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

telephone: 410.573.1982
facsimile: 410.573.9746
www.integral-corp.com

LETTER OF TRANSMITTAL

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

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

Quantity	Item
3	**Data Report – Westville PWS Sampling on December 12, 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

ENVIRONMENTAL CONSULTING & MANAGEMENT
ROUX ASSOCIATES INC
402 Heron Drive
Logan Township, New Jersey 08085 TEL 856-423-8800 FAX 856-241-4670

January 29, 2014

Erica Bergman
NJDEP - Bureau of Case Management
401 E. State Street - Mail Code 401-05
P.O. Box 420
Trenton, New Jersey 08625-0420

Re: Westville Public Water Supply (PWS) Sampling Results (NJ 0821001)
Solvay West Deptford Plant
10 Leonard Lane
West Deptford, New Jersey 08086-2150

Dear Ms. Bergman:

As the Licensed Site Remediation Professional (LSRP) retained by Solvay Specialty Polymers USA, LLC (Solvay), I have reviewed the enclosed sampling results for perfluorinated compounds (PFCs) from the Westville PWS wells and I am submitting them on behalf of Solvay. Enclosed are three copies of the data in New Jersey Department of Environmental Protection (NJDEP) electronic data delivery (EDD) format and a summary report for your internal distribution. 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.

The report includes a description of the wells that were sampled, a figure illustrating where samples were collected within the distribution system, and a table summarizing the laboratory results. In addition, the report includes a table that summarizes some of the current state and federal interim drinking water guidelines for PFCs. While these guidelines are non-binding at this time, they may provide Westville PWS with a helpful perspective to facilitate communication of findings to the community.

As noted in the PFC work plan that I submitted to you on November 15, 2013, Solvay is coordinating with seven municipalities within a five mile radius to sample well water for PFCs: West Deptford, Paulsboro, Westville, Woodbury East Greenwich, National Park, and Greenwich. The enclosures constitute the third of seven PWS data reports. A similar report is being submitted today for Woodbury and previous submissions have been made for West Deptford and Paulsboro.

Solvay has adopted a rigorous quality assurance protocol for sampling, chain of custody documentation, analysis, and reporting of results. Each PWS sampling event includes field duplicates, laboratory quality control samples, and data validation conducted by a third party independent validator. In addition, 10-20 percent of the samples across all sampling events have been selected for split sample analysis at a second New Jersey-

certified laboratory to assess inter-laboratory variability in analytical results. Split sample results will be included in the data reports for sampling at West Deptford, East Greenwich, and Greenwich. Samples collected at Westville are not among the subset of samples that were randomly selected. Please feel free to contact Mitch Gertz with any questions.

Sincerely,
ROUX ASSOCIATES, INC.

Thomas R. Buggey, LSRP #580659
Principal Hydrogeologist

cc: Mitch Gertz, Solvay Specialty Polymers
Phil Goodrum, Integral Consulting Inc.

Enclosures

DATA REPORT

Westville PWS
Sampling on December 12, 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 12, 2013, Integral Consulting Inc., consultant to Solvay Specialty Polymers USA, LLC (Solvay), collected water samples from the three water supply wells maintained by the Westville 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 Westville PWS treatment system. Based on our understanding of Westville PWS operations, Well #5 was the only active well during the sampling event on December 12. Wells #4 (backup well) and #6 (standby well) were offline due to lower volume demand during colder months. Only raw water was collected from these two wells. Both raw and treated water was sampled from Well #5, and treated water from this well is indicative of final drinking water for the community of Westville.

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 Westville 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 1.7–4.2 ppt for PFOA and 1.7–1.9 ppt for PFOS.

One PFC was detected for which a drinking water guideline has not been established. Perfluorononanoic acid (PFNA) was detected in samples from Wells #5 and #6. At Well #5, PFNA was measured in parent and field duplicates in both raw water (7.7 and 8.0 ppt) and treated water (8.2 and 8.3 ppt). In Well #6, which was inactive, PFNA was detected in raw water at 0.77 ppt.

Table 1. PFC Concentrations from Samples Collected December 12, 2013 at the Westville PWS [a]

	Well #4	Well #6	Well #5			
Chemical Name	RW	RW	RW	RW-Dup	TW/DW	TW/DW-Dup
PFOA	--	1.7 J	3.9	4.0	4.2	4.2
PFOS	--	--	1.7 J	1.8 J	1.9 J	1.8 J
PFNA	--	0.77 J	8.0	7.7	8.3	8.2
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/DW = sample collected after treatment is the same as drinking water supplied to the community because no mixing with other wells or supplemental sources occurs

TW/DW-Dup = field duplicate of the treated water sample that also represents drinking water

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

J = result was detected at or greater than the method detection limit and less than method reporting 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 – Westville, Woodbury, West Deptford Blended (461445)
- Eurofins Laboratory Report (461445 12/31/2013)
- Eurofins Laboratory Report (LCMS 12/20/2013)
- Eurofins Laboratory Report (LCMS 12/20/2013 Additional Pages)
- Eurofins Laboratory Report (LCMS 12/26/2013)

LDC Validation Report

– Westville, Woodbury, West Deptford Blended (461445)

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 8, 2014

SUBJECT: PFCs, Project #C1165, Data Validation

Dear Mr. Hutchings,

Enclosed is the final validation report for the fraction listed below. This SDG was received January 2, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31095:

SDG#	Fraction
461445	Perfluorinated Alkyl Acids

The data validation was performed under Stage 2B & 4 guidelines. The laboratory data package did not include several calibration report pages associated to the 12/20/13 initial calibration. The laboratory confirmed the oversight and provided a revised data package. The revised data package was correct and complete.

Perfluorooctanoic acid was detected in the field blank sample GW0027, 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
- **Eurofins SOP**
  EPA Method 537 for Perfluorinated Alkyl Acids
- USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review, June 2008

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

Legally Privileged & Confidential

908 pages-SF 1 WEEK TAT

Attachment 1

EDD

LDC #31095 (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	461445	01/02/14	01/09/14	18	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	4	0										
A	461445	01/02/14	01/09/14	2	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0										
Total	T/SC			20	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	8	0	5	0	0	0	0	0	0	0	0	0	0	89

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

31095ST.wpd

LDC Report# 31095A96

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: PFCs, Project #C1165

LDC Report Date: January 8, 2014

Matrix: Soil/Water

Parameters: Perfluorinated Alkyl Acids

Validation Level: Stage 2B & 4

Laboratory: Eurofins

Sample Delivery Group (SDG): 461445

Sample Identification	Collection Date	Laboratory Sample Identification
GW0008	12/12/13	201312140133
GW0009	12/12/13	201312140136
GW0010	12/12/13	201312140137
GW0011	12/12/13	201312140138
GW0012**	12/12/13	201312140139
GW0013	12/12/13	201312140140
GW0014	12/12/13	201312140141
GW0015	12/12/13	201312140142
GW0016	12/12/13	201312140143
GW0017	12/12/13	201312140144
GW0018	12/12/13	201312140145
GW0019	12/12/13	201312140146
GW0020	12/12/13	201312140147
GW0021	12/12/13	201312140148
GW0022**	12/12/13	201312140149
GW0023	12/12/13	201312140150
GW0024	12/12/13	201312140151
GW0025	12/12/13	201312140152
GW0026	12/12/13	201312140153
GW0027	12/12/13	201312140155

**Indicates sample underwent Stage 4 review

Introduction

This data review covers 20 water samples listed on the cover sheet including dilutions and reanalysis as applicable. The analyses were per EPA Method 537 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 checked. All ion abundance requirements were met.

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 within QC limits for all compounds.

The percent differences (%D) of the second source calibration standard were within QC limits 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 GW0027 was identified as a field blank. No perfluorinated alkyl acid contaminants were found with the following exceptions:

Blank ID	Sampling Date	Compound	Concentration (Limit: <1/3 MRL)	Associated Samples
GW0027	12/12/13	Perfluorooctanoic acid	0.00032 ug/L (<0.001 ug/L)	GW0008 GW0009 GW0010 GW0011 GW0012** GW0013 GW0014 GW0015 GW0016 GW0017 GW0018 GW0019 GW0020 GW0021 GW0022** GW0023 GW0024 GW0025 GW0026

MRL = method reporting limit

Sample concentrations were compared to concentrations detected in the field blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated field blanks with the following exceptions:

Sample	Compound	Reported Concentration	Modified Final Concentration
GW0013	Perfluorooctanoic acid	0.0015 ug/L	0.0015U ug/L
GW0019	Perfluorooctanoic acid	0.0014 ug/L	0.0014U ug/L
GW0020	Perfluorooctanoic acid	0.00044 ug/L	0.00044U ug/L
GW0021	Perfluorooctanoic acid	0.0013 ug/L	0.0013U ug/L
GW0022**	Perfluorooctanoic acid	0.0013 ug/L	0.0013U ug/L
GW0023	Perfluorooctanoic acid	0.00042 ug/L	0.00042U ug/L

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) 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 GW0008 and GW0009, samples GW0011 and GW0012**, samples GW0015 and GW0016, and samples GW0021 and GW0022** 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)
	GW0008	GW0009	
Perfluorononanoic acid	0.0080	0.0077	4 (≤35)

Compound	Concentration (ug/L)		RPD (Limits)
	GW0008	GW0009	
Perfluorooctanesulfonic acid	0.0017	0.0018	6 (≤35)
Perfluorooctanoic acid	0.0039	0.0040	3 (≤35)

Compound	Concentration (ug/L)		RPD (Limits)
	GW0011	GW0012**	
Perfluorononanoic acid	0.0083	0.0082	1 (≤35)
Perfluorooctanesulfonic acid	0.0019	0.0018	5 (≤35)
Perfluorooctanoic acid	0.0042	0.0042	0 (≤35)

Compound	Concentration (ug/L)		RPD (Limits)
	GW0015	GW0016	
Perfluorononanoic acid	0.013	0.012	8 (≤35)
Perfluorooctanesulfonic acid	0.0028	0.0023	20 (≤35)
Perfluorooctanoic acid	0.0049	0.0048	2 (≤35)

Compound	Concentration (ug/L)		RPD (Limits)
	GW0021	GW0022**	
Perfluorononanoic acid	0.00054	0.00047	14 (≤35)
Perfluorooctanesulfonic acid	0.00051	0.00061	18 (≤35)
Perfluorooctanoic acid	0.0013	0.0013	0 (≤35)

PFCs, Project #C1165
Perfluorinated Alkyl Acids - Data Qualification Summary - SDG 461445

No Sample Data Qualified in this SDG

PFCs, Project #C1165
Perfluorinated Alkyl Acids - Laboratory Blank Data Qualification Summary - SDG 461445

No Sample Data Qualified in this SDG

PFCs, Project #C1165
Perfluorinated Alkyl Acids - Field Blank Data Qualification Summary - SDG 461445

SDG	Sample	Compound	Modified Final Concentration	A or P	Code
461445	GW0013	Perfluorooctanoic acid	0.0015U ug/L	A	6
461445	GW0019	Perfluorooctanoic acid	0.0014U ug/L	A	6
461445	GW0020	Perfluorooctanoic acid	0.00044U ug/L	A	6
461445	GW0021	Perfluorooctanoic acid	0.0013U ug/L	A	6
461445	GW0022**	Perfluorooctanoic acid	0.0013U ug/L	A	6
461445	GW0023	Perfluorooctanoic acid	0.00042U ug/L	A	6

LDC #: 31095A96

SDG #: 461445

Laboratory: Eurofins Eaton Analytical

VALIDATION COMPLETENESS WORKSHEET

Level III/IV

Date: 1/6/14

Page: 1 of 1

Reviewer: 9

2nd Reviewer: 11

METHOD: LCMS Perfluorinated Alkyl Acids (EPA Method 537)

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: 12/12/13
II.	LC/MS Instrument performance check	A	
III.	Initial calibration	A	r2
IV.	Continuing calibration/ICV	A	%Recs limits
V.	Blanks	A	
VI.	Surrogate spikes	A	
VII.	Matrix spike/Matrix spike duplicates	N	CS
VIII.	Laboratory control samples	A	LCS
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. 4+5. 8+9. 14+15
XVI.	Field blanks	SW	FB = 20

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	GW0008	11	GW0018	21	T43T81MB	31	
2	GW0009	12	GW0019	22	T43T00MB	32	
3	GW0010	13	GW0020	23		33	
4	GW0011	14	GW0021	24		34	
5	GW0012**	15	GW0022**	25		35	
6	GW0013	16	GW0023	26		36	
7	GW0014	17	GW0024	27		37	
8	GW0015	18	GW0025	28		38	
9	GW0016	19	GW0026	29		39	
10	GW0017	20	GW0027	30		40	

Notes:

LDC #: 31095A96

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: M

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%?~~ QC limits?	✓			
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 #: 31095A96

VALIDATION FINDINGS CHECKLIST

Reviewer: 9
2nd Reviewer: 8

Validation Area	Yes	No	NA	Findings/Comments
IX. Internal standards				
Were internal standard area counts within -50% or ~~+100~~ 150% 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 #: 31095A96

VALIDATION FINDINGS WORKSHEET
Field Blanks

Reviewer:
2nd Reviewer:

METHOD: LC/MS PFACs (EPA Method 537)

Blank units: ug/L **Associated sample units:** ug/L
Sampling date: 12/12/13
Field blank type: (circle one) Field Blank / Rinsate / Other: FB Associated Samples: 1-19 Qual U

Compound	Blank ID												
	20	6	12	13	14	15	16						
Perfluorooctanoic acid	0.00032 *	0.0015	0.0014	0.00044	0.0013	0.0013	0.00042						

* < 1/3 MRL (0.0025 ug/L)

LDC#: 31095A96

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: 9
2nd Reviewer: 11

METHOD: LC MS PFACs (EPA Method 537)

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	0.0080	0.0077	4
Perfluorooctanesulfonic acid	0.0017	0.0018	6
Perfluorooctanoic acid	0.0039	0.0040	3

Compound	Concentration (µg/L)		RPD (≤ 35)
	4	5	
Perfluorononanoic acid	0.0083	0.0082	1
Perfluorooctanesulfonic acid	0.0019	0.0018	5
Perfluorooctanoic acid	0.0042	0.0042	0

Compound	Concentration (µg/L)		RPD (≤ 35)
	8	9	
Perfluorononanoic acid	0.013	0.012	8
Perfluorooctanesulfonic acid	0.0028	0.0023	20
Perfluorooctanoic acid	0.0049	0.0048	2

Compound	Concentration (µg/L)		RPD (≤ 35)
	14	15	
Perfluorononanoic acid	0.00054	0.00047	14
Perfluorooctanesulfonic acid	0.00051	0.00061	18
Perfluorooctanoic acid	0.0013	0.0013	0

V:\Pei\MB\31095A96.wpd

LDC: 31095A-96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewwe: 9
2nd Reviewer: R

Method: PFACs (EPA Method 537)

Calibration Date	Analyte	Standard	(X) Concentration	(Y) Area	(y^2) Area
12/20/2013	PFNA	1	0.000025	0.0589433	0.000025
		2	0.00005	0.1247686	0.00005
		3	0.0001	0.2498174	0.0001
		4	0.0002	0.4966159	0.0002
		5	0.0004	0.943126	0.0004
		6	0.0008	1.7924658	0.0008

Linear through the origin

	calculated	***Reported***
Constant	*0.000000*	0.0000
X Coefficient(s)	*2277.79044396*	2277.7900
Correlation Coefficient	*0.999525*	0.9990
Coefficient of Determination (r^2)	*0.999051*	

LDC: 31095A96

VALIDATION FINDINGS WORKSHEET
Initial Calibration Calculation Verification

Reviewwe:
2nd Reviewer:

Method: PFACs (EPA Method 537)

Calibration Date	Analyte	Standard	(X) Concentration	(Y) Area	(y^2) Area
12/26/2013	PFNA	1	0.000025	0.064522001	0.000025
		2	0.00005	0.128733108	0.00005
		3	0.0001	0.254366071	0.0001
		4	0.0002	0.479951405	0.0002
		5	0.0004	0.980881256	0.0004
		6	0.0008	1.795019942	0.0008

Linear through the origin

	calculated	***Reported***
Constant	*0.000000*	0.0000
X Coefficient(s)	*2294.90994816*	2295.2208
Correlation Coefficient	*0.999229*	0.9990
Coefficient of Determination (r^2)	*0.998458*	

LDC #: 31095A96

VALIDATION FINDINGS WORKSHEET
Continuing Calibration Results Verification

Page: 1 of 1
Reviewer: 9
2nd Reviewer: K

METHOD: GC ____ V 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	CCCM	12/27/13 (3:04)	PFNA	0.0200	0.021376	0.021376	NR	14.5
2	CCCL	12/26/13 (9:02PM)	PFNA	0.00250	0.002979	0.002977	NR	19.2
3	CCCL	12/30/13	PFNA	0.00250	0.002840	0.002844	NR	13.6
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.

NR = Not reported.

LDC #: 31095A96

VALIDATION FINDINGS WORKSHEET
Surrogate Results Verification

Reviewer: [illegible]
2nd reviewer: [illegible]

METHOD: __ GC ✓ HPLC

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: 5

Surrogate	Column/Detector	Surrogate Spiked	Surrogate Found	Percent Recovery	Percent Recovery	Percent Difference
				Reported	Recalculated	
13C-ΦPDA		100.00	104.87546	105	105	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 #: 31095A5

VALIDATION FINDINGS WORKSHEET
Laboratory Control Sample/Laboratory Control Sample Duplicate Results Verification

Reviewer: 9
2nd Reviewer: K

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:_____

Compound	Spike Added ( )		Spiked Sample Concentration ( )		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	0.025	0.025	0.0233	0.0232	93	93	93	93	0.43	0.43

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 #: 31095A98

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
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. 5 Compound Name PFNA

Concentration = (203400)(100)(250)(1) / (1083473.0)(2295.22077)(250)

= 0.008818 µg/L

#	Sample ID	Compound	Reported Concentrations ( )	Recalculated Results Concentrations ( )	Qualifications

Comments: _____

SAMPCALew.wpd

EUROFINS LABORATORY REPORT

– 461445 12/31/2013

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

NELAP ACCREDITED TNI LABORATORY 01114CA

ilac-MRA

ACLASS ACCREDITED TESTING AT-1807

Laboratory Report

for

Integral Consulting Inc.
1205 West Bay Drive NW
Olympia, WA 98502
Attention: Craig Hutchings
Fax: 360-705-3669

Date of Issue
12/31/2013

Linda Geddes
EUROFINS EATON ANALYTICAL

LXG: Linda Geddes

Project Manager

Report: 461445
Project: PFC
Group: PFCs

* Laboratory certifies that the test results meet all **TNI NELAP** requirements unless noted under the individual analysis.
* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report,
Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
* Test results relate only to the sample(s) tested.
* This report shall not be reproduced except in full, without the written approval of the laboratory.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	**Mississippi**	Certified
Alaska	CA00006	**Montana**	Cert 0035
Arizona	AZ0778	**Nebraska**	Certified
Arkansas	Certified	**Nevada**	CA00006-2012-1
California – NELAP	01114CA	**New Hampshire**	2959
California – ELAP	2813	**New Jersey**	CA 008
Los Angeles County Sanitation Districts	10264	**New Mexico**	Certified
Colorado	Certified	**New York**	11320
Connecticut	PH-0107	**North Carolina**	06701
Delaware	CA 006	**North Dakota**	R-009
Florida	E871024	**Oregon**	CA 200003-011
Georgia	947	**Pennsylvania**	68-565
Guam	12-006r	**Rhode Island**	LAO00326
Hawaii	Certified	**South Carolina**	87016001
Idaho	Certified	**South Dakota**	Certified
Illinois	200033	**Tennessee**	TN02839
Indiana	C-CA-01	**Texas**	T104704230-13-5
Kansas	E-10268	**Utah**	CA000062013
Kentucky	90107	**Vermont**	VT0114
Louisiana	LA130008	**Virginia**	00210
Maine	CA0006	**Washington**	C838
Maryland	224	**West Virginia**	9943 C
Commonwealth of Northern Marianas Is.	MP0004	**Wisconsin**	998316660
Massachusetts	M-CA006	**Wyoming**	8TMS-L
Michigan	9906	**EPA Region 5**	Certified

NELAP/TNI Recognized Accreditation Bodies - in 'BLUE'

The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.
Refer to Certificate and scope of accreditation (AT 1807) found at: http://www.eatonanalytical.com

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/ Combined Residual	SM 4500-Cl G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli	(MTF/EC+MUG)	x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DBCP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAAs/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/ Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-$S^{=}$ D			x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

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Acknowledgement of Samples Received

Addr: **Integral Consulting Inc.**
1205 West Bay Drive NW
Olympia, WA 98502

Client ID: INTEGRAL-OLYMP
Folder #: 461445
Project: PFC
Sample Group: PFCs

Attn: Craig Hutchings
Phone: 360-705-3534

Project Manager: Linda Geddes
Phone: (626) 386-1163

The following samples were received from you on **December 13, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
201312140133	GW0008	12/12/2013 0927
	Variable ID: C1165	
	@537-INTEGRAL	
201312140136	GW0009	12/12/2013 0935
	Variable ID: C1165	
	@537-INTEGRAL	
201312140137	GW0010	12/12/2013 0955
	Variable ID: C1165	
	@537-INTEGRAL	
201312140138	GW0011	12/12/2013 1017
	Variable ID: C1165	
	@537-INTEGRAL	
201312140139	GW0012	12/12/2013 1020
	Variable ID: C1165	
	@537-INTEGRAL	
201312140140	GW0013	12/12/2013 1030
	Variable ID: C1165	
	@537-INTEGRAL	
201312140141	GW0014	12/12/2013 1141
	Variable ID: C1165	
	@537-INTEGRAL	
201312140142	GW0015	12/12/2013 1149
	Variable ID: C1165	
	@537-INTEGRAL	
201312140143	GW0016	12/12/2013 1155
	Variable ID: C1165	
	@537-INTEGRAL	
201312140144	GW0017	12/12/2013 1220
	Variable ID: C1165	
	@537-INTEGRAL	
201312140145	GW0018	12/12/2013 1230
	Variable ID: C1165	

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Acknowledgement of Samples Received

Addr: **Integral Consulting Inc.**
1205 West Bay Drive NW
Olympia, WA 98502

Client ID: INTEGRAL-OLYMP
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The following samples were received from you on **December 13, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
	@537-INTEGRAL	
201312140146	GW0019	12/12/2013 1255
	Variable ID: C1165	
	@537-INTEGRAL	
201312140147	GW0020	12/12/2013 1302
	Variable ID: C1165	
	@537-INTEGRAL	
201312140148	GW0021	12/12/2013 1318
	Variable ID: C1165	
	@537-INTEGRAL	
201312140149	GW0022	12/12/2013 1322
	Variable ID: C1165	
	@537-INTEGRAL	
201312140150	GW0023	12/12/2013 1344
	Variable ID: C1165	
	@537-INTEGRAL	
201312140151	GW0024	12/12/2013 1400
	Variable ID: C1165	
	@537-INTEGRAL	
201312140152	GW0025	12/12/2013 1422
	Variable ID: C1165	
	@537-INTEGRAL	
201312140153	GW0026	12/12/2013 1458
	Variable ID: C1165	
	@537-INTEGRAL	
201312140155	GW0027 Field Blank	12/12/2013 1525
	Variable ID: C1165	
	@537-INTEGRAL FB	

Test Description

@537-INTEGRAL -- Perfluorinated Alkyl Acids

750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (626) 386-1101 http://www.EatonAnalytical.com

eurofins | Eaton Analytical

Acknowledgement of Samples Received

Addr: **Integral Consulting Inc.**
1205 West Bay Drive NW
Olympia, WA 98502

Client ID: INTEGRAL-OLYMP
Folder #: 461445
Project: PFC
Sample Group: PFCs

Attn: Craig Hutchings
Phone: 360-705-3534

Project Manager: Linda Geddes
Phone: (626) 386-1163

The following samples were received from you on **December 13, 2013**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
	@537-INTEGRAL FB -- Perfluorinated Alkyl Acids	

750 Royal Oaks Drive, Suite 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (626) 386-1101 http://www.EatonAnalytical.com

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UCMR3 CHAIN OF CUSTODY RECORD

461445

750 Royal Oaks Drive, Suite 100. Monrovia, CA 91016-3629

Phone: 626 386 1100/ 800 566 LABS (800 566 5227)
Fax: 626 386 1101

Website: www.EatonAnalytical.com

PWSID: _____
Example: (CA1234567)

EUROFINS EATON ANALYTICAL USE ONLY: Folder No:

LOGIN COMMENTS: (2) bottles Persulfate - DS 12/13

SAMPLES CHECKED AGAINST COC BY: DS

SAMPLES LOGGED IN BY: W

SAMPLES REC'D DAY OF COLLECTION? [ ] (check for yes)

SAMPLE TEMP RECEIVED AT:
[ ] Colton / No. California / Arizona _____ °C (Compliance: ≤10°C for the first 48 hours or ≤6°C after 48 hours)
[✓] Monrovia 3.8 °C (Compliance: ≤10°C for the first 48 hours or ≤6°C after 48 hours)

CONDITION OF BLUE ICE: Frozen ✓ Partially Frozen _____ Thawed _____ Wet Ice ✓ No Ice _____

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: Integral Consulting

PROJECT CODE: Cities

COMPLIANCE SAMPLES [ ] (check for yes)
- Requires upload to EPA database [ ]
Regulation: UCMR3
NOTE: we **MUST** have PWSID#, Facility ID, Sample Point ID, and Sample Type to be able to upload data to EPA Database

EEA CLIENT CODE:

COC ID:

SAMPLE GROUP: Solvay

SEE ATTACHED BOTTLE ORDER FOR ANALYSES [ ] (check for yes), ***OR***
list ANALYSES REQUIRED (Mark "X" in all test required for each sample line)

TAT requested: rush by adv notice only STD ___ 1 wk ___ 3 day ___ 2 day ___ 1 day ___

SAMPLE DATE	SAMPLE TIME	Tag # ~~PACILITY ID~~ (per EPA Requirement) - 5 characters Max	Facility ~~UNIQUE FIELD SAMPLE ID~~ (per EPA Requirement) - 20 characters max Sample ID	WATER SOURCE TYPE (1)	SAMPLE EVENT # (2)	SAMLE POINT TYPE ID (3)	DISINFECTANT TYPE (4)	UCMR3 200.8	UCMR3 200.8 - FB *	UCMR3 218.7	UCMR3 522	UCMR3 524.3	UCMR3 524.3 - TB *	UCMR3 537 PFC	UCMR3 537 - FB *	UCMR3 539	UCMR3 539 - FB *	UCMR3 Chlorate				SAMPLER COMMENTS
12/12/13	0927	1008 ✓	GW0008	RW										X								
	0935	1009 ✓	GW00089	RW										↓								
	0955	1010 ✓	GW 000910	FW																		
	1017	1011 ✓	GW 000911	FW																		
	1020	1012 ✓	GW 007012	RW																		
	1030	1013 ✓	GW0013	RW																		
	1141	1014 ✓	GW 0014	FW																		
	1149	1015 ✓	GW 0015	RW																		
	1155	1016 ✓	GW 0016	RW																		
	1220	1017 ✓	GW 0017	RW																		

(1) **Water Source Type:** **SW:** Surface Water **GW:** Ground Water **GU:** Ground Water under the direct influence of SW **MX:** Any Combination of previous three water types

(2) **Sample Event Code:** **SE1** (first) **SE2** (second) **SE3** (third) **SE4** (fourth)

(3) **Sampling Point Type ID:** **EP:** Entry Point to the distribution system **MR:** Distribution System sample at maximum residence time

(4) **Disinfectant Type:** **CLGA:** Gaseous Chlorine **CLOF:** Offsite Generated Hypochlorite (stored as liquid form) **CLON:** Onsite Generated Hypochlorite (no storage) **CAGC:** Chloramine (formed from gaseous chlorine) **CAOF:** Chloroamine (formed from offsite hypochlorite) **CAON:** Chloroamine (formed from onsite hypochlorite) **CLDO:** Chlorine Dioxide **OZON:** Ozone **ULVL:** Ultraviolet Light **OTHD:** All Other Types of Disinfectant **NODU:** No Disinfectant Used

* Field Blank (FB) or Trip Blank (TB) are analyzed only when associated samples have positive results (>MRL)

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
SAMPLED BY:	Kathy Corso	Katie Corso	Integral Consulting	12/12/13	1549
RELINQUISHED BY:	[illegible]	Katie Corso	Integral Consulting	12/12/13	1556
RECEIVED BY:	[illegible]	Darius Smith	EEA	12/13/13	1700
RELINQUISHED BY:					
RECEIVED BY:					

QA FO 0030 (06/26/2013)

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CHAIN OF CUSTODY RECORD

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: (2) bottles per site - DS 12/12

SAMPLES CHECKED AGAINST COC BY: DS

SAMPLES LOGGED IN BY:

SAMPLES REC'D DAY OF COLLECTION? ☐ (check for yes)

SAMPLE TEMP RECEIVED AT:

☐ Colton / No. California / Arizona _____ °C (Compliance: 4 ± 2 °C)

☑ Monrovia 3.8 °C (Compliance: 4 ± 2 °C)

CONDITION OF BLUE ICE: Frozen ✓ Partially Frozen _____ Thawed _____ Wet Ice ✓ No Ice _____

METHOD OF SHIPMENT: Pick-Up / Walk-In / FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: Integral Consulting

PROJECT CODE: CIL65.

EEA CLIENT CODE:

COC ID:

SAMPLE GROUP: Solvay

COMPLIANCE SAMPLES ☐ (check for yes)
- Requires state forms ☐

NON-COMPLIANCE SAMPLES ☐ (check for yes)
REGULATION INVOLVED: _____

Type of samples (circle one): **ROUTINE SPECIAL CONFIRMATION** (eg. SDWA, Phase V, NPDES, FDA,...)

SEE ATTACHED BOTTLE ORDER FOR ANALYSES ☐ (check for yes), *OR*

list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)

TAT requested: rush by adv notice only STD ___ 1 wk ___ 3 day ___ 2 day ___ 1 day ___

SAMPLE DATE	SAMPLE TIME	SAMPLE ~~ID #~~	~~CLIENT LAB ID~~ Tag #	MATRIX *	FIELD DATA	FIELD DATA	PFC Method 537	SAMPLER COMMENTS
12/12/13	1230	GW0018 ✓	1018	FW			x	
	1255	GW0019 ✓	1019	FW				
	1302	GW0020 ✓	1020	RW				
	1318	GW0021 ✓	1021	FW				
	1322	GW0022 ✓	1022					
	1344	GW0023 ✓	1023					
	1400	GW0024 ✓	1024					
	1422	GW0025 ✓	1025					
	1458	GW0026 ✓	1026					
	1525	GW0027 ✓	1027	FB				

*** MATRIX TYPES:** **RSW** = Raw Surface Water **CFW** = Chlor(am)inated Finished Water **SEAW** = Sea Water **BW** = Bottled Water **SO** = Soil **O** = Other - Please Identify
RGW = Raw Ground Water **FW** = Other Finished Water **WW** = Waste Water **SW** = Storm Water **SL** = Sludge

	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SAMPLED BY:	[signature]	Katie Corso	Integral Consulting	12/12/13	1555
RELINQUISHED BY:	[signature]	Katie Corso	Integral Consulting	12/12/13	1556
RECEIVED BY:					
RELINQUISHED BY:					
RECEIVED BY:	[signature]	D. Smith	EEA	12/13/13	1700

QA FO 0029 (06/26/2013)

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Comments
Report: 461445

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

Folder Comments

All of the samples, except for the Field Blank, were re-extracted within holding time due to Perfluorotridecanoic acid recovery below lab limits in Laboratory Control Standard 1 in batch 742365. The subsequent 2 batches were acceptable. The Field Blank was in a separate batch from the beginning.

LXG 12/31/13

The Comments Report may be blank if there are no comments for this report.

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Laboratory Hits
Report: 461445

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

Samples Received on:
12/13/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201312140133	**GW0008**				
12/27/2013 12:50	Perfluorononanoic acid		0.0080		ug/L	0.0025
12/27/2013 12:50	Perfluorooctanoic acid		0.0039		ug/L	0.0025
	201312140136	**GW0009**				
12/27/2013 00:23	Perfluorononanoic acid		0.0077		ug/L	0.0025
12/27/2013 00:23	Perfluorooctanoic acid		0.0040		ug/L	0.0025
	201312140138	**GW0011**				
12/27/2013 01:03	Perfluorononanoic acid		0.0083		ug/L	0.0025
12/27/2013 01:03	Perfluorooctanoic acid		0.0042		ug/L	0.0025
	201312140139	**GW0012**				
12/27/2013 01:24	Perfluorononanoic acid		0.0082		ug/L	0.0025
12/27/2013 01:24	Perfluorooctanoic acid		0.0042		ug/L	0.0025
	201312140141	**GW0014**				
12/27/2013 02:04	Perfluorononanoic acid		0.013		ug/L	0.0025
12/27/2013 02:04	Perfluorooctanesulfonic acid		0.0031		ug/L	0.0025
12/27/2013 02:04	Perfluorooctanoic acid		0.0055		ug/L	0.0025
	201312140142	**GW0015**				
12/27/2013 02:24	Perfluorononanoic acid		0.013		ug/L	0.0025
12/27/2013 02:24	Perfluorooctanesulfonic acid		0.0028		ug/L	0.0025
12/27/2013 02:24	Perfluorooctanoic acid		0.0049		ug/L	0.0025
	201312140143	**GW0016**				
12/27/2013 02:44	Perfluorononanoic acid		0.012		ug/L	0.0025
12/27/2013 02:44	Perfluorooctanoic acid		0.0048		ug/L	0.0025
	201312140144	**GW0017**				
12/27/2013 03:25	Perfluorononanoic acid		0.050		ug/L	0.0025
12/27/2013 03:25	Perfluorooctanesulfonic acid		0.0045		ug/L	0.0025
12/27/2013 03:25	Perfluorooctanoic acid		0.011		ug/L	0.0025
	201312140145	**GW0018**				
12/27/2013 03:45	Perfluorononanoic acid		0.045		ug/L	0.0025
12/27/2013 03:45	Perfluorooctanesulfonic acid		0.0046		ug/L	0.0025
12/27/2013 03:45	Perfluorooctanoic acid		0.0095		ug/L	0.0025
	201312140151	**GW0024**				
12/27/2013 05:46	Perfluorooctanoic acid		0.0032		ug/L	0.0025

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Hits
Report: 461445

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

Samples Received on:
12/13/2013

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	201312140152	**GW0025**				
12/27/2013 06:06	Perfluorononanoic acid		0.013		ug/L	0.0025
12/27/2013 06:06	Perfluorooctanoic acid		0.0039		ug/L	0.0025
	201312140153	**GW0026**				
12/27/2013 06:26	Perfluorononanoic acid		0.0082		ug/L	0.0025
12/27/2013 06:26	Perfluorooctanoic acid		0.0034		ug/L	0.0025

SUMMARY OF POSITIVE DATA ONLY

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Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed		QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
GW0008 (201312140133)							**Sampled on 12/12/2013 0927**			
Variable ID: C1165										
EPA 537 - Perfluorinated Alkyl Acids										
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorononanoic acid	0.0080	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0017J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorooctanoic acid	0.0039	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	13C-PFDA	88	%			1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	13C-PFOA	71	%			1
12/24/2013	12/27/2013	12:50	743781	(EPA 537)	13C-PFOS	83	%			1
GW0009 (201312140136)							**Sampled on 12/12/2013 0935**			
Variable ID: C1165										
EPA 537 - Perfluorinated Alkyl Acids										
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorononanoic acid	0.0077	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0018J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorooctanoic acid	0.0040	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	13C-PFDA	87	%			1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	13C-PFOA	76	%			1
12/24/2013	12/27/2013	00:23	743781	(EPA 537)	13C-PFOS	91	%			1
GW0010 (201312140137)							**Sampled on 12/12/2013 0955**			
Variable ID: C1165										
EPA 537 - Perfluorinated Alkyl Acids										
12/24/2013	12/27/2013	13:10	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	13:10	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	13:10	743781	(EPA 537)	Perfluorononanoic acid	0.00077J	ug/L	0.0004	0.0025	1

Rounding on totals after summation.
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1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	Perfluorooctanesulfonic acid	ND	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	Perfluorooctanoic acid	0.0017J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	13C-PFDA	102	%			1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	13C-PFOA	70	%			1
12/24/2013	12/27/2013 13:10	743781	(EPA 537)	13C-PFOS	82	%			1

GW0011 (201312140138) **Sampled on 12/12/2013 1017**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorononanoic acid	0.0083	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0019J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorooctanoic acid	0.0042	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	13C-PFDA	103	%			1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	13C-PFOA	73	%			1
12/24/2013	12/27/2013 01:03	743781	(EPA 537)	13C-PFOS	88	%			1

GW0012 (201312140139) **Sampled on 12/12/2013 1020**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorononanoic acid	0.0082	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0018J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorooctanoic acid	0.0042	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	13C-PFDA	105	%			1

Rounding on totals after summation.
(c) - Indicates calculated results.
ND - Analyte was not detected at the calculated MDL.
J - The analyte was either detected at or greater than the MDL and less than the MRL, or did not meet any one of the required QC criteria.

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750 Royal Oaks Drive, Suite 100
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Tel: (626) 386-1100
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1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	13C-PFOA	75	%			1
12/24/2013	12/27/2013 01:24	743781	(EPA 537)	13C-PFOS	87	%			1

GW0013 (201312140140) **Sampled on 12/12/2013 1030**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorooctanesulfonic acid	ND	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorooctanoic acid	0.0015J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	13C-PFDA	88	%			1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	13C-PFOA	69	%			1
12/24/2013	12/27/2013 13:30	743781	(EPA 537)	13C-PFOS	82	%			1

GW0014 (201312140141) **Sampled on 12/12/2013 1141**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorononanoic acid	0.013	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0031	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorooctanoic acid	0.0055	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	13C-PFDA	100	%			1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	13C-PFOA	75	%			1
12/24/2013	12/27/2013 02:04	743781	(EPA 537)	13C-PFOS	88	%			1

GW0015 (201312140142) **Sampled on 12/12/2013 1149**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1

Rounding on totals after summation.
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Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorononanoic acid	0.013	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0028	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorooctanoic acid	0.0049	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	13C-PFDA	84	%			1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	13C-PFOA	76	%			1
12/24/2013	12/27/2013 02:24	743781	(EPA 537)	13C-PFOS	86	%			1

GW0016 (201312140143) **Sampled on 12/12/2013 1155**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorononanoic acid	0.012	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0023J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorooctanoic acid	0.0048	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	13C-PFDA	88	%			1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	13C-PFOA	82	%			1
12/24/2013	12/27/2013 02:44	743781	(EPA 537)	13C-PFOS	91	%			1

GW0017 (201312140144) **Sampled on 12/12/2013 1220**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorononanoic acid	0.050	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0045	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorooctanoic acid	0.011	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	13C-PFDA	93	%			1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	13C-PFOA	89	%			1
12/24/2013	12/27/2013 03:25	743781	(EPA 537)	13C-PFOS	91	%			1

GW0018 (201312140145) **Sampled on 12/12/2013 1230**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorononanoic acid	0.045	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0046	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorooctanoic acid	0.0095	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	13C-PFDA	99	%			1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	13C-PFOA	87	%			1
12/24/2013	12/27/2013 03:45	743781	(EPA 537)	13C-PFOS	92	%			1

GW0019 (201312140146) **Sampled on 12/12/2013 1255**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorononanoic acid	0.00068J	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.00067J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorooctanoic acid	0.0014J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	13C-PFDA	93	%			1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	13C-PFOA	90	%			1
12/24/2013	12/27/2013 04:05	743781	(EPA 537)	13C-PFOS	91	%			1

GW0020 (201312140147) **Sampled on 12/12/2013 1302**

Variable ID: C1165

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed		QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
			EPA 537 - Perfluorinated Alkyl Acids							
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorooctanesulfonic acid	ND	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorooctanoic acid	0.00044J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	13C-PFDA	96	%			1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	13C-PFOA	82	%			1
12/24/2013	12/27/2013	04:25	743781	(EPA 537)	13C-PFOS	88	%			1

GW0021 (201312140148) **Sampled on 12/12/2013 1318**

Variable ID: C1165

			EPA 537 - Perfluorinated Alkyl Acids							
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorononanoic acid	0.00054J	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.00051J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorooctanoic acid	0.0013J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	13C-PFDA	99	%			1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	13C-PFOA	85	%			1
12/24/2013	12/27/2013	04:45	743781	(EPA 537)	13C-PFOS	90	%			1

GW0022 (201312140149) **Sampled on 12/12/2013 1322**

Variable ID: C1165

			EPA 537 - Perfluorinated Alkyl Acids							
12/24/2013	12/27/2013	05:05	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	05:05	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	05:05	743781	(EPA 537)	Perfluorononanoic acid	0.00047J	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	05:05	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.00061J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	05:05	743781	(EPA 537)	Perfluorooctanoic acid	0.0013J	ug/L	0.0002	0.0025	1

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory Data
Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
12/24/2013	12/27/2013 05:05	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 05:05	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 05:05	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 05:05	743781	(EPA 537)	13C-PFDA	96	%			1
12/24/2013	12/27/2013 05:05	743781	(EPA 537)	13C-PFOA	92	%			1
12/24/2013	12/27/2013 05:05	743781	(EPA 537)	13C-PFOS	92	%			1

GW0023 (201312140150) **Sampled on 12/12/2013 1344**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorooctanesulfonic acid	ND	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorooctanoic acid	0.00042J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	13C-PFDA	101	%			1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	13C-PFOA	83	%			1
12/24/2013	12/27/2013 05:25	743781	(EPA 537)	13C-PFOS	89	%			1

GW0024 (201312140151) **Sampled on 12/12/2013 1400**

Variable ID: C1165

EPA 537 - Perfluorinated Alkyl Acids

12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorononanoic acid	0.00097J	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0016J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorooctanoic acid	0.0032	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	13C-PFDA	89	%			1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	13C-PFOA	89	%			1
12/24/2013	12/27/2013 05:46	743781	(EPA 537)	13C-PFOS	93	%			1

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

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Report: 461445

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

Samples Received on:
12/13/2013

Prepared	Analyzed		QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
GW0025 (201312140152)							**Sampled on 12/12/2013 1422**			
Variable ID: C1165										
EPA 537 - Perfluorinated Alkyl Acids										
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorononanoic acid	0.013	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0012J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorooctanoic acid	0.0039	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	13C-PFDA	101	%			1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	13C-PFOA	84	%			1
12/24/2013	12/27/2013	06:06	743781	(EPA 537)	13C-PFOS	91	%			1
GW0026 (201312140153)							**Sampled on 12/12/2013 1458**			
Variable ID: C1165										
EPA 537 - Perfluorinated Alkyl Acids										
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorononanoic acid	0.0082	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorooctanesulfonic acid	0.0011J	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorooctanoic acid	0.0034	ug/L	0.0002	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	13C-PFDA	102	%			1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	13C-PFOA	82	%			1
12/24/2013	12/27/2013	06:26	743781	(EPA 537)	13C-PFOS	88	%			1
GW0027 Field Blank (201312140155)							**Sampled on 12/12/2013 1525**			
Variable ID: C1165										
EPA 537 - Perfluorinated Alkyl Acids										
12/18/2013	12/20/2013	10:20	742700	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.0003	0.0025	1
12/18/2013	12/20/2013	10:20	742700	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.0006	0.0025	1
12/18/2013	12/20/2013	10:20	742700	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.0004	0.0025	1

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
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1 800 566 LABS (1 800 566 5227)

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

Samples Received on:
12/13/2013

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MDL	MRL	Dilution
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	Perfluorooctanesulfonic acid	ND	ug/L	0.0002	0.0025	1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	Perfluorooctanoic acid	0.00032J	ug/L	0.0002	0.0025	1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.001	0.0025	1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.0008	0.0025	1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.0004	0.0025	1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	13C-PFDA	91	%			1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	13C-PFOA	111	%			1
12/18/2013	12/20/2013 10:20	742700	(EPA 537)	13C-PFOS	99	%			1

Rounding on totals after summation.
(c) - Indicates calculated results.
ND - Analyte was not detected at the calculated MDL.
J - The analyte was either detected at or greater than the MDL and less than the MRL, or did not meet any one of the required QC criteria.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
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QC Ref # 742700 - Perfluorinated Alkyl Acids **Analysis Date: 12/20/2013**

201312140155	GW0027 Field Blank	Analyzed by: LHZ

QC Ref # 743781 - Perfluorinated Alkyl Acids **Analysis Date: 12/27/2013**

201312140133	GW0008	Analyzed by: LHZ
201312140136	GW0009	Analyzed by: LHZ
201312140137	GW0010	Analyzed by: LHZ
201312140138	GW0011	Analyzed by: LHZ
201312140139	GW0012	Analyzed by: LHZ
201312140140	GW0013	Analyzed by: LHZ
201312140141	GW0014	Analyzed by: LHZ
201312140142	GW0015	Analyzed by: LHZ
201312140143	GW0016	Analyzed by: LHZ
201312140144	GW0017	Analyzed by: LHZ
201312140145	GW0018	Analyzed by: LHZ
201312140146	GW0019	Analyzed by: LHZ
201312140147	GW0020	Analyzed by: LHZ
201312140148	GW0021	Analyzed by: LHZ
201312140149	GW0022	Analyzed by: LHZ
201312140150	GW0023	Analyzed by: LHZ
201312140151	GW0024	Analyzed by: LHZ
201312140152	GW0025	Analyzed by: LHZ
201312140153	GW0026	Analyzed by: LHZ

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Fax: (626) 386-1101
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Laboratory QC
Report: 461445

Integral Consulting Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
QC Ref# 742365 - Perfluorinated Alkyl Acids by EPA 537						**Analysis Date: 12/20/2013**			
LCS1	13C-PFDA (S)			79.5	%	80	(70-130)		
LCS2	13C-PFDA (S)			86.4	%	86	(70-130)		
MBLK	13C-PFDA (S)			83.4	%	83	(70-130)		
MRL_CHK	13C-PFDA (S)			79.4	%	79	(70-130)		
MS_201312170304	13C-PFDA (S)			90.9	%	91	(70-130)		
MSD_201312170304	13C-PFDA (S)			88.9	%	89	(70-130)		
LCS1	13C-PFOA (I)			97.2	%	97	(50-150)		
LCS2	13C-PFOA (I)			93.7	%	94	(50-150)		
MBLK	13C-PFOA (I)			93.8	%	94	(50-150)		
MRL_CHK	13C-PFOA (I)			94.6	%	95	(50-150)		
MS_201312170304	13C-PFOA (I)			95.9	%	96	(50-150)		
MSD_201312170304	13C-PFOA (I)			95.4	%	95	(50-150)		
LCS1	13C-PFOS (I)			99.9	%	100	(50-150)		
LCS2	13C-PFOS (I)			96.0	%	96	(50-150)		
MBLK	13C-PFOS (I)			96.9	%	97	(50-150)		
MRL_CHK	13C-PFOS (I)			96.4	%	96	(50-150)		
MS_201312170304	13C-PFOS (I)			97.1	%	97	(50-150)		
MSD_201312170304	13C-PFOS (I)			94.3	%	94	(50-150)		
LCS1	Perfluorodecanoic acid		0.025	0.0196	ug/L	79	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0216	ug/L	87	(70-130)	30	9.7
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00207	ug/L	83	(50-150)		
MS_201312170304	Perfluorodecanoic acid	ND	0.025	0.0220	ug/L	88	(50-150)		
MSD_201312170304	Perfluorodecanoic acid	ND	0.025	0.0234	ug/L	94	(70-150)	50	6.2
LCS1	Perfluorododecanoic acid		0.025	0.0177	ug/L	71	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0190	ug/L	76	(70-130)	30	7.1
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00155	ug/L	62	(50-150)		
MS_201312170304	Perfluorododecanoic acid	ND	0.025	0.0203	ug/L	81	(50-150)		
MSD_201312170304	Perfluorododecanoic acid	ND	0.025	0.0228	ug/L	91	(70-150)	50	12
LCS1	Perfluorononanoic acid		0.025	0.0239	ug/L	96	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0249	ug/L	100	(70-130)	30	4.1
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00255	ug/L	102	(50-150)		
MS_201312170304	Perfluorononanoic acid	ND	0.025	0.0237	ug/L	94	(50-150)		
MSD_201312170304	Perfluorononanoic acid	ND	0.025	0.0264	ug/L	105	(70-150)	50	11

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
(S) - Indicates surrogate compound.
(I) - Indicates internal standard compound.

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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

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Report: 461445

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Perfluorooctanesulfonic acid		0.024	0.0193	ug/L	81	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0206	ug/L	86	(70-130)	30	6.5
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00207	ug/L	86	(50-150)		
MS_201312170304	Perfluorooctanesulfonic acid	ND	0.024	0.0224	ug/L	88	(50-150)		
MSD_201312170304	Perfluorooctanesulfonic acid	ND	0.024	0.0237	ug/L	94	(70-150)	50	5.6
LCS1	Perfluorooctanoic acid		0.025	0.0228	ug/L	91	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0228	ug/L	91	(70-130)	30	0.44
MBLK	Perfluorooctanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorooctanoic acid		0.0025	0.00267	ug/L	107	(50-150)		
MS_201312170304	Perfluorooctanoic acid	ND	0.025	0.0236	ug/L	90	(50-150)		
MSD_201312170304	Perfluorooctanoic acid	ND	0.025	0.0248	ug/L	95	(70-150)	50	5.0
LCS1	Perfluorotetradecanoic acid		0.025	0.0182	ug/L	73	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0179	ug/L	72	(70-130)	30	2.2
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00126	ug/L	50	(50-150)		
MS_201312170304	Perfluorotetradecanoic acid	ND	0.025	0.0172	ug/L	69	(50-150)		
MSD_201312170304	Perfluorotetradecanoic acid	ND	0.025	0.0202	ug/L	81	(70-150)	50	16
LCS1	Perfluorotridecanoic acid		0.025	0.0147	ug/L	**59**	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0180	ug/L	72	(70-130)	30	20
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00138	ug/L	55	(50-150)		
MS_201312170304	Perfluorotridecanoic acid	ND	0.025	0.0183	ug/L	73	(50-150)		
MSD_201312170304	Perfluorotridecanoic acid	ND	0.025	0.0194	ug/L	78	(70-150)	50	5.8
LCS1	Perfluoroundecanoic acid		0.025	0.0190	ug/L	76	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0212	ug/L	85	(70-130)	30	11
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00178	ug/L	71	(50-150)		
MS_201312170304	Perfluoroundecanoic acid	ND	0.025	0.0219	ug/L	87	(50-150)		
MSD_201312170304	Perfluoroundecanoic acid	ND	0.025	0.0228	ug/L	91	(70-150)	50	4.5

QC Ref# 742700 - Perfluorinated Alkyl Acids by EPA 537 **Analysis Date: 12/20/2013**

LCS1	13C-PFDA (S)			83.2	%	83	(70-130)
LCS2	13C-PFDA (S)			87.2	%	87	(70-130)
MBLK	13C-PFDA (S)			85.9	%	86	(70-130)
MRL_CHK	13C-PFDA (S)			77.7	%	78	(70-130)
MS_201312180656	13C-PFDA (S)			94.8	%	95	(70-130)
MSD_201312180656	13C-PFDA (S)			91.1	%	91	(70-130)
LCS1	13C-PFOA (I)			104	%	104	(50-150)

Spike recovery is already corrected for native results.
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RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

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Report: 461445

Integral Consulting Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS2	13C-PFOA (I)			102	%	102	(50-150)		
MBLK	13C-PFOA (I)			105	%	105	(50-150)		
MRL_CHK	13C-PFOA (I)			107	%	107	(50-150)		
MS_201312180656	13C-PFOA (I)			99.5	%	100	(50-150)		
MSD_201312180656	13C-PFOA (I)			104	%	104	(50-150)		
LCS1	13C-PFOS (I)			104	%	104	(50-150)		
LCS2	13C-PFOS (I)			98.1	%	98	(50-150)		
MBLK	13C-PFOS (I)			102	%	103	(50-150)		
MRL_CHK	13C-PFOS (I)			102	%	102	(50-150)		
MS_201312180656	13C-PFOS (I)			101	%	101	(50-150)		
MSD_201312180656	13C-PFOS (I)			102	%	102	(50-150)		
LCS1	Perfluorodecanoic acid		0.025	0.0220	ug/L	88	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0211	ug/L	85	(70-130)	30	4.2
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00207	ug/L	83	(50-150)		
MS_201312180656	Perfluorodecanoic acid	ND	0.025	0.0225	ug/L	90	(50-150)		
MSD_201312180656	Perfluorodecanoic acid	ND	0.025	0.0233	ug/L	93	(70-150)	50	3.5
LCS1	Perfluorododecanoic acid		0.025	0.0194	ug/L	78	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0191	ug/L	76	(70-130)	30	1.6
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00197	ug/L	79	(50-150)		
MS_201312180656	Perfluorododecanoic acid	ND	0.025	0.0202	ug/L	81	(50-150)		
MSD_201312180656	Perfluorododecanoic acid	ND	0.025	0.0192	ug/L	77	(70-150)	50	5.1
LCS1	Perfluorononanoic acid		0.025	0.0233	ug/L	93	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0232	ug/L	93	(70-130)	30	0.43
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00246	ug/L	98	(50-150)		
MS_201312180656	Perfluorononanoic acid	ND	0.025	0.0256	ug/L	102	(50-150)		
MSD_201312180656	Perfluorononanoic acid	ND	0.025	0.0251	ug/L	100	(70-150)	50	2.0
LCS1	Perfluorooctanesulfonic acid		0.024	0.0196	ug/L	82	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0195	ug/L	82	(70-130)	30	1.0
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00200	ug/L	83	(50-150)		
MS_201312180656	Perfluorooctanesulfonic acid	ND	0.024	0.0218	ug/L	88	(50-150)		
MSD_201312180656	Perfluorooctanesulfonic acid	ND	0.024	0.0230	ug/L	93	(70-150)	50	5.4
LCS1	Perfluorooctanoic acid		0.025	0.0237	ug/L	95	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0222	ug/L	89	(70-130)	30	6.5
MBLK	Perfluorooctanoic acid			<0.00083	ug/L				

Spike recovery is already corrected for native results.
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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
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750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MRL_CHK	Perfluorooctanoic acid		0.0025	0.00242	ug/L	97	(50-150)		
MS_201312180656	Perfluorooctanoic acid	ND	0.025	0.0256	ug/L	98	(50-150)		
MSD_201312180656	Perfluorooctanoic acid	ND	0.025	0.0251	ug/L	96	(70-150)	50	2.0
LCS1	Perfluorotetradecanoic acid		0.025	0.0183	ug/L	73	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0193	ug/L	77	(70-130)	30	5.3
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00165	ug/L	66	(50-150)		
MS_201312180656	Perfluorotetradecanoic acid	ND	0.025	0.0221	ug/L	88	(50-150)		
MSD_201312180656	Perfluorotetradecanoic acid	ND	0.025	0.0197	ug/L	78	(70-150)	50	12
LCS1	Perfluorotridecanoic acid		0.025	0.0186	ug/L	75	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0192	ug/L	77	(70-130)	30	3.2
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00191	ug/L	77	(50-150)		
MS_201312180656	Perfluorotridecanoic acid	ND	0.025	0.0202	ug/L	81	(50-150)		
MSD_201312180656	Perfluorotridecanoic acid	ND	0.025	0.0192	ug/L	77	(70-150)	50	5.1
LCS1	Perfluoroundecanoic acid		0.025	0.0202	ug/L	81	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0206	ug/L	82	(70-130)	30	2.0
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00175	ug/L	70	(50-150)		
MS_201312180656	Perfluoroundecanoic acid	ND	0.025	0.0213	ug/L	85	(50-150)		
MSD_201312180656	Perfluoroundecanoic acid	ND	0.025	0.0217	ug/L	87	(70-150)	50	1.9
QC Ref# 743781 - Perfluorinated Alkyl Acids by EPA 537						**Analysis Date: 12/26/2013**			
LCS1	13C-PFDA (S)			93.2	%	93	(70-130)		
LCS2	13C-PFDA (S)			93.8	%	94	(70-130)		
MBLK	13C-PFDA (S)			93.0	%	93	(70-130)		
MRL_CHK	13C-PFDA (S)			89.5	%	90	(70-130)		
MS_201312260079	13C-PFDA (S)			94.1	%	94	(70-130)		
MSD_201312260079	13C-PFDA (S)			104	%	104	(70-130)		
LCS1	13C-PFOA (I)			73.8	%	74	(50-150)		
LCS2	13C-PFOA (I)			74.4	%	74	(50-150)		
MBLK	13C-PFOA (I)			89.1	%	89	(50-150)		
MRL_CHK	13C-PFOA (I)			88.8	%	89	(50-150)		
MS_201312260079	13C-PFOA (I)			87.2	%	87	(50-150)		
MSD_201312260079	13C-PFOA (I)			74.3	%	74	(50-150)		
LCS1	13C-PFOS (I)			88.6	%	89	(50-150)		
LCS2	13C-PFOS (I)			90.6	%	91	(50-150)		
MBLK	13C-PFOS (I)			97.1	%	97	(50-150)		
MRL_CHK	13C-PFOS (I)			94.0	%	94	(50-150)		

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
(S) - Indicates surrogate compound.
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750 Royal Oaks Drive, Suite 100
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Tel: (626) 386-1100
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Integral Consulting Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MS_201312260079	13C-PFOS (I)			90.3	%	90	(50-150)		
MSD_201312260079	13C-PFOS (I)			88.4	%	88	(50-150)		
LCS1	Perfluorodecanoic acid		0.025	0.0249	ug/L	100	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0262	ug/L	105	(70-130)	30	5.1
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00245	ug/L	98	(50-150)		
MS_201312260079	Perfluorodecanoic acid	ND	0.025	0.0251	ug/L	100	(50-150)		
MSD_201312260079	Perfluorodecanoic acid	ND	0.025	0.0275	ug/L	110	(70-150)	50	9.1
LCS1	Perfluorododecanoic acid		0.025	0.0256	ug/L	103	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0271	ug/L	108	(70-130)	30	5.7
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00237	ug/L	95	(50-150)		
MS_201312260079	Perfluorododecanoic acid	ND	0.025	0.0211	ug/L	85	(50-150)		
MSD_201312260079	Perfluorododecanoic acid	ND	0.025	0.0288	ug/L	115	(70-150)	50	31
LCS1	Perfluorononanoic acid		0.025	0.0272	ug/L	109	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0272	ug/L	109	(70-130)	30	0.37
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00292	ug/L	117	(50-150)		
MS_201312260079	Perfluorononanoic acid	ND	0.025	0.0269	ug/L	107	(50-150)		
MSD_201312260079	Perfluorononanoic acid	ND	0.025	0.0286	ug/L	114	(70-150)	50	6.1
LCS1	Perfluorooctanesulfonic acid		0.024	0.0226	ug/L	94	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0217	ug/L	91	(70-130)	30	4.1
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00225	ug/L	94	(50-150)		
MS_201312260079	Perfluorooctanesulfonic acid	ND	0.024	0.0238	ug/L	95	(50-150)		
MSD_201312260079	Perfluorooctanesulfonic acid	ND	0.024	0.0254	ug/L	101	(70-150)	50	6.5
LCS1	Perfluorooctanoic acid		0.025	0.0243	ug/L	97	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0247	ug/L	99	(70-130)	30	1.6
MBLK	Perfluorooctanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorooctanoic acid		0.0025	0.00265	ug/L	106	(50-150)		
MS_201312260079	Perfluorooctanoic acid	ND	0.025	0.0265	ug/L	102	(50-150)		
MSD_201312260079	Perfluorooctanoic acid	ND	0.025	0.0266	ug/L	103	(70-150)	50	0.38
LCS1	Perfluorotetradecanoic acid		0.025	0.0249	ug/L	100	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0240	ug/L	96	(70-130)	30	3.7
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00231	ug/L	92	(50-150)		
MS_201312260079	Perfluorotetradecanoic acid	ND	0.025	0.0227	ug/L	91	(50-150)		
MSD_201312260079	Perfluorotetradecanoic acid	ND	0.025	0.0266	ug/L	106	(70-150)	50	16

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
(S) - Indicates surrogate compound.
(I) - Indicates internal standard compound.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (626) 386-1101
1 800 566 LABS (1 800 566 5227)

Laboratory QC
Report: 461445

Integral Consulting Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Perfluorotridecanoic acid		0.025	0.0244	ug/L	98	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0265	ug/L	106	(70-130)	30	8.3
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00235	ug/L	94	(50-150)		
MS_201312260079	Perfluorotridecanoic acid	ND	0.025	0.0193	ug/L	77	(50-150)		
MSD_201312260079	Perfluorotridecanoic acid	ND	0.025	0.0276	ug/L	110	(70-150)	50	35
LCS1	Perfluoroundecanoic acid		0.025	0.0267	ug/L	107	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0276	ug/L	111	(70-130)	30	3.3
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00243	ug/L	97	(50-150)		
MS_201312260079	Perfluoroundecanoic acid	ND	0.025	0.0253	ug/L	101	(50-150)		
MSD_201312260079	Perfluoroundecanoic acid	ND	0.025	0.0279	ug/L	112	(70-150)	50	9.8

Spike recovery is already corrected for native results.
Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.
Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.
RPD not calculated for LCS2 when different a concentration than LCS1 is used.
RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).
(S) - Indicates surrogate compound.
(I) - Indicates internal standard compound.

EUROFINS LABORATORY REPORT

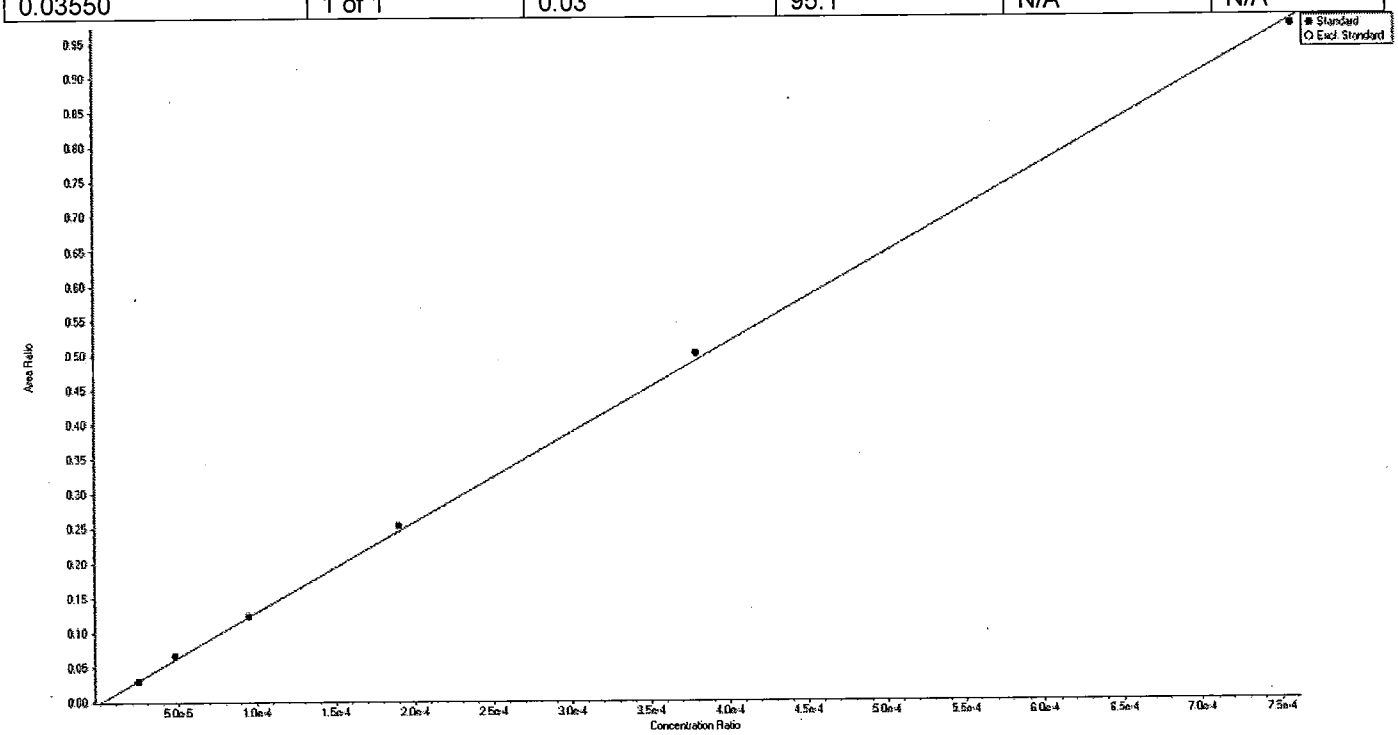
– LCMS 12/20/2013

Analyte Name: PFHxS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1292.47904 x (r = 0.99986) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00222	1 of 1	0.00	113.5	N/A	N/A
0.00443	1 of 1	0.00	94.3	N/A	N/A
0.00887	1 of 1	0.01	104.6	N/A	N/A
0.01770	1 of 1	0.02	104.6	N/A	N/A
0.03550	1 of 1	0.03	95.1	N/A	N/A

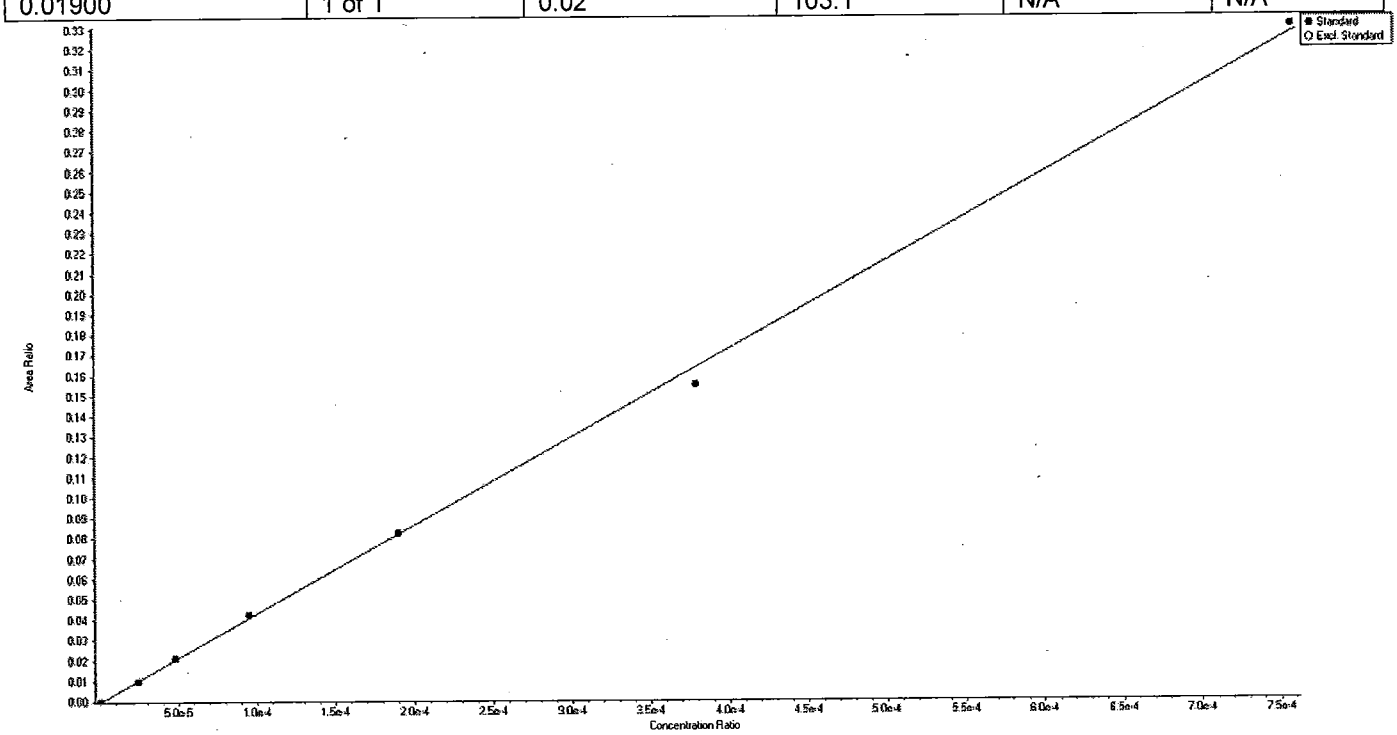


Analyte Name: PFHxS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 431.41273 x (r = 0.99946) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.07100	1 of 1	0.07	100.9	N/A	N/A
0.00000	0 of 1	N/A	N/A	N/A	N/A
0.00237	1 of 1	0.00	99.9	N/A	N/A
0.00474	1 of 1	0.01	109.1	N/A	N/A
0.00948	1 of 1	0.01	100.7	N/A	N/A
0.01900	1 of 1	0.02	103.1	N/A	N/A

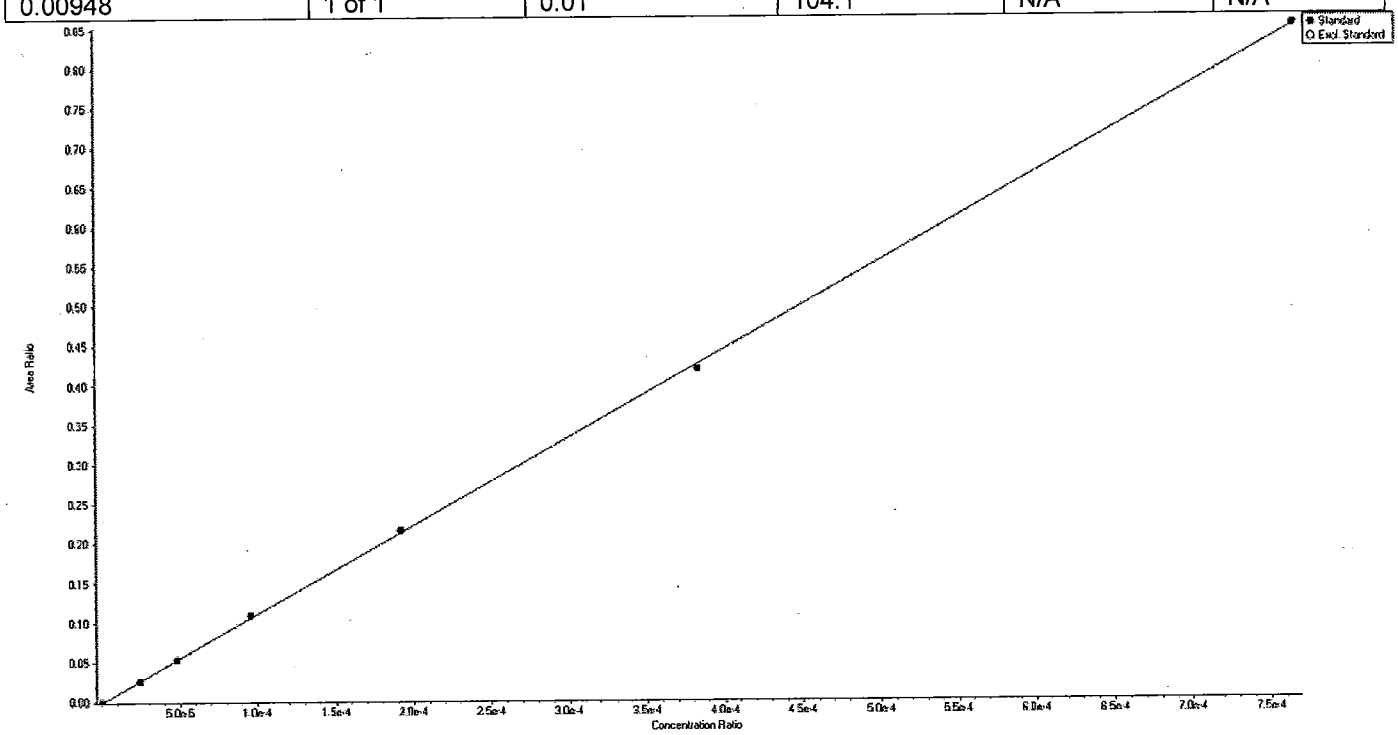


Analyte Name: PFOS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1109.83303 x (r = 0.99996) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.03790	1 of 1	0.04	102.3	N/A	N/A
0.07580	1 of 1	0.08	99.2	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00237	1 of 1	0.00	97.4	N/A	N/A
0.00474	1 of 1	0.00	102.7	N/A	N/A
0.00948	1 of 1	0.01	104.1	N/A	N/A

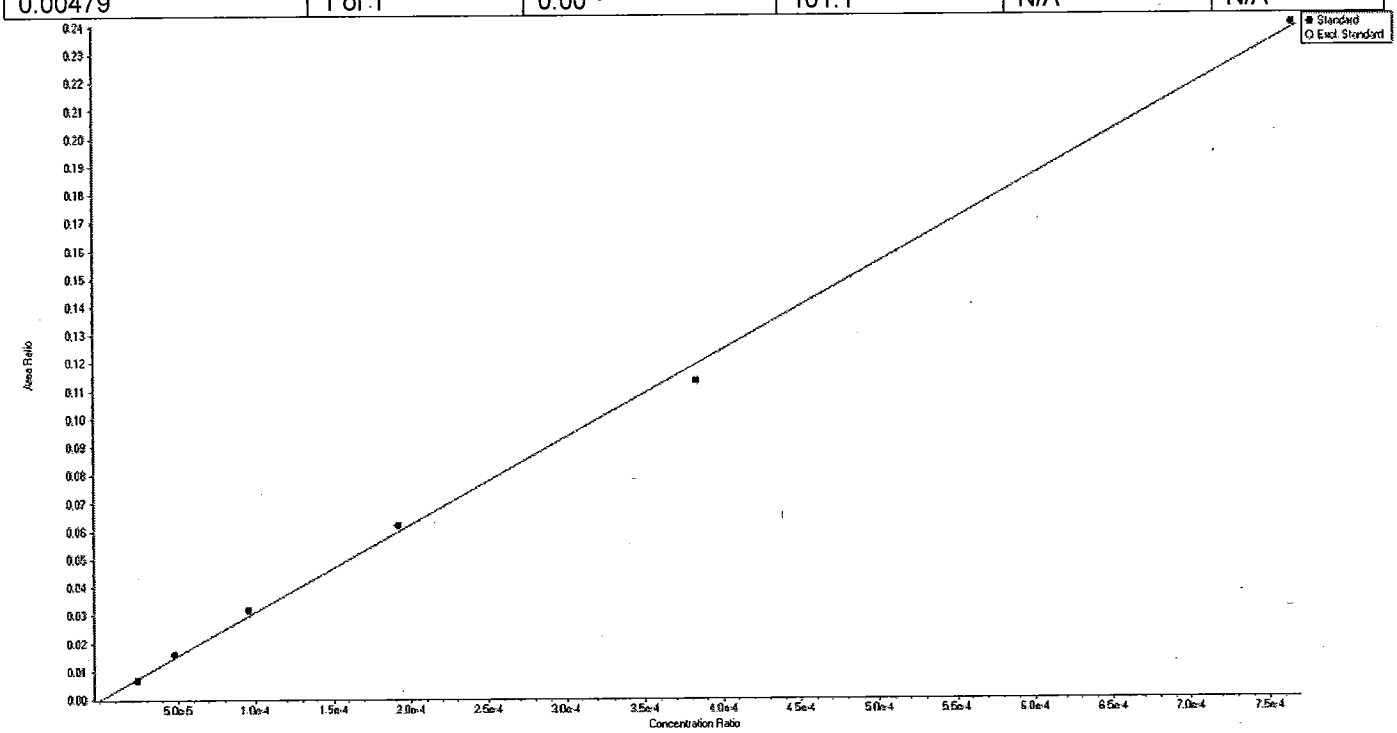


Analyte Name: PFOS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 311.01315 x (r = 0.99940) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01900	1 of 1	0.02	100.6	N/A	N/A
0.03790	1 of 1	0.04	94.8	N/A	N/A
0.07580	1 of 1	0.08	101.2	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00240	1 of 1	0.00	102.1	N/A	N/A
0.00479	1 of 1	0.00	101.1	N/A	N/A

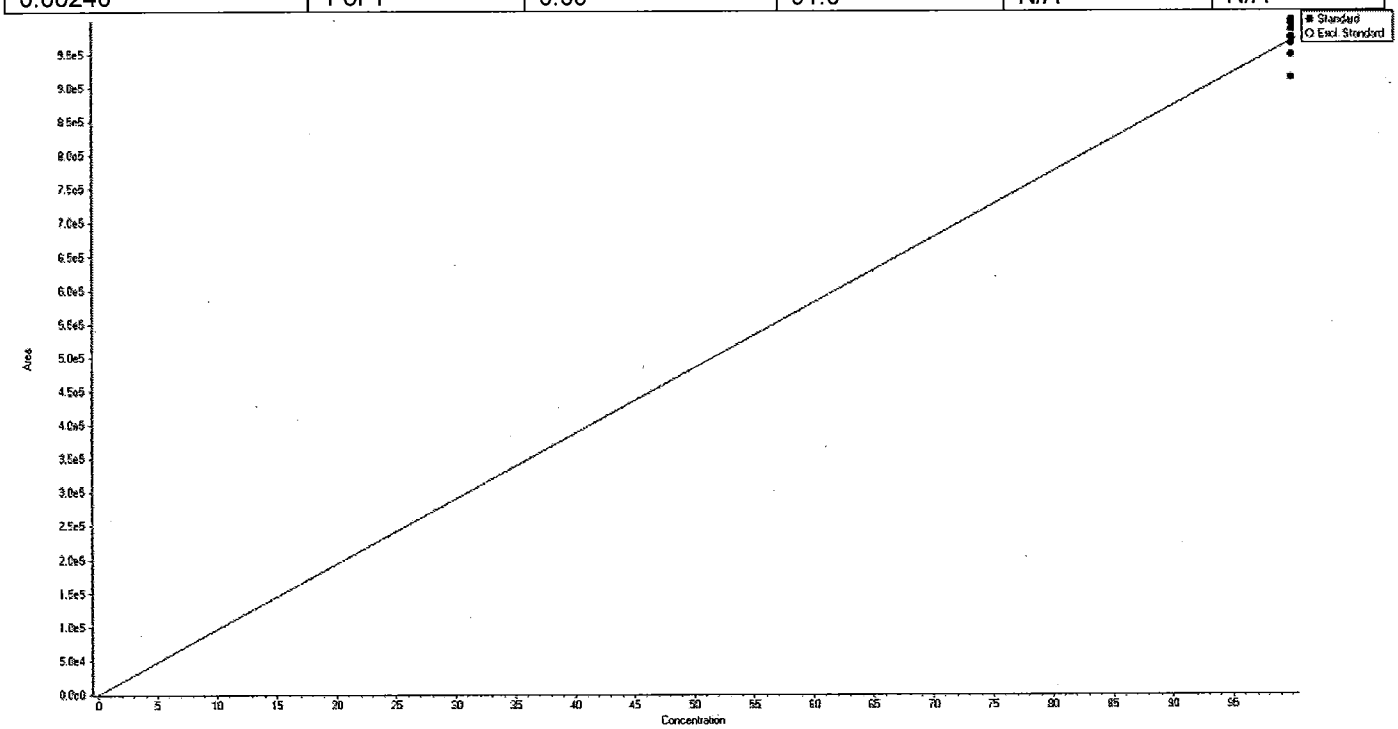


Analyte Name: 13C-PFOA
Internal Standard: N/A

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 9685.06929 x (std. dev. = 298.70290) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00958	1 of 1	0.01	102.2	N/A	N/A
0.01920	1 of 1	0.02	101.3	N/A	N/A
0.03830	1 of 1	0.04	98.6	N/A	N/A
0.07660	1 of 1	0.08	100.2	N/A	N/A
0.00000	0 of 1	N/A	N/A	N/A	N/A
0.00240	1 of 1	0.00	91.0	N/A	N/A

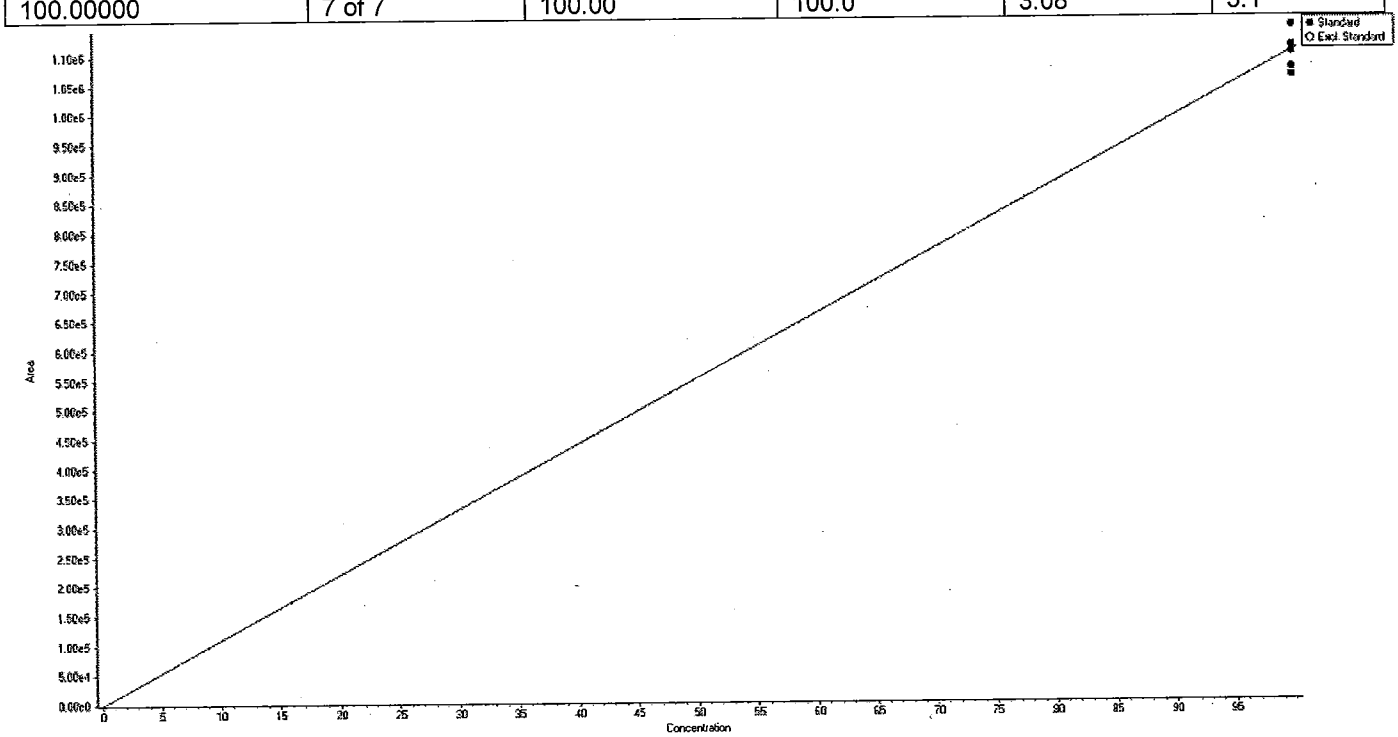


Analyte Name: 13C-PFOS
Internal Standard: N/A

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 11005.09300 x (std. dev. = 279.34285) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00479	1 of 1	0.01	108.3	N/A	N/A
0.00958	1 of 1	0.01	106.4	N/A	N/A
0.01920	1 of 1	0.02	103.6	N/A	N/A
0.03830	1 of 1	0.04	95.2	N/A	N/A
0.07660	1 of 1	0.08	100.9	N/A	N/A
100.00000	7 of 7	100.00	100.0	3.08	3.1



LHZ
12/23/13

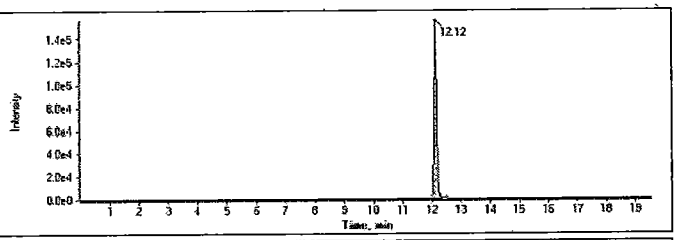
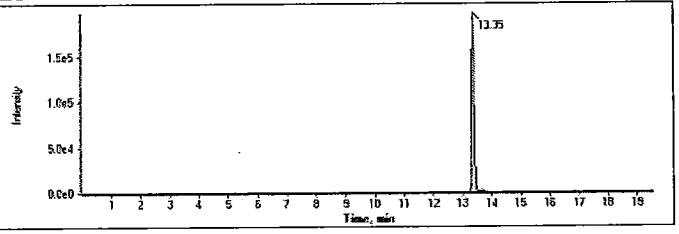
Created with Analyst Reporter
Printed: 20/12/2013 3:18:57 PM

Report File: @537- Batch# 742456-122013-Sample Report 1. pdf

Sample Name	Blank	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 3:37:30 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	913569	12.12	100.00000	-
IS-13C-PFOS	1072600	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	6.370e+02	8.44	0.00000	0.000037
Surr-13c-PFHxA	8.394e+05	8.48	100.00000	98.745539
PFHpA	1.907e+03	10.54	0.00000	0.000061
PFHpA 2	4.900e+01	10.54	0.00000	0.000006
PFOA	2.632e+03	12.10	0.00000	0.000091
PFOA 2	7.360e+02	12.14	0.00000	0.000080
PFNA	1.890e+02	13.35	0.00000	0.000009
PFNA 2	9.800e+01	13.40	0.00000	0.000020
PFDA	4.830e+02	14.37	0.00000	0.000021
PFDA 2	4.900e+01	14.38	0.00000	0.000014
Surr-13c-PFDA	7.611e+05	14.39	100.00000	102.877671
PFUnA	6.800e+02	15.24	0.00000	0.000036
PFUnA 2	4.900e+01	14.94	0.00000	0.000016
PFDoA	3.450e+02	16.00	0.00000	0.000021
PFTrDA	6.380e+02	16.65	0.00000	0.000028
PFTrDA 2	9.800e+01	16.30	0.00000	0.000025
PFTA	2.450e+02	17.63	0.00000	0.000059
PFBS	1.020e+02	6.20	0.00000	0.000008
PFBS 2	9.800e+01	6.06	0.00000	0.000029
PFHxS	N/A	N/A	0.00000	N/A
PFHxS 2	9.800e+01	10.61	0.00000	0.000021
PFOS	1.960e+02	13.33	0.00000	0.000016
PFOS 2	N/A	N/A	0.00000	N/A
13C-PFOA	9.136e+05	12.12	100.00000	94.327611
13C-PFOS	1.073e+06	13.35	100.00000	97.463938

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

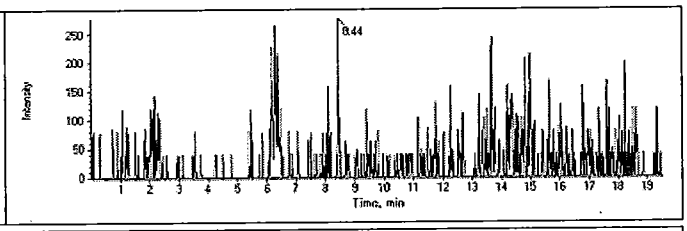
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.44 (8.48) min

Calculated conc: 0.000037

Area Ratio: 6.976e-4

Sample Type: (Standard)



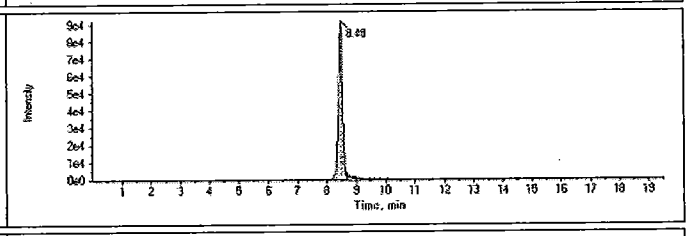
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 98.745539

Area Ratio: 9.189e-1

Sample Type: (Standard)



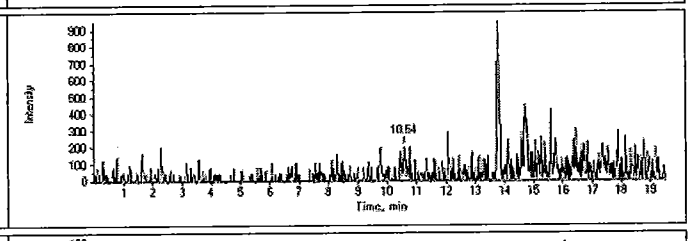
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.54 (10.57) min

Calculated conc: 0.000061

Area Ratio: 2.087e-3

Sample Type: (Standard)



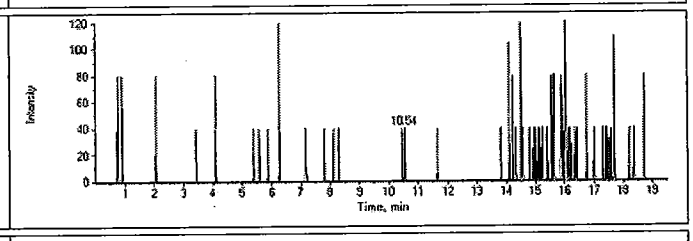
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.54 (10.57) min

Calculated conc: 0.000006

Area Ratio: 5.369e-5

Sample Type: (Standard)



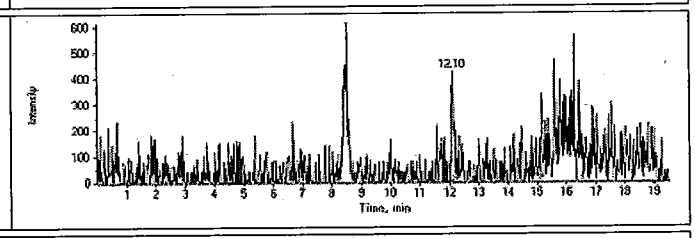
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.10 (12.12) min

Calculated conc: 0.000091

Area Ratio: 2.881e-3

Sample Type: (Standard)



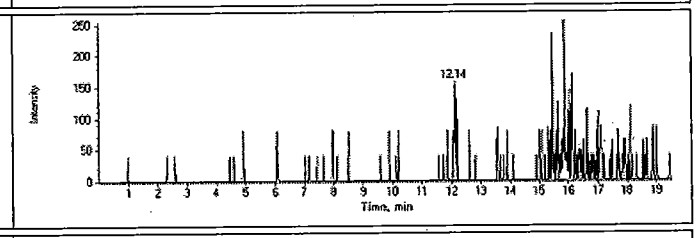
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 0.000080

Area Ratio: 8.052e-4

Sample Type: (Standard)



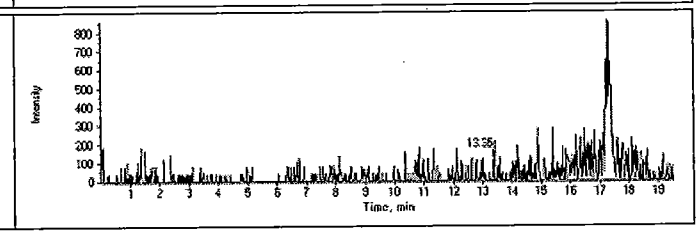
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.000009

Area Ratio: 2.068e-4

Sample Type: (Standard)



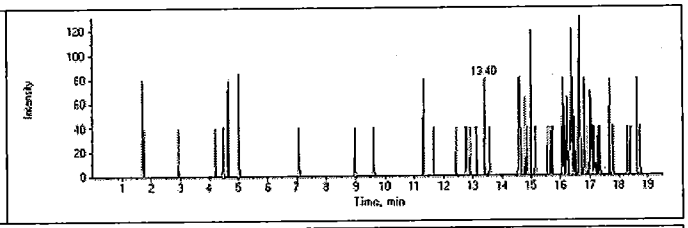
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.40 (13.36) min

Calculated conc: 0.000020

Area Ratio: 1.073e-4

Sample Type: (Standard)



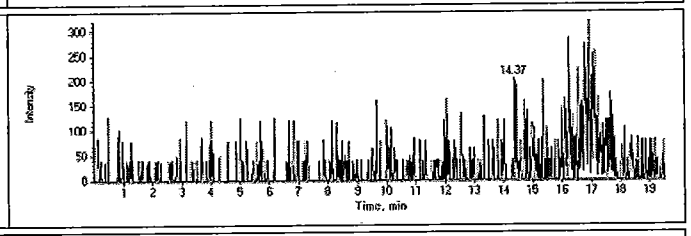
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 0.000021

Area Ratio: 5.288e-4

Sample Type: (Standard)



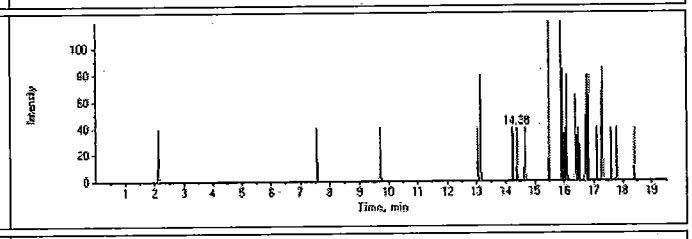
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.000014

Area Ratio: 5.367e-5

Sample Type: (Standard)



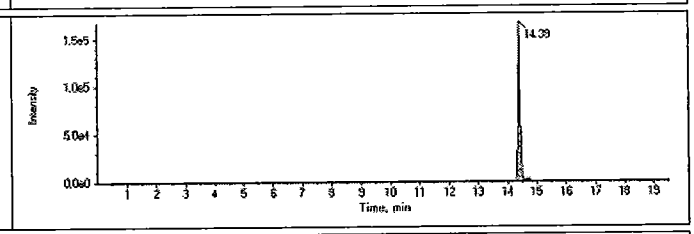
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 102.877671

Area Ratio: 8.331e-1

Sample Type: (Standard)



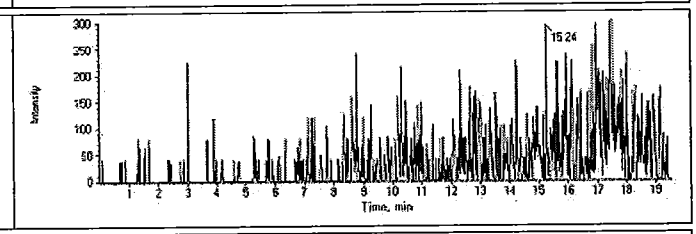
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.26) min

Calculated conc: 0.000036

Area Ratio: 7.438e-4

Sample Type: (Standard)



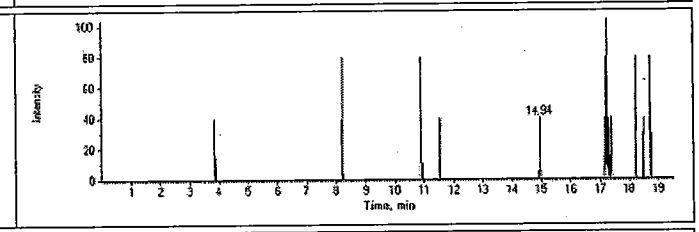
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 14.94 (15.27) min

Calculated conc: 0.000016

Area Ratio: 5.367e-5

Sample Type: (Standard)



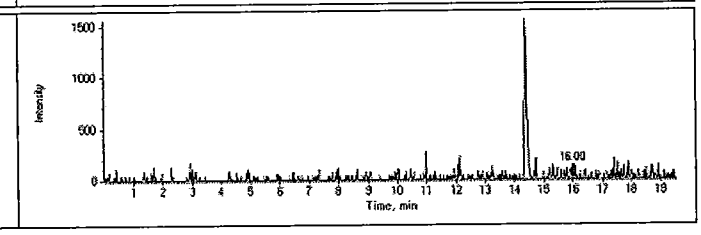
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (16.01) min

Calculated conc: 0.000021

Area Ratio: 3.774e-4

Sample Type: (Standard)



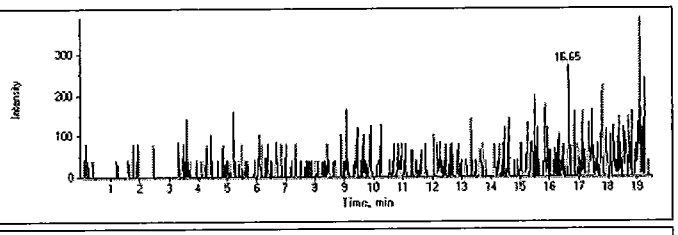
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.65 (16.70) min

Calculated conc: 0.000028

Area Ratio: 6.979e-4

Sample Type: (Standard)



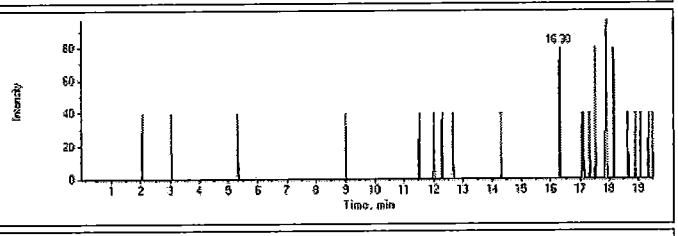
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.30 (16.60) min

Calculated conc: 0.000025

Area Ratio: 1.074e-4

Sample Type: (Standard)



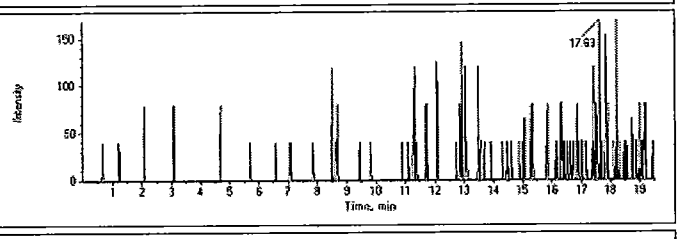
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.63 (17.20) min

Calculated conc: 0.000059

Area Ratio: 2.685e-4

Sample Type: (Standard)



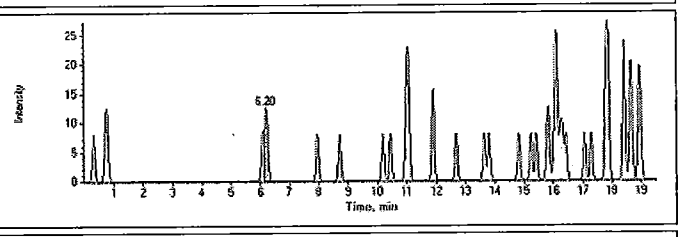
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.20 (6.18) min

Calculated conc: 0.000008

Area Ratio: 9.489e-5

Sample Type: (Standard)



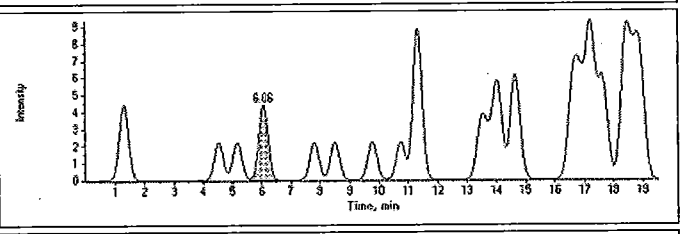
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.06 (6.16) min

Calculated conc: 0.000029

Area Ratio: 9.144e-5

Sample Type: (Standard)



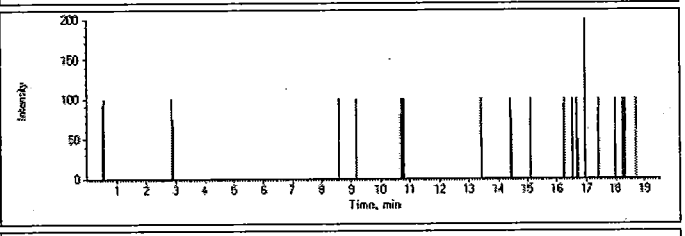
PFHxS (398.9 / 80.0)

RT (Exp. RT): N/A (10.71) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Standard)



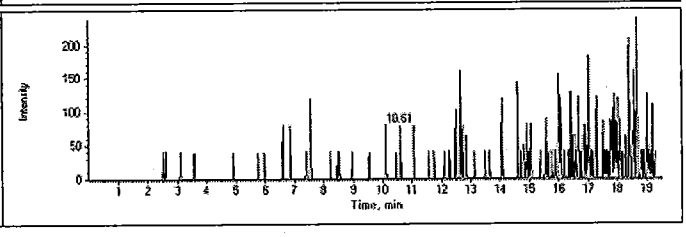
PFHxS 2 (398.9 / 99.0)

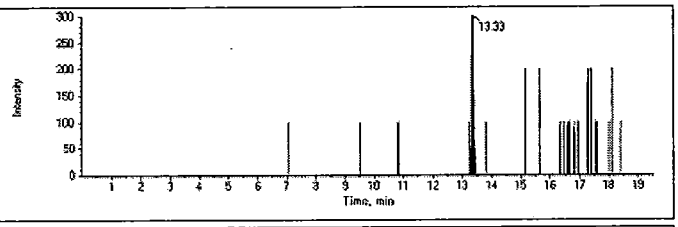
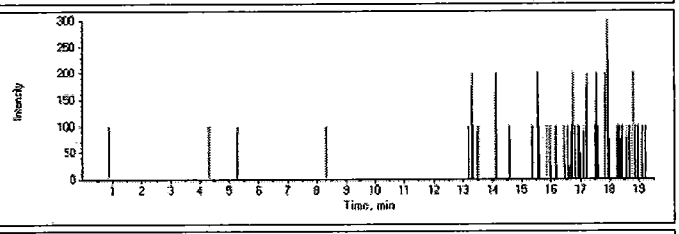
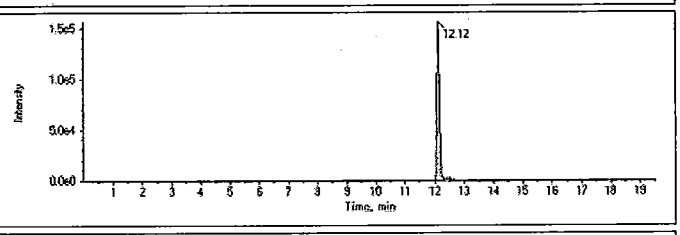
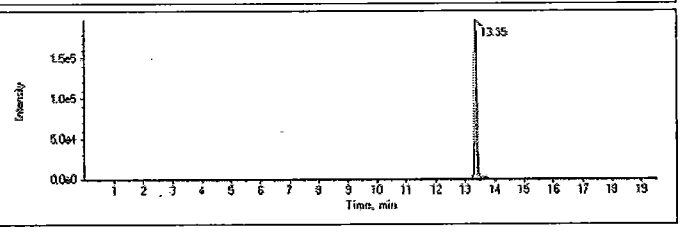
RT (Exp. RT): 10.61 (10.71) min

Calculated conc: 0.000021

Area Ratio: 9.143e-5

Sample Type: (Standard)

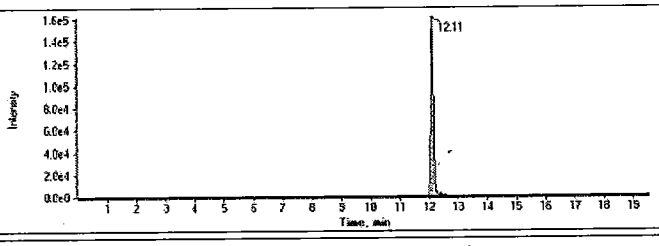
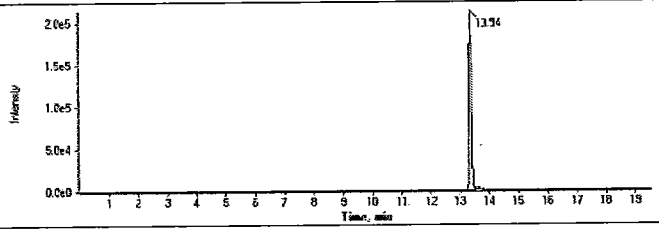


PFOS (499.0 / 79.9) RT (Exp. RT): 13.33 (13.35) min Calculated conc: 0.000016 Area Ratio: 1.829e-4 Sample Type: (Standard)	
PFOS 2 (499.0 / 99.0) RT (Exp. RT): N/A (13.35) min Calculated conc: N/A Area Ratio: N/A Sample Type: (Standard)	
13C-PFOA (417.0 / 372.0) RT (Exp. RT): 12.12 (12.12) min Calculated conc: 94.327611 Area Ratio: N/A Sample Type: (Standard)	
13C-PFOS (503.0 / 80.0) RT (Exp. RT): 13.35 (13.35) min Calculated conc: 97.463938 Area Ratio: N/A Sample Type: (Standard)	

Sample Name	Cal-0.0025ppb	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 3:57:38 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	993496	12.11	100.00000	-
IS-13C-PFOS	1097922	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.973e+04	8.48	0.00250	0.002625
Surr-13c-PFHxA	8.911e+05	8.47	100.00000	96.391618
PFHpA	8.311e+04	10.56	0.00250	0.002433
PFHpA 2	1.957e+04	10.57	0.00250	0.002202
PFOA	8.109e+04	12.11	0.00250	0.002577
PFOA 2	3.021e+04	12.11	0.00250	0.003002
PFNA	5.856e+04	13.35	0.00250	0.002588
PFNA 2	1.309e+04	13.36	0.00250	0.002479
PFDA	6.515e+04	14.38	0.00250	0.002638
PFDA 2	1.059e+04	14.39	0.00250	0.002717
Surr-13c-PFDA	7.990e+05	14.39	100.00000	99.317193
PFUnA	5.529e+04	15.26	0.00250	0.002693
PFUnA 2	7.454e+03	15.26	0.00250	0.002216
PFDoA	4.533e+04	16.00	0.00250	0.002567
PFTrDA	6.628e+04	16.64	0.00250	0.002642
PFTrDA 2	1.128e+04	16.64	0.00250	0.002602
PFTA	1.138e+04	17.20	0.00250	0.002536
PFBS	2.951e+04	6.18	0.00222	0.002249
PFBS 2	8.646e+03	6.16	0.00222	0.002519
PFHxS	3.359e+04	10.70	0.00237	0.002367
PFHxS 2	1.093e+04	10.70	0.00237	0.002308
PFOS	2.987e+04	13.34	0.00240	0.002451
PFOS 2	7.454e+03	13.34	0.00240	0.002183
13C-PFOA	9.935e+05	12.11	100.00000	102.580144
13C-PFOS	1.098e+06	13.34	100.00000	99.764891

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.11(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

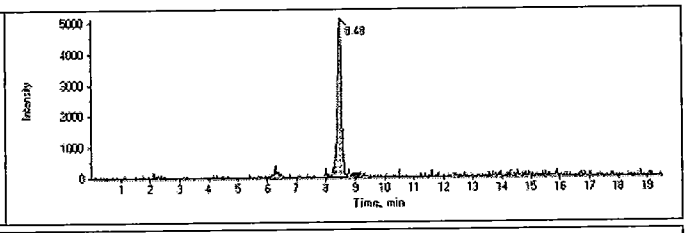
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.002625

Area Ratio: 5.005e-2

Sample Type: (Standard)



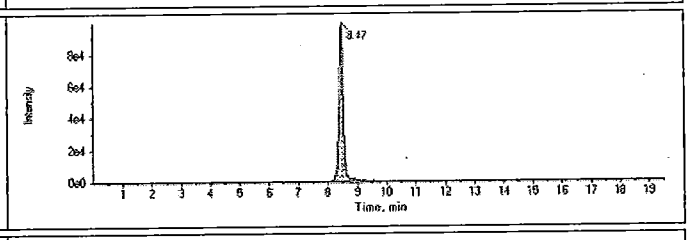
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 96.391618

Area Ratio: 8.970e-1

Sample Type: (Standard)



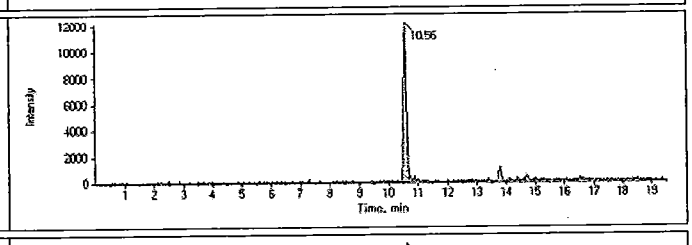
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.002433

Area Ratio: 8.365e-2

Sample Type: (Standard)



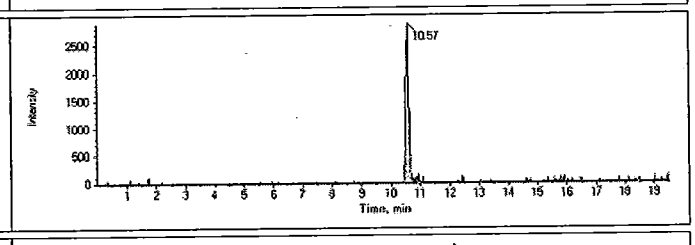
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.002202

Area Ratio: 1.970e-2

Sample Type: (Standard)



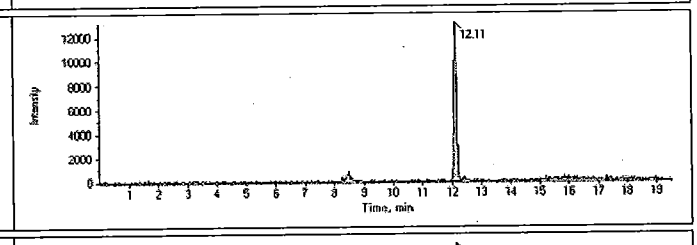
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.002577

Area Ratio: 8.162e-2

Sample Type: (Standard)



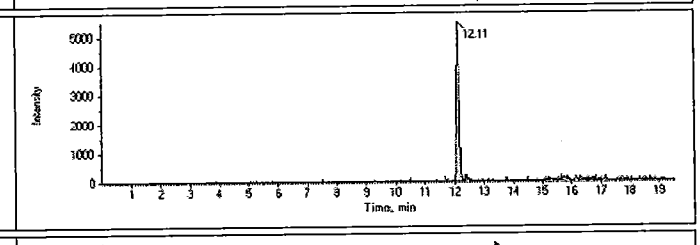
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.003002

Area Ratio: 3.040e-2

Sample Type: (Standard)



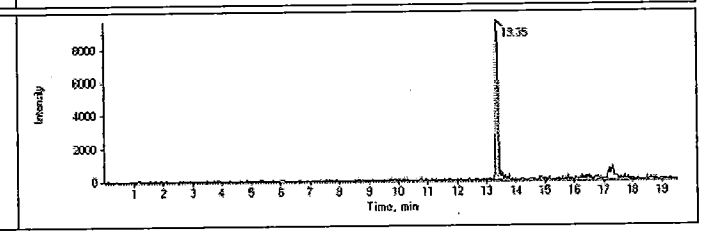
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.002588

Area Ratio: 5.894e-2

Sample Type: (Standard)

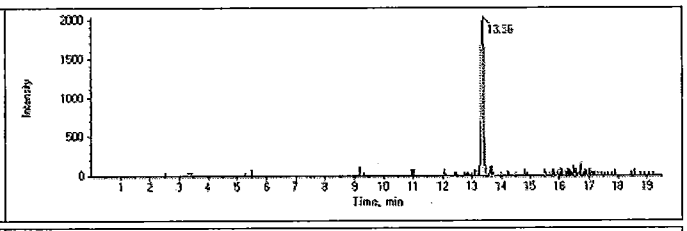


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.002479

Area Ratio: 1.318e-2
Sample Type: (Standard)

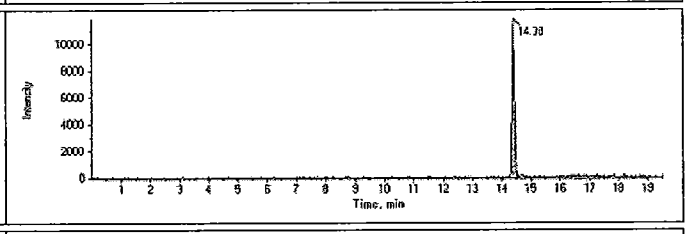


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.002638

Area Ratio: 6.557e-2
Sample Type: (Standard)

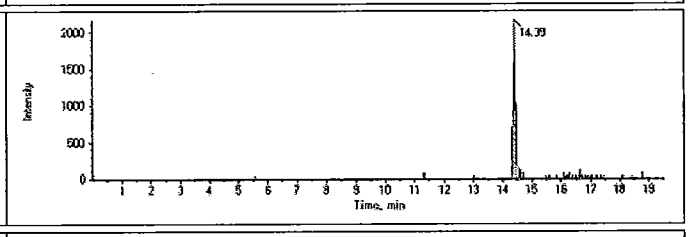


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.002717

Area Ratio: 1.066e-2
Sample Type: (Standard)

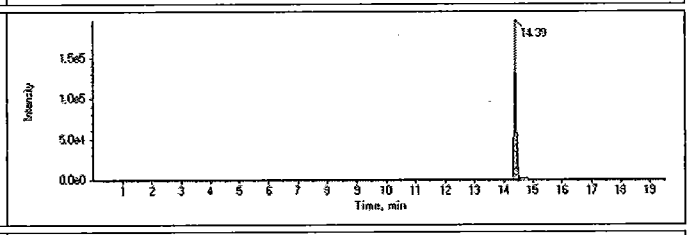


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 99.317193

Area Ratio: 8.042e-1
Sample Type: (Standard)

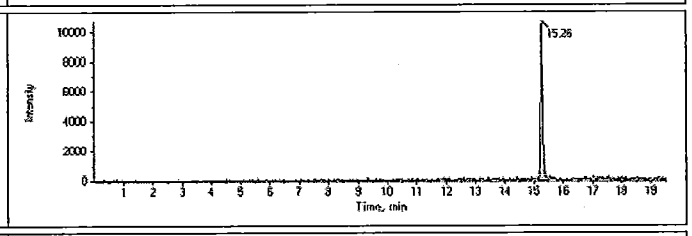


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.26 (15.26) min

Calculated conc: 0.002693

Area Ratio: 5.565e-2
Sample Type: (Standard)

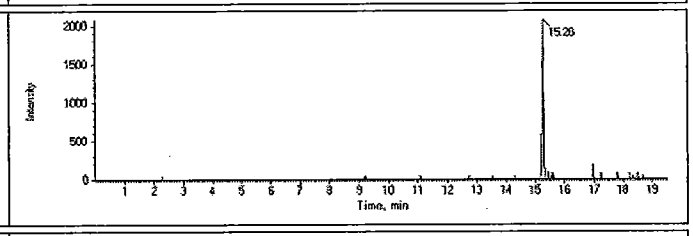


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.27) min

Calculated conc: 0.002216

Area Ratio: 7.503e-3
Sample Type: (Standard)

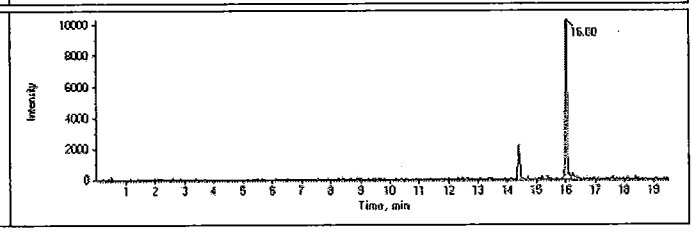


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (16.01) min

Calculated conc: 0.002567

Area Ratio: 4.563e-2
Sample Type: (Standard)



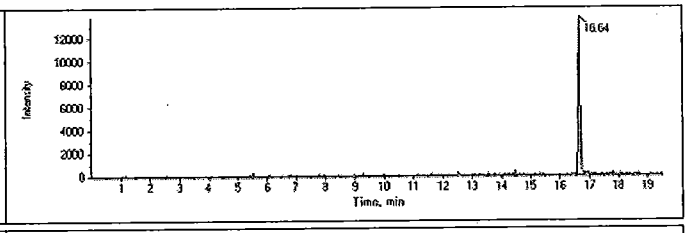
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.64 (16.70) min

Calculated conc: 0.002642

Area Ratio: 6.671e-2

Sample Type: (Standard)



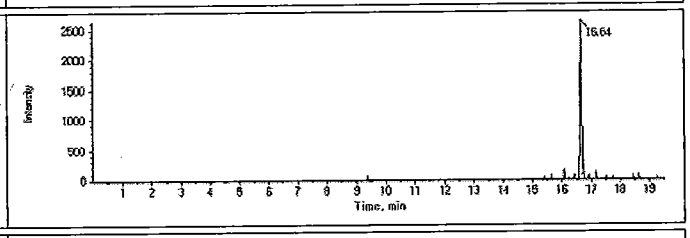
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.64 (16.60) min

Calculated conc: 0.002602

Area Ratio: 1.135e-2

Sample Type: (Standard)



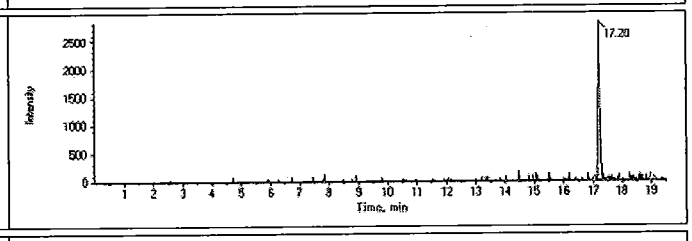
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.20 (17.20) min

Calculated conc: 0.002536

Area Ratio: 1.145e-2

Sample Type: (Standard)



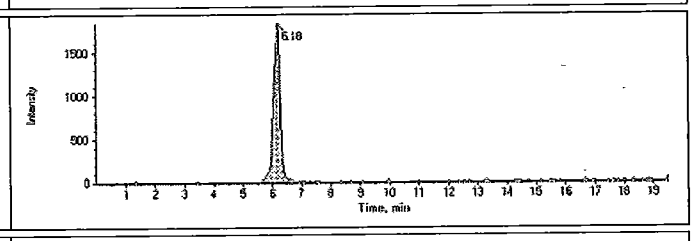
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.18 (6.18) min

Calculated conc: 0.002249

Area Ratio: 2.688e-2

Sample Type: (Standard)



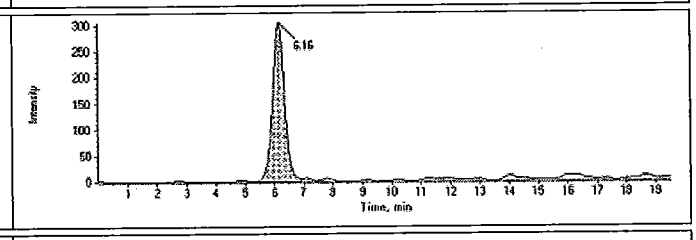
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.002519

Area Ratio: 7.875e-3

Sample Type: (Standard)



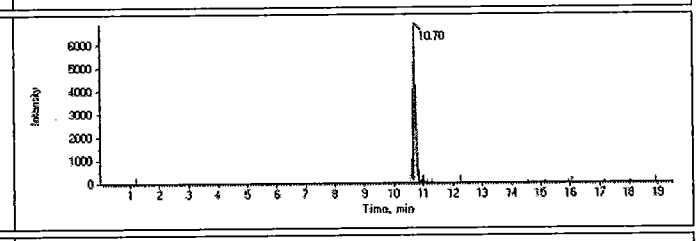
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.002367

Area Ratio: 3.060e-2

Sample Type: (Standard)



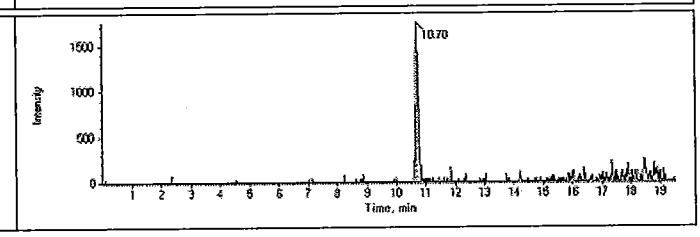
PFHxS 2 (398.9 / 99.0)

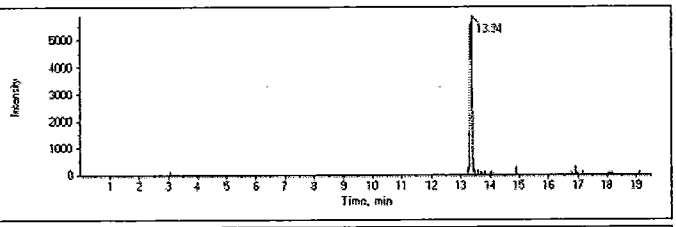
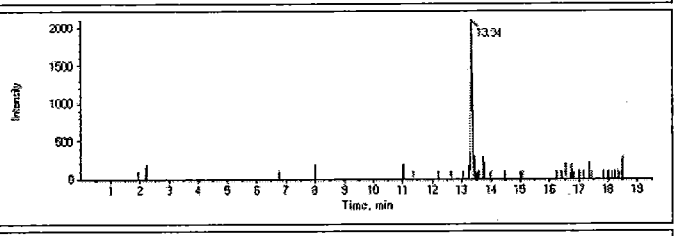
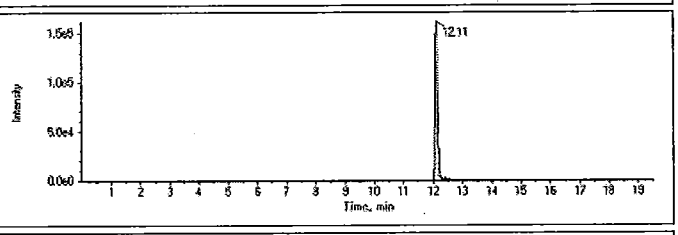
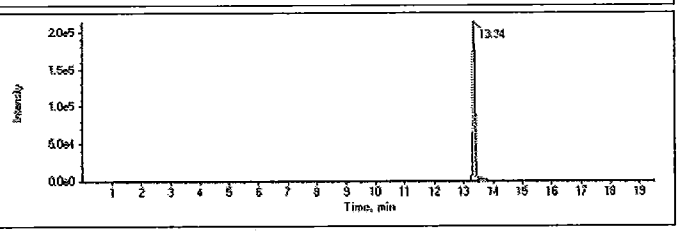
RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.002308

Area Ratio: 9.959e-3

Sample Type: (Standard)

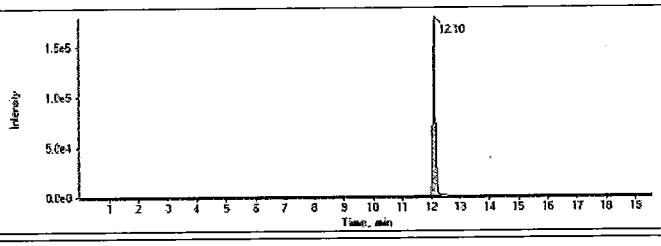
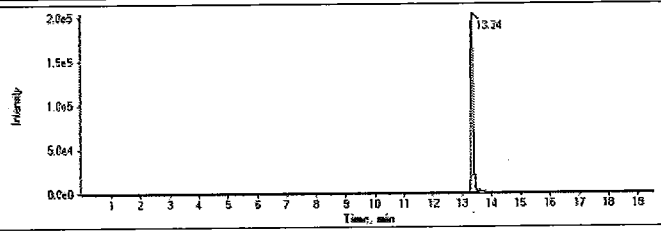


PFOS (499.0 / 79.9) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 0.002451 Area Ratio: 2.720e-2 Sample Type: (Standard)	
PFOS 2 (499.0 / 99.0) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 0.002183 Area Ratio: 6.789e-3 Sample Type: (Standard)	
13C-PFOA (417.0 / 372.0) RT (Exp. RT): 12.11 (12.12) min Calculated conc: 102.580144 Area Ratio: N/A Sample Type: (Standard)	
13C-PFOS (503.0 / 80.0) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 99.764891 Area Ratio: N/A Sample Type: (Standard)	

Sample Name	Cal-0.005ppb	**Injection Vial**	3
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 4:17:46 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	999450	12.10	100.00000	-
IS-13C-PFOS	1109454	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	9.964e+04	8.45	0.00500	0.005228
Surr-13c-PFHxA	9.174e+05	8.45	100.00000	98.642433
PFHpA	1.792e+05	10.55	0.00500	0.005216
PFHpA 2	4.482e+04	10.55	0.00500	0.005014
PFOA	1.626e+05	12.10	0.00500	0.005138
PFOA 2	5.156e+04	12.11	0.00500	0.005094
PFNA	1.247e+05	13.35	0.00500	0.005476
PFNA 2	3.011e+04	13.35	0.00500	0.005667
PFDA	1.365e+05	14.37	0.00500	0.005493
PFDA 2	2.231e+04	14.38	0.00500	0.005689
Surr-13c-PFDA	8.077e+05	14.37	100.00000	99.796531
PFUnA	1.171e+05	15.24	0.00500	0.005672
PFUnA 2	1.908e+04	15.24	0.00500	0.005637
PFDoA	1.040e+05	15.99	0.00500	0.005857
PFTrDA	1.345e+05	16.63	0.00500	0.005332
PFTrDA 2	2.468e+04	16.63	0.00500	0.005659
PFTA	2.007e+04	17.19	0.00500	0.004447
PFBS	5.715e+04	6.15	0.00443	0.004310
PFBS 2	1.450e+04	6.15	0.00443	0.004179
PFHxS	7.415e+04	10.69	0.00474	0.005171
PFHxS 2	2.329e+04	10.69	0.00474	0.004866
PFOS	5.963e+04	13.34	0.00479	0.004843
PFOS 2	1.790e+04	13.34	0.00479	0.005187
13C-PFOA	9.995e+05	12.10	100.00000	103.194920
13C-PFOS	1.109e+06	13.34	100.00000	100.812783

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.10(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

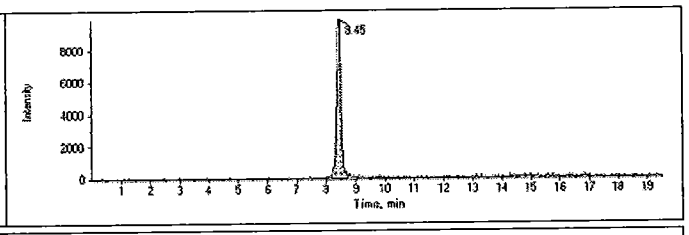
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.45 (8.48) min

Calculated conc: 0.005228

Area Ratio: 9.970e-2

Sample Type: (Standard)



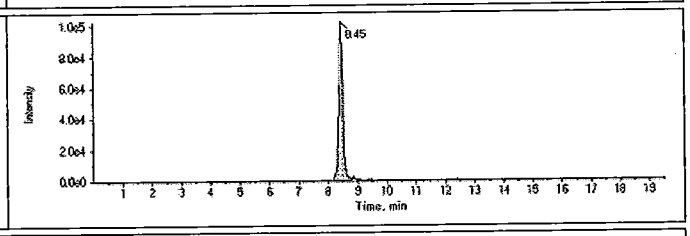
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.45 (8.48) min

Calculated conc: 98.642433

Area Ratio: 9.179e-1

Sample Type: (Standard)



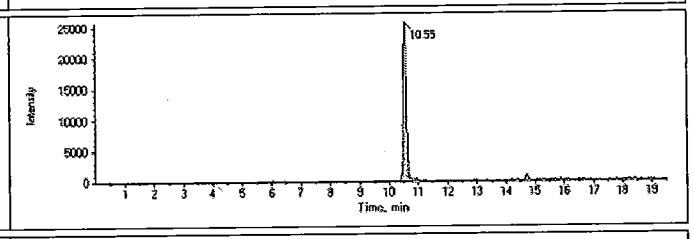
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.55 (10.57) min

Calculated conc: 0.005216

Area Ratio: 1.793e-1

Sample Type: (Standard)



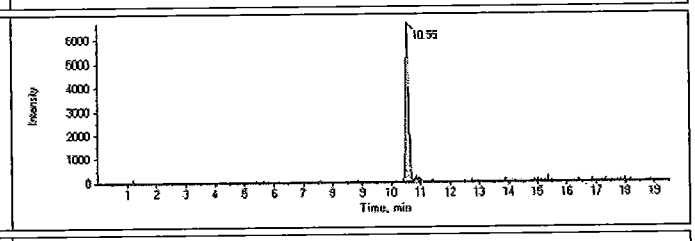
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.55 (10.57) min

Calculated conc: 0.005014

Area Ratio: 4.484e-2

Sample Type: (Standard)



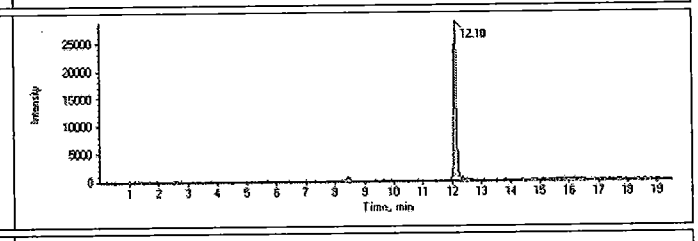
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.10 (12.12) min

Calculated conc: 0.005138

Area Ratio: 1.627e-1

Sample Type: (Standard)



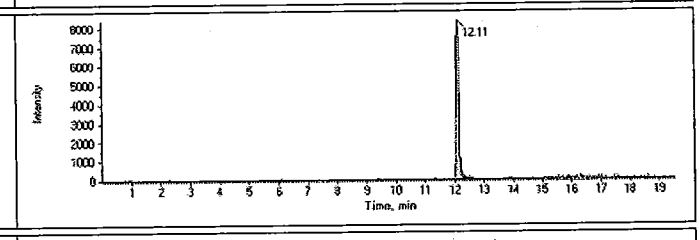
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.005094

Area Ratio: 5.159e-2

Sample Type: (Standard)



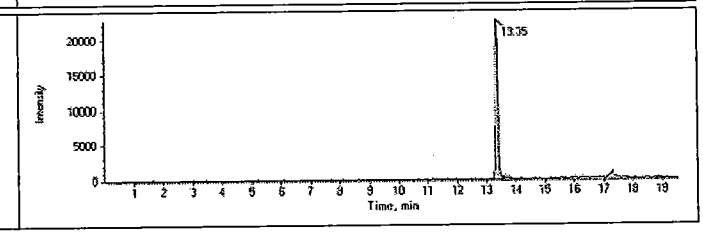
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.005476

Area Ratio: 1.247e-1

Sample Type: (Standard)



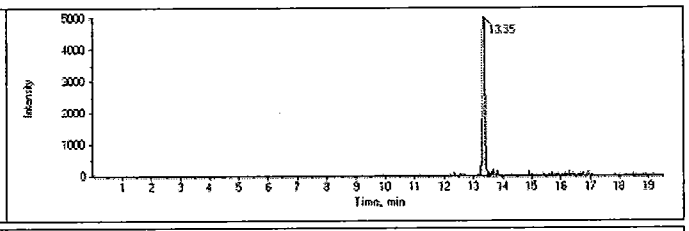
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.005667

Area Ratio: 3.013e-2

Sample Type: (Standard)



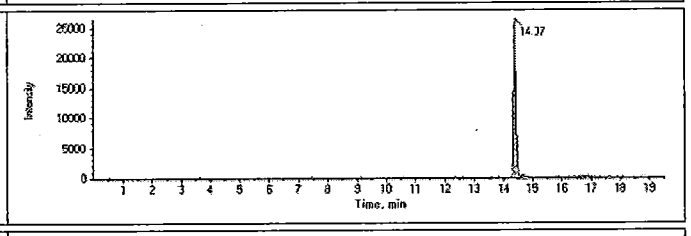
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 0.005493

Area Ratio: 1.365e-1

Sample Type: (Standard)



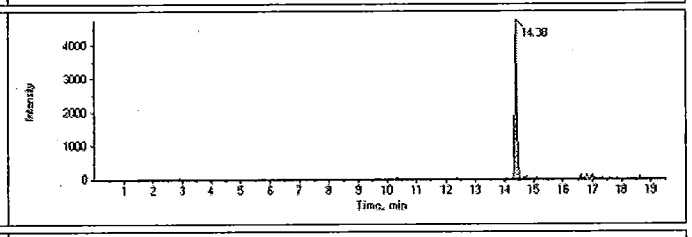
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.005689

Area Ratio: 2.232e-2

Sample Type: (Standard)



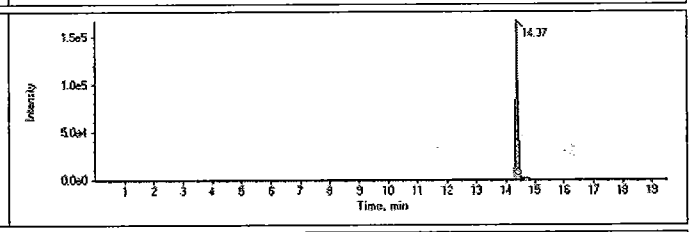
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 99.796531

Area Ratio: 8.081e-1

Sample Type: (Standard)



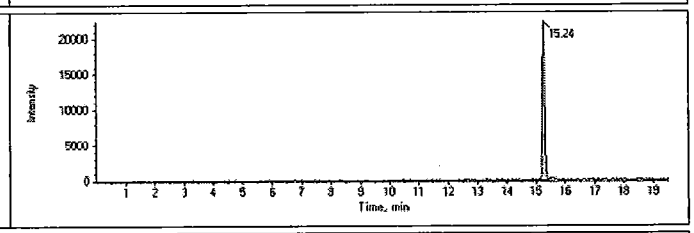
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.26) min

Calculated conc: 0.005672

Area Ratio: 1.172e-1

Sample Type: (Standard)



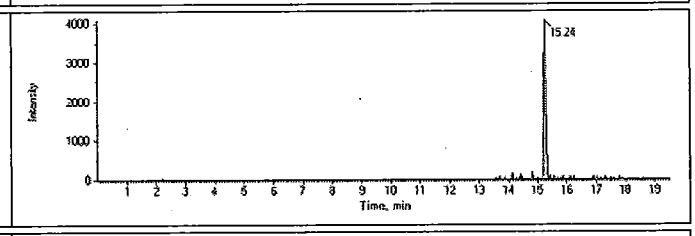
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.27) min

Calculated conc: 0.005637

Area Ratio: 1.909e-2

Sample Type: (Standard)



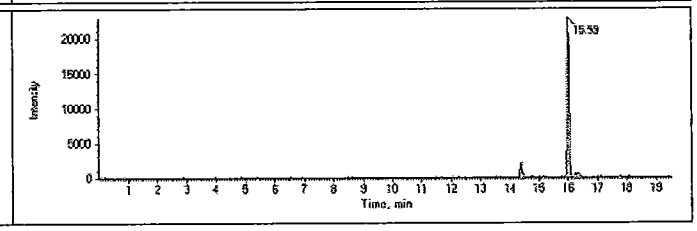
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (16.01) min

Calculated conc: 0.005857

Area Ratio: 1.041e-1

Sample Type: (Standard)

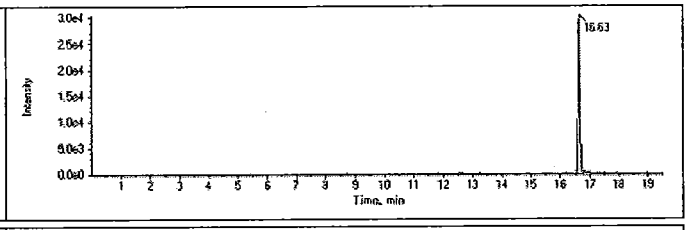


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.70) min

Calculated conc: 0.005332

Area Ratio: 1.346e-1
Sample Type: (Standard)

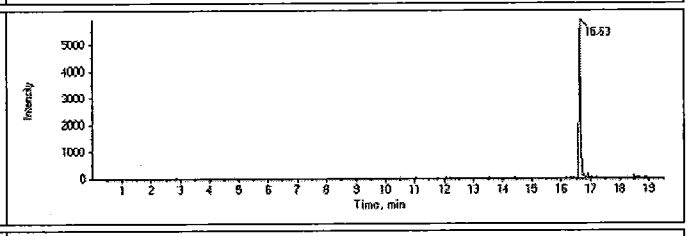


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.005659

Area Ratio: 2.469e-2
Sample Type: (Standard)

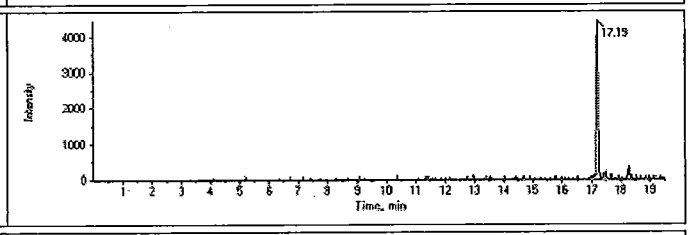


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.19 (17.20) min

Calculated conc: 0.004447

Area Ratio: 2.008e-2
Sample Type: (Standard)

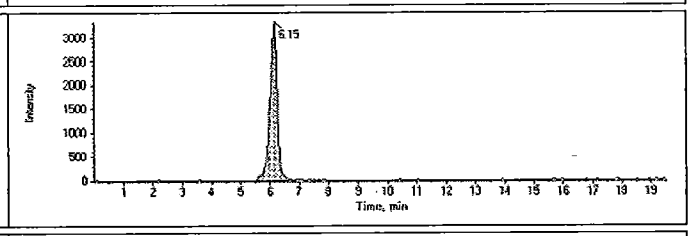


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.15 (6.18) min

Calculated conc: 0.004310

Area Ratio: 5.151e-2
Sample Type: (Standard)

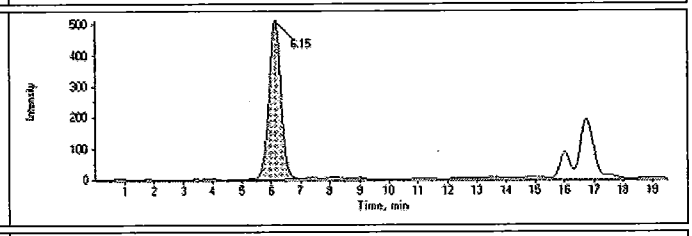


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.15 (6.16) min

Calculated conc: 0.004179

Area Ratio: 1.307e-2
Sample Type: (Standard)

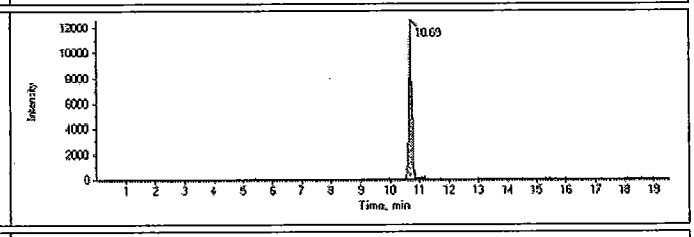


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.69 (10.71) min

Calculated conc: 0.005171

Area Ratio: 6.683e-2
Sample Type: (Standard)

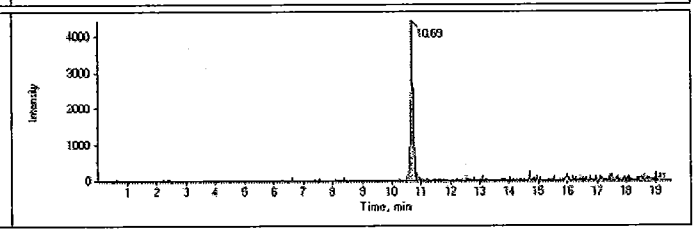


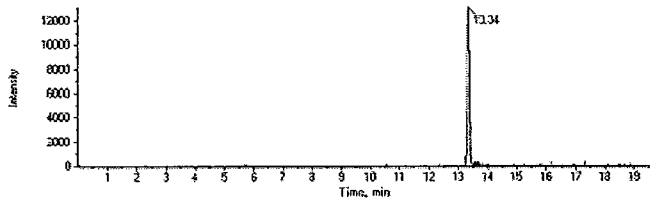
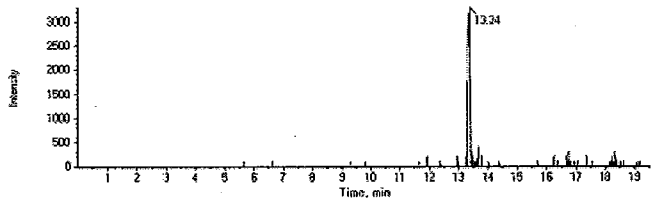
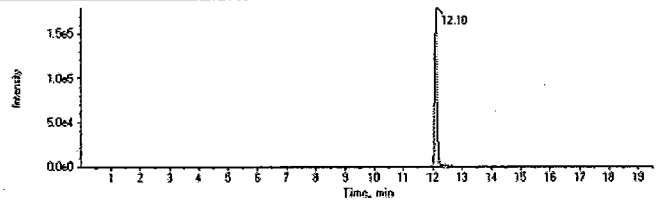
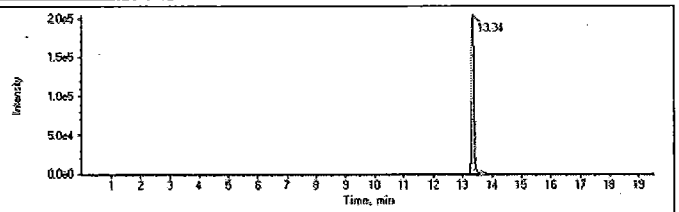
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.69 (10.71) min

Calculated conc: 0.004866

Area Ratio: 2.099e-2
Sample Type: (Standard)

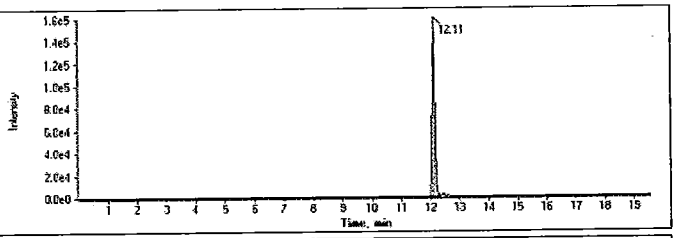
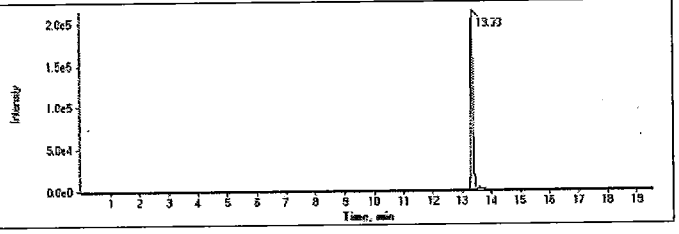


PFOS (499.0 / 79.9) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 0.004843 Area Ratio: 5.375e-2 Sample Type: (Standard)	
PFOS 2 (499.0 / 99.0) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 0.005187 Area Ratio: 1.613e-2 Sample Type: (Standard)	
13C-PFOA (417.0 / 372.0) RT (Exp. RT): 12.10 (12.12) min Calculated conc: 103.194920 Area Ratio: N/A Sample Type: (Standard)	
13C-PFOS (503.0 / 80.0) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 100.812783 Area Ratio: N/A Sample Type: (Standard)	

Sample Name	Cal-0.01ppb	**Injection Vial**	4
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 4:37:54 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	985920	12.11	100.00000	-
IS-13C-PFOS	1110334	13.33	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.898e+05	8.47	0.01000	0.010092
Surr-13c-PFHxA	9.188e+05	8.47	100.00000	100.154964
PFHpA	3.506e+05	10.56	0.01000	0.010344
PFHpA 2	8.920e+04	10.56	0.01000	0.010115
PFOA	3.141e+05	12.11	0.01000	0.010060
PFOA 2	1.029e+05	12.11	0.01000	0.010311
PFNA	2.463e+05	13.35	0.01000	0.010967
PFNA 2	5.786e+04	13.34	0.01000	0.011037
PFDA	2.674e+05	14.38	0.01000	0.010910
PFDA 2	4.639e+04	14.37	0.01000	0.011992
Surr-13c-PFDA	8.108e+05	14.38	100.00000	101.560795
PFUnA	2.370e+05	15.25	0.01000	0.011633
PFUnA 2	3.511e+04	15.25	0.01000	0.010518
PFDoA	1.914e+05	15.99	0.01000	0.010921
PFTrDA	2.743e+05	16.63	0.01000	0.011017
PFTrDA 2	4.472e+04	16.64	0.01000	0.010397
PFTA	4.267e+04	17.19	0.01000	0.009587
PFBS	1.120e+05	6.16	0.00887	0.008439
PFBS 2	3.220e+04	6.14	0.00887	0.009274
PFHxS	1.370e+05	10.70	0.00948	0.009548
PFHxS 2	4.728e+04	10.70	0.00948	0.009870
PFOS	1.207e+05	13.34	0.00958	0.009793
PFOS 2	3.521e+04	13.33	0.00958	0.010195
13C-PFOA	9.859e+05	12.11	100.00000	101.797966
13C-PFOS	1.110e+06	13.33	100.00000	100.892778

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.11(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.33(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

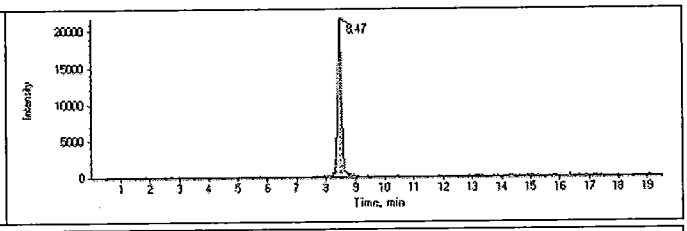
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 0.010092

Area Ratio: 1.925e-1

Sample Type: (Standard)



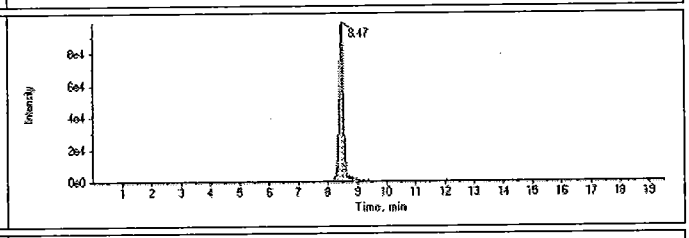
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 100.154964

Area Ratio: 9.320e-1

Sample Type: (Standard)



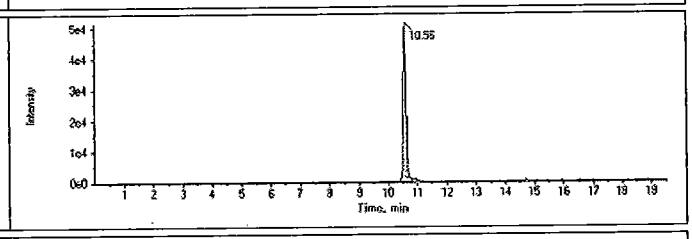
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.010344

Area Ratio: 3.556e-1

Sample Type: (Standard)



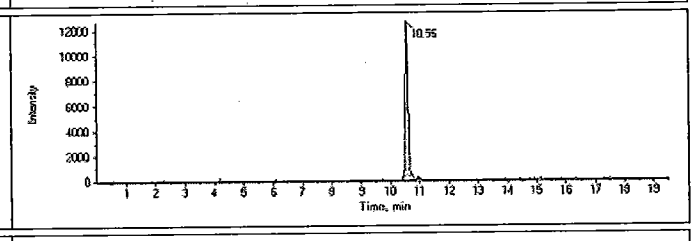
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.010115

Area Ratio: 9.047e-2

Sample Type: (Standard)



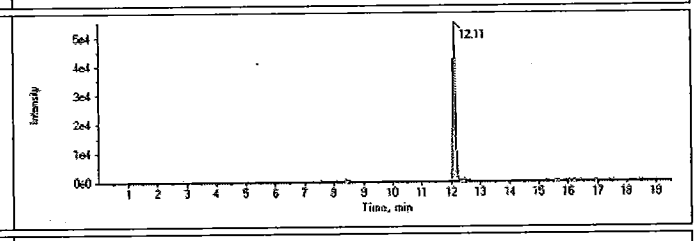
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.010060

Area Ratio: 3.186e-1

Sample Type: (Standard)



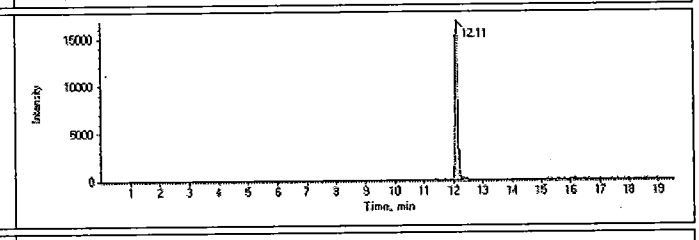
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.010311

Area Ratio: 1.044e-1

Sample Type: (Standard)



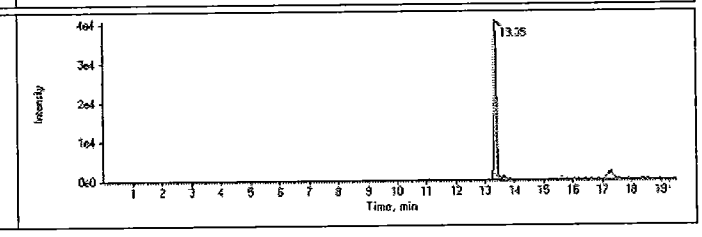
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.010967

Area Ratio: 2.498e-1

Sample Type: (Standard)

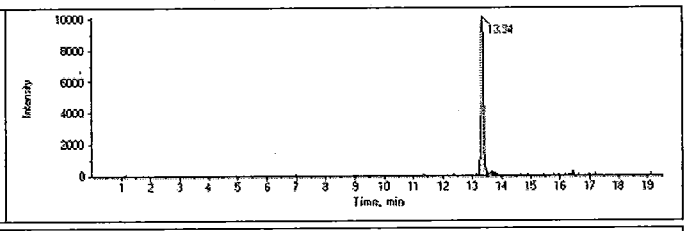


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 0.011037

Area Ratio: 5.868e-2
Sample Type: (Standard)

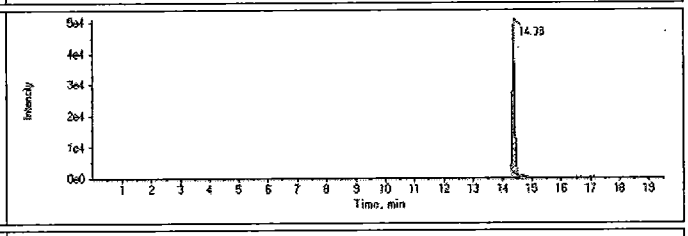


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.010910

Area Ratio: 2.712e-1
Sample Type: (Standard)

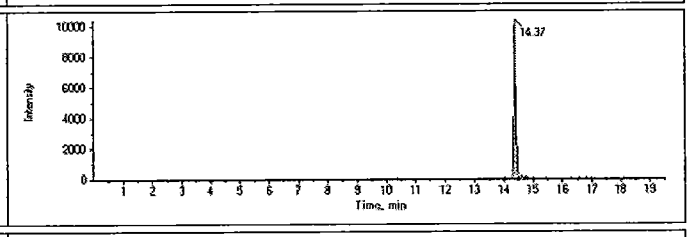


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 0.011992

Area Ratio: 4.705e-2
Sample Type: (Standard)

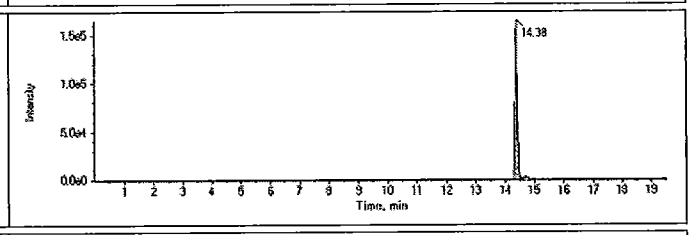


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 101.560795

Area Ratio: 8.224e-1
Sample Type: (Standard)

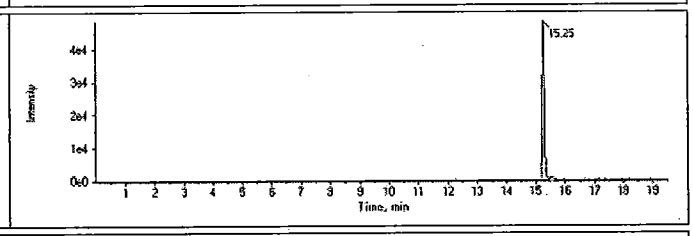


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.26) min

Calculated conc: 0.011633

Area Ratio: 2.404e-1
Sample Type: (Standard)

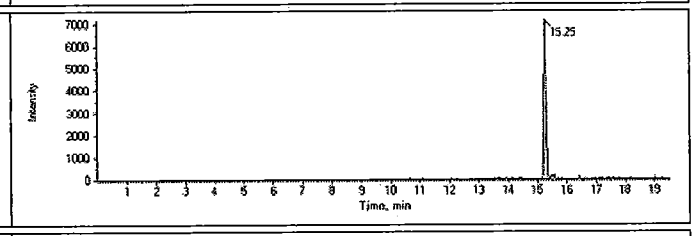


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.27) min

Calculated conc: 0.010518

Area Ratio: 3.561e-2
Sample Type: (Standard)

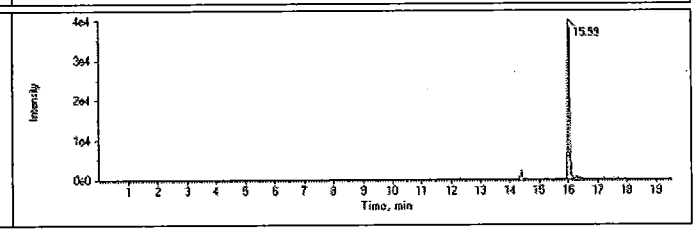


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (16.01) min

Calculated conc: 0.010921

Area Ratio: 1.941e-1
Sample Type: (Standard)

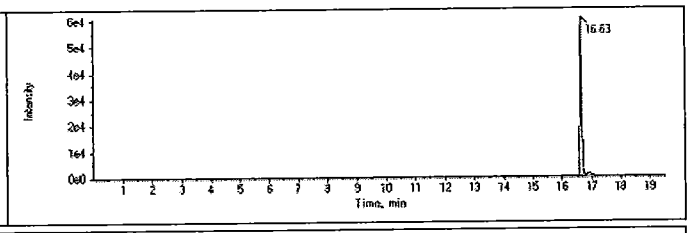


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.70) min

Calculated conc: 0.011017

Area Ratio: 2.782e-1
Sample Type: (Standard)

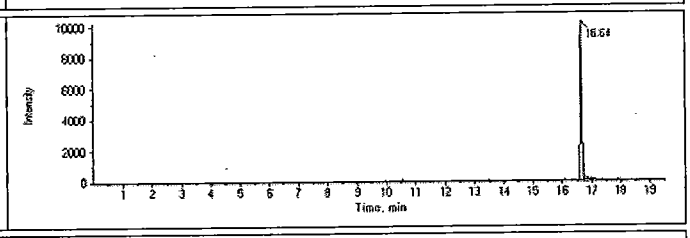


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.64 (16.60) min

Calculated conc: 0.010397

Area Ratio: 4.536e-2
Sample Type: (Standard)

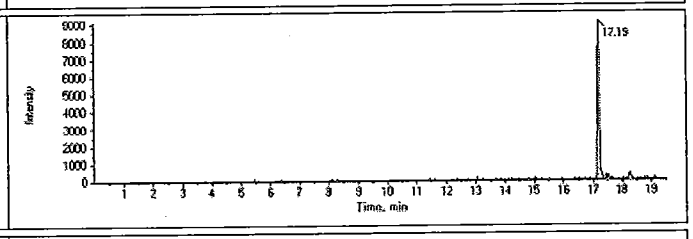


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.19 (17.20) min

Calculated conc: 0.009587

Area Ratio: 4.328e-2
Sample Type: (Standard)

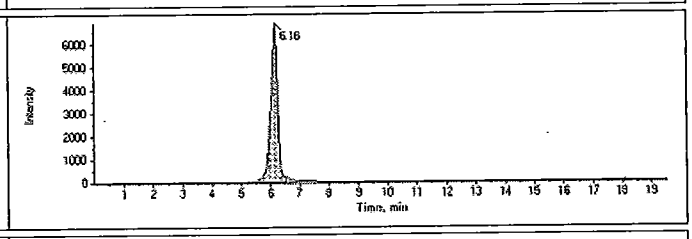


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.16 (6.18) min

Calculated conc: 0.008439

Area Ratio: 1.009e-1
Sample Type: (Standard)

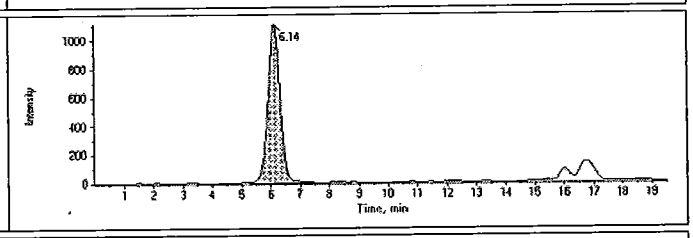


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.14 (6.16) min

Calculated conc: 0.009274

Area Ratio: 2.900e-2
Sample Type: (Standard)

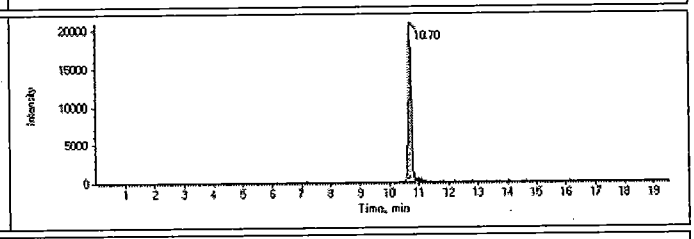


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.009548

Area Ratio: 1.234e-1
Sample Type: (Standard)

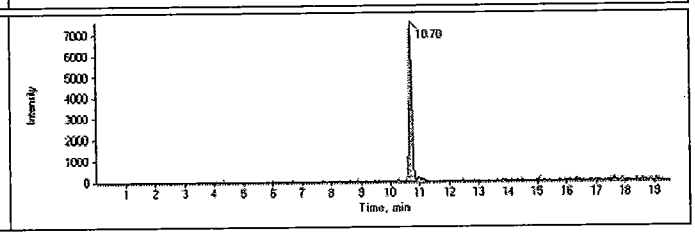


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.009870

Area Ratio: 4.258e-2
Sample Type: (Standard)



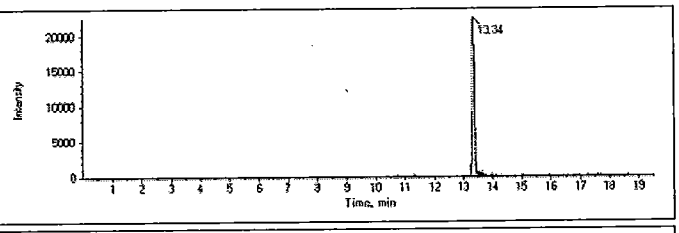
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.009793

Area Ratio: 1.087e-1

Sample Type: (Standard)



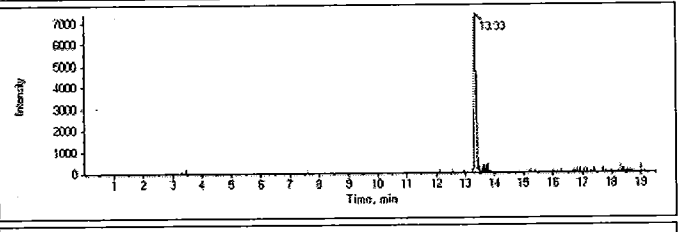
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 0.010195

Area Ratio: 3.171e-2

Sample Type: (Standard)



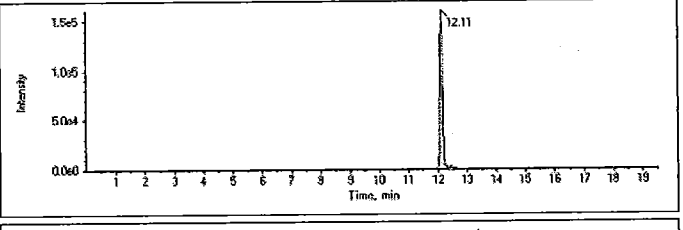
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 101.797966

Area Ratio: N/A

Sample Type: (Standard)



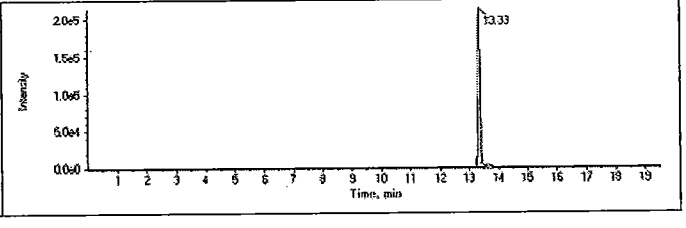
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 100.892778

Area Ratio: N/A

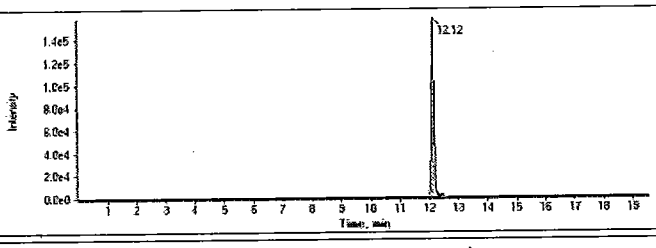
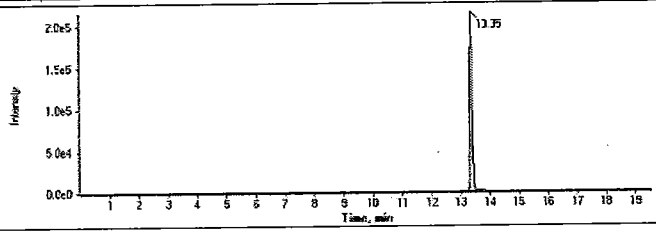
Sample Type: (Standard)



Sample Name	Cal-0.02ppb	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 4:58:03 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	948419	12.12	100.00000	-
IS-13C-PFOS	1143929	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.966e+05	8.48	0.02000	0.021928
Surr-13c-PFHxA	9.307e+05	8.48	100.00000	105.457375
PFHpA	6.883e+05	10.57	0.02000	0.021111
PFHpA 2	1.784e+05	10.57	0.02000	0.021036
PFOA	6.300e+05	12.12	0.02000	0.020976
PFOA 2	1.992e+05	12.12	0.02000	0.020743
PFNA	4.710e+05	13.36	0.02000	0.021803
PFNA 2	1.085e+05	13.36	0.02000	0.021522
PFDA	5.080e+05	14.39	0.02000	0.021547
PFDA 2	8.031e+04	14.39	0.02000	0.021582
Surr-13c-PFDA	7.903e+05	14.39	100.00000	102.901421
PFUnA	4.547e+05	15.26	0.02000	0.023202
PFUnA 2	6.883e+04	15.27	0.02000	0.021435
PFDoA	4.043e+05	16.01	0.02000	0.023987
PFTrDA	5.184e+05	16.65	0.02000	0.021651
PFTrDA 2	9.236e+04	16.65	0.02000	0.022318
PFTA	8.354e+04	17.21	0.02000	0.019513
PFBS	2.435e+05	6.18	0.01770	0.017810
PFBS 2	6.624e+04	6.16	0.01770	0.018521
PFHxS	2.897e+05	10.71	0.01900	0.019597
PFHxS 2	9.430e+04	10.71	0.01900	0.019109
PFOS	2.468e+05	13.35	0.01920	0.019440
PFOS 2	7.076e+04	13.35	0.01920	0.019888
13C-PFOA	9.484e+05	12.12	100.00000	97.925877
13C-PFOS	1.144e+06	13.35	100.00000	103.945455

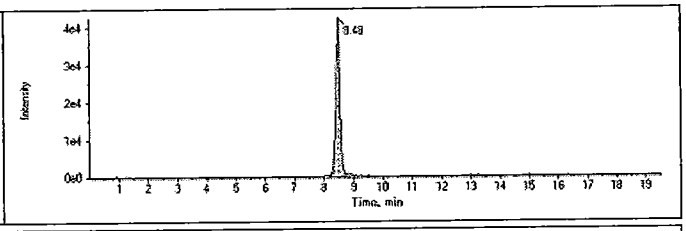
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.021928

Area Ratio: 4.182e-1
Sample Type: (Standard)

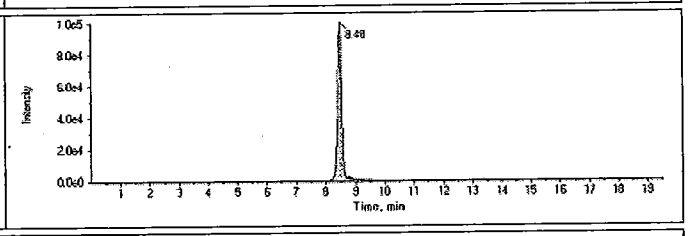


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 105.457375

Area Ratio: 9.813e-1
Sample Type: (Standard)

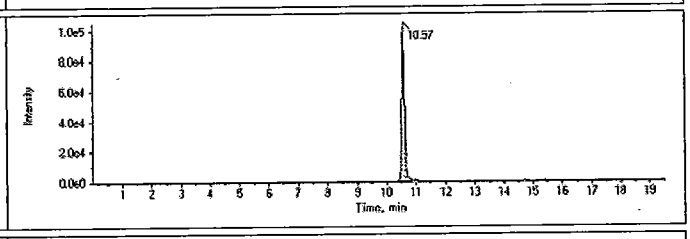


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.021111

Area Ratio: 7.258e-1
Sample Type: (Standard)

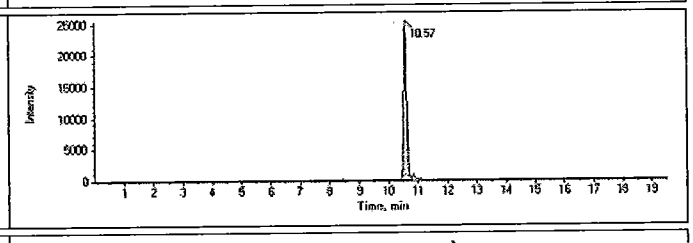


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.021036

Area Ratio: 1.881e-1
Sample Type: (Standard)

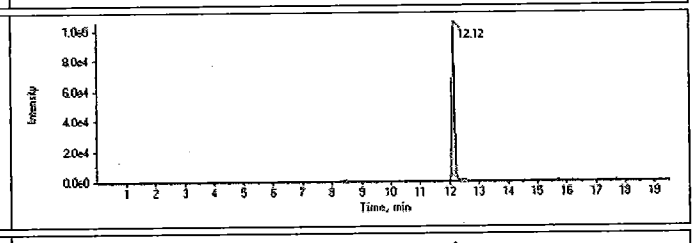


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.020976

Area Ratio: 6.643e-1
Sample Type: (Standard)

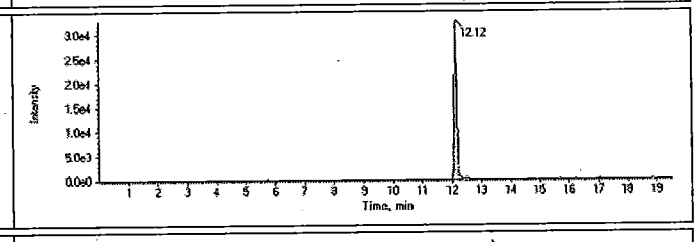


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.020743

Area Ratio: 2.101e-1
Sample Type: (Standard)

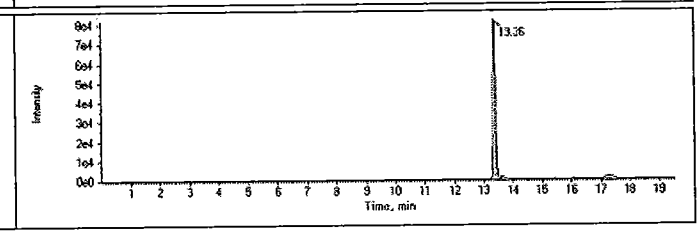


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.021803

Area Ratio: 4.966e-1
Sample Type: (Standard)

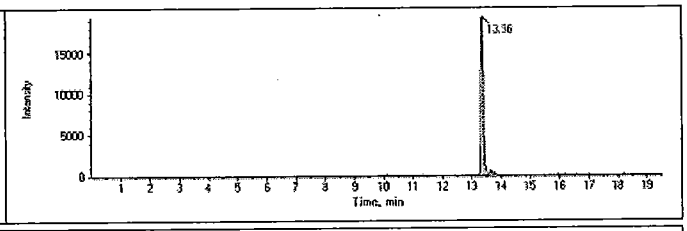


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.021522

Area Ratio: 1.144e-1
Sample Type: (Standard)

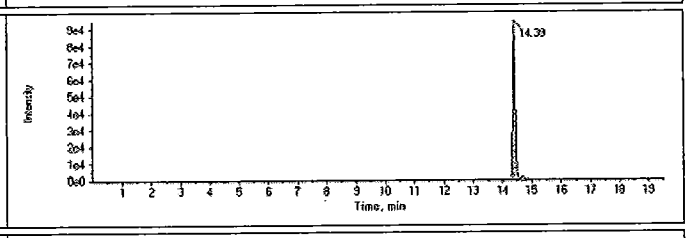


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.021547

Area Ratio: 5.356e-1
Sample Type: (Standard)

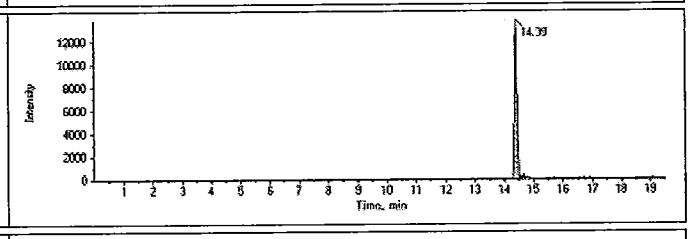


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.021582

Area Ratio: 8.468e-2
Sample Type: (Standard)

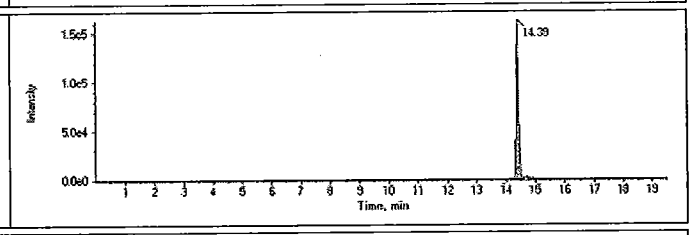


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 102.901421

Area Ratio: 8.333e-1
Sample Type: (Standard)

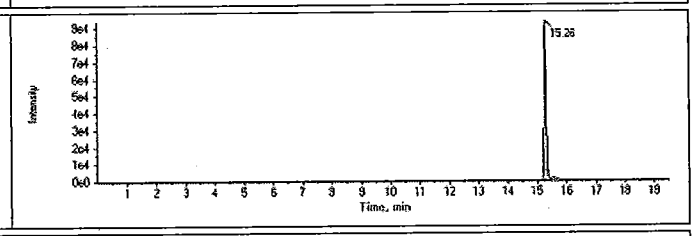


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.26 (15.26) min

Calculated conc: 0.023202

Area Ratio: 4.794e-1
Sample Type: (Standard)

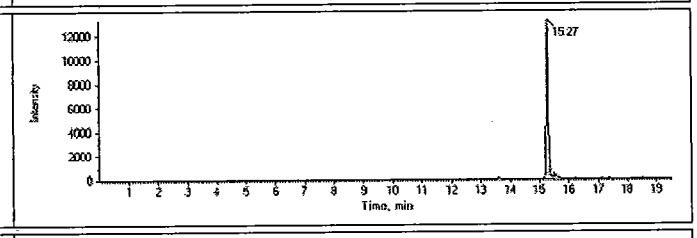


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.27 (15.27) min

Calculated conc: 0.021435

Area Ratio: 7.257e-2
Sample Type: (Standard)

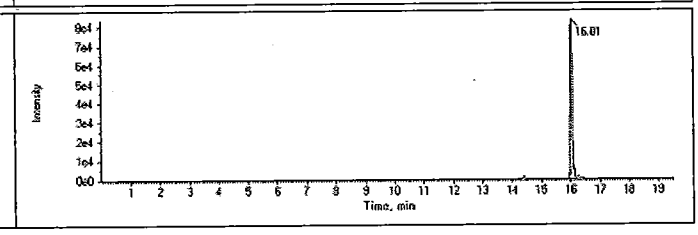


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.01 (16.01) min

Calculated conc: 0.023987

Area Ratio: 4.263e-1
Sample Type: (Standard)



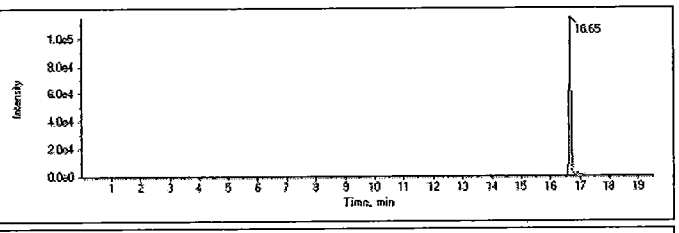
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.65 (16.70) min

Calculated conc: 0.021651

Area Ratio: 5.466e-1

Sample Type: (Standard)



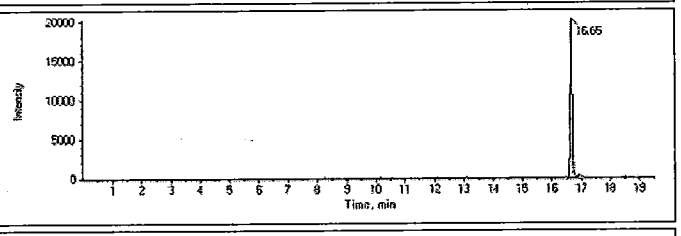
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min

Calculated conc: 0.022318

Area Ratio: 9.738e-2

Sample Type: (Standard)



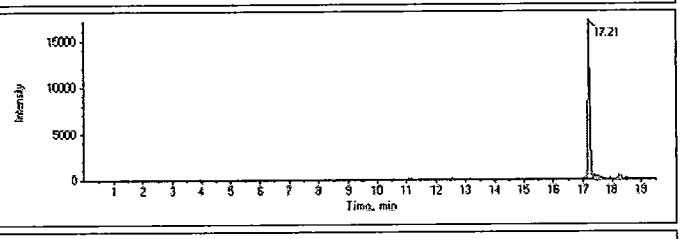
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.019513

Area Ratio: 8.809e-2

Sample Type: (Standard)



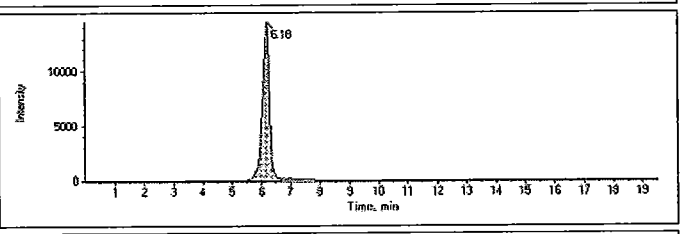
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.18 (6.18) min

Calculated conc: 0.017810

Area Ratio: 2.129e-1

Sample Type: (Standard)



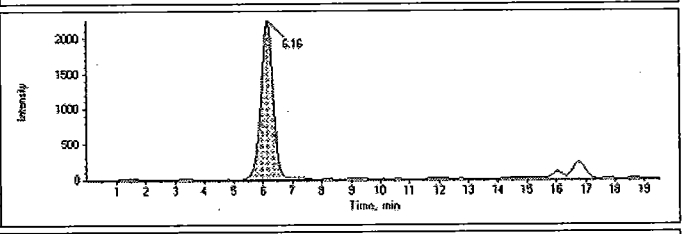
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.018521

Area Ratio: 5.791e-2

Sample Type: (Standard)



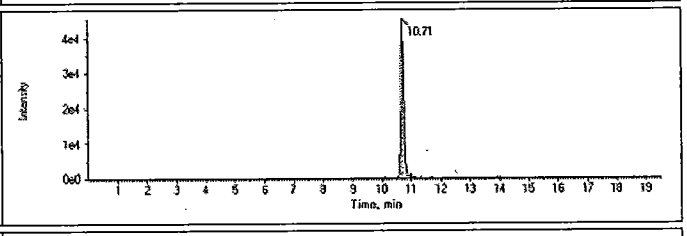
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.019597

Area Ratio: 2.533e-1

Sample Type: (Standard)



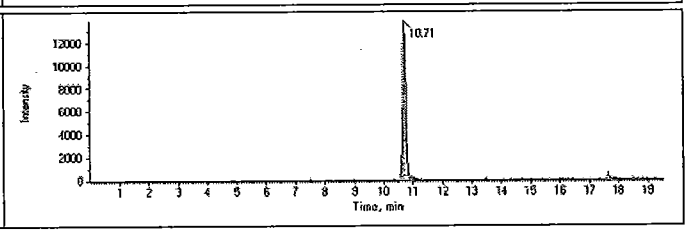
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.019109

Area Ratio: 8.244e-2

Sample Type: (Standard)

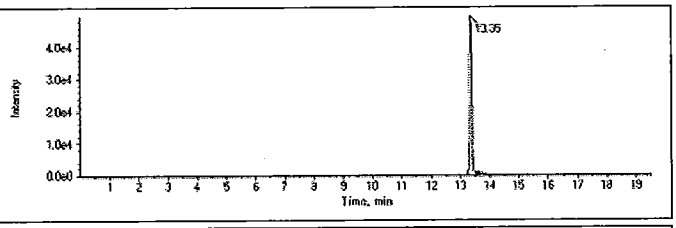


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.019440

Area Ratio: 2.157e-1
Sample Type: (Standard)

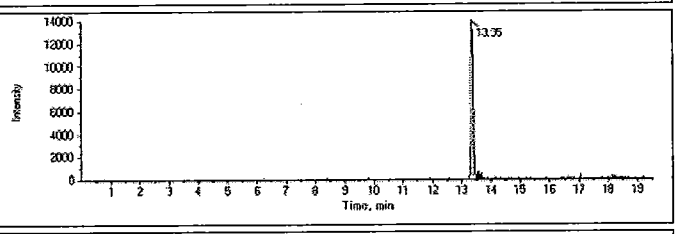


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.019888

Area Ratio: 6.186e-2
Sample Type: (Standard)

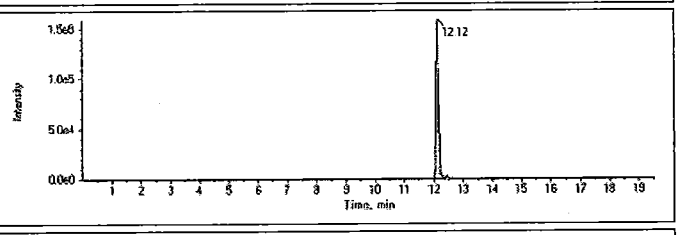


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 97.925877

Area Ratio: N/A
Sample Type: (Standard)

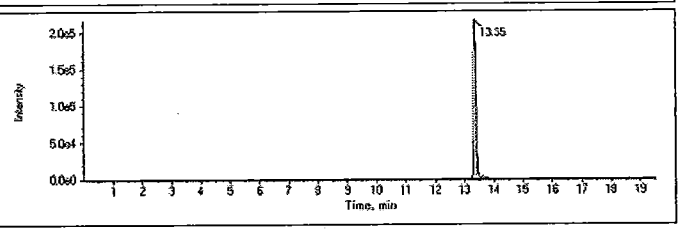


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 103.945455

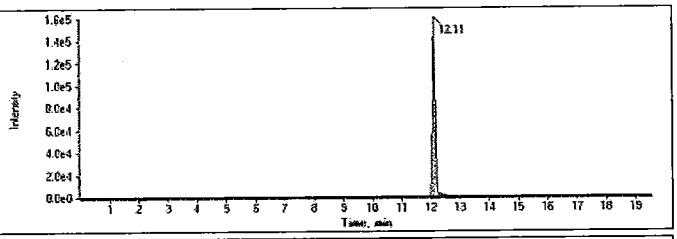
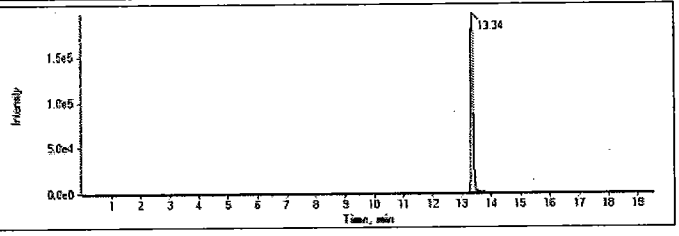
Area Ratio: N/A
Sample Type: (Standard)



Sample Name	Cal-0.04ppb	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 5:18:12 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	974101	12.11	100.00000	-
IS-13C-PFOS	1110472	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	7.546e+05	8.47	0.04000	0.040623
Surr-13c-PFHxA	8.878e+05	8.46	100.00000	97.943143
PFHpA	1.343e+06	10.55	0.04000	0.040109
PFHpA 2	3.562e+05	10.55	0.04000	0.040888
PFOA	1.244e+06	12.11	0.04000	0.040325
PFOA 2	3.880e+05	12.11	0.04000	0.039335
PFNA	9.187e+05	13.35	0.04000	0.041408
PFNA 2	2.185e+05	13.35	0.04000	0.042198
PFDA	9.862e+05	14.38	0.04000	0.040729
PFDA 2	1.562e+05	14.38	0.04000	0.040871
Surr-13c-PFDA	7.813e+05	14.38	100.00000	99.054941
PFUnA	8.481e+05	15.26	0.04000	0.042140
PFUnA 2	1.284e+05	15.26	0.04000	0.038926
PFDoA	7.149e+05	16.01	0.04000	0.041300
PFTrDA	1.018e+06	16.65	0.04000	0.041399
PFTrDA 2	1.886e+05	16.65	0.04000	0.044374
PFTA	1.718e+05	17.21	0.04000	0.039080
PFBS	4.623e+05	6.17	0.03550	0.034830
PFBS 2	1.172e+05	6.15	0.03550	0.033749
PFHxS	5.562e+05	10.69	0.03790	0.038754
PFHxS 2	1.721e+05	10.69	0.03790	0.035919
PFOS	4.655e+05	13.34	0.03830	0.037774
PFOS 2	1.259e+05	13.34	0.03830	0.036455
13C-PFOA	9.741e+05	12.11	100.00000	100.577577
13C-PFOS	1.110e+06	13.34	100.00000	100.905290

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.11(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

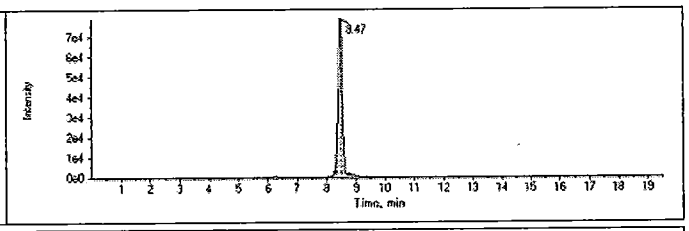
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 0.040623

Area Ratio: 7.747e-1

Sample Type: (Standard)



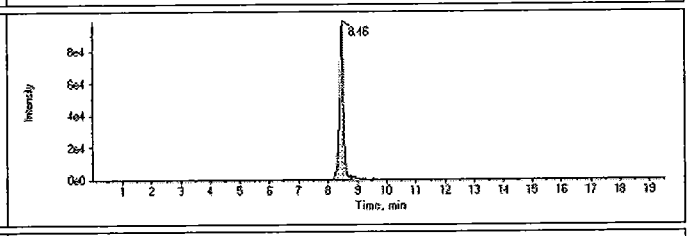
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.46 (8.48) min

Calculated conc: 97.943143

Area Ratio: 9.114e-1

Sample Type: (Standard)



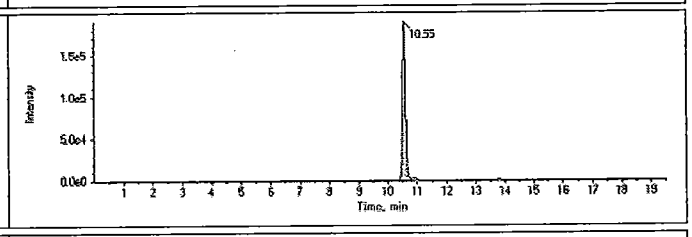
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.55 (10.57) min

Calculated conc: 0.040109

Area Ratio: 1.379e0

Sample Type: (Standard)



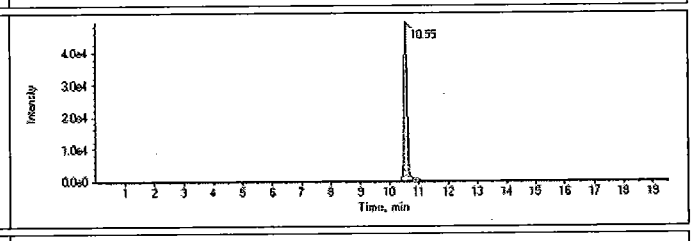
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.55 (10.57) min

Calculated conc: 0.040888

Area Ratio: 3.657e-1

Sample Type: (Standard)



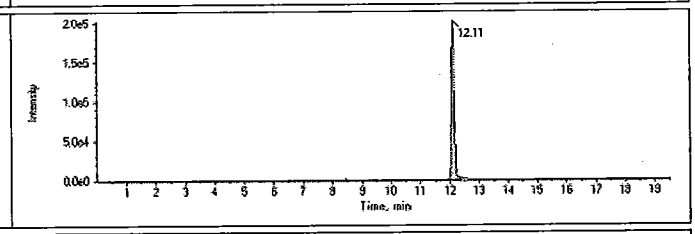
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.040325

Area Ratio: 1.277e0

Sample Type: (Standard)



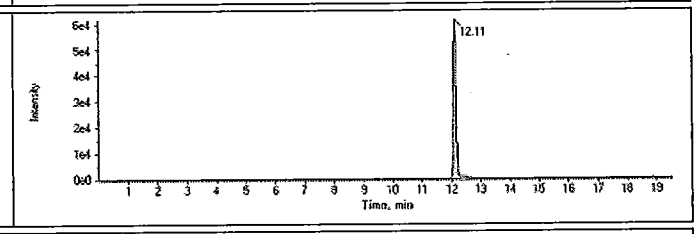
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.039335

Area Ratio: 3.983e-1

Sample Type: (Standard)



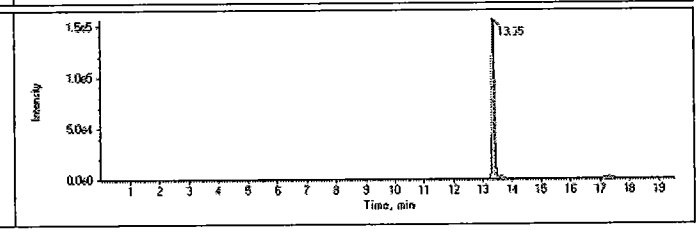
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.041408

Area Ratio: 9.431e-1

Sample Type: (Standard)



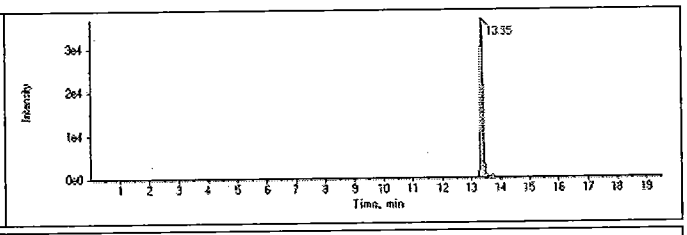
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.042198

Area Ratio: 2.243e-1

Sample Type: (Standard)



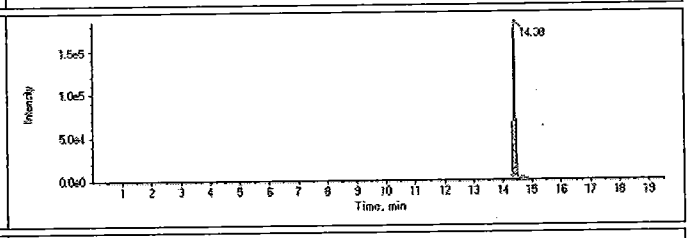
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.040729

Area Ratio: 1.012e0

Sample Type: (Standard)



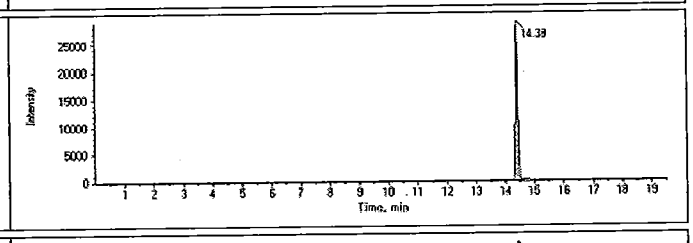
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.040871

Area Ratio: 1.604e-1

Sample Type: (Standard)



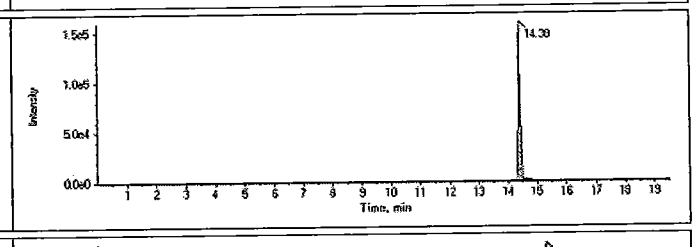
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 99.054941

Area Ratio: 8.021e-1

Sample Type: (Standard)



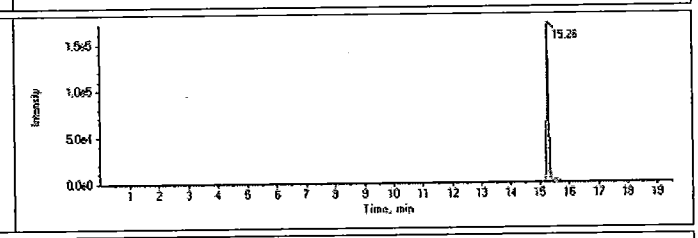
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.26 (15.26) min

Calculated conc: 0.042140

Area Ratio: 8.707e-1

Sample Type: (Standard)



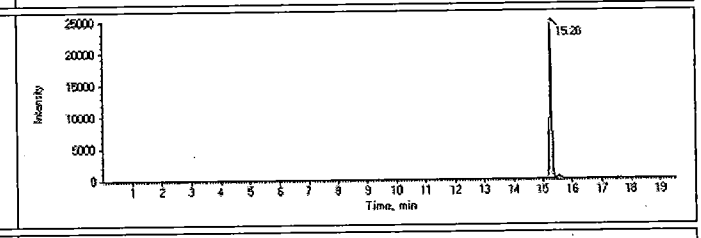
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.27) min

Calculated conc: 0.038926

Area Ratio: 1.318e-1

Sample Type: (Standard)



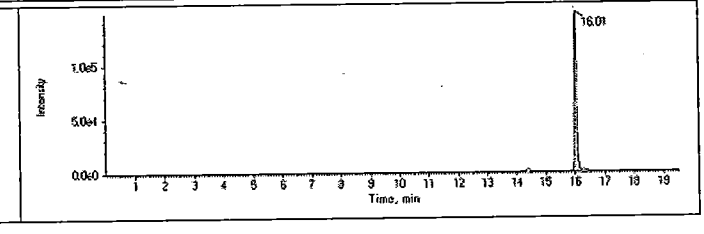
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.01 (16.01) min

Calculated conc: 0.041300

Area Ratio: 7.340e-1

Sample Type: (Standard)



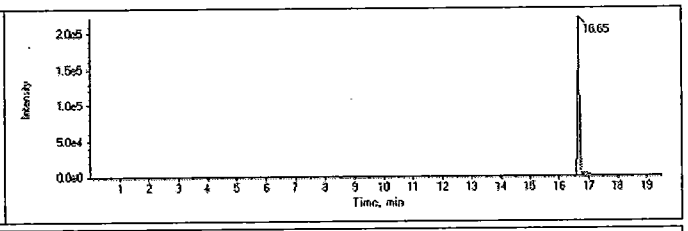
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.65 (16.70) min

Calculated conc: 0.041399

Area Ratio: 1.045e0

Sample Type: (Standard)



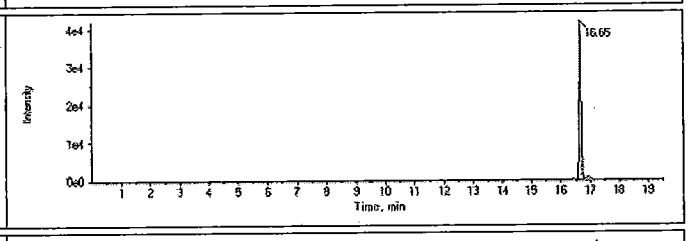
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min

Calculated conc: 0.044374

Area Ratio: 1.936e-1

Sample Type: (Standard)



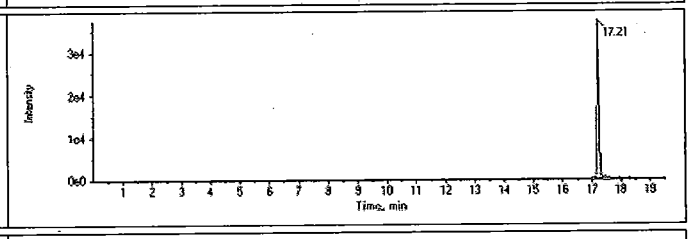
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.039080

Area Ratio: 1.764e-1

Sample Type: (Standard)



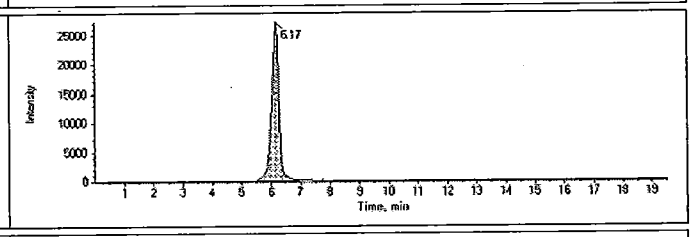
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.034830

Area Ratio: 4.163e-1

Sample Type: (Standard)



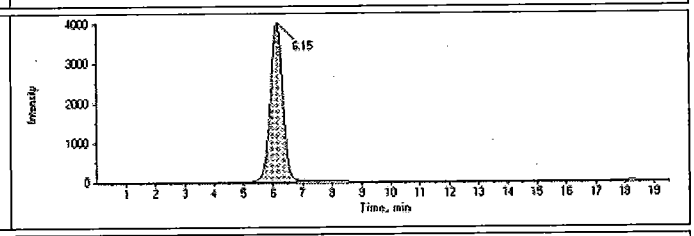
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.15 (6.16) min

Calculated conc: 0.033749

Area Ratio: 1.055e-1

Sample Type: (Standard)



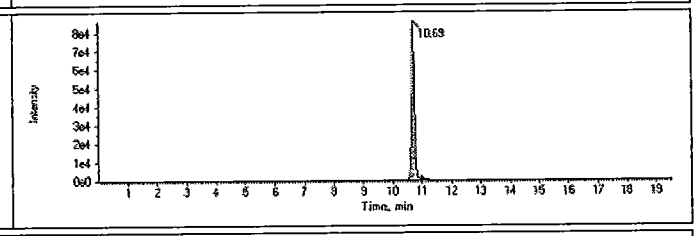
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.69 (10.71) min

Calculated conc: 0.038754

Area Ratio: 5.009e-1

Sample Type: (Standard)



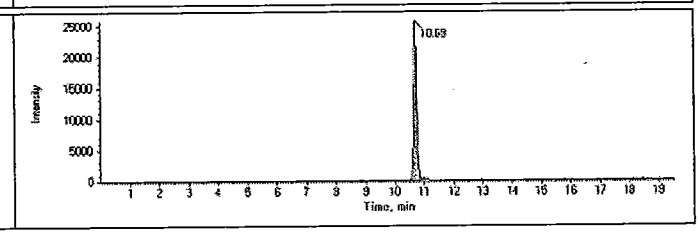
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.69 (10.71) min

Calculated conc: 0.035919

Area Ratio: 1.550e-1

Sample Type: (Standard)

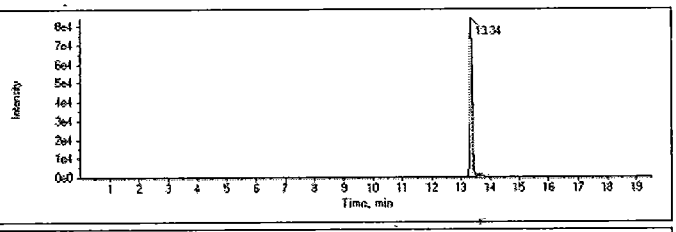


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.037774

Area Ratio: 4.192e-1
Sample Type: (Standard)

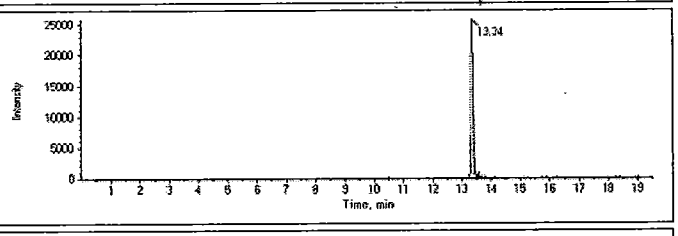


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.036455

Area Ratio: 1.134e-1
Sample Type: (Standard)

