.0 > 568.9	7.589	7.615	-0.026	1.000	1558217	0.4741			
613.0 > 168.9	7.598	7.615	-0.017	1.001	275168		5.66(4.54-8.44)		
27 Perfluorotridecanoic acid									
663.0 > 618.9	7.764	7.782	-0.018	1.023	1921707	0.5136			
28 Perfluorotetradecanoic acid									
712.9 > 169.0	7.914	7.931	-0.017	1.043	177908	0.3955			

QC Flag Legend

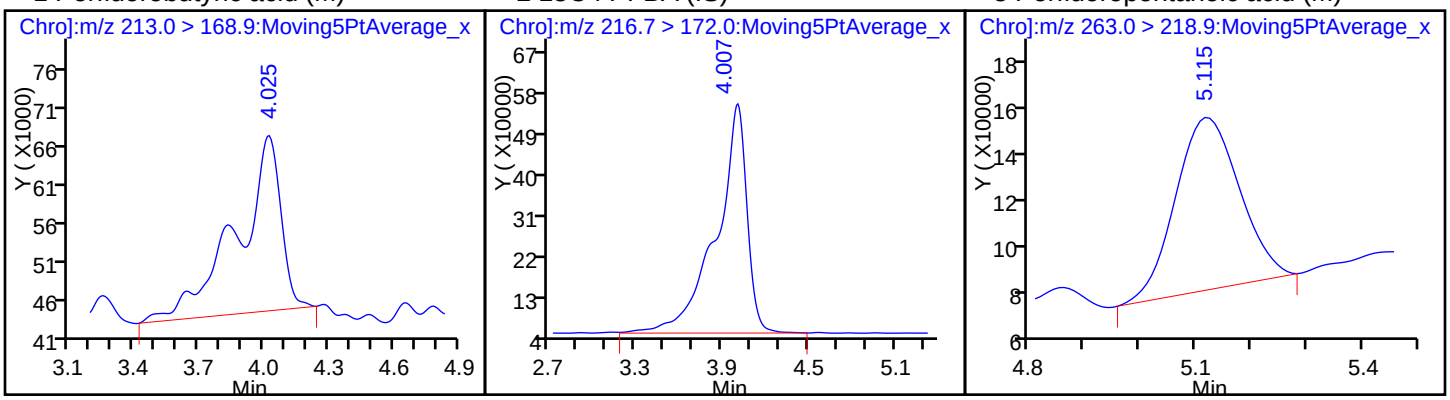
Review Flags
M - Manually Integrated

Report Date: 02-Jan-2014 11:37:29 Chrom Revision: 2.1 15-Oct-2013 07:52:24

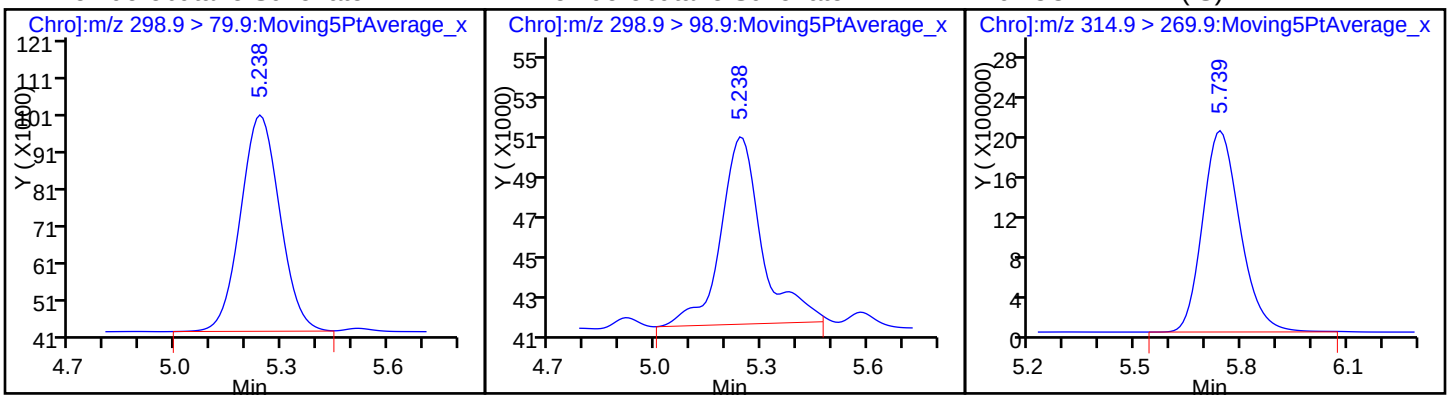
TestAmerica Denver

Data File:	\\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30015.d				
Injection Date:	31-Dec-2013 18:07:41	Instrument ID:	LC_LCMS5		
Lims ID:	dlck l2	Lab Sample ID:	DLCK 280-207217/13-A		
Client ID:					
Operator ID:	TW/MPK	ALS Bottle#:	0	Worklist Smp#:	13
Injection Vol:	25.0 ul	Dil. Factor:	1.0000		
Method:	8321_PFC	Limit Group:	LC - PFC		