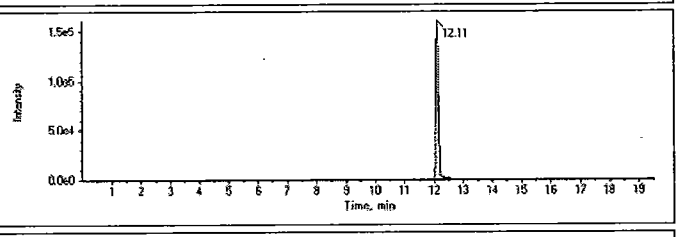


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 100.577577

Area Ratio: N/A
Sample Type: (Standard)

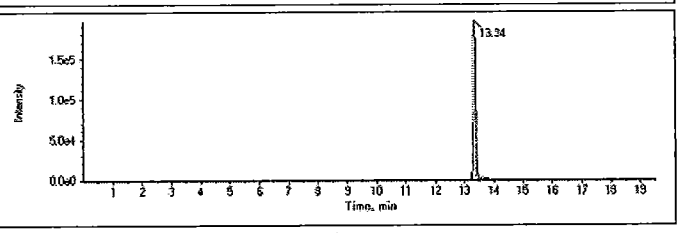


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 100.905290

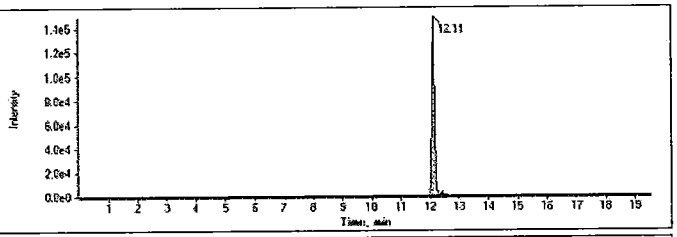
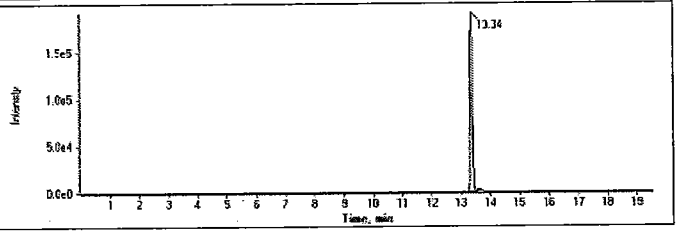
Area Ratio: N/A
Sample Type: (Standard)



Sample Name	Cal-0.08ppb	**Injection Vial**	7
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 5:38:20 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	964593	12.11	100.00000	-
IS-13C-PFOS	1058854	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.456e+06	8.47	0.08000	0.079177
Surr-13c-PFHxA	9.215e+05	8.48	100.00000	102.664929
PFHpA	2.640e+06	10.56	0.08000	0.079613
PFHpA 2	6.840e+05	10.56	0.08000	0.079291
PFOA	2.431e+06	12.11	0.08000	0.079575
PFOA 2	7.823e+05	12.11	0.08000	0.080086
PFNA	1.729e+06	13.35	0.08000	0.078692
PFNA 2	4.018e+05	13.35	0.08000	0.078350
PFDA	1.897e+06	14.38	0.08000	0.079100
PFDA 2	2.985e+05	14.38	0.08000	0.078870
Surr-13c-PFDA	7.381e+05	14.38	100.00000	94.491447
PFUnA	1.552e+06	15.26	0.08000	0.077877
PFUnA 2	2.615e+05	15.26	0.08000	0.080083
PFDoA	1.340e+06	16.01	0.08000	0.078183
PFTrDA	1.918e+06	16.65	0.08000	0.078736
PFTrDA 2	3.247e+05	16.65	0.08000	0.077139
PFTA	3.513e+05	17.21	0.08000	0.080667
PFBS	9.032e+05	6.17	0.07100	0.071368
PFBS 2	2.371e+05	6.15	0.07100	0.071627
PFHxS	1.029e+06	10.70	0.07580	0.075188
PFHxS 2	3.504e+05	10.70	0.07580	0.076709
PFOS	9.022e+05	13.34	0.07660	0.076771
PFOS 2	2.544e+05	13.34	0.07660	0.077255
13C-PFOA	9.646e+05	12.11	100.00000	99.595906
13C-PFOS	1.059e+06	13.34	100.00000	96.214866

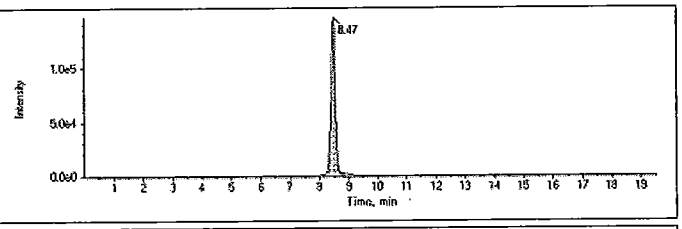
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.11(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Standard)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 0.079177

Area Ratio: 1.510e0
Sample Type: (Standard)

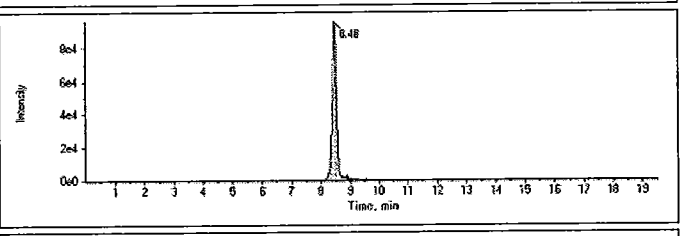


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 102.664929

Area Ratio: 9.553e-1
Sample Type: (Standard)

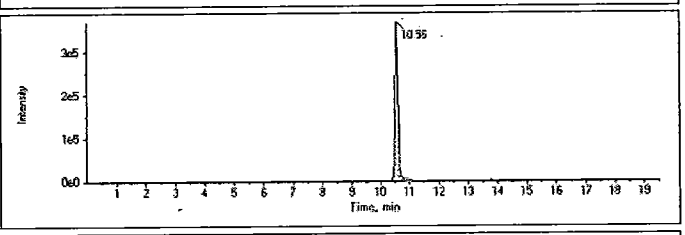


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.079613

Area Ratio: 2.737e0
Sample Type: (Standard)

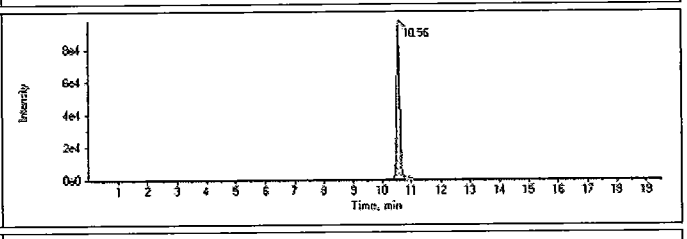


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.079291

Area Ratio: 7.092e-1
Sample Type: (Standard)

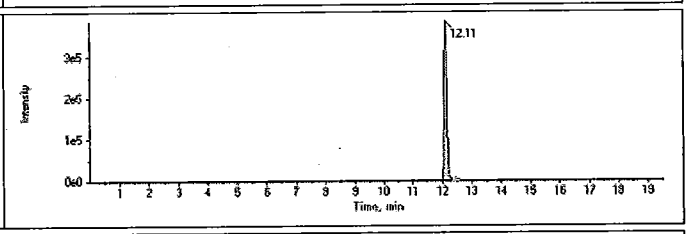


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.079575

Area Ratio: 2.520e0
Sample Type: (Standard)

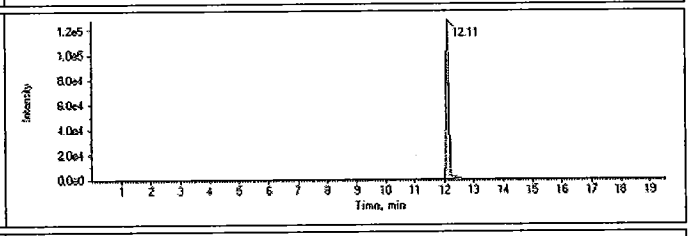


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.080086

Area Ratio: 8.110e-1
Sample Type: (Standard)

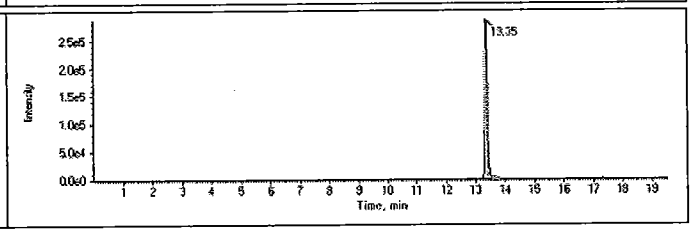


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.078692

Area Ratio: 1.792e0
Sample Type: (Standard)

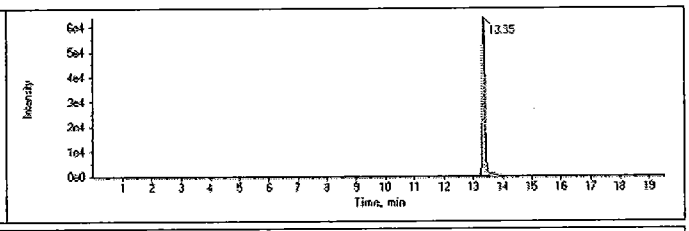


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.078350

Area Ratio: 4.166e-1
Sample Type: (Standard)

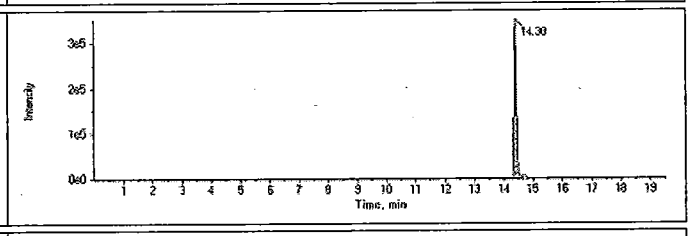


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.079100

Area Ratio: 1.966e0
Sample Type: (Standard)

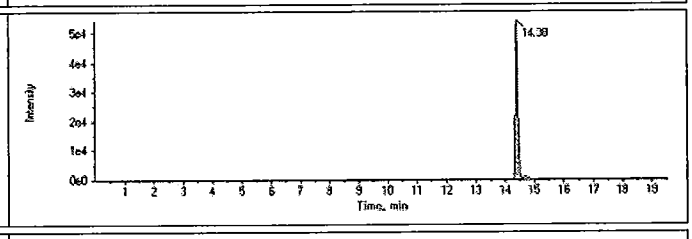


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.078870

Area Ratio: 3.095e-1
Sample Type: (Standard)

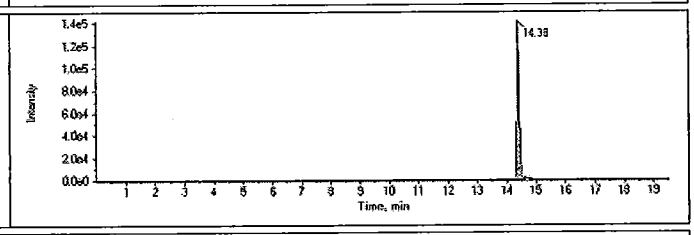


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 94.491447

Area Ratio: 7.652e-1
Sample Type: (Standard)

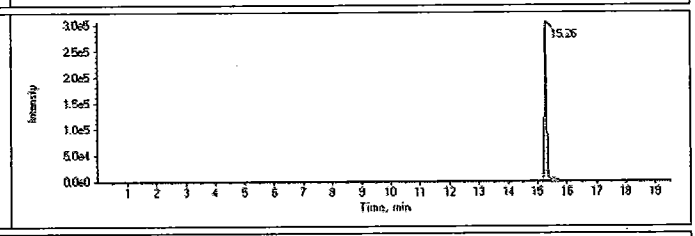


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.26 (15.26) min

Calculated conc: 0.077877

Area Ratio: 1.609e0
Sample Type: (Standard)

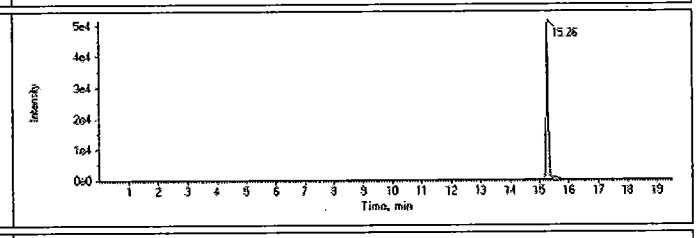


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.27) min

Calculated conc: 0.080083

Area Ratio: 2.711e-1
Sample Type: (Standard)

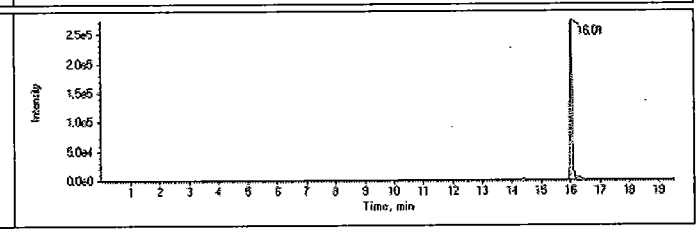


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.01 (16.01) min

Calculated conc: 0.078183

Area Ratio: 1.389e0
Sample Type: (Standard)



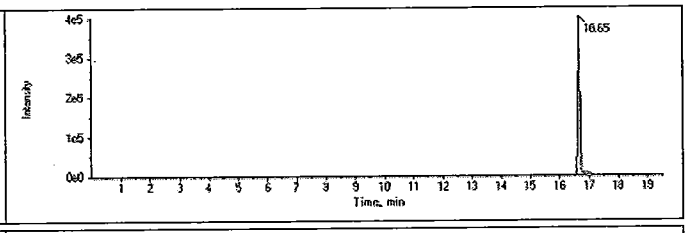
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.65 (16.70) min

Calculated conc: 0.078736

Area Ratio: 1.988e0

Sample Type: (Standard)



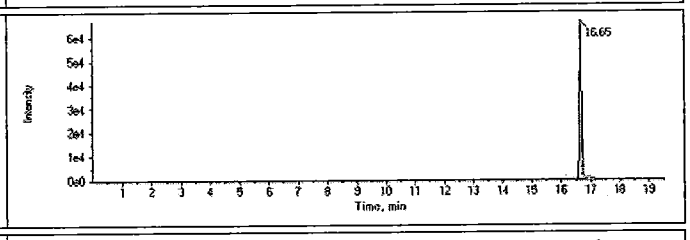
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min

Calculated conc: 0.077139

Area Ratio: 3.366e-1

Sample Type: (Standard)



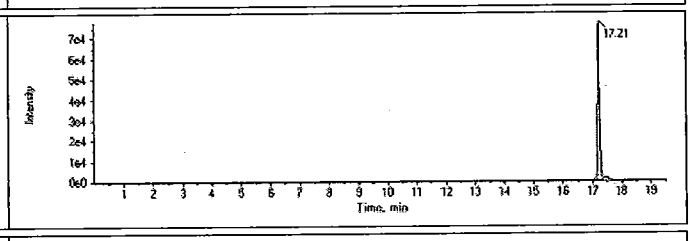
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.080667

Area Ratio: 3.641e-1

Sample Type: (Standard)



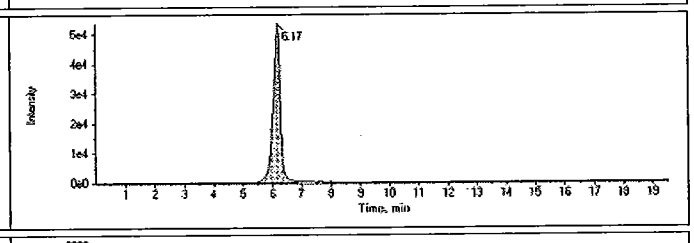
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.071368

Area Ratio: 8.530e-1

Sample Type: (Standard)



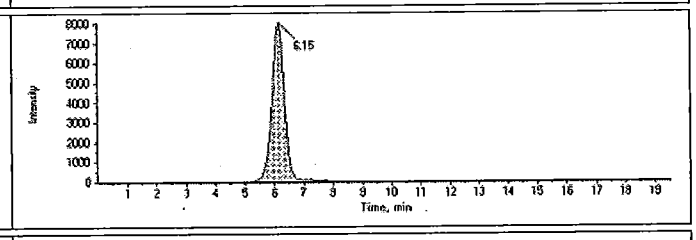
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.15 (6.16) min

Calculated conc: 0.071627

Area Ratio: 2.239e-1

Sample Type: (Standard)



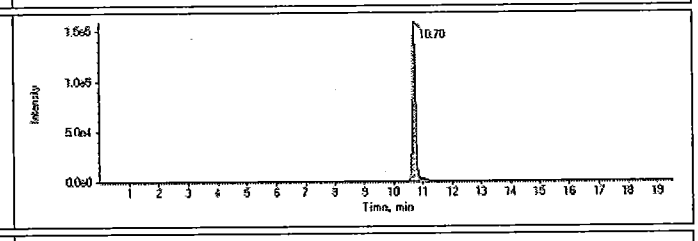
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.075188

Area Ratio: 9.718e-1

Sample Type: (Standard)



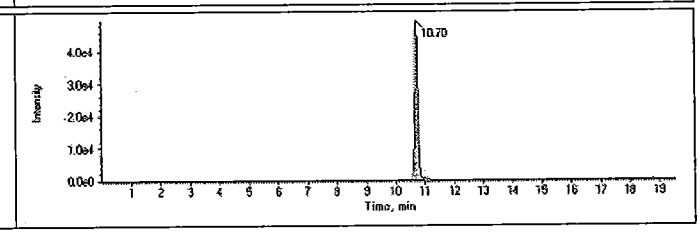
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.076709

Area Ratio: 3.309e-1

Sample Type: (Standard)

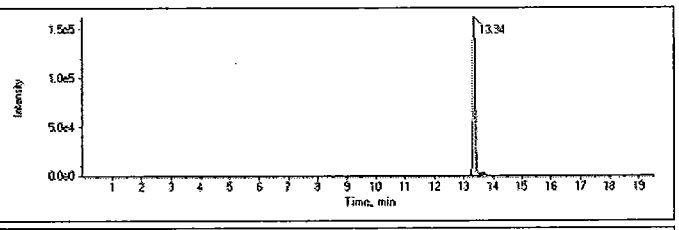


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.076771

Area Ratio: 8.520e-1
Sample Type: (Standard)

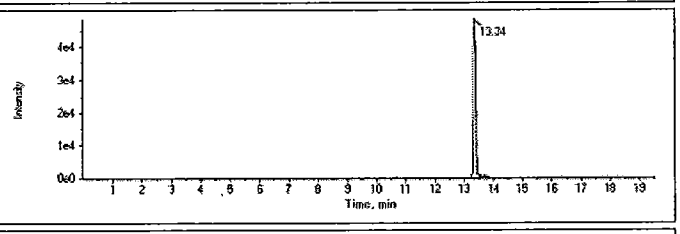


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.077255

Area Ratio: 2.403e-1
Sample Type: (Standard)

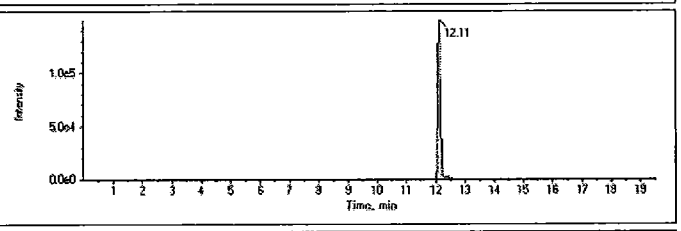


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 99.595906

Area Ratio: N/A
Sample Type: (Standard)

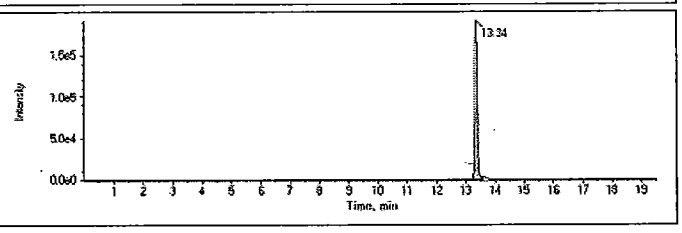


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 96.214866

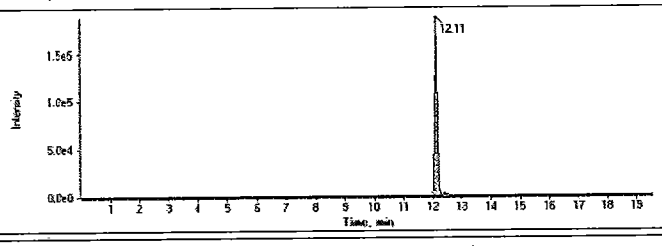
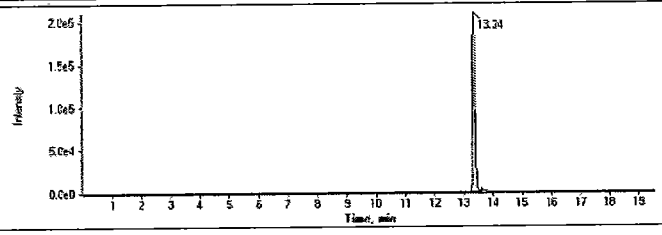
Area Ratio: N/A
Sample Type: (Standard)



Sample Name	CCCL_0.0025ppb	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 5:58:29 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1048464	12.11	100.00000	-
IS-13C-PFOS	1131335	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.786e+04	8.48	0.00250	0.002394
Surr-13c-PFHxA	9.476e+05	8.47	100.00000	97.124134
PFHpA	9.057e+04	10.57	0.00250	0.002513
PFHpA 2	2.550e+04	10.57	0.00250	0.002720
PFOA	8.689e+04	12.12	0.00250	0.002617
PFOA 2	2.776e+04	12.11	0.00250	0.002614
PFNA	6.781e+04	13.36	0.00250	0.002840
PFNA 2	1.639e+04	13.35	0.00250	0.002940
PFDA	6.676e+04	14.39	0.00250	0.002562
PFDA 2	1.162e+04	14.38	0.00250	0.002825
Surr-13c-PFDA	8.515e+05	14.38	100.00000	100.292930
PFUnA	6.117e+04	15.25	0.00250	0.002824
PFUnA 2	9.627e+03	15.26	0.00250	0.002712
PFDoA	4.653e+04	15.99	0.00250	0.002497
PFTrDA	6.777e+04	16.64	0.00250	0.002560
PFTrDA 2	1.054e+04	16.64	0.00250	0.002305
PFTA	1.387e+04	17.21	0.00250	0.002931
PFBS	2.883e+04	6.18	0.00222	0.002132
PFBS 2	7.445e+03	6.16	0.00222	0.002105
PFHxS	3.526e+04	10.71	0.00237	0.002412
PFHxS 2	1.045e+04	10.70	0.00237	0.002140
PFOS	2.942e+04	13.35	0.00240	0.002343
PFOS 2	9.563e+03	13.36	0.00240	0.002718
13C-PFOA	1.048e+06	12.11	100.00000	108.255699
13C-PFOS	1.131e+06	13.34	100.00000	102.801030

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.11(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

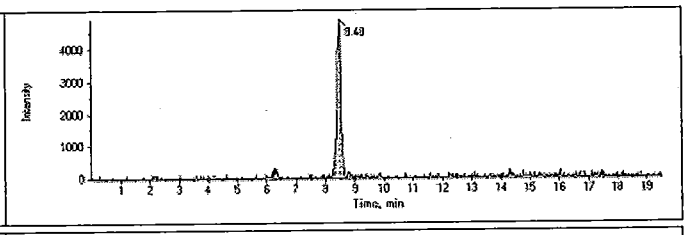
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.002394

Area Ratio: 4.565e-2

Sample Type: (Quality Control)



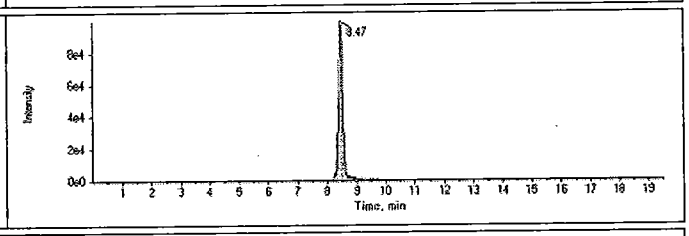
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 97.124134

Area Ratio: 9.038e-1

Sample Type: (Quality Control)



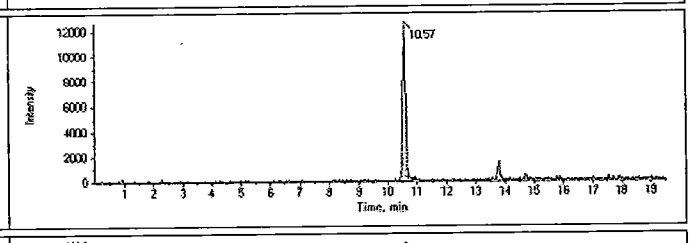
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.002513

Area Ratio: 8.639e-2

Sample Type: (Quality Control)



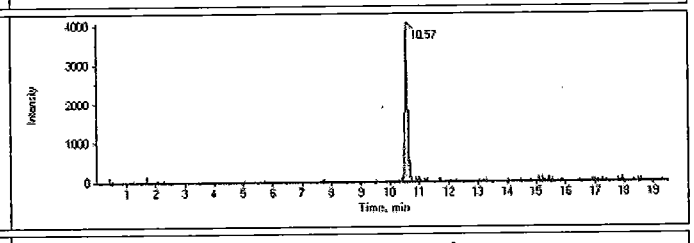
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.002720

Area Ratio: 2.433e-2

Sample Type: (Quality Control)



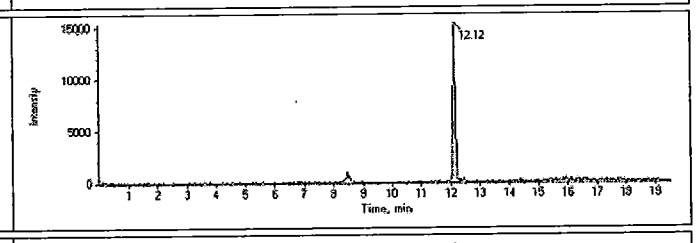
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.002617

Area Ratio: 8.288e-2

Sample Type: (Quality Control)



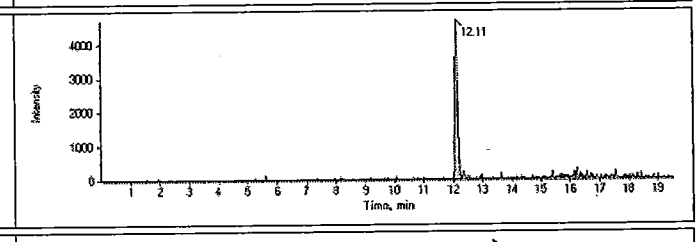
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.002614

Area Ratio: 2.647e-2

Sample Type: (Quality Control)



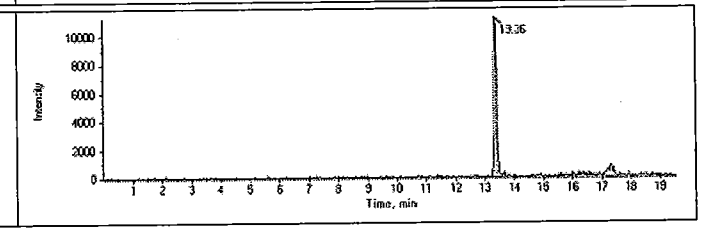
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.002840

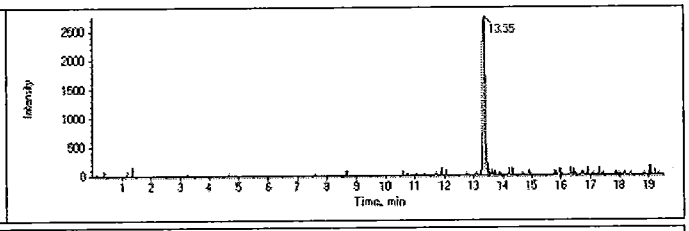
Area Ratio: 6.468e-2

Sample Type: (Quality Control)



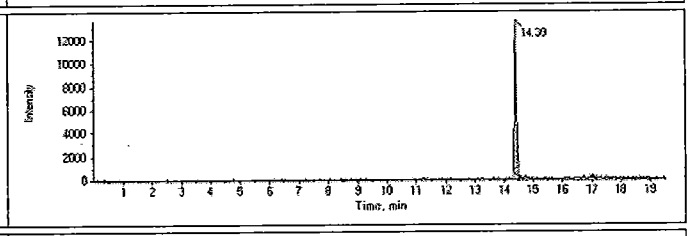
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min
Calculated conc: 0.002940
Area Ratio: 1.563e-2
Sample Type: (Quality Control)



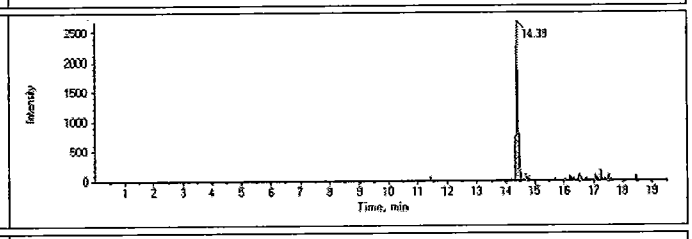
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min
Calculated conc: 0.002562
Area Ratio: 6.368e-2
Sample Type: (Quality Control)



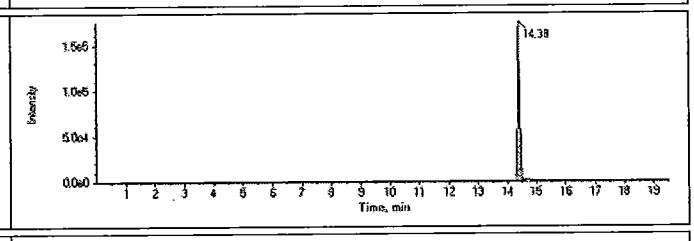
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min
Calculated conc: 0.002825
Area Ratio: 1.109e-2
Sample Type: (Quality Control)



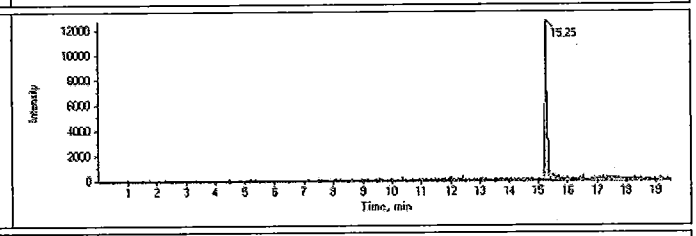
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min
Calculated conc: 100.292930
Area Ratio: 8.121e-1
Sample Type: (Quality Control)



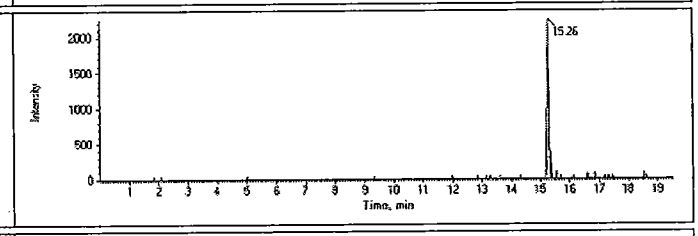
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.26) min
Calculated conc: 0.002824
Area Ratio: 5.834e-2
Sample Type: (Quality Control)



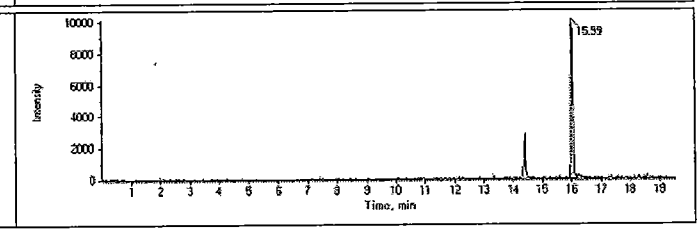
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.27) min
Calculated conc: 0.002712
Area Ratio: 9.182e-3
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (16.01) min
Calculated conc: 0.002497
Area Ratio: 4.438e-2
Sample Type: (Quality Control)



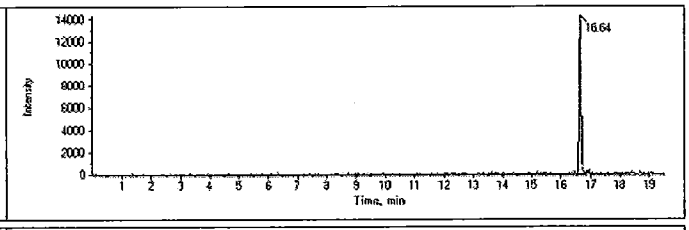
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.64 (16.70) min

Calculated conc: 0.002560

Area Ratio: 6.464e-2

Sample Type: (Quality Control)



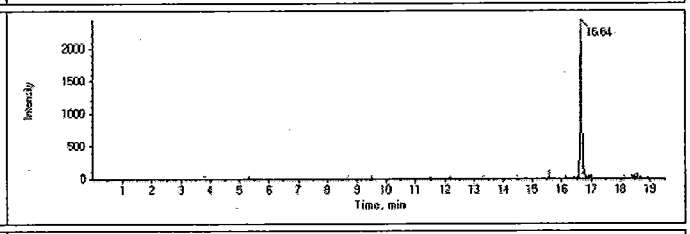
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.64 (16.60) min

Calculated conc: 0.002305

Area Ratio: 1.006e-2

Sample Type: (Quality Control)



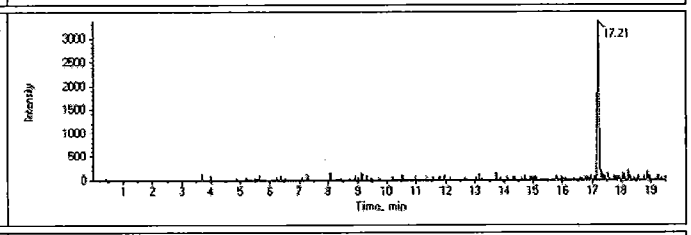
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.002931

Area Ratio: 1.323e-2

Sample Type: (Quality Control)



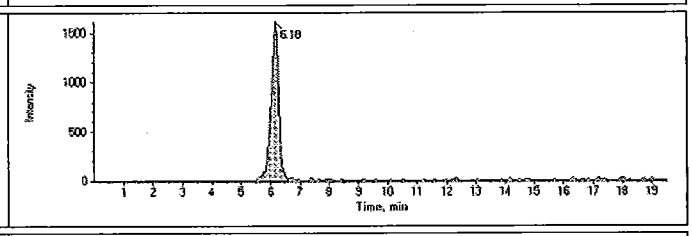
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.18 (6.18) min

Calculated conc: 0.002132

Area Ratio: 2.548e-2

Sample Type: (Quality Control)



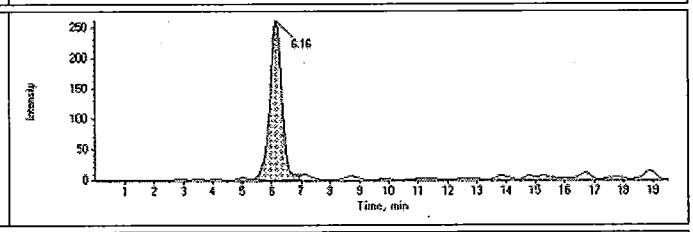
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.002105

Area Ratio: 6.581e-3

Sample Type: (Quality Control)



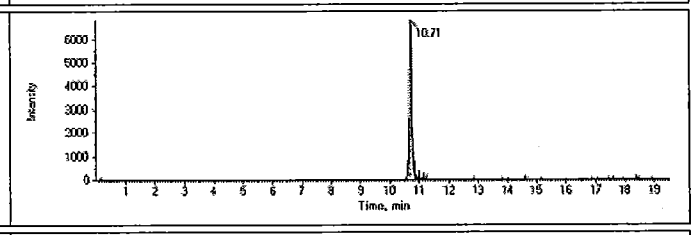
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.002412

Area Ratio: 3.117e-2

Sample Type: (Quality Control)



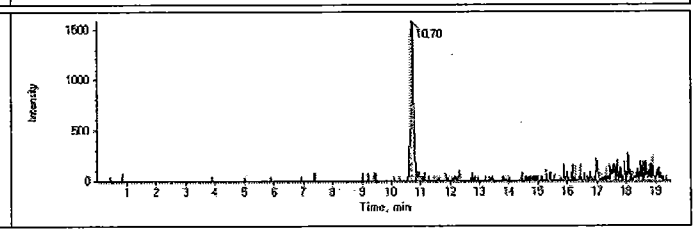
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.002140

Area Ratio: 9.233e-3

Sample Type: (Quality Control)



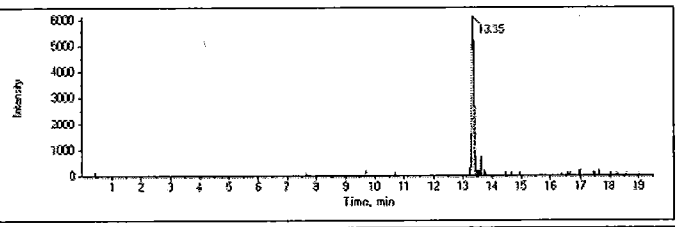
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.002343

Area Ratio: 2.601e-2

Sample Type: (Quality Control)



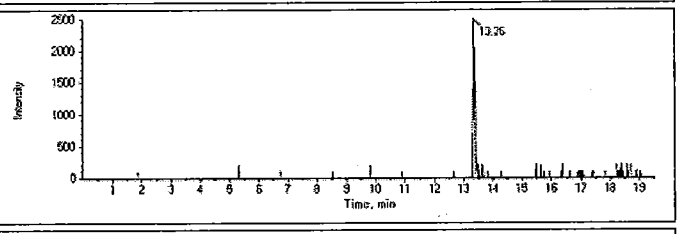
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.002718

Area Ratio: 8.453e-3

Sample Type: (Quality Control)



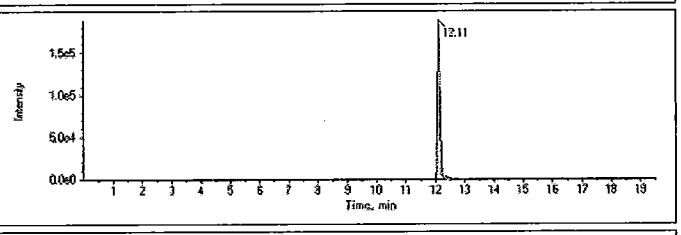
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 108.255699

Area Ratio: N/A

Sample Type: (Quality Control)



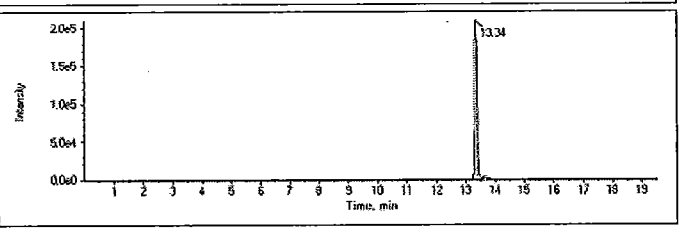
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 102.801030

Area Ratio: N/A

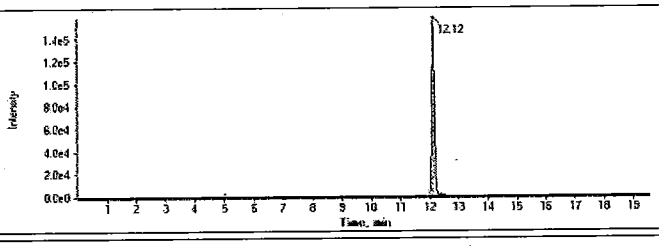
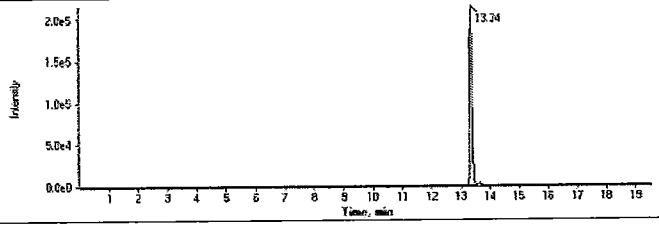
Sample Type: (Quality Control)



Sample Name	QCS_0.02ppb	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 6:18:37 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	lot#@5372ndSource(QCS)-120913-LHZ, Exp. 12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	958295	12.12	100.00000	-
IS-13C-PFOS	1135118	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.348e+05	8.48	0.02000	0.018321
Surr-13c-PFHxA	9.831e+05	8.48	100.00000	110.243183
PFHpA	5.463e+05	10.57	0.02000	0.016583
PFHpA 2	1.457e+05	10.57	0.02000	0.016996
PFOA	4.863e+05	12.12	0.02000	0.016023
PFOA 2	1.568e+05	12.12	0.02000	0.016155
PFNA	3.662e+05	13.35	0.02000	0.016778
PFNA 2	8.198e+04	13.35	0.02000	0.016091
PFDA	3.763e+05	14.38	0.02000	0.015797
PFDA 2	6.071e+04	14.38	0.02000	0.016147
Surr-13c-PFDA	7.856e+05	14.38	100.00000	101.243612
PFUnA	3.392e+05	15.25	0.02000	0.017133
PFUnA 2	5.419e+04	15.25	0.02000	0.016702
PFDoA	2.905e+05	16.00	0.02000	0.017056
PFTrDA	4.202e+05	16.64	0.02000	0.017367
PFTrDA 2	7.342e+04	16.64	0.02000	0.017560
PFTA	7.116e+04	17.20	0.02000	0.016450
PFBS	2.022e+05	6.18	0.01770	0.014907
PFBS 2	4.911e+04	6.16	0.01770	0.013837
PFHxS	2.314e+05	10.71	0.01900	0.015771
PFHxS 2	7.080e+04	10.71	0.01900	0.014457
PFOS	1.926e+05	13.34	0.01920	0.015287
PFOS 2	5.066e+04	13.34	0.01920	0.014350
13C-PFOA	9.583e+05	12.12	100.00000	98.945596
13C-PFOS	1.135e+06	13.34	100.00000	103.144762

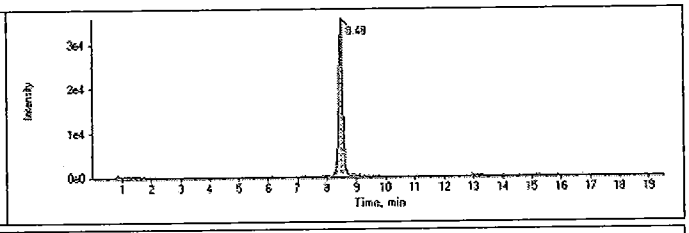
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.018321

Area Ratio: 3.494e-1
Sample Type: (Quality Control)

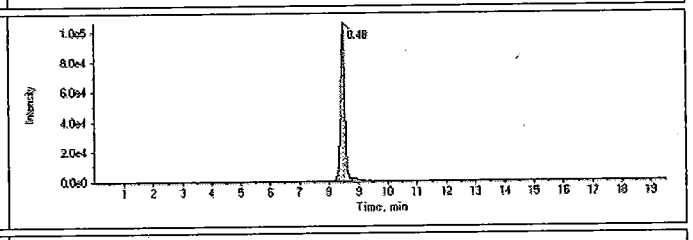


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 110.243183

Area Ratio: 1.026e0
Sample Type: (Quality Control)

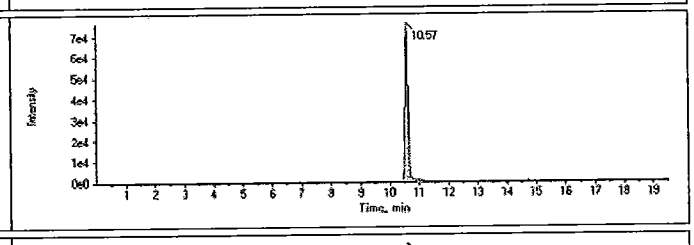


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.016583

Area Ratio: 5.701e-1
Sample Type: (Quality Control)

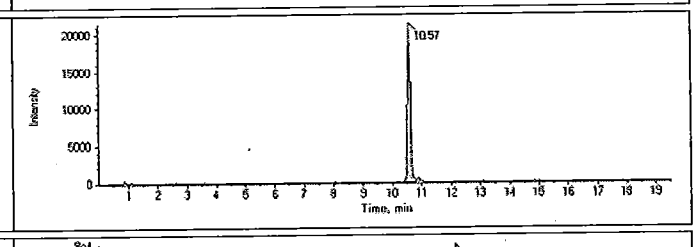


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.016996

Area Ratio: 1.520e-1
Sample Type: (Quality Control)

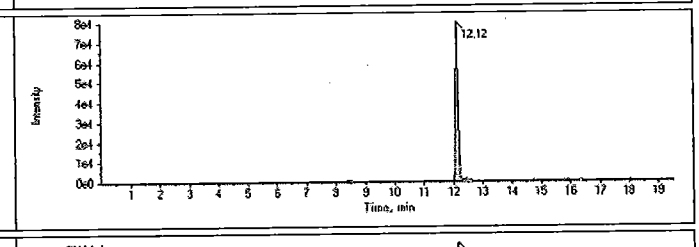


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.016023

Area Ratio: 5.074e-1
Sample Type: (Quality Control)

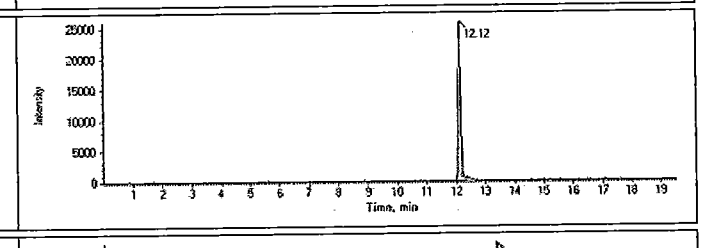


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.016155

Area Ratio: 1.636e-1
Sample Type: (Quality Control)

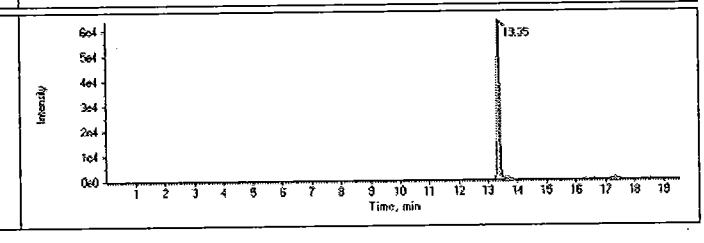


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.016778

Area Ratio: 3.821e-1
Sample Type: (Quality Control)

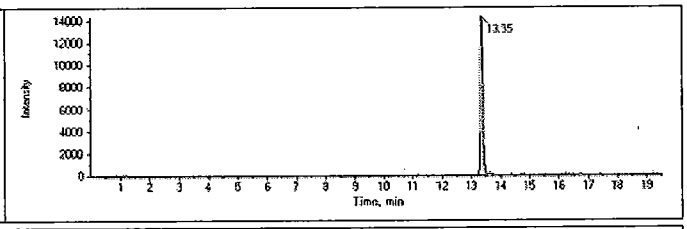


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.016091

Area Ratio: 8.555e-2
Sample Type: (Quality Control)

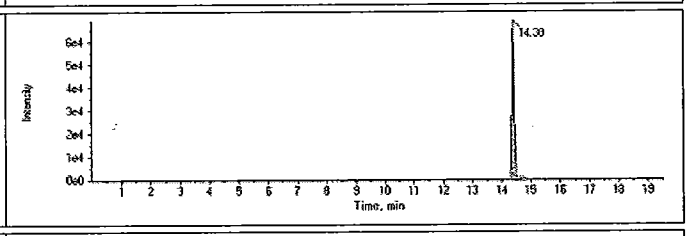


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.015797

Area Ratio: 3.927e-1
Sample Type: (Quality Control)

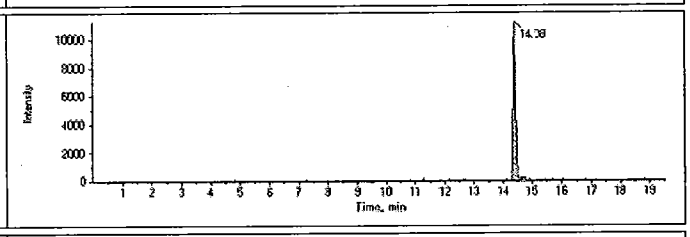


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.016147

Area Ratio: 6.336e-2
Sample Type: (Quality Control)

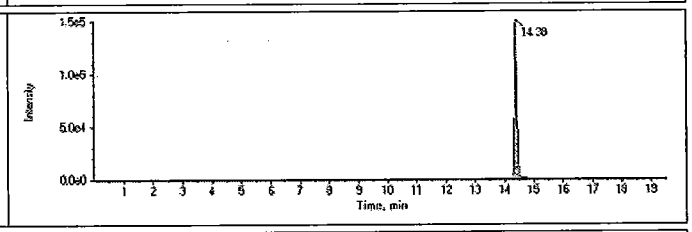


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 101.243612

Area Ratio: 8.198e-1
Sample Type: (Quality Control)

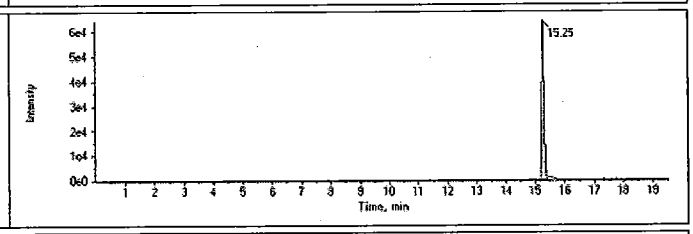


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.26) min

Calculated conc: 0.017133

Area Ratio: 3.540e-1
Sample Type: (Quality Control)

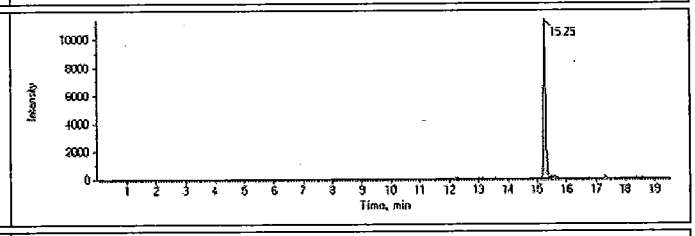


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.27) min

Calculated conc: 0.016702

Area Ratio: 5.655e-2
Sample Type: (Quality Control)

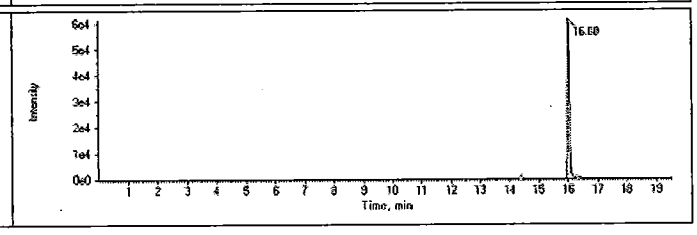


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (16.01) min

Calculated conc: 0.017056

Area Ratio: 3.031e-1
Sample Type: (Quality Control)

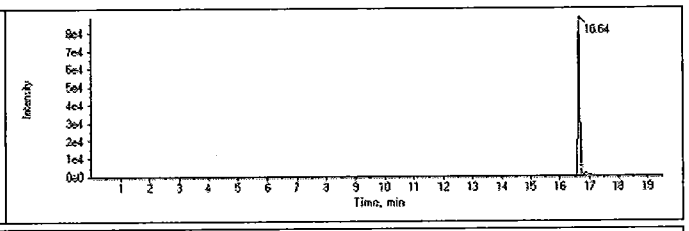


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.64 (16.70) min

Calculated conc: 0.017367

Area Ratio: 4.385e-1
Sample Type: (Quality Control)

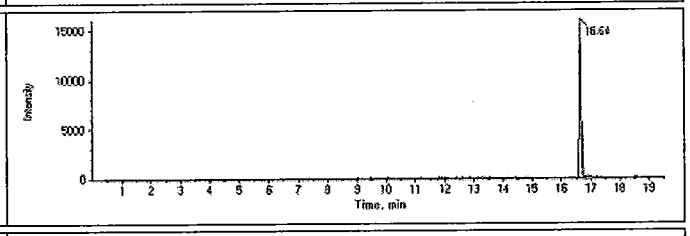


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.64 (16.60) min

Calculated conc: 0.017560

Area Ratio: 7.662e-2
Sample Type: (Quality Control)

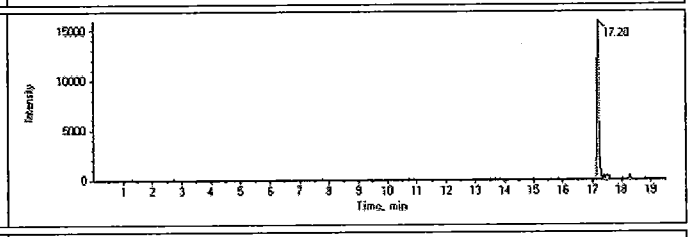


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.20 (17.20) min

Calculated conc: 0.016450

Area Ratio: 7.426e-2
Sample Type: (Quality Control)

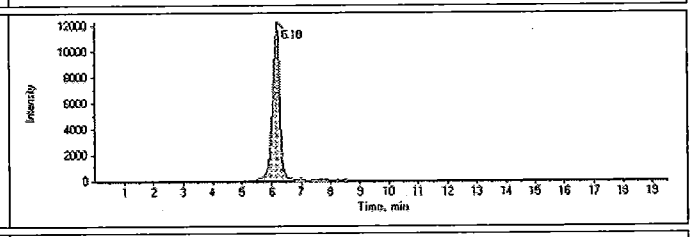


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.18 (6.18) min

Calculated conc: 0.014907

Area Ratio: 1.782e-1
Sample Type: (Quality Control)

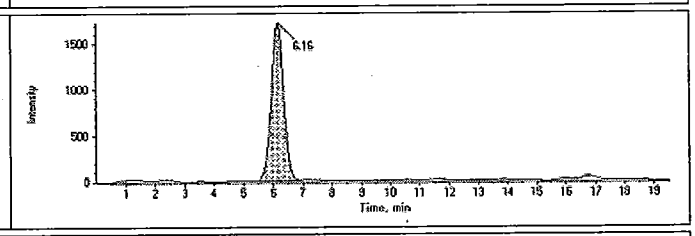


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.013837

Area Ratio: 4.326e-2
Sample Type: (Quality Control)

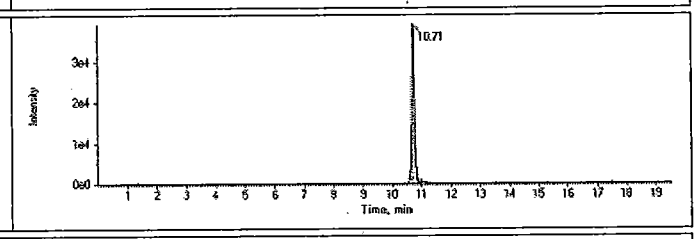


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.015771

Area Ratio: 2.038e-1
Sample Type: (Quality Control)

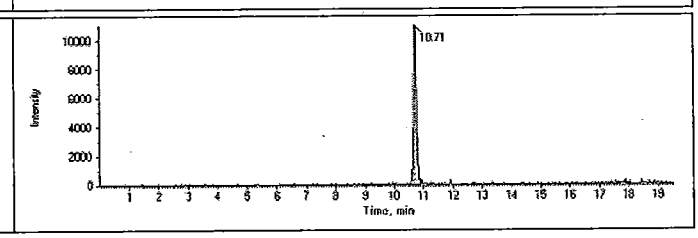


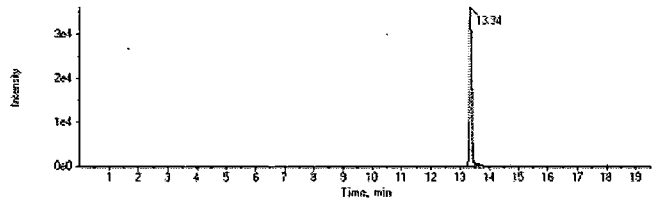
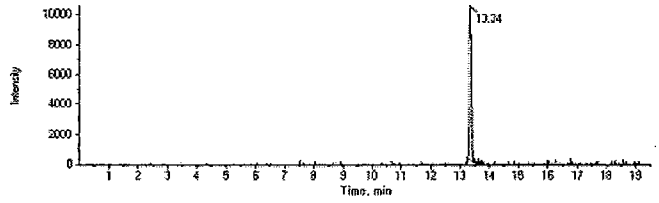
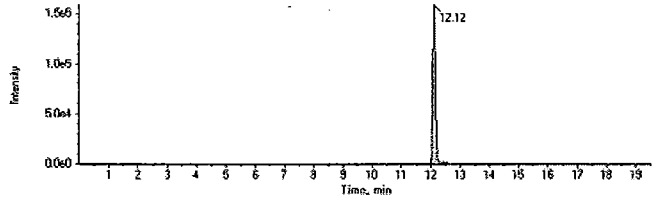
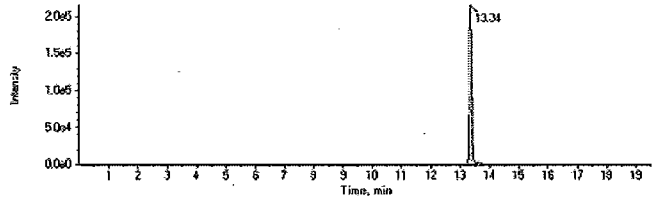
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.014457

Area Ratio: 6.237e-2
Sample Type: (Quality Control)

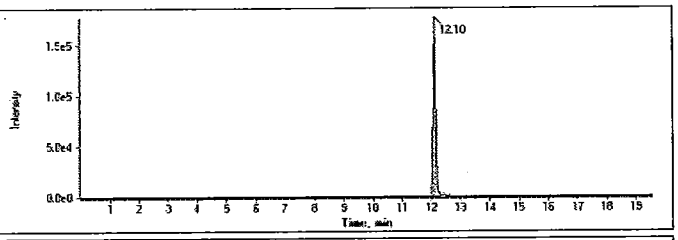
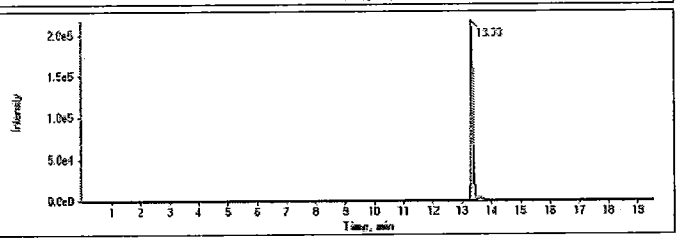


PFOS (499.0 / 79.9) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 0.015287 Area Ratio: 1.697e-1 Sample Type: (Quality Control)	
PFOS 2 (499.0 / 99.0) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 0.014350 Area Ratio: 4.463e-2 Sample Type: (Quality Control)	
13C-PFOA (417.0 / 372.0) RT (Exp. RT): 12.12 (12.12) min Calculated conc: 98.945596 Area Ratio: N/A Sample Type: (Quality Control)	
13C-PFOS (503.0 / 80.0) RT (Exp. RT): 13.34 (13.35) min Calculated conc: 103.144762 Area Ratio: N/A Sample Type: (Quality Control)	

Sample Name	MBLK	**Injection Vial**	37
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 6:38:46 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1020559	12.10	100.00000	-
IS-13C-PFOS	1128017	13.33	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.900e+01	8.50	0.00000	0.000003
Surr-13c-PFHxA	9.404e+05	8.46	100.00000	99.024195
PFHpA	6.350e+02	10.56	0.00000	0.000018
PFHpA 2	9.800e+01	10.29	0.00000	0.000011
PFOA	2.946e+03	12.09	0.00000	0.000091
PFOA 2	1.422e+03	12.11	0.00000	0.000138
PFNA	1.032e+03	13.35	0.00000	0.000044
PFNA 2	9.800e+01	13.37	0.00000	0.000018
PFDA	4.900e+02	14.39	0.00000	0.000019
PFDA 2	4.900e+01	14.41	0.00000	0.000012
Surr-13c-PFDA	7.102e+05	14.37	100.00000	85.939033
PFUnA	3.470e+02	15.29	0.00000	0.000016
PFUnA 2	4.900e+01	15.33	0.00000	0.000014
PFDoA	2.450e+02	16.06	0.00000	0.000014
PFTrDA	6.860e+02	16.66	0.00000	0.000027
PFTrDA 2	2.940e+02	16.68	0.00000	0.000066
PFTA	1.960e+02	17.20	0.00000	0.000043
PFBS	1.470e+02	6.16	0.00000	0.000011
PFBS 2	4.700e+01	6.05	0.00000	0.000013
PFHxS	N/A	N/A	0.00000	N/A
PFHxS 2	9.800e+01	10.73	0.00000	0.000020
PFOS	N/A	N/A	0.00000	N/A
PFOS 2	1.960e+02	13.32	0.00000	0.000056
13C-PFOA	1.021e+06	12.10	100.00000	105.374486
13C-PFOS	1.128e+06	13.33	100.00000	102.499525

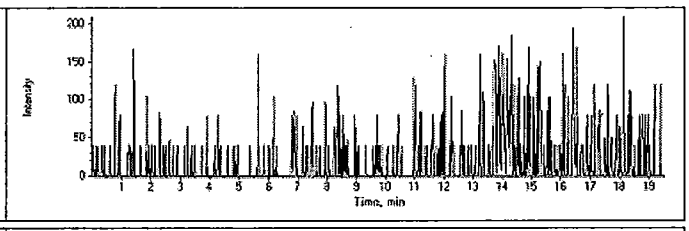
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.10(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.33(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.50 (8.48) min

Calculated conc: 0.000003

Area Ratio: 4.786e-5
Sample Type: (Quality Control)

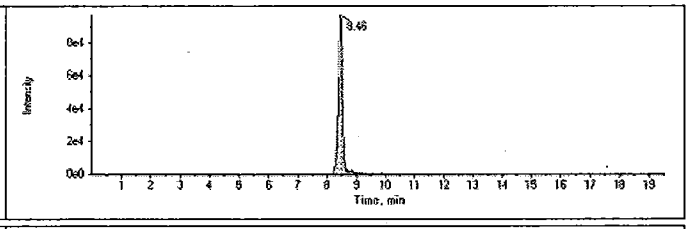


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.46 (8.48) min

Calculated conc: 99.024195

Area Ratio: 9.214e-1
Sample Type: (Quality Control)

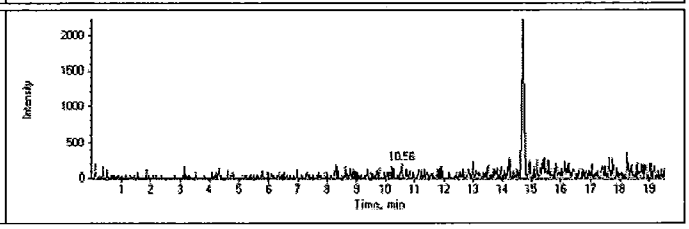


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.000018

Area Ratio: 6.221e-4
Sample Type: (Quality Control)

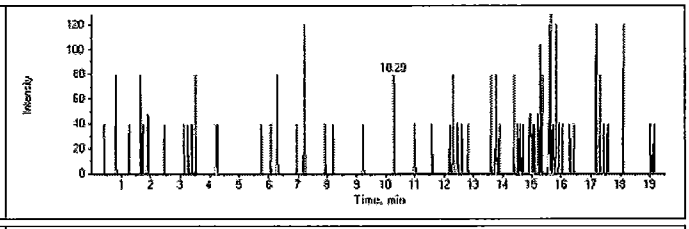


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.29 (10.57) min

Calculated conc: 0.000011

Area Ratio: 9.606e-5
Sample Type: (Quality Control)

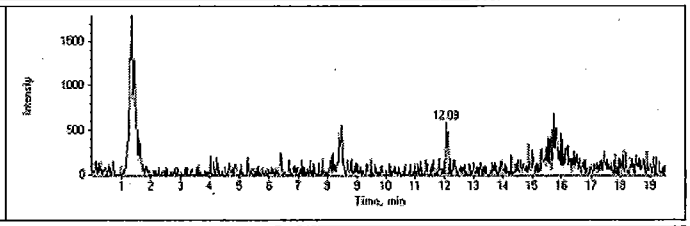


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.09 (12.12) min

Calculated conc: 0.000091

Area Ratio: 2.886e-3
Sample Type: (Quality Control)

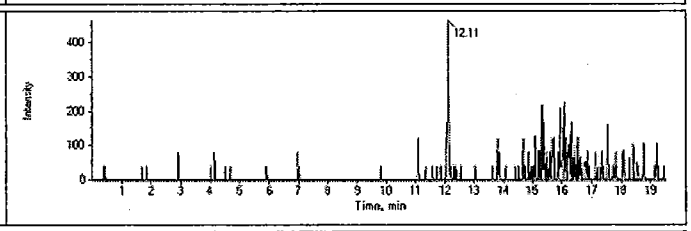


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.000138

Area Ratio: 1.393e-3
Sample Type: (Quality Control)

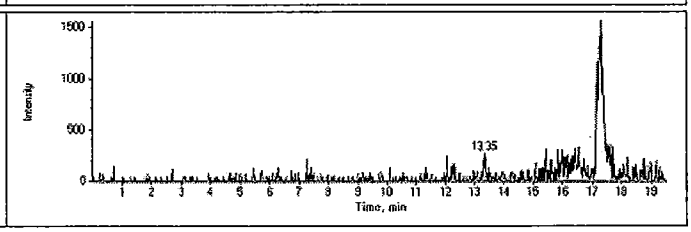


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.000044

Area Ratio: 1.011e-3
Sample Type: (Quality Control)



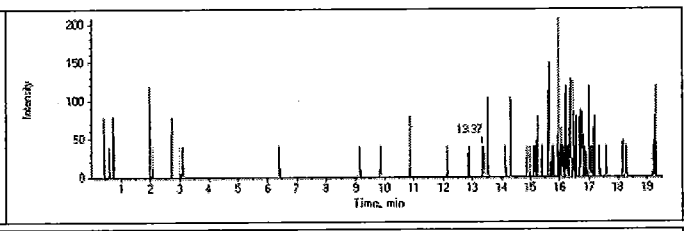
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.000018

Area Ratio: 9.611e-5

Sample Type: (Quality Control)



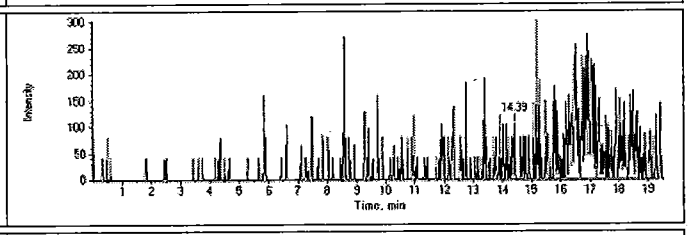
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.000019

Area Ratio: 4.806e-4

Sample Type: (Quality Control)



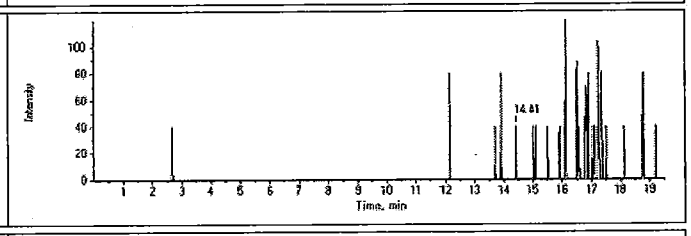
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.41 (14.39) min

Calculated conc: 0.000012

Area Ratio: 4.808e-5

Sample Type: (Quality Control)



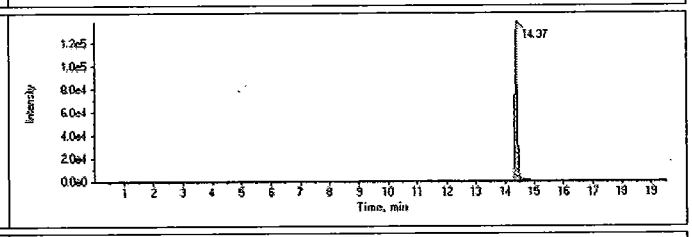
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 85.939033

Area Ratio: 6.959e-1

Sample Type: (Quality Control)



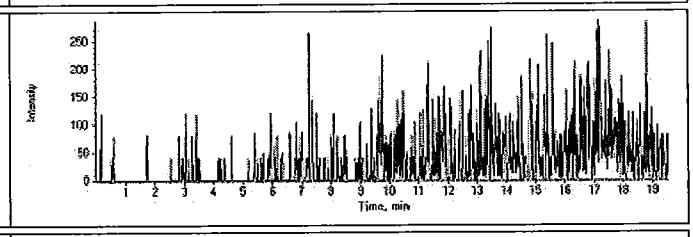
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.29 (15.26) min

Calculated conc: 0.000016

Area Ratio: 3.397e-4

Sample Type: (Quality Control)



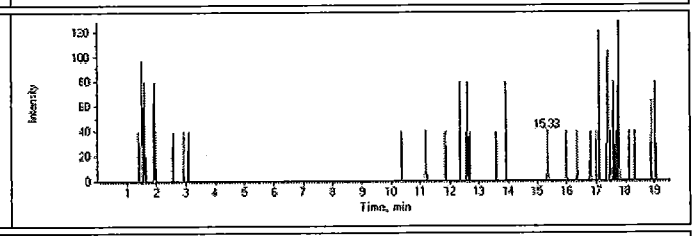
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.33 (15.27) min

Calculated conc: 0.000014

Area Ratio: 4.805e-5

Sample Type: (Quality Control)



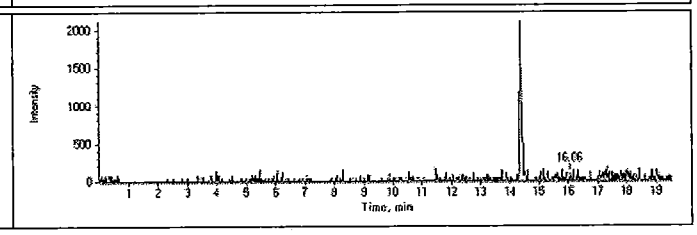
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.06 (16.01) min

Calculated conc: 0.000014

Area Ratio: 2.402e-4

Sample Type: (Quality Control)



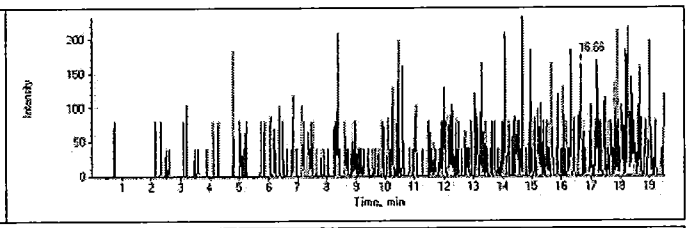
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.66 (16.70) min

Calculated conc: 0.000027

Area Ratio: 6.726e-4

Sample Type: (Quality Control)



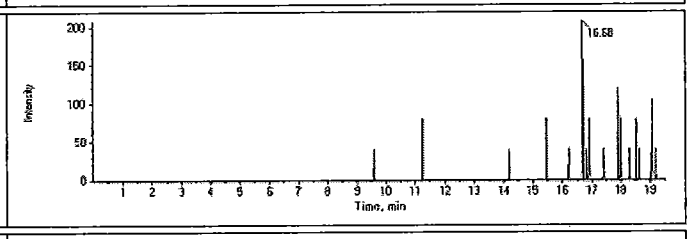
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.68 (16.60) min

Calculated conc: 0.000066

Area Ratio: 2.883e-4

Sample Type: (Quality Control)



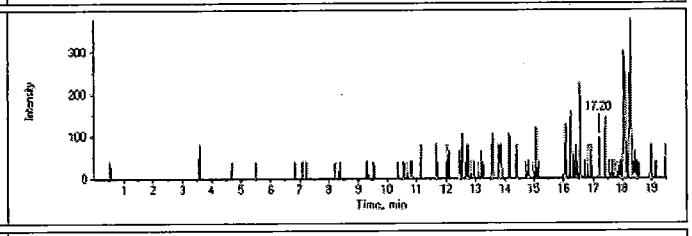
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.20 (17.20) min

Calculated conc: 0.000043

Area Ratio: 1.922e-4

Sample Type: (Quality Control)



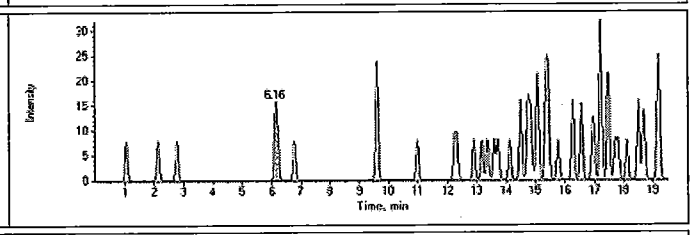
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.16 (6.18) min

Calculated conc: 0.000011

Area Ratio: 1.304e-4

Sample Type: (Quality Control)



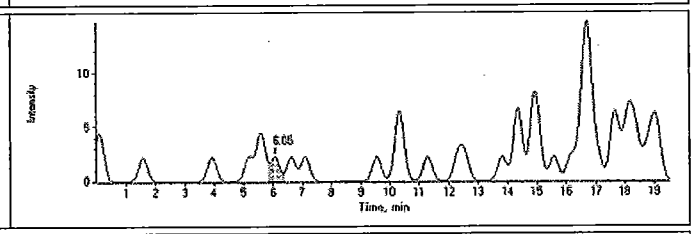
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.05 (6.16) min

Calculated conc: 0.000013

Area Ratio: 4.134e-5

Sample Type: (Quality Control)



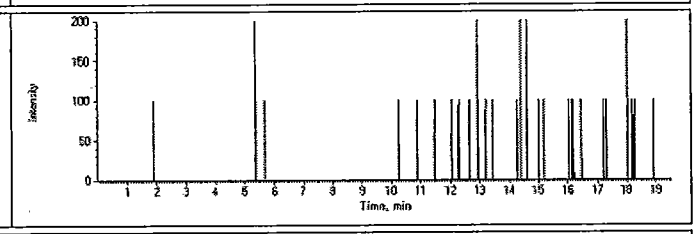
PFHxS (398.9 / 80.0)

RT (Exp. RT): N/A (10.71) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



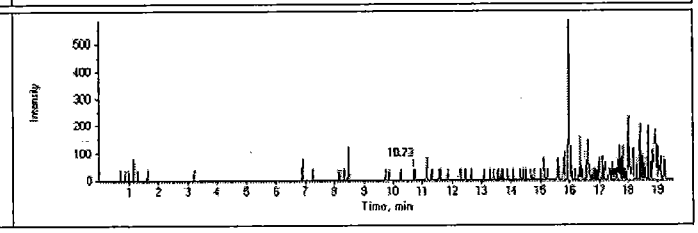
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.71) min

Calculated conc: 0.000020

Area Ratio: 8.693e-5

Sample Type: (Quality Control)



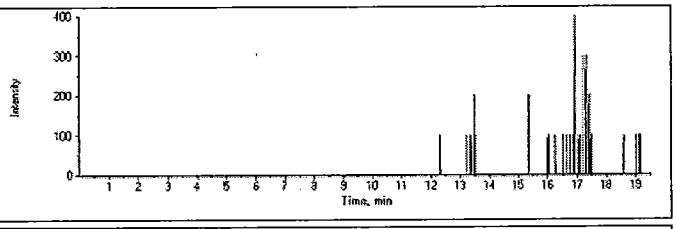
PFOS (499.0 / 79.9)

RT (Exp. RT): N/A (13.35) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



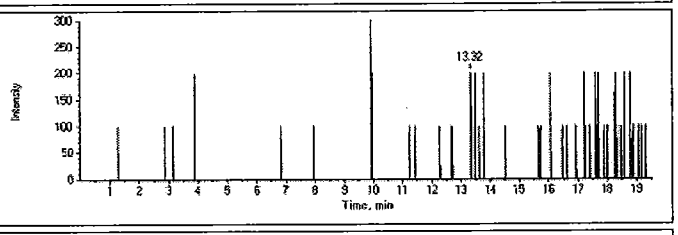
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.32 (13.35) min

Calculated conc: 0.000056

Area Ratio: 1.739e-4

Sample Type: (Quality Control).



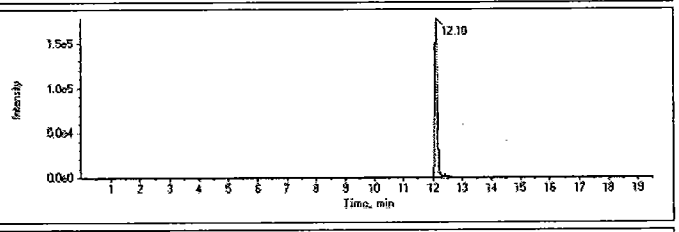
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.10 (12.12) min

Calculated conc: 105.374486

Area Ratio: N/A

Sample Type: (Quality Control)



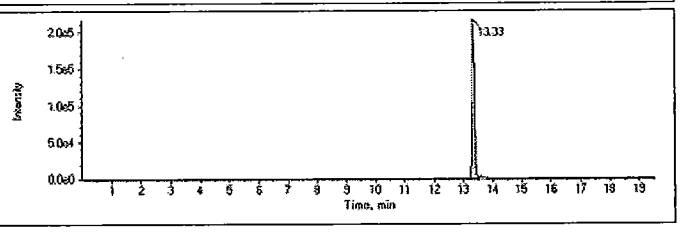
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 102.499525

Area Ratio: N/A

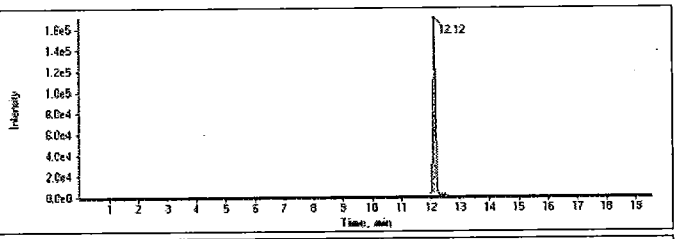
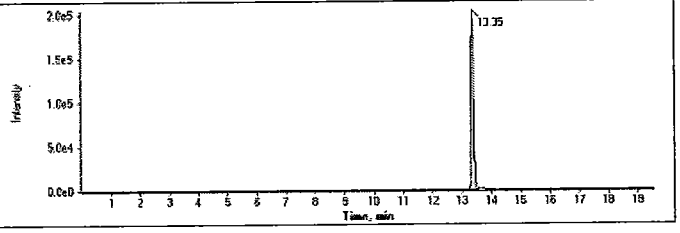
Sample Type: (Quality Control)



Sample Name	MRL_CHK	**Injection Vial**	38
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 6:58:56 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1032781	12.12	100.00000	-
IS-13C-PFOS	1127536	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.070e+04	8.49	0.00250	0.002574
Surr-13c-PFHxA	9.221e+05	8.49	100.00000	95.953898
PFHpA	8.548e+04	10.58	0.00250	0.002407
PFHpA 2	2.344e+04	10.58	0.00250	0.002537
PFOA	7.934e+04	12.12	0.00250	0.002426
PFOA 2	2.436e+04	12.13	0.00250	0.002330
PFNA	5.787e+04	13.36	0.00250	0.002460
PFNA 2	1.407e+04	13.36	0.00250	0.002563
PFDA	5.326e+04	14.39	0.00250	0.002075
PFDA 2	7.209e+03	14.39	0.00250	0.001779
Surr-13c-PFDA	6.502e+05	14.39	100.00000	77.743816
PFUnA	3.735e+04	15.27	0.00250	0.001750
PFUnA 2	6.081e+03	15.27	0.00250	0.001739
PFDoA	3.609e+04	16.00	0.00250	0.001966
PFTrDA	4.993e+04	16.64	0.00250	0.001915
PFTrDA 2	8.288e+03	16.64	0.00250	0.001839
PFTA	7.700e+03	17.20	0.00250	0.001652
PFBS	2.750e+04	6.19	0.00222	0.002040
PFBS 2	7.696e+03	6.18	0.00222	0.002183
PFHxS	3.153e+04	10.72	0.00237	0.002164
PFHxS 2	9.318e+03	10.72	0.00237	0.001916
PFOS	2.501e+04	13.35	0.00240	0.001999
PFOS 2	6.473e+03	13.35	0.00240	0.001846
13C-PFOA	1.033e+06	12.12	100.00000	106.636454
13C-PFOS	1.128e+06	13.35	100.00000	102.455872

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

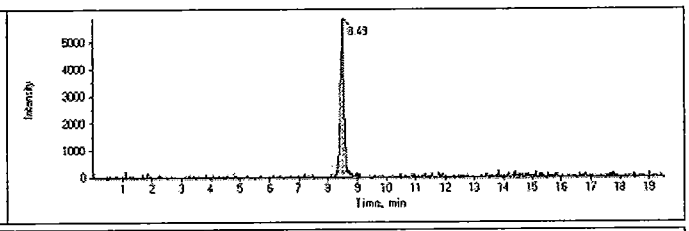
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.49 (8.48) min

Calculated conc: 0.002574

Area Ratio: 4.909e-2

Sample Type: (Quality Control)



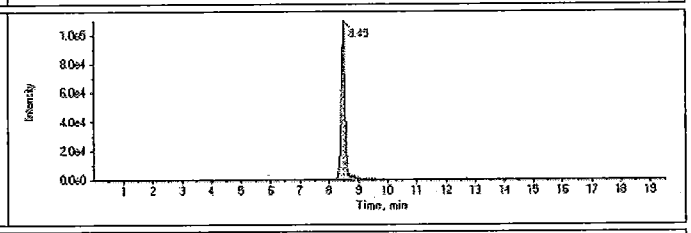
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.49 (8.48) min

Calculated conc: 95.953898

Area Ratio: 8.929e-1

Sample Type: (Quality Control)



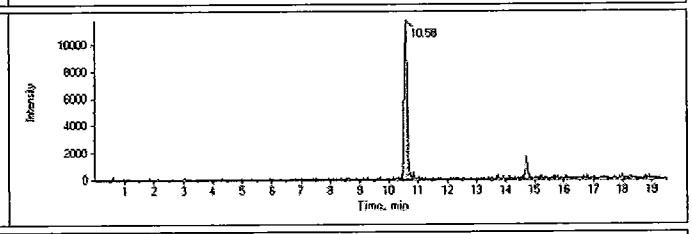
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.002407

Area Ratio: 8.277e-2

Sample Type: (Quality Control)



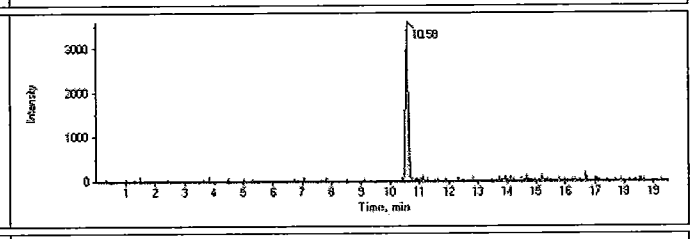
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.002537

Area Ratio: 2.269e-2

Sample Type: (Quality Control)



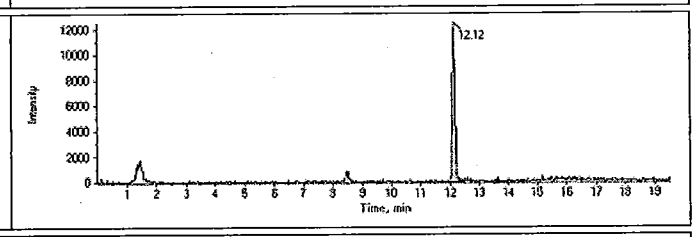
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.002426

Area Ratio: 7.682e-2

Sample Type: (Quality Control)



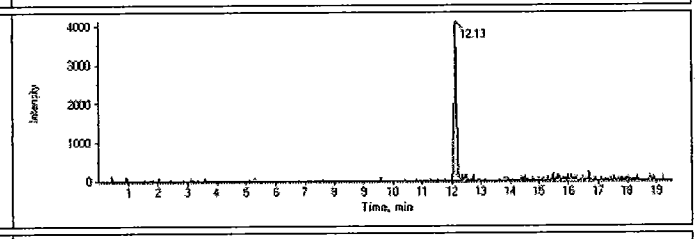
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.002330

Area Ratio: 2.359e-2

Sample Type: (Quality Control)



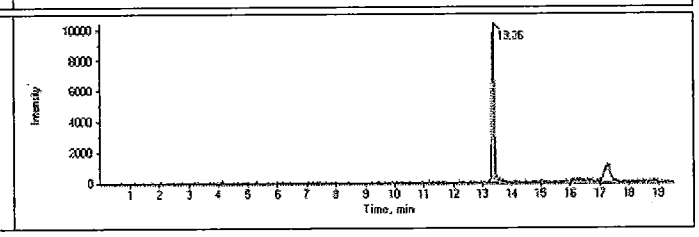
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.002460

Area Ratio: 5.603e-2

Sample Type: (Quality Control)

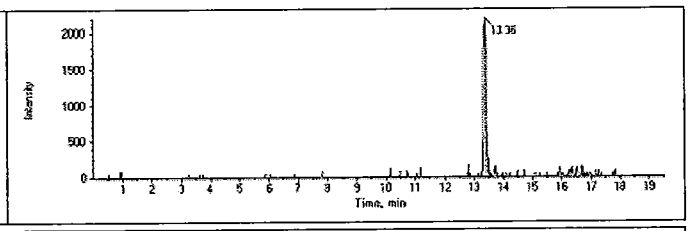


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.002563

Area Ratio: 1.363e-2
Sample Type: (Quality Control)

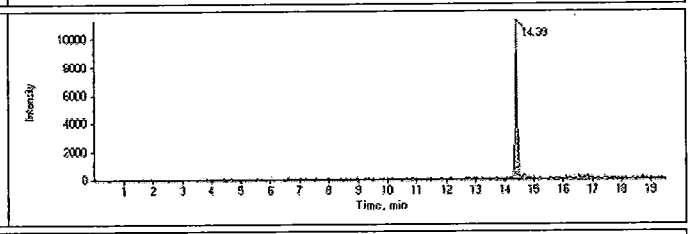


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.002075

Area Ratio: 5.157e-2
Sample Type: (Quality Control)

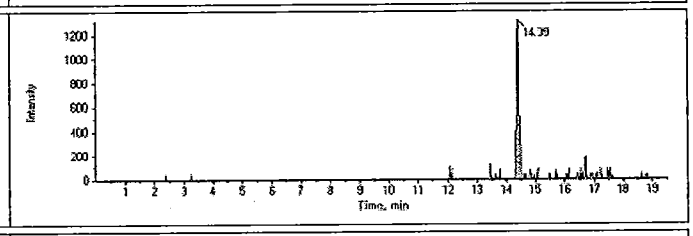


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.001779

Area Ratio: 6.980e-3
Sample Type: (Quality Control)

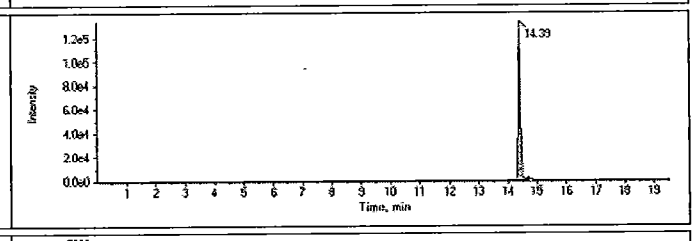


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 77.743816

Area Ratio: 6.295e-1
Sample Type: (Quality Control)

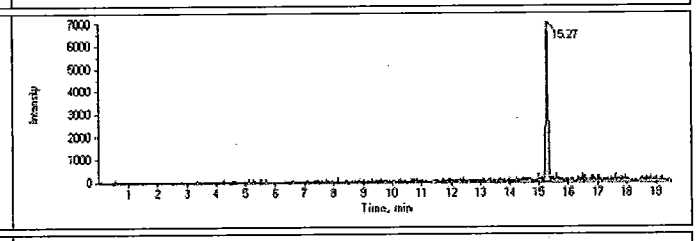


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.27 (15.26) min

Calculated conc: 0.001750

Area Ratio: 3.617e-2
Sample Type: (Quality Control)

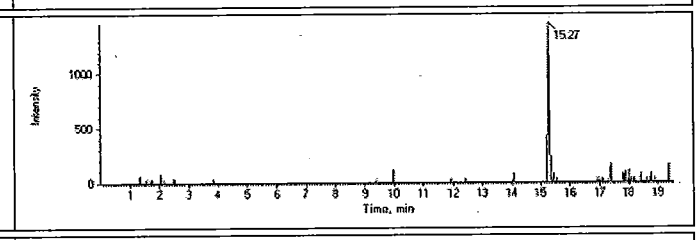


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.27 (15.27) min

Calculated conc: 0.001739

Area Ratio: 5.888e-3
Sample Type: (Quality Control)

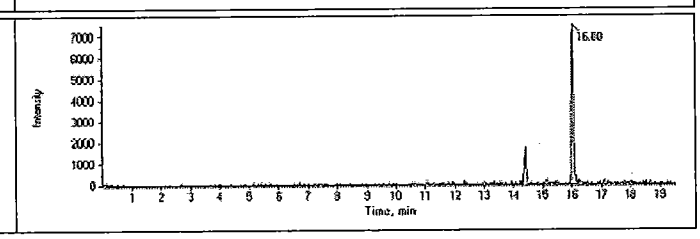


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (16.01) min

Calculated conc: 0.001966

Area Ratio: 3.494e-2
Sample Type: (Quality Control)

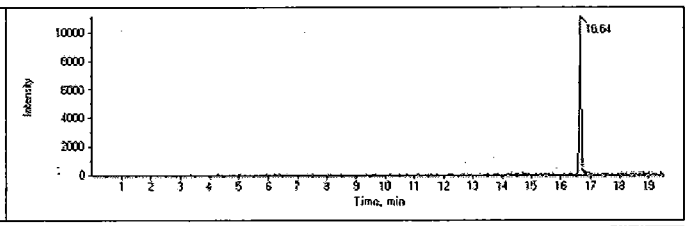


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.64 (16.70) min

Calculated conc: 0.001915

Area Ratio: 4.834e-2
Sample Type: (Quality Control)

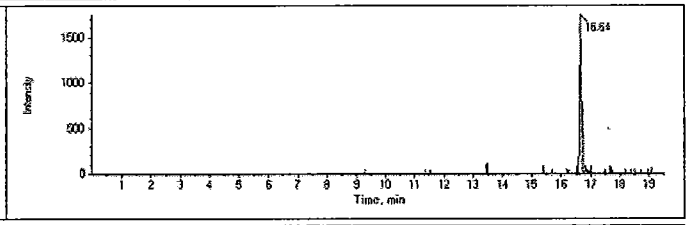


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.64 (16.60) min

Calculated conc: 0.001839

Area Ratio: 8.025e-3
Sample Type: (Quality Control)

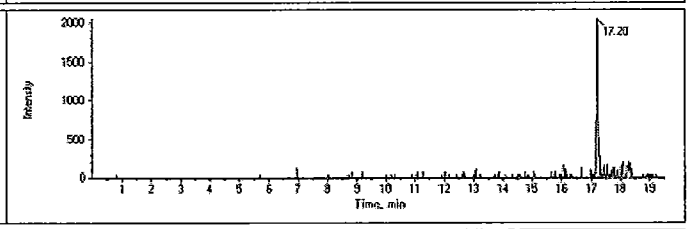


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.20 (17.20) min

Calculated conc: 0.001652

Area Ratio: 7.455e-3
Sample Type: (Quality Control)

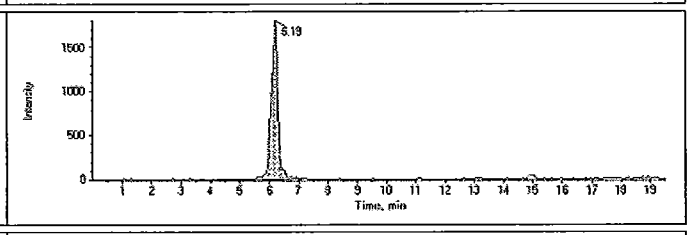


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.19 (6.18) min

Calculated conc: 0.002040

Area Ratio: 2.439e-2
Sample Type: (Quality Control)

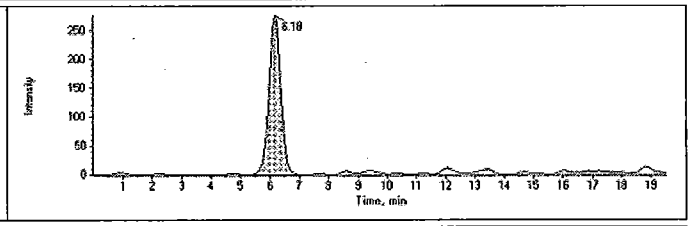


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.18 (6.16) min

Calculated conc: 0.002183

Area Ratio: 6.826e-3
Sample Type: (Quality Control)

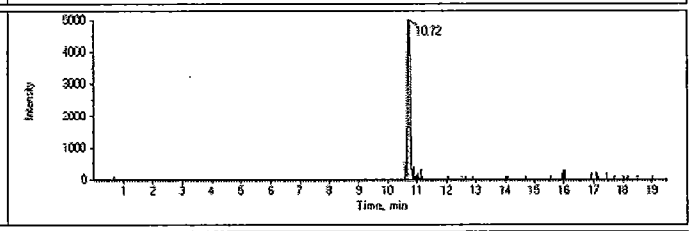


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.002164

Area Ratio: 2.797e-2
Sample Type: (Quality Control)

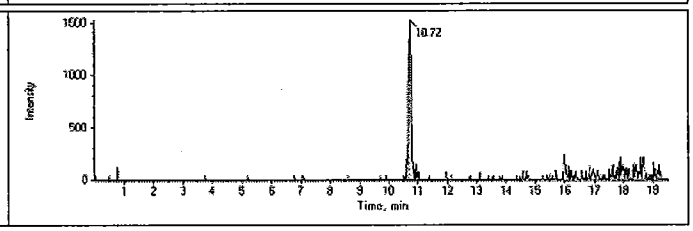


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.001916

Area Ratio: 8.264e-3
Sample Type: (Quality Control)

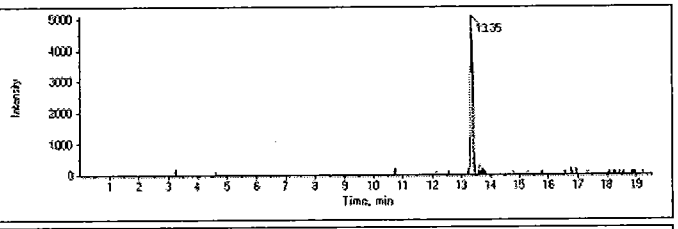


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.001999

Area Ratio: 2.218e-2
Sample Type: (Quality Control)

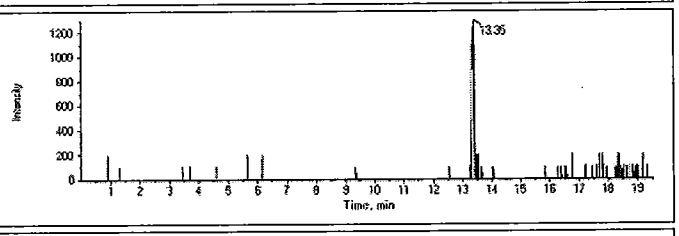


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.001846

Area Ratio: 5.741e-3
Sample Type: (Quality Control)

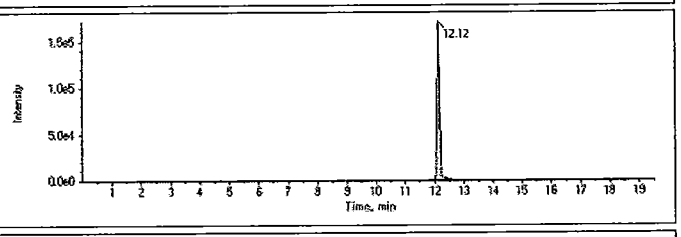


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 106.636454

Area Ratio: N/A
Sample Type: (Quality Control)

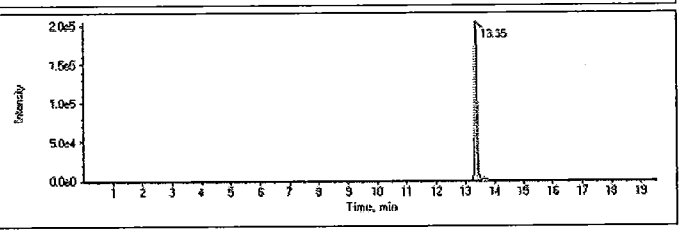


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 102.455872

Area Ratio: N/A
Sample Type: (Quality Control)



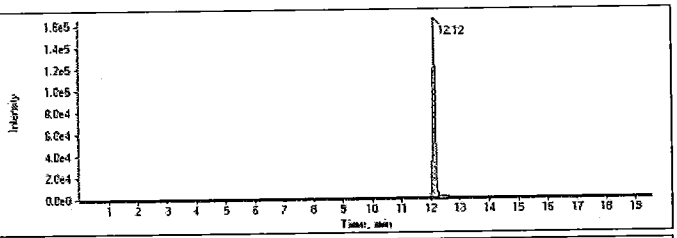
Sample Name	LCS1	**Injection Vial**	39
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 7:19:05 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1008377	12.12	100.00000	-
IS-13C-PFOS	1146845	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.450e+05	8.48	0.02500	0.023142
Surr-13c-PFHxA	9.071e+05	8.48	100.00000	96.675388
PFHpA	7.844e+05	10.57	0.02500	0.022626
PFHpA 2	2.052e+05	10.57	0.02500	0.022750
PFOA	7.557e+05	12.12	0.02500	0.023664
PFOA 2	2.382e+05	12.12	0.02500	0.023329
PFNA	5.361e+05	13.35	0.02500	0.023340
PFNA 2	1.279e+05	13.36	0.02500	0.023863
PFDA	5.508e+05	14.39	0.02500	0.021975
PFDA 2	8.708e+04	14.38	0.02500	0.022010
Surr-13c-PFDA	6.792e+05	14.38	100.00000	83.173396
PFUnA	4.207e+05	15.26	0.02500	0.020190
PFUnA 2	7.076e+04	15.25	0.02500	0.020728
PFDoA	3.481e+05	16.00	0.02500	0.019424
PFTrDA	4.740e+05	16.64	0.02500	0.018618
PFTrDA 2	7.891e+04	16.64	0.02500	0.017935
PFTA	8.329e+04	17.19	0.02500	0.018297
PFBS	2.733e+05	6.17	0.02220	0.019941
PFBS 2	7.157e+04	6.15	0.02220	0.019960
PFHxS	3.161e+05	10.71	0.02370	0.021324
PFHxS 2	1.004e+05	10.71	0.02370	0.020286
PFOS	2.501e+05	13.35	0.02400	0.019652
PFOS 2	7.444e+04	13.35	0.02400	0.020870
13C-PFOA	1.008e+06	12.12	100.00000	104.116679
13C-PFOS	1.147e+06	13.35	100.00000	104.210423

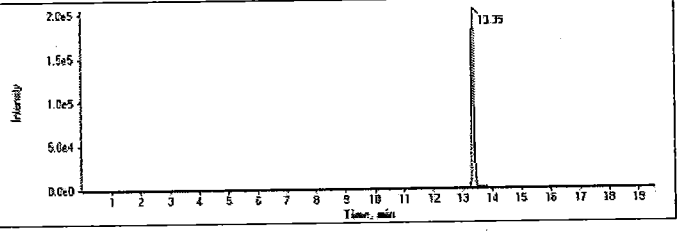
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.12(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.35(13.35) min
Concentration: 100.00000
Sample Type: (Quality Control)



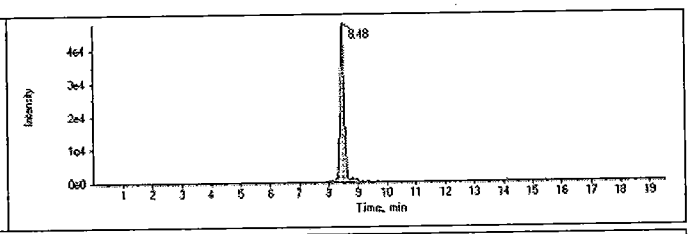
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.023142

Area Ratio: 4.413e-1

Sample Type: (Quality Control)



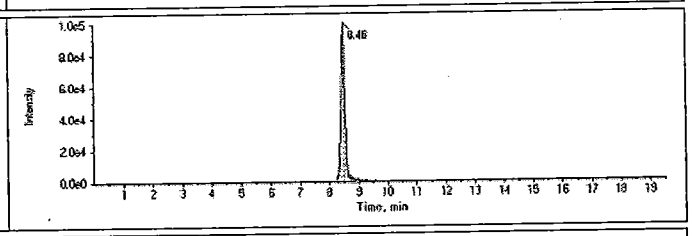
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 96.675388

Area Ratio: 8.996e-1

Sample Type: (Quality Control)



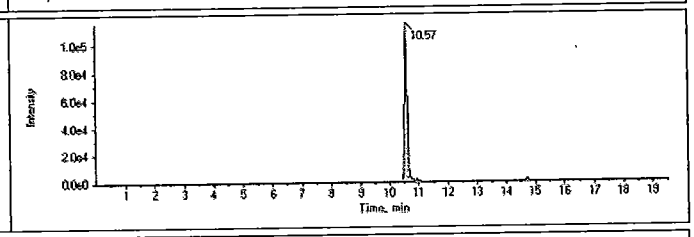
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.022626

Area Ratio: 7.779e-1

Sample Type: (Quality Control)



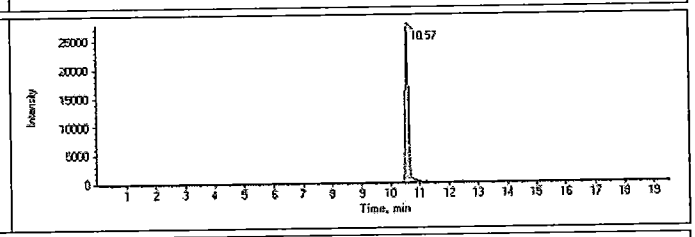
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.022750

Area Ratio: 2.035e-1

Sample Type: (Quality Control)



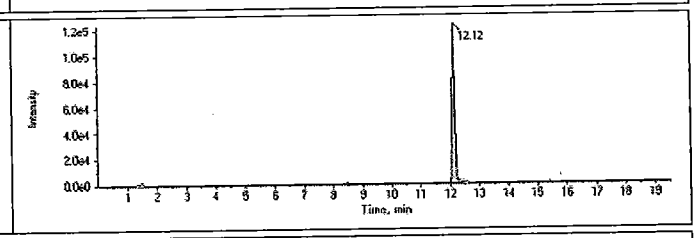
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.023664

Area Ratio: 7.494e-1

Sample Type: (Quality Control)



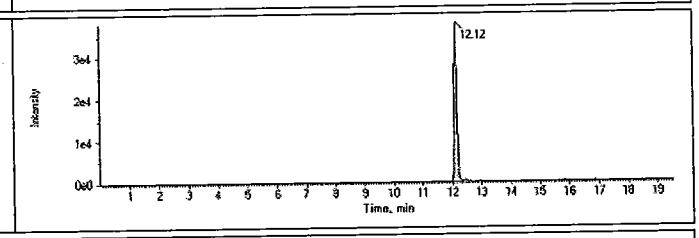
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.023329

Area Ratio: 2.362e-1

Sample Type: (Quality Control)



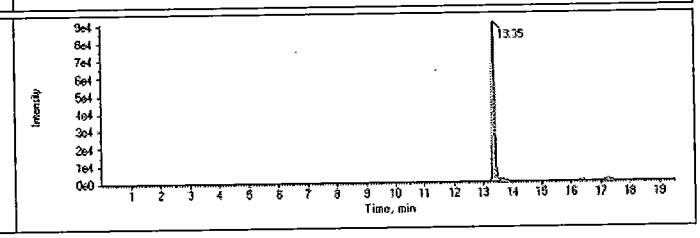
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.023340

Area Ratio: 5.316e-1

Sample Type: (Quality Control)



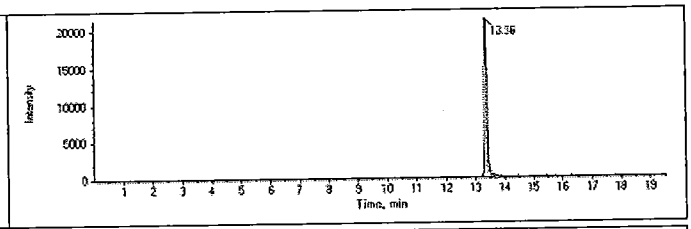
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.023863

Area Ratio: 1.269e-1

Sample Type: (Quality Control)



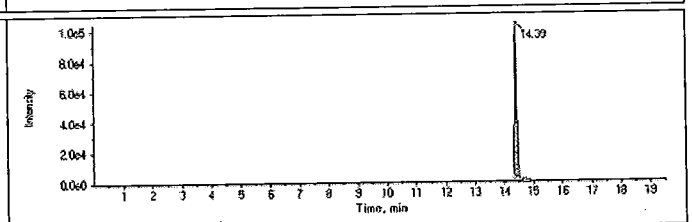
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.021975

Area Ratio: 5.462e-1

Sample Type: (Quality Control)



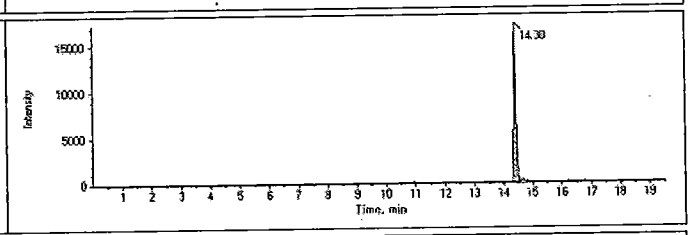
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.022010

Area Ratio: 8.636e-2

Sample Type: (Quality Control)



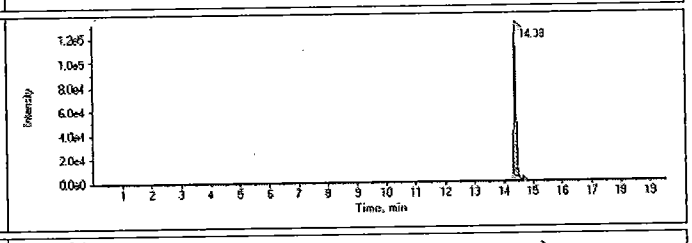
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 83.173396

Area Ratio: 6.735e-1

Sample Type: (Quality Control)



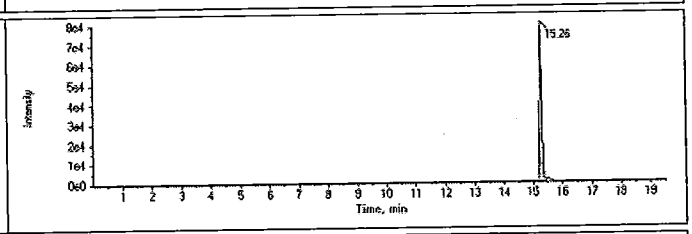
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.26 (15.26) min

Calculated conc: 0.020190

Area Ratio: 4.172e-1

Sample Type: (Quality Control)



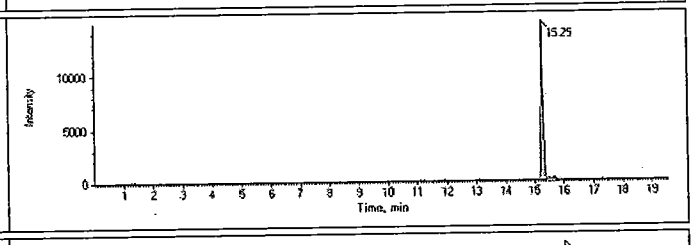
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.27) min

Calculated conc: 0.020728

Area Ratio: 7.018e-2

Sample Type: (Quality Control)



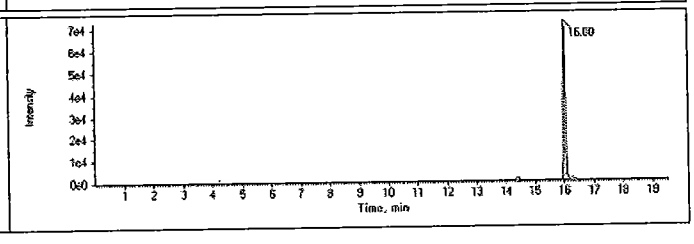
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (16.01) min

Calculated conc: 0.019424

Area Ratio: 3.452e-1

Sample Type: (Quality Control)

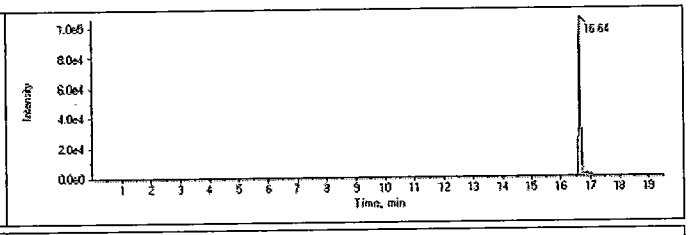


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.64 (16.70) min

Calculated conc: 0.018618

Area Ratio: 4.701e-1
Sample Type: (Quality Control)

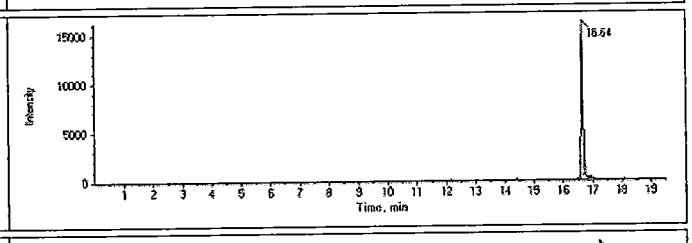


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.64 (16.60) min

Calculated conc: 0.017935

Area Ratio: 7.825e-2
Sample Type: (Quality Control)

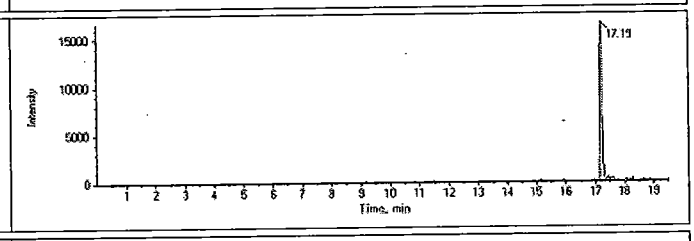


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.19 (17.20) min

Calculated conc: 0.018297

Area Ratio: 8.260e-2
Sample Type: (Quality Control)

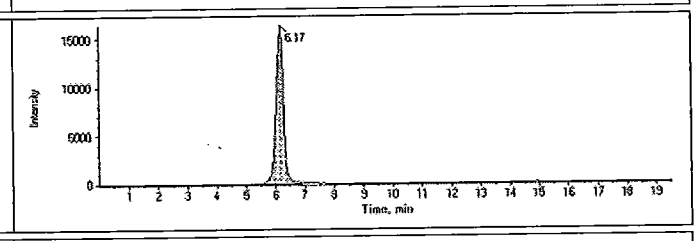


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.019941

Area Ratio: 2.383e-1
Sample Type: (Quality Control)

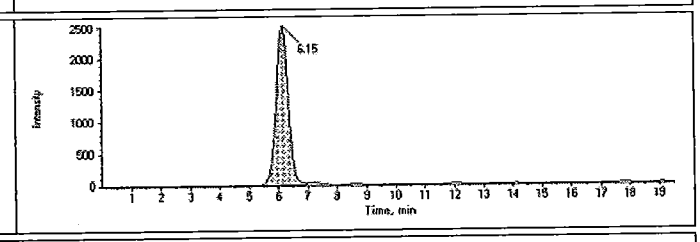


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.15 (6.16) min

Calculated conc: 0.019960

Area Ratio: 6.241e-2
Sample Type: (Quality Control)

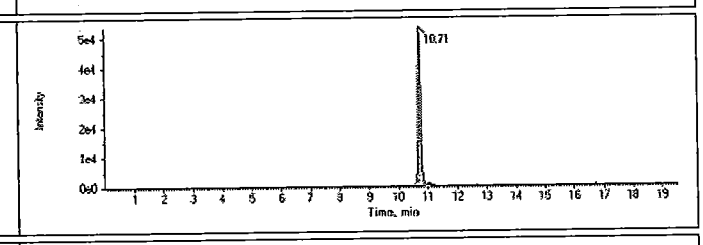


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.021324

Area Ratio: 2.756e-1
Sample Type: (Quality Control)

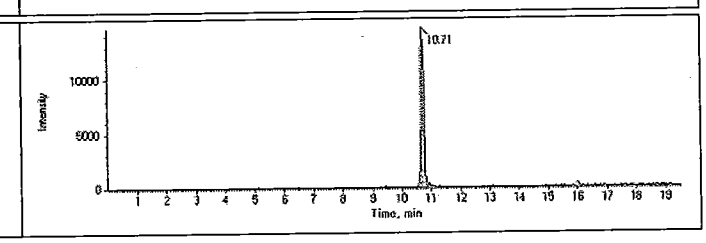


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.020286

Area Ratio: 8.751e-2
Sample Type: (Quality Control)



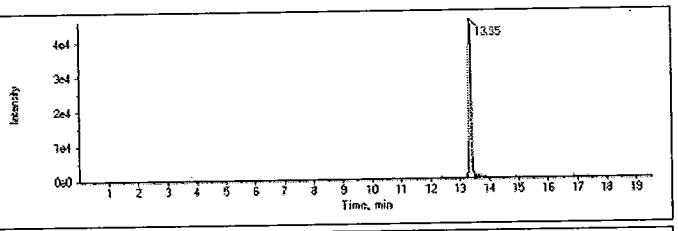
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.019652

Area Ratio: 2.181e-1

Sample Type: (Quality Control)



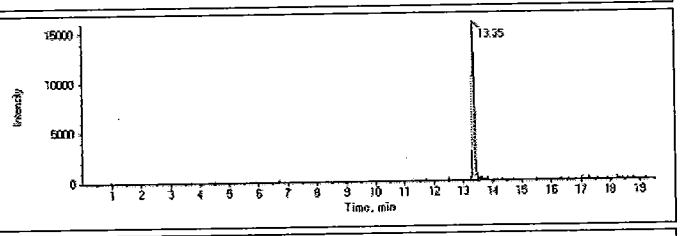
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.020870

Area Ratio: 6.491e-2

Sample Type: (Quality Control)



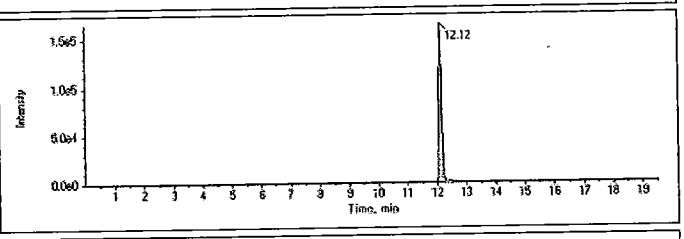
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 104.116679

Area Ratio: N/A

Sample Type: (Quality Control)



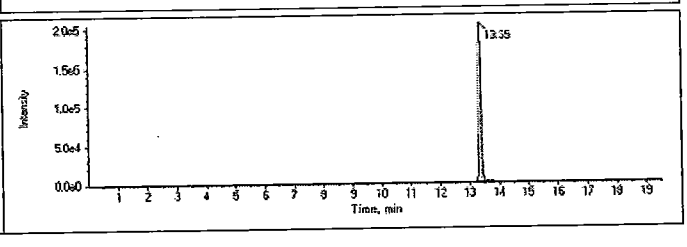
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 104.210423

Area Ratio: N/A

Sample Type: (Quality Control)



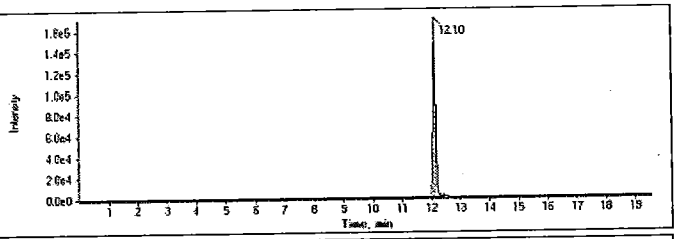
Sample Name	LCS2	**Injection Vial**	40
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 7:39:14 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	989538	12.10	100.00000	-
IS-13C-PFOS	1079761	13.33	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.314e+05	8.46	0.02500	0.022861
Surr-13c-PFHxA	8.715e+05	8.46	100.00000	94.651025
PFHpA	7.435e+05	10.56	0.02500	0.021854
PFHpA 2	1.865e+05	10.56	0.02500	0.021077
PFOA	6.971e+05	12.11	0.02500	0.022246
PFOA 2	2.250e+05	12.11	0.02500	0.022449
PFNA	5.230e+05	13.34	0.02500	0.023204
PFNA 2	1.189e+05	13.34	0.02500	0.022594
PFDA	5.196e+05	14.37	0.02500	0.021126
PFDA 2	8.567e+04	14.37	0.02500	0.022067
Surr-13c-PFDA	6.986e+05	14.37	100.00000	87.182214
PFUnA	4.205e+05	15.24	0.02500	0.020565
PFUnA 2	6.507e+04	15.24	0.02500	0.019424
PFDoA	3.355e+05	15.99	0.02500	0.019080
PFTrDA	4.796e+05	16.63	0.02500	0.019196
PFTrDA 2	8.266e+04	16.63	0.02500	0.019145
PFTA	8.625e+04	17.19	0.02500	0.019308
PFBS	2.744e+05	6.14	0.02220	0.021260
PFBS 2	6.639e+04	6.13	0.02220	0.019666
PFHxS	3.029e+05	10.69	0.02370	0.021705
PFHxS 2	9.562e+04	10.69	0.02370	0.020526
PFOS	2.341e+05	13.33	0.02400	0.019537
PFOS 2	6.531e+04	13.34	0.02400	0.019447
13C-PFOA	9.895e+05	12.10	100.00000	102.171458
13C-PFOS	1.080e+06	13.33	100.00000	98.114687

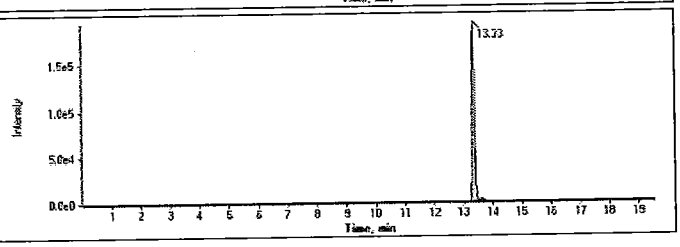
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.10(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.33(13.35) min
Concentration: 100.00000
Sample Type: (Quality Control)



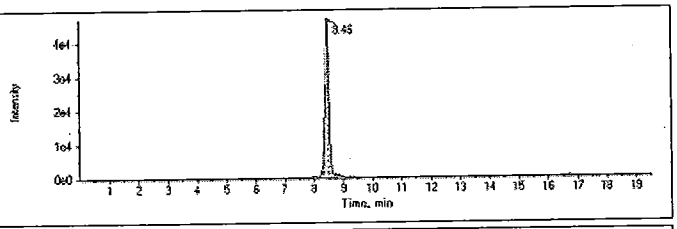
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.46 (8.48) min

Calculated conc: 0.022861

Area Ratio: 4.360e-1

Sample Type: (Quality Control)



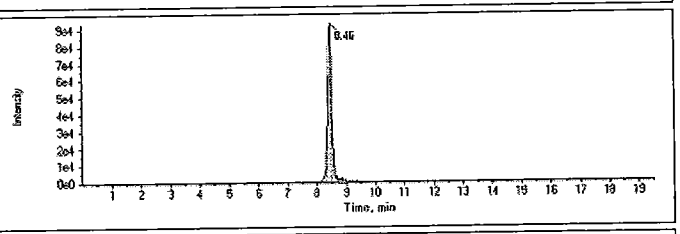
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.46 (8.48) min

Calculated conc: 94.651025

Area Ratio: 8.808e-1

Sample Type: (Quality Control)



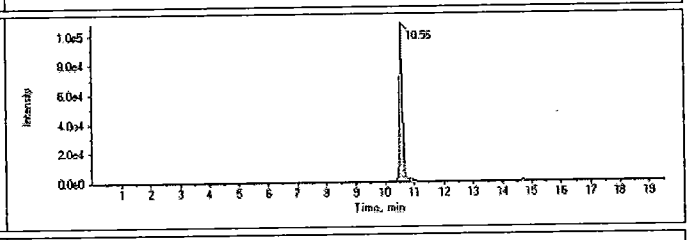
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.021854

Area Ratio: 7.513e-1

Sample Type: (Quality Control)



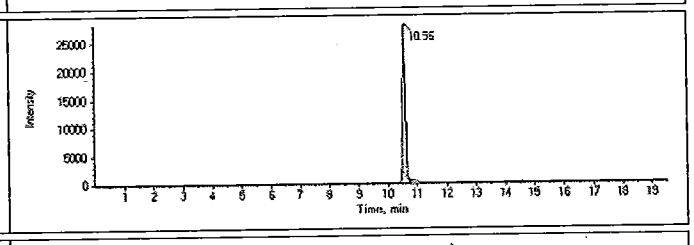
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.021077

Area Ratio: 1.885e-1

Sample Type: (Quality Control)



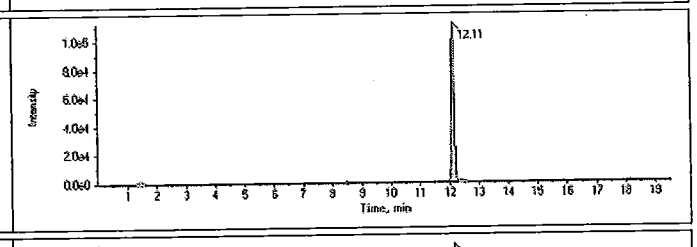
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.022246

Area Ratio: 7.045e-1

Sample Type: (Quality Control)



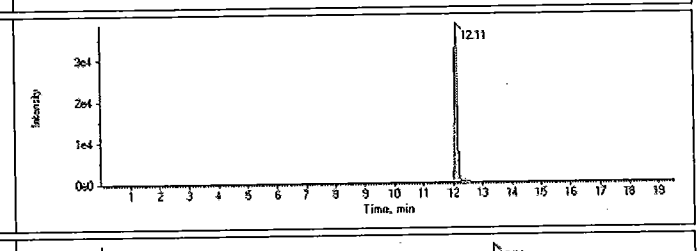
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.022449

Area Ratio: 2.273e-1

Sample Type: (Quality Control)



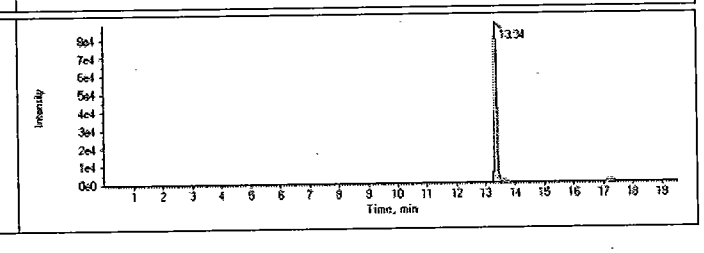
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 0.023204

Area Ratio: 5.285e-1

Sample Type: (Quality Control)



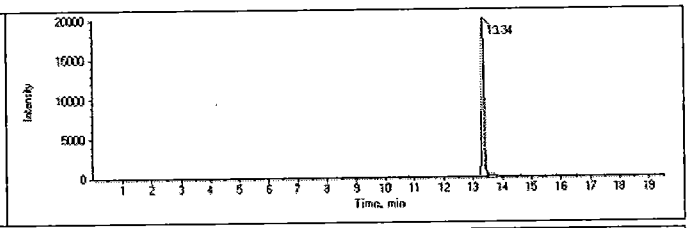
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 0.022594

Area Ratio: 1.201e-1

Sample Type: (Quality Control)



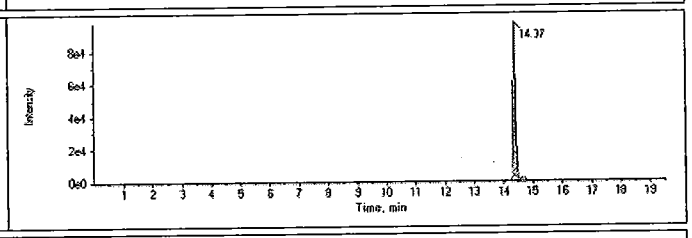
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 0.021126

Area Ratio: 5.251e-1

Sample Type: (Quality Control)



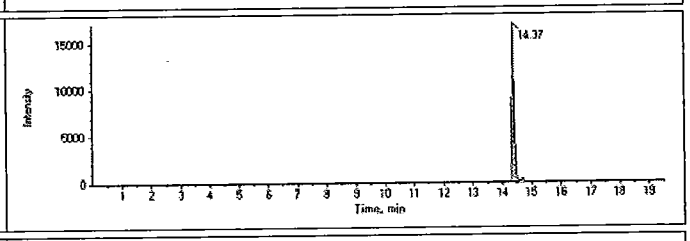
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 0.022067

Area Ratio: 8.658e-2

Sample Type: (Quality Control)



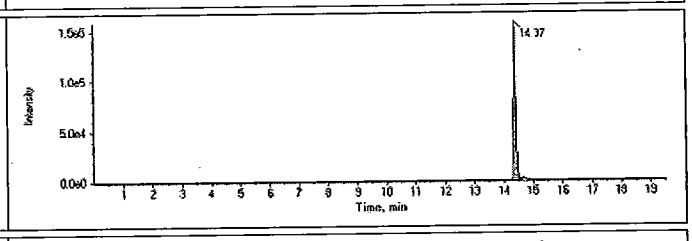
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.39) min

Calculated conc: 87.182214

Area Ratio: 7.060e-1

Sample Type: (Quality Control)



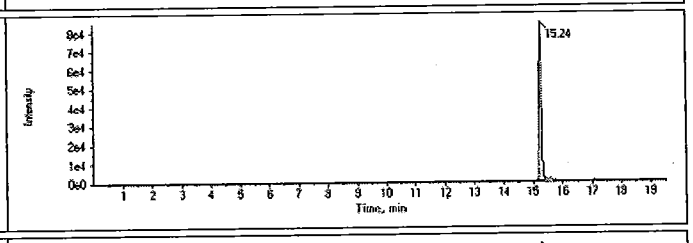
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.26) min

Calculated conc: 0.020565

Area Ratio: 4.249e-1

Sample Type: (Quality Control)



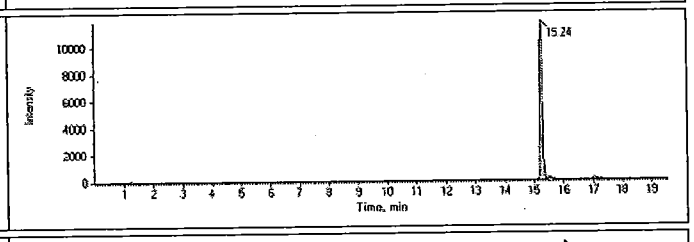
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.27) min

Calculated conc: 0.019424

Area Ratio: 6.576e-2

Sample Type: (Quality Control)



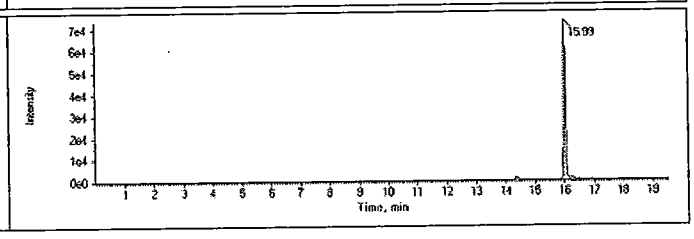
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (16.01) min

Calculated conc: 0.019080

Area Ratio: 3.391e-1

Sample Type: (Quality Control)



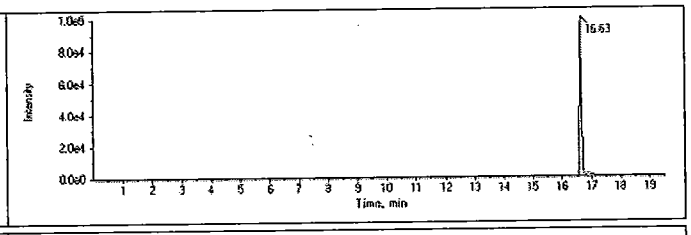
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.70) min

Calculated conc: 0.019196

Area Ratio: 4.847e-1

Sample Type: (Quality Control)



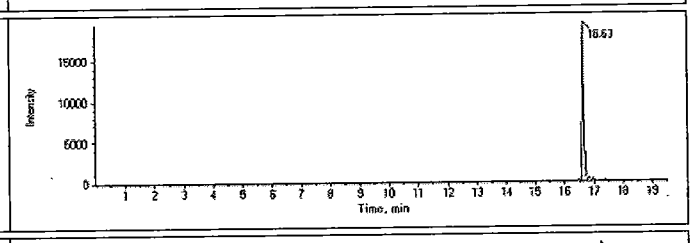
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.019145

Area Ratio: 8.353e-2

Sample Type: (Quality Control)



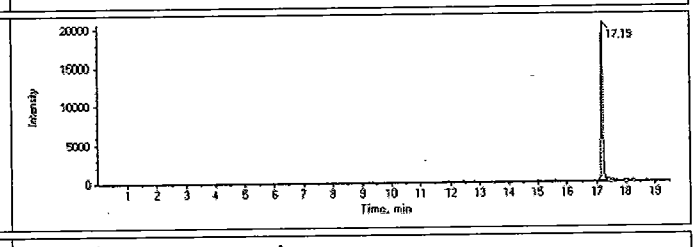
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.19 (17.20) min

Calculated conc: 0.019308

Area Ratio: 8.716e-2

Sample Type: (Quality Control)



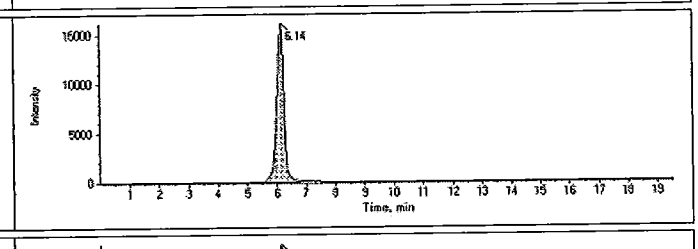
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.14 (6.18) min

Calculated conc: 0.021260

Area Ratio: 2.541e-1

Sample Type: (Quality Control)



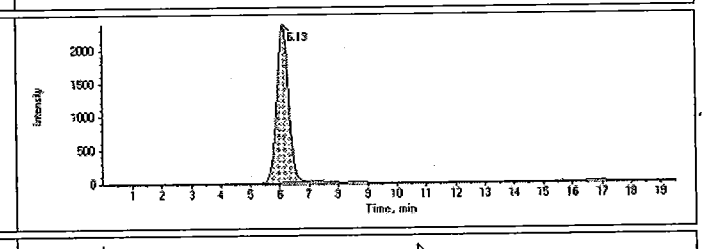
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.13 (6.16) min

Calculated conc: 0.019666

Area Ratio: 6.149e-2

Sample Type: (Quality Control)



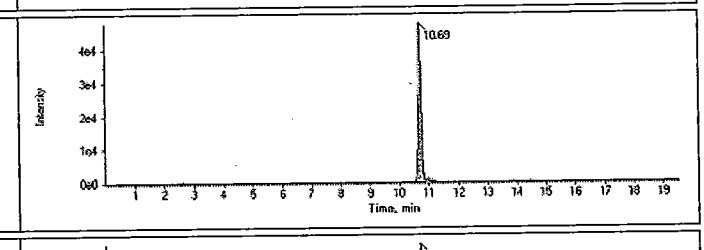
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.69 (10.71) min

Calculated conc: 0.021705

Area Ratio: 2.805e-1

Sample Type: (Quality Control)



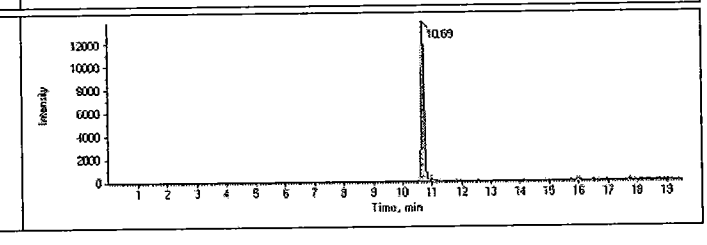
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.69 (10.71) min

Calculated conc: 0.020526

Area Ratio: 8.855e-2

Sample Type: (Quality Control)



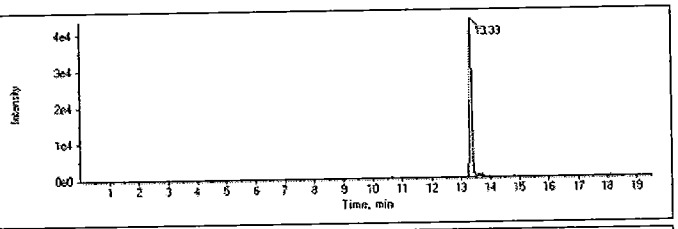
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 0.019537

Area Ratio: 2.168e-1

Sample Type: (Quality Control)



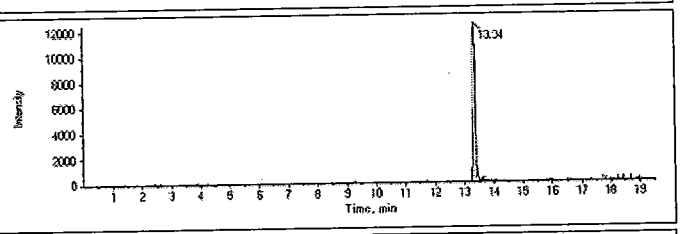
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.019447

Area Ratio: 6.048e-2

Sample Type: (Quality Control)



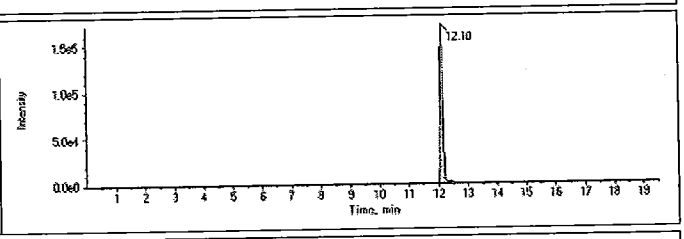
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.10 (12.12) min

Calculated conc: 102.171458

Area Ratio: N/A

Sample Type: (Quality Control)



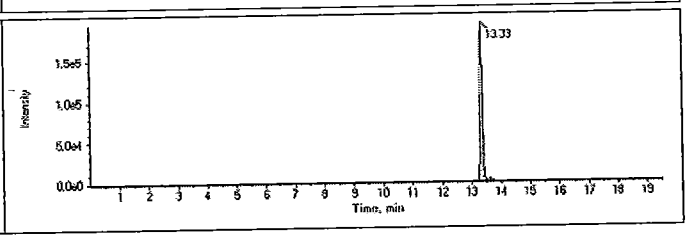
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 98.114687

Area Ratio: N/A

Sample Type: (Quality Control)



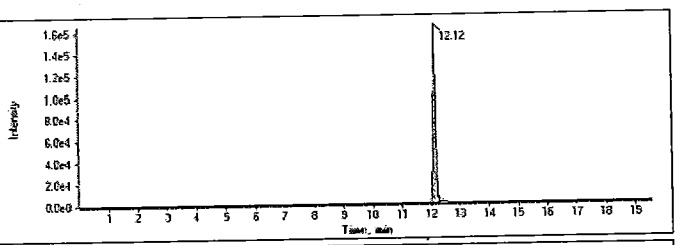
Sample Name	201312180656MS	**Injection Vial**	41
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 7:59:24 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	963876	12.12	100.00000	-
IS-13C-PFOS	1109876	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.690e+05	8.47	0.02500	0.025514
Surr-13c-PFHxA	9.138e+05	8.48	100.00000	101.883964
PFHpA	7.984e+05	10.57	0.02500	0.024094
PFHpA 2	2.054e+05	10.57	0.02500	0.023825
PFOA	7.820e+05	12.12	0.02500	0.025617
PFOA 2	2.507e+05	12.12	0.02500	0.025683
PFNA	5.616e+05	13.37	0.02500	0.025579
PFNA 2	1.249e+05	13.37	0.02500	0.024364
PFDA	5.395e+05	14.39	0.02500	0.022519
PFDA 2	8.646e+04	14.39	0.02500	0.022862
Surr-13c-PFDA	7.403e+05	14.39	100.00000	94.845592
PFUnA	4.237e+05	15.27	0.02500	0.021275
PFUnA 2	6.570e+04	15.27	0.02500	0.020134
PFDoA	3.467e+05	16.01	0.02500	0.020240
PFTrDA	4.916e+05	16.65	0.02500	0.020199
PFTrDA 2	8.857e+04	16.65	0.02500	0.021059
PFTA	9.608e+04	17.21	0.02500	0.022083
PFBS	2.818e+05	6.16	0.02220	0.021241
PFBS 2	7.007e+04	6.14	0.02220	0.020193
PFHxS	3.551e+05	10.71	0.02370	0.024754
PFHxS 2	1.096e+05	10.71	0.02370	0.022881
PFOS	2.680e+05	13.35	0.02400	0.021754
PFOS 2	7.739e+04	13.35	0.02400	0.022419
13C-PFOA	9.639e+05	12.12	100.00000	99.521890
13C-PFOS	1.110e+06	13.35	100.00000	100.851120

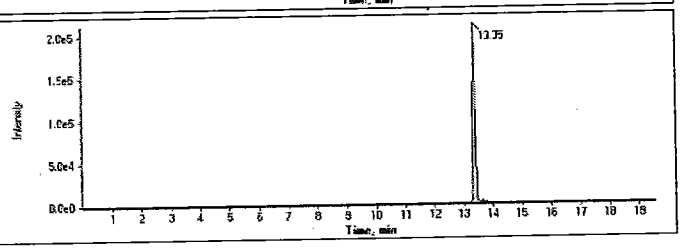
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.12(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.35(13.35) min
Concentration: 100.00000
Sample Type: (Quality Control)

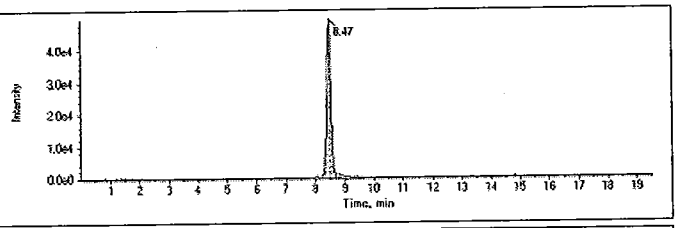


PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 0.025514

Area Ratio: 4.866e-1
Sample Type: (Quality Control)

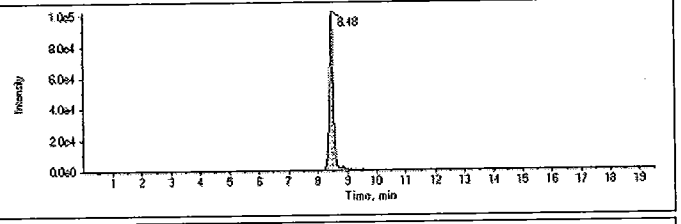


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 101.883964

Area Ratio: 9.481e-1
Sample Type: (Quality Control)

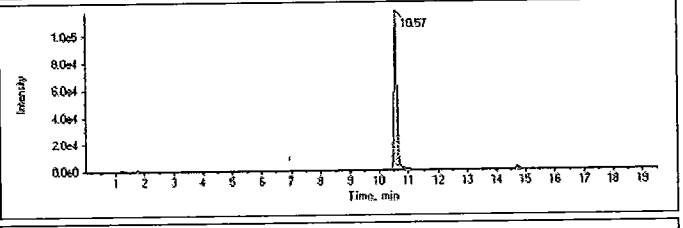


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.024094

Area Ratio: 8.283e-1
Sample Type: (Quality Control)

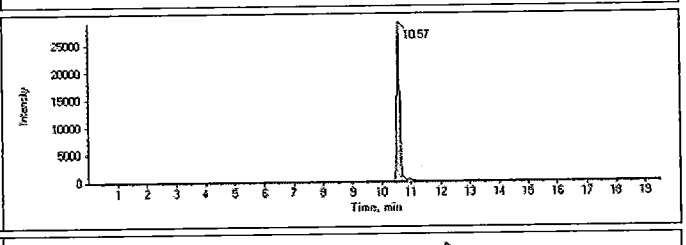


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.023825

Area Ratio: 2.131e-1
Sample Type: (Quality Control)

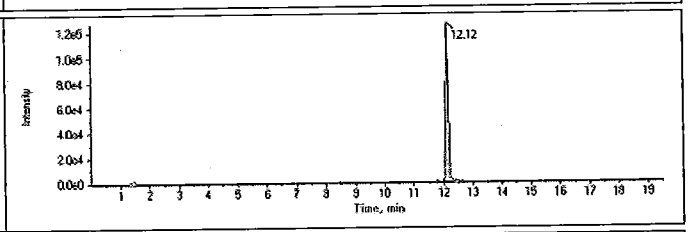


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.025617

Area Ratio: 8.113e-1
Sample Type: (Quality Control)

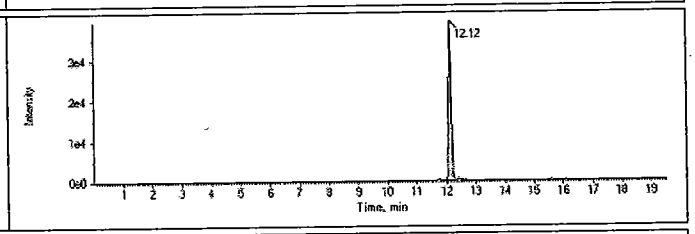


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.025683

Area Ratio: 2.601e-1
Sample Type: (Quality Control)

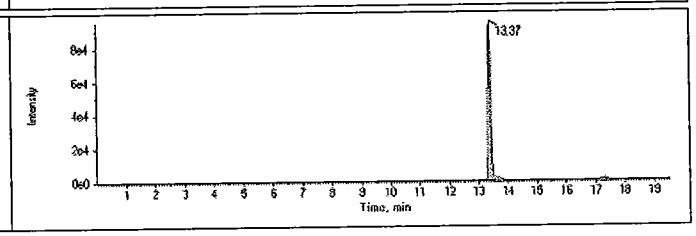


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.025579

Area Ratio: 5.826e-1
Sample Type: (Quality Control)



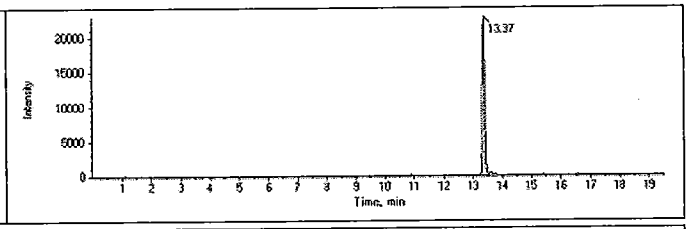
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.024364

Area Ratio: 1.295e-1

Sample Type: (Quality Control)



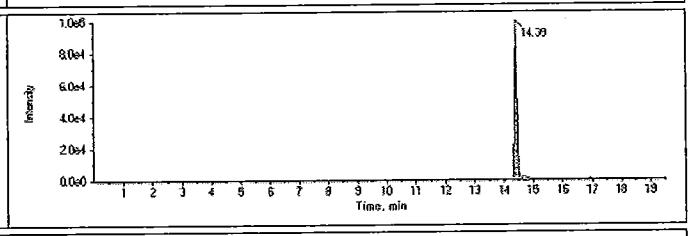
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.022519

Area Ratio: 5.597e-1

Sample Type: (Quality Control)



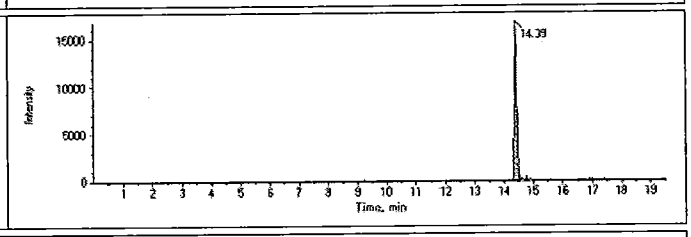
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.022862

Area Ratio: 8.970e-2

Sample Type: (Quality Control)



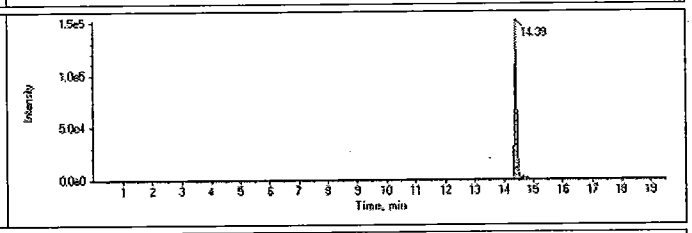
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 94.845592

Area Ratio: 7.680e-1

Sample Type: (Quality Control)



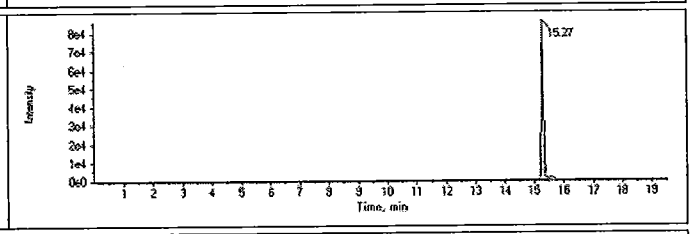
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.27 (15.26) min

Calculated conc: 0.021275

Area Ratio: 4.396e-1

Sample Type: (Quality Control)



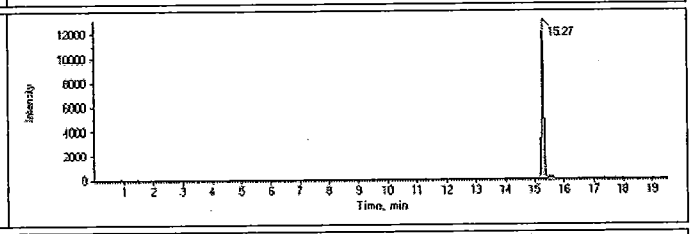
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.27 (15.27) min

Calculated conc: 0.020134

Area Ratio: 6.817e-2

Sample Type: (Quality Control)



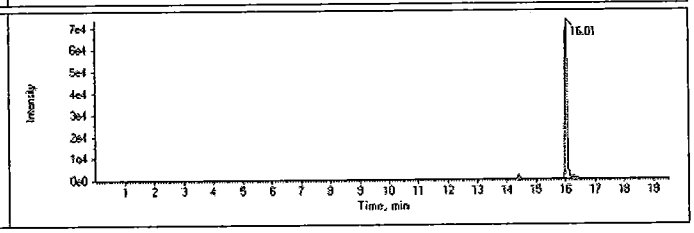
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.01 (16.01) min

Calculated conc: 0.020240

Area Ratio: 3.597e-1

Sample Type: (Quality Control)

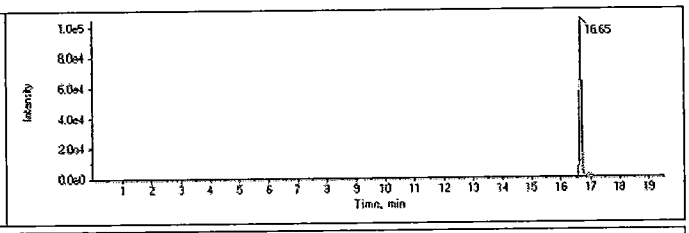


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.65 (16.70) min

Calculated conc: 0.020199

Area Ratio: 5.100e-1
Sample Type: (Quality Control)

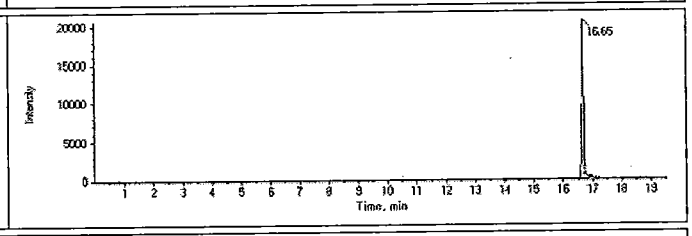


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min

Calculated conc: 0.021059

Area Ratio: 9.188e-2
Sample Type: (Quality Control)

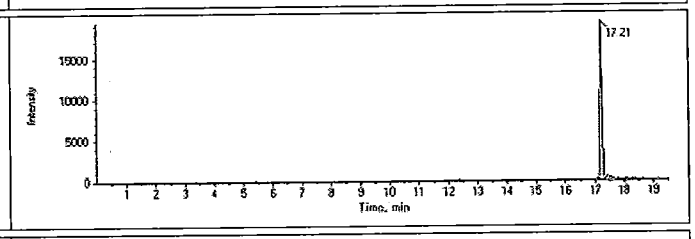


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.022083

Area Ratio: 9.969e-2
Sample Type: (Quality Control)

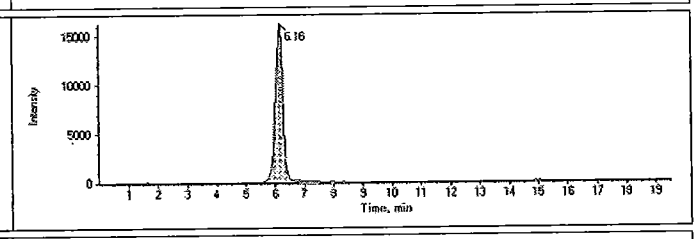


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.16 (6.18) min

Calculated conc: 0.021241

Area Ratio: 2.539e-1
Sample Type: (Quality Control)

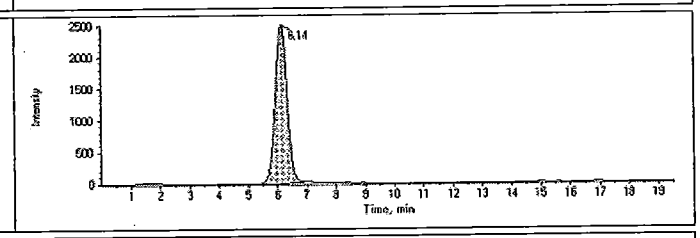


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.14 (6.16) min

Calculated conc: 0.020193

Area Ratio: 6.314e-2
Sample Type: (Quality Control)

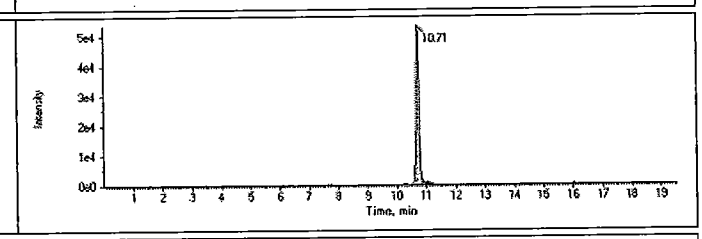


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.024754

Area Ratio: 3.199e-1
Sample Type: (Quality Control)

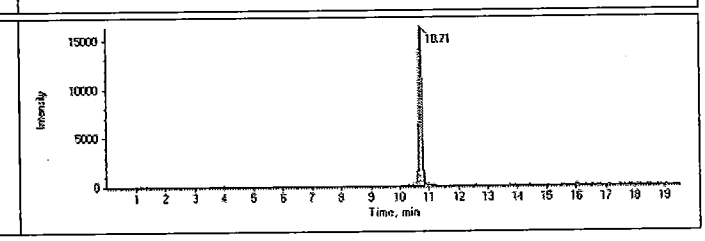


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.022881

Area Ratio: 9.871e-2
Sample Type: (Quality Control)



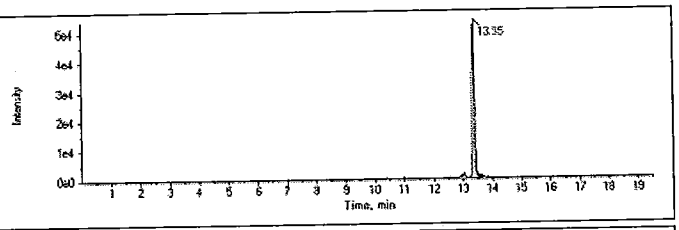
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.021754

Area Ratio: 2.414e-1

Sample Type: (Quality Control)



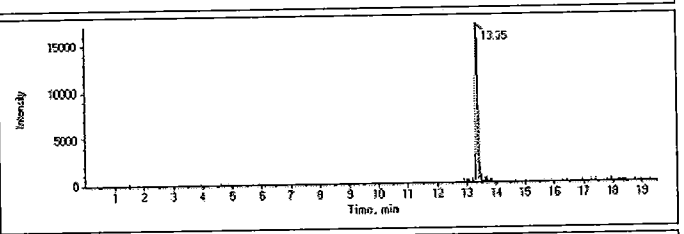
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.022419

Area Ratio: 6.972e-2

Sample Type: (Quality Control)



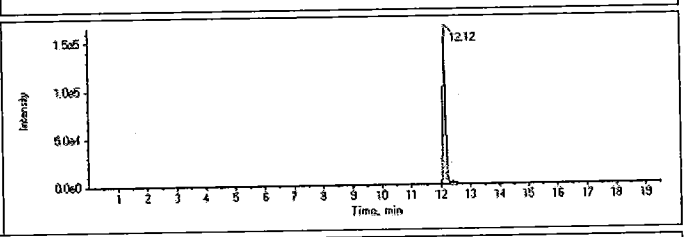
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 99.521890

Area Ratio: N/A

Sample Type: (Quality Control)



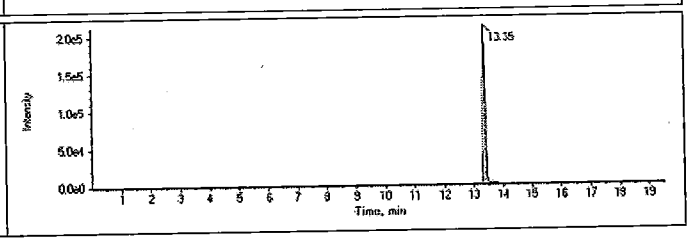
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 100.851120

Area Ratio: N/A

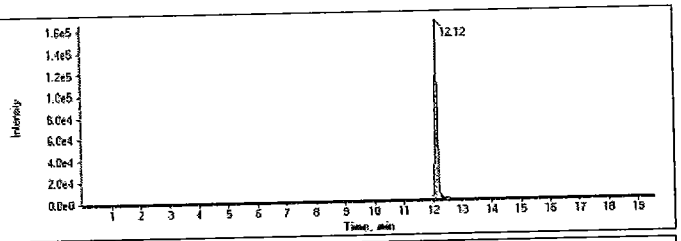
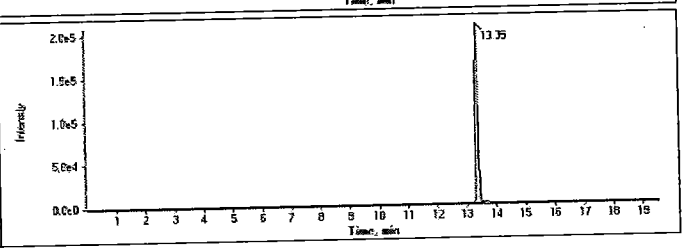
Sample Type: (Quality Control)



Sample Name	201312180656MSD	**Injection Vial**	42
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 8:19:33 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1003029	12.12	100.00000	-
IS-13C-PFOS	1121828	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.818e+05	8.48	0.02500	0.025188
Surr-13c-PFHxA	9.483e+05	8.48	100.00000	101.605708
PFHpA	8.157e+05	10.57	0.02500	0.023656
PFHpA 2	2.126e+05	10.57	0.02500	0.023704
PFOA	7.974e+05	12.12	0.02500	0.025104
PFOA 2	2.463e+05	12.12	0.02500	0.024244
PFNA	5.733e+05	13.36	0.02500	0.025093
PFNA 2	1.281e+05	13.36	0.02500	0.024021
PFDA	5.805e+05	14.39	0.02500	0.023285
PFDA 2	9.087e+04	14.39	0.02500	0.023091
Surr-13c-PFDA	7.400e+05	14.39	100.00000	91.103984
PFUnA	4.494e+05	15.27	0.02500	0.021687
PFUnA 2	6.644e+04	15.26	0.02500	0.019566
PFDoA	3.429e+05	16.01	0.02500	0.019239
PFTrDA	4.858e+05	16.66	0.02500	0.019183
PFTrDA 2	9.019e+04	16.65	0.02500	0.020608
PFTA	8.930e+04	17.21	0.02500	0.019722
PFBS	2.937e+05	6.17	0.02220	0.021901
PFBS 2	7.597e+04	6.16	0.02220	0.021659
PFHxS	3.505e+05	10.71	0.02370	0.024172
PFHxS 2	1.121e+05	10.71	0.02370	0.023166
PFOS	2.862e+05	13.35	0.02400	0.022984
PFOS 2	7.959e+04	13.35	0.02400	0.022811
13C-PFOA	1.003e+06	12.12	100.00000	103.564453
13C-PFOS	1.122e+06	13.35	100.00000	101.937180

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

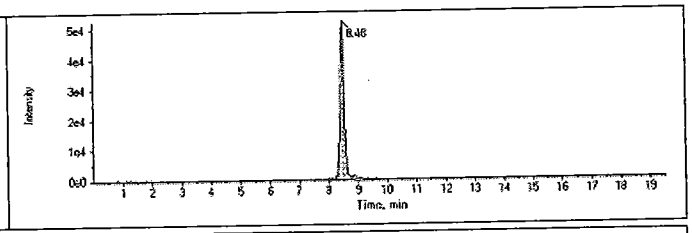
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.025188

Area Ratio: 4.803e-1

Sample Type: (Quality Control)



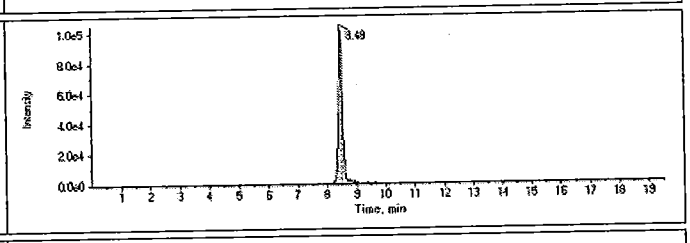
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 101.605708

Area Ratio: 9.455e-1

Sample Type: (Quality Control)



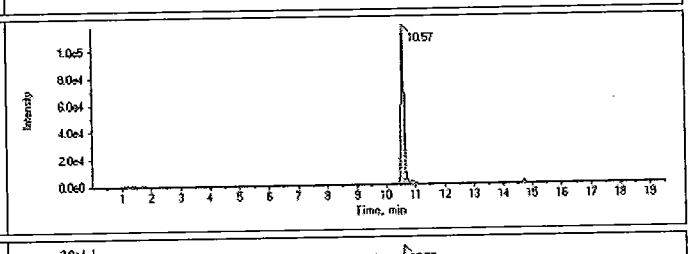
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.023656

Area Ratio: 8.133e-1

Sample Type: (Quality Control)



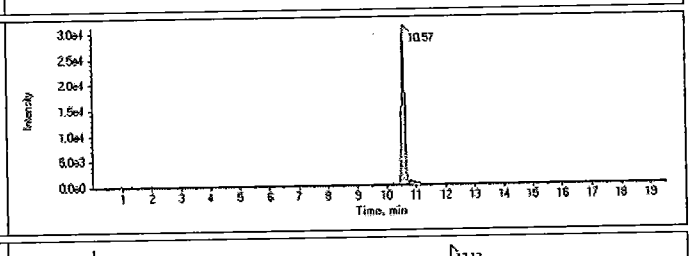
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.023704

Area Ratio: 2.120e-1

Sample Type: (Quality Control)



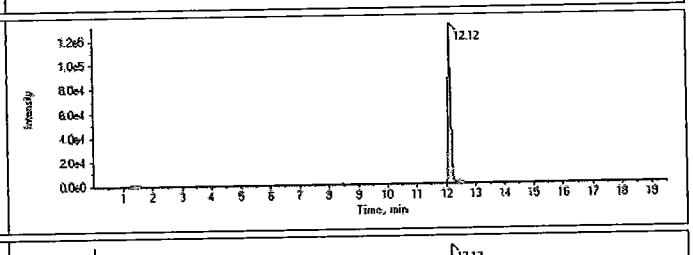
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.025104

Area Ratio: 7.950e-1

Sample Type: (Quality Control)



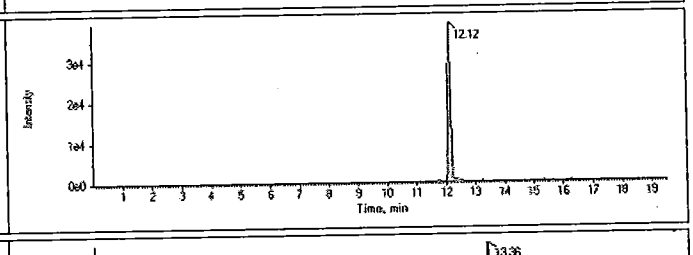
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.024244

Area Ratio: 2.455e-1

Sample Type: (Quality Control)



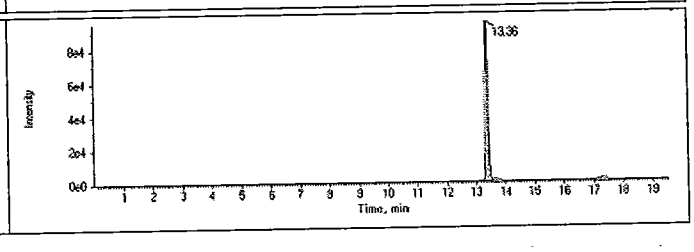
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.025093

Area Ratio: 5.715e-1

Sample Type: (Quality Control)

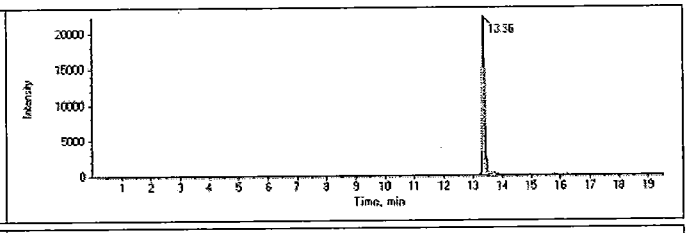


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.024021

Area Ratio: 1.277e-1
Sample Type: (Quality Control)

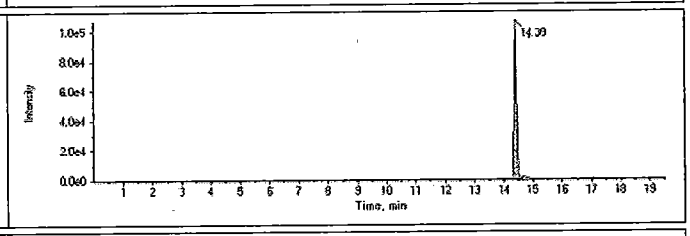


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.023285

Area Ratio: 5.788e-1
Sample Type: (Quality Control)

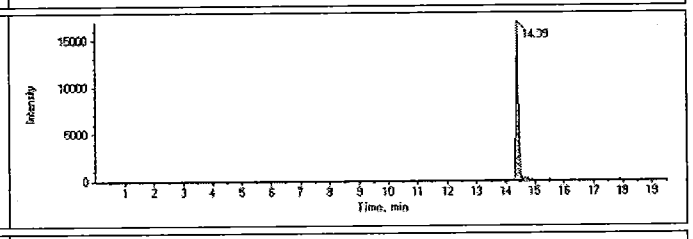


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.023091

Area Ratio: 9.060e-2
Sample Type: (Quality Control)

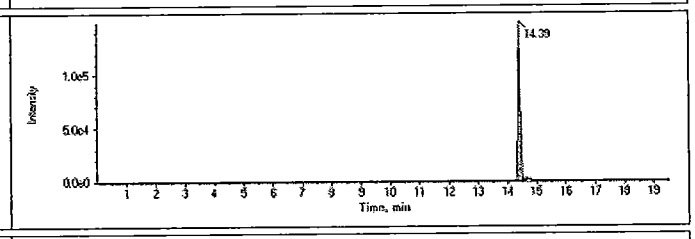


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 91.103984

Area Ratio: 7.377e-1
Sample Type: (Quality Control)

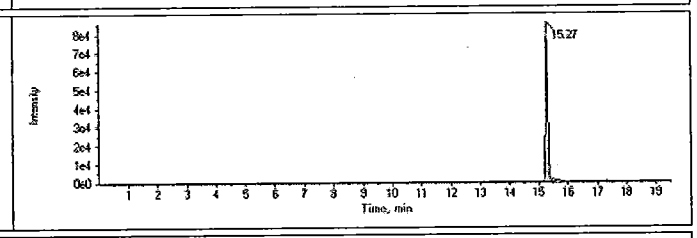


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.27 (15.26) min

Calculated conc: 0.021687

Area Ratio: 4.481e-1
Sample Type: (Quality Control)

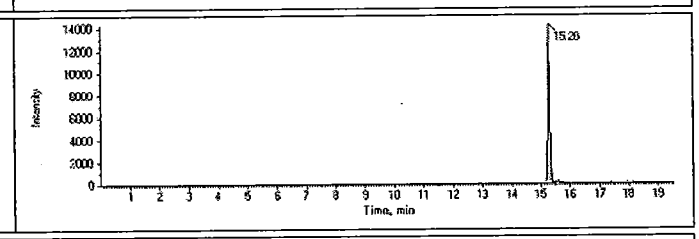


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.27) min

Calculated conc: 0.019566

Area Ratio: 6.624e-2
Sample Type: (Quality Control)

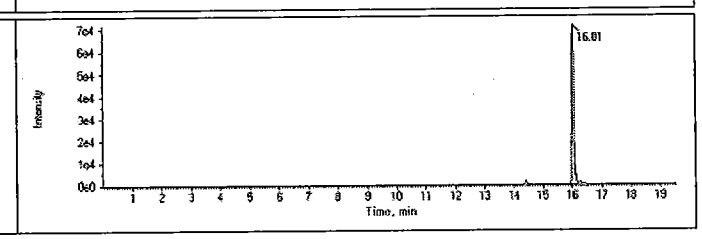


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.01 (16.01) min

Calculated conc: 0.019239

Area Ratio: 3.419e-1
Sample Type: (Quality Control)



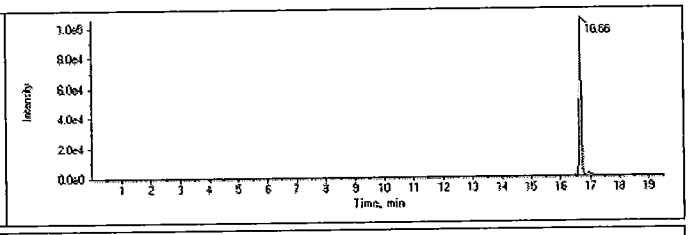
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.66 (16.70) min

Calculated conc: 0.019183

Area Ratio: 4.843e-1

Sample Type: (Quality Control)



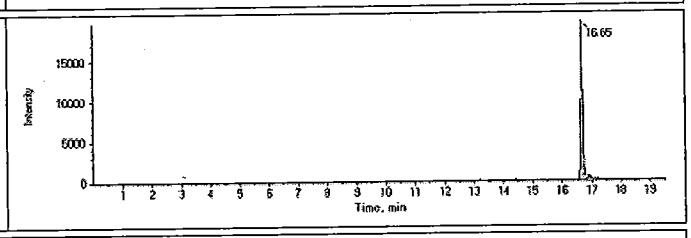
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min

Calculated conc: 0.020608

Area Ratio: 8.992e-2

Sample Type: (Quality Control)



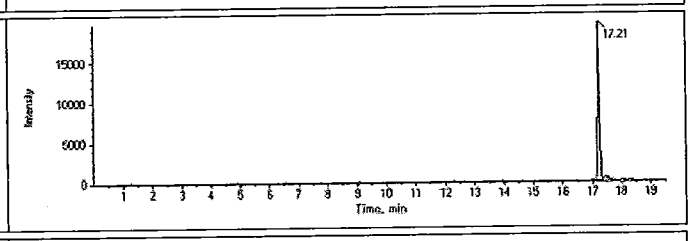
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.019722

Area Ratio: 8.903e-2

Sample Type: (Quality Control)



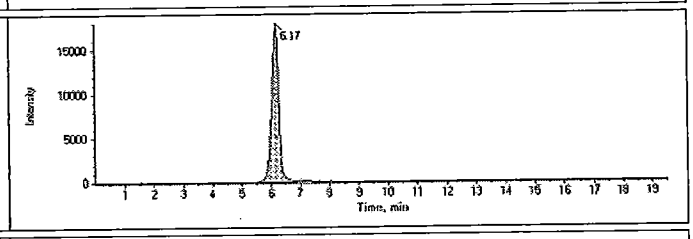
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.021901

Area Ratio: 2.618e-1

Sample Type: (Quality Control)



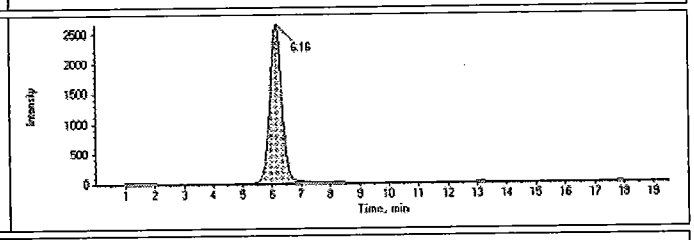
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.021659

Area Ratio: 6.772e-2

Sample Type: (Quality Control)



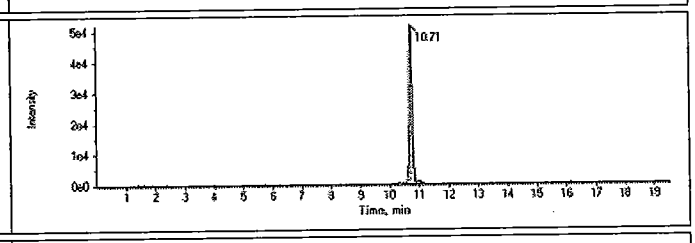
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.024172

Area Ratio: 3.124e-1

Sample Type: (Quality Control)



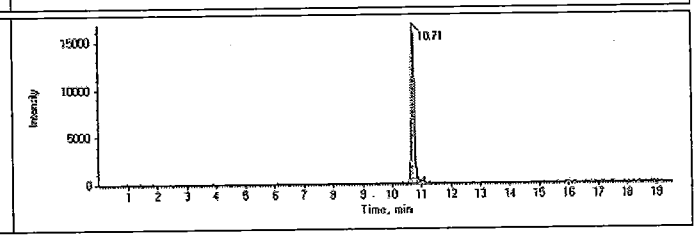
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.023166

Area Ratio: 9.994e-2

Sample Type: (Quality Control)



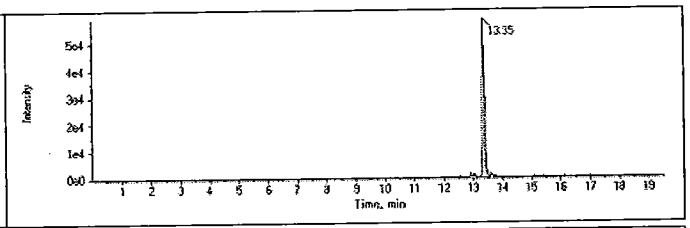
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.022984

Area Ratio: 2.551e-1

Sample Type: (Quality Control)



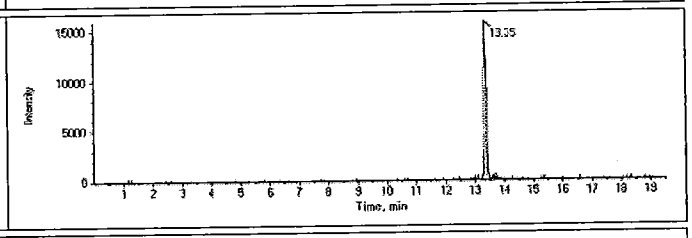
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.022811

Area Ratio: 7.095e-2

Sample Type: (Quality Control)



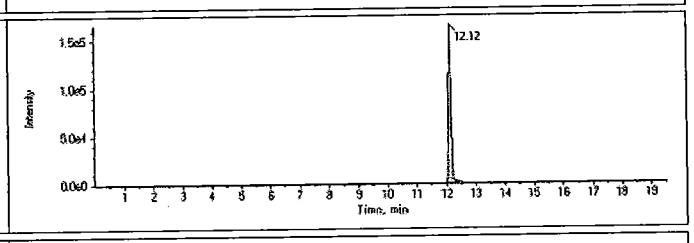
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 103.564453

Area Ratio: N/A

Sample Type: (Quality Control)



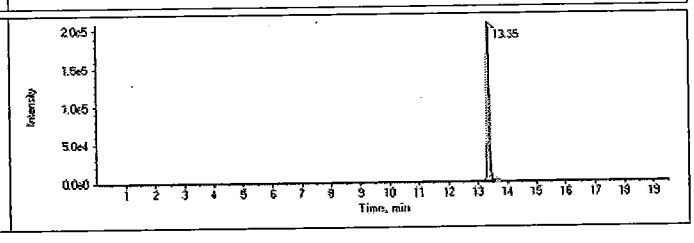
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 101.937180

Area Ratio: N/A

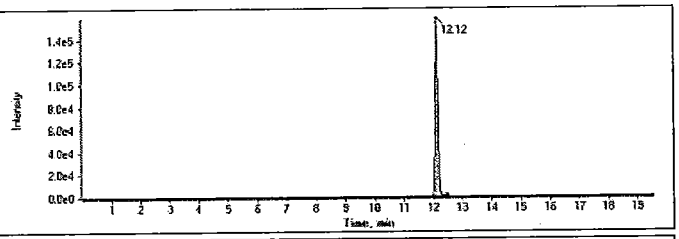
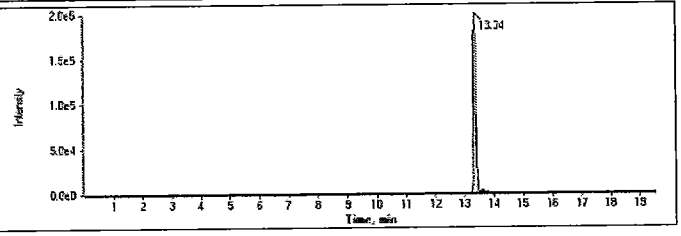
Sample Type: (Quality Control)



Sample Name	201312180656	**Injection Vial**	43
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 8:39:41 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	963696	12.12	100.00000	-
IS-13C-PFOS	1100984	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	2.115e+04	8.49	0.00000	0.001151
Surr-13c-PFHxA	9.093e+05	8.48	100.00000	101.395611
PFHpA	1.118e+04	10.58	0.00000	0.000337
PFHpA 2	2.257e+03	10.56	0.00000	0.000262
PFOA	3.175e+04	12.12	0.00000	0.001040
PFOA 2	9.464e+03	12.12	0.00000	0.000970
PFNA	1.902e+03	13.36	0.00000	0.000087
PFNA 2	4.410e+02	13.35	0.00000	0.000086
PFDA	6.860e+02	14.36	0.00000	0.000029
PFDA 2	9.800e+01	14.49	0.00000	0.000026
Surr-13c-PFDA	7.219e+05	14.38	100.00000	92.507420
PFUnA	5.860e+02	15.30	0.00000	0.000029
PFUnA 2	9.800e+01	15.56	0.00000	0.000030
PFDoA	4.420e+02	15.98	0.00000	0.000026
PFTrDA	9.810e+02	16.69	0.00000	0.000040
PFTrDA 2	9.800e+01	16.63	0.00000	0.000023
PFTA	4.900e+02	17.45	0.00000	0.000113
PFBS	5.595e+03	6.19	0.00000	0.000425
PFBS 2	1.366e+03	6.17	0.00000	0.000397
PFHxS	1.138e+04	10.70	0.00000	0.000799
PFHxS 2	1.665e+03	10.72	0.00000	0.000351
PFOS	9.758e+03	13.34	0.00000	0.000799
PFOS 2	2.353e+03	13.34	0.00000	0.000687
13C-PFOA	9.637e+05	12.12	100.00000	99.503243
13C-PFOS	1.101e+06	13.34	100.00000	100.043116

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

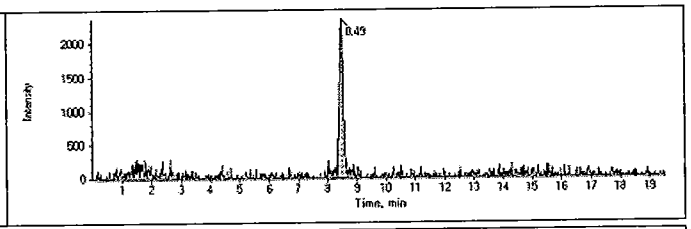
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.49 (8.48) min

Calculated conc: 0.001151

Area Ratio: 2.194e-2

Sample Type: (Quality Control)



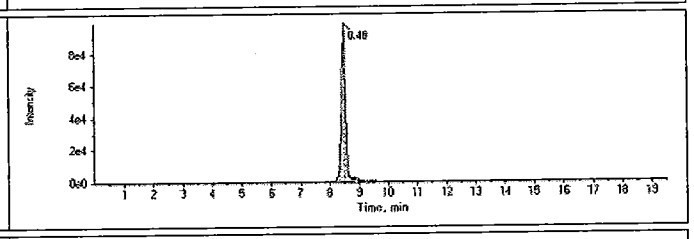
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 101.395611

Area Ratio: 9.435e-1

Sample Type: (Quality Control)



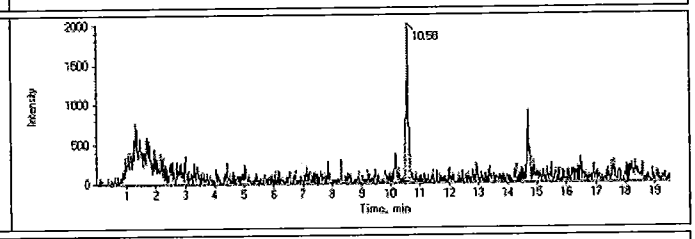
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.000337

Area Ratio: 1.160e-2

Sample Type: (Quality Control)



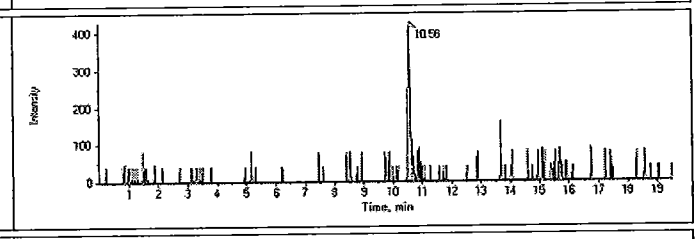
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.56 (10.57) min

Calculated conc: 0.000262

Area Ratio: 2.342e-3

Sample Type: (Quality Control)



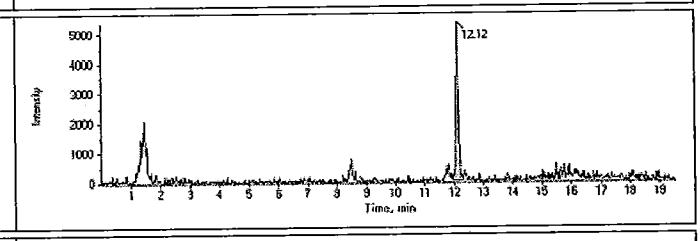
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.001040

Area Ratio: 3.294e-2

Sample Type: (Quality Control)



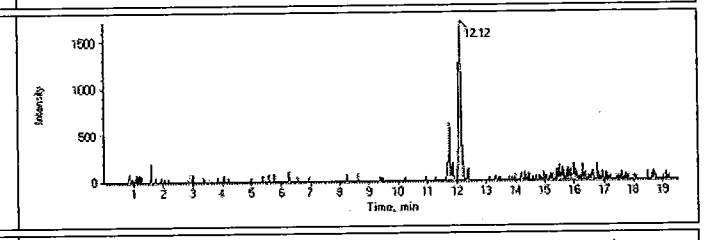
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.000970

Area Ratio: 9.821e-3

Sample Type: (Quality Control)



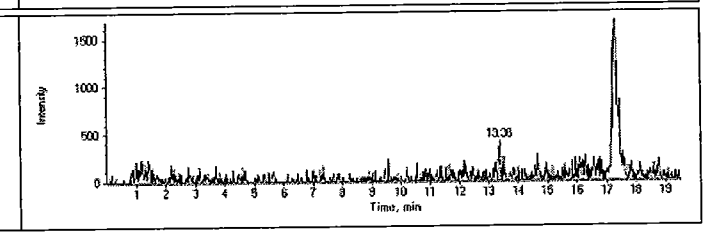
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.000087

Area Ratio: 1.974e-3

Sample Type: (Quality Control)



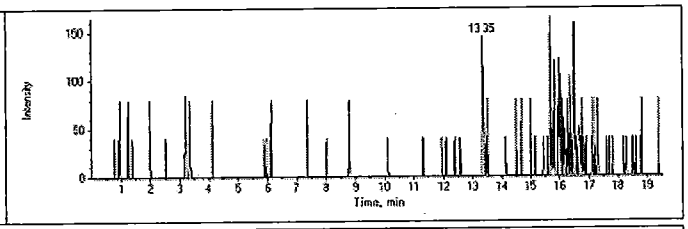
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.000086

Area Ratio: 4.579e-4

Sample Type: (Quality Control)



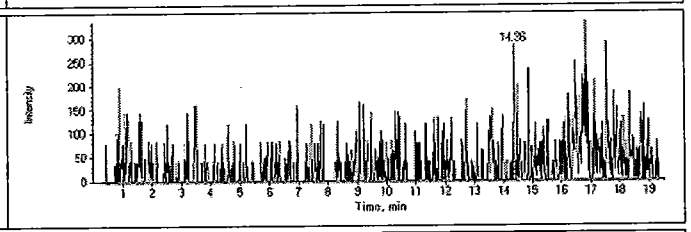
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.36 (14.39) min

Calculated conc: 0.000029

Area Ratio: 7.119e-4

Sample Type: (Quality Control)



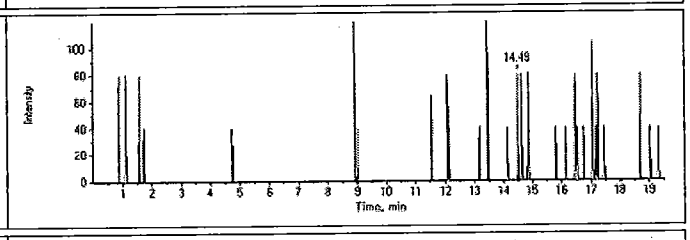
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.49 (14.39) min

Calculated conc: 0.000026

Area Ratio: 1.017e-4

Sample Type: (Quality Control)



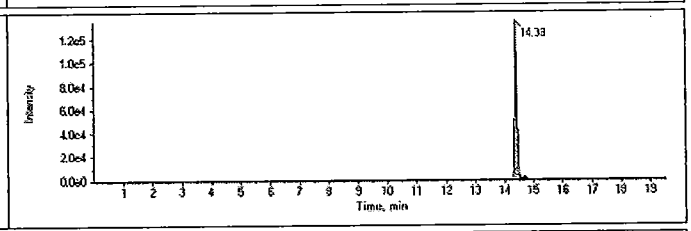
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 92.507420

Area Ratio: 7.491e-1

Sample Type: (Quality Control)



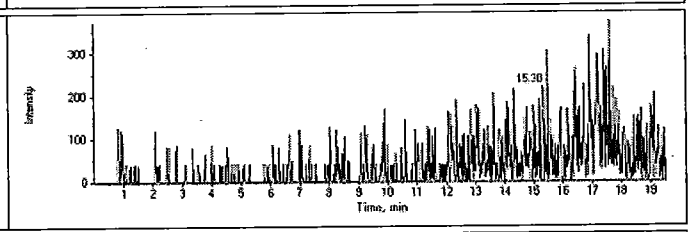
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.30 (15.26) min

Calculated conc: 0.000029

Area Ratio: 6.083e-4

Sample Type: (Quality Control)



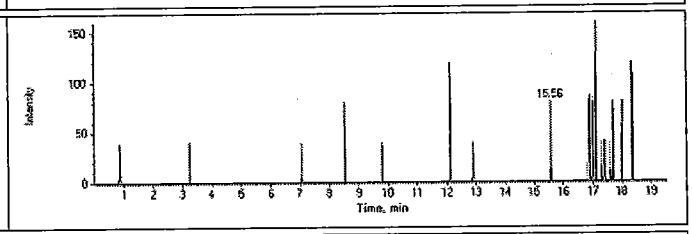
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.56 (15.27) min

Calculated conc: 0.000030

Area Ratio: 1.018e-4

Sample Type: (Quality Control)



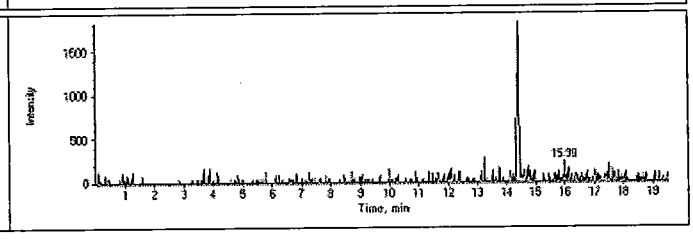
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (16.01) min

Calculated conc: 0.000026

Area Ratio: 4.582e-4

Sample Type: (Quality Control)



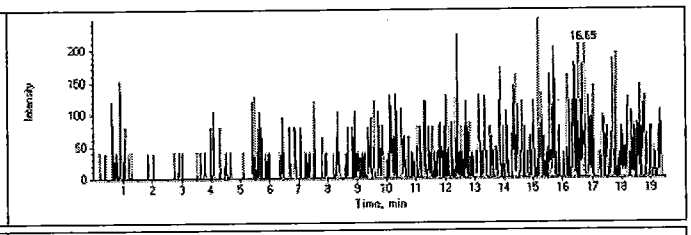
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.69 (16.70) min

Calculated conc: 0.000040

Area Ratio: 1.018e-3

Sample Type: (Quality Control)



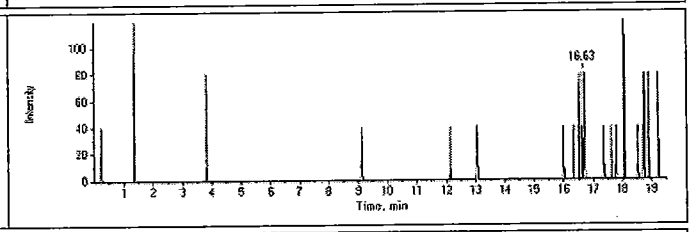
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.000023

Area Ratio: 1.018e-4

Sample Type: (Quality Control)



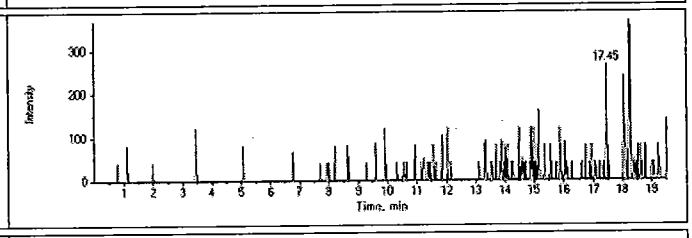
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.45 (17.20) min

Calculated conc: 0.000113

Area Ratio: 5.088e-4

Sample Type: (Quality Control)



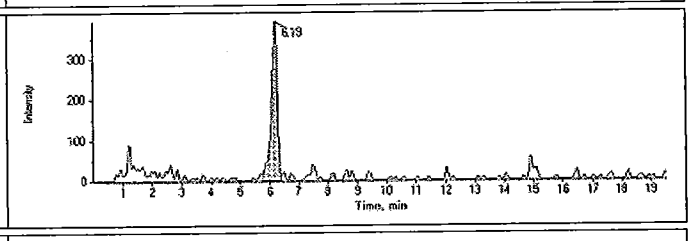
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.19 (6.18) min

Calculated conc: 0.000425

Area Ratio: 5.082e-3

Sample Type: (Quality Control)



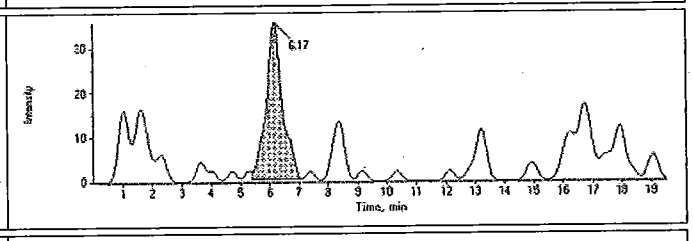
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.17 (6.16) min

Calculated conc: 0.000397

Area Ratio: 1.241e-3

Sample Type: (Quality Control)



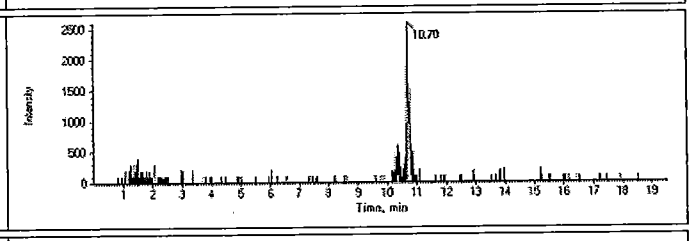
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.000799

Area Ratio: 1.033e-2

Sample Type: (Quality Control)



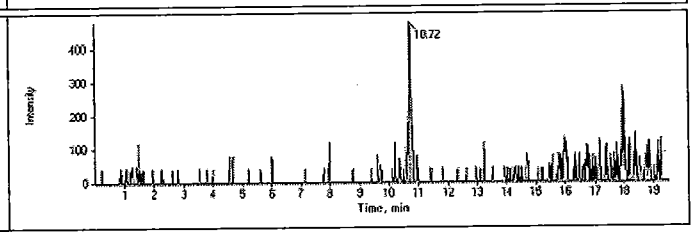
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.000351

Area Ratio: 1.512e-3

Sample Type: (Quality Control)



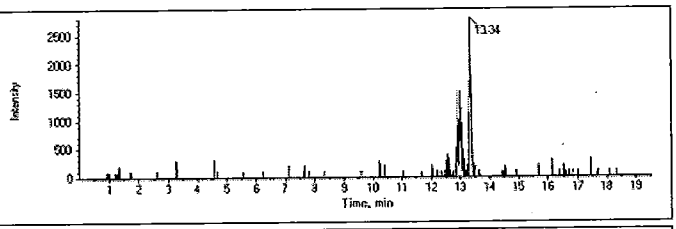
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.000799

Area Ratio: 8.863e-3

Sample Type: (Quality Control)



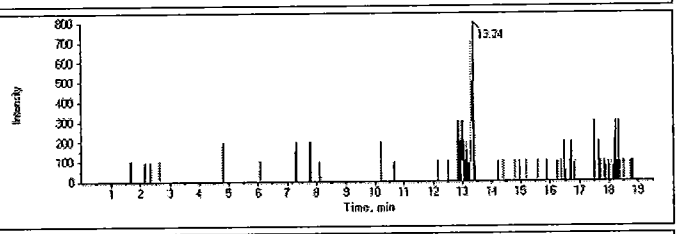
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.000687

Area Ratio: 2.138e-3

Sample Type: (Quality Control)



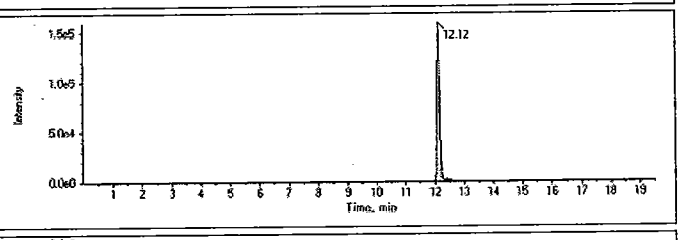
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 99.503243

Area Ratio: N/A

Sample Type: (Quality Control)



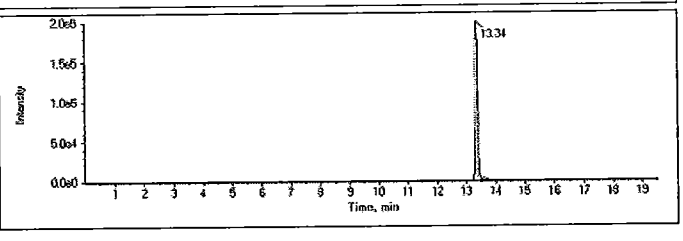
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 100.043116

Area Ratio: N/A

Sample Type: (Quality Control)



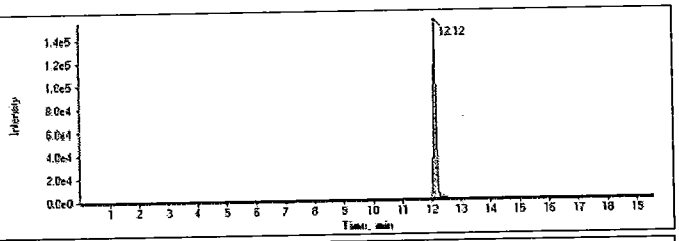
Sample Name	201312130250	**Injection Vial**	44
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 8:59:51 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	951116	12.12	100.00000	-
IS-13C-PFOS	1107257	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.382e+04	8.48	0.00000	0.001865
Surr-13c-PFHxA	8.700e+05	8.48	100.00000	98.296341
PFHpA	3.264e+04	10.57	0.00000	0.000998
PFHpA 2	9.180e+03	10.58	0.00000	0.001079
PFOA	7.474e+04	12.12	0.00000	0.002481
PFOA 2	2.668e+04	12.12	0.00000	0.002770
PFNA	9.704e+03	13.35	0.00000	0.000448
PFNA 2	2.207e+03	13.37	0.00000	0.000436
PFDA	4.099e+03	14.38	0.00000	0.000173
PFDA 2	1.450e+02	14.38	0.00000	0.000039
Surr-13c-PFDA	5.984e+05	14.39	100.00000	77.691045
PFUnA	1.404e+03	15.24	0.00000	0.000071
PFUnA 2	4.900e+01	15.28	0.00000	0.000015
PFDoA	9.800e+01	16.02	0.00000	0.000006
PFTrDA	6.340e+02	16.36	0.00000	0.000026
PFTrDA 2	9.800e+01	16.88	0.00000	0.000024
PFTA	3.920e+02	16.79	0.00000	0.000091
PFBS	1.266e+04	6.17	0.00000	0.000956
PFBS 2	3.397e+03	6.16	0.00000	0.000981
PFHxS	1.118e+04	10.70	0.00000	0.000781
PFHxS 2	5.394e+03	10.71	0.00000	0.001129
PFOS	1.957e+04	13.35	0.00000	0.001592
PFOS 2	6.473e+03	13.34	0.00000	0.001880
13C-PFOA	9.511e+05	12.12	100.00000	98.204393
13C-PFOS	1.107e+06	13.35	100.00000	100.613134

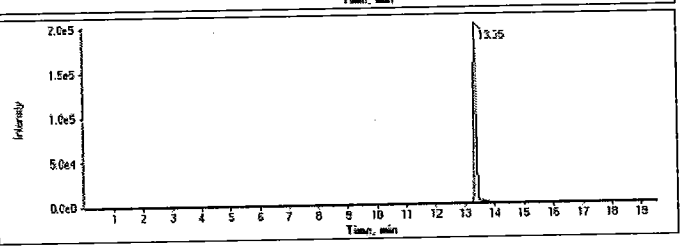
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.12(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.35(13.35) min
Concentration: 100.00000
Sample Type: (Quality Control)



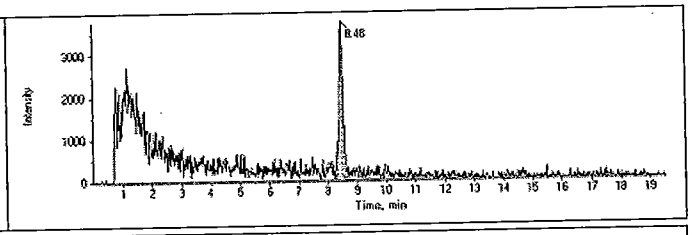
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.001865

Area Ratio: 3.556e-2

Sample Type: (Quality Control)



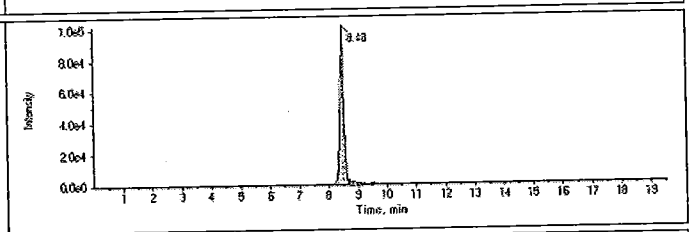
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 98.296341

Area Ratio: 9.147e-1

Sample Type: (Quality Control)