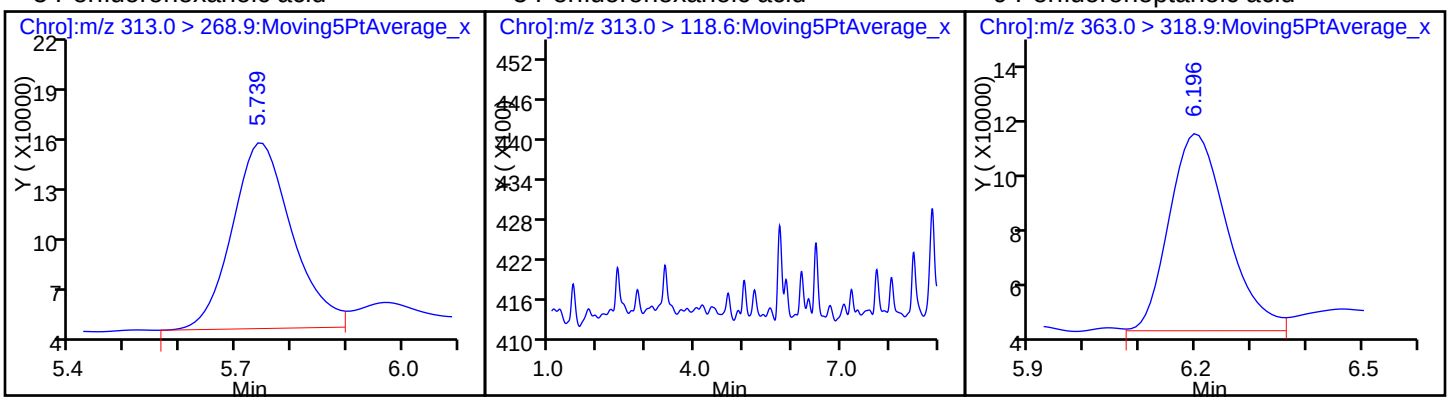
1 Perfluorobutyric acid (M) * 2 13C4 PFBA (IS) 3 Perfluoropentanoic acid (M)



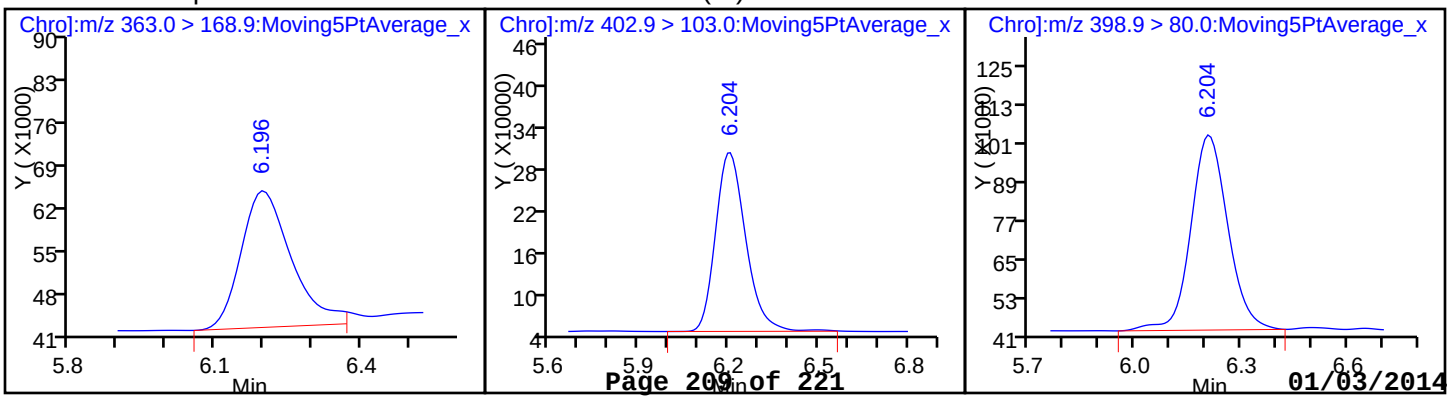
4 Perfluorobutane Sulfonate 4 Perfluorobutane Sulfonate * 6 13C2 PFHxA (IS)



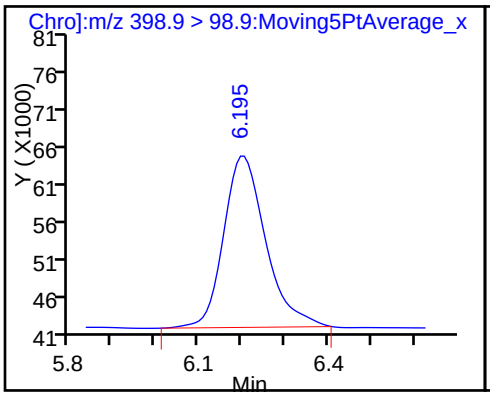
5 Perfluorohexanoic acid 5 Perfluorohexanoic acid 9 Perfluoroheptanoic acid