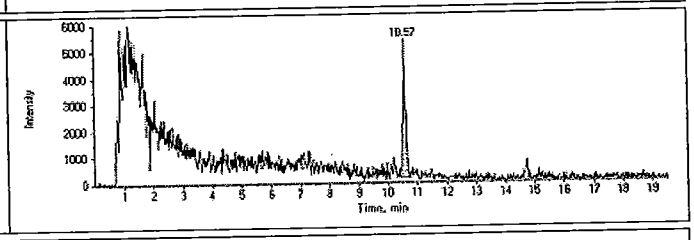
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.000998

Area Ratio: 3.432e-2

Sample Type: (Quality Control)



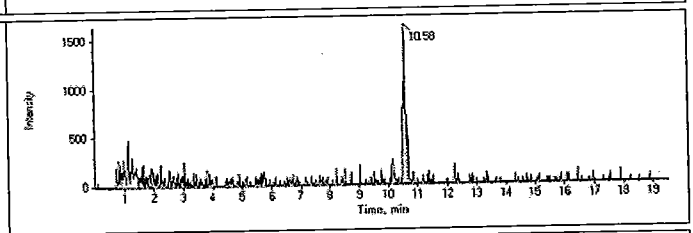
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.001079

Area Ratio: 9.652e-3

Sample Type: (Quality Control)



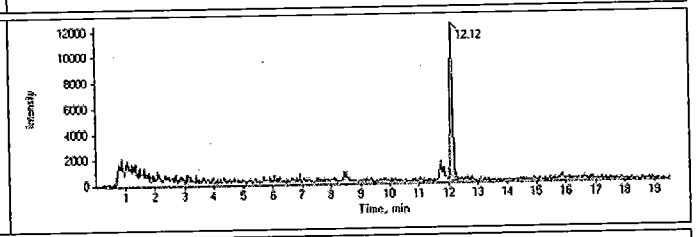
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.002481

Area Ratio: 7.858e-2

Sample Type: (Quality Control)



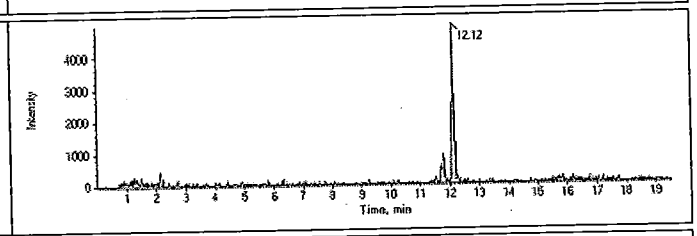
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.002770

Area Ratio: 2.805e-2

Sample Type: (Quality Control)



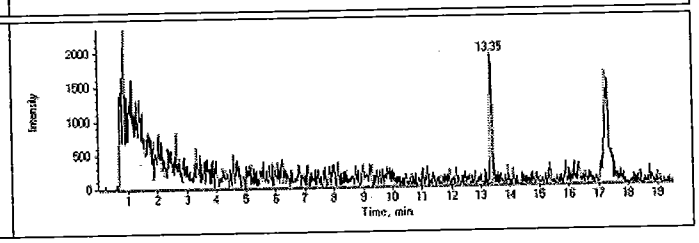
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.000448

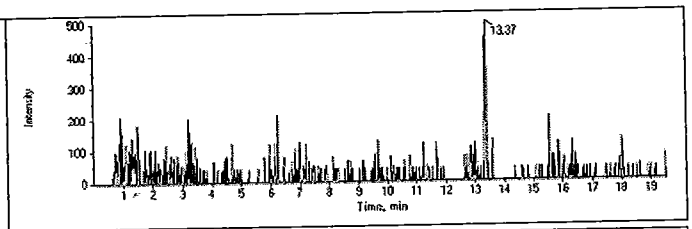
Area Ratio: 1.020e-2

Sample Type: (Quality Control)



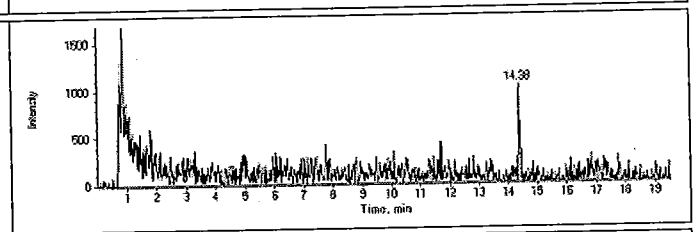
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.36) min
Calculated conc: 0.000436
Area Ratio: 2.320e-3
Sample Type: (Quality Control)



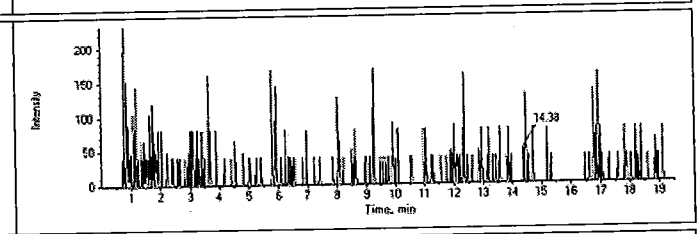
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.39) min
Calculated conc: 0.000173
Area Ratio: 4.310e-3
Sample Type: (Quality Control)



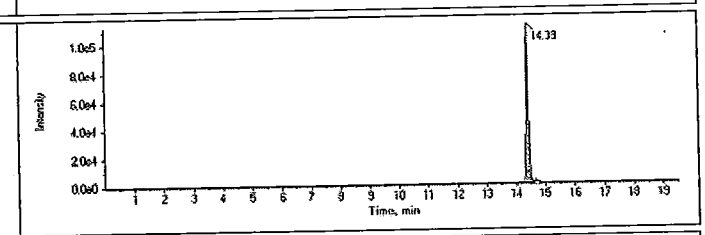
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min
Calculated conc: 0.000039
Area Ratio: 1.520e-4
Sample Type: (Quality Control)



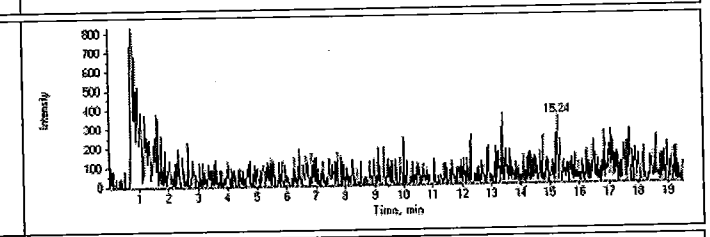
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min
Calculated conc: 77.691045
Area Ratio: 6.291e-1
Sample Type: (Quality Control)



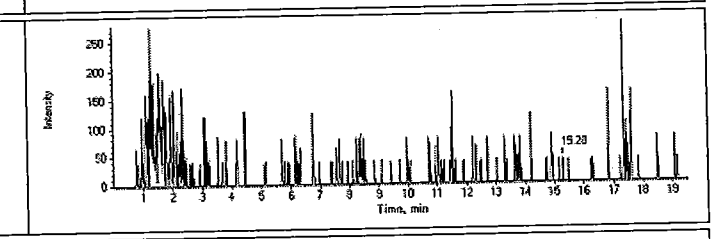
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.26) min
Calculated conc: 0.000071
Area Ratio: 1.477e-3
Sample Type: (Quality Control)



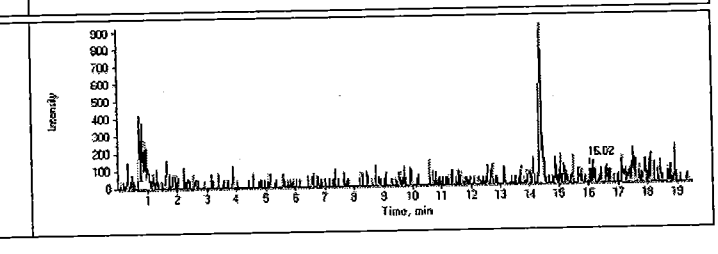
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.28 (15.27) min
Calculated conc: 0.000015
Area Ratio: 5.156e-5
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.02 (16.01) min
Calculated conc: 0.000006
Area Ratio: 1.028e-4
Sample Type: (Quality Control)



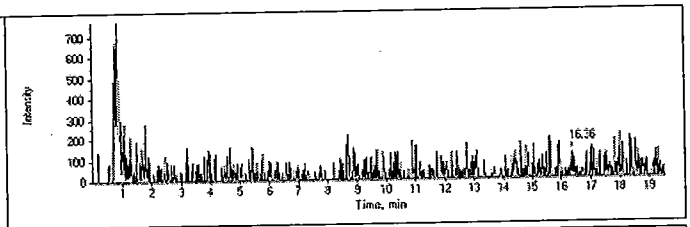
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.36 (16.70) min

Calculated conc: 0.000026

Area Ratio: 6.665e-4

Sample Type: (Quality Control)



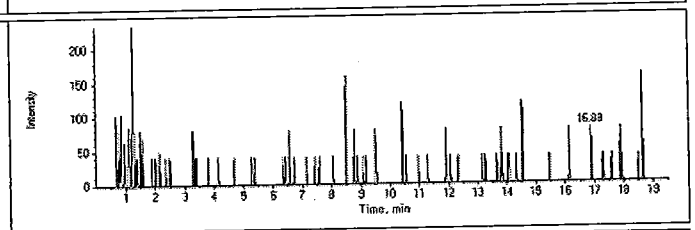
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.88 (16.60) min

Calculated conc: 0.000024

Area Ratio: 1.031e-4

Sample Type: (Quality Control)



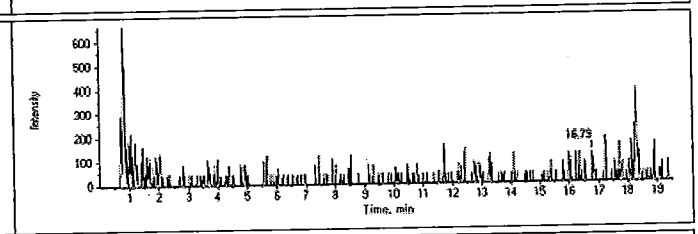
PFTA (713.3 / 669.0)

RT (Exp. RT): 16.79 (17.20) min

Calculated conc: 0.000091

Area Ratio: 4.125e-4

Sample Type: (Quality Control)



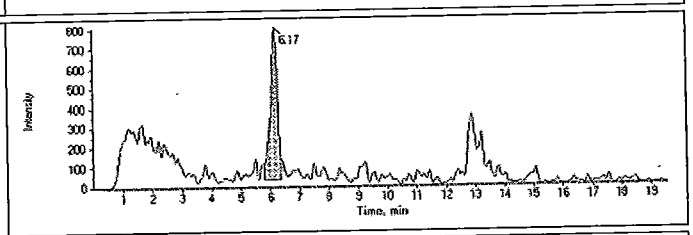
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.000956

Area Ratio: 1.143e-2

Sample Type: (Quality Control)



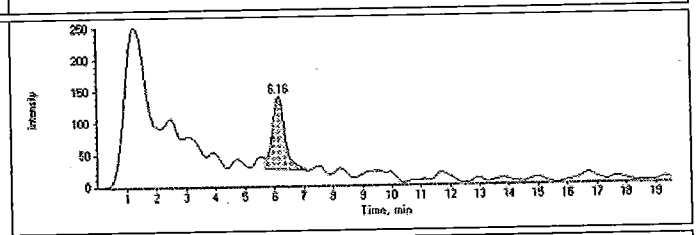
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.000981

Area Ratio: 3.068e-3

Sample Type: (Quality Control)



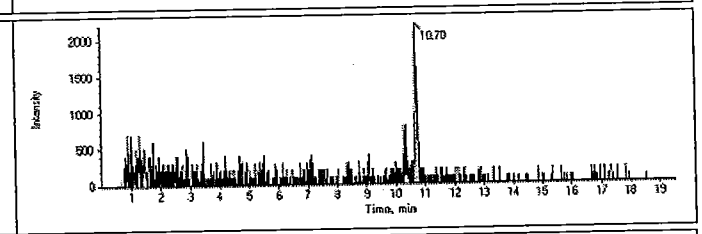
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.000781

Area Ratio: 1.010e-2

Sample Type: (Quality Control)



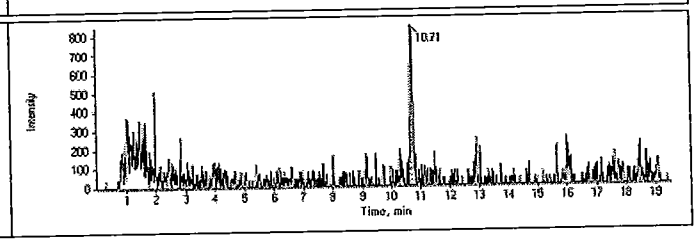
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.001129

Area Ratio: 4.871e-3

Sample Type: (Quality Control)



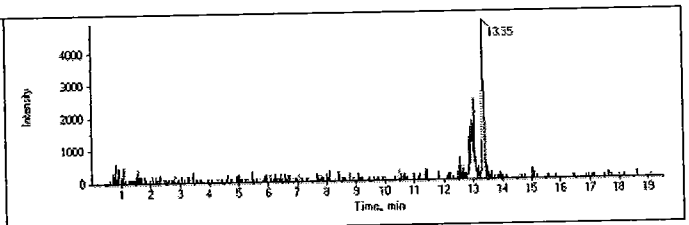
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.001592

Area Ratio: 1.767e-2

Sample Type: (Quality Control)



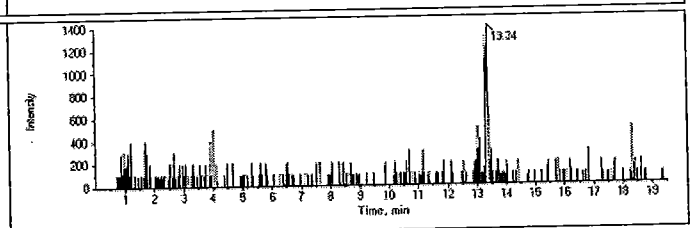
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.35) min

Calculated conc: 0.001880

Area Ratio: 5.846e-3

Sample Type: (Quality Control)



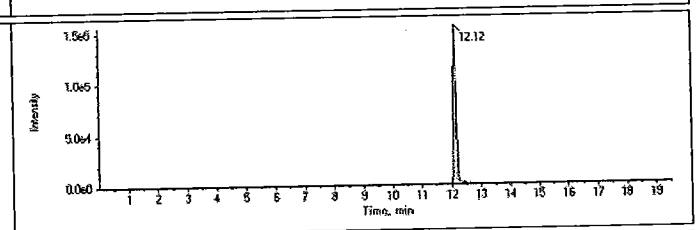
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 98.204393

Area Ratio: N/A

Sample Type: (Quality Control)



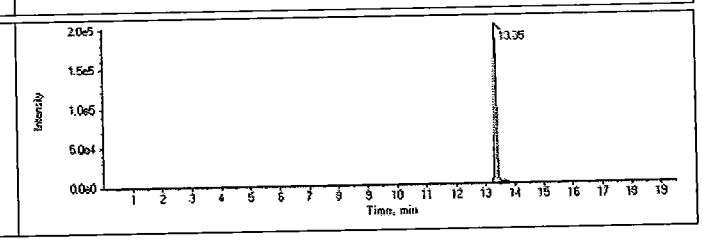
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 100.613134

Area Ratio: N/A

Sample Type: (Quality Control)



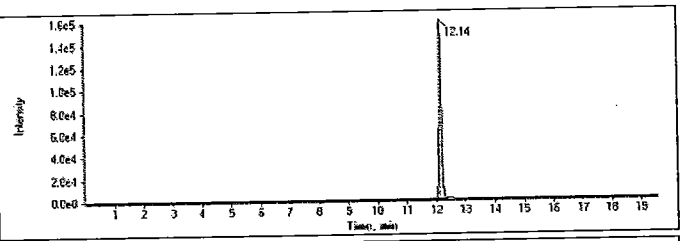
Sample Name	201312130251	**Injection Vial**	45
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 9:20:01 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	980350	12.14	100.00000	-
IS-13C-PFOS	1141732	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.360e+04	8.49	0.00000	0.001797
Surr-13c-PFHxA	1.035e+06	8.49	100.00000	113.441016
PFHpA	4.013e+04	10.58	0.00000	0.001191
PFHpA 2	9.261e+03	10.59	0.00000	0.001056
PFOA	8.787e+04	12.14	0.00000	0.002830
PFOA 2	2.846e+04	12.13	0.00000	0.002867
PFNA	1.216e+04	13.37	0.00000	0.000545
PFNA 2	2.599e+03	13.36	0.00000	0.000499
PFDA	3.137e+03	14.40	0.00000	0.000129
PFDA 2	1.470e+02	14.41	0.00000	0.000038
Surr-13c-PFDA	6.719e+05	14.40	100.00000	84.636096
PFUnA	9.870e+02	15.28	0.00000	0.000049
PFUnA 2	1.960e+02	15.23	0.00000	0.000059
PFDoA	1.960e+02	16.02	0.00000	0.000011
PFTrDA	3.920e+02	16.98	0.00000	0.000016
PFTrDA 2	1.470e+02	16.85	0.00000	0.000034
PFTA	2.940e+02	17.25	0.00000	0.000066
PFBS	1.702e+04	6.17	0.00000	0.001248
PFBS 2	5.563e+03	6.19	0.00000	0.001558
PFHxS	1.393e+04	10.72	0.00000	0.000944
PFHxS 2	5.051e+03	10.73	0.00000	0.001025
PFOS	1.564e+04	13.37	0.00000	0.001234
PFOS 2	4.805e+03	13.37	0.00000	0.001353
13C-PFOA	9.804e+05	12.14	100.00000	101.222817
13C-PFOS	1.142e+06	13.37	100.00000	103.745752

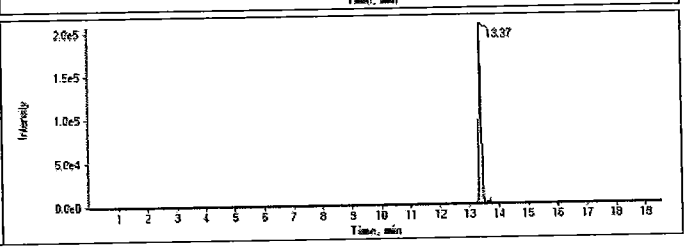
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.14(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.37(13.35) min
Concentration: 100.00000
Sample Type: (Quality Control)

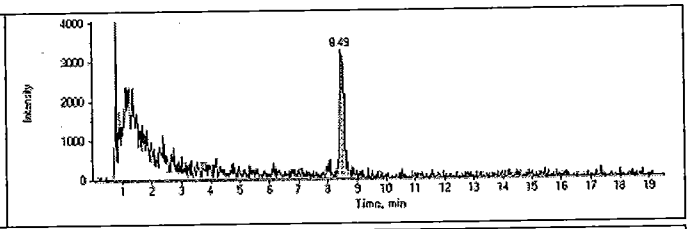


PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.49 (8.48) min

Calculated conc: 0.001797

Area Ratio: 3.427e-2
Sample Type: (Quality Control)

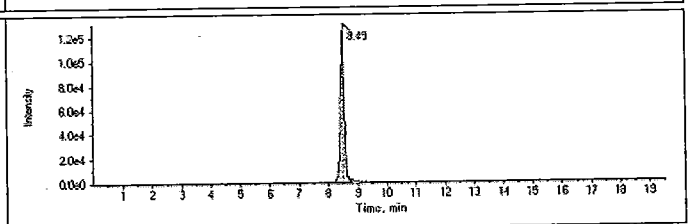


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.49 (8.48) min

Calculated conc: 113.441016

Area Ratio: 1.056e0
Sample Type: (Quality Control)

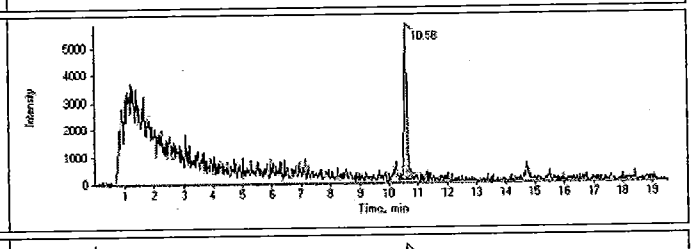


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.001191

Area Ratio: 4.093e-2
Sample Type: (Quality Control)

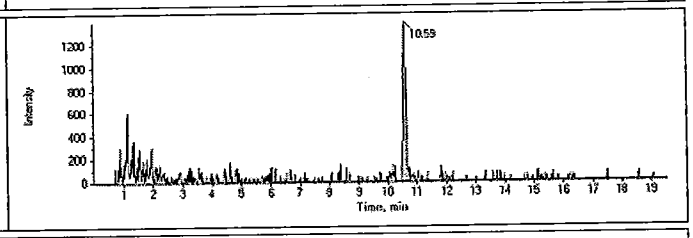


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.59 (10.57) min

Calculated conc: 0.001056

Area Ratio: 9.447e-3
Sample Type: (Quality Control)

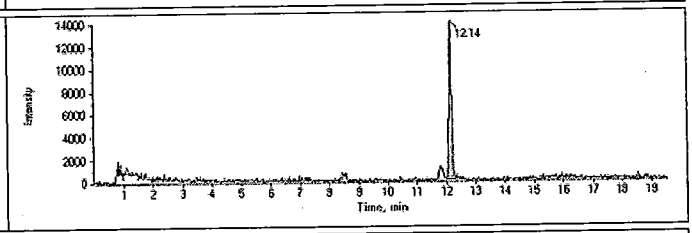


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 0.002830

Area Ratio: 8.963e-2
Sample Type: (Quality Control)

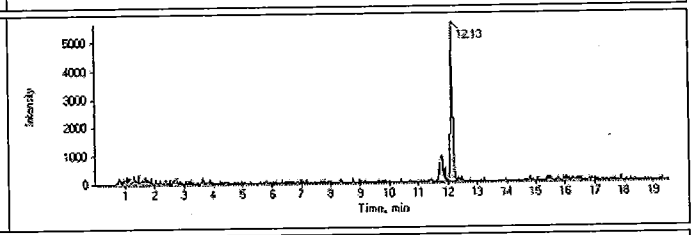


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.002867

Area Ratio: 2.903e-2
Sample Type: (Quality Control)

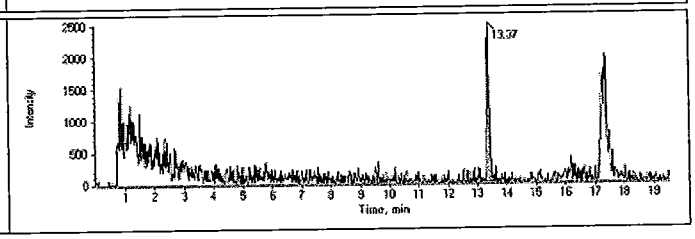


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.000545

Area Ratio: 1.241e-2
Sample Type: (Quality Control)



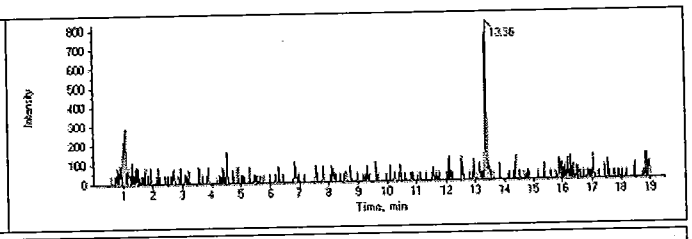
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.000499

Area Ratio: 2.651e-3

Sample Type: (Quality Control)



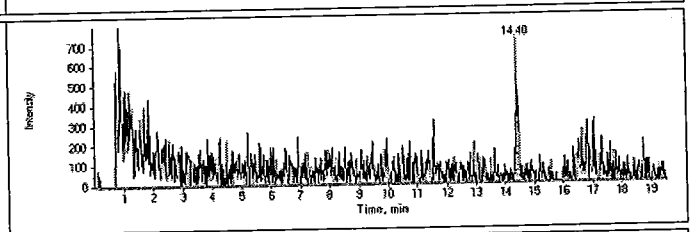
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.40 (14.39) min

Calculated conc: 0.000129

Area Ratio: 3.200e-3

Sample Type: (Quality Control)



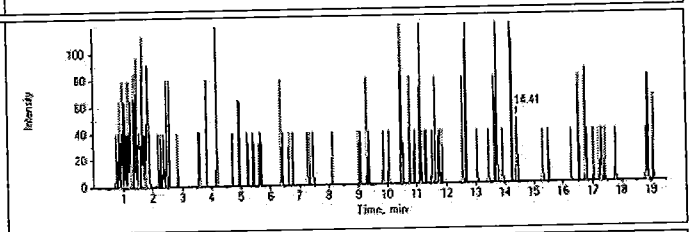
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.41 (14.39) min

Calculated conc: 0.000038

Area Ratio: 1.501e-4

Sample Type: (Quality Control)



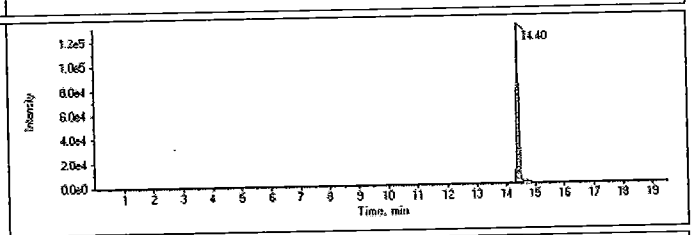
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.39) min

Calculated conc: 84.636096

Area Ratio: 6.854e-1

Sample Type: (Quality Control)



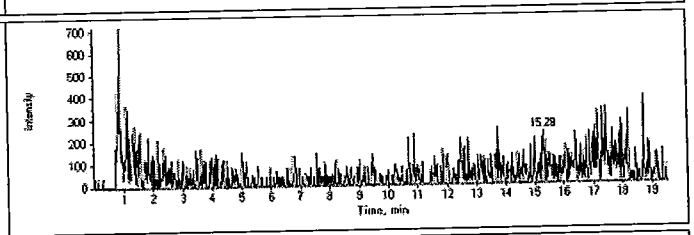
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.28 (15.26) min

Calculated conc: 0.000049

Area Ratio: 1.007e-3

Sample Type: (Quality Control)



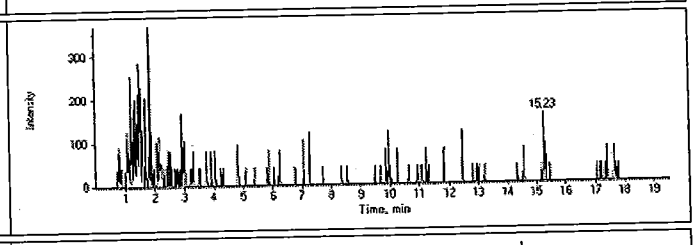
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.23 (15.27) min

Calculated conc: 0.000059

Area Ratio: 2.002e-4

Sample Type: (Quality Control)



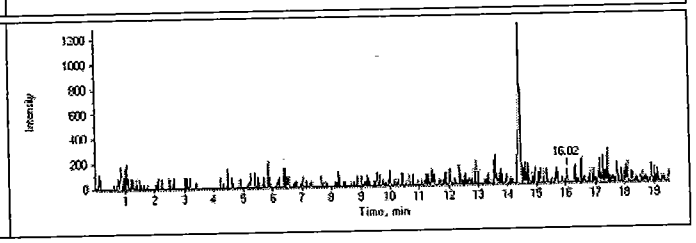
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.02 (16.01) min

Calculated conc: 0.000011

Area Ratio: 2.002e-4

Sample Type: (Quality Control)



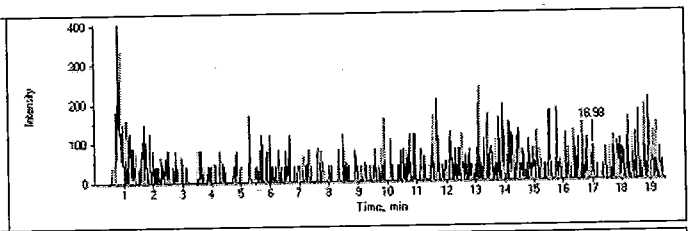
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.98 (16.70) min

Calculated conc: 0.000016

Area Ratio: 4.001e-4

Sample Type: (Quality Control)



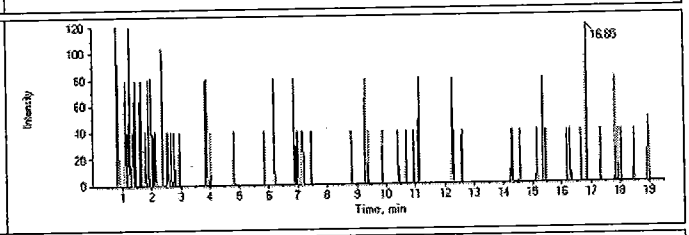
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.85 (16.60) min

Calculated conc: 0.000034

Area Ratio: 1.501e-4

Sample Type: (Quality Control)



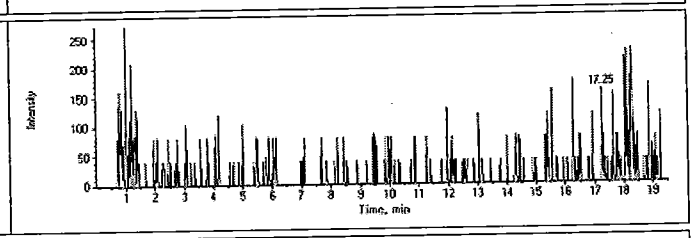
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.25 (17.20) min

Calculated conc: 0.000066

Area Ratio: 3.000e-4

Sample Type: (Quality Control)



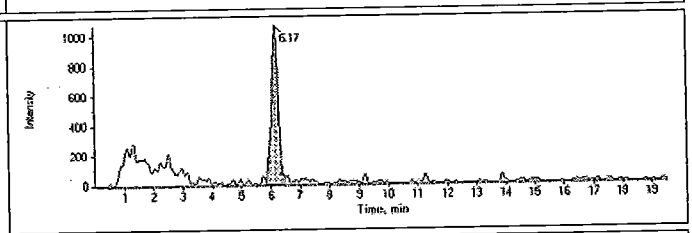
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.001248

Area Ratio: 1.491e-2

Sample Type: (Quality Control)



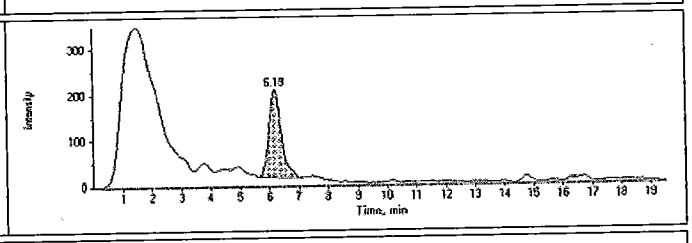
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.19 (6.16) min

Calculated conc: 0.001558

Area Ratio: 4.872e-3

Sample Type: (Quality Control)



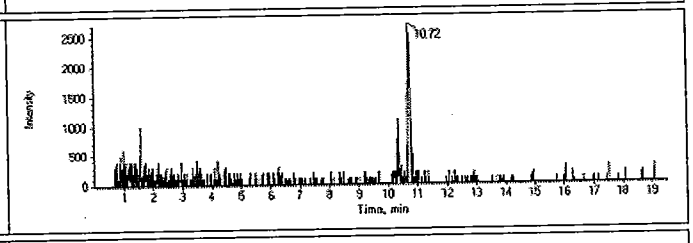
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.000944

Area Ratio: 1.220e-2

Sample Type: (Quality Control)



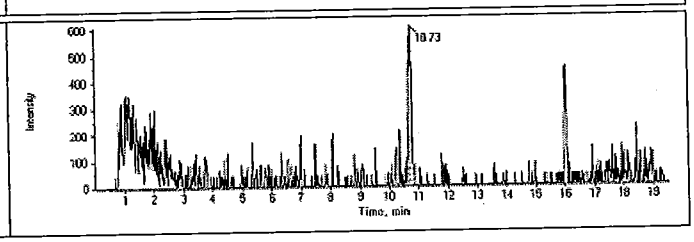
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.71) min

Calculated conc: 0.001025

Area Ratio: 4.424e-3

Sample Type: (Quality Control)



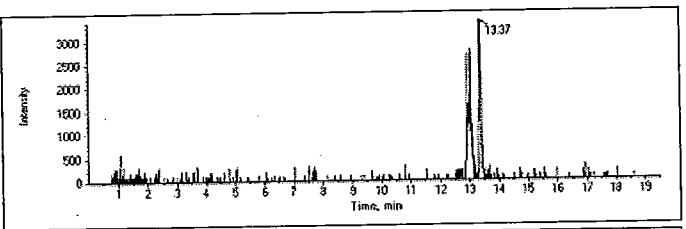
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.001234

Area Ratio: 1.370e-2

Sample Type: (Quality Control)



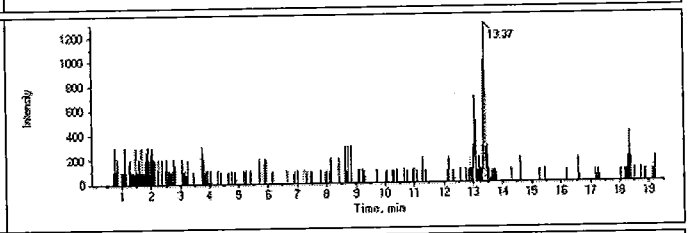
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.001353

Area Ratio: 4.209e-3

Sample Type: (Quality Control)



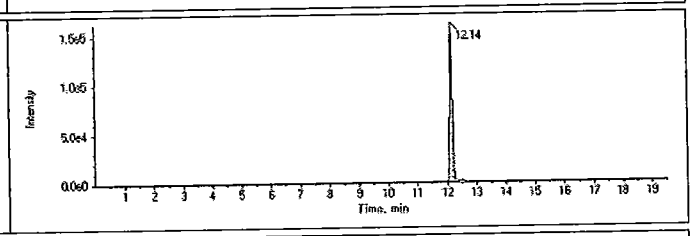
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 101.222817

Area Ratio: N/A

Sample Type: (Quality Control)



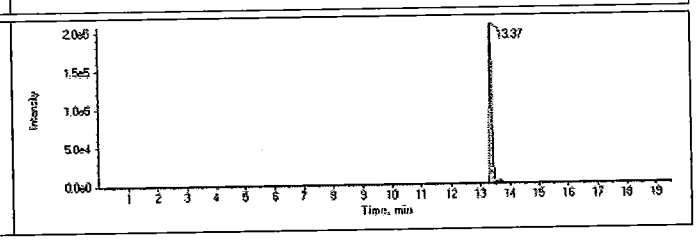
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 103.745752

Area Ratio: N/A

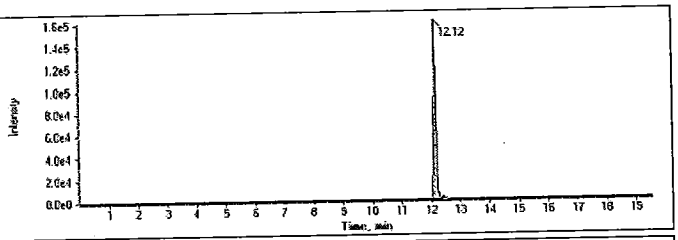
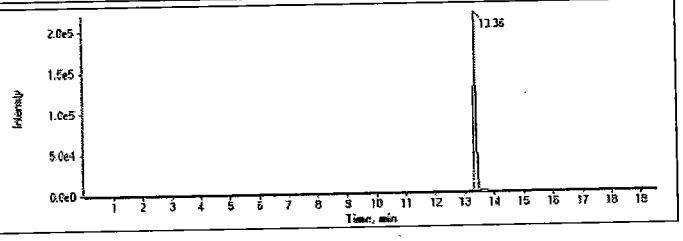
Sample Type: (Quality Control)



Sample Name	201312130252	**Injection Vial**	46
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 9:40:10 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	974283	12.12	100.00000	-
IS-13C-PFOS	1116026	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	2.947e+04	8.49	0.00000	0.001586
Surr-13c-PFHxA	9.159e+05	8.48	100.00000	101.028568
PFHpA	3.853e+04	10.57	0.00000	0.001150
PFHpA 2	9.979e+03	10.58	0.00000	0.001145
PFOA	8.899e+04	12.13	0.00000	0.002884
PFOA 2	2.757e+04	12.13	0.00000	0.002794
PFNA	1.373e+04	13.38	0.00000	0.000619
PFNA 2	2.501e+03	13.36	0.00000	0.000483
PFDA	7.052e+03	14.41	0.00000	0.000291
PFDA 2	1.226e+03	14.38	0.00000	0.000321
Surr-13c-PFDA	7.190e+05	14.40	100.00000	91.137633
PFUnA	2.230e+03	15.28	0.00000	0.000111
PFUnA 2	9.800e+01	15.24	0.00000	0.000030
PFDoA	4.490e+02	16.04	0.00000	0.000026
PFTrDA	1.324e+03	17.08	0.00000	0.000054
PFTrDA 2	1.960e+02	16.32	0.00000	0.000046
PFTA	3.430e+02	17.18	0.00000	0.000078
PFBS	1.719e+04	6.18	0.00000	0.001288
PFBS 2	3.194e+03	6.16	0.00000	0.000915
PFHxS	1.295e+04	10.72	0.00000	0.000898
PFHxS 2	4.363e+03	10.71	0.00000	0.000906
PFOS	2.310e+04	13.35	0.00000	0.001865
PFOS 2	6.228e+03	13.36	0.00000	0.001794
13C-PFOA	9.743e+05	12.12	100.00000	100.596420
13C-PFOS	1.116e+06	13.36	100.00000	101.409979

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

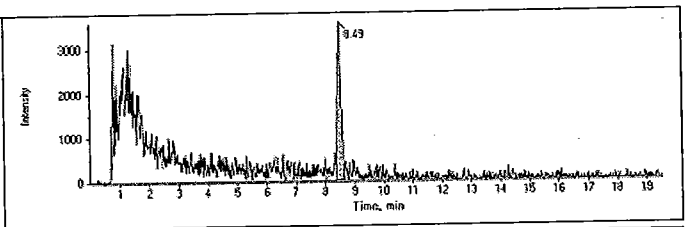
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.49 (8.48) min

Calculated conc: 0.001586

Area Ratio: 3.024e-2

Sample Type: (Quality Control)



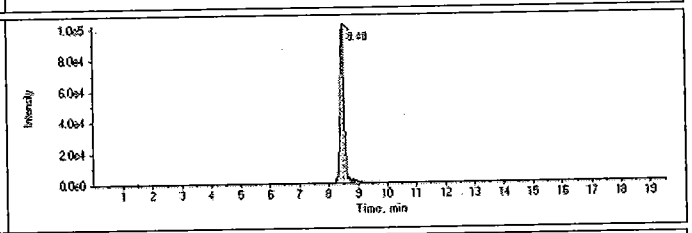
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 101.028568

Area Ratio: 9.401e-1

Sample Type: (Quality Control)



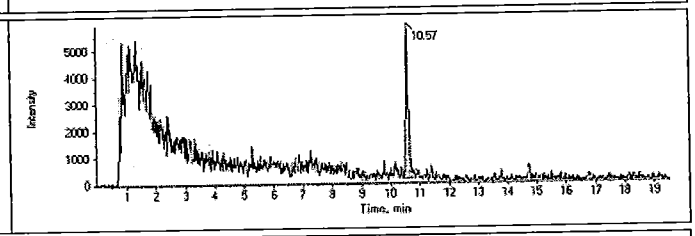
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.001150

Area Ratio: 3.955e-2

Sample Type: (Quality Control)



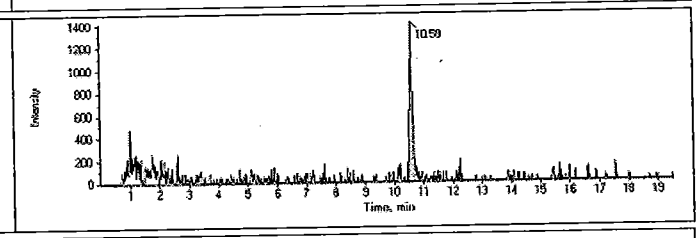
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.001145

Area Ratio: 1.024e-2

Sample Type: (Quality Control)



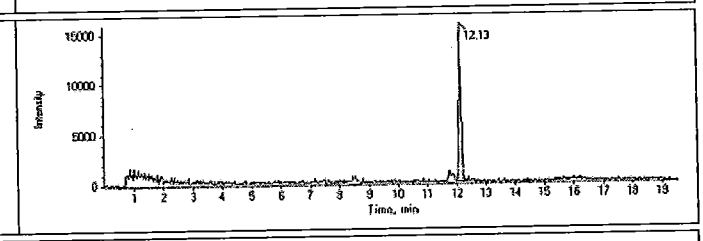
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.002884

Area Ratio: 9.134e-2

Sample Type: (Quality Control)



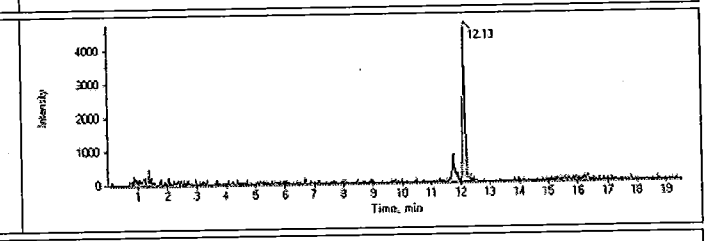
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.002794

Area Ratio: 2.829e-2

Sample Type: (Quality Control)



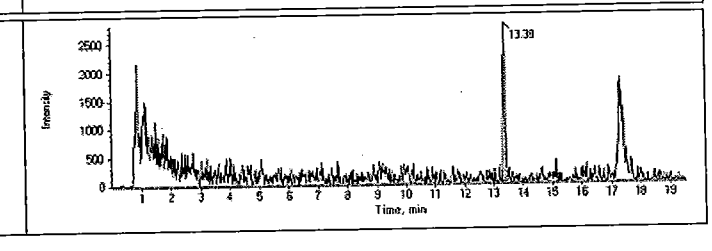
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.36) min

Calculated conc: 0.000619

Area Ratio: 1.409e-2

Sample Type: (Quality Control)



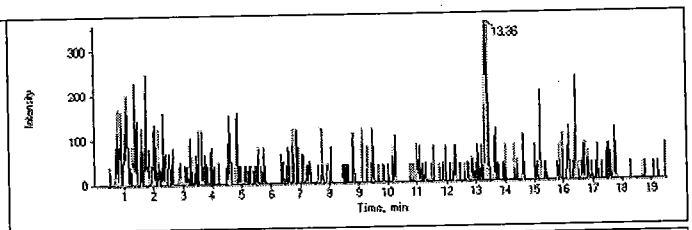
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 0.000483

Area Ratio: 2.567e-3

Sample Type: (Quality Control)



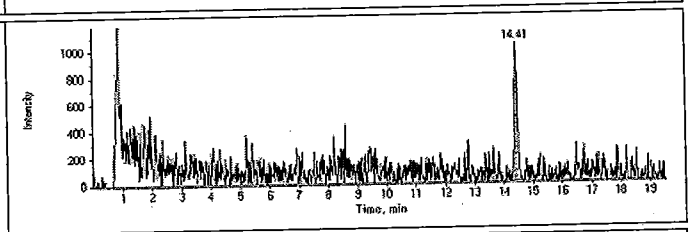
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.41 (14.39) min

Calculated conc: 0.000291

Area Ratio: 7.238e-3

Sample Type: (Quality Control)



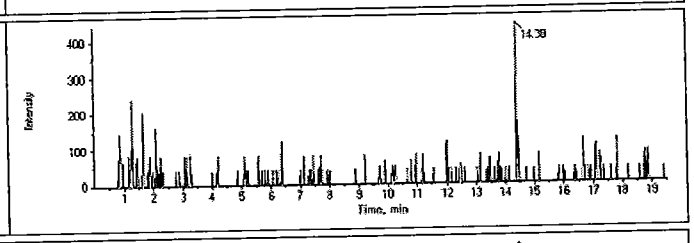
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.39) min

Calculated conc: 0.000321

Area Ratio: 1.258e-3

Sample Type: (Quality Control)



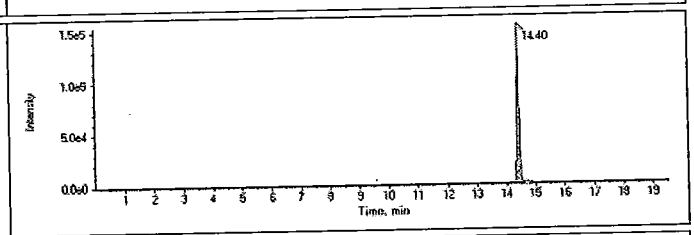
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.39) min

Calculated conc: 91.137633

Area Ratio: 7.380e-1

Sample Type: (Quality Control)



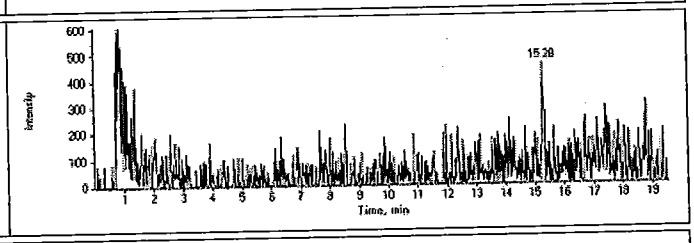
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.28 (15.26) min

Calculated conc: 0.000111

Area Ratio: 2.289e-3

Sample Type: (Quality Control)



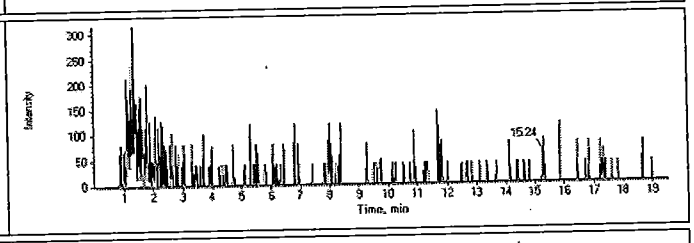
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.27) min

Calculated conc: 0.000030

Area Ratio: 1.006e-4

Sample Type: (Quality Control)



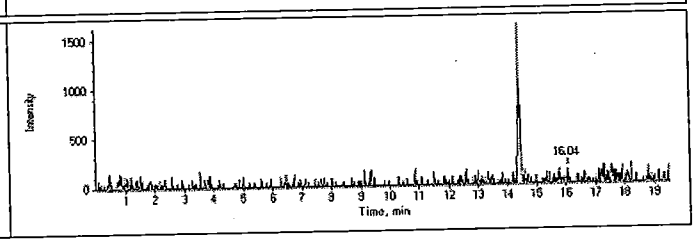
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.04 (16.01) min

Calculated conc: 0.000026

Area Ratio: 4.604e-4

Sample Type: (Quality Control)



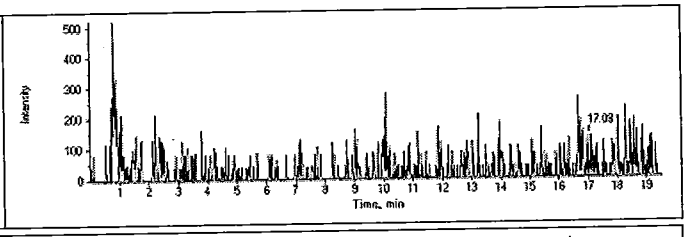
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 17.08 (16.70) min

Calculated conc: 0.000054

Area Ratio: 1.359e-3

Sample Type: (Quality Control)



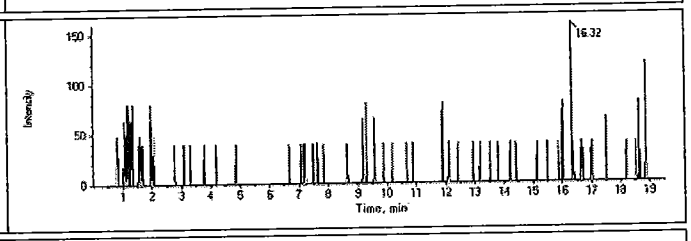
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.32 (16.60) min

Calculated conc: 0.000046

Area Ratio: 2.014e-4

Sample Type: (Quality Control)



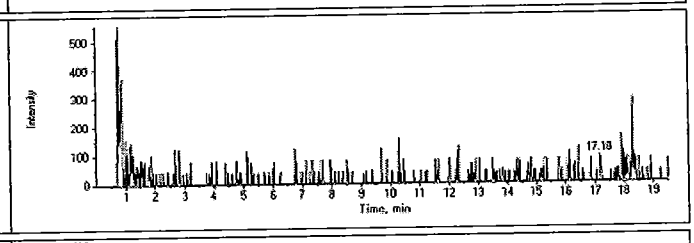
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.18 (17.20) min

Calculated conc: 0.000078

Area Ratio: 3.523e-4

Sample Type: (Quality Control)



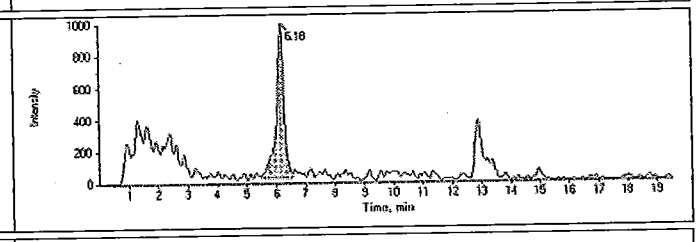
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.18 (6.18) min

Calculated conc: 0.001288

Area Ratio: 1.540e-2

Sample Type: (Quality Control)



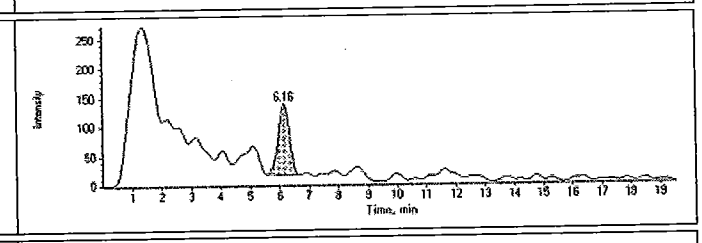
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.000915

Area Ratio: 2.862e-3

Sample Type: (Quality Control)



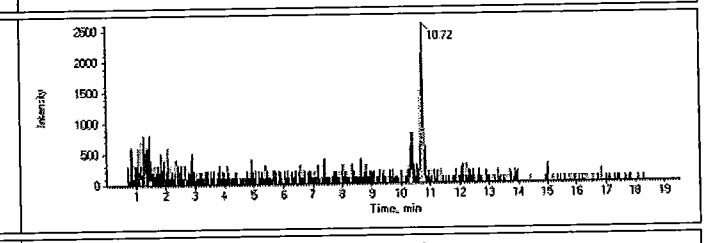
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.000898

Area Ratio: 1.160e-2

Sample Type: (Quality Control)



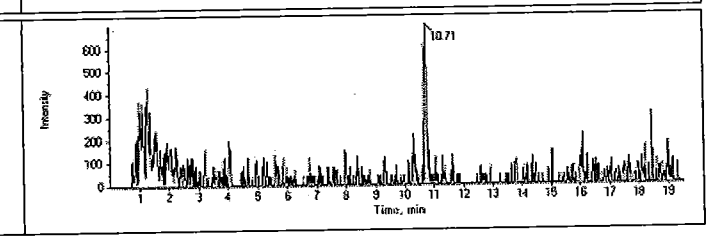
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.000906

Area Ratio: 3.909e-3

Sample Type: (Quality Control)



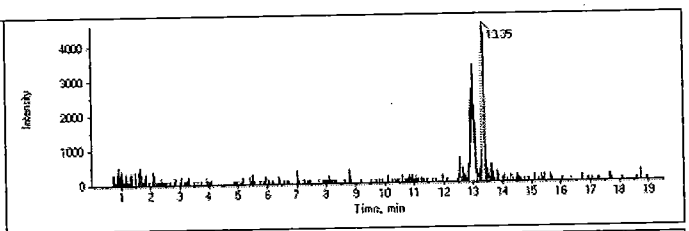
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.001865

Area Ratio: 2.070e-2

Sample Type: (Quality Control)



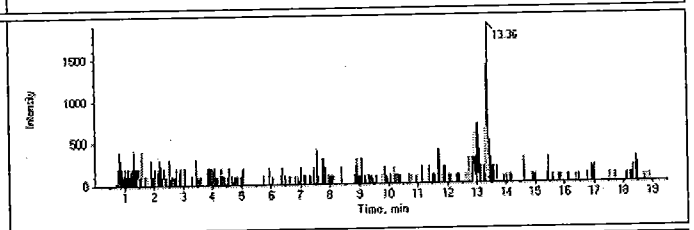
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.001794

Area Ratio: 5.580e-3

Sample Type: (Quality Control)



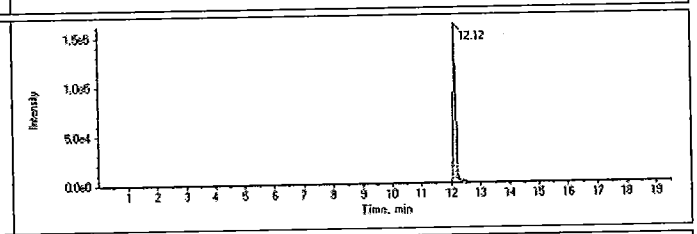
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 100.596420

Area Ratio: N/A

Sample Type: (Quality Control)



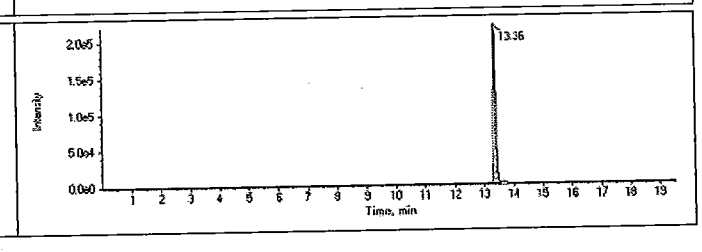
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 101.409979

Area Ratio: N/A

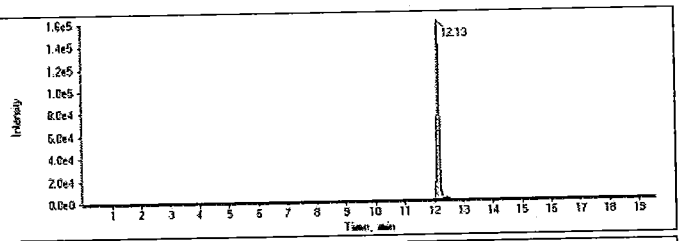
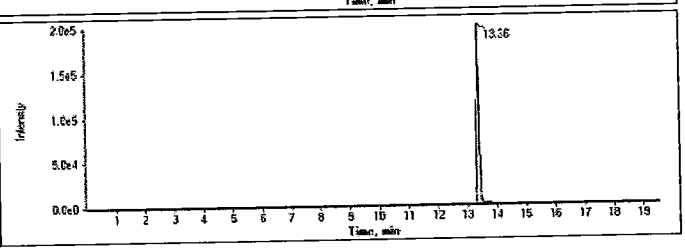
Sample Type: (Quality Control)



Sample Name	201312130253	**Injection Vial**	47
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 10:00:20 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	985174	12.13	100.00000	-
IS-13C-PFOS	1142999	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.081e+04	8.50	0.00000	0.001640
Surr-13c-PFHxA	9.653e+05	8.50	100.00000	105.300166
PFHpA	3.372e+04	10.58	0.00000	0.000996
PFHpA 2	9.660e+03	10.59	0.00000	0.001096
PFOA	9.274e+04	12.13	0.00000	0.002972
PFOA 2	3.040e+04	12.13	0.00000	0.003047
PFNA	1.301e+04	13.38	0.00000	0.000580
PFNA 2	2.452e+03	13.37	0.00000	0.000468
PFDA	4.591e+03	14.39	0.00000	0.000187
PFDA 2	4.410e+02	14.45	0.00000	0.000114
Surr-13c-PFDA	6.767e+05	14.40	100.00000	84.830606
PFUnA	3.327e+03	15.29	0.00000	0.000163
PFUnA 2	3.920e+02	15.30	0.00000	0.000118
PFDoA	1.431e+03	16.02	0.00000	0.000082
PFTrDA	1.463e+03	16.66	0.00000	0.000059
PFTrDA 2	4.900e+01	16.15	0.00000	0.000011
PFTA	2.450e+02	17.63	0.00000	0.000055
PFBS	1.532e+04	6.20	0.00000	0.001121
PFBS 2	4.810e+03	6.18	0.00000	0.001346
PFHxS	1.393e+04	10.72	0.00000	0.000943
PFHxS 2	3.383e+03	10.72	0.00000	0.000686
PFOS	1.800e+04	13.36	0.00000	0.001419
PFOS 2	3.922e+03	13.36	0.00000	0.001103
13C-PFOA	9.852e+05	12.13	100.00000	101.720883
13C-PFOS	1.143e+06	13.36	100.00000	103.860890

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

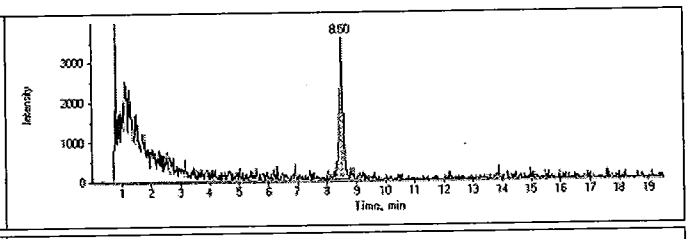
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.50 (8.48) min

Calculated conc: 0.001640

Area Ratio: 3.127e-2

Sample Type: (Quality Control)



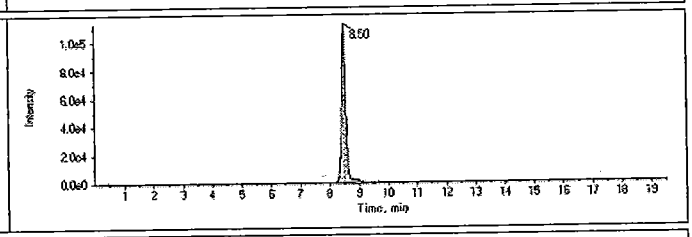
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.50 (8.48) min

Calculated conc: 105.300166

Area Ratio: 9.798e-1

Sample Type: (Quality Control)



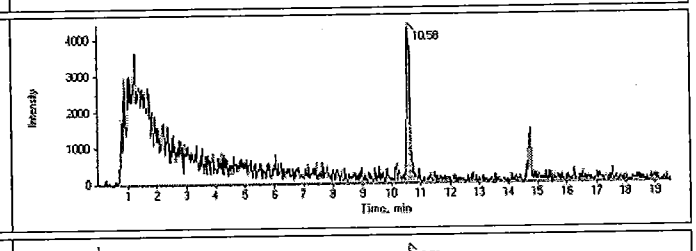
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.58 (10.57) min

Calculated conc: 0.000996

Area Ratio: 3.423e-2

Sample Type: (Quality Control)



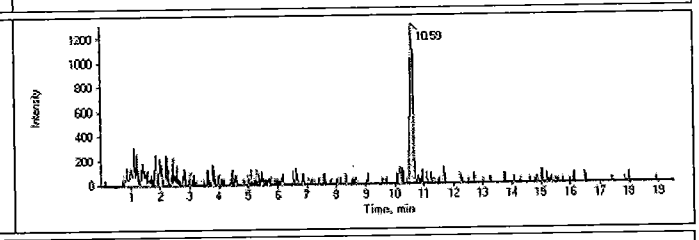
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.59 (10.57) min

Calculated conc: 0.001096

Area Ratio: 9.805e-3

Sample Type: (Quality Control)



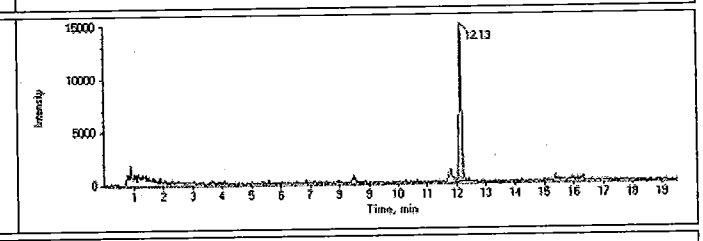
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.002972

Area Ratio: 9.413e-2

Sample Type: (Quality Control)



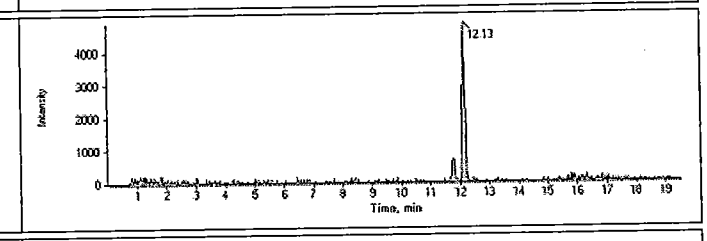
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.003047

Area Ratio: 3.086e-2

Sample Type: (Quality Control)



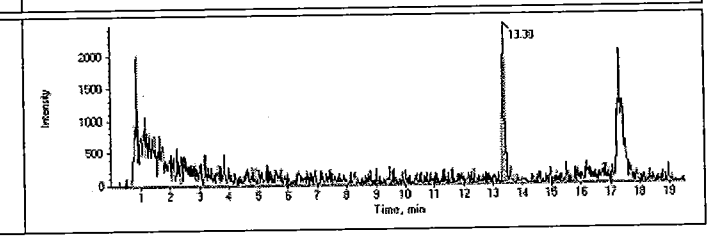
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.36) min

Calculated conc: 0.000580

Area Ratio: 1.321e-2

Sample Type: (Quality Control)



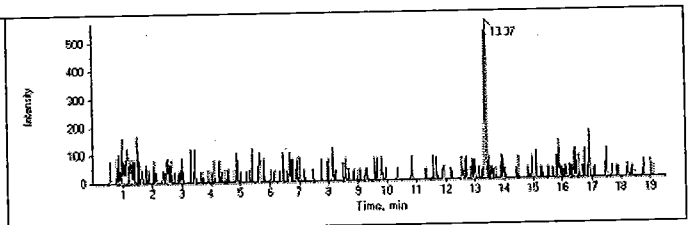
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.000468

Area Ratio: 2.489e-3

Sample Type: (Quality Control)



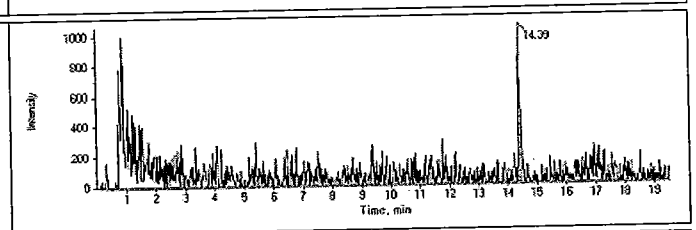
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.000187

Area Ratio: 4.660e-3

Sample Type: (Quality Control)



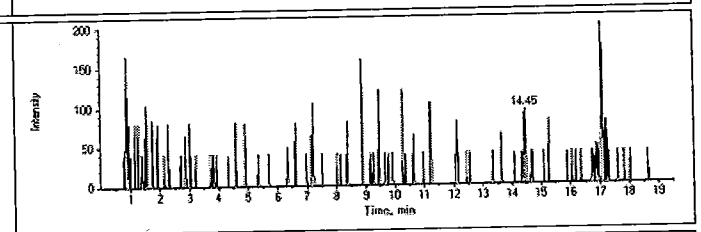
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.45 (14.39) min

Calculated conc: 0.000114

Area Ratio: 4.480e-4

Sample Type: (Quality Control)



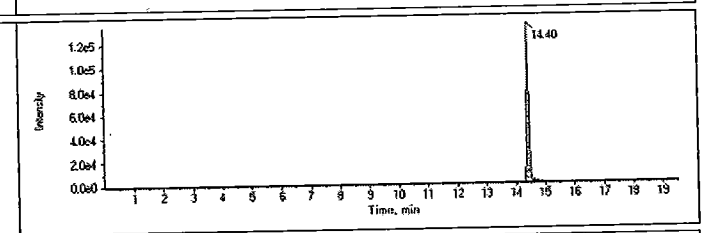
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.39) min

Calculated conc: 84.830606

Area Ratio: 6.869e-1

Sample Type: (Quality Control)



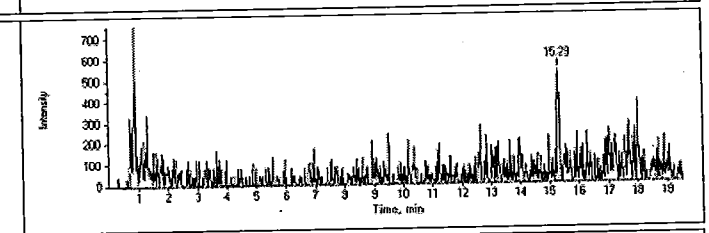
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.29 (15.26) min

Calculated conc: 0.000163

Area Ratio: 3.377e-3

Sample Type: (Quality Control)



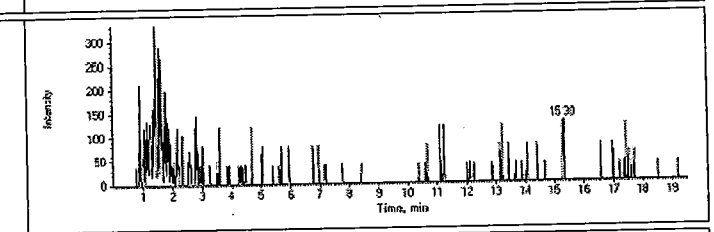
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.30 (15.27) min

Calculated conc: 0.000118

Area Ratio: 3.982e-4

Sample Type: (Quality Control)



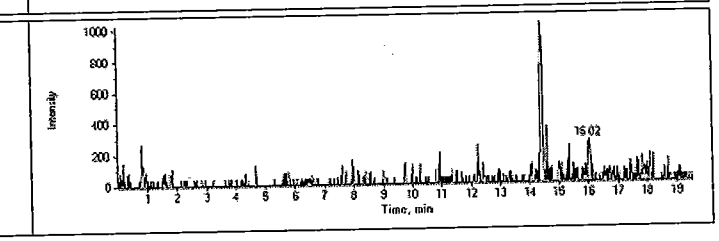
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.02 (16.01) min

Calculated conc: 0.000082

Area Ratio: 1.452e-3

Sample Type: (Quality Control)



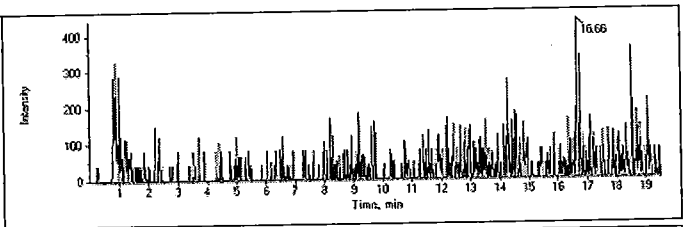
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.66 (16.70) min

Calculated conc: 0.000059

Area Ratio: 1.485e-3

Sample Type: (Quality Control)



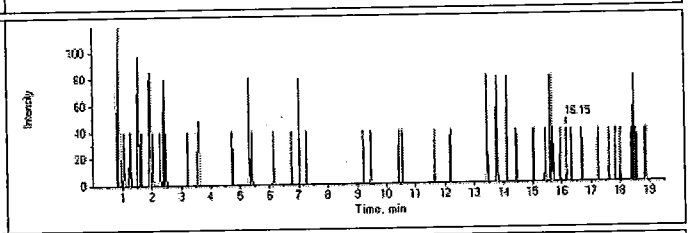
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.15 (16.60) min

Calculated conc: 0.000011

Area Ratio: 4.980e-5

Sample Type: (Quality Control)



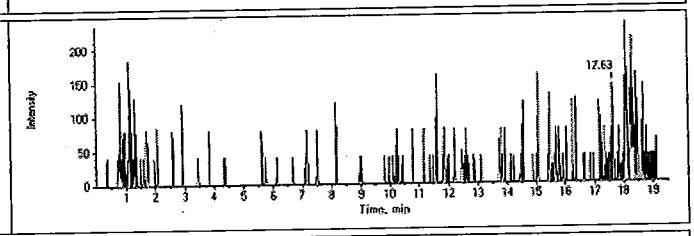
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.63 (17.20) min

Calculated conc: 0.000055

Area Ratio: 2.491e-4

Sample Type: (Quality Control)



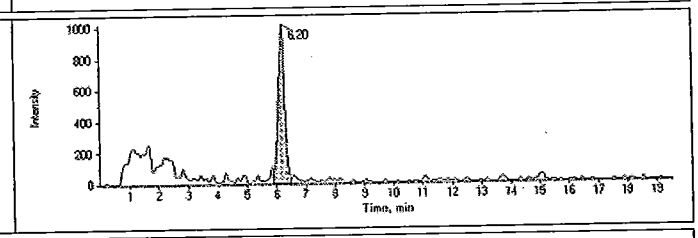
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.20 (6.18) min

Calculated conc: 0.001121

Area Ratio: 1.340e-2

Sample Type: (Quality Control)



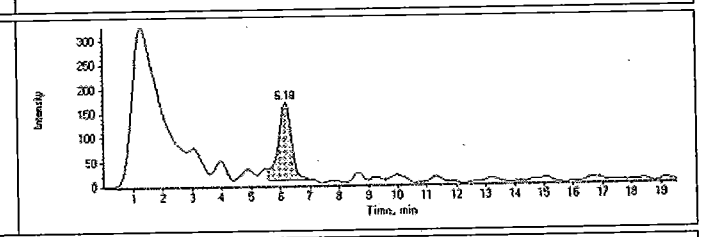
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.18 (6.16) min

Calculated conc: 0.001346

Area Ratio: 4.209e-3

Sample Type: (Quality Control)



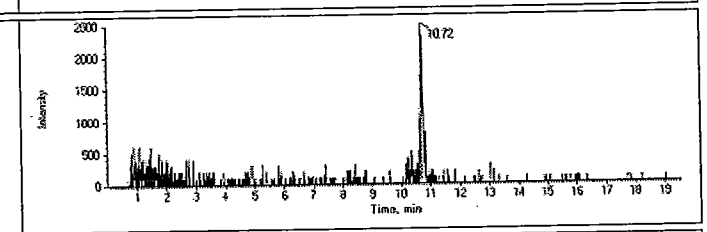
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.000943

Area Ratio: 1.219e-2

Sample Type: (Quality Control)



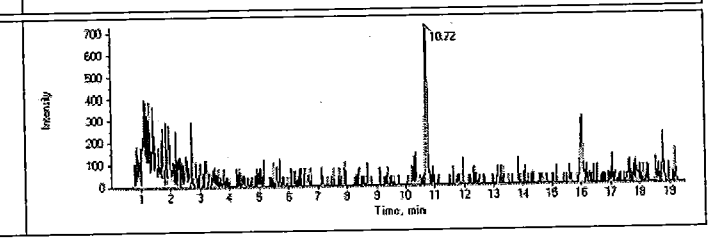
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.71) min

Calculated conc: 0.000686

Area Ratio: 2.960e-3

Sample Type: (Quality Control)

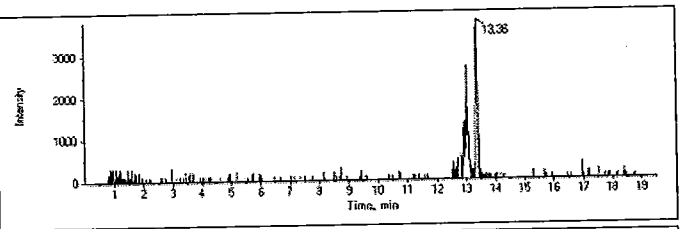


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.001419

Area Ratio: 1.574e-2
Sample Type: (Quality Control)

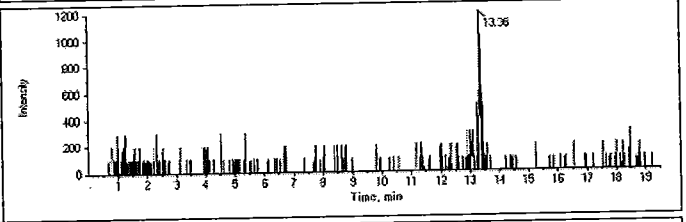


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.001103

Area Ratio: 3.432e-3
Sample Type: (Quality Control)

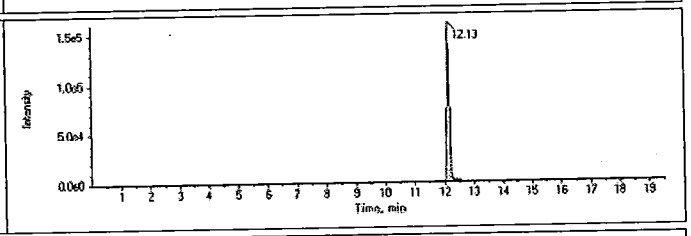


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 101.720883

Area Ratio: N/A
Sample Type: (Quality Control)

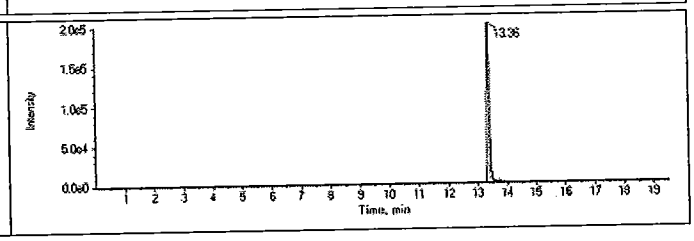


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 103.860890

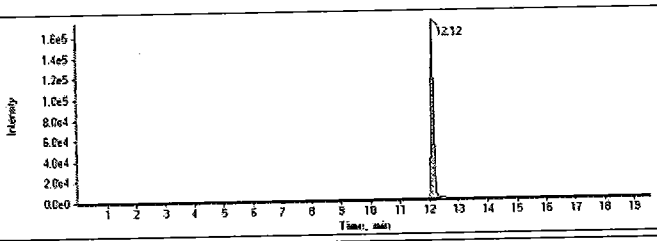
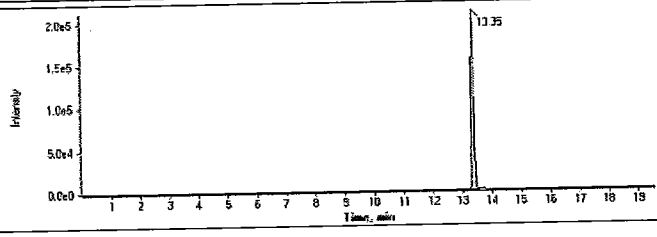
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	201312140155	**Injection Vial**	48
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 10:20:29 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Prep. By FAM@12/18/13 Prep. Run#742456		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1075106	12.12	100.00000	-
IS-13C-PFOS	1091624	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.800e+02	8.48	0.00000	0.000028
Surr-13c-PFHxA	9.454e+05	8.48	100.00000	94.498710
PFHpA	1.470e+02	10.62	0.00000	0.000004
PFHpA 2	4.900e+01	10.55	0.00000	0.000005
PFOA	1.089e+04	12.13	0.00000	0.000320
PFOA 2	2.795e+03	12.11	0.00000	0.000257
PFNA	8.760e+02	13.37	0.00000	0.000036
PFNA 2	1.470e+02	13.35	0.00000	0.000026
PFDA	1.960e+02	14.35	0.00000	0.000007
PFDA 2	9.800e+01	14.14	0.00000	0.000023
Surr-13c-PFDA	7.942e+05	14.39	100.00000	91.223276
PFUnA	3.430e+02	15.28	0.00000	0.000015
PFUnA 2	9.800e+01	15.26	0.00000	0.000027
PFDoA	1.470e+02	16.04	0.00000	0.000008
PFTrDA	3.420e+02	17.02	0.00000	0.000013
PFTrDA 2	4.900e+01	16.71	0.00000	0.000010
PFTA	2.450e+02	17.06	0.00000	0.000050
PFBS	4.900e+01	6.19	0.00000	0.000004
PFBS 2	4.800e+01	6.16	0.00000	0.000014
PFHxS	N/A	N/A	0.00000	N/A
PFHxS 2	4.900e+01	10.80	0.00000	0.000010
PFOS	3.430e+02	13.33	0.00000	0.000028
PFOS 2	N/A	N/A	0.00000	N/A
13C-PFOA	1.075e+06	12.12	100.00000	111.006537
13C-PFOS	1.092e+06	13.35	100.00000	99.192587

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.35) min Concentration: 100.00000 Sample Type: (Quality Control)	

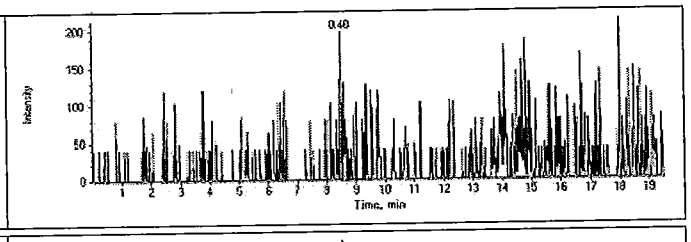
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 0.000028

Area Ratio: 5.392e-4

Sample Type: (Quality Control)



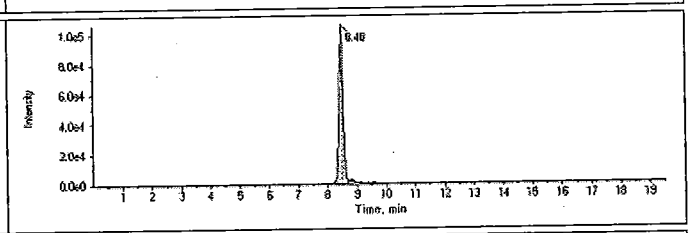
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.48 (8.48) min

Calculated conc: 94.498710

Area Ratio: 8.793e-1

Sample Type: (Quality Control)



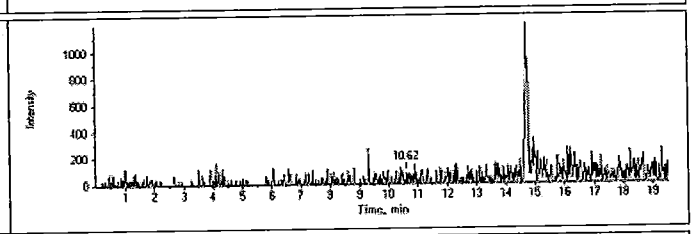
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.57) min

Calculated conc: 0.000004

Area Ratio: 1.367e-4

Sample Type: (Quality Control)



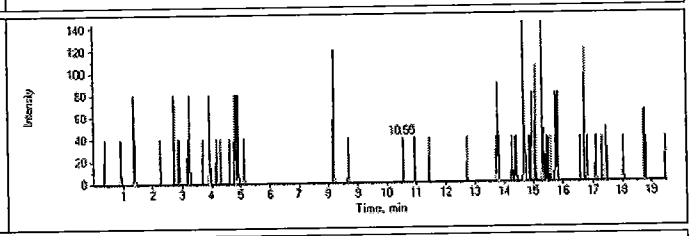
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.55 (10.57) min

Calculated conc: 0.000005

Area Ratio: 4.560e-5

Sample Type: (Quality Control)



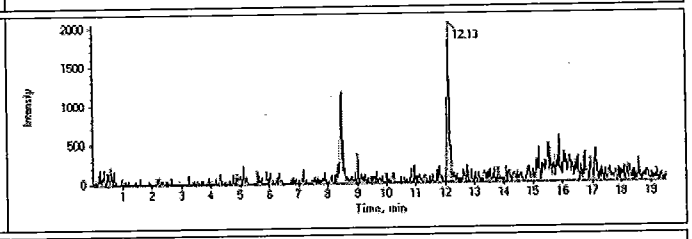
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.000320

Area Ratio: 1.013e-2

Sample Type: (Quality Control)



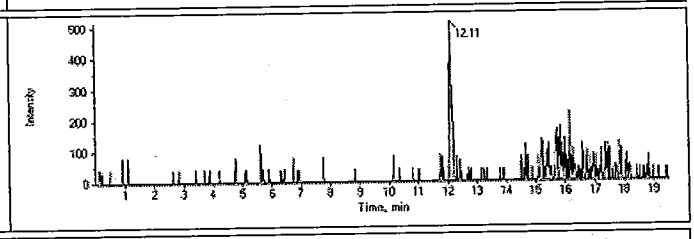
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.11 (12.12) min

Calculated conc: 0.000257

Area Ratio: 2.600e-3

Sample Type: (Quality Control)



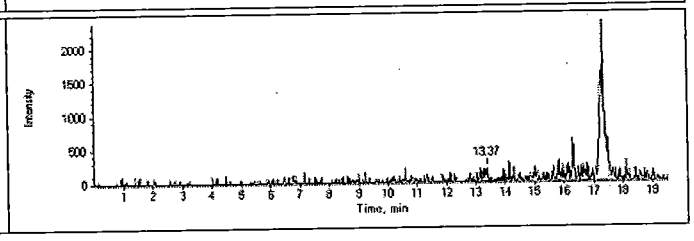
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.000036

Area Ratio: 8.144e-4

Sample Type: (Quality Control)



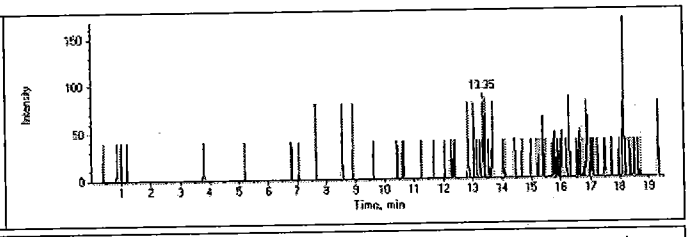
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 0.000026

Area Ratio: 1.367e-4

Sample Type: (Quality Control)



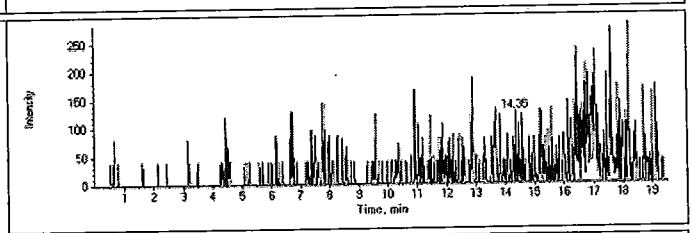
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.35 (14.39) min

Calculated conc: 0.000007

Area Ratio: 1.825e-4

Sample Type: (Quality Control)



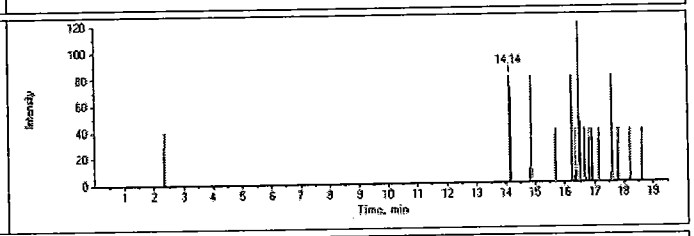
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.14 (14.39) min

Calculated conc: 0.000023

Area Ratio: 9.121e-5

Sample Type: (Quality Control)



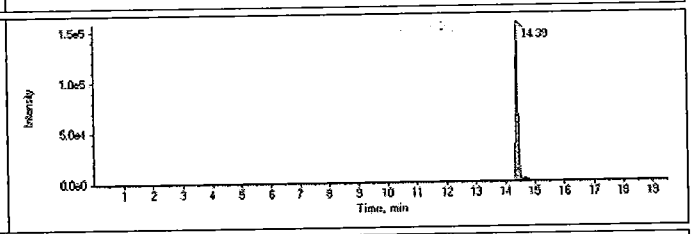
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 91.223276

Area Ratio: 7.387e-1

Sample Type: (Quality Control)



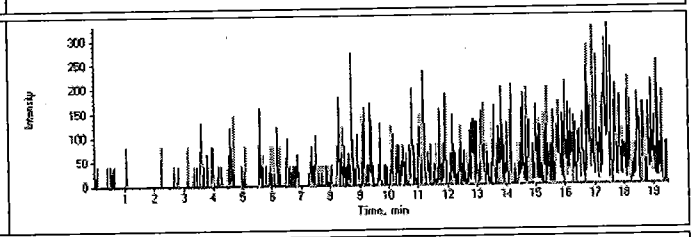
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.28 (15.26) min

Calculated conc: 0.000015

Area Ratio: 3.191e-4

Sample Type: (Quality Control)



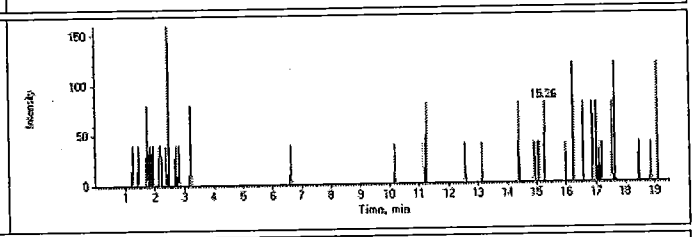
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.27) min

Calculated conc: 0.000027

Area Ratio: 9.127e-5

Sample Type: (Quality Control)



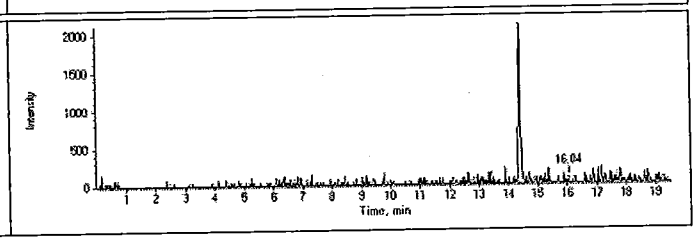
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.04 (16.01) min

Calculated conc: 0.000008

Area Ratio: 1.369e-4

Sample Type: (Quality Control)



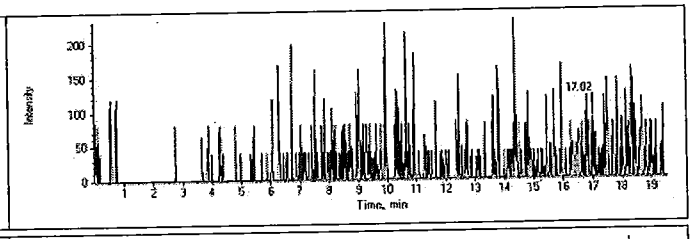
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 17.02 (16.70) min

Calculated conc: 0.000013

Area Ratio: 3.180e-4

Sample Type: (Quality Control)



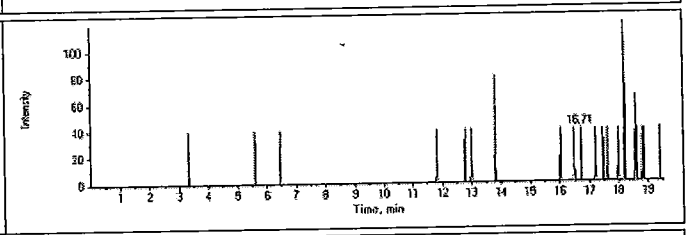
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.71 (16.60) min

Calculated conc: 0.000010

Area Ratio: 4.561e-5

Sample Type: (Quality Control)



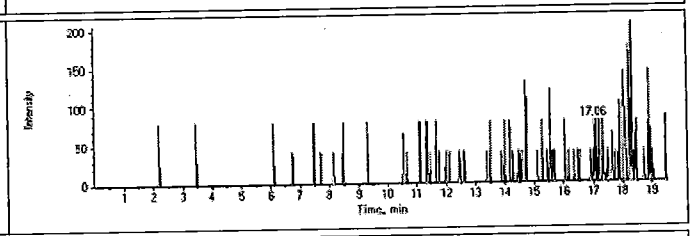
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.06 (17.20) min

Calculated conc: 0.000050

Area Ratio: 2.279e-4

Sample Type: (Quality Control)



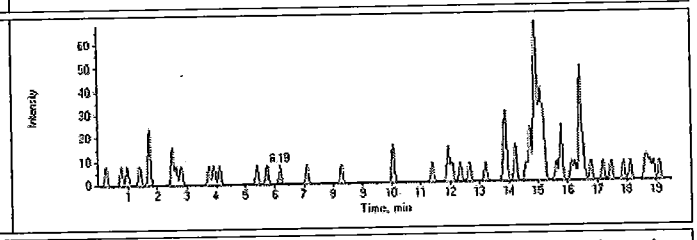
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.19 (6.18) min

Calculated conc: 0.000004

Area Ratio: 4.493e-5

Sample Type: (Quality Control)



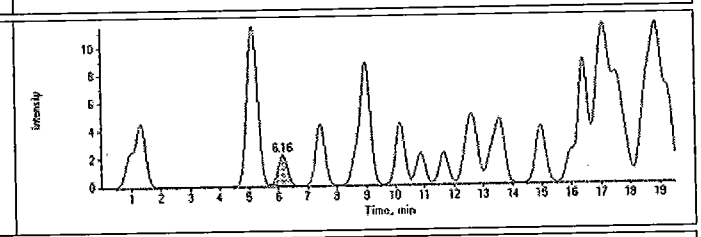
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.16 (6.16) min

Calculated conc: 0.000014

Area Ratio: 4.359e-5

Sample Type: (Quality Control)



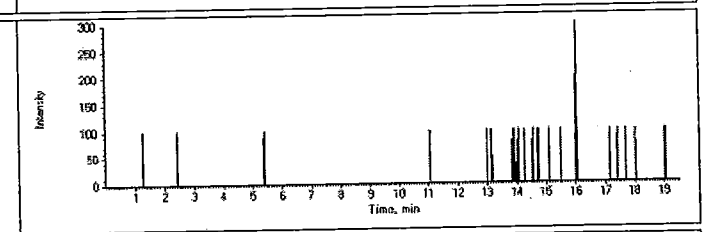
PFHxS (398.9 / 80.0)

RT (Exp. RT): N/A (10.71) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



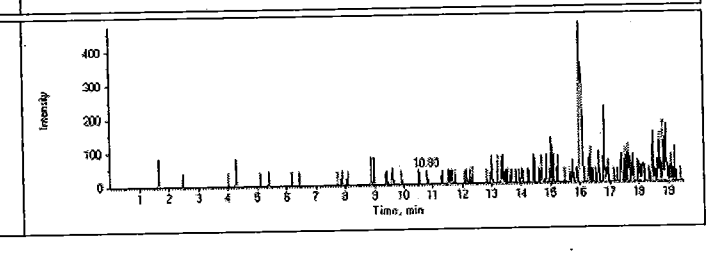
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.80 (10.71) min

Calculated conc: 0.000010

Area Ratio: 4.492e-5

Sample Type: (Quality Control)



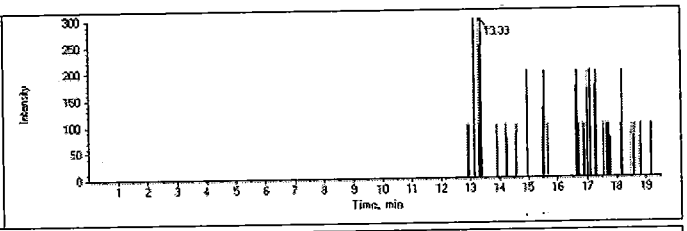
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 0.000028

Area Ratio: 3.144e-4

Sample Type: (Quality Control)



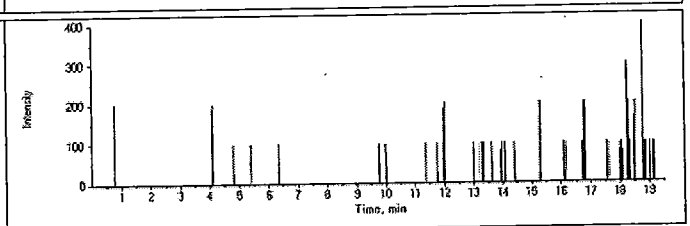
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): N/A (13.35) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



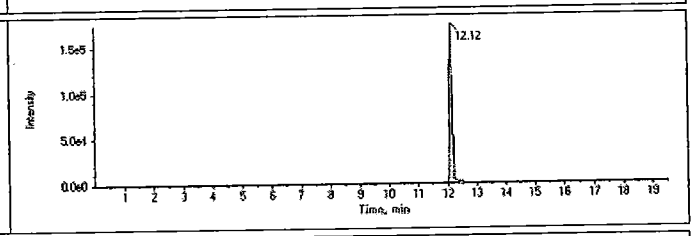
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 111.006537

Area Ratio: N/A

Sample Type: (Quality Control)



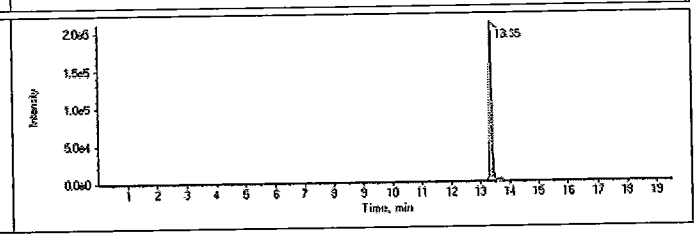
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 99.192587

Area Ratio: N/A

Sample Type: (Quality Control)



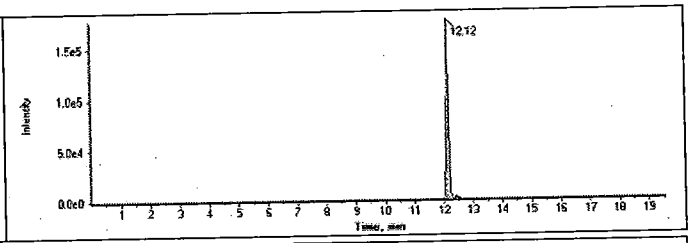
Sample Name	CCCM	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/20/2013 10:40:37 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_19	**Instrument Name**	API 4000
Data File	@537-Batch#742456-121913.wiff		
Result Table	@537-Batch#742456-121913		
Sample Comment	Lot#@537Cal-120913-LHZ, Exp.12/23/13		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1017438	12.12	100.00000	-
IS-13C-PFOS	1149317	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.972e+05	8.47	0.02000	0.020470
Surr-13c-PFHxA	9.626e+05	8.47	100.00000	101.671218
PFHpA	7.136e+05	10.57	0.02000	0.020401
PFHpA 2	1.852e+05	10.57	0.02000	0.020356
PFOA	6.495e+05	12.13	0.02000	0.020158
PFOA 2	2.093e+05	12.12	0.02000	0.020319
PFNA	5.047e+05	13.37	0.02000	0.021779
PFNA 2	1.126e+05	13.37	0.02000	0.020807
PFDA	5.211e+05	14.40	0.02000	0.020605
PFDA 2	8.029e+04	14.39	0.02000	0.020113
Surr-13c-PFDA	8.239e+05	14.39	100.00000	100.004122
PFUnA	4.712e+05	15.27	0.02000	0.022413
PFUnA 2	7.041e+04	15.27	0.02000	0.020441
PFDoA	4.186e+05	16.02	0.02000	0.023150
PFTrDA	5.517e+05	16.66	0.02000	0.021475
PFTrDA 2	9.857e+04	16.65	0.02000	0.022205
PFTA	8.721e+04	17.21	0.02000	0.018988
PFBS	2.452e+05	6.17	0.01770	0.017848
PFBS 2	6.287e+04	6.15	0.01770	0.017497
PFHxS	2.837e+05	10.70	0.01900	0.019097
PFHxS 2	9.716e+04	10.71	0.01900	0.019596
PFOS	2.477e+05	13.36	0.01920	0.019416
PFOS 2	7.087e+04	13.35	0.01920	0.019826
13C-PFOA	1.017e+06	12.12	100.00000	105.052258
13C-PFOS	1.149e+06	13.36	100.00000	104.434969

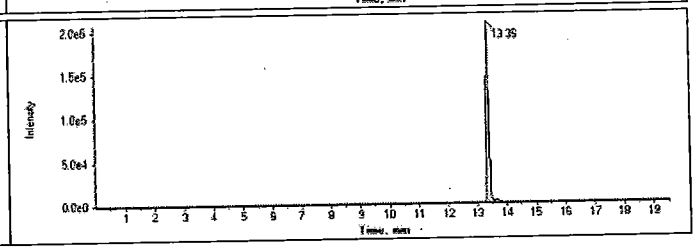
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.12(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.36(13.35) min
Concentration: 100.00000
Sample Type: (Quality Control)

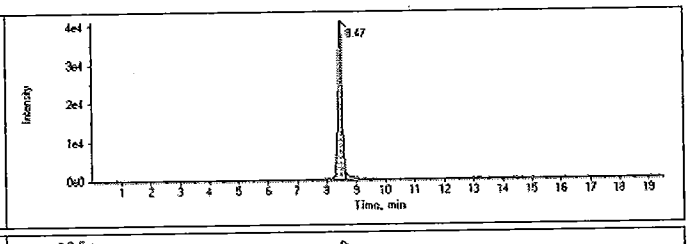


PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 0.020470

Area Ratio: 3.904e-1
Sample Type: (Quality Control)

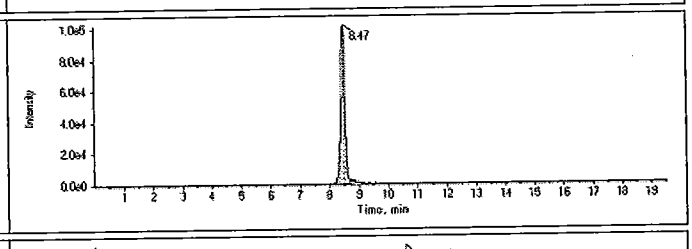


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.47 (8.48) min

Calculated conc: 101.671218

Area Ratio: 9.461e-1
Sample Type: (Quality Control)

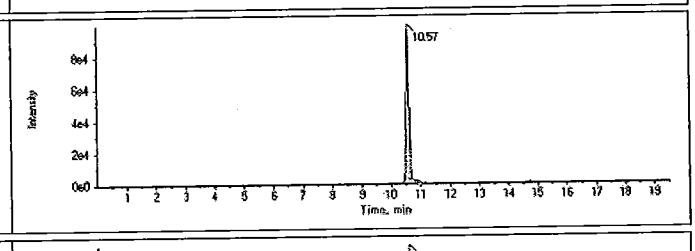


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.020401

Area Ratio: 7.014e-1
Sample Type: (Quality Control)

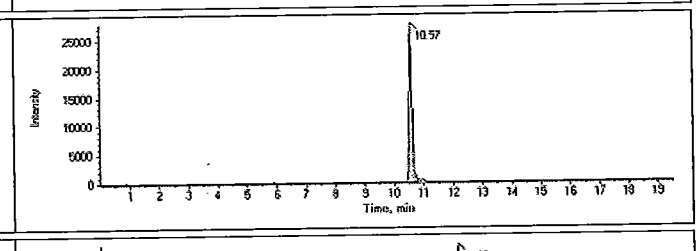


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.57 (10.57) min

Calculated conc: 0.020356

Area Ratio: 1.821e-1
Sample Type: (Quality Control)

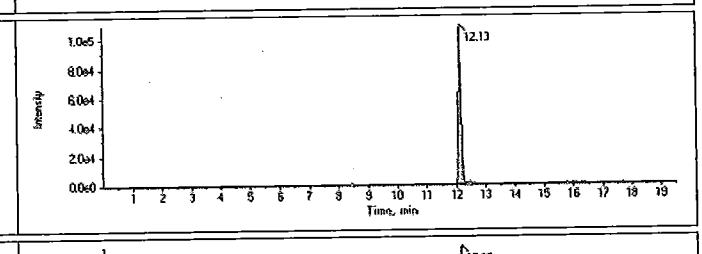


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 0.020158

Area Ratio: 6.384e-1
Sample Type: (Quality Control)

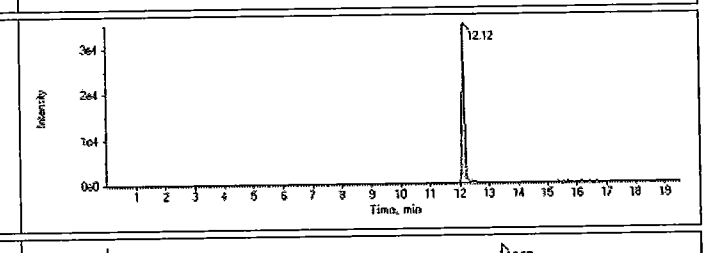


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 0.020319

Area Ratio: 2.058e-1
Sample Type: (Quality Control)

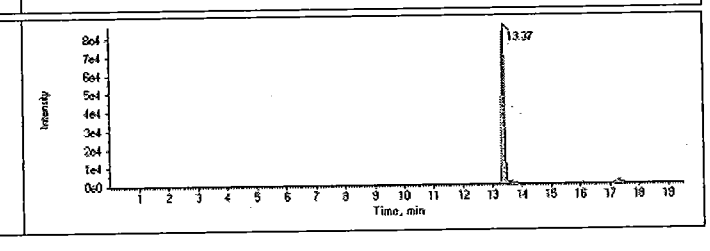


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.021779

Area Ratio: 4.961e-1
Sample Type: (Quality Control)

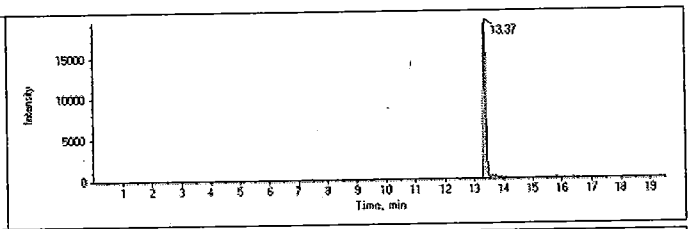


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 0.020807

Area Ratio: 1.106e-1
Sample Type: (Quality Control)

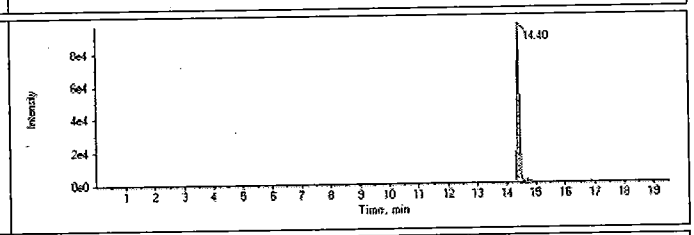


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.40 (14.39) min

Calculated conc: 0.020605

Area Ratio: 5.122e-1
Sample Type: (Quality Control)

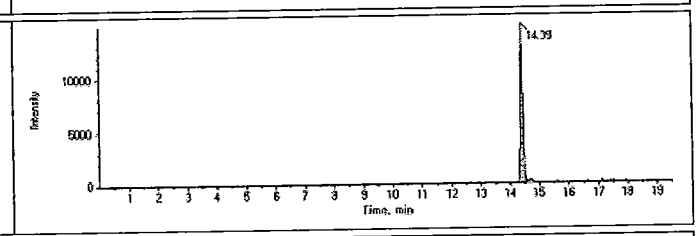


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 0.020113

Area Ratio: 7.891e-2
Sample Type: (Quality Control)

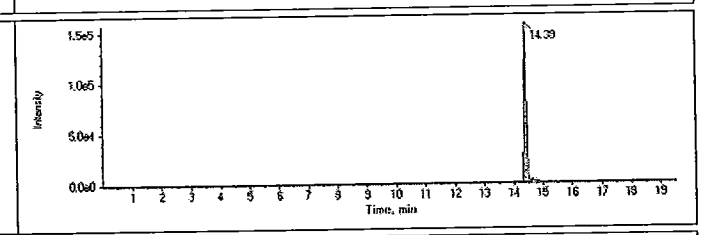


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.39) min

Calculated conc: 100.004122

Area Ratio: 8.098e-1
Sample Type: (Quality Control)

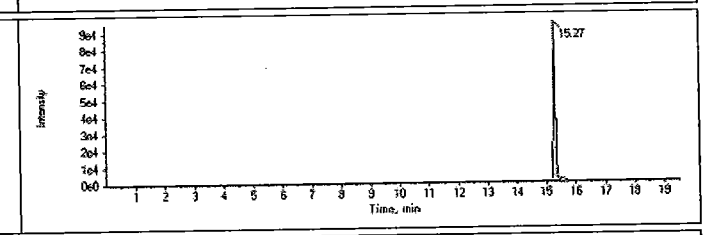


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.27 (15.26) min

Calculated conc: 0.022413

Area Ratio: 4.631e-1
Sample Type: (Quality Control)

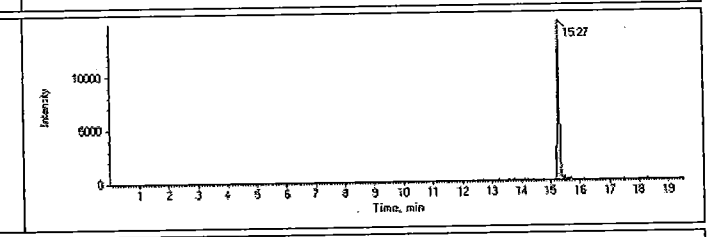


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.27 (15.27) min

Calculated conc: 0.020441

Area Ratio: 6.920e-2
Sample Type: (Quality Control)

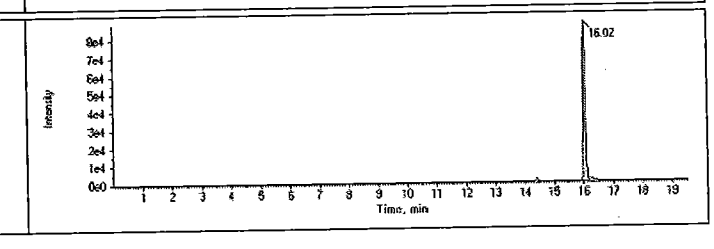


PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.02 (16.01) min

Calculated conc: 0.023150

Area Ratio: 4.114e-1
Sample Type: (Quality Control)



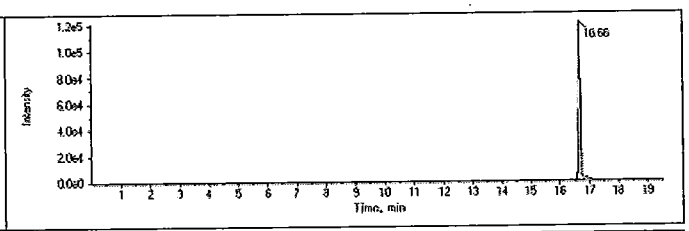
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.66 (16.70) min

Calculated conc: 0.021475

Area Ratio: 5.422e-1

Sample Type: (Quality Control)



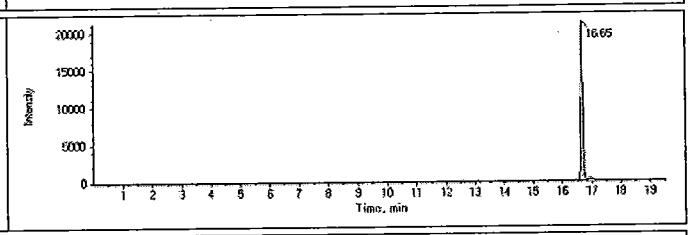
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min

Calculated conc: 0.022205

Area Ratio: 9.688e-2

Sample Type: (Quality Control)



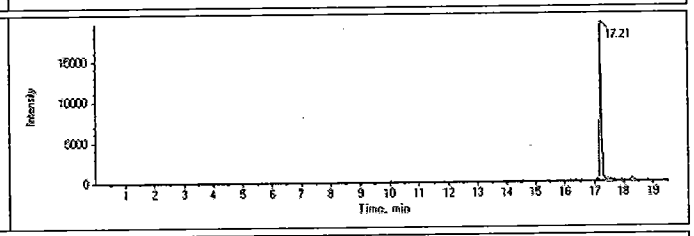
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.21 (17.20) min

Calculated conc: 0.018988

Area Ratio: 8.571e-2

Sample Type: (Quality Control)



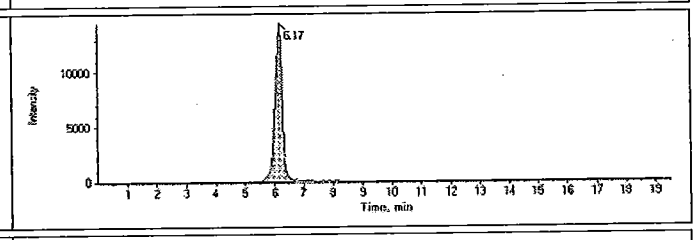
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.18) min

Calculated conc: 0.017848

Area Ratio: 2.133e-1

Sample Type: (Quality Control)



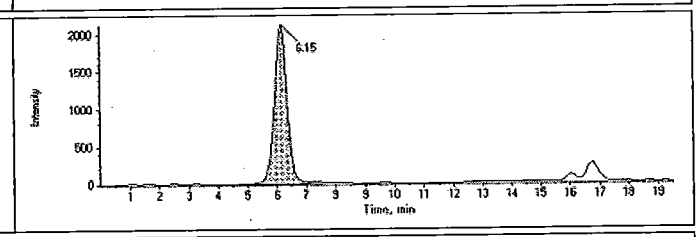
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.15 (6.16) min

Calculated conc: 0.017497

Area Ratio: 5.471e-2

Sample Type: (Quality Control)



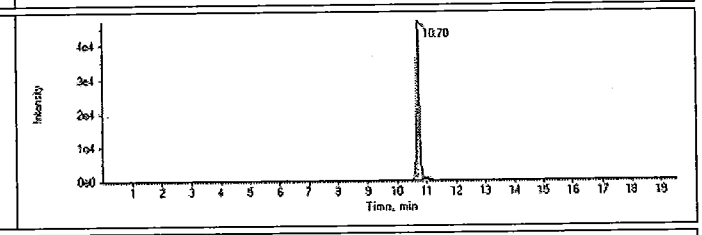
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.70 (10.71) min

Calculated conc: 0.019097

Area Ratio: 2.468e-1

Sample Type: (Quality Control)



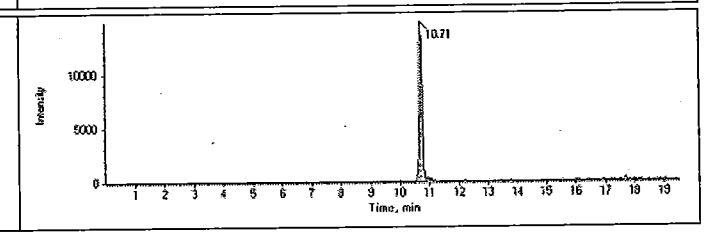
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.71 (10.71) min

Calculated conc: 0.019596

Area Ratio: 8.454e-2

Sample Type: (Quality Control)



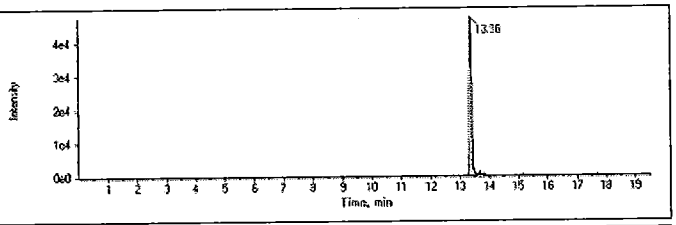
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.019416

Area Ratio: 2.155e-1

Sample Type: (Quality Control)



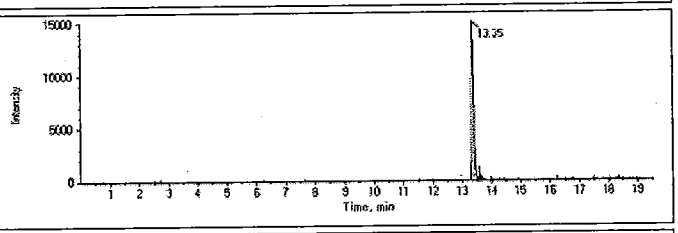
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.019826

Area Ratio: 6.166e-2

Sample Type: (Quality Control)



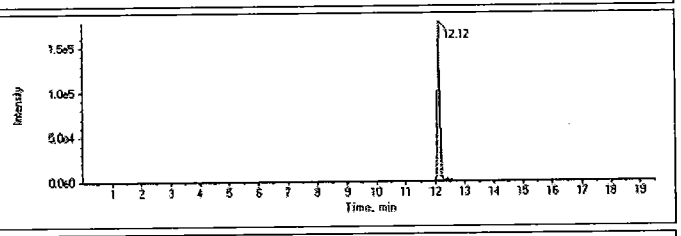
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 105.052258

Area Ratio: N/A

Sample Type: (Quality Control)



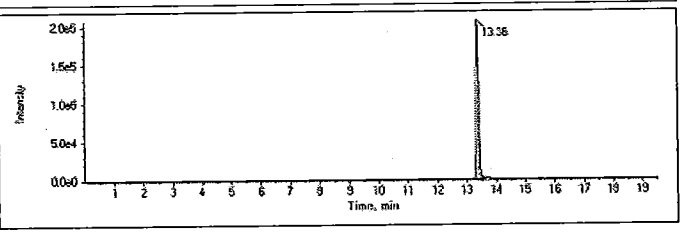
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 104.434969

Area Ratio: N/A

Sample Type: (Quality Control)



Eurofins Laboratory Report

– LCMS 12/20/2013 Additional Pages

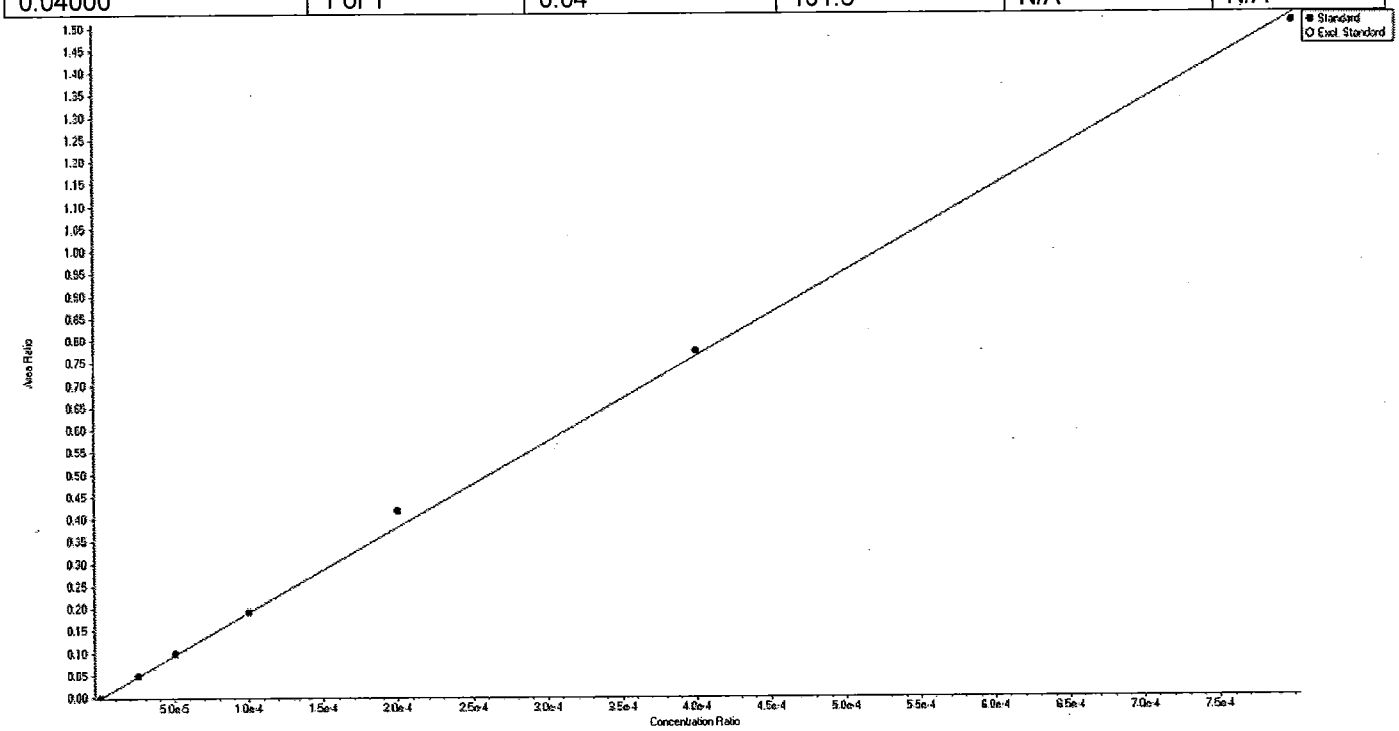
Created with Analyst Reporter
Printed: 20/12/2013 3:13:01 PM

Analyte Name: PFHxA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1907.01301 x (r = 0.99963) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	105.0	N/A	N/A
0.00500	1 of 1	0.01	104.6	N/A	N/A
0.01000	1 of 1	0.01	100.9	N/A	N/A
0.02000	1 of 1	0.02	109.6	N/A	N/A
0.04000	1 of 1	0.04	101.6	N/A	N/A

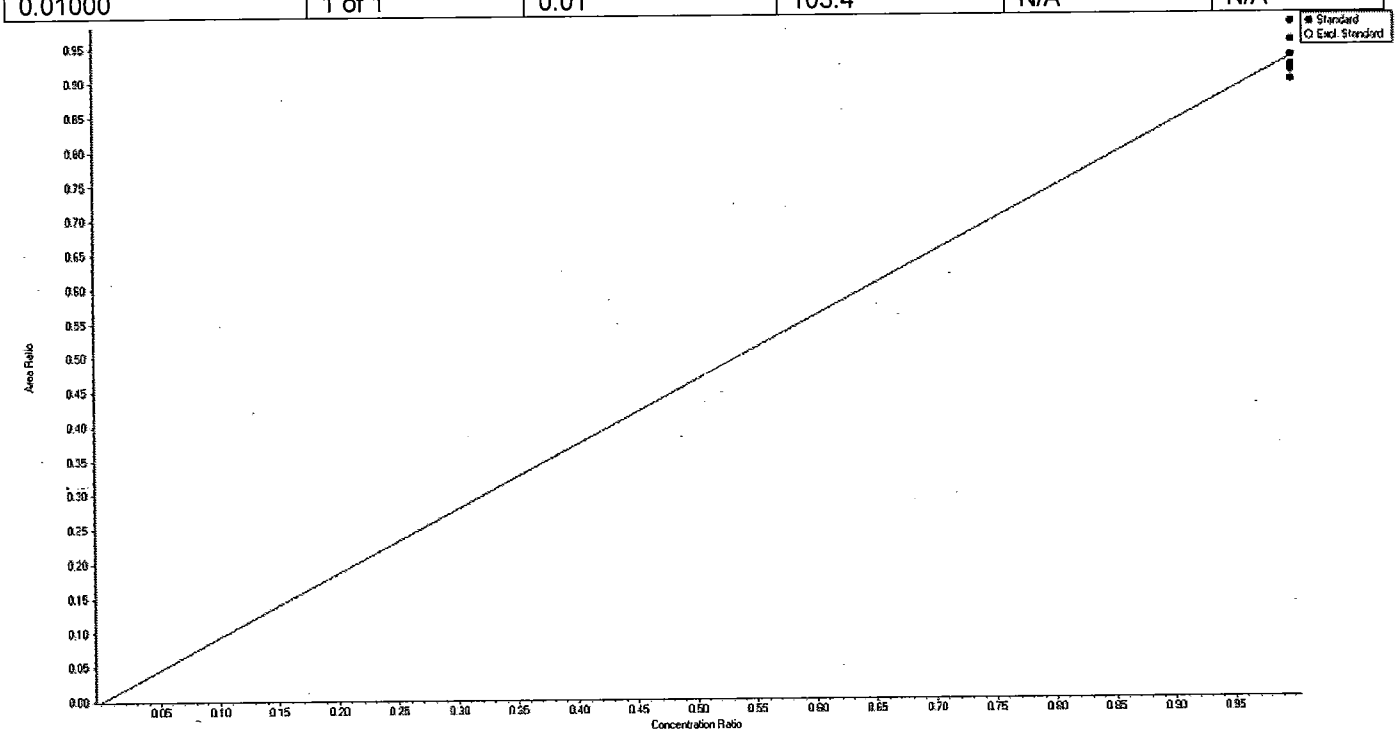


Analyte Name: Surr-13c-PFHxA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 0.93053 x (std. dev. = 0.02883) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.08000	1 of 1	0.08	99.0	N/A	N/A
100.00000	7 of 7	100.00	100.0	3.10	3.1
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	97.3	N/A	N/A
0.00500	1 of 1	0.01	104.3	N/A	N/A
0.01000	1 of 1	0.01	103.4	N/A	N/A

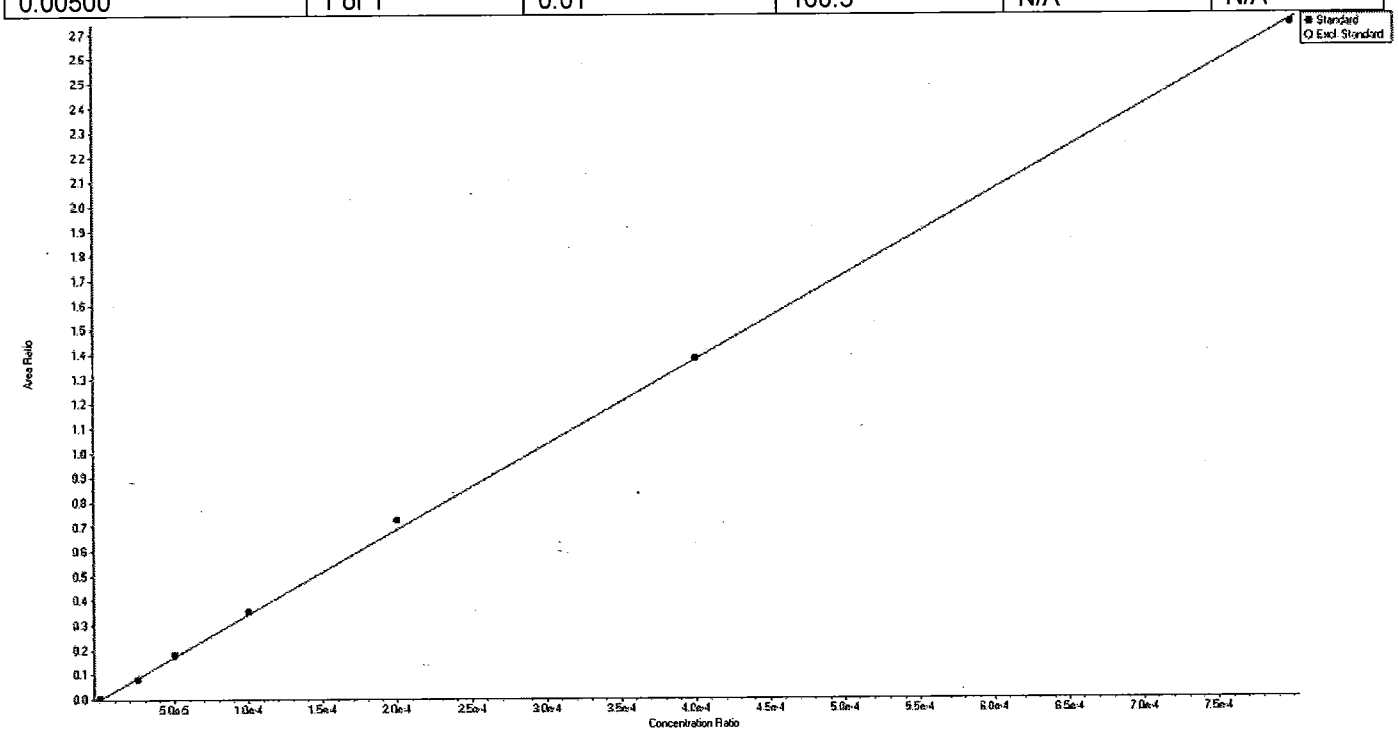


Analyte Name: PFHpA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 3437.93849 x (r = 0.99989) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.02000	1 of 1	0.02	105.6	N/A	N/A
0.04000	1 of 1	0.04	100.3	N/A	N/A
0.08000	1 of 1	0.08	99.5	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	88.1	N/A	N/A
0.00500	1 of 1	0.01	100.3	N/A	N/A

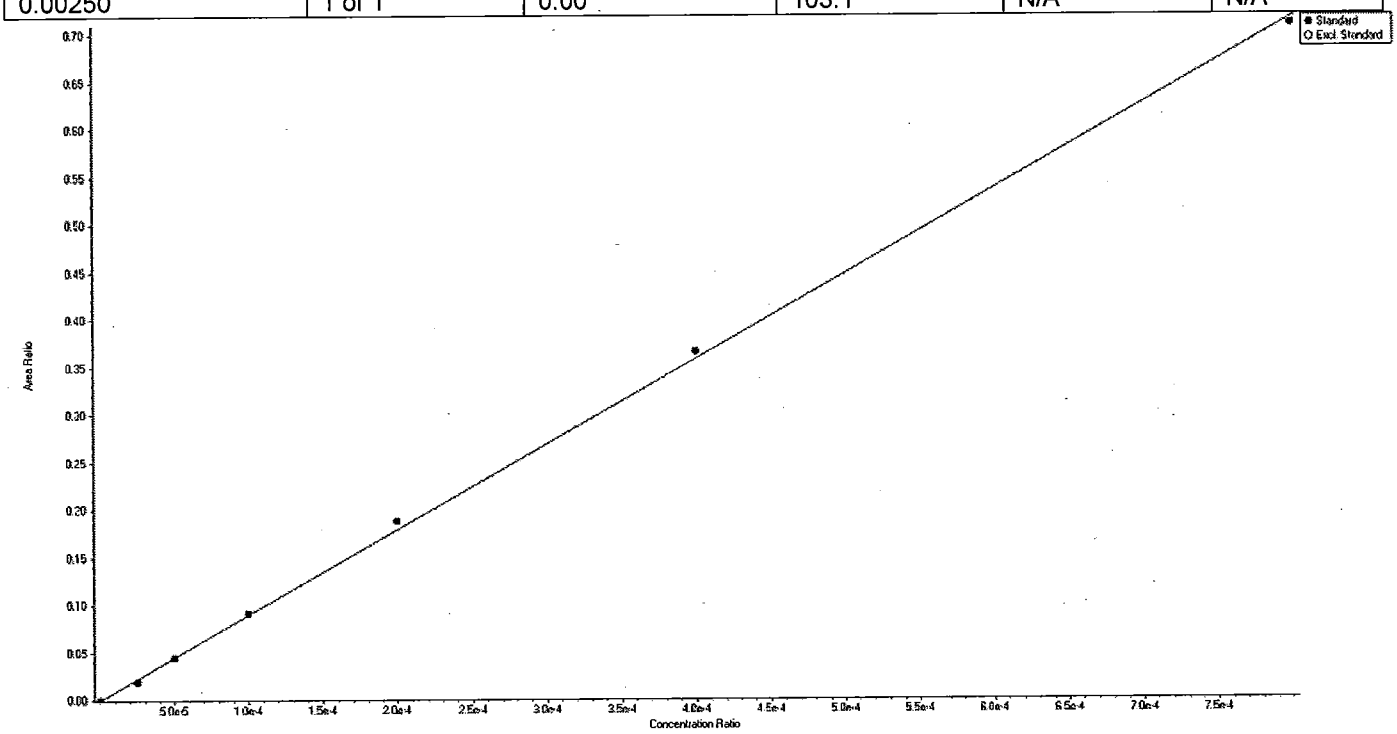


Analyte Name: PFHpA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 894.37326 x (r = 0.99978) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01000	1 of 1	0.01	101.2	N/A	N/A
0.02000	1 of 1	0.02	105.2	N/A	N/A
0.04000	1 of 1	0.04	102.2	N/A	N/A
0.08000	1 of 1	0.08	99.1	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	103.1	N/A	N/A

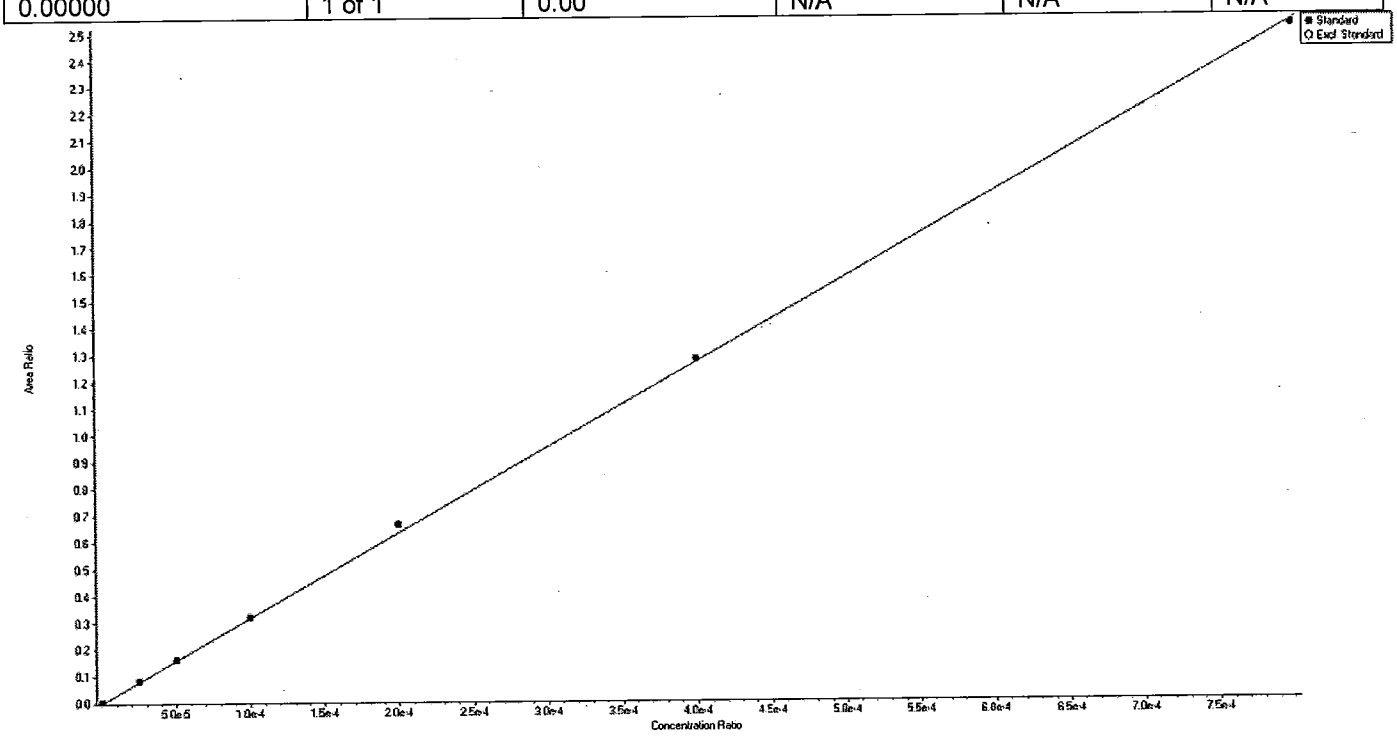


Analyte Name: PFOA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 3166.90784 x (r = 0.99991) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00500	1 of 1	0.01	102.8	N/A	N/A
0.01000	1 of 1	0.01	100.6	N/A	N/A
0.02000	1 of 1	0.02	104.9	N/A	N/A
0.04000	1 of 1	0.04	100.8	N/A	N/A
0.08000	1 of 1	0.08	99.5	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A

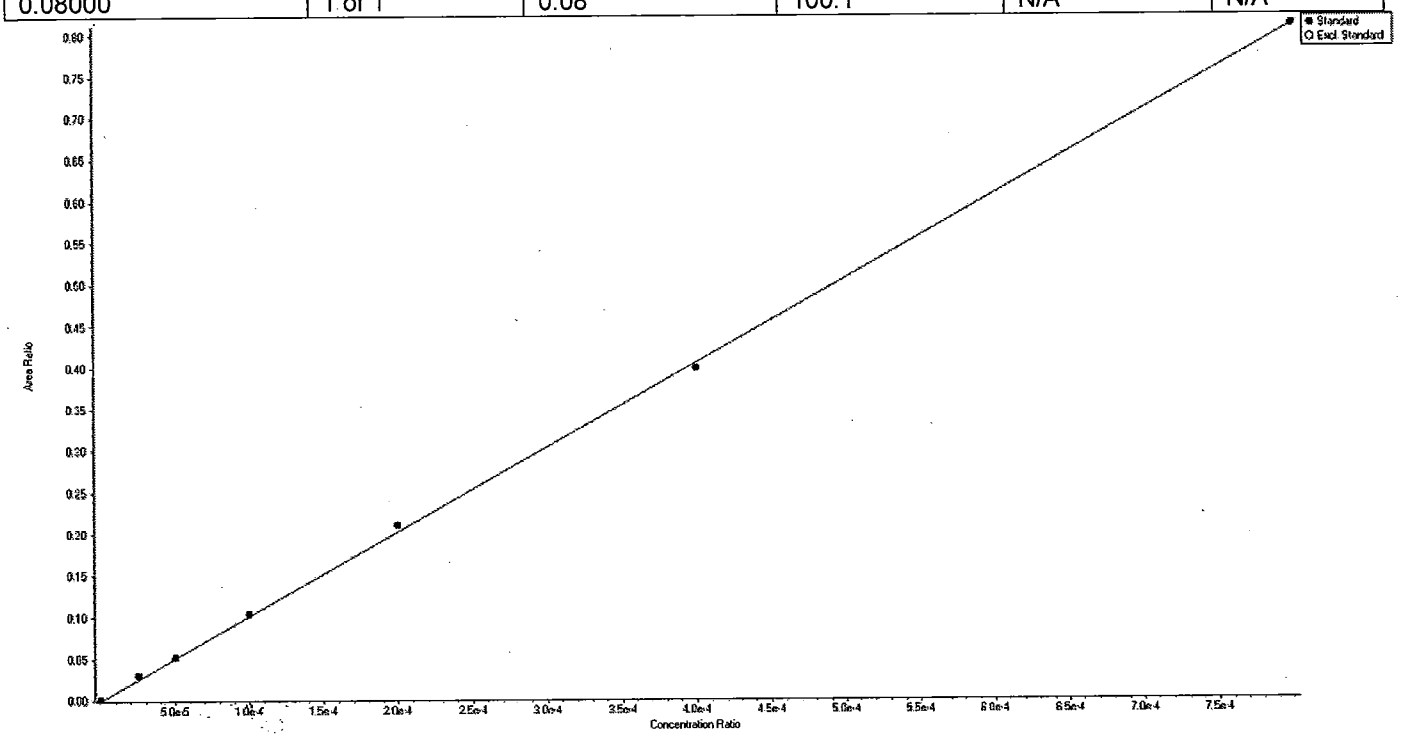


Analyte Name: PFOA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1012.65897 x (r = 0.99989) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00250	1 of 1	0.00	120.1	N/A	N/A
0.00500	1 of 1	0.01	101.9	N/A	N/A
0.01000	1 of 1	0.01	103.1	N/A	N/A
0.02000	1 of 1	0.02	103.7	N/A	N/A
0.04000	1 of 1	0.04	98.3	N/A	N/A
0.08000	1 of 1	0.08	100.1	N/A	N/A

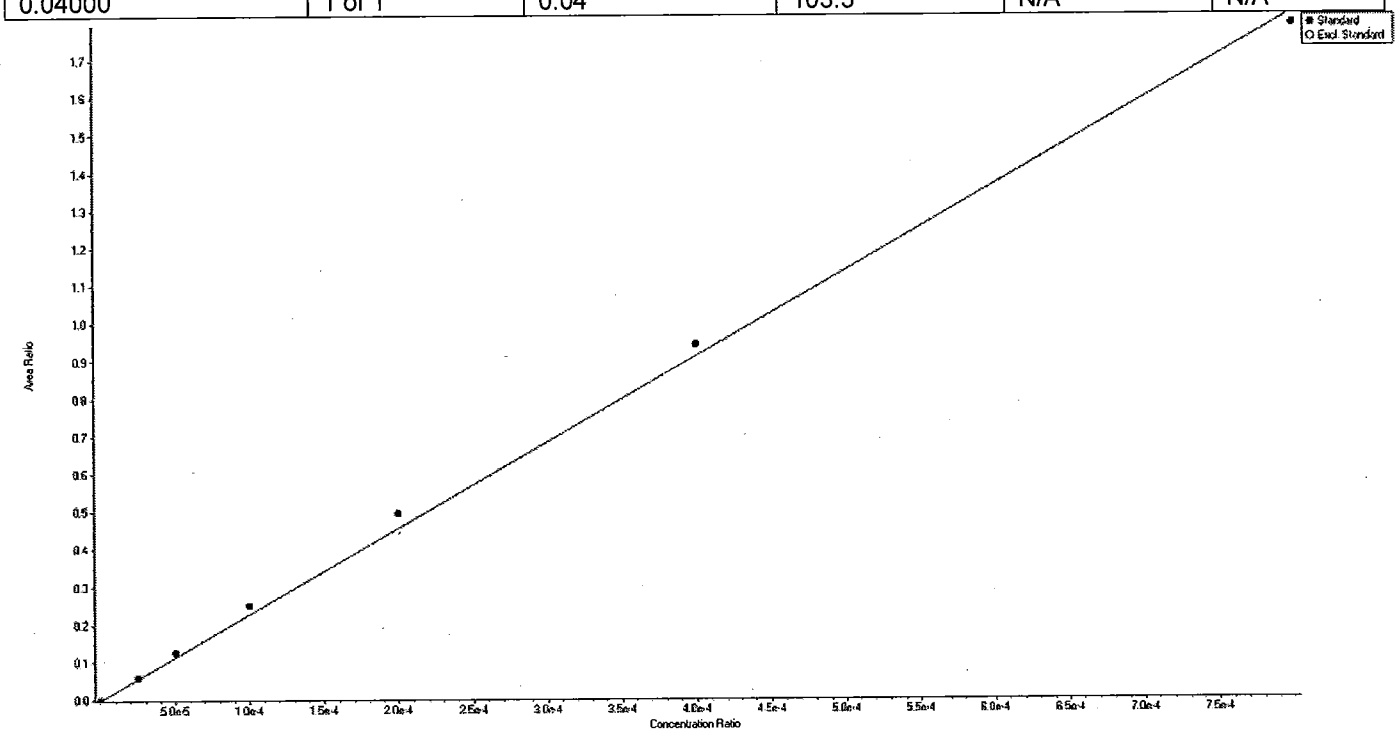


Analyte Name: PFNA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 2277.67423 x (r = 0.99946) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	103.5	N/A	N/A
0.00500	1 of 1	0.01	109.5	N/A	N/A
0.01000	1 of 1	0.01	109.7	N/A	N/A
0.02000	1 of 1	0.02	109.0	N/A	N/A
0.04000	1 of 1	0.04	103.5	N/A	N/A

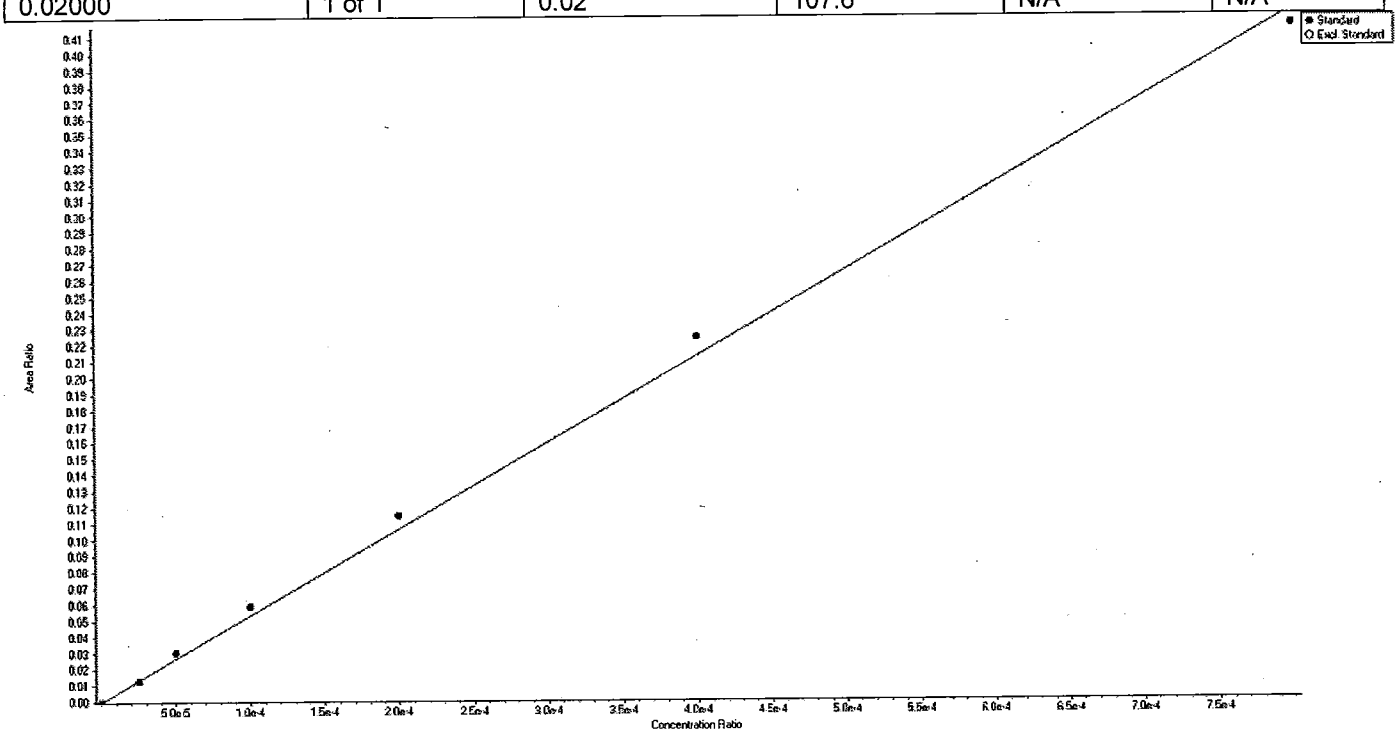


Analyte Name: PFNA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 531.65940 x (r = 0.99918) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.08000	1 of 1	0.08	98.4	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	99.2	N/A	N/A
0.00500	1 of 1	0.01	113.3	N/A	N/A
0.01000	1 of 1	0.01	110.4	N/A	N/A
0.02000	1 of 1	0.02	107.6	N/A	N/A

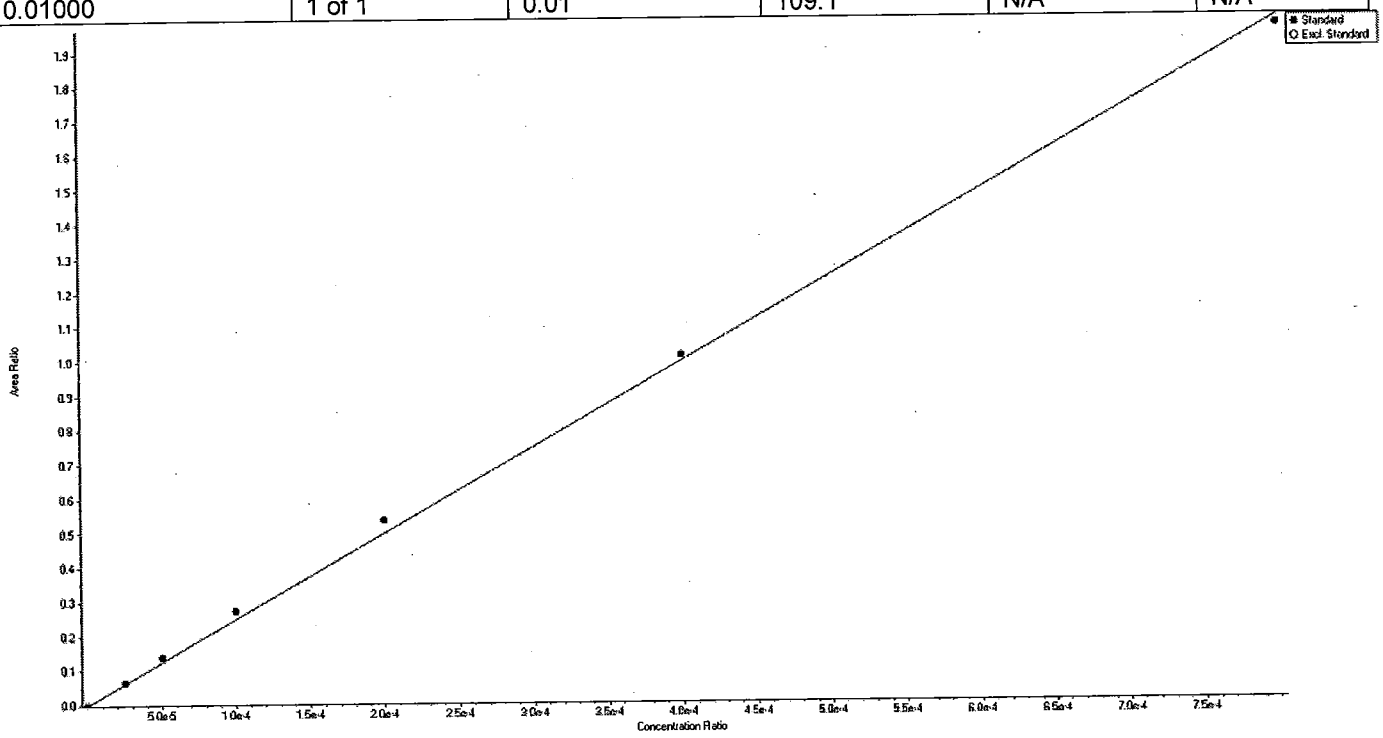


Analyte Name: PFDA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 2485.64230 x (r = 0.99972) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.04000	1 of 1	0.04	105.5	N/A	N/A
0.08000	1 of 1	0.08	97.9	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	105.5	N/A	N/A
0.00500	1 of 1	0.01	109.9	N/A	N/A
0.01000	1 of 1	0.01	109.1	N/A	N/A

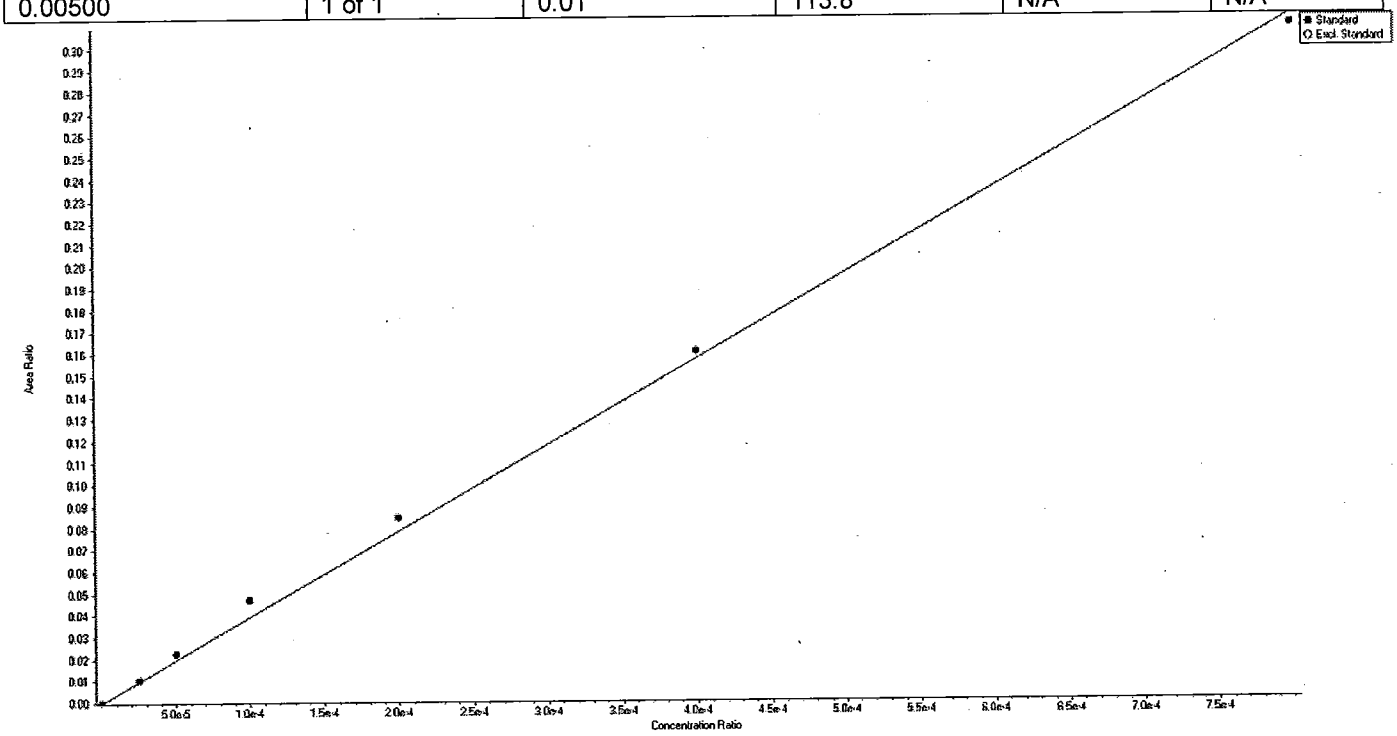


Analyte Name: PFDA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 392.35505 x (r = 0.99952) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.02000	1 of 1	0.02	107.7	N/A	N/A
0.04000	1 of 1	0.04	101.8	N/A	N/A
0.08000	1 of 1	0.08	98.9	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	108.7	N/A	N/A
0.00500	1 of 1	0.01	113.8	N/A	N/A

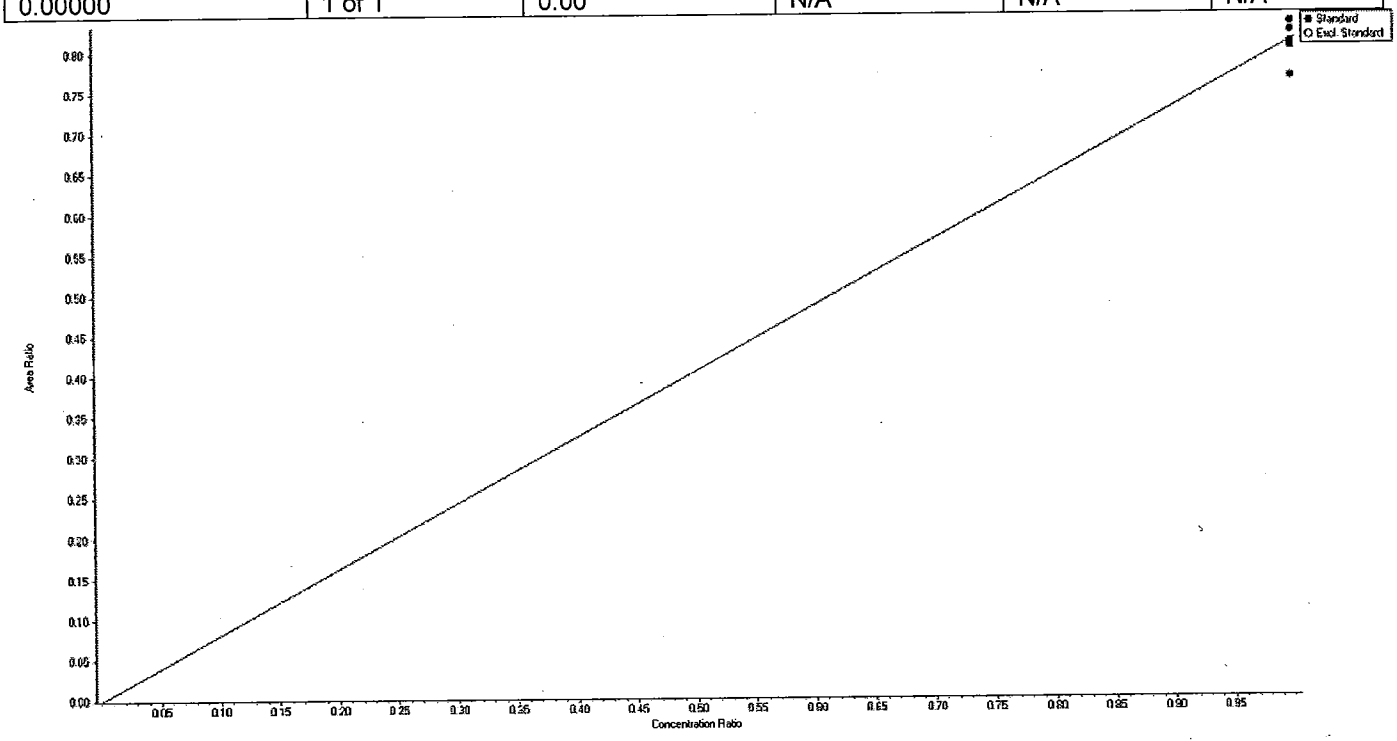


Analyte Name: Surr-13c-PFDA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 0.80977 x (std. dev. = 0.02358) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01000	1 of 1	0.01	119.9	N/A	N/A
0.02000	1 of 1	0.02	107.9	N/A	N/A
0.04000	1 of 1	0.04	102.2	N/A	N/A
0.08000	1 of 1	0.08	98.6	N/A	N/A
100.00000	7 of 7	100.00	100.0	2.91	2.9
0.00000	1 of 1	0.00	N/A	N/A	N/A

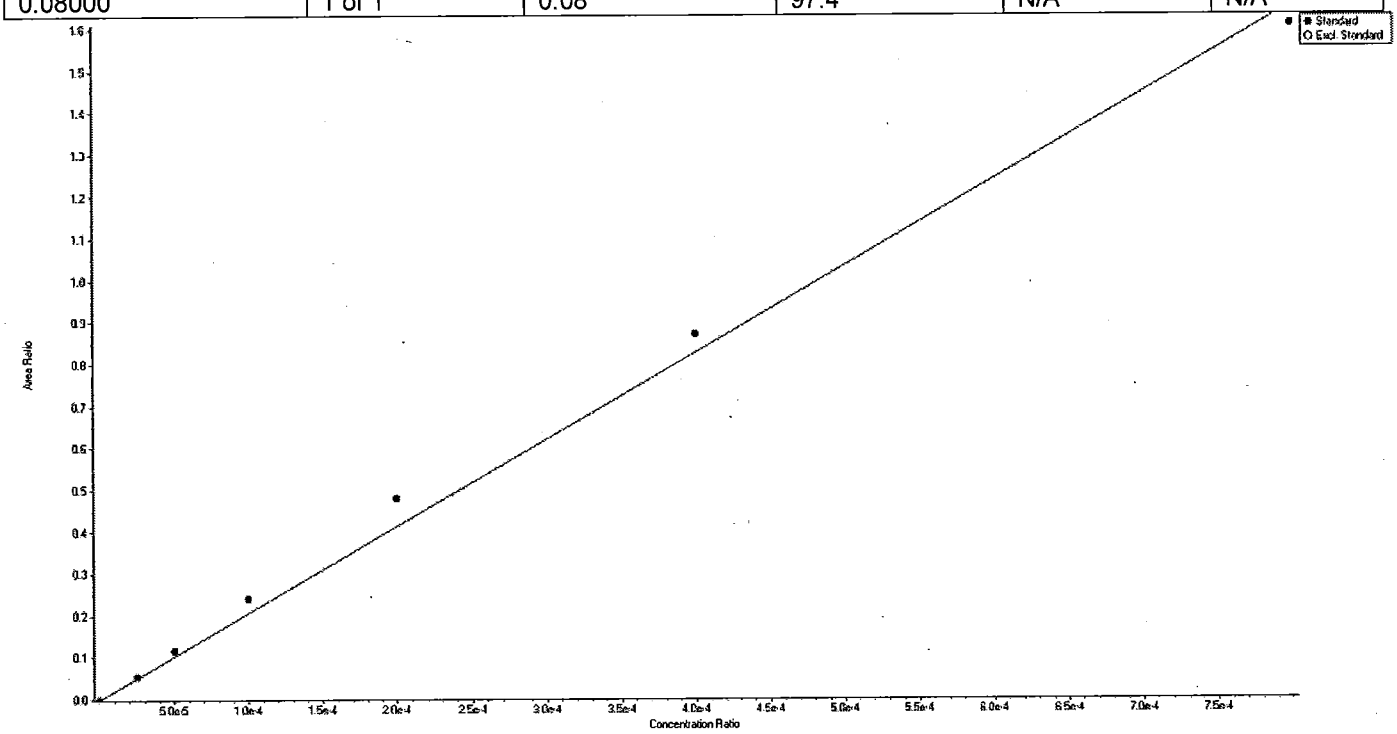


Analyte Name: PFUnA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 2066.16231 x (r = 0.99848) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00250	1 of 1	0.00	107.7	N/A	N/A
0.00500	1 of 1	0.01	113.4	N/A	N/A
0.01000	1 of 1	0.01	116.3	N/A	N/A
0.02000	1 of 1	0.02	116.0	N/A	N/A
0.04000	1 of 1	0.04	105.4	N/A	N/A
0.08000	1 of 1	0.08	97.4	N/A	N/A

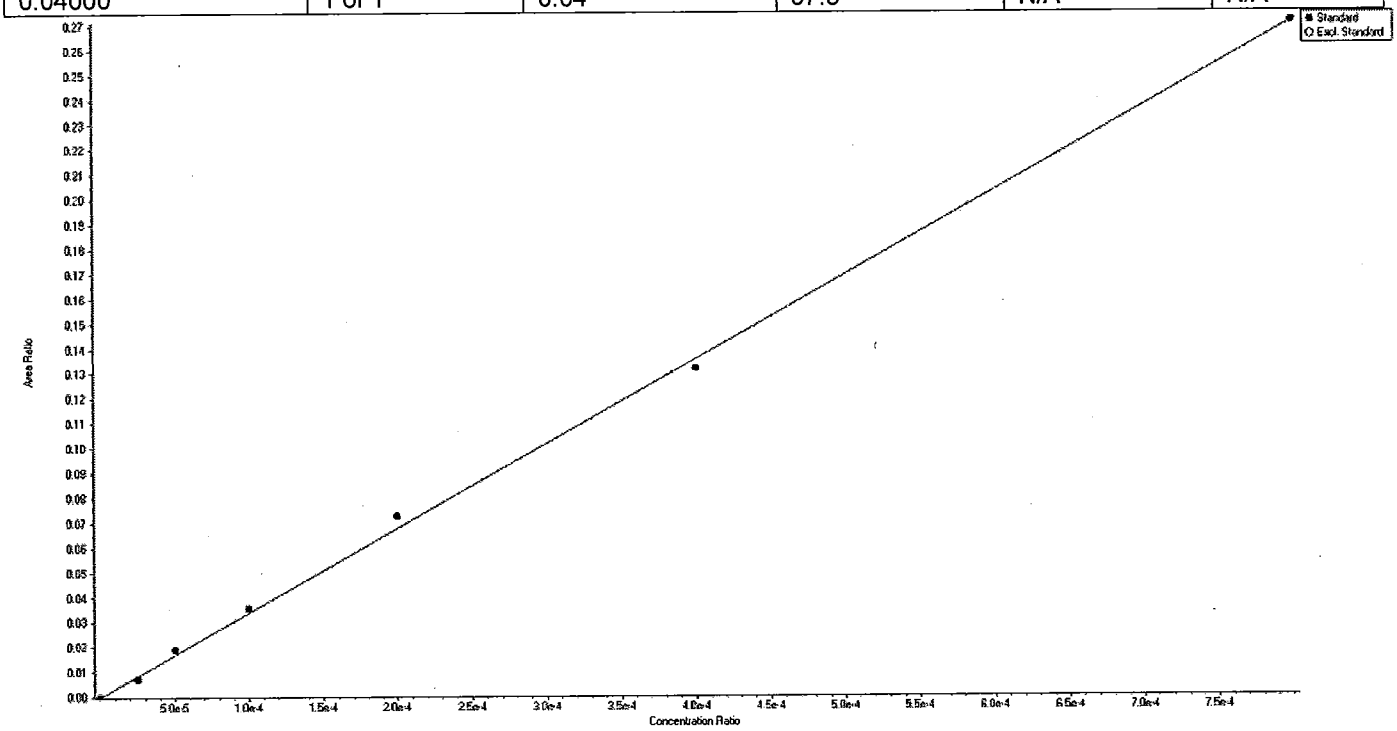


Analyte Name: PFUnA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 338.55413 x (r = 0.99964) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	88.7	N/A	N/A
0.00500	1 of 1	0.01	112.8	N/A	N/A
0.01000	1 of 1	0.01	105.2	N/A	N/A
0.02000	1 of 1	0.02	107.2	N/A	N/A
0.04000	1 of 1	0.04	97.3	N/A	N/A

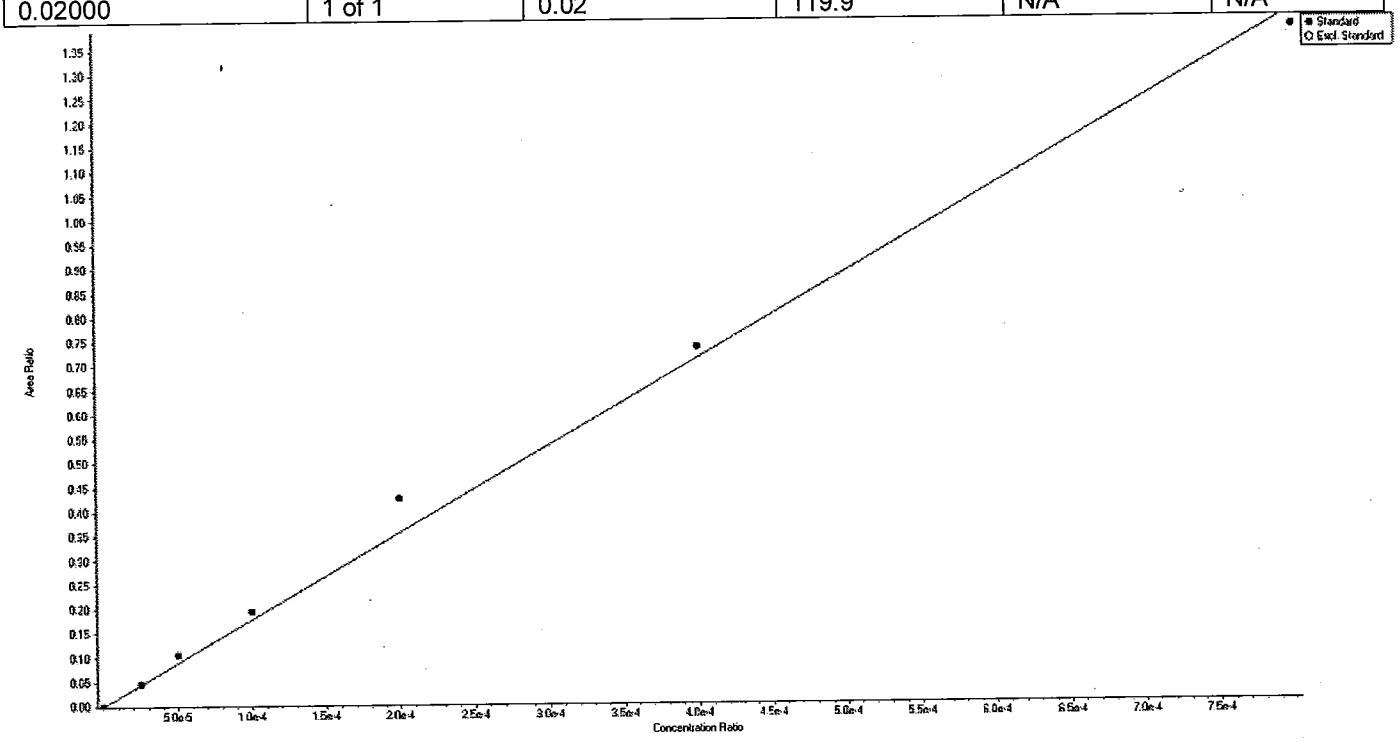


Analyte Name: PFDoA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1777.14139 x (r = 0.99837) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.08000	1 of 1	0.08	100.1	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	102.7	N/A	N/A
0.00500	1 of 1	0.01	117.2	N/A	N/A
0.01000	1 of 1	0.01	109.2	N/A	N/A
0.02000	1 of 1	0.02	119.9	N/A	N/A

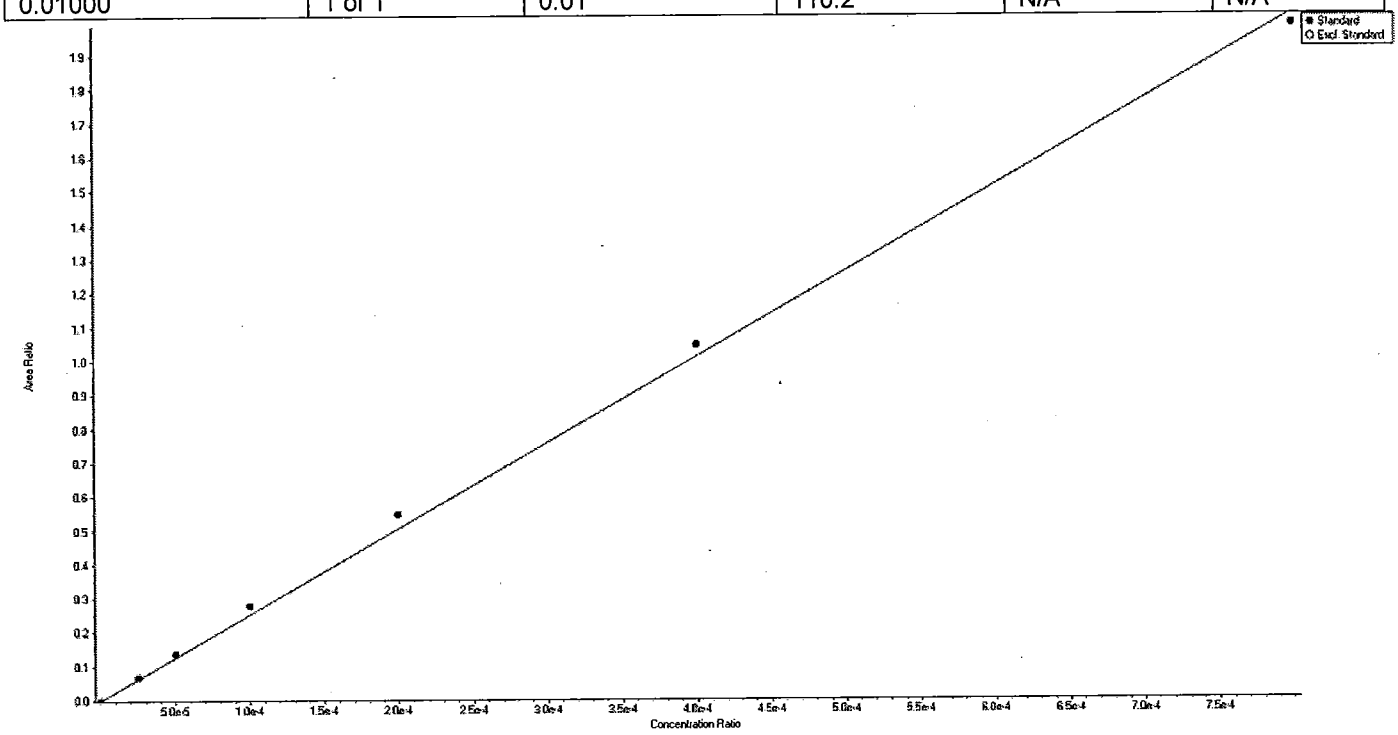


Analyte Name: PFTrDA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 2524.81821 x (r = 0.99951) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.04000	1 of 1	0.04	103.3	N/A	N/A
0.08000	1 of 1	0.08	97.7	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	105.7	N/A	N/A
0.00500	1 of 1	0.01	106.6	N/A	N/A
0.01000	1 of 1	0.01	110.2	N/A	N/A

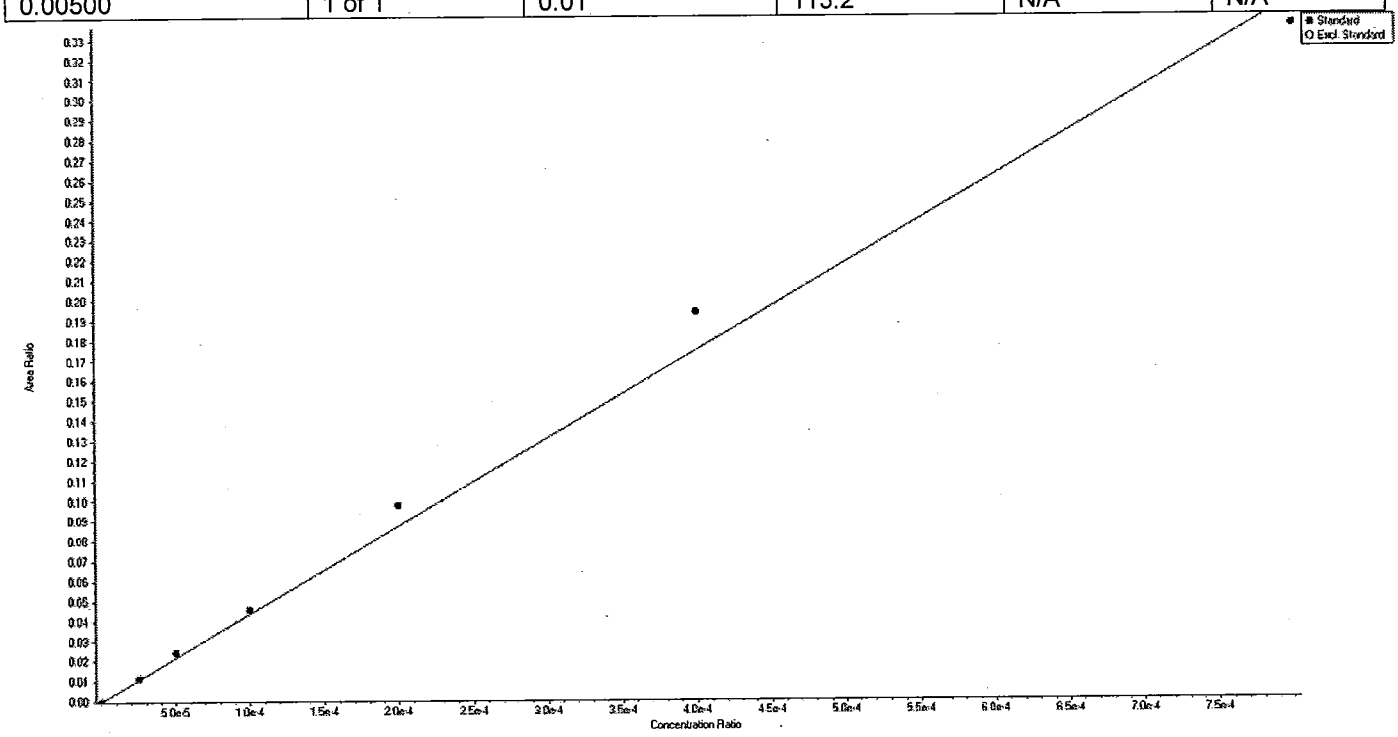


Analyte Name: PFTrDA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 436.32227 x (r = 0.99716) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.02000	1 of 1	0.02	108.3	N/A	N/A
0.04000	1 of 1	0.04	103.5	N/A	N/A
0.08000	1 of 1	0.08	98.4	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	104.1	N/A	N/A
0.00500	1 of 1	0.01	113.2	N/A	N/A

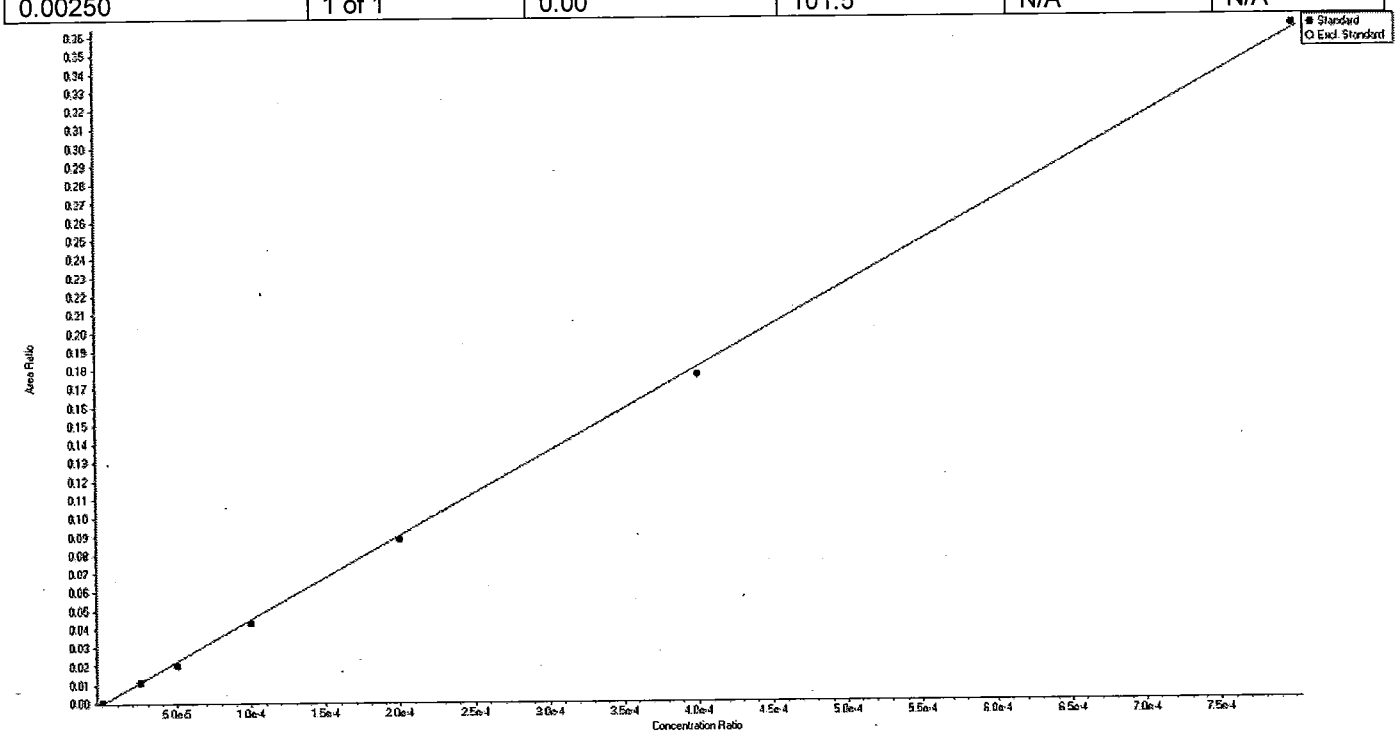


Analyte Name: PFTA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 451.41867 x (r = 0.99986) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01000	1 of 1	0.01	104.0	N/A	N/A
0.02000	1 of 1	0.02	111.6	N/A	N/A
0.04000	1 of 1	0.04	110.9	N/A	N/A
0.08000	1 of 1	0.08	96.4	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00250	1 of 1	0.00	101.5	N/A	N/A

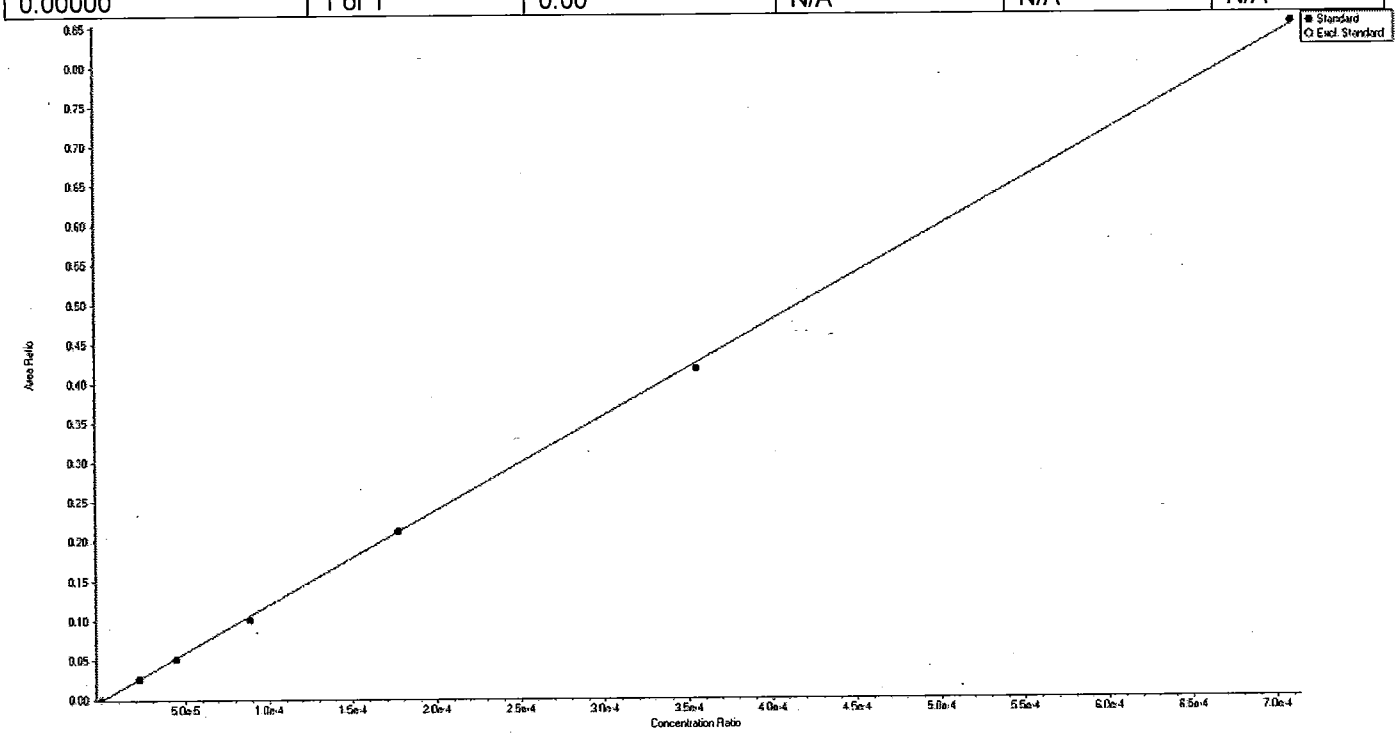


Analyte Name: PFBS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1195.19946 x (r = 0.99991) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00500	1 of 1	0.00	88.9	N/A	N/A
0.01000	1 of 1	0.01	95.9	N/A	N/A
0.02000	1 of 1	0.02	97.6	N/A	N/A
0.04000	1 of 1	0.04	97.7	N/A	N/A
0.08000	1 of 1	0.08	100.8	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A

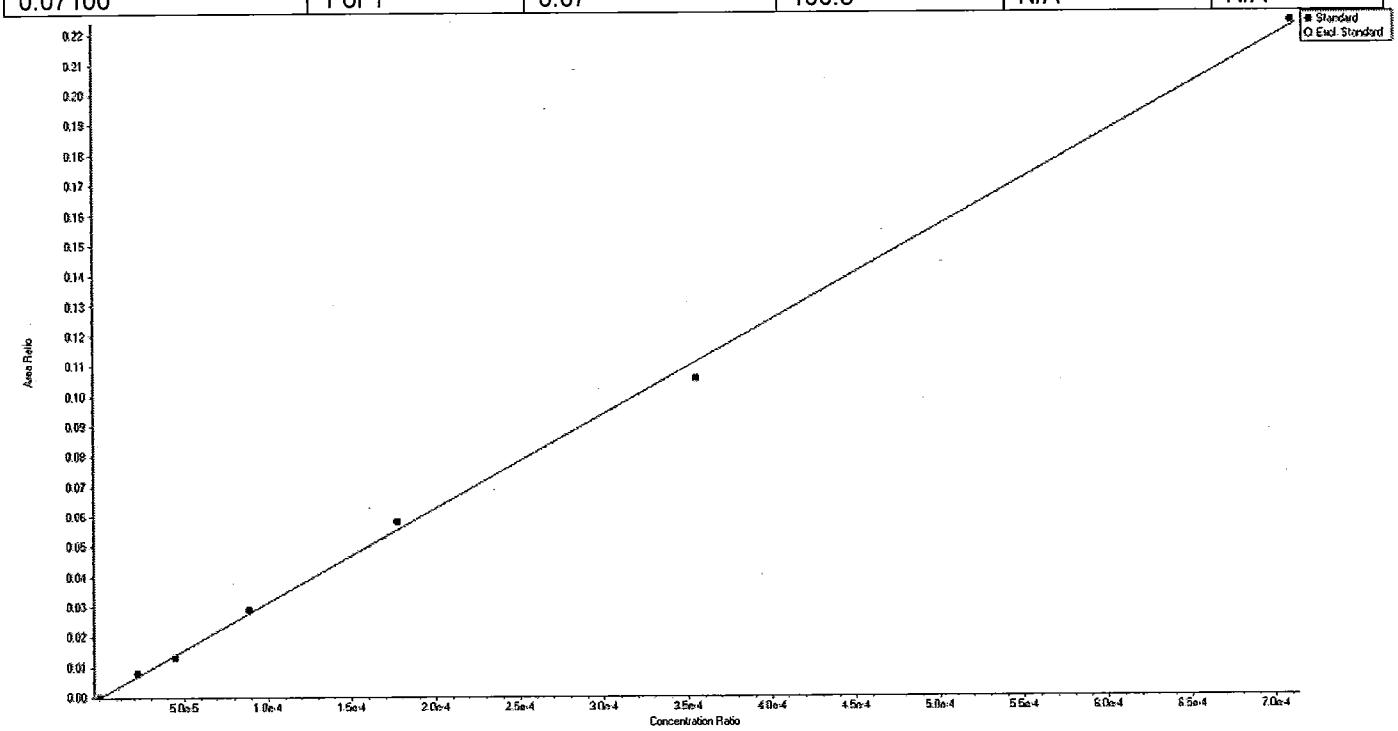


Analyte Name: PFBS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 312.65284 x (r = 0.99943) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00222	1 of 1	0.00	101.3	N/A	N/A
0.00443	1 of 1	0.00	97.3	N/A	N/A
0.00887	1 of 1	0.01	95.1	N/A	N/A
0.01770	1 of 1	0.02	100.6	N/A	N/A
0.03550	1 of 1	0.03	98.1	N/A	N/A
0.07100	1 of 1	0.07	100.5	N/A	N/A

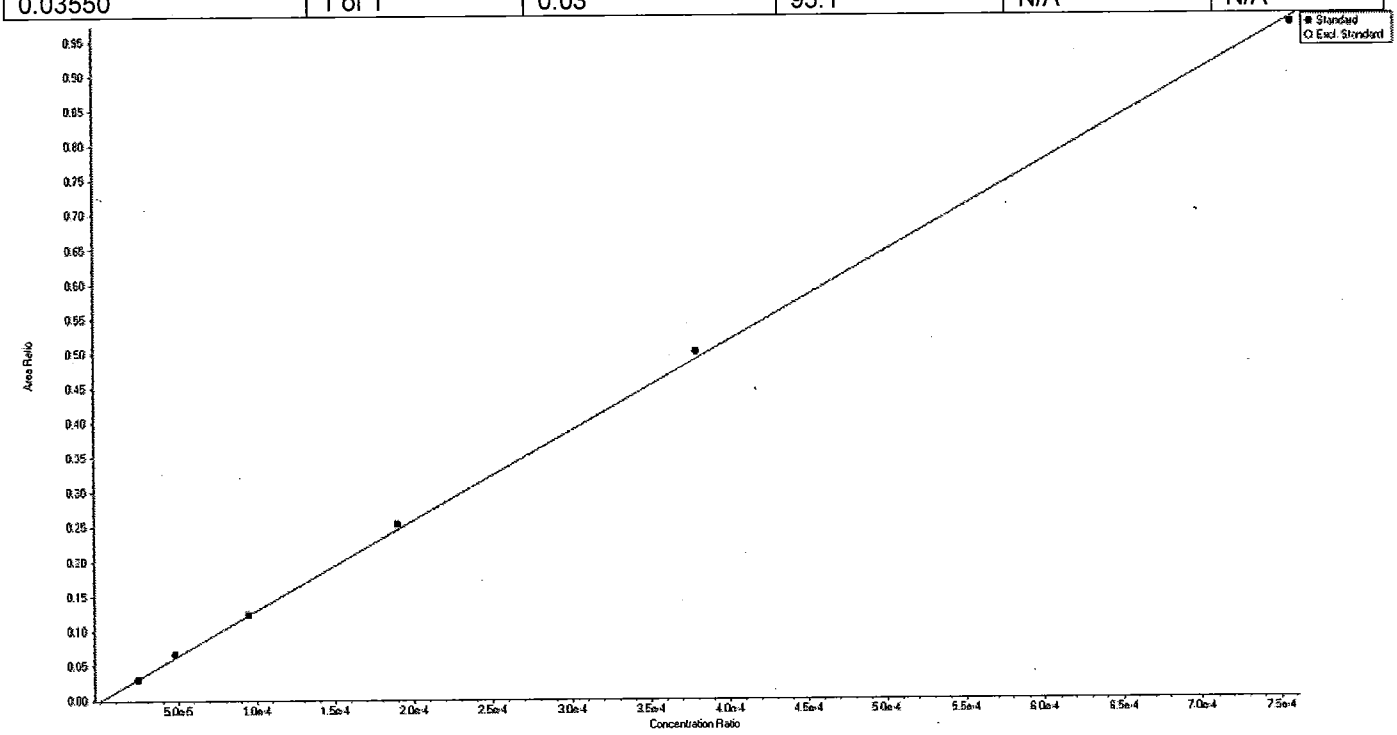


Analyte Name: PFHxS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1292.47904 x (r = 0.99986) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00222	1 of 1	0.00	113.5	N/A	N/A
0.00443	1 of 1	0.00	94.3	N/A	N/A
0.00887	1 of 1	0.01	104.6	N/A	N/A
0.01770	1 of 1	0.02	104.6	N/A	N/A
0.03550	1 of 1	0.03	95.1	N/A	N/A

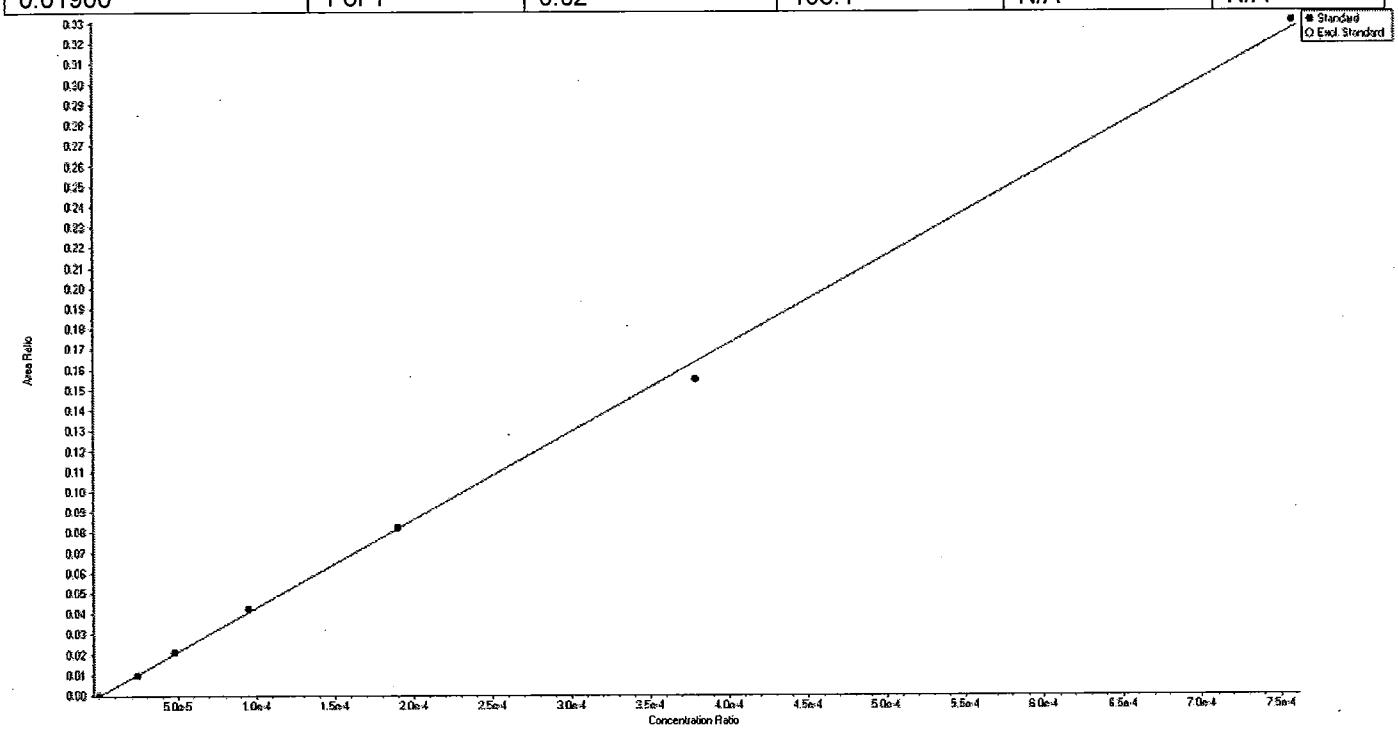


Analyte Name: PFHxS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 431.41273 x (r = 0.99946) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.07100	1 of 1	0.07	100.9	N/A	N/A
0.00000	0 of 1	N/A	N/A	N/A	N/A
0.00237	1 of 1	0.00	99.9	N/A	N/A
0.00474	1 of 1	0.01	109.1	N/A	N/A
0.00948	1 of 1	0.01	100.7	N/A	N/A
0.01900	1 of 1	0.02	103.1	N/A	N/A

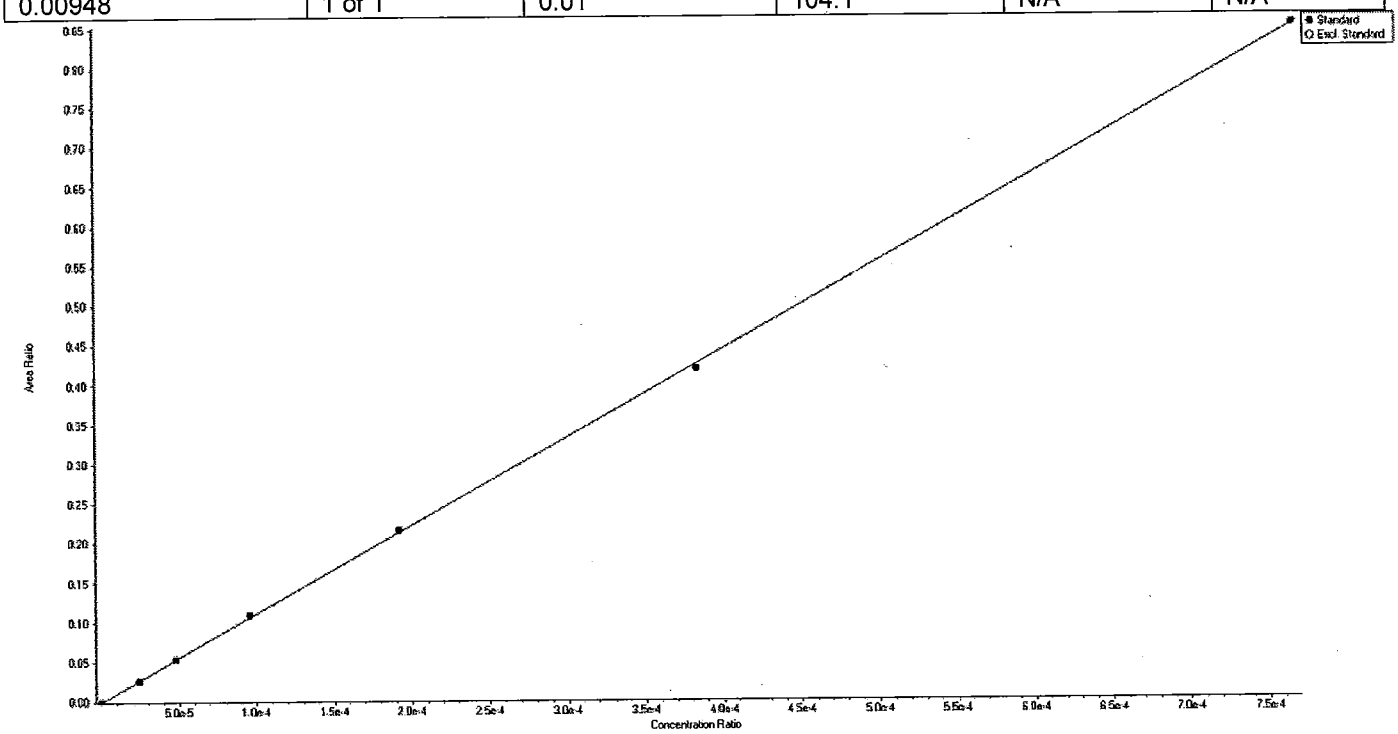


Analyte Name: PFOS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 1109.83303 x (r = 0.99996) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.03790	1 of 1	0.04	102.3	N/A	N/A
0.07580	1 of 1	0.08	99.2	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00237	1 of 1	0.00	97.4	N/A	N/A
0.00474	1 of 1	0.00	102.7	N/A	N/A
0.00948	1 of 1	0.01	104.1	N/A	N/A

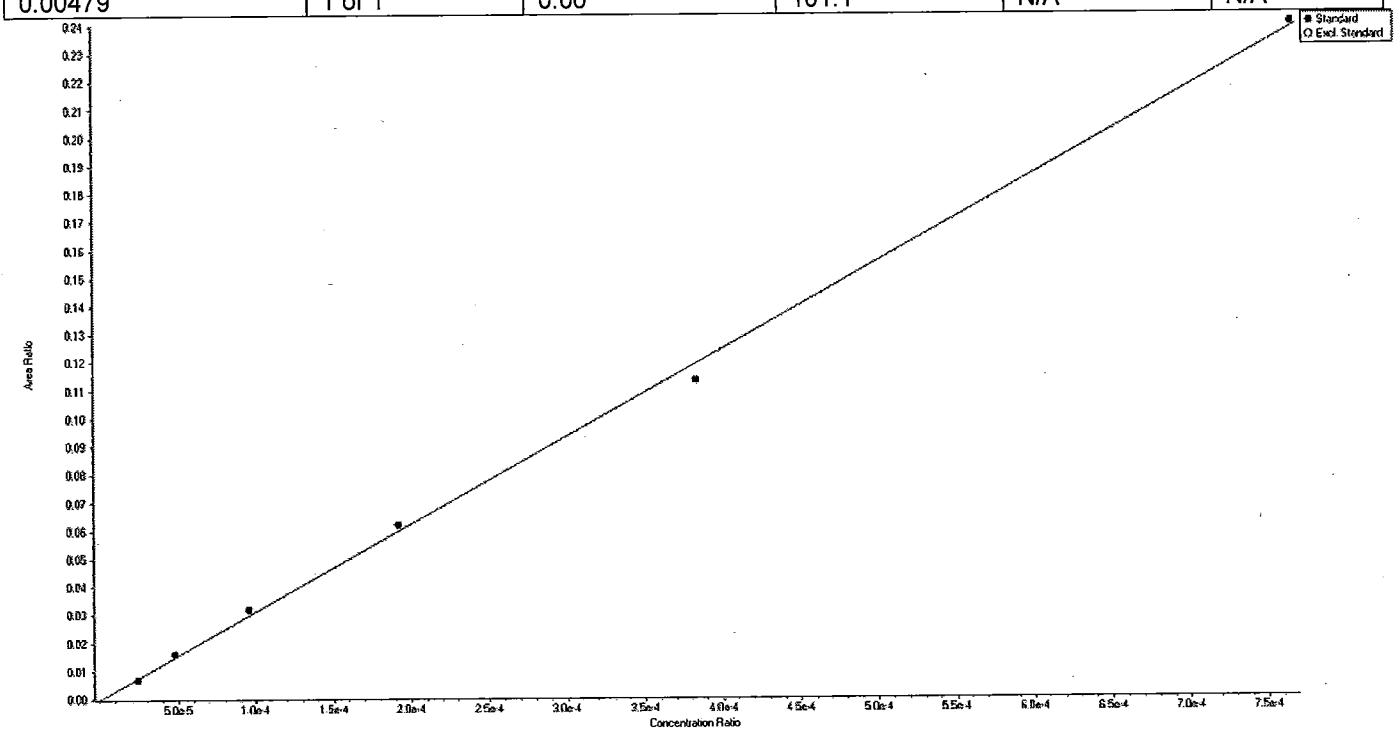


Analyte Name: PFOS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 311.01315 x (r = 0.99940) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01900	1 of 1	0.02	100.6	N/A	N/A
0.03790	1 of 1	0.04	94.8	N/A	N/A
0.07580	1 of 1	0.08	101.2	N/A	N/A
0.00000	1 of 1	0.00	N/A	N/A	N/A
0.00240	1 of 1	0.00	102.1	N/A	N/A
0.00479	1 of 1	0.00	101.1	N/A	N/A

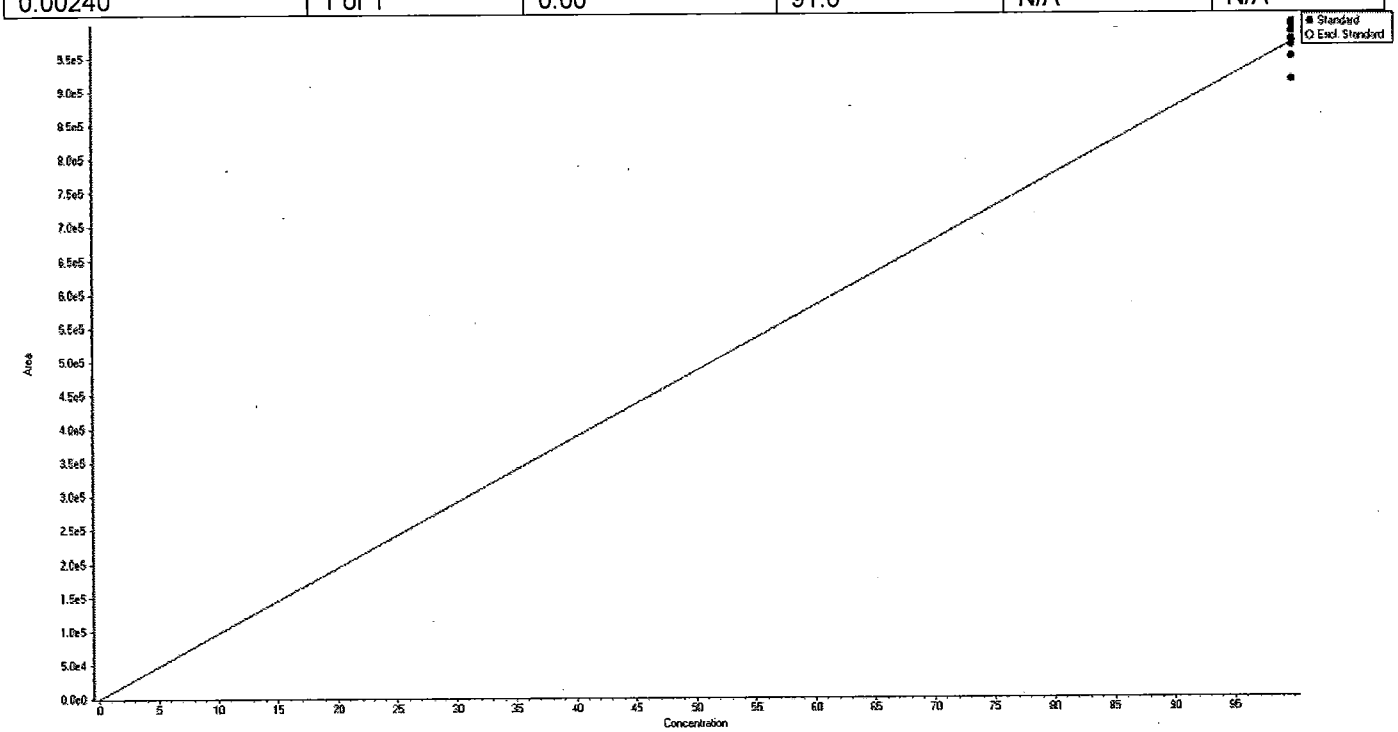


Analyte Name: 13C-PFOA
Internal Standard: N/A

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 9685.06929 x (std. dev. = 298.70290) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00958	1 of 1	0.01	102.2	N/A	N/A
0.01920	1 of 1	0.02	101.3	N/A	N/A
0.03830	1 of 1	0.04	98.6	N/A	N/A
0.07660	1 of 1	0.08	100.2	N/A	N/A
0.00000	0 of 1	N/A	N/A	N/A	N/A
0.00240	1 of 1	0.00	91.0	N/A	N/A

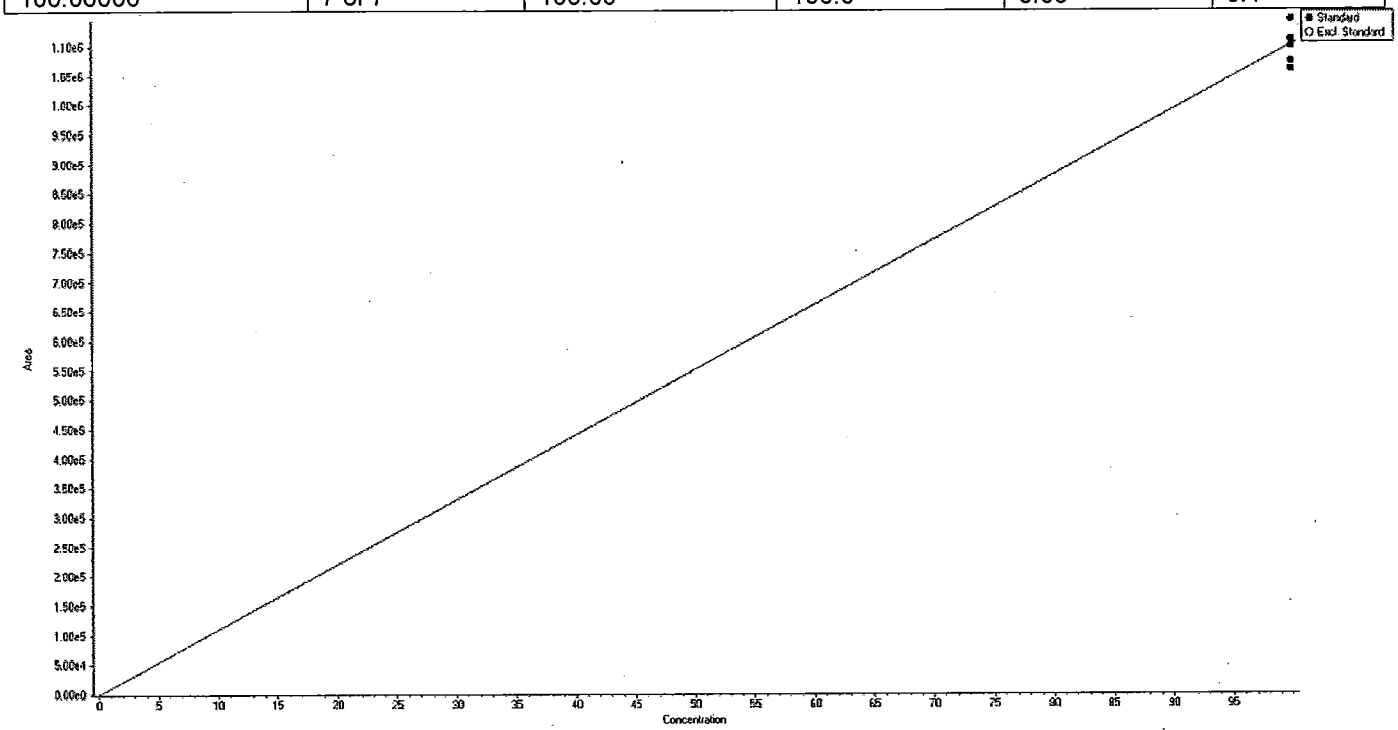


Analyte Name: 13C-PFOS
Internal Standard: N/A

Data File	@537-Batch#742456-121913.wiff	**Result Table**	@537-Batch#742456-121913
Acquisition Date	12/20/2013 3:37:30 AM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_19		

Regression Equation: y = 11005.09300 x (std. dev. = 279.34285) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00479	1 of 1	0.01	108.3	N/A	N/A
0.00958	1 of 1	0.01	106.4	N/A	N/A
0.01920	1 of 1	0.02	103.6	N/A	N/A
0.03830	1 of 1	0.04	95.2	N/A	N/A
0.07660	1 of 1	0.08	100.9	N/A	N/A
100.00000	7 of 7	100.00	100.0	3.08	3.1



EUROFINS LABORATORY REPORT

– LCMS 12/26/2013

LCMS - FO - SCAN - 0001

HPLC/LCMS Scan Prep Sheet

Lab Batch No. (Filename): LCMS3 122613 LHZ

Analysis Date: 12/26/13

Lab Test Type (Method Reference): @57

Prep Batch Date: 12/24/13 — 12/26/13

Calibration / ICAL Date: 12/26/13

BATCH NOTES: Prep. Run# 742660
Run# 743781

12-31-13

Example of LAB BATCH NUMBER (FILENAME):

INSTRUMENT NAME / ANALYSIS DATE / ANALYST INITIALS
P580 *09-11-07* *PHK* = P580 091107 PHK

The Lab Test Type is the Method Reference Number: For Test @DIQUAT the lab test type is: 549

NA any field that is not needed.

Attachment VIII: 537 Data Review Checklist

UCMR3 Method 537 Checklist

Analysis Date: 12/26/13 Analyst: LHB Instrument ID: LCMS3
Submitted by: LHB Date: 12/27/13 QC'd by: ALI Date: 12/31/13 Eluent Prepared Date: 12/26/13 by LHB Exp. 12/28/13

Initial Calibration (ICAL):

✓ Unique File Name: C537-Batch#742660-122613-CalCurve.pdf
✓ Calibration contains a minimum of 5 standard concentrations from =/< MRL to high point.
✓ Each point is back-calculated against curve.
✓ *Back calculation passes with the lowest level standard being within 50-150% of its true value.*
✓ *All other points in the back calculation are within 70-130% of its true value.*
✓ IS must be within 70-140% compared to the average IS response in ICAL.
✓ < 20% RPD among IS responses in the lowest and highest CAL stds.
✓ Peak asymmetry ratio performed at a mid-level CAL std. must be 0.8-1.5 for first two eluent peaks.
✓ Surrogate recoveries must be within control limits of 70-130%.

Internal Standards (IS and Surrogates) for all QCs and Samples:

✓ IS must be within 70-140% compared to the response in the most recent CCC
✓ IS must be within 50-150% compared to the average IS response in ICAL.
✓ Surrogate recoveries must be within 70-130%.

Quality Control Sample (QCS):

✓ A QCS is from a source different than that used to prepare CAL stds.
✓ A QCS is analyzed after each preparation of new analyte primary dilution standards and at least quarterly.
✓ QCS is at mid level, and results are within ±30% of the true value.
✓ IS and surrogate recoveries are within QC limits.

Continuing Calibration Verification Check Standard (CCC):

✓ A low-level CCC is analyzed at the beginning of each analysis batch.
✓ Subsequent CCC's are analyzed following every 10 field samples and at the end of the batch.
✓ Subsequent CCC's are analyzed at rotating mid & high levels.
✓ The low-level CCC is within ±50% of the true value.
✓ Mid and high-level CCC's are within ±30% of the true value.
✓ IS and surrogate recoveries are within QC limits.

Laboratory Reagent Blank (LRB/Method Blank):

✓ An LRB is analyzed with each extraction/analysis batch.
✓ All target analytes must be ≤ 1/3 MRL.
✓ IS and surrogate recoveries are within QC limits.

Laboratory Fortified Blank (LFB):

✓ An LFB≤ MRL level is processed per extraction batch and analyzed per each analysis batch prior to analyzing filed samples.
✓ Low-level LFB recovery is 50-150% of the true value for each target analyte.
✓ IS and surrogate recoveries are within QC limits.
✓ If run, LFBs at mid & high levels must have recoveries within 70-130% of the true value for each target analyte.

Laboratory Fortified Sample Matrix (LFSM/LFSMD/MS/MSD) or Field Duplicates (FD/DUP):

✓ One LFSM must be analyzed per analysis batch at rotating low & mid levels.
✓ Analyze at least one LFSMD or FD per analysis batch.
✓ Low-level spike concentration is ±50% of the MRL level.
✓ Mid-level spike concentration is ±20% of the mid-level calibration standard.
✓ Analyte recovery for low-level should be within ±50% of the true value for LFSM and LFSMD.
✓ Analyte recovery for mid-level should be within ±30% of the true value for LFSM and LFSMD.
✓ Analyte relative percent difference (RPD) should be ≤50% for low-level or ≤30% for mid-level.
✓ IS and surrogate recoveries are within QC limits.

Samples:

✓ pH 6.5-7.5.
✓ Free chlorine <0.1 mg/L.
✓ 20 samples or less in an analytical batch.

Attachment VIII: 537 Data Review Checklist (cont'd)

✓ IS and surrogate recoveries are within QC limits.
✓ Hits are correctly identified.
✓ Mass Spectrum is printed for each analyte above MRL (even if false).

Field Reagent Blank (FRB):

NA To be analyzed when there are sample hits.
NA All target analytes ≤ 1/3 MRL.
NA If FRB is contaminated, samples are invalidated.
NA IS and surrogate recoveries are within QC limits.

Data Files:

✓ Are the data files (quantitation report) and method files consistent with one another?
✓ Are file ID's the same on both the hard copies and the electronic files?
NA Are all manual integrations (MI) documentation completed?
NA Printouts of before and after MI with analyst and reviewer signatures and the date
NA Reason for MI
NA QIR filled out if necessary (QIR number: _____)

EEA Folder No.: 461445 & 462677

Table of Contents

Level I deliverables include the following:

A. Case Narrative if applicable

B. Laboratory Report

- Cover page ✓
- State Certification List
- Acknowledgment of samples received
- **Chain of Custody Documentation**
  - FedEx Air Bill/Method of Shipment Documentation
  - Sample Cooler Checklist
  - Purchase Requisition
- **Laboratory Comments Report**
  - Group Comments
  - Definition of Data Qualification
- **Laboratory Hits Report**
  - Sample ID ✓
  - Analysis Date ✓
  - Analyte ✓
  - Result and units ✓
  - Federal Maximum Contamination Limit (MCL) if available
  - Minimum Reporting Limit (MRL) ✓
- **Laboratory Data Report**
  - Client's sample ID and corresponding lab ID ✓
  - Sampled on (Date and time of sample collection) ✓
  - Prepared (Date of sample preparation) as applicable ✓
  - Analyzed (Date and time of analysis) ✓
  - QC Ref # (QC Reference #) ✓
  - Analyte and Method ✓
  - Result (Analytical results) and Units ✓
  - MRL ✓
  - Dilution factor (Dilution) NA
  - Surrogate recoveries if applicable ✓
  - MDL (Minimum Detection Limit) if applicable NA
- **Laboratory QC Summary**
  - QC Ref # (Batch QC Reports) ✓
  - Analyte/Method ✓
  - Lab ID and corresponding client's sample ID ✓
  - Analysis Date ✓
  - Analyst by (Analyst Initials) ✓

✓ = Items included in the data package
NA = Not applicable; items not included in the data package.

Level II deliverables include Level I and the following:

- **Laboratory QC Report** (Part of Laboratory Report)
  - QC Ref # - Analyte/Method ✓
  - Analysis Date ✓
  - QC Types, as applicable
    - CCCL/ CCCM/CCCH (Continuing Calibration Check at Low/Mid/High level ✓
    - DUP (Sample Duplicate) NA
    - LCS (Laboratory Control Sample) ✓
    - MBLK (Method Blank) ✓
    - MRL_CHK (Minimum Reporting Limit Check) ✓
    - MS/MSD (Matrix Spike/ MS Duplicate) ✓
  - QC Types include the following, as applicable
    - Analyte ✓
    - Native (Native Result) ✓
    - Spiked (Spiked level) ✓
    - Recovered (Spiked sample result) ✓
    - Units ✓
    - Yield % (Yield in % recovery) ✓
    - Limits % (Acceptance limits) ✓
    - RPD Limit (%) (Relative Percent Difference Limit in %) ✓
    - RPD % ✓

✓ = Items included in the data package
NA = Not applicable; items not included in the data package.

Subcontracted Lab Reports (if applicable):

- Level I, II, III, and IV data packages will include the same documents as EEA Lab Reports.

✓ = Items included in the data package
NA = Not applicable; items not included in the data package.

LEVEL III DELIVERABLES

ORGANICS

Analyte/ Method Reference: 8537
EEA Folder No.: 461445 & 462677
QC Ref #: 743781
Sample Analysis Date: 12/26/13 — 12/27/13

Prepared by: LHB
Date Prepared: 12/27/13

Level III deliverables include Level I, Level II, and the following:

Raw Data
INITIAL CALIBRATION (ICAL)

- ✓ Primary Analyses
- NA Confirmation Analyses , if applicable
- ✓ Sequence log
- NA Instrument Tune (DFTPP or BFB) showing abundance criteria and result if applicable
- NA DDT/Endrin breakdown or tailings check information for tune file as required by the method, as applicable
- ✓ Instrument blank or method blank- Area printouts, quantitation reports, chromatogram
- ✓ Quantitation reports and chromatograms for all calibration levels
- ✓ Initial Calibration Summary including all points and regression plots
- ✓ Second source standard Quantitation Report and Chromatogram if required
- ✓ IS (Internal Standard) results if applicable
- ✓ Surrogate results if applicable
- ✓ Peak resolution, as applicable
- ✓ Retention time window determination, as applicable
- NA Manual integration (before and after) if applicable

SAMPLE /QC ANALYSES

- ✓ Primary Analysis
- ✓ Confirmation Analysis, if applicable
- ✓ Data Review Checklist
- NA QIR (Quality Investigation Report) if applicable
- ✓ Sample preparation logs if applicable
- ✓ Analysis Sequence Log/ Injection Log
  - NA Instrument Tune (DFTPP or BFB) showing abundance criteria and result
  - NA Breakdown or tailing check information for instrument tune if required by the method

✓ = Items included in the data package
NA = Not applicable; items not included in the data package.

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✓ Continuing calibration standard (Area printouts, quantitation report, chromatogram, and % deviation including regression plots)
✓ Initial Calibration (See above for ICAL)
✓ Laboratory reagent blank (LRB)/Method Blank (MB) – Area printouts, quantitation report, and chromatogram.
NA TIC's (Tentatively Identified Compounds) for LRB if necessary
✓ MRL (Method Reporting Limit) check
✓ LCS (Laboratory Control Sample) spike recoveries, area printouts, quantitation report, and chromatogram
✓ MS/MSD (Matrix Spike/ Matrix Spike Duplicate) spike recoveries or Lab duplicate, area printouts, quantitation report, and chromatogram
✓ Closing standard(s)- Area printouts, quantitation report, and chromatogram (and % deviation including regression plots), as applicable
✓ Peak resolution, as applicable
NA Ion Scans and Enhanced Spectra/ extracted ion current profile (EICP) of target analytes and TICs with the associated best match spectra, if applicable
✓ All relevant clients data including Area printouts, quantitation report, chromatogram spectra, and TIC's
✓ 2nd Source standards/LCS
✓ IS (Internal Standard) results if applicable
✓ Surrogate results if applicable
NA Manual integration (before and after) if applicable

✓ = Items included in the data package
NA = Not applicable; items not included in the data package.

LEVEL IV DELIVERABLES

ORGANICS

Analyte/ Method Reference: C57
EEA Folder No.: 461445 & 462677
QC Ref #: 743781
Sample Analysis Date: 12/26/13—12/27/13

Prepared by: LHB
Date Prepared: 12/27/13

Level IV deliverables to include Levels I, II, III, and the following:

- ✓ Certificates of analysis for standards, IS, Surrogate and spiking solutions used on sample preparation or in analysis.
- ✓ Copy of the standard log for all prepared/diluted solutions of standards, IS and surrogates used in preparation, extraction or analysis of samples.

✓ = Items included in the data package
NA = Not applicable; items not included in the data package.

QA2225-1 Revision 2.0 (12/03/2012)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

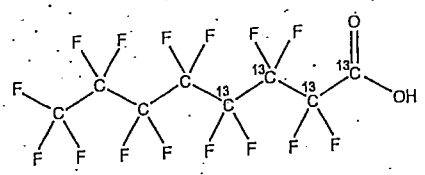
LOT NUMBER: MPFOA0113

PRODUCT CODE: MPFOA

COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]octanoic acid

CAS #: Not available

STRUCTURE:



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4HF_{15}O_2$

MOLECULAR WEIGHT: 418.04

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol, Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)

LAST TESTED: (mm/dd/yyyy) 01/10/2013

EXPIRY DATE: (mm/dd/yyyy) 01/10/2018

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of native perfluoro-n-octanoic acid (PFOA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 01/25/2013 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. They are designed to be used as reference standards for the identification and/or quantification of specific chemical compound(s).

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Material Safety Data Sheets (MSDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product, unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, x-ray crystallography and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS and/or LC/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

CALA Testing Accreditation A1226

ACLASS ACCREDITED REFERENCE MATERIAL PRODUCER

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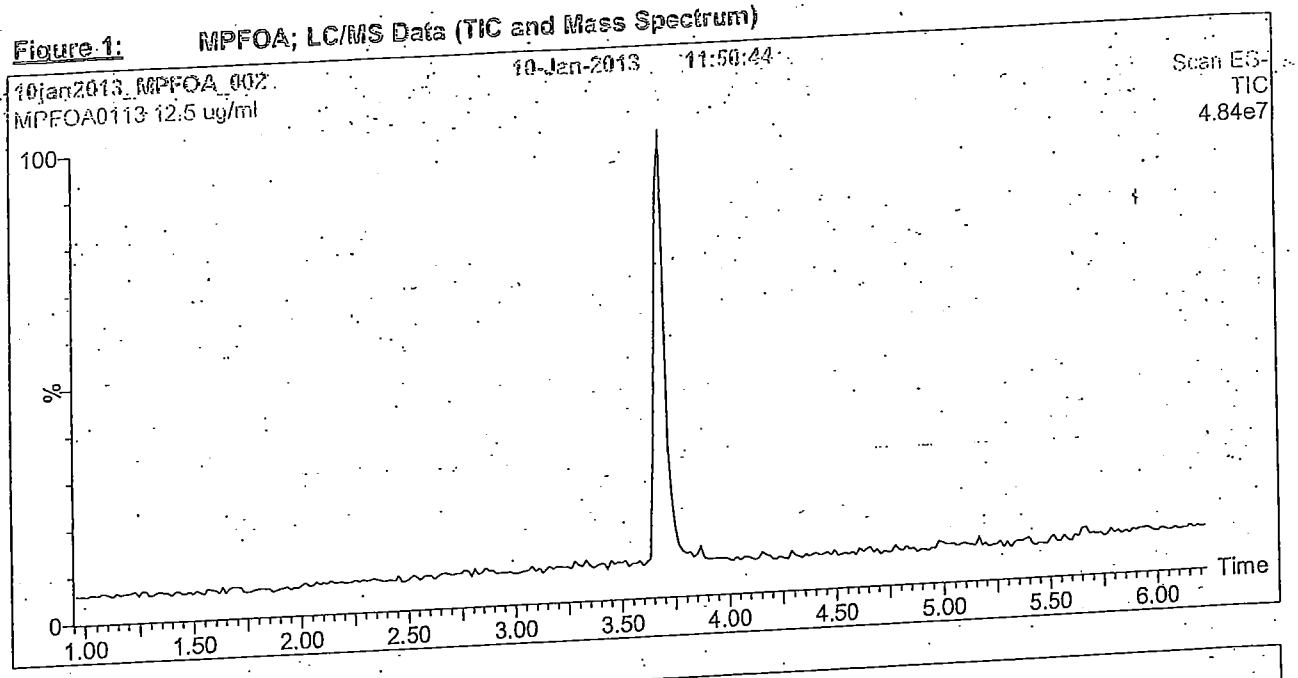
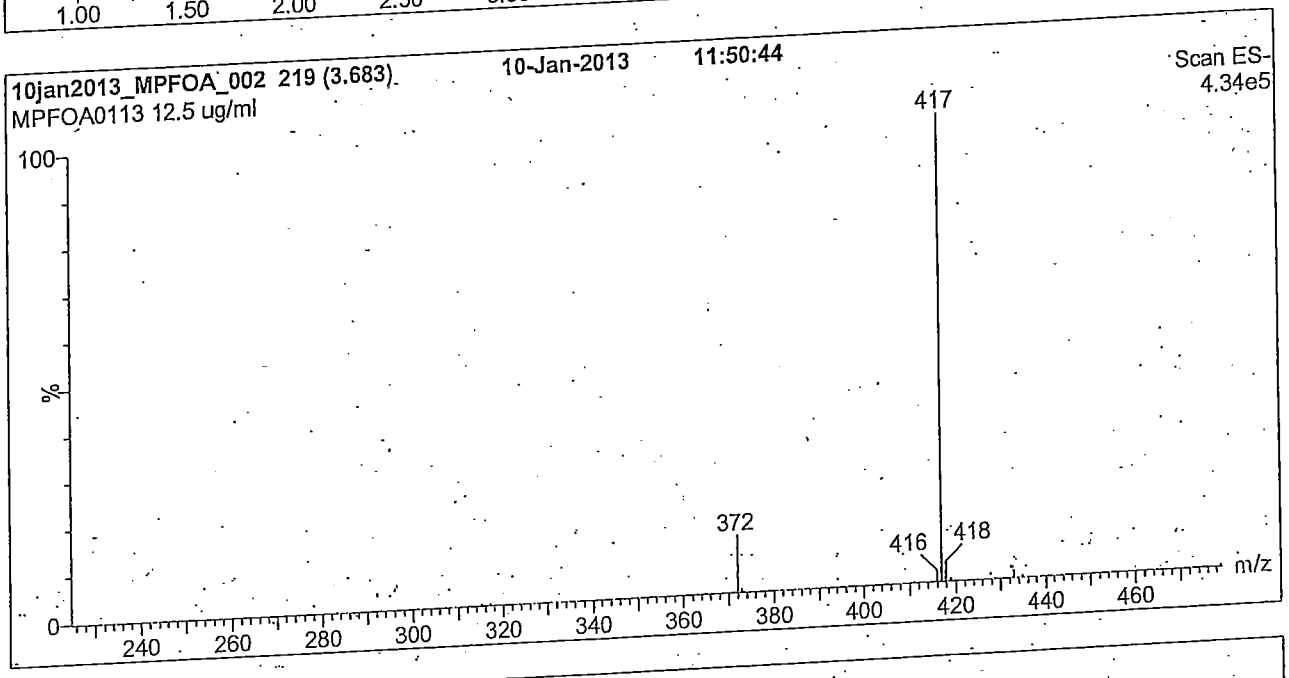
Figure 1: MPFOA; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

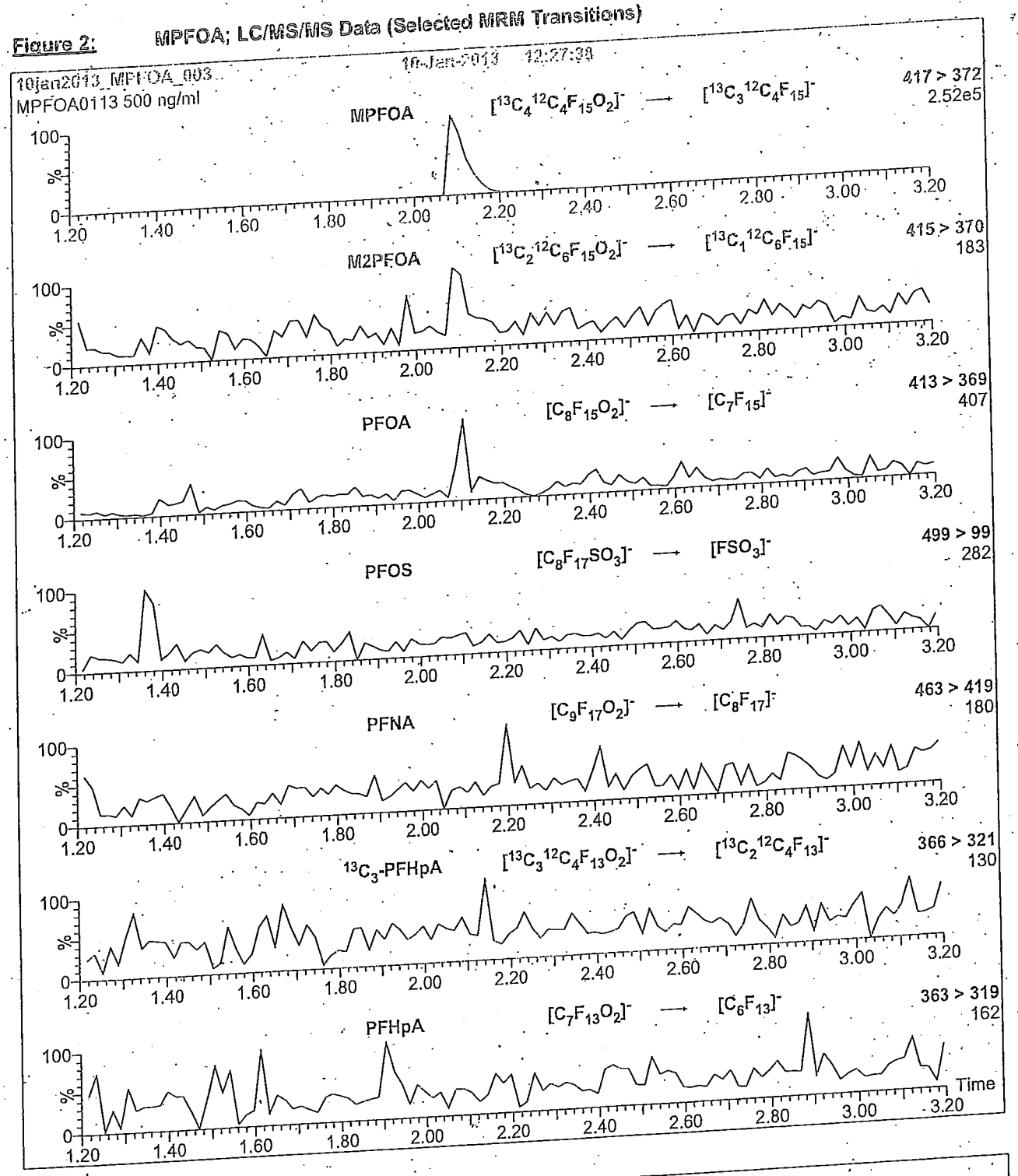
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: MPFOA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFOA)

Mobile phase: Isocratic 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

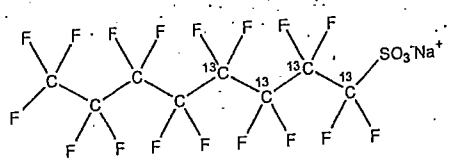
PRODUCT CODE: MPFOS

LOT NUMBER: MPFOS0913

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

CAS #: Not available

STRUCTURE:



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_4F_{17}SO_3Na$

MOLECULAR WEIGHT: 526.08

CONCENTRATION: 50.0 ± 2.5 µg/ml (Na salt)
47.8 ± 2.4 µg/ml (MPFOS anion)

SOLVENT(S): Methanol

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2,3,4-$^{13}C_4$)

LAST TESTED: (mm/dd/yyyy) 09/18/2013

EXPIRY DATE: (mm/dd/yyyy) 09/18/2018

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 10/02/2013 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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HAZARDS:

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CALA

ACLASS REFERENCE MATERIAL PRODUCER

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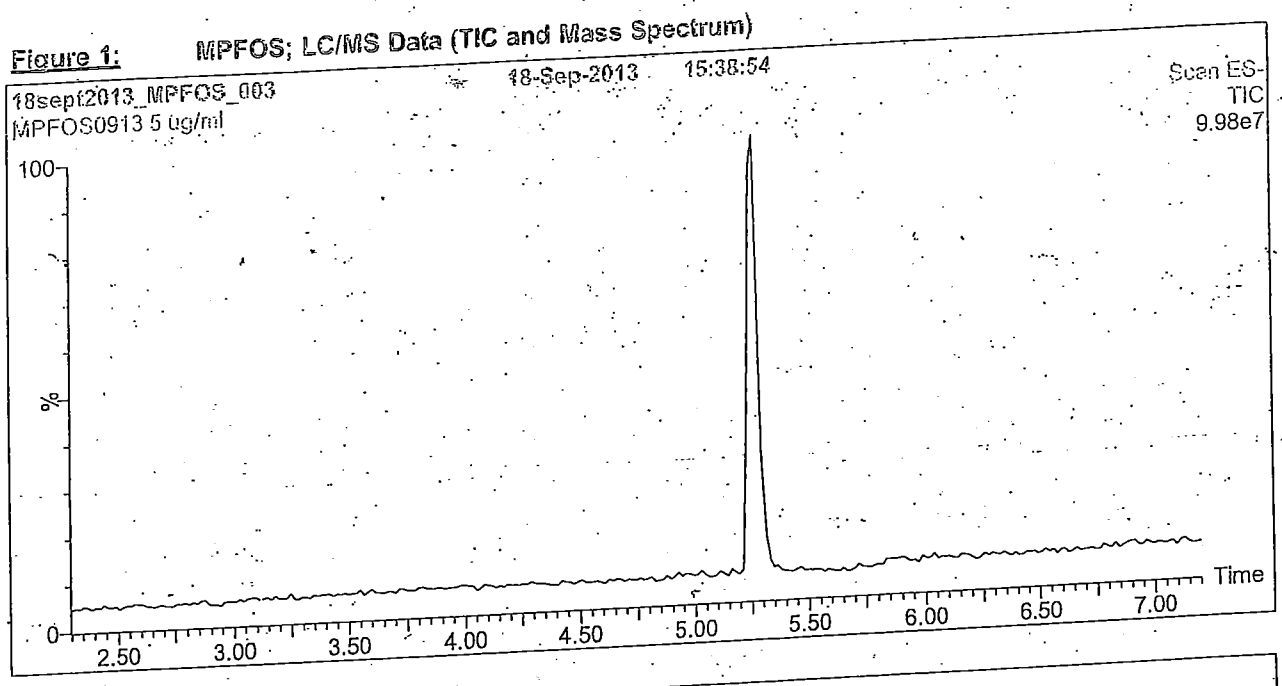
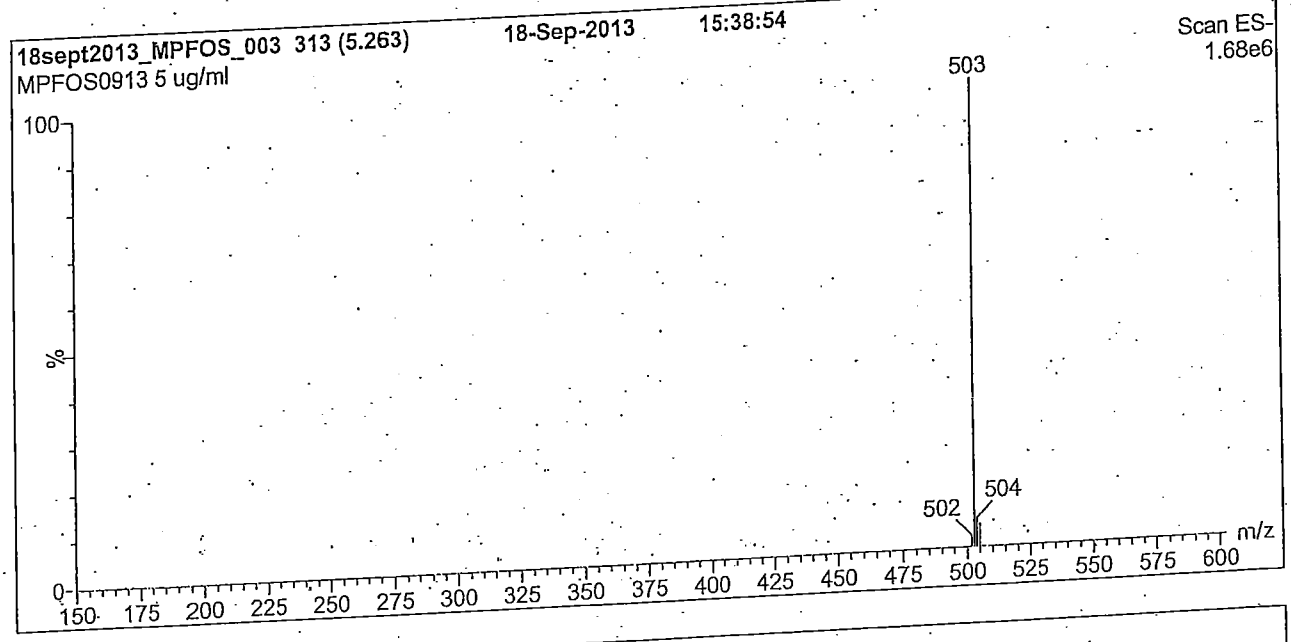
Figure 1: MPFOS; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1,7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

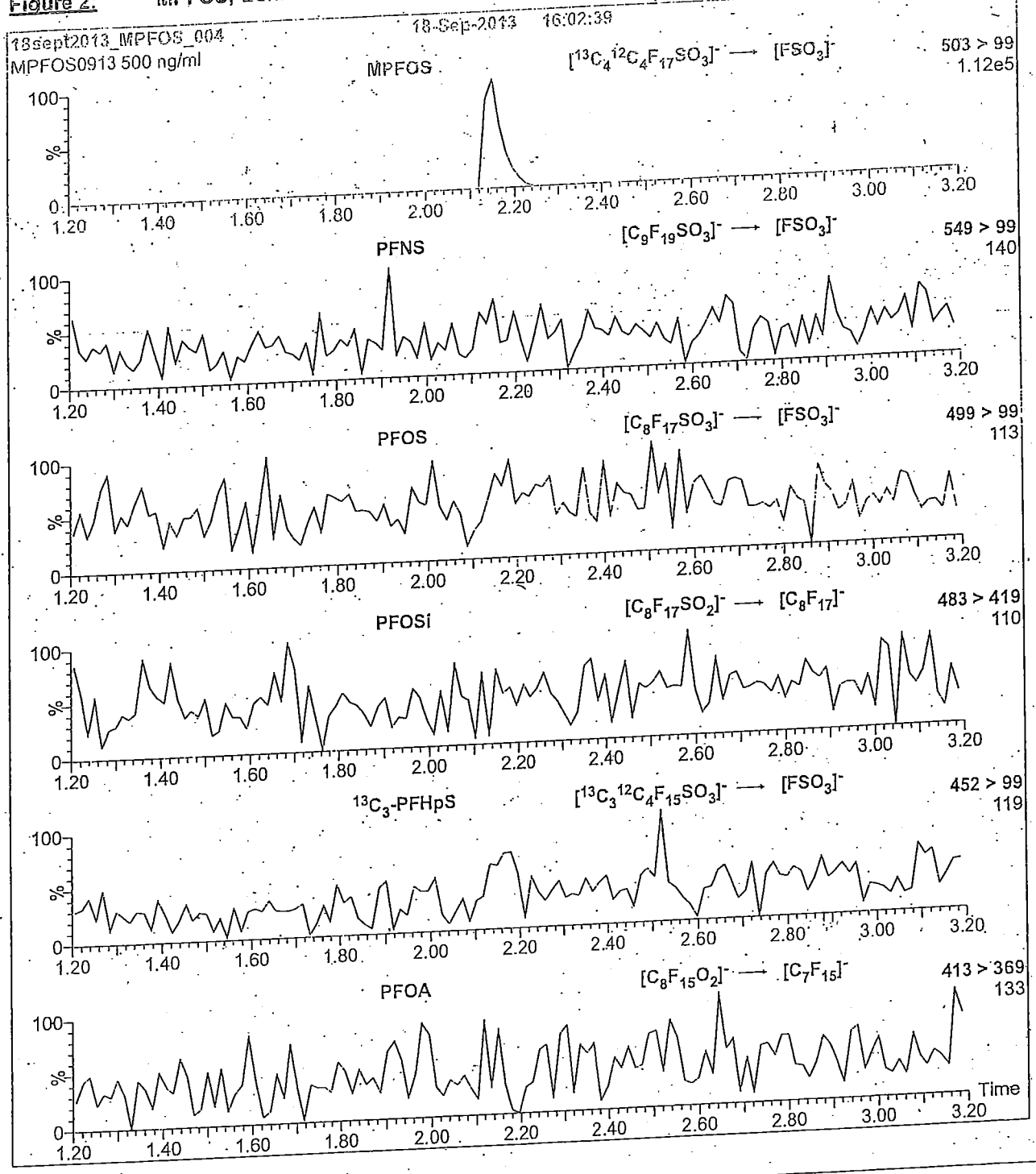
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 700

Figure 2: MPFOS; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 40

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

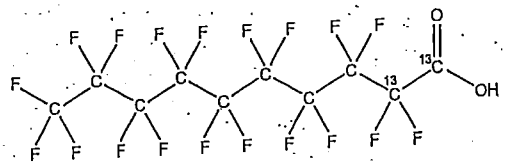
PRODUCT CODE: MPFDA

LOT NUMBER: MPFDA0912

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid

CAS #: Not available

STRUCTURE:



MOLECULAR FORMULA: $^{13}C_2\,^{12}C_8HF_{19}O_2$

MOLECULAR WEIGHT: 516.07

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol, Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

LAST TESTED: (mm/dd/yyyy) 09/13/2012

EXPIRY DATE: (mm/dd/yyyy) 09/13/2017

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of $^{13}C_1$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim

Date: 01/09/2013 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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CALA

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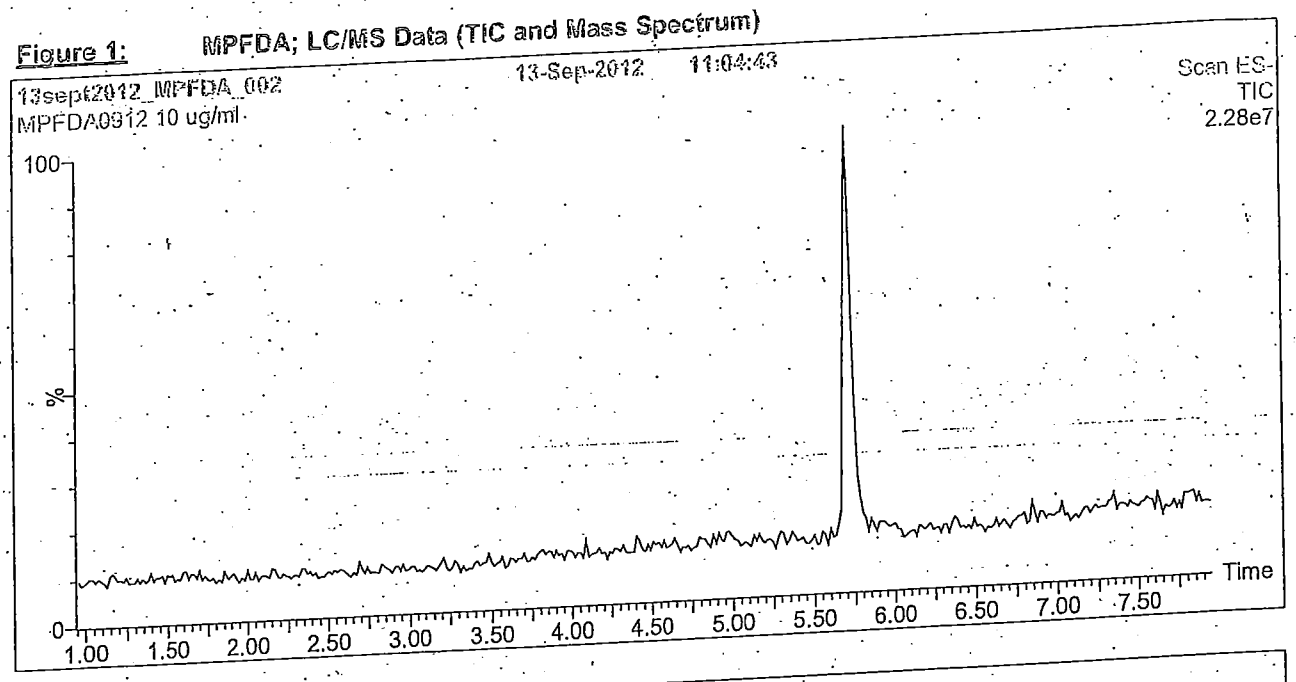
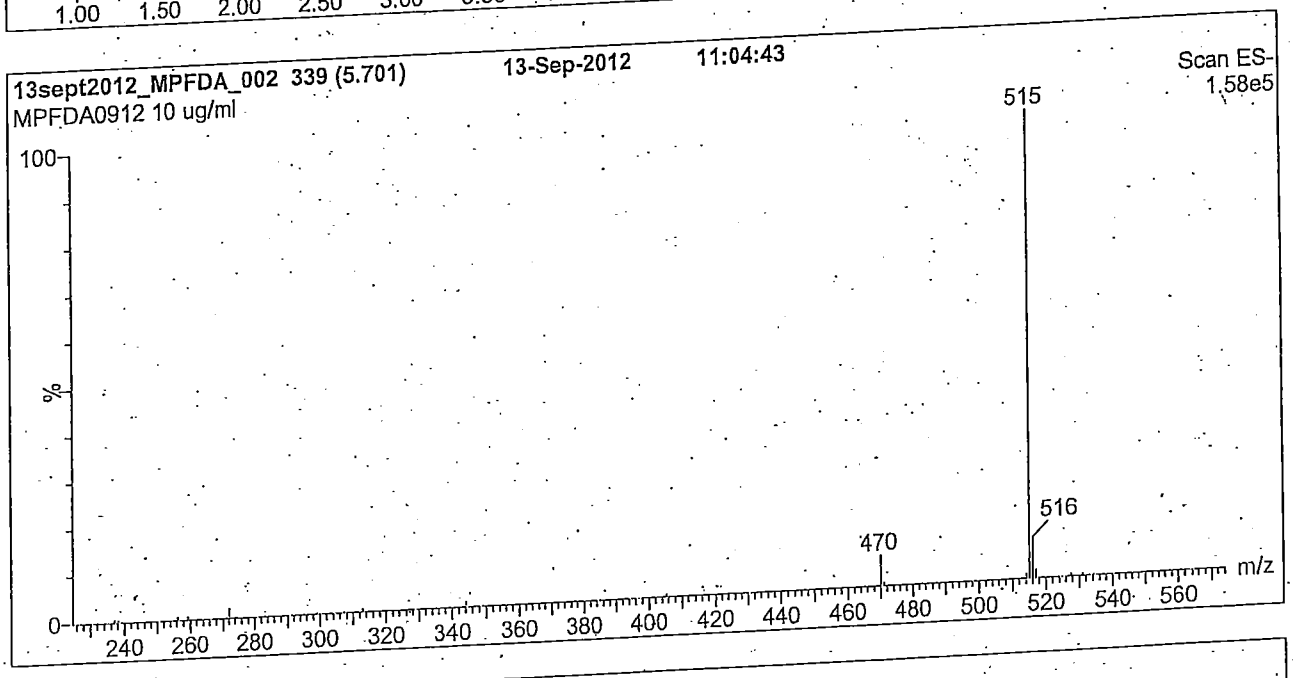
Figure 1: MPFDA; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

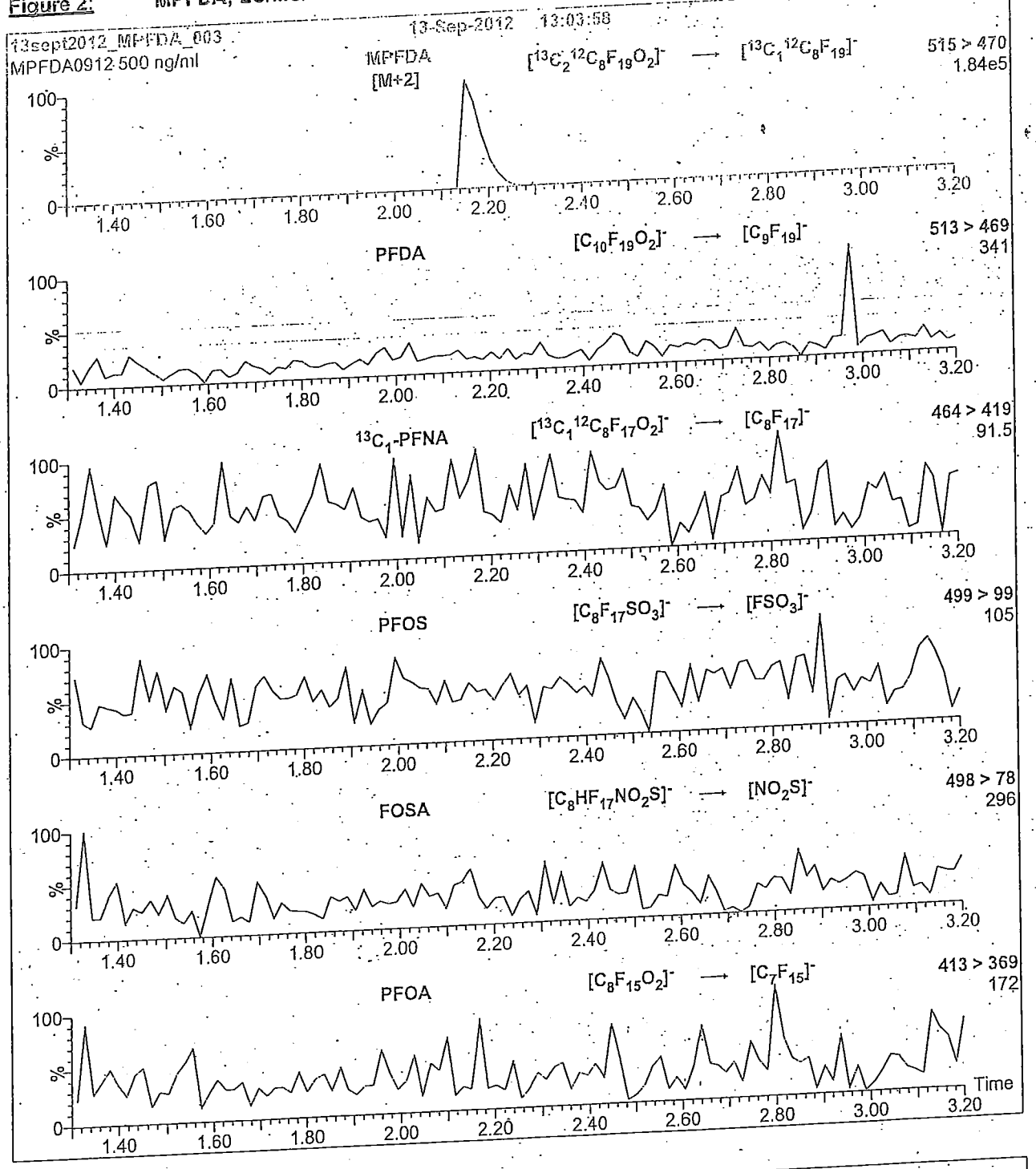
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: MPFDA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDA)

Mobile phase: Isocratic 80% (60:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 13

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

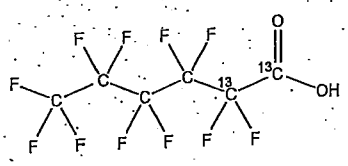
PRODUCT CODE: MPFHxA

LOT NUMBER: MPFHxA0612

COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid

CAS #: Not available

STRUCTURE:



MOLECULAR FORMULA: $^{13}C_2\,^{12}C_4HF_{11}O_2$

MOLECULAR WEIGHT: 316.04

CONCENTRATION: 50 ± 2.5 µg/ml

SOLVENT(S): Methanol, Water (<1%)

CHEMICAL PURITY: >98%

ISOTOPIC PURITY: ≥99% ^{13}C (1,2-$^{13}C_2$)

LAST TESTED: (mm/dd/yyyy) 06/19/2012

EXPIRY DATE: (mm/dd/yyyy) 06/19/2015

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim Date: 06/21/2012 (mm/dd/yyyy)

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519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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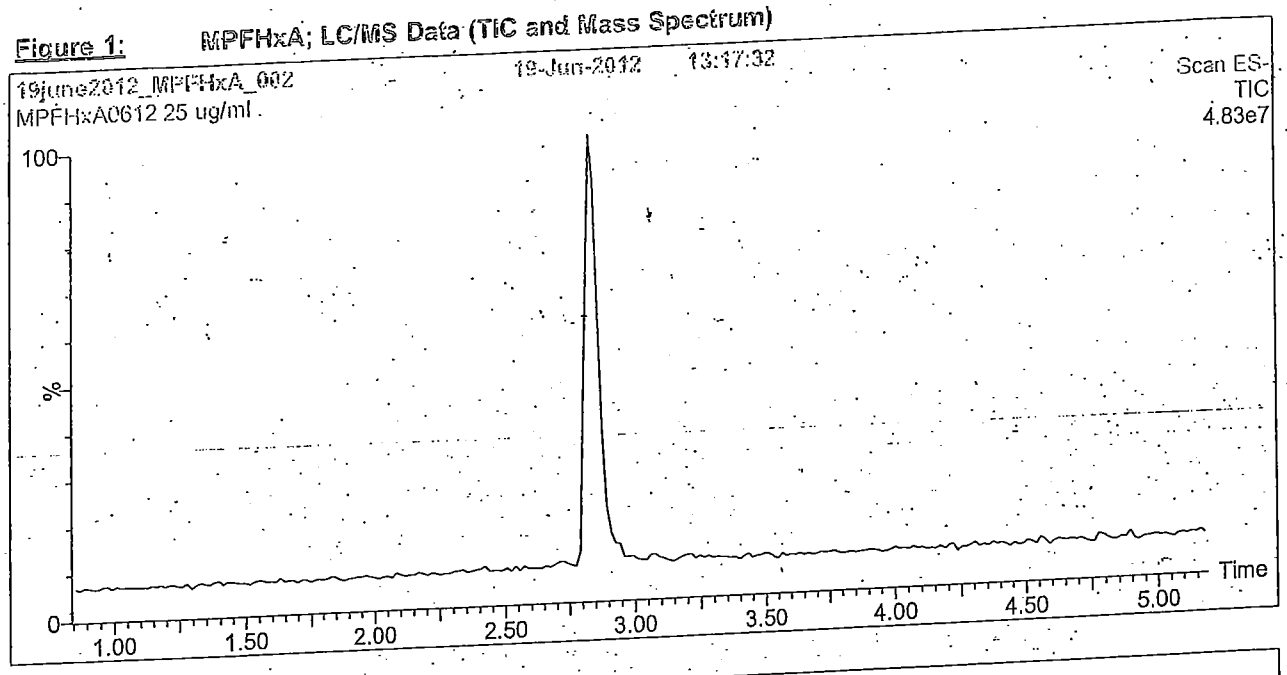

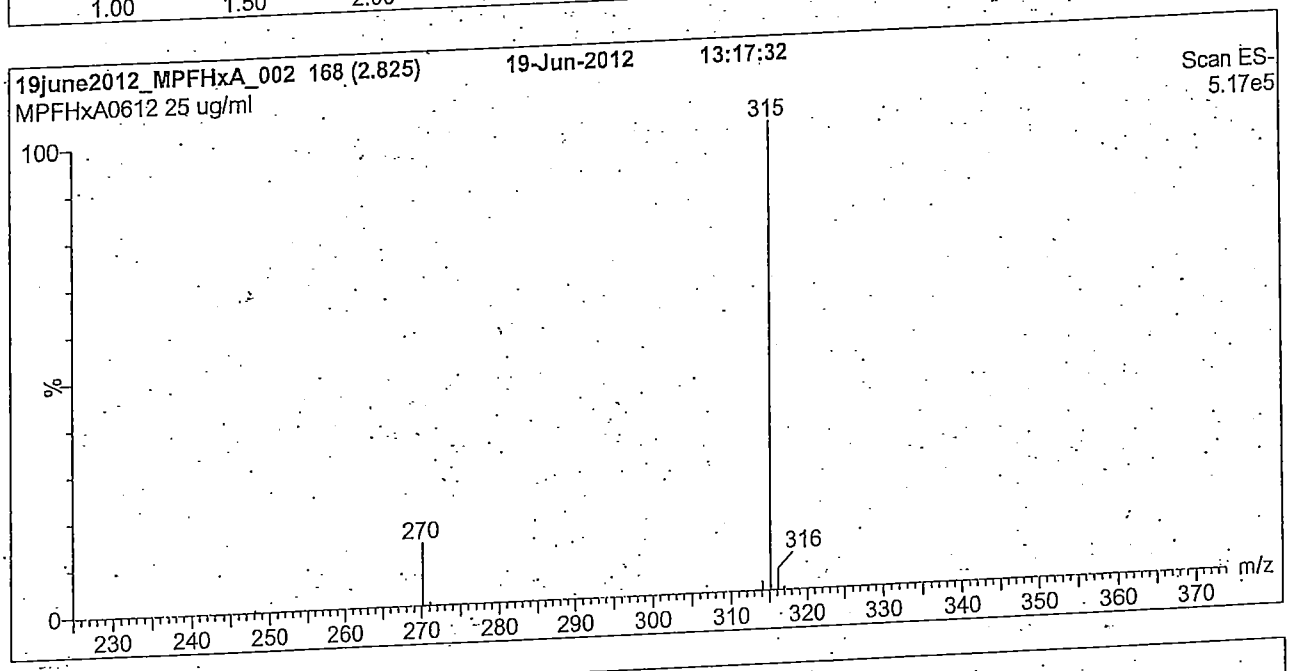

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1.7 µm, 2.1 x 100 mm

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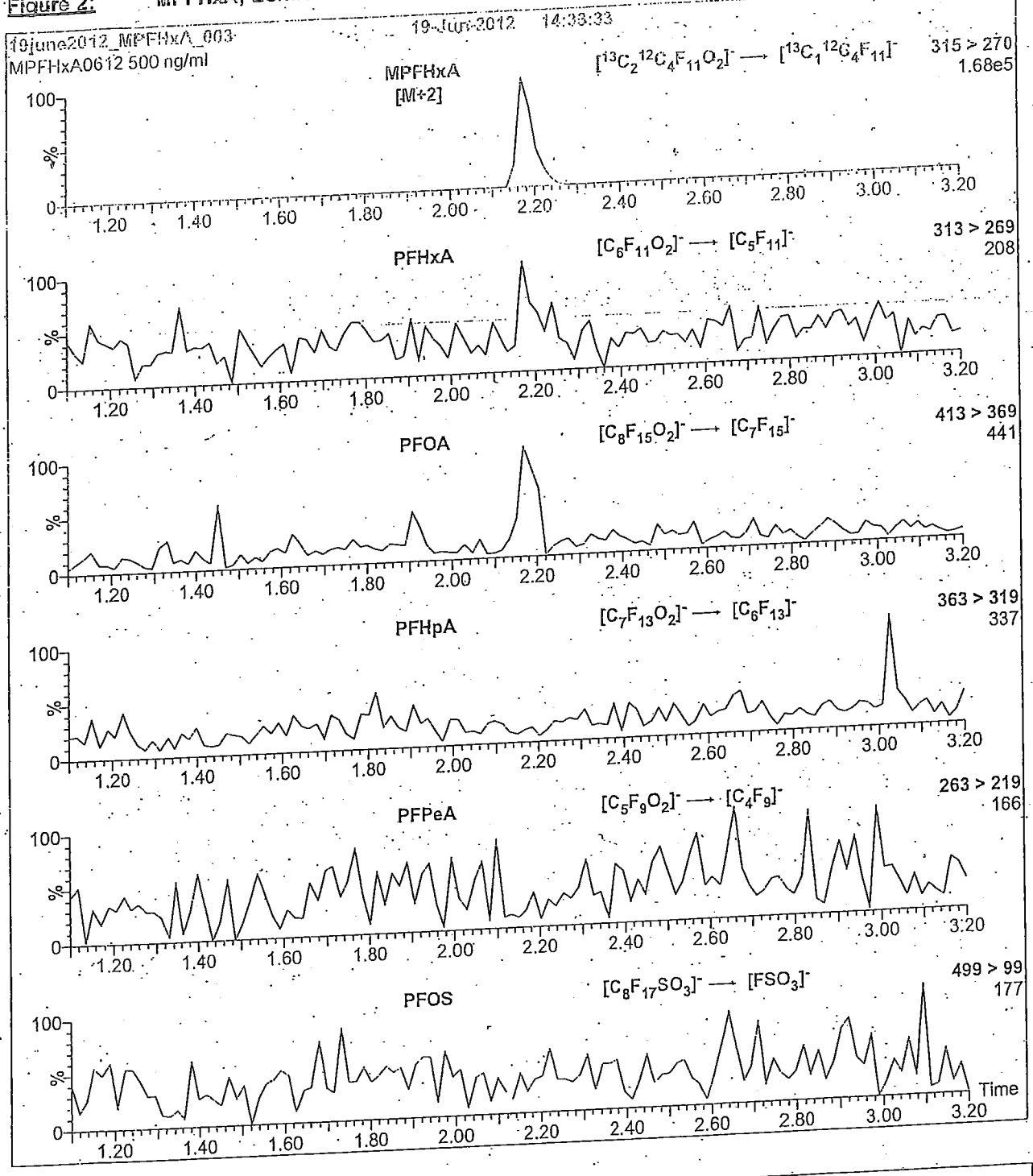
Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: MPFHxA; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFHxA)

Mobile phase: Isocratic 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 10

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PFAC-MXB

Solution/Mixture of Native Perfluoroalkylcarboxylic Acids and Native Perfluoroalkylsulfonates

PRODUCT CODE:	PFAC-MXB
LOT NUMBER:	PFACMXB0913
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	09/12/2013
LAST TESTED: (mm/dd/yyyy)	09/13/2013
EXPIRY DATE: (mm/dd/yyyy)	09/13/2018
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXB is a solution/mixture of thirteen native perfluoroalkylcarboxylic acids (C_4-C_{14}, C_{16}, and C_{18}) and four native perfluoroalkylsulfonates (C_4, C_6, C_8 and C_{10}). The full name, abbreviation and concentration for each of the components are given in Table A.

The individual perfluoroalkylcarboxylic acids and perfluoroalkylsulfonates all have chemical purities of >98%.

DOCUMENTATION/ DATA ATTACHED:

Table A: Components and Concentrations of the Solution/Mixture
Figure 1: LC/MS Data (SIR)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acids to their respective methyl esters.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. They are designed to be used as reference standards for the identification and/or quantification of specific chemical compound(s).

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Material Safety Data Sheets (MSDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product, unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, x-ray crystallography and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS and/or LC/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external, ISO/IEC 17025:2005 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration for the period of time specified by the expiry date in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to ISO 9001:2008 by SAI Global, ISO/IEC 17025:2005 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34:2009 by ACLASS (certificate number AR-1523).

CALA Testing Accreditation: A1226

ACLASS REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Table A: PFAC-MXB; Components and Concentrations (ng/ml, ± 5% in Methanol / Water (<1%))

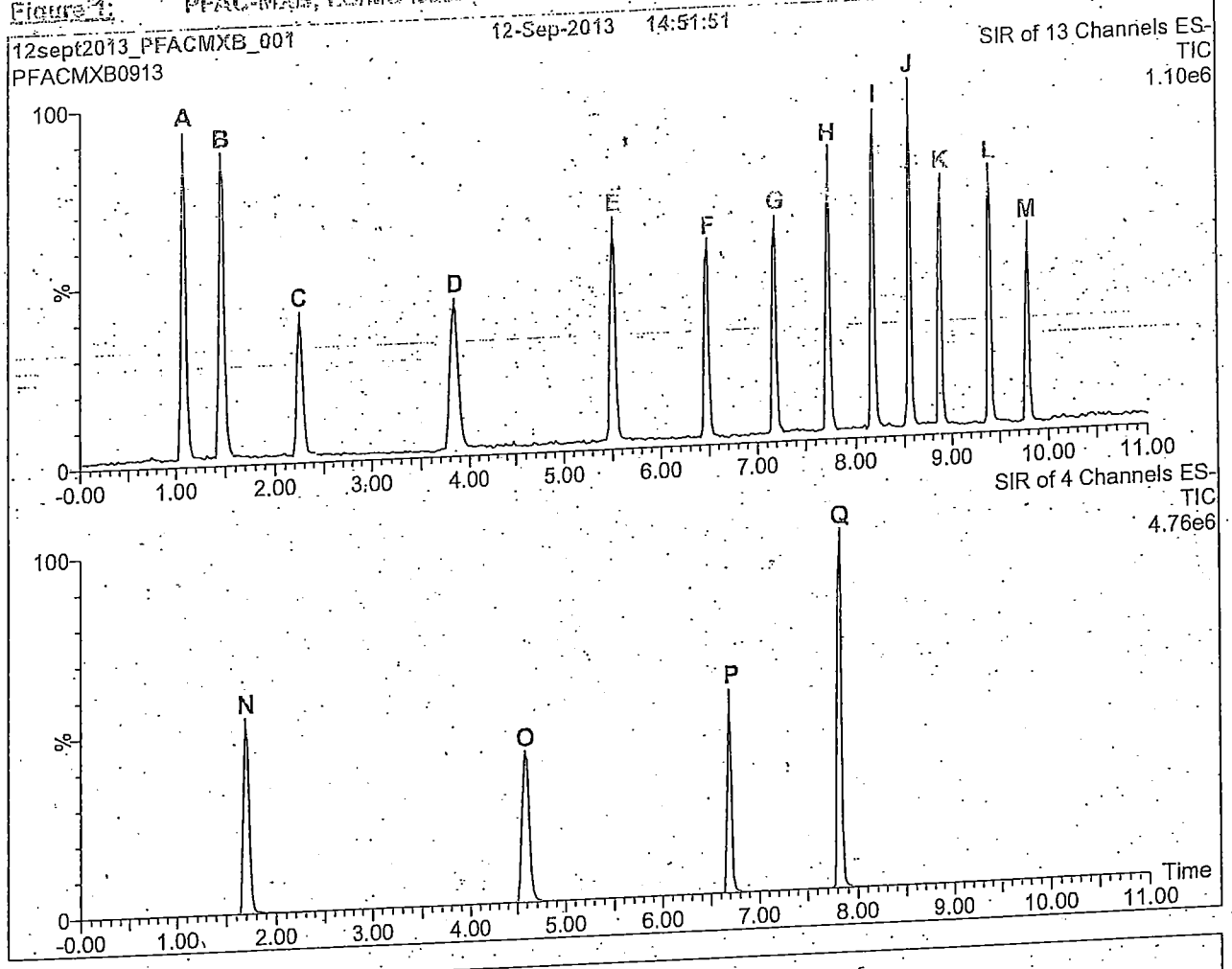
Name	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
Perfluoro-n-butanoic acid	PFBA	2000	A
Perfluoro-n-pentanoic acid	PFPeA	2000	B
Perfluoro-n-hexanoic acid	PFHxA	2000	C
Perfluoro-n-heptanoic acid	PFHpA	2000	D
Perfluoro-n-octanoic acid	PFOA	2000	E
Perfluoro-n-nonanoic acid	PFNA	2000	F
Perfluoro-n-decanoic acid	PFDA	2000	G
Perfluoro-n-undecanoic acid	PFUdA	2000	H
Perfluoro-n-dodecanoic acid	PFDoA	2000	I
Perfluoro-n-tridecanoic acid	PFTrDA	2000	J
Perfluoro-n-tetradecanoic acid	PFTeDA	2000	K
Perfluoro-n-hexadecanoic acid	PFHxDA	2000	L
Perfluoro-n-octadecanoic acid	PFODA	2000	M

Name	Abbreviation	Concentration (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the anion	
Potassium perfluoro-1-butanesulfonate	L-PFBS	2000	1770	N
Sodium perfluoro-1-hexanesulfonate	L-PFHxS	2000	1890	O
Sodium perfluoro-1-octanesulfonate	L-PFOS	2000	1910	P
Sodium perfluoro-1-decanesulfonate	L-PFDS	2000	1930	Q

Certified By: B.G. Chittim

Date: 09/24/2013 (mm/dd/yyyy)

Figure 1: PFAC-MXB; LC/MS Data (Total Ion Current Chromatogram; SIR)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% H_2O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 100% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.

Time: 15 min

Flow: 300 µl/min

MS Parameters

Experiment:
Function 1: SIR of 13 Channels
Function 2: SIR of 4 Channels

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (10-70)
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)

12sept2013_PFACMXB_002 12-Sep-2013 15:07:47
PFACMXB0913

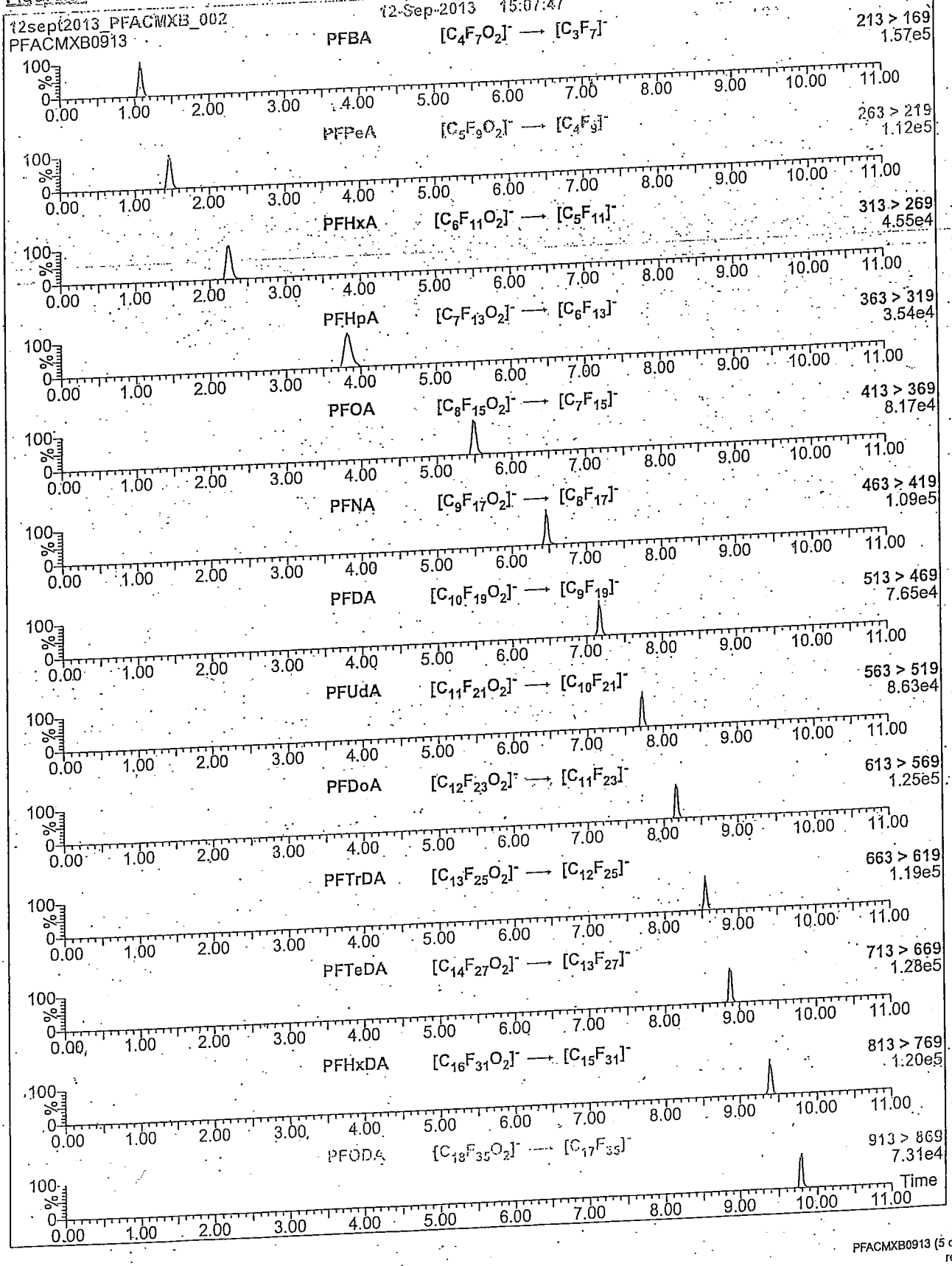
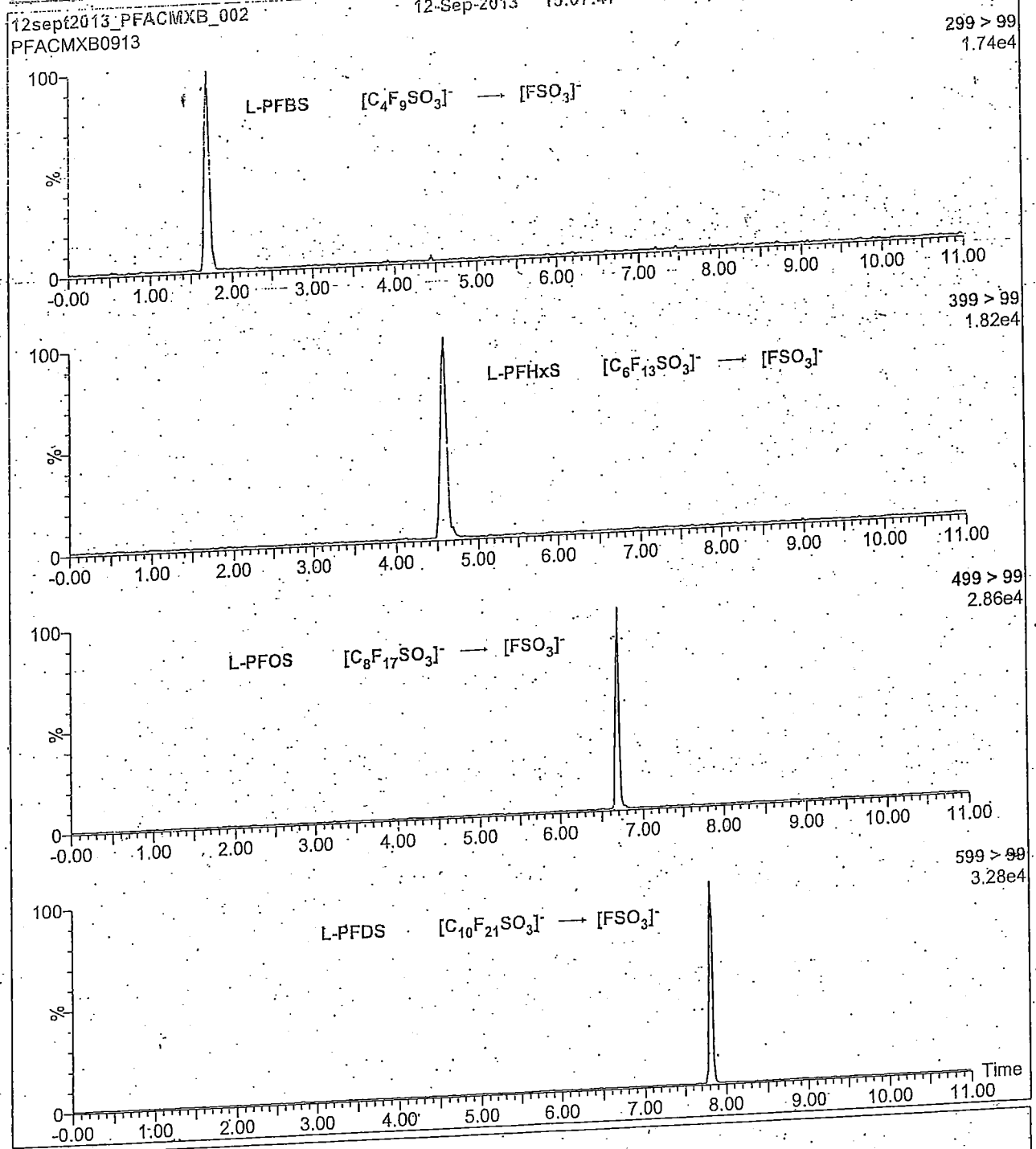


Figure 3: PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)

12sept2013_PFACMXB_002 12-Sep-2013 15:07:47

PFACMXB0913



Conditions for Figures 2 and 3:

Injection: on-column (PFAC-MXB)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters
Collision Gas (mbar) = 3.13e-3
Collision Energy (eV) = 9-50 (variable)

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PFAC-MXB

Solution/Mixture of Native Perfluoroalkylcarboxylic Acids and Native Perfluoroalkylsulfonates

PRODUCT CODE:	PFAC-MXB
LOT NUMBER:	PFACMXB0312
SOLVENT(S):	Methanol / Water (<1%)
DATE PREPARED: (mm/dd/yyyy)	03/07/2012
LAST TESTED: (mm/dd/yyyy)	03/08/2012
EXPIRY DATE: (mm/dd/yyyy)	03/08/2015
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

PFAC-MXB is a solution/mixture of thirteen native perfluoroalkylcarboxylic acids (C_4-C_{14}, C_{16}, and C_{18}) and four native perfluoroalkylsulfonates (C_4, C_6, C_8 and C_{10}). The full name, abbreviation and concentration for each of the components are given in Table A.

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Figure 3: LC/MS/MS data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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where x is expressed as a relative standard uncertainty of the individual parameter.

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Name	Abbreviation	Concentration (ng/ml)	Peak Assignment in Figure 1
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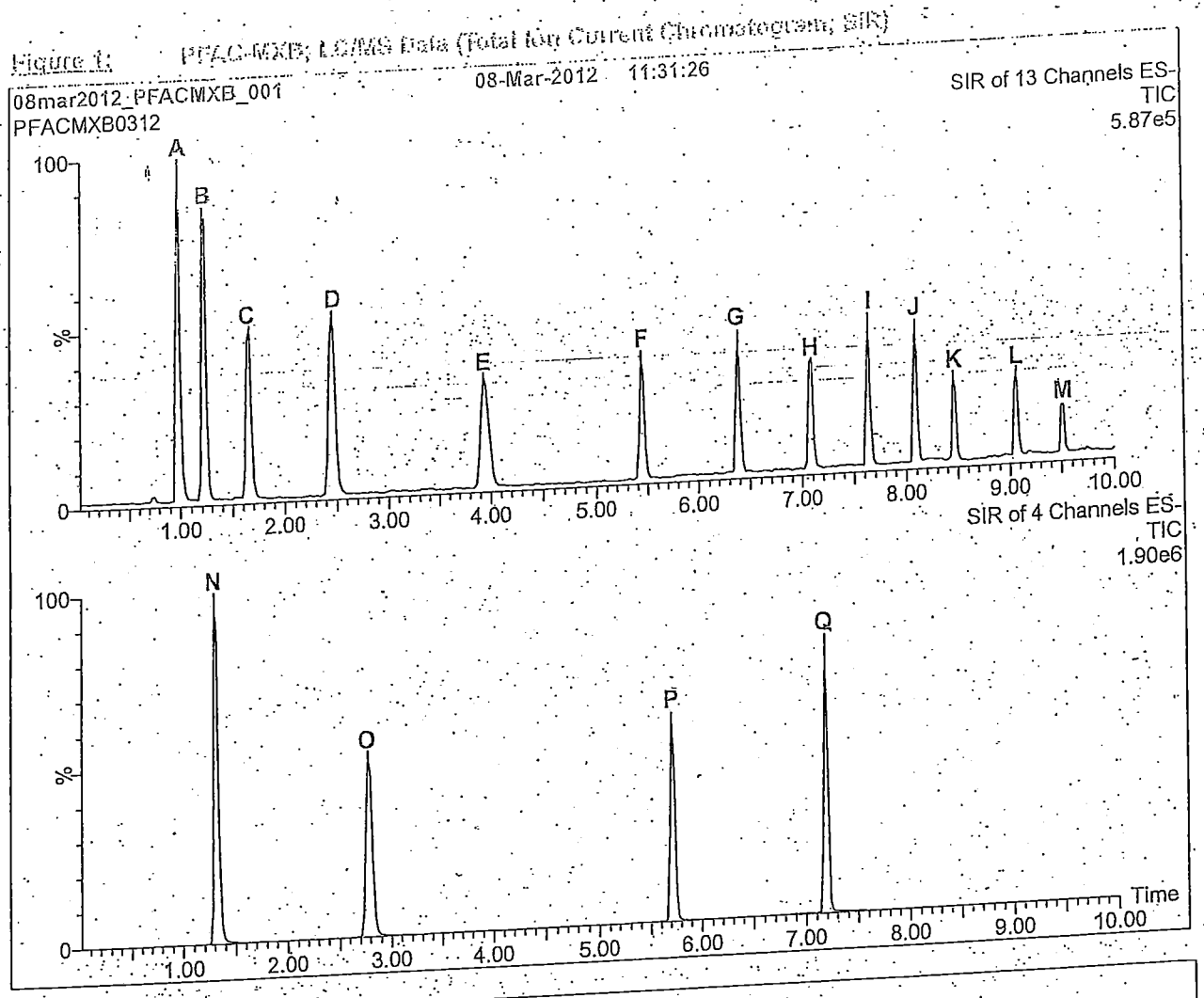
Perfluoro-n-pentanoic acid	PFPeA	2000	B
Perfluoro-n-hexanoic acid	PFHxA	2000	C
Perfluoro-n-heptanoic acid	PFHpA	2000	D
Perfluoro-n-octanoic acid	PFOA	2000	E
Perfluoro-n-nonanoic acid	PFNA	2000	F
Perfluoro-n-decanoic acid	PFDA	2000	G
Perfluoro-n-undecanoic acid	PFUdA	2000	H
Perfluoro-n-dodecanoic acid	PFDoA	2000	I
Perfluoro-n-tridecanoic acid	PFTrDA	2000	J
Perfluoro-n-tetradecanoic acid	PFTeDA	2000	K
Perfluoro-n-hexadecanoic acid	PFHxDA	2000	L
Perfluoro-n-octadecanoic acid	PFODA	2000	M

Name	Abbreviation	Concentration (ng/ml)		Peak Assignment in Figure 1
		as the salt	as the anion	
Potassium perfluoro-1-butanesulfonate	L-PFBS	2000	1770	N
Sodium perfluoro-1-hexanesulfonate	L-PFHxS	2000	1890	O
Sodium perfluoro-1-octanesulfonate	L-PFOS	2000	1910	P
Sodium perfluoro-1-decanesulfonate	L-PFDS	2000	1930	Q

Certified By: B.G. Chittim Date: 03/19/2012 (mm/dd/yyyy)

Figure 1: PFAC-MXB; LC/MS Data (Total Ion Current Chromatogram; SIR)



Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% H_2O / 50% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Hold for 3 min; ramp to 100% organic over 7 min,
hold for 2 min, then return to initial conditions in 0.5 min.

Time: 15 min

Flow: 300 µl/min

MS Parameters

Experiment:
Function 1: SIR of 13 Channels
Function 2: SIR of 4 Channels

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = variable (10-70)
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)

08mar2012_PFACMXB_004 08-Mar-2012 12:19:20

PFACMXB0312

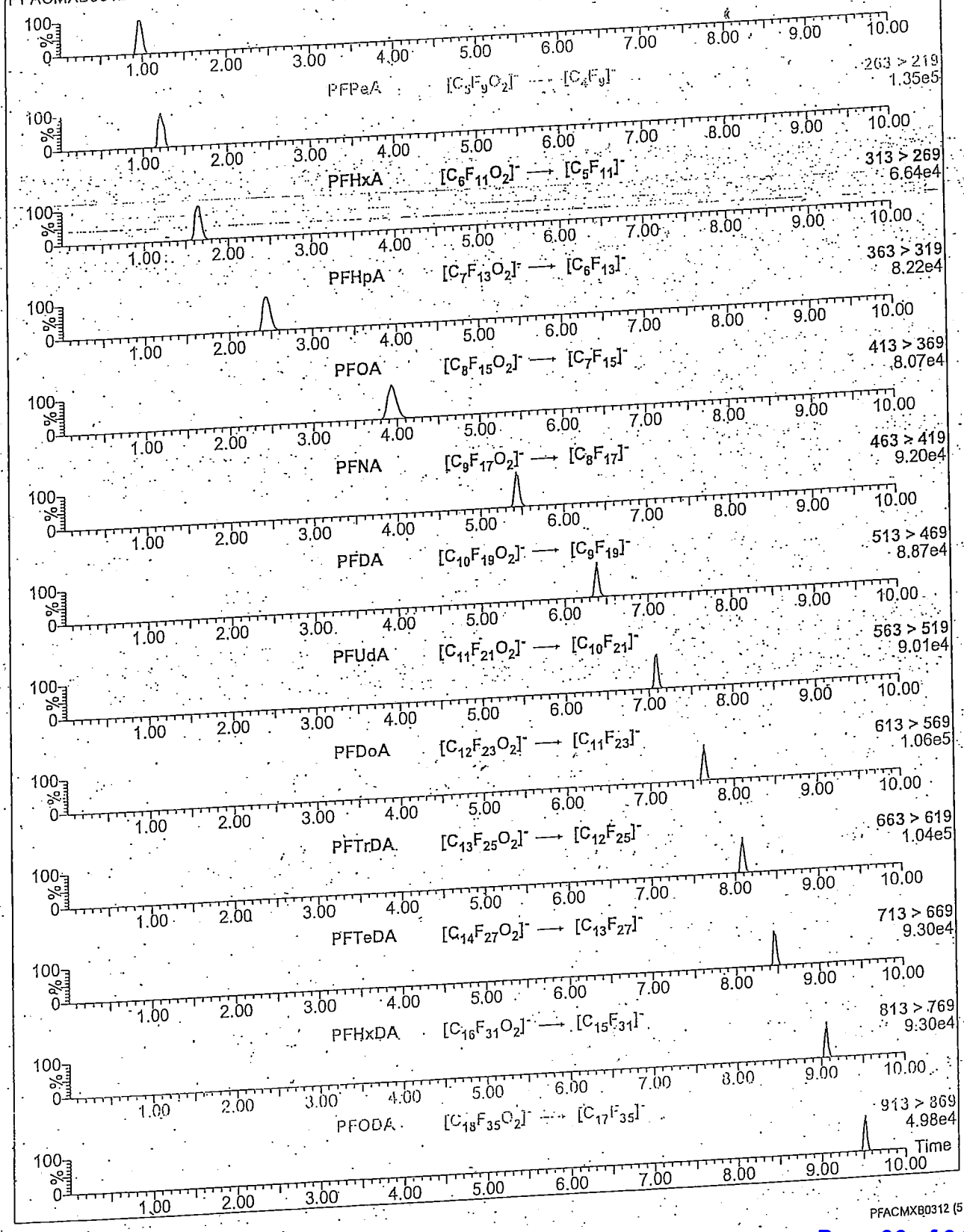
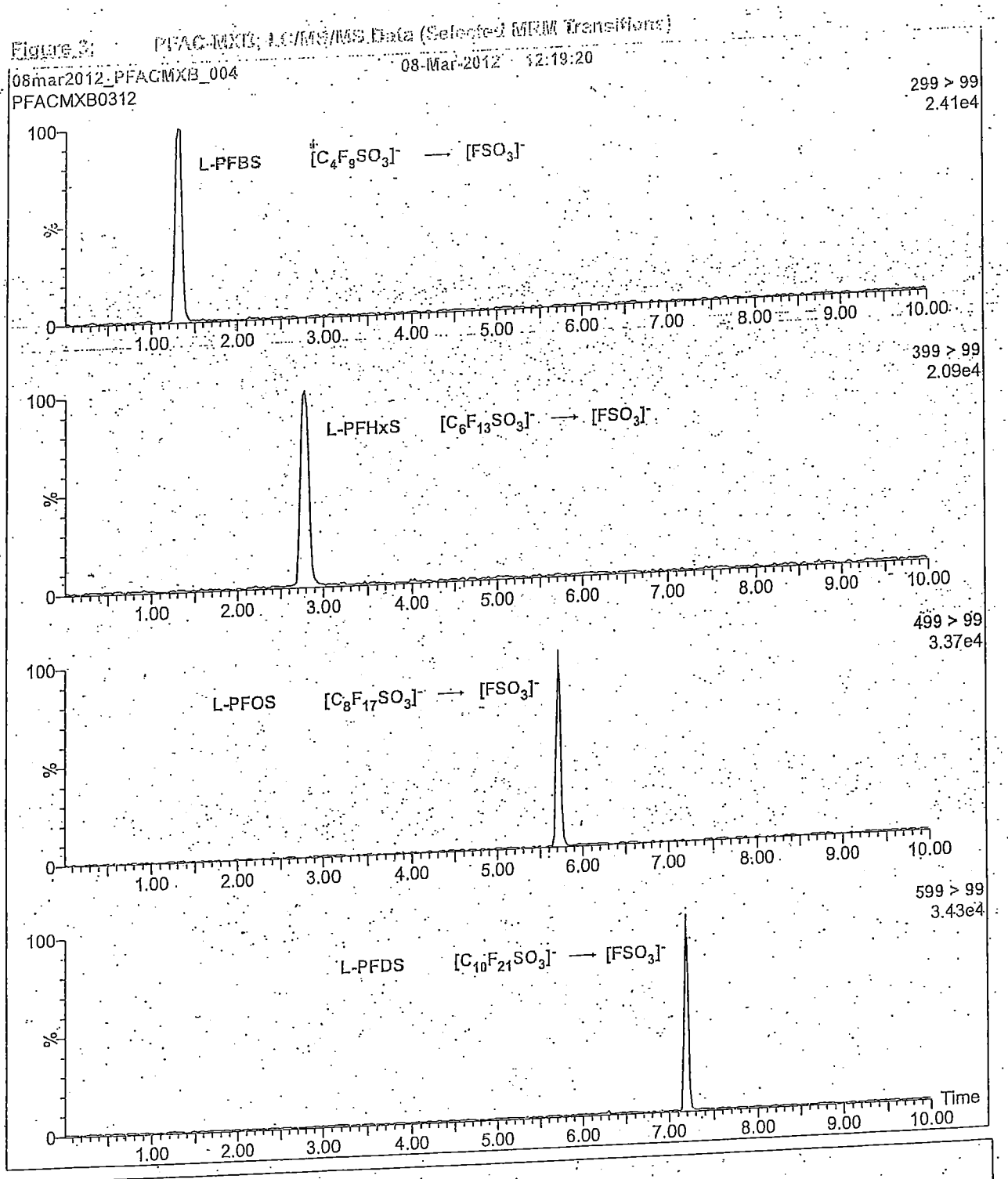


Figure 3: PFAC-MXB; LC/MS/MS Data (Selected MRM Transitions)



Conditions for Figures 2 and 3:

Injection: on-column (PFAC-MXB)

Mobile phase: Same as Figure 1

Flow: 300 µl/min

MS Parameters
Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 9-50 (variable)

12/9/13 zz

@ UCMR3-539 : QCS standard. Exp. 12/23/13

UCMR3-539-2nd source-PDS-120913-zz Exp. 3/9/14 : 40 mL

UCMR3-539-2S-PDS-120913-zz Exp. 2/20/14 : 10 mL

UCMR3-539-Surr-PDS-120913-zz Exp. 2/20/14 : 10 mL

MeOH/HPLC-H2O (50:50) mix. solvent prep. @ 12/9/13 by zz : 940 mL.

12/13/13 zz

@ UCMR3-537 : MeOH/HPLC-H2O (96:4) mixture solvent.

MeOH : MeOH-111113-02 : 240 mL

HPLC-H2O : H2O-120913-02 : 10 mL.

mix well.

12/16/13 zz

@ UCMR3-537 : Calibration standards. Exp. 12/30/13

STD NO	UCMR3-537-Analytes-PDS-103013-zz Exp. 4/30/14 (µL)	UCMR3-537-2S-PDS-120213 ~~(103013)~~-zz Exp. 2/2/14 ~~12/30/13~~ zz 12/17/13 (mL)	UCMR3-537-Surr-PDS-120213-zz Exp. 6/2/14. (mL)	Vol. of MeOH/HPLC-H2O (96:4) Prep. 12/13/13 by zz (mL)
ZCAL-0	0	10	10	980
ZCAL-1	10	10	10	970
ZCAL-2	20	10	10	960
ZCAL-3	40	10	10	940
ZCAL-4	60	10	10	920
ZCAL-5	80	10	10	900
ZCAL-6	120	10	10	860

12/16/13 zz

@ UCMR3-537 : QCS standard. Exp 12/30/13

MeOH/HPLC-H2O (96:4) Prep. @ 12/13/13 by zz : 930 mL

UCMR3-537-2S-PDS-120213-zz Exp. 2/2/14 10 mL

UCMR3-537-Surr-PDS-120213-zz Exp. 6/2/14 10 mL

UCMR3-2nd Source-PDS-111713-zz Exp 5/17/14 50 mL

12/24/13
LHB

Acrylamide Calibration Standards

Concentration of Calibration Stds (ppb)	Acrylamide PDS Lot# Acrylamide PDS @1ppm-120513-LHB Exp. 06/05/14 (ul)	Acrylamide IS Lot# Acrylamide IS PDS @1ppm-120513-LHB Exp. 06/05/14 (ul)	Monronia Tap H2O (ul)
50 *	50	—	950
10 **	10	—	990
50	50	20	930
20	20	20	960
10	10	20	970
5	5	20	975
1	20 **	20	960
0.1	10 *	20	970

Lot# Acrylamide Cal 122413-LHB Exp. 12/31/13

*, **: Prepared to use for making lower concentration standards. No IS added.

12/26/13
LHB
10:15 a.m

C537: 20 mM NH4OAc/H2O MP A1

Dissolve 0.7901 gms of ammonium acetate (Alfa Aesar, ID# NH4OAC-112213-02, opened 12/19/13 by LHB) to 500 mL of HPLC H2O (ID# H2O-120913-~~LHB~~ LHB 12/26/13, opened 12/23/13 by LHB), mix well.

Exp 12/28/13 10:15 a.m.
(48 hrs)

12/26/13
LHB

C537: Calibration standard

C537 Calibration Stds		C537 PDS Stds		CUCMR3-537 IS	CUCMR3-537 SURR	Volume of C96:4=Hexane:Acetone Mixture
Actual Concentration	Concentration for 250mL/L Extraction Volume	@25 ppb Lot#C537-PDS-STD@25ppb-120613-LHB Exp. 06/06/14	@250 ppb Lot#C537-PDS-STD@250ppb-120613-LHB Exp. 06/06/14	Lot#CUCMR3-537-IS-PDS-120213-EL Exp. 02/02/14	Lot#CUCMR3-537-Surr-PDS-120213-EL Exp. 06/02/14	Prep. 12/13/13 by EL
(ppb)	(ppb)	(ul)	(ul)	(ul)	(ul)	(ul)
0	0	—	—	10	10	980
0.0025	0.625	25	—	10	10	955
0.005	1.25	—	5	10	10	975
0.01	2.5	—	10	10	10	970
0.02	5	—	20	10	10	960
0.04	10	—	40	10	10	940
0.08	20	—	80	10	10	900

Lot# C537 Cal 122613-LHB, Exp. 01/09/14 2wks

12/26/13
LHB

C537: 2nd Source Standard (QCS) @0.02 ppb

C537 2nd Source Std		C537 2nd PDS	CUCMR3-537 IS	CUCMR3-537 SURR	Volume of C96:4=Hexane:Acetone Mixture
Actual Concentration	Concentration for 250mL/L Extraction Volume	Lot#C537-2ND-STD@100ppb-103113-LHB Exp. 04/30/14	Lot#CUCMR3-537-IS-PDS-120213-EL Exp. 02/02/14	Lot#CUCMR3-537-Surr-PDS-120213-EL Exp. 06/02/14	Prep. 12/13/13 by EL
(ppb)	(ppb)	(ul)	(ul)	(ul)	(ul)
0.02	5	50	10	10	930

Lot# C537 2nd Source QCS-122613-LHB, Exp. 01/09/14 2wks

12/2/13 @UCMR3-537-ZS-PDS-120213-ZL
ZL
200 uL of MPFOA 0113 @ 50 ppm from Wellington Lab. Exp. 01/10/18
600 uL of MPFOS 0913 @ 50 ppm from Wellington Lab. Exp. 09/18/18.
diluted to 10mL in a class A vol. flask with
MeOH/HPLC-H2O (96:4) prep. by ZL @ 12/2/13 mix well
Exp. 2/2/14.

12/2/13 @UCMR3-537-Surr-PDS-120213-ZL
ZL
200 uL of MPFHxA 0612 @ 50ppm from Wellington Lab Exp 6/19/15
200 uL of MPFDA 0912 @ 50ppm from Wellington Lab Exp. 9/13/19.
diluted to 10mL in a class A vol. flask with
MeOH/HPLC-H2O (96:4) prep. by ZL @ 12/2/13 mix well
Exp 6/2/14

12/2/13 @UCMR3-537: Calibration Standards Exp: 12/16/13
ZL

STD NO.	UCMR3-537-Analyte-PDS-103013-ZL Exp. 4/30/14 (mL)	UCMR3-537-ZS-PDS-103013-ZL Exp. 12/30/13 (uL)	UCMR3-537-Surr-PDS-103013-ZL Exp. 4/30/13 (mL)	Vol. of MeOH/HPLC-H2O (96:4) Prep. @ 12/2/13 by ZL (uL)
ZCAL-0	0	10	10	980
ZCAL-1	10	10	10	970
ZCAL-2	20	10	10	960
ZCAL-3	40	10	10	940
ZCAL-4	60	10	10	920
ZCAL-5	80	10	10	900
ZCAL-6	120	10	10	880

12/2/13 @UCMR3-537: QCS Standard Exp: 12/16/13
ZL
MeOH/HPLC-H2O (96:4) prep. @ 12/2/12 by ZL 920 uL
UCMR3-537-ZS-PDS-103013-ZL Exp. 12/30/13 10 uL
UCMR3-537-Surr-PDS-103013-ZL Exp. 4/30/13 10 uL
UCMR3-2nd source-PDS-111713-ZL Exp. 5/17/14 50 uL.

10/31/13 LHZ

C537 : 2ND SOURCE PDS Std @ 100 ppb

10/31/13 LHZ

Take 250 ul of PFAC-MXB (Wellington, P/N: PFAC-MXB, Lot# PFAC-MXB0913, 2.0 mg/mL in MeOH, ID# C537-PFAC-MXB-131022-0 Exp. 04/13/2018) to a 5 ml volumetric flask, bring to volume with MeOH:H2O / 96:4 mixture (Prep. 10/30/13 by EL), mix well.

Rev. by Date 11/5-13

Lot# ~~C537 2nd Source @ 100ppb-103113 LHZ~~, ~~Exp. 04/30/13~~ 6 months

10/31/13 LHZ

C537 : Calibration Standards

C537 Calibration Stds		C537 PDS Stds		C537 IS	C537 SURR	Volume of 96:4 MeOH:H2O Mixture Prep. by EL @ 10/30/13 (ul)
Actual Concentration (ppb)	Concentration for 350 ml/L Extraction (ppb)	@ 25 ppb Lot# EPA537-STD @ 25 ppb ~~0603B~~ Exp. 12/05/13 (ul)	@ 250 ppb Lot# EPA537-STD @ 250 ppb ~~0603B~~ Exp. 12/05/13 (ul)	Lot# C537-IS-PDS-100213-EL Exp. 12/02/13 (ul)	Lot# C537-SURR-PDS-100213-EL Exp. 04/02/14 (ul)	
0	0	—	—	10	10	980
0.0025	0.625	25	—	10	10	955
0.005	1.25	—	5	10	10	975
0.01	2.5	—	10	10	10	970
0.02	5	—	20	10	10	960
0.04	10	—	40	10	10	940
0.08	20	—	80	10	10	900

Lot# C537Cal103113-LHZ, Exp. 11/14/13 2 wks.

Rev. by Date 11/5-13

11/01/13 LHZ 3:20

11/02 LH

12/05/13 HB

0.1% Formic Acid MPA1 (@ACRYLAM / @532-LCMS)

Take 1 ml of formic acid (EMD, Suprapur, 98-100%, P/N: 11670-1, Lot# 623570) to 1 liter of HPLC H_2O (ID# H_2O-112513-03), mix well.

Exp. 01/05/14

12/05/13 HB

Acrylamide and Source PDS (OCS) @ 10 ppb

Concentration of OCS (ppb)	Acrylamide 2nd PDS Lot# Acrylamide 2nd Source PDS @ 1 ppm - 010313-HB Exp. 01/03/14 (ml)	Acrylamide IS Lot# Acrylamide IS PDS @ 1 ppm - 120513-HB Exp. 06/05/14 (ml)	Mobile Phase Top H_2O (ml)
10	10	20	970

Lot# Acrylamide OCS-120513-HB. Exp. 12/12/13

12/06/13 HB

@537 : Primary Dilution Standard (PDS) @ 250 ppb

Take 625 ul (by microsyringe) of PFC stock standard (Wellington, P/N: PFAC-MXB, Lot# PFACMXB031Z, @ 2.0 ug/ml, Exp. 03/08/2015) to a 5 ml volumetric flask, diluted to volume with 96:4 (MeOH:H_2O) mixture (prep. by EL @ 11/27/13) mix well.

HB 12/06/13

Exp. 06/06/14 6 months.

Lot# @537-PDS-SD @ 250 ppb - 120613-HB

12/06/13
LHB

@537 : Primary Dilution Standard @ 25 ppb

Take 500 ul of @537 PDS std @ 250 ppb (Lot# @537 PDS STD @ 250 ppb - 120613 - LHB, Exp. 06/06/14) to a 5 ml volumetric flask, diluted to volume with 96:4 (MeOH: H2O) mixture (prep. by EL @ 11/27/13) mix well.

~~Lot# @537 - PDS STD @ 25 ppb - 120613 - LHB~~ Exp. 06/06/14
6 months

12/09/13
LHB

@537 : Calibration Standards

@537 Calibration STD		@537 PDS STDS		@UCMR3 537 IS	@UCMR3 537 SURR	Volume of
Actual Concentration	Concentration for 250 ml Extraction volume	@25 ppb Lot# @537-PDS-STD @25 ppb - 120613 - LHB Exp. 06/06/14	@250 ppb Lot# @537-PDS-STD @250 ppb - 120613 - LHB Exp. 06/06/14	Lot# @UCMR3 537-IS-PDS-120213-EL (D of ④) Exp. 02/02/14	SURR Lot# @UCMR3 537-SURR-PB-120213-EL (D of ④) Exp. 06/02/14	(96:4) MeOH:H2O Mixture Prep. 12/02/13 by EL
(ppb)	(ppb)	(ul)	(ul)	(ul)	(ul)	(ul)
0	0	—	—	10	10	980
0.0025	0.625	25	—	10	10	955
0.005	1.25	—	5	10	10	975
0.01	2.5	—	10	10	10	970
0.02	5	—	20	10	10	960
0.04	10	—	40	10	10	940
0.08	20	—	80	10	10	900

Lot# @537 Cal 120913 - LHB, Exp. 12/23/13 2wks

LHB
12/27/13

Operator: Lisa Zhao

Run Sequence For @537

Project: EPA537
Method Name: @537-122211-LHZ.qmf
Batch Name: @537-Batch#742660-122613.dab

	Sample Name	Sample Type	Sample Comment	Acquisition Date
1	Blank	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 6:41:03 PM
2	Cal-0.0025ppb	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 7:01:12 PM
3	Cal-0.005ppb	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 7:21:21 PM
4	Cal-0.01ppb	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 7:41:30 PM
5	Cal-0.02ppb	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 8:01:38 PM
6	Cal-0.04ppb	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 8:21:46 PM
7	Cal-0.08ppb	Standard	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 8:41:55 PM
8	CCCL_0.0025ppb	Quality Control	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/26/2013 9:02:05 PM
9	QCS_0.02ppb	Quality Control	lot#@5372ndSource(QCS)-122613-LHZ, Exp. 01/09/14	12/26/2013 9:22:13 PM
10	MBLK	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 9:42:22 PM
11	MRL_CHK	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 10:02:32 PM
12	LCS1	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 10:22:41 PM
13	LCS2	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 10:42:50 PM
14	201312260079MS	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 11:02:59 PM
15	201312260079MSD	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 11:23:09 PM
16	201312260079	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/26/2013 11:43:19 PM
17	201312140133A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 12:03:28 AM
18	201312140136A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 12:23:38 AM
19	201312140137A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 12:43:48 AM
20	201312140138A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 1:03:56 AM
21	201312140139A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 1:24:06 AM
22	201312140140A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 1:44:14 AM
23	201312140141A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 2:04:24 AM
24	201312140142A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 2:24:33 AM
25	201312140143A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 2:44:42 AM
26	CCCM	Quality Control	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/27/2013 3:04:51 AM
27	201312140144A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 3:25:01 AM
28	201312140145A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 3:45:10 AM
29	201312140146A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 4:05:20 AM
30	201312140147A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 4:25:30 AM
31	201312140148A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 4:45:40 AM
32	201312140149A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 5:05:49 AM
33	201312140150A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 5:25:58 AM
34	201312140151A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 5:46:08 AM
35	201312140152A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 6:06:18 AM
36	201312140153A	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 6:26:27 AM
37	CCCH	Quality Control	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/27/2013 6:46:37 AM

LHZ 12/27/13

Operator: Lisa Zhao

Run Sequence For @537

Project: EPA537
Method Name: @537-122211-LHZ.qmf
Batch Name: @537-Batch#742660-122613.dab

	Sample Name	Sample Type	Sample Comment	Acquisition Date
38	CCCL_0.0025ppb	Quality Control	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/27/2013 11:44:50 AM
39	201312260079MS_	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 12:10:02 PM
40	201312260079_Rei	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 12:30:10 PM
41	201312140133A_R	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 12:50:19 PM
42	201312140137A_R	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 1:10:29 PM
43	201312140140A_R	Quality Control	Prep. By FAM@12/17/13 Prep. Run#742660	12/27/2013 1:30:39 PM
44	CCCM	Quality Control	Lot#@537Cal-122613-LHZ, Exp.01/09/14	12/27/2013 1:50:48 PM

Sheet For Run # 742660

Referenced Methods:	**LCMS 537**				
Start Date:	12/24/2013	**Time:**	0600	**Init:**	FAM
Comp Date:	12/26/2013	**Time:**	1200	**Init:**	FAM
Reviewed:	12/26/2013			**Init:**	FAM

CCG 12/26/13

Matrix: Water

	Standard ID	Inj Vol	Units	Exp. Date
Surr Soln:	UCMR3537SURRPDS120213EL(3)	10	UL	04/02/2014
MRL Spk Soln:	@537STD@25PPB120613LHZ	25	UL	06/06/2014
	NA	NA	NA	NA
LCS Soln:	@537STD@250PPB120613LHZ	25	NA	06/06/2014
	NA	NA	NA	NA
MS Soln:	@537STD@250PPB120613LHZ	25	UL	06/06/2014
	NA	NA	NA	NA
Solutions:	UCMR3537ISPDS120213EL(3)	10	UL	02/02/2014
	MEOH:HPLC(96:4)121313EL	NA	NA	NA
	NA	NA	NA	NA
	NA	NA	NA	NA
	NA	NA	NA	NA

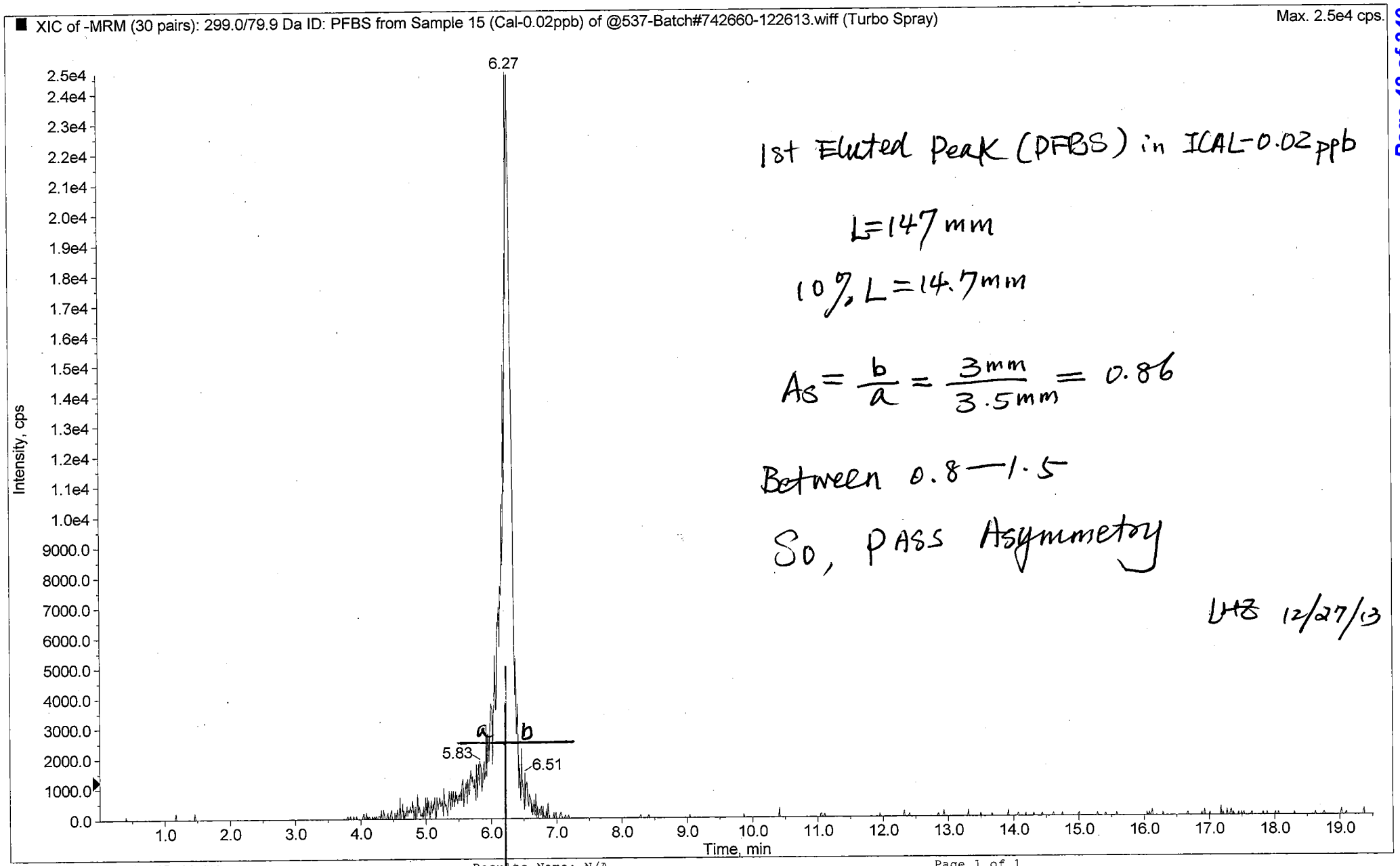
	ID	mfg/lot
Reagent H2O:	NANOPURE	LAB
Solvent:	MEOH	EMD/53130
	NA	NA
	NA	NA
Salt:	NA	NA
Syringe:	NA	NA
	NA	NA
	NA	NA
	NA	NA
Disk:	STRATA SDB-L	PHENOMENEX/S214-52
Preservatives:	TRIZMA 5G/L	SIGMA/011M5401V
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	NA	NA
	ZYMARK TURBOVAP LV	7

Room Temp: 22.6 **Water Bath/Heating Block Temp:** 55

	Folder #	Ordno	Client Code	Sample ID	Test	Vi (mL)	Vf (mL)	pH I	pH F	Cl-ppm
1	461445	201312140133A	INTEGRAL-OLYMP	GW0008	@537-INTEGRAL	250	1	7	7	<0.1
	Comment: dirty matrix						**Flags:**			
2	461445	201312140136A	INTEGRAL-OLYMP	GW0009	@537-INTEGRAL	250	1	7	7	<0.1
	Comment: dirty matrix						**Flags:**			
3	461445	201312140137A	INTEGRAL-OLYMP	GW0010	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
4	461445	201312140138A	INTEGRAL-OLYMP	GW0011	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
5	461445	201312140139A	INTEGRAL-OLYMP	GW0012	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
6	461445	201312140140A	INTEGRAL-OLYMP	GW0013	@537-INTEGRAL	250	1	7	7	<0.1
	Comment: dirty matrix						**Flags:**			
7	461445	201312140141A	INTEGRAL-OLYMP	GW0014	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
8	461445	201312140142A	INTEGRAL-OLYMP	GW0015	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
9	461445	201312140143A	INTEGRAL-OLYMP	GW0016	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
10	461445	201312140144A	INTEGRAL-OLYMP	GW0017	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
11	461445	201312140145A	INTEGRAL-OLYMP	GW0018	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
12	461445	201312140146A	INTEGRAL-OLYMP	GW0019	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
13	461445	201312140147A	INTEGRAL-OLYMP	GW0020	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
14	461445	201312140148A	INTEGRAL-OLYMP	GW0021	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
15	461445	201312140149A	INTEGRAL-OLYMP	GW0022	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
16	461445	201312140150A	INTEGRAL-OLYMP	GW0023	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
17	461445	201312140151A	INTEGRAL-OLYMP	GW0024	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
18	461445	201312140152A	INTEGRAL-OLYMP	GW0025	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
19	461445	201312140153A	INTEGRAL-OLYMP	GW0026	@537-INTEGRAL	250	1	7	7	<0.1
	Comment:						**Flags:**			
20	462677	201312260079	MIKE	Monrovia Water	@537	250	1	7	7	<0.1
	Comment:						**Flags:**			
21	Q111175	Q111175001		MS (201312260079)	Default	250	1	7	7	<0.1
	Comment:						**Flags:**			
22	Q111175	Q111175002		MSD (201312260079)	Default	250	1	7	7	<0.1
	Comment:						**Flags:**			
23	Q111175	Q111175003		LCS1	Default	250	1	7	7	<0.1
	Comment:						**Flags:**			
24	Q111175	Q111175004		LCS2	Default	250	1	7	7	<0.1
	Comment:						**Flags:**			
25	Q111175	Q111175005		MBLK	Default	250	1	7	7	<0.1
	Comment:						**Flags:**			
26	Q111175	Q111175006		MRL_CHK	Default	250	1	7	7	<0.1
	Comment:						**Flags:**			

Operator: Lisa Zhao

Project: EPA537
Method Name: N/A
Batch Name: @537-Batch#742660-122613.dab



1st Eluted Peak (PFBS) in ICAL-0.02ppb

L=147 mm

10% L=14.7mm

$As = \frac{b}{a} = \frac{3mm}{3.5mm} = 0.86$

Between 0.8—1.5

So, PASS Asymmetry

LHZ 12/27/13

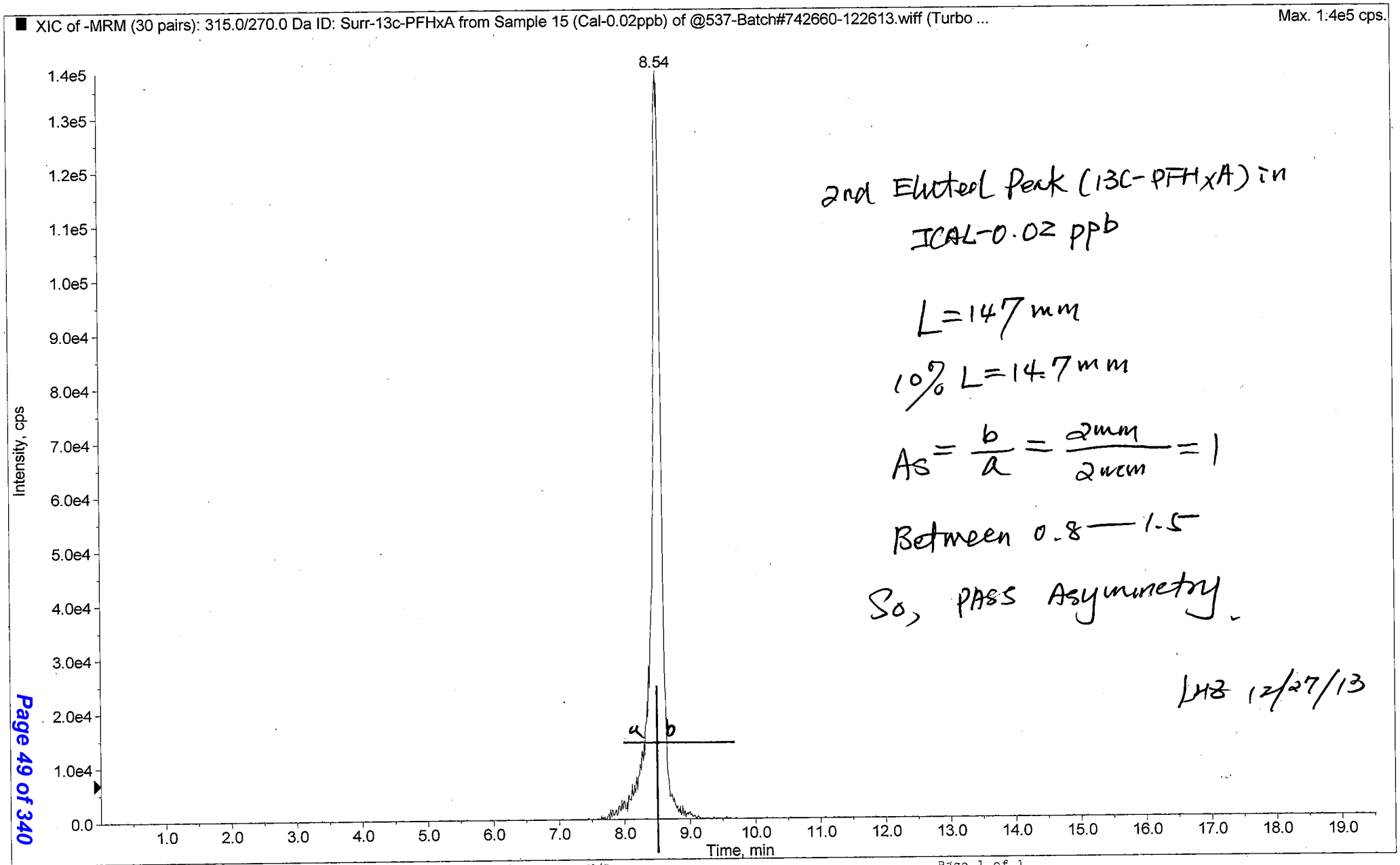
Printing Time: 11:47:44 AM
Printing Date: Friday, December 27, 2013

Results Name: N/A

Page 1 of 1

Operator: Lisa Zhao

Project: EPA537
Method Name: N/A
Batch Name: @537-Batch#742660-122613.dab



2nd Eluted Peak (13C-PFHxA) in ICAL-0.02 ppb

L=147 mm

10% L=14.7 mm

$As = \frac{b}{a} = \frac{2mm}{2mm} = 1$

Between 0.8 — 1.5

So, PASS Asymmetry.

LHZ 12/27/13

Printing Time: 11:48:11 AM
Printing Date: Friday, December 27, 2013

Results Name: N/A

537 IS RECOVERIES COMPARE WITH NEAREST CCCs AND IS RPD

@537-Batch#742660-122613

Analytical Run @12/26/2013 By LHZ LCMS3

Extracted @ 12/24/2013 - 12/26/2013 by FAM

LCMS3-FO-0001A

SOP ID#: LCMS 11 version 0.0

RAW DATA FROM RESULTS FILE			IS RPD		
Sample Name	IS-13C-PFOA Peak Area	IS-13C-PFOS Peak Area	13C-PFOA (%)	13C-PFOS (%)	All IS RPDs <20% PASS
Blank	1546678	1543029			
Cal-0.0025ppb	1468336	1500862	4.17%	6.28%	
Cal-0.005ppb	1440966	1504396			
Cal-0.01ppb	1433760	1598227			
Cal-0.02ppb	1459106	1570106			
Cal-0.04ppb	1433405	1556444			
Cal-0.08ppb	1408341	1516456			
CCCL_0.0025ppb	1485306	1587998	105.46%	104.72%	
QCS_0.02ppb	1475373	1577714	99.33%	99.35%	
MBLK	1284095	1496035	86.45%	94.21%	
MRL_CHK	1279804	1448836	86.16%	91.24%	
LCS1	1063448	1364964	71.60%	85.96%	
LCS2	1072133	1395499	72.18%	87.88%	
DNR-201312260079MS	1022408	1337643	**68.83%**	84.23%	
201312260079MSD	1070063	1362052	72.04%	85.77%	
DNR-201312260079	973851	1279302	**65.57%**	80.56%	
DNR-201312140133A	1020318	1324436	**68.69%**	83.40%	
201312140136A	1101192	1397044	74.14%	87.98%	
DNR-201312140137A	1035468	1325064	**69.71%**	83.44%	
201312140138A	1053441	1352618	70.92%	85.18%	
201312140139A	1083473	1345473	72.95%	84.73%	
DNR-201312140140A	1038347	1333553	**69.91%**	83.98%	
201312140141A	1087275	1363703	73.20%	85.88%	
201312140142A	1098282	1319202	73.94%	83.07%	
201312140143A	1175256	1407810	79.13%	88.65%	
CCCM	1273860	1493859	85.76%	94.07%	
201312140144A	1276519	1399864	100.21%	93.71%	
201312140145A	1258313	1416378	98.78%	94.81%	
201312140146A	1293194	1398944	101.52%	93.65%	
201312140147A	1179348	1362627	92.58%	91.22%	
201312140148A	1220578	1387133	95.82%	92.86%	
201312140149A	1320865	1417713	103.69%	94.90%	
201312140150A	1196368	1368194	93.92%	91.59%	
201312140151A	1284957	1427607	100.87%	95.57%	
201312140152A	1215905	1409409	95.45%	94.35%	
201312140153A	1176006	1360413	92.32%	91.07%	
CCCH	1327960	1426609	104.25%	95.50%	
CCCL_0.0025ppb	1420597	1511934	106.98%	105.98%	
201312260079MS_Reinj	1256989	1391699	88.48%	92.05%	
201312260079_Reinj	979242	1330048	**68.93%**	87.97%	
201312140133A_Reinj	1016982	1274618	71.59%	84.30%	
201312140137A_Reinj	1012253	1261363	71.26%	83.43%	
201312140140A_Reinj	994056	1264861	**69.97%**	83.66%	
CCCM	1187094	1386245	83.56%	91.69%	

IS RECOVERY AGAINST NEAREST CCCs	
13C-PFOA (%)	13C-PFOS (%)

DNR: Data Not Reported the results of rejected samples are reported.
LHZ 12/27/13

537 IS RECOVERIES AGAINST AVERAGE ICAL IS

@537-Batch#742660-122613

Analytical Run @12/26/2013 By LHZ LCMS3

Extracted @ 12/24/2013 to 12/26/2013 by FAM

LCMS3-FO-0002A

SOP ID#: LCMS 11 Version 0.0

RAW DATA FROM RESULTS FILE		
Sample Name	IS 13C-PFOA RECOVERY WITH ICAL AVE. (%)	IS 13C-PFOS RECOVERY WITH ICAL AVE. (%)
Blank	107.36	100.13
Cal-0.0025ppb	101.92	97.39
Cal-0.005ppb	100.02	97.62
Cal-0.01ppb	99.52	103.71
Cal-0.02ppb	101.28	101.88
Cal-0.04ppb	99.50	101.00
Cal-0.08ppb	97.76	98.40
CCCL_0.0025ppb	103.10	103.04
QCS_0.02ppb	102.41	102.38
MBLK	89.13	97.08
MRL_CHK	88.84	94.01
LCS1	73.82	88.57
LCS2	74.42	90.55
DNR-201312260079MS	70.97	86.80
201312260079MSD	74.28	88.38
DNR-201312260079	67.60	83.01
DNR-201312140133A	70.82	85.94
201312140136A	76.44	90.65
DNR-201312140137A	71.87	85.98
201312140138A	73.12	87.77
201312140139A	75.21	87.31
DNR-201312140140A	72.07	86.53
201312140141A	75.47	88.49
201312140142A	76.24	85.60
201312140143A	81.58	91.35
CCCM	88.42	96.94
201312140144A	88.61	90.84
201312140145A	87.34	91.91
201312140146A	89.76	90.78
201312140147A	81.86	88.42
201312140148A	84.72	90.01
201312140149A	91.69	91.99
201312140150A	83.04	88.78
201312140151A	89.19	92.64
201312140152A	84.40	91.46
201312140153A	81.63	88.28
CCCH	92.18	92.57
CCCL_0.0025ppb	98.61	98.11
201312260079MS_Reinj	87.25	90.31
201312260079_Reinj	67.97	86.31
201312140133A_Reinj	70.59	82.71
201312140137A_Reinj	70.26	81.85
201312140140A_Reinj	69.00	82.08
CCCM	82.40	89.95

In ICAL, all points in the back calculation are within 70%-130% So, PASS

For all samples, IS recoveries are within 50%-150%% compared to the average IS response in ICAL So, PASS

537: SURROGATE RECOVERIES

@537-Batch#742660-122613

LCMS3-FO-0003A

Analytical Run @12/26/2013 By LHZ LCMS3

Extracted @ 12/24/13 to 12/26/13 by FAM

SOP ID#: LCMS 11 Version 0.0

RAW DATA FROM RESULTS FILE

Sample Name	Surrogate Recovery 13C-PFHxA	Surrogate Recovery 13C-PFDA
Blank	97.91	100.37
Cal-0.0025ppb	96.38	93.28
Cal-0.005ppb	102.44	102.78
Cal-0.01ppb	101.54	101.62
Cal-0.02ppb	99.66	99.35
Cal-0.04ppb	97.02	98.06
Cal-0.08ppb	102.96	104.91
CCCL_0.0025ppb	95.90	103.40
QCS_0.02ppb	95.46	103.34
MBLK	98.84	92.98
MRL_CHK	91.82	89.53
LCS1	82.69	93.25
LCS2	84.74	93.77
DNR-201312260079MS	88.24	104.88
201312260079MSD	94.07	103.73
DNR-201312260079	85.45	93.83
DNR-201312140133A	97.79	85.18
201312140136A	99.94	86.72
DNR-201312140137A	101.85	96.19
201312140138A	106.22	103.31
201312140139A	103.70	104.82
DNR-201312140140A	97.85	85.60
201312140141A	98.39	100.45
201312140142A	96.35	83.68
201312140143A	101.81	87.86
CCCM	101.92	100.95
201312140144A	102.47	92.65
201312140145A	104.56	98.74
201312140146A	111.42	93.20
201312140147A	100.31	96.42
201312140148A	110.40	98.82
201312140149A	108.75	95.56
201312140150A	104.80	101.16
201312140151A	104.28	89.34
201312140152A	113.98	101.07
201312140153A	103.43	101.63
CCCH	97.37	97.53
CCCL_0.0025ppb	94.99	114.91
201312260079MS_Reinj	86.44	94.08
201312260079_Reinj	85.72	100.25
201312140133A_Reinj	97.74	87.62
201312140137A_Reinj	101.29	101.66
201312140140A_Reinj	99.03	87.55
CCCM	101.46	104.49

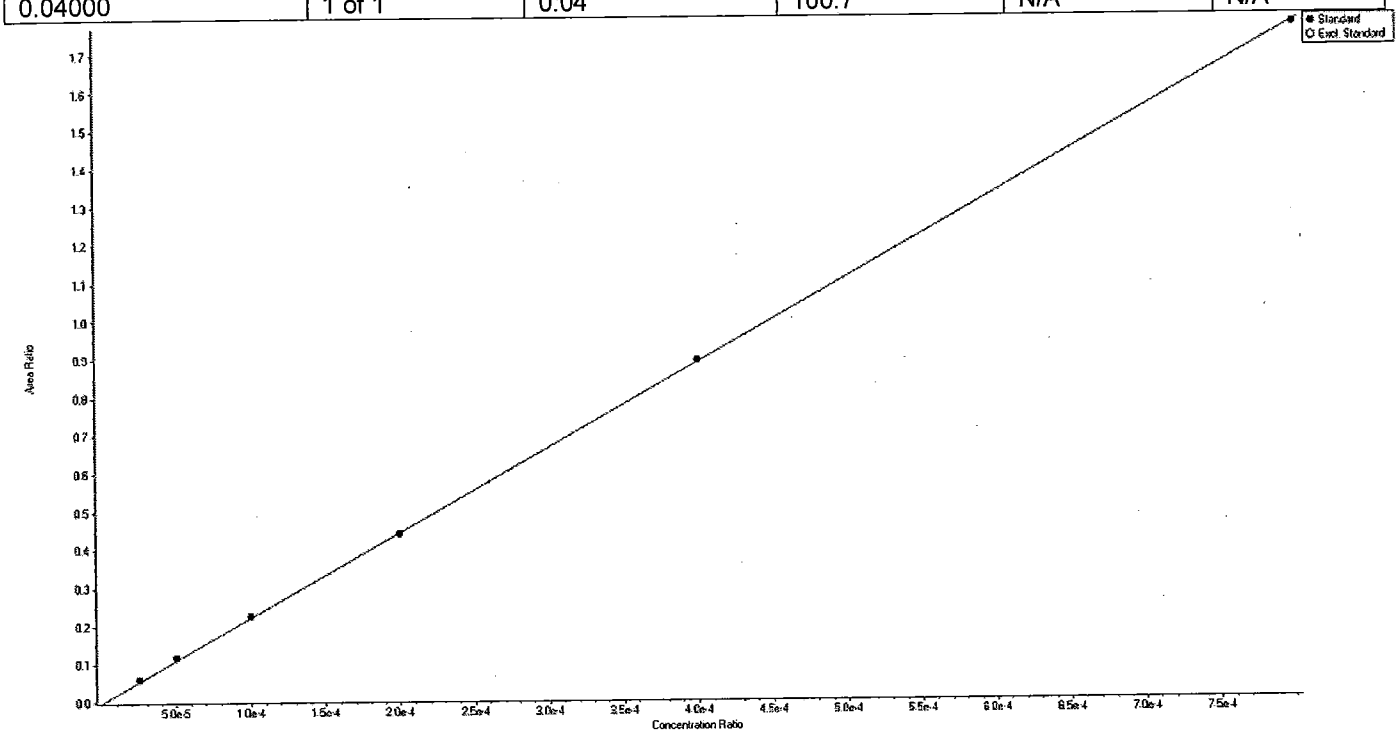
Surrogate Recoveries are within 70%-130% , So PASS

Analyte Name: PFHxA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 2218.09325 x (r = 0.99999) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00250	1 of 1	0.00	109.6	N/A	N/A
0.00500	1 of 1	0.01	106.2	N/A	N/A
0.01000	1 of 1	0.01	102.4	N/A	N/A
0.02000	1 of 1	0.02	99.8	N/A	N/A
0.04000	1 of 1	0.04	100.7	N/A	N/A

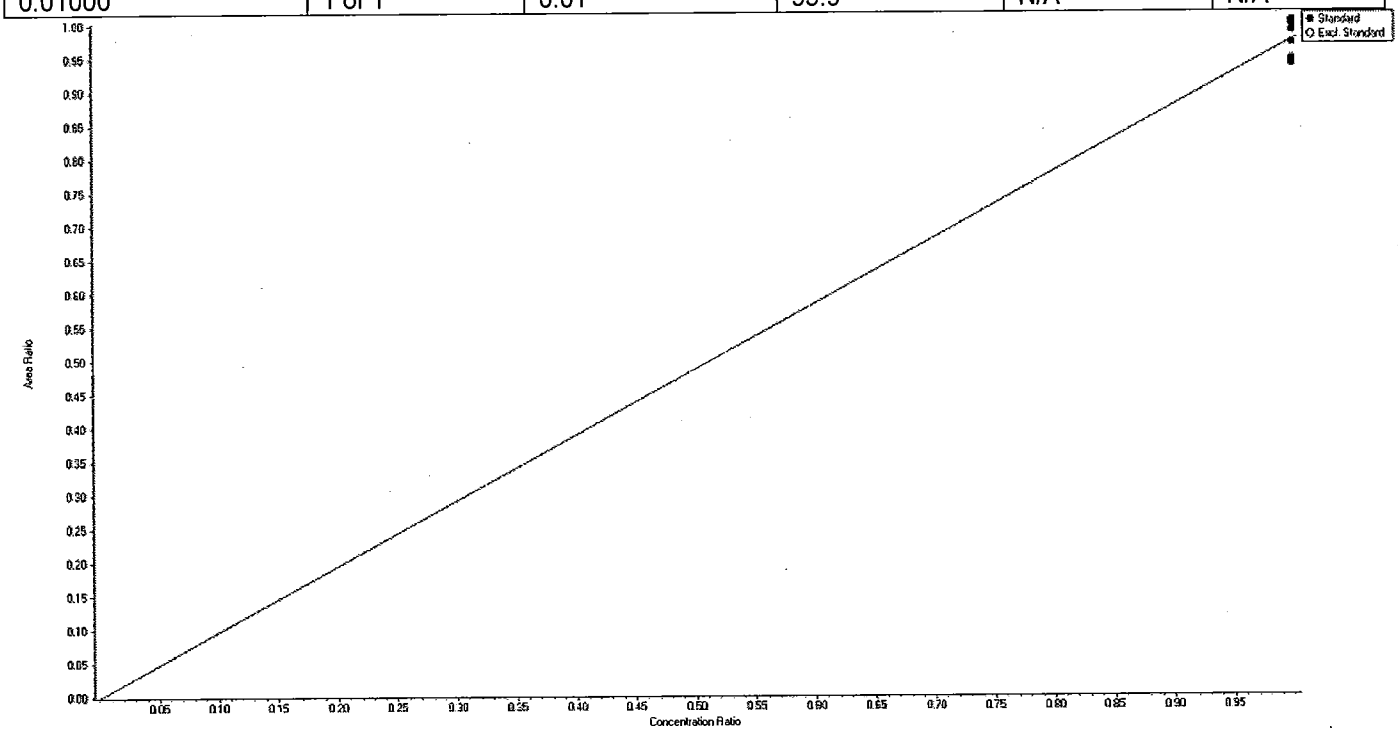


Analyte Name: Surr-13c-PFHxA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 0.97395 x (std. dev. = 0.02728) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.08000	1 of 1	0.08	99.8	N/A	N/A
100.00000	6 of 6	100.00	100.0	2.80	2.8
0.00250	1 of 1	0.00	97.5	N/A	N/A
0.00500	1 of 1	0.00	99.9	N/A	N/A
0.01000	1 of 1	0.01	95.9	N/A	N/A

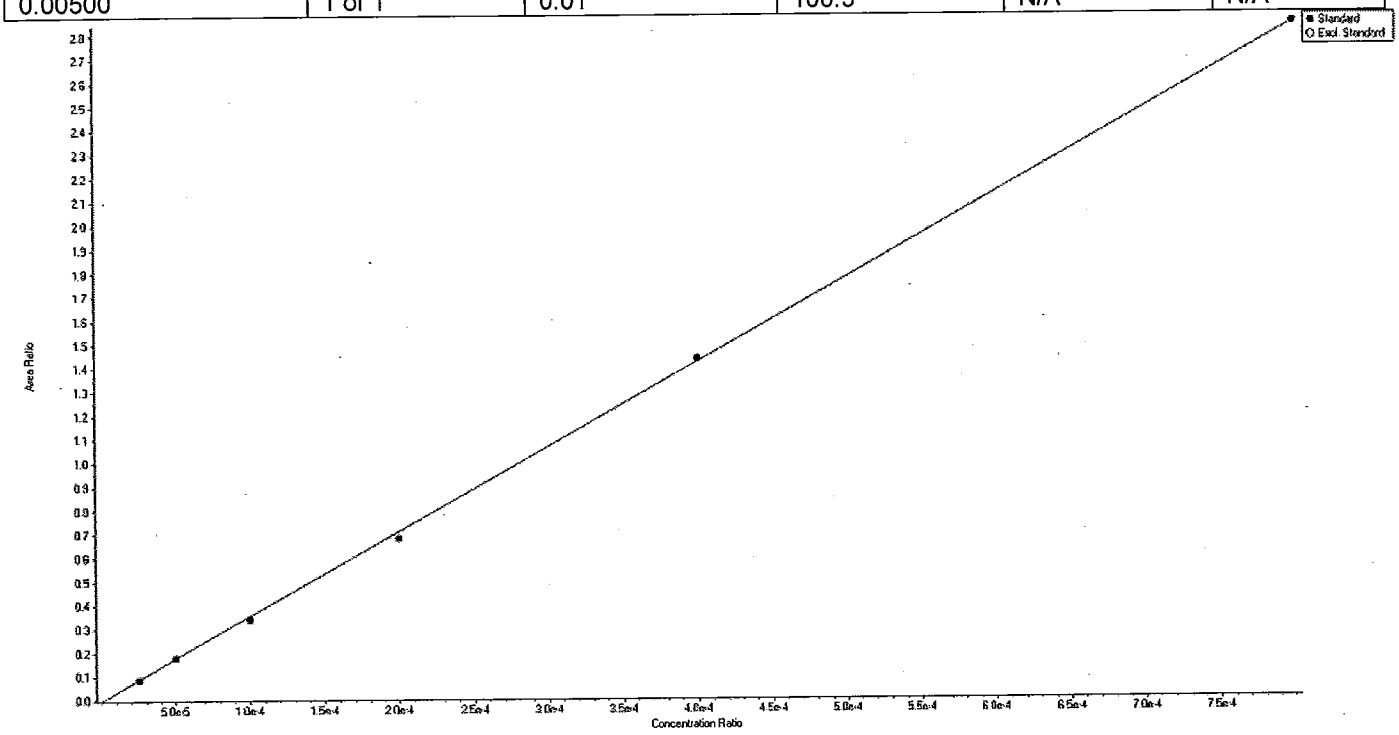


Analyte Name: PFHpA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 3550.35855 x (r = 0.99990) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.02000	1 of 1	0.02	95.7	N/A	N/A
0.04000	1 of 1	0.04	101.1	N/A	N/A
0.08000	1 of 1	0.08	100.1	N/A	N/A
0.00250	1 of 1	0.00	104.7	N/A	N/A
0.00500	1 of 1	0.01	100.3	N/A	N/A

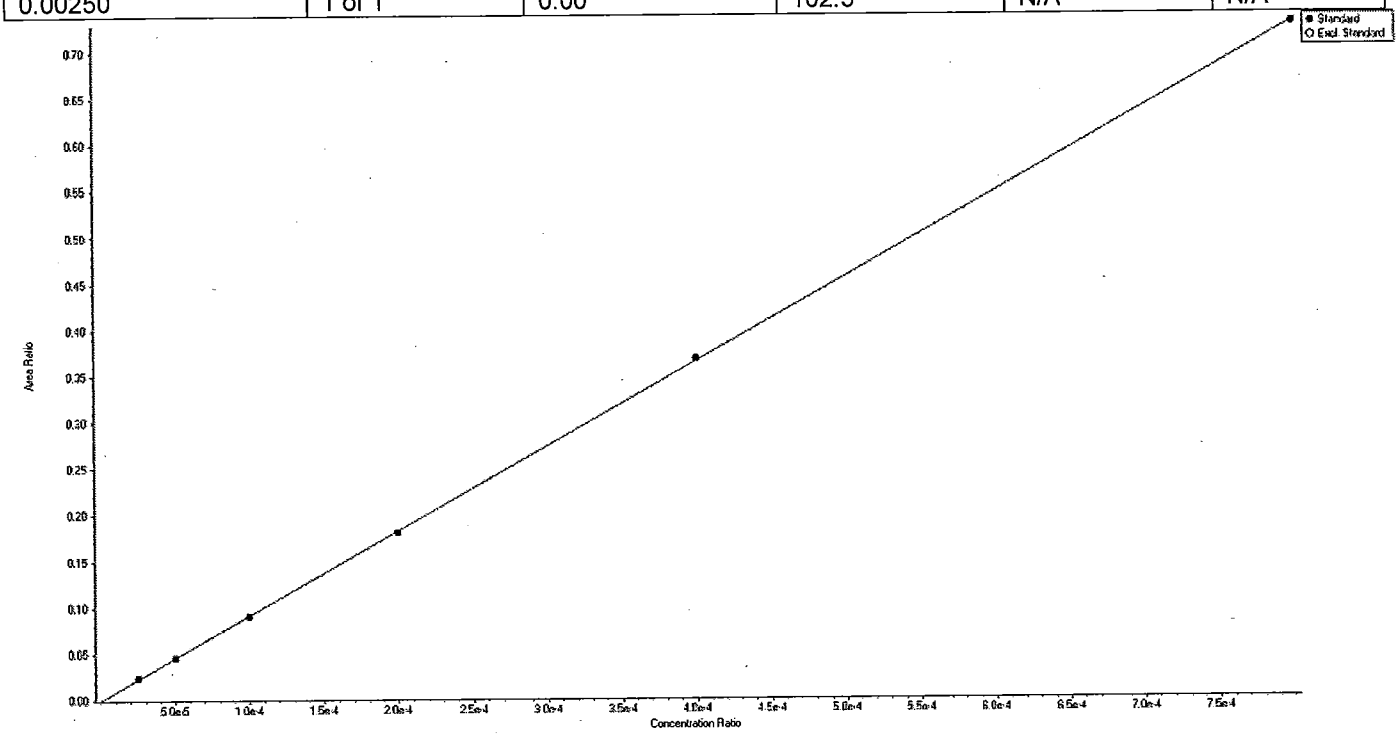


Analyte Name: PFHpA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 912.16710 x (r = 0.99998) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01000	1 of 1	0.01	98.7	N/A	N/A
0.02000	1 of 1	0.02	98.8	N/A	N/A
0.04000	1 of 1	0.04	100.8	N/A	N/A
0.08000	1 of 1	0.08	99.9	N/A	N/A
0.00250	1 of 1	0.00	102.5	N/A	N/A

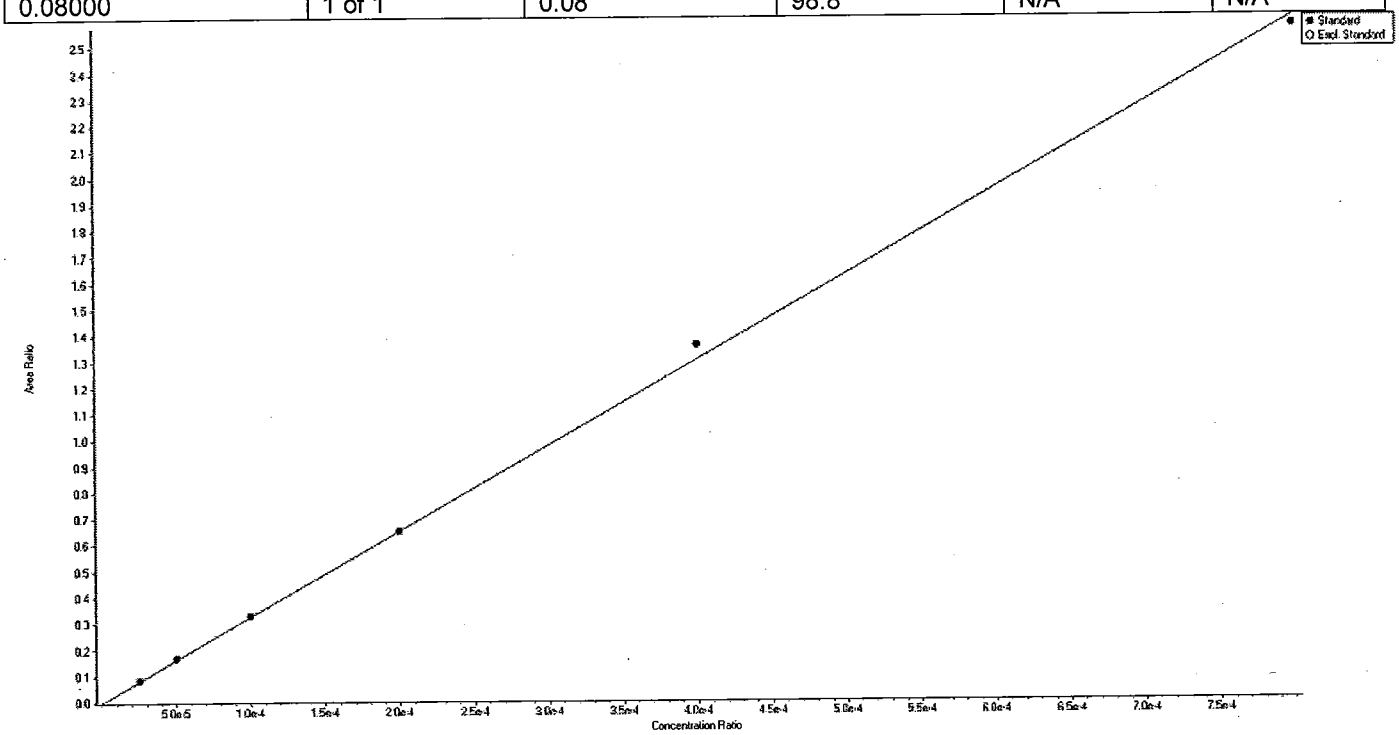


Analyte Name: PFOA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 3257.35445 x (r = 0.99957) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00500	1 of 1	0.01	104.5	N/A	N/A
0.01000	1 of 1	0.01	101.5	N/A	N/A
0.02000	1 of 1	0.02	100.3	N/A	N/A
0.04000	1 of 1	0.04	104.5	N/A	N/A
0.08000	1 of 1	0.08	98.8	N/A	N/A

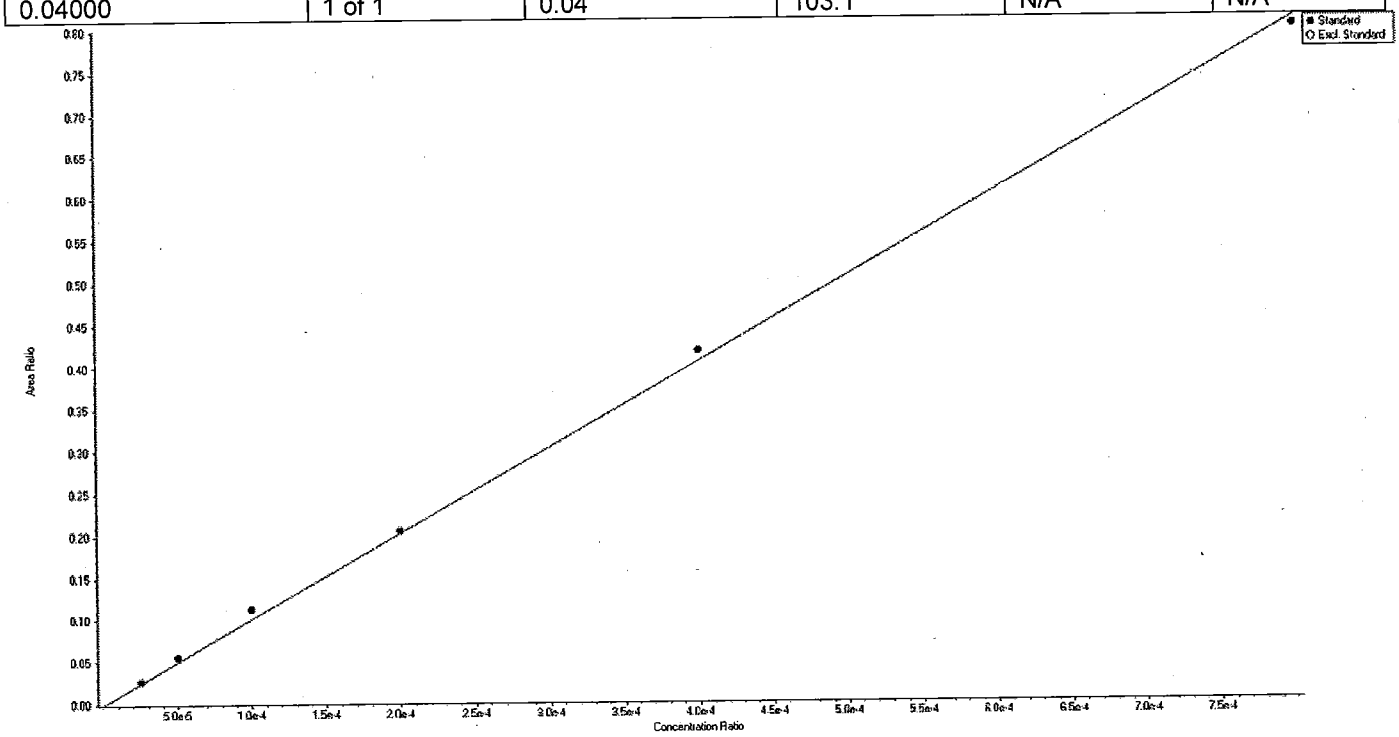


Analyte Name: PFOA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 1012.36697 x (r = 0.99976) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00250	1 of 1	0.00	107.5	N/A	N/A
0.00500	1 of 1	0.01	109.6	N/A	N/A
0.01000	1 of 1	0.01	111.9	N/A	N/A
0.02000	1 of 1	0.02	101.4	N/A	N/A
0.04000	1 of 1	0.04	103.1	N/A	N/A

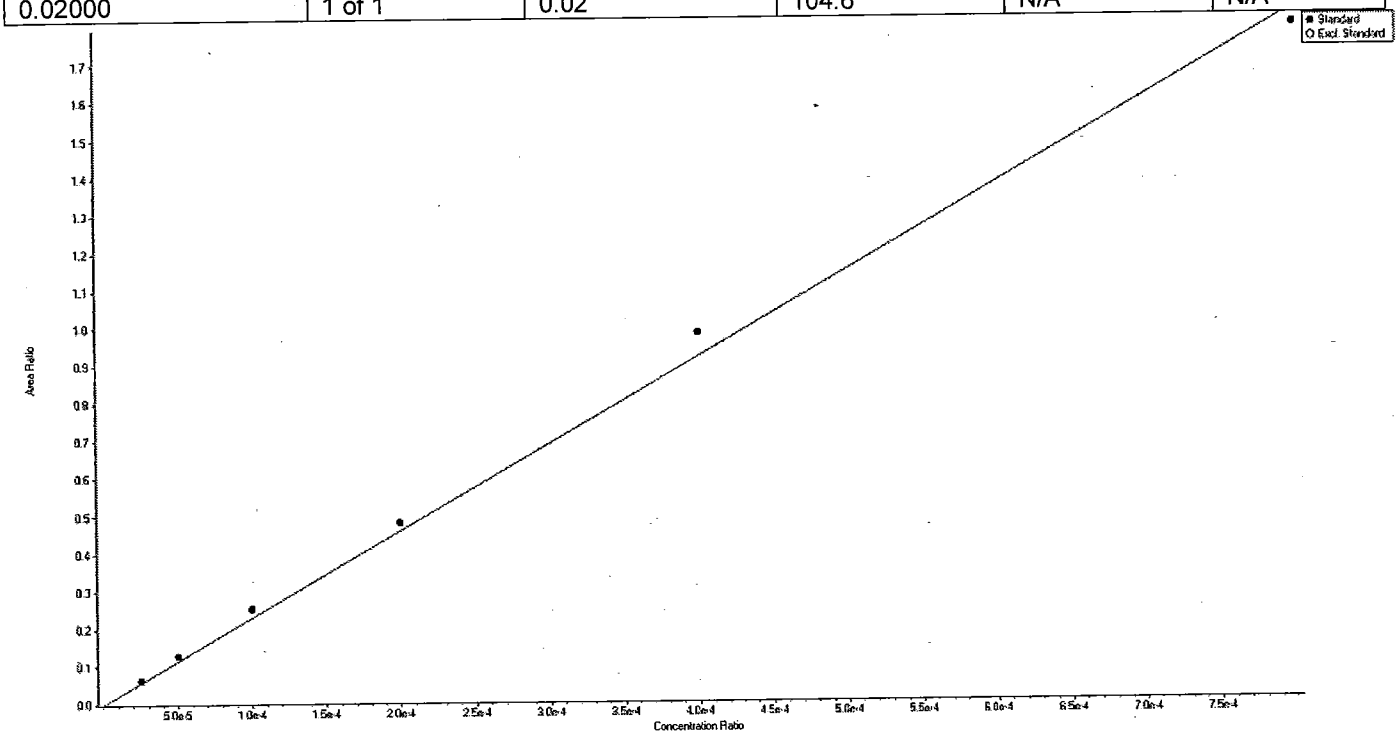


Analyte Name: PFNA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 2295.22077 x (r = 0.99901) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.08000	1 of 1	0.08	98.9	N/A	N/A
0.00250	1 of 1	0.00	112.5	N/A	N/A
0.00500	1 of 1	0.01	112.2	N/A	N/A
0.01000	1 of 1	0.01	110.8	N/A	N/A
0.02000	1 of 1	0.02	104.6	N/A	N/A

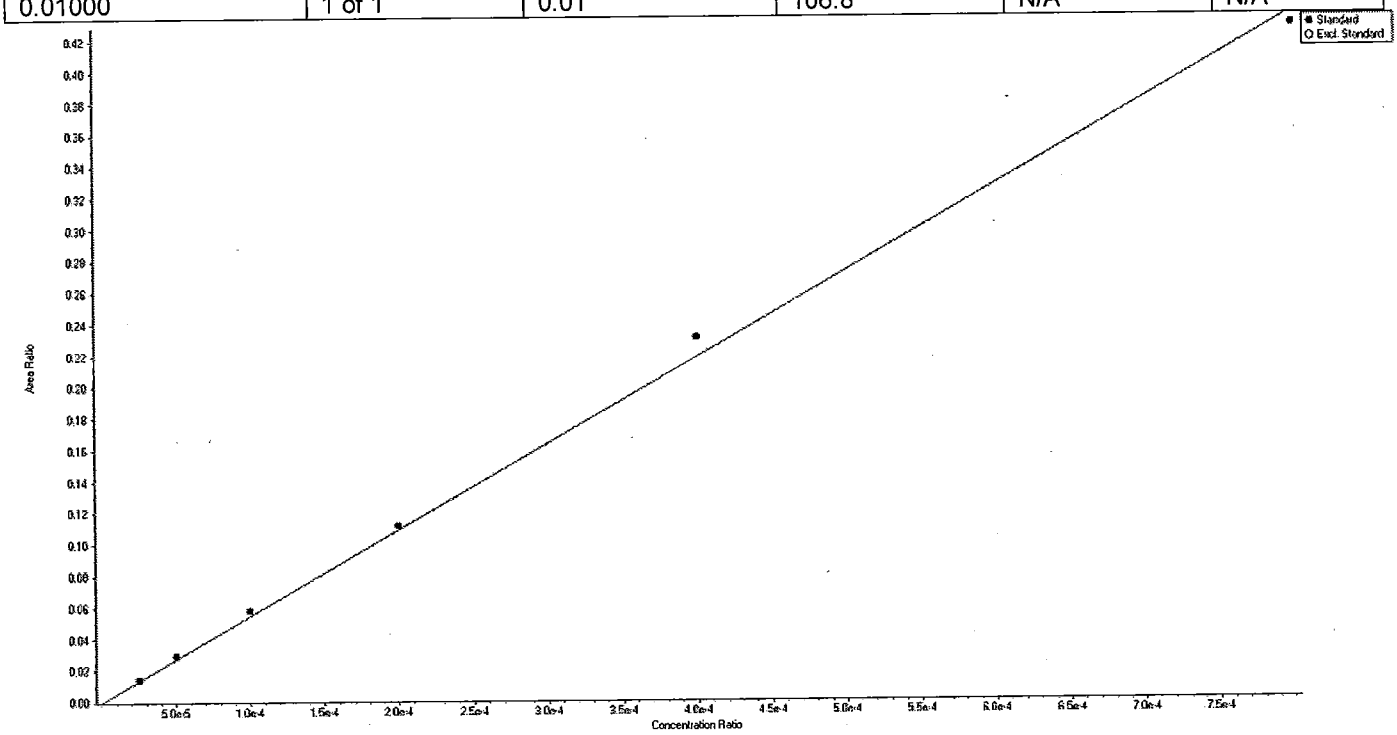


Analyte Name: PFNA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 545.21625 x (r = 0.99927) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.04000	1 of 1	0.04	106.9	N/A	N/A
0.08000	1 of 1	0.08	97.8	N/A	N/A
0.00250	1 of 1	0.00	101.9	N/A	N/A
0.00500	1 of 1	0.01	107.9	N/A	N/A
0.01000	1 of 1	0.01	106.8	N/A	N/A

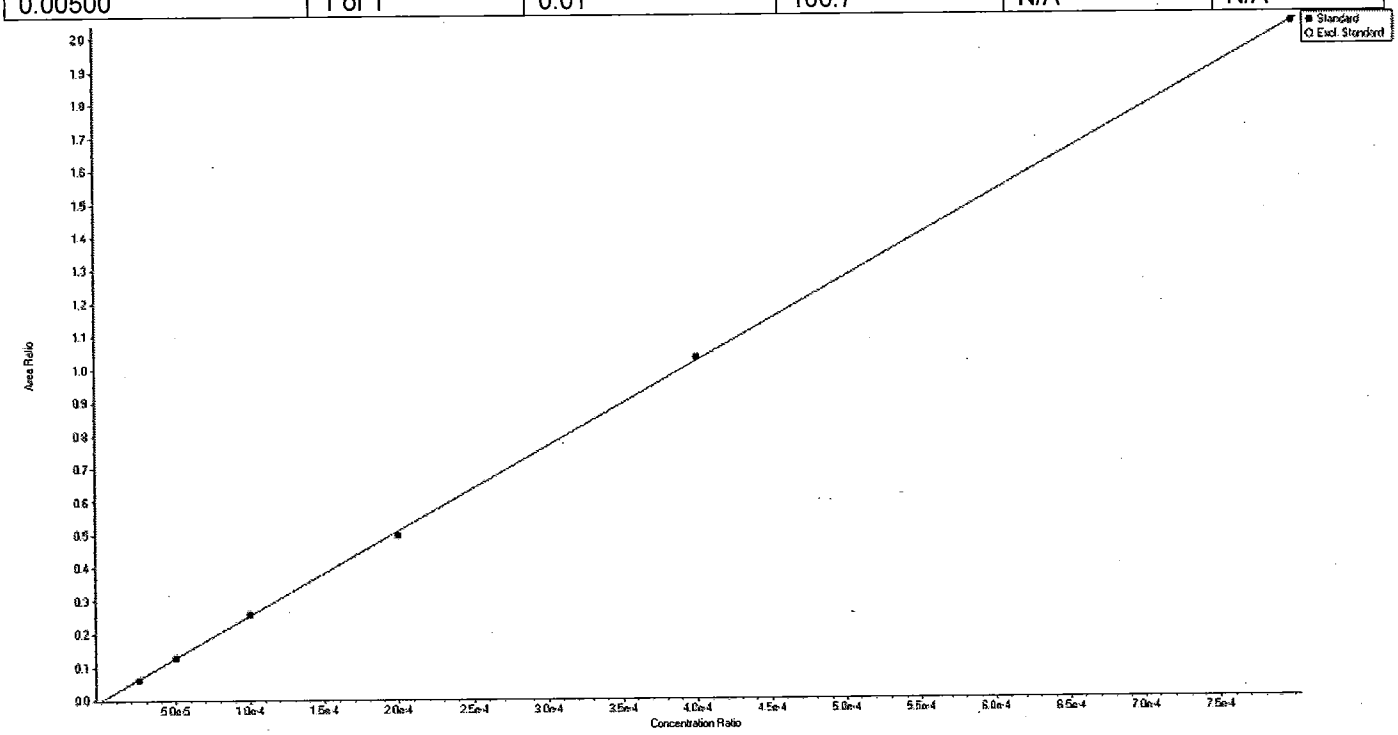


Analyte Name: PFDA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 2550.96445 x (r = 0.99996) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.02000	1 of 1	0.02	102.7	N/A	N/A
0.04000	1 of 1	0.04	105.9	N/A	N/A
0.08000	1 of 1	0.08	98.2	N/A	N/A
0.00250	1 of 1	0.00	94.3	N/A	N/A
0.00500	1 of 1	0.01	100.7	N/A	N/A

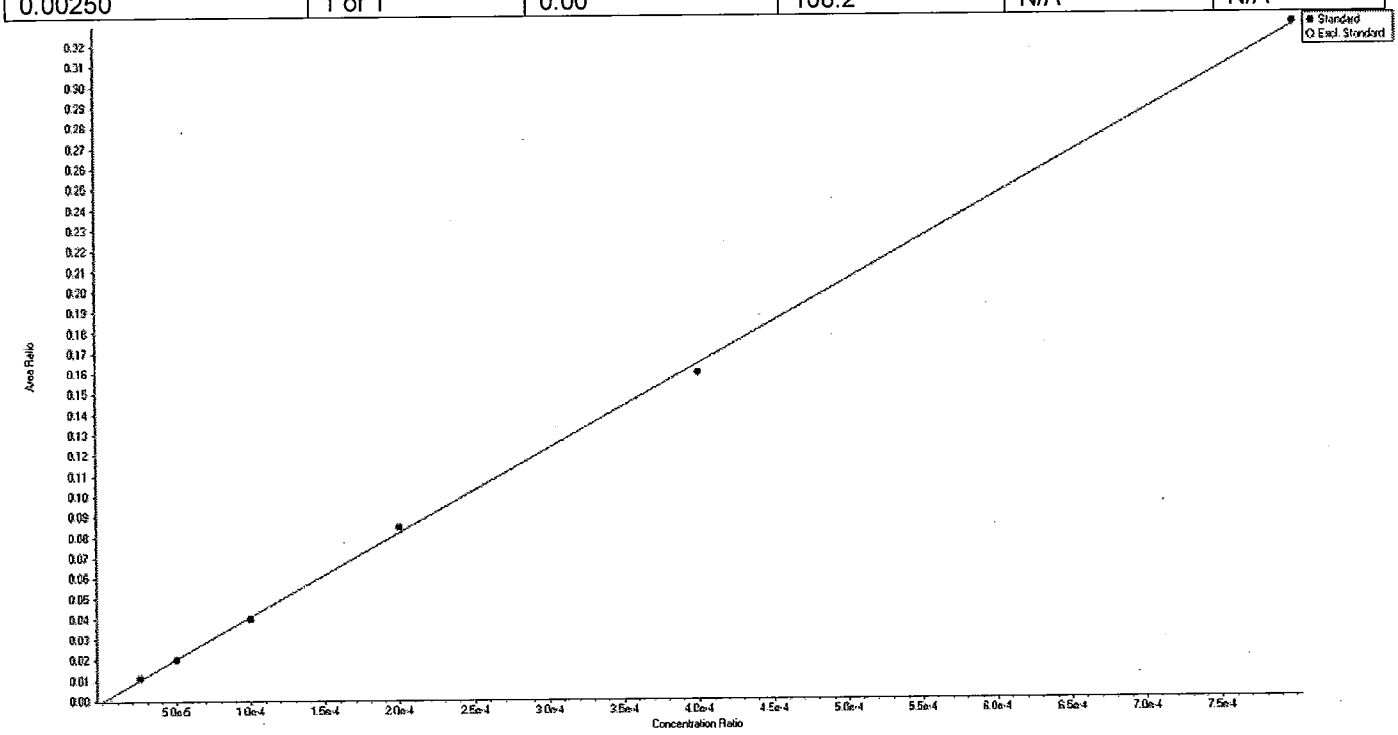


Analyte Name: PFDA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 409.74188 x (r = 0.99980) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01000	1 of 1	0.01	100.8	N/A	N/A
0.02000	1 of 1	0.02	97.6	N/A	N/A
0.04000	1 of 1	0.04	100.9	N/A	N/A
0.08000	1 of 1	0.08	99.9	N/A	N/A
0.00250	1 of 1	0.00	108.2	N/A	N/A

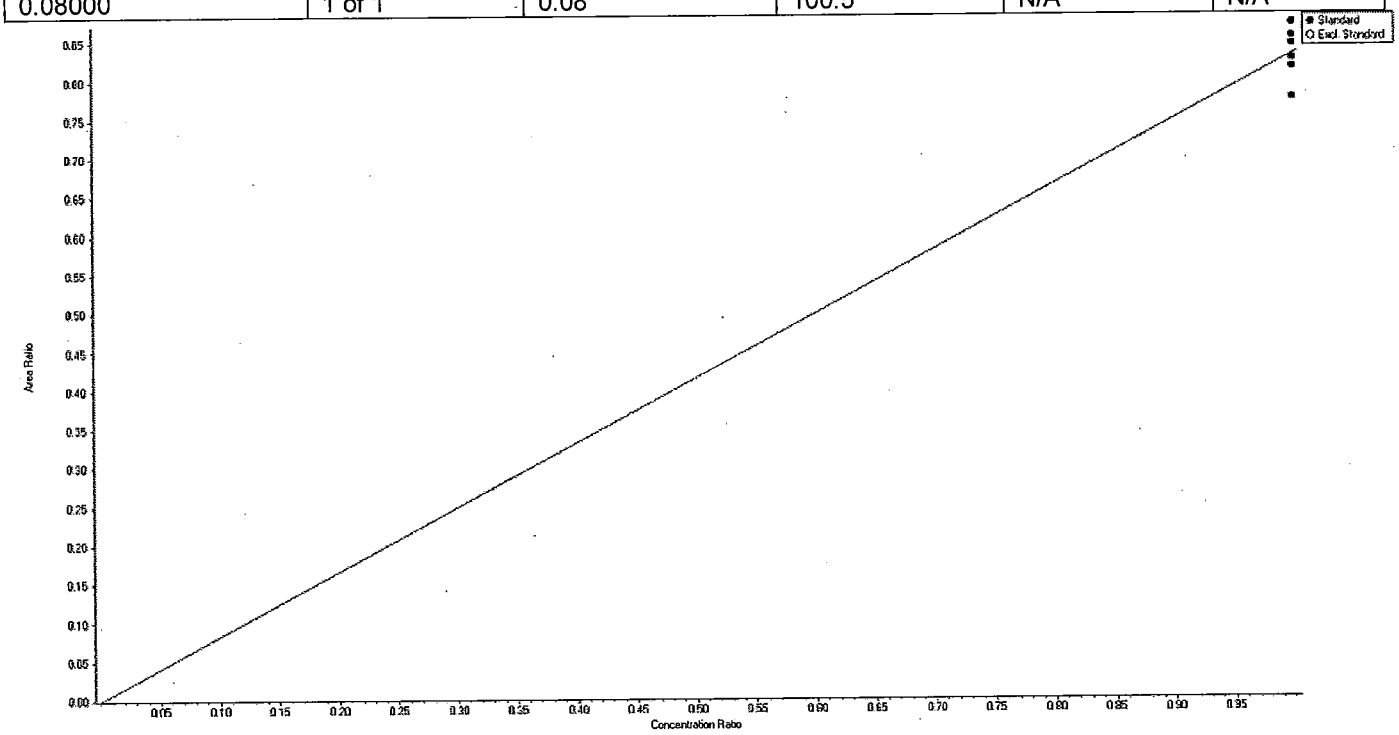


Analyte Name: Surr-13c-PFDA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 0.83056 x (std. dev. = 0.03401) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00500	1 of 1	0.00	97.5	N/A	N/A
0.01000	1 of 1	0.01	97.2	N/A	N/A
0.02000	1 of 1	0.02	103.2	N/A	N/A
0.04000	1 of 1	0.04	97.4	N/A	N/A
0.08000	1 of 1	0.08	100.5	N/A	N/A

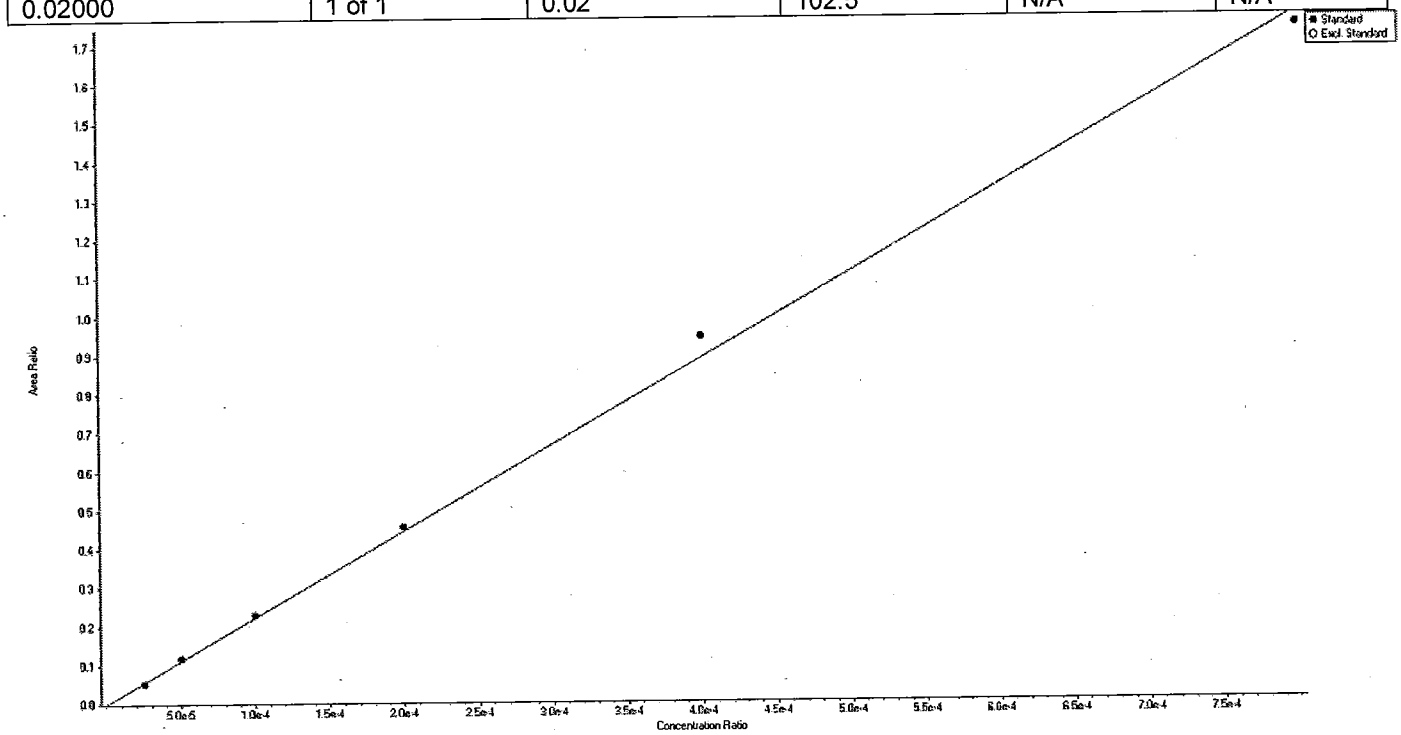


Analyte Name: PFUnA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 2220.53517 x (r = 0.99910) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
100.00000	6 of 6	100.00	100.0	4.09	4.1
0.00250	1 of 1	0.00	94.9	N/A	N/A
0.00500	1 of 1	0.01	105.7	N/A	N/A
0.01000	1 of 1	0.01	102.7	N/A	N/A
0.02000	1 of 1	0.02	102.5	N/A	N/A

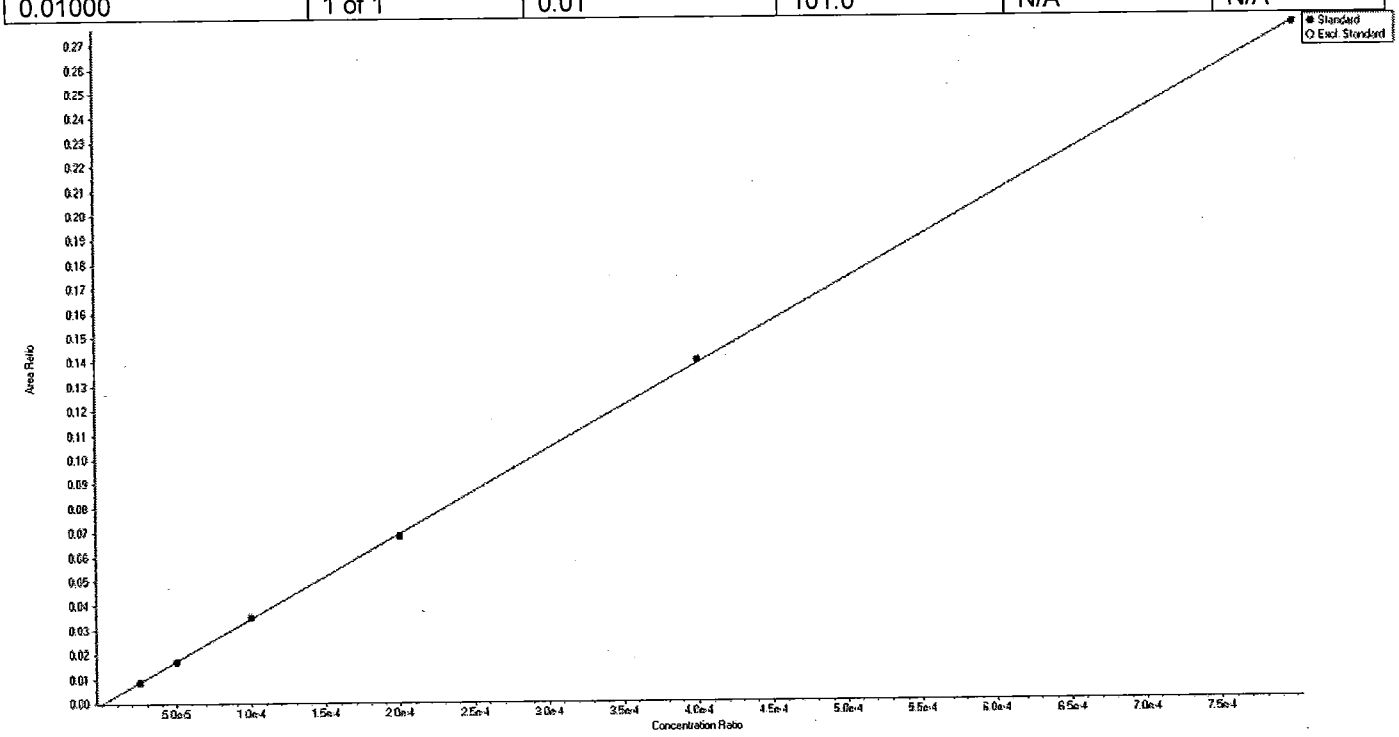


Analyte Name: PFUnA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 345.96451 x (r = 0.99997) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.04000	1 of 1	0.04	106.4	N/A	N/A
0.08000	1 of 1	0.08	98.2	N/A	N/A
0.00250	1 of 1	0.00	100.4	N/A	N/A
0.00500	1 of 1	0.00	97.8	N/A	N/A
0.01000	1 of 1	0.01	101.0	N/A	N/A

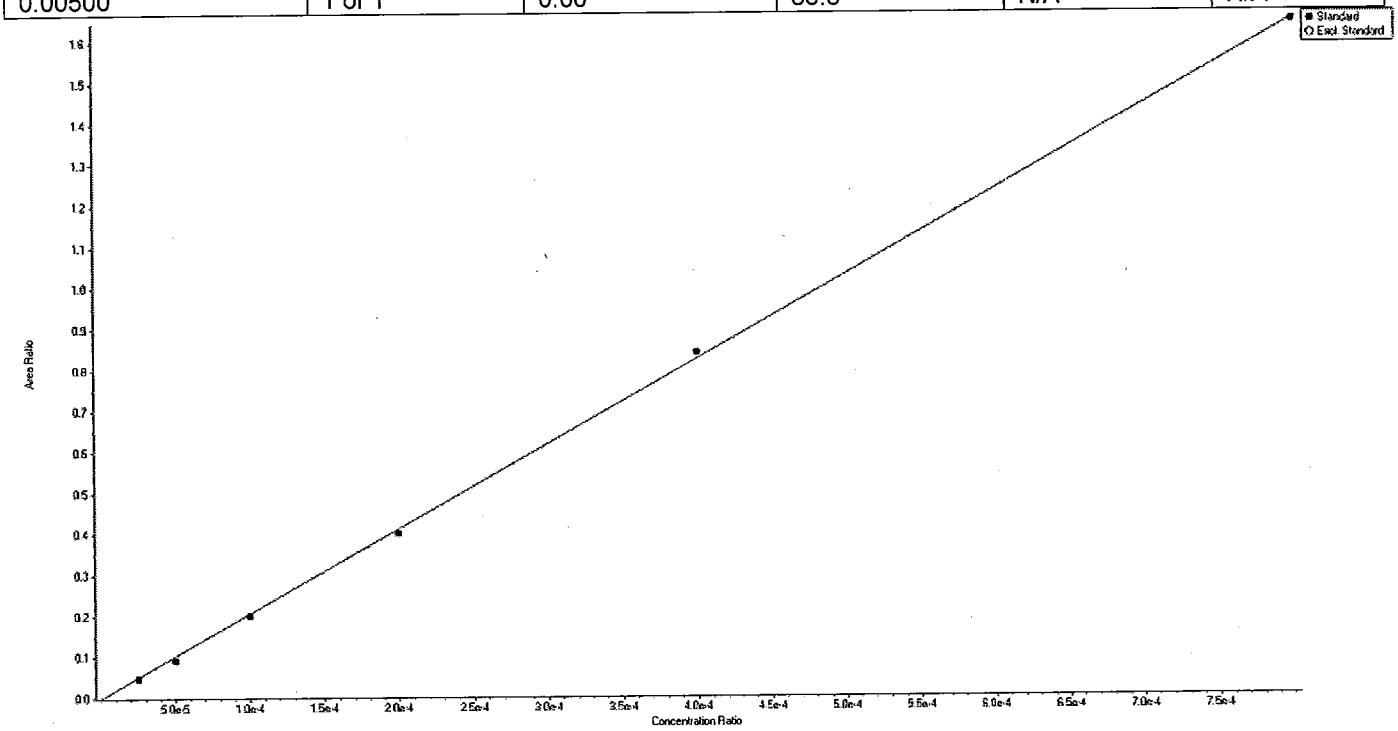


Analyte Name: PFDoA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 2059.83932 x (r = 0.99990) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.02000	1 of 1	0.02	98.6	N/A	N/A
0.04000	1 of 1	0.04	100.9	N/A	N/A
0.08000	1 of 1	0.08	99.9	N/A	N/A
0.00250	1 of 1	0.00	89.8	N/A	N/A
0.00500	1 of 1	0.00	88.8	N/A	N/A

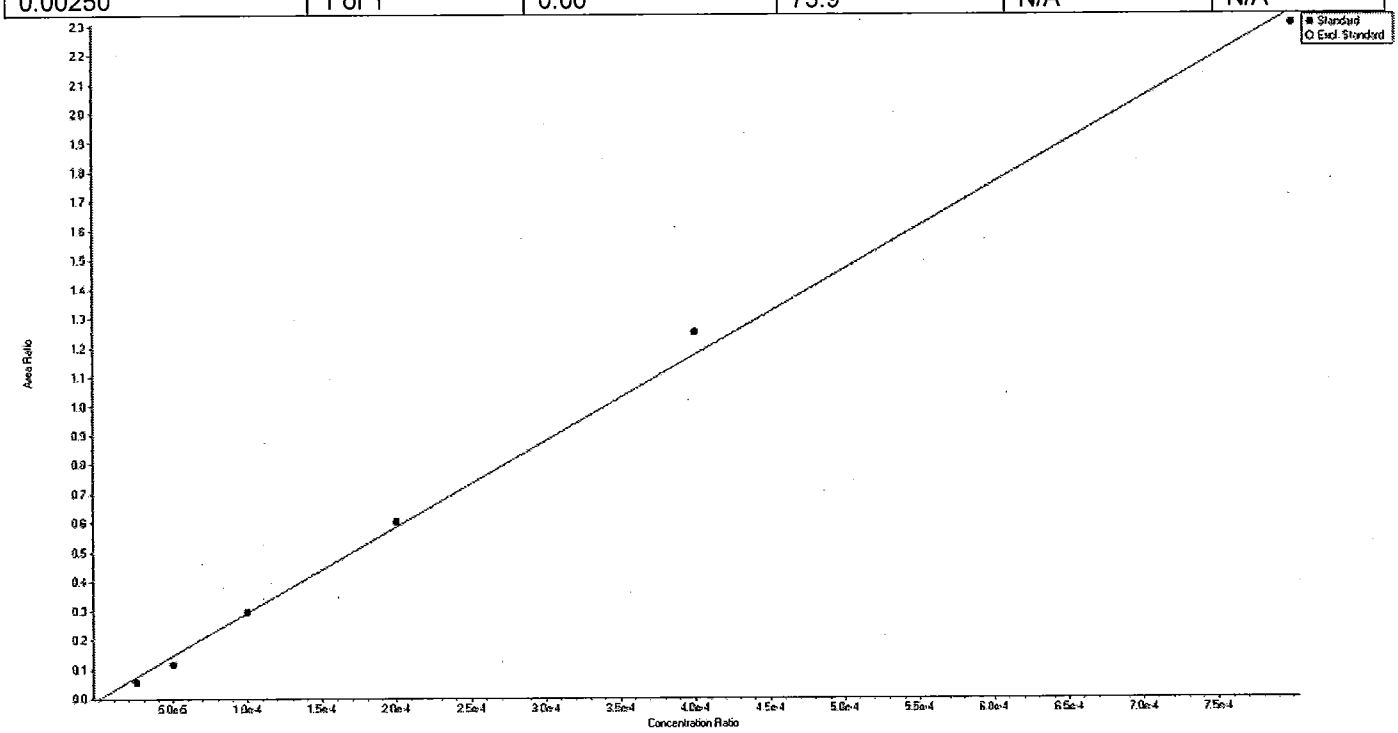


Analyte Name: PFTrDA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 2932.79657 x (r = 0.99877) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01000	1 of 1	0.01	96.2	N/A	N/A
0.02000	1 of 1	0.02	97.3	N/A	N/A
0.04000	1 of 1	0.04	101.7	N/A	N/A
0.08000	1 of 1	0.08	99.9	N/A	N/A
0.00250	1 of 1	0.00	75.9	N/A	N/A

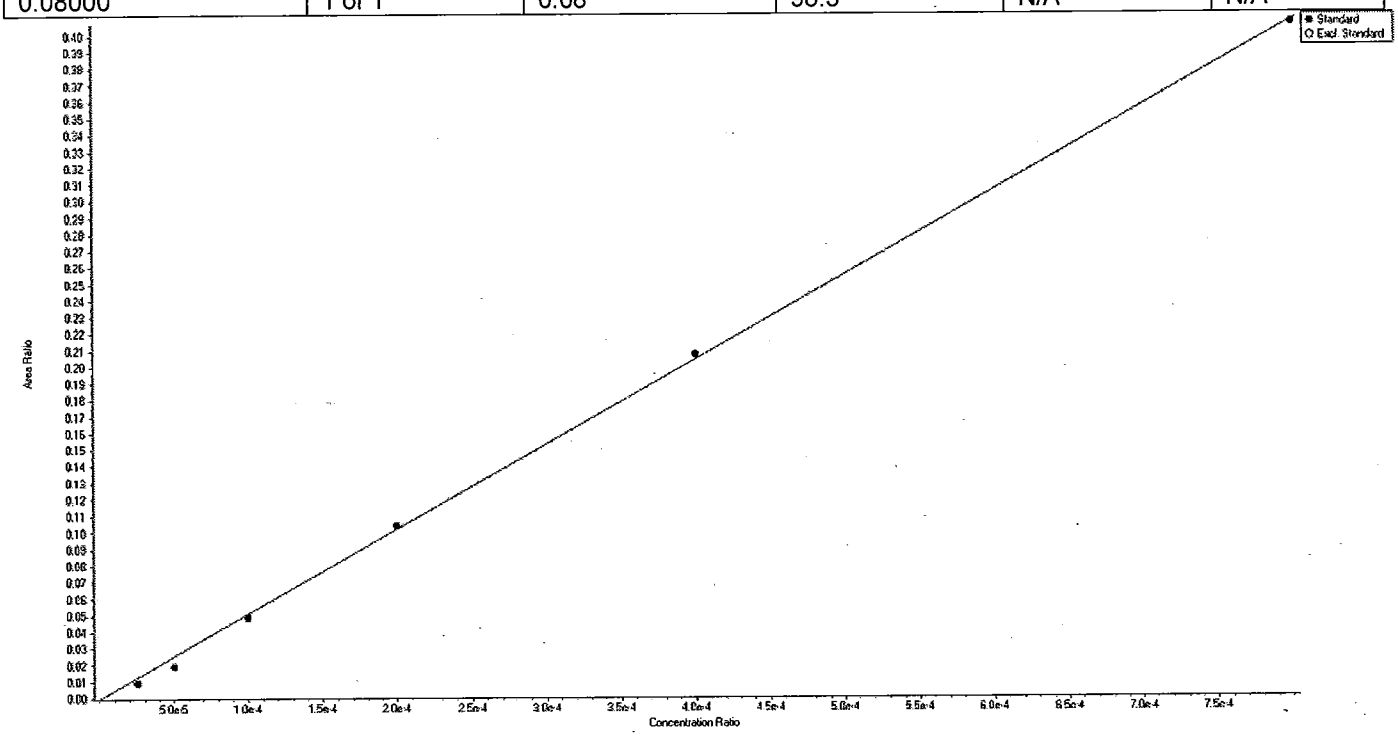


Analyte Name: PFTrDA 2
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 509.91981 x (r = 0.99979) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00500	1 of 1	0.00	78.3	N/A	N/A
0.01000	1 of 1	0.01	101.0	N/A	N/A
0.02000	1 of 1	0.02	102.8	N/A	N/A
0.04000	1 of 1	0.04	106.6	N/A	N/A
0.08000	1 of 1	0.08	98.3	N/A	N/A

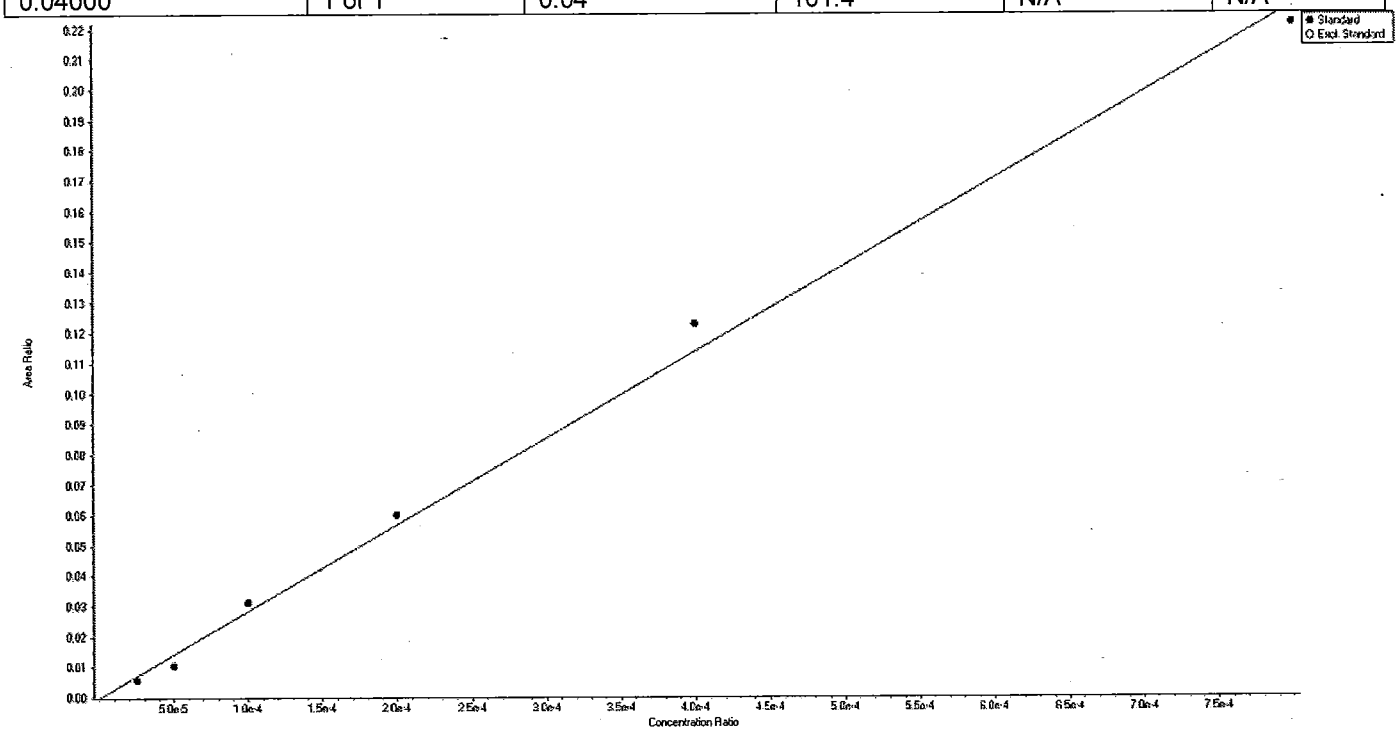


Analyte Name: PFTA
Internal Standard: IS-13C-PFOA

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 284.12613 x (r = 0.99790) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00250	1 of 1	0.00	73.1	N/A	N/A
0.00500	1 of 1	0.00	74.9	N/A	N/A
0.01000	1 of 1	0.01	95.1	N/A	N/A
0.02000	1 of 1	0.02	101.9	N/A	N/A
0.04000	1 of 1	0.04	101.4	N/A	N/A

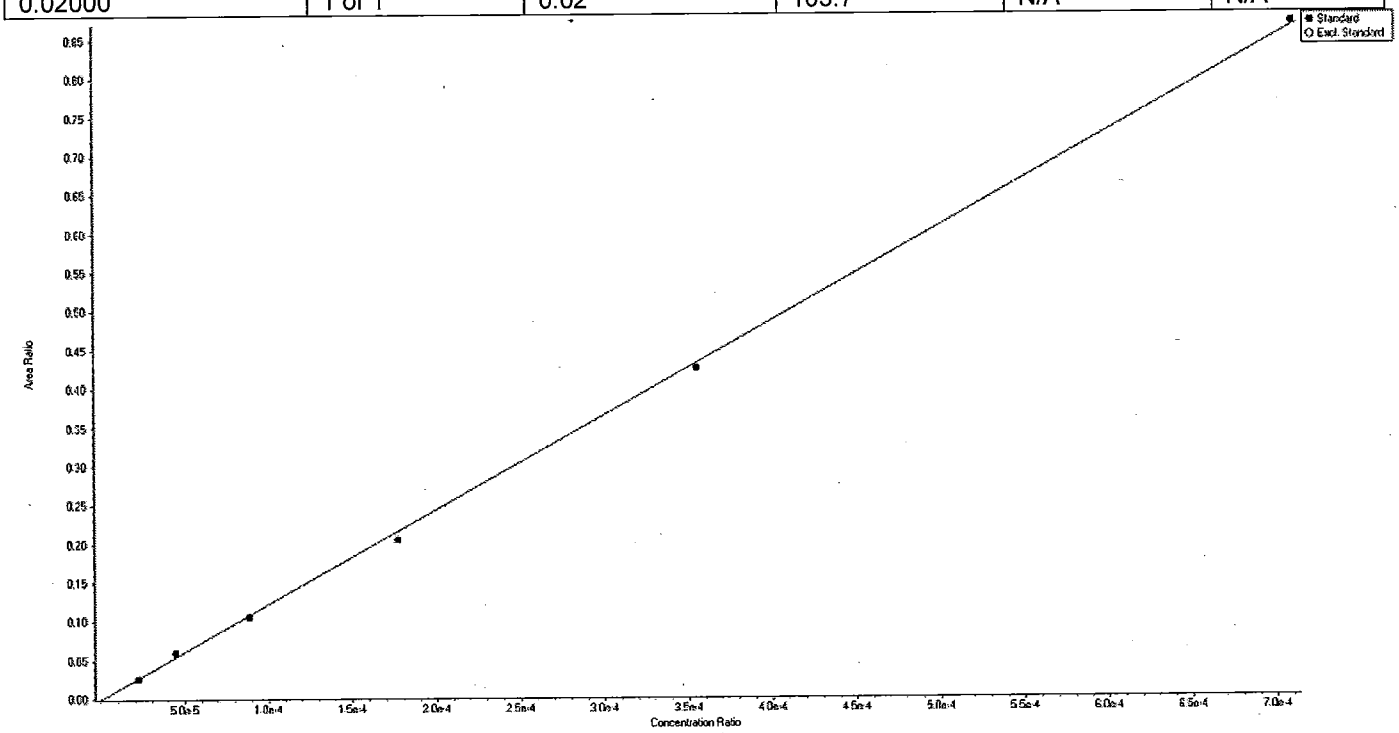


Analyte Name: PFBS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 1216.28941 x (r = 0.99980) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.08000	1 of 1	0.08	99.7	N/A	N/A
0.00250	1 of 1	0.00	79.9	N/A	N/A
0.00500	1 of 1	0.00	72.8	N/A	N/A
0.01000	1 of 1	0.01	109.7	N/A	N/A
0.02000	1 of 1	0.02	105.7	N/A	N/A

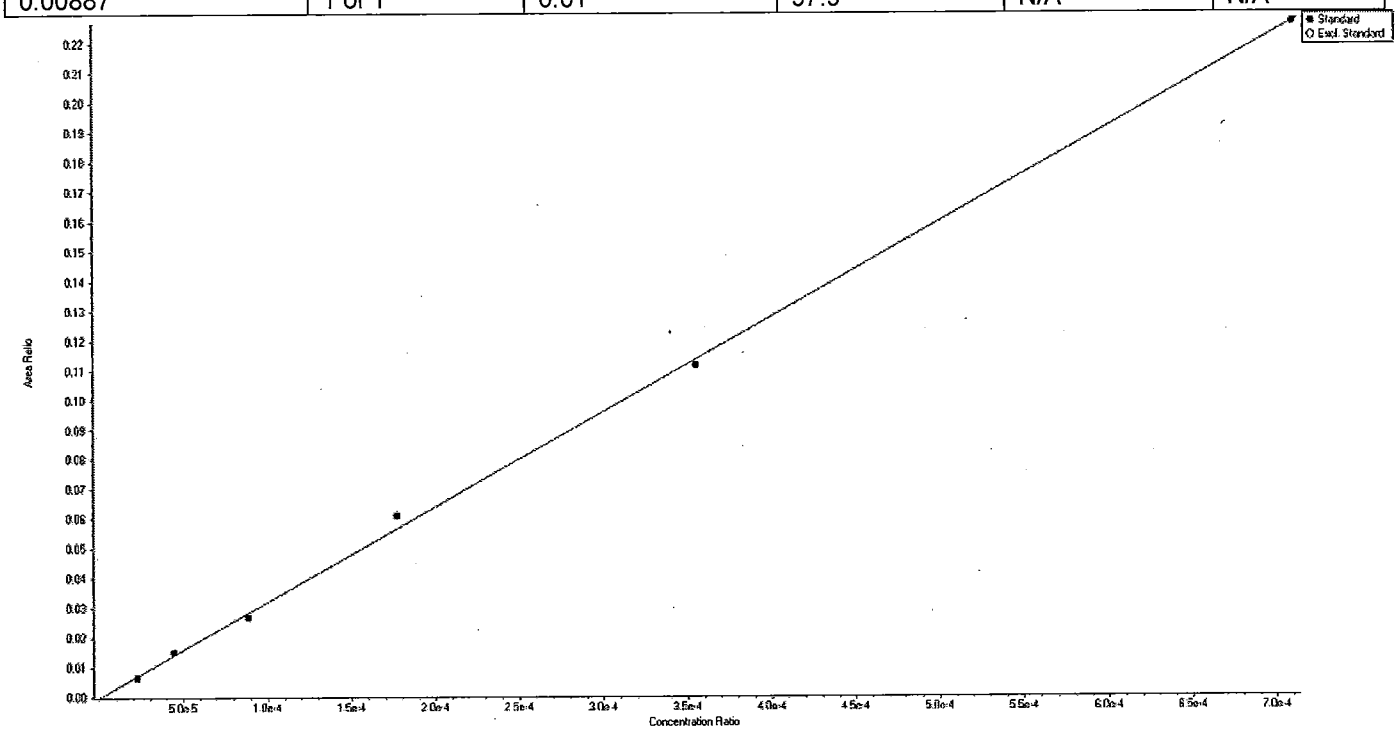


Analyte Name: PFBS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 319.51527 x (r = 0.99964) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.04000	1 of 1	0.04	108.2	N/A	N/A
0.08000	1 of 1	0.08	97.6	N/A	N/A
0.00222	1 of 1	0.00	94.2	N/A	N/A
0.00443	1 of 1	0.00	109.8	N/A	N/A
0.00887	1 of 1	0.01	97.9	N/A	N/A

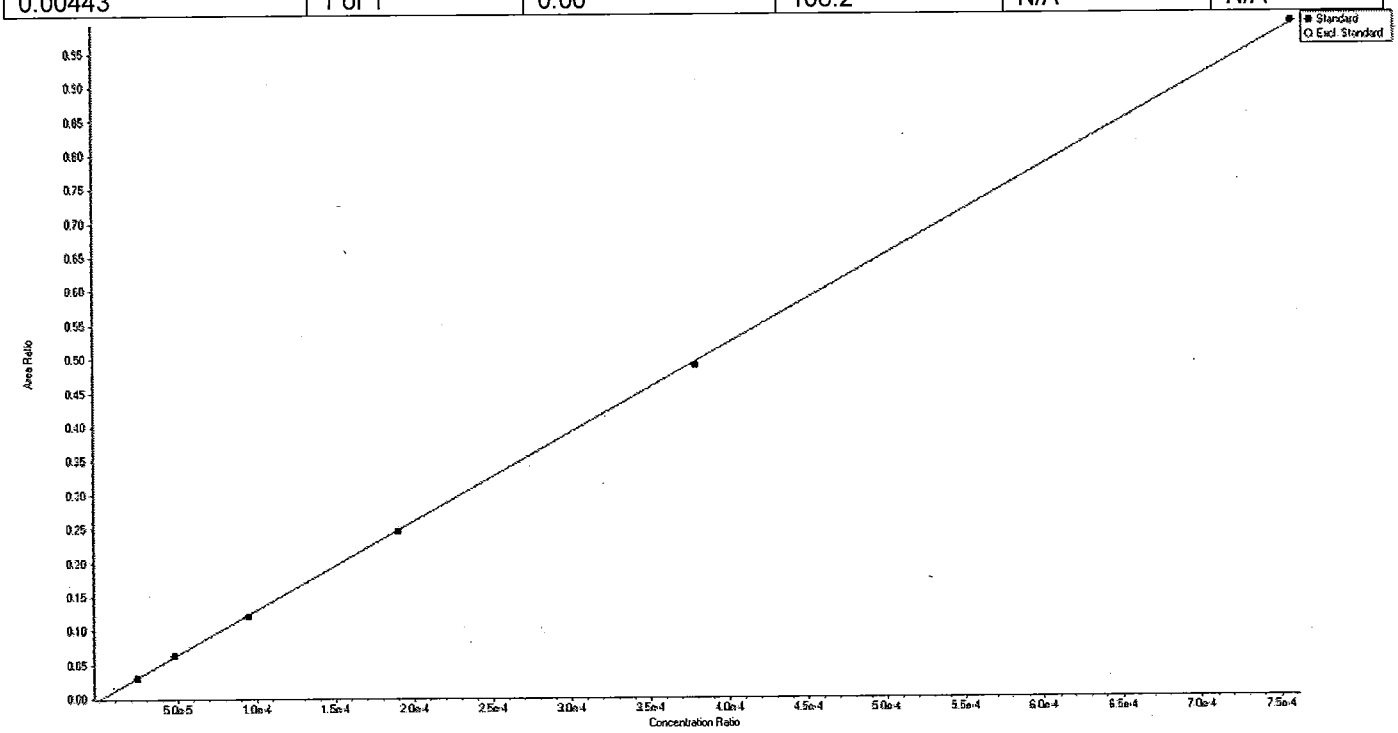


Analyte Name: PFHxS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 1304.32994 x (r = 0.99996) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.01770	1 of 1	0.02	94.8	N/A	N/A
0.03550	1 of 1	0.03	98.5	N/A	N/A
0.07100	1 of 1	0.07	100.7	N/A	N/A
0.00222	1 of 1	0.00	92.9	N/A	N/A
0.00443	1 of 1	0.00	106.2	N/A	N/A