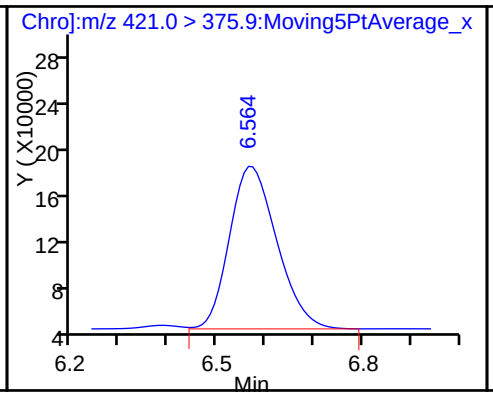
9 Perfluoroheptanoic acid * 7 18O2 PFHxS (IS) 8 Perfluorohexane Sulfonate



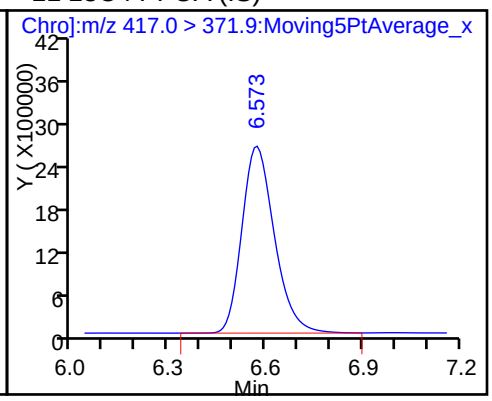
8 Perfluorohexane Sulfonate



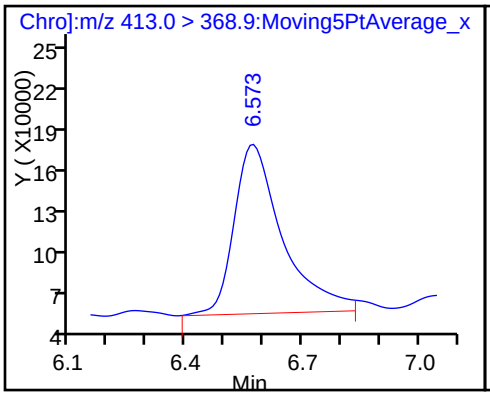
$ 10 13C8 PFOA



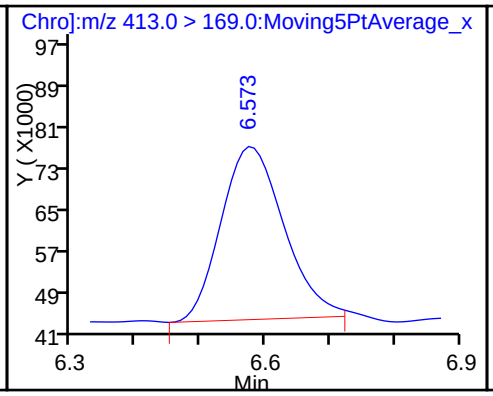
* 11 13C4 PFOA (IS)