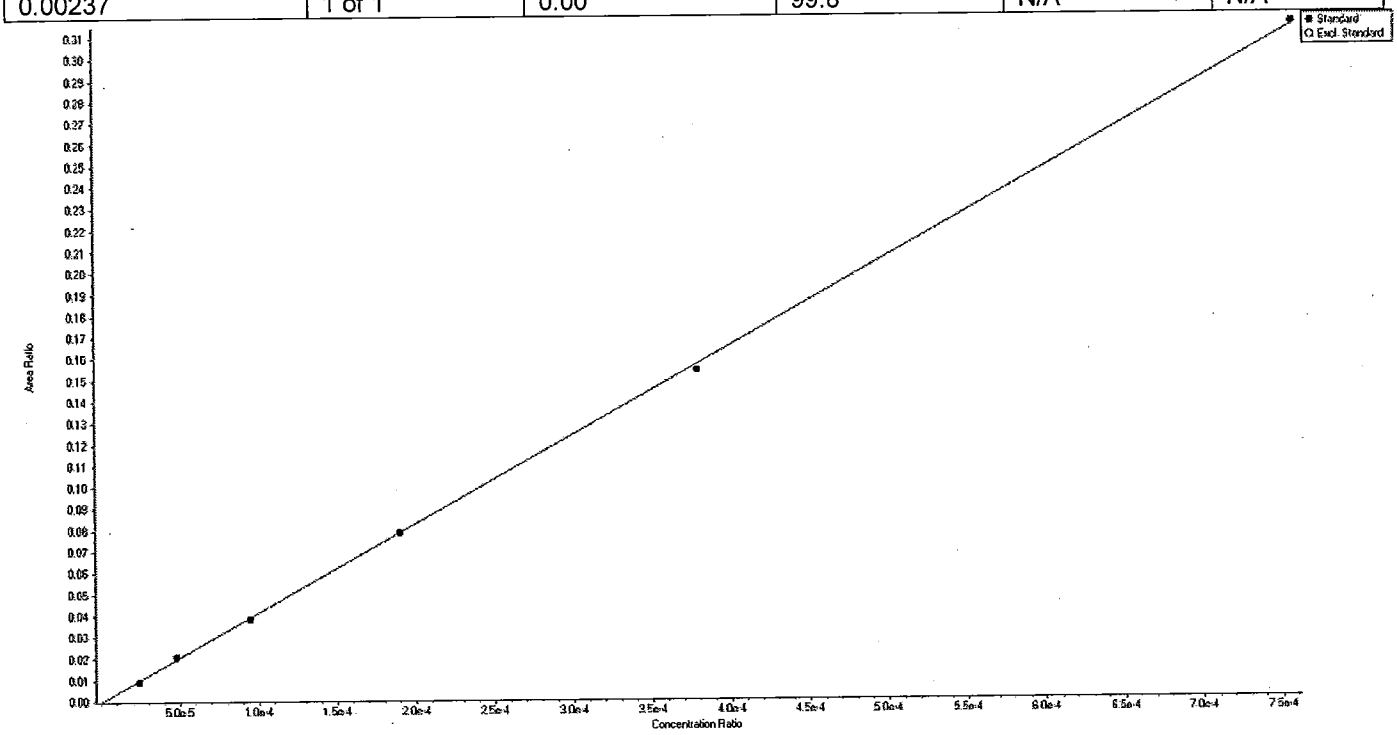


Analyte Name: PFHxS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 413.39365 x (r = 0.99990) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00887	1 of 1	0.01	95.1	N/A	N/A
0.01770	1 of 1	0.02	107.9	N/A	N/A
0.03550	1 of 1	0.03	98.4	N/A	N/A
0.07100	1 of 1	0.07	100.0	N/A	N/A
0.00237	1 of 1	0.00	99.8	N/A	N/A

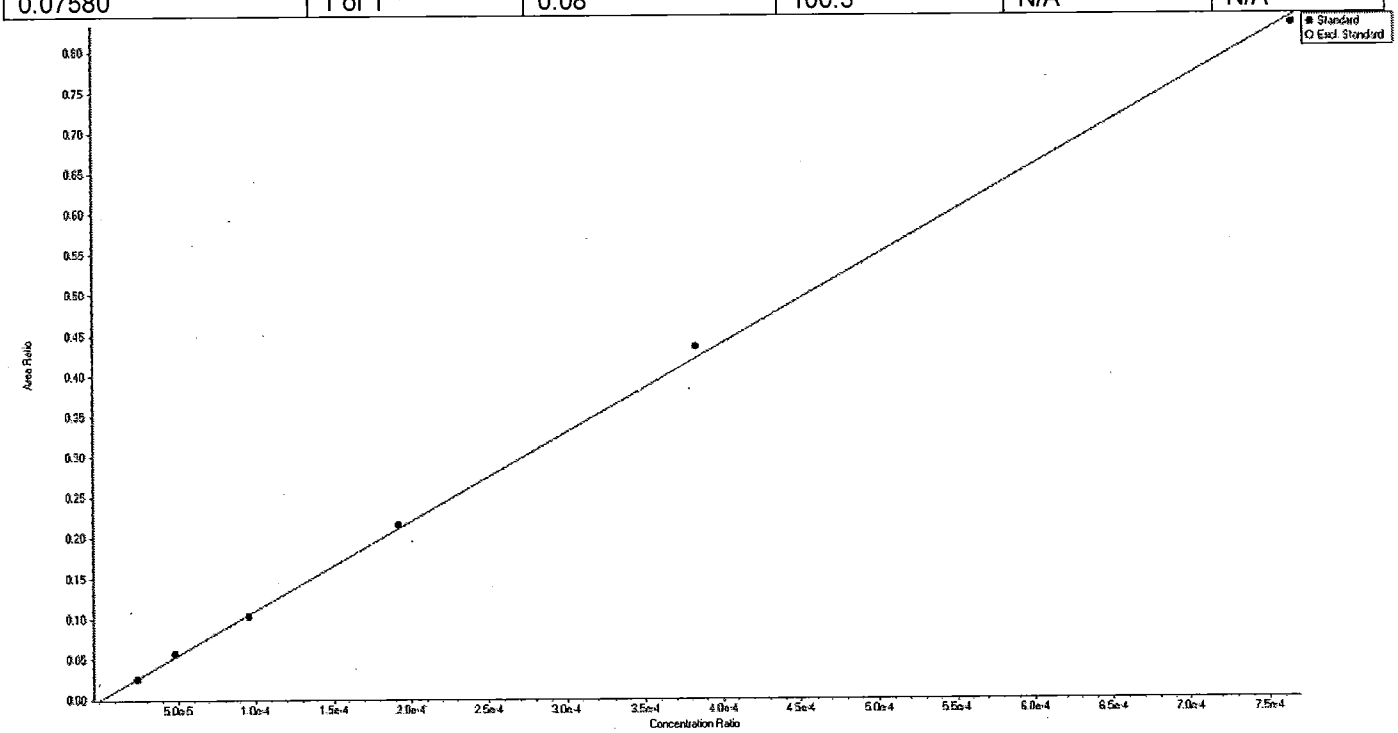


Analyte Name: PFOS
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 1097.67438 x (r = 0.99971) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00474	1 of 1	0.00	103.7	N/A	N/A
0.00948	1 of 1	0.01	98.3	N/A	N/A
0.01900	1 of 1	0.02	99.0	N/A	N/A
0.03790	1 of 1	0.04	98.9	N/A	N/A
0.07580	1 of 1	0.08	100.3	N/A	N/A

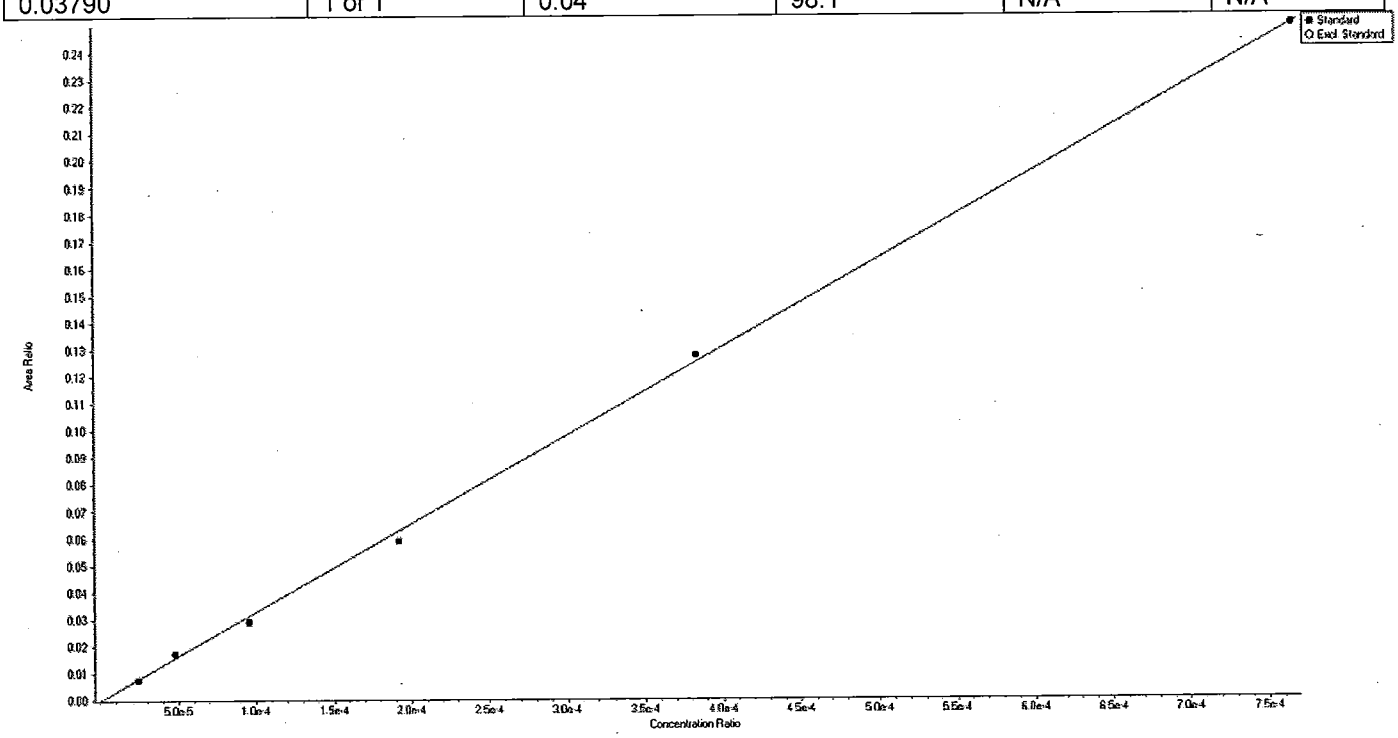


Analyte Name: PFOS 2
Internal Standard: IS-13C-PFOS

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 326.36683 x (r = 0.99969) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.00237	1 of 1	0.00	93.1	N/A	N/A
0.00474	1 of 1	0.01	106.5	N/A	N/A
0.00948	1 of 1	0.01	97.4	N/A	N/A
0.01900	1 of 1	0.02	99.9	N/A	N/A
0.03790	1 of 1	0.04	98.1	N/A	N/A

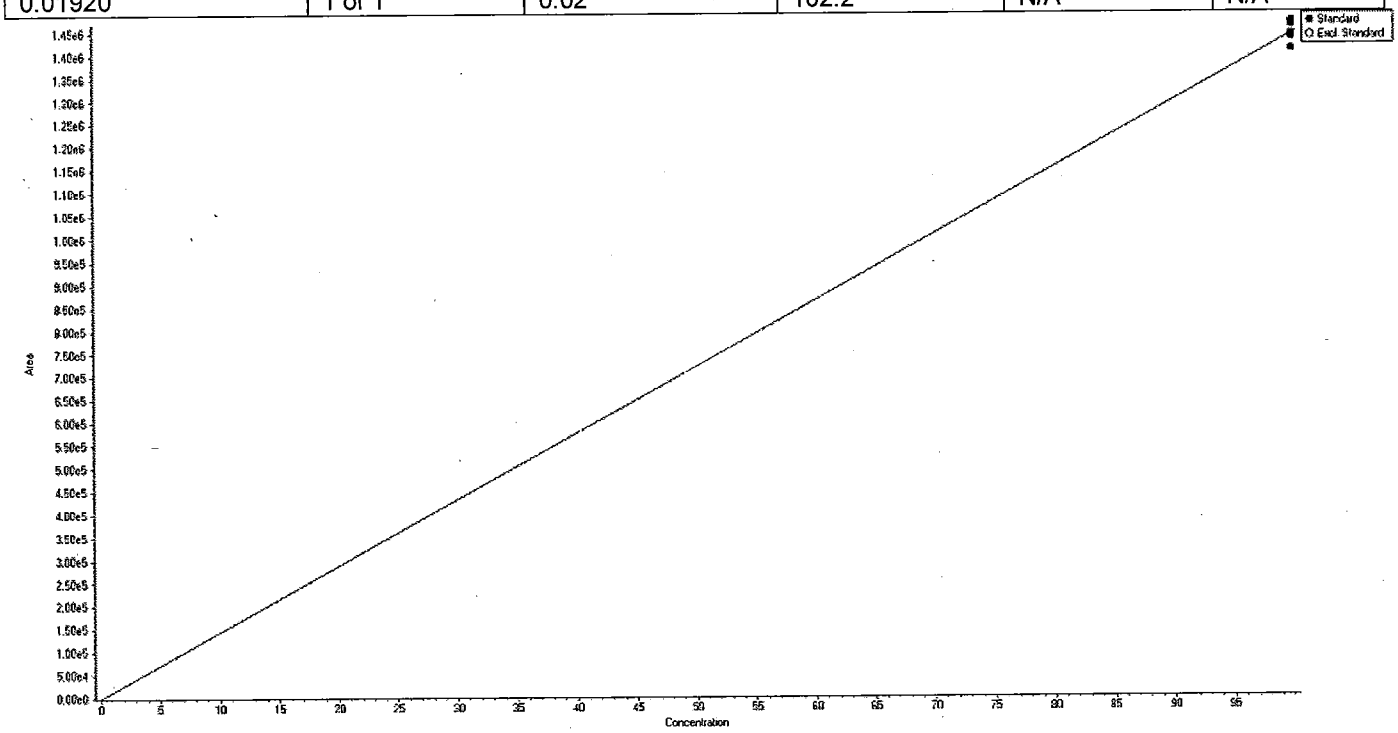


Analyte Name: 13C-PFOA
Internal Standard: N/A

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 14406.52392 x (std. dev. = 212.18367) (weighting: None)

Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.07580	1 of 1	0.08	100.5	N/A	N/A
0.00240	1 of 1	0.00	98.1	N/A	N/A
0.00479	1 of 1	0.01	107.3	N/A	N/A
0.00958	1 of 1	0.01	97.9	N/A	N/A
0.01920	1 of 1	0.02	102.2	N/A	N/A

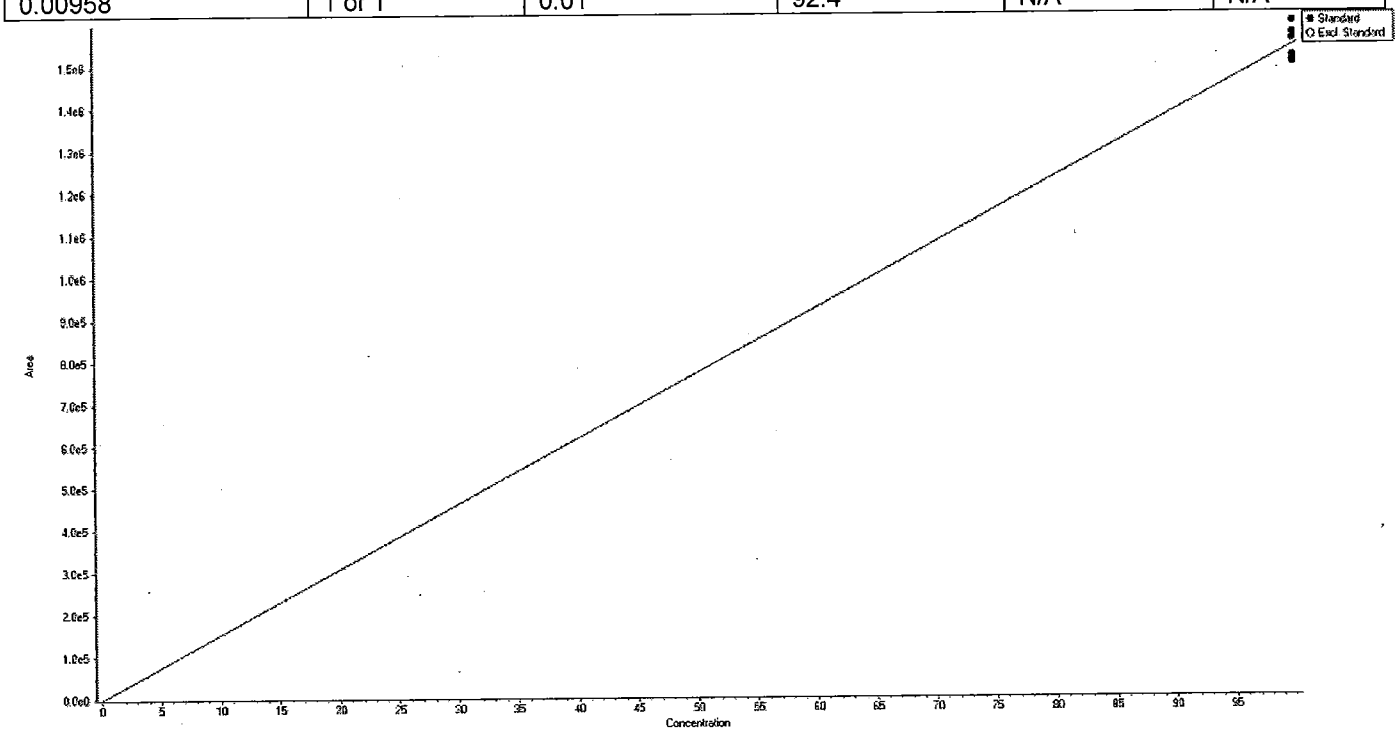


Analyte Name: 13C-PFOS
Internal Standard: N/A

Data File	@537-Batch#742660-122613.wiff	**Result Table**	@537-Batch#742660-122613
Acquisition Date	12/26/2013 6:41:03 PM	**Algorithm Used**	MQ4
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Instrument Name**	API 4000
Project	EPA537\2013_12_26		

Regression Equation: y = 15410.81742 x (std. dev. = 397.84058) (weighting: None)

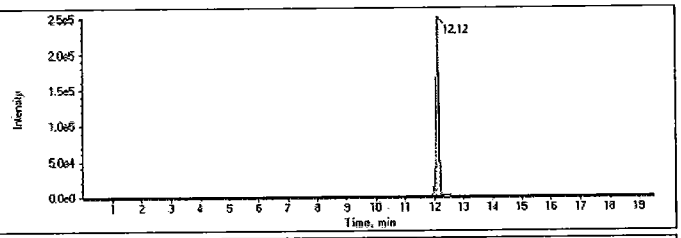
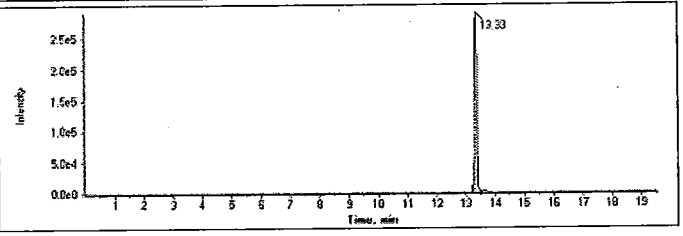
Expected Concentration	Number of Values	Mean Calculated Concentration	% Accuracy	Std. Deviation	%CV
0.03830	1 of 1	0.04	103.5	N/A	N/A
0.07660	1 of 1	0.08	99.0	N/A	N/A
0.00240	1 of 1	0.00	93.9	N/A	N/A
0.00479	1 of 1	0.01	108.2	N/A	N/A
0.00958	1 of 1	0.01	92.4	N/A	N/A



Sample Name	Blank	**Injection Vial**	1
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 6:41:03 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1546677.950000	12.12	100.00000	-
IS-13C-PFOS	1543029.050000	13.33	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.668e+03	8.48	0.00000	0.000049
Surr-13c-PFHxA	1.475e+06	8.54	100.00000	97.913245
PFHpA	2.943e+02	10.60	0.00000	0.000005
PFHpA 2	1.962e+02	10.61	0.00000	0.000014
PFOA	2.501e+03	12.15	0.00000	0.000050
PFOA 2	7.121e+02	12.12	0.00000	0.000045
PFNA	3.921e+02	13.38	0.00000	0.000011
PFNA 2	1.471e+02	13.32	0.00000	0.000017
PFDA	2.453e+02	14.39	0.00000	0.000006
PFDA 2	9.810e+01	14.33	0.00000	0.000015
Surr-13c-PFDA	1.289e+06	14.36	100.00000	100.374240
PFUnA	2.945e+02	15.21	0.00000	0.000009
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	2.452e+02	15.96	0.00000	0.000008
PFTrDA	4.412e+02	16.62	0.00000	0.000010
PFTrDA 2	1.472e+02	16.57	0.00000	0.000019
PFTA	1.961e+02	17.38	0.00000	0.000045
PFBS	9.807e+01	6.12	0.00000	0.000005
PFBS 2	1.960e+02	6.35	0.00000	0.000040
PFHxS	4.857e+01	10.68	0.00000	0.000002
PFHxS 2	4.904e+01	10.73	0.00000	0.000008
PFOS	1.963e+02	13.35	0.00000	0.000012
PFOS 2	N/A	N/A	0.00000	N/A
13C-PFOA	1.547e+06	12.12	100.00000	107.359552
13C-PFOS	1.543e+06	13.33	100.00000	100.126360

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.33(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

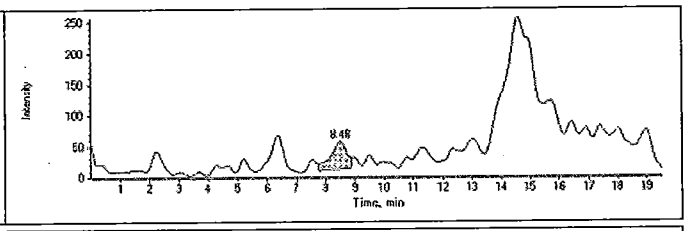
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.55) min

Calculated conc: 0.000049

Area Ratio: 1.078e-3

Sample Type: (Quality Control)



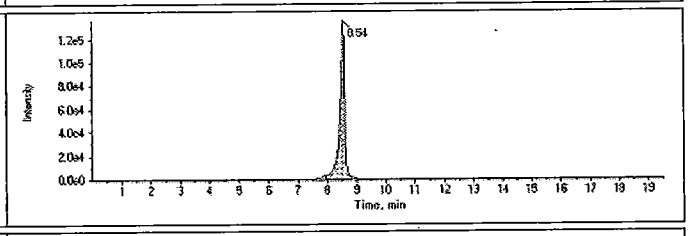
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 97.913245

Area Ratio: 9.536e-1

Sample Type: (Quality Control)



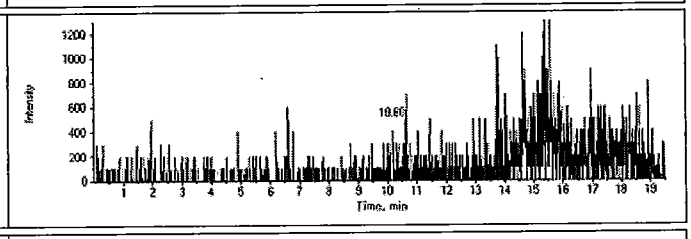
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.000005

Area Ratio: 1.903e-4

Sample Type: (Quality Control)



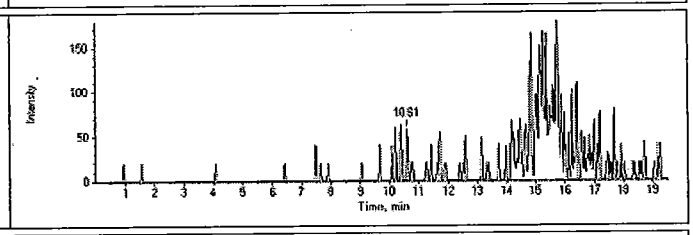
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000014

Area Ratio: 1.268e-4

Sample Type: (Quality Control)



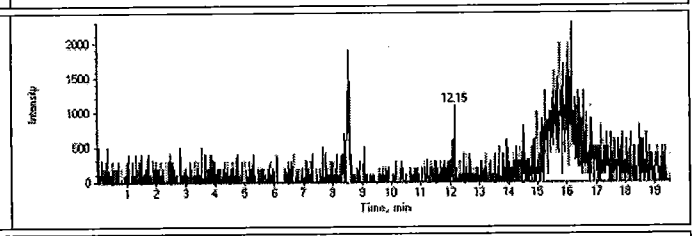
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.000050

Area Ratio: 1.617e-3

Sample Type: (Quality Control)



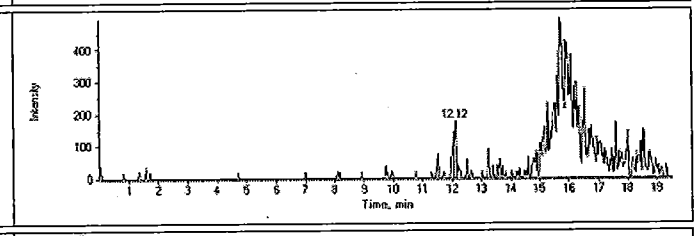
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.12 (12.13) min

Calculated conc: 0.000045

Area Ratio: 4.604e-4

Sample Type: (Quality Control)



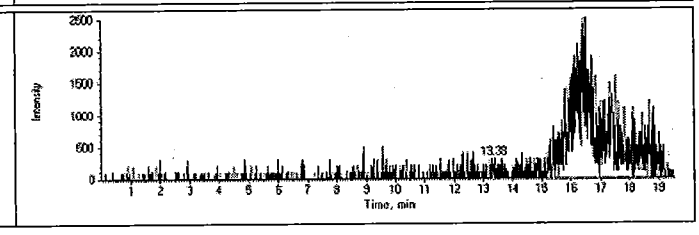
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.000011

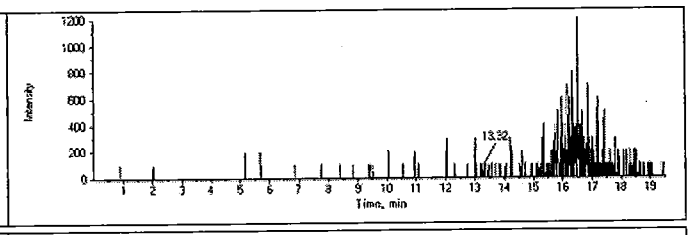
Area Ratio: 2.535e-4

Sample Type: (Quality Control)



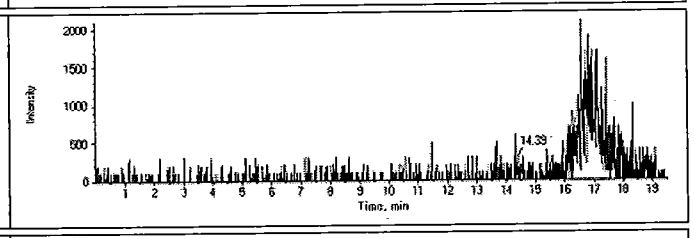
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.32 (13.35) min
Calculated conc: 0.000017
Area Ratio: 9.511e-5
Sample Type: (Quality Control)



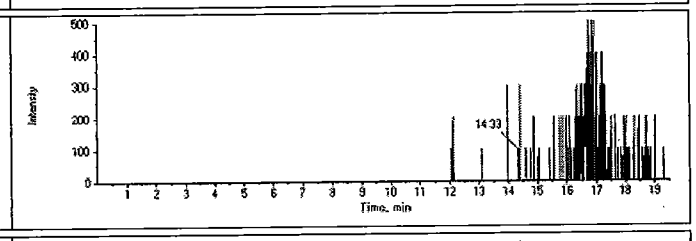
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.000006
Area Ratio: 1.586e-4
Sample Type: (Quality Control)



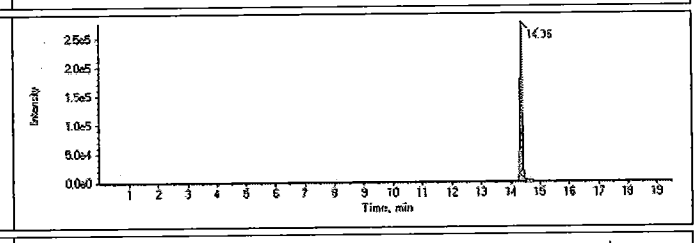
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.33 (14.37) min
Calculated conc: 0.000015
Area Ratio: 6.343e-5
Sample Type: (Quality Control)



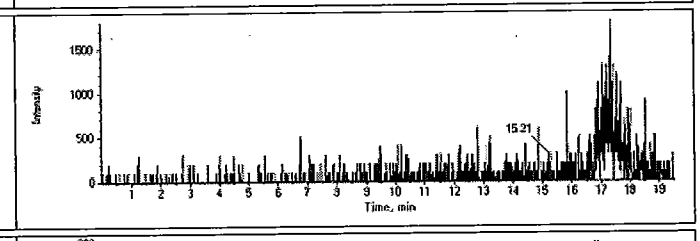
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.36 (14.37) min
Calculated conc: 100.374240
Area Ratio: 8.337e-1
Sample Type: (Quality Control)



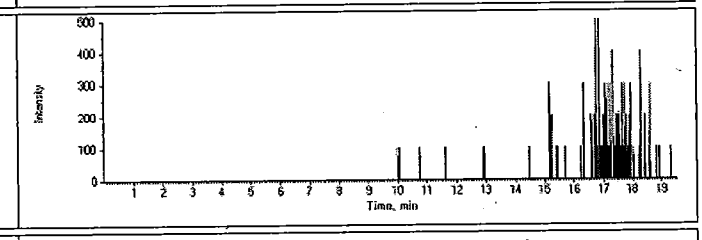
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min
Calculated conc: 0.000009
Area Ratio: 1.904e-4
Sample Type: (Quality Control)



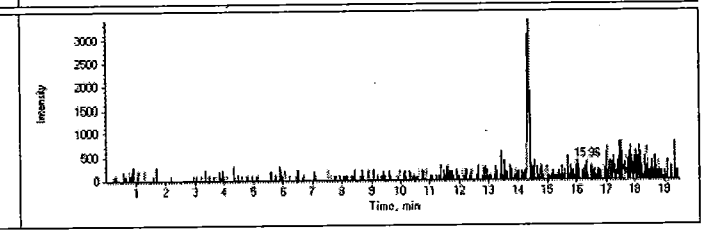
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000008
Area Ratio: 1.585e-4
Sample Type: (Quality Control)



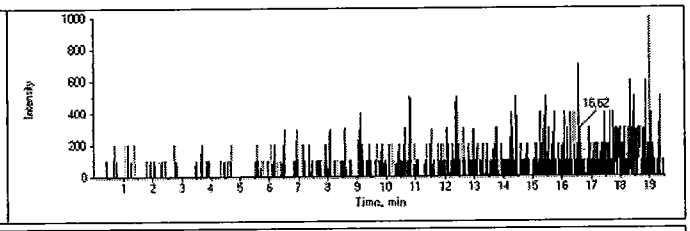
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.000010

Area Ratio: 2.853e-4

Sample Type: (Quality Control)



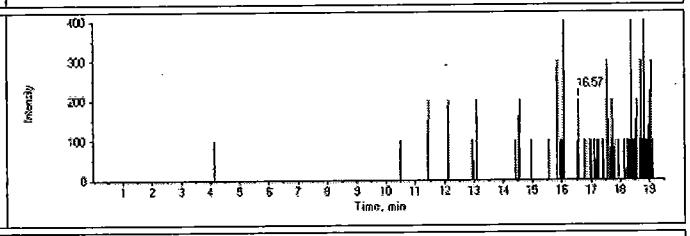
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.57 (16.60) min

Calculated conc: 0.000019

Area Ratio: 9.514e-5

Sample Type: (Quality Control)



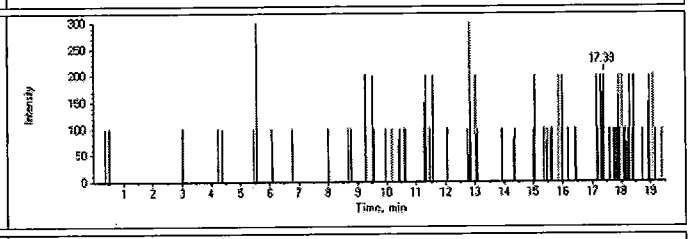
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.38 (17.15) min

Calculated conc: 0.000045

Area Ratio: 1.268e-4

Sample Type: (Quality Control)



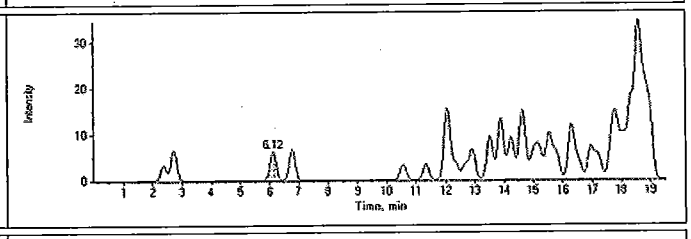
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.12 (6.27) min

Calculated conc: 0.000005

Area Ratio: 6.356e-5

Sample Type: (Quality Control)



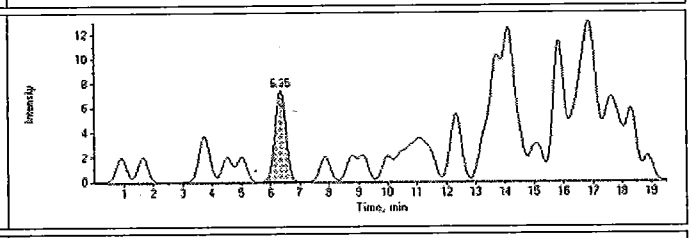
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.35 (6.28) min

Calculated conc: 0.000040

Area Ratio: 1.270e-4

Sample Type: (Quality Control)



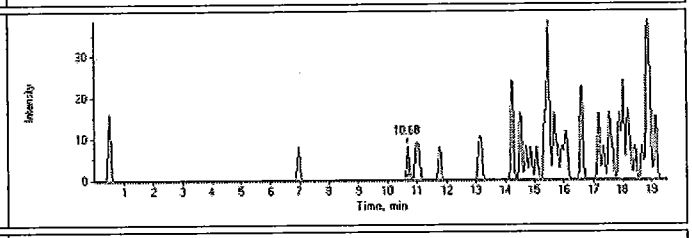
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.68 (10.73) min

Calculated conc: 0.000002

Area Ratio: 3.148e-5

Sample Type: (Quality Control)



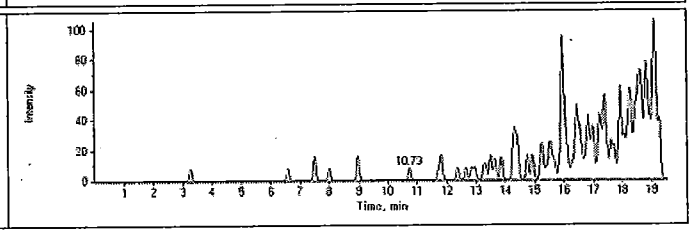
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000008

Area Ratio: 3.178e-5

Sample Type: (Quality Control)



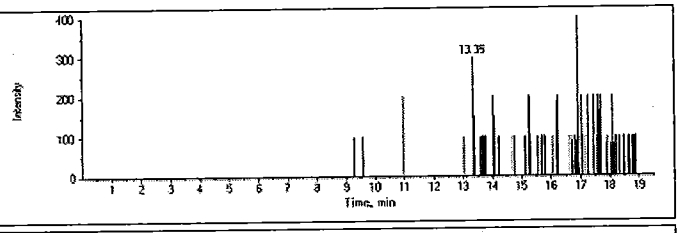
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000012

Area Ratio: 1.272e-4

Sample Type: (Quality Control)



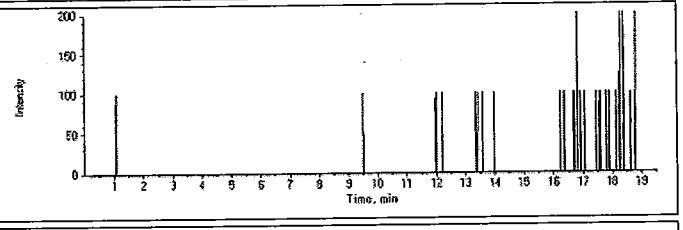
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): N/A (13.34) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



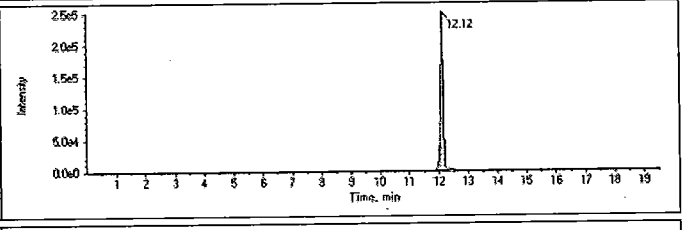
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 107.359552

Area Ratio: N/A

Sample Type: (Quality Control)



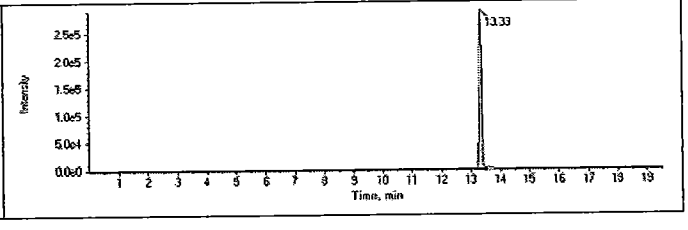
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.33 (13.36) min

Calculated conc: 100.126360

Area Ratio: N/A

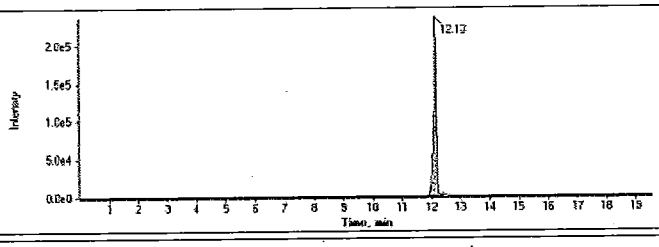
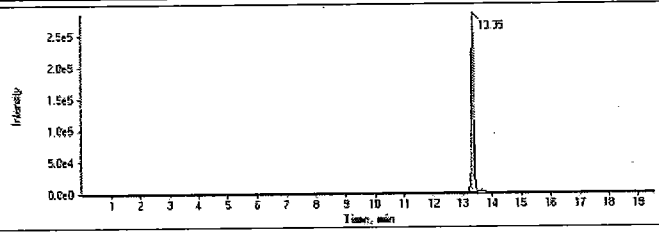
Sample Type: (Quality Control)



Sample Name	Cal-0.0025ppb	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 7:01:12 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1468336.350000	12.13	100.00000	-
IS-13C-PFOS	1500861.800000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	8.921e+04	8.52	0.00250	0.002739
Surr-13c-PFHxA	1.378e+06	8.55	100.00000	96.377239
PFHpA	1.271e+05	10.60	0.00250	0.002437
PFHpA 2	3.505e+04	10.60	0.00250	0.002617
PFOA	1.225e+05	12.13	0.00250	0.002561
PFOA 2	3.996e+04	12.13	0.00250	0.002688
PFNA	9.474e+04	13.36	0.00250	0.002811
PFNA 2	2.040e+04	13.36	0.00250	0.002548
PFDA	8.834e+04	14.38	0.00250	0.002359
PFDA 2	1.628e+04	14.38	0.00250	0.002706
Surr-13c-PFDA	1.138e+06	14.38	100.00000	93.279083
PFUnA	7.733e+04	15.24	0.00250	0.002372
PFUnA 2	1.275e+04	15.24	0.00250	0.002510
PFDoA	6.792e+04	15.97	0.00250	0.002246
PFTrDA	8.175e+04	16.60	0.00250	0.001898
PFTrDA 2	1.368e+04	16.60	0.00250	0.001827
PFTA	8.337e+03	17.16	0.00250	0.001998
PFBS	3.819e+04	6.27	0.00222	0.002092
PFBS 2	9.886e+03	6.25	0.00222	0.002061
PFHxS	4.630e+04	10.73	0.00237	0.002365
PFHxS 2	1.370e+04	10.73	0.00237	0.002208
PFOS	3.879e+04	13.35	0.00240	0.002354
PFOS 2	1.103e+04	13.35	0.00240	0.002252
13C-PFOA	1.468e+06	12.13	100.00000	101.921627
13C-PFOS	1.501e+06	13.35	100.00000	97.390149

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Standard)	

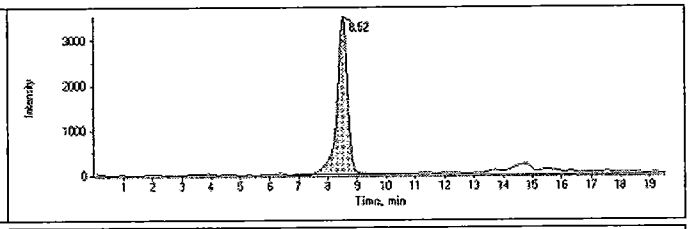
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.002739

Area Ratio: 6.076e-2

Sample Type: (Standard)



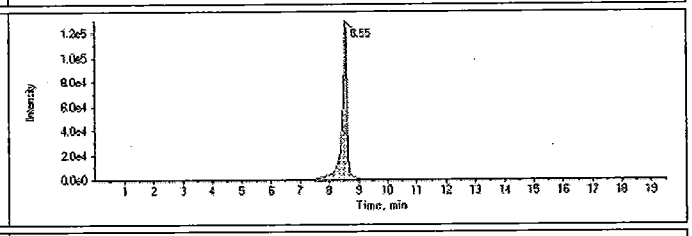
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 96.377239

Area Ratio: 9.387e-1

Sample Type: (Standard)



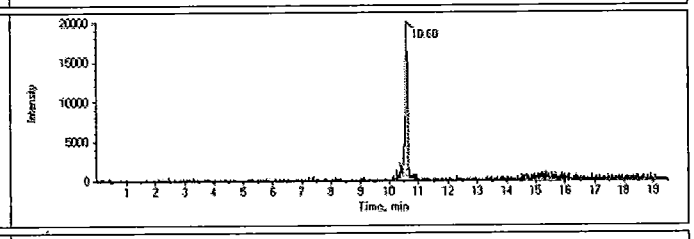
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002437

Area Ratio: 8.654e-2

Sample Type: (Standard)



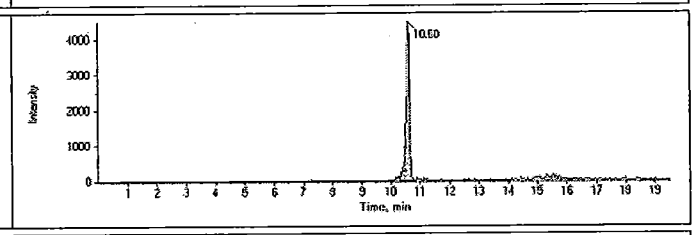
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002617

Area Ratio: 2.387e-2

Sample Type: (Standard)



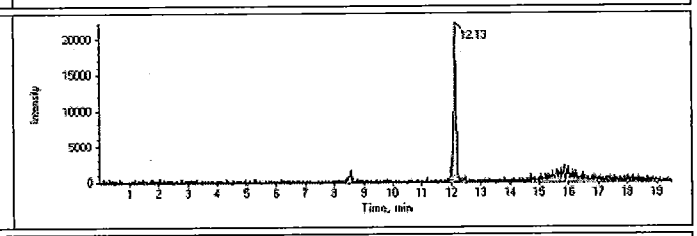
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.002561

Area Ratio: 8.344e-2

Sample Type: (Standard)



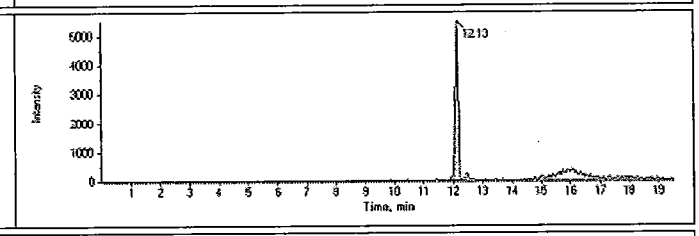
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.002688

Area Ratio: 2.722e-2

Sample Type: (Standard)



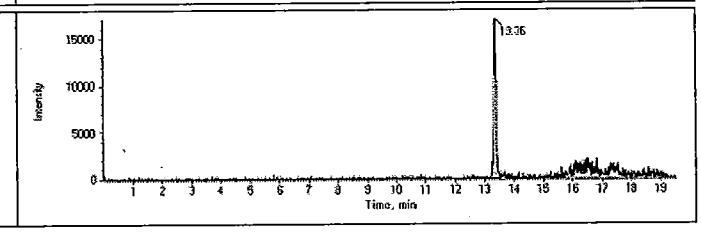
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.002811

Area Ratio: 6.452e-2

Sample Type: (Standard)



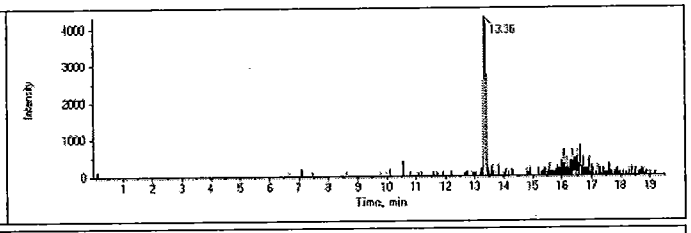
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.002548

Area Ratio: 1.389e-2

Sample Type: (Standard)



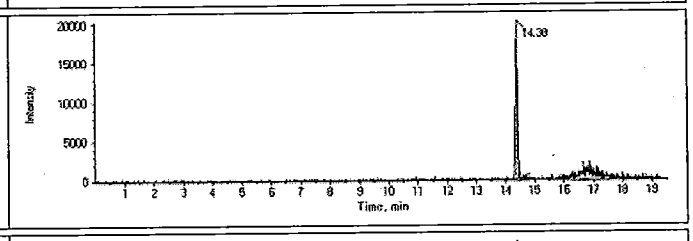
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.002359

Area Ratio: 6.017e-2

Sample Type: (Standard)



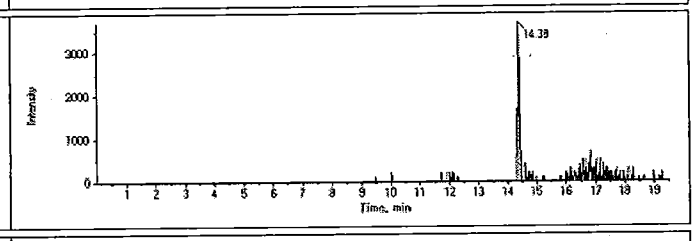
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.002706

Area Ratio: 1.109e-2

Sample Type: (Standard)



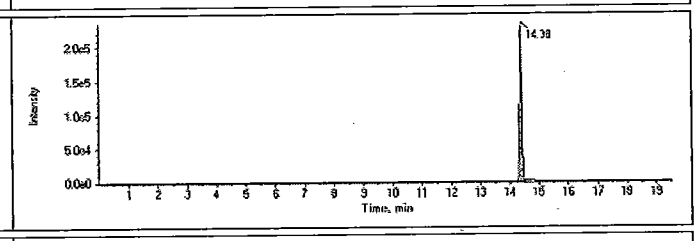
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 93.279083

Area Ratio: 7.747e-1

Sample Type: (Standard)



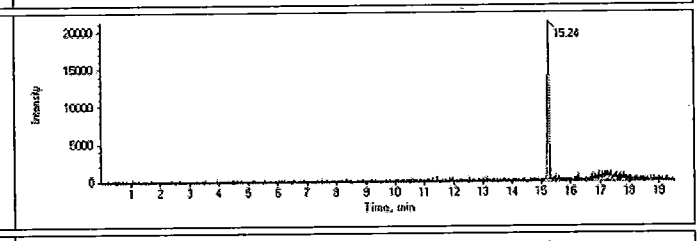
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.002372

Area Ratio: 5.266e-2

Sample Type: (Standard)



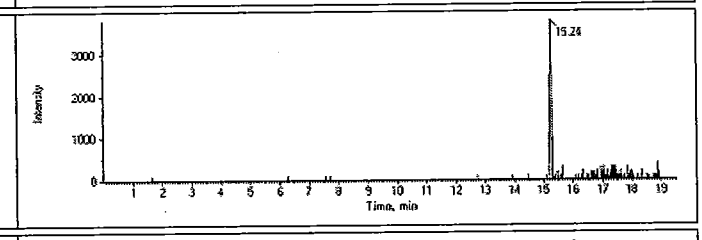
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.002510

Area Ratio: 8.683e-3

Sample Type: (Standard)



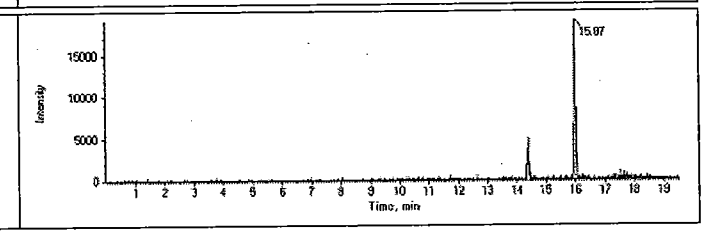
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.002246

Area Ratio: 4.626e-2

Sample Type: (Standard)



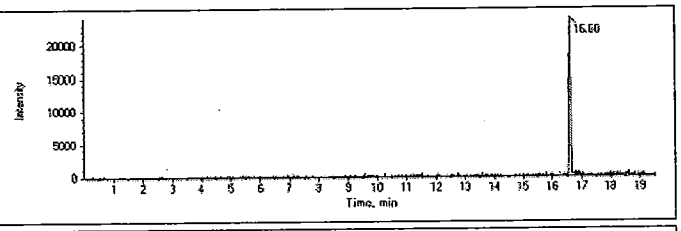
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.001898

Area Ratio: 5.567e-2

Sample Type: (Standard)



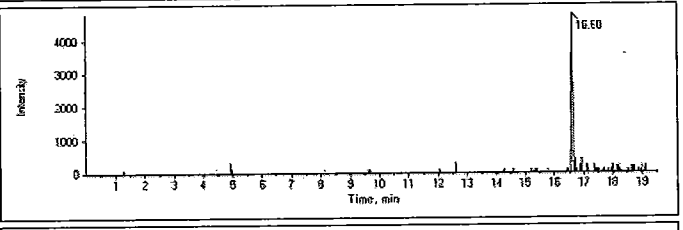
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.001827

Area Ratio: 9.318e-3

Sample Type: (Standard)



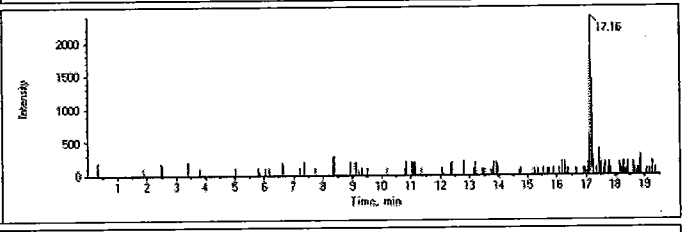
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.001998

Area Ratio: 5.678e-3

Sample Type: (Standard)



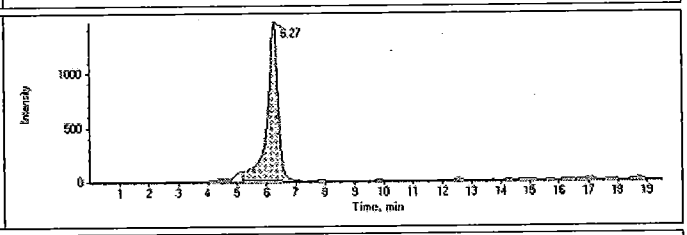
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.27 (6.27) min

Calculated conc: 0.002092

Area Ratio: 2.545e-2

Sample Type: (Standard)



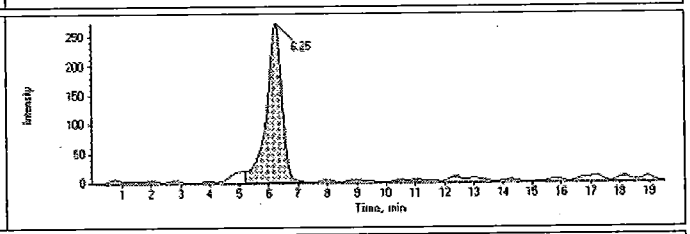
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.25 (6.28) min

Calculated conc: 0.002061

Area Ratio: 6.587e-3

Sample Type: (Standard)



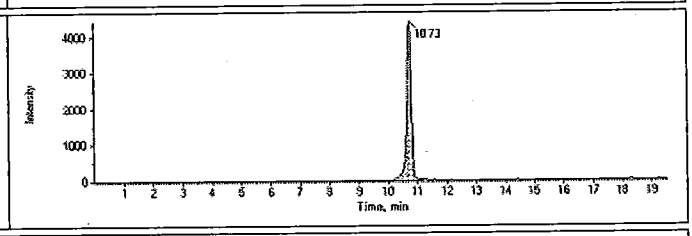
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.002365

Area Ratio: 3.085e-2

Sample Type: (Standard)



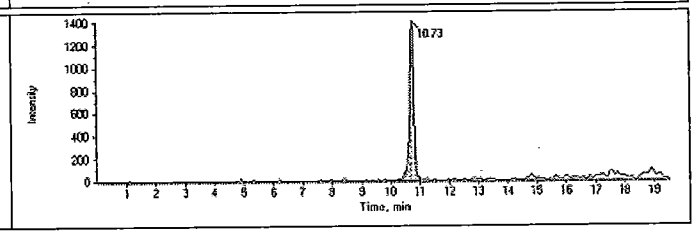
PFHxS 2 (398.9 / 99.0)

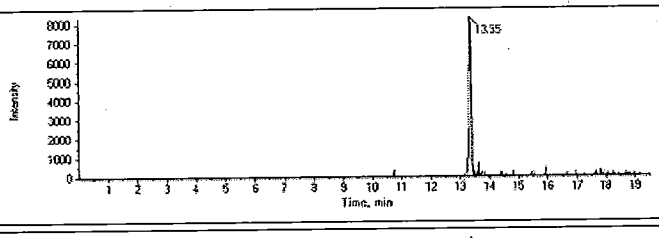
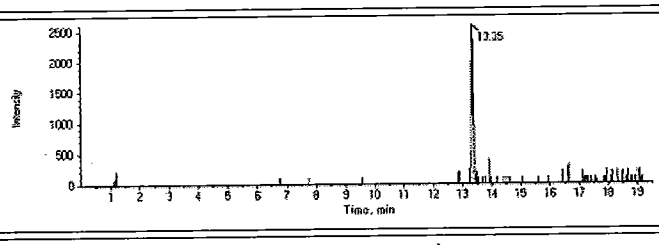
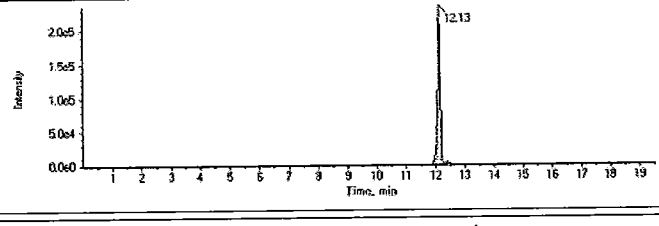
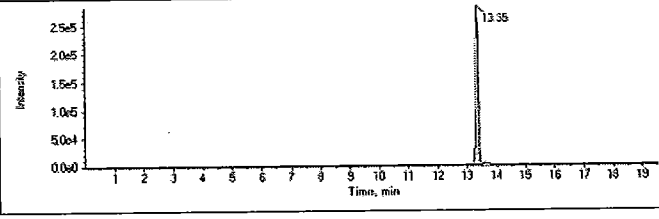
RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.002208

Area Ratio: 9.126e-3

Sample Type: (Standard)

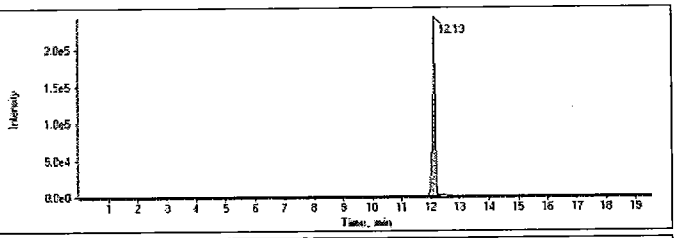
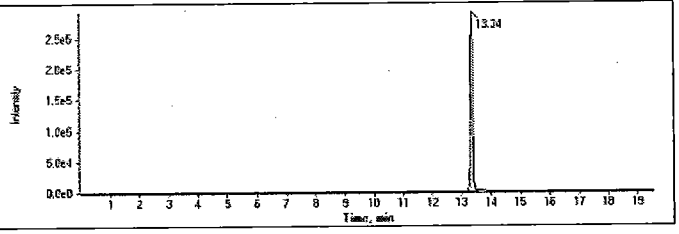


PFOS (499.0 / 79.9) RT (Exp. RT): 13.35 (13.34) min Calculated conc: 0.002354 Area Ratio: 2.584e-2 Sample Type: (Standard)	
PFOS 2 (499.0 / 99.0) RT (Exp. RT): 13.35 (13.34) min Calculated conc: 0.002252 Area Ratio: 7.351e-3 Sample Type: (Standard)	
13C-PFOA (417.0 / 372.0) RT (Exp. RT): 12.13 (12.12) min Calculated conc: 101.921627 Area Ratio: N/A Sample Type: (Standard)	
13C-PFOS (503.0 / 80.0) RT (Exp. RT): 13.35 (13.36) min Calculated conc: 97.390149 Area Ratio: N/A Sample Type: (Standard)	

Sample Name	Cal-0.005ppb	**Injection Vial**	3
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 7:21:21 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1440965.750000	12.13	100.00000	-
IS-13C-PFOS	1504396.400000	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.696e+05	8.52	0.00500	0.005308
Surr-13c-PFHxA	1.438e+06	8.54	100.00000	102.443622
PFHpA	2.554e+05	10.60	0.00500	0.004992
PFHpA 2	6.591e+04	10.60	0.00500	0.005015
PFOA	2.452e+05	12.13	0.00500	0.005225
PFOA 2	7.990e+04	12.13	0.00500	0.005477
PFNA	1.855e+05	13.35	0.00500	0.005607
PFNA 2	4.237e+04	13.35	0.00500	0.005392
PFDA	1.851e+05	14.37	0.00500	0.005035
PFDA 2	2.878e+04	14.37	0.00500	0.004875
Surr-13c-PFDA	1.230e+06	14.37	100.00000	102.777843
PFUnA	1.690e+05	15.23	0.00500	0.005282
PFUnA 2	2.437e+04	15.24	0.00500	0.004889
PFDoA	1.318e+05	15.96	0.00500	0.004442
PFTrDA	1.654e+05	16.60	0.00500	0.003913
PFTrDA 2	2.751e+04	16.60	0.00500	0.003744
PFTA	1.491e+04	17.15	0.00500	0.003641
PFBS	8.896e+04	6.25	0.00443	0.004862
PFBS 2	2.261e+04	6.23	0.00443	0.004705
PFHxS	9.641e+04	10.72	0.00474	0.004913
PFHxS 2	3.138e+04	10.72	0.00474	0.005046
PFOS	8.489e+04	13.34	0.00479	0.005140
PFOS 2	2.545e+04	13.34	0.00479	0.005183
13C-PFOA	1.441e+06	12.13	100.00000	100.021751
13C-PFOS	1.504e+06	13.34	100.00000	97.619507

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.36) min Concentration: 100.00000 Sample Type: (Standard)	

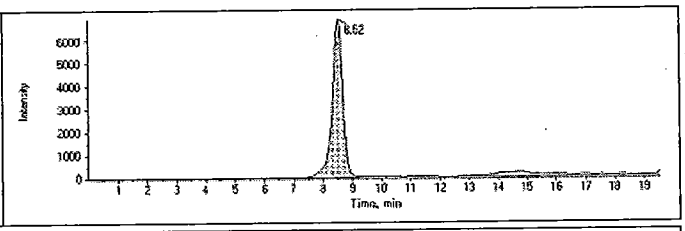
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.005308

Area Ratio: 1.177e-1

Sample Type: (Standard)



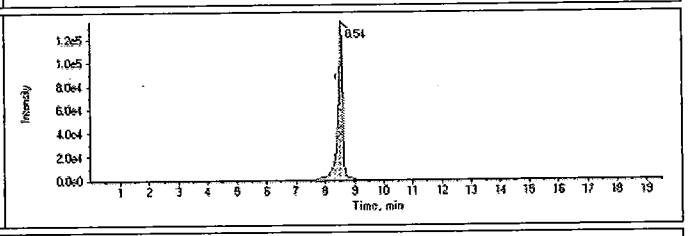
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 102.443622

Area Ratio: 9.978e-1

Sample Type: (Standard)



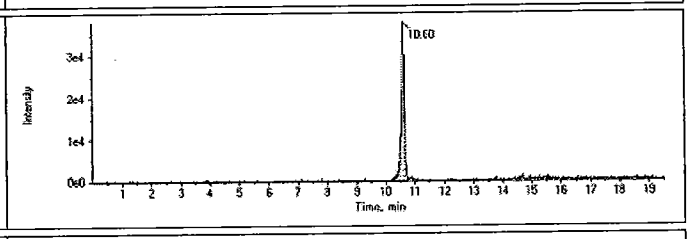
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.004992

Area Ratio: 1.772e-1

Sample Type: (Standard)



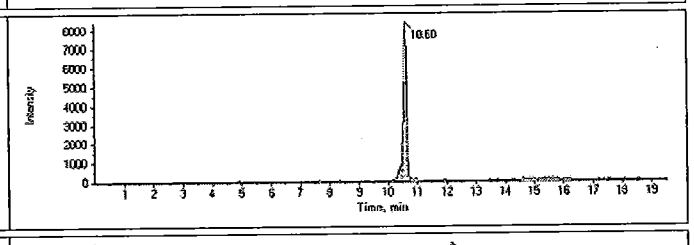
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.005015

Area Ratio: 4.574e-2

Sample Type: (Standard)



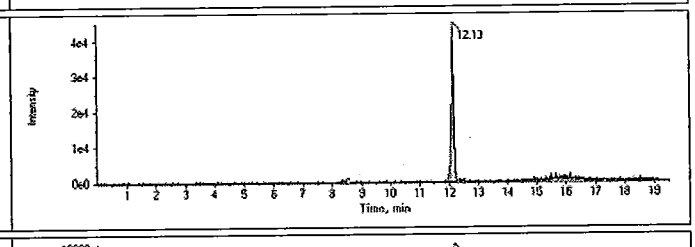
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.005225

Area Ratio: 1.702e-1

Sample Type: (Standard)



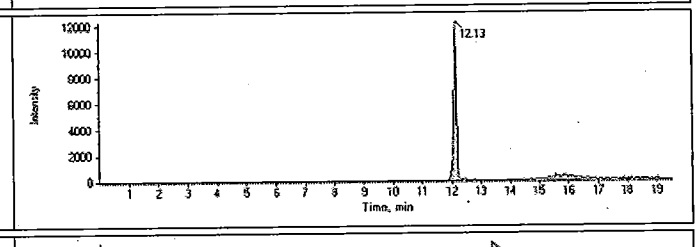
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.005477

Area Ratio: 5.545e-2

Sample Type: (Standard)



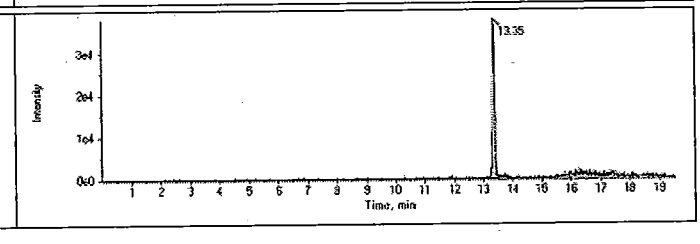
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.005607

Area Ratio: 1.287e-1

Sample Type: (Standard)



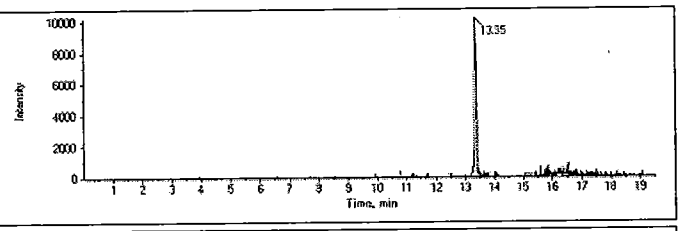
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.005392

Area Ratio: 2.940e-2

Sample Type: (Standard)



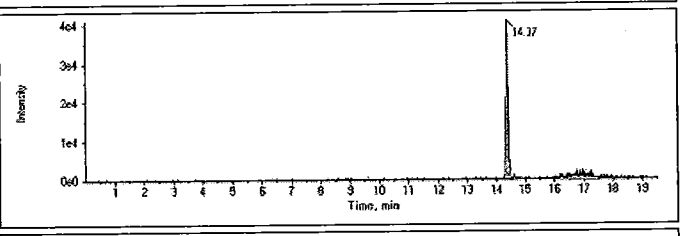
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.005035

Area Ratio: 1.285e-1

Sample Type: (Standard)



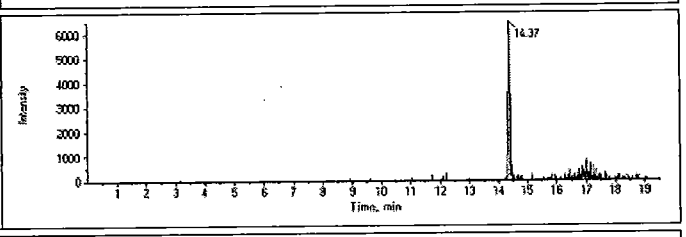
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.004875

Area Ratio: 1.997e-2

Sample Type: (Standard)



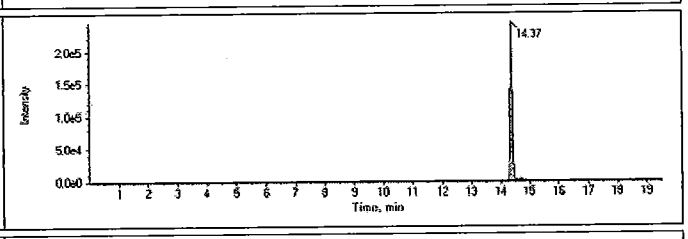
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 102.777843

Area Ratio: 8.536e-1

Sample Type: (Standard)



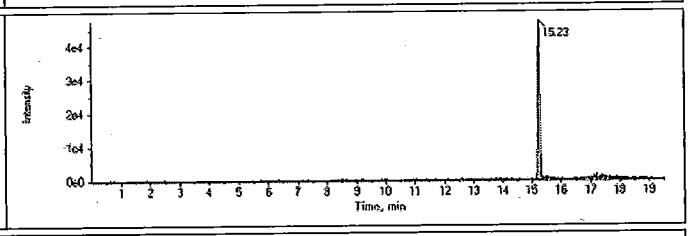
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.005282

Area Ratio: 1.173e-1

Sample Type: (Standard)



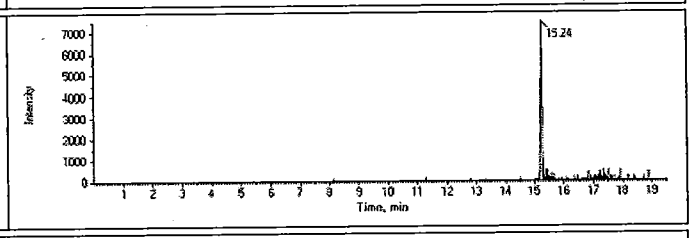
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.004889

Area Ratio: 1.691e-2

Sample Type: (Standard)



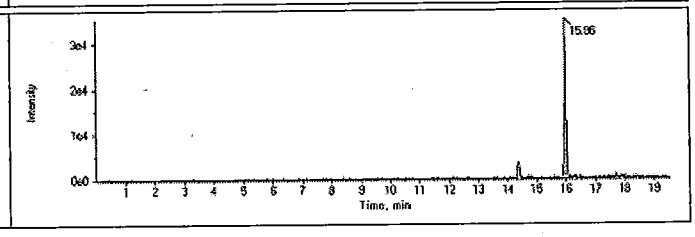
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min

Calculated conc: 0.004442

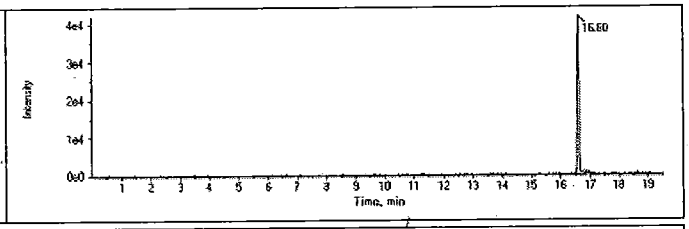
Area Ratio: 9.150e-2

Sample Type: (Standard)



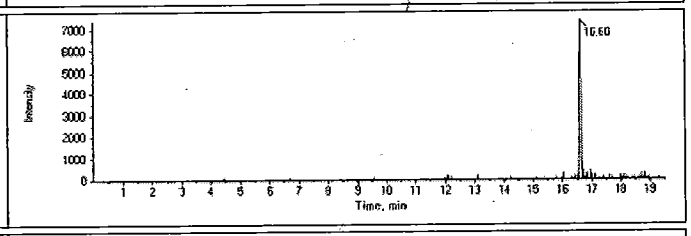
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min
Calculated conc: 0.003913
Area Ratio: 1.148e-1
Sample Type: (Standard)



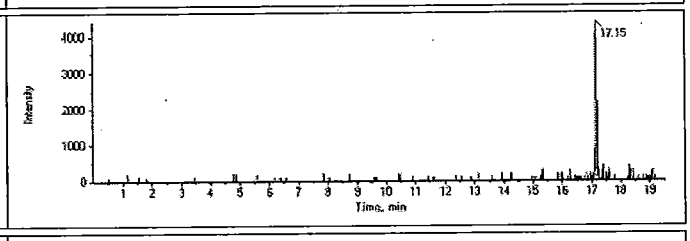
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.60 (16.60) min
Calculated conc: 0.003744
Area Ratio: 1.909e-2
Sample Type: (Standard)



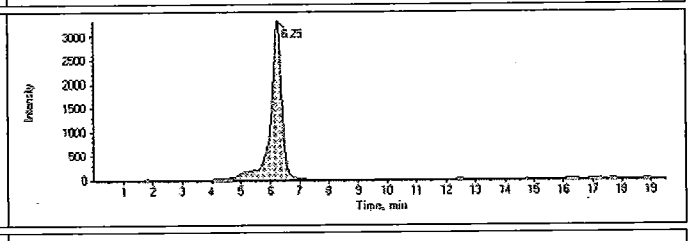
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.15 (17.15) min
Calculated conc: 0.003641
Area Ratio: 1.034e-2
Sample Type: (Standard)



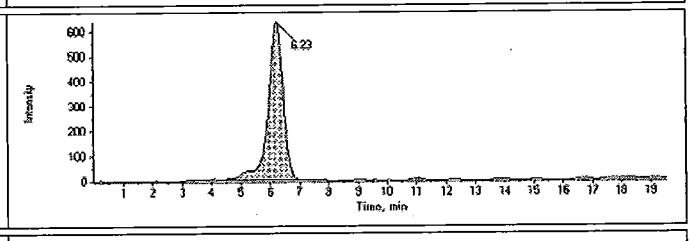
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min
Calculated conc: 0.004862
Area Ratio: 5.913e-2
Sample Type: (Standard)



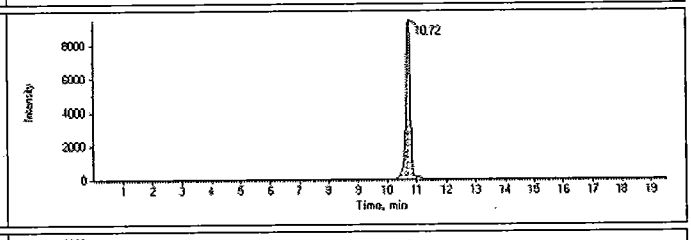
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min
Calculated conc: 0.004705
Area Ratio: 1.503e-2
Sample Type: (Standard)



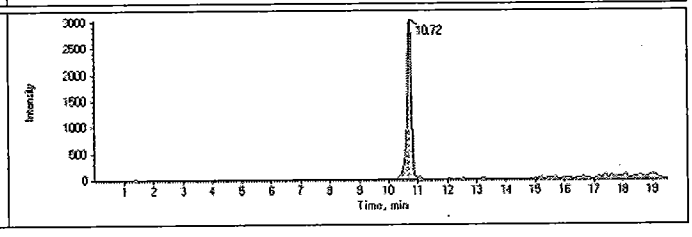
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.73) min
Calculated conc: 0.004913
Area Ratio: 6.408e-2
Sample Type: (Standard)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.73) min
Calculated conc: 0.005046
Area Ratio: 2.086e-2
Sample Type: (Standard)



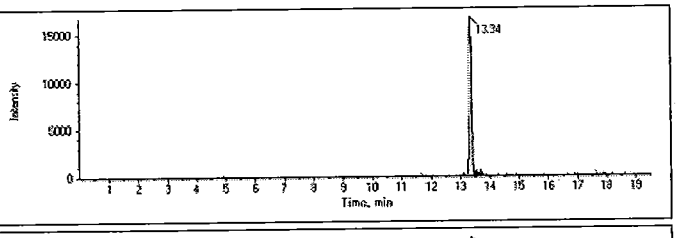
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.005140

Area Ratio: 5.642e-2

Sample Type: (Standard)



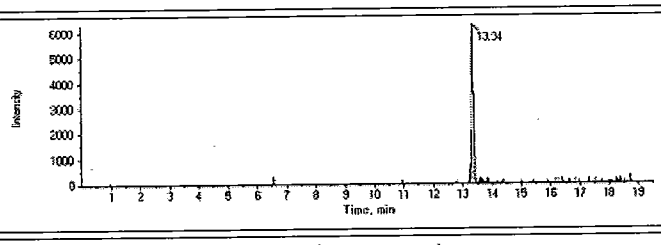
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.005183

Area Ratio: 1.692e-2

Sample Type: (Standard)



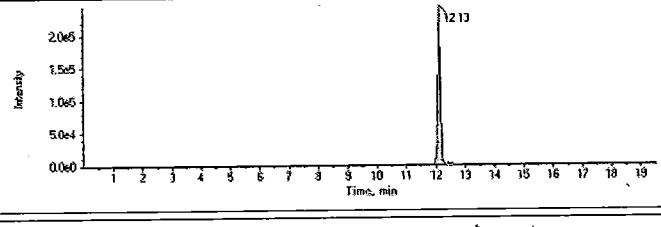
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 100.021751

Area Ratio: N/A

Sample Type: (Standard)



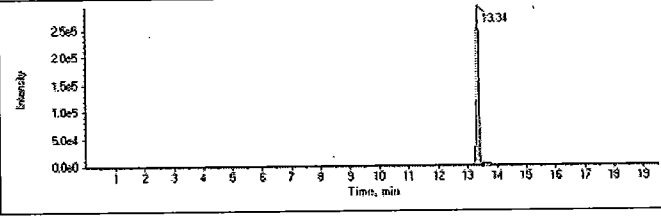
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 97.619507

Area Ratio: N/A

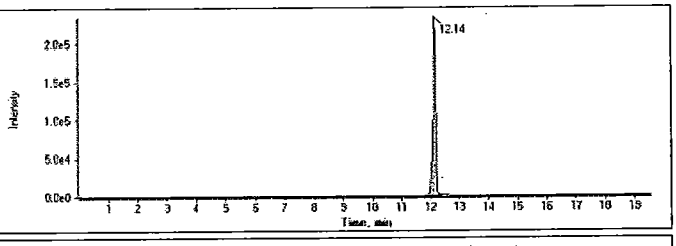
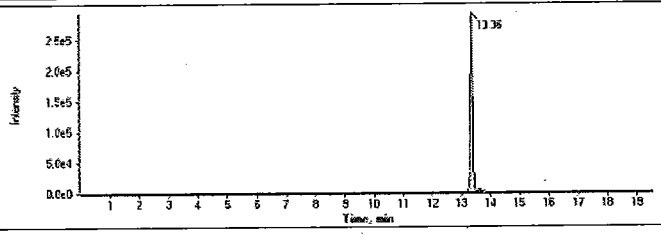
Sample Type: (Standard)



Sample Name	Cal-0.01ppb	**Injection Vial**	4
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 7:41:30 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1433760.400000	12.14	100.00000	-
IS-13C-PFOS	1598226.750000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.257e+05	8.52	0.01000	0.010241
Surr-13c-PFHxA	1.418e+06	8.55	100.00000	101.536395
PFHpA	4.880e+05	10.61	0.01000	0.009587
PFHpA 2	1.290e+05	10.61	0.01000	0.009865
PFOA	4.740e+05	12.14	0.01000	0.010149
PFOA 2	1.624e+05	12.14	0.01000	0.011190
PFNA	3.647e+05	13.37	0.01000	0.011082
PFNA 2	8.345e+04	13.37	0.01000	0.010676
PFDA	3.686e+05	14.38	0.01000	0.010077
PFDA 2	5.708e+04	14.38	0.01000	0.009716
Surr-13c-PFDA	1.210e+06	14.38	100.00000	101.616468
PFUnA	3.270e+05	15.24	0.01000	0.010269
PFUnA 2	5.008e+04	15.24	0.01000	0.010095
PFDoA	2.842e+05	15.98	0.01000	0.009622
PFTrDA	4.247e+05	16.61	0.01000	0.010100
PFTrDA 2	6.956e+04	16.61	0.01000	0.009514
PFTA	4.467e+04	17.16	0.01000	0.010967
PFBS	1.688e+05	6.27	0.00887	0.008685
PFBS 2	4.306e+04	6.25	0.00887	0.008432
PFHxS	1.943e+05	10.74	0.00948	0.009319
PFHxS 2	6.098e+04	10.73	0.00948	0.009230
PFOS	1.646e+05	13.36	0.00958	0.009380
PFOS 2	4.619e+04	13.36	0.00958	0.008855
13C-PFOA	1.434e+06	12.14	100.00000	99.521606
13C-PFOS	1.598e+06	13.36	100.00000	103.708110

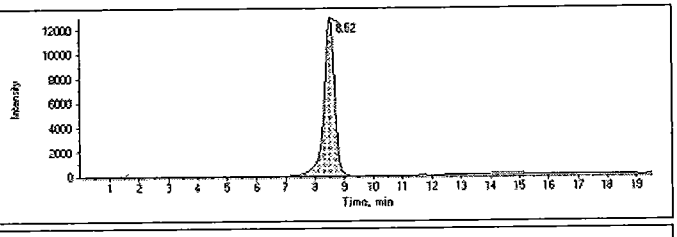
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Standard)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.010241

Area Ratio: 2.271e-1
Sample Type: (Standard)

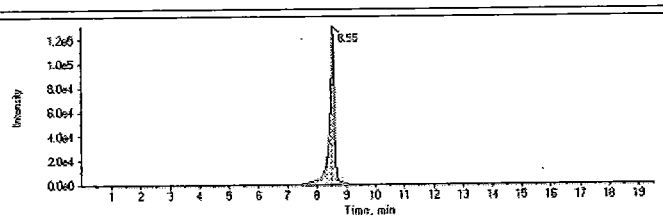


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 101.536395

Area Ratio: 9.889e-1
Sample Type: (Standard)

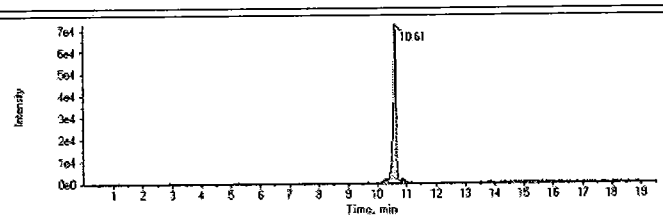


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.009587

Area Ratio: 3.404e-1
Sample Type: (Standard)

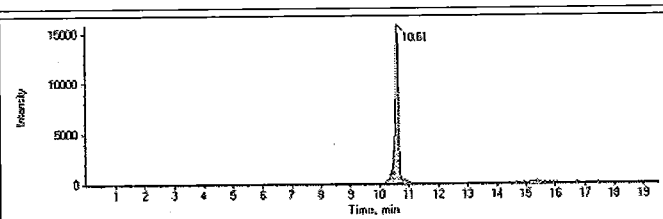


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.009865

Area Ratio: 8.999e-2
Sample Type: (Standard)

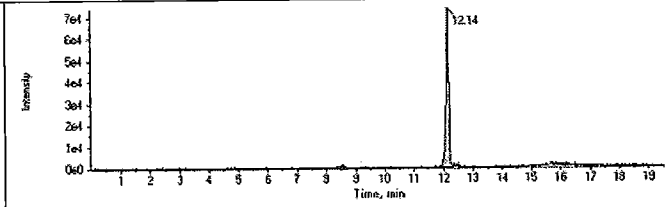


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.010149

Area Ratio: 3.306e-1
Sample Type: (Standard)

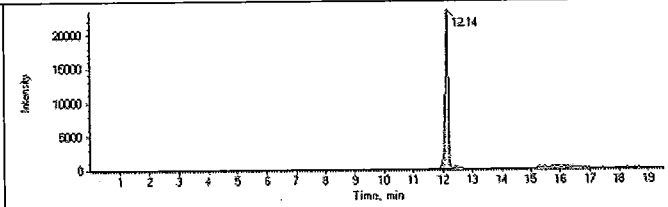


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.011190

Area Ratio: 1.133e-1
Sample Type: (Standard)

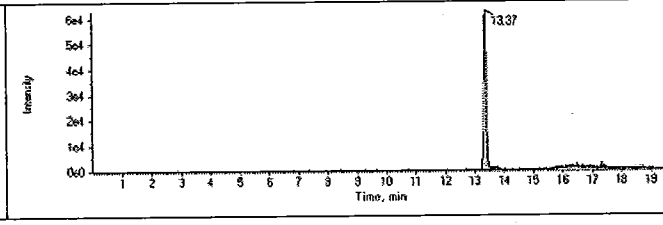


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.011082

Area Ratio: 2.544e-1
Sample Type: (Standard)



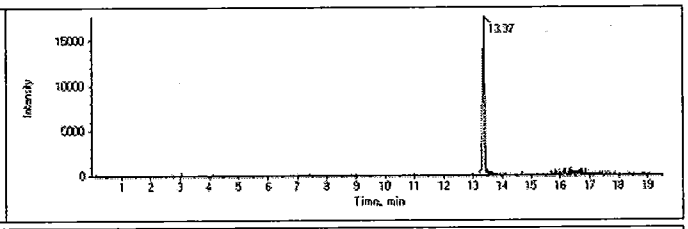
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.010676

Area Ratio: 5.821e-2

Sample Type: (Standard)



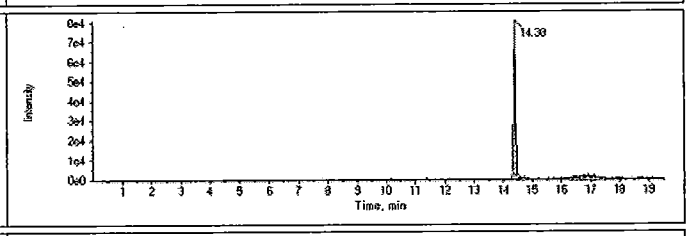
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.010077

Area Ratio: 2.571e-1

Sample Type: (Standard)



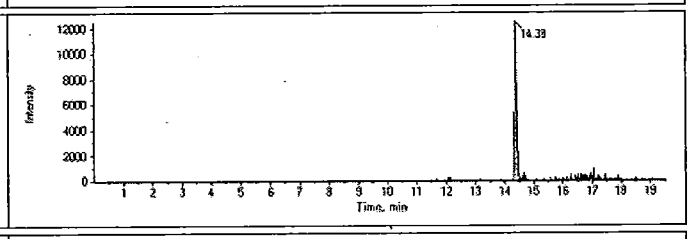
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.009716

Area Ratio: 3.981e-2

Sample Type: (Standard)



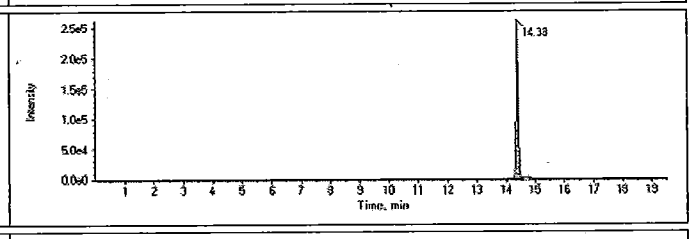
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 101.616468

Area Ratio: 8.440e-1

Sample Type: (Standard)



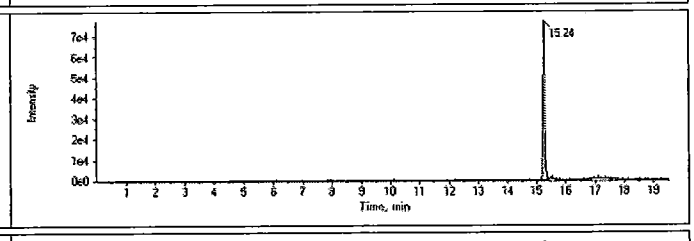
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.010269

Area Ratio: 2.280e-1

Sample Type: (Standard)



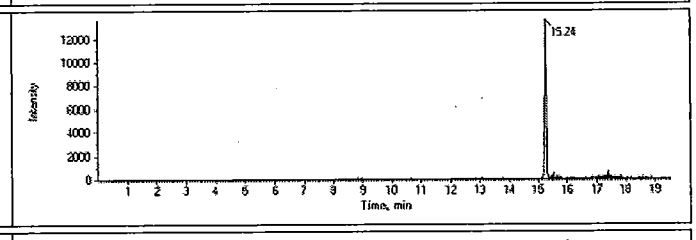
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.010095

Area Ratio: 3.493e-2

Sample Type: (Standard)



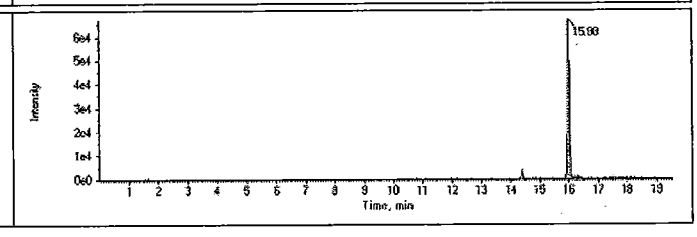
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.009622

Area Ratio: 1.982e-1

Sample Type: (Standard)

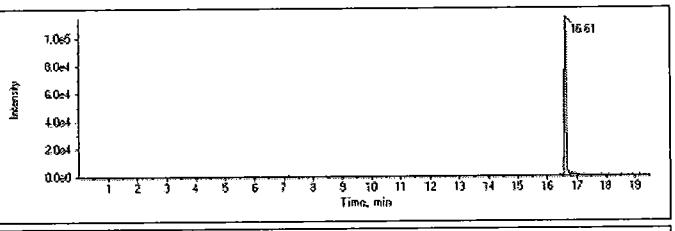


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.010100

Area Ratio: 2.962e-1
Sample Type: (Standard)

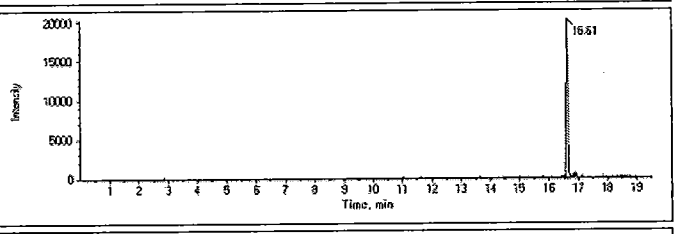


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.009514

Area Ratio: 4.852e-2
Sample Type: (Standard)

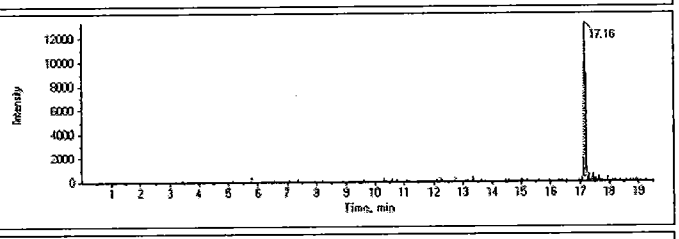


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.010967

Area Ratio: 3.116e-2
Sample Type: (Standard)

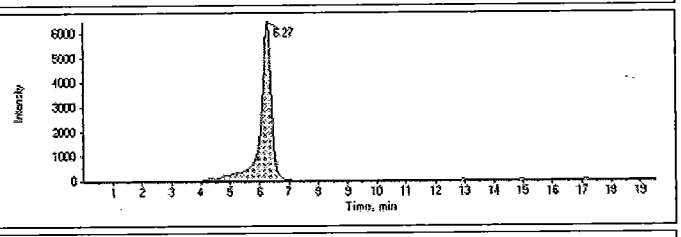


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.27 (6.27) min

Calculated conc: 0.008685

Area Ratio: 1.056e-1
Sample Type: (Standard)

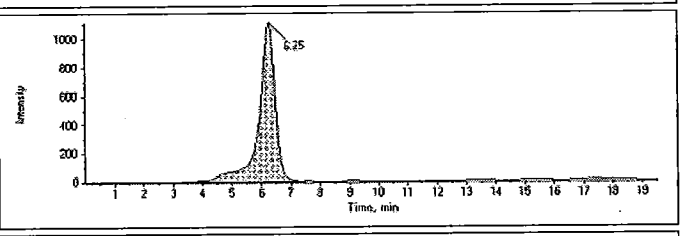


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.25 (6.28) min

Calculated conc: 0.008432

Area Ratio: 2.694e-2
Sample Type: (Standard)

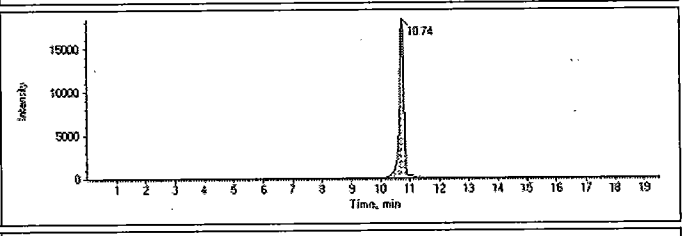


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.009319

Area Ratio: 1.215e-1
Sample Type: (Standard)

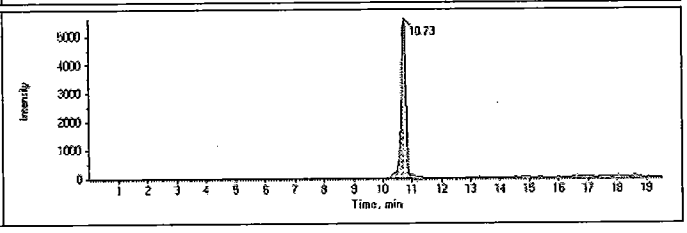


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.009230

Area Ratio: 3.815e-2
Sample Type: (Standard)

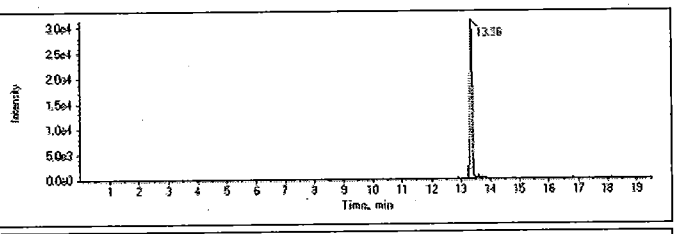


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.009380

Area Ratio: 1.030e-1
Sample Type: (Standard)

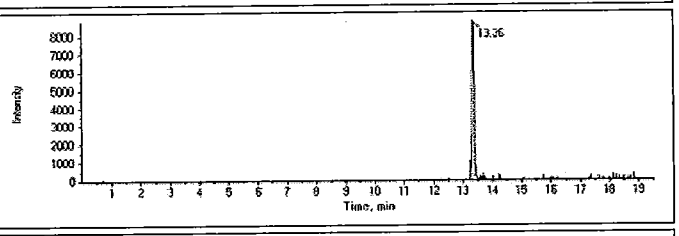


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.008855

Area Ratio: 2.890e-2
Sample Type: (Standard)

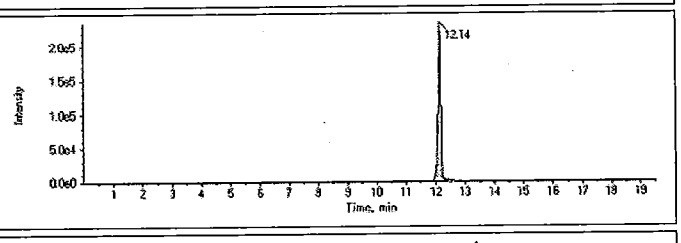


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 99.521606

Area Ratio: N/A
Sample Type: (Standard)

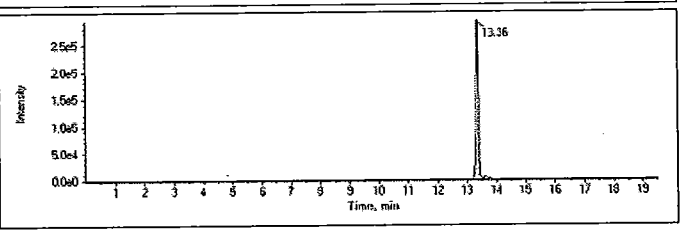


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 103.708110

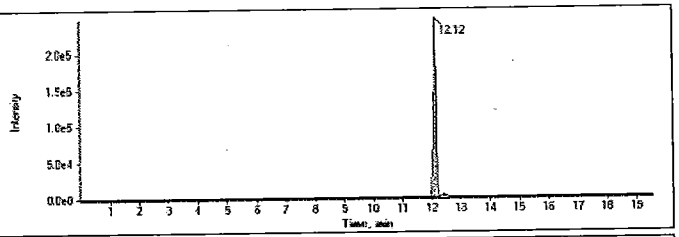
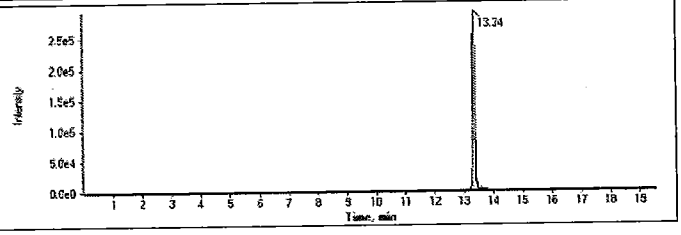
Area Ratio: N/A
Sample Type: (Standard)



Sample Name	Cal-0.02ppb	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 8:01:38 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1459106.050000	12.12	100.00000	-
IS-13C-PFOS	1570106.150000	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	6.457e+05	8.51	0.02000	0.019951
Surr-13c-PFHxA	1.416e+06	8.54	100.00000	99.655693
PFHpA	9.918e+05	10.60	0.02000	0.019146
PFHpA 2	2.630e+05	10.59	0.02000	0.019757
PFOA	9.536e+05	12.13	0.02000	0.020064
PFOA 2	2.995e+05	12.13	0.02000	0.020272
PFNA	7.003e+05	13.35	0.02000	0.020911
PFNA 2	1.633e+05	13.35	0.02000	0.020530
PFDA	7.266e+05	14.37	0.02000	0.019521
PFDA 2	1.234e+05	14.37	0.02000	0.020638
Surr-13c-PFDA	1.204e+06	14.37	100.00000	99.348798
PFUnA	6.641e+05	15.23	0.02000	0.020497
PFUnA 2	9.950e+04	15.23	0.02000	0.019711
PFDoA	5.851e+05	15.97	0.02000	0.019467
PFTrDA	8.799e+05	16.60	0.02000	0.020562
PFTrDA 2	1.517e+05	16.60	0.02000	0.020388
PFTA	8.760e+04	17.15	0.02000	0.021130
PFBS	3.204e+05	6.25	0.01770	0.016778
PFBS 2	9.580e+04	6.23	0.01770	0.019095
PFHxS	3.854e+05	10.72	0.01900	0.018818
PFHxS 2	1.232e+05	10.72	0.01900	0.018978
PFOS	3.380e+05	13.34	0.01920	0.019613
PFOS 2	9.205e+04	13.34	0.01920	0.017963
13C-PFOA	1.459e+06	12.12	100.00000	101.280924
13C-PFOS	1.570e+06	13.34	100.00000	101.883379

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.12(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.36) min Concentration: 100.00000 Sample Type: (Standard)	

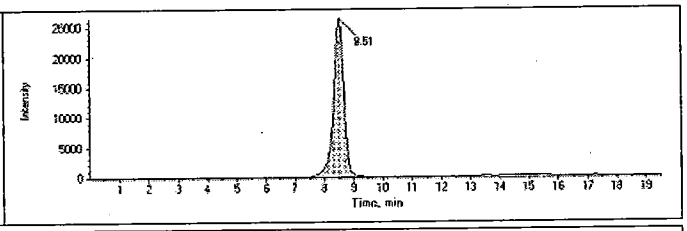
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.51 (8.55) min

Calculated conc: 0.019951

Area Ratio: 4.425e-1

Sample Type: (Standard)



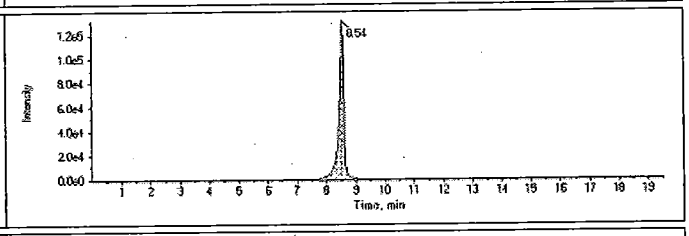
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 99.655693

Area Ratio: 9.706e-1

Sample Type: (Standard)



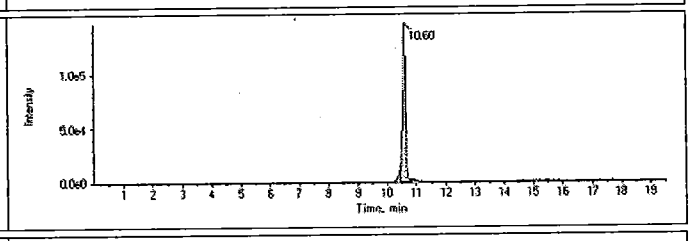
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.019146

Area Ratio: 6.797e-1

Sample Type: (Standard)



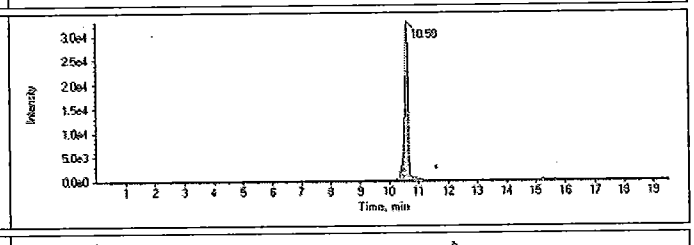
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.59 (10.60) min

Calculated conc: 0.019757

Area Ratio: 1.802e-1

Sample Type: (Standard)



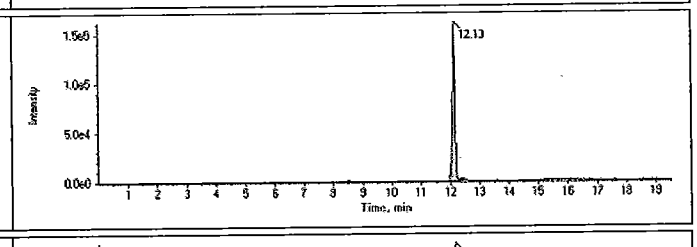
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.020064

Area Ratio: 6.536e-1

Sample Type: (Standard)



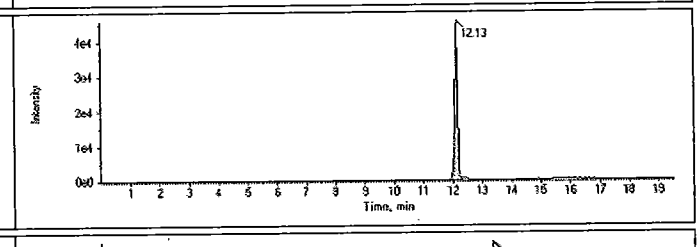
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.020272

Area Ratio: 2.052e-1

Sample Type: (Standard)



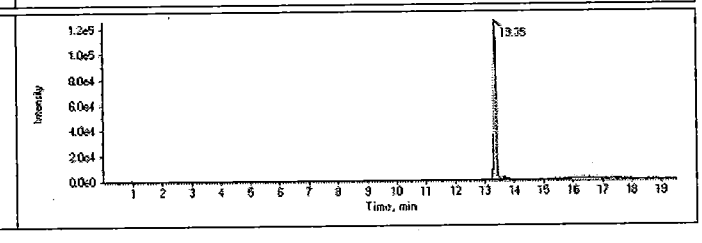
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.020911

Area Ratio: 4.799e-1

Sample Type: (Standard)

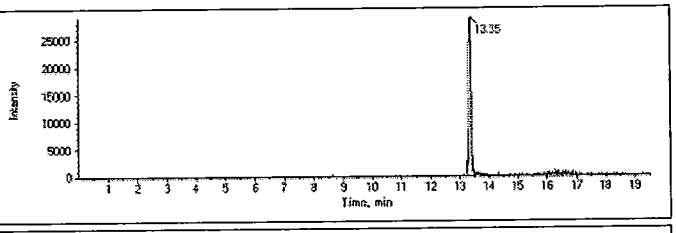


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.020530

Area Ratio: 1.119e-1
Sample Type: (Standard)

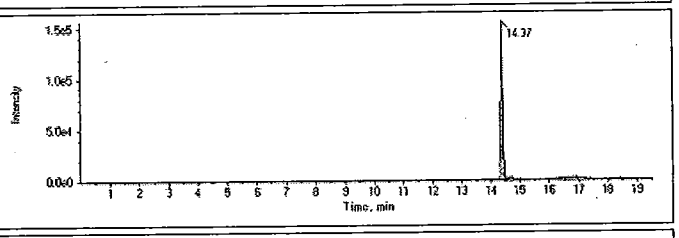


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.019521

Area Ratio: 4.980e-1
Sample Type: (Standard)

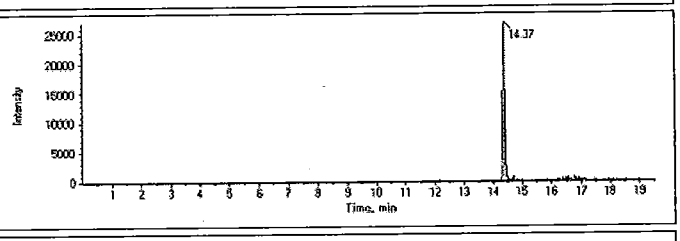


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.020638

Area Ratio: 8.456e-2
Sample Type: (Standard)

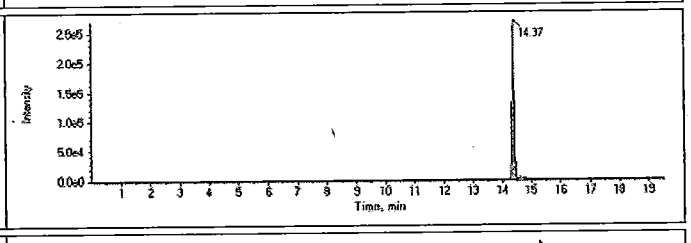


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 99.348798

Area Ratio: 8.252e-1
Sample Type: (Standard)

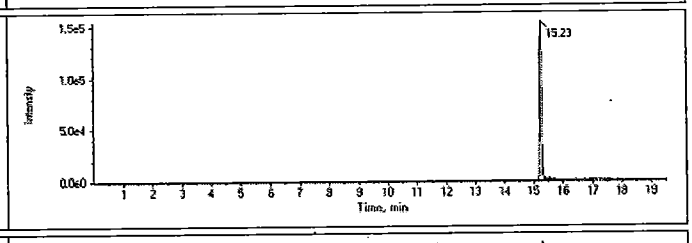


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.020497

Area Ratio: 4.552e-1
Sample Type: (Standard)

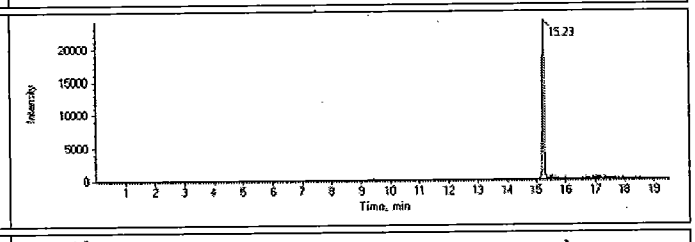


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.019711

Area Ratio: 6.819e-2
Sample Type: (Standard)

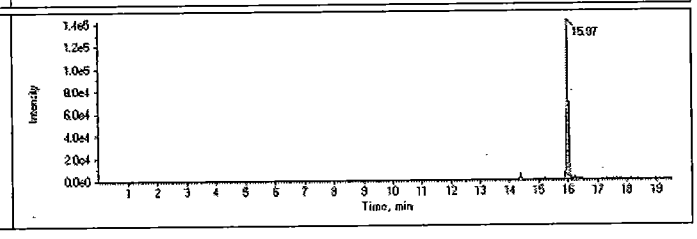


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.019467

Area Ratio: 4.010e-1
Sample Type: (Standard)

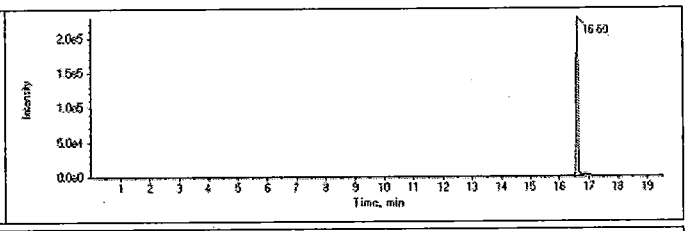


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.020562

Area Ratio: 6.030e-1
Sample Type: (Standard)

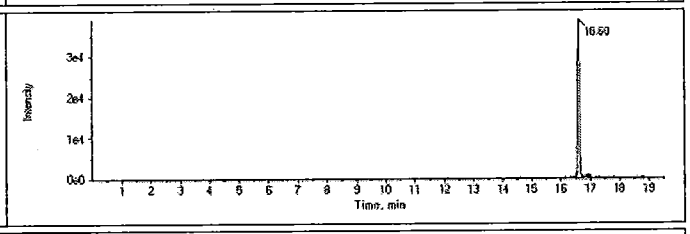


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.020388

Area Ratio: 1.040e-1
Sample Type: (Standard)

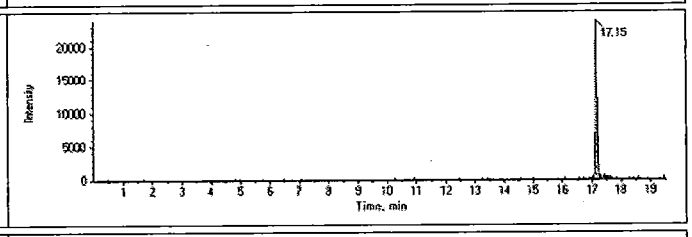


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.15 (17.15) min

Calculated conc: 0.021130

Area Ratio: 6.004e-2
Sample Type: (Standard)

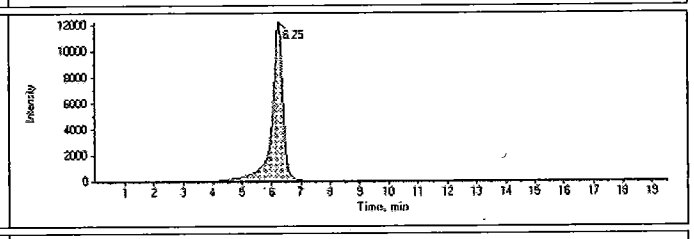


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.016778

Area Ratio: 2.041e-1
Sample Type: (Standard)

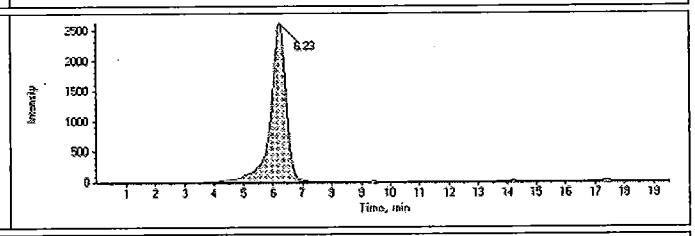


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min

Calculated conc: 0.019095

Area Ratio: 6.101e-2
Sample Type: (Standard)

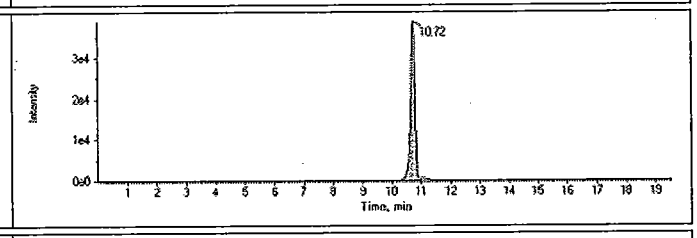


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.73) min

Calculated conc: 0.018818

Area Ratio: 2.454e-1
Sample Type: (Standard)

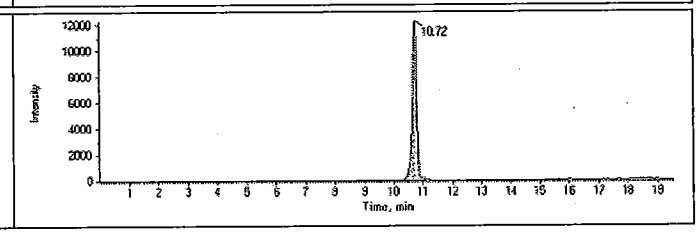


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.73) min

Calculated conc: 0.018978

Area Ratio: 7.845e-2
Sample Type: (Standard)



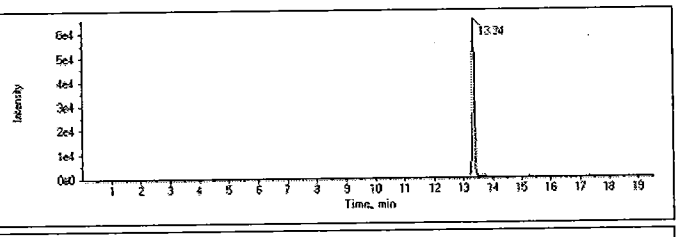
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.019613

Area Ratio: 2.153e-1

Sample Type: (Standard)



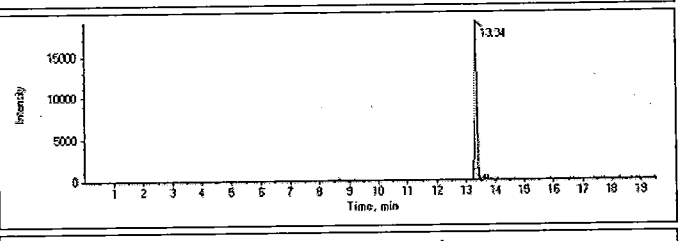
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.017963

Area Ratio: 5.862e-2

Sample Type: (Standard)



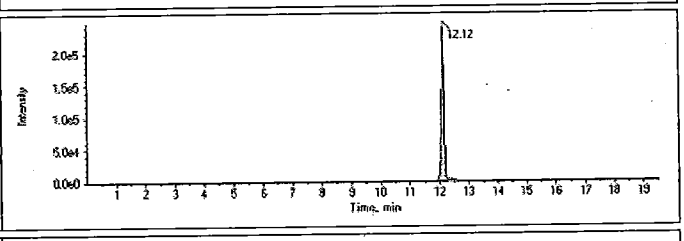
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.12 (12.12) min

Calculated conc: 101.280924

Area Ratio: N/A

Sample Type: (Standard)



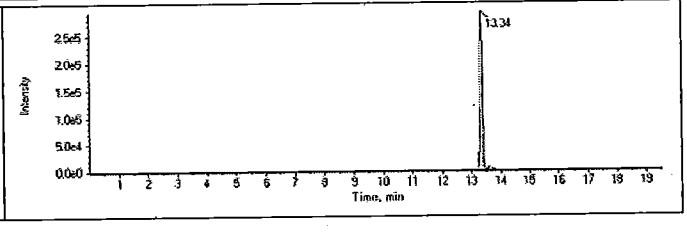
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 101.883379

Area Ratio: N/A

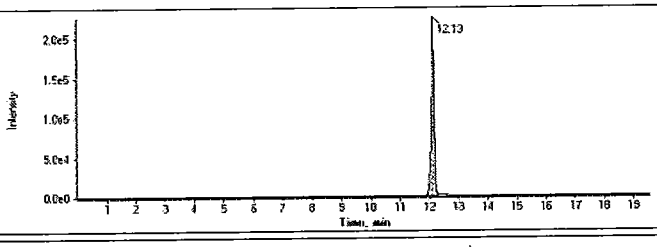
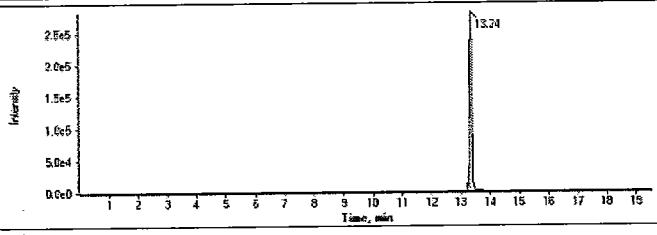
Sample Type: (Standard)



Sample Name	Cal-0.04ppb	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 8:21:46 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1433404.900000	12.13	100.00000	-
IS-13C-PFOS	1556443.650000	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.281e+06	8.52	0.04000	0.040295
Surr-13c-PFHxA	1.355e+06	8.54	100.00000	97.023433
PFHpA	2.057e+06	10.60	0.04000	0.040421
PFHpA 2	5.274e+05	10.60	0.04000	0.040338
PFOA	1.953e+06	12.13	0.04000	0.041818
PFOA 2	5.985e+05	12.13	0.04000	0.041242
PFNA	1.406e+06	13.35	0.04000	0.042749
PFNA 2	3.309e+05	13.35	0.04000	0.042339
PFDA	1.476e+06	14.37	0.04000	0.040373
PFDA 2	2.288e+05	14.37	0.04000	0.038961
Surr-13c-PFDA	1.167e+06	14.37	100.00000	98.063784
PFUnA	1.355e+06	15.24	0.04000	0.042560
PFUnA 2	2.002e+05	15.24	0.04000	0.040368
PFDoA	1.201e+06	15.97	0.04000	0.040689
PFTrDA	1.793e+06	16.60	0.04000	0.042652
PFTrDA 2	2.966e+05	16.60	0.04000	0.040574
PFTA	1.763e+05	17.15	0.04000	0.043292
PFBS	6.618e+05	6.25	0.03550	0.034961
PFBS 2	1.737e+05	6.24	0.03550	0.034920
PFHxS	7.613e+05	10.73	0.03790	0.037500
PFHxS 2	2.392e+05	10.73	0.03790	0.037184
PFOS	6.770e+05	13.34	0.03830	0.039626
PFOS 2	1.985e+05	13.34	0.03830	0.039069
13C-PFOA	1.433e+06	12.13	100.00000	99.496930
13C-PFOS	1.556e+06	13.34	100.00000	100.996826

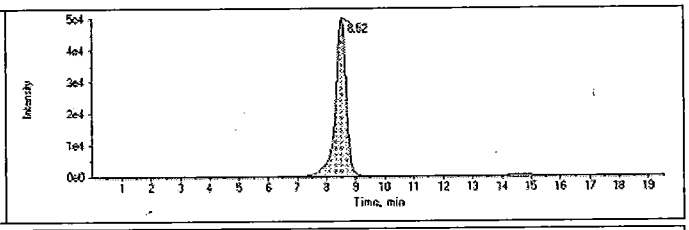
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.36) min Concentration: 100.00000 Sample Type: (Standard)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.040295

Area Ratio: 8.938e-1
Sample Type: (Standard)

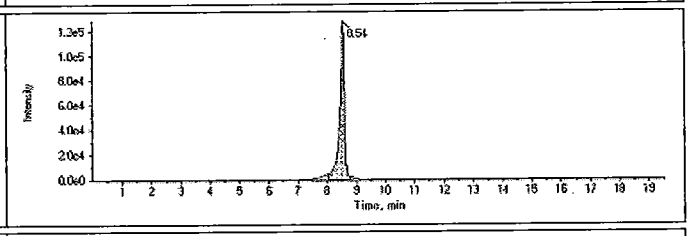


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 97.023433

Area Ratio: 9.450e-1
Sample Type: (Standard)

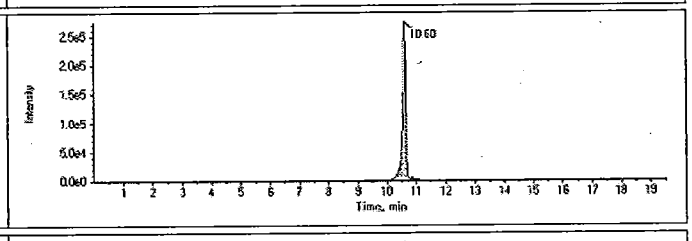


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.040421

Area Ratio: 1.435e0
Sample Type: (Standard)

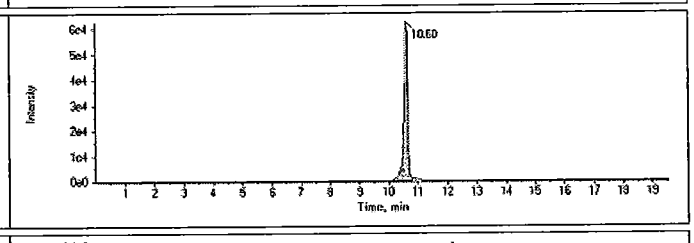


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.040338

Area Ratio: 3.679e-1
Sample Type: (Standard)

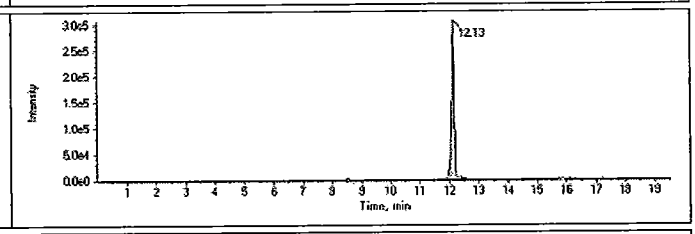


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.041818

Area Ratio: 1.362e0
Sample Type: (Standard)

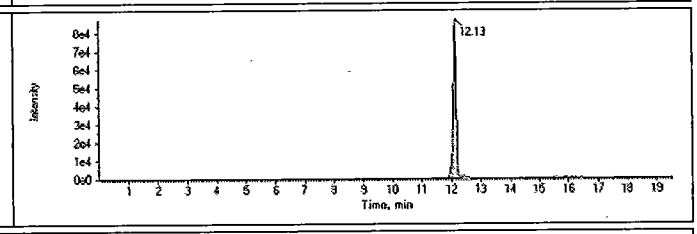


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.041242

Area Ratio: 4.175e-1
Sample Type: (Standard)

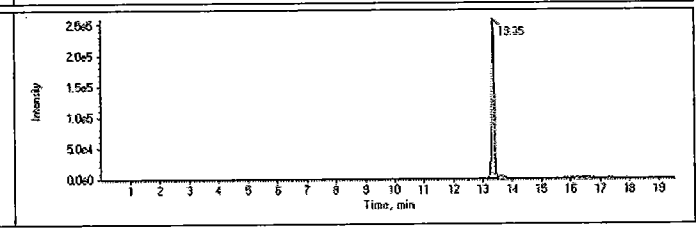


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.35) min

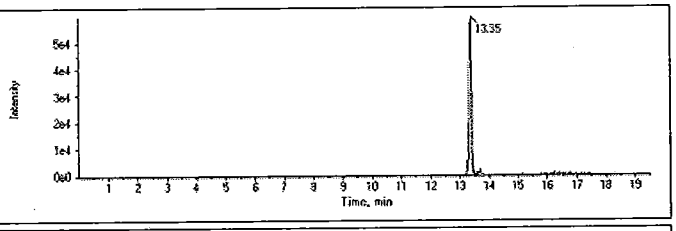
Calculated conc: 0.042749

Area Ratio: 9.812e-1
Sample Type: (Standard)



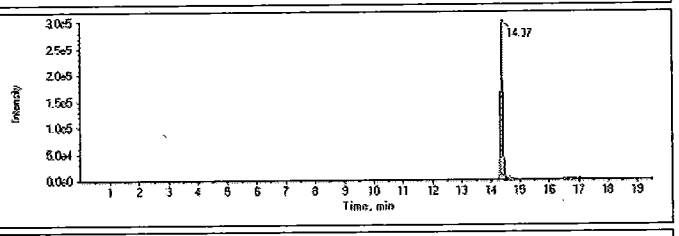
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.35) min
Calculated conc: 0.042339
Area Ratio: 2.308e-1
Sample Type: (Standard)



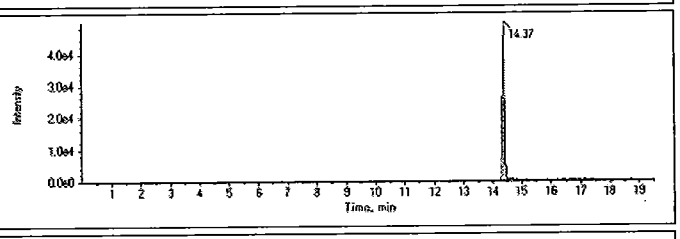
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.040373
Area Ratio: 1.030e0
Sample Type: (Standard)



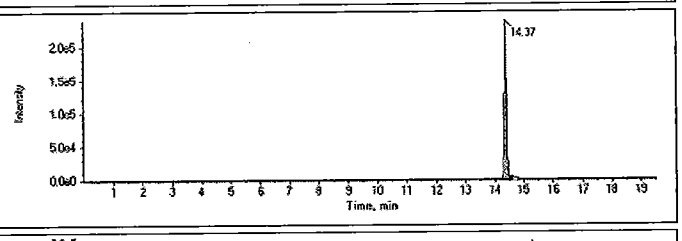
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.038961
Area Ratio: 1.596e-1
Sample Type: (Standard)



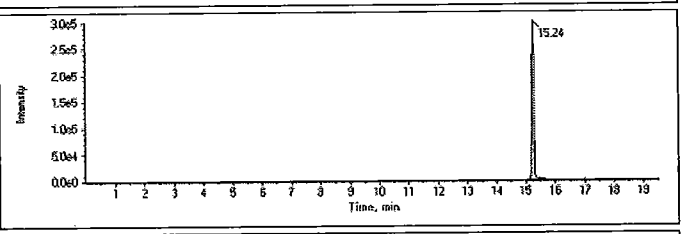
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 98.063784
Area Ratio: 8.145e-1
Sample Type: (Standard)



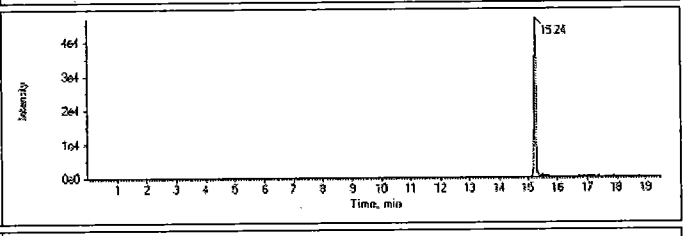
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.042560
Area Ratio: 9.451e-1
Sample Type: (Standard)



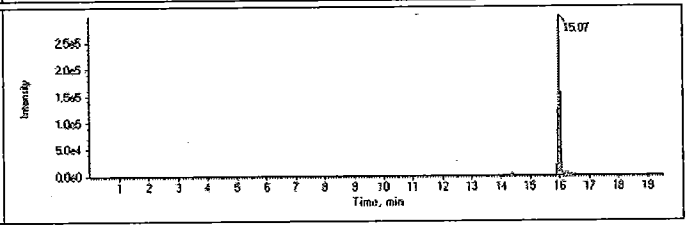
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.040368
Area Ratio: 1.397e-1
Sample Type: (Standard)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min
Calculated conc: 0.040689
Area Ratio: 8.381e-1
Sample Type: (Standard)

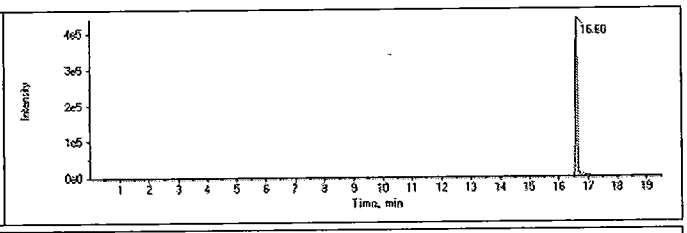


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.042652

Area Ratio: 1.251e0
Sample Type: (Standard)

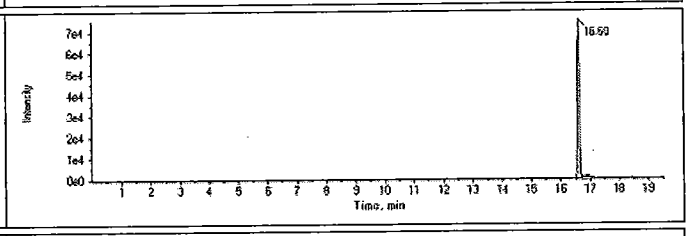


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.040574

Area Ratio: 2.069e-1
Sample Type: (Standard)

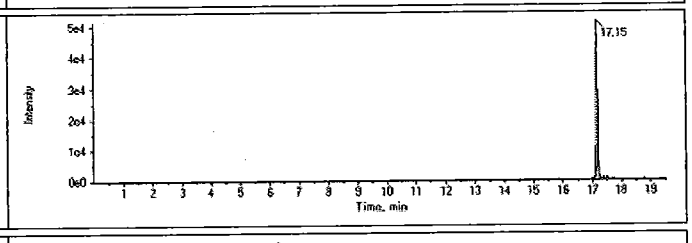


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.15 (17.15) min

Calculated conc: 0.043292

Area Ratio: 1.230e-1
Sample Type: (Standard)

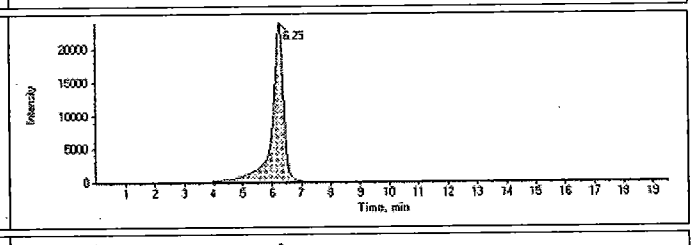


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.034961

Area Ratio: 4.252e-1
Sample Type: (Standard)

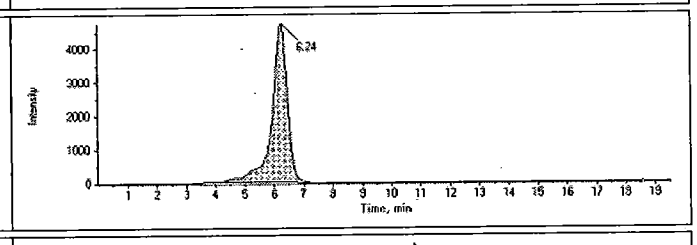


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.034920

Area Ratio: 1.116e-1
Sample Type: (Standard)

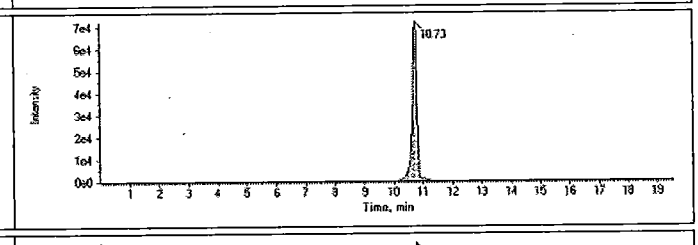


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.037500

Area Ratio: 4.891e-1
Sample Type: (Standard)

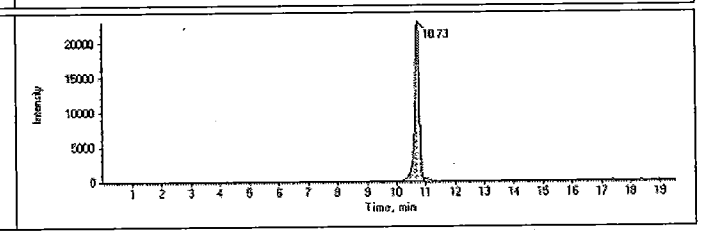


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.037184

Area Ratio: 1.537e-1
Sample Type: (Standard)

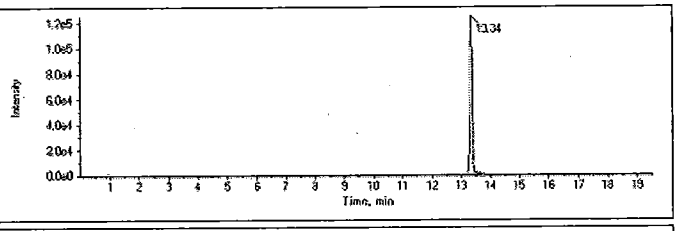


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.039626

Area Ratio: 4.350e-1
Sample Type: (Standard)

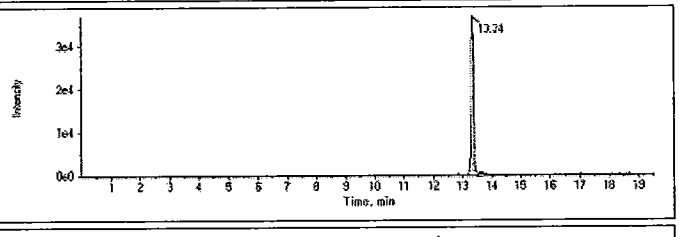


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.039069

Area Ratio: 1.275e-1
Sample Type: (Standard)

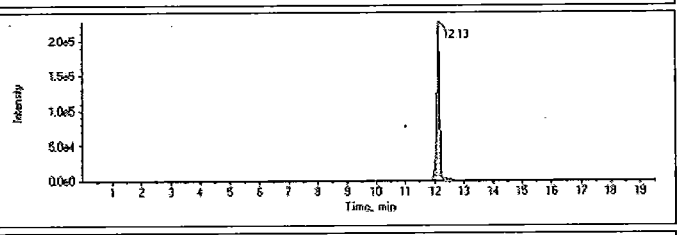


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 99.496930

Area Ratio: N/A
Sample Type: (Standard)

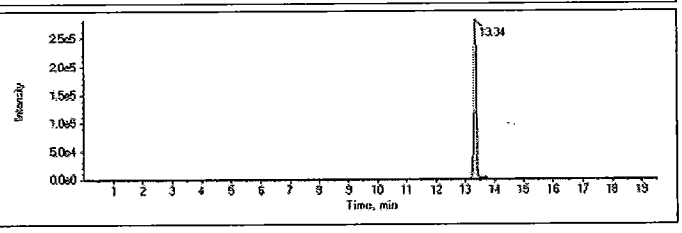


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 100.996826

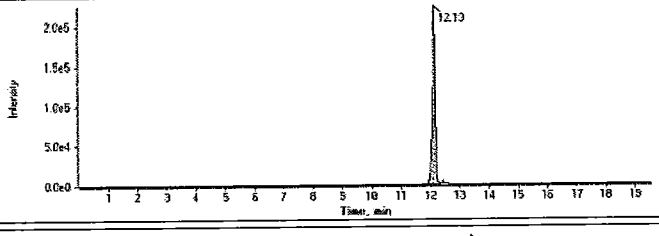
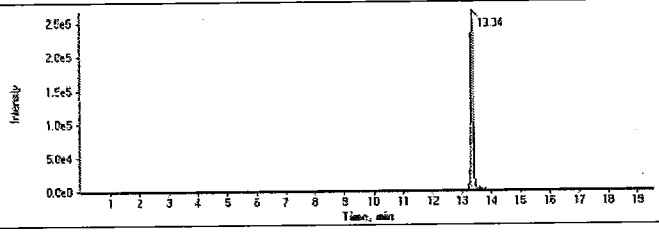
Area Ratio: N/A
Sample Type: (Standard)



Sample Name	Cal-0.08ppb	**Injection Vial**	7
Sample ID		**Injection Volume**	10.00
Sample Type	Standard	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 8:41:55 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1408340.900000	12.13	100.00000	-
IS-13C-PFOS	1516455.700000	13.34	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	2.493e+06	8.52	0.08000	0.079808
Surr-13c-PFHxA	1.412e+06	8.54	100.00000	102.963618
PFHpA	4.003e+06	10.60	0.08000	0.080057
PFHpA 2	1.026e+06	10.60	0.08000	0.079904
PFOA	3.626e+06	12.13	0.08000	0.079040
PFOA 2	1.128e+06	12.13	0.08000	0.079126
PFNA	2.528e+06	13.36	0.08000	0.078215
PFNA 2	6.034e+05	13.36	0.08000	0.078588
PFDA	2.871e+06	14.37	0.08000	0.079926
PFDA 2	4.639e+05	14.37	0.08000	0.080397
Surr-13c-PFDA	1.227e+06	14.37	100.00000	104.914025
PFUnA	2.456e+06	15.24	0.08000	0.078548
PFUnA 2	3.892e+05	15.24	0.08000	0.079883
PFDoA	2.317e+06	15.97	0.08000	0.079879
PFTrDA	3.247e+06	16.60	0.08000	0.078608
PFTrDA 2	5.729e+05	16.60	0.08000	0.079776
PFTA	3.123e+05	17.15	0.08000	0.078051
PFBS	1.319e+06	6.25	0.07100	0.071499
PFBS 2	3.439e+05	6.23	0.07100	0.070985
PFHxS	1.504e+06	10.73	0.07580	0.076055
PFHxS 2	4.776e+05	10.73	0.07580	0.076181
PFOS	1.262e+06	13.35	0.07660	0.075838
PFOS 2	3.791e+05	13.35	0.07660	0.076597
13C-PFOA	1.408e+06	12.13	100.00000	97.757163
13C-PFOS	1.516e+06	13.34	100.00000	98.402029

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Standard)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.34(13.36) min Concentration: 100.00000 Sample Type: (Standard)	

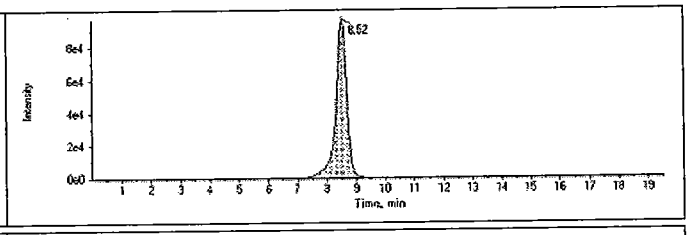
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.079808

Area Ratio: 1.770e0

Sample Type: (Standard)



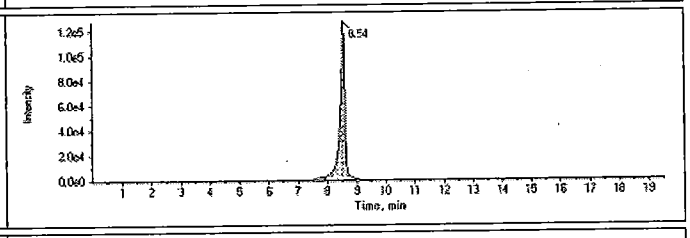
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 102.963618

Area Ratio: 1.003e0

Sample Type: (Standard)



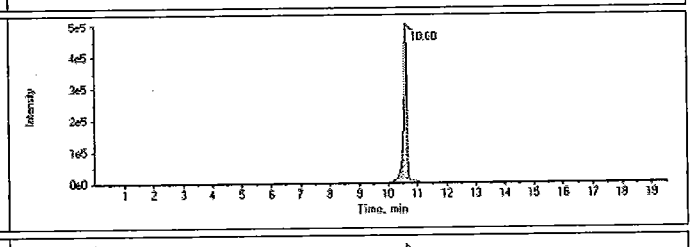
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.080057

Area Ratio: 2.842e0

Sample Type: (Standard)



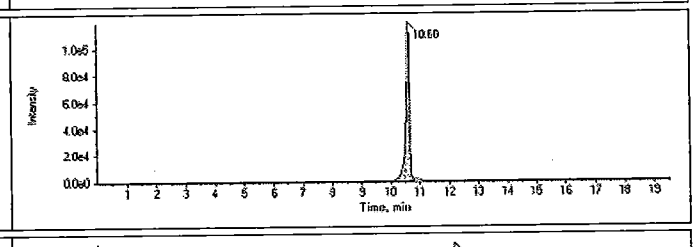
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.079904

Area Ratio: 7.289e-1

Sample Type: (Standard)



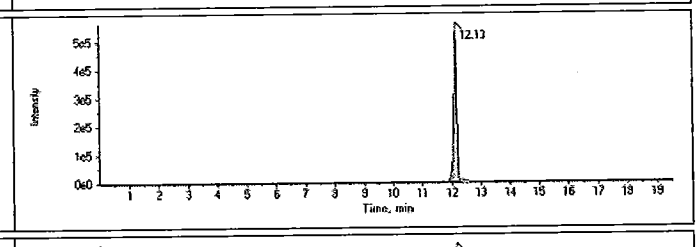
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.079040

Area Ratio: 2.575e0

Sample Type: (Standard)



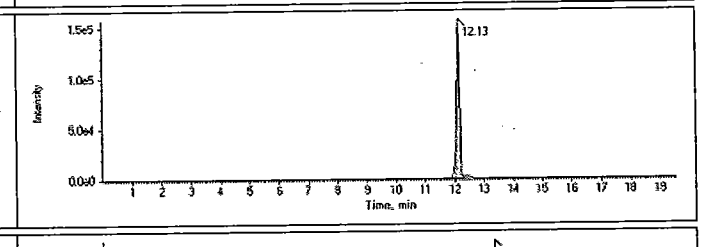
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.079126

Area Ratio: 8.010e-1

Sample Type: (Standard)



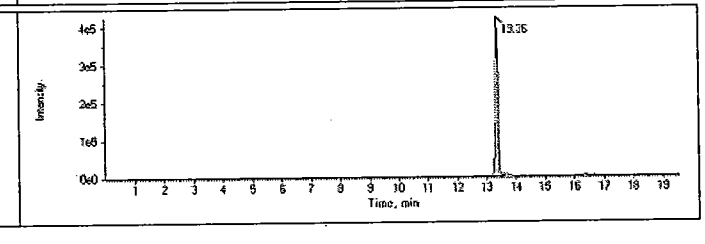
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.078215

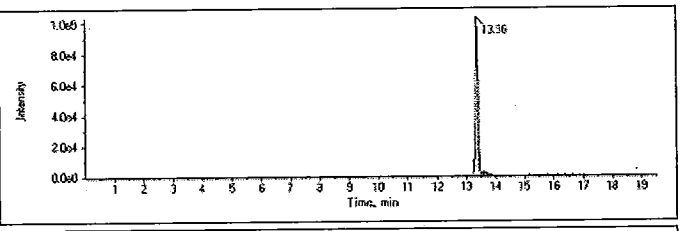
Area Ratio: 1.795e0

Sample Type: (Standard)



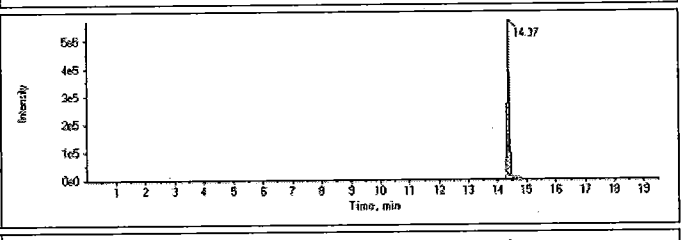
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min
Calculated conc: 0.078588
Area Ratio: 4.285e-1
Sample Type: (Standard)



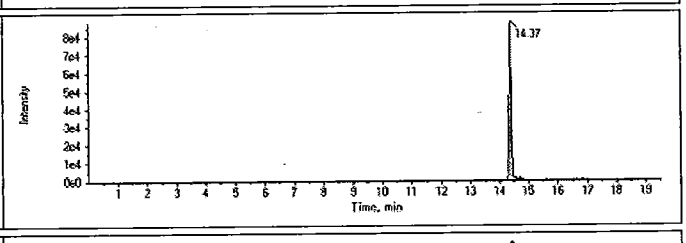
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.079926
Area Ratio: 2.039e0
Sample Type: (Standard)



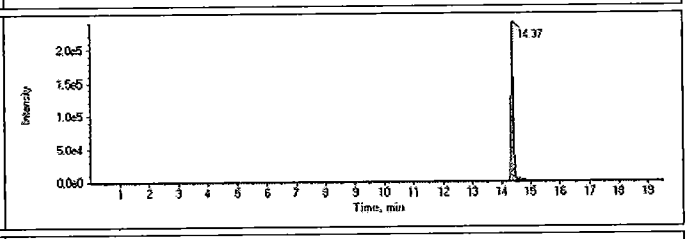
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.080397
Area Ratio: 3.294e-1
Sample Type: (Standard)



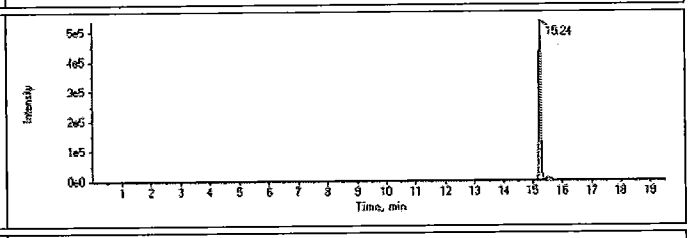
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 104.914025
Area Ratio: 8.714e-1
Sample Type: (Standard)



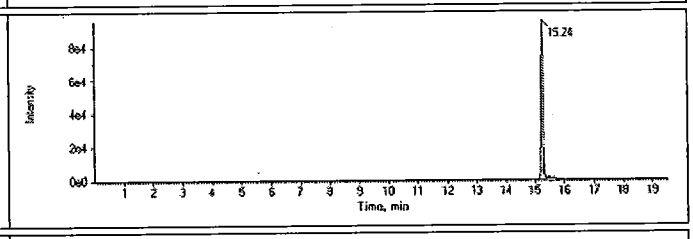
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.078548
Area Ratio: 1.744e0
Sample Type: (Standard)



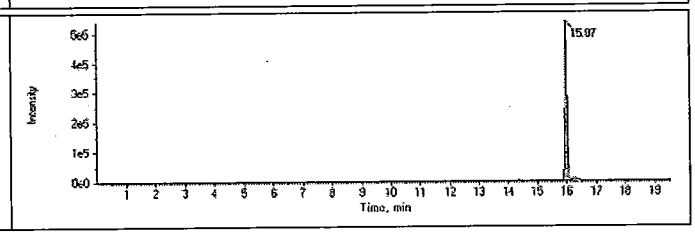
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.079883
Area Ratio: 2.764e-1
Sample Type: (Standard)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min
Calculated conc: 0.079879
Area Ratio: 1.645e0
Sample Type: (Standard)



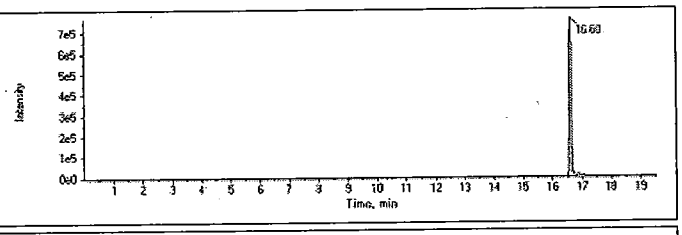
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.078608

Area Ratio: 2.305e0

Sample Type: (Standard)



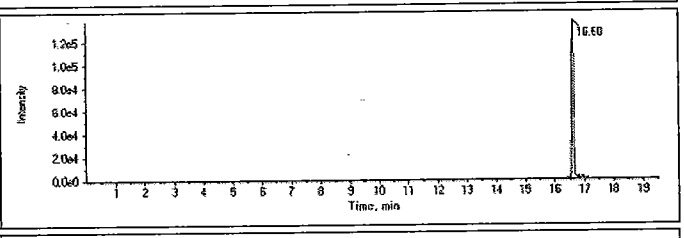
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.079776

Area Ratio: 4.068e-1

Sample Type: (Standard)



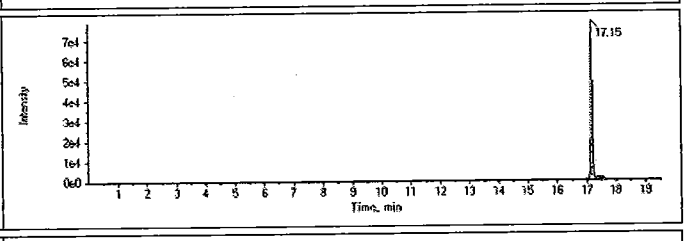
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.15 (17.15) min

Calculated conc: 0.078051

Area Ratio: 2.218e-1

Sample Type: (Standard)



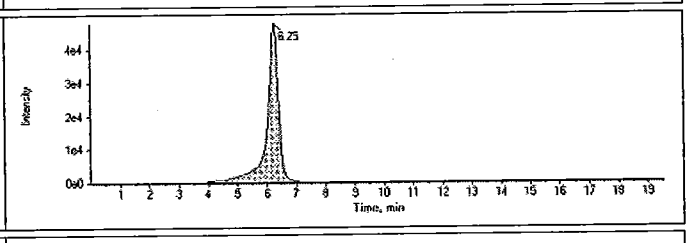
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.071499

Area Ratio: 8.696e-1

Sample Type: (Standard)



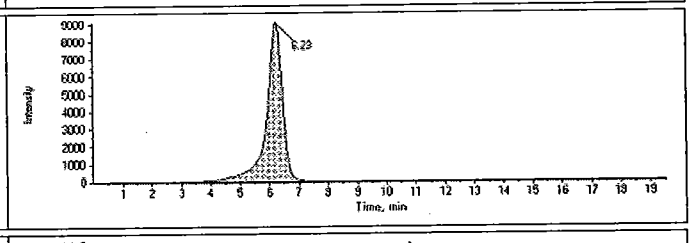
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min

Calculated conc: 0.070985

Area Ratio: 2.268e-1

Sample Type: (Standard)



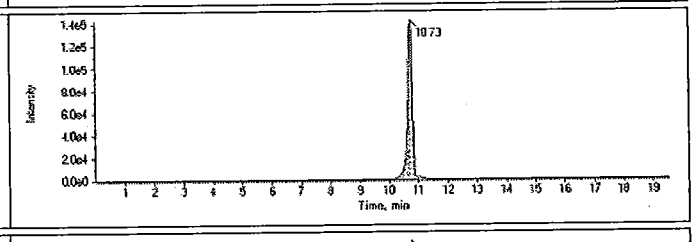
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.076055

Area Ratio: 9.920e-1

Sample Type: (Standard)



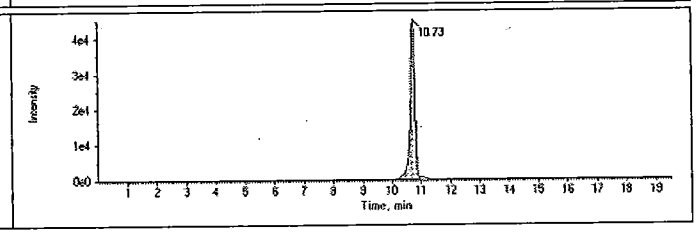
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.076181

Area Ratio: 3.149e-1

Sample Type: (Standard)



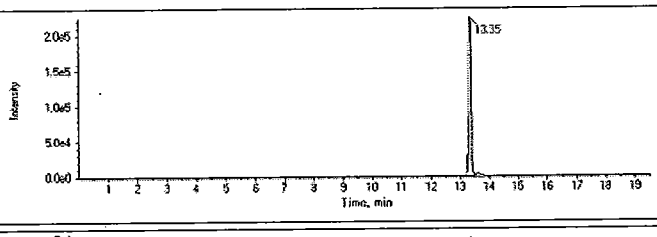
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.075838

Area Ratio: 8.325e-1

Sample Type: (Standard)



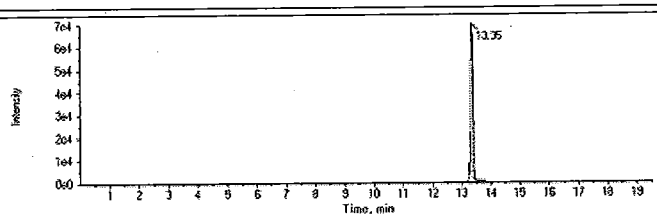
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.076597

Area Ratio: 2.500e-1

Sample Type: (Standard)



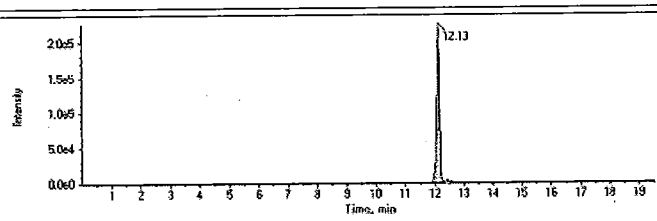
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 97.757163

Area Ratio: N/A

Sample Type: (Standard)



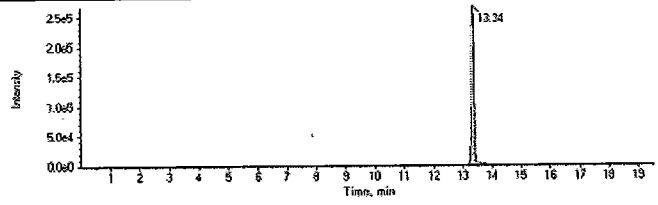
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.34 (13.36) min

Calculated conc: 98.402029

Area Ratio: N/A

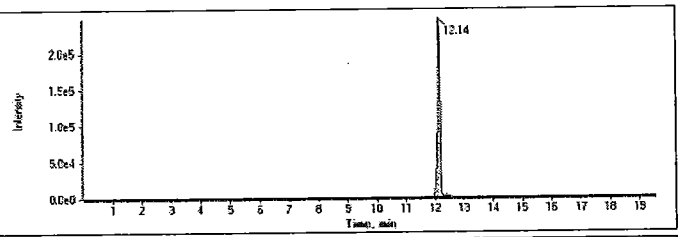
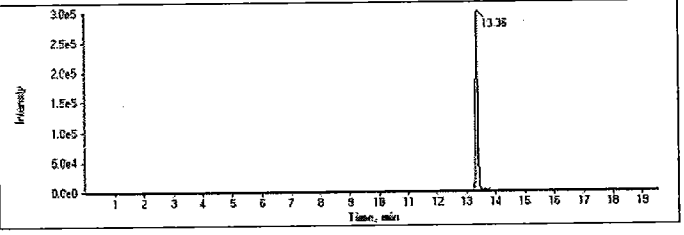
Sample Type: (Standard)



Sample Name	CCCL_0.0025ppb	**Injection Vial**	2
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 9:02:05 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1485305.650000	12.14	100.00000	-
IS-13C-PFOS	1587998.250000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	8.072e+04	8.53	0.00250	0.002450
Surr-13c-PFHxA	1.387e+06	8.55	100.00000	95.903309
PFHpA	1.330e+05	10.62	0.00250	0.002521
PFHpA 2	3.291e+04	10.62	0.00250	0.002429
PFOA	1.176e+05	12.15	0.00250	0.002431
PFOA 2	3.746e+04	12.14	0.00250	0.002491
PFNA	1.015e+05	13.37	0.00250	0.002979
PFNA 2	7.282e+03	13.33	0.00250	0.000899
PFDA	9.577e+04	14.39	0.00250	0.002528
PFDA 2	1.501e+04	14.38	0.00250	0.002466
Surr-13c-PFDA	1.276e+06	14.39	100.00000	103.402664
PFUnA	9.313e+04	15.25	0.00250	0.002824
PFUnA 2	1.417e+04	15.25	0.00250	0.002758
PFDoA	8.204e+04	15.99	0.00250	0.002682
PFTrDA	1.070e+05	16.62	0.00250	0.002456
PFTrDA 2	1.883e+04	16.62	0.00250	0.002486
PFTA	9.708e+03	17.17	0.00250	0.002300
PFBS	4.468e+04	6.26	0.00222	0.002313
PFBS 2	9.475e+03	6.25	0.00222	0.001867
PFHxS	5.022e+04	10.74	0.00237	0.002424
PFHxS 2	1.711e+04	10.74	0.00237	0.002607
PFOS	4.581e+04	13.36	0.00240	0.002628
PFOS 2	1.064e+04	13.35	0.00240	0.002054
13C-PFOA	1.485e+06	12.14	100.00000	103.099516
13C-PFOS	1.588e+06	13.36	100.00000	103.044388

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

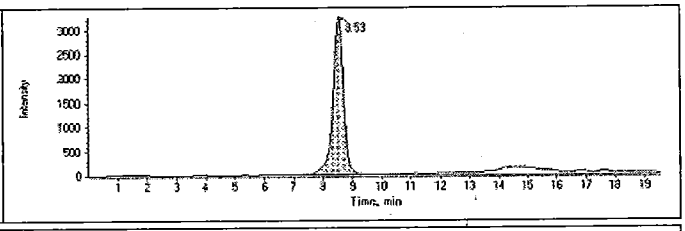
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.002450

Area Ratio: 5.434e-2

Sample Type: (Quality Control)



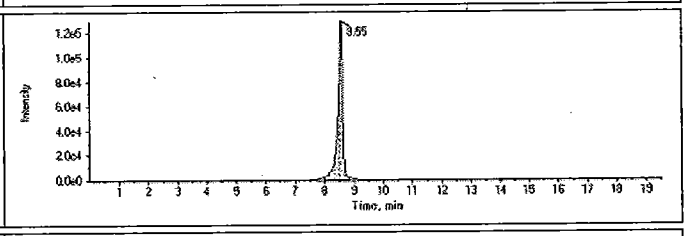
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 95.903309

Area Ratio: 9.341e-1

Sample Type: (Quality Control)



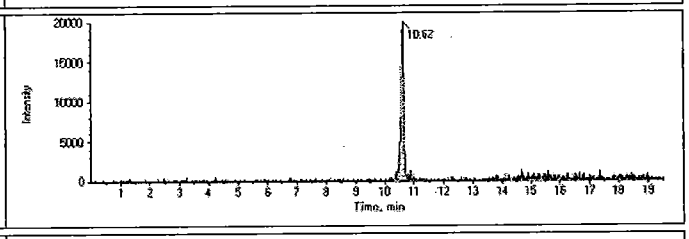
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.002521

Area Ratio: 8.952e-2

Sample Type: (Quality Control)



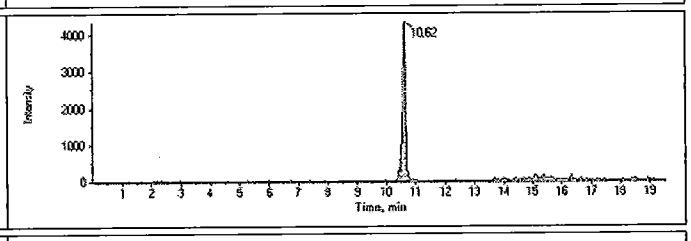
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.002429

Area Ratio: 2.216e-2

Sample Type: (Quality Control)



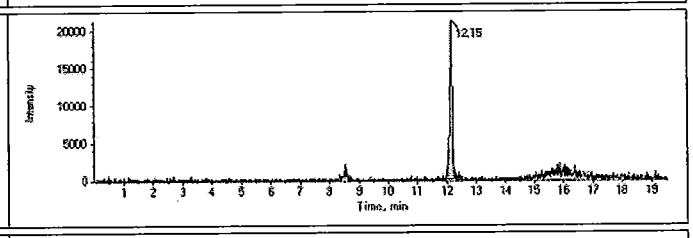
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.002431

Area Ratio: 7.917e-2

Sample Type: (Quality Control)



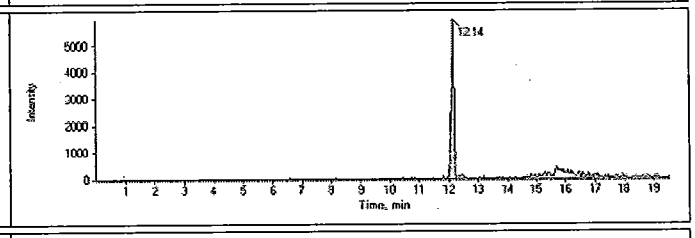
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.002491

Area Ratio: 2.522e-2

Sample Type: (Quality Control)



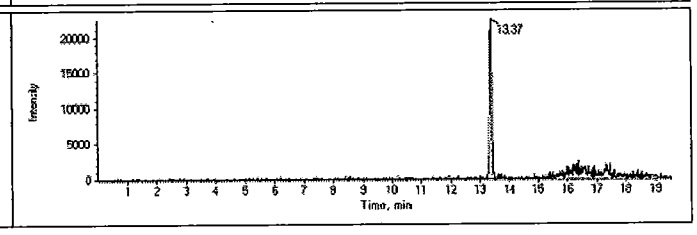
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.002979

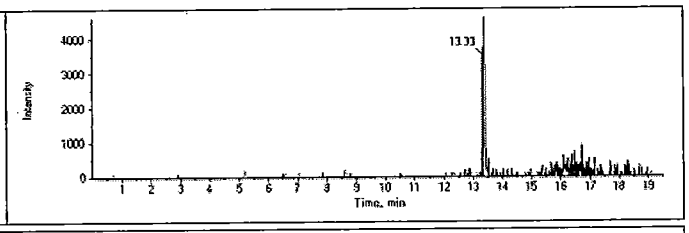
Area Ratio: 6.837e-2

Sample Type: (Quality Control)



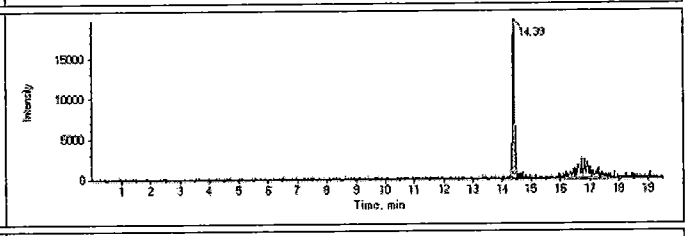
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.33 (13.35) min
Calculated conc: 0.000899
Area Ratio: 4.903e-3
Sample Type: (Quality Control)



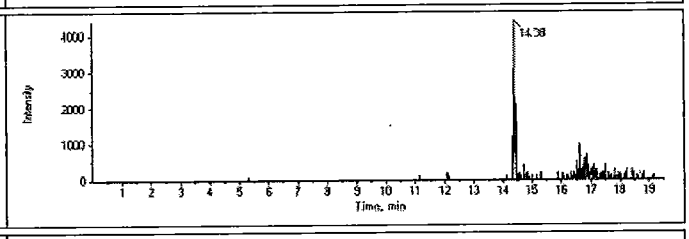
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.002528
Area Ratio: 6.448e-2
Sample Type: (Quality Control)



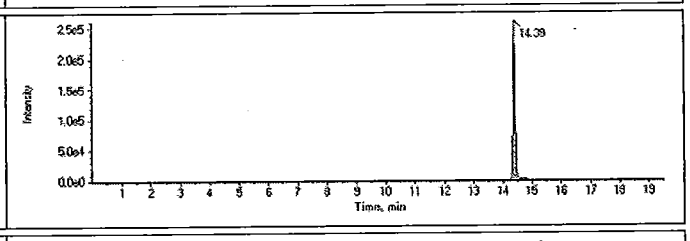
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.002466
Area Ratio: 1.010e-2
Sample Type: (Quality Control)



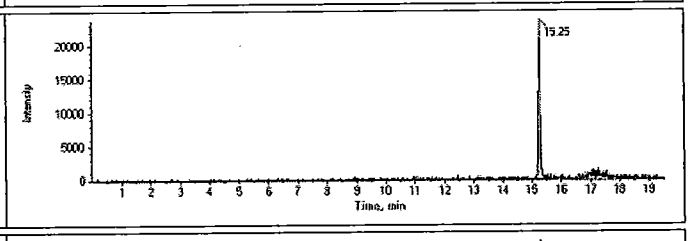
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 103.402664
Area Ratio: 8.588e-1
Sample Type: (Quality Control)



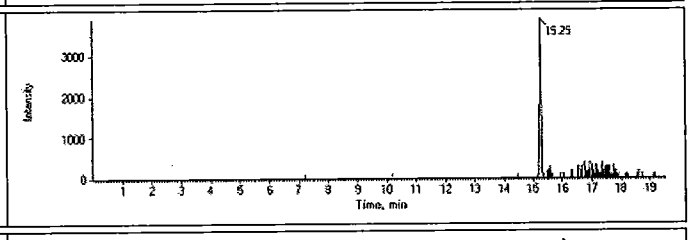
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.002824
Area Ratio: 6.270e-2
Sample Type: (Quality Control)



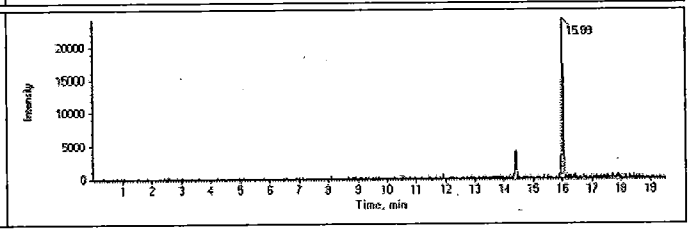
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.002758
Area Ratio: 9.543e-3
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (15.97) min
Calculated conc: 0.002682
Area Ratio: 5.524e-2
Sample Type: (Quality Control)

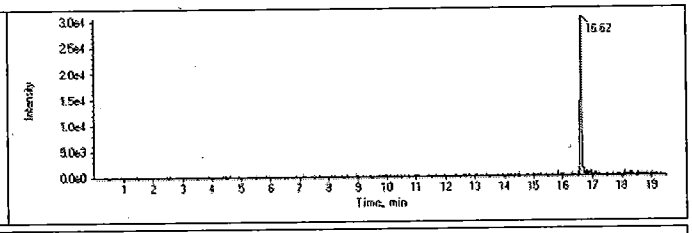


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.002456

Area Ratio: 7.203e-2
Sample Type: (Quality Control)

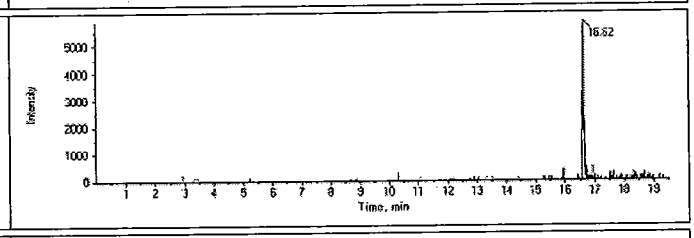


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.002486

Area Ratio: 1.268e-2
Sample Type: (Quality Control)

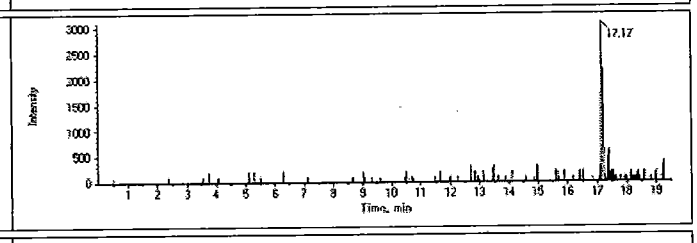


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.17 (17.15) min

Calculated conc: 0.002300

Area Ratio: 6.536e-3
Sample Type: (Quality Control)

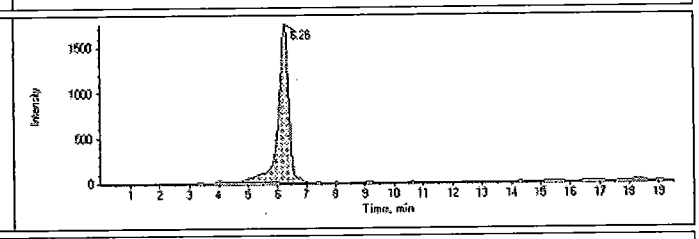


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.26 (6.27) min

Calculated conc: 0.002313

Area Ratio: 2.814e-2
Sample Type: (Quality Control)

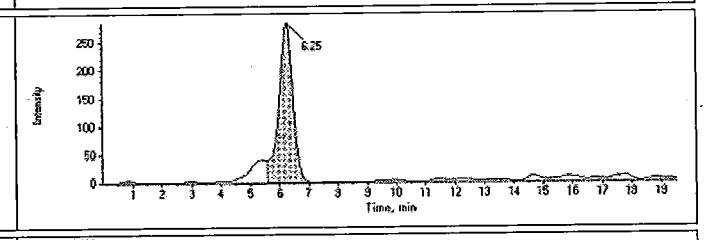


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.25 (6.28) min

Calculated conc: 0.001867

Area Ratio: 5.967e-3
Sample Type: (Quality Control)

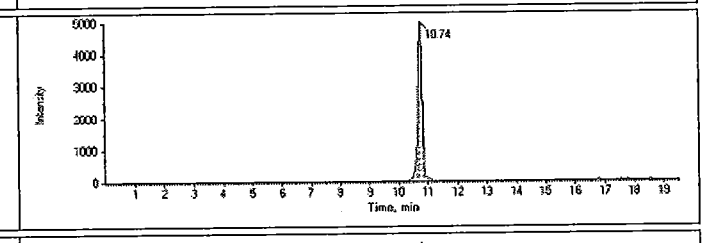


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.002424

Area Ratio: 3.162e-2
Sample Type: (Quality Control)

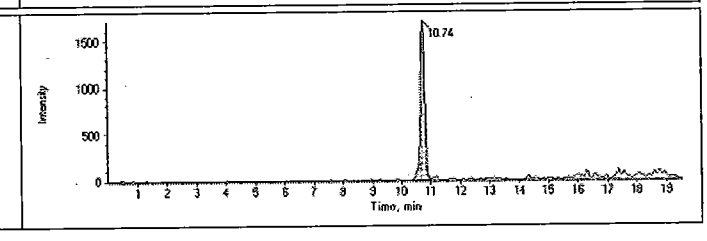


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.002607

Area Ratio: 1.078e-2
Sample Type: (Quality Control)



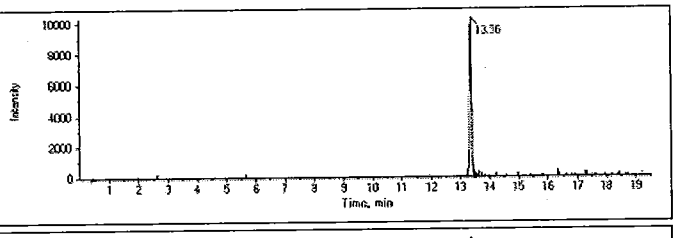
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.002628

Area Ratio: 2.884e-2

Sample Type: (Quality Control)



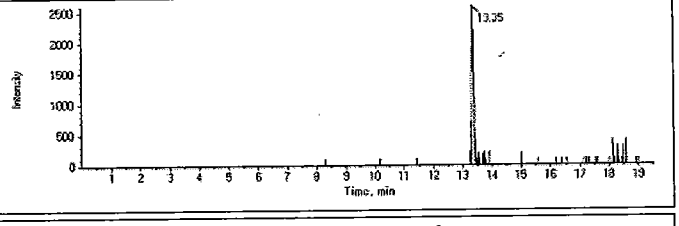
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.002054

Area Ratio: 6.702e-3

Sample Type: (Quality Control)



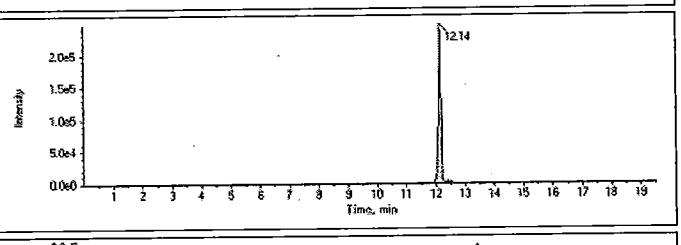
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 103.099516

Area Ratio: N/A

Sample Type: (Quality Control)



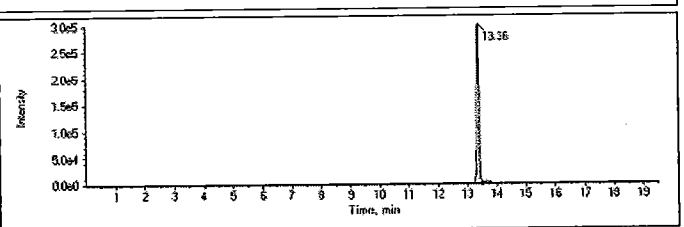
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 103.044388

Area Ratio: N/A

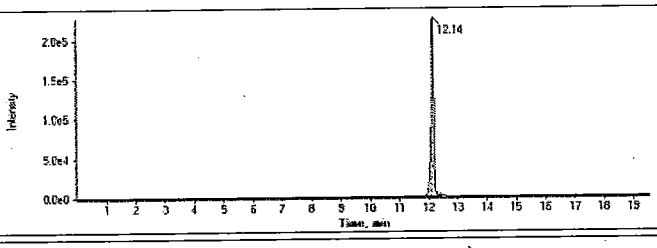
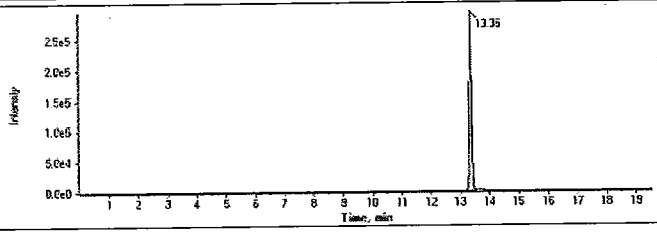
Sample Type: (Quality Control)



Sample Name	QCS_0.02ppb	**Injection Vial**	8
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 9:22:13 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	lot#@5372ndSource(QCS)-122613-LHZ, Exp. 01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1475372.550000	12.14	100.00000	-
IS-13C-PFOS	1577713.550000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.217e+05	8.53	0.02000	0.015942
Surr-13c-PFHxA	1.372e+06	8.55	100.00000	95.462121
PFHpA	7.856e+05	10.62	0.02000	0.014998
PFHpA 2	2.111e+05	10.62	0.02000	0.015689
PFOA	8.117e+05	12.15	0.02000	0.016891
PFOA 2	2.579e+05	12.14	0.02000	0.017267
PFNA	6.107e+05	13.37	0.02000	0.018036
PFNA 2	1.315e+05	13.37	0.02000	0.016350
PFDA	6.223e+05	14.39	0.02000	0.016533
PFDA 2	9.951e+04	14.39	0.02000	0.016460
Surr-13c-PFDA	1.266e+06	14.39	100.00000	103.338758
PFUnA	5.790e+05	15.25	0.02000	0.017674
PFUnA 2	8.808e+04	15.25	0.02000	0.017256
PFDoA	5.388e+05	15.99	0.02000	0.017731
PFTrDA	7.038e+05	16.62	0.02000	0.016266
PFTrDA 2	1.220e+05	16.62	0.02000	0.016211
PFTA	6.890e+04	17.17	0.02000	0.016436
PFBS	2.569e+05	6.27	0.01770	0.013389
PFBS 2	6.721e+04	6.25	0.01770	0.013333
PFHxS	3.116e+05	10.74	0.01900	0.015144
PFHxS 2	9.494e+04	10.74	0.01900	0.014557
PFOS	2.595e+05	13.36	0.01920	0.014984
PFOS 2	7.522e+04	13.36	0.01920	0.014608
13C-PFOA	1.475e+06	12.14	100.00000	102.410030
13C-PFOS	1.578e+06	13.36	100.00000	102.377019

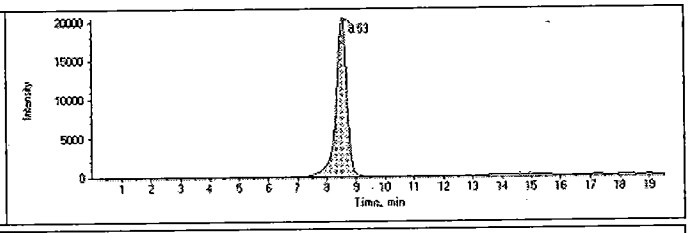
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.015942

Area Ratio: 3.536e-1
Sample Type: (Quality Control)

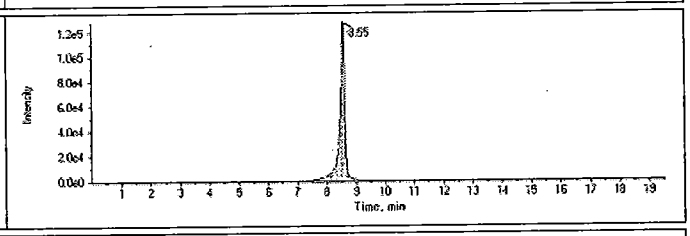


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 95.462121

Area Ratio: 9.298e-1
Sample Type: (Quality Control)

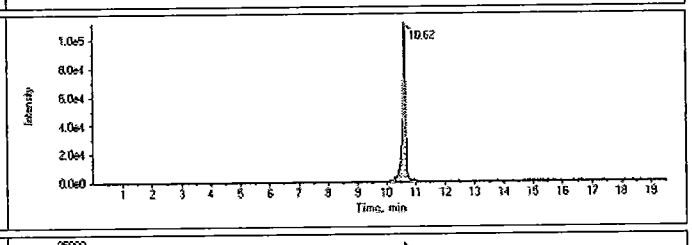


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.014998

Area Ratio: 5.325e-1
Sample Type: (Quality Control)

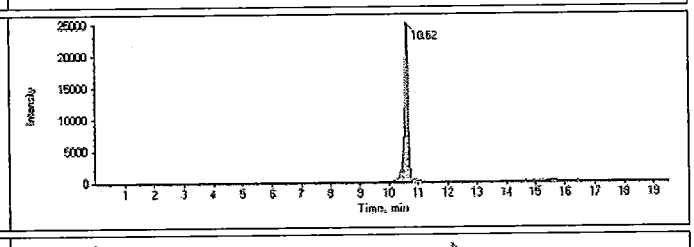


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.015689

Area Ratio: 1.431e-1
Sample Type: (Quality Control)

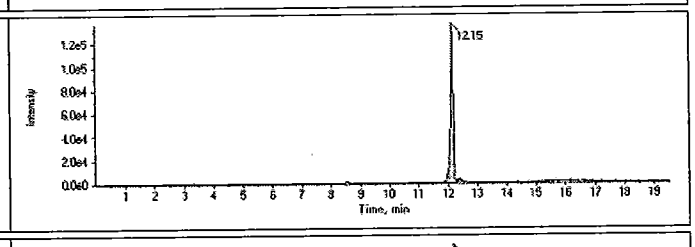


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.016891

Area Ratio: 5.502e-1
Sample Type: (Quality Control)

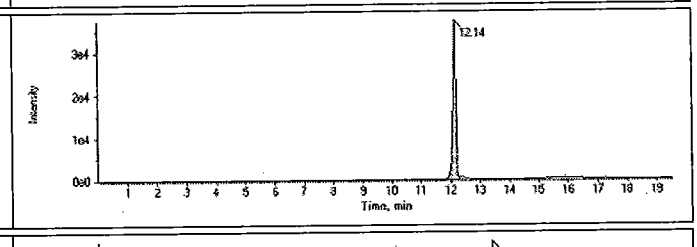


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.017267

Area Ratio: 1.748e-1
Sample Type: (Quality Control)

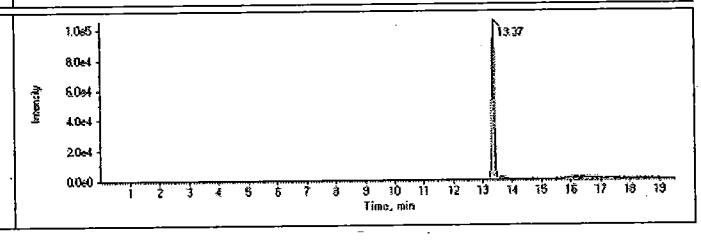


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.018036

Area Ratio: 4.140e-1
Sample Type: (Quality Control)



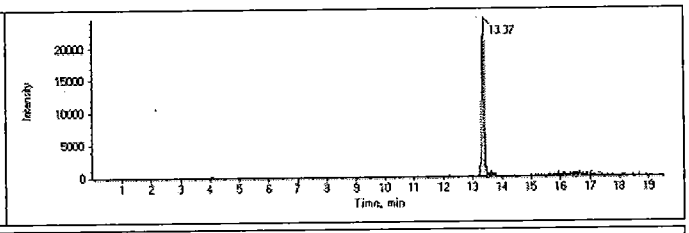
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.016350

Area Ratio: 8.914e-2

Sample Type: (Quality Control)



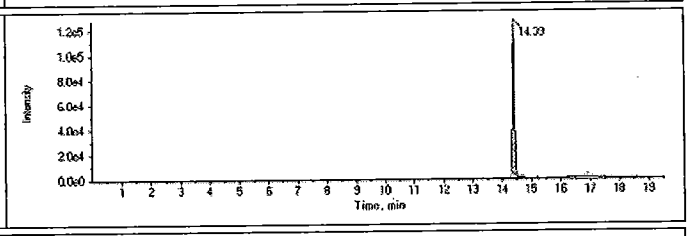
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.016533

Area Ratio: 4.218e-1

Sample Type: (Quality Control)



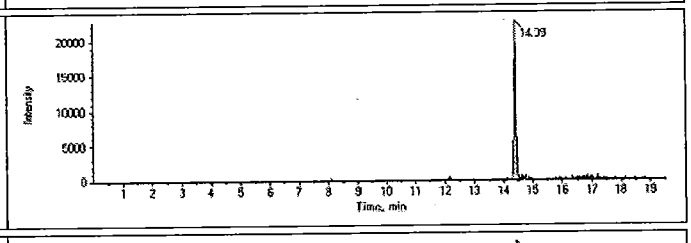
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.016460

Area Ratio: 6.744e-2

Sample Type: (Quality Control)



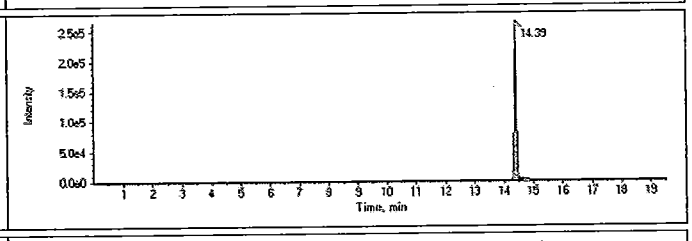
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 103.338758

Area Ratio: 8.583e-1

Sample Type: (Quality Control)



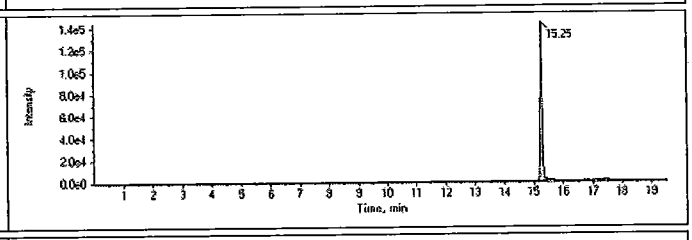
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.017674

Area Ratio: 3.925e-1

Sample Type: (Quality Control)



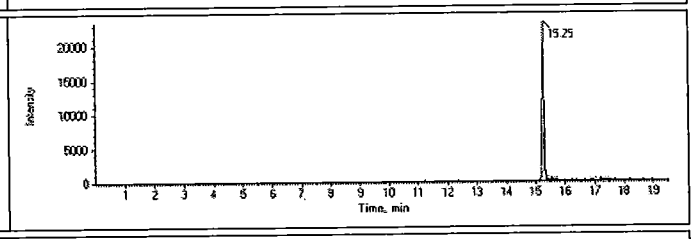
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.017256

Area Ratio: 5.970e-2

Sample Type: (Quality Control)



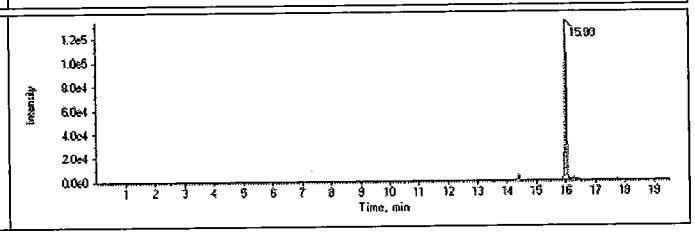
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (15.97) min

Calculated conc: 0.017731

Area Ratio: 3.652e-1

Sample Type: (Quality Control)

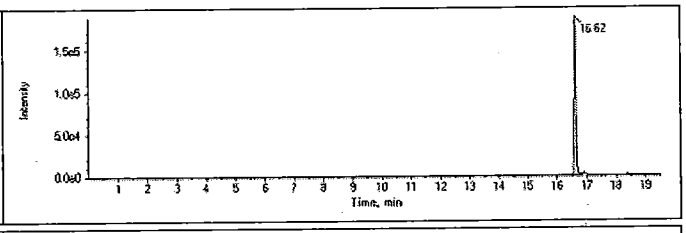


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.016266

Area Ratio: 4.771e-1
Sample Type: (Quality Control)

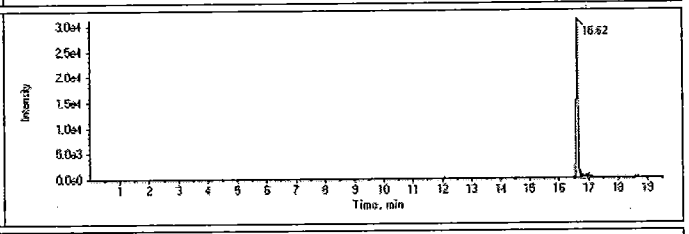


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.016211

Area Ratio: 8.266e-2
Sample Type: (Quality Control)

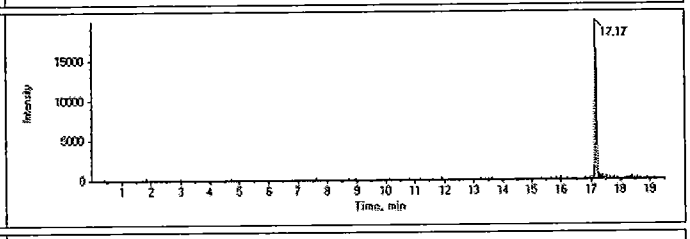


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.17 (17.15) min

Calculated conc: 0.016436

Area Ratio: 4.670e-2
Sample Type: (Quality Control)

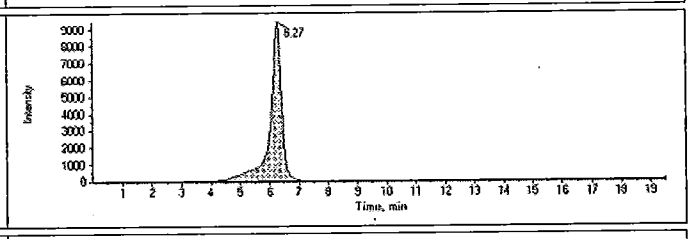


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.27 (6.27) min

Calculated conc: 0.013389

Area Ratio: 1.629e-1
Sample Type: (Quality Control)

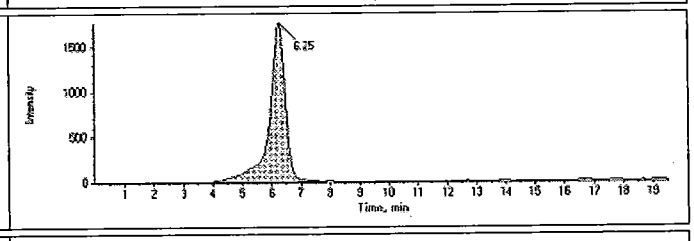


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.25 (6.28) min

Calculated conc: 0.013333

Area Ratio: 4.260e-2
Sample Type: (Quality Control)

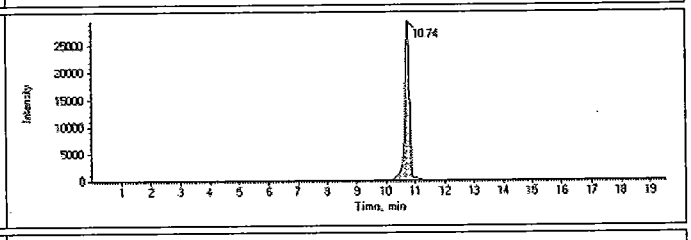


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.015144

Area Ratio: 1.975e-1
Sample Type: (Quality Control)

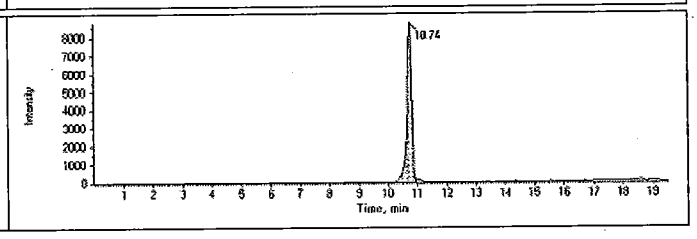


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.014557

Area Ratio: 6.018e-2
Sample Type: (Quality Control)



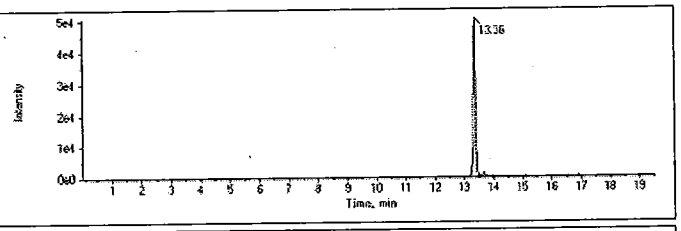
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.014984

Area Ratio: 1.645e-1

Sample Type: (Quality Control)



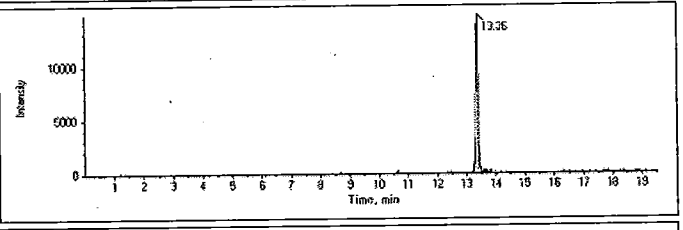
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.014608

Area Ratio: 4.768e-2

Sample Type: (Quality Control)



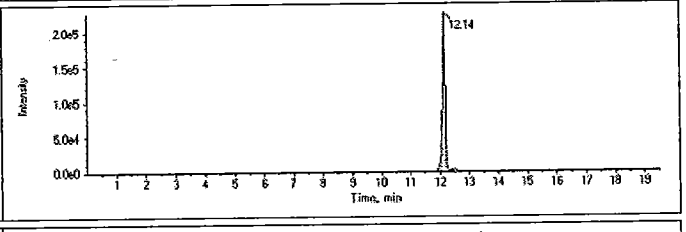
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 102.410030

Area Ratio: N/A

Sample Type: (Quality Control)



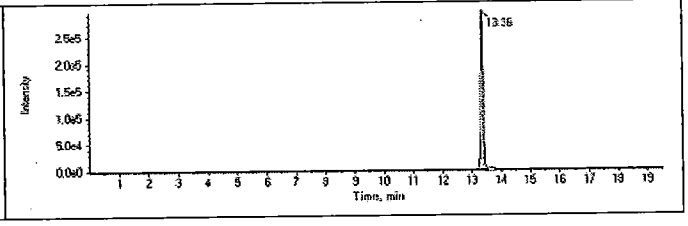
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 102.377019

Area Ratio: N/A

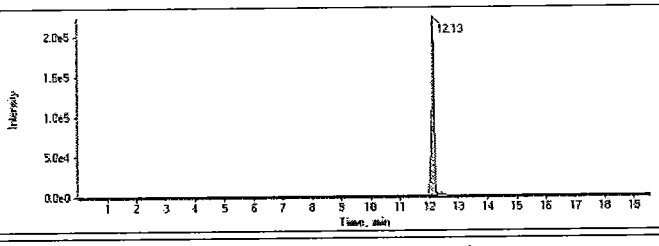
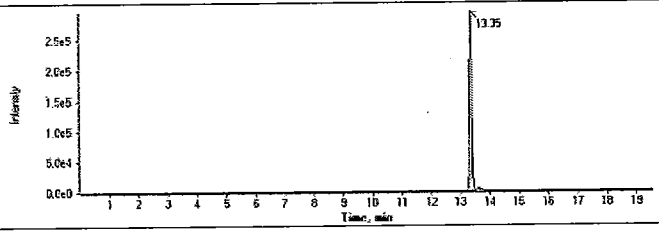
Sample Type: (Quality Control)



Sample Name	MBLK	**Injection Vial**	9
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 9:42:22 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1284094.750000	12.13	100.00000	-
IS-13C-PFOS	1496034.700000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.269e+02	8.54	0.00000	0.000015
Surr-13c-PFHxA	1.236e+06	8.54	100.00000	98.839789
PFHpA	9.805e+01	10.63	0.00000	0.000002
PFHpA 2	4.861e+01	10.61	0.00000	0.000004
PFOA	2.820e+03	12.13	0.00000	0.000067
PFOA 2	1.625e+03	12.15	0.00000	0.000125
PFNA	5.883e+02	13.33	0.00000	0.000020
PFNA 2	1.471e+02	13.35	0.00000	0.000021
PFDA	7.846e+02	14.37	0.00000	0.000024
PFDA 2	9.810e+01	14.35	0.00000	0.000019
Surr-13c-PFDA	9.916e+05	14.38	100.00000	92.979584
PFUnA	4.412e+02	15.22	0.00000	0.000015
PFUnA 2	1.961e+02	15.24	0.00000	0.000044
PFDoA	1.815e+03	15.97	0.00000	0.000069
PFTrDA	1.961e+03	16.61	0.00000	0.000052
PFTrDA 2	4.415e+02	16.60	0.00000	0.000067
PFTA	2.942e+02	17.13	0.00000	0.000081
PFBS	4.904e+01	6.61	0.00000	0.000003
PFBS 2	1.406e+02	6.76	0.00000	0.000029
PFHxS	1.503e+02	10.75	0.00000	0.000008
PFHxS 2	4.904e+01	10.80	0.00000	0.000008
PFOS	9.805e+01	13.35	0.00000	0.000006
PFOS 2	9.805e+01	13.38	0.00000	0.000020
13C-PFOA	1.284e+06	12.13	100.00000	89.132865
13C-PFOS	1.496e+06	13.35	100.00000	97.076921

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

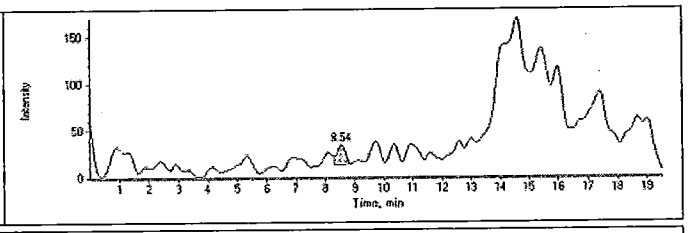
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.54 (8.55) min

Calculated conc: 0.000015

Area Ratio: 3.324e-4

Sample Type: (Quality Control)



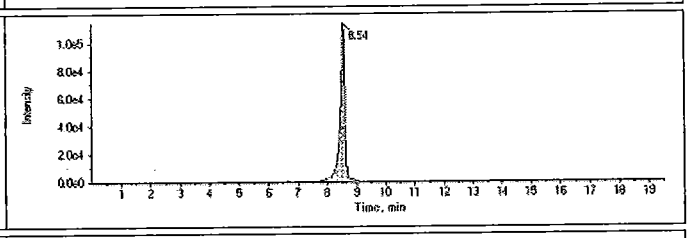
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 98.839789

Area Ratio: 9.627e-1

Sample Type: (Quality Control)



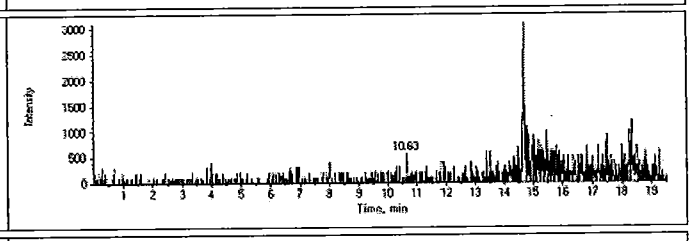
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.63 (10.60) min

Calculated conc: 0.000002

Area Ratio: 7.636e-5

Sample Type: (Quality Control)



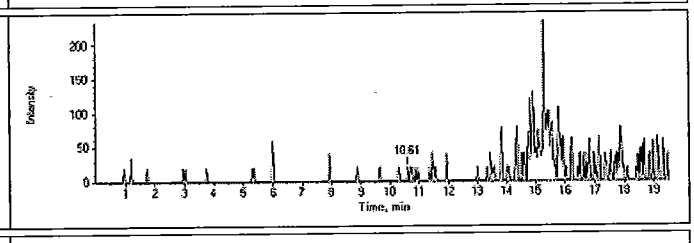
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000004

Area Ratio: 3.785e-5

Sample Type: (Quality Control)



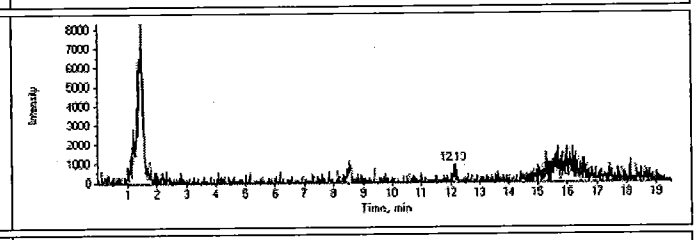
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.000067

Area Ratio: 2.196e-3

Sample Type: (Quality Control)



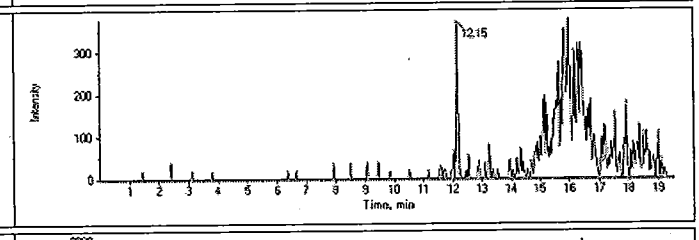
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.000125

Area Ratio: 1.265e-3

Sample Type: (Quality Control)



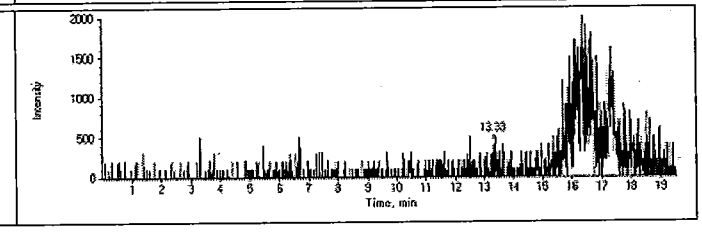
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 0.000020

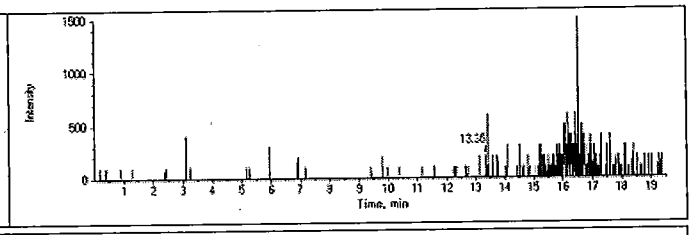
Area Ratio: 4.581e-4

Sample Type: (Quality Control)



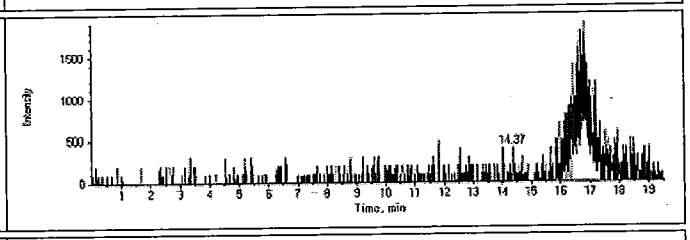
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.35) min
Calculated conc: 0.000021
Area Ratio: 1.145e-4
Sample Type: (Quality Control)



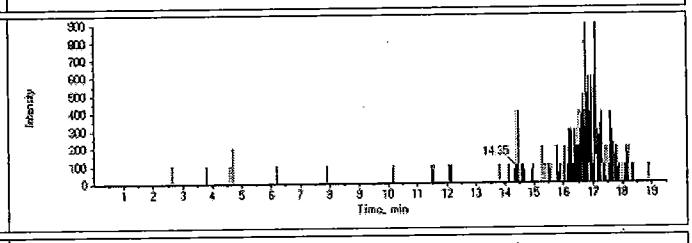
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.000024
Area Ratio: 6.110e-4
Sample Type: (Quality Control)



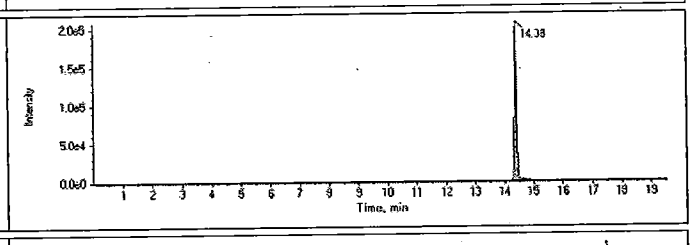
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.35 (14.37) min
Calculated conc: 0.000019
Area Ratio: 7.640e-5
Sample Type: (Quality Control)



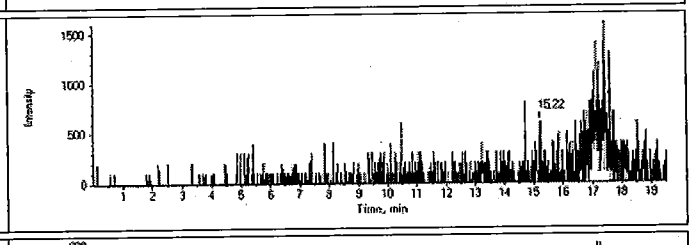
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 92.979584
Area Ratio: 7.723e-1
Sample Type: (Quality Control)



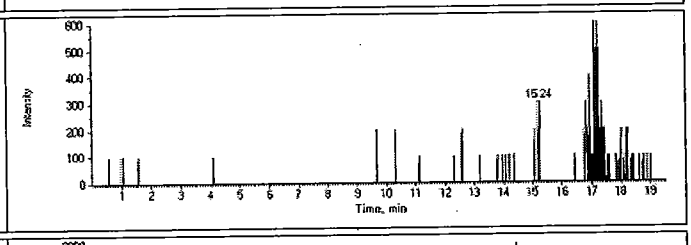
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.22 (15.23) min
Calculated conc: 0.000015
Area Ratio: 3.435e-4
Sample Type: (Quality Control)



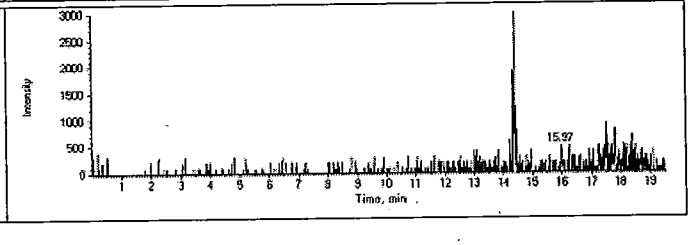
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.000044
Area Ratio: 1.527e-4
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min
Calculated conc: 0.000069
Area Ratio: 1.413e-3
Sample Type: (Quality Control)



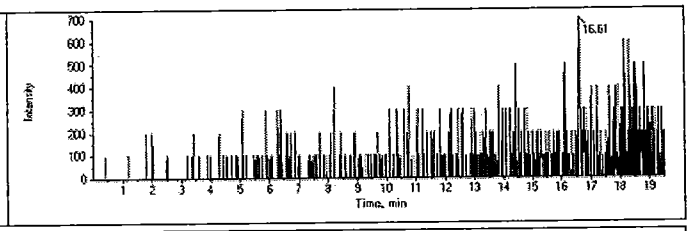
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.000052

Area Ratio: 1.527e-3

Sample Type: (Quality Control)



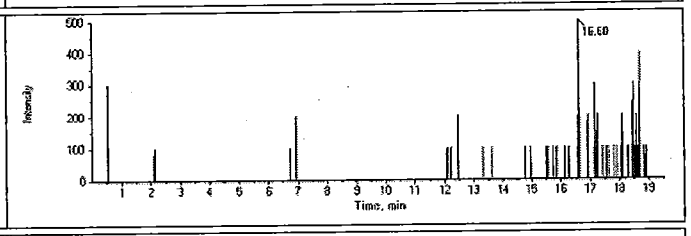
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.000067

Area Ratio: 3.438e-4

Sample Type: (Quality Control)



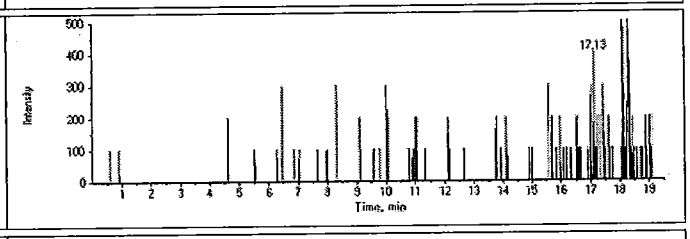
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.13 (17.15) min

Calculated conc: 0.000081

Area Ratio: 2.291e-4

Sample Type: (Quality Control)



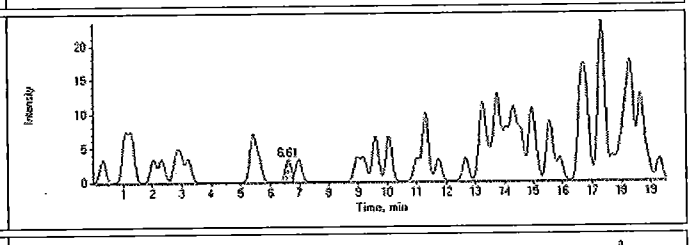
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.61 (6.27) min

Calculated conc: 0.000003

Area Ratio: 3.278e-5

Sample Type: (Quality Control)



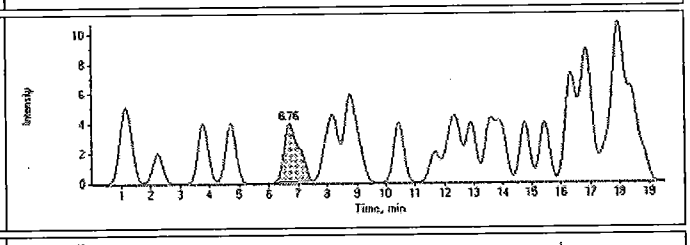
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.76 (6.28) min

Calculated conc: 0.000029

Area Ratio: 9.401e-5

Sample Type: (Quality Control)



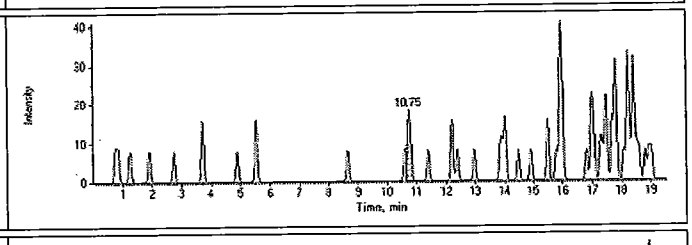
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.000008

Area Ratio: 1.005e-4

Sample Type: (Quality Control)



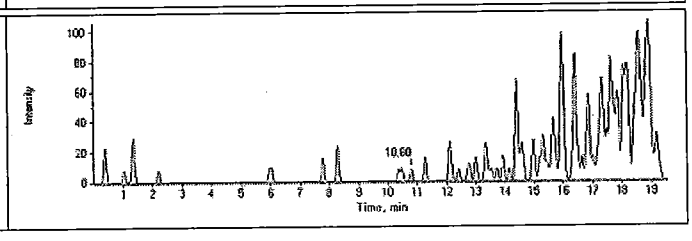
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.80 (10.73) min

Calculated conc: 0.000008

Area Ratio: 3.278e-5

Sample Type: (Quality Control)



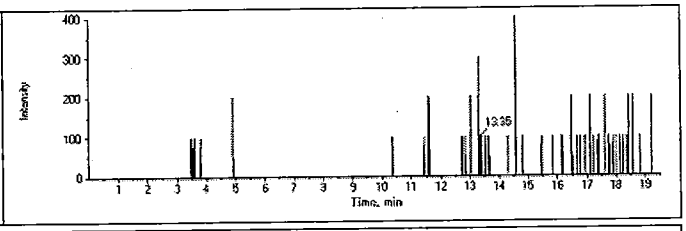
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000006

Area Ratio: 6.554e-5

Sample Type: (Quality Control)



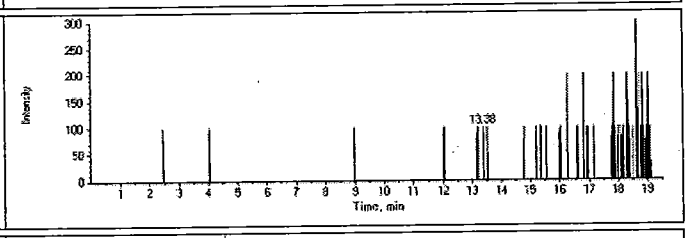
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.38 (13.34) min

Calculated conc: 0.000020

Area Ratio: 6.554e-5

Sample Type: (Quality Control)



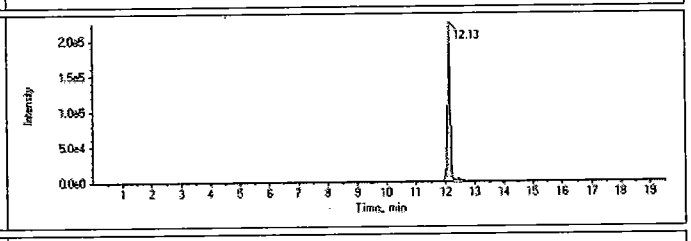
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 89.132865

Area Ratio: N/A

Sample Type: (Quality Control)



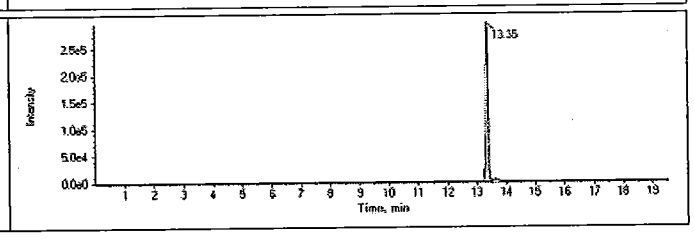
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 97.076921

Area Ratio: N/A

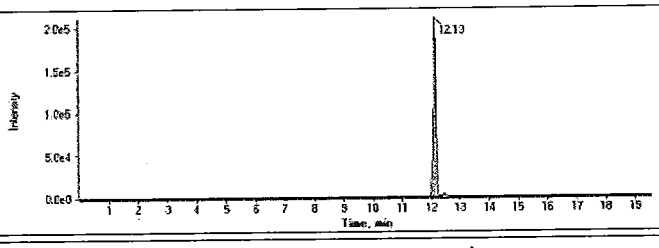
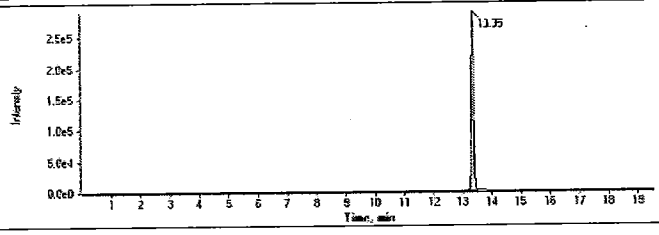
Sample Type: (Quality Control)



Sample Name	MRL_CHK	**Injection Vial**	10
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 10:02:32 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1279804.200000	12.13	100.00000	-
IS-13C-PFOS	1448836.450000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	7.046e+04	8.52	0.00250	0.002482
Surr-13c-PFHxA	1.145e+06	8.54	100.00000	91.821531
PFHpA	1.038e+05	10.60	0.00250	0.002285
PFHpA 2	2.896e+04	10.60	0.00250	0.002480
PFOA	1.104e+05	12.13	0.00250	0.002648
PFOA 2	3.591e+04	12.13	0.00250	0.002771
PFNA	8.591e+04	13.36	0.00250	0.002925
PFNA 2	1.917e+04	13.36	0.00250	0.002748
PFDA	7.988e+04	14.38	0.00250	0.002447
PFDA 2	1.255e+04	14.37	0.00250	0.002394
Surr-13c-PFDA	9.517e+05	14.38	100.00000	89.530376
PFUnA	6.914e+04	15.24	0.00250	0.002433
PFUnA 2	1.344e+04	15.24	0.00250	0.003034
PFDoA	6.257e+04	15.97	0.00250	0.002374
PFTrDA	8.826e+04	16.61	0.00250	0.002352
PFTrDA 2	1.456e+04	16.61	0.00250	0.002232
PFTA	8.386e+03	17.16	0.00250	0.002306
PFBS	3.834e+04	6.25	0.00222	0.002176
PFBS 2	9.142e+03	6.24	0.00222	0.001975
PFHxS	4.308e+04	10.73	0.00237	0.002280
PFHxS 2	1.504e+04	10.73	0.00237	0.002511
PFOS	3.580e+04	13.35	0.00240	0.002251
PFOS 2	1.000e+04	13.36	0.00240	0.002116
13C-PFOA	1.280e+06	12.13	100.00000	88.835045
13C-PFOS	1.449e+06	13.35	100.00000	94.014251

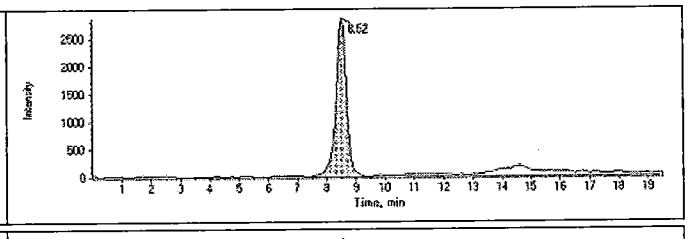
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.002482

Area Ratio: 5.505e-2
Sample Type: (Quality Control)

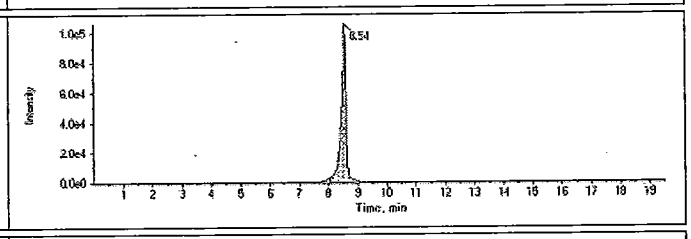


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 91.821531

Area Ratio: 8.943e-1
Sample Type: (Quality Control)

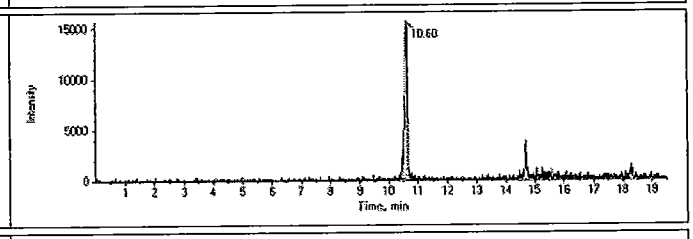


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002285

Area Ratio: 8.112e-2
Sample Type: (Quality Control)

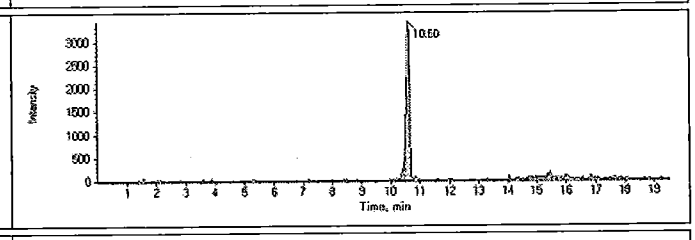


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002480

Area Ratio: 2.263e-2
Sample Type: (Quality Control)

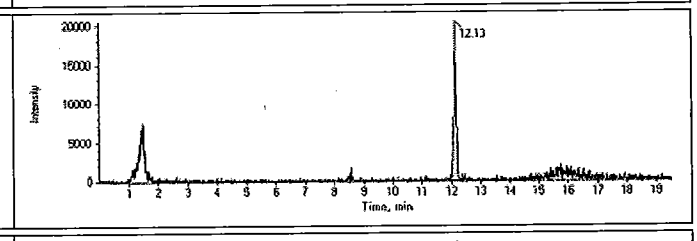


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.002648

Area Ratio: 8.626e-2
Sample Type: (Quality Control)

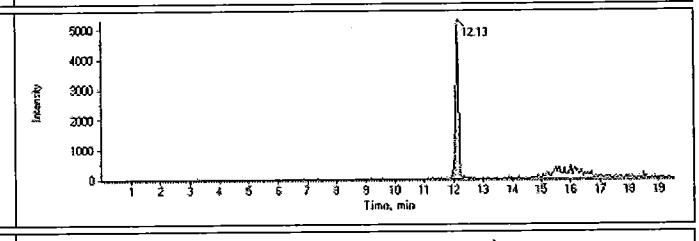


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.002771

Area Ratio: 2.806e-2
Sample Type: (Quality Control)

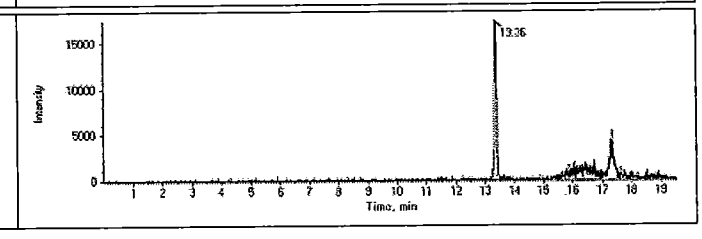


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.002925

Area Ratio: 6.713e-2
Sample Type: (Quality Control)



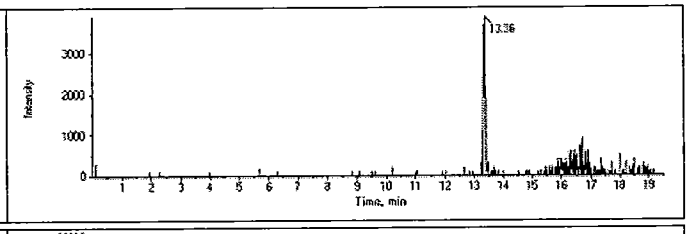
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.002748

Area Ratio: 1.498e-2

Sample Type: (Quality Control)



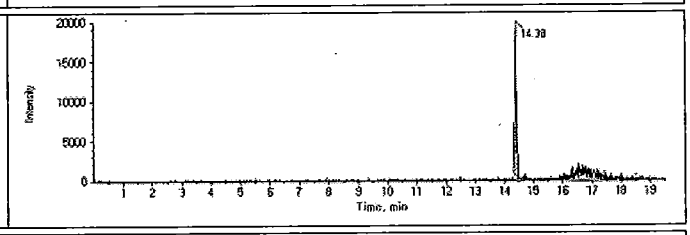
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.002447

Area Ratio: 6.242e-2

Sample Type: (Quality Control)



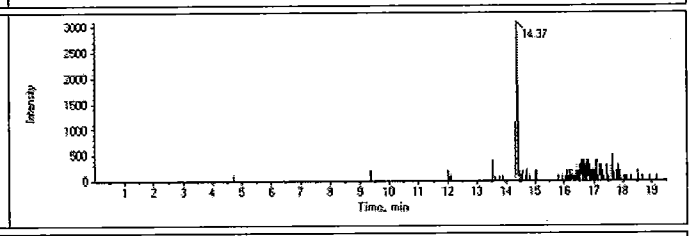
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.002394

Area Ratio: 9.809e-3

Sample Type: (Quality Control)



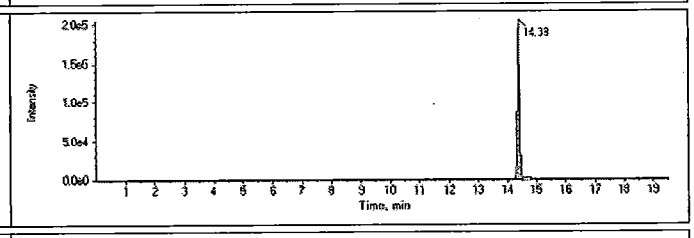
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 89.530376

Area Ratio: 7.436e-1

Sample Type: (Quality Control)



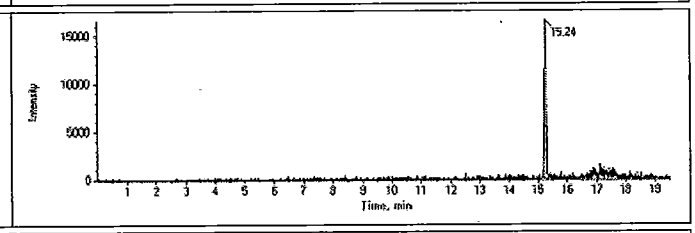
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.002433

Area Ratio: 5.402e-2

Sample Type: (Quality Control)



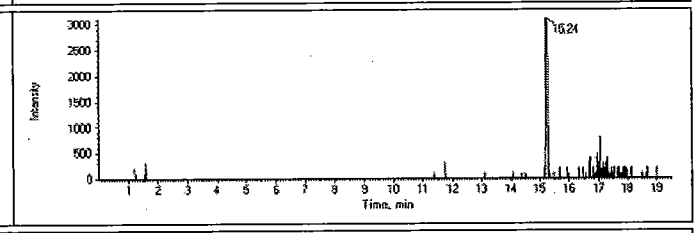
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.003034

Area Ratio: 1.050e-2

Sample Type: (Quality Control)



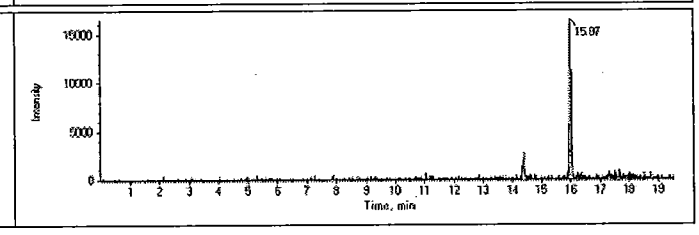
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.002374

Area Ratio: 4.889e-2

Sample Type: (Quality Control)



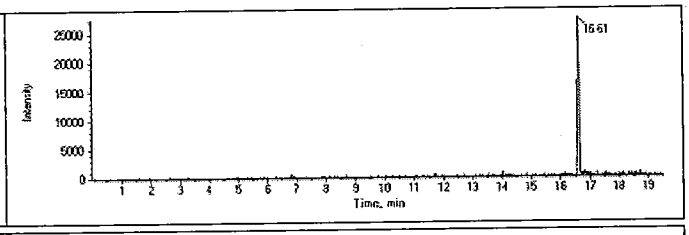
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.002352

Area Ratio: 6.897e-2

Sample Type: (Quality Control)



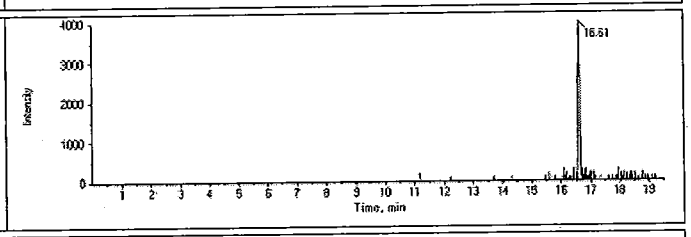
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.002232

Area Ratio: 1.138e-2

Sample Type: (Quality Control)



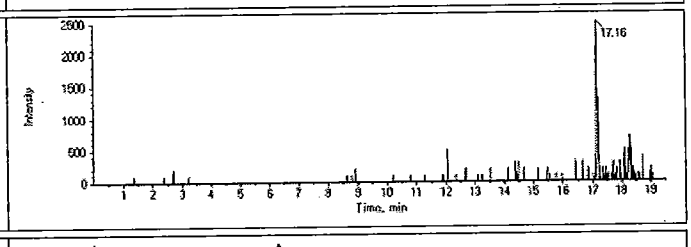
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.002306

Area Ratio: 6.552e-3

Sample Type: (Quality Control)



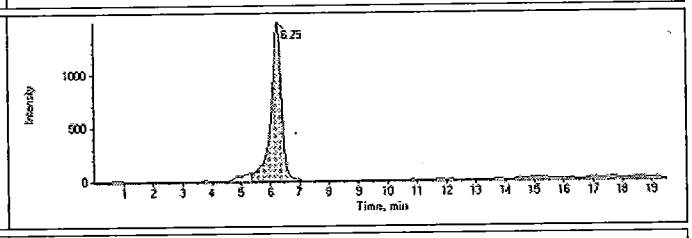
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.002176

Area Ratio: 2.646e-2

Sample Type: (Quality Control)



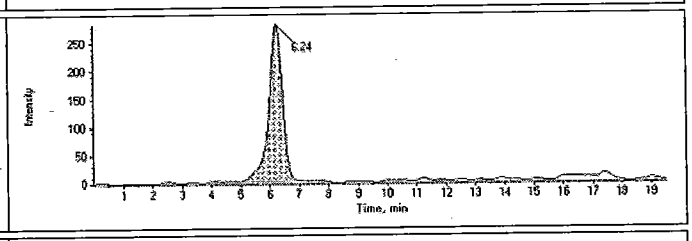
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.001975

Area Ratio: 6.310e-3

Sample Type: (Quality Control)



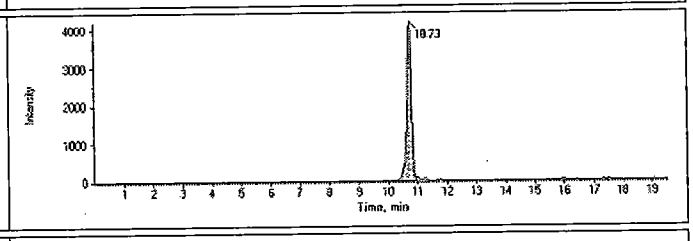
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.002280

Area Ratio: 2.974e-2

Sample Type: (Quality Control)



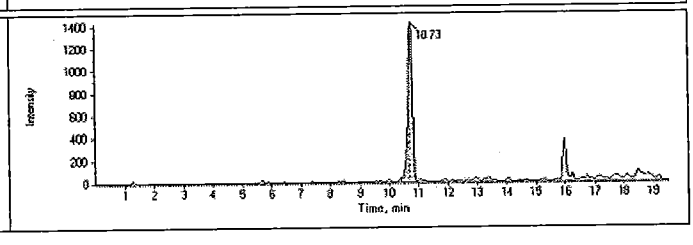
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.002511

Area Ratio: 1.038e-2

Sample Type: (Quality Control)



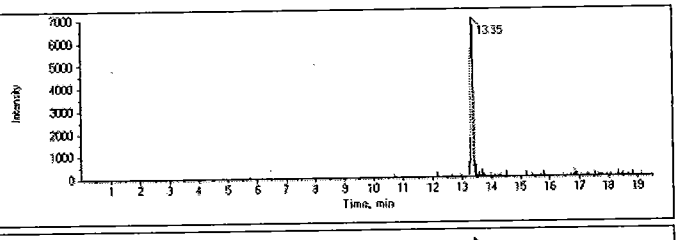
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.002251

Area Ratio: 2.471e-2

Sample Type: (Quality Control)



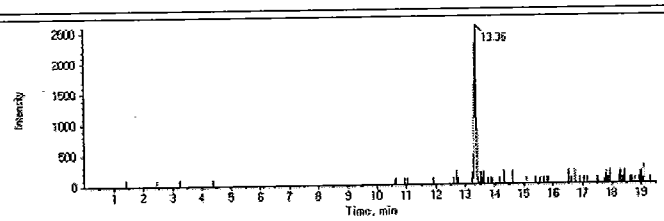
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.002116

Area Ratio: 6.905e-3

Sample Type: (Quality Control)



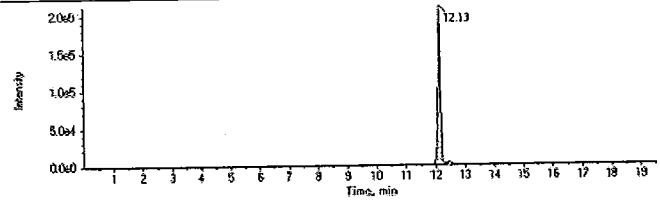
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 88.835045

Area Ratio: N/A

Sample Type: (Quality Control)



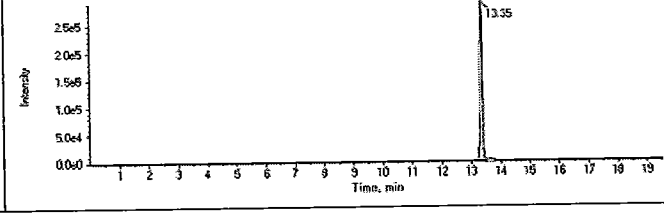
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 94.014251

Area Ratio: N/A

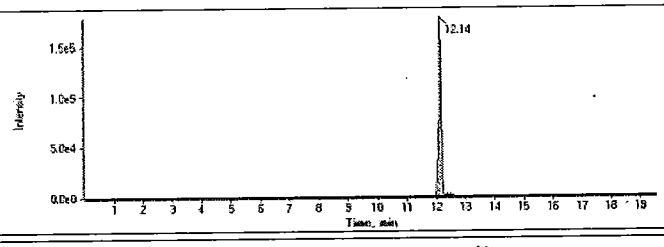
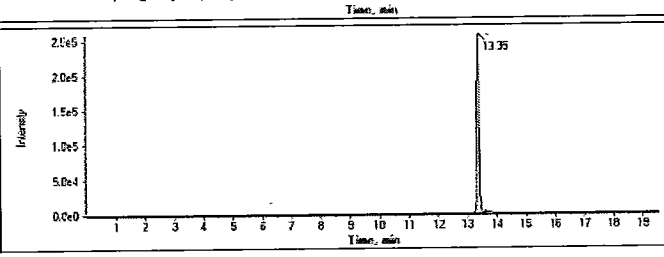
Sample Type: (Quality Control)



Sample Name	LCS1	**Injection Vial**	11
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 10:22:41 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1063448.400000	12.14	100.00000	-
IS-13C-PFOS	1364963.750000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.565e+05	8.53	0.02500	0.019353
Surr-13c-PFHxA	8.565e+05	8.55	100.00000	82.691729
PFHpA	7.905e+05	10.61	0.02500	0.020937
PFHpA 2	2.056e+05	10.61	0.02500	0.021191
PFOA	8.410e+05	12.14	0.02500	0.024279
PFOA 2	2.618e+05	12.13	0.02500	0.024318
PFNA	6.652e+05	13.36	0.02500	0.027254
PFNA 2	1.492e+05	13.36	0.02500	0.025739
PFDA	6.747e+05	14.38	0.02500	0.024869
PFDA 2	1.059e+05	14.38	0.02500	0.024294
Surr-13c-PFDA	8.236e+05	14.38	100.00000	93.248466
PFUnA	6.301e+05	15.24	0.02500	0.026685
PFUnA 2	9.385e+04	15.24	0.02500	0.025509
PFDoA	5.614e+05	15.98	0.02500	0.025628
PFTrDA	7.604e+05	16.61	0.02500	0.024382
PFTrDA 2	1.316e+05	16.61	0.02500	0.024264
PFTA	7.537e+04	17.16	0.02500	0.024945
PFBS	3.144e+05	6.25	0.02220	0.018940
PFBS 2	8.074e+04	6.24	0.02220	0.018513
PFHxS	3.856e+05	10.73	0.02370	0.021661
PFHxS 2	1.332e+05	10.74	0.02370	0.023613
PFOS	3.387e+05	13.35	0.02400	0.022605
PFOS 2	9.525e+04	13.35	0.02400	0.021382
13C-PFOA	1.063e+06	12.14	100.00000	73.817140
13C-PFOS	1.365e+06	13.35	100.00000	88.571794

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

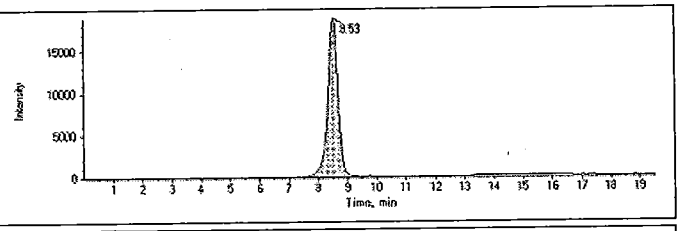
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.019353

Area Ratio: 4.293e-1

Sample Type: (Quality Control)



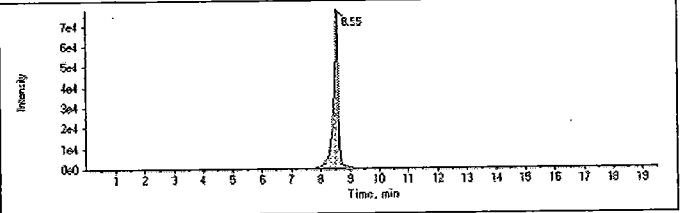
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 82.691729

Area Ratio: 8.054e-1

Sample Type: (Quality Control)



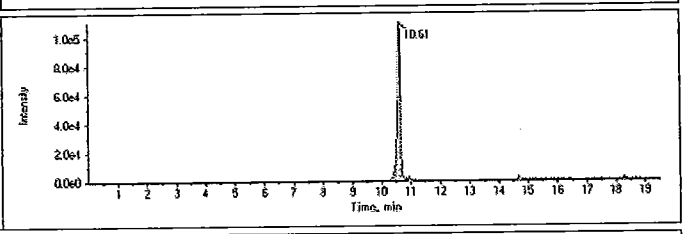
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.020937

Area Ratio: 7.433e-1

Sample Type: (Quality Control)



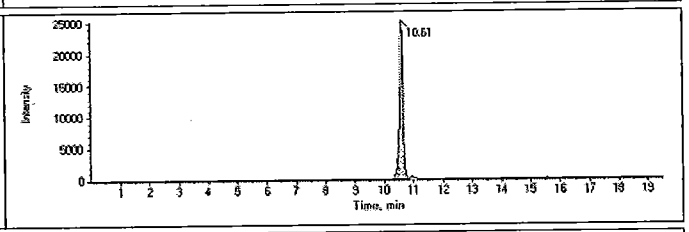
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.021191

Area Ratio: 1.933e-1

Sample Type: (Quality Control)



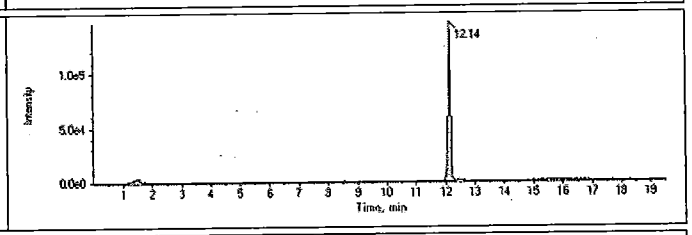
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.024279

Area Ratio: 7.909e-1

Sample Type: (Quality Control)



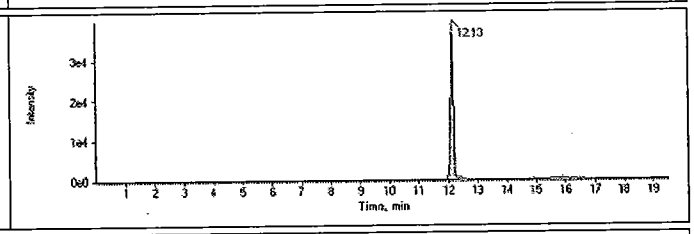
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.024318

Area Ratio: 2.462e-1

Sample Type: (Quality Control)



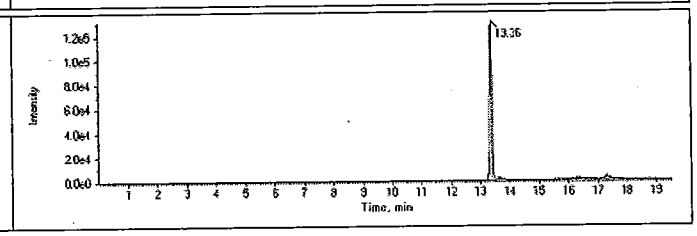
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.027254

Area Ratio: 6.255e-1

Sample Type: (Quality Control)



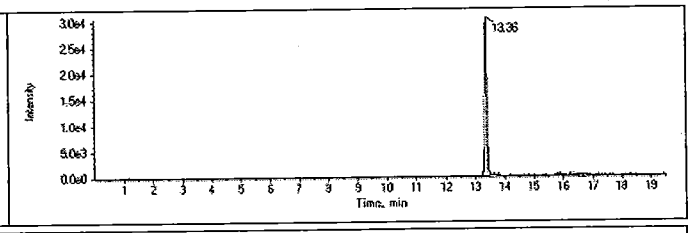
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.025739

Area Ratio: 1.403e-1

Sample Type: (Quality Control)



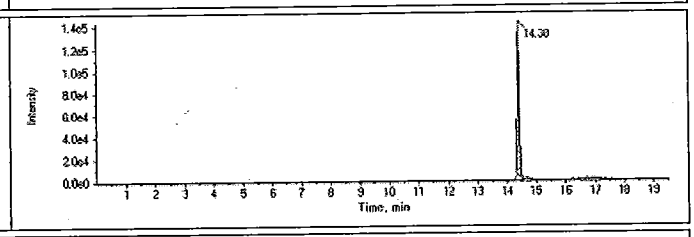
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.024869

Area Ratio: 6.344e-1

Sample Type: (Quality Control)



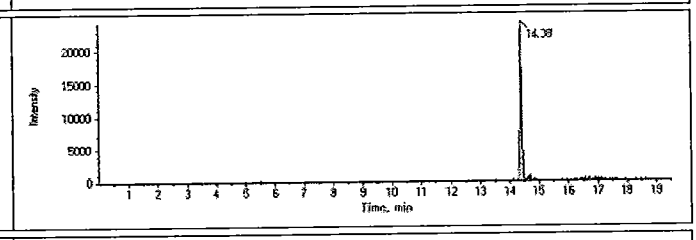
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.024294

Area Ratio: 9.954e-2

Sample Type: (Quality Control)



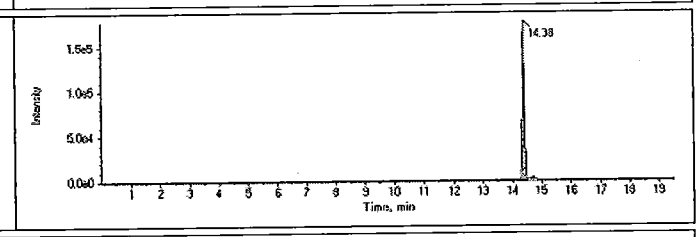
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 93.248466

Area Ratio: 7.745e-1

Sample Type: (Quality Control)



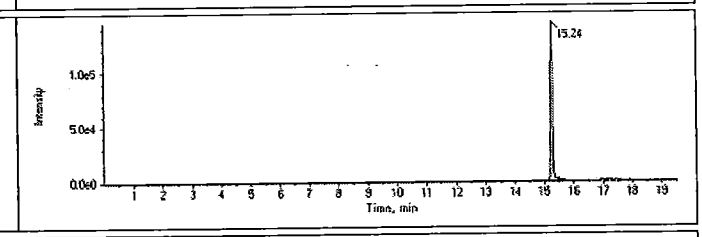
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.026685

Area Ratio: 5.925e-1

Sample Type: (Quality Control)



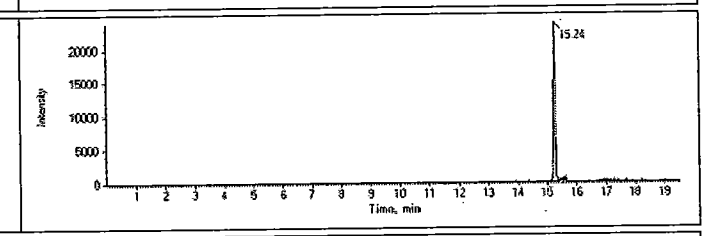
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.025509

Area Ratio: 8.825e-2

Sample Type: (Quality Control)



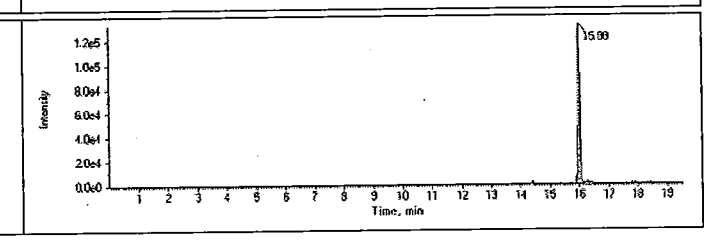
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.025628

Area Ratio: 5.279e-1

Sample Type: (Quality Control)



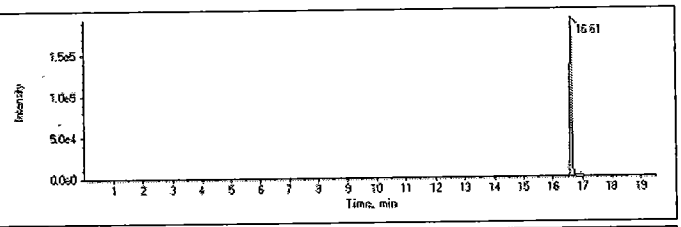
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.024382

Area Ratio: 7.151e-1

Sample Type: (Quality Control)



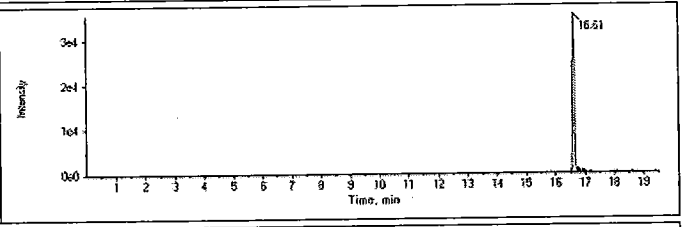
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.024264

Area Ratio: 1.237e-1

Sample Type: (Quality Control)



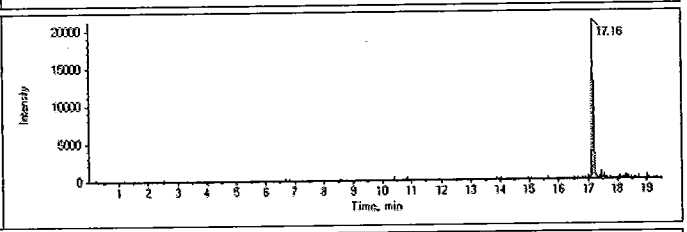
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.024945

Area Ratio: 7.087e-2

Sample Type: (Quality Control)



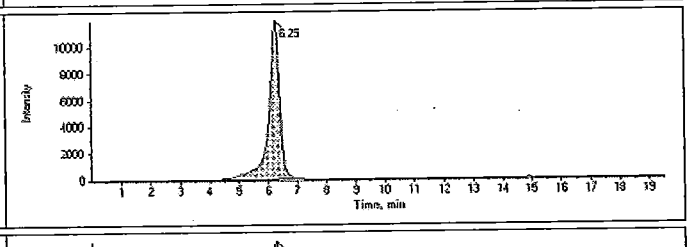
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.018940

Area Ratio: 2.304e-1

Sample Type: (Quality Control)



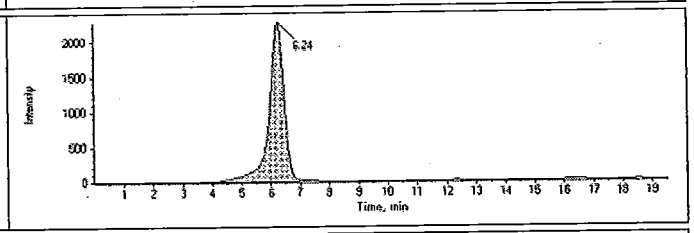
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.018513

Area Ratio: 5.915e-2

Sample Type: (Quality Control)



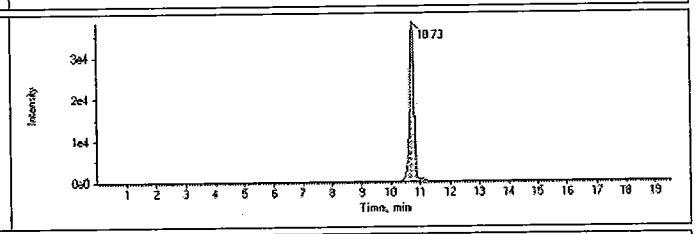
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.021661

Area Ratio: 2.825e-1

Sample Type: (Quality Control)



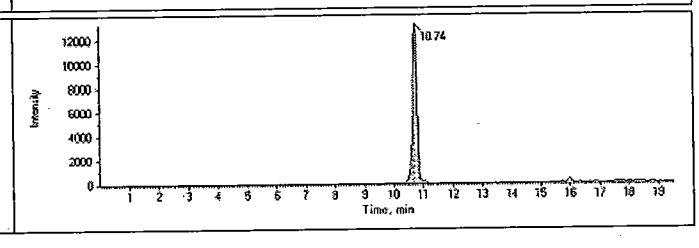
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.023613

Area Ratio: 9.761e-2

Sample Type: (Quality Control)



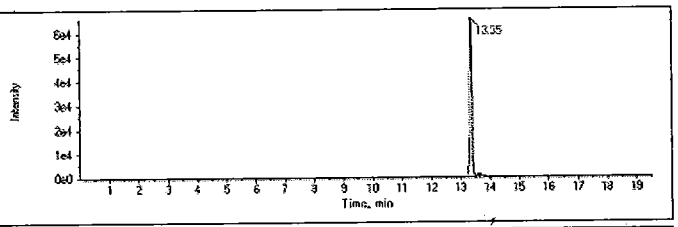
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.022605

Area Ratio: 2.481e-1

Sample Type: (Quality Control)



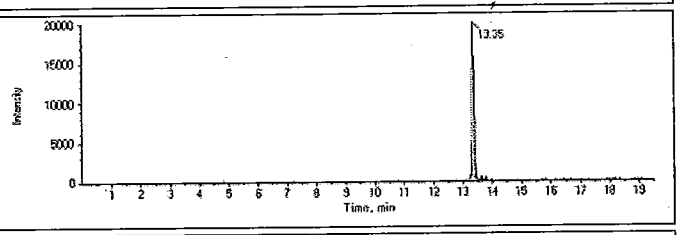
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.021382

Area Ratio: 6.978e-2

Sample Type: (Quality Control)



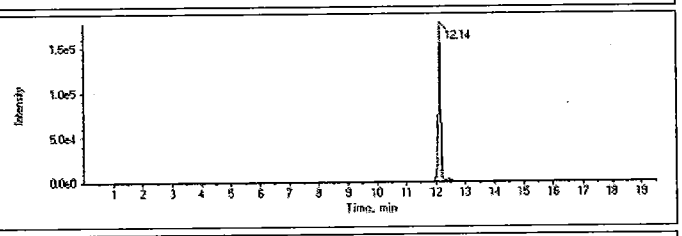
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 73.817140

Area Ratio: N/A

Sample Type: (Quality Control)



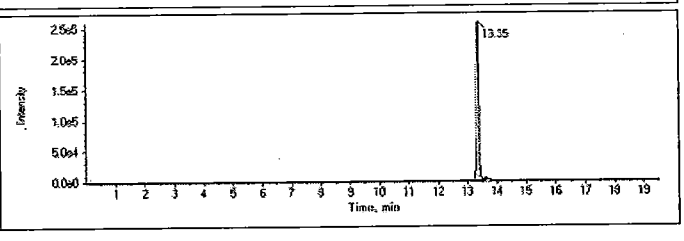
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 88.571794

Area Ratio: N/A

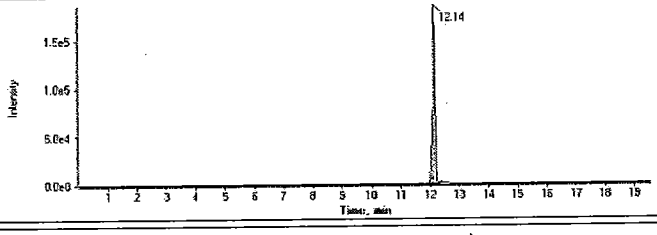
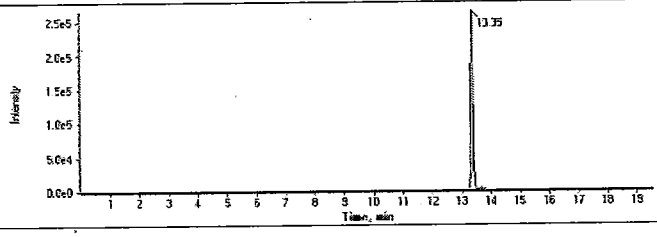
Sample Type: (Quality Control)



Sample Name	LCS2	**Injection Vial**	12
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 10:42:50 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1072132.750000	12.14	100.00000	-
IS-13C-PFOS	1395499.300000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.871e+05	8.52	0.02500	0.020482
Surr-13c-PFHxA	8.848e+05	8.54	100.00000	84.736671
PFHpA	8.421e+05	10.61	0.02500	0.022122
PFHpA 2	2.110e+05	10.60	0.02500	0.021577
PFOA	8.617e+05	12.14	0.02500	0.024675
PFOA 2	2.586e+05	12.14	0.02500	0.023825
PFNA	6.682e+05	13.36	0.02500	0.027155
PFNA 2	1.530e+05	13.36	0.02500	0.026176
PFDA	7.173e+05	14.38	0.02500	0.026225
PFDA 2	1.085e+05	14.38	0.02500	0.024692
Surr-13c-PFDA	8.350e+05	14.38	100.00000	93.770263
PFUnA	6.579e+05	15.24	0.02500	0.027633
PFUnA 2	9.479e+04	15.24	0.02500	0.025556
PFDoA	5.981e+05	15.98	0.02500	0.027083
PFTrDA	8.323e+05	16.61	0.02500	0.026471
PFTrDA 2	1.366e+05	16.61	0.02500	0.024980
PFTA	7.317e+04	17.16	0.02500	0.024021
PFBS	3.460e+05	6.26	0.02220	0.020382
PFBS 2	9.119e+04	6.23	0.02220	0.020453
PFHxS	3.874e+05	10.74	0.02370	0.021284
PFHxS 2	1.211e+05	10.73	0.02370	0.021000
PFOS	3.325e+05	13.35	0.02400	0.021704
PFOS 2	9.905e+04	13.35	0.02400	0.021749
13C-PFOA	1.072e+06	12.14	100.00000	74.419947
13C-PFOS	1.395e+06	13.35	100.00000	90.553230

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

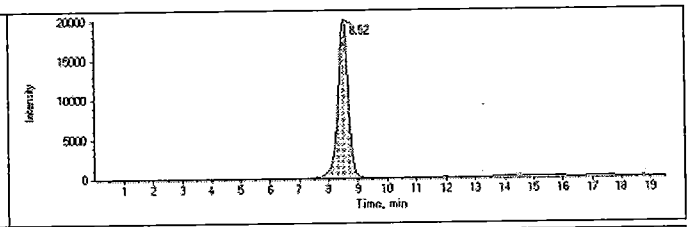
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.020482

Area Ratio: 4.543e-1

Sample Type: (Quality Control)



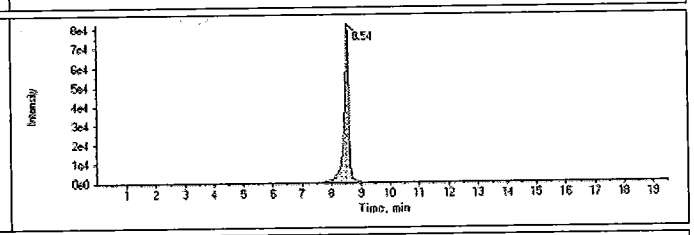
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 84.736671

Area Ratio: 8.253e-1

Sample Type: (Quality Control)



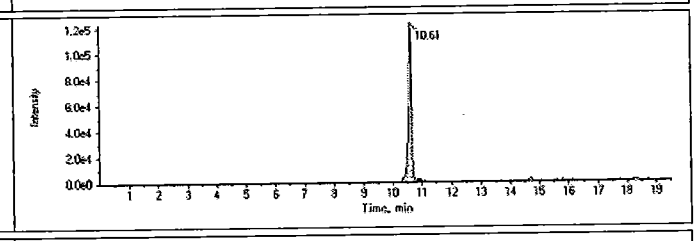
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.022122

Area Ratio: 7.854e-1

Sample Type: (Quality Control)



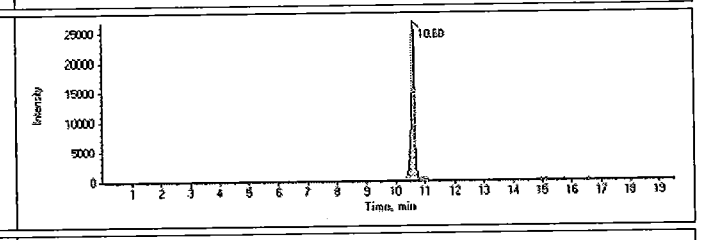
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.021577

Area Ratio: 1.968e-1

Sample Type: (Quality Control)



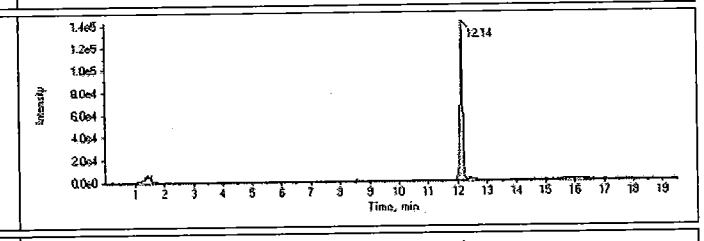
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.024675

Area Ratio: 8.038e-1

Sample Type: (Quality Control)



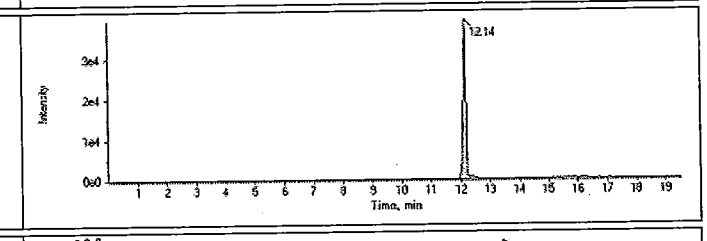
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.023825

Area Ratio: 2.412e-1

Sample Type: (Quality Control)



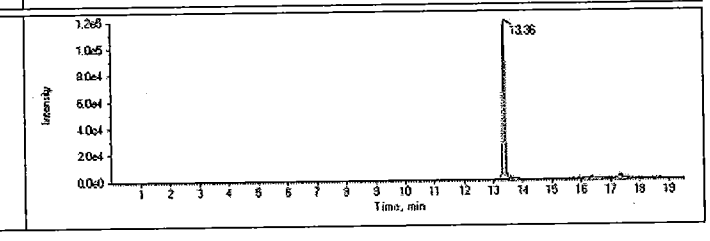
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.027155

Area Ratio: 6.233e-1

Sample Type: (Quality Control)



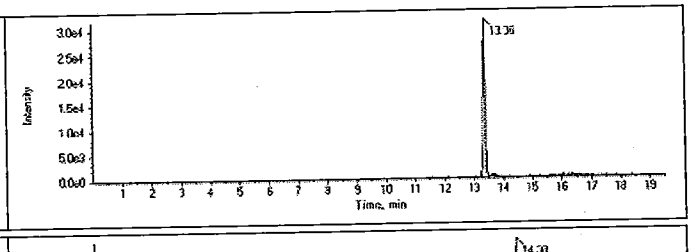
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.026176

Area Ratio: 1.427e-1

Sample Type: (Quality Control)



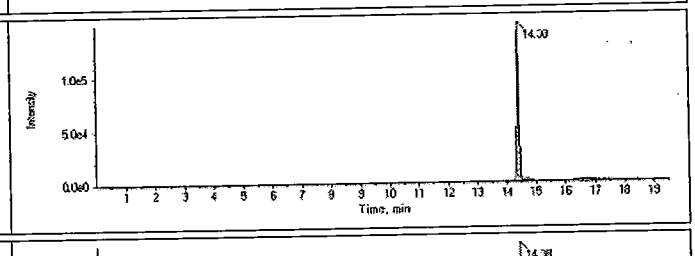
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.026225

Area Ratio: 6.690e-1

Sample Type: (Quality Control)



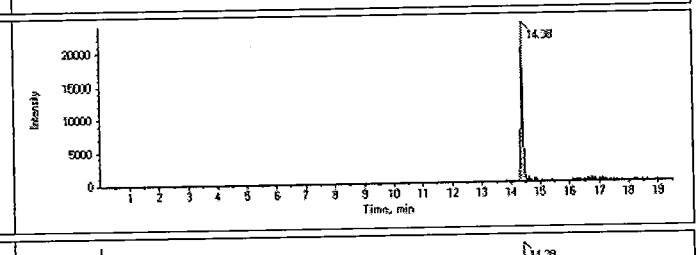
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.024692

Area Ratio: 1.012e-1

Sample Type: (Quality Control)



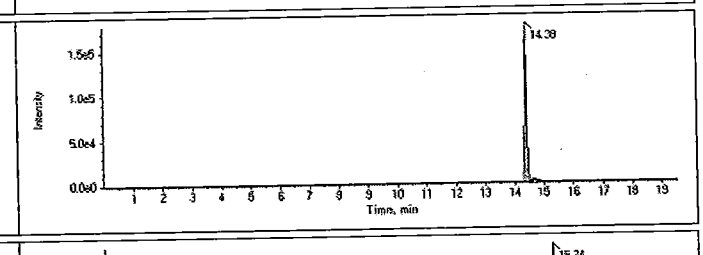
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 93.770263

Area Ratio: 7.788e-1

Sample Type: (Quality Control)



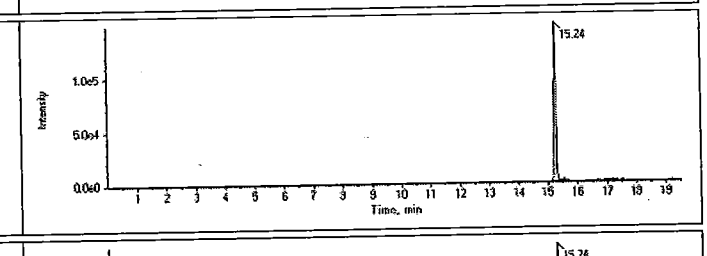
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.027633

Area Ratio: 6.136e-1

Sample Type: (Quality Control)



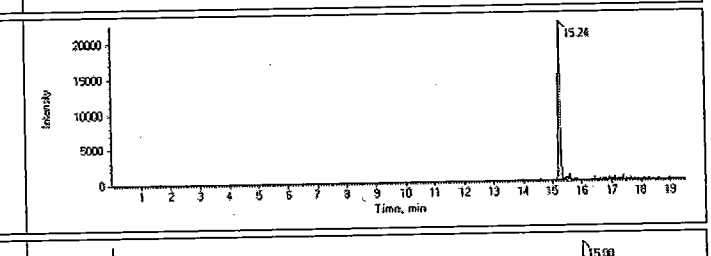
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.025556

Area Ratio: 8.842e-2

Sample Type: (Quality Control)



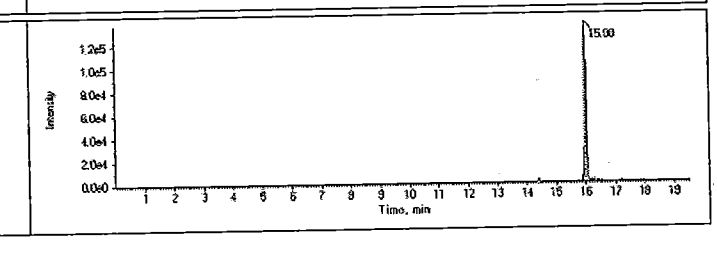
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.027083

Area Ratio: 5.579e-1

Sample Type: (Quality Control)



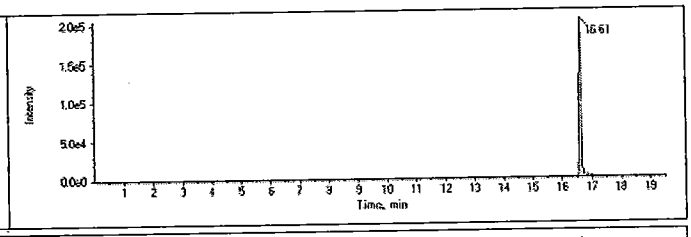
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.026471

Area Ratio: 7.763e-1

Sample Type: (Quality Control)



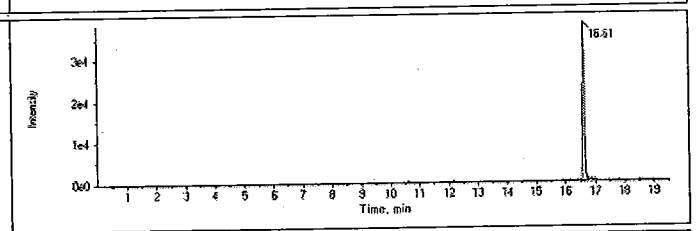
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.024980

Area Ratio: 1.274e-1

Sample Type: (Quality Control)



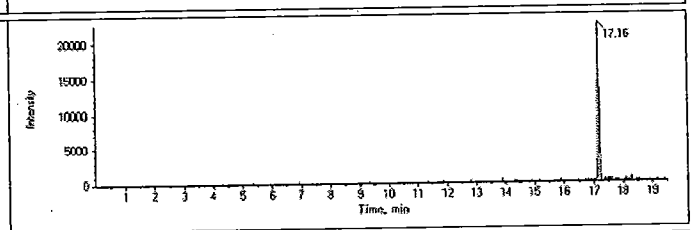
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.024021

Area Ratio: 6.825e-2

Sample Type: (Quality Control)



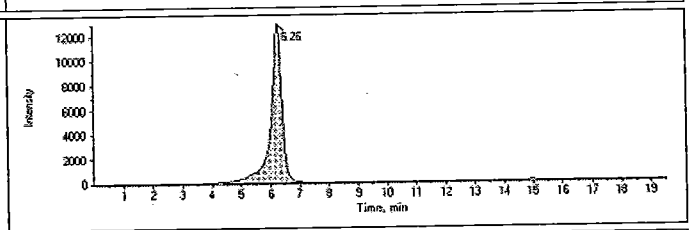
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.26 (6.27) min

Calculated conc: 0.020382

Area Ratio: 2.479e-1

Sample Type: (Quality Control)



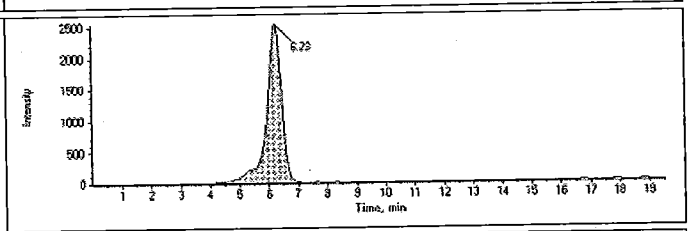
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min

Calculated conc: 0.020453

Area Ratio: 6.535e-2

Sample Type: (Quality Control)



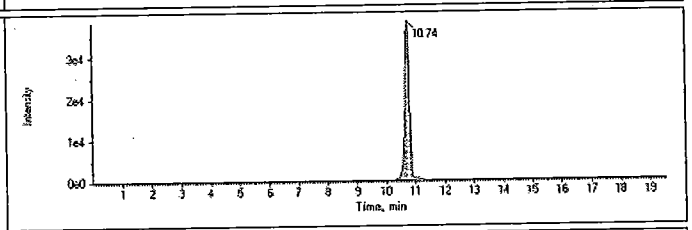
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.021284

Area Ratio: 2.776e-1

Sample Type: (Quality Control)



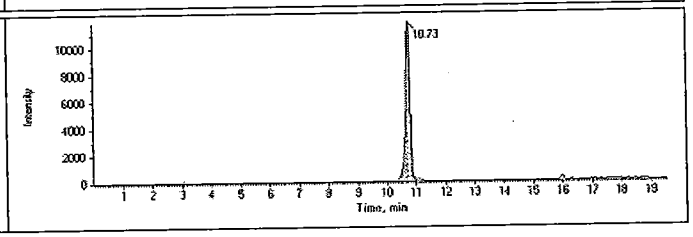
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.021000

Area Ratio: 8.681e-2

Sample Type: (Quality Control)

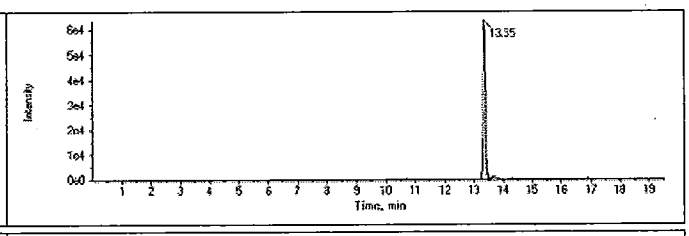


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.021704

Area Ratio: 2.382e-1
Sample Type: (Quality Control)

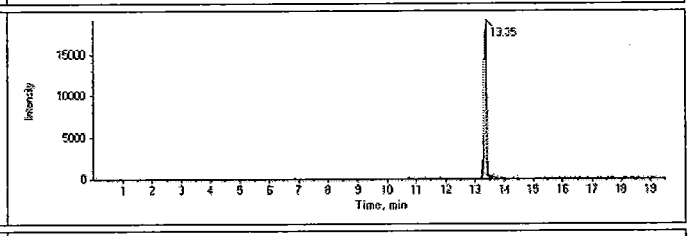


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.021749

Area Ratio: 7.098e-2
Sample Type: (Quality Control)

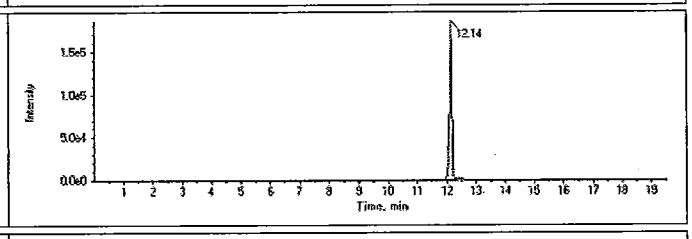


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 74.419947

Area Ratio: N/A
Sample Type: (Quality Control)

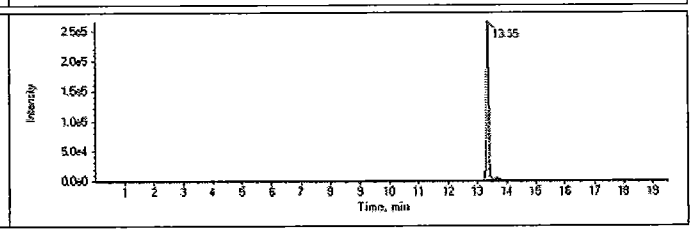


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 90.553230

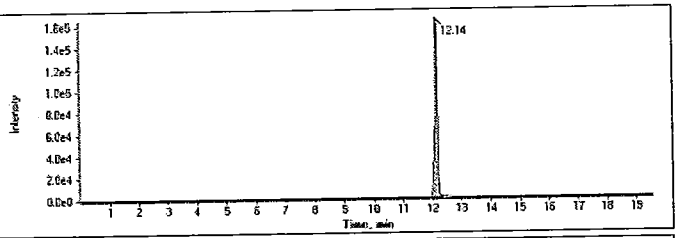
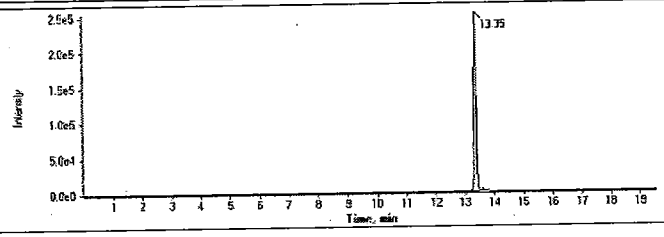
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	DNR-201312260079MS	**Injection Vial**	13
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 11:02:59 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	999924.300000	12.14	100.00000	-
IS-13C-PFOS	1337643.050000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.803e+05	8.52	0.02500	0.021655
Surr-13c-PFHxA	8.593e+05	8.54	100.00000	88.237779
PFHpA	7.922e+05	10.61	0.02500	0.022316
PFHpA 2	2.016e+05	10.60	0.02500	0.022107
PFOA	8.614e+05	12.14	0.02500	0.026447
PFOA 2	2.748e+05	12.14	0.02500	0.027142
PFNA	6.675e+05	13.36	0.02500	0.029082
PFNA 2	1.516e+05	13.37	0.02500	0.027804
PFDA	6.923e+05	14.38	0.02500	0.027139
PFDA 2	1.034e+05	14.38	0.02500	0.025232
Surr-13c-PFDA	8.711e+05	14.38	100.00000	104.883097
PFUnA	6.113e+05	15.24	0.02500	0.027532
PFUnA 2	9.886e+04	15.25	0.02500	0.028578
PFDoA	5.487e+05	15.98	0.02500	0.026640
PFTrDA	7.517e+05	16.61	0.02500	0.025634
PFTrDA 2	1.196e+05	16.61	0.02500	0.023466
PFTA	7.111e+04	17.16	0.02500	0.025028
PFBS	3.469e+05	6.25	0.02220	0.021324
PFBS 2	9.713e+04	6.24	0.02220	0.022725
PFHxS	4.123e+05	10.73	0.02370	0.023629
PFHxS 2	1.306e+05	10.73	0.02370	0.023626
PFOS	3.621e+05	13.35	0.02400	0.024663
PFOS 2	1.008e+05	13.36	0.02400	0.023089
13C-PFOA	1.022e+06	12.14	100.00000	70.968400
13C-PFOS	1.338e+06	13.35	100.00000	86.798968

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

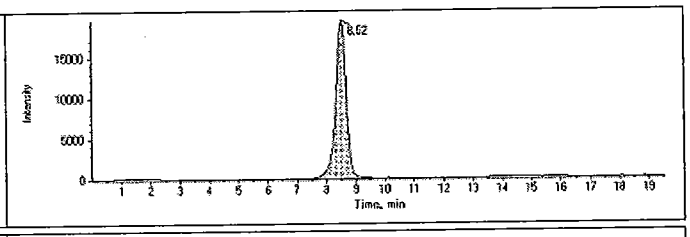
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.021655

Area Ratio: 4.803e-1

Sample Type: (Quality Control)



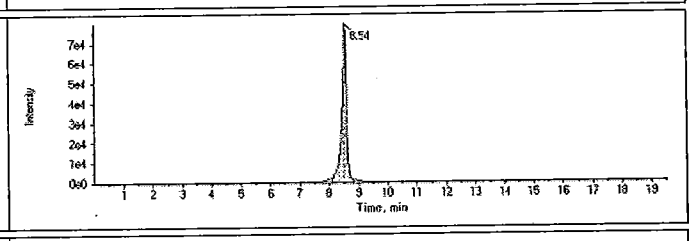
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 88.237779

Area Ratio: 8.594e-1

Sample Type: (Quality Control)



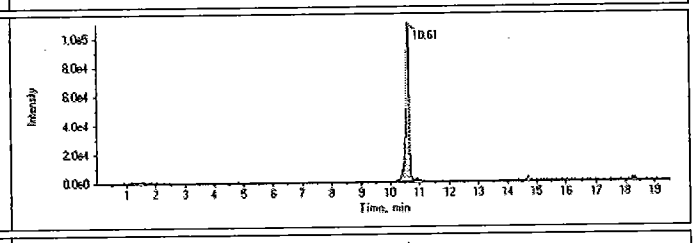
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.022316

Area Ratio: 7.923e-1

Sample Type: (Quality Control)



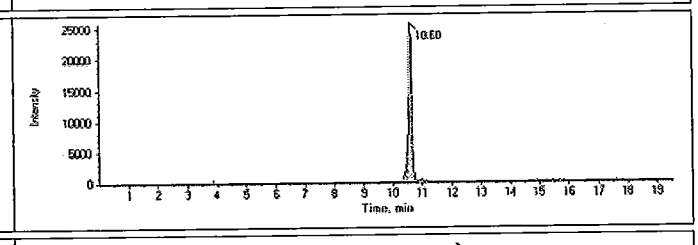
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.022107

Area Ratio: 2.017e-1

Sample Type: (Quality Control)



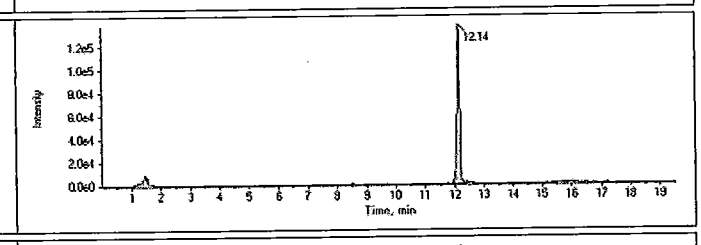
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.026447

Area Ratio: 8.615e-1

Sample Type: (Quality Control)



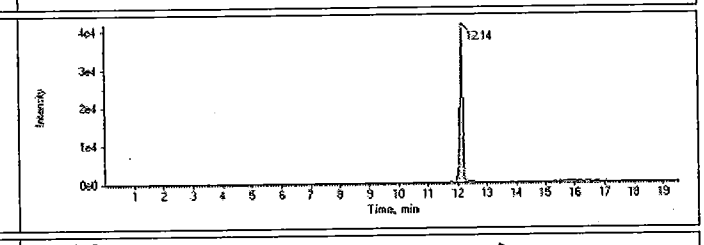
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.027142

Area Ratio: 2.748e-1

Sample Type: (Quality Control)



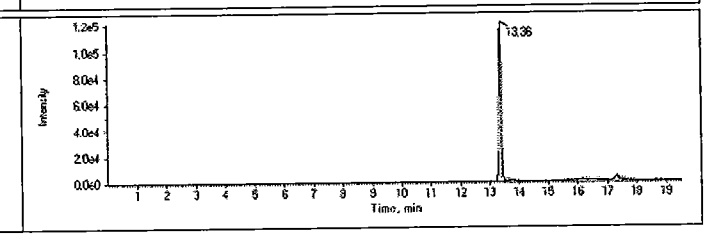
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.029082

Area Ratio: 6.675e-1

Sample Type: (Quality Control)



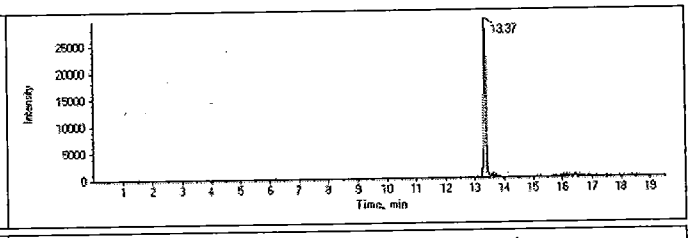
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.027804

Area Ratio: 1.516e-1

Sample Type: (Quality Control)



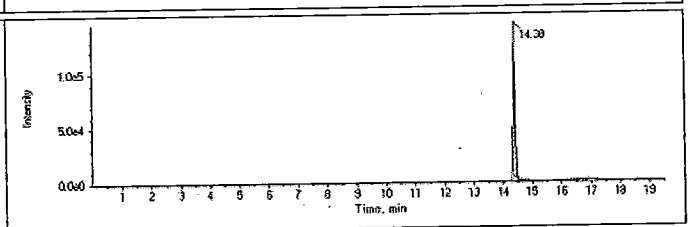
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.027139

Area Ratio: 6.923e-1

Sample Type: (Quality Control)



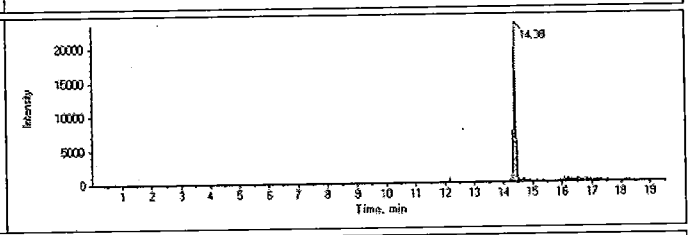
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.025232

Area Ratio: 1.034e-1

Sample Type: (Quality Control)



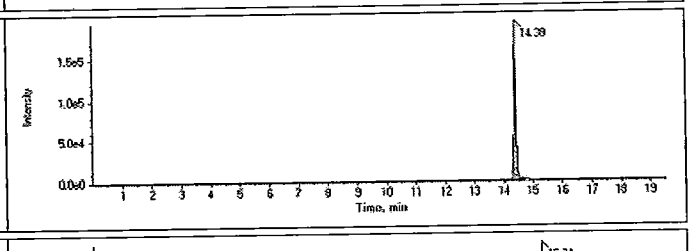
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 104.883097

Area Ratio: 8.711e-1

Sample Type: (Quality Control)



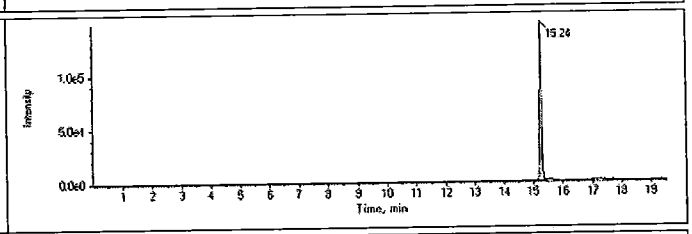
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.027532

Area Ratio: 6.114e-1

Sample Type: (Quality Control)



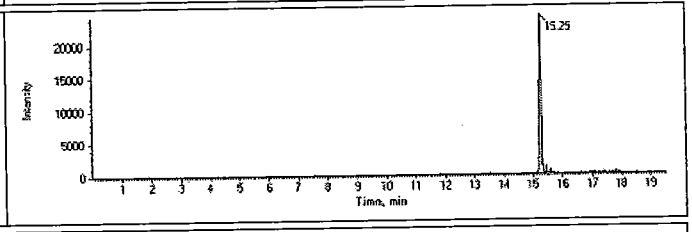
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.028578

Area Ratio: 9.887e-2

Sample Type: (Quality Control)



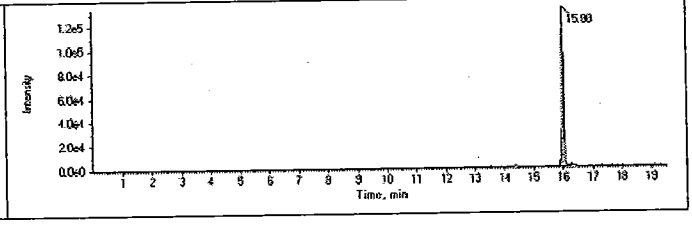
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.026640

Area Ratio: 5.487e-1

Sample Type: (Quality Control)

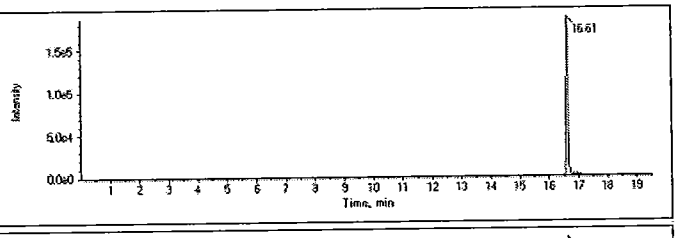


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.025634

Area Ratio: 7.518e-1
Sample Type: (Quality Control)

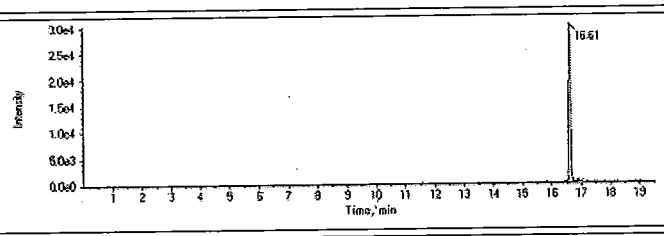


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.023466

Area Ratio: 1.197e-1
Sample Type: (Quality Control)

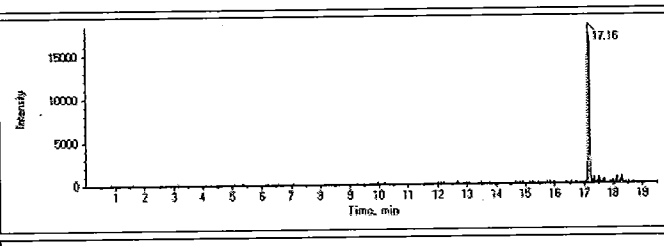


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.025028

Area Ratio: 7.111e-2
Sample Type: (Quality Control)

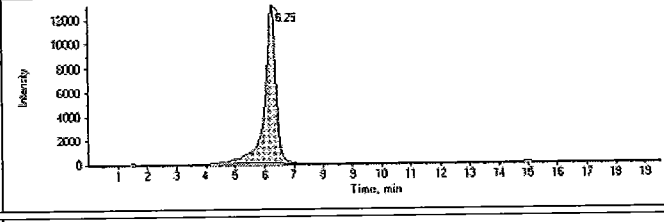


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.021324

Area Ratio: 2.594e-1
Sample Type: (Quality Control)

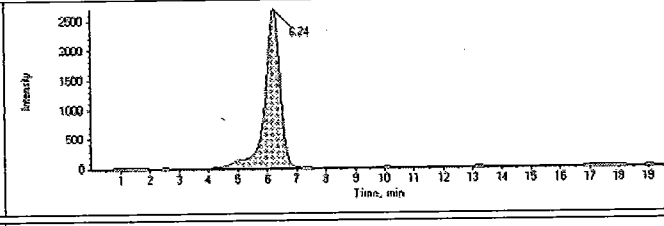


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.022725

Area Ratio: 7.261e-2
Sample Type: (Quality Control)

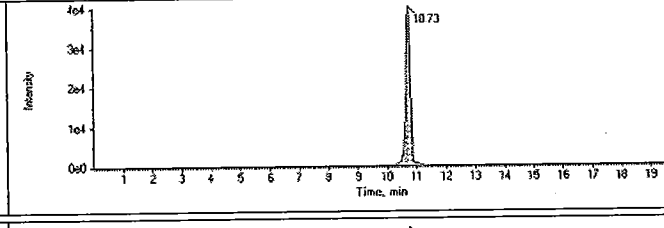


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.023629

Area Ratio: 3.082e-1
Sample Type: (Quality Control)

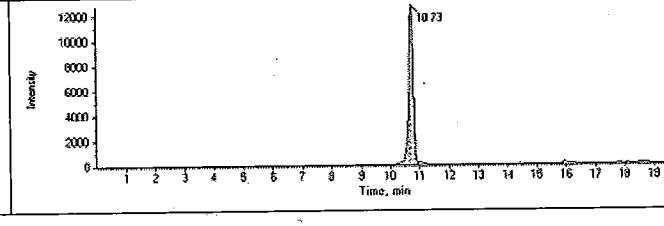


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.023626

Area Ratio: 9.767e-2
Sample Type: (Quality Control)



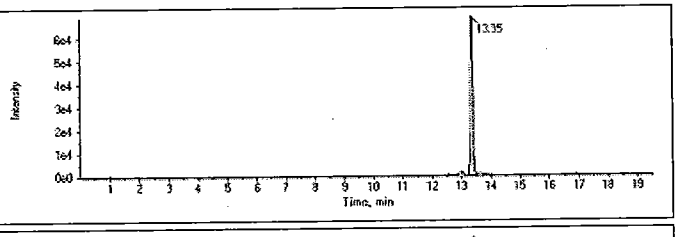
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.024663

Area Ratio: 2.707e-1

Sample Type: (Quality Control)



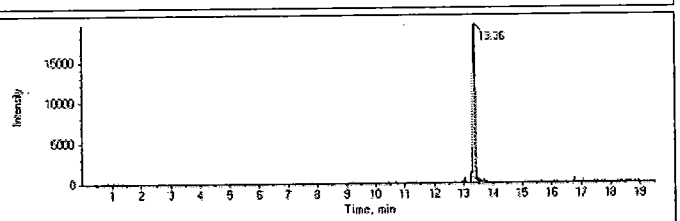
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.023089

Area Ratio: 7.535e-2

Sample Type: (Quality Control)



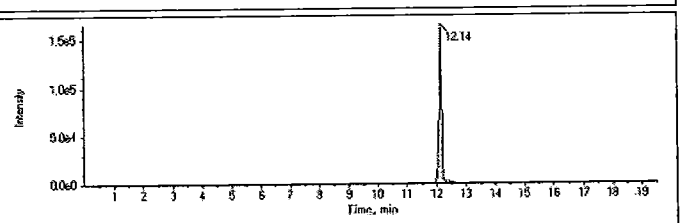
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 70.968400

Area Ratio: N/A

Sample Type: (Quality Control)



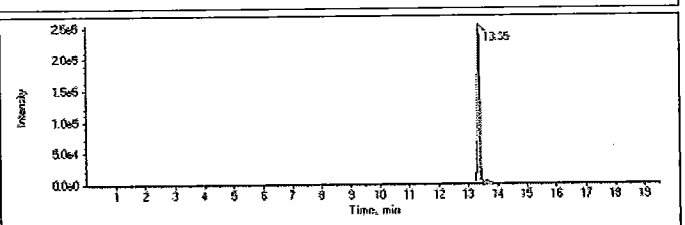
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 86.798968

Area Ratio: N/A

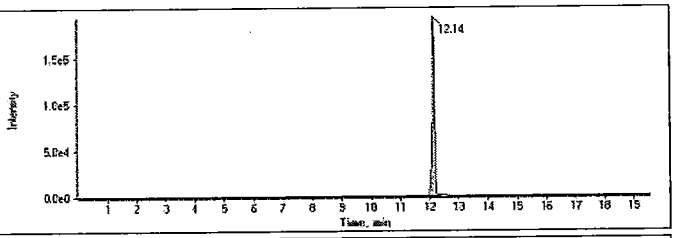
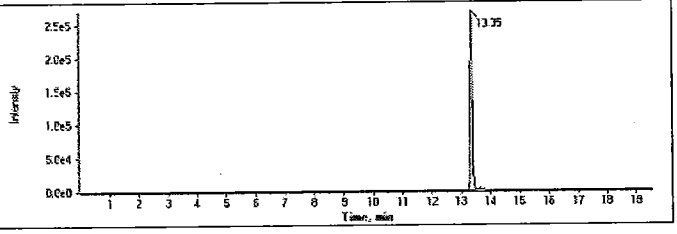
Sample Type: (Quality Control)



Sample Name	201312260079MSD	**Injection Vial**	14
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 11:23:09 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1070063.350000	12.14	100.00000	-
IS-13C-PFOS	1362052.350000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.504e+05	8.53	0.02500	0.023189
Surr-13c-PFHxA	9.804e+05	8.55	100.00000	94.069540
PFHpA	8.789e+05	10.61	0.02500	0.023134
PFHpA 2	2.264e+05	10.61	0.02500	0.023194
PFOA	9.269e+05	12.14	0.02500	0.026594
PFOA 2	2.867e+05	12.14	0.02500	0.026463
PFNA	7.014e+05	13.36	0.02500	0.028559
PFNA 2	1.604e+05	13.36	0.02500	0.027494
PFDA	7.513e+05	14.38	0.02500	0.027523
PFDA 2	1.139e+05	14.38	0.02500	0.025969
Surr-13c-PFDA	9.219e+05	14.38	100.00000	103.725125
PFUnA	6.640e+05	15.24	0.02500	0.027945
PFUnA 2	9.843e+04	15.25	0.02500	0.026589
PFDoA	6.361e+05	15.98	0.02500	0.028858
PFTrDA	8.675e+05	16.61	0.02500	0.027643
PFTrDA 2	1.484e+05	16.61	0.02500	0.027189
PFTA	8.100e+04	17.16	0.02500	0.026642
PFBS	3.840e+05	6.26	0.02220	0.023177
PFBS 2	1.005e+05	6.24	0.02220	0.023102
PFHxS	4.354e+05	10.74	0.02370	0.024508
PFHxS 2	1.408e+05	10.74	0.02370	0.025004
PFOS	3.799e+05	13.36	0.02400	0.025409
PFOS 2	1.059e+05	13.35	0.02400	0.023827
13C-PFOA	1.070e+06	12.14	100.00000	74.276304
13C-PFOS	1.362e+06	13.35	100.00000	88.382875

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

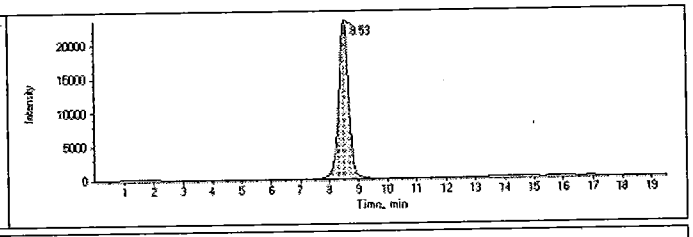
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.023189

Area Ratio: 5.144e-1

Sample Type: (Quality Control)



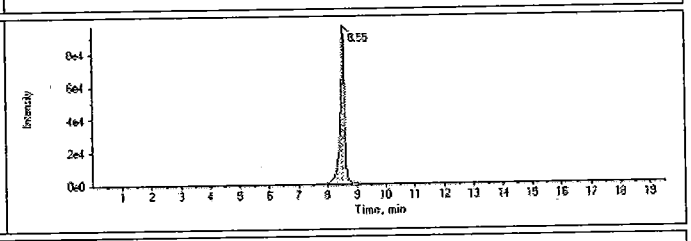
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 94.069540

Area Ratio: 9.162e-1

Sample Type: (Quality Control)



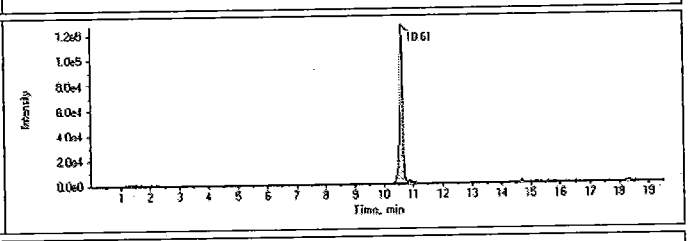
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.023134

Area Ratio: 8.213e-1

Sample Type: (Quality Control)



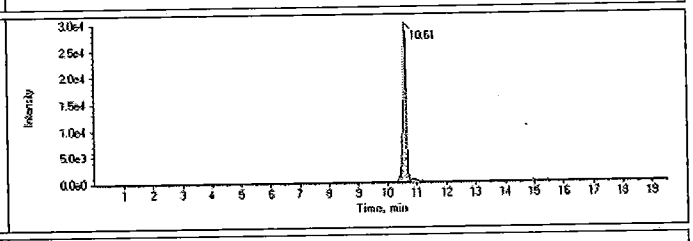
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.023194

Area Ratio: 2.116e-1

Sample Type: (Quality Control)



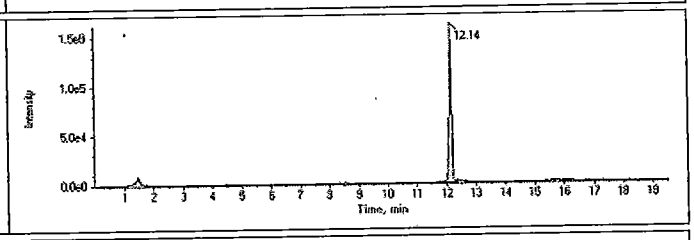
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.026594

Area Ratio: 8.662e-1

Sample Type: (Quality Control)



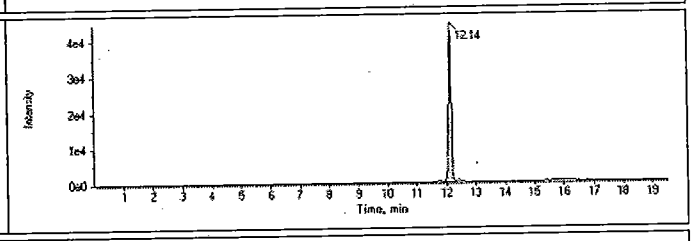
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.026463

Area Ratio: 2.679e-1

Sample Type: (Quality Control)



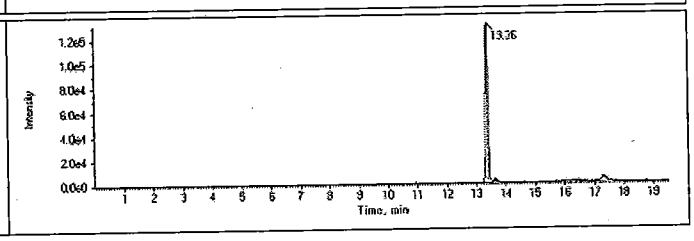
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.028559

Area Ratio: 6.555e-1

Sample Type: (Quality Control)

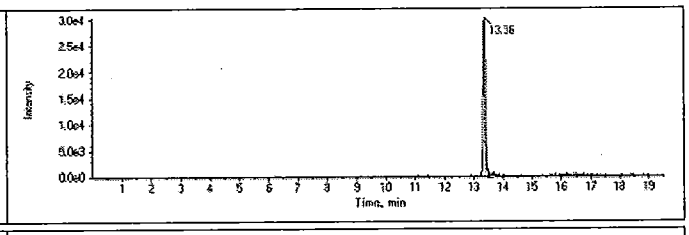


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.027494

Area Ratio: 1.499e-1
Sample Type: (Quality Control)

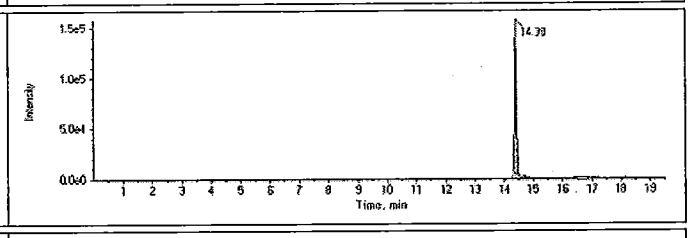


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.027523

Area Ratio: 7.021e-1
Sample Type: (Quality Control)

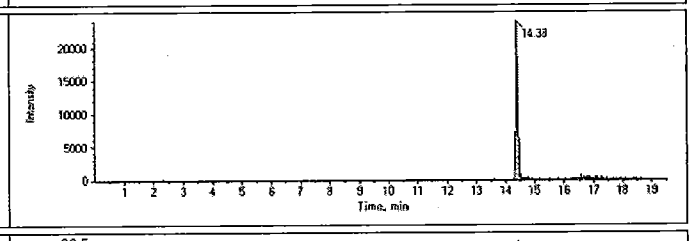


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.025969

Area Ratio: 1.064e-1
Sample Type: (Quality Control)

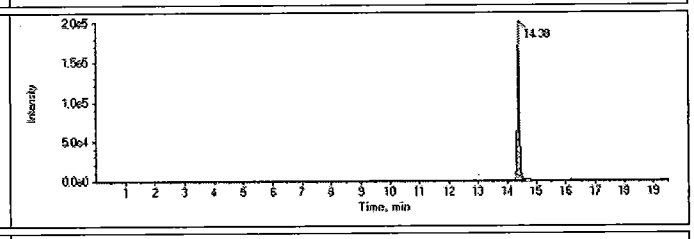


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 103.725125

Area Ratio: 8.615e-1
Sample Type: (Quality Control)

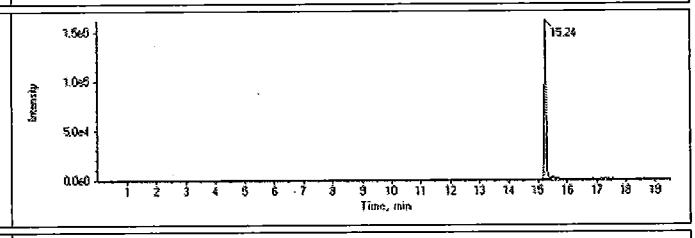


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.027945

Area Ratio: 6.205e-1
Sample Type: (Quality Control)

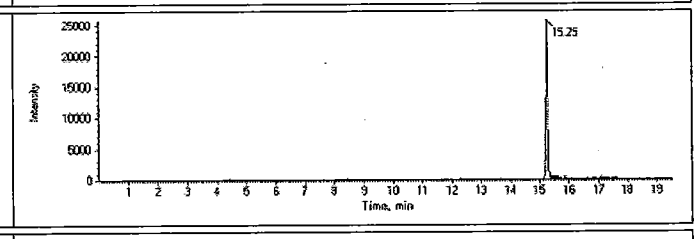


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.026589

Area Ratio: 9.199e-2
Sample Type: (Quality Control)

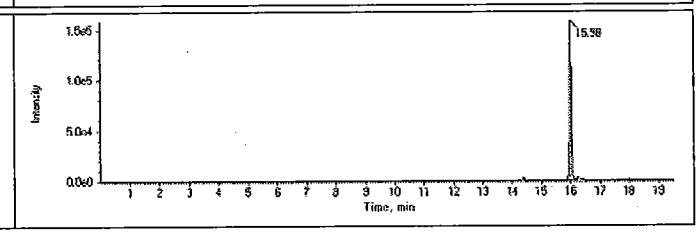


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.028858

Area Ratio: 5.944e-1
Sample Type: (Quality Control)



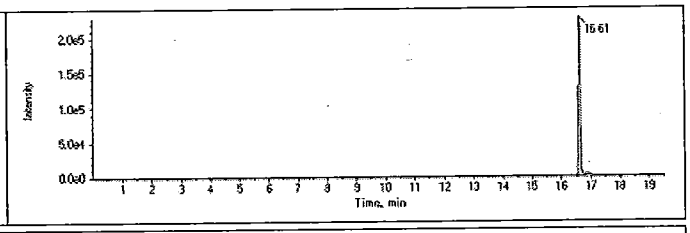
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.027643

Area Ratio: 8.107e-1

Sample Type: (Quality Control)



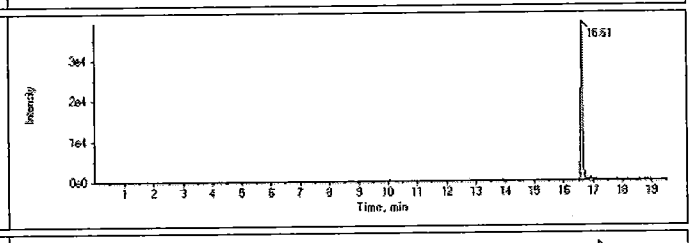
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.027189

Area Ratio: 1.386e-1

Sample Type: (Quality Control)



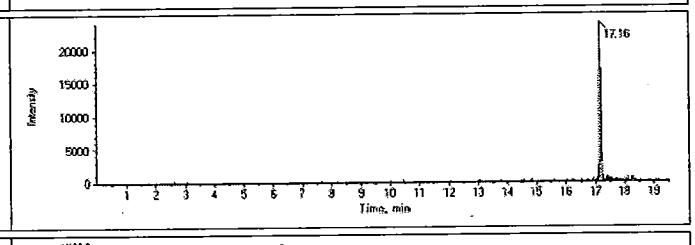
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.026642

Area Ratio: 7.570e-2

Sample Type: (Quality Control)



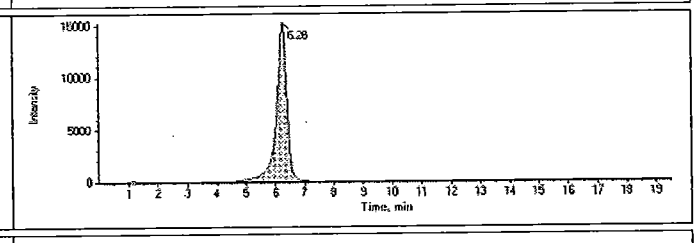
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.26 (6.27) min

Calculated conc: 0.023177

Area Ratio: 2.819e-1

Sample Type: (Quality Control)



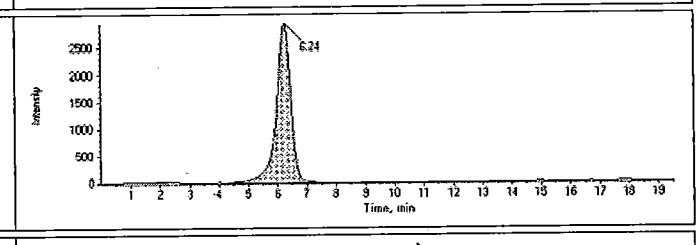
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.023102

Area Ratio: 7.381e-2

Sample Type: (Quality Control)



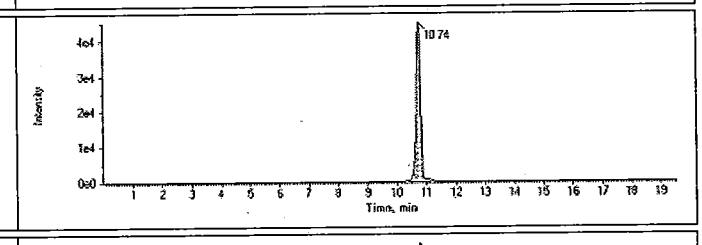
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.024508

Area Ratio: 3.197e-1

Sample Type: (Quality Control)



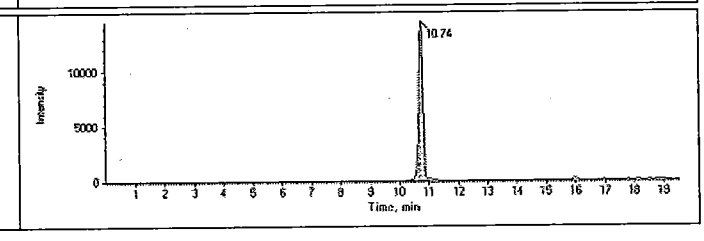
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.025004

Area Ratio: 1.034e-1

Sample Type: (Quality Control)

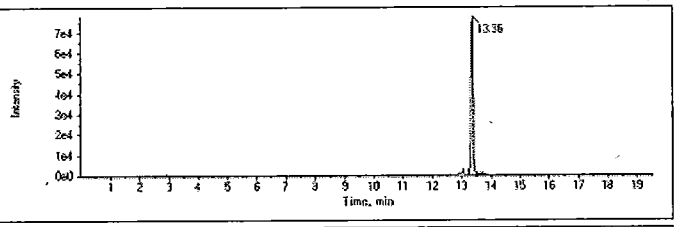


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.025409

Area Ratio: 2.789e-1
Sample Type: (Quality Control)

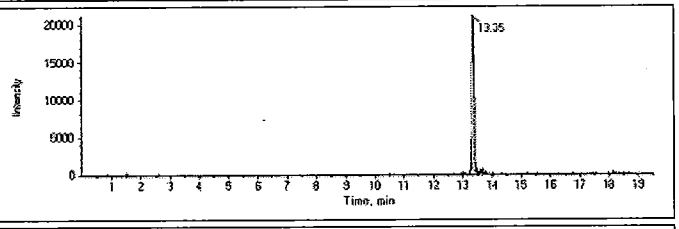


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.023827

Area Ratio: 7.776e-2
Sample Type: (Quality Control)

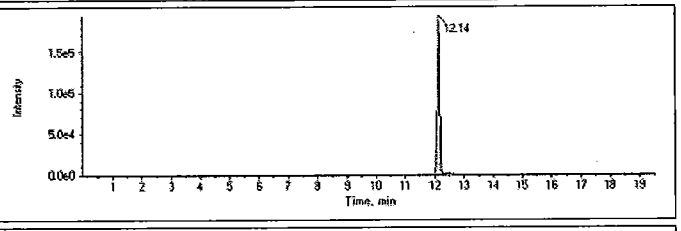


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 74.276304

Area Ratio: N/A
Sample Type: (Quality Control)

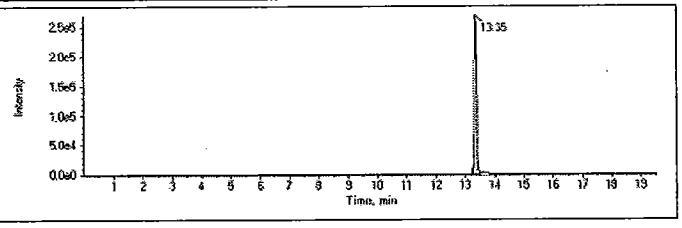


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 88.382875

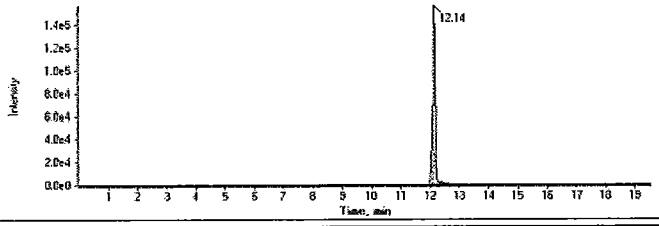
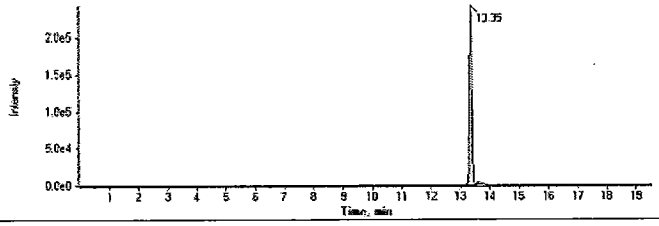
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	DNR-201312260079	**Injection Vial**	15
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/26/2013 11:43:19 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	973850.950000	12.14	100.00000	-
IS-13C-PFOS	1279301.700000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.544e+04	8.51	0.00000	0.000715
Surr-13c-PFHxA	8.105e+05	8.54	100.00000	85.452969
PFHpA	9.660e+03	10.61	0.00000	0.000279
PFHpA 2	1.386e+03	10.62	0.00000	0.000156
PFOA	2.964e+04	12.14	0.00000	0.000934
PFOA 2	1.094e+04	12.13	0.00000	0.001110
PFNA	4.119e+03	13.37	0.00000	0.000184
PFNA 2	1.472e+02	13.35	0.00000	0.000028
PFDA	1.324e+03	14.39	0.00000	0.000053
PFDA 2	9.805e+01	14.37	0.00000	0.000025
Surr-13c-PFDA	7.589e+05	14.38	100.00000	93.830036
PFUnA	1.226e+03	15.22	0.00000	0.000057
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	2.452e+02	16.00	0.00000	0.000012
PFTrDA	1.814e+03	16.63	0.00000	0.000064
PFTrDA 2	2.451e+02	16.62	0.00000	0.000049
PFTA	1.471e+02	17.13	0.00000	0.000053
PFBS	4.252e+03	6.27	0.00000	0.000273
PFBS 2	8.839e+02	6.18	0.00000	0.000216
PFHxS	1.327e+04	10.74	0.00000	0.000795
PFHxS 2	5.487e+03	10.75	0.00000	0.001038
PFOS	1.609e+04	13.36	0.00000	0.001146
PFOS 2	4.463e+03	13.35	0.00000	0.001069
13C-PFOA	9.739e+05	12.14	100.00000	67.597913
13C-PFOS	1.279e+06	13.35	100.00000	83.013228

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

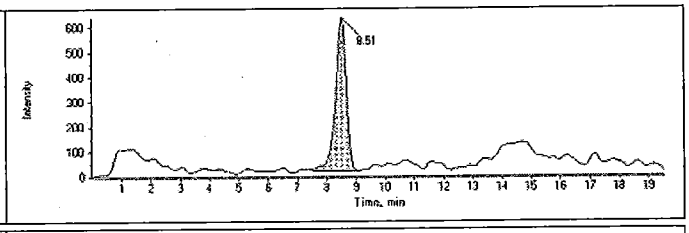
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.51 (8.55) min

Calculated conc: 0.000715

Area Ratio: 1.585e-2

Sample Type: (Quality Control)



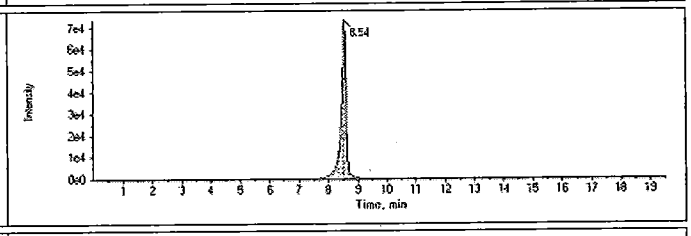
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 85.452969

Area Ratio: 8.323e-1

Sample Type: (Quality Control)



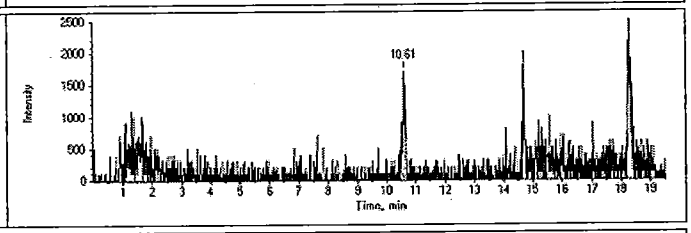
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000279

Area Ratio: 9.920e-3

Sample Type: (Quality Control)



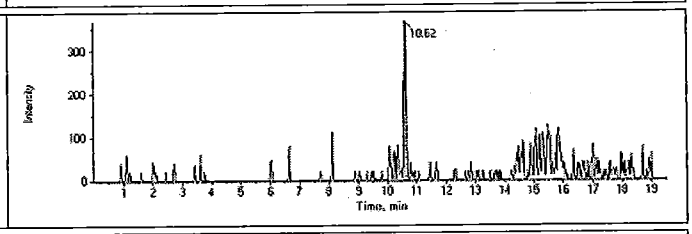
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.000156

Area Ratio: 1.423e-3

Sample Type: (Quality Control)



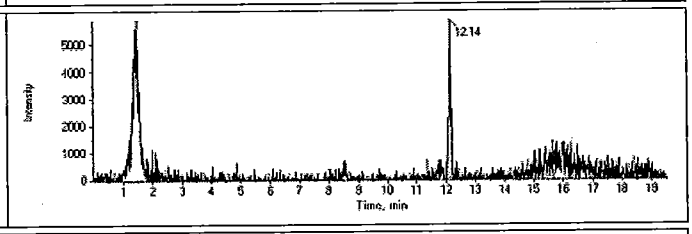
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.000934

Area Ratio: 3.044e-2

Sample Type: (Quality Control)



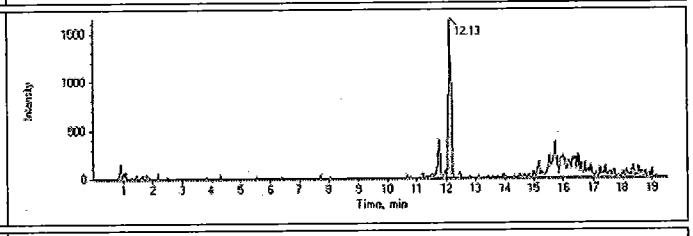
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.001110

Area Ratio: 1.124e-2

Sample Type: (Quality Control)



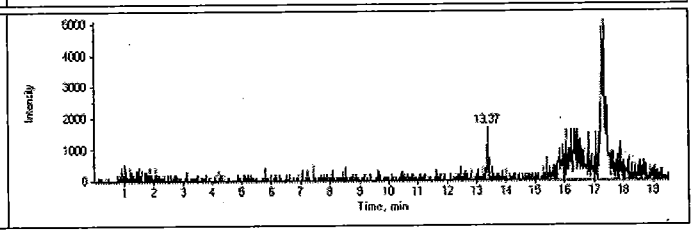
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.000184

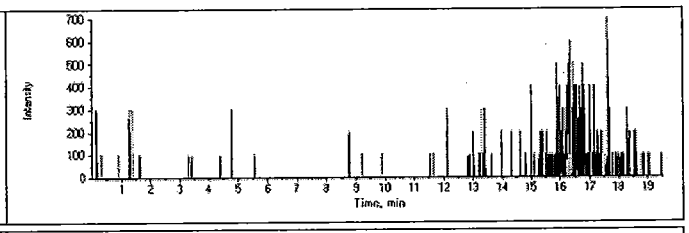
Area Ratio: 4.230e-3

Sample Type: (Quality Control)



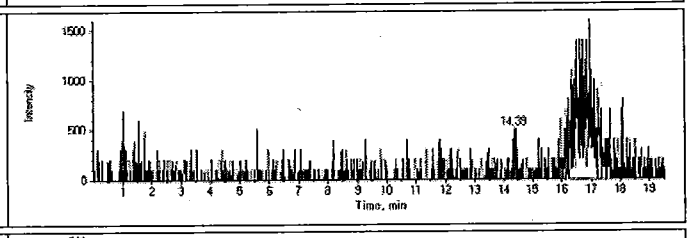
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.35 (13.35) min
Calculated conc: 0.000028
Area Ratio: 1.511e-4
Sample Type: (Quality Control)



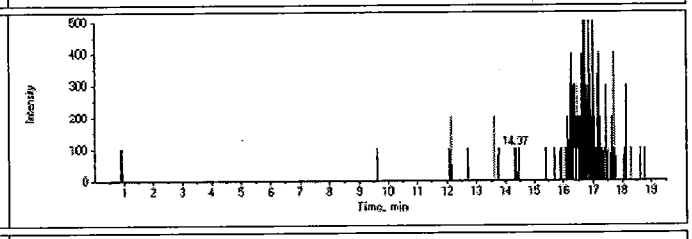
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.000053
Area Ratio: 1.359e-3
Sample Type: (Quality Control)



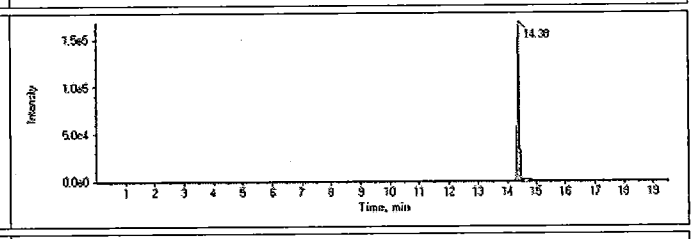
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.000025
Area Ratio: 1.007e-4
Sample Type: (Quality Control)



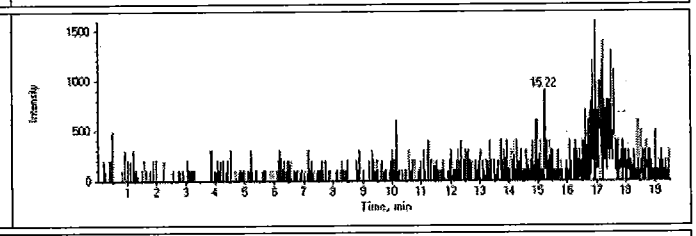
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 93.830036
Area Ratio: 7.793e-1
Sample Type: (Quality Control)



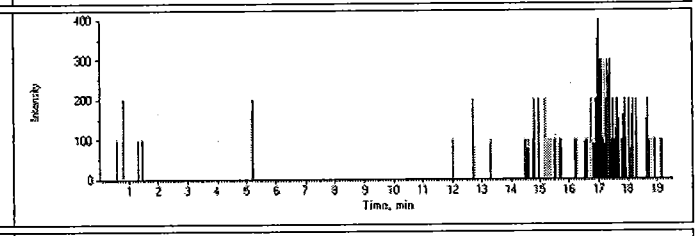
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.22 (15.23) min
Calculated conc: 0.000057
Area Ratio: 1.259e-3
Sample Type: (Quality Control)



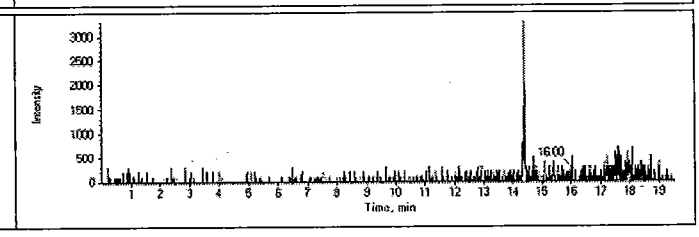
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (15.97) min
Calculated conc: 0.000012
Area Ratio: 2.517e-4
Sample Type: (Quality Control)



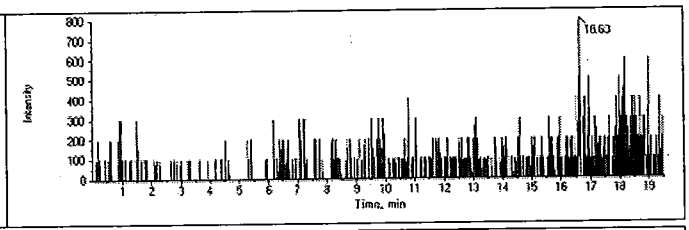
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.000064

Area Ratio: 1.863e-3

Sample Type: (Quality Control)



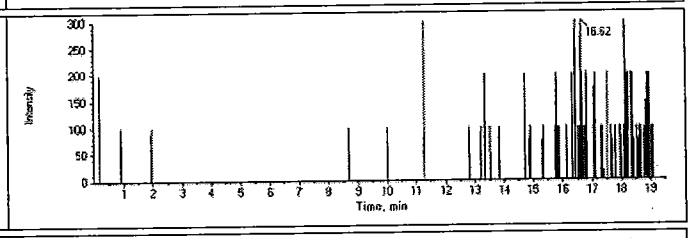
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.000049

Area Ratio: 2.517e-4

Sample Type: (Quality Control)



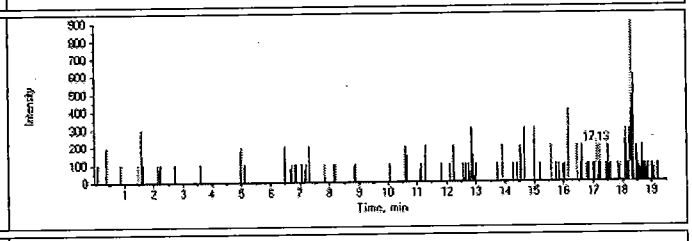
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.13 (17.15) min

Calculated conc: 0.000053

Area Ratio: 1.510e-4

Sample Type: (Quality Control)



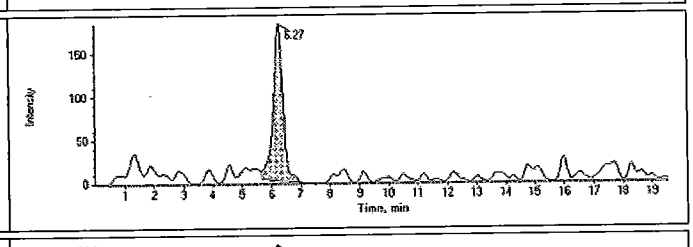
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.27 (6.27) min

Calculated conc: 0.000273

Area Ratio: 3.324e-3

Sample Type: (Quality Control)



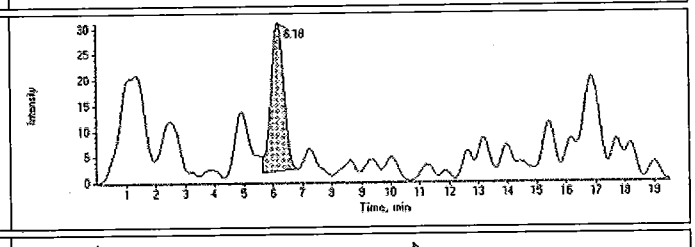
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.18 (6.28) min

Calculated conc: 0.000216

Area Ratio: 6.909e-4

Sample Type: (Quality Control)



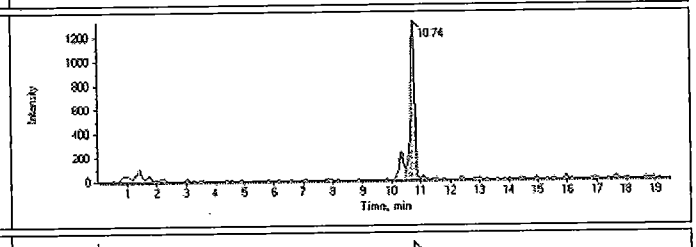
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.000795

Area Ratio: 1.037e-2

Sample Type: (Quality Control)



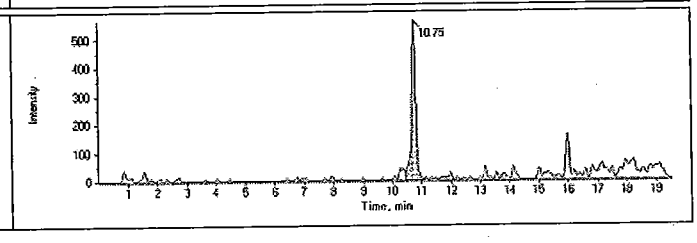
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.001038

Area Ratio: 4.289e-3

Sample Type: (Quality Control)



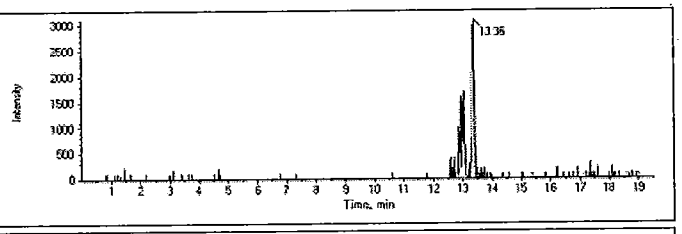
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001146

Area Ratio: 1.258e-2

Sample Type: (Quality Control)



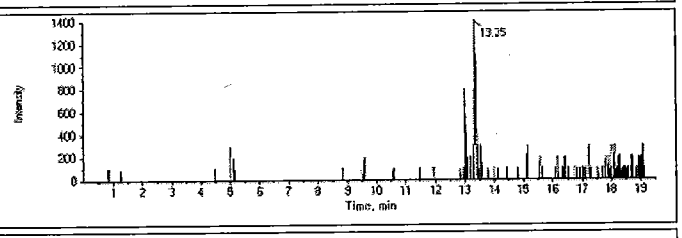
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.001069

Area Ratio: 3.489e-3

Sample Type: (Quality Control)



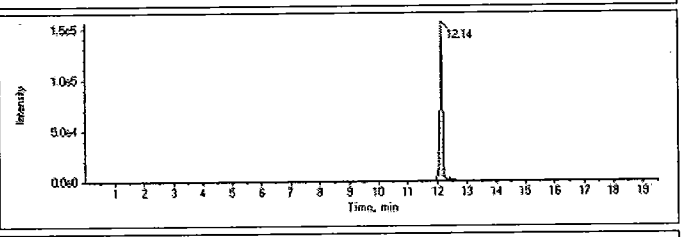
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 67.597913

Area Ratio: N/A

Sample Type: (Quality Control)



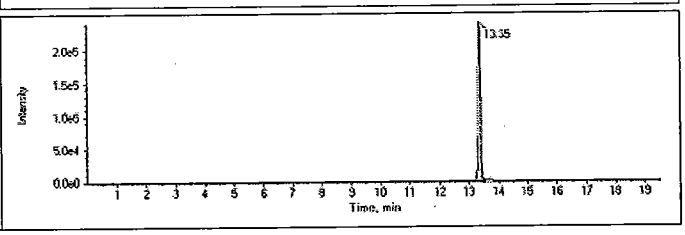
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 83.013228

Area Ratio: N/A

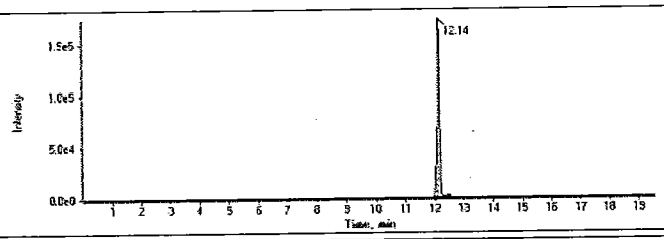
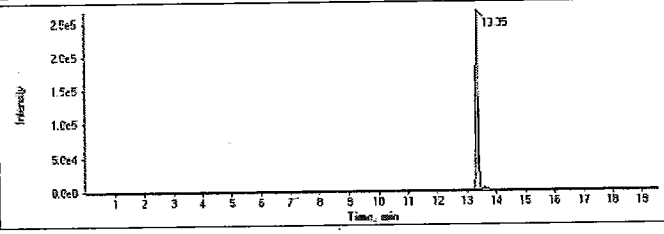
Sample Type: (Quality Control)



Sample Name	DNR-201312140133A	**Injection Vial**	16
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 12:03:28 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1020318.250000	12.14	100.00000	-
IS-13C-PFOS	1324436.300000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.864e+04	8.52	0.00000	0.001707
Surr-13c-PFHxA	9.717e+05	8.54	100.00000	97.785848
PFHpA	2.359e+04	10.61	0.00000	0.000651
PFHpA 2	7.109e+03	10.60	0.00000	0.000764
PFOA	1.387e+05	12.14	0.00000	0.004173
PFOA 2	4.458e+04	12.14	0.00000	0.004316
PFNA	1.871e+05	13.37	0.00000	0.007989
PFNA 2	4.698e+04	13.37	0.00000	0.008446
PFDA	5.886e+02	14.37	0.00000	0.000023
PFDA 2	1.472e+02	14.37	0.00000	0.000035
Surr-13c-PFDA	7.218e+05	14.38	100.00000	85.179396
PFUnA	5.393e+02	15.23	0.00000	0.000024
PFUnA 2	1.471e+02	15.23	0.00000	0.000042
PFDoA	2.943e+02	15.94	0.00000	0.000014
PFTrDA	2.943e+02	16.62	0.00000	0.000010
PFTrDA 2	9.810e+01	16.62	0.00000	0.000019
PFTA	1.472e+02	17.28	0.00000	0.000051
PFBS	5.111e+03	6.25	0.00000	0.000317
PFBS 2	1.244e+03	6.27	0.00000	0.000294
PFHxS	1.513e+04	10.73	0.00000	0.000876
PFHxS 2	5.928e+03	10.73	0.00000	0.001083
PFOS	2.918e+04	13.35	0.00000	0.002007
PFOS 2	7.749e+03	13.35	0.00000	0.001793
13C-PFOA	1.020e+06	12.14	100.00000	70.823348
13C-PFOS	1.324e+06	13.35	100.00000	85.941989

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

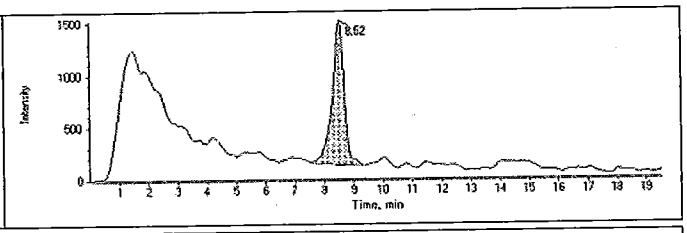
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.001707

Area Ratio: 3.787e-2

Sample Type: (Quality Control)



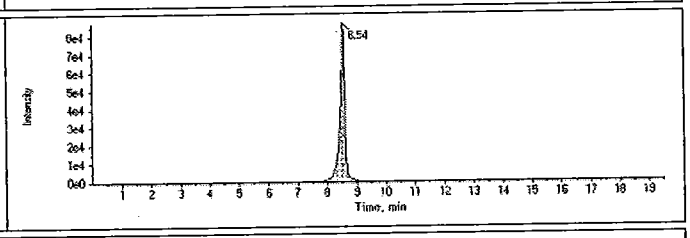
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 97.785848

Area Ratio: 9.524e-1

Sample Type: (Quality Control)



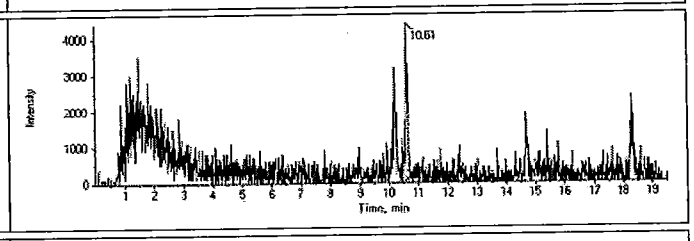
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000651

Area Ratio: 2.312e-2

Sample Type: (Quality Control)



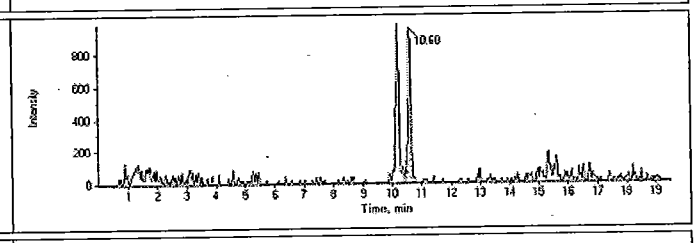
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.000764

Area Ratio: 6.967e-3

Sample Type: (Quality Control)



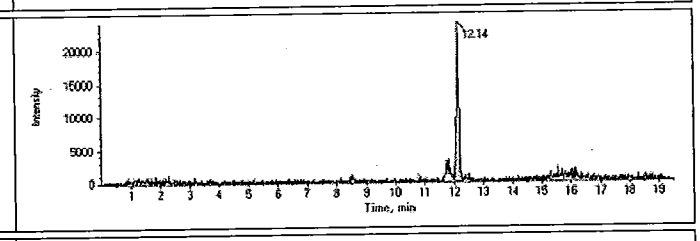
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.004173

Area Ratio: 1.359e-1

Sample Type: (Quality Control)



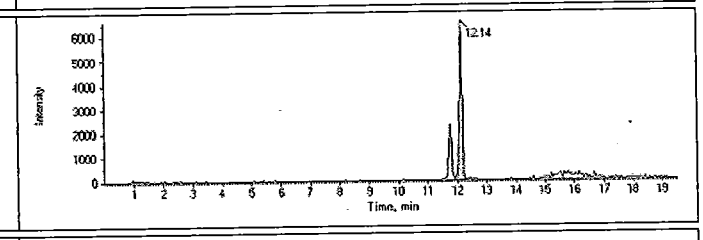
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.004316

Area Ratio: 4.369e-2

Sample Type: (Quality Control)



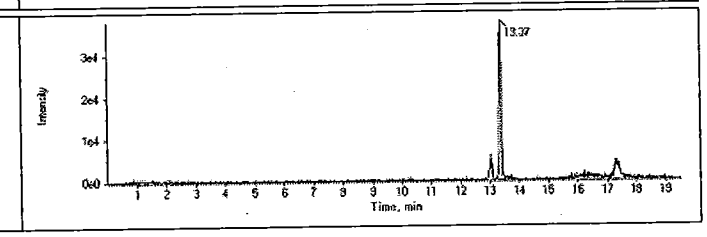
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.007989

Area Ratio: 1.834e-1

Sample Type: (Quality Control)



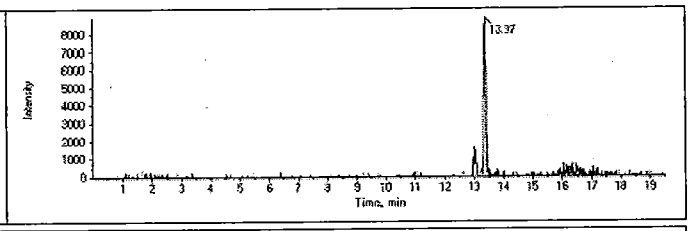
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.008446

Area Ratio: 4.605e-2

Sample Type: (Quality Control)



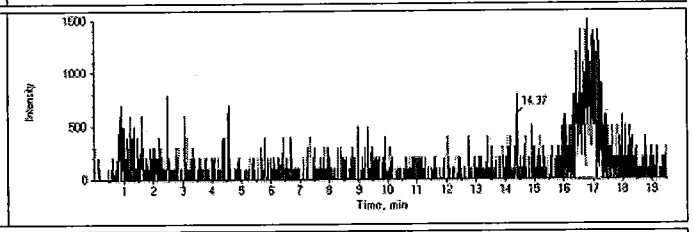
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.000023

Area Ratio: 5.769e-4

Sample Type: (Quality Control)



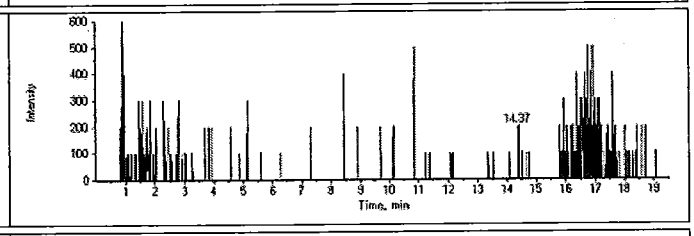
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.000035

Area Ratio: 1.442e-4

Sample Type: (Quality Control)



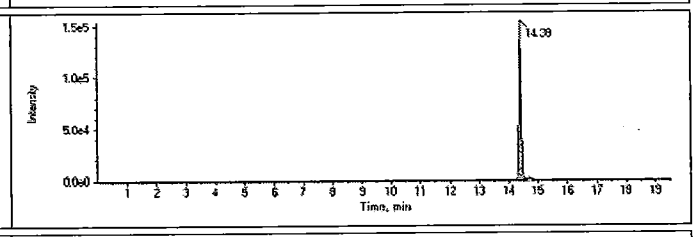
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 85.179396

Area Ratio: 7.075e-1

Sample Type: (Quality Control)



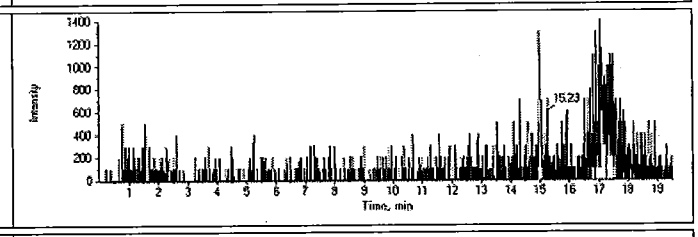
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.000024

Area Ratio: 5.285e-4

Sample Type: (Quality Control)



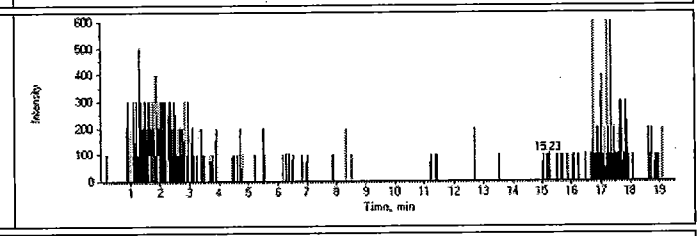
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.000042

Area Ratio: 1.442e-4

Sample Type: (Quality Control)



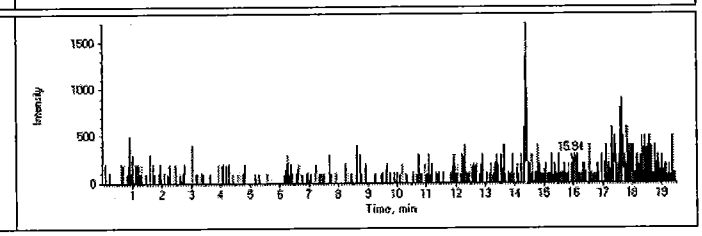
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.94 (15.97) min

Calculated conc: 0.000014

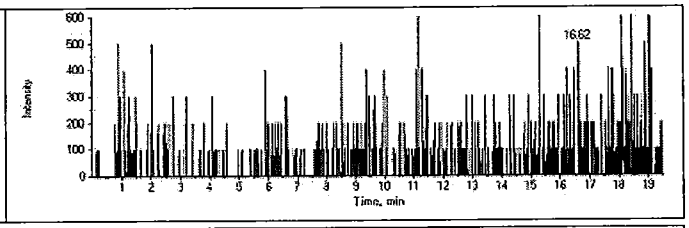
Area Ratio: 2.884e-4

Sample Type: (Quality Control)



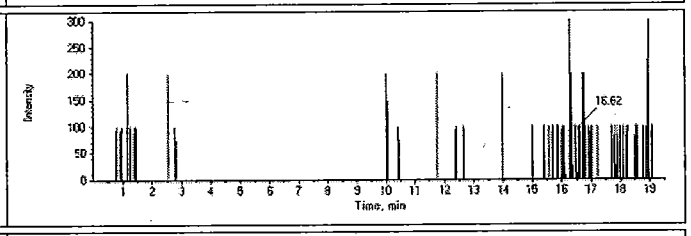
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min
Calculated conc: 0.000010
Area Ratio: 2.884e-4
Sample Type: (Quality Control)



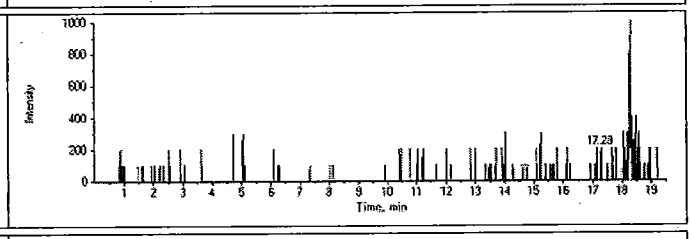
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min
Calculated conc: 0.000019
Area Ratio: 9.615e-5
Sample Type: (Quality Control)



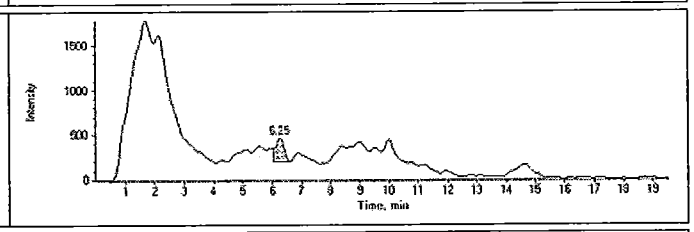
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.28 (17.15) min
Calculated conc: 0.000051
Area Ratio: 1.443e-4
Sample Type: (Quality Control)



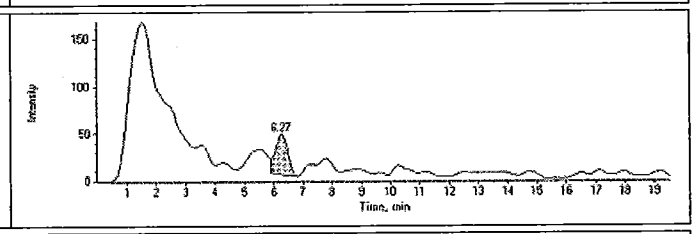
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min
Calculated conc: 0.000317
Area Ratio: 3.859e-3
Sample Type: (Quality Control)



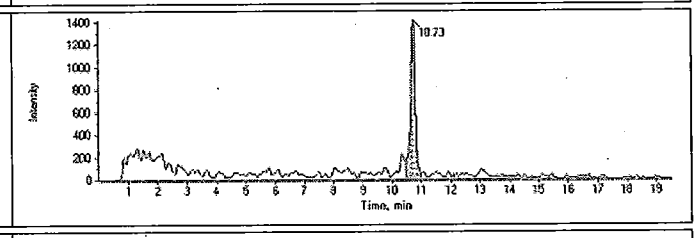
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.27 (6.28) min
Calculated conc: 0.000294
Area Ratio: 9.393e-4
Sample Type: (Quality Control)



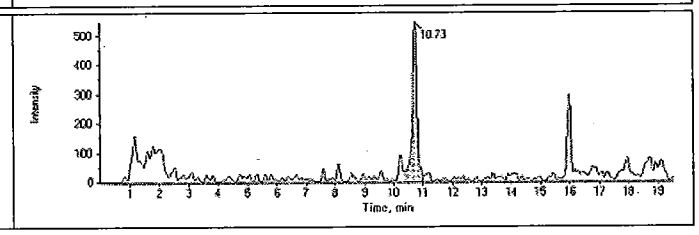
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.000876
Area Ratio: 1.142e-2
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.001083
Area Ratio: 4.476e-3
Sample Type: (Quality Control)



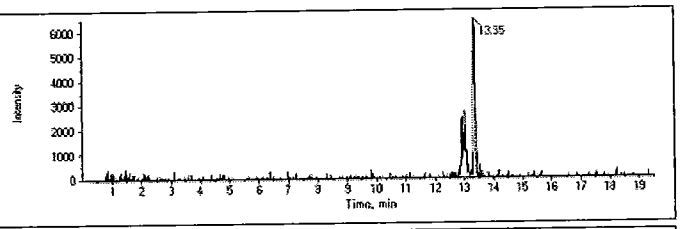
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.002007

Area Ratio: 2.203e-2

Sample Type: (Quality Control)



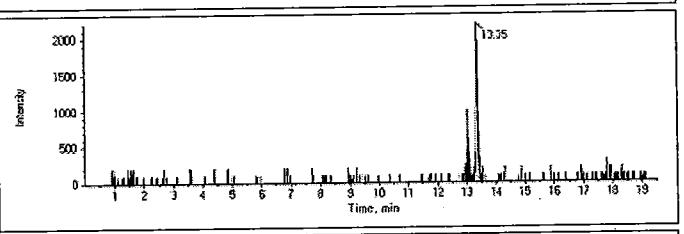
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.001793

Area Ratio: 5.851e-3

Sample Type: (Quality Control)



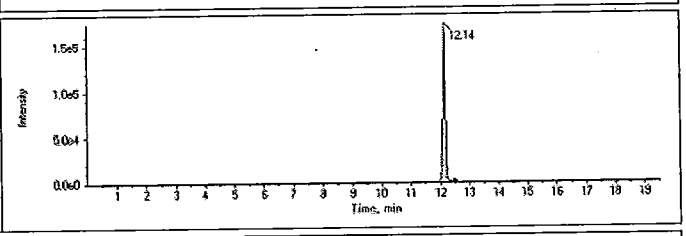
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 70.823348

Area Ratio: N/A

Sample Type: (Quality Control)



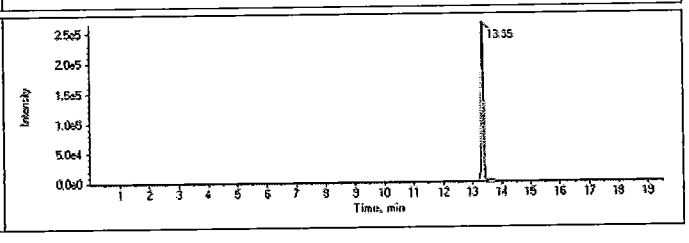
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 85.941989

Area Ratio: N/A

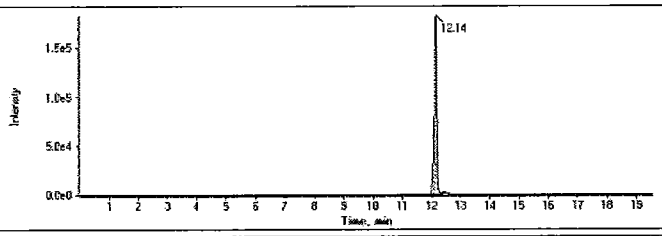
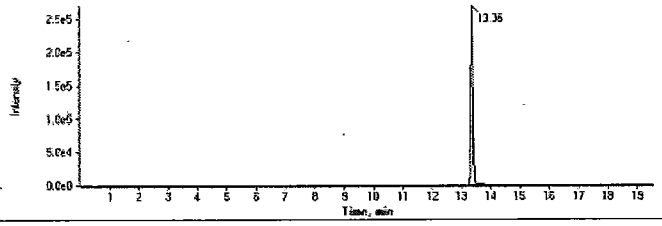
Sample Type: (Quality Control)



Sample Name	201312140136A	**Injection Vial**	17
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 12:23:38 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1101192.350000	12.14	100.00000	-
IS-13C-PFOS	1397043.850000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.127e+04	8.52	0.00000	0.001690
Surr-13c-PFHxA	1.072e+06	8.54	100.00000	99.944679
PFHpA	2.606e+04	10.61	0.00000	0.000667
PFHpA 2	6.150e+03	10.60	0.00000	0.000612
PFOA	1.453e+05	12.14	0.00000	0.004052
PFOA 2	4.572e+04	12.14	0.00000	0.004101
PFNA	1.946e+05	13.37	0.00000	0.007699
PFNA 2	4.634e+04	13.37	0.00000	0.007718
PFDA	2.648e+03	14.39	0.00000	0.000094
PFDA 2	1.472e+02	14.37	0.00000	0.000033
Surr-13c-PFDA	7.932e+05	14.39	100.00000	86.721315
PFUnA	1.128e+03	15.24	0.00000	0.000046
PFUnA 2	9.810e+01	15.23	0.00000	0.000026
PFDoA	4.907e+02	15.96	0.00000	0.000022
PFTrDA	3.432e+02	16.59	0.00000	0.000011
PFTrDA 2	1.471e+02	16.63	0.00000	0.000026
PFTA	N/A	N/A	0.00000	N/A
PFBS	3.413e+03	6.23	0.00000	0.000201
PFBS 2	1.735e+03	6.25	0.00000	0.000389
PFHxS	1.610e+04	10.73	0.00000	0.000883
PFHxS 2	4.185e+03	10.74	0.00000	0.000725
PFOS	2.741e+04	13.36	0.00000	0.001788
PFOS 2	7.503e+03	13.35	0.00000	0.001646
13C-PFOA	1.101e+06	12.14	100.00000	76.437061
13C-PFOS	1.397e+06	13.36	100.00000	90.653455

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

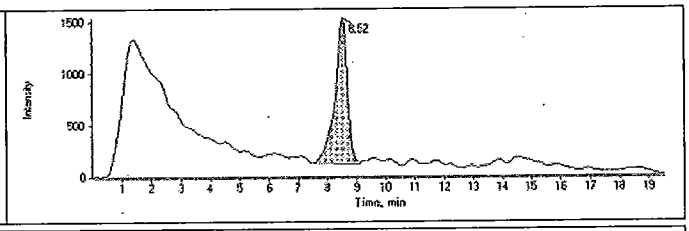
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.001690

Area Ratio: 3.748e-2

Sample Type: (Quality Control)



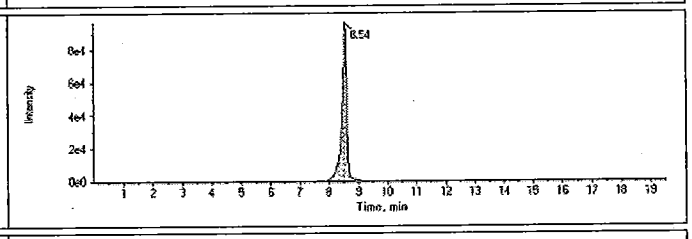
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 99.944679

Area Ratio: 9.734e-1

Sample Type: (Quality Control)



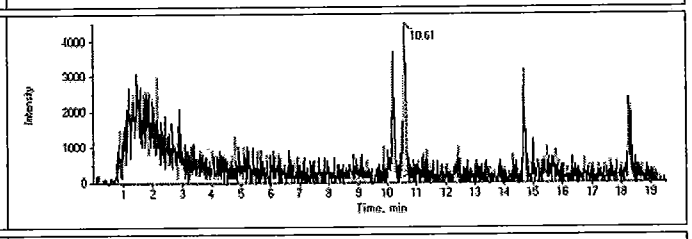
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000667

Area Ratio: 2.367e-2

Sample Type: (Quality Control)



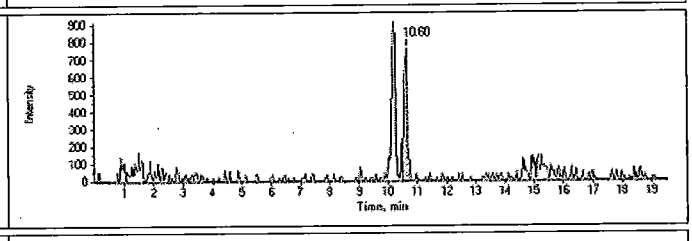
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.000612

Area Ratio: 5.585e-3

Sample Type: (Quality Control)



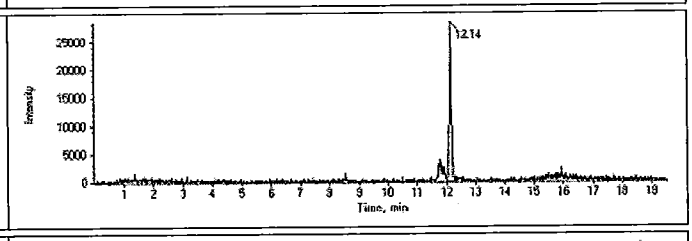
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.004052

Area Ratio: 1.320e-1

Sample Type: (Quality Control)



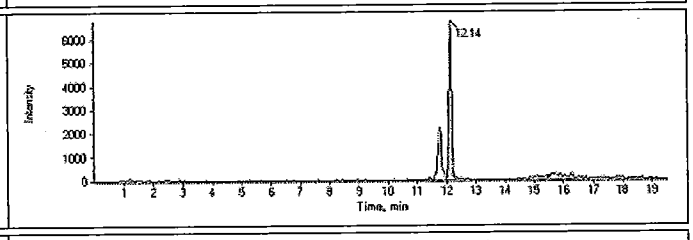
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.004101

Area Ratio: 4.151e-2

Sample Type: (Quality Control)



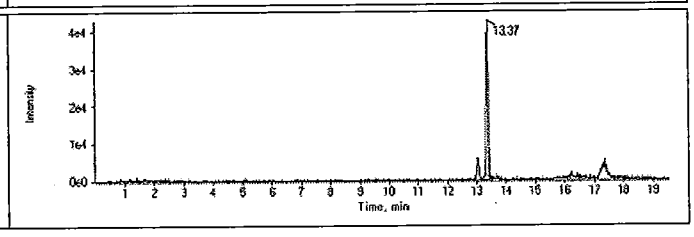
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.007699

Area Ratio: 1.767e-1

Sample Type: (Quality Control)



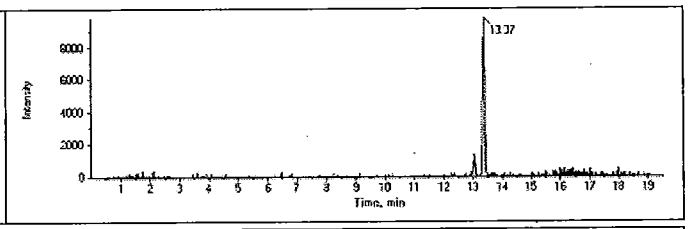
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.007718

Area Ratio: 4.208e-2

Sample Type: (Quality Control)



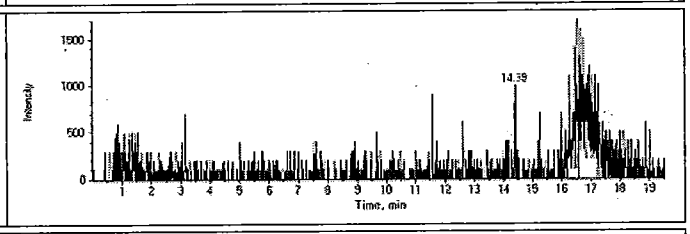
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.000094

Area Ratio: 2.405e-3

Sample Type: (Quality Control)



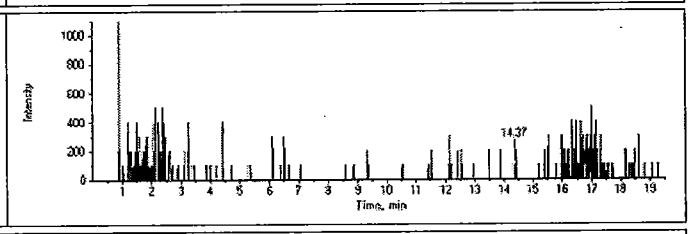
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.000033

Area Ratio: 1.337e-4

Sample Type: (Quality Control)



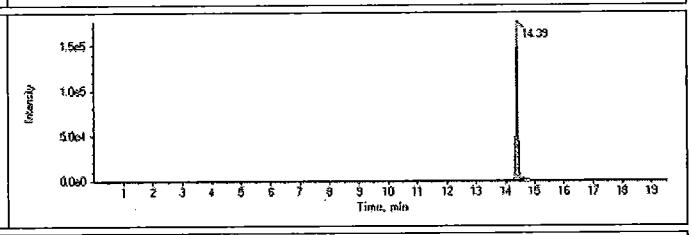
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 86.721315

Area Ratio: 7.203e-1

Sample Type: (Quality Control)



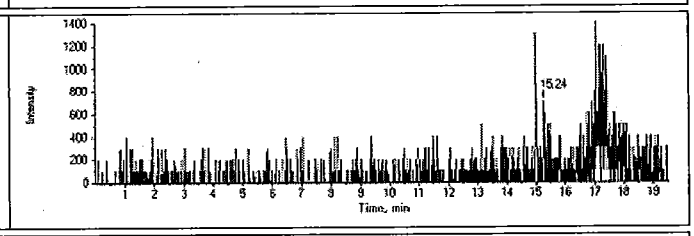
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.000046

Area Ratio: 1.024e-3

Sample Type: (Quality Control)



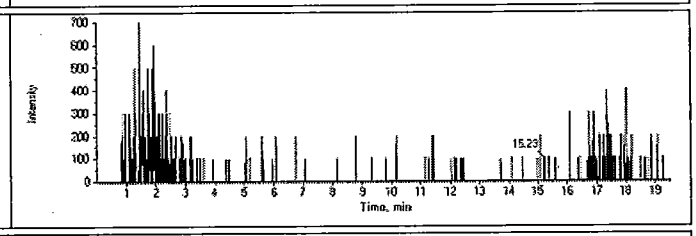
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.000026

Area Ratio: 8.909e-5

Sample Type: (Quality Control)



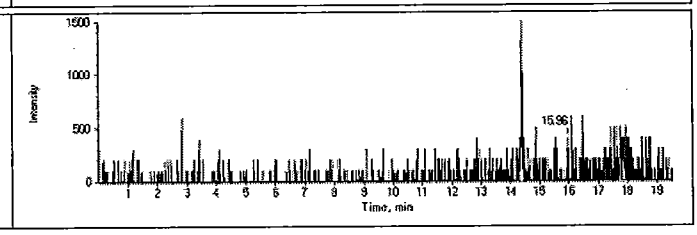
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min

Calculated conc: 0.000022

Area Ratio: 4.456e-4

Sample Type: (Quality Control)



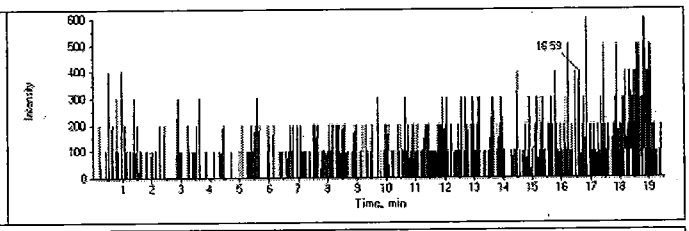
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.59 (16.60) min

Calculated conc: 0.000011

Area Ratio: 3.116e-4

Sample Type: (Quality Control)



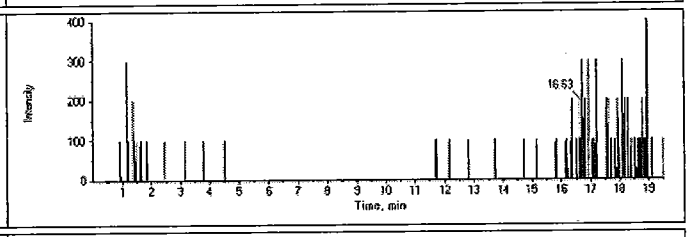
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.000026

Area Ratio: 1.336e-4

Sample Type: (Quality Control)



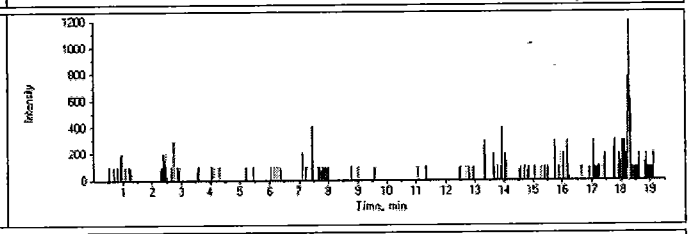
PFTA (713.3 / 669.0)

RT (Exp. RT): N/A (17.15) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



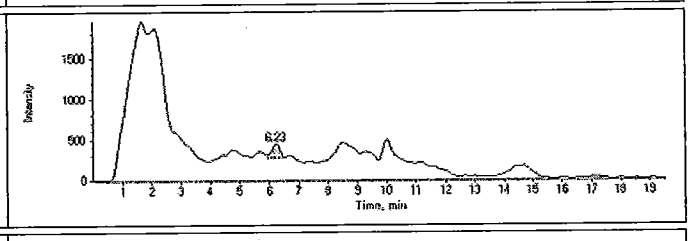
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.23 (6.27) min

Calculated conc: 0.000201

Area Ratio: 2.443e-3

Sample Type: (Quality Control)



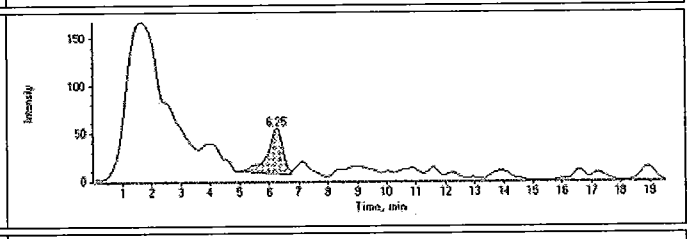
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.25 (6.28) min

Calculated conc: 0.000389

Area Ratio: 1.242e-3

Sample Type: (Quality Control)



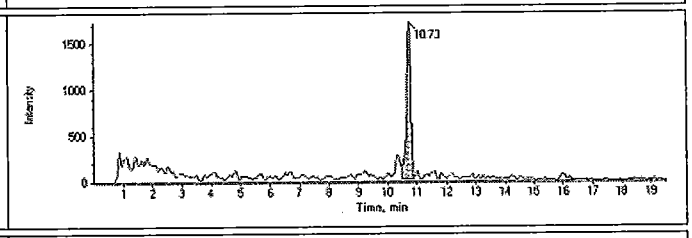
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000883

Area Ratio: 1.152e-2

Sample Type: (Quality Control)



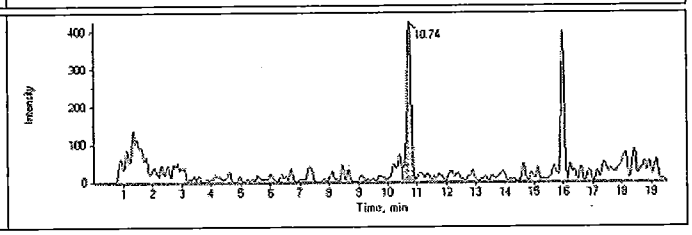
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.000725

Area Ratio: 2.995e-3

Sample Type: (Quality Control)

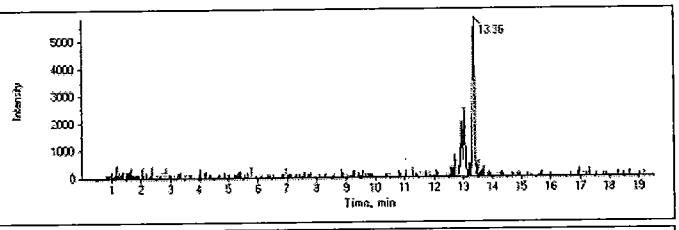


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001788

Area Ratio: 1.962e-2
Sample Type: (Quality Control)

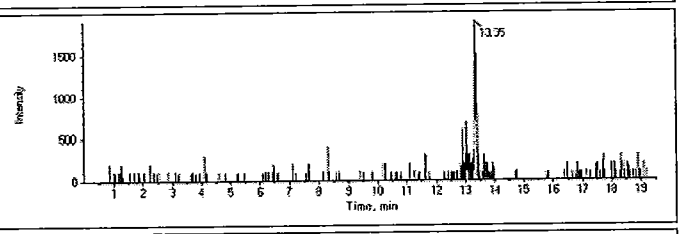


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.001646

Area Ratio: 5.371e-3
Sample Type: (Quality Control)

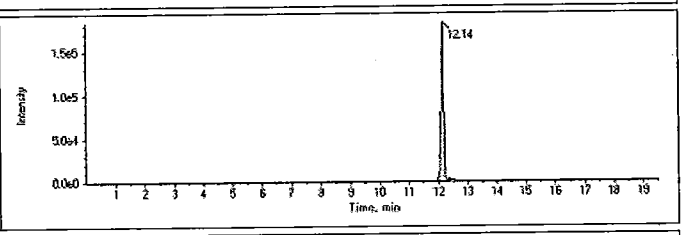


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 76.437061

Area Ratio: N/A
Sample Type: (Quality Control)

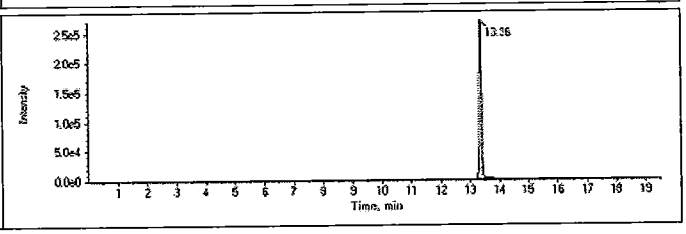


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 90.653455

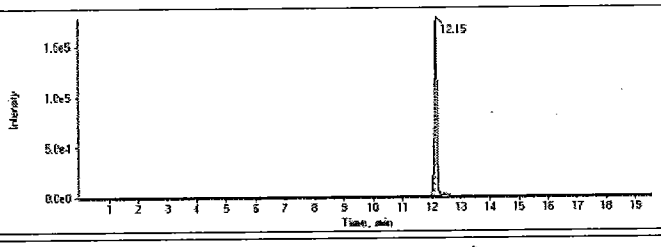
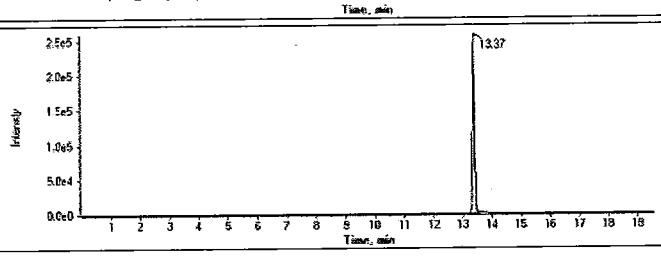
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	DNR-201312140137A	**Injection Vial**	18
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 12:43:48 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1035468.400000	12.15	100.00000	-
IS-13C-PFOS	1325063.600000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.906e+04	8.53	0.00000	0.000830
Surr-13c-PFHxA	1.027e+06	8.56	100.00000	101.847313
PFHpA	9.048e+03	10.62	0.00000	0.000246
PFHpA 2	9.715e+02	10.63	0.00000	0.000103
PFOA	5.553e+04	12.15	0.00000	0.001646
PFOA 2	1.755e+04	12.15	0.00000	0.001674
PFNA	1.832e+04	13.38	0.00000	0.000771
PFNA 2	2.403e+03	13.36	0.00000	0.000426
PFDA	7.846e+02	14.39	0.00000	0.000030
PFDA 2	1.472e+02	14.39	0.00000	0.000035
Surr-13c-PFDA	8.273e+05	14.40	100.00000	96.194496
PFUnA	1.471e+02	15.27	0.00000	0.000006
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	4.415e+02	16.04	0.00000	0.000021
PFTrDA	2.943e+02	16.60	0.00000	0.000010
PFTrDA 2	N/A	N/A	0.00000	N/A
PFTA	2.943e+02	17.22	0.00000	0.000100
PFBS	1.504e+03	6.26	0.00000	0.000093
PFBS 2	1.433e+02	6.13	0.00000	0.000034
PFHxS	1.683e+03	10.76	0.00000	0.000097
PFHxS 2	1.492e+03	10.77	0.00000	0.000272
PFOS	3.383e+03	13.36	0.00000	0.000233
PFOS 2	9.318e+02	13.37	0.00000	0.000215
13C-PFOA	1.035e+06	12.15	100.00000	71.874965
13C-PFOS	1.325e+06	13.37	100.00000	85.982694

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

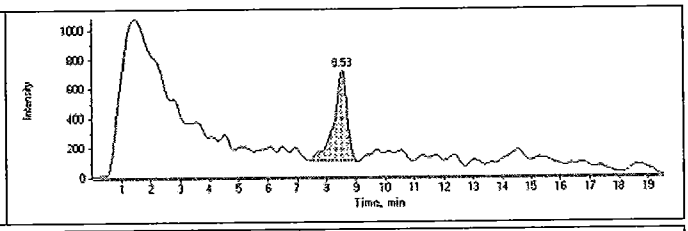
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.000830

Area Ratio: 1.841e-2

Sample Type: (Quality Control)



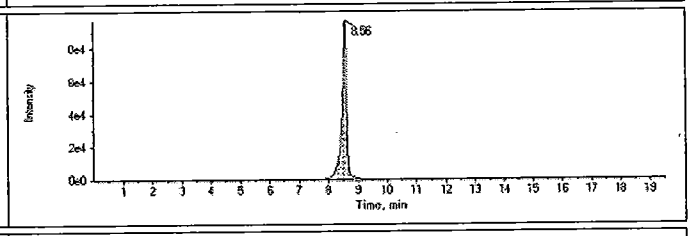
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.56 (8.54) min

Calculated conc: 101.847313

Area Ratio: 9.919e-1

Sample Type: (Quality Control)



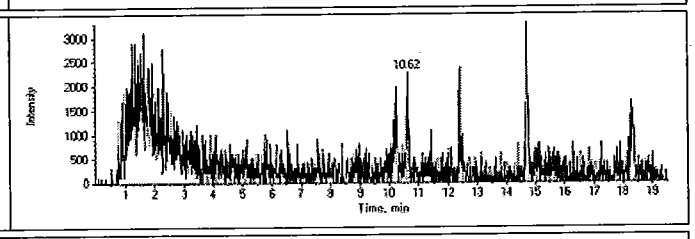
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.000246

Area Ratio: 8.738e-3

Sample Type: (Quality Control)



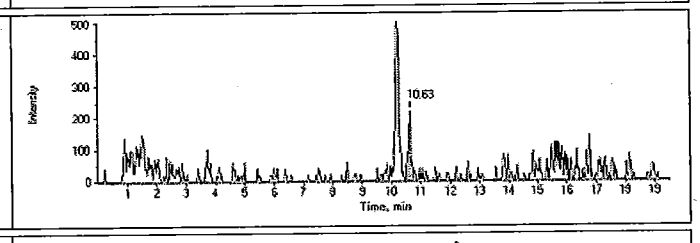
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.63 (10.60) min

Calculated conc: 0.000103

Area Ratio: 9.382e-4

Sample Type: (Quality Control)



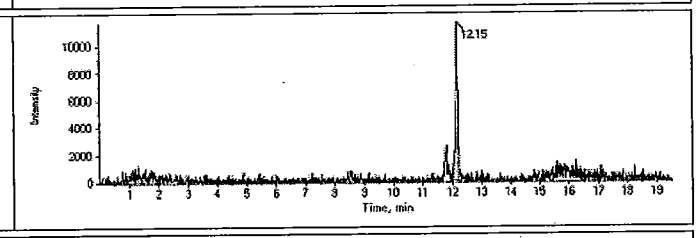
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.001646

Area Ratio: 5.363e-2

Sample Type: (Quality Control)



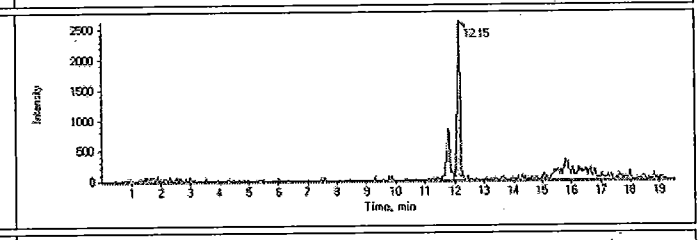
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.001674

Area Ratio: 1.695e-2

Sample Type: (Quality Control)



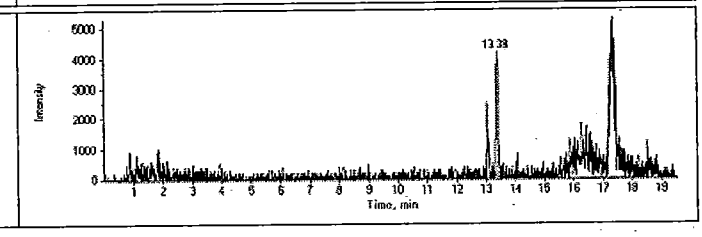
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.000771

Area Ratio: 1.769e-2

Sample Type: (Quality Control)



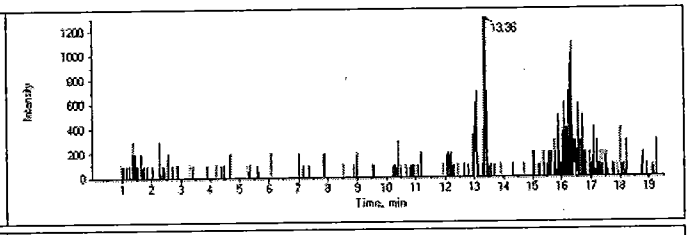
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.000426

Area Ratio: 2.321e-3

Sample Type: (Quality Control)



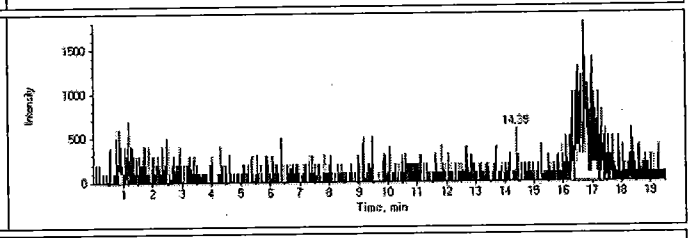
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.000030

Area Ratio: 7.577e-4

Sample Type: (Quality Control)



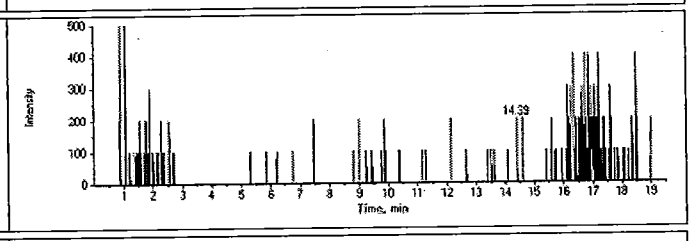
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.000035

Area Ratio: 1.421e-4

Sample Type: (Quality Control)



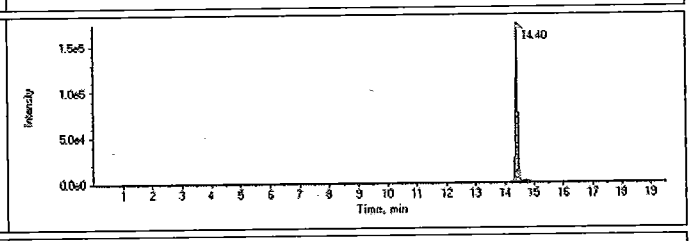
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min

Calculated conc: 96.194496

Area Ratio: 7.990e-1

Sample Type: (Quality Control)



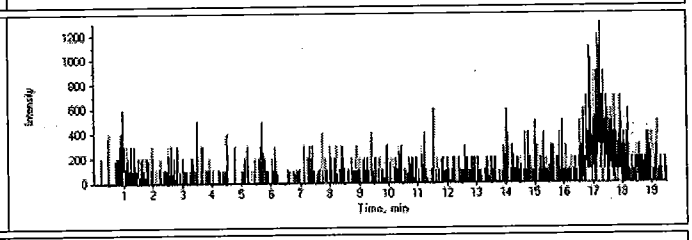
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.27 (15.23) min

Calculated conc: 0.000006

Area Ratio: 1.420e-4

Sample Type: (Quality Control)



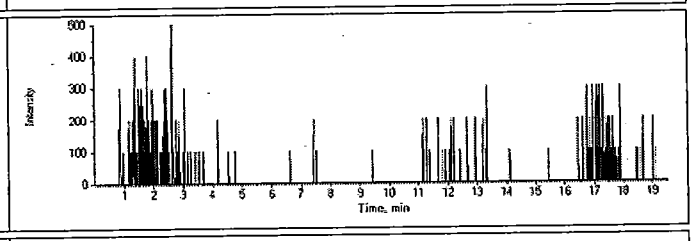
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



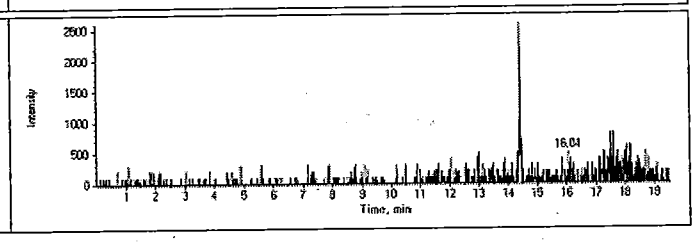
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.04 (15.97) min

Calculated conc: 0.000021

Area Ratio: 4.263e-4

Sample Type: (Quality Control)



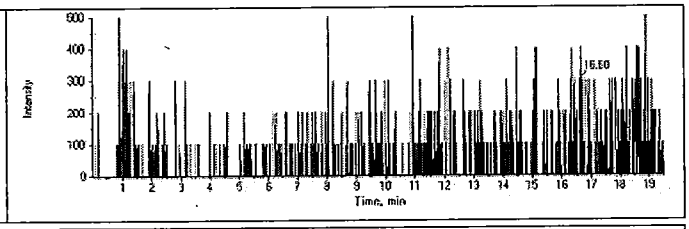
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.000010

Area Ratio: 2.842e-4

Sample Type: (Quality Control)



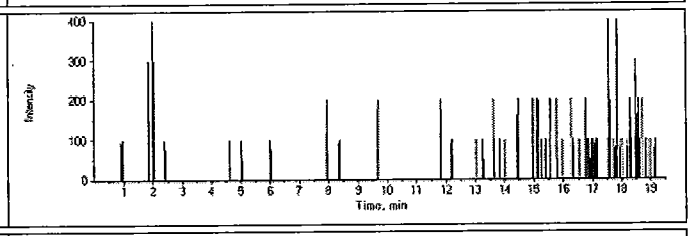
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): N/A (16.60) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



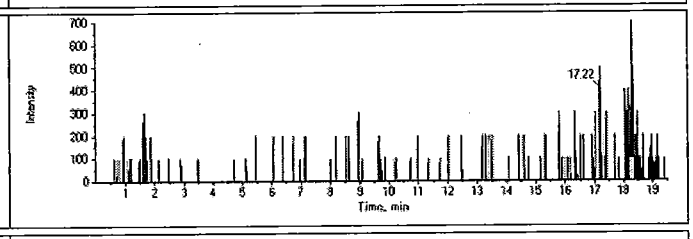
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.22 (17.15) min

Calculated conc: 0.000100

Area Ratio: 2.842e-4

Sample Type: (Quality Control)



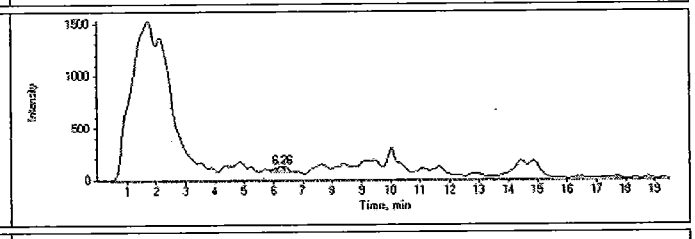
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.26 (6.27) min

Calculated conc: 0.000093

Area Ratio: 1.135e-3

Sample Type: (Quality Control)



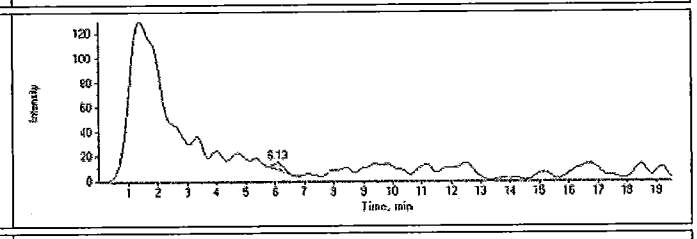
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.13 (6.28) min

Calculated conc: 0.000034

Area Ratio: 1.082e-4

Sample Type: (Quality Control)



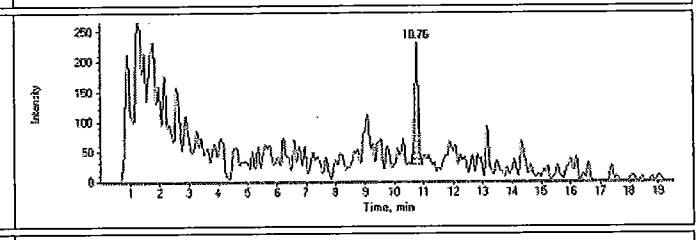
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.76 (10.73) min

Calculated conc: 0.000097

Area Ratio: 1.270e-3

Sample Type: (Quality Control)



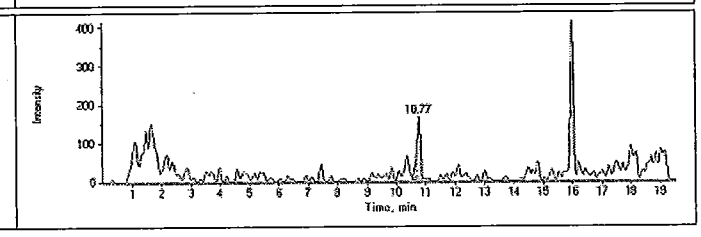
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.77 (10.73) min

Calculated conc: 0.000272

Area Ratio: 1.126e-3

Sample Type: (Quality Control)



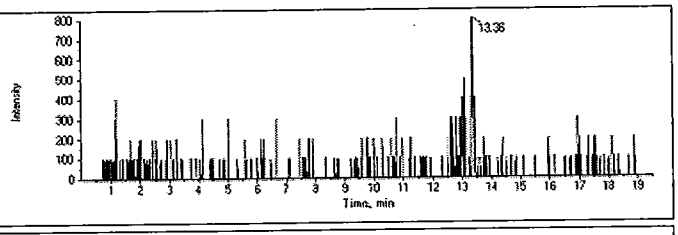
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.000233

Area Ratio: 2.553e-3

Sample Type: (Quality Control)



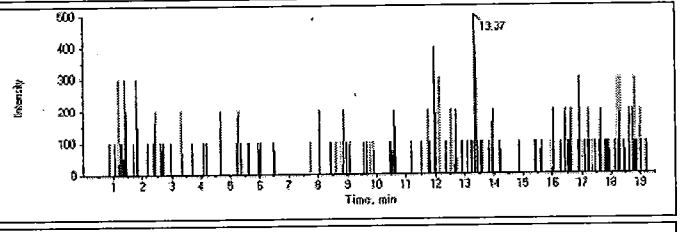
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.000215

Area Ratio: 7.032e-4

Sample Type: (Quality Control)



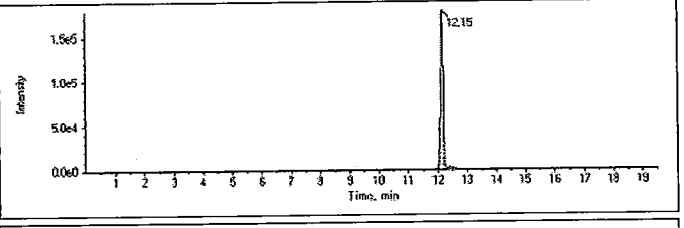
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 71.874965

Area Ratio: N/A

Sample Type: (Quality Control)



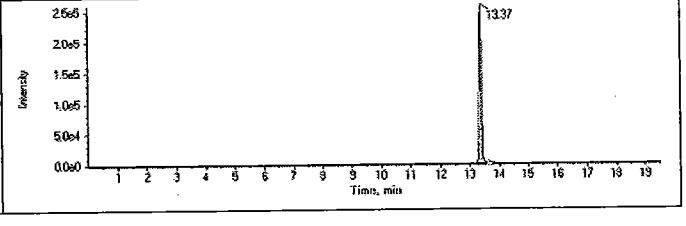
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 85.982694

Area Ratio: N/A

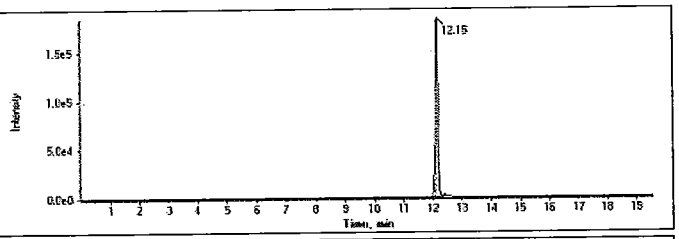
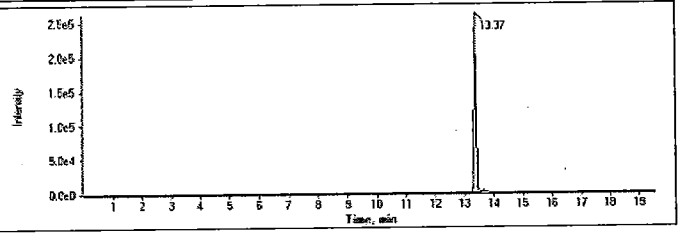
Sample Type: (Quality Control)



Sample Name	201312140138A	**Injection Vial**	19
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 1:03:56 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1053441.100000	12.15	100.00000	-
IS-13C-PFOS	1352618.200000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.091e+04	8.53	0.00000	0.001751
Surr-13c-PFHxA	1.090e+06	8.56	100.00000	106.217422
PFHpA	2.163e+04	10.62	0.00000	0.000578
PFHpA 2	5.696e+03	10.62	0.00000	0.000593
PFOA	1.440e+05	12.15	0.00000	0.004197
PFOA 2	4.391e+04	12.15	0.00000	0.004117
PFNA	1.998e+05	13.38	0.00000	0.008265
PFNA 2	4.737e+04	13.38	0.00000	0.008248
PFDA	1.496e+03	14.40	0.00000	0.000056
PFDA 2	1.961e+02	14.35	0.00000	0.000045
Surr-13c-PFDA	9.039e+05	14.40	100.00000	103.307608
PFUnA	1.962e+02	15.23	0.00000	0.000008
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	3.434e+02	15.97	0.00000	0.000016
PFTrDA	2.452e+02	16.73	0.00000	0.000008
PFTrDA 2	1.472e+02	16.44	0.00000	0.000027
PFTA	N/A	N/A	0.00000	N/A
PFBS	1.222e+04	6.01	0.00000	0.000743
PFBS 2	1.114e+03	6.22	0.00000	0.000258
PFHxS	1.575e+04	10.74	0.00000	0.000893
PFHxS 2	5.962e+03	10.75	0.00000	0.001066
PFOS	2.795e+04	13.37	0.00000	0.001883
PFOS 2	8.288e+03	13.36	0.00000	0.001877
13C-PFOA	1.053e+06	12.15	100.00000	73.122504
13C-PFOS	1.353e+06	13.37	100.00000	87.770698

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

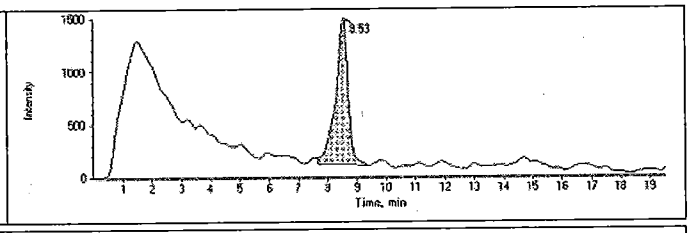
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.001751

Area Ratio: 3.884e-2

Sample Type: (Quality Control)



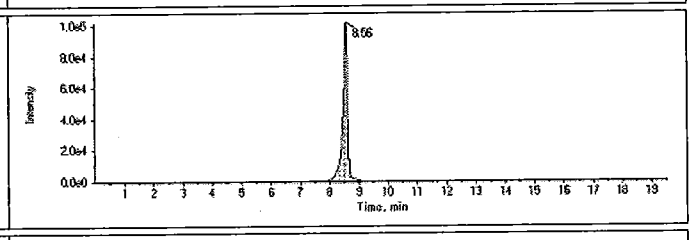
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.56 (8.54) min

Calculated conc: 106.217422

Area Ratio: 1.035e0

Sample Type: (Quality Control)



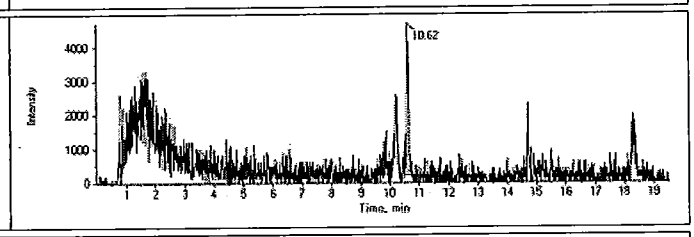
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.000578

Area Ratio: 2.053e-2

Sample Type: (Quality Control)



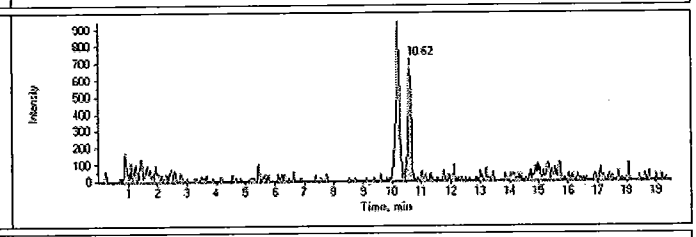
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.000593

Area Ratio: 5.407e-3

Sample Type: (Quality Control)



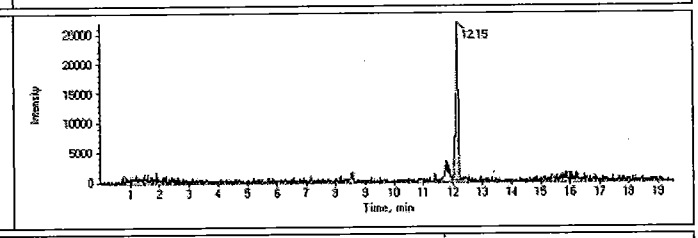
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.004197

Area Ratio: 1.367e-1

Sample Type: (Quality Control)



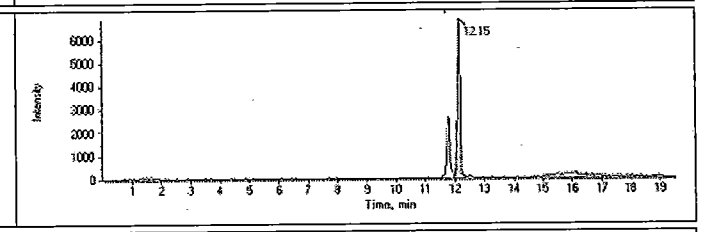
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.004117

Area Ratio: 4.168e-2

Sample Type: (Quality Control)



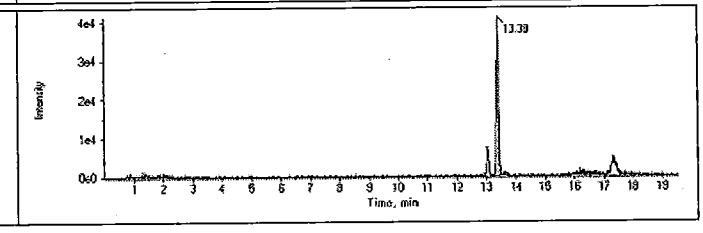
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.008265

Area Ratio: 1.897e-1

Sample Type: (Quality Control)

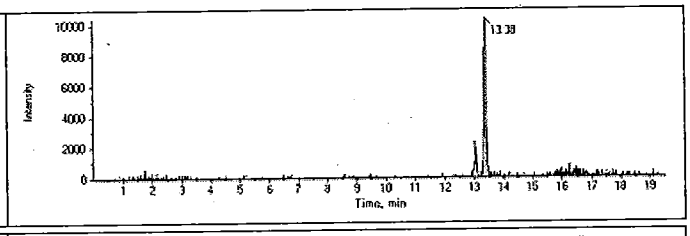


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.008248

Area Ratio: 4.497e-2
Sample Type: (Quality Control)

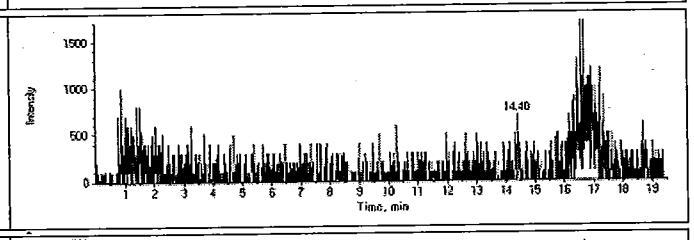


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.40 (14.37) min

Calculated conc: 0.000056

Area Ratio: 1.420e-3
Sample Type: (Quality Control)

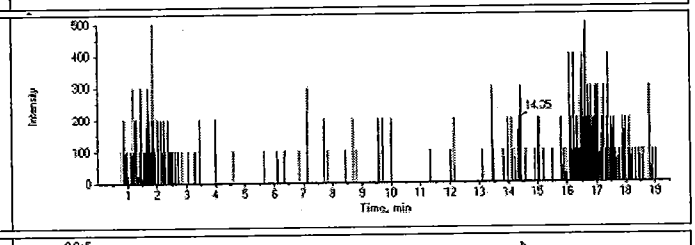


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.35 (14.37) min

Calculated conc: 0.000045

Area Ratio: 1.862e-4
Sample Type: (Quality Control)

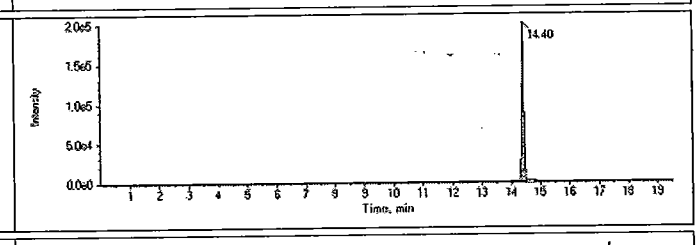


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min

Calculated conc: 103.307608

Area Ratio: 8.580e-1
Sample Type: (Quality Control)

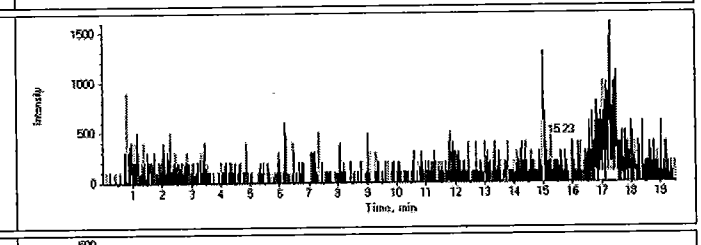


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.23 (15.23) min

Calculated conc: 0.000008

Area Ratio: 1.862e-4
Sample Type: (Quality Control)

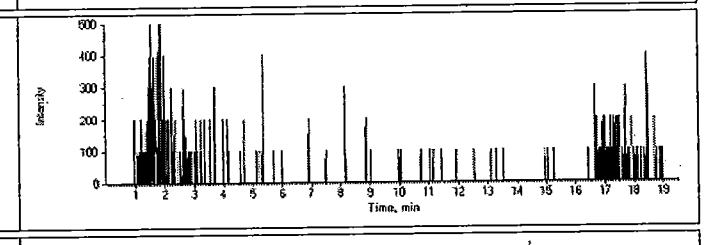


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min

Calculated conc: N/A

Area Ratio: N/A
Sample Type: (Quality Control)

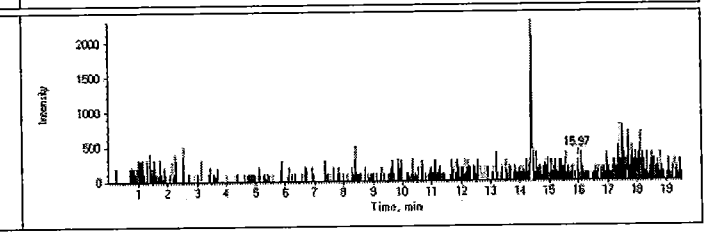


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.000016

Area Ratio: 3.259e-4
Sample Type: (Quality Control)



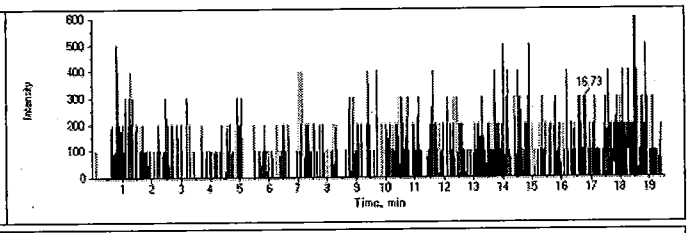
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.73 (16.60) min

Calculated conc: 0.000008

Area Ratio: 2.328e-4

Sample Type: (Quality Control)



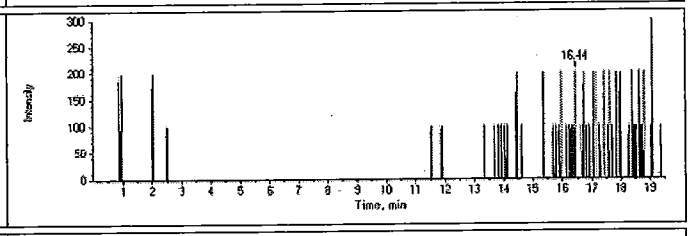
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.44 (16.60) min

Calculated conc: 0.000027

Area Ratio: 1.397e-4

Sample Type: (Quality Control)



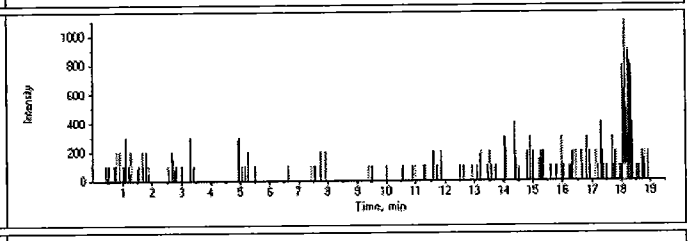
PFTA (713.3 / 669.0)

RT (Exp. RT): N/A (17.15) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



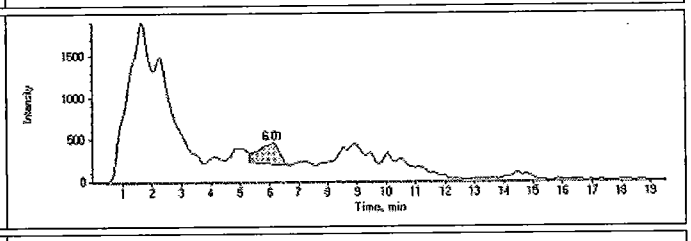
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.01 (6.27) min

Calculated conc: 0.000743

Area Ratio: 9.036e-3

Sample Type: (Quality Control)



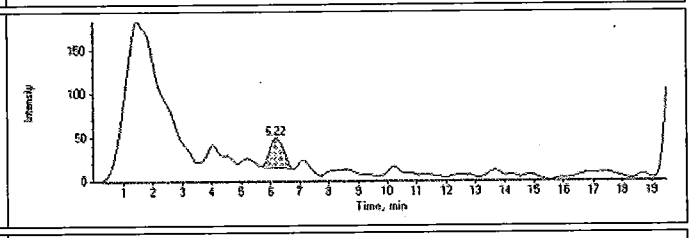
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.22 (6.28) min

Calculated conc: 0.000258

Area Ratio: 8.236e-4

Sample Type: (Quality Control)



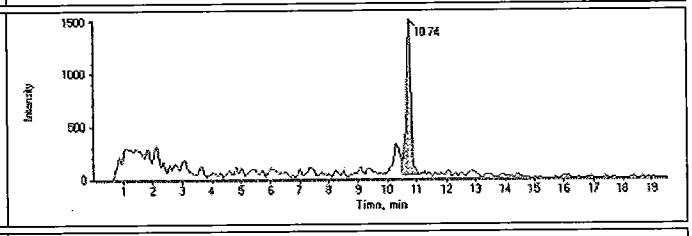
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.000893

Area Ratio: 1.164e-2

Sample Type: (Quality Control)



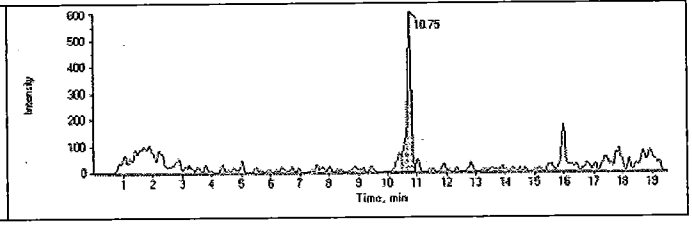
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.001066