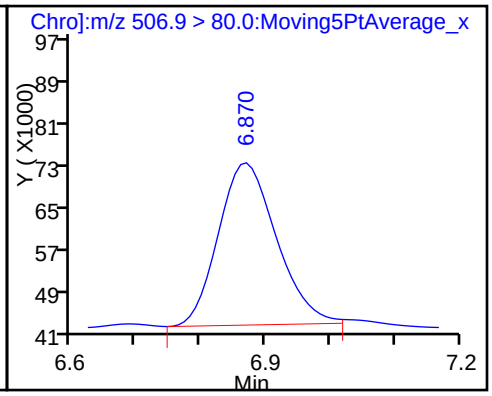
12 Perfluorooctanoic acid



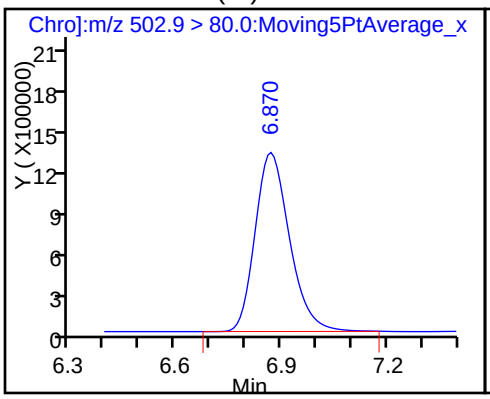
12 Perfluorooctanoic acid



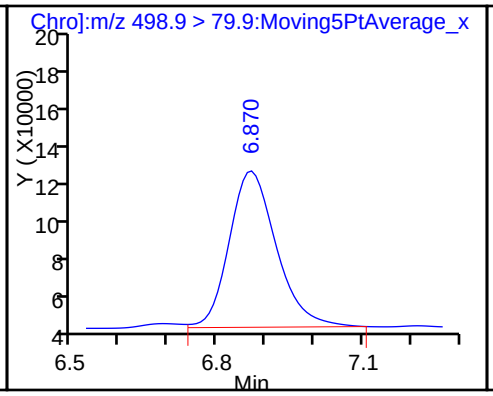
$ 15 13C8 PFOS



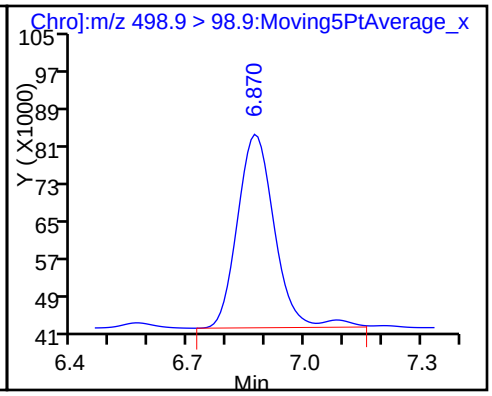
* 14 13C4 PFOS (IS)



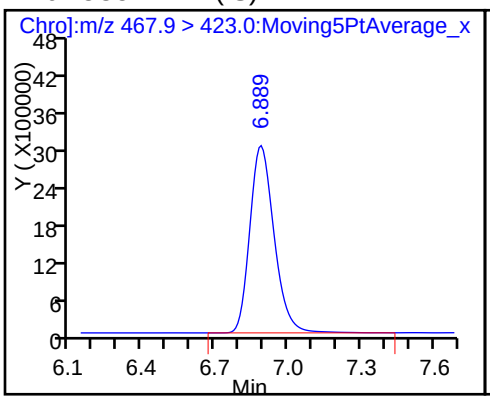
13 Perfluorooctanoic Sulfonate



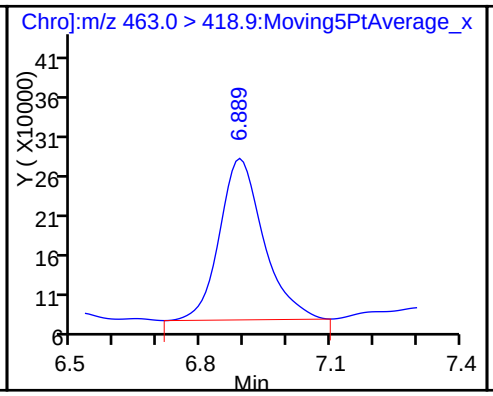
13 Perfluorooctanoic Sulfonate



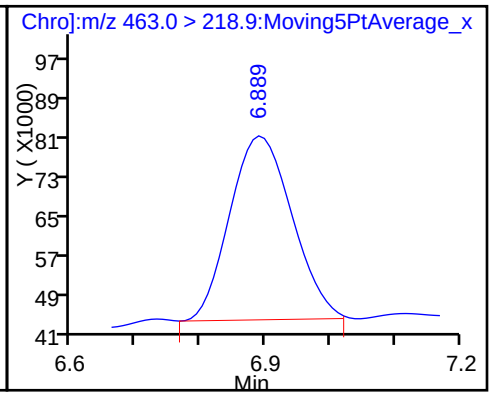
* 16 13C5 PFNA (IS)



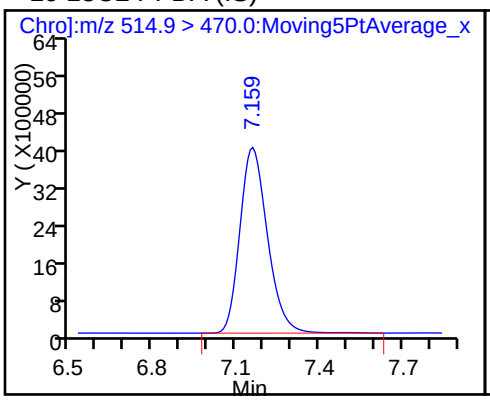
17 Perfluorononanoic acid



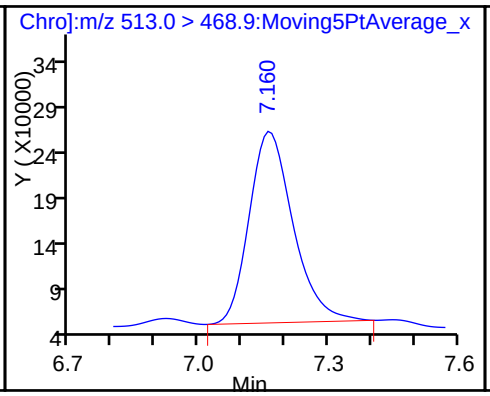
17 Perfluorononanoic acid



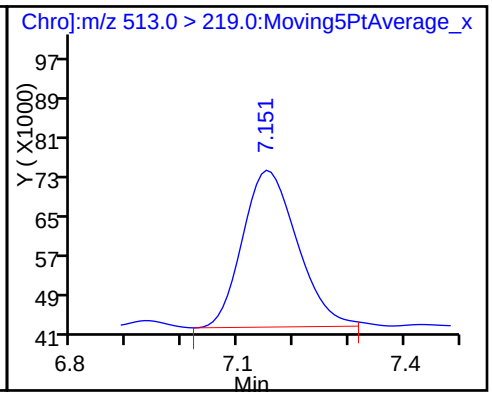
* 19 13C2 PFDA (IS)



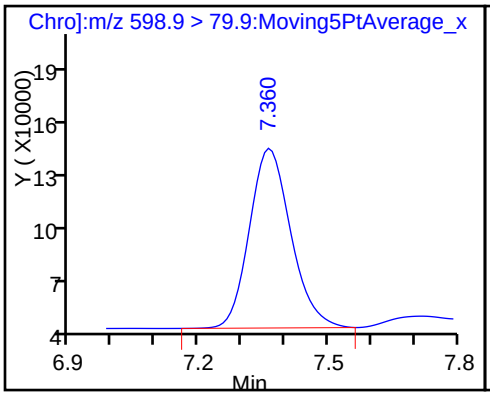
18 Perfluorodecanoic acid



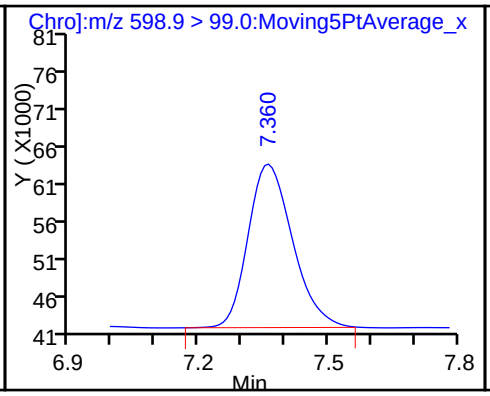
18 Perfluorodecanoic acid



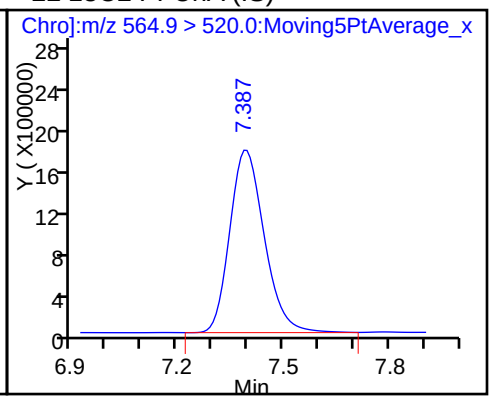
20 Perfluorodecane Sulfonate



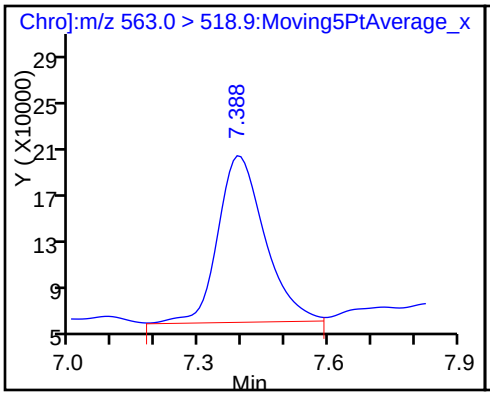
20 Perfluorodecane Sulfonate



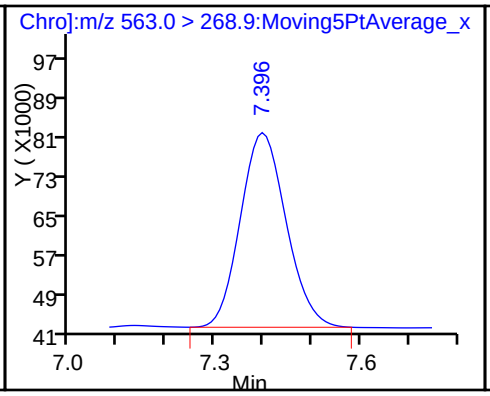
* 22 13C2 PFUnA (IS)