Area Ratio: 4.408e-3

Sample Type: (Quality Control)

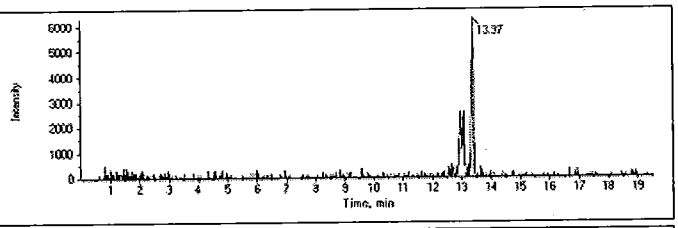


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.001883

Area Ratio: 2.067e-2
Sample Type: (Quality Control)

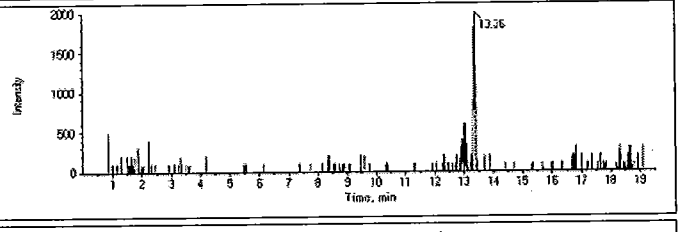


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001877

Area Ratio: 6.127e-3
Sample Type: (Quality Control)

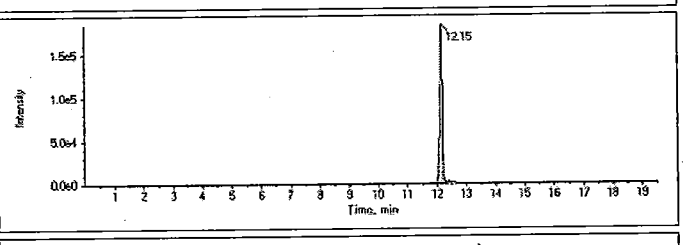


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 73.122504

Area Ratio: N/A
Sample Type: (Quality Control)

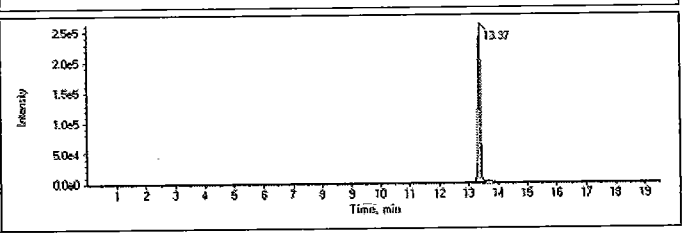


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 87.770698

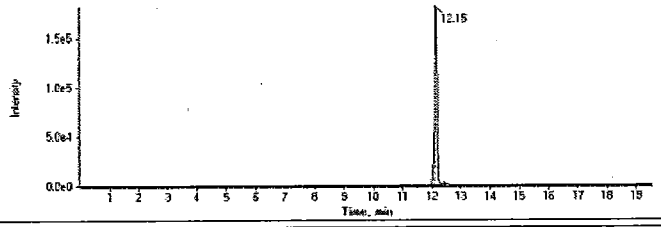
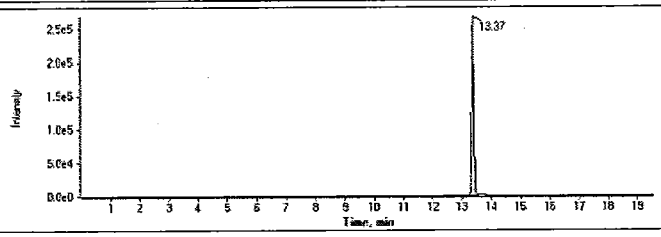
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	201312140139A	**Injection Vial**	20
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 1:24:06 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1083473.000000	12.15	100.00000	-
IS-13C-PFOS	1345473.400000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.620e+04	8.53	0.00000	0.001922
Surr-13c-PFHxA	1.094e+06	8.56	100.00000	103.704798
PFHpA	2.540e+04	10.61	0.00000	0.000660
PFHpA 2	6.924e+03	10.62	0.00000	0.000701
PFOA	1.477e+05	12.15	0.00000	0.004186
PFOA 2	4.111e+04	12.15	0.00000	0.003748
PFNA	2.034e+05	13.38	0.00000	0.008179
PFNA 2	4.826e+04	13.38	0.00000	0.008170
PFDA	3.434e+02	14.33	0.00000	0.000012
PFDA 2	3.434e+02	14.38	0.00000	0.000077
Surr-13c-PFDA	9.433e+05	14.40	100.00000	104.821546
PFUnA	4.414e+02	15.25	0.00000	0.000018
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	1.471e+02	15.96	0.00000	0.000007
PFTrDA	3.432e+02	16.63	0.00000	0.000011
PFTrDA 2	1.961e+02	16.34	0.00000	0.000035
PFTA	1.471e+02	17.03	0.00000	0.000048
PFBS	1.016e+04	6.14	0.00000	0.000621
PFBS 2	8.320e+02	6.29	0.00000	0.000194
PFHxS	1.571e+04	10.74	0.00000	0.000895
PFHxS 2	5.524e+03	10.75	0.00000	0.000993
PFOS	2.629e+04	13.37	0.00000	0.001780
PFOS 2	9.907e+03	13.36	0.00000	0.002256
13C-PFOA	1.083e+06	12.15	100.00000	75.207108
13C-PFOS	1.345e+06	13.37	100.00000	87.307076

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

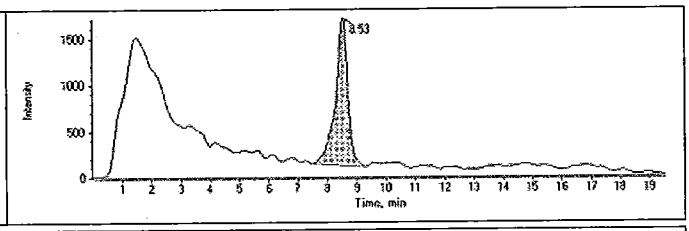
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.001922

Area Ratio: 4.264e-2

Sample Type: (Quality Control)



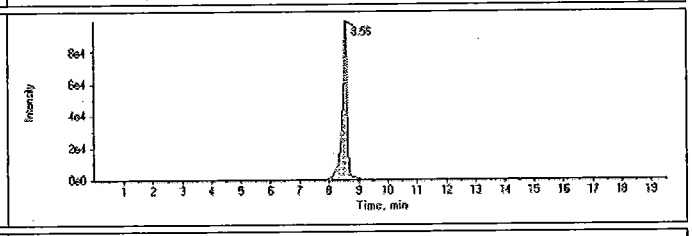
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.56 (8.54) min

Calculated conc: 103.704798

Area Ratio: 1.010e0

Sample Type: (Quality Control)



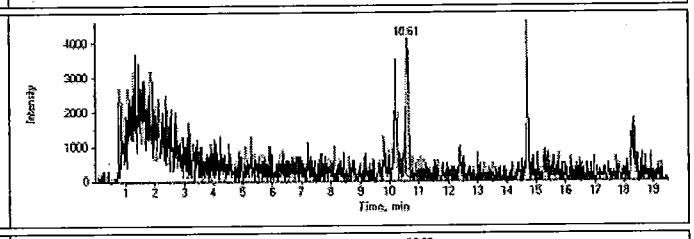
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000660

Area Ratio: 2.344e-2

Sample Type: (Quality Control)



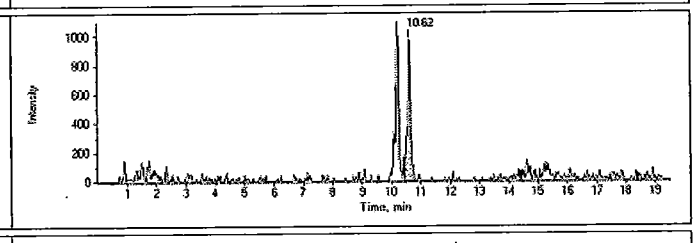
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.000701

Area Ratio: 6.391e-3

Sample Type: (Quality Control)



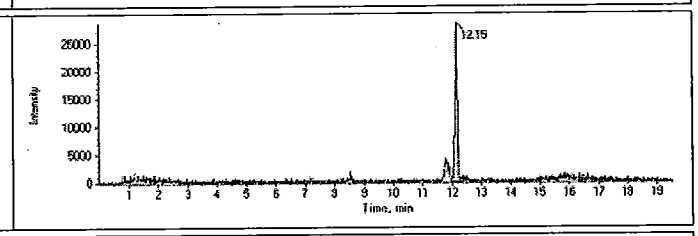
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.004186

Area Ratio: 1.363e-1

Sample Type: (Quality Control)



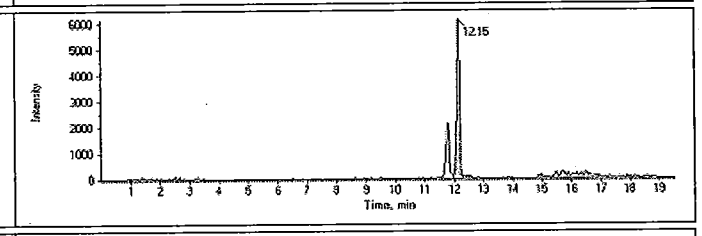
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.003748

Area Ratio: 3.794e-2

Sample Type: (Quality Control)



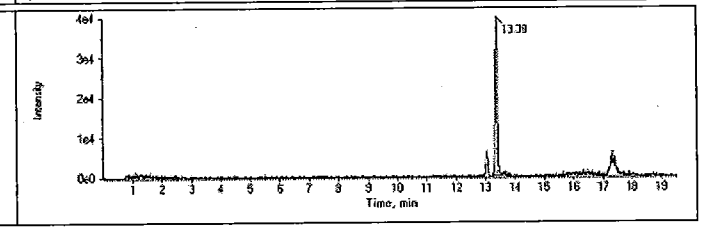
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.008179

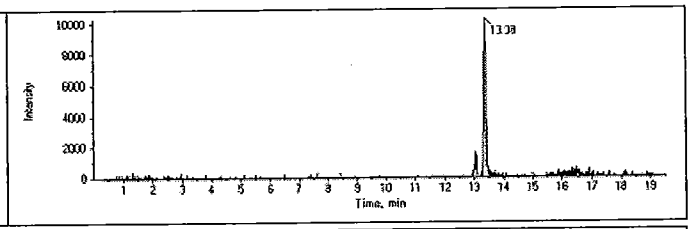
Area Ratio: 1.877e-1

Sample Type: (Quality Control)



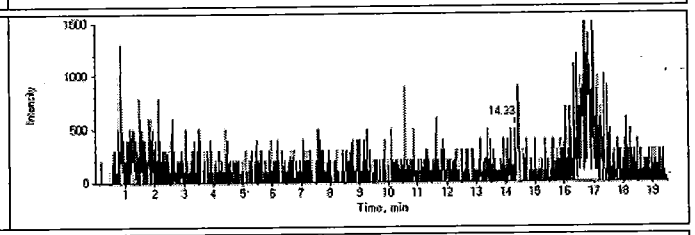
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.38 (13.35) min
Calculated conc: 0.008170
Area Ratio: 4.455e-2
Sample Type: (Quality Control)



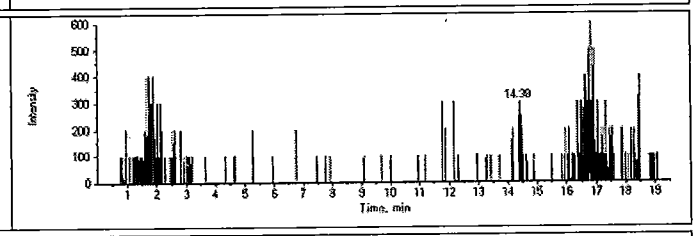
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.33 (14.37) min
Calculated conc: 0.000012
Area Ratio: 3.169e-4
Sample Type: (Quality Control)



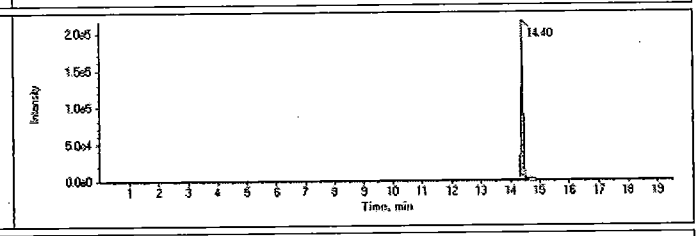
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.000077
Area Ratio: 3.169e-4
Sample Type: (Quality Control)



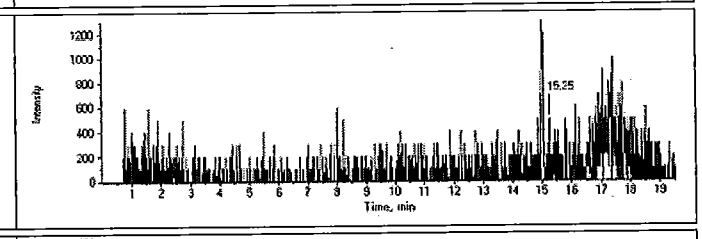
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min
Calculated conc: 104.821546
Area Ratio: 8.706e-1
Sample Type: (Quality Control)



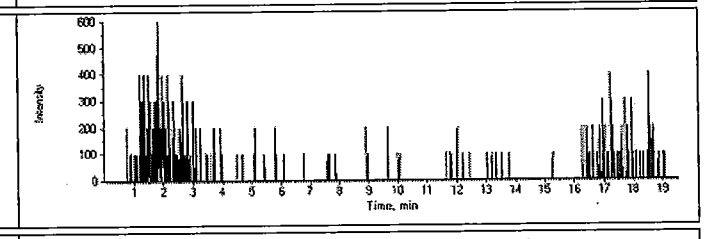
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.000018
Area Ratio: 4.073e-4
Sample Type: (Quality Control)



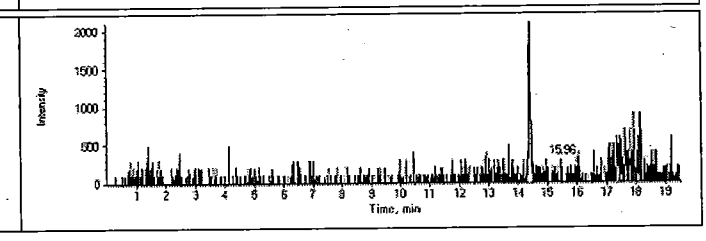
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



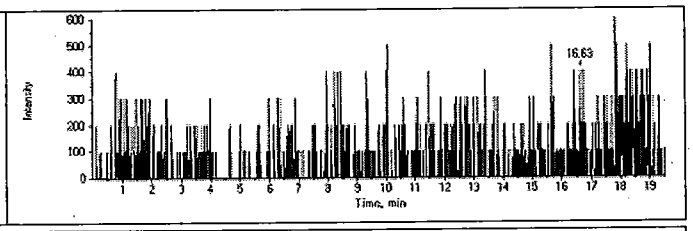
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000007
Area Ratio: 1.357e-4
Sample Type: (Quality Control)



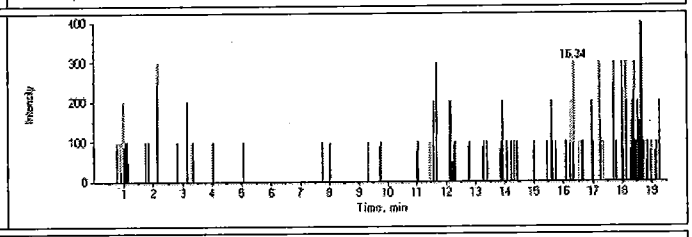
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.60) min
Calculated conc: 0.000011
Area Ratio: 3.168e-4
Sample Type: (Quality Control)



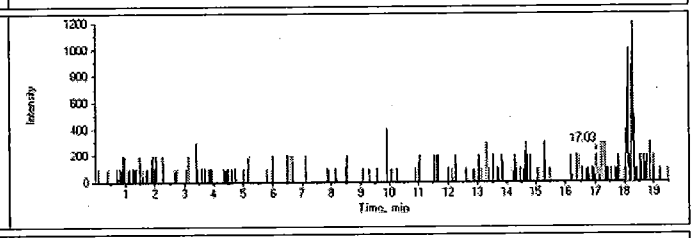
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.34 (16.60) min
Calculated conc: 0.000035
Area Ratio: 1.809e-4
Sample Type: (Quality Control)



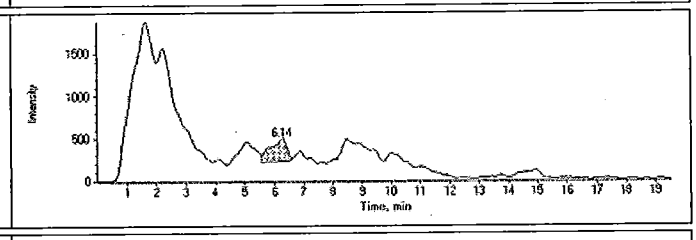
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.03 (17.15) min
Calculated conc: 0.000048
Area Ratio: 1.358e-4
Sample Type: (Quality Control)



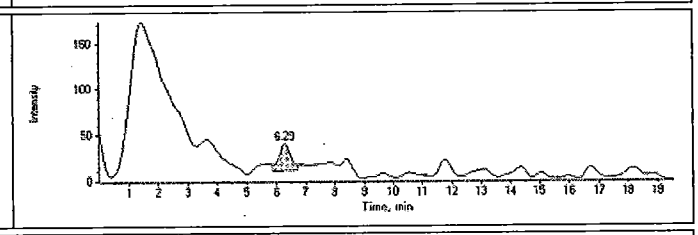
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.14 (6.27) min
Calculated conc: 0.000621
Area Ratio: 7.549e-3
Sample Type: (Quality Control)



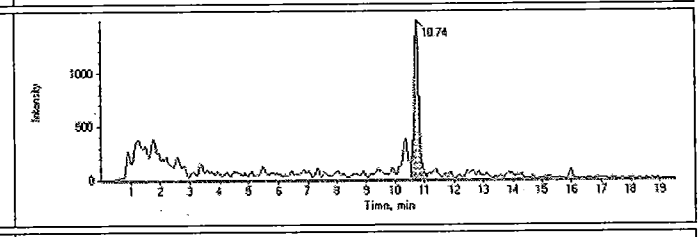
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.29 (6.28) min
Calculated conc: 0.000194
Area Ratio: 6.184e-4
Sample Type: (Quality Control)



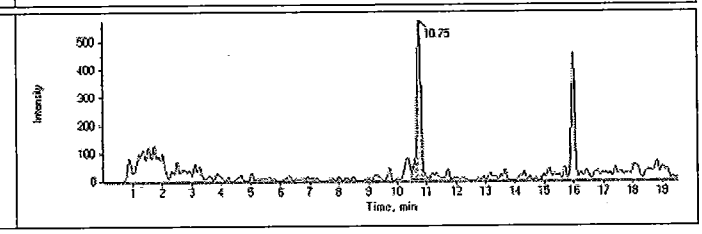
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min
Calculated conc: 0.000895
Area Ratio: 1.168e-2
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.75 (10.73) min
Calculated conc: 0.000993
Area Ratio: 4.106e-3
Sample Type: (Quality Control)



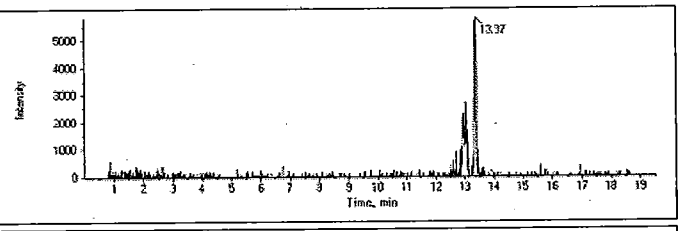
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.001780

Area Ratio: 1.954e-2

Sample Type: (Quality Control)



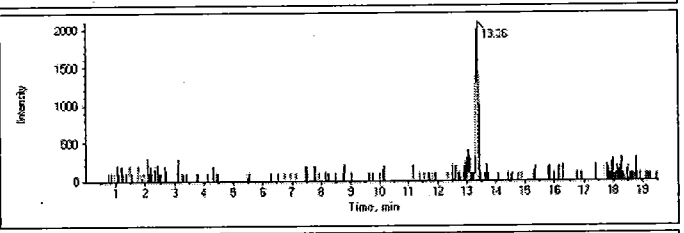
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.002256

Area Ratio: 7.364e-3

Sample Type: (Quality Control)



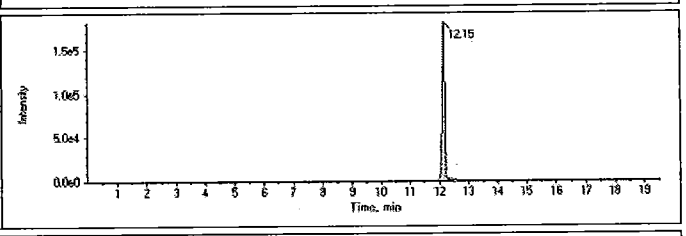
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 75.207108

Area Ratio: N/A

Sample Type: (Quality Control)



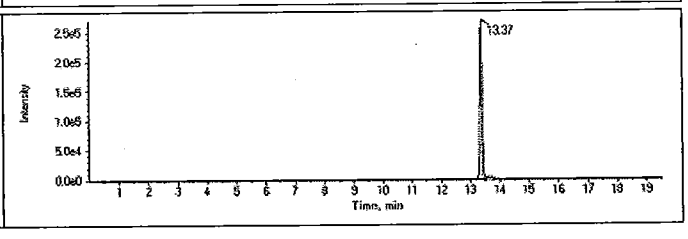
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 87.307076

Area Ratio: N/A

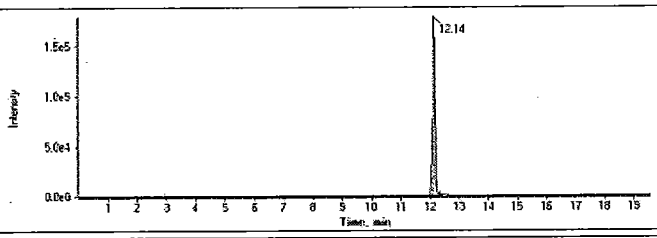
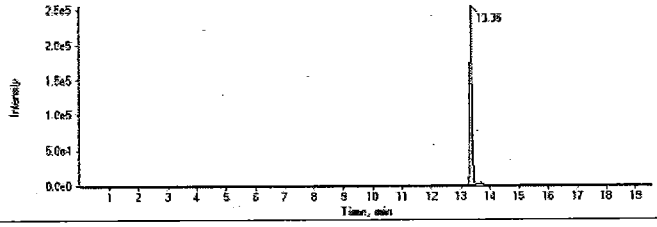
Sample Type: (Quality Control)



Sample Name	DNR-201312140140A	**Injection Vial**	21
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 1:44:14 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1038347.000000	12.14	100.00000	-
IS-13C-PFOS	1333553.200000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.284e+04	8.53	0.00000	0.000557
Surr-13c-PFHxA	9.895e+05	8.54	100.00000	97.848599
PFHpA	6.498e+03	10.60	0.00000	0.000176
PFHpA 2	7.418e+02	10.58	0.00000	0.000078
PFOA	4.922e+04	12.13	0.00000	0.001455
PFOA 2	1.582e+04	12.13	0.00000	0.001505
PFNA	9.811e+02	13.35	0.00000	0.000041
PFNA 2	4.415e+02	13.32	0.00000	0.000078
PFDA	4.413e+02	14.36	0.00000	0.000017
PFDA 2	N/A	N/A	0.00000	N/A
Surr-13c-PFDA	7.382e+05	14.39	100.00000	85.597171
PFUnA	9.810e+01	15.21	0.00000	0.000004
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	2.943e+02	15.97	0.00000	0.000014
PFTrDA	2.451e+02	16.61	0.00000	0.000008
PFTrDA 2	1.471e+02	16.57	0.00000	0.000028
PFTA	1.472e+02	16.80	0.00000	0.000050
PFBS	1.016e+03	6.17	0.00000	0.000063
PFBS 2	8.235e+01	6.39	0.00000	0.000019
PFHxS	7.269e+02	10.74	0.00000	0.000042
PFHxS 2	4.511e+02	10.73	0.00000	0.000082
PFOS	4.416e+02	13.32	0.00000	0.000030
PFOS 2	1.471e+02	13.35	0.00000	0.000034
13C-PFOA	1.038e+06	12.14	100.00000	72.074777
13C-PFOS	1.334e+06	13.36	100.00000	86.533580

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

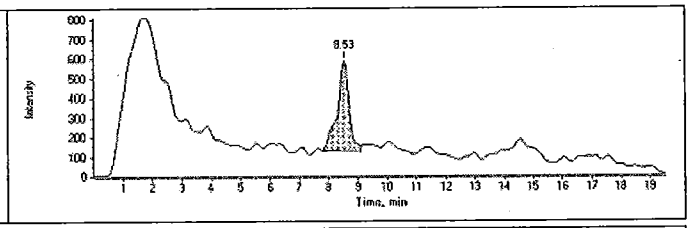
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.000557

Area Ratio: 1.236e-2

Sample Type: (Quality Control)



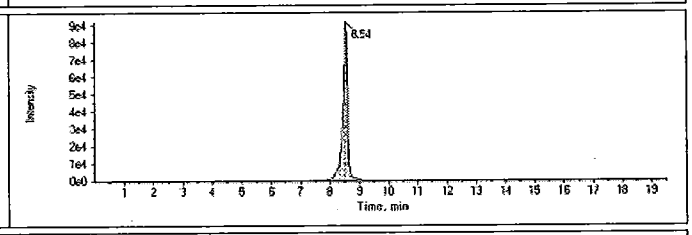
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 97.848599

Area Ratio: 9.530e-1

Sample Type: (Quality Control)



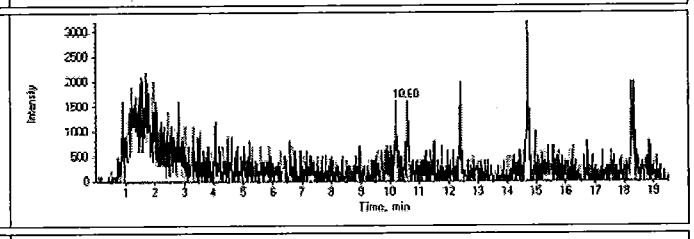
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.000176

Area Ratio: 6.258e-3

Sample Type: (Quality Control)



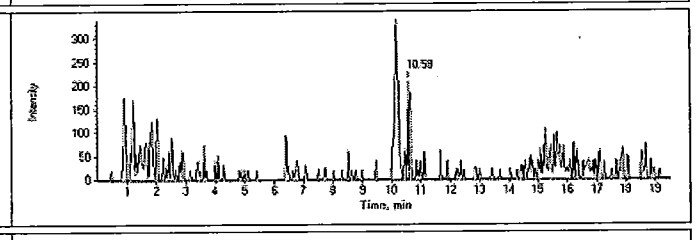
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.58 (10.60) min

Calculated conc: 0.000078

Area Ratio: 7.144e-4

Sample Type: (Quality Control)



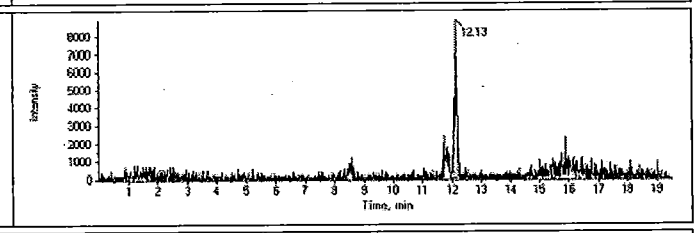
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.001455

Area Ratio: 4.740e-2

Sample Type: (Quality Control)



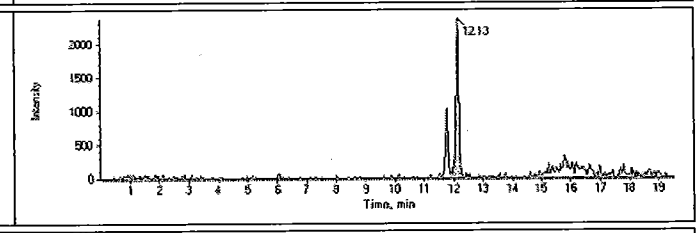
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.001505

Area Ratio: 1.524e-2

Sample Type: (Quality Control)



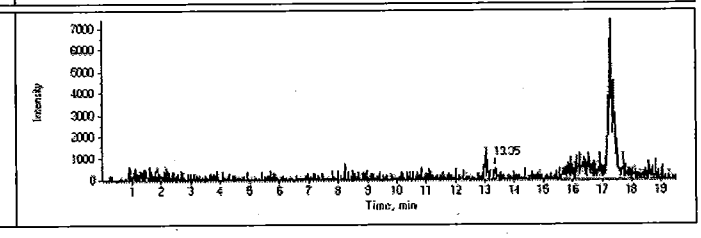
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.000041

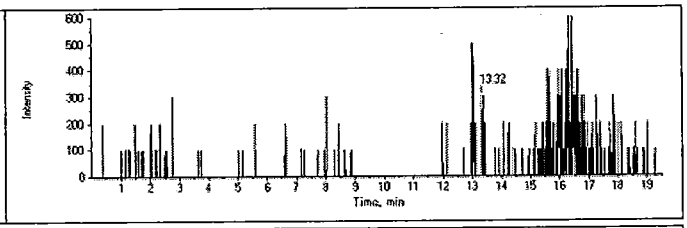
Area Ratio: 9.448e-4

Sample Type: (Quality Control)



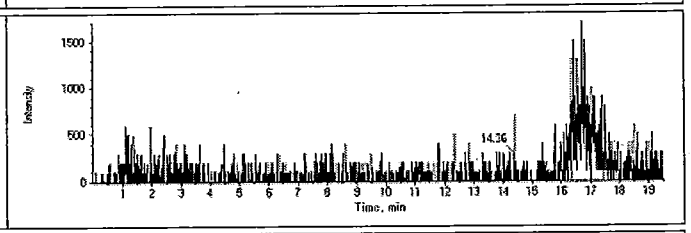
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.32 (13.35) min
Calculated conc: 0.000078
Area Ratio: 4.252e-4
Sample Type: (Quality Control)



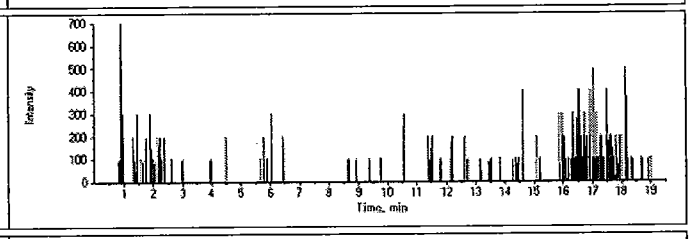
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.36 (14.37) min
Calculated conc: 0.000017
Area Ratio: 4.250e-4
Sample Type: (Quality Control)



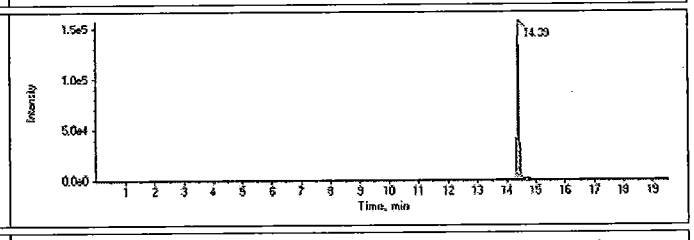
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): N/A (14.37) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



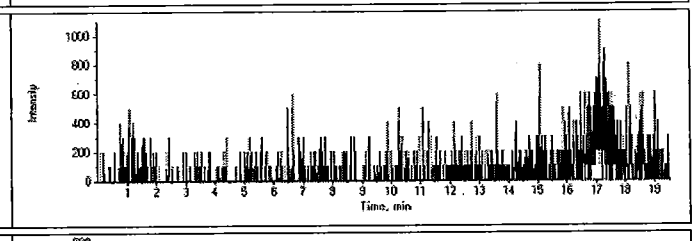
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 85.597171
Area Ratio: 7.109e-1
Sample Type: (Quality Control)



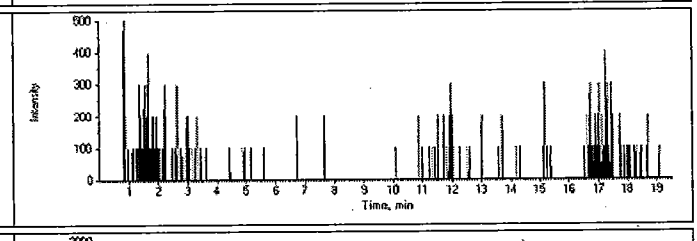
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min
Calculated conc: 0.000004
Area Ratio: 9.448e-5
Sample Type: (Quality Control)



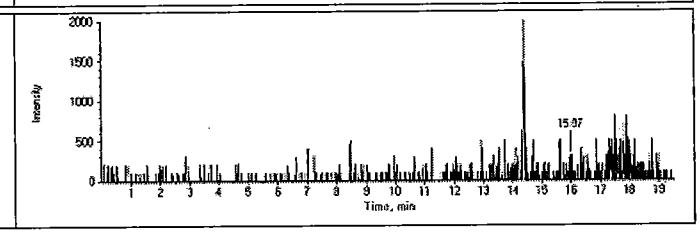
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



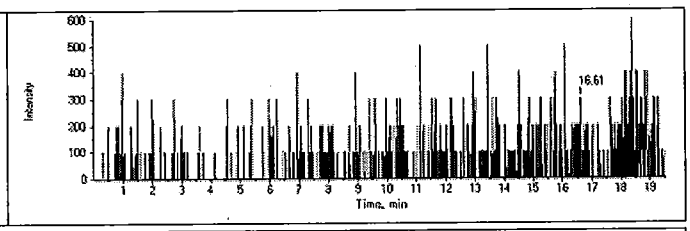
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min
Calculated conc: 0.000014
Area Ratio: 2.834e-4
Sample Type: (Quality Control)



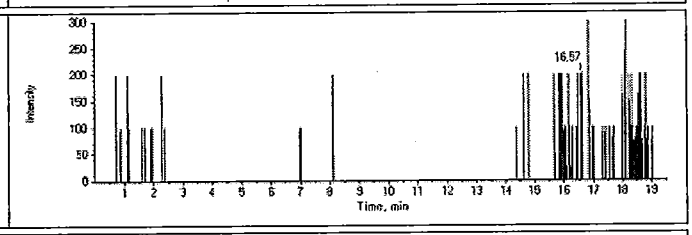
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min
Calculated conc: 0.000008
Area Ratio: 2.360e-4
Sample Type: (Quality Control)



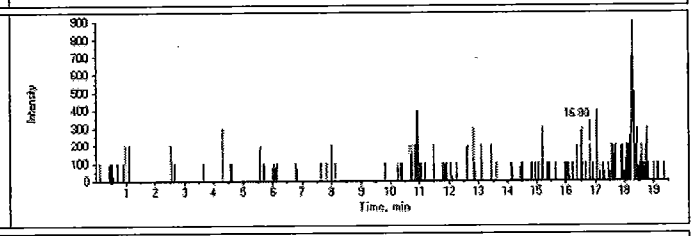
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.57 (16.60) min
Calculated conc: 0.000028
Area Ratio: 1.416e-4
Sample Type: (Quality Control)



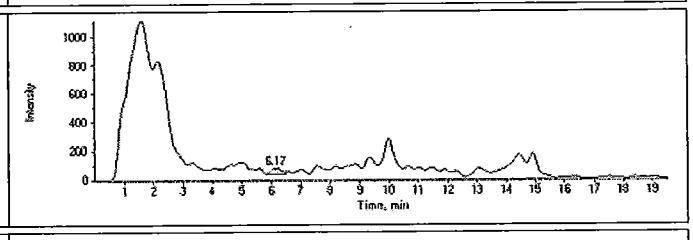
PFTA (713.3 / 669.0)

RT (Exp. RT): 16.80 (17.15) min
Calculated conc: 0.000050
Area Ratio: 1.417e-4
Sample Type: (Quality Control)



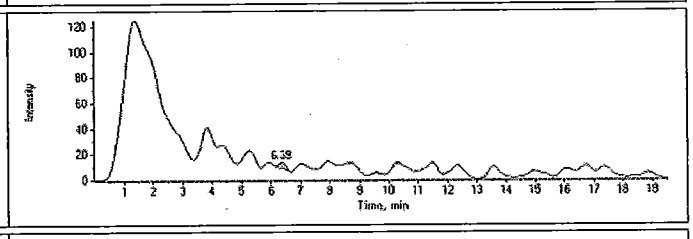
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.27) min
Calculated conc: 0.000063
Area Ratio: 7.619e-4
Sample Type: (Quality Control)



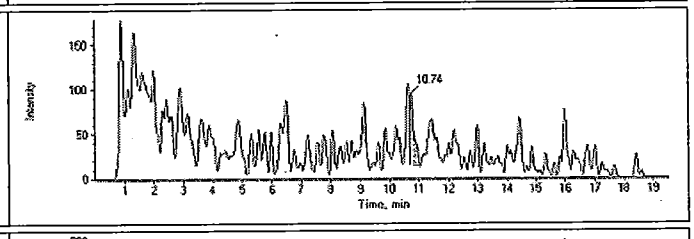
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.39 (6.28) min
Calculated conc: 0.000019
Area Ratio: 6.175e-5
Sample Type: (Quality Control)



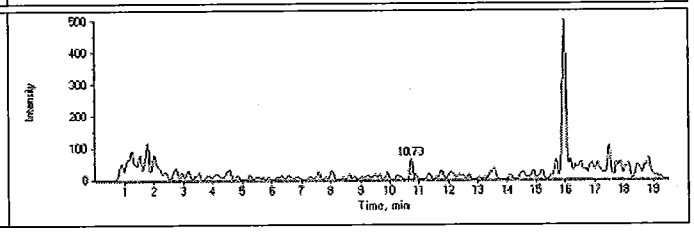
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min
Calculated conc: 0.000042
Area Ratio: 5.451e-4
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.000082
Area Ratio: 3.383e-4
Sample Type: (Quality Control)



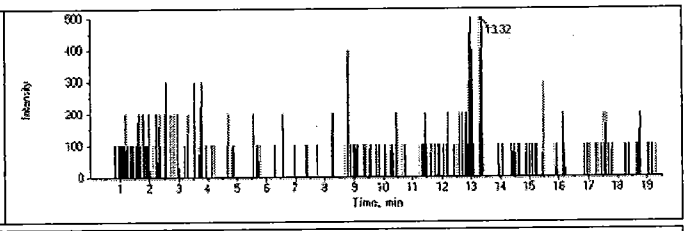
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.32 (13.34) min

Calculated conc: 0.000030

Area Ratio: 3.311e-4

Sample Type: (Quality Control)



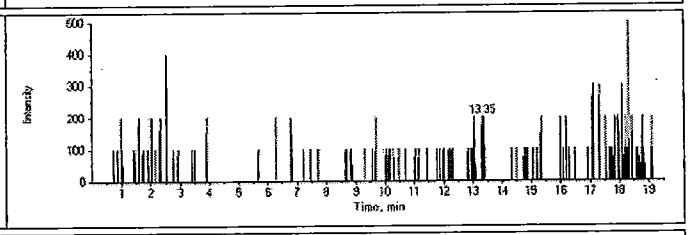
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000034

Area Ratio: 1.103e-4

Sample Type: (Quality Control)



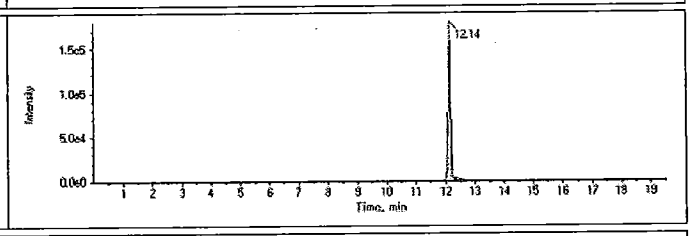
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 72.074777

Area Ratio: N/A

Sample Type: (Quality Control)



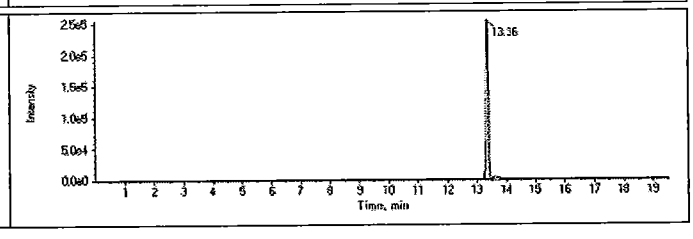
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 86.533580

Area Ratio: N/A

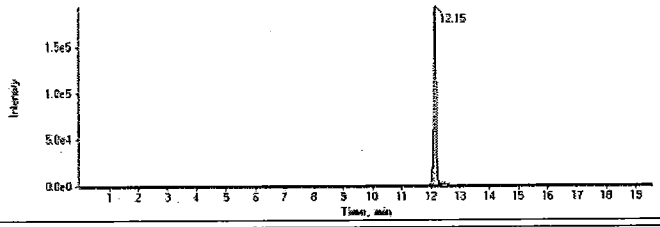
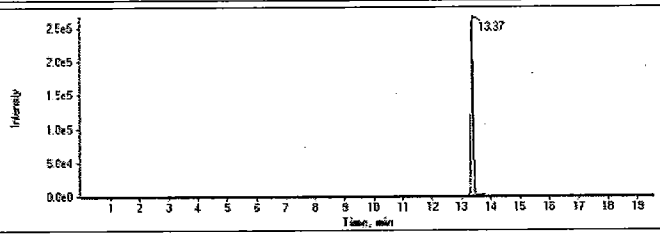
Sample Type: (Quality Control)



Sample Name	201312140141A	**Injection Vial**	22
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 2:04:24 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1087275.350000	12.15	100.00000	-
IS-13C-PFOS	1363703.100000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	6.403e+04	8.53	0.00000	0.002655
Surr-13c-PFHxA	1.042e+06	8.56	100.00000	98.388207
PFHpA	5.769e+04	10.62	0.00000	0.001495
PFHpA 2	1.574e+04	10.62	0.00000	0.001587
PFOA	1.951e+05	12.15	0.00000	0.005508
PFOA 2	6.406e+04	12.15	0.00000	0.005820
PFNA	3.198e+05	13.38	0.00000	0.012814
PFNA 2	7.193e+04	13.38	0.00000	0.012134
PFDA	2.941e+02	14.37	0.00000	0.000011
PFDA 2	1.471e+02	14.39	0.00000	0.000033
Surr-13c-PFDA	9.071e+05	14.40	100.00000	100.447833
PFUnA	3.925e+02	15.22	0.00000	0.000016
PFUnA 2	2.942e+02	15.28	0.00000	0.000078
PFDoA	1.471e+02	15.96	0.00000	0.000007
PFTrDA	3.924e+02	16.61	0.00000	0.000012
PFTrDA 2	9.805e+01	16.68	0.00000	0.000018
PFTA	9.810e+01	17.16	0.00000	0.000032
PFBS	8.378e+03	6.25	0.00000	0.000505
PFBS 2	1.977e+03	6.26	0.00000	0.000454
PFHxS	3.591e+04	10.75	0.00000	0.002019
PFHxS 2	1.262e+04	10.74	0.00000	0.002238
PFOS	4.631e+04	13.37	0.00000	0.003094
PFOS 2	1.270e+04	13.37	0.00000	0.002853
13C-PFOA	1.087e+06	12.15	100.00000	75.471041
13C-PFOS	1.364e+06	13.37	100.00000	88.489991

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

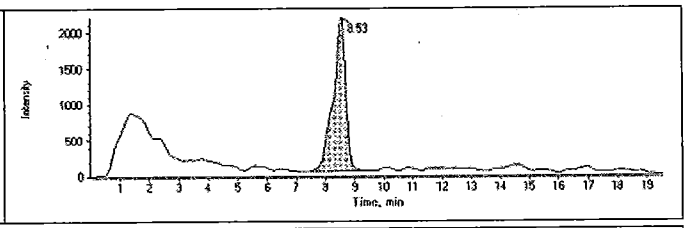
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.002655

Area Ratio: 5.889e-2

Sample Type: (Quality Control)



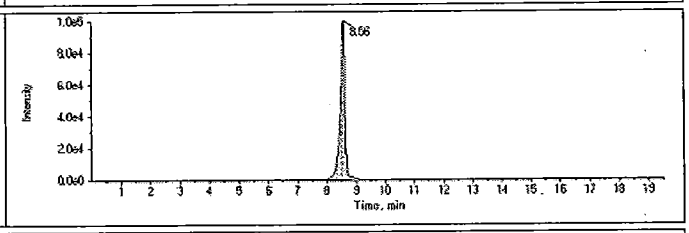
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.56 (8.54) min

Calculated conc: 98.388207

Area Ratio: 9.583e-1

Sample Type: (Quality Control)



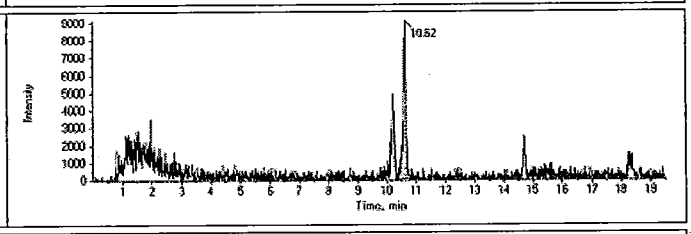
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.001495

Area Ratio: 5.306e-2

Sample Type: (Quality Control)



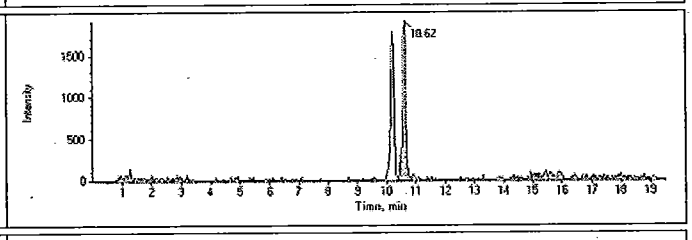
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.001587

Area Ratio: 1.448e-2

Sample Type: (Quality Control)



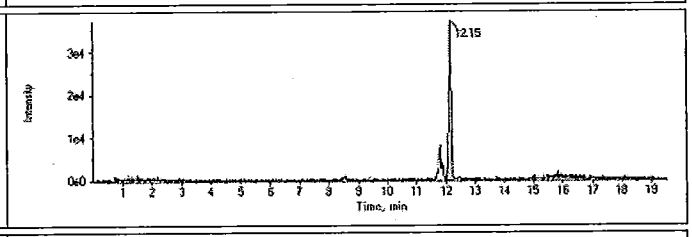
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.005508

Area Ratio: 1.794e-1

Sample Type: (Quality Control)



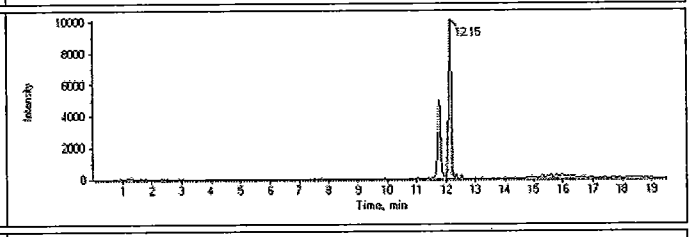
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.005820

Area Ratio: 5.892e-2

Sample Type: (Quality Control)



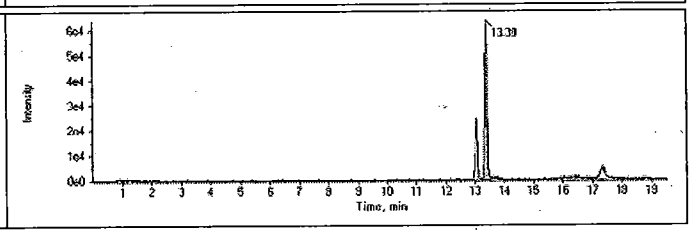
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.012814

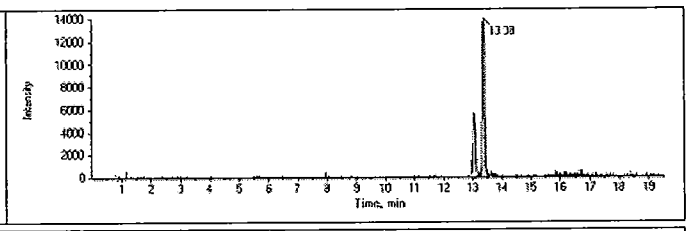
Area Ratio: 2.941e-1

Sample Type: (Quality Control)



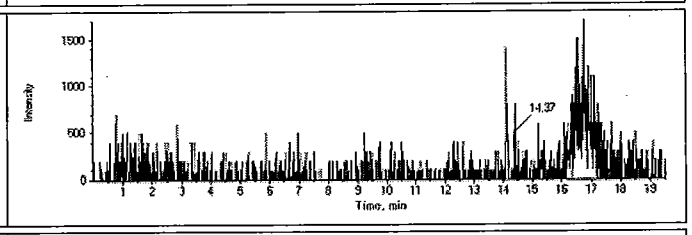
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.38 (13.35) min
Calculated conc: 0.012134
Area Ratio: 6.616e-2
Sample Type: (Quality Control)



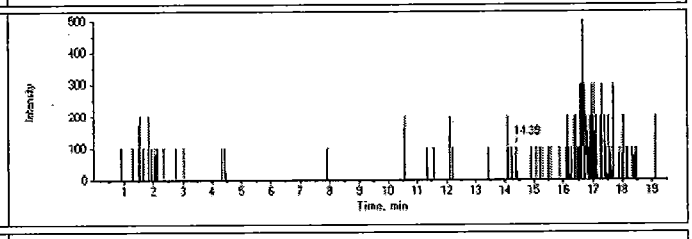
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.000011
Area Ratio: 2.704e-4
Sample Type: (Quality Control)



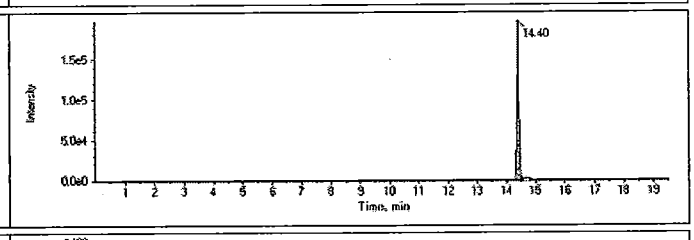
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.000033
Area Ratio: 1.353e-4
Sample Type: (Quality Control)



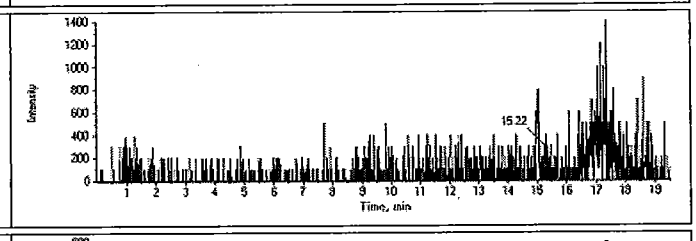
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min
Calculated conc: 100.447833
Area Ratio: 8.343e-1
Sample Type: (Quality Control)



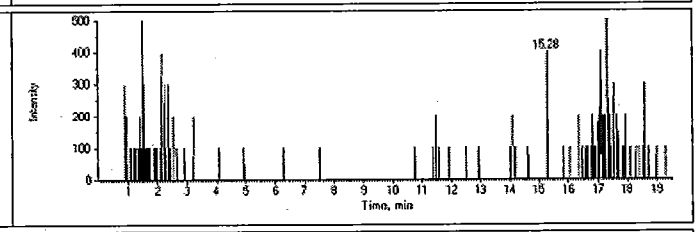
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.22 (15.23) min
Calculated conc: 0.000016
Area Ratio: 3.609e-4
Sample Type: (Quality Control)



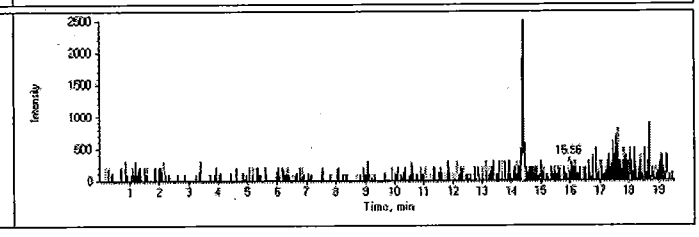
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.28 (15.23) min
Calculated conc: 0.000078
Area Ratio: 2.706e-4
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000007
Area Ratio: 1.352e-4
Sample Type: (Quality Control)



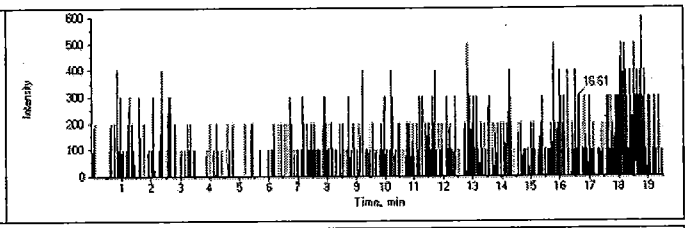
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.000012

Area Ratio: 3.609e-4

Sample Type: (Quality Control)



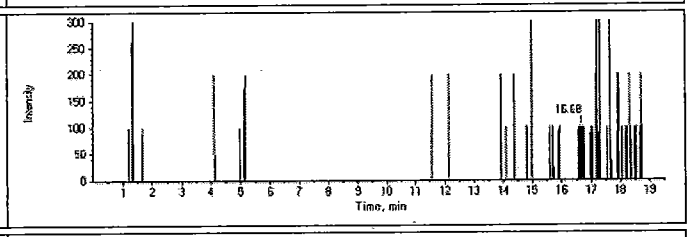
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.68 (16.60) min

Calculated conc: 0.000018

Area Ratio: 9.018e-5

Sample Type: (Quality Control)



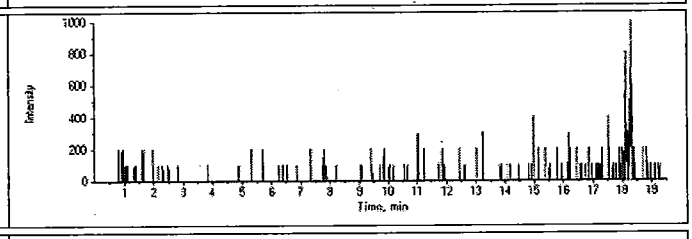
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.000032

Area Ratio: 9.023e-5

Sample Type: (Quality Control)



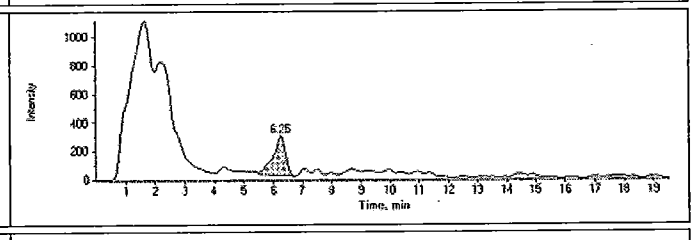
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.000505

Area Ratio: 6.143e-3

Sample Type: (Quality Control)



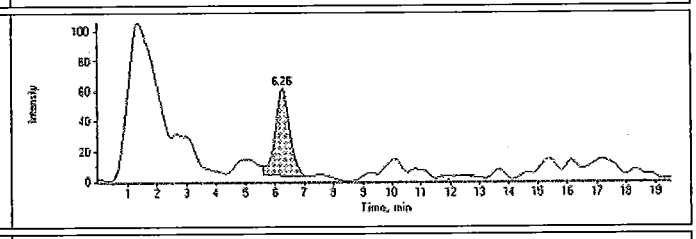
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.26 (6.28) min

Calculated conc: 0.000454

Area Ratio: 1.450e-3

Sample Type: (Quality Control)



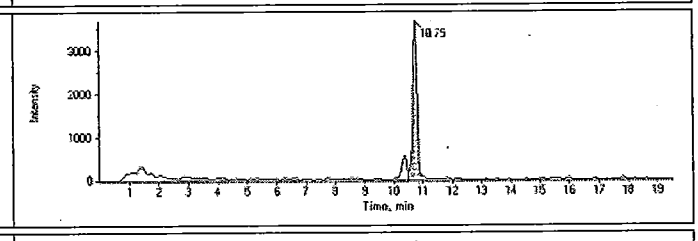
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.002019

Area Ratio: 2.633e-2

Sample Type: (Quality Control)



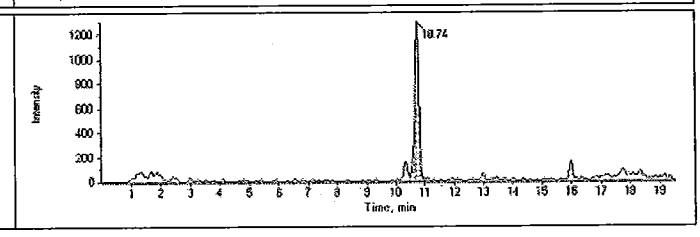
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.002238

Area Ratio: 9.252e-3

Sample Type: (Quality Control)

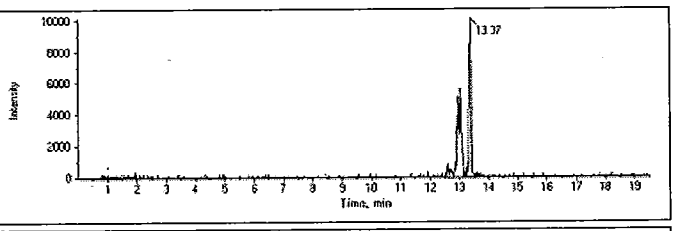


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.003094

Area Ratio: 3.396e-2
Sample Type: (Quality Control)

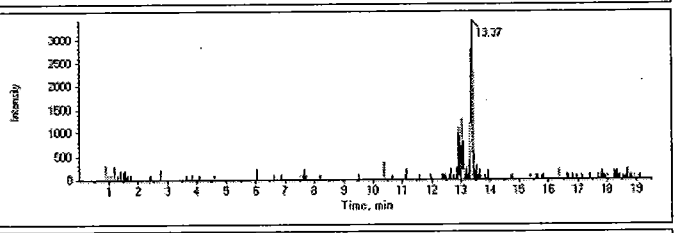


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.002853

Area Ratio: 9.312e-3
Sample Type: (Quality Control)

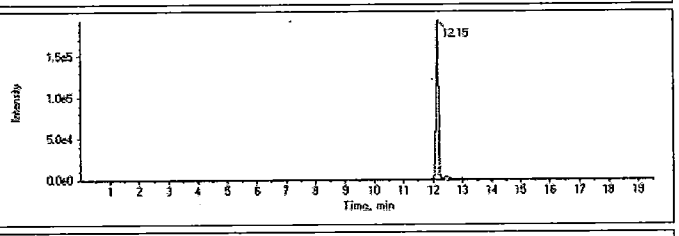


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 75.471041

Area Ratio: N/A
Sample Type: (Quality Control)

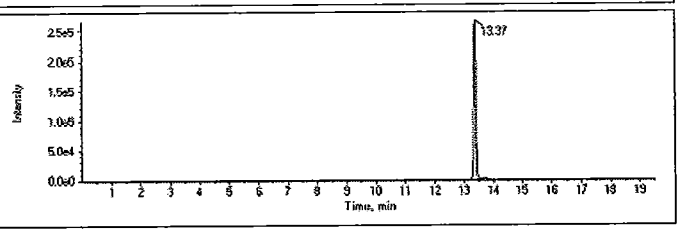


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 88.489991

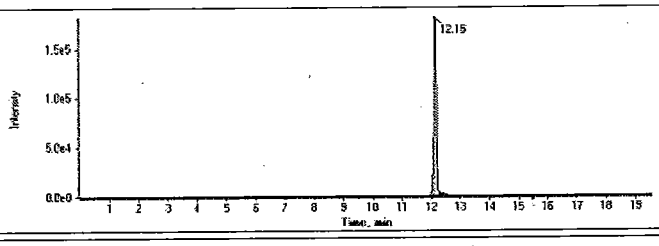
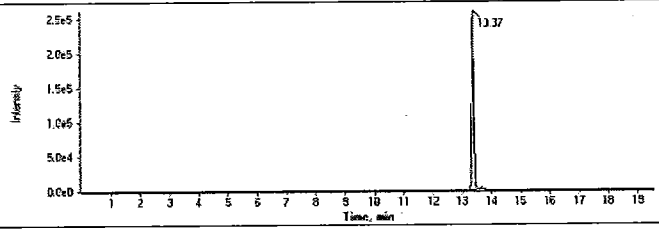
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	201312140142A	**Injection Vial**	23
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 2:24:33 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1098282.100000	12.15	100.00000	-
IS-13C-PFOS	1319201.500000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.893e+04	8.53	0.00000	0.002008
Surr-13c-PFHxA	1.031e+06	8.55	100.00000	96.348100
PFHpA	5.413e+04	10.62	0.00000	0.001388
PFHpA 2	1.275e+04	10.62	0.00000	0.001272
PFOA	1.765e+05	12.15	0.00000	0.004933
PFOA 2	5.704e+04	12.15	0.00000	0.005130
PFNA	3.263e+05	13.38	0.00000	0.012943
PFNA 2	7.907e+04	13.38	0.00000	0.013204
PFDA	1.520e+03	14.39	0.00000	0.000054
PFDA 2	2.943e+02	14.11	0.00000	0.000065
Surr-13c-PFDA	7.633e+05	14.40	100.00000	83.676007
PFUnA	6.863e+02	15.27	0.00000	0.000028
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	9.810e+01	15.95	0.00000	0.000004
PFTrDA	3.923e+02	16.63	0.00000	0.000012
PFTrDA 2	1.962e+02	16.53	0.00000	0.000035
PFTA	9.810e+01	17.12	0.00000	0.000031
PFBS	5.366e+03	6.28	0.00000	0.000334
PFBS 2	2.145e+03	6.24	0.00000	0.000509
PFHxS	3.401e+04	10.75	0.00000	0.001976
PFHxS 2	1.163e+04	10.73	0.00000	0.002133
PFOS	4.122e+04	13.36	0.00000	0.002847
PFOS 2	1.158e+04	13.37	0.00000	0.002689
13C-PFOA	1.098e+06	12.15	100.00000	76.235052
13C-PFOS	1.319e+06	13.37	100.00000	85.602305

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

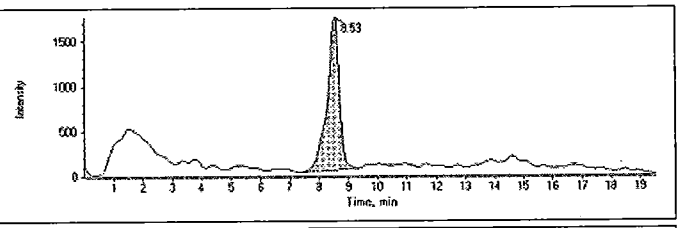
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.002008

Area Ratio: 4.455e-2

Sample Type: (Quality Control)



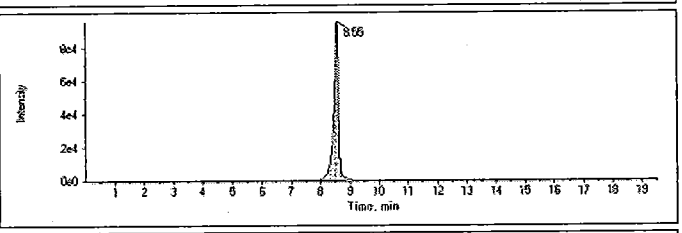
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 96.348100

Area Ratio: 9.384e-1

Sample Type: (Quality Control)



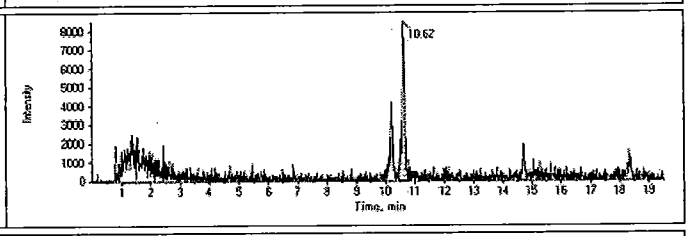
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.001388

Area Ratio: 4.929e-2

Sample Type: (Quality Control)



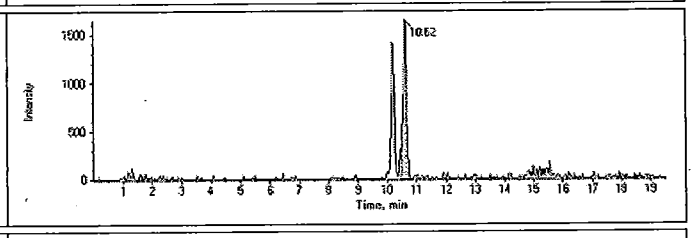
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.001272

Area Ratio: 1.161e-2

Sample Type: (Quality Control)



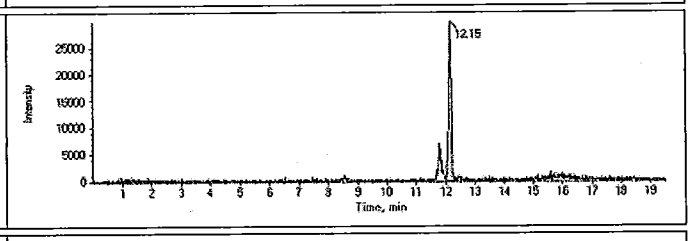
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.004933

Area Ratio: 1.607e-1

Sample Type: (Quality Control)



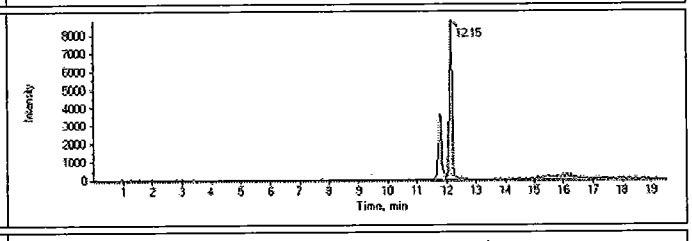
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.005130

Area Ratio: 5.193e-2

Sample Type: (Quality Control)



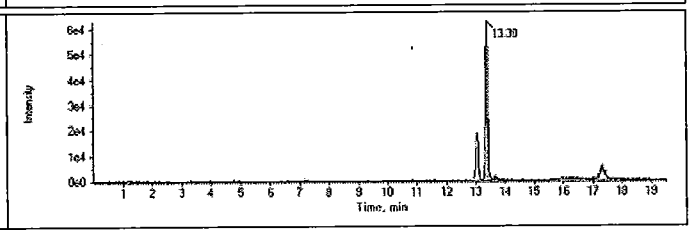
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.012943

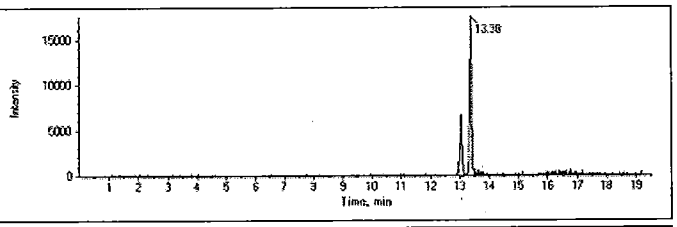
Area Ratio: 2.971e-1

Sample Type: (Quality Control)



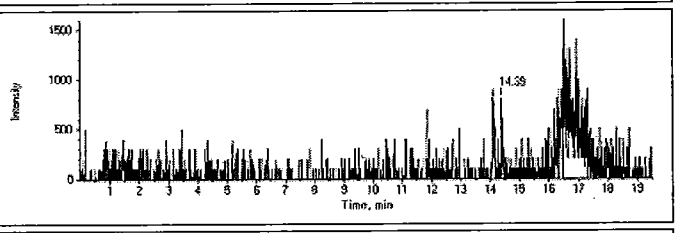
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.38 (13.35) min
Calculated conc: 0.013204
Area Ratio: 7.199e-2
Sample Type: (Quality Control)



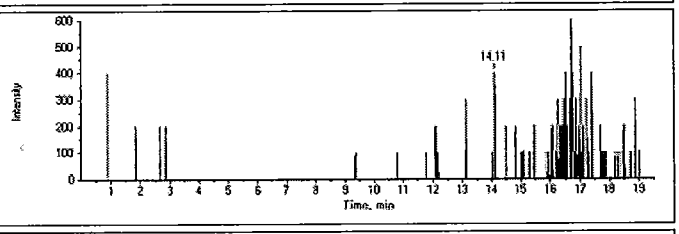
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.000054
Area Ratio: 1.384e-3
Sample Type: (Quality Control)



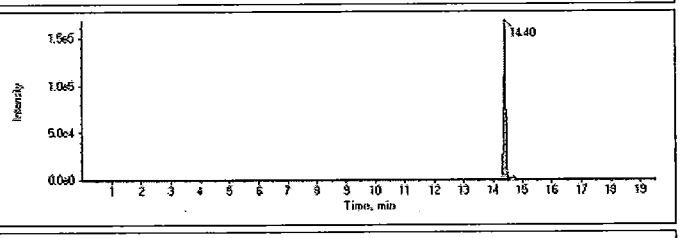
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.11 (14.37) min
Calculated conc: 0.000065
Area Ratio: 2.680e-4
Sample Type: (Quality Control)



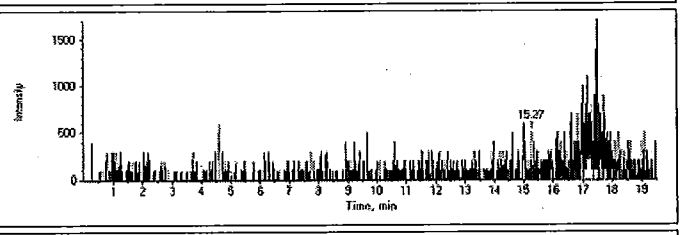
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min
Calculated conc: 83.676007
Area Ratio: 6.950e-1
Sample Type: (Quality Control)



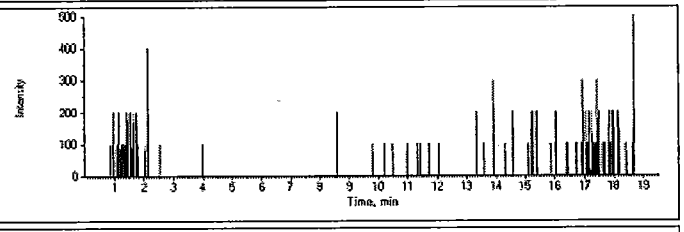
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.27 (15.23) min
Calculated conc: 0.000028
Area Ratio: 6.248e-4
Sample Type: (Quality Control)



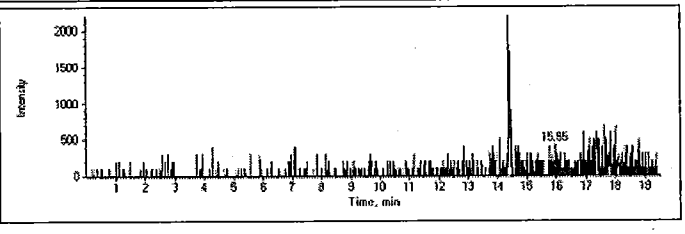
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.95 (15.97) min
Calculated conc: 0.000004
Area Ratio: 8.932e-5
Sample Type: (Quality Control)



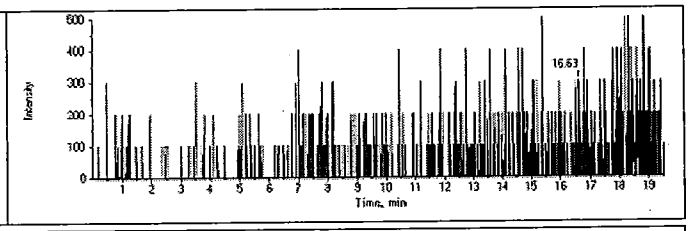
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.000012

Area Ratio: 3.572e-4

Sample Type: (Quality Control)



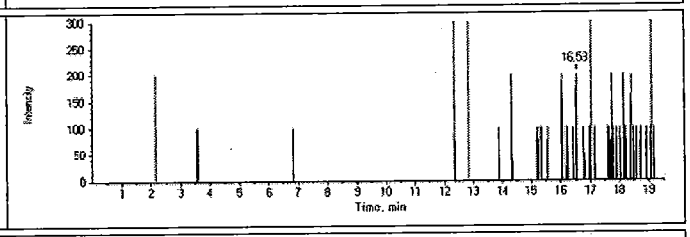
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.53 (16.60) min

Calculated conc: 0.000035

Area Ratio: 1.786e-4

Sample Type: (Quality Control)



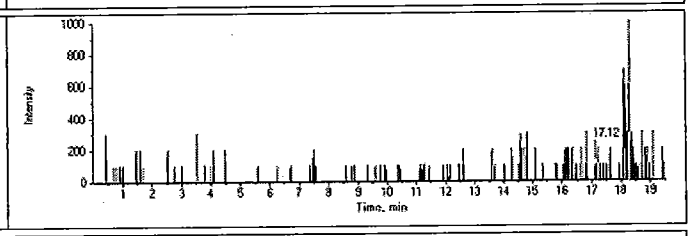
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.12 (17.15) min

Calculated conc: 0.000031

Area Ratio: 8.932e-5

Sample Type: (Quality Control)



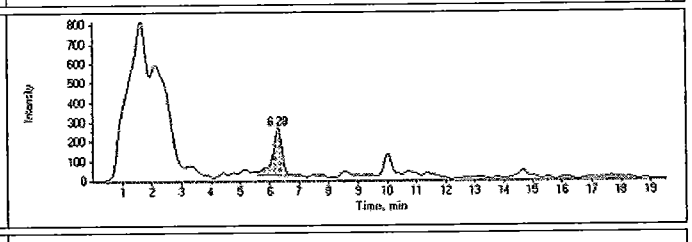
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.28 (6.27) min

Calculated conc: 0.000334

Area Ratio: 4.067e-3

Sample Type: (Quality Control)



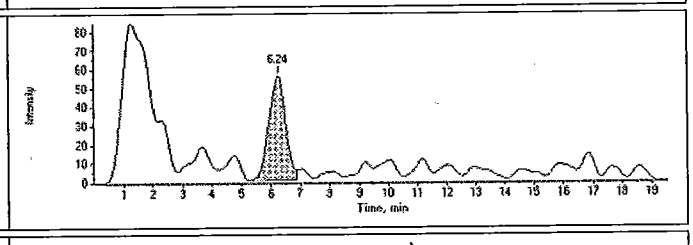
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.000509

Area Ratio: 1.626e-3

Sample Type: (Quality Control)



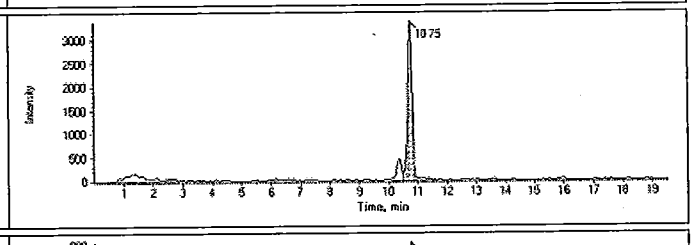
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.001976

Area Ratio: 2.578e-2

Sample Type: (Quality Control)



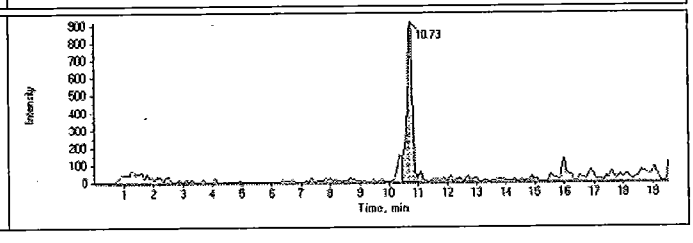
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.002133

Area Ratio: 8.817e-3

Sample Type: (Quality Control)



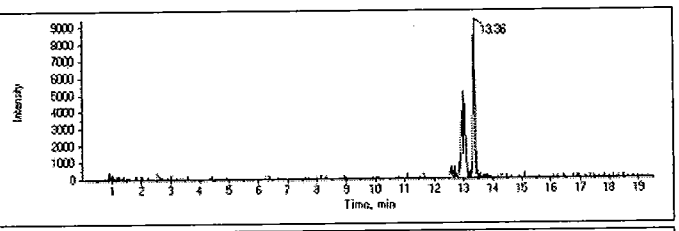
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.002847

Area Ratio: 3.125e-2

Sample Type: (Quality Control)



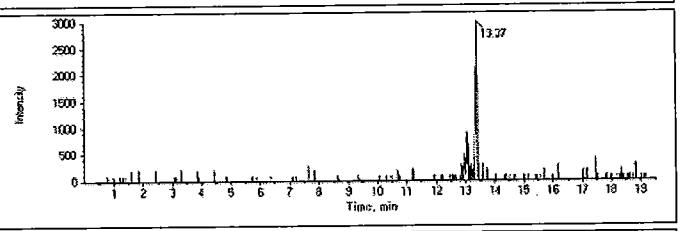
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.002689

Area Ratio: 8.775e-3

Sample Type: (Quality Control)



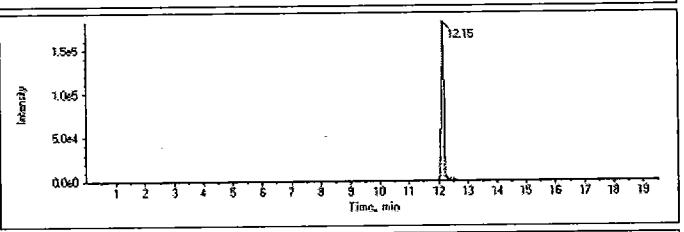
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 76.235052

Area Ratio: N/A

Sample Type: (Quality Control)



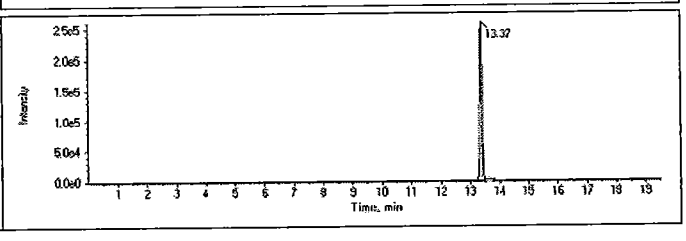
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 85.602305

Area Ratio: N/A

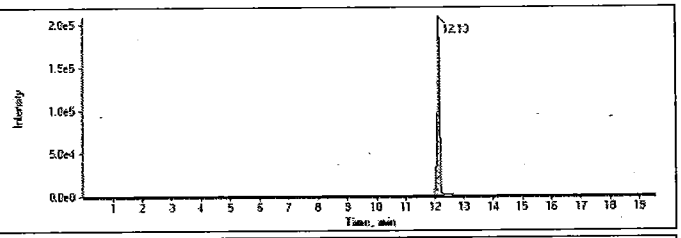
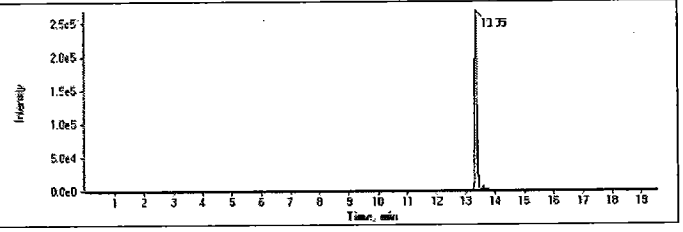
Sample Type: (Quality Control)



Sample Name	201312140143A	**Injection Vial**	24
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 2:44:42 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1175255.850000	12.13	100.00000	-
IS-13C-PFOS	1407810.350000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.606e+04	8.51	0.00000	0.002151
Surr-13c-PFHxA	1.165e+06	8.54	100.00000	101.808560
PFHpA	5.281e+04	10.60	0.00000	0.001266
PFHpA 2	1.136e+04	10.61	0.00000	0.001059
PFOA	1.850e+05	12.13	0.00000	0.004833
PFOA 2	6.044e+04	12.13	0.00000	0.005080
PFNA	3.144e+05	13.36	0.00000	0.011655
PFNA 2	7.273e+04	13.36	0.00000	0.011351
PFDA	1.079e+03	14.38	0.00000	0.000036
PFDA 2	1.471e+02	14.28	0.00000	0.000031
Surr-13c-PFDA	8.576e+05	14.38	100.00000	87.860001
PFUnA	4.905e+02	15.21	0.00000	0.000019
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	9.810e+01	15.96	0.00000	0.000004
PFTrDA	5.394e+02	16.59	0.00000	0.000016
PFTrDA 2	9.805e+01	16.62	0.00000	0.000016
PFTA	1.472e+02	17.09	0.00000	0.000044
PFBS	8.860e+03	6.23	0.00000	0.000517
PFBS 2	2.513e+03	6.23	0.00000	0.000559
PFHxS	3.621e+04	10.73	0.00000	0.001972
PFHxS 2	1.078e+04	10.73	0.00000	0.001853
PFOS	3.546e+04	13.35	0.00000	0.002295
PFOS 2	1.089e+04	13.35	0.00000	0.002370
13C-PFOA	1.175e+06	12.13	100.00000	81.578031
13C-PFOS	1.408e+06	13.35	100.00000	91.352088

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

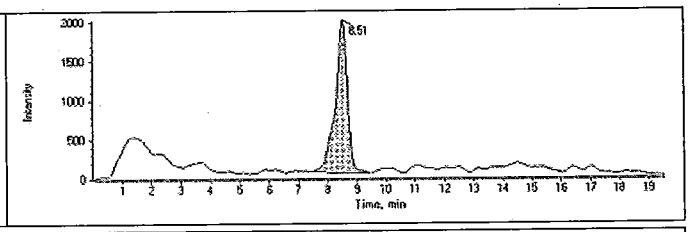
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.51 (8.55) min

Calculated conc: 0.002151

Area Ratio: 4.770e-2

Sample Type: (Quality Control)



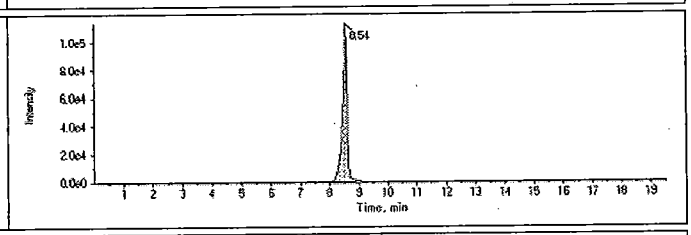
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 101.808560

Area Ratio: 9.916e-1

Sample Type: (Quality Control)



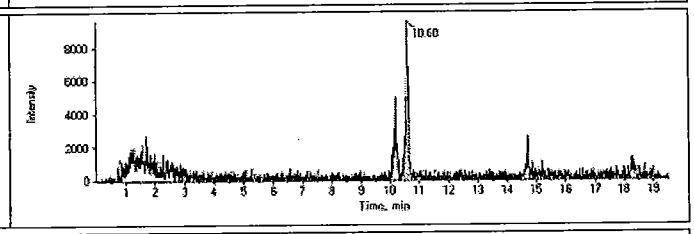
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.001266

Area Ratio: 4.494e-2

Sample Type: (Quality Control)



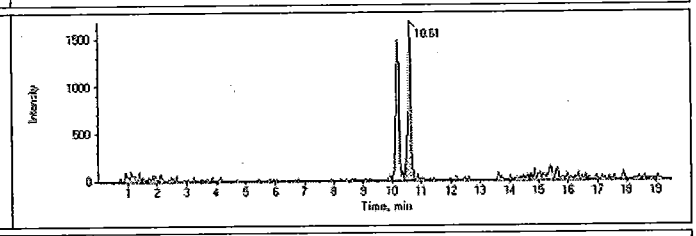
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.001059

Area Ratio: 9.663e-3

Sample Type: (Quality Control)



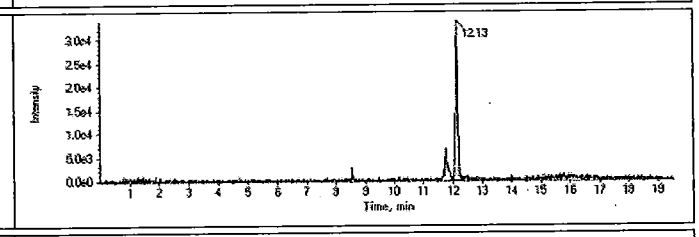
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.004833

Area Ratio: 1.574e-1

Sample Type: (Quality Control)



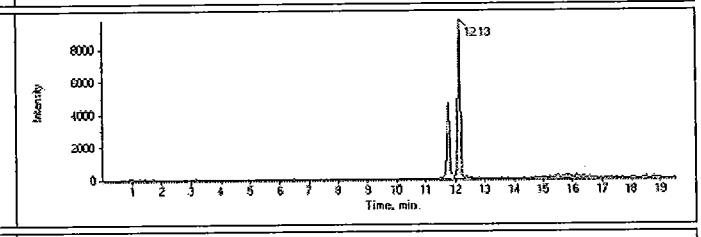
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.005080

Area Ratio: 5.143e-2

Sample Type: (Quality Control)



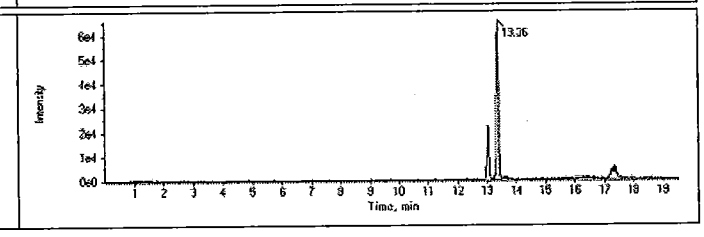
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.011655

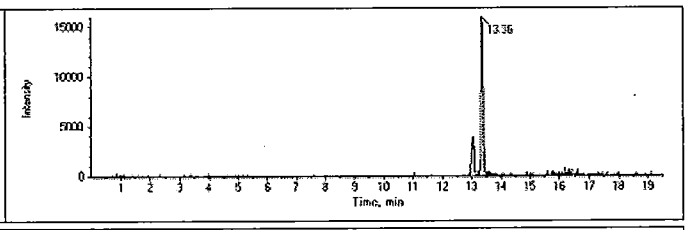
Area Ratio: 2.675e-1

Sample Type: (Quality Control)



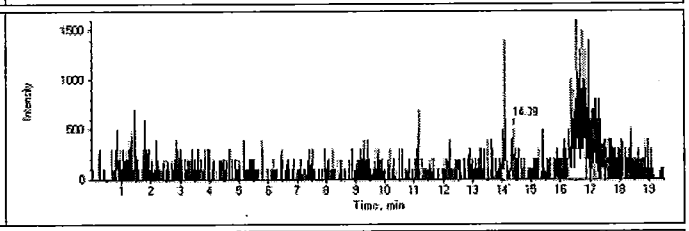
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min
Calculated conc: 0.011351
Area Ratio: 6.188e-2
Sample Type: (Quality Control)



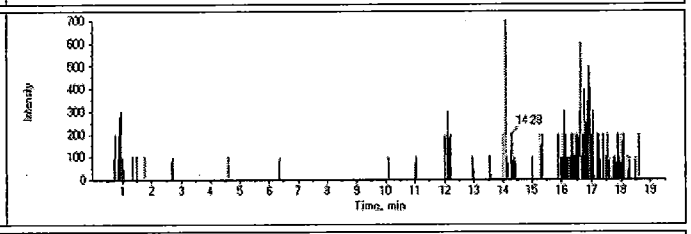
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.000036
Area Ratio: 9.180e-4
Sample Type: (Quality Control)



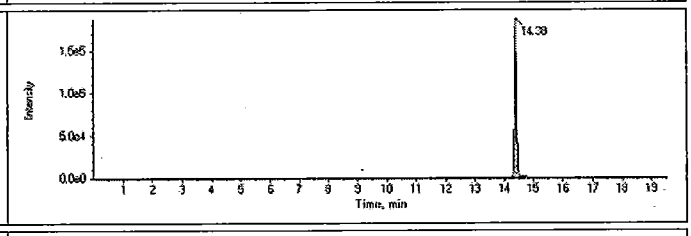
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.28 (14.37) min
Calculated conc: 0.000031
Area Ratio: 1.252e-4
Sample Type: (Quality Control)



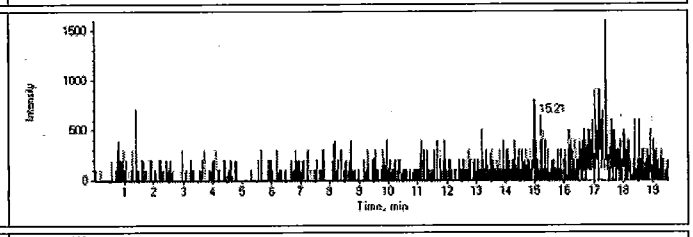
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 87.860001
Area Ratio: 7.297e-1
Sample Type: (Quality Control)



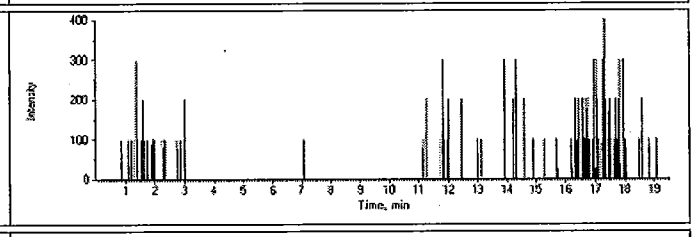
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min
Calculated conc: 0.000019
Area Ratio: 4.174e-4
Sample Type: (Quality Control)



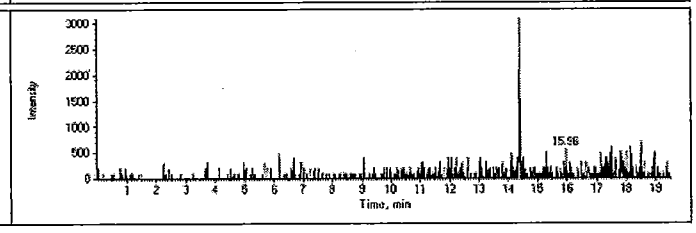
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000004
Area Ratio: 8.347e-5
Sample Type: (Quality Control)



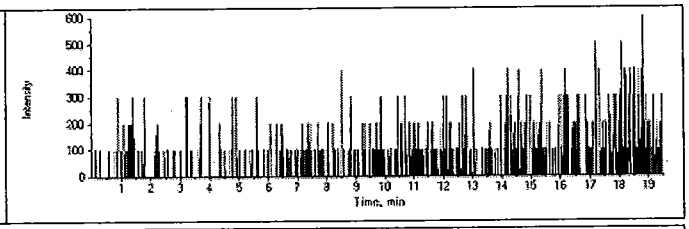
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.59 (16.60) min

Calculated conc: 0.000016

Area Ratio: 4.589e-4

Sample Type: (Quality Control)



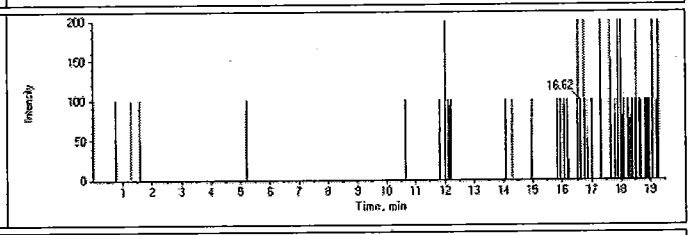
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.000016

Area Ratio: 8.343e-5

Sample Type: (Quality Control)



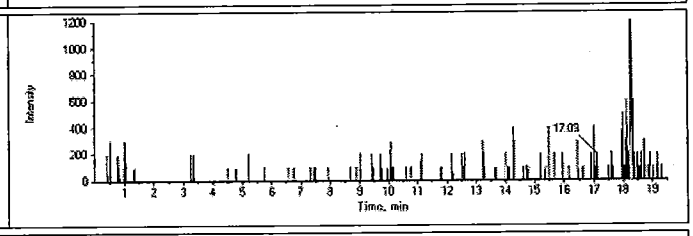
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.09 (17.15) min

Calculated conc: 0.000044

Area Ratio: 1.252e-4

Sample Type: (Quality Control)



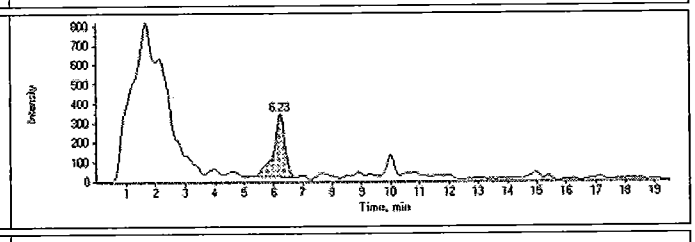
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.23 (6.27) min

Calculated conc: 0.000517

Area Ratio: 6.294e-3

Sample Type: (Quality Control)



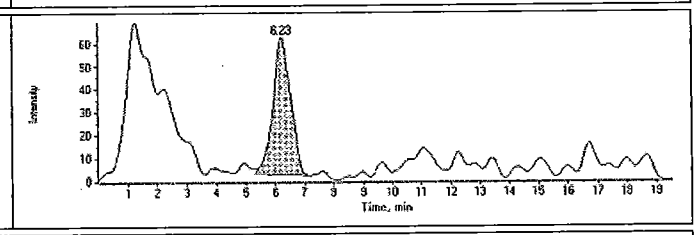
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min

Calculated conc: 0.000559

Area Ratio: 1.785e-3

Sample Type: (Quality Control)



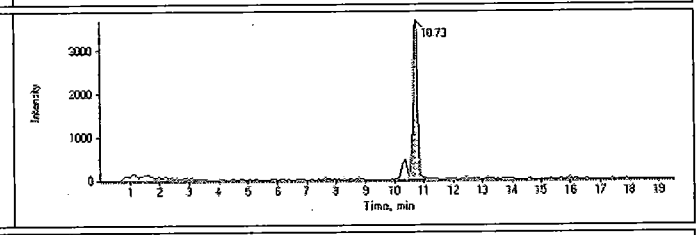
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.001972

Area Ratio: 2.572e-2

Sample Type: (Quality Control)



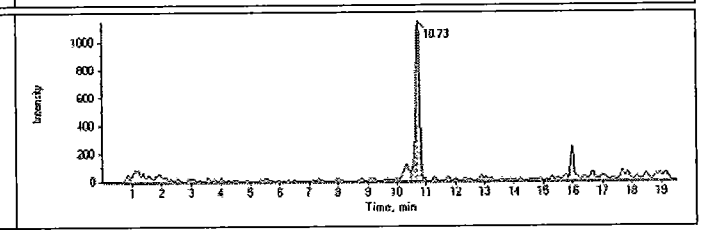
PFHxS 2 (398.9 / 99.0)

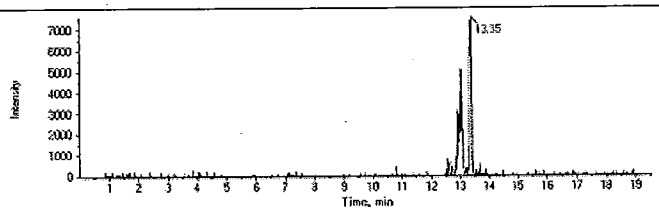
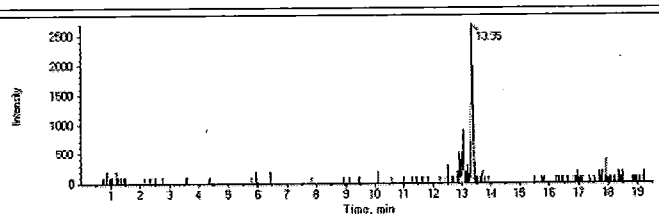
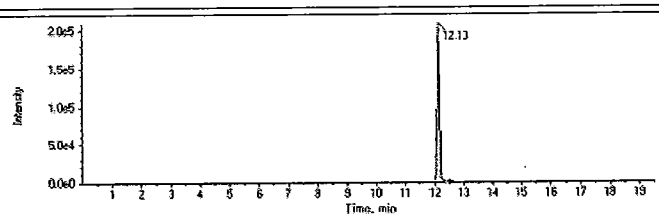
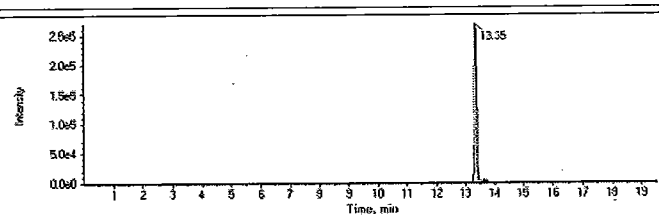
RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.001853

Area Ratio: 7.660e-3

Sample Type: (Quality Control)

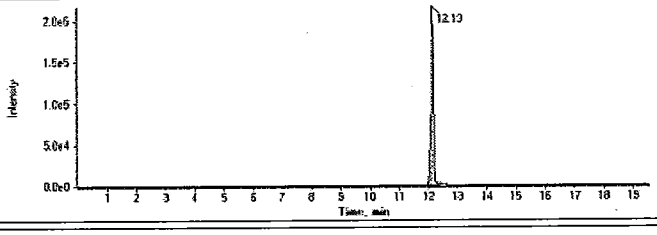
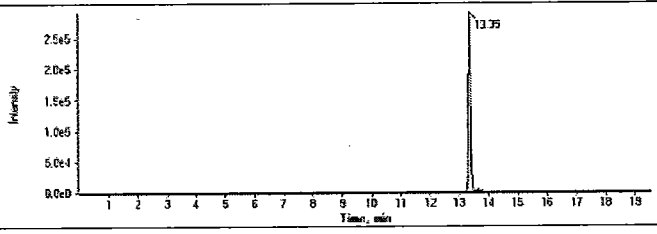


PFOS (499.0 / 79.9) RT (Exp. RT): 13.35 (13.34) min Calculated conc: 0.002295 Area Ratio: 2.519e-2 Sample Type: (Quality Control)	
PFOS 2 (499.0 / 99.0) RT (Exp. RT): 13.35 (13.34) min Calculated conc: 0.002370 Area Ratio: 7.734e-3 Sample Type: (Quality Control)	
13C-PFOA (417.0 / 372.0) RT (Exp. RT): 12.13 (12.12) min Calculated conc: 81.578031 Area Ratio: N/A Sample Type: (Quality Control)	
13C-PFOS (503.0 / 80.0) RT (Exp. RT): 13.35 (13.36) min Calculated conc: 91.352088 Area Ratio: N/A Sample Type: (Quality Control)	

Sample Name	CCCM	**Injection Vial**	5
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 3:04:51 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1273859.600000	12.13	100.00000	-
IS-13C-PFOS	1493859.450000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.512e+05	8.52	0.02000	0.019509
Surr-13c-PFHxA	1.264e+06	8.54	100.00000	101.919752
PFHpA	8.787e+05	10.60	0.02000	0.019429
PFHpA 2	2.250e+05	10.60	0.02000	0.019366
PFOA	8.316e+05	12.14	0.02000	0.020043
PFOA 2	2.547e+05	12.13	0.02000	0.019753
PFNA	6.250e+05	13.36	0.02000	0.021376
PFNA 2	1.446e+05	13.37	0.02000	0.020817
PFDA	6.509e+05	14.39	0.02000	0.020031
PFDA 2	1.021e+05	14.38	0.02000	0.019553
Surr-13c-PFDA	1.068e+06	14.38	100.00000	100.950090
PFUnA	6.146e+05	15.25	0.02000	0.021729
PFUnA 2	8.837e+04	15.24	0.02000	0.020051
PFDoA	5.515e+05	15.98	0.02000	0.021018
PFTrDA	7.231e+05	16.62	0.02000	0.019355
PFTrDA 2	1.297e+05	16.61	0.02000	0.019973
PFTA	7.165e+04	17.17	0.02000	0.019797
PFBS	3.058e+05	6.25	0.01770	0.016830
PFBS 2	8.273e+04	6.24	0.01770	0.017332
PFHxS	3.523e+05	10.73	0.01900	0.018082
PFHxS 2	1.138e+05	10.73	0.01900	0.018430
PFOS	3.182e+05	13.36	0.01920	0.019406
PFOS 2	9.045e+04	13.35	0.01920	0.018552
13C-PFOA	1.274e+06	12.13	100.00000	88.422412
13C-PFOS	1.494e+06	13.35	100.00000	96.935770

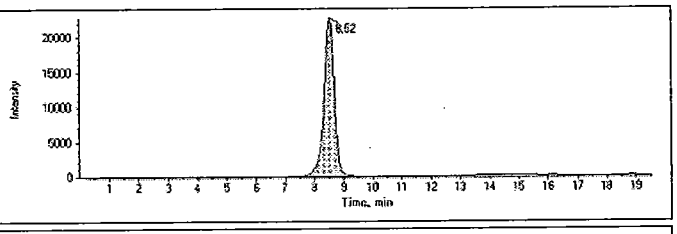
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.019509

Area Ratio: 4.327e-1
Sample Type: (Quality Control)

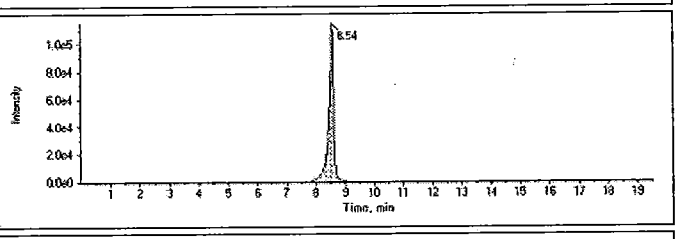


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 101.919752

Area Ratio: 9.926e-1
Sample Type: (Quality Control)

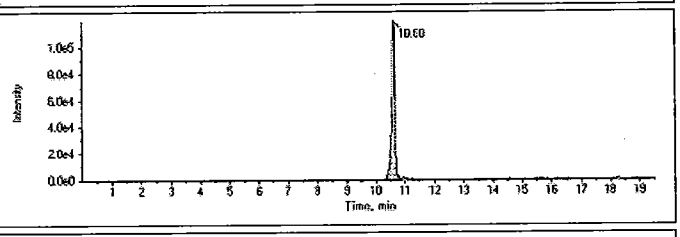


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.019429

Area Ratio: 6.898e-1
Sample Type: (Quality Control)

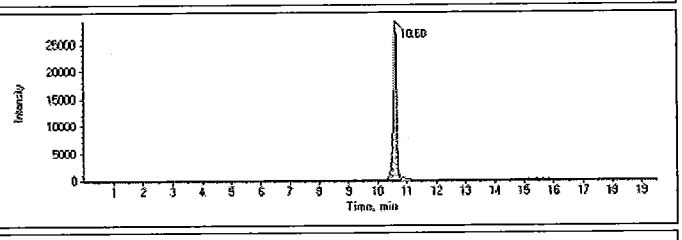


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.019366

Area Ratio: 1.767e-1
Sample Type: (Quality Control)

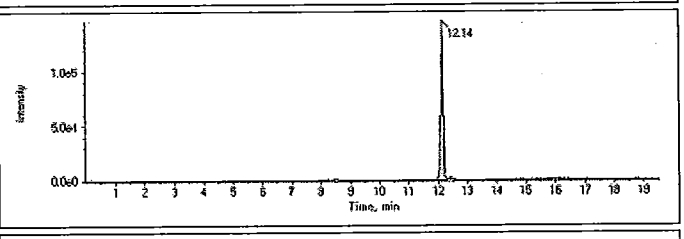


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.020043

Area Ratio: 6.529e-1
Sample Type: (Quality Control)

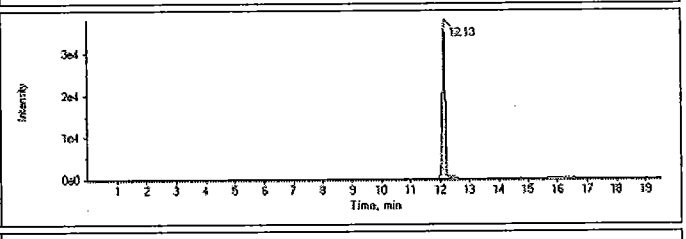


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.019753

Area Ratio: 2.000e-1
Sample Type: (Quality Control)

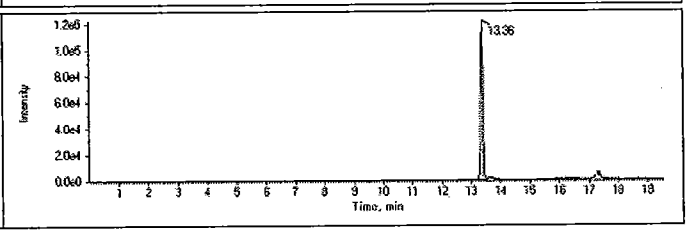


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.021376

Area Ratio: 4.906e-1
Sample Type: (Quality Control)

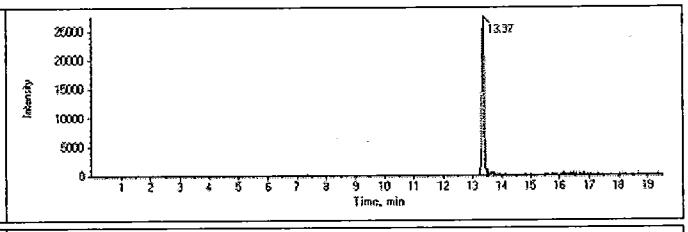


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.020817

Area Ratio: 1.135e-1
Sample Type: (Quality Control)

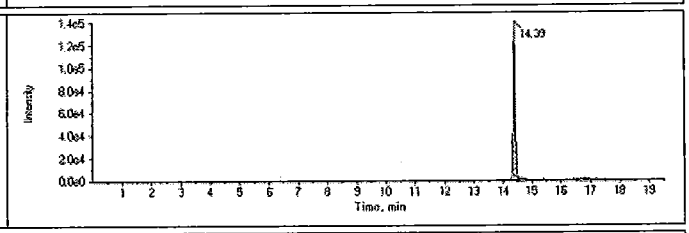


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.020031

Area Ratio: 5.110e-1
Sample Type: (Quality Control)

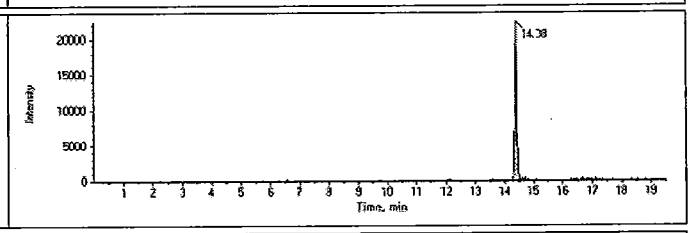


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.019553

Area Ratio: 8.011e-2
Sample Type: (Quality Control)

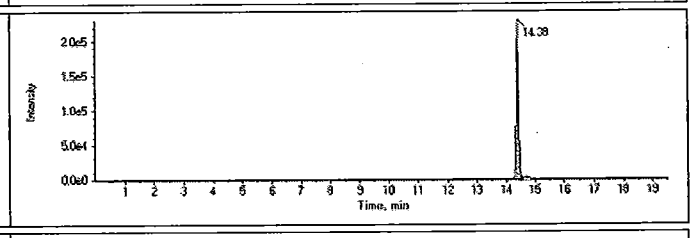


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 100.950090

Area Ratio: 8.385e-1
Sample Type: (Quality Control)

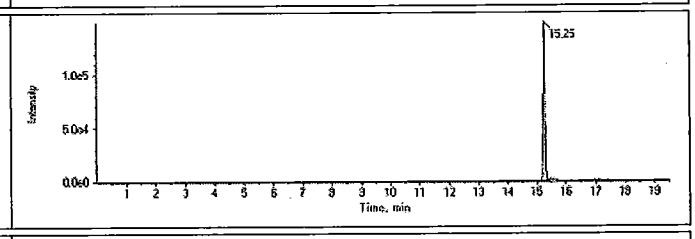


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.021729

Area Ratio: 4.825e-1
Sample Type: (Quality Control)

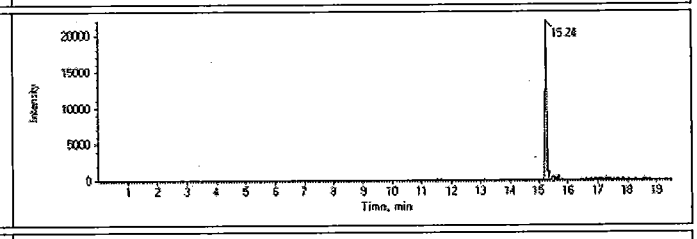


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.020051

Area Ratio: 6.937e-2
Sample Type: (Quality Control)

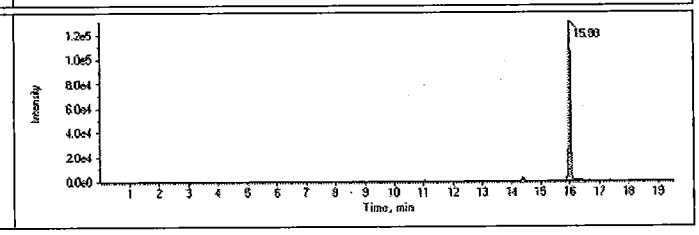


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.021018

Area Ratio: 4.329e-1
Sample Type: (Quality Control)



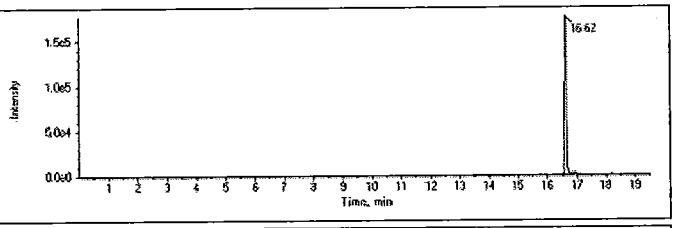
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.019355

Area Ratio: 5.677e-1

Sample Type: (Quality Control)



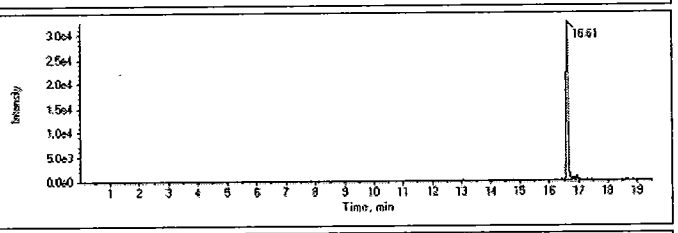
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.61 (16.60) min

Calculated conc: 0.019973

Area Ratio: 1.018e-1

Sample Type: (Quality Control)



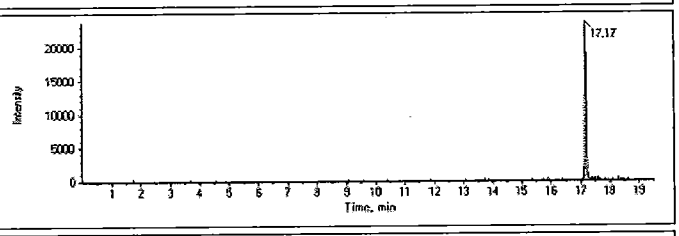
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.17 (17.15) min

Calculated conc: 0.019797

Area Ratio: 5.625e-2

Sample Type: (Quality Control)



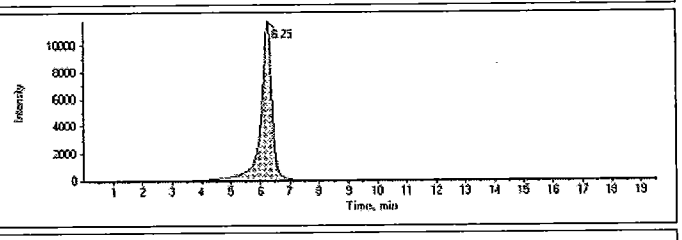
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.016830

Area Ratio: 2.047e-1

Sample Type: (Quality Control)



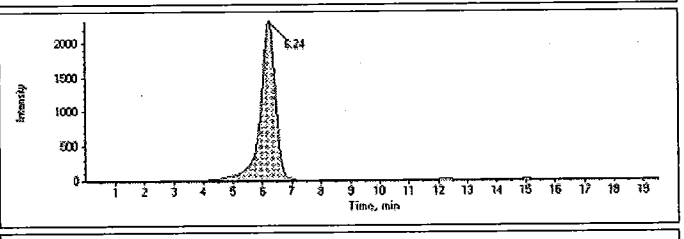
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.017332

Area Ratio: 5.538e-2

Sample Type: (Quality Control)



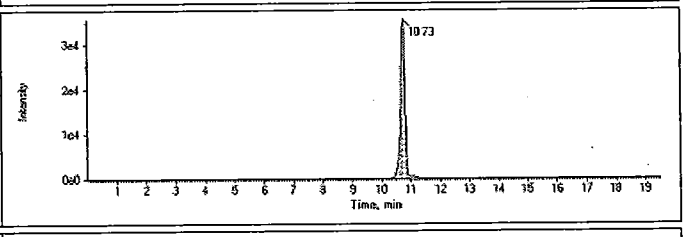
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.018082

Area Ratio: 2.358e-1

Sample Type: (Quality Control)



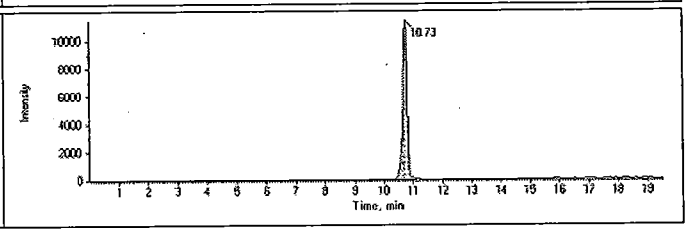
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.018430

Area Ratio: 7.619e-2

Sample Type: (Quality Control)

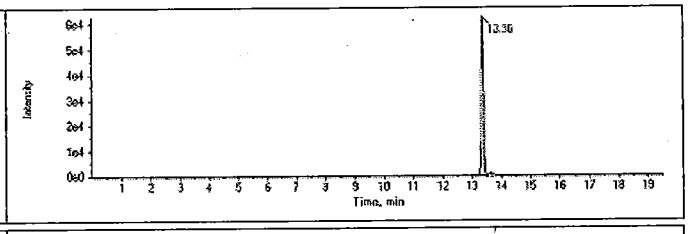


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.019406

Area Ratio: 2.130e-1
Sample Type: (Quality Control)

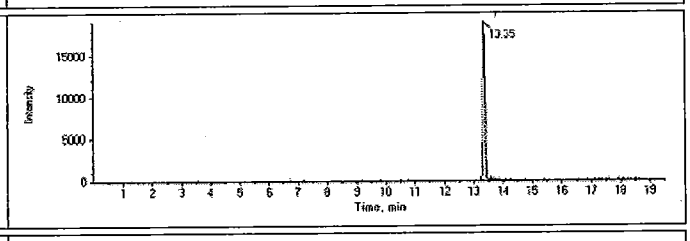


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.018552

Area Ratio: 6.055e-2
Sample Type: (Quality Control)

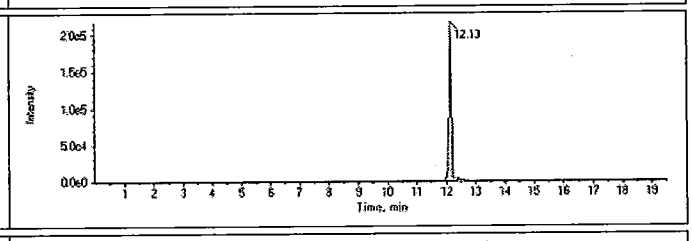


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 88.422412

Area Ratio: N/A
Sample Type: (Quality Control)

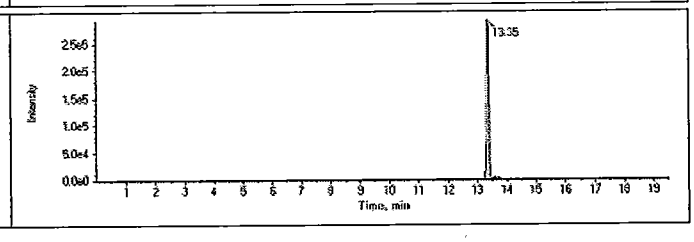


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 96.935770

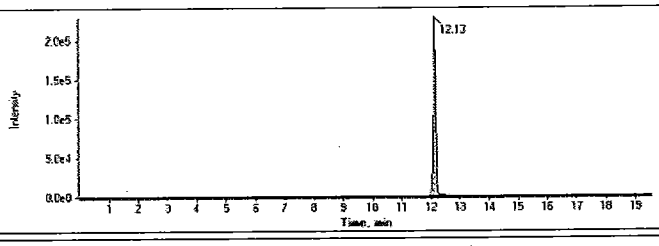
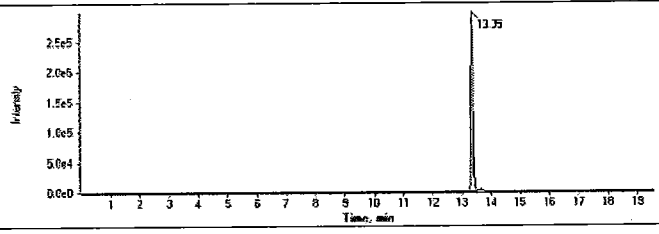
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	201312140144A	**Injection Vial**	25
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 3:25:01 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1276519.000000	12.13	100.00000	-
IS-13C-PFOS	1399864.500000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.019e+05	8.51	0.00000	0.003600
Surr-13c-PFHxA	1.274e+06	8.53	100.00000	102.467717
PFHpA	1.158e+05	10.60	0.00000	0.002555
PFHpA 2	2.858e+04	10.60	0.00000	0.002455
PFOA	4.459e+05	12.14	0.00000	0.010723
PFOA 2	1.341e+05	12.13	0.00000	0.010376
PFNA	1.480e+06	13.36	0.00000	0.050497
PFNA 2	3.400e+05	13.36	0.00000	0.048850
PFDA	4.315e+03	14.39	0.00000	0.000133
PFDA 2	6.867e+02	14.38	0.00000	0.000131
Surr-13c-PFDA	9.823e+05	14.38	100.00000	92.646154
PFUnA	1.079e+03	15.24	0.00000	0.000038
PFUnA 2	1.472e+02	15.24	0.00000	0.000033
PFDoA	8.335e+02	15.99	0.00000	0.000032
PFTrDA	4.905e+02	16.62	0.00000	0.000013
PFTrDA 2	9.805e+01	16.65	0.00000	0.000015
PFTA	2.453e+02	17.16	0.00000	0.000068
PFBS	9.494e+03	6.25	0.00000	0.000558
PFBS 2	3.411e+03	6.21	0.00000	0.000763
PFHxS	5.781e+04	10.73	0.00000	0.003166
PFHxS 2	2.249e+04	10.72	0.00000	0.003886
PFOS	6.978e+04	13.35	0.00000	0.004541
PFOS 2	2.177e+04	13.35	0.00000	0.004766
13C-PFOA	1.277e+06	12.13	100.00000	88.607009
13C-PFOS	1.400e+06	13.35	100.00000	90.836486

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

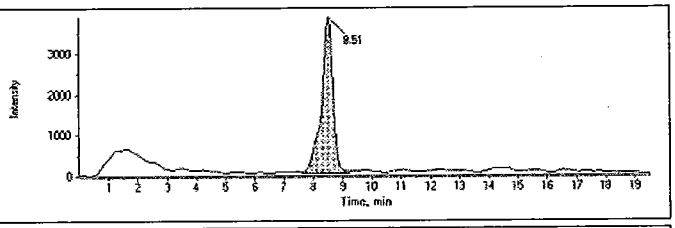
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.51 (8.55) min

Calculated conc: 0.003600

Area Ratio: 7.986e-2

Sample Type: (Quality Control)



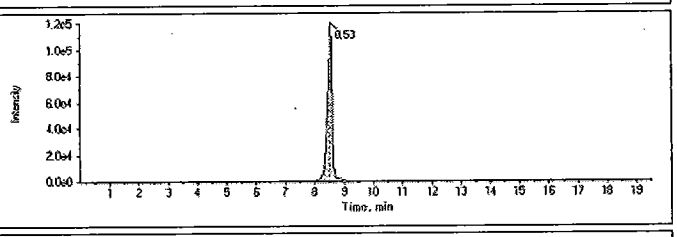
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.53 (8.54) min

Calculated conc: 102.467717

Area Ratio: 9.980e-1

Sample Type: (Quality Control)



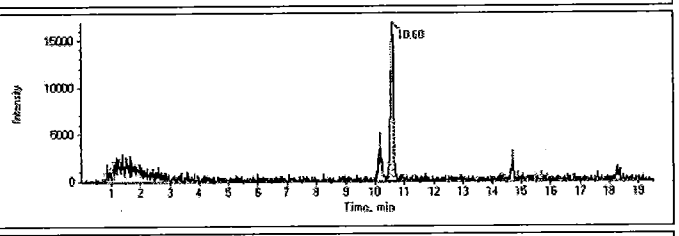
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002555

Area Ratio: 9.069e-2

Sample Type: (Quality Control)



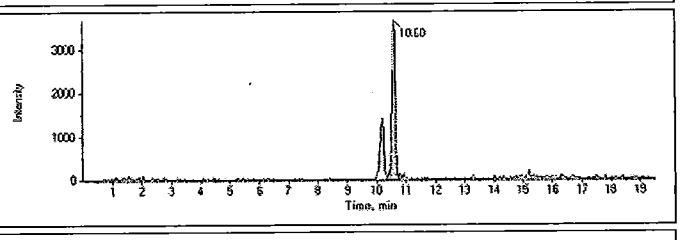
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002455

Area Ratio: 2.239e-2

Sample Type: (Quality Control)



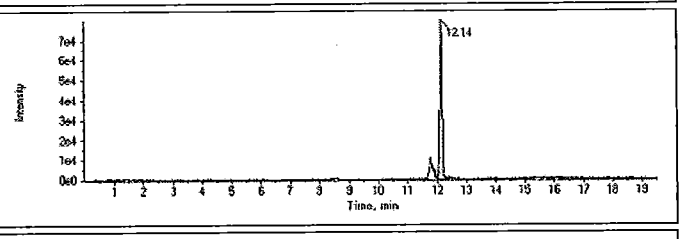
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.010723

Area Ratio: 3.493e-1

Sample Type: (Quality Control)



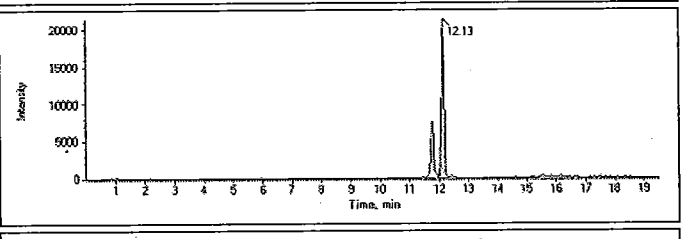
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.010376

Area Ratio: 1.050e-1

Sample Type: (Quality Control)



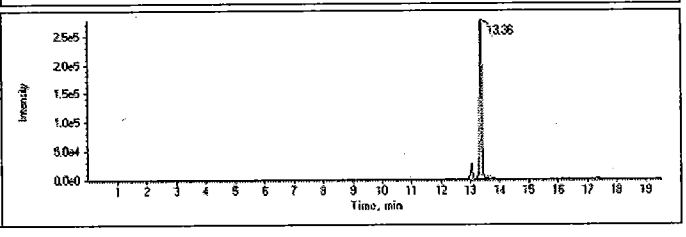
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.050497

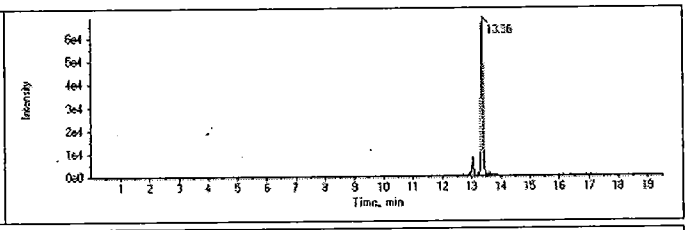
Area Ratio: 1.159e0

Sample Type: (Quality Control)



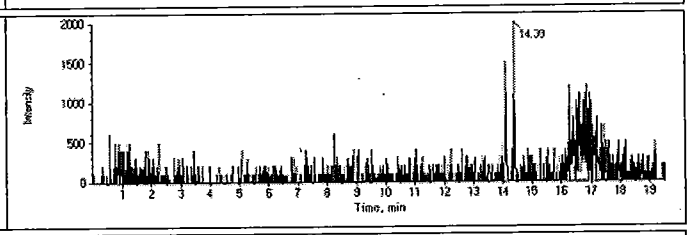
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min
Calculated conc: 0.048850
Area Ratio: 2.663e-1
Sample Type: (Quality Control)



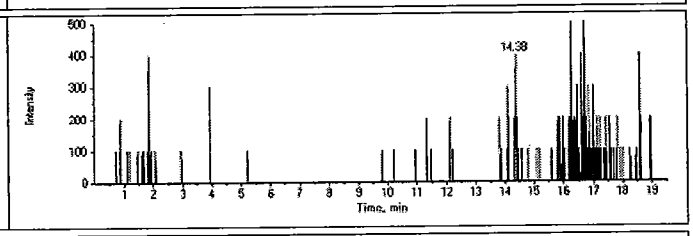
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.000133
Area Ratio: 3.380e-3
Sample Type: (Quality Control)



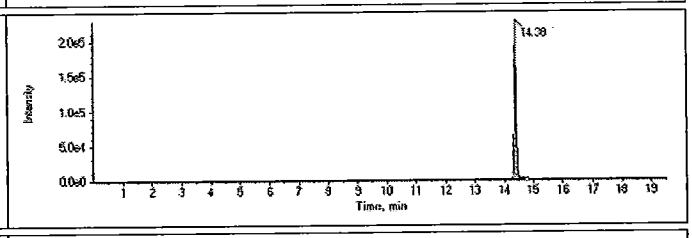
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.000131
Area Ratio: 5.379e-4
Sample Type: (Quality Control)



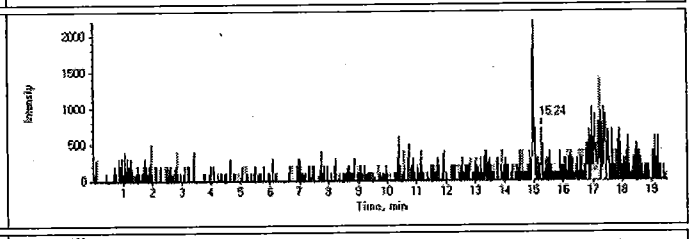
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 92.646154
Area Ratio: 7.695e-1
Sample Type: (Quality Control)



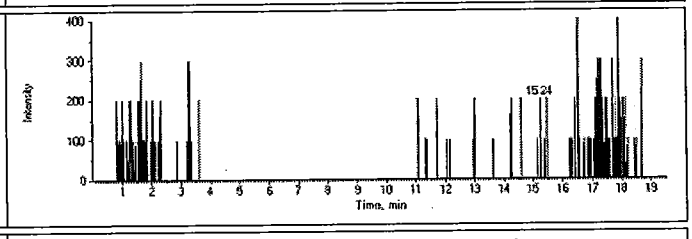
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.000038
Area Ratio: 8.451e-4
Sample Type: (Quality Control)



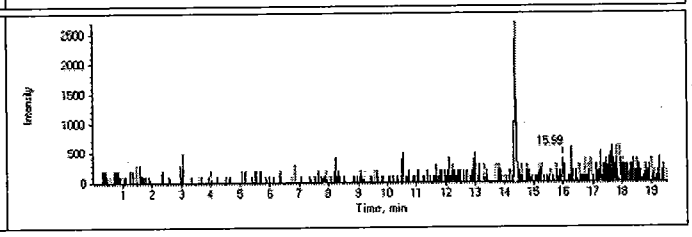
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.000033
Area Ratio: 1.153e-4
Sample Type: (Quality Control)



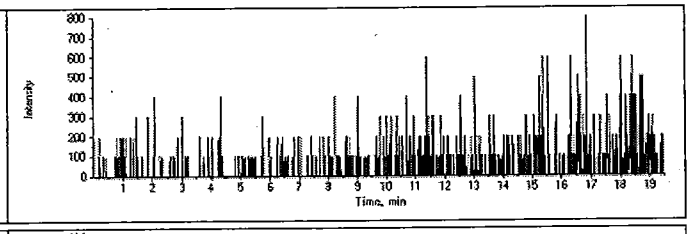
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (15.97) min
Calculated conc: 0.000032
Area Ratio: 6.529e-4
Sample Type: (Quality Control)



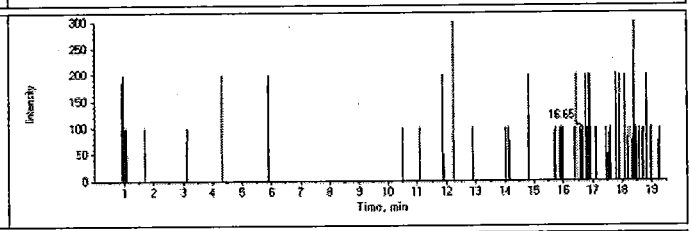
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min
Calculated conc: 0.000013
Area Ratio: 3.842e-4
Sample Type: (Quality Control)



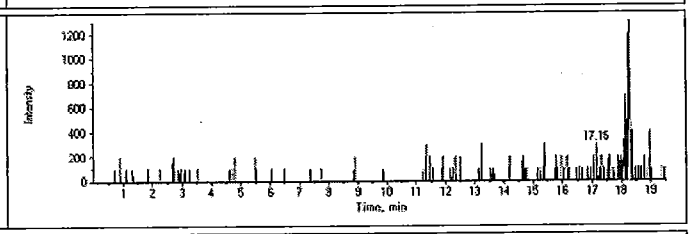
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.65 (16.60) min
Calculated conc: 0.000015
Area Ratio: 7.681e-5
Sample Type: (Quality Control)



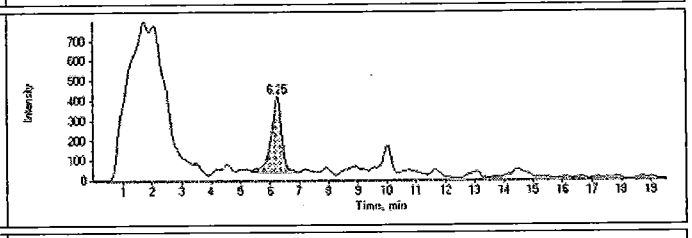
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min
Calculated conc: 0.000068
Area Ratio: 1.921e-4
Sample Type: (Quality Control)



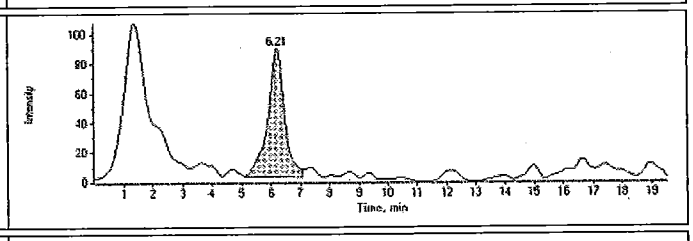
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min
Calculated conc: 0.000558
Area Ratio: 6.782e-3
Sample Type: (Quality Control)



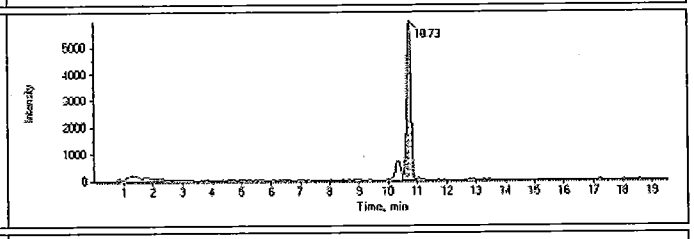
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.21 (6.28) min
Calculated conc: 0.000763
Area Ratio: 2.437e-3
Sample Type: (Quality Control)



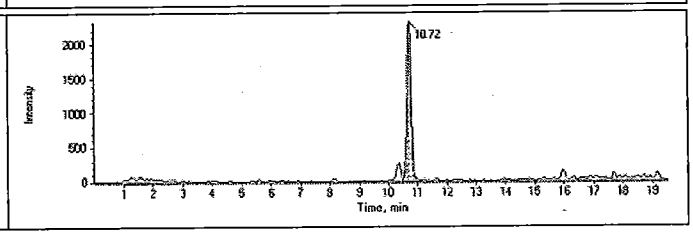
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.003166
Area Ratio: 4.130e-2
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.73) min
Calculated conc: 0.003886
Area Ratio: 1.607e-2
Sample Type: (Quality Control)



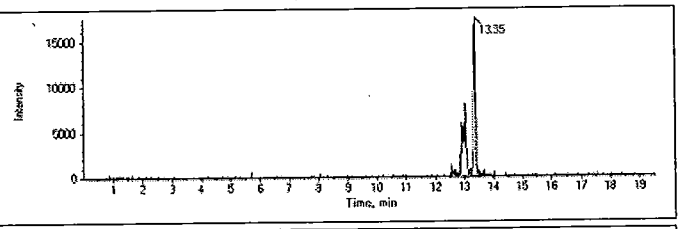
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.004541

Area Ratio: 4.985e-2

Sample Type: (Quality Control)



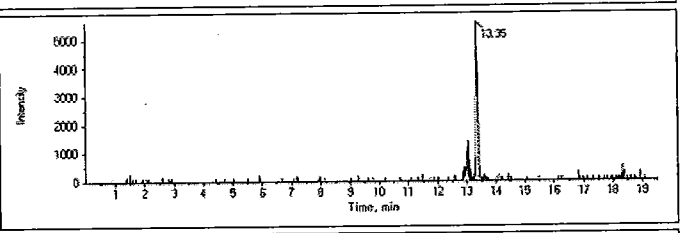
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.004766

Area Ratio: 1.555e-2

Sample Type: (Quality Control)



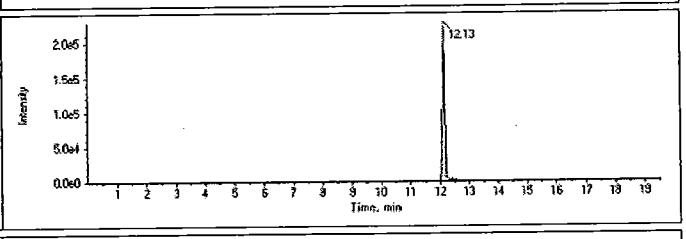
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 88.607009

Area Ratio: N/A

Sample Type: (Quality Control)



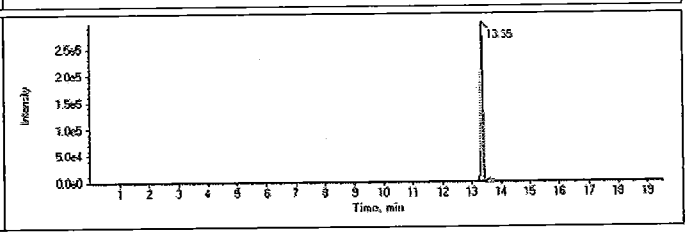
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 90.836486

Area Ratio: N/A

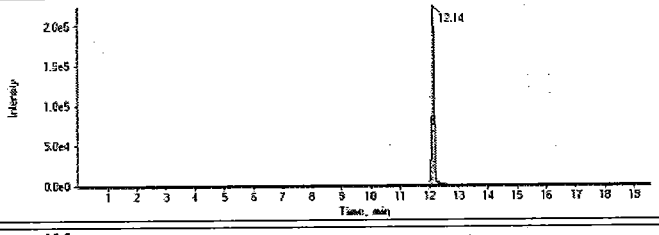
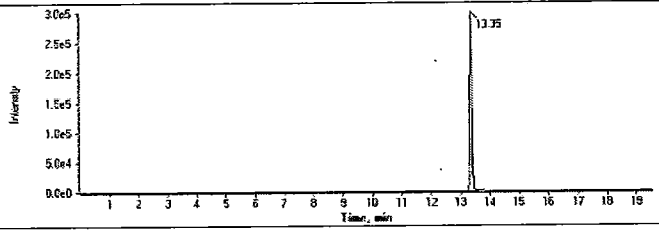
Sample Type: (Quality Control)



Sample Name	201312140145A	**Injection Vial**	26
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 3:45:10 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1258312.600000	12.14	100.00000	-
IS-13C-PFOS	1416377.700000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.007e+05	8.52	0.00000	0.003609
Surr-13c-PFHxA	1.281e+06	8.54	100.00000	104.563200
PFHpA	1.092e+05	10.60	0.00000	0.002444
PFHpA 2	2.773e+04	10.60	0.00000	0.002416
PFOA	3.899e+05	12.14	0.00000	0.009513
PFOA 2	1.289e+05	12.13	0.00000	0.010120
PFNA	1.293e+06	13.37	0.00000	0.044762
PFNA 2	2.984e+05	13.37	0.00000	0.043501
PFDA	2.771e+03	14.38	0.00000	0.000086
PFDA 2	1.962e+02	14.38	0.00000	0.000038
Surr-13c-PFDA	1.032e+06	14.38	100.00000	98.737803
PFUnA	7.356e+02	15.22	0.00000	0.000026
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	2.453e+02	15.96	0.00000	0.000009
PFTrDA	6.374e+02	16.61	0.00000	0.000017
PFTrDA 2	2.942e+02	16.59	0.00000	0.000046
PFTA	9.805e+01	17.19	0.00000	0.000027
PFBS	1.198e+04	6.25	0.00000	0.000696
PFBS 2	2.513e+03	6.25	0.00000	0.000555
PFHxS	5.567e+04	10.73	0.00000	0.003014
PFHxS 2	1.866e+04	10.73	0.00000	0.003187
PFOS	7.160e+04	13.35	0.00000	0.004606
PFOS 2	2.006e+04	13.36	0.00000	0.004339
13C-PFOA	1.258e+06	12.14	100.00000	87.343249
13C-PFOS	1.416e+06	13.35	100.00000	91.908019

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

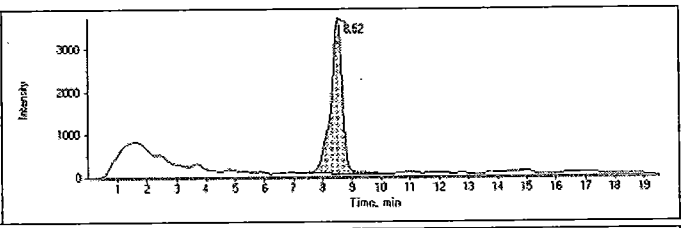
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.003609

Area Ratio: 8.005e-2

Sample Type: (Quality Control)



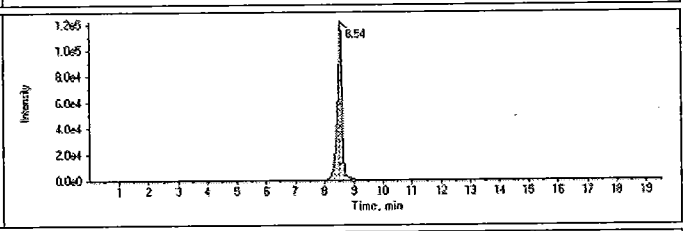
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 104.563200

Area Ratio: 1.018e0

Sample Type: (Quality Control)



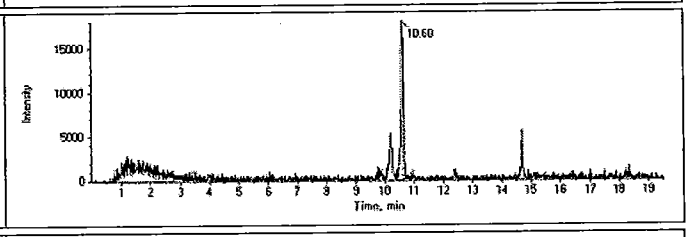
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002444

Area Ratio: 8.678e-2

Sample Type: (Quality Control)



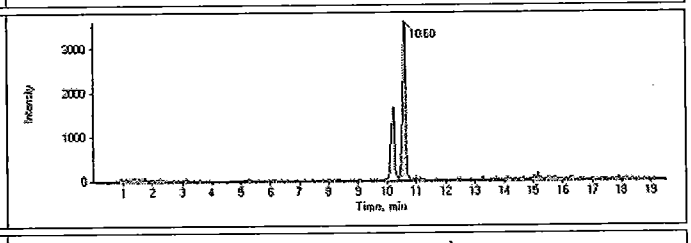
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.002416

Area Ratio: 2.204e-2

Sample Type: (Quality Control)



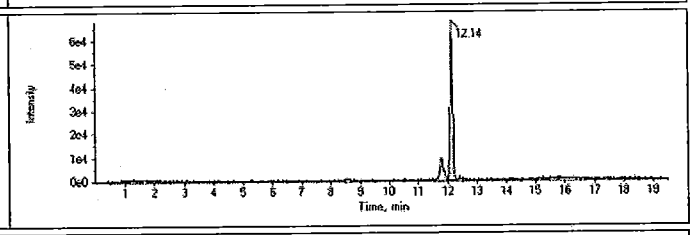
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.009513

Area Ratio: 3.099e-1

Sample Type: (Quality Control)



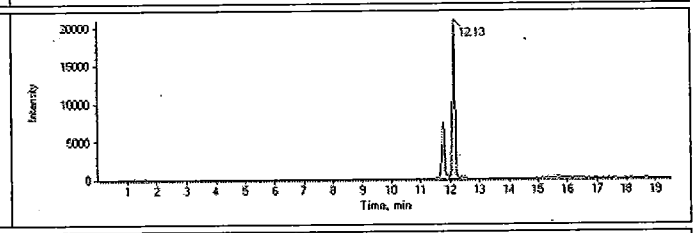
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.010120

Area Ratio: 1.024e-1

Sample Type: (Quality Control)



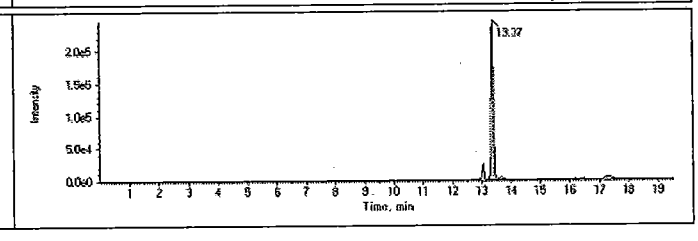
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.044762

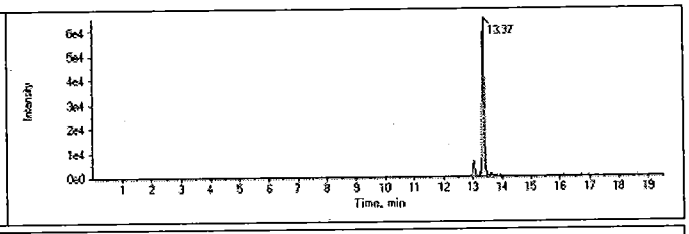
Area Ratio: 1.027e0

Sample Type: (Quality Control)



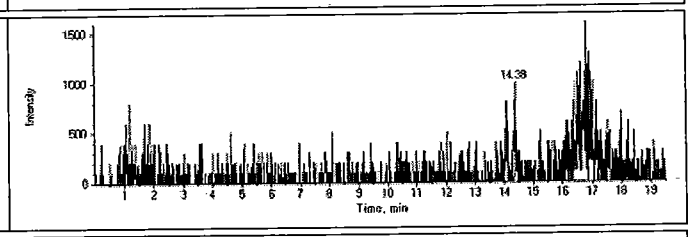
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min
Calculated conc: 0.043501
Area Ratio: 2.372e-1
Sample Type: (Quality Control)



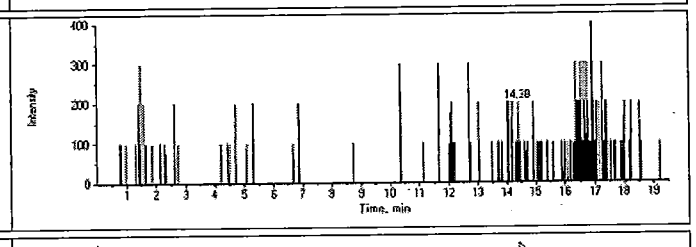
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.000086
Area Ratio: 2.202e-3
Sample Type: (Quality Control)



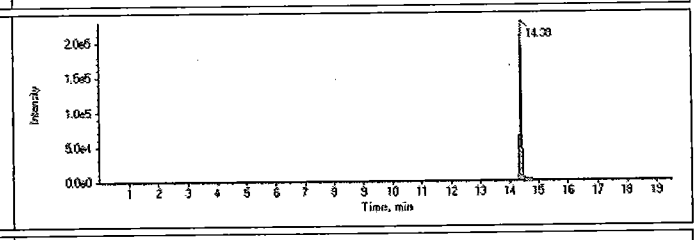
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.000038
Area Ratio: 1.559e-4
Sample Type: (Quality Control)



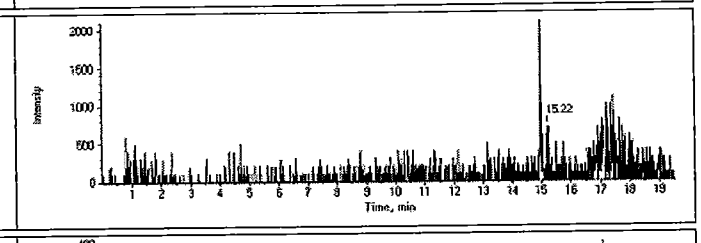
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 98.737803
Area Ratio: 8.201e-1
Sample Type: (Quality Control)



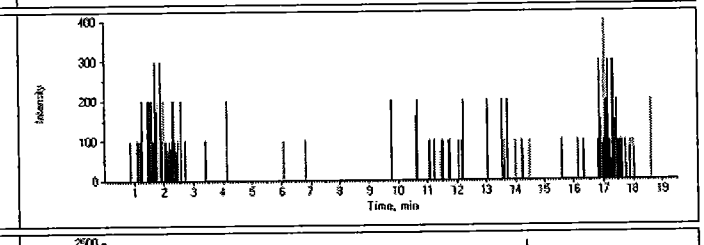
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.22 (15.23) min
Calculated conc: 0.000026
Area Ratio: 5.846e-4
Sample Type: (Quality Control)



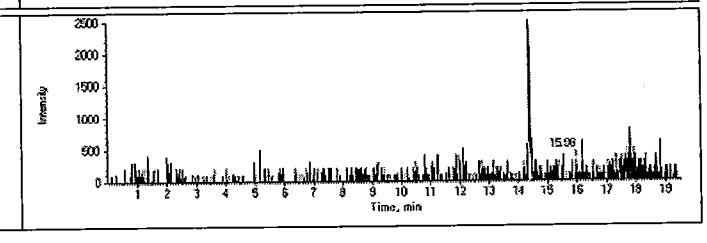
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



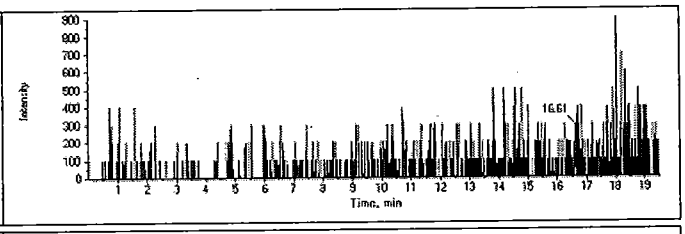
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000009
Area Ratio: 1.949e-4
Sample Type: (Quality Control)



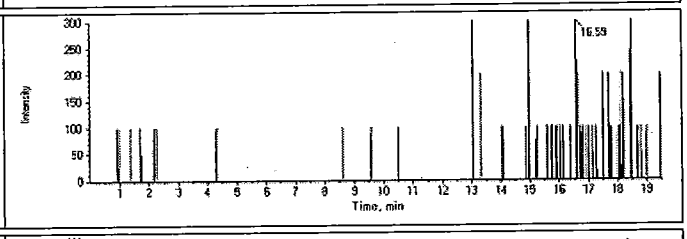
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.61 (16.60) min
Calculated conc: 0.000017
Area Ratio: 5.066e-4
Sample Type: (Quality Control)



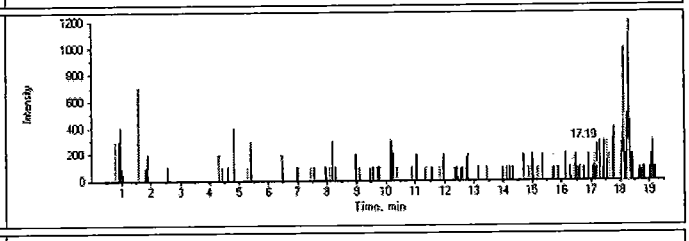
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.59 (16.60) min
Calculated conc: 0.000046
Area Ratio: 2.338e-4
Sample Type: (Quality Control)



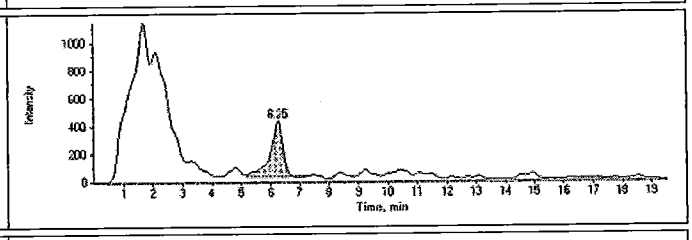
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.19 (17.15) min
Calculated conc: 0.000027
Area Ratio: 7.792e-5
Sample Type: (Quality Control)



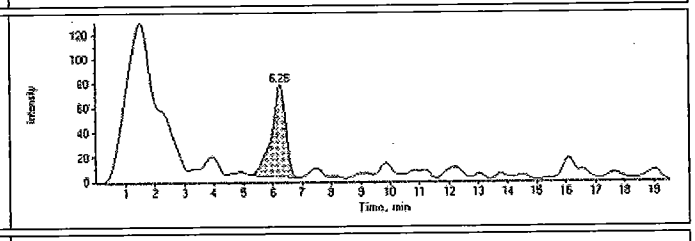
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min
Calculated conc: 0.000696
Area Ratio: 8.460e-3
Sample Type: (Quality Control)



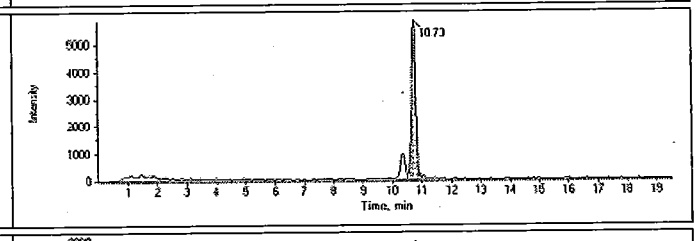
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.25 (6.28) min
Calculated conc: 0.000555
Area Ratio: 1.774e-3
Sample Type: (Quality Control)



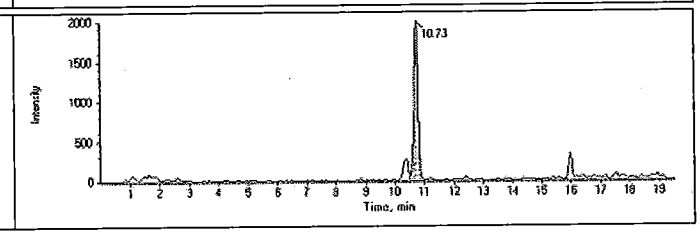
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.003014
Area Ratio: 3.931e-2
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.003187
Area Ratio: 1.318e-2
Sample Type: (Quality Control)



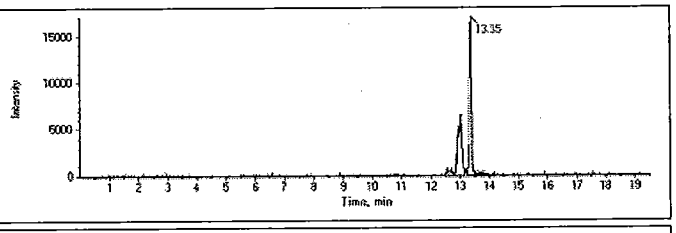
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.004606

Area Ratio: 5.055e-2

Sample Type: (Quality Control)



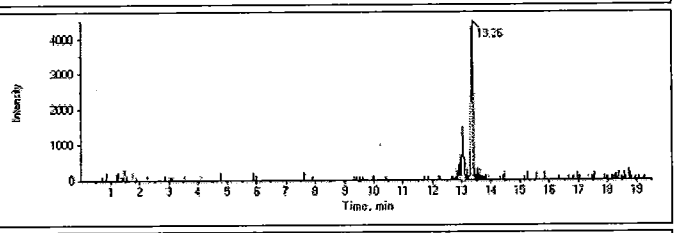
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.004339

Area Ratio: 1.416e-2

Sample Type: (Quality Control)



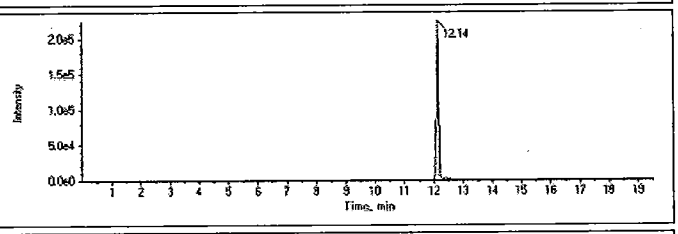
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 87.343249

Area Ratio: N/A

Sample Type: (Quality Control)



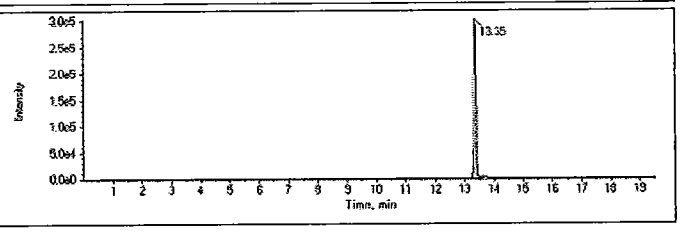
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 91.908019

Area Ratio: N/A

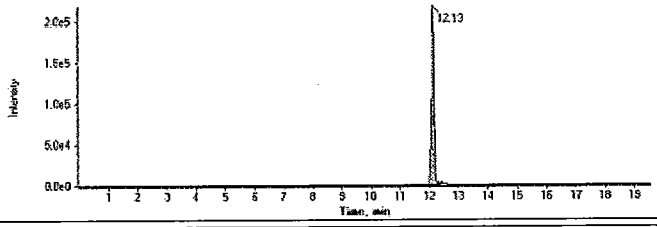
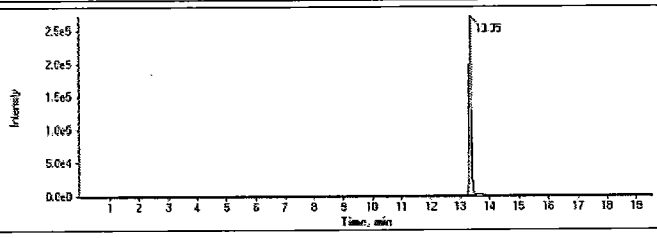
Sample Type: (Quality Control)



Sample Name	201312140146A	**Injection Vial**	27
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 4:05:20 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

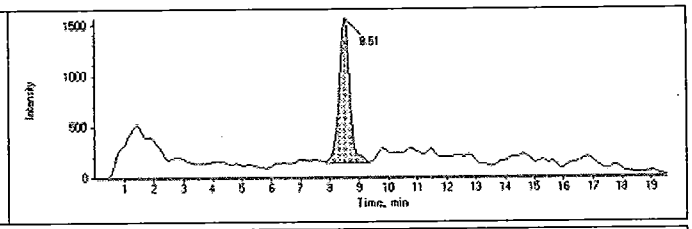
Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1293194.050000	12.13	100.00000	-
IS-13C-PFOS	1398944.100000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.538e+04	8.51	0.00000	0.001234
Surr-13c-PFHxA	1.403e+06	8.54	100.00000	111.424879
PFHpA	1.942e+04	10.60	0.00000	0.000423
PFHpA 2	5.003e+03	10.59	0.00000	0.000424
PFOA	5.884e+04	12.13	0.00000	0.001397
PFOA 2	2.027e+04	12.13	0.00000	0.001548
PFNA	2.026e+04	13.36	0.00000	0.000682
PFNA 2	5.248e+03	13.36	0.00000	0.000744
PFDA	2.647e+03	14.37	0.00000	0.000080
PFDA 2	3.922e+02	14.38	0.00000	0.000074
Surr-13c-PFDA	1.001e+06	14.38	100.00000	93.203102
PFUnA	9.806e+02	15.21	0.00000	0.000034
PFUnA 2	1.962e+02	15.22	0.00000	0.000044
PFDoA	3.922e+02	15.97	0.00000	0.000015
PFTrDA	2.453e+02	16.60	0.00000	0.000006
PFTrDA 2	1.962e+02	16.59	0.00000	0.000030
PFTA	2.943e+02	17.14	0.00000	0.000080
PFBS	6.746e+03	6.23	0.00000	0.000396
PFBS 2	1.593e+03	6.26	0.00000	0.000356
PFHxS	9.383e+03	10.72	0.00000	0.000514
PFHxS 2	3.080e+03	10.73	0.00000	0.000533
PFOS	1.030e+04	13.35	0.00000	0.000671
PFOS 2	2.648e+03	13.36	0.00000	0.000580
13C-PFOA	1.293e+06	12.13	100.00000	89.764475
13C-PFOS	1.399e+06	13.35	100.00000	90.776762

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

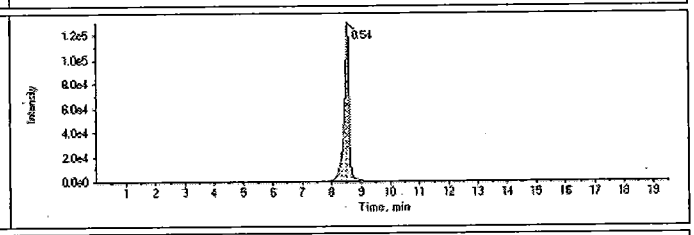
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.51 (8.55) min
Calculated conc: 0.001234
Area Ratio: 2.736e-2
Sample Type: (Quality Control)



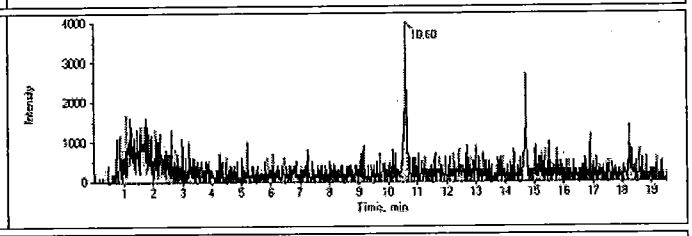
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min
Calculated conc: 111.424879
Area Ratio: 1.085e0
Sample Type: (Quality Control)



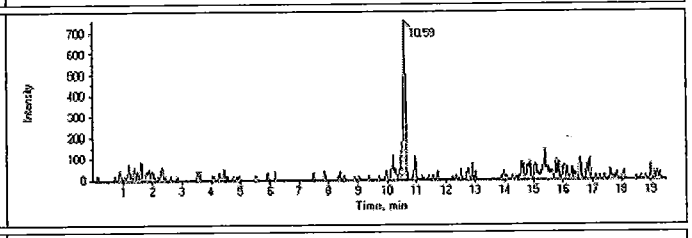
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min
Calculated conc: 0.000423
Area Ratio: 1.502e-2
Sample Type: (Quality Control)



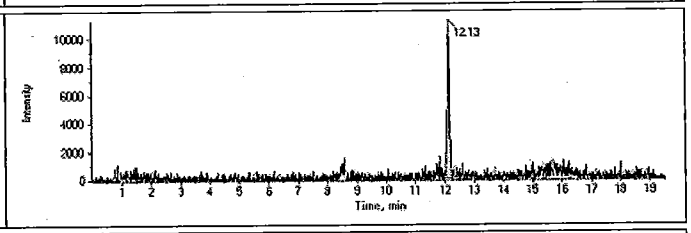
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.59 (10.60) min
Calculated conc: 0.000424
Area Ratio: 3.869e-3
Sample Type: (Quality Control)



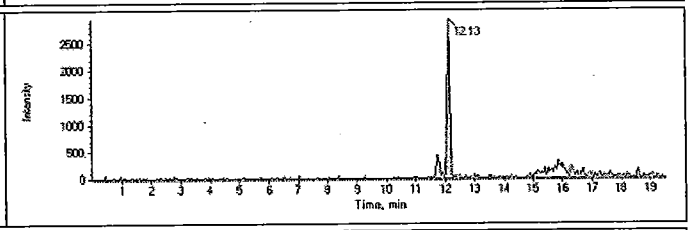
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min
Calculated conc: 0.001397
Area Ratio: 4.550e-2
Sample Type: (Quality Control)



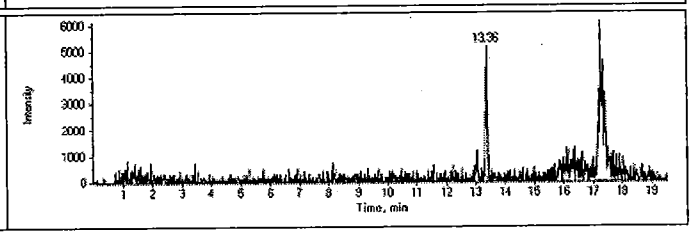
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min
Calculated conc: 0.001548
Area Ratio: 1.567e-2
Sample Type: (Quality Control)



PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min
Calculated conc: 0.000682
Area Ratio: 1.566e-2
Sample Type: (Quality Control)



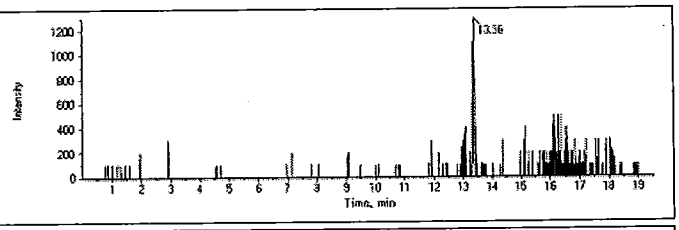
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.000744

Area Ratio: 4.058e-3

Sample Type: (Quality Control)



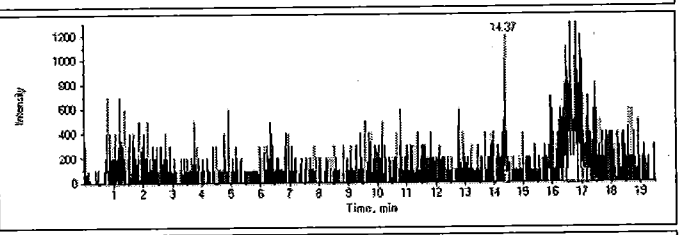
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.000080

Area Ratio: 2.047e-3

Sample Type: (Quality Control)



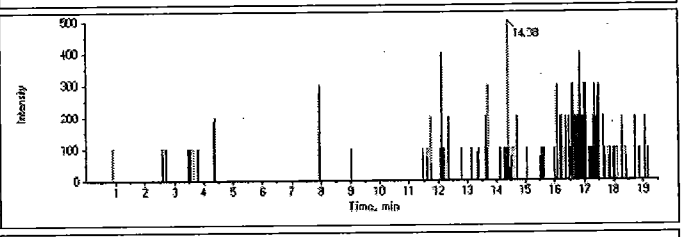
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.000074

Area Ratio: 3.032e-4

Sample Type: (Quality Control)



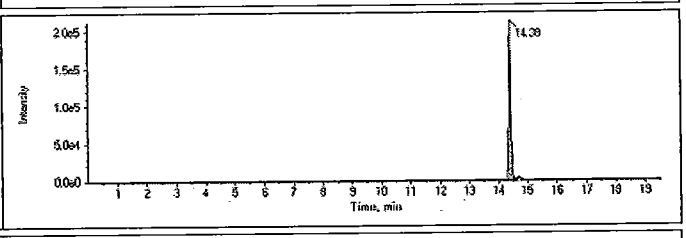
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 93.203102

Area Ratio: 7.741e-1

Sample Type: (Quality Control)



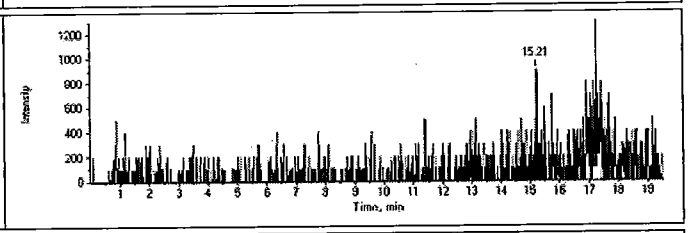
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min

Calculated conc: 0.000034

Area Ratio: 7.582e-4

Sample Type: (Quality Control)



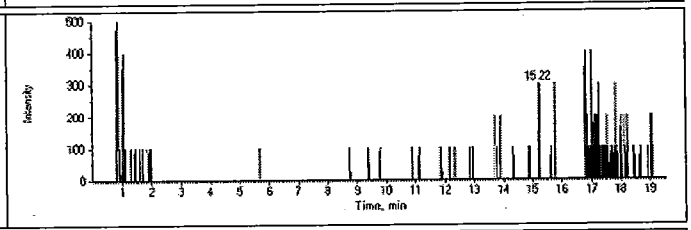
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.22 (15.23) min

Calculated conc: 0.000044

Area Ratio: 1.517e-4

Sample Type: (Quality Control)



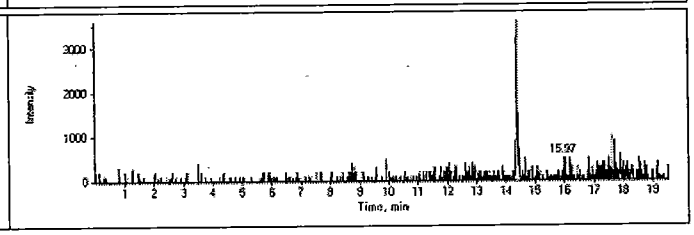
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.000015

Area Ratio: 3.033e-4

Sample Type: (Quality Control)



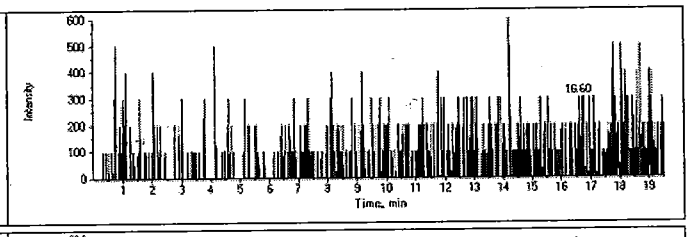
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.000006

Area Ratio: 1.896e-4

Sample Type: (Quality Control)



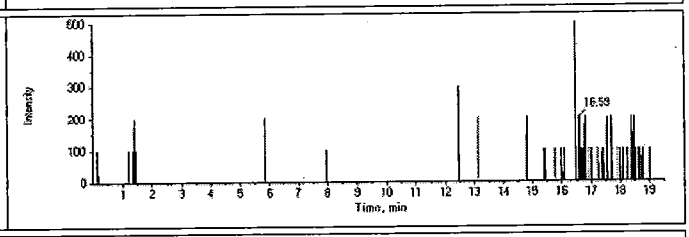
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.59 (16.60) min

Calculated conc: 0.000030

Area Ratio: 1.517e-4

Sample Type: (Quality Control)



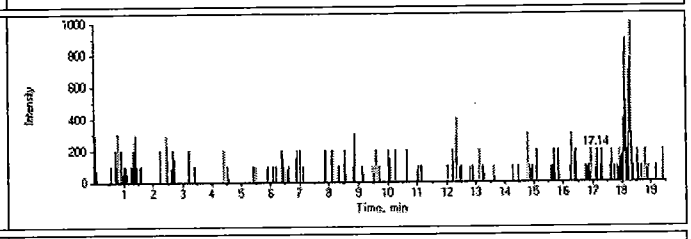
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.14 (17.15) min

Calculated conc: 0.000080

Area Ratio: 2.275e-4

Sample Type: (Quality Control)



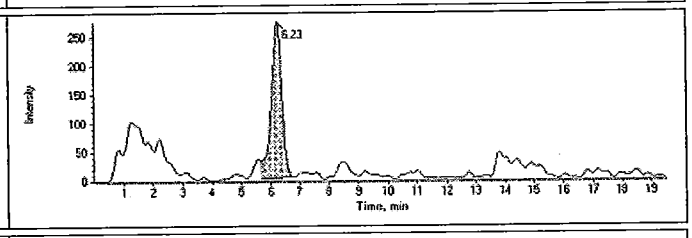
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.23 (6.27) min

Calculated conc: 0.000396

Area Ratio: 4.822e-3

Sample Type: (Quality Control)



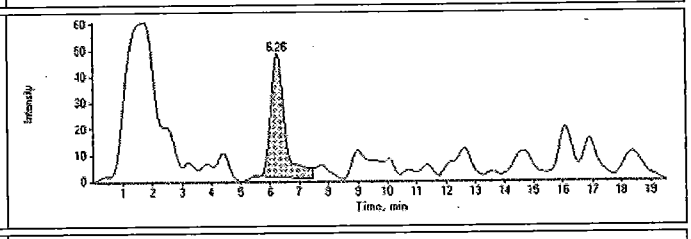
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.26 (6.28) min

Calculated conc: 0.000356

Area Ratio: 1.138e-3

Sample Type: (Quality Control)



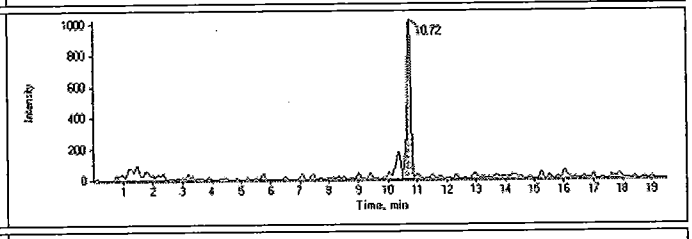
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.73) min

Calculated conc: 0.000514

Area Ratio: 6.707e-3

Sample Type: (Quality Control)



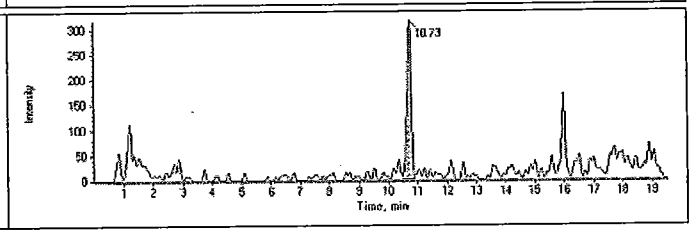
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000533

Area Ratio: 2.202e-3

Sample Type: (Quality Control)



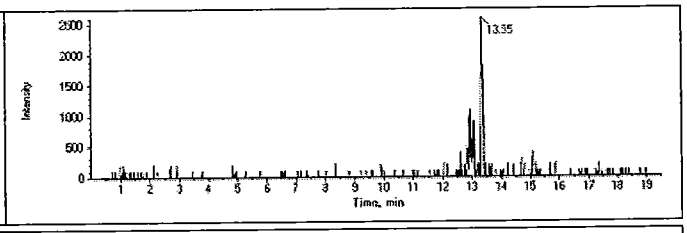
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000671

Area Ratio: 7.362e-3

Sample Type: (Quality Control)



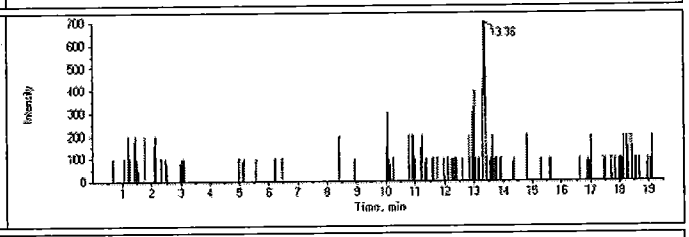
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.000580

Area Ratio: 1.893e-3

Sample Type: (Quality Control)



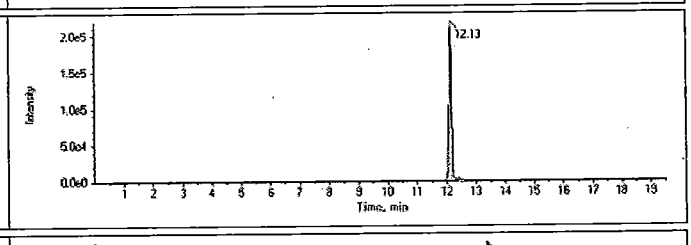
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 89.764475

Area Ratio: N/A

Sample Type: (Quality Control)



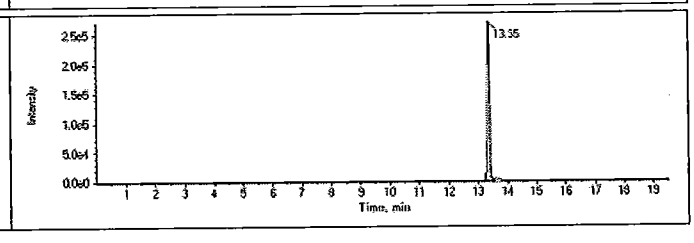
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 90.776762

Area Ratio: N/A

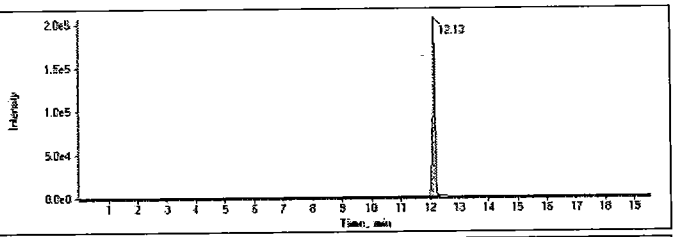
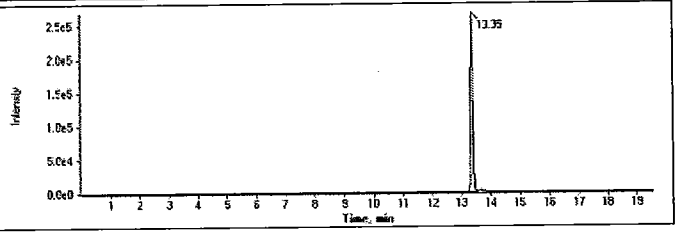
Sample Type: (Quality Control)



Sample Name	201312140147A	**Injection Vial**	28
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 4:25:30 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1179348.000000	12.13	100.00000	-
IS-13C-PFOS	1362626.800000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	2.885e+03	8.43	0.00000	0.000110
Surr-13c-PFHxA	1.152e+06	8.54	100.00000	100.308934
PFHpA	2.455e+02	10.59	0.00000	0.000006
PFHpA 2	4.905e+01	10.67	0.00000	0.000005
PFOA	1.697e+04	12.12	0.00000	0.000442
PFOA 2	3.891e+03	12.14	0.00000	0.000326
PFNA	2.945e+02	13.36	0.00000	0.000011
PFNA 2	9.815e+01	13.29	0.00000	0.000015
PFDA	5.395e+02	14.36	0.00000	0.000018
PFDA 2	N/A	N/A	0.00000	N/A
Surr-13c-PFDA	9.445e+05	14.38	100.00000	96.424495
PFUnA	3.926e+02	15.25	0.00000	0.000015
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	4.415e+02	16.00	0.00000	0.000018
PFTrDA	9.317e+02	16.59	0.00000	0.000027
PFTrDA 2	1.472e+02	16.86	0.00000	0.000024
PFTA	1.961e+02	17.01	0.00000	0.000059
PFBS	2.000e+02	6.35	0.00000	0.000012
PFBS 2	1.148e+02	6.01	0.00000	0.000026
PFHxS	5.393e+02	10.73	0.00000	0.000030
PFHxS 2	9.144e+01	10.70	0.00000	0.000016
PFOS	2.941e+02	13.35	0.00000	0.000020
PFOS 2	9.805e+01	13.32	0.00000	0.000022
13C-PFOA	1.179e+06	12.13	100.00000	81.862079
13C-PFOS	1.363e+06	13.35	100.00000	88.420151

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

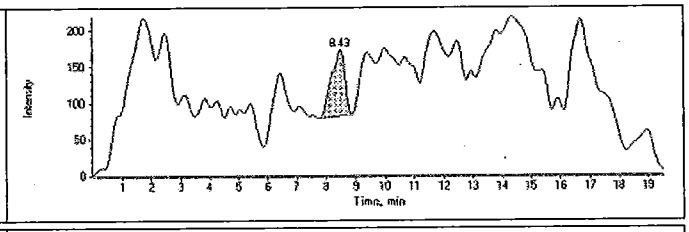
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.43 (8.55) min

Calculated conc: 0.000110

Area Ratio: 2.446e-3

Sample Type: (Quality Control)



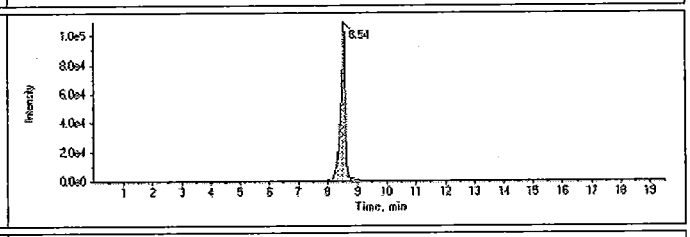
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 100.308934

Area Ratio: 9.770e-1

Sample Type: (Quality Control)



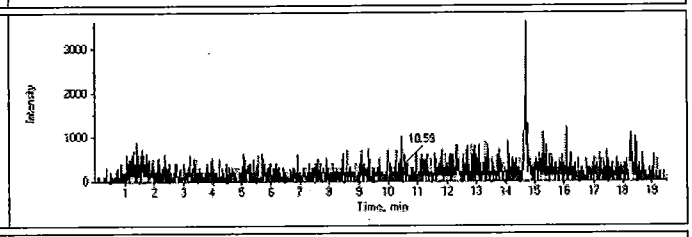
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.59 (10.60) min

Calculated conc: 0.000006

Area Ratio: 2.081e-4

Sample Type: (Quality Control)



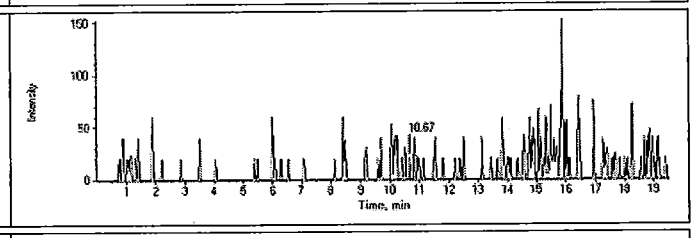
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.67 (10.60) min

Calculated conc: 0.000005

Area Ratio: 4.159e-5

Sample Type: (Quality Control)



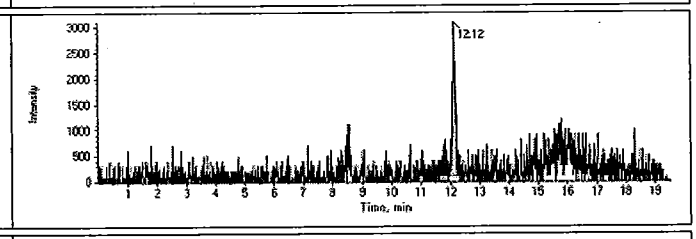
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.12 (12.13) min

Calculated conc: 0.000442

Area Ratio: 1.439e-2

Sample Type: (Quality Control)



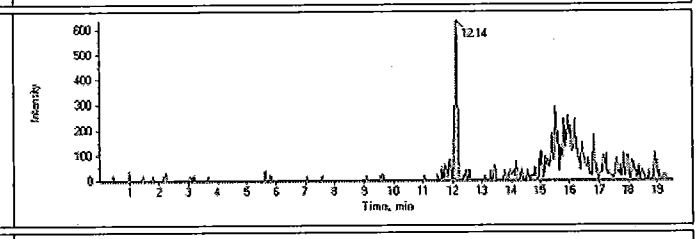
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.000326

Area Ratio: 3.300e-3

Sample Type: (Quality Control)



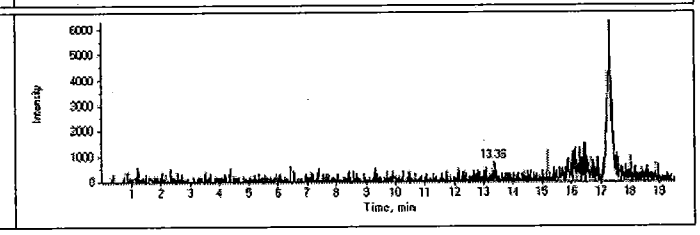
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.36 (13.35) min

Calculated conc: 0.000011

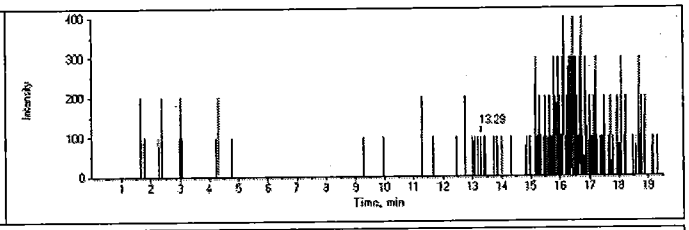
Area Ratio: 2.497e-4

Sample Type: (Quality Control)



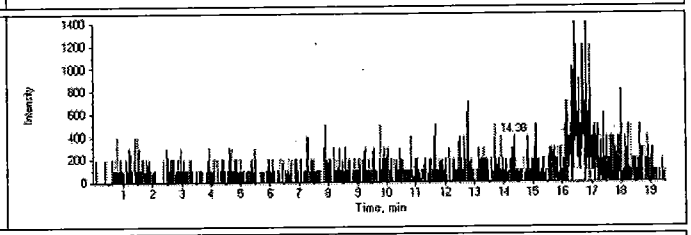
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.29 (13.35) min
Calculated conc: 0.000015
Area Ratio: 8.322e-5
Sample Type: (Quality Control)



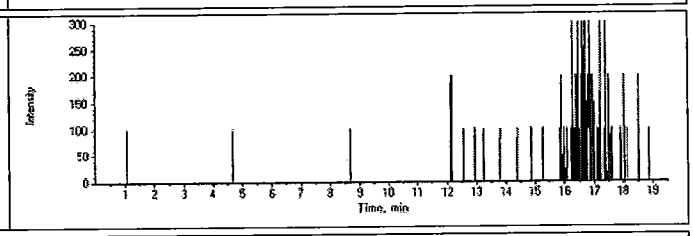
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.36 (14.37) min
Calculated conc: 0.000018
Area Ratio: 4.575e-4
Sample Type: (Quality Control)



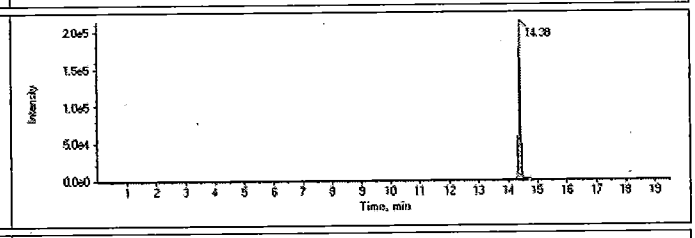
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): N/A (14.37) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



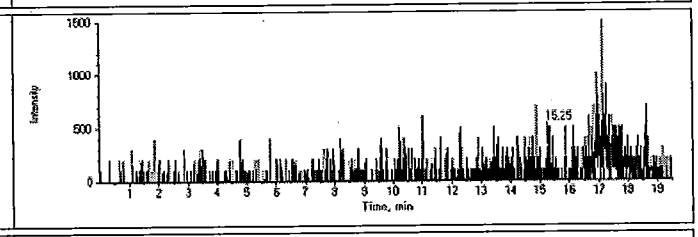
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 96.424495
Area Ratio: 8.009e-1
Sample Type: (Quality Control)



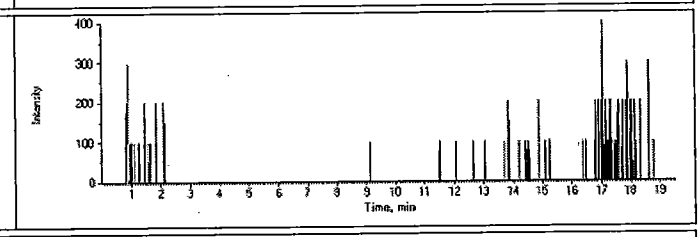
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.000015
Area Ratio: 3.329e-4
Sample Type: (Quality Control)



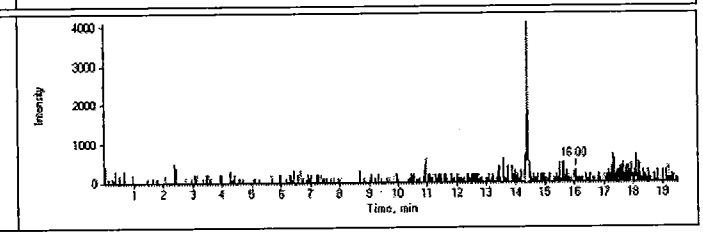
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



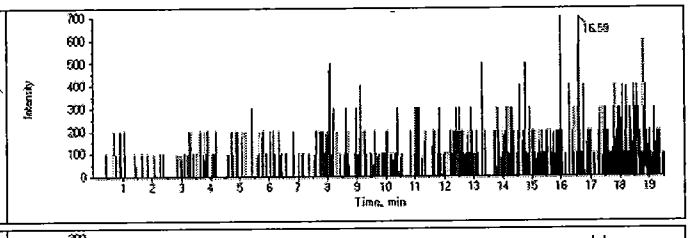
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (15.97) min
Calculated conc: 0.000018
Area Ratio: 3.744e-4
Sample Type: (Quality Control)



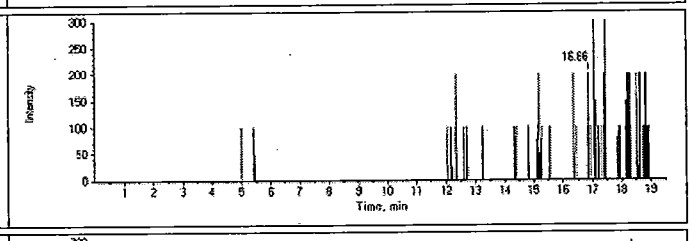
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.59 (16.60) min
Calculated conc: 0.000027
Area Ratio: 7.900e-4
Sample Type: (Quality Control)



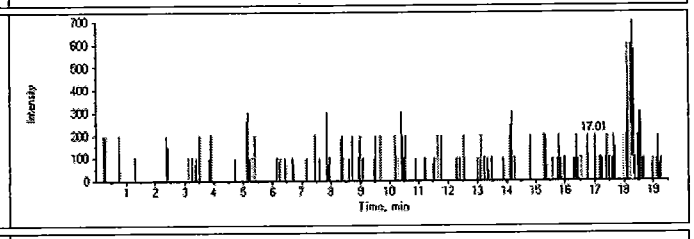
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.86 (16.60) min
Calculated conc: 0.000024
Area Ratio: 1.248e-4
Sample Type: (Quality Control)



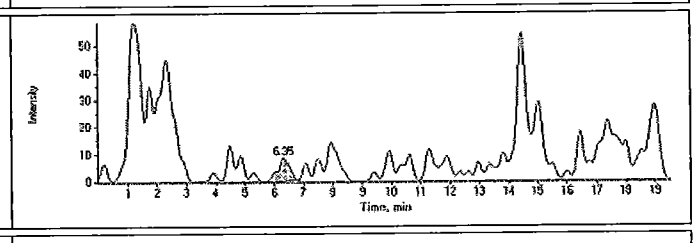
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.01 (17.15) min
Calculated conc: 0.000059
Area Ratio: 1.663e-4
Sample Type: (Quality Control)



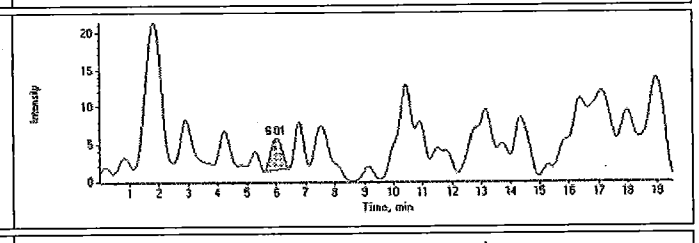
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.35 (6.27) min
Calculated conc: 0.000012
Area Ratio: 1.467e-4
Sample Type: (Quality Control)



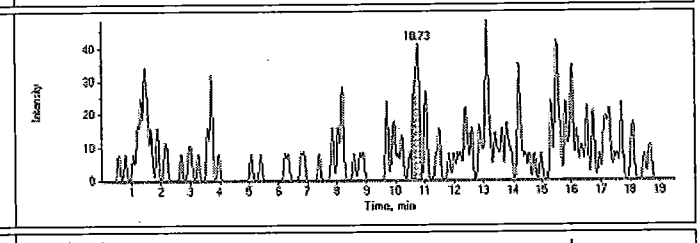
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.01 (6.28) min
Calculated conc: 0.000026
Area Ratio: 8.422e-5
Sample Type: (Quality Control)



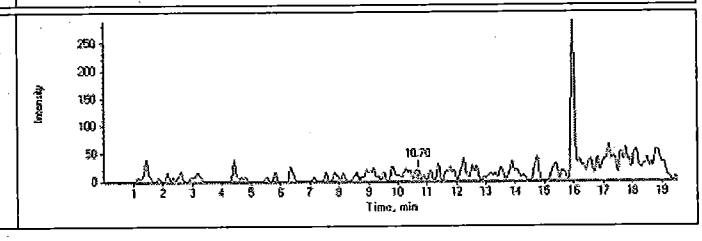
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.000030
Area Ratio: 3.957e-4
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.70 (10.73) min
Calculated conc: 0.000016
Area Ratio: 6.710e-5
Sample Type: (Quality Control)



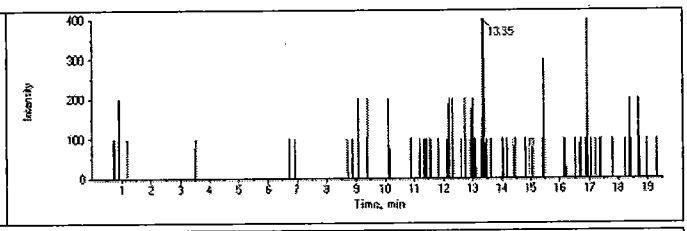
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000020

Area Ratio: 2.158e-4

Sample Type: (Quality Control)



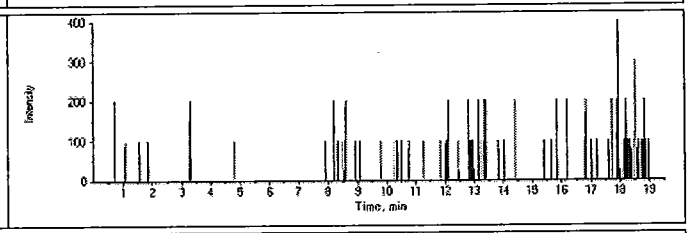
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.32 (13.34) min

Calculated conc: 0.000022

Area Ratio: 7.196e-5

Sample Type: (Quality Control)



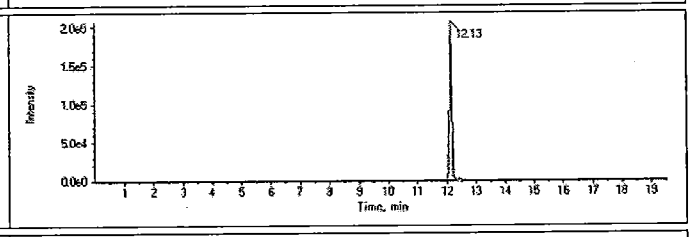
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 81.862079

Area Ratio: N/A

Sample Type: (Quality Control)



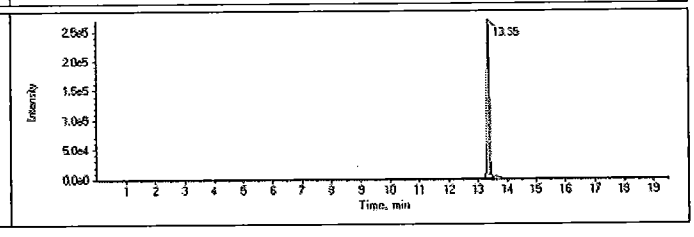
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 88.420151

Area Ratio: N/A

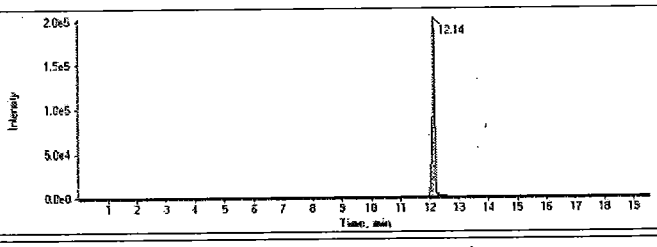
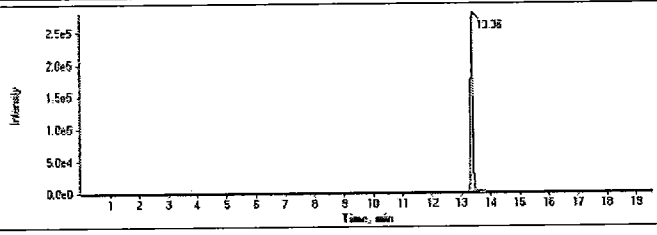
Sample Type: (Quality Control)



Sample Name	201312140148A	**Injection Vial**	29
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 4:45:40 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1220578.450000	12.14	100.00000	-
IS-13C-PFOS	1387132.550000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	2.986e+04	8.53	0.00000	0.001103
Surr-13c-PFHxA	1.312e+06	8.54	100.00000	110.400298
PFHpA	1.358e+04	10.61	0.00000	0.000313
PFHpA 2	4.716e+03	10.59	0.00000	0.000424
PFOA	5.291e+04	12.13	0.00000	0.001331
PFOA 2	1.795e+04	12.14	0.00000	0.001452
PFNA	1.500e+04	13.37	0.00000	0.000536
PFNA 2	2.231e+03	13.37	0.00000	0.000335
PFDA	4.659e+03	14.39	0.00000	0.000150
PFDA 2	2.452e+02	14.37	0.00000	0.000049
Surr-13c-PFDA	1.002e+06	14.39	100.00000	98.823465
PFUnA	8.829e+02	15.24	0.00000	0.000033
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	3.923e+02	15.96	0.00000	0.000016
PFTrDA	2.452e+02	16.60	0.00000	0.000007
PFTrDA 2	1.962e+02	16.75	0.00000	0.000032
PFTA	9.805e+01	17.13	0.00000	0.000028
PFBS	4.897e+03	6.25	0.00000	0.000290
PFBS 2	1.684e+03	6.23	0.00000	0.000380
PFHxS	8.635e+03	10.73	0.00000	0.000477
PFHxS 2	2.912e+03	10.73	0.00000	0.000508
PFOS	7.797e+03	13.36	0.00000	0.000512
PFOS 2	2.845e+03	13.35	0.00000	0.000628
13C-PFOA	1.221e+06	12.14	100.00000	84.724008
13C-PFOS	1.387e+06	13.36	100.00000	90.010316

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

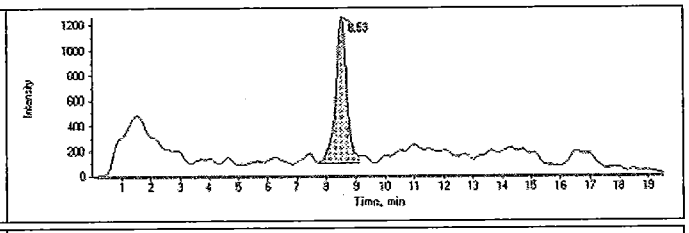
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.001103

Area Ratio: 2.446e-2

Sample Type: (Quality Control)



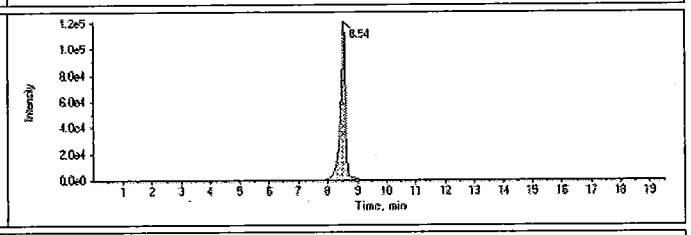
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 110.400298

Area Ratio: 1.075e0

Sample Type: (Quality Control)



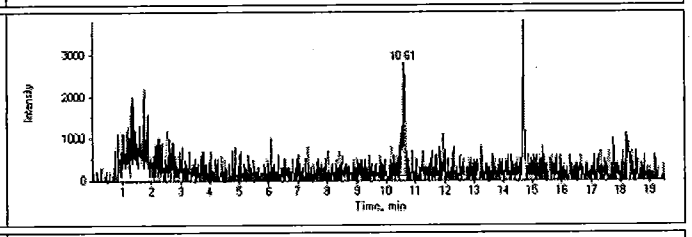
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000313

Area Ratio: 1.113e-2

Sample Type: (Quality Control)



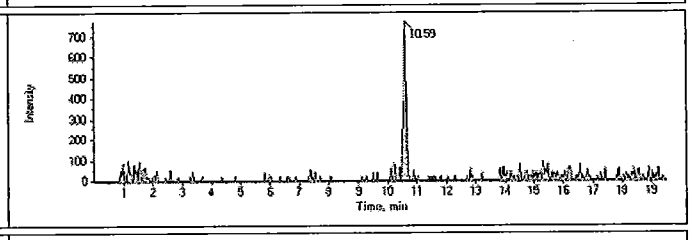
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.59 (10.60) min