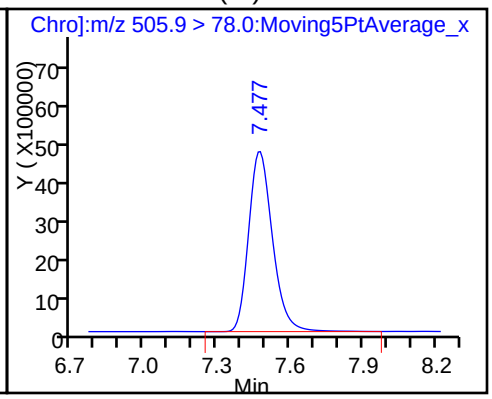
21 Perfluoroundecanoic acid



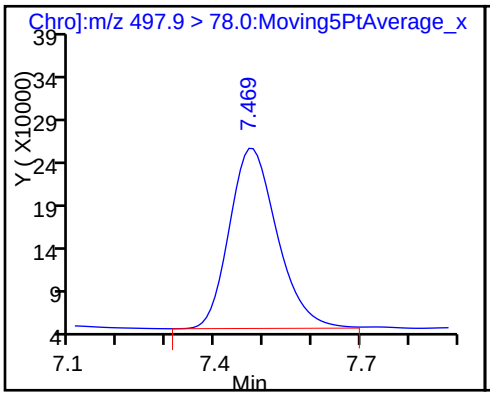
21 Perfluoroundecanoic acid



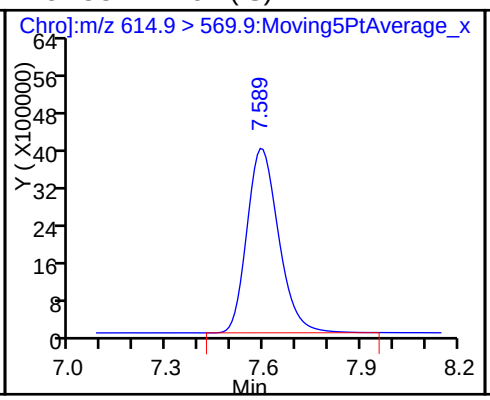
* 23 13C8 FOSA (IS)



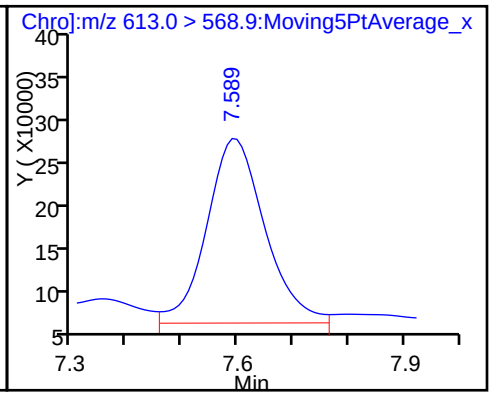
24 Perfluorooctane Sulfonamide



* 25 13C2 PFDoA (IS)



26 Perfluorododecanoic acid



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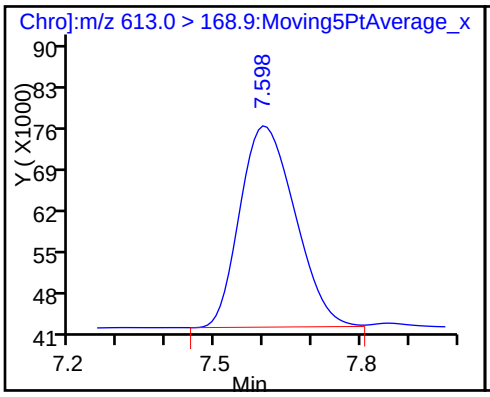
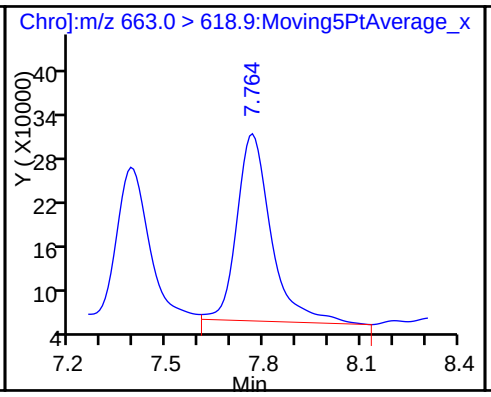
Data File: \\Denchrom\chromdata\LC_LCMS5\20140102-18747.b\PC513L30015.d

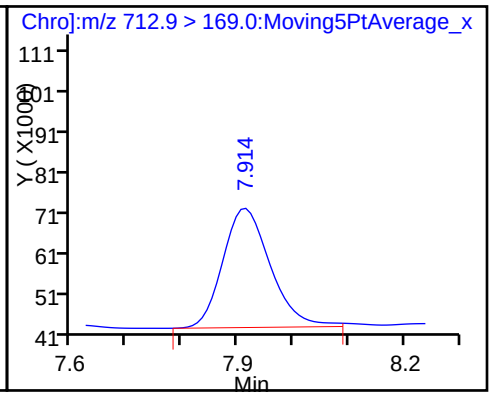
26 Perfluorododecanoic acid



27 Perfluorotridecanoic acid



28 Perfluorotetradecanoic acid



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Instrument ID: LC_LCMS5 Start Date: 12/31/2013 15:40

Analysis Batch Number: 207217 End Date: 01/01/2014 04:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		12/31/2013 15:40	1		Gemini-NX
CCB 280-207217/2		12/31/2013 15:52	1		Gemini-NX
STD0002 280-207217/3 IC		12/31/2013 16:04	1	PC513L30005.d	Gemini-NX
STD0005 280-207217/4 IC		12/31/2013 16:17	1	PC513L30006.d	Gemini-NX
STD0010 280-207217/5 IC		12/31/2013 16:29	1	PC513L30007.d	Gemini-NX
STD0020 280-207217/6 ICISAV		12/31/2013 16:41	1	PC513L30008.d	Gemini-NX
STD0050 280-207217/7 IC		12/31/2013 16:53	1	PC513L30009.d	Gemini-NX
STD0100 280-207217/8 IC		12/31/2013 17:06	1	PC513L30010.d	Gemini-NX
STD0200 280-207217/9 IC		12/31/2013 17:18	1	PC513L30011.d	Gemini-NX
STD0500 280-207217/10 IC		12/31/2013 17:30	1	PC513L30012.d	Gemini-NX
STD1250 280-207217/11 IC		12/31/2013 17:43	1	PC513L30013.d	Gemini-NX
ICV 280-207217/12		12/31/2013 17:55	1	PC513L30014.d	Gemini-NX
DLCK 280-207217/13		12/31/2013 18:07	1	PC513L30015.d	Gemini-NX
ZZZZZ		12/31/2013 18:19	1		Gemini-NX
ZZZZZ		12/31/2013 18:32	1		Gemini-NX
ZZZZZ		12/31/2013 18:44	1		Gemini-NX
ZZZZZ		12/31/2013 18:56	1		Gemini-NX
ZZZZZ		12/31/2013 19:09	1		Gemini-NX
ZZZZZ		12/31/2013 19:21	1		Gemini-NX
ZZZZZ		12/31/2013 19:33	1		Gemini-NX
ZZZZZ		12/31/2013 19:46	1		Gemini-NX
ZZZZZ		12/31/2013 19:58	1		Gemini-NX
ZZZZZ		12/31/2013 20:10	1		Gemini-NX
CCV 280-207217/24		12/31/2013 20:22	1	PC513L30026.d	Gemini-NX
ZZZZZ		12/31/2013 20:35	1		Gemini-NX
ZZZZZ		12/31/2013 20:47	1		Gemini-NX
ZZZZZ		12/31/2013 20:59	1		Gemini-NX
MB 280-206602/1-A		12/31/2013 21:12	1	PC513L30030.d	Gemini-NX
LCS 280-206602/2-A		12/31/2013 21:24	1	PC513L30031.d	Gemini-NX
LCSD 280-206602/3-A		12/31/2013 21:36	1	PC513L30032.d	Gemini-NX
ZZZZZ		12/31/2013 21:49	1		Gemini-NX
ZZZZZ		12/31/2013 22:01	1		Gemini-NX
ZZZZZ		12/31/2013 22:13	1		Gemini-NX
ZZZZZ		12/31/2013 22:25	1		Gemini-NX
ZZZZZ		12/31/2013 22:38	1		Gemini-NX
ZZZZZ		12/31/2013 22:50	1		Gemini-NX
CCV 280-207217/37		12/31/2013 23:02	1	PC513L30039.d	Gemini-NX
ZZZZZ		12/31/2013 23:15	1		Gemini-NX
ZZZZZ		12/31/2013 23:27	1		Gemini-NX
ZZZZZ		12/31/2013 23:39	1		Gemini-NX
ZZZZZ		12/31/2013 23:51	1		Gemini-NX

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Instrument ID: LC_LCMS5 Start Date: 12/31/2013 15:40

Analysis Batch Number: 207217 End Date: 01/01/2014 04:46

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
ZZZZZ		01/01/2014 00:04	1		Gemini-NX
ZZZZZ		01/01/2014 00:16	1		Gemini-NX
ZZZZZ		01/01/2014 00:28	1		Gemini-NX
ZZZZZ		01/01/2014 00:41	1		Gemini-NX
ZZZZZ		01/01/2014 00:53	1		Gemini-NX
CCV 280-207217/47		01/01/2014 01:05	1		Gemini-NX
ZZZZZ		01/01/2014 01:17	1		Gemini-NX
ZZZZZ		01/01/2014 01:30	1		Gemini-NX
ZZZZZ		01/01/2014 01:42	1		Gemini-NX
ZZZZZ		01/01/2014 01:54	1		Gemini-NX
ZZZZZ		01/01/2014 02:07	1		Gemini-NX
ZZZZZ		01/01/2014 02:19	1		Gemini-NX
ZZZZZ		01/01/2014 02:31	1		Gemini-NX
ZZZZZ		01/01/2014 02:43	1		Gemini-NX
ZZZZZ		01/01/2014 02:56	1		Gemini-NX
ZZZZZ		01/01/2014 03:08	1		Gemini-NX
CCV 280-207217/58		01/01/2014 03:20	1	PC513L30060.d	Gemini-NX
ZZZZZ		01/01/2014 03:33	1		Gemini-NX
ZZZZZ		01/01/2014 03:45	1		Gemini-NX
460-68878-4	GW0044	01/01/2014 03:57	1	PC513L30063.d	Gemini-NX
460-68878-3	GW0030	01/01/2014 04:09	1	PC513L30064.d	Gemini-NX
460-68878-2	GW0029	01/01/2014 04:22	1	PC513L30065.d	Gemini-NX
460-68878-1	GW0028	01/01/2014 04:34	1	PC513L30066.d	Gemini-NX
CCV 280-207217/65		01/01/2014 04:46	1	PC513L30067.d	Gemini-NX

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Batch Number: 206602 Batch Start Date: 12/26/13 16:41 Batch Analyst: Cokley, Cheyana D

Batch Method: 3535 Batch End Date: 12/26/13 19:49

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	Initial pH	AdjustedpH
MB 280-206602/1		3535, DV-LC-0012				250 mL	5 mL	5 SU	n/a SU
LCS 280-206602/2		3535, DV-LC-0012				250 mL	5 mL	5 SU	n/a SU
LCSD 280-206602/3		3535, DV-LC-0012				250 mL	5 mL	5 SU	n/a SU
460-68878-A-4	GW0044	3535, DV-LC-0012	T	274.3 g	23.1 g	251.2 mL	5 mL	7 SU	n/a SU
460-68878-A-3	GW0030	3535, DV-LC-0012	T	276.8 g	21.5 g	255.3 mL	5 mL	7 SU	n/a SU
460-68878-A-2	GW0029	3535, DV-LC-0012	T	256.2 g	26.6 g	229.6 mL	5 mL	7 SU	n/a SU
460-68878-A-1	GW0028	3535, DV-LC-0012	T	249.5 g	23.3 g	226.2 mL	5 mL	7 SU	n/a SU

Lab Sample ID	Client Sample ID	Method Chain	Basis	PFC-LCS 00054	PFC_Surr&IS 00013				
MB 280-206602/1		3535, DV-LC-0012			0.1 mL				
LCS 280-206602/2		3535, DV-LC-0012		0.1 mL	0.1 mL				
LCSD 280-206602/3		3535, DV-LC-0012		0.1 mL	0.1 mL				
460-68878-A-4	GW0044	3535, DV-LC-0012	T		0.1 mL				
460-68878-A-3	GW0030	3535, DV-LC-0012	T		0.1 mL				
460-68878-A-2	GW0029	3535, DV-LC-0012	T		0.1 mL				
460-68878-A-1	GW0028	3535, DV-LC-0012	T		0.1 mL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Denver Job No.: 460-68878-1

SDG No.:

Batch Number: 206602 Batch Start Date: 12/26/13 16:41 Batch Analyst: Cokley, Cheyana D

Batch Method: 3535 Batch End Date: 12/26/13 19:49

Batch Notes	
Acid Lot	2% Formic Acid_00029
Acid Name	2% Formic Acid
Balance ID	24950441
First End time	12/26/13 @1839
H2O Lot used	HPLC_Water_00303
Pipette ID	K
Analyst who added reagent	CokleyC
SU Reagent Drop Witness	Reviewer:IM
Reagent ID	10% NH4OH
Reagent Lot Number	10%_NH4OH_00019
Solvent Lot #	LCMS_MeOH_00077
Solvent Name	MeOH
SOP Number	DV-OP-0019
SPE Cartridge Type	Oasis WAX 6cc
Solid Phase Extraction Disk Lot Number	014733297A
First Start time	12/26/13 @1710

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Subcontract Data

Shipping and Receiving Documents

Chain of Custody Record

Sampler ID _____

Temperature on Receipt 3.7 SK
IR# 12-20-13

Drinking Water? Yes ☐ No ☐

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

68878

TAL-4124-280 (0508)

Client	Project Manager	Date	Chain of Custody Number
Integral Consulting	Craig Hutchings	12/19/13	185847
Address	**Telephone Number (Area Code)/Fax Number**	**Lab Number**	**Page 1 of 1**
200 Harry S. Truman Parkway 330	360-485-3679		

City	State	Zip Code	Site Contact	Lab Contact
Annapolis	MD	21401	C. Hutchings	Como

Project Name and Location (State): Solvay - NJ

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Analysis (Attach list if more space is needed): PCBs - Up FOSA

Sample I.D. No. and Description (Containers for each sample may be combined on one line)		Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Special Instructions/ Conditions of Receipt
Sample #	Tag #				X				X						
GW0028	1028	12/19/13	0908		↓				↓						1
GW0029	1029	↓	0911		↓				↓						2
GW0030	1030	↓	0920		↓				↓						3
GW0044	1044	↓	1408		↓				↓						4

460-68878 Chain of Custody

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: [signature]	12/19/13	1600	1. Received By: [signature]	12/20/13	1130
2. Relinquished By			2. Received By		
3. Relinquished By			3. Received By		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68878-1

Login Number: 68878

List Source: TestAmerica Edison

List Number: 1

Creator: Meyers, Gary

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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	direct ship
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 containers received 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	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68878-1

Login Number: 68878
List Number: 1
Creator: Dedio, Michael T

List Source: TestAmerica Denver
List Creation: 12/26/13 07:54 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are 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 containers received 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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	