Calculated conc: 0.000424

Area Ratio: 3.864e-3

Sample Type: (Quality Control)



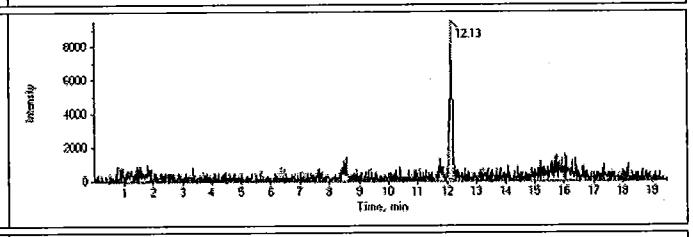
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.001331

Area Ratio: 4.335e-2

Sample Type: (Quality Control)



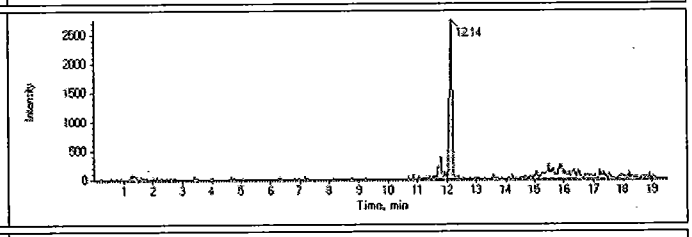
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.001452

Area Ratio: 1.470e-2

Sample Type: (Quality Control)



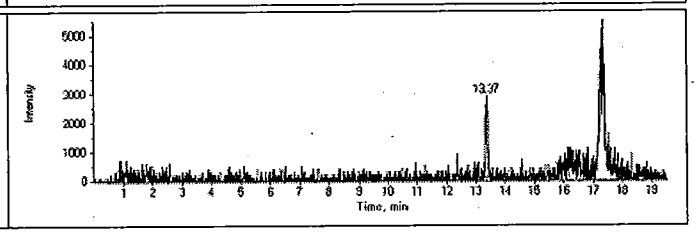
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.000536

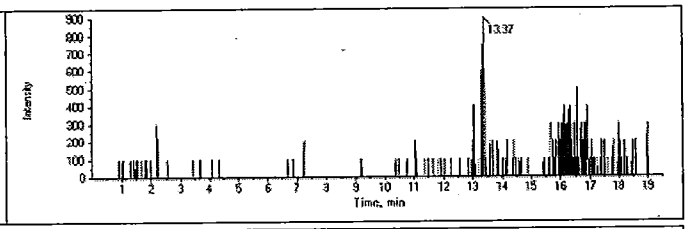
Area Ratio: 1.229e-2

Sample Type: (Quality Control)



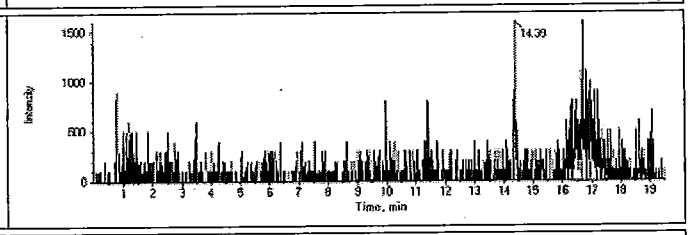
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min
Calculated conc: 0.000335
Area Ratio: 1.828e-3
Sample Type: (Quality Control)



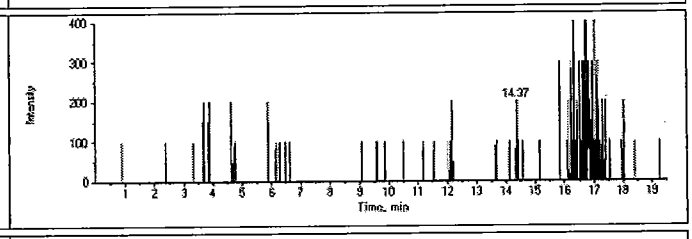
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.000150
Area Ratio: 3.817e-3
Sample Type: (Quality Control)



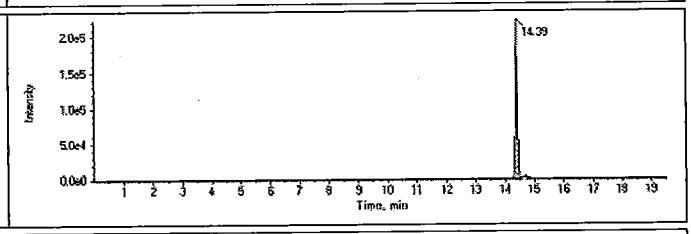
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.000049
Area Ratio: 2.008e-4
Sample Type: (Quality Control)



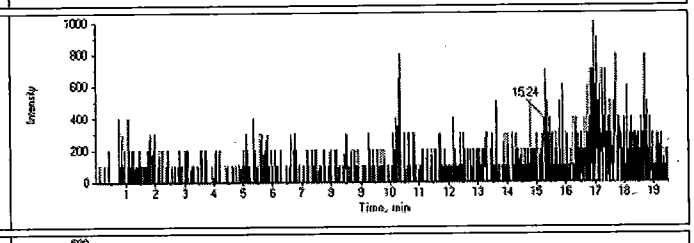
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 98.823465
Area Ratio: 8.208e-1
Sample Type: (Quality Control)



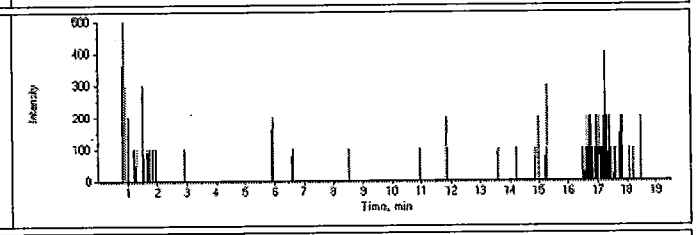
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.24 (15.23) min
Calculated conc: 0.000033
Area Ratio: 7.233e-4
Sample Type: (Quality Control)



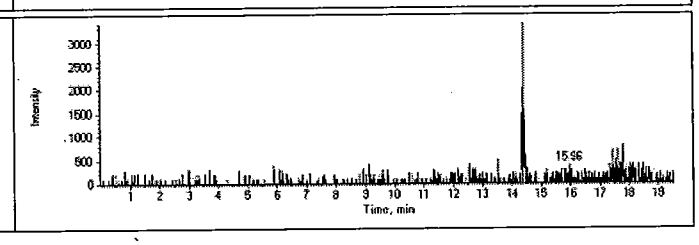
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000016
Area Ratio: 3.214e-4
Sample Type: (Quality Control)



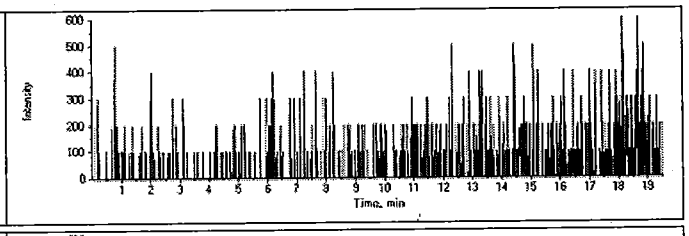
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.000007

Area Ratio: 2.008e-4

Sample Type: (Quality Control)



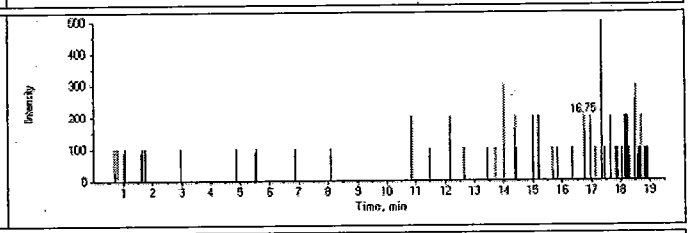
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.75 (16.60) min

Calculated conc: 0.000032

Area Ratio: 1.607e-4

Sample Type: (Quality Control)



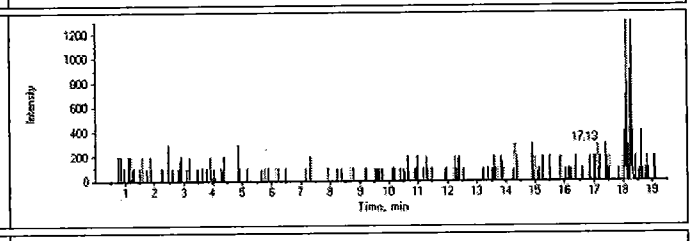
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.13 (17.15) min

Calculated conc: 0.000028

Area Ratio: 8.033e-5

Sample Type: (Quality Control)



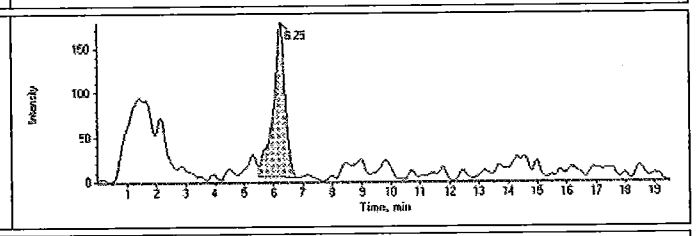
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.000290

Area Ratio: 3.531e-3

Sample Type: (Quality Control)



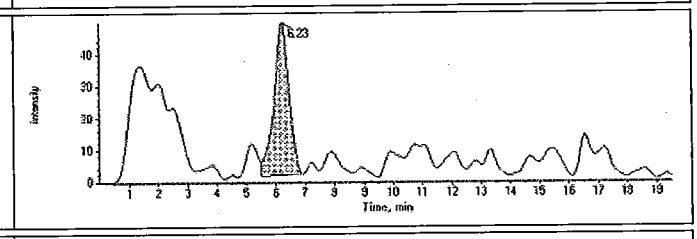
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min

Calculated conc: 0.000380

Area Ratio: 1.214e-3

Sample Type: (Quality Control)



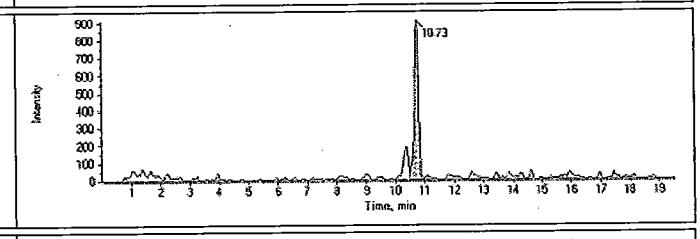
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000477

Area Ratio: 6.225e-3

Sample Type: (Quality Control)



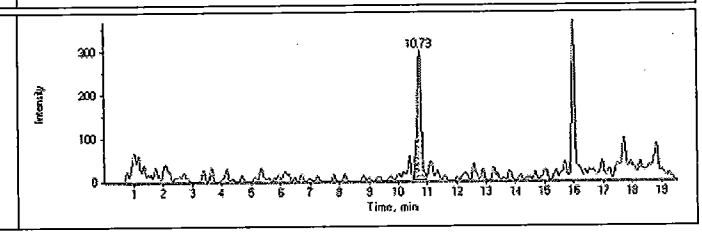
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000508

Area Ratio: 2.099e-3

Sample Type: (Quality Control)



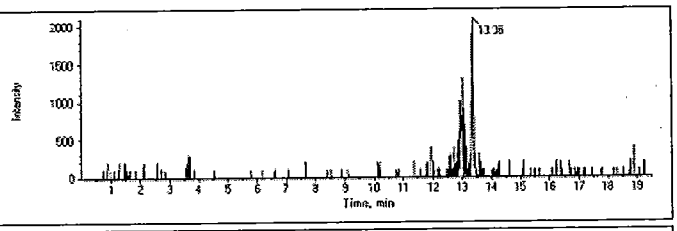
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.000512

Area Ratio: 5.621e-3

Sample Type: (Quality Control)



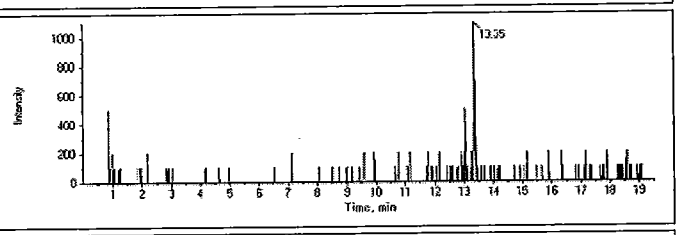
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000628

Area Ratio: 2.051e-3

Sample Type: (Quality Control)



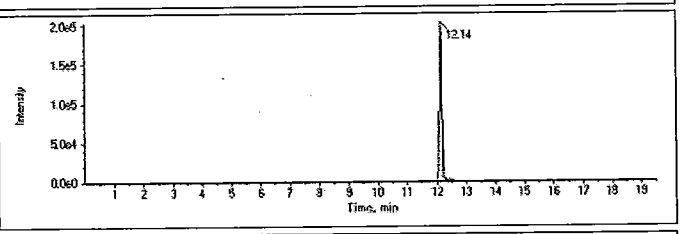
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 84.724008

Area Ratio: N/A

Sample Type: (Quality Control)



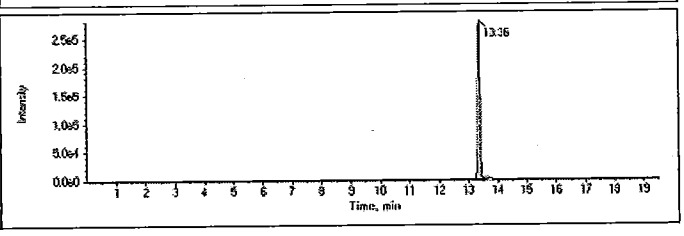
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 90.010316

Area Ratio: N/A

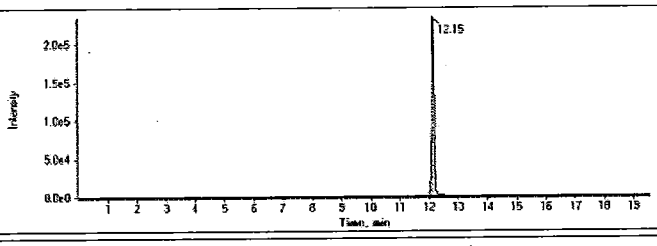
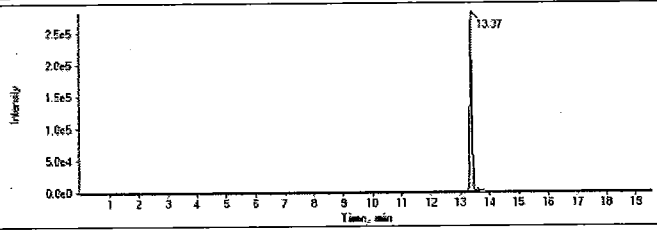
Sample Type: (Quality Control)



Sample Name	201312140149A	**Injection Vial**	30
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 5:05:49 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1320865.250000	12.15	100.00000	-
IS-13C-PFOS	1417713.100000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.595e+04	8.53	0.00000	0.001227
Surr-13c-PFHxA	1.399e+06	8.55	100.00000	108.749611
PFHpA	2.074e+04	10.61	0.00000	0.000442
PFHpA 2	5.201e+03	10.61	0.00000	0.000432
PFOA	5.571e+04	12.15	0.00000	0.001295
PFOA 2	1.741e+04	12.15	0.00000	0.001302
PFNA	1.432e+04	13.37	0.00000	0.000472
PFNA 2	3.728e+03	13.39	0.00000	0.000518
PFDA	3.434e+02	14.35	0.00000	0.000010
PFDA 2	5.881e+02	14.36	0.00000	0.000109
Surr-13c-PFDA	1.048e+06	14.40	100.00000	95.555531
PFUnA	1.472e+02	15.20	0.00000	0.000005
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	6.373e+02	15.96	0.00000	0.000023
PFTrDA	2.451e+02	16.62	0.00000	0.000006
PFTrDA 2	9.805e+01	16.62	0.00000	0.000015
PFTA	9.810e+01	16.66	0.00000	0.000026
PFBS	6.096e+03	6.24	0.00000	0.000354
PFBS 2	1.318e+03	6.28	0.00000	0.000291
PFHxS	8.615e+03	10.75	0.00000	0.000466
PFHxS 2	3.526e+03	10.75	0.00000	0.000602
PFOS	9.513e+03	13.37	0.00000	0.000611
PFOS 2	2.844e+03	13.38	0.00000	0.000615
13C-PFOA	1.321e+06	12.15	100.00000	91.685216
13C-PFOS	1.418e+06	13.37	100.00000	91.994672

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

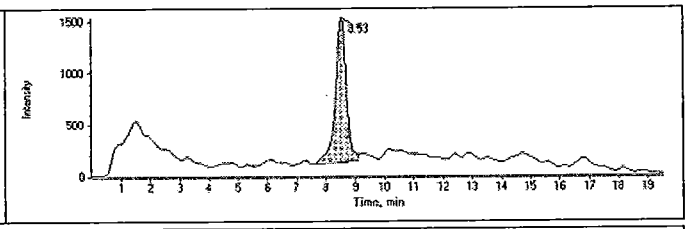
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.001227

Area Ratio: 2.722e-2

Sample Type: (Quality Control)



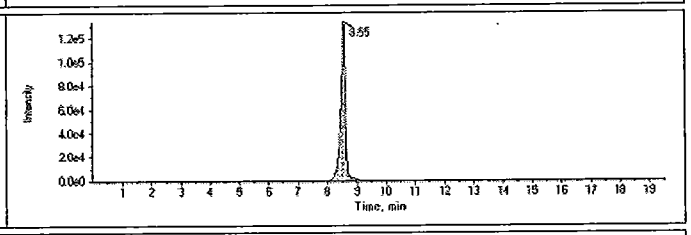
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 108.749611

Area Ratio: 1.059e0

Sample Type: (Quality Control)



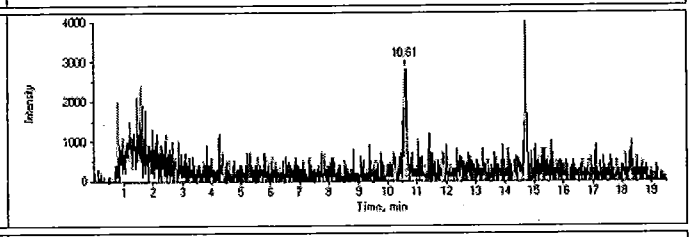
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000442

Area Ratio: 1.570e-2

Sample Type: (Quality Control)



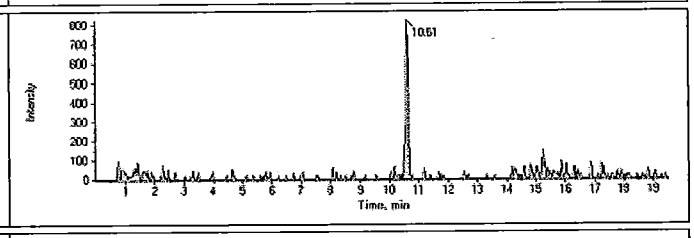
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000432

Area Ratio: 3.937e-3

Sample Type: (Quality Control)



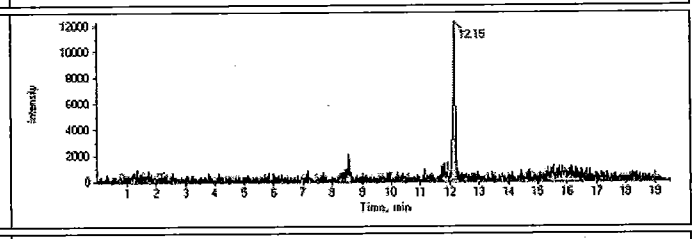
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.001295

Area Ratio: 4.217e-2

Sample Type: (Quality Control)



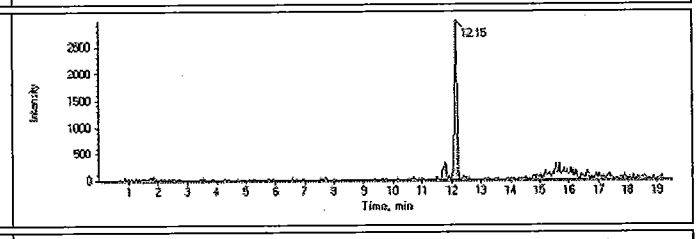
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.001302

Area Ratio: 1.318e-2

Sample Type: (Quality Control)



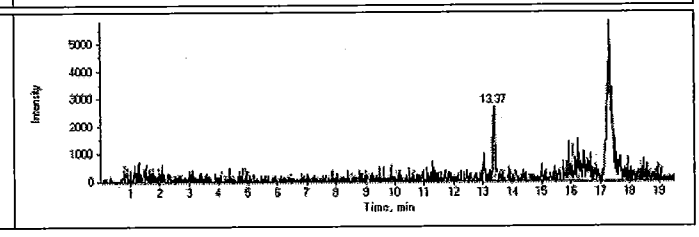
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.000472

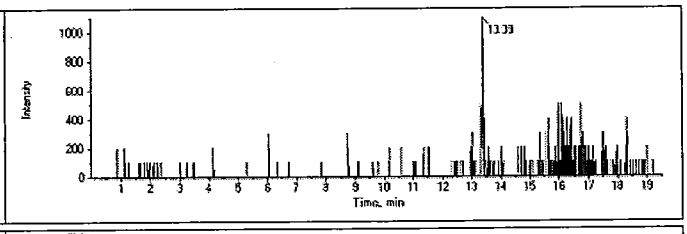
Area Ratio: 1.084e-2

Sample Type: (Quality Control)



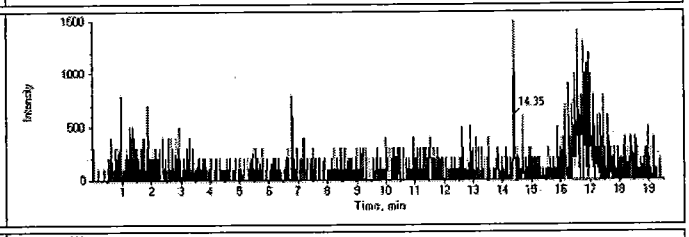
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.39 (13.35) min
Calculated conc: 0.000518
Area Ratio: 2.822e-3
Sample Type: (Quality Control)



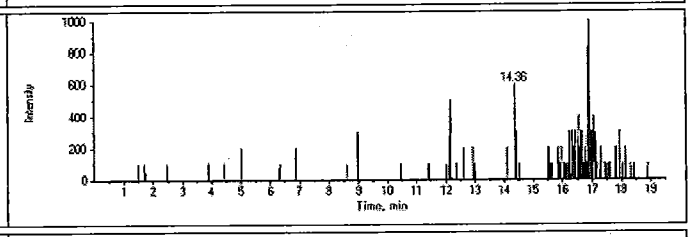
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.35 (14.37) min
Calculated conc: 0.000010
Area Ratio: 2.599e-4
Sample Type: (Quality Control)



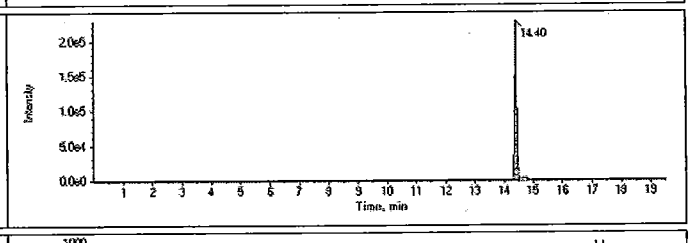
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.36 (14.37) min
Calculated conc: 0.000109
Area Ratio: 4.452e-4
Sample Type: (Quality Control)



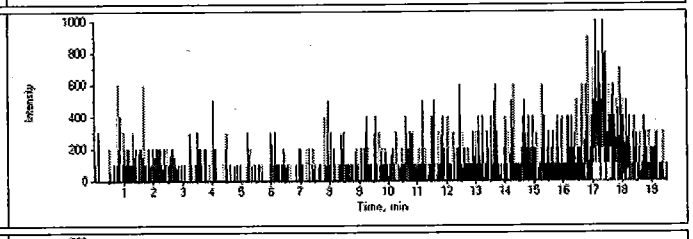
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min
Calculated conc: 95.555531
Area Ratio: 7.937e-1
Sample Type: (Quality Control)



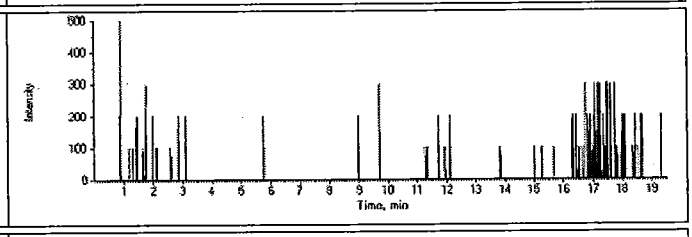
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.20 (15.23) min
Calculated conc: 0.000005
Area Ratio: 1.114e-4
Sample Type: (Quality Control)



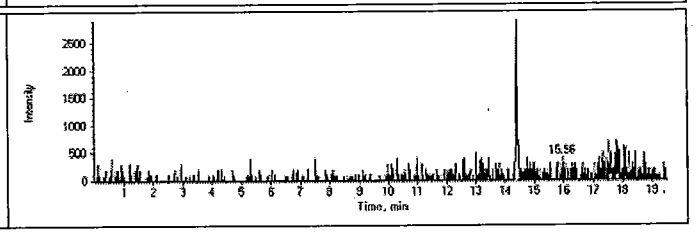
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.96 (15.97) min
Calculated conc: 0.000023
Area Ratio: 4.825e-4
Sample Type: (Quality Control)



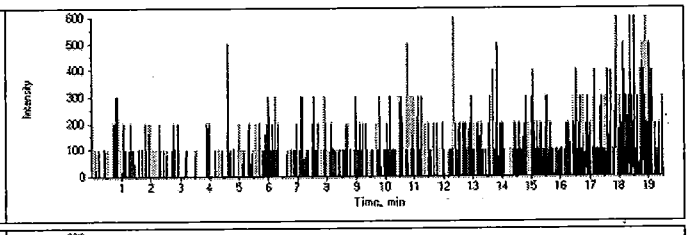
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.000006

Area Ratio: 1.856e-4

Sample Type: (Quality Control)



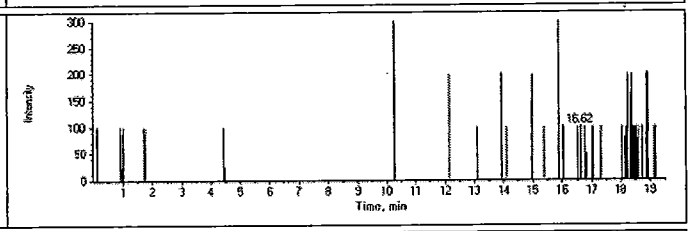
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.000015

Area Ratio: 7.423e-5

Sample Type: (Quality Control)



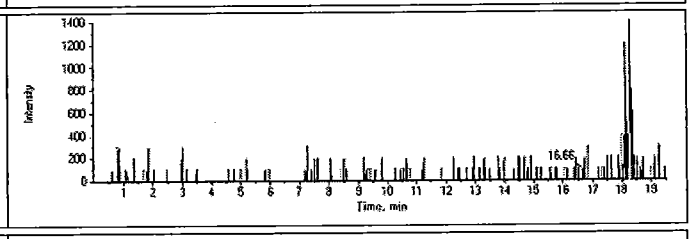
PFTA (713.3 / 669.0)

RT (Exp. RT): 16.66 (17.15) min

Calculated conc: 0.000026

Area Ratio: 7.427e-5

Sample Type: (Quality Control)



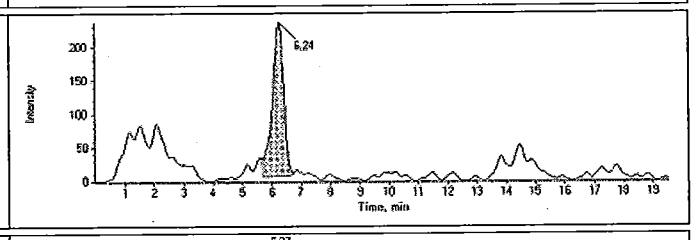
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.24 (6.27) min

Calculated conc: 0.000354

Area Ratio: 4.300e-3

Sample Type: (Quality Control)



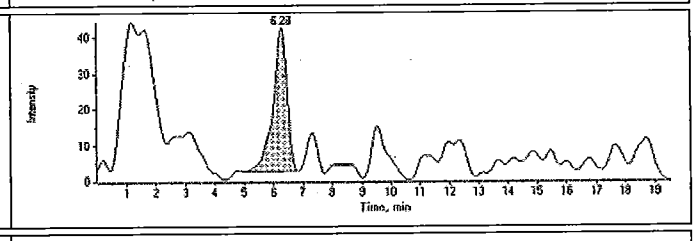
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.28 (6.28) min

Calculated conc: 0.000291

Area Ratio: 9.298e-4

Sample Type: (Quality Control)



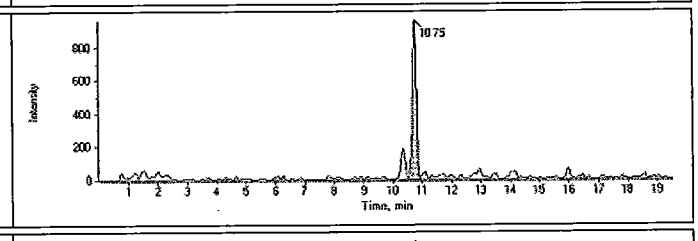
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.000466

Area Ratio: 6.077e-3

Sample Type: (Quality Control)



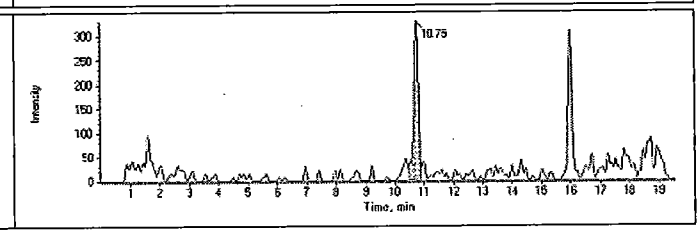
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.000602

Area Ratio: 2.487e-3

Sample Type: (Quality Control)



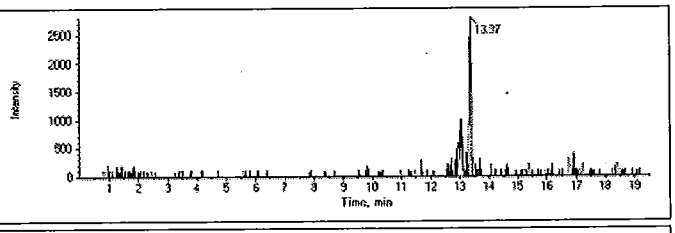
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.000611

Area Ratio: 6.710e-3

Sample Type: (Quality Control)



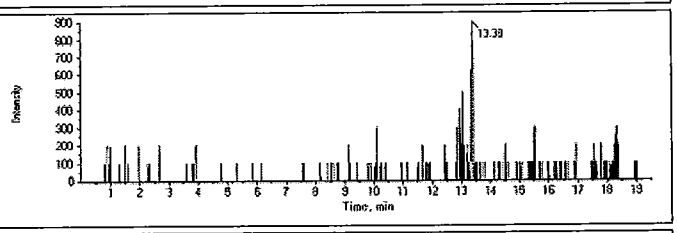
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.38 (13.34) min

Calculated conc: 0.000615

Area Ratio: 2.006e-3

Sample Type: (Quality Control)



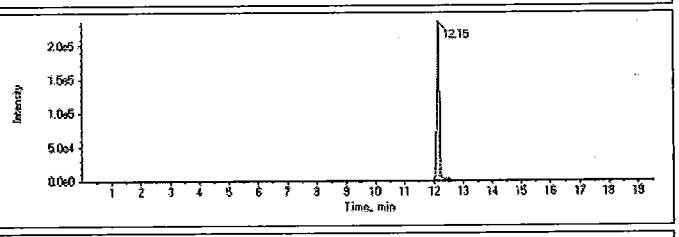
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 91.685216

Area Ratio: N/A

Sample Type: (Quality Control)



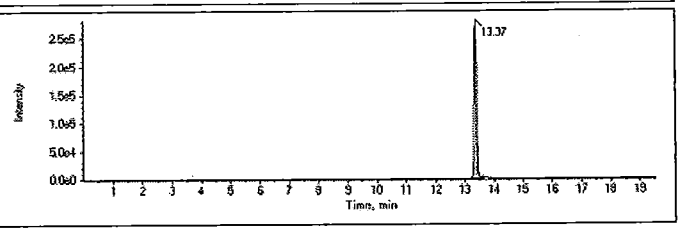
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 91.994672

Area Ratio: N/A

Sample Type: (Quality Control)



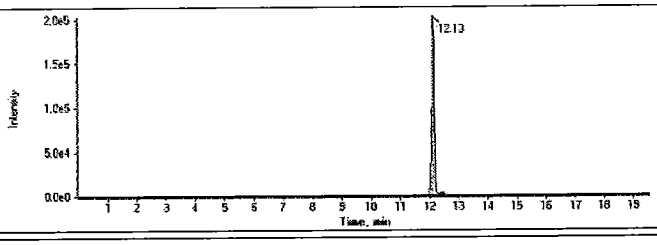
Sample Name	201312140150A	**Injection Vial**	31
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 5:25:58 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1196368.000000	12.13	100.00000	-
IS-13C-PFOS	1368194.250000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	2.619e+02	8.48	0.00000	0.000010
Surr-13c-PFHxA	1.221e+06	8.54	100.00000	104.800624
PFHpA	4.660e+02	10.61	0.00000	0.000011
PFHpA 2	5.411e+02	10.58	0.00000	0.000050
PFOA	1.618e+04	12.13	0.00000	0.000415
PFOA 2	4.303e+03	12.14	0.00000	0.000355
PFNA	9.416e+03	13.35	0.00000	0.000343
PFNA 2	9.809e+02	13.37	0.00000	0.000150
PFDA	4.416e+02	14.36	0.00000	0.000014
PFDA 2	9.810e+01	14.42	0.00000	0.000020
Surr-13c-PFDA	1.005e+06	14.38	100.00000	101.164426
PFUnA	1.226e+02	15.28	0.00000	0.000005
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	4.413e+02	15.97	0.00000	0.000018
PFTrDA	1.962e+02	16.59	0.00000	0.000006
PFTrDA 2	1.961e+02	16.55	0.00000	0.000032
PFTA	9.810e+01	17.04	0.00000	0.000029
PFBS	3.782e+02	6.13	0.00000	0.000023
PFBS 2	8.629e+01	5.99	0.00000	0.000020
PFHxS	5.210e+02	10.69	0.00000	0.000029
PFHxS 2	1.320e+02	10.67	0.00000	0.000023
PFOS	4.413e+02	13.35	0.00000	0.000029
PFOS 2	1.472e+02	13.03	0.00000	0.000033
13C-PFOA	1.196e+06	12.13	100.00000	83.043488
13C-PFOS	1.368e+06	13.35	100.00000	88.781420

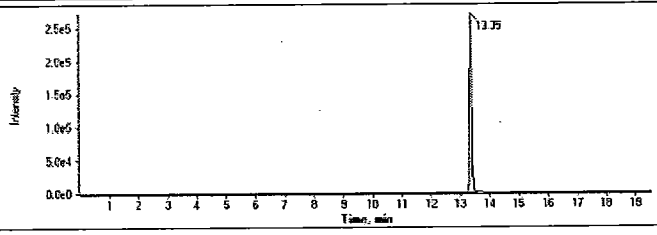
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12.13(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.35(13.36) min
Concentration: 100.00000
Sample Type: (Quality Control)



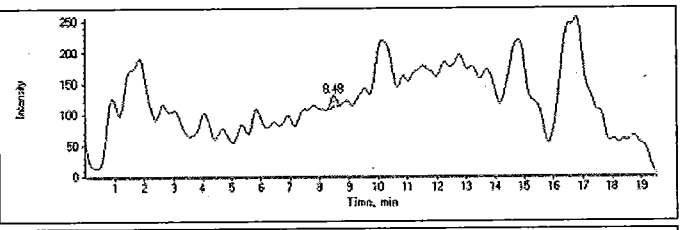
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.48 (8.55) min

Calculated conc: 0.000010

Area Ratio: 2.189e-4

Sample Type: (Quality Control)



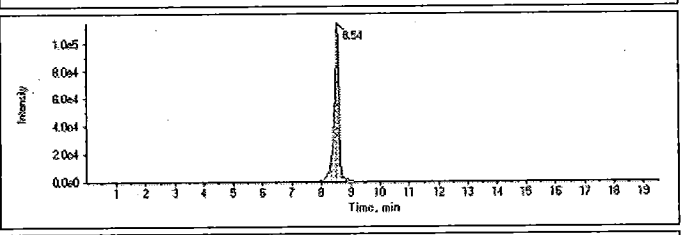
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 104.800624

Area Ratio: 1.021e0

Sample Type: (Quality Control)



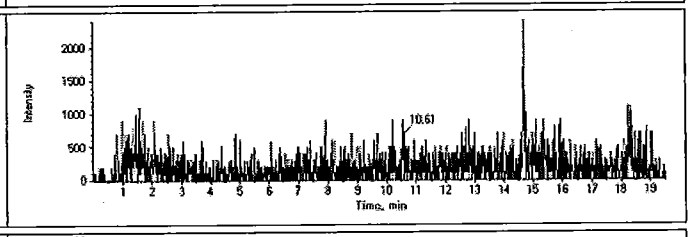
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000011

Area Ratio: 3.895e-4

Sample Type: (Quality Control)



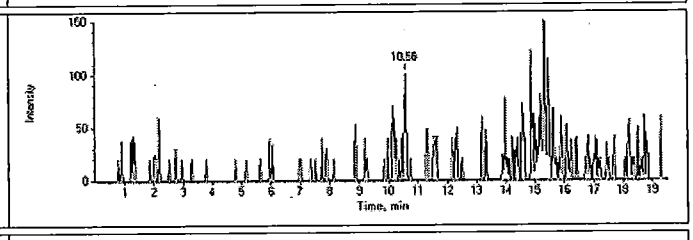
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.58 (10.60) min

Calculated conc: 0.000050

Area Ratio: 4.523e-4

Sample Type: (Quality Control)



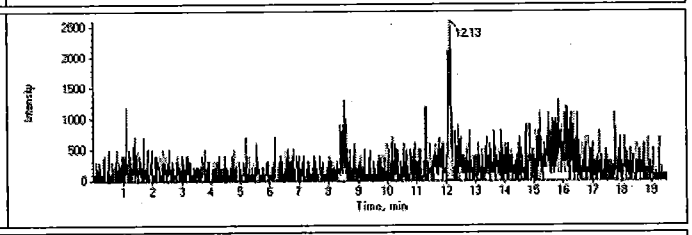
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.000415

Area Ratio: 1.352e-2

Sample Type: (Quality Control)



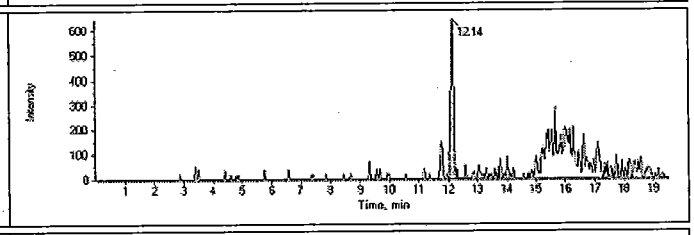
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.000355

Area Ratio: 3.597e-3

Sample Type: (Quality Control)



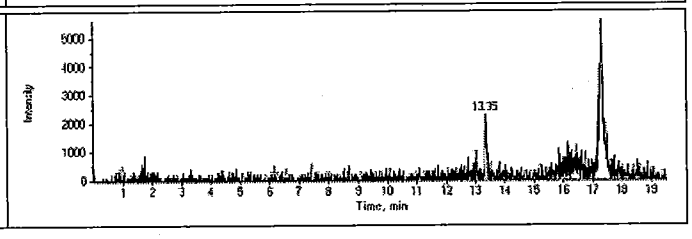
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.35 (13.35) min

Calculated conc: 0.000343

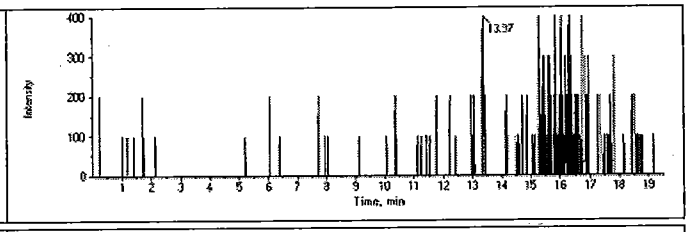
Area Ratio: 7.871e-3

Sample Type: (Quality Control)



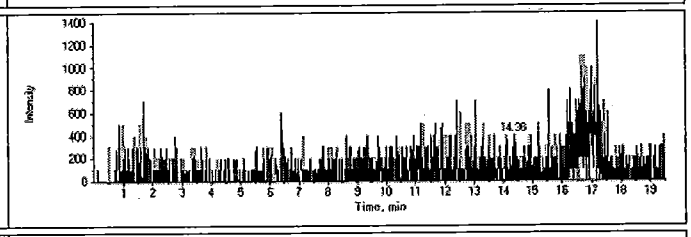
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min
Calculated conc: 0.000150
Area Ratio: 8.199e-4
Sample Type: (Quality Control)



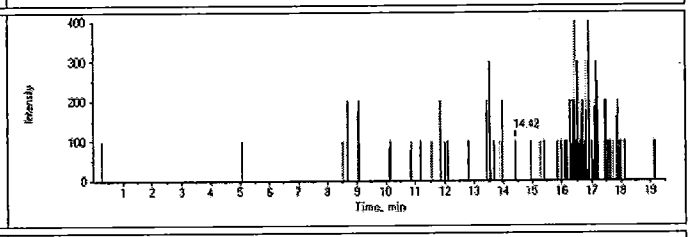
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.36 (14.37) min
Calculated conc: 0.000014
Area Ratio: 3.691e-4
Sample Type: (Quality Control)



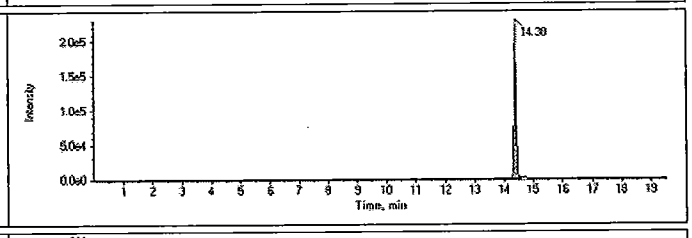
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.42 (14.37) min
Calculated conc: 0.000020
Area Ratio: 8.200e-5
Sample Type: (Quality Control)



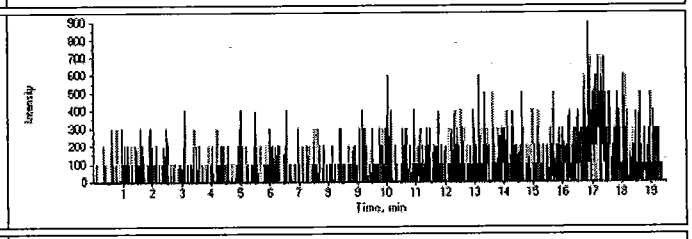
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 101.164426
Area Ratio: 8.402e-1
Sample Type: (Quality Control)



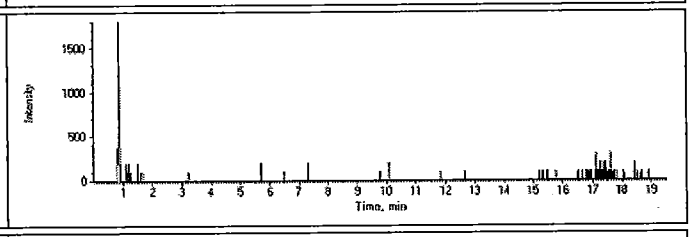
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.28 (15.23) min
Calculated conc: 0.000005
Area Ratio: 1.025e-4
Sample Type: (Quality Control)



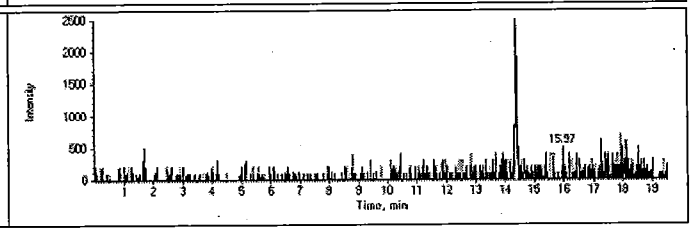
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min
Calculated conc: 0.000018
Area Ratio: 3.688e-4
Sample Type: (Quality Control)



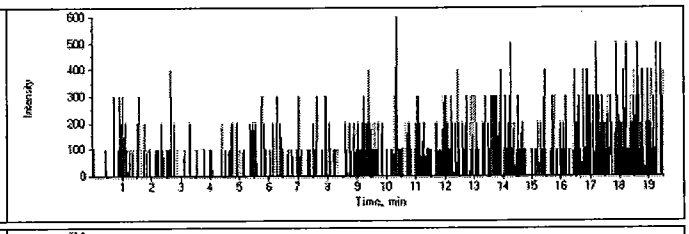
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.59 (16.60) min

Calculated conc: 0.000006

Area Ratio: 1.640e-4

Sample Type: (Quality Control)



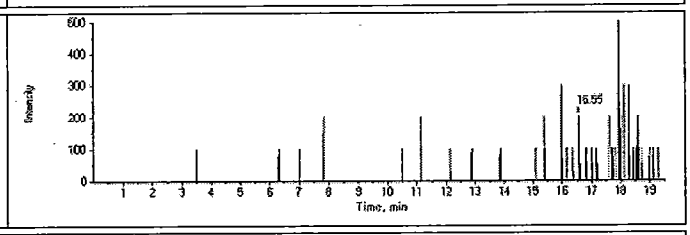
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.55 (16.60) min

Calculated conc: 0.000032

Area Ratio: 1.639e-4

Sample Type: (Quality Control)



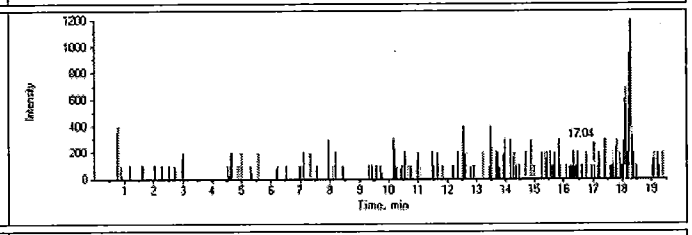
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.04 (17.15) min

Calculated conc: 0.000029

Area Ratio: 8.200e-5

Sample Type: (Quality Control)



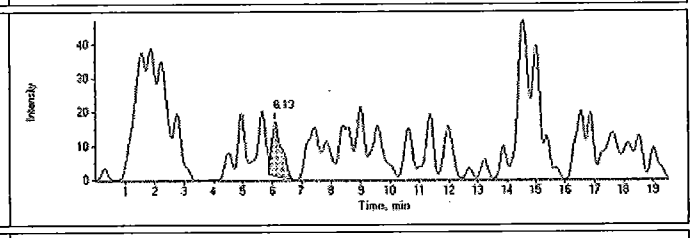
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.13 (6.27) min

Calculated conc: 0.000023

Area Ratio: 2.764e-4

Sample Type: (Quality Control)



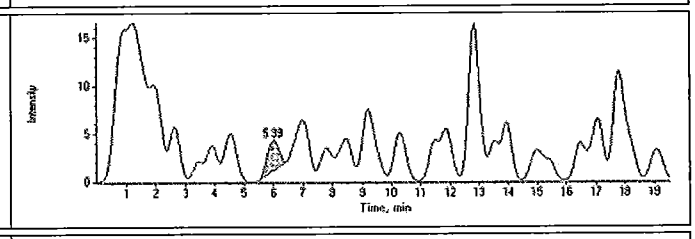
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 5.99 (6.28) min

Calculated conc: 0.000020

Area Ratio: 6.307e-5

Sample Type: (Quality Control)



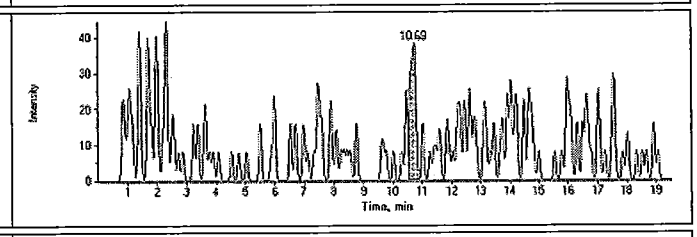
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.69 (10.73) min

Calculated conc: 0.000029

Area Ratio: 3.808e-4

Sample Type: (Quality Control)



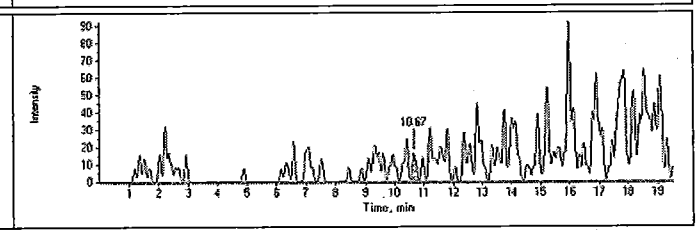
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.67 (10.73) min

Calculated conc: 0.000023

Area Ratio: 9.650e-5

Sample Type: (Quality Control)

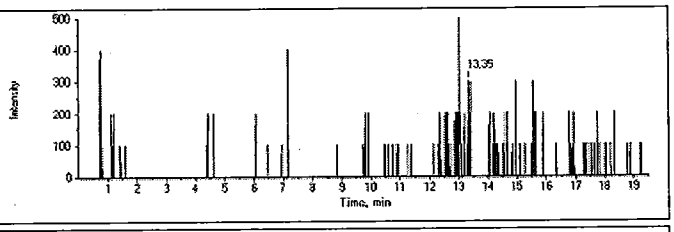


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000029

Area Ratio: 3.225e-4
Sample Type: (Quality Control)

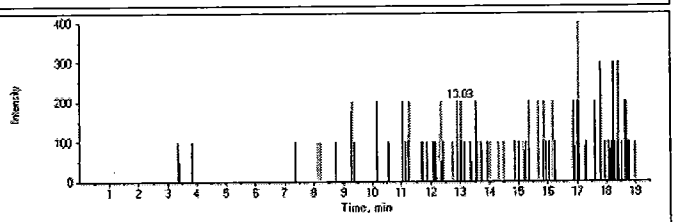


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.03 (13.34) min

Calculated conc: 0.000033

Area Ratio: 1.076e-4
Sample Type: (Quality Control)

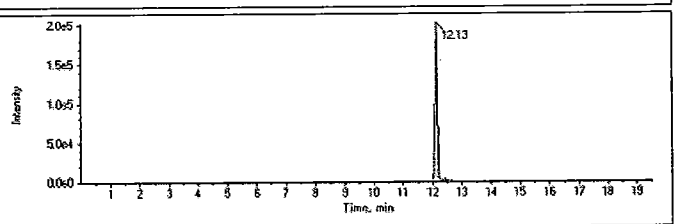


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 83.043488

Area Ratio: N/A
Sample Type: (Quality Control)

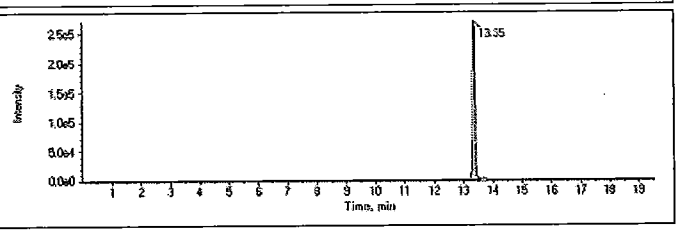


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 88.781420

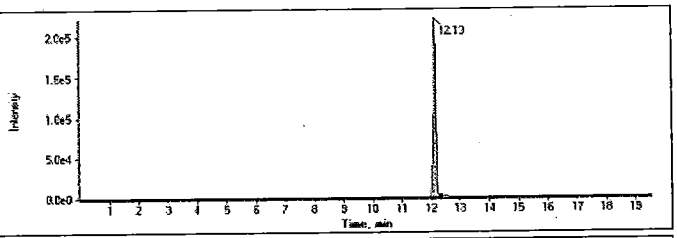
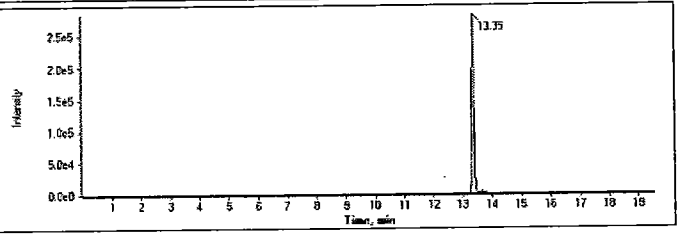
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	201312140151A	**Injection Vial**	32
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 5:46:08 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1284957.050000	12.13	100.00000	-
IS-13C-PFOS	1427606.900000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.032e+05	8.52	0.00000	0.003623
Surr-13c-PFHxA	1.305e+06	8.54	100.00000	104.279626
PFHpA	6.017e+04	10.60	0.00000	0.001319
PFHpA 2	1.197e+04	10.60	0.00000	0.001021
PFOA	1.360e+05	12.14	0.00000	0.003250
PFOA 2	4.771e+04	12.13	0.00000	0.003667
PFNA	2.856e+04	13.37	0.00000	0.000969
PFNA 2	6.374e+03	13.37	0.00000	0.000910
PFDA	8.288e+03	14.38	0.00000	0.000253
PFDA 2	5.395e+02	14.39	0.00000	0.000102
Surr-13c-PFDA	9.535e+05	14.38	100.00000	89.343797
PFUnA	1.961e+03	15.25	0.00000	0.000069
PFUnA 2	2.451e+02	15.22	0.00000	0.000055
PFDoA	1.471e+02	15.90	0.00000	0.000006
PFTrDA	2.452e+02	16.59	0.00000	0.000007
PFTrDA 2	N/A	N/A	0.00000	N/A
PFTA	1.470e+02	17.12	0.00000	0.000040
PFBS	1.905e+04	6.24	0.00000	0.001097
PFBS 2	5.032e+03	6.24	0.00000	0.001103
PFHxS	2.619e+04	10.72	0.00000	0.001406
PFHxS 2	8.217e+03	10.73	0.00000	0.001392
PFOS	2.489e+04	13.36	0.00000	0.001588
PFOS 2	7.895e+03	13.35	0.00000	0.001695
13C-PFOA	1.285e+06	12.13	100.00000	89.192720
13C-PFOS	1.428e+06	13.35	100.00000	92.636676

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

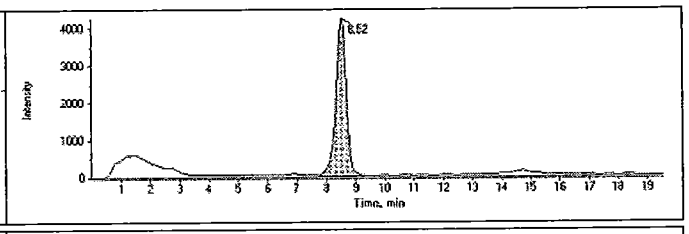
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.003623

Area Ratio: 8.035e-2

Sample Type: (Quality Control)



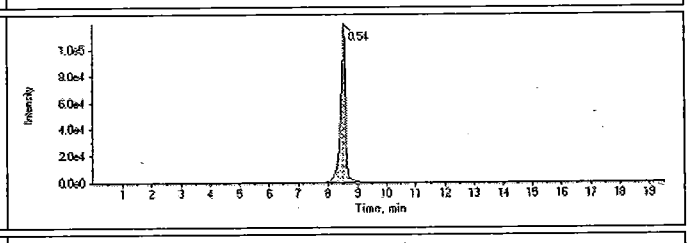
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 104.279626

Area Ratio: 1.016e0

Sample Type: (Quality Control)



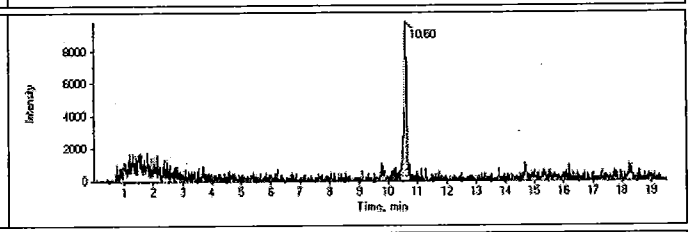
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.001319

Area Ratio: 4.683e-2

Sample Type: (Quality Control)



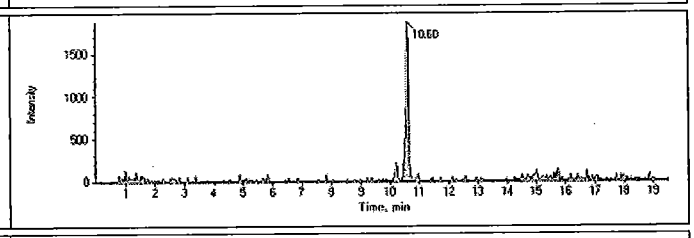
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.001021

Area Ratio: 9.312e-3

Sample Type: (Quality Control)



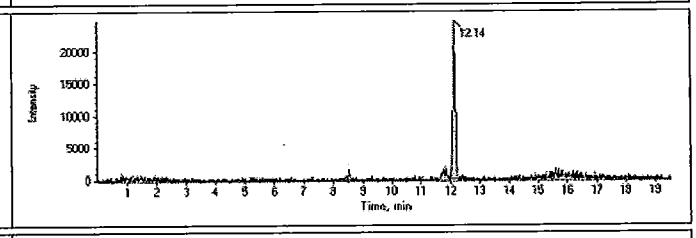
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.003250

Area Ratio: 1.059e-1

Sample Type: (Quality Control)



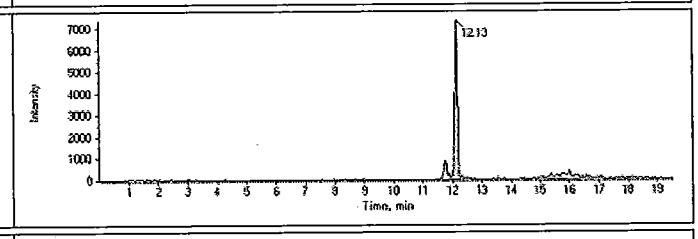
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.003667

Area Ratio: 3.713e-2

Sample Type: (Quality Control)



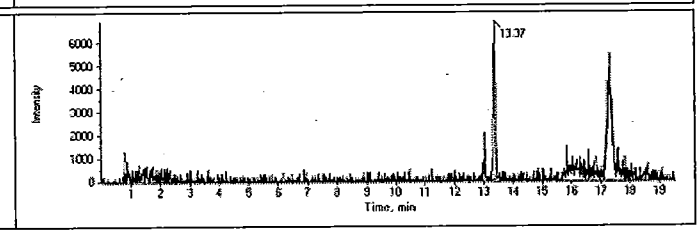
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.000969

Area Ratio: 2.223e-2

Sample Type: (Quality Control)



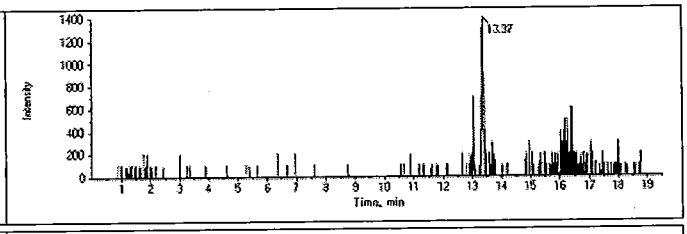
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.000910

Area Ratio: 4.961e-3

Sample Type: (Quality Control)



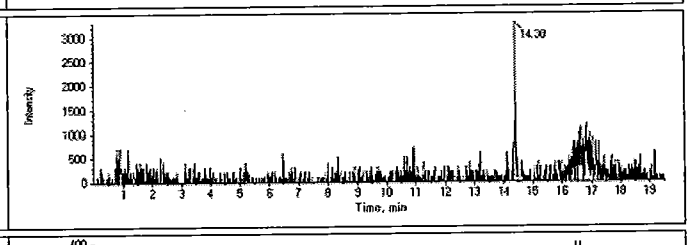
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.000253

Area Ratio: 6.450e-3

Sample Type: (Quality Control)



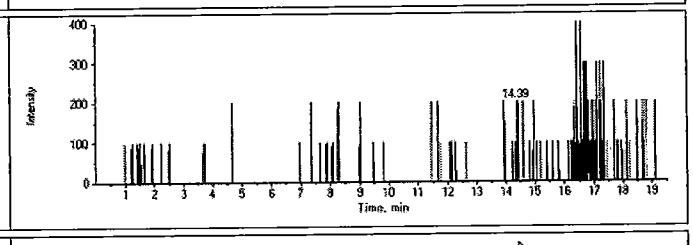
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.000102

Area Ratio: 4.199e-4

Sample Type: (Quality Control)



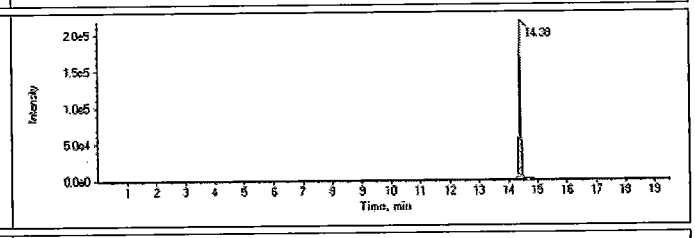
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 89.343797

Area Ratio: 7.421e-1

Sample Type: (Quality Control)



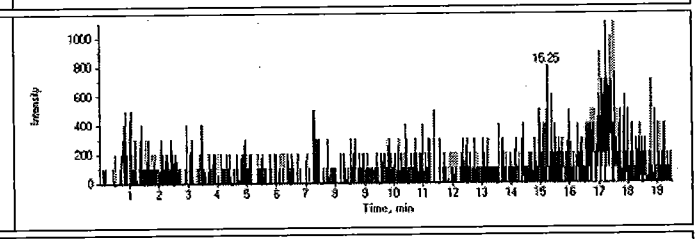
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.000069

Area Ratio: 1.526e-3

Sample Type: (Quality Control)



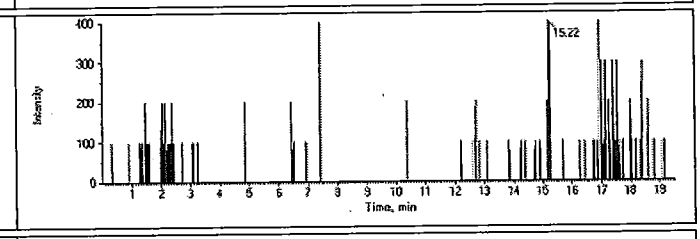
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.22 (15.23) min

Calculated conc: 0.000055

Area Ratio: 1.907e-4

Sample Type: (Quality Control)



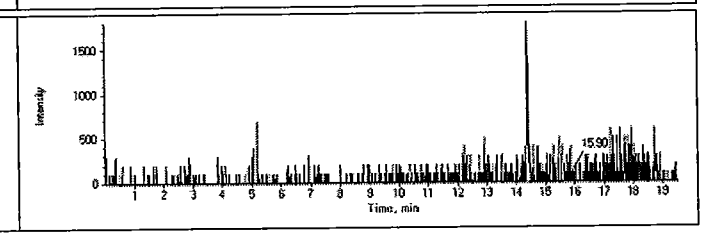
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.90 (15.97) min

Calculated conc: 0.000006

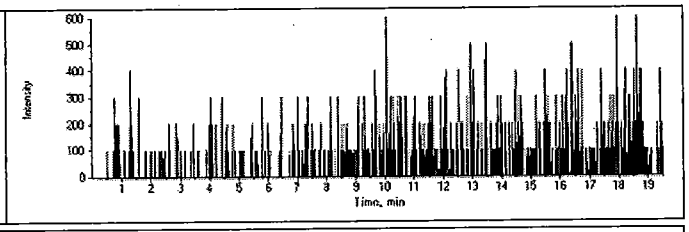
Area Ratio: 1.145e-4

Sample Type: (Quality Control)



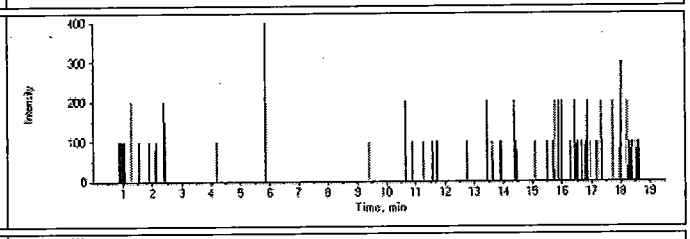
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.59 (16.60) min
Calculated conc: 0.000007
Area Ratio: 1.908e-4
Sample Type: (Quality Control)



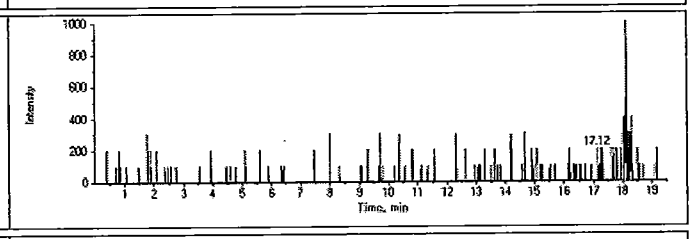
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): N/A (16.60) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



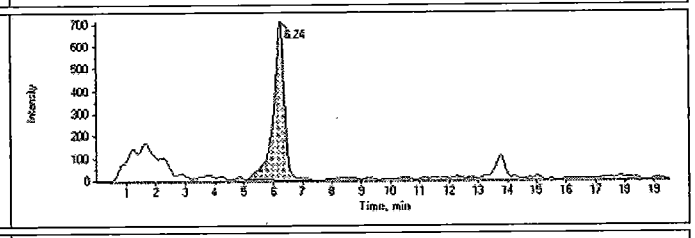
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.12 (17.15) min
Calculated conc: 0.000040
Area Ratio: 1.144e-4
Sample Type: (Quality Control)



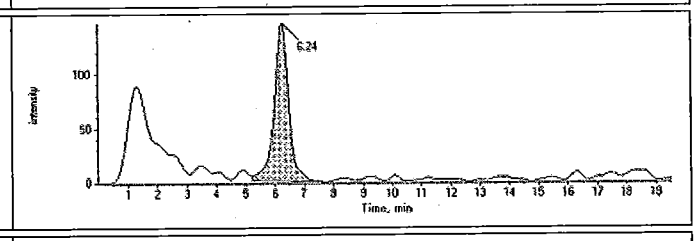
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.24 (6.27) min
Calculated conc: 0.001097
Area Ratio: 1.335e-2
Sample Type: (Quality Control)



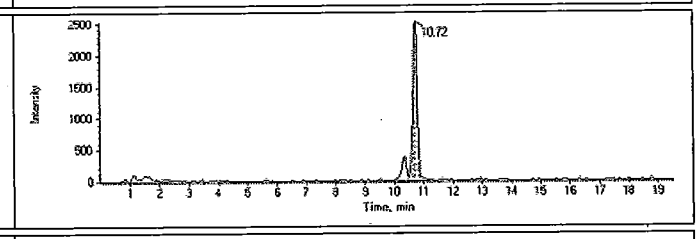
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min
Calculated conc: 0.001103
Area Ratio: 3.525e-3
Sample Type: (Quality Control)



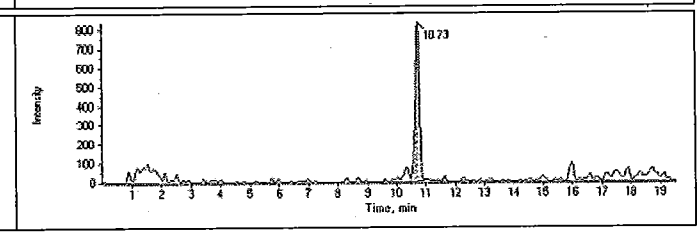
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.73) min
Calculated conc: 0.001406
Area Ratio: 1.834e-2
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min
Calculated conc: 0.001392
Area Ratio: 5.756e-3
Sample Type: (Quality Control)



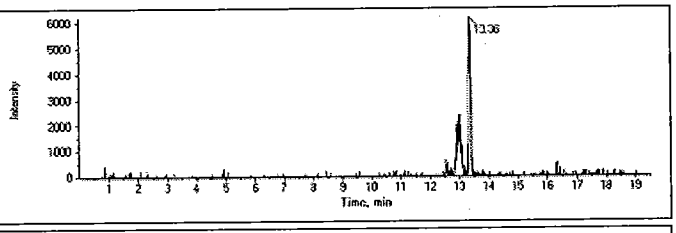
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001588

Area Ratio: 1.743e-2

Sample Type: (Quality Control)



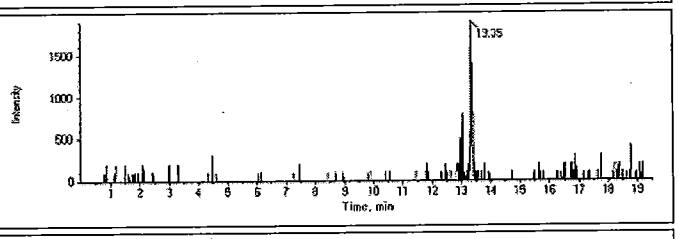
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.001695

Area Ratio: 5.531e-3

Sample Type: (Quality Control)



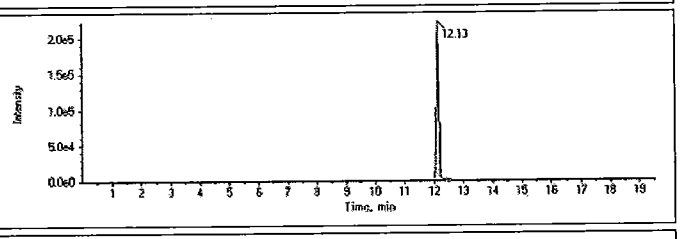
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 89.192720

Area Ratio: N/A

Sample Type: (Quality Control)



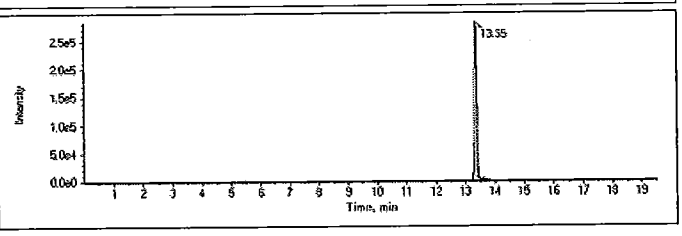
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 92.636676

Area Ratio: N/A

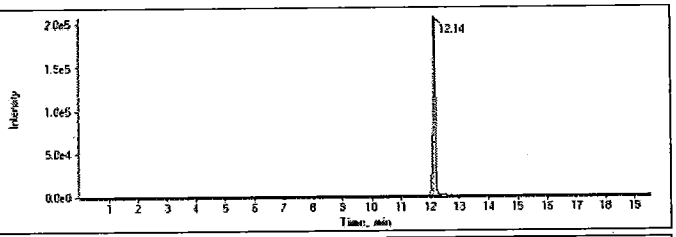
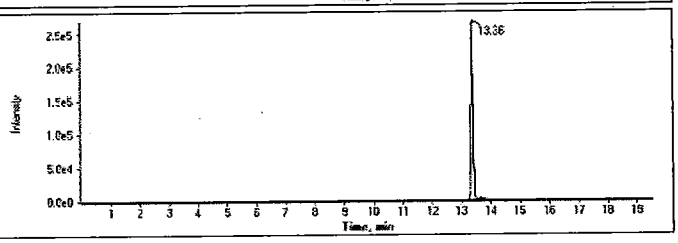
Sample Type: (Quality Control)



Sample Name	201312140152A	**Injection Vial**	33
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 6:06:18 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1215905.350000	12.14	100.00000	-
IS-13C-PFOS	1409409.350000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	6.353e+04	8.52	0.00000	0.002356
Surr-13c-PFHxA	1.350e+06	8.55	100.00000	113.978516
PFHpA	5.990e+04	10.61	0.00000	0.001388
PFHpA 2	1.809e+04	10.61	0.00000	0.001631
PFOA	1.562e+05	12.15	0.00000	0.003944
PFOA 2	5.084e+04	12.14	0.00000	0.004130
PFNA	3.764e+05	13.38	0.00000	0.013488
PFNA 2	8.371e+04	13.37	0.00000	0.012627
PFDA	3.727e+03	14.39	0.00000	0.000120
PFDA 2	4.905e+02	14.41	0.00000	0.000098
Surr-13c-PFDA	1.021e+06	14.39	100.00000	101.070625
PFUnA	1.324e+03	15.25	0.00000	0.000049
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	5.395e+02	15.97	0.00000	0.000022
PFTrDA	2.942e+02	16.60	0.00000	0.000008
PFTrDA 2	9.805e+01	16.26	0.00000	0.000016
PFTA	9.815e+01	17.12	0.00000	0.000028
PFBS	1.029e+04	6.27	0.00000	0.000600
PFBS 2	2.500e+03	6.23	0.00000	0.000555
PFHxS	2.443e+04	10.73	0.00000	0.001329
PFHxS 2	8.138e+03	10.74	0.00000	0.001397
PFOS	1.805e+04	13.37	0.00000	0.001167
PFOS 2	5.198e+03	13.35	0.00000	0.001130
13C-PFOA	1.216e+06	12.14	100.00000	84.399634
13C-PFOS	1.409e+06	13.36	100.00000	91.455846

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

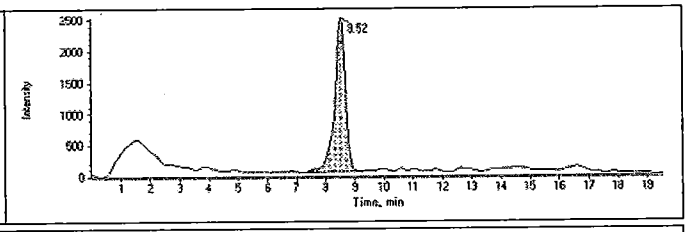
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.002356

Area Ratio: 5.225e-2

Sample Type: (Quality Control)



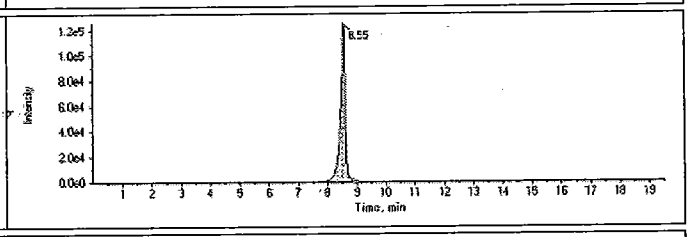
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 113.978516

Area Ratio: 1.110e0

Sample Type: (Quality Control)



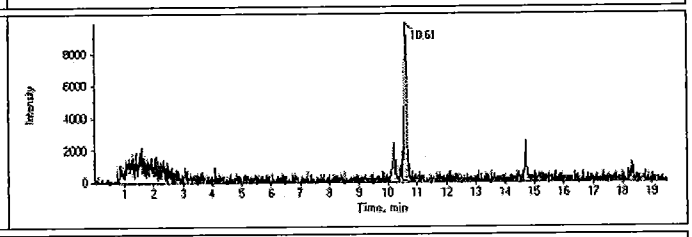
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.001388

Area Ratio: 4.927e-2

Sample Type: (Quality Control)



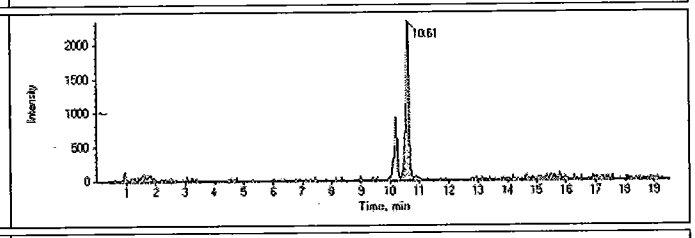
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.001631

Area Ratio: 1.488e-2

Sample Type: (Quality Control)



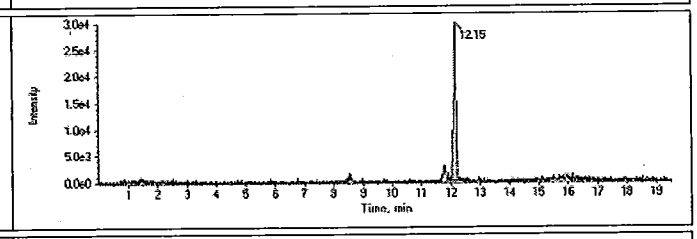
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.003944

Area Ratio: 1.285e-1

Sample Type: (Quality Control)



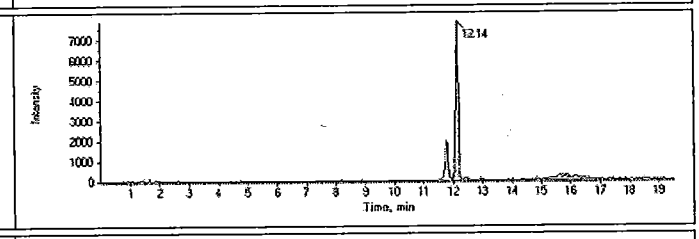
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.004130

Area Ratio: 4.181e-2

Sample Type: (Quality Control)



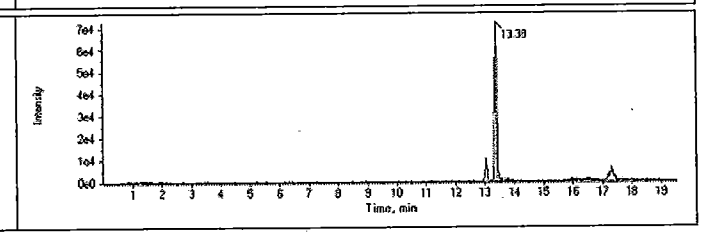
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.013488

Area Ratio: 3.096e-1

Sample Type: (Quality Control)

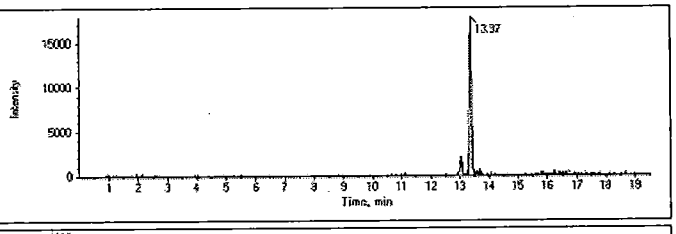


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.012627

Area Ratio: 6.885e-2
Sample Type: (Quality Control)

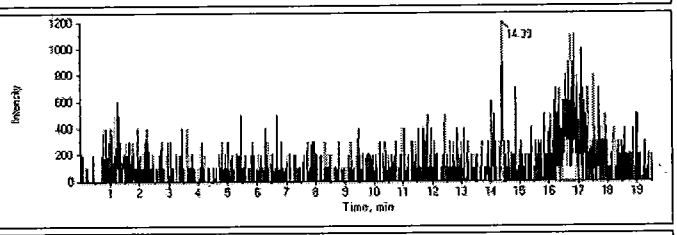


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.000120

Area Ratio: 3.065e-3
Sample Type: (Quality Control)

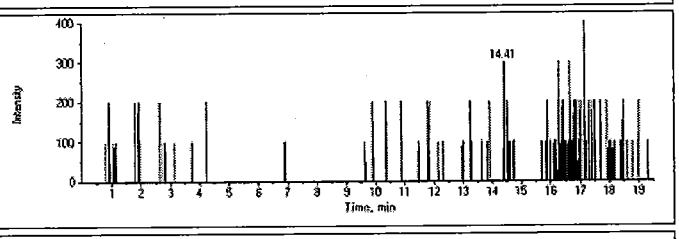


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.41 (14.37) min

Calculated conc: 0.000098

Area Ratio: 4.034e-4
Sample Type: (Quality Control)

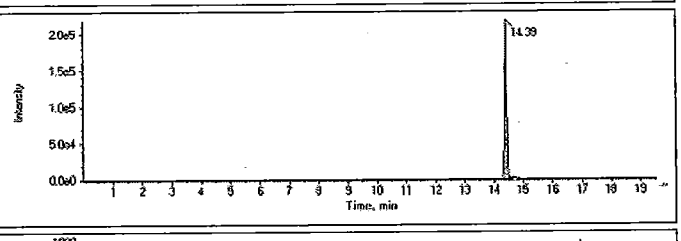


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 101.070625

Area Ratio: 8.395e-1
Sample Type: (Quality Control)

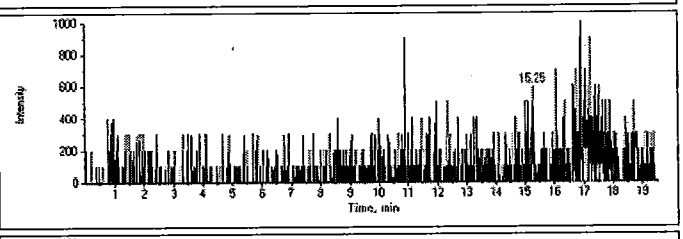


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.000049

Area Ratio: 1.089e-3
Sample Type: (Quality Control)

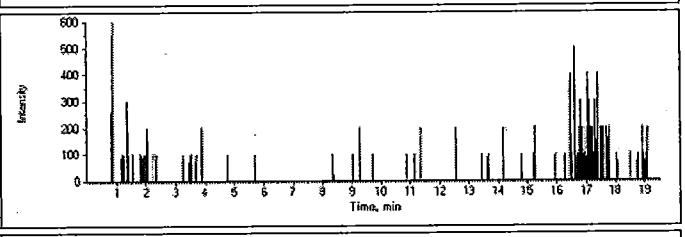


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min

Calculated conc: N/A

Area Ratio: N/A
Sample Type: (Quality Control)

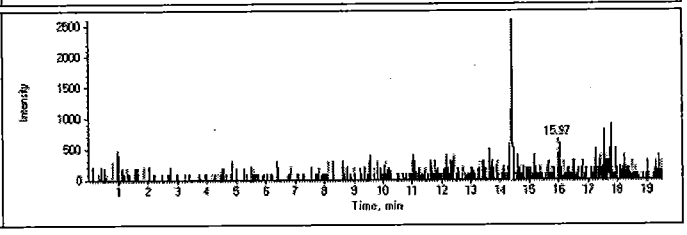


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.000022

Area Ratio: 4.437e-4
Sample Type: (Quality Control)



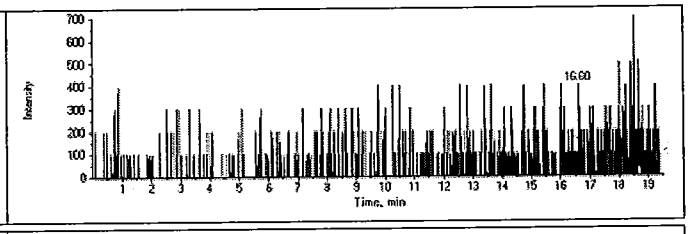
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.000008

Area Ratio: 2.419e-4

Sample Type: (Quality Control)



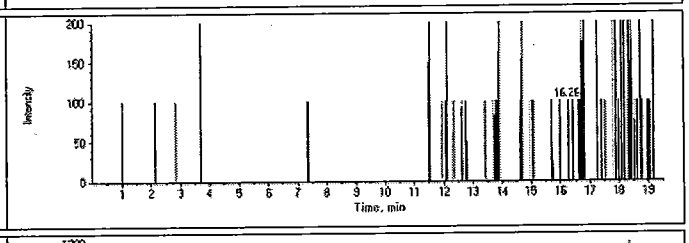
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.26 (16.60) min

Calculated conc: 0.000016

Area Ratio: 8.064e-5

Sample Type: (Quality Control)



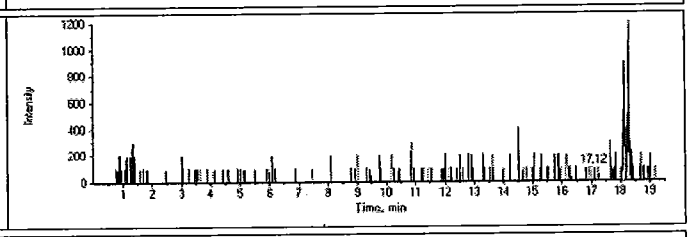
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.12 (17.15) min

Calculated conc: 0.000028

Area Ratio: 8.072e-5

Sample Type: (Quality Control)



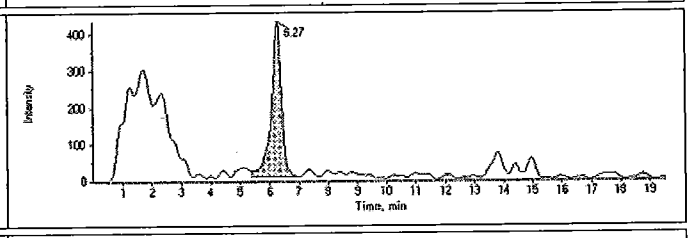
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.27 (6.27) min

Calculated conc: 0.000600

Area Ratio: 7.299e-3

Sample Type: (Quality Control)



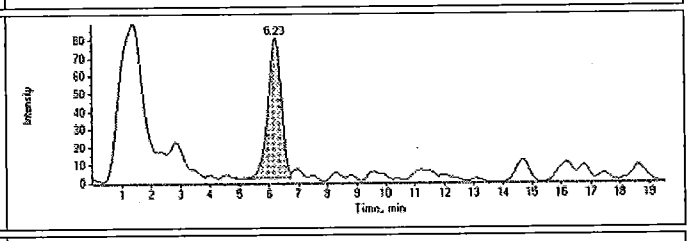
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.23 (6.28) min

Calculated conc: 0.000555

Area Ratio: 1.773e-3

Sample Type: (Quality Control)



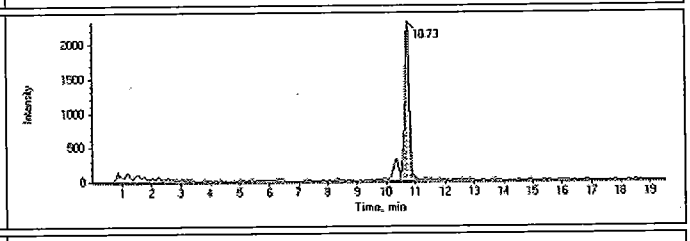
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.001329

Area Ratio: 1.733e-2

Sample Type: (Quality Control)



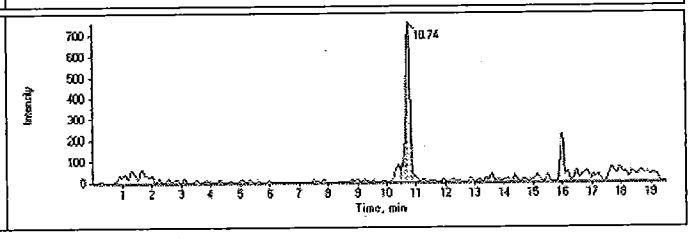
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.001397

Area Ratio: 5.774e-3

Sample Type: (Quality Control)



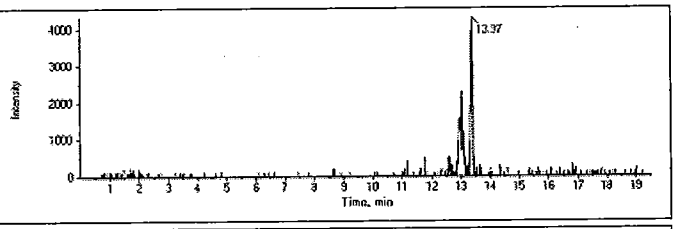
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.37 (13.34) min

Calculated conc: 0.001167

Area Ratio: 1.280e-2

Sample Type: (Quality Control)



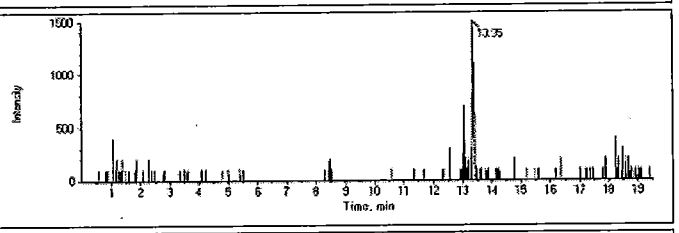
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.001130

Area Ratio: 3.688e-3

Sample Type: (Quality Control)



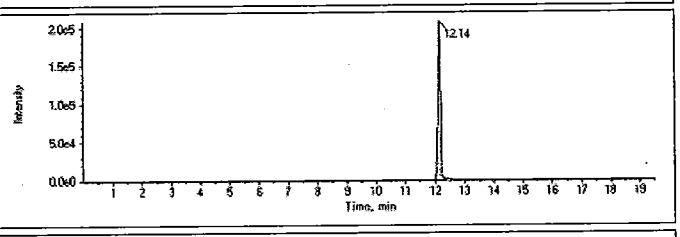
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 84.399634

Area Ratio: N/A

Sample Type: (Quality Control)



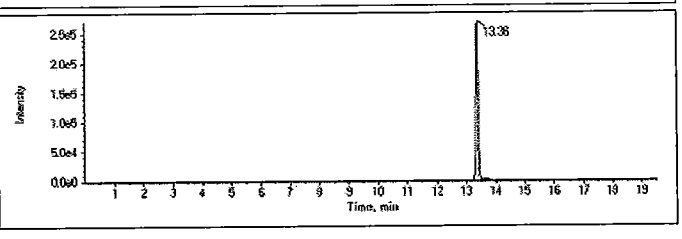
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 91.455846

Area Ratio: N/A

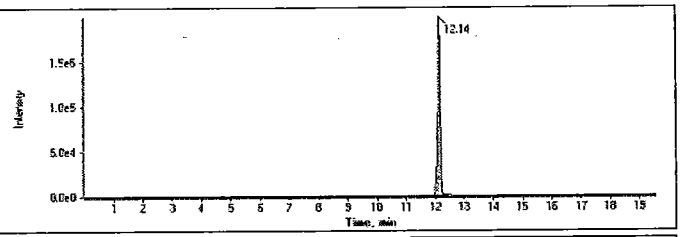
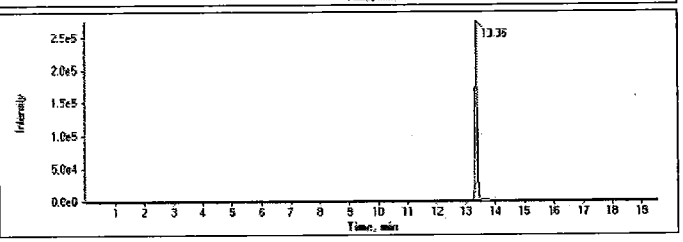
Sample Type: (Quality Control)



Sample Name	201312140153A	**Injection Vial**	34
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 6:26:27 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1176006.100000	12.14	100.00000	-
IS-13C-PFOS	1360413.150000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.832e+04	8.51	0.00000	0.001852
Surr-13c-PFHxA	1.185e+06	8.54	100.00000	103.426984
PFHpA	4.754e+04	10.60	0.00000	0.001139
PFHpA 2	1.224e+04	10.60	0.00000	0.001141
PFOA	1.307e+05	12.14	0.00000	0.003412
PFOA 2	3.635e+04	12.14	0.00000	0.003053
PFNA	2.229e+05	13.37	0.00000	0.008258
PFNA 2	4.762e+04	13.37	0.00000	0.007426
PFDA	2.796e+03	14.37	0.00000	0.000093
PFDA 2	1.471e+02	14.38	0.00000	0.000031
Surr-13c-PFDA	9.927e+05	14.39	100.00000	101.630487
PFUnA	3.922e+02	15.21	0.00000	0.000015
PFUnA 2	9.805e+01	15.24	0.00000	0.000024
PFDoA	3.436e+02	15.97	0.00000	0.000014
PFTrDA	2.942e+02	16.58	0.00000	0.000009
PFTrDA 2	1.472e+02	16.63	0.00000	0.000025
PFTA	N/A	N/A	0.00000	N/A
PFBS	8.297e+03	6.24	0.00000	0.000501
PFBS 2	2.039e+03	6.19	0.00000	0.000469
PFHxS	1.673e+04	10.73	0.00000	0.000943
PFHxS 2	6.263e+03	10.73	0.00000	0.001114
PFOS	1.628e+04	13.36	0.00000	0.001090
PFOS 2	4.315e+03	13.36	0.00000	0.000972
13C-PFOA	1.176e+06	12.14	100.00000	81.630108
13C-PFOS	1.360e+06	13.36	100.00000	88.276508

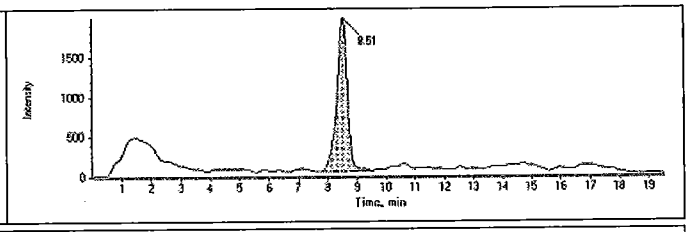
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.51 (8.55) min

Calculated conc: 0.001852

Area Ratio: 4.109e-2
Sample Type: (Quality Control)

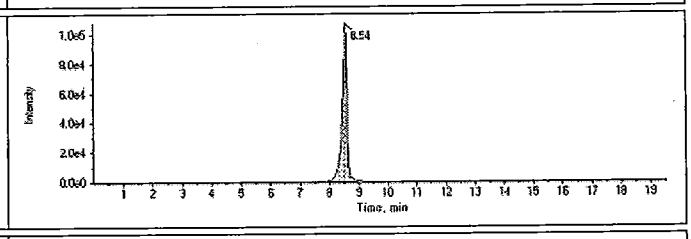


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 103.426984

Area Ratio: 1.007e0
Sample Type: (Quality Control)

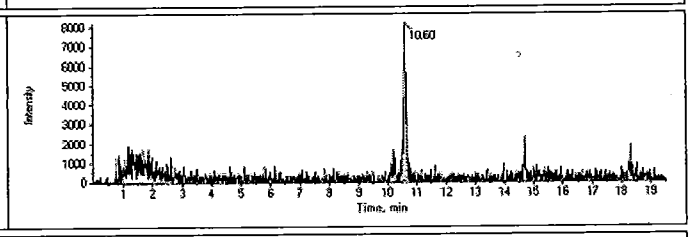


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.001139

Area Ratio: 4.043e-2
Sample Type: (Quality Control)

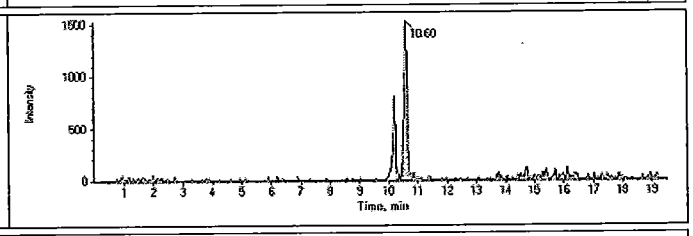


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.001141

Area Ratio: 1.041e-2
Sample Type: (Quality Control)

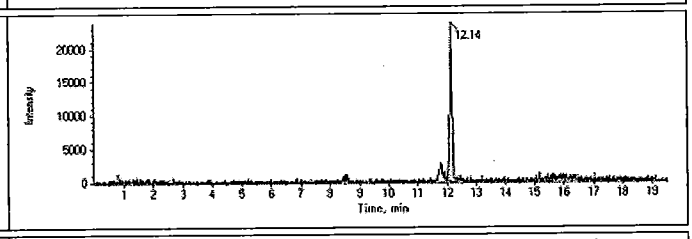


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.003412

Area Ratio: 1.111e-1
Sample Type: (Quality Control)

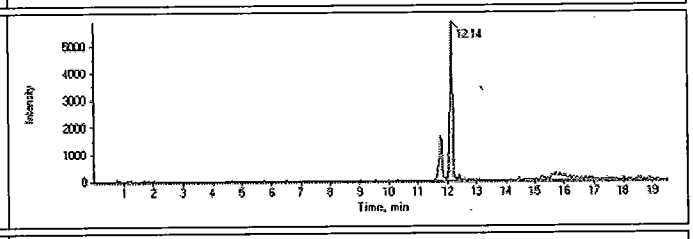


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.003053

Area Ratio: 3.091e-2
Sample Type: (Quality Control)

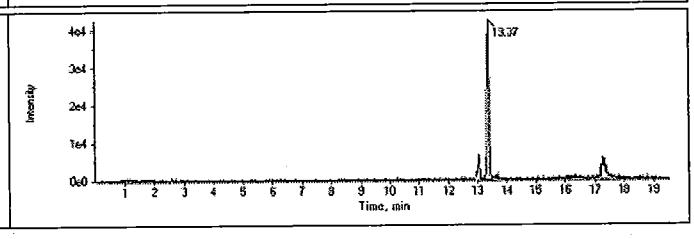


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.008258

Area Ratio: 1.895e-1
Sample Type: (Quality Control)



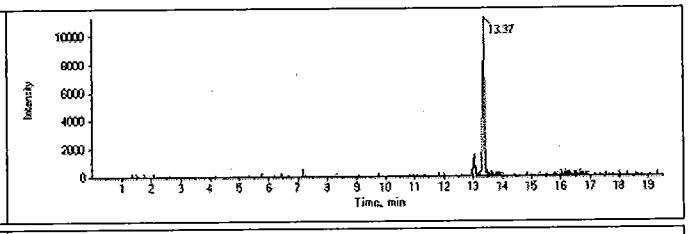
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.007426

Area Ratio: 4.049e-2

Sample Type: (Quality Control)



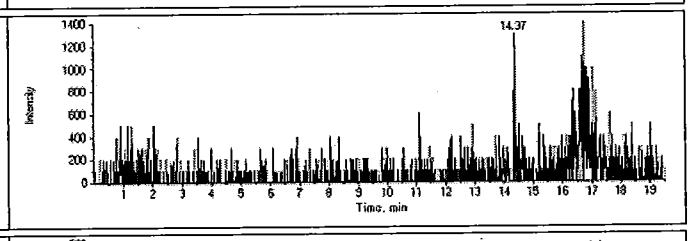
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min

Calculated conc: 0.000093

Area Ratio: 2.377e-3

Sample Type: (Quality Control)



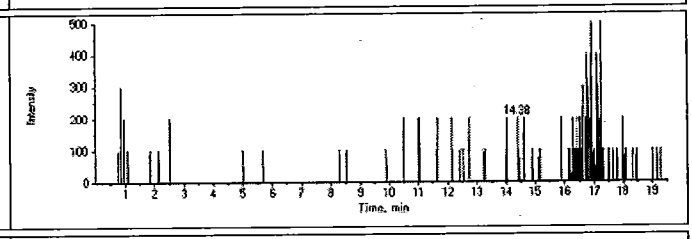
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min

Calculated conc: 0.000031

Area Ratio: 1.251e-4

Sample Type: (Quality Control)



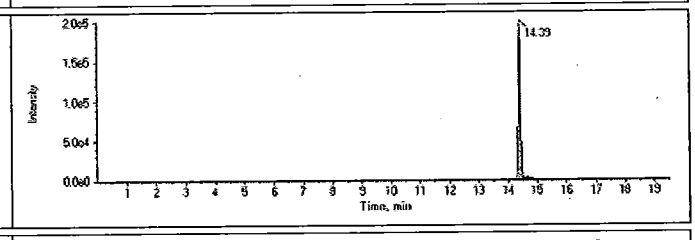
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 101.630487

Area Ratio: 8.441e-1

Sample Type: (Quality Control)



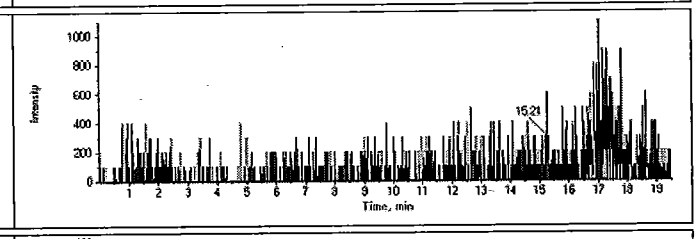
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min

Calculated conc: 0.000015

Area Ratio: 3.335e-4

Sample Type: (Quality Control)



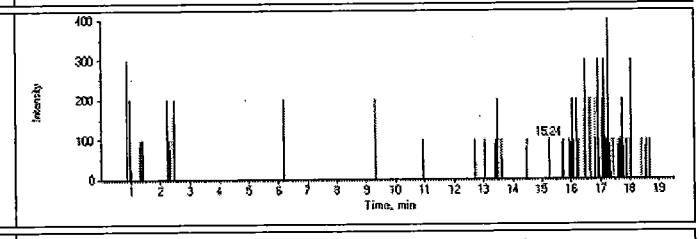
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.24 (15.23) min

Calculated conc: 0.000024

Area Ratio: 8.338e-5

Sample Type: (Quality Control)



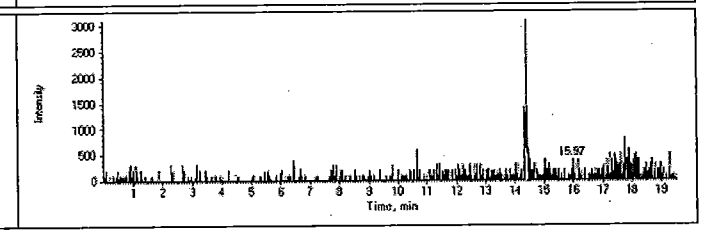
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min

Calculated conc: 0.000014

Area Ratio: 2.921e-4

Sample Type: (Quality Control)



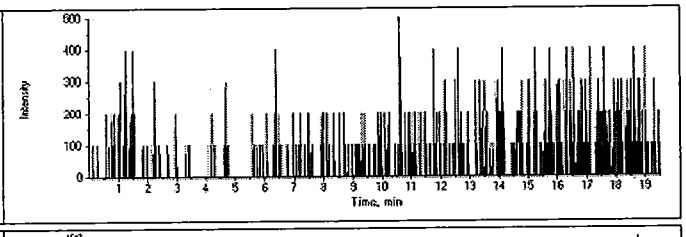
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.58 (16.60) min

Calculated conc: 0.000009

Area Ratio: 2.501e-4

Sample Type: (Quality Control)



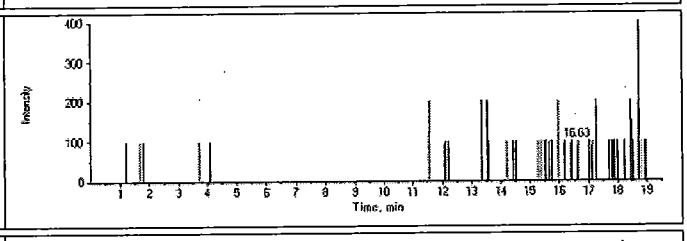
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.000025

Area Ratio: 1.251e-4

Sample Type: (Quality Control)



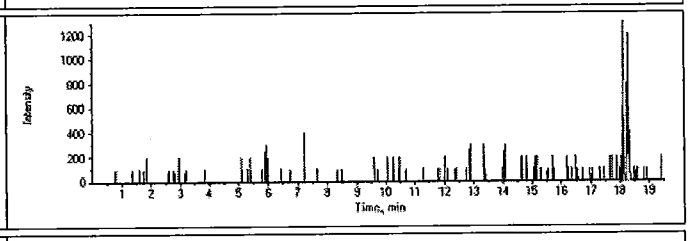
PFTA (713.3 / 669.0)

RT (Exp. RT): N/A (17.15) min

Calculated conc: N/A

Area Ratio: N/A

Sample Type: (Quality Control)



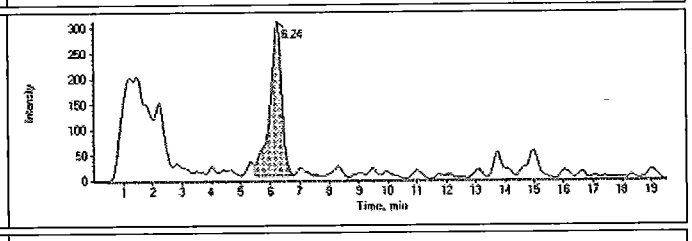
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.24 (6.27) min

Calculated conc: 0.000501

Area Ratio: 6.099e-3

Sample Type: (Quality Control)



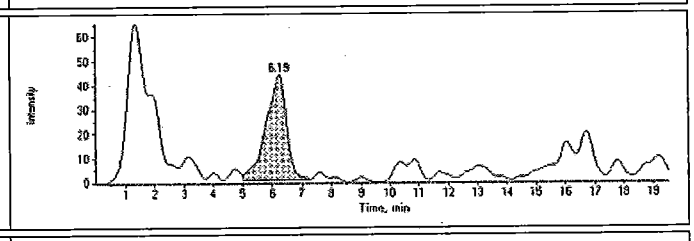
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.19 (6.28) min

Calculated conc: 0.000469

Area Ratio: 1.499e-3

Sample Type: (Quality Control)



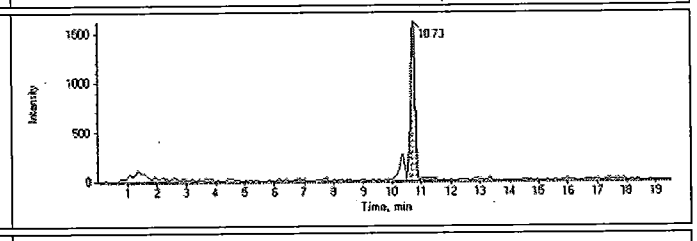
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000943

Area Ratio: 1.230e-2

Sample Type: (Quality Control)



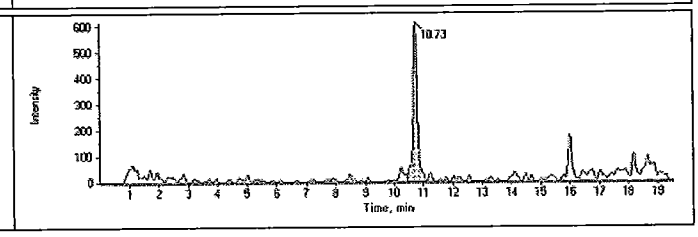
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.001114

Area Ratio: 4.604e-3

Sample Type: (Quality Control)

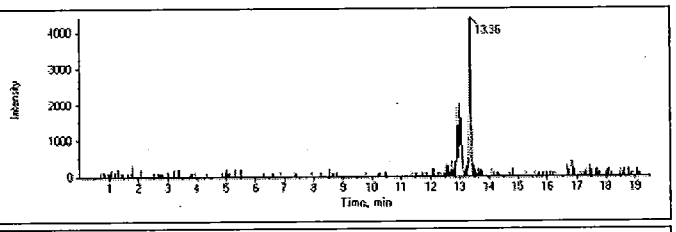


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001090

Area Ratio: 1.197e-2
Sample Type: (Quality Control)

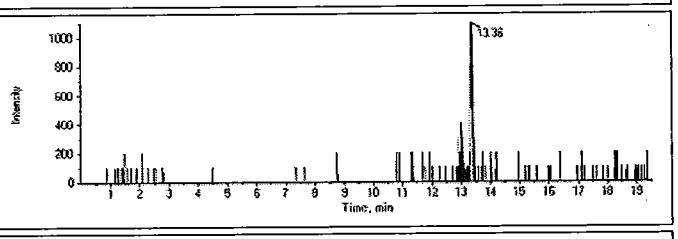


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.000972

Area Ratio: 3.172e-3
Sample Type: (Quality Control)

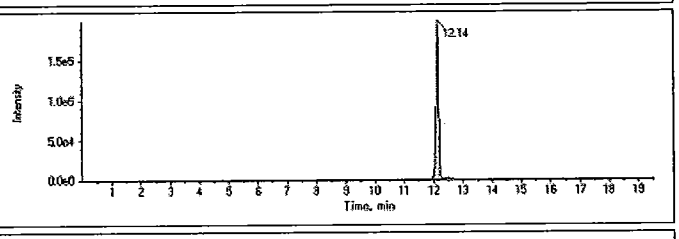


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 81.630108

Area Ratio: N/A
Sample Type: (Quality Control)

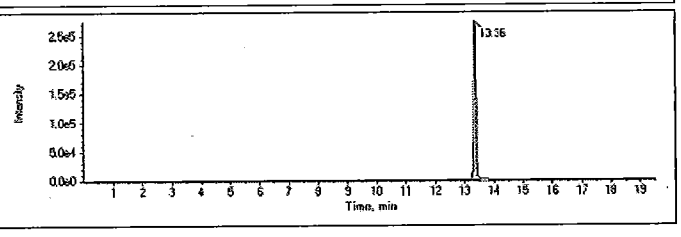


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 88.276508

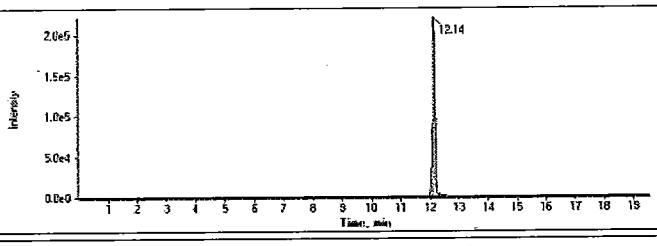
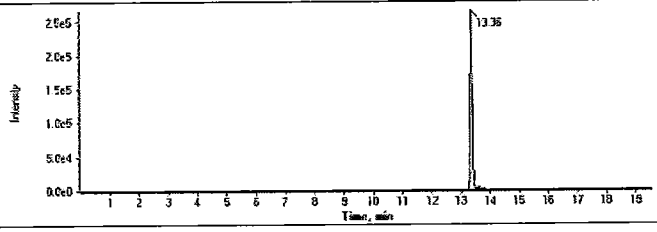
Area Ratio: N/A
Sample Type: (Quality Control)



Sample Name	CCCH	**Injection Vial**	6
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 6:46:37 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1327959.750000	12.14	100.00000	-
IS-13C-PFOS	1426609.050000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.099e+06	8.52	0.04000	0.037298
Surr-13c-PFHxA	1.259e+06	8.54	100.00000	97.365284
PFHpA	1.794e+06	10.60	0.04000	0.038058
PFHpA 2	4.618e+05	10.60	0.04000	0.038124
PFOA	1.720e+06	12.14	0.04000	0.039766
PFOA 2	5.283e+05	12.14	0.04000	0.039294
PFNA	1.244e+06	13.37	0.04000	0.040826
PFNA 2	2.842e+05	13.37	0.04000	0.039257
PFDA	1.355e+06	14.39	0.04000	0.040005
PFDA 2	2.193e+05	14.39	0.04000	0.040311
Surr-13c-PFDA	1.076e+06	14.39	100.00000	97.531476
PFUnA	1.272e+06	15.25	0.04000	0.043131
PFUnA 2	1.948e+05	15.25	0.04000	0.042402
PFDoA	1.070e+06	15.98	0.04000	0.039125
PFTrDA	1.403e+06	16.62	0.04000	0.036026
PFTrDA 2	2.367e+05	16.62	0.04000	0.034949
PFTA	1.408e+05	17.16	0.04000	0.037329
PFBS	6.228e+05	6.25	0.03550	0.035892
PFBS 2	1.582e+05	6.24	0.03550	0.034700
PFHxS	7.165e+05	10.73	0.03790	0.038505
PFHxS 2	2.324e+05	10.73	0.03790	0.039409
PFOS	6.127e+05	13.36	0.03830	0.039125
PFOS 2	1.704e+05	13.36	0.03830	0.036590
13C-PFOA	1.328e+06	12.14	100.00000	92.177666
13C-PFOS	1.427e+06	13.36	100.00000	92.571926

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

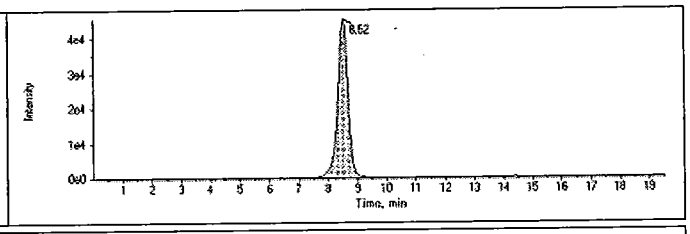
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.037298

Area Ratio: 8.273e-1

Sample Type: (Quality Control)



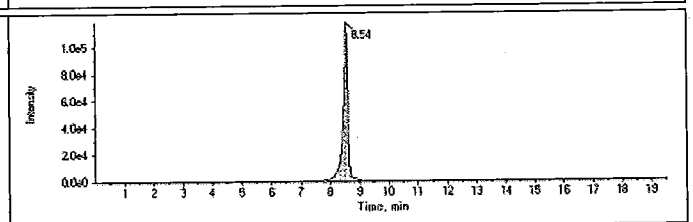
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 97.365284

Area Ratio: 9.483e-1

Sample Type: (Quality Control)



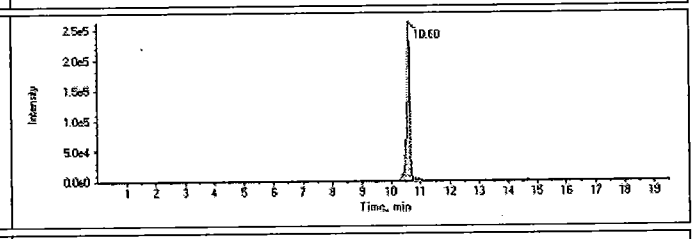
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.038058

Area Ratio: 1.351e0

Sample Type: (Quality Control)



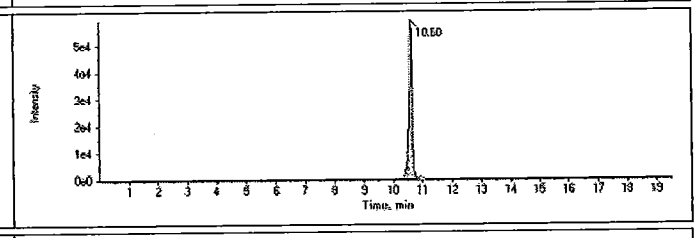
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.038124

Area Ratio: 3.478e-1

Sample Type: (Quality Control)



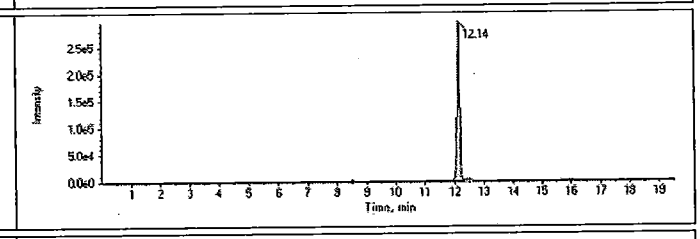
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.039766

Area Ratio: 1.295e0

Sample Type: (Quality Control)



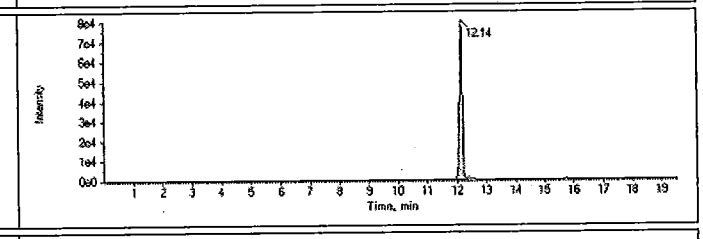
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.039294

Area Ratio: 3.978e-1

Sample Type: (Quality Control)



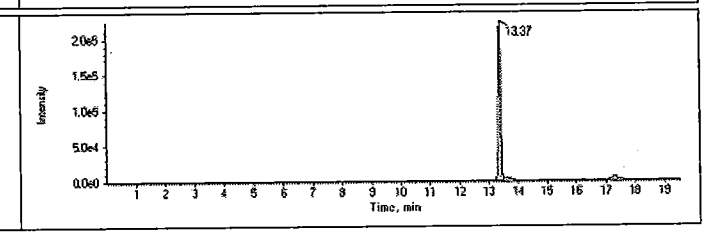
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.040826

Area Ratio: 9.370e-1

Sample Type: (Quality Control)

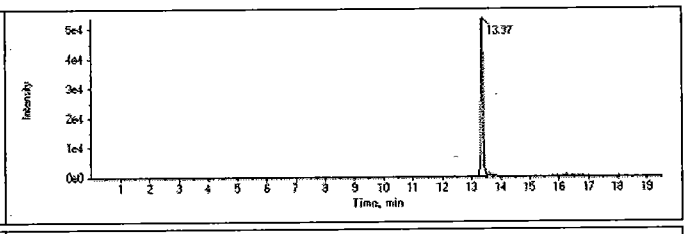


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.039257

Area Ratio: 2.140e-1
Sample Type: (Quality Control)

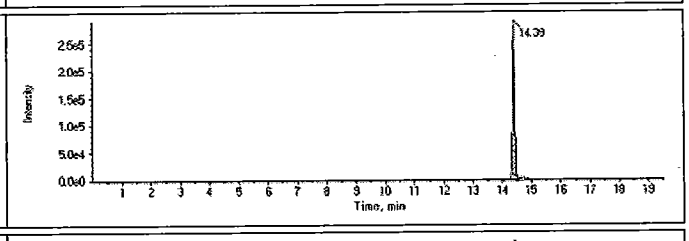


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.040005

Area Ratio: 1.021e0
Sample Type: (Quality Control)

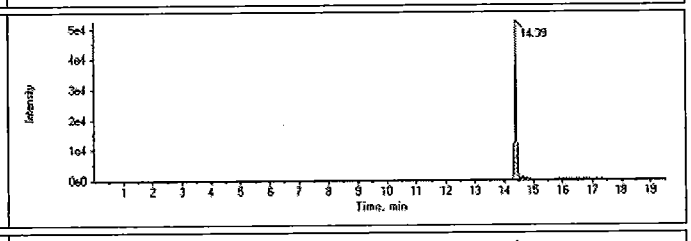


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.040311

Area Ratio: 1.652e-1
Sample Type: (Quality Control)

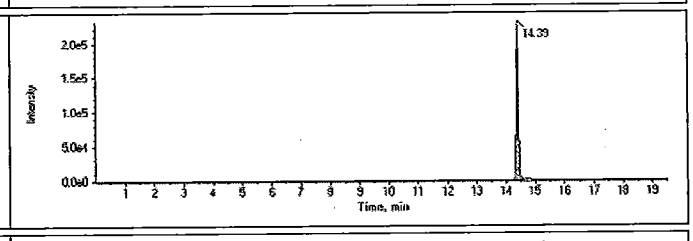


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 97.531476

Area Ratio: 8.101e-1
Sample Type: (Quality Control)

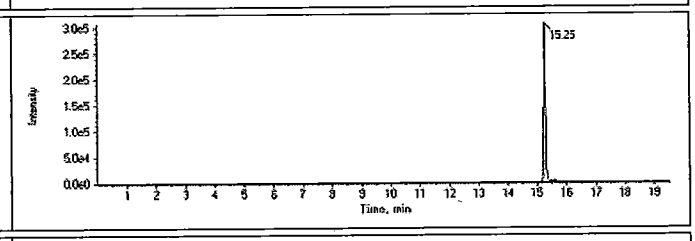


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.043131

Area Ratio: 9.577e-1
Sample Type: (Quality Control)

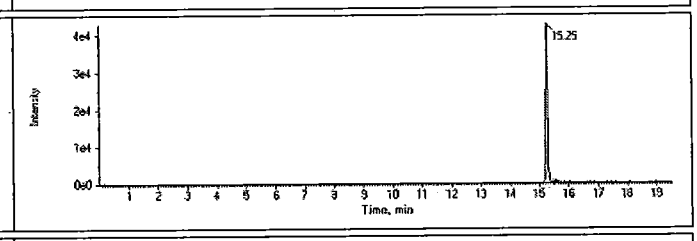


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.042402

Area Ratio: 1.467e-1
Sample Type: (Quality Control)

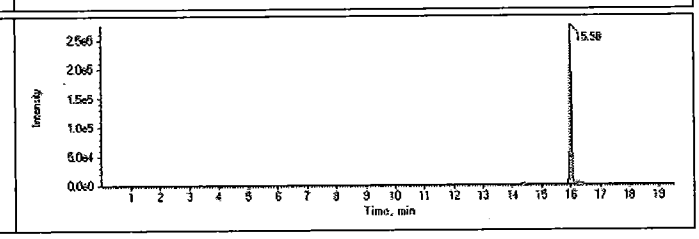


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min

Calculated conc: 0.039125

Area Ratio: 8.059e-1
Sample Type: (Quality Control)



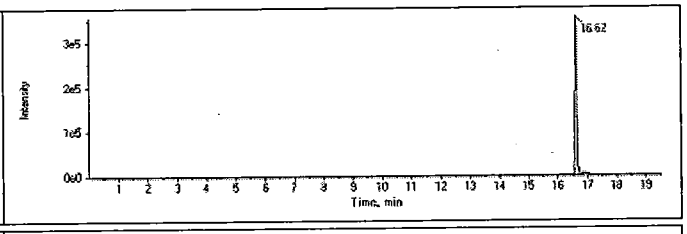
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.036026

Area Ratio: 1.057e0

Sample Type: (Quality Control)



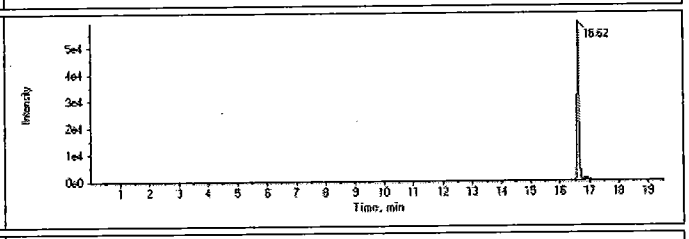
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.034949

Area Ratio: 1.782e-1

Sample Type: (Quality Control)



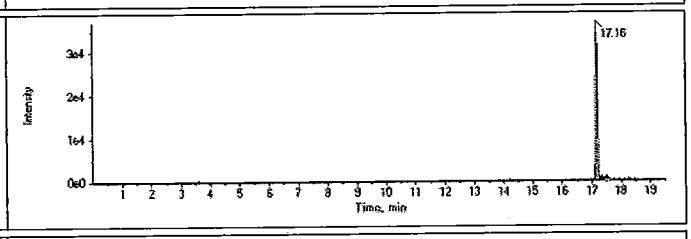
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.037329

Area Ratio: 1.061e-1

Sample Type: (Quality Control)



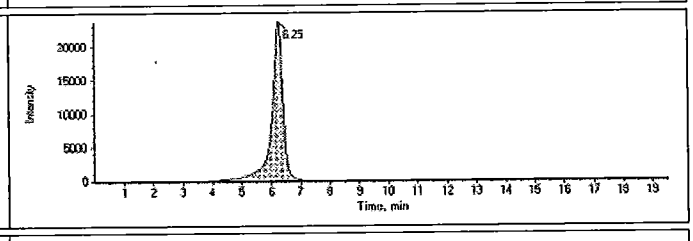
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.25 (6.27) min

Calculated conc: 0.035892

Area Ratio: 4.365e-1

Sample Type: (Quality Control)



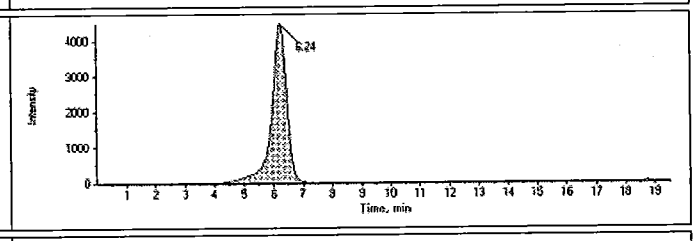
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.034700

Area Ratio: 1.109e-1

Sample Type: (Quality Control)



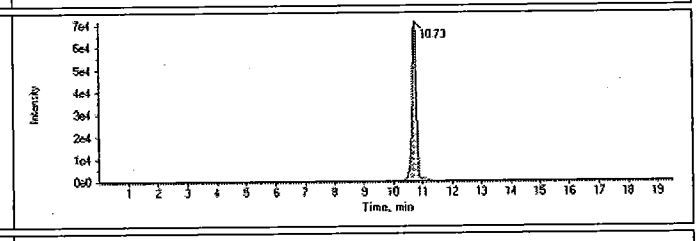
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.038505

Area Ratio: 5.022e-1

Sample Type: (Quality Control)



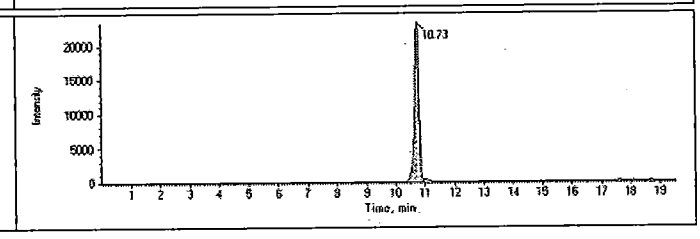
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.039409

Area Ratio: 1.629e-1

Sample Type: (Quality Control)



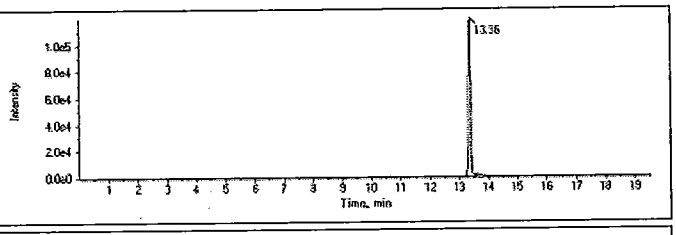
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.039125

Area Ratio: 4.295e-1

Sample Type: (Quality Control)



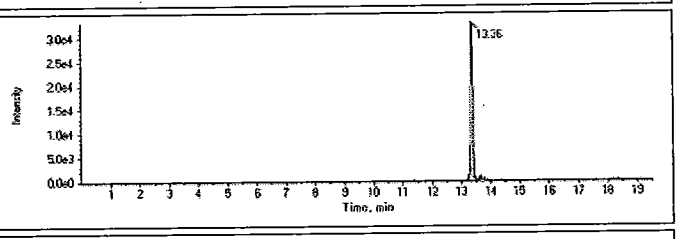
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.036590

Area Ratio: 1.194e-1

Sample Type: (Quality Control)



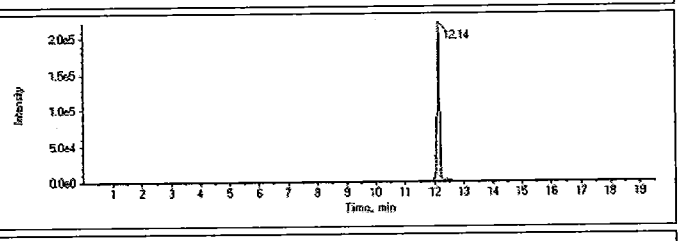
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 92.177666

Area Ratio: N/A

Sample Type: (Quality Control)



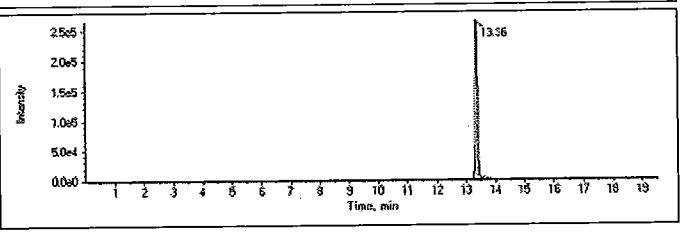
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 92.571926

Area Ratio: N/A

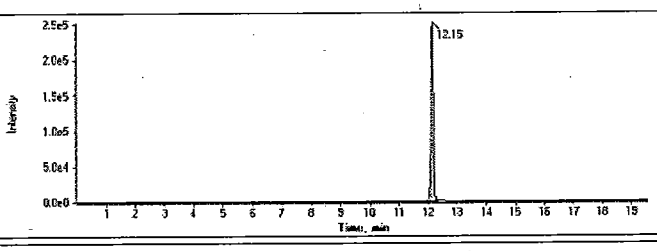
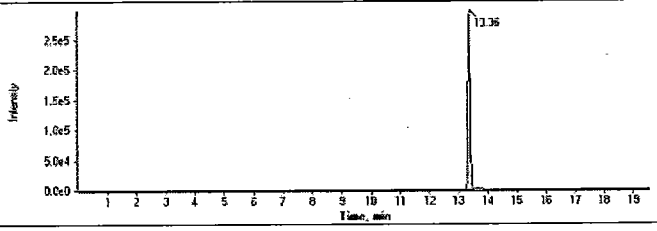
Sample Type: (Quality Control)



Sample Name	CCCL_0.0025ppb	**Injection Vial**	37
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 11:44:50 AM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1420596.850000	12.15	100.00000	-
IS-13C-PFOS	1511934.200000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	6.949e+04	8.58	0.00250	0.002205
Surr-13c-PFHxA	1.314e+06	8.60	100.00000	94.986489
PFHpA	1.296e+05	10.63	0.00250	0.002570
PFHpA 2	3.345e+04	10.63	0.00250	0.002581
PFOA	1.330e+05	12.15	0.00250	0.002875
PFOA 2	3.854e+04	12.15	0.00250	0.002680
PFNA	1.074e+05	13.37	0.00250	0.003294
PFNA 2	2.496e+04	13.38	0.00250	0.003223
PFDA	1.056e+05	14.39	0.00250	0.002914
PFDA 2	1.770e+04	14.39	0.00250	0.003041
Surr-13c-PFDA	1.356e+06	14.39	100.00000	114.911965
PFUnA	9.651e+04	15.25	0.00250	0.003060
PFUnA 2	1.506e+04	15.25	0.00250	0.003063
PFDoA	8.729e+04	15.98	0.00250	0.002983
PFTrDA	1.165e+05	16.62	0.00250	0.002796
PFTrDA 2	1.800e+04	16.62	0.00250	0.002484
PFTA	1.437e+04	17.16	0.00250	0.003560
PFBS	3.885e+04	6.34	0.00222	0.002113
PFBS 2	9.084e+03	6.32	0.00222	0.001880
PFHxS	4.352e+04	10.75	0.00237	0.002207
PFHxS 2	1.413e+04	10.76	0.00237	0.002261
PFOS	4.497e+04	13.36	0.00240	0.002710
PFOS 2	1.157e+04	13.36	0.00240	0.002345
13C-PFOA	1.421e+06	12.15	100.00000	98.607885
13C-PFOS	1.512e+06	13.36	100.00000	98.108631

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

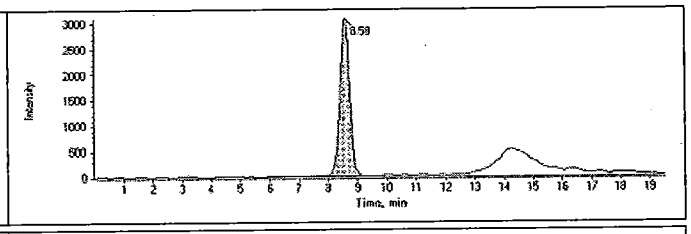
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.58 (8.55) min

Calculated conc: 0.002205

Area Ratio: 4.892e-2

Sample Type: (Quality Control)



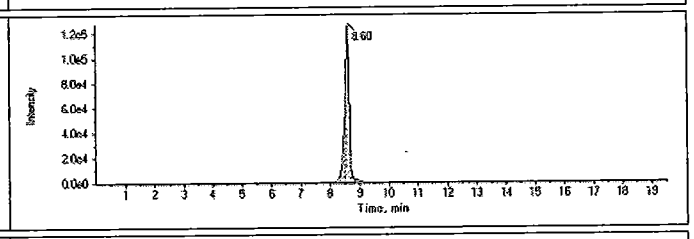
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.60 (8.54) min

Calculated conc: 94.986489

Area Ratio: 9.251e-1

Sample Type: (Quality Control)



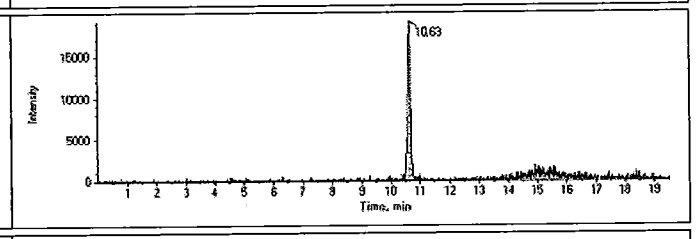
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.63 (10.60) min

Calculated conc: 0.002570

Area Ratio: 9.124e-2

Sample Type: (Quality Control)



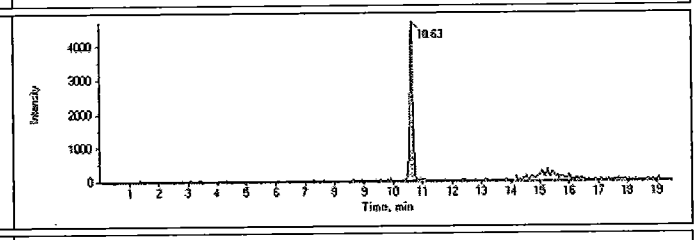
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.63 (10.60) min

Calculated conc: 0.002581

Area Ratio: 2.355e-2

Sample Type: (Quality Control)



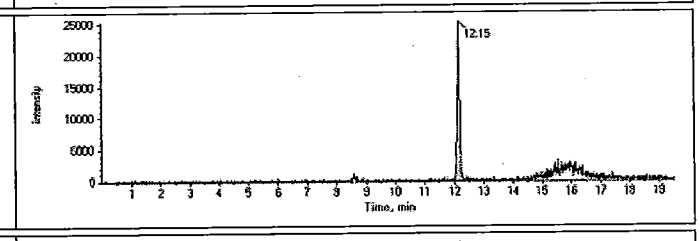
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.002875

Area Ratio: 9.365e-2

Sample Type: (Quality Control)



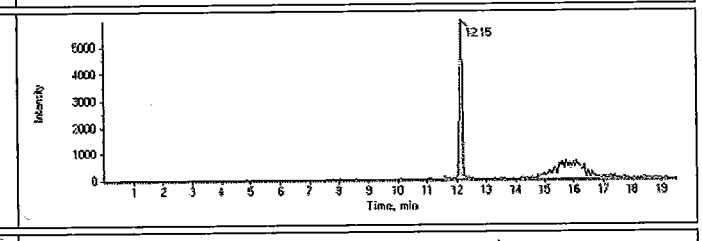
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.002680

Area Ratio: 2.713e-2

Sample Type: (Quality Control)



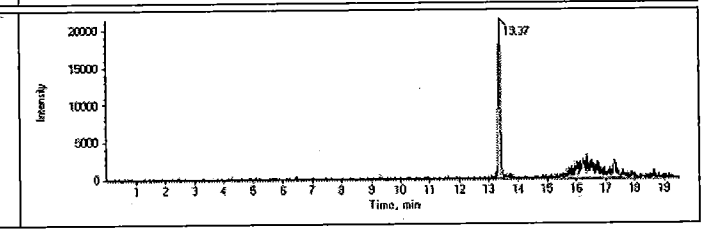
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.003294

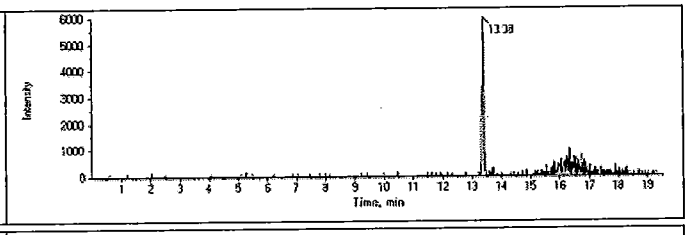
Area Ratio: 7.560e-2

Sample Type: (Quality Control)



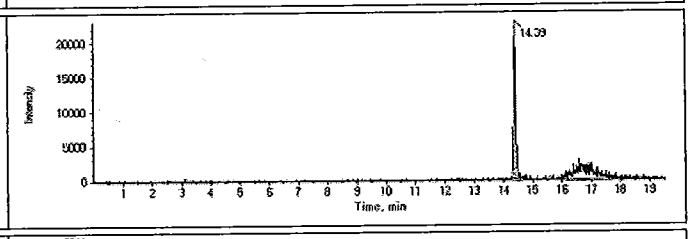
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.38 (13.35) min
Calculated conc: 0.003223
Area Ratio: 1.757e-2
Sample Type: (Quality Control)



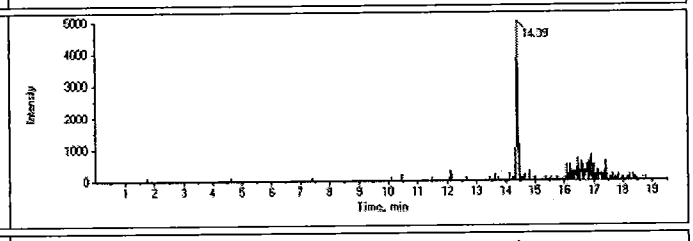
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.002914
Area Ratio: 7.432e-2
Sample Type: (Quality Control)



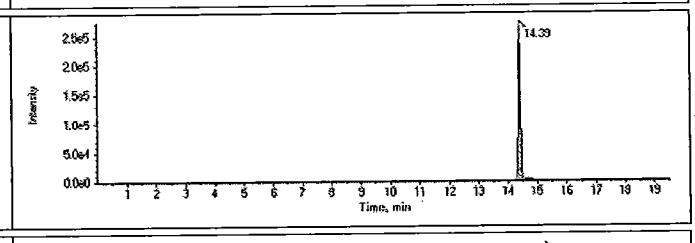
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 0.003041
Area Ratio: 1.246e-2
Sample Type: (Quality Control)



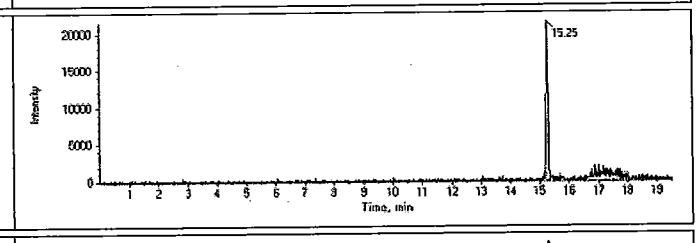
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 114.911965
Area Ratio: 9.544e-1
Sample Type: (Quality Control)



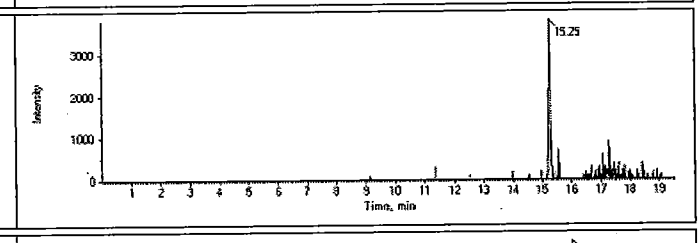
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.003060
Area Ratio: 6.794e-2
Sample Type: (Quality Control)



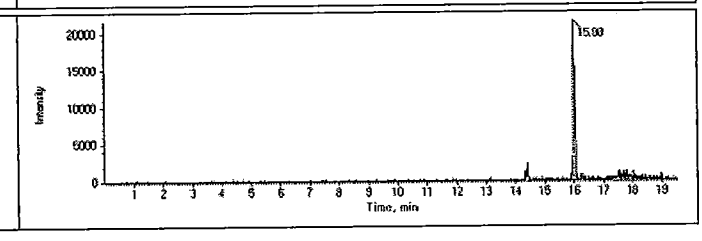
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.003063
Area Ratio: 1.060e-2
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min
Calculated conc: 0.002983
Area Ratio: 6.145e-2
Sample Type: (Quality Control)



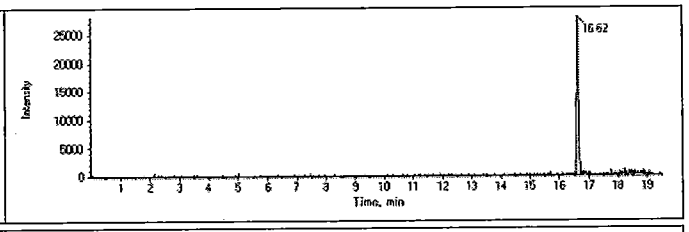
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.002796

Area Ratio: 8.201e-2

Sample Type: (Quality Control)



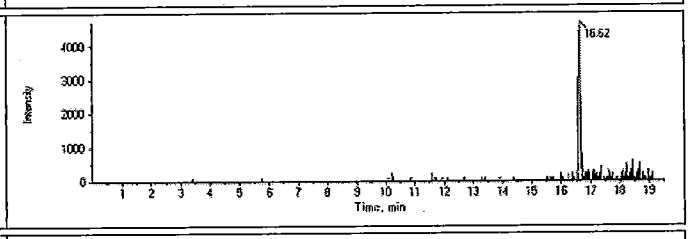
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.002484

Area Ratio: 1.267e-2

Sample Type: (Quality Control)



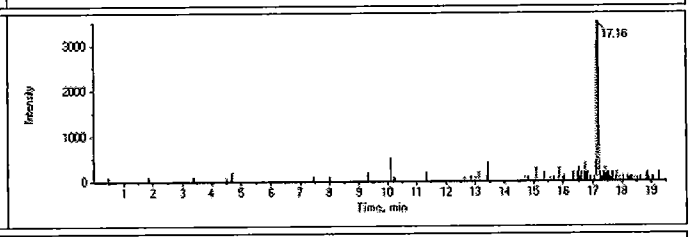
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.16 (17.15) min

Calculated conc: 0.003560

Area Ratio: 1.011e-2

Sample Type: (Quality Control)



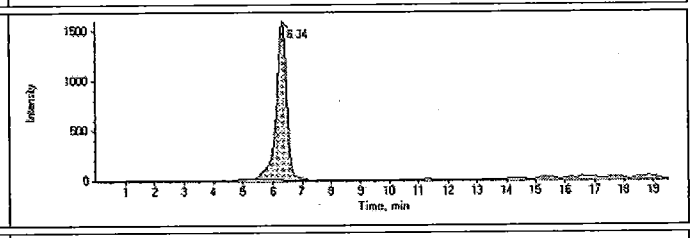
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.34 (6.27) min

Calculated conc: 0.002113

Area Ratio: 2.570e-2

Sample Type: (Quality Control)



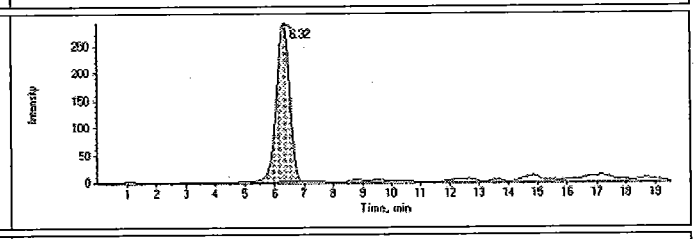
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.32 (6.28) min

Calculated conc: 0.001880

Area Ratio: 6.008e-3

Sample Type: (Quality Control)



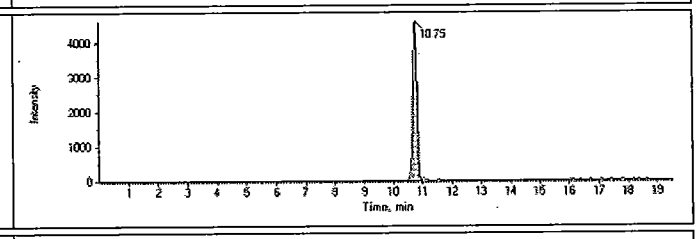
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.002207

Area Ratio: 2.879e-2

Sample Type: (Quality Control)



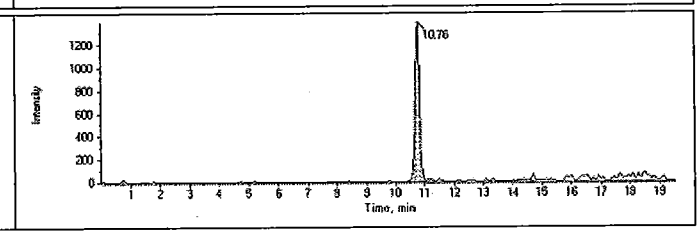
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.76 (10.73) min

Calculated conc: 0.002261

Area Ratio: 9.346e-3

Sample Type: (Quality Control)



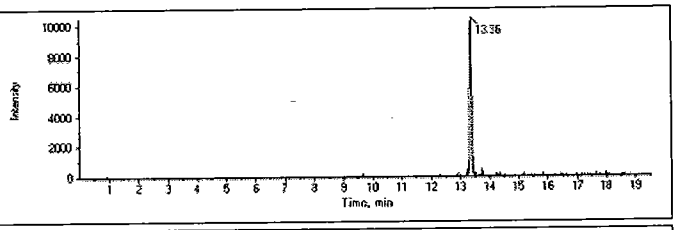
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.002710

Area Ratio: 2.974e-2

Sample Type: (Quality Control)



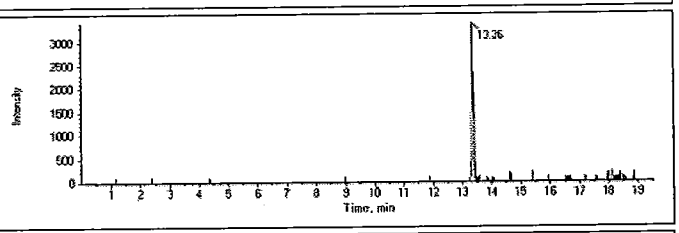
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.002345

Area Ratio: 7.655e-3

Sample Type: (Quality Control)



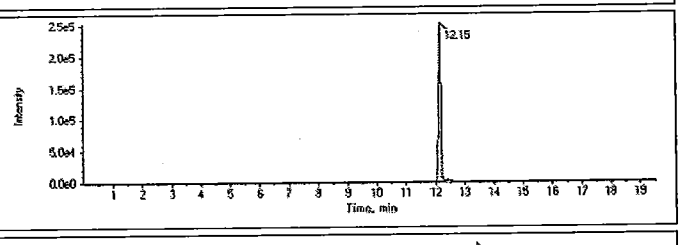
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 98.607885

Area Ratio: N/A

Sample Type: (Quality Control)



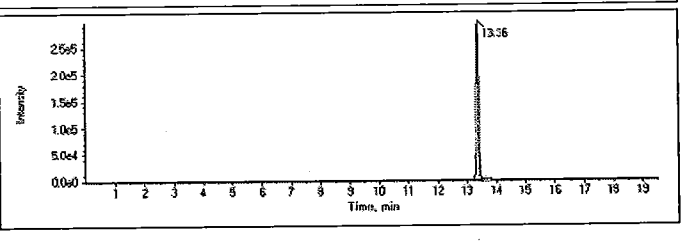
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 98.108631

Area Ratio: N/A

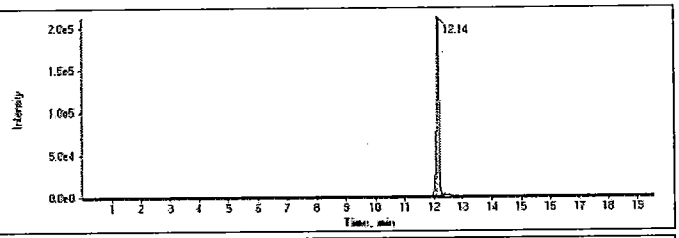
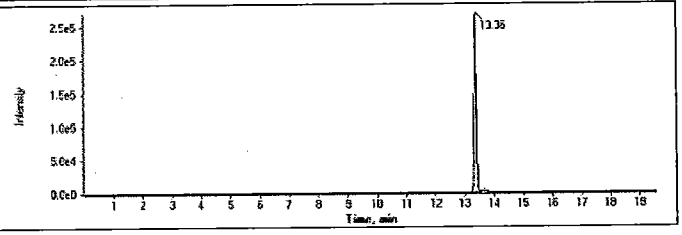
Sample Type: (Quality Control)



Sample Name	201312260079MS_Reinj	**Injection Vial**	38
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 12:10:02 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1256988.900000	12.14	100.00000	-
IS-13C-PFOS	1391699.000000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	5.865e+05	8.55	0.02500	0.021034
Surr-13c-PFHxA	1.058e+06	8.57	100.00000	86.438190
PFHpA	1.026e+06	10.62	0.00000	0.022980
PFHpA 2	2.629e+05	10.62	0.00000	0.022933
PFOA	1.085e+06	12.14	0.00000	0.026507
PFOA 2	3.257e+05	12.15	0.00000	0.025592
PFNA	7.759e+05	13.37	0.00000	0.026893
PFNA 2	1.853e+05	13.37	0.00000	0.027032
PFDA	8.040e+05	14.39	0.00000	0.025075
PFDA 2	1.208e+05	14.39	0.00000	0.023453
Surr-13c-PFDA	9.822e+05	14.39	100.00000	94.083236
PFUnA	7.074e+05	15.25	0.00000	0.025343
PFUnA 2	1.047e+05	15.26	0.00000	0.024065
PFDoA	5.473e+05	15.99	0.00000	0.021139
PFTrDA	7.118e+05	16.63	0.00000	0.019307
PFTrDA 2	1.160e+05	16.62	0.00000	0.018102
PFTA	8.121e+04	17.17	0.00000	0.022737
PFBS	3.417e+05	6.30	0.00000	0.020188
PFBS 2	8.743e+04	6.29	0.00000	0.019662
PFHxS	4.646e+05	10.75	0.00000	0.025595
PFHxS 2	1.454e+05	10.75	0.00000	0.025272
PFOS	3.633e+05	13.36	0.00000	0.023780
PFOS 2	1.006e+05	13.36	0.00000	0.022142
13C-PFOA	1.257e+06	12.14	100.00000	87.251367
13C-PFOS	1.392e+06	13.36	100.00000	90.306631

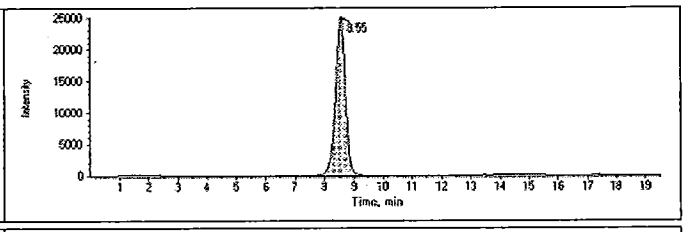
IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.55 (8.55) min

Calculated conc: 0.021034

Area Ratio: 4.666e-1
Sample Type: (Quality Control)

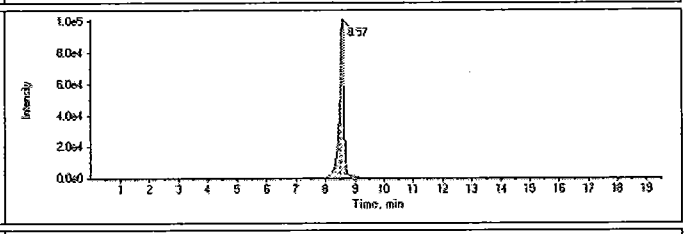


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.57 (8.54) min

Calculated conc: 86.438190

Area Ratio: 8.419e-1
Sample Type: (Quality Control)

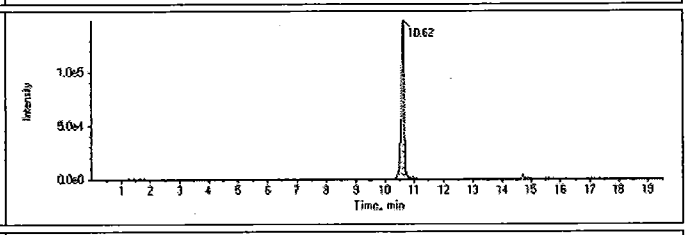


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.022980

Area Ratio: 8.159e-1
Sample Type: (Quality Control)

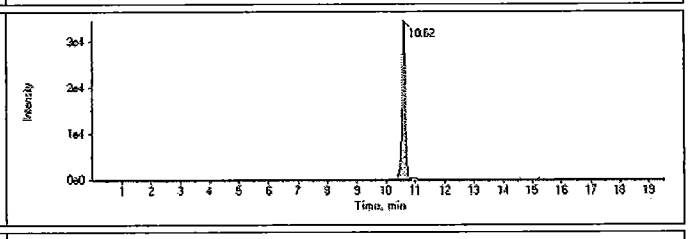


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.62 (10.60) min

Calculated conc: 0.022933

Area Ratio: 2.092e-1
Sample Type: (Quality Control)

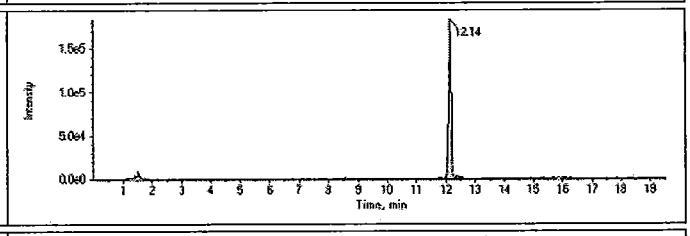


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.026507

Area Ratio: 8.634e-1
Sample Type: (Quality Control)

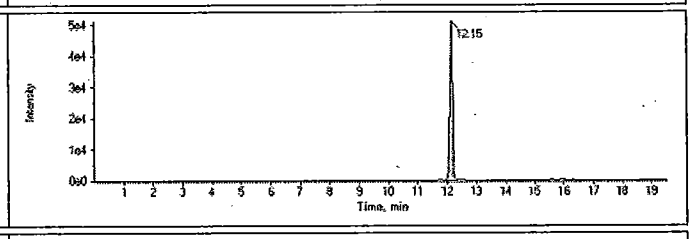


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.025592

Area Ratio: 2.591e-1
Sample Type: (Quality Control)

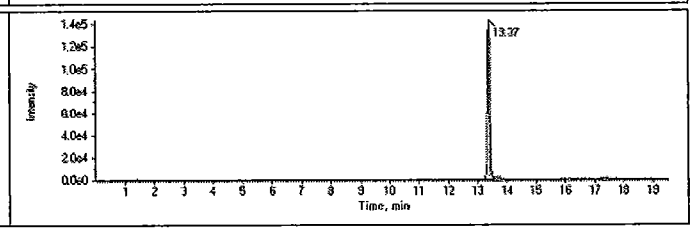


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.026893

Area Ratio: 6.173e-1
Sample Type: (Quality Control)

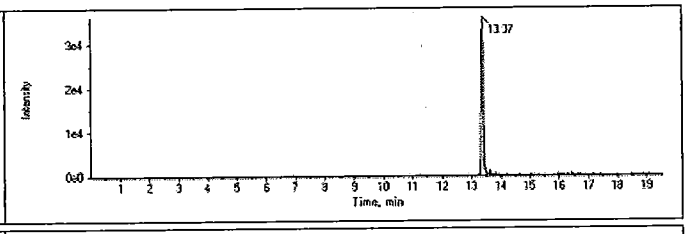


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.027032

Area Ratio: 1.474e-1
Sample Type: (Quality Control)

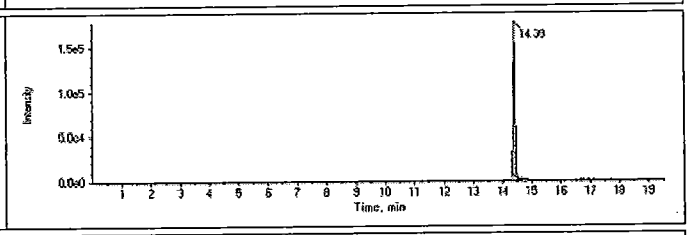


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.025075

Area Ratio: 6.396e-1
Sample Type: (Quality Control)

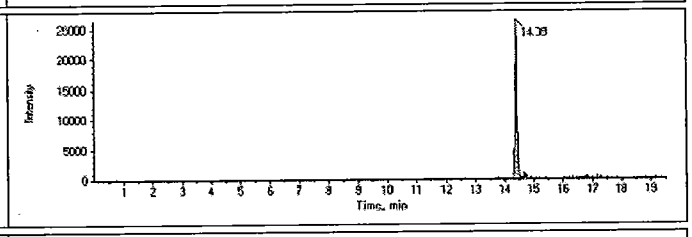


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.023453

Area Ratio: 9.610e-2
Sample Type: (Quality Control)

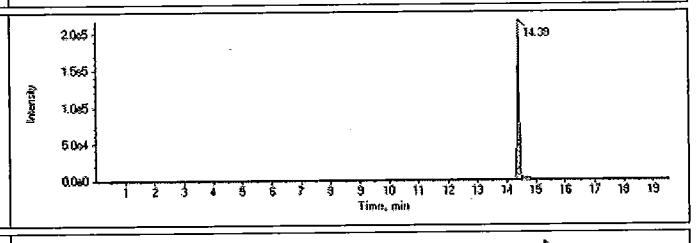


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 94.083236

Area Ratio: 7.814e-1
Sample Type: (Quality Control)

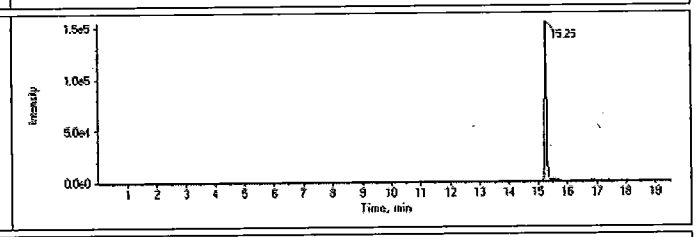


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.025343

Area Ratio: 5.628e-1
Sample Type: (Quality Control)

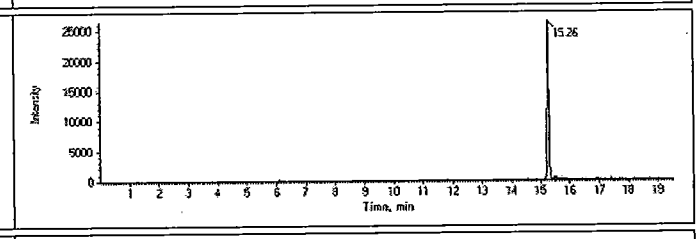


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.26 (15.23) min

Calculated conc: 0.024065

Area Ratio: 8.326e-2
Sample Type: (Quality Control)

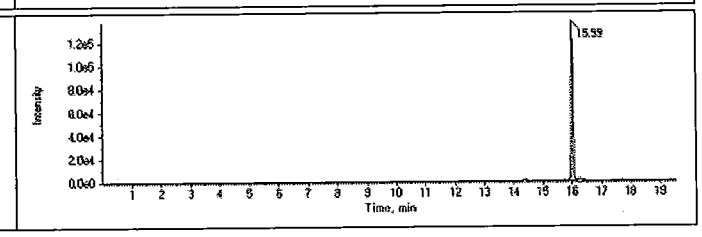


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (15.97) min

Calculated conc: 0.021139

Area Ratio: 4.354e-1
Sample Type: (Quality Control)

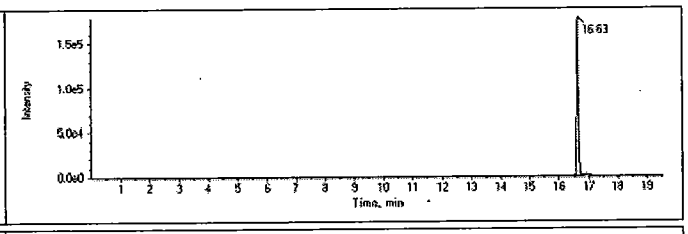


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.63 (16.60) min

Calculated conc: 0.019307

Area Ratio: 5.662e-1
Sample Type: (Quality Control)

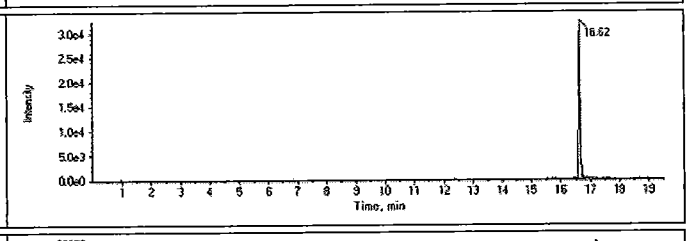


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.018102

Area Ratio: 9.230e-2
Sample Type: (Quality Control)

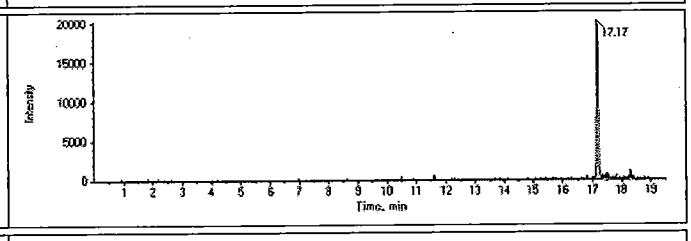


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.17 (17.15) min

Calculated conc: 0.022737

Area Ratio: 6.460e-2
Sample Type: (Quality Control)

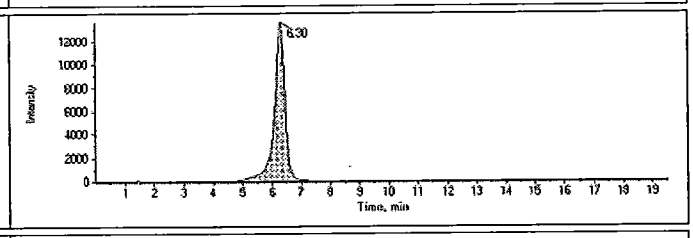


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.30 (6.27) min

Calculated conc: 0.020188

Area Ratio: 2.455e-1
Sample Type: (Quality Control)

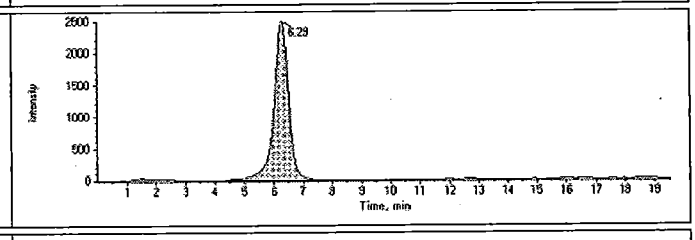


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.29 (6.28) min

Calculated conc: 0.019662

Area Ratio: 6.282e-2
Sample Type: (Quality Control)

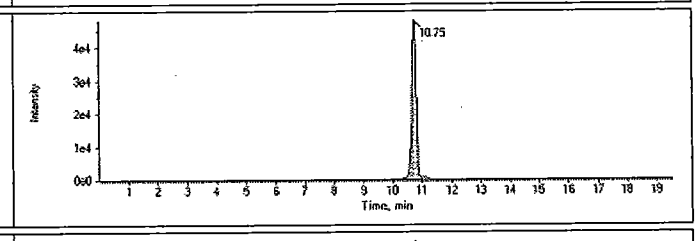


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.025595

Area Ratio: 3.338e-1
Sample Type: (Quality Control)

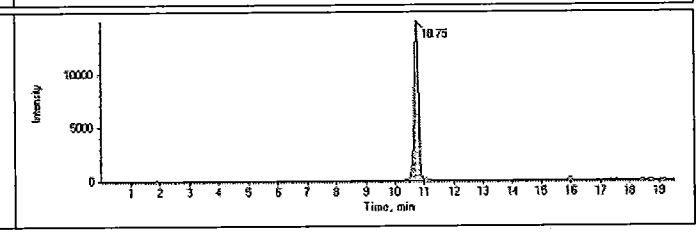


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.75 (10.73) min

Calculated conc: 0.025272

Area Ratio: 1.045e-1
Sample Type: (Quality Control)



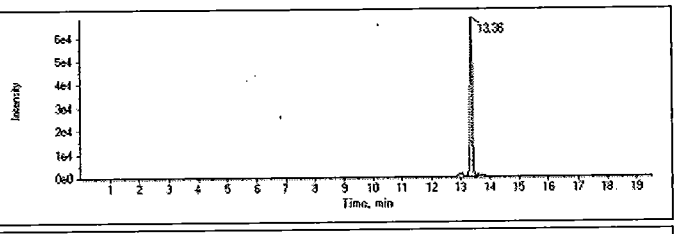
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.023780

Area Ratio: 2.610e-1

Sample Type: (Quality Control)



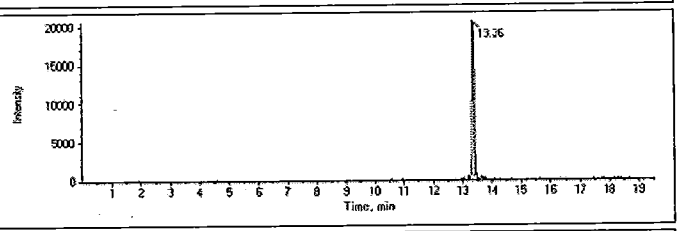
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.022142

Area Ratio: 7.226e-2

Sample Type: (Quality Control)



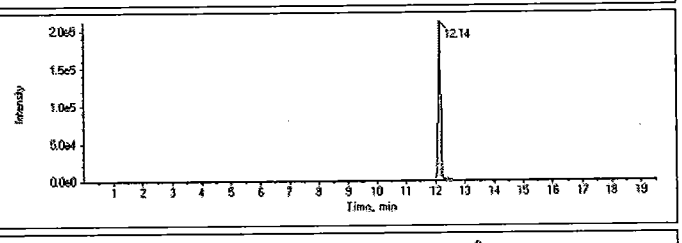
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 87.251367

Area Ratio: N/A

Sample Type: (Quality Control)



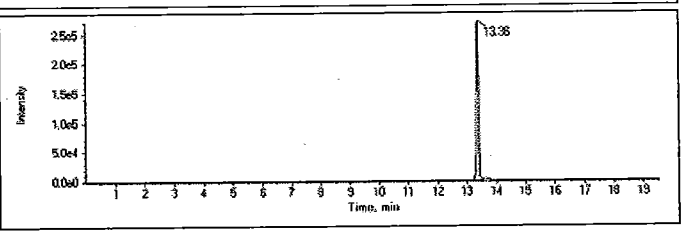
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 90.306631

Area Ratio: N/A

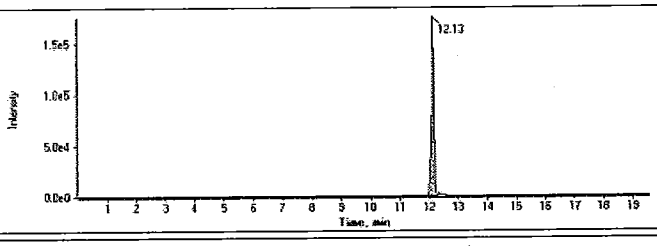
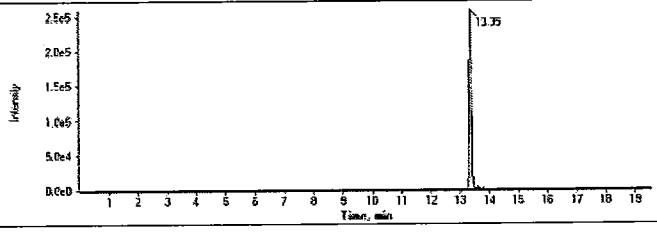
Sample Type: (Quality Control)



Sample Name	201312260079_Reinj	**Injection Vial**	39
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 12:30:10 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	979242.150000	12.13	100.00000	-
IS-13C-PFOS	1330047.900000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.719e+04	8.52	0.00000	0.000792
Surr-13c-PFHxA	8.175e+05	8.53	100.00000	85.719694
PFHpA	7.625e+03	10.58	0.00000	0.000219
PFHpA 2	1.961e+03	10.59	0.00000	0.000220
PFOA	3.087e+04	12.13	0.00000	0.000968
PFOA 2	9.445e+03	12.13	0.00000	0.000953
PFNA	1.888e+03	13.33	0.00000	0.000084
PFNA 2	5.393e+02	13.34	0.00000	0.000101
PFDA	1.961e+03	14.37	0.00000	0.000079
PFDA 2	N/A	N/A	0.00000	N/A
Surr-13c-PFDA	8.153e+05	14.38	100.00000	100.247756
PFUnA	3.433e+02	15.23	0.00000	0.000016
PFUnA 2	1.962e+02	15.23	0.00000	0.000058
PFDoA	4.903e+02	16.00	0.00000	0.000024
PFTrDA	6.376e+02	16.60	0.00000	0.000022
PFTrDA 2	1.473e+02	16.69	0.00000	0.000029
PFTA	1.471e+02	17.07	0.00000	0.000053
PFBS	4.210e+03	6.23	0.00000	0.000260
PFBS 2	1.499e+03	6.21	0.00000	0.000353
PFHxS	1.404e+04	10.72	0.00000	0.000810
PFHxS 2	5.108e+03	10.73	0.00000	0.000929
PFOS	1.662e+04	13.36	0.00000	0.001139
PFOS 2	3.211e+03	13.35	0.00000	0.000740
13C-PFOA	9.792e+05	12.13	100.00000	67.972132
13C-PFOS	1.330e+06	13.35	100.00000	86.306123

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.13(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

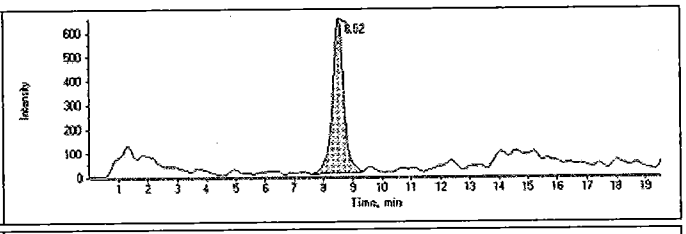
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.000792

Area Ratio: 1.756e-2

Sample Type: (Quality Control)



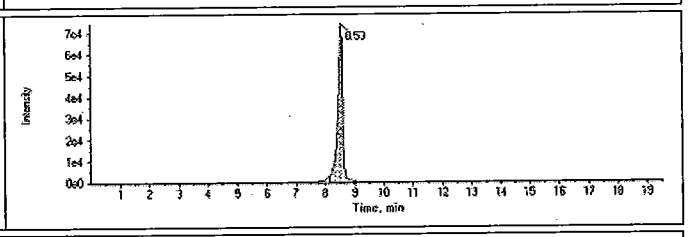
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.53 (8.54) min

Calculated conc: 85.719694

Area Ratio: 8.349e-1

Sample Type: (Quality Control)



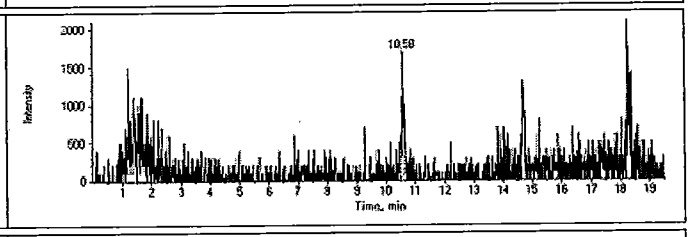
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.58 (10.60) min

Calculated conc: 0.000219

Area Ratio: 7.786e-3

Sample Type: (Quality Control)



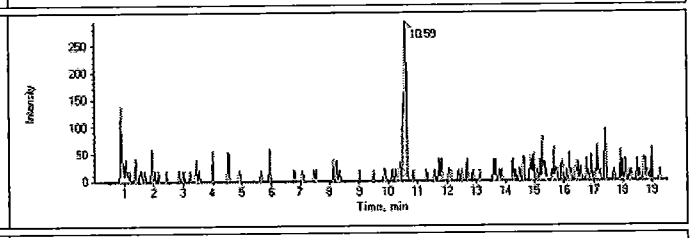
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.59 (10.60) min

Calculated conc: 0.000220

Area Ratio: 2.002e-3

Sample Type: (Quality Control)



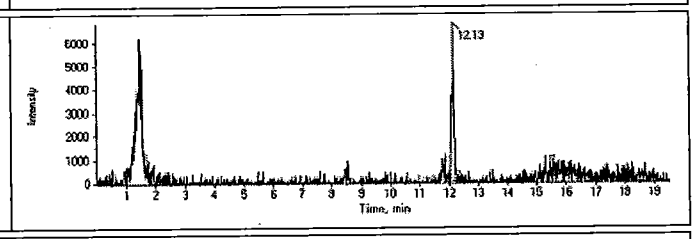
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.000968

Area Ratio: 3.152e-2

Sample Type: (Quality Control)



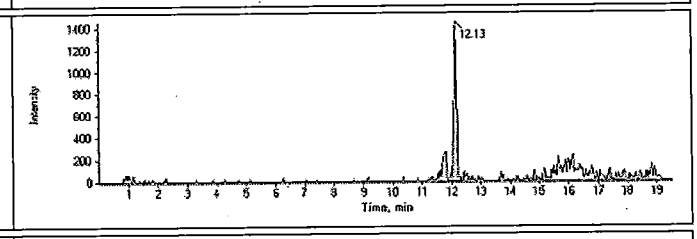
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.13 (12.13) min

Calculated conc: 0.000953

Area Ratio: 9.645e-3

Sample Type: (Quality Control)



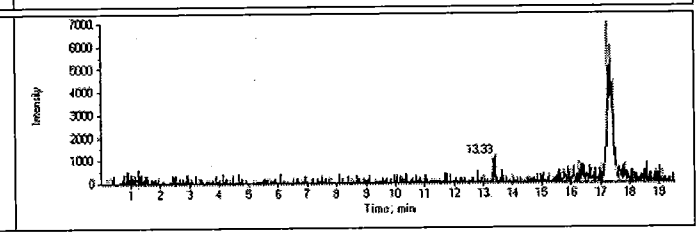
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.33 (13.35) min

Calculated conc: 0.000084

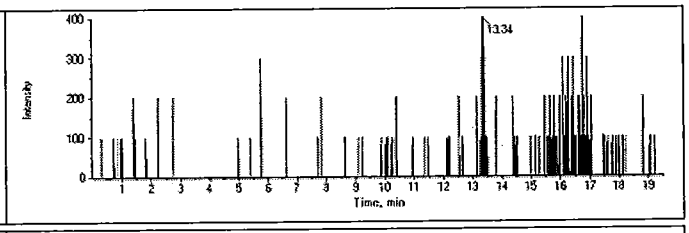
Area Ratio: 1.928e-3

Sample Type: (Quality Control)



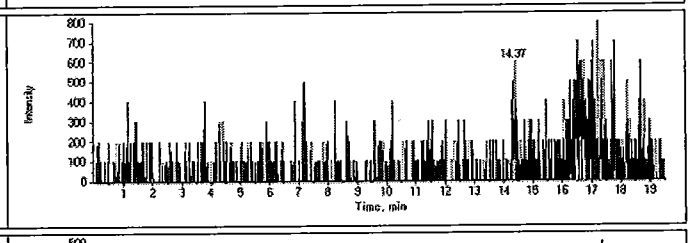
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.34 (13.35) min
Calculated conc: 0.000101
Area Ratio: 5.507e-4
Sample Type: (Quality Control)



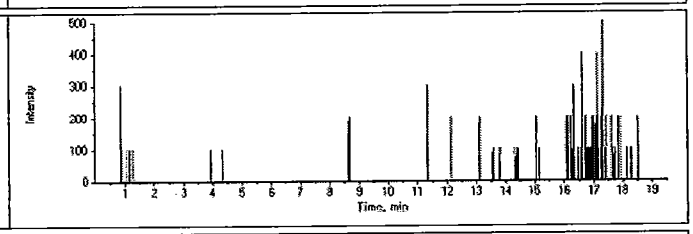
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.000079
Area Ratio: 2.003e-3
Sample Type: (Quality Control)



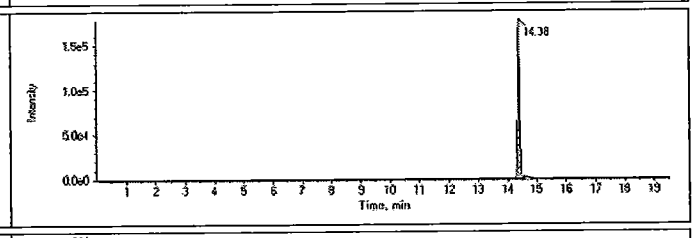
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): N/A (14.37) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



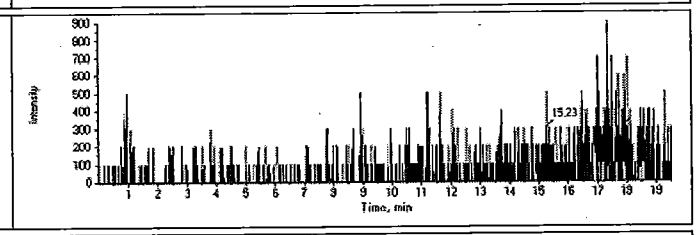
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 100.247756
Area Ratio: 8.326e-1
Sample Type: (Quality Control)



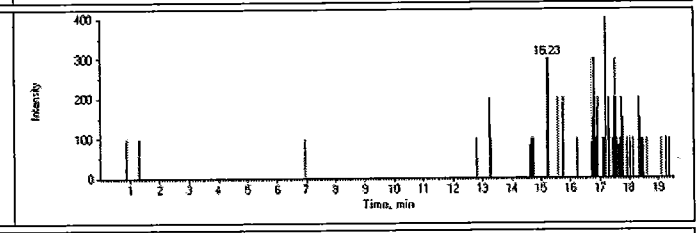
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.23 (15.23) min
Calculated conc: 0.000016
Area Ratio: 3.505e-4
Sample Type: (Quality Control)



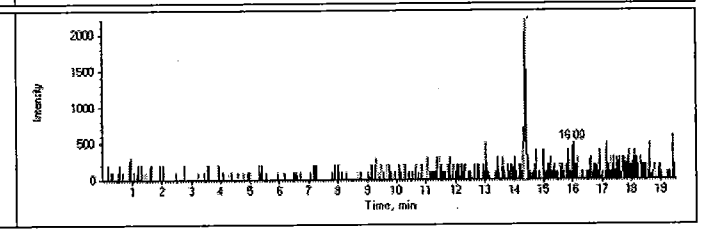
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.23 (15.23) min
Calculated conc: 0.000058
Area Ratio: 2.003e-4
Sample Type: (Quality Control)



PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (15.97) min
Calculated conc: 0.000024
Area Ratio: 5.006e-4
Sample Type: (Quality Control)



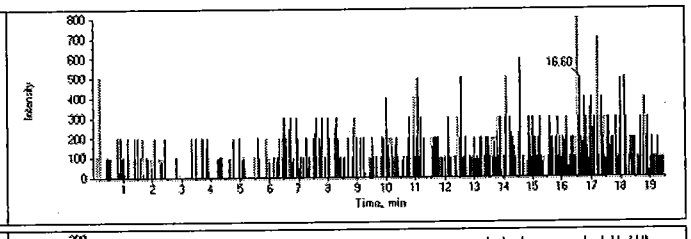
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.60 (16.60) min

Calculated conc: 0.000022

Area Ratio: 6.511e-4

Sample Type: (Quality Control)



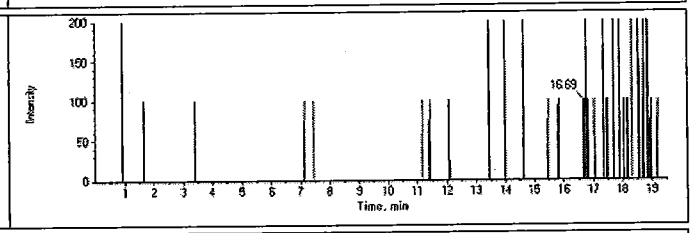
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.69 (16.60) min

Calculated conc: 0.000029

Area Ratio: 1.504e-4

Sample Type: (Quality Control)



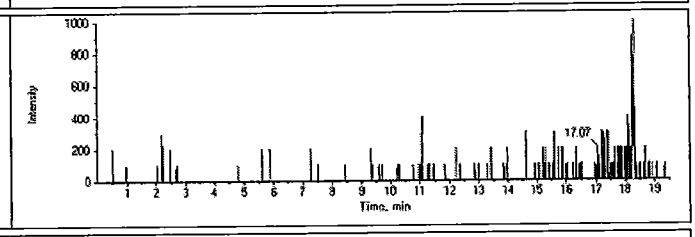
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.07 (17.15) min

Calculated conc: 0.000053

Area Ratio: 1.502e-4

Sample Type: (Quality Control)



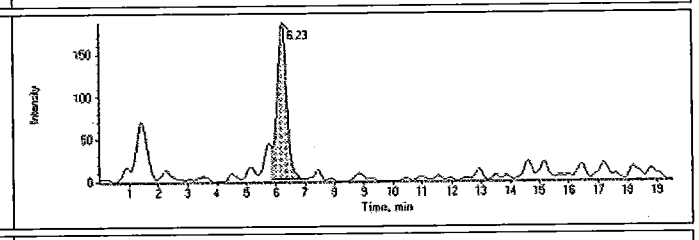
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.23 (6.27) min

Calculated conc: 0.000260

Area Ratio: 3.165e-3

Sample Type: (Quality Control)



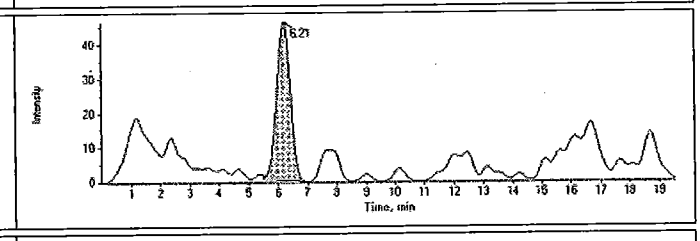
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.21 (6.28) min

Calculated conc: 0.000353

Area Ratio: 1.127e-3

Sample Type: (Quality Control)



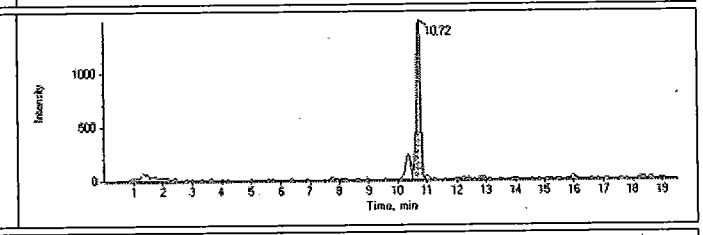
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.72 (10.73) min

Calculated conc: 0.000810

Area Ratio: 1.056e-2

Sample Type: (Quality Control)



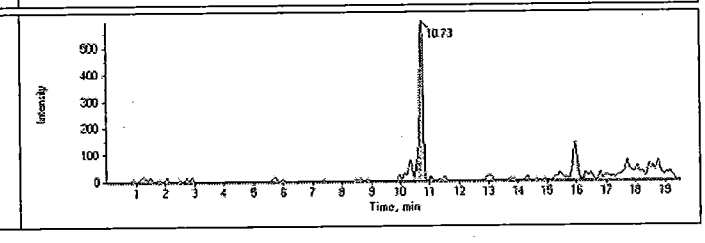
PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.73 (10.73) min

Calculated conc: 0.000929

Area Ratio: 3.840e-3

Sample Type: (Quality Control)



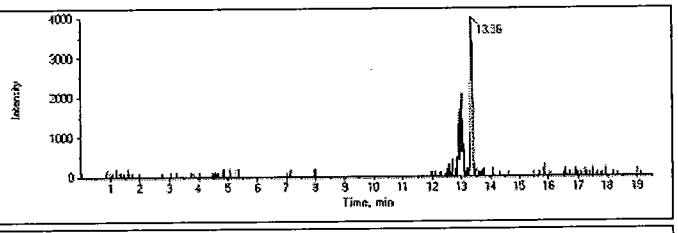
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001139

Area Ratio: 1.250e-2

Sample Type: (Quality Control)



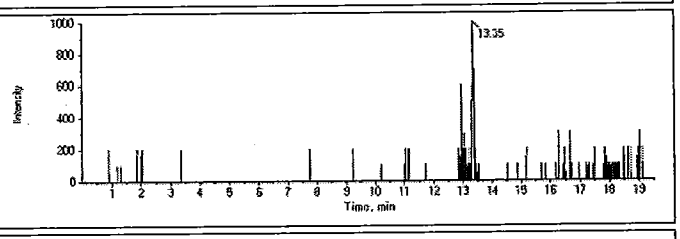
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000740

Area Ratio: 2.414e-3

Sample Type: (Quality Control)



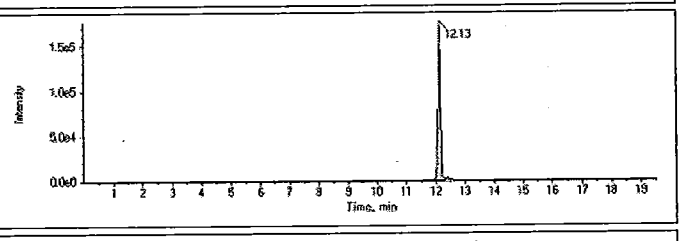
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.13 (12.12) min

Calculated conc: 67.972132

Area Ratio: N/A

Sample Type: (Quality Control)



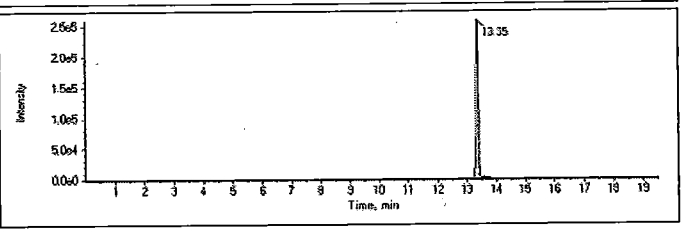
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 86.306123

Area Ratio: N/A

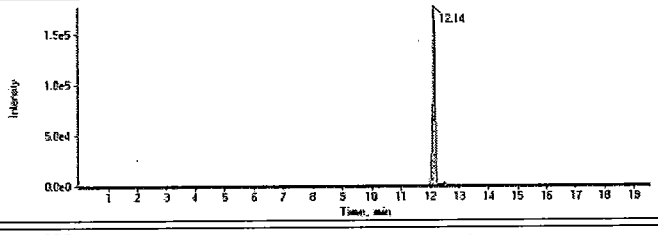
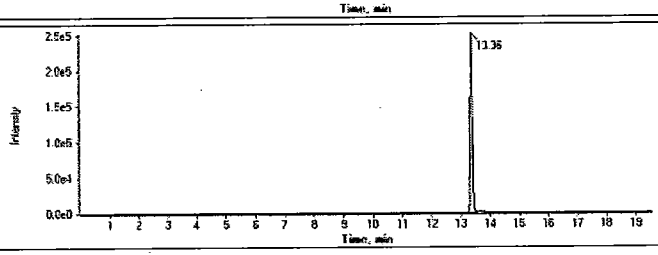
Sample Type: (Quality Control)



Sample Name	201312140133A_Reinj	**Injection Vial**	40
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 12:50:19 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1016981.950000	12.14	100.00000	-
IS-13C-PFOS	1274618.450000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	3.842e+04	8.52	0.00000	0.001703
Surr-13c-PFHxA	9.681e+05	8.54	100.00000	97.743139
PFHpA	2.319e+04	10.61	0.00000	0.000642
PFHpA 2	6.228e+03	10.60	0.00000	0.000671
PFOA	1.301e+05	12.14	0.00000	0.003927
PFOA 2	3.907e+04	12.14	0.00000	0.003795
PFNA	1.878e+05	13.37	0.00000	0.008047
PFNA 2	4.036e+04	13.36	0.00000	0.007280
PFDA	2.943e+02	14.34	0.00000	0.000011
PFDA 2	9.815e+01	14.43	0.00000	0.000024
Surr-13c-PFDA	7.401e+05	14.39	100.00000	87.624777
PFUnA	1.962e+02	15.21	0.00000	0.000009
PFUnA 2	9.805e+01	15.27	0.00000	0.000028
PFDoA	1.472e+02	15.97	0.00000	0.000007
PFTrDA	1.961e+02	16.58	0.00000	0.000007
PFTrDA 2	N/A	N/A	0.00000	N/A
PFTA	9.810e+01	17.25	0.00000	0.000034
PFBS	6.330e+03	6.17	0.00000	0.000408
PFBS 2	1.091e+03	6.19	0.00000	0.000268
PFHxS	1.404e+04	10.74	0.00000	0.000845
PFHxS 2	6.014e+03	10.72	0.00000	0.001141
PFOS	2.433e+04	13.35	0.00000	0.001739
PFOS 2	6.670e+03	13.36	0.00000	0.001603
13C-PFOA	1.017e+06	12.14	100.00000	70.591765
13C-PFOS	1.275e+06	13.36	100.00000	82.709334

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.36(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

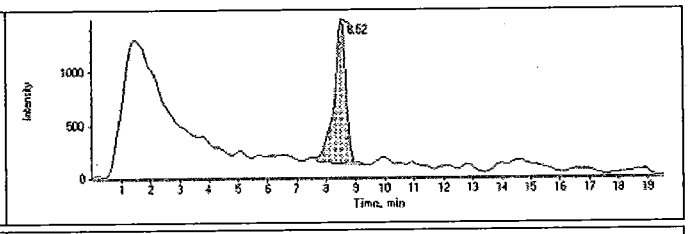
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.001703

Area Ratio: 3.778e-2

Sample Type: (Quality Control)



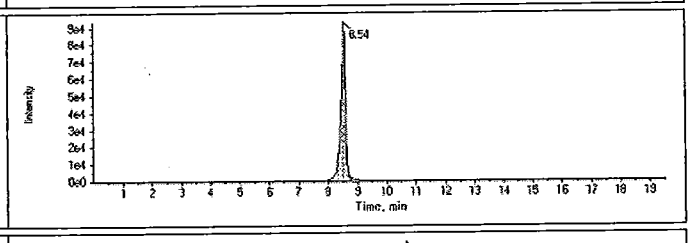
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 97.743139

Area Ratio: 9.520e-1

Sample Type: (Quality Control)



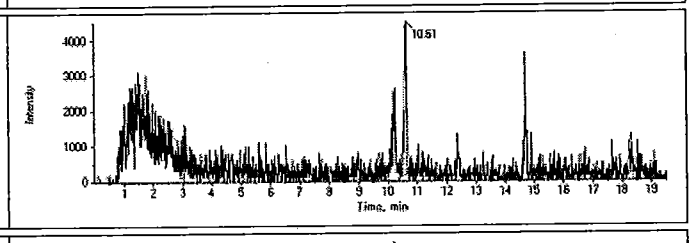
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000642

Area Ratio: 2.281e-2

Sample Type: (Quality Control)



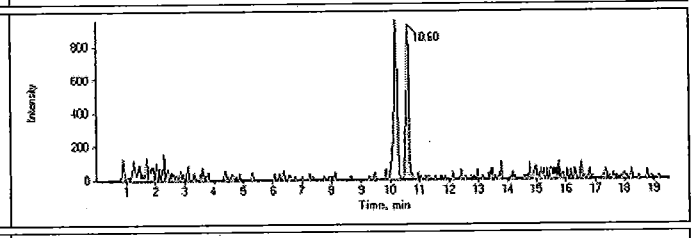
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.000671

Area Ratio: 6.124e-3

Sample Type: (Quality Control)



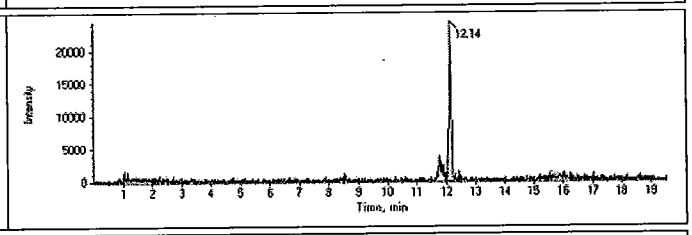
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.003927

Area Ratio: 1.279e-1

Sample Type: (Quality Control)



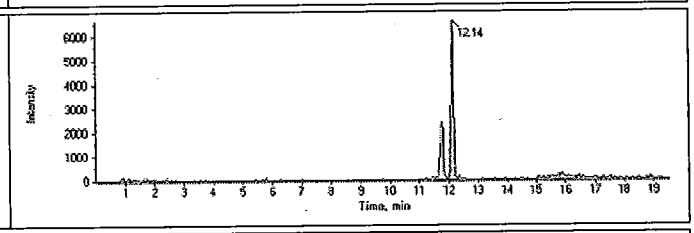
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.003795

Area Ratio: 3.842e-2

Sample Type: (Quality Control)



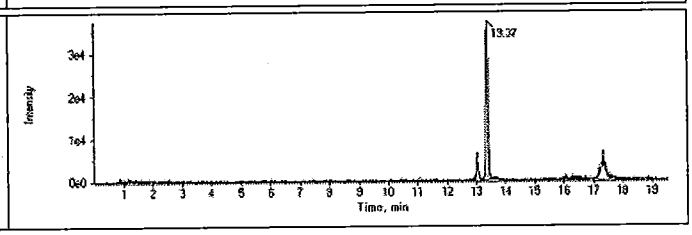
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.008047

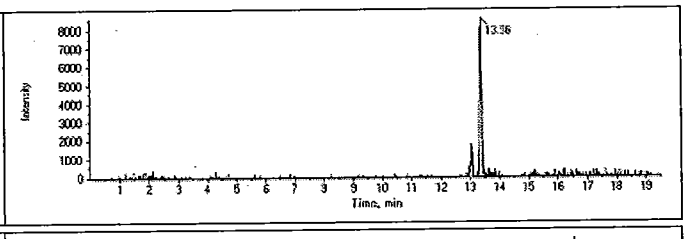
Area Ratio: 1.847e-1

Sample Type: (Quality Control)



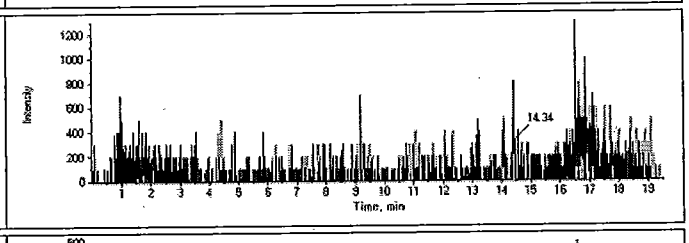
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.36 (13.35) min
Calculated conc: 0.007280
Area Ratio: 3.969e-2
Sample Type: (Quality Control)



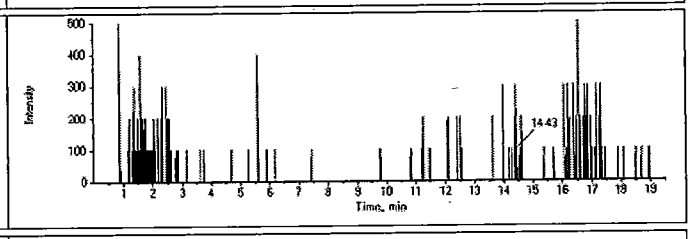
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.34 (14.37) min
Calculated conc: 0.000011
Area Ratio: 2.894e-4
Sample Type: (Quality Control)



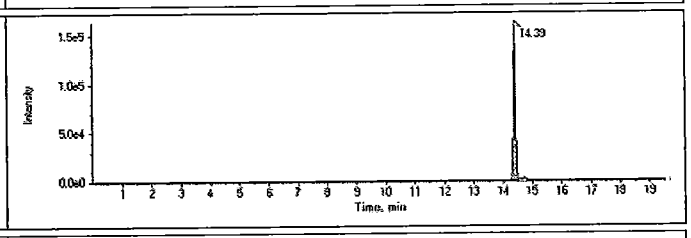
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.43 (14.37) min
Calculated conc: 0.000024
Area Ratio: 9.651e-5
Sample Type: (Quality Control)



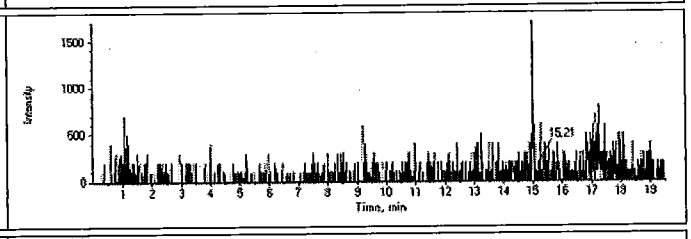
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 87.624777
Area Ratio: 7.278e-1
Sample Type: (Quality Control)



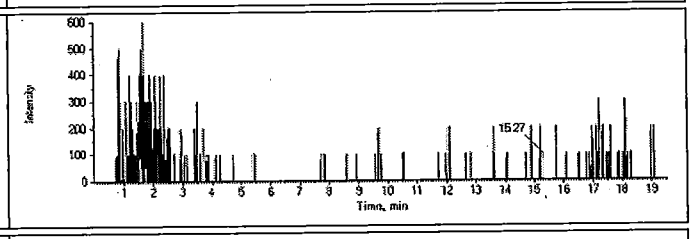
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min
Calculated conc: 0.000009
Area Ratio: 1.929e-4
Sample Type: (Quality Control)



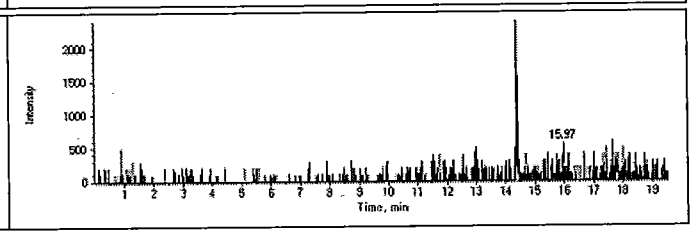
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.27 (15.23) min
Calculated conc: 0.000028
Area Ratio: 9.641e-5
Sample Type: (Quality Control)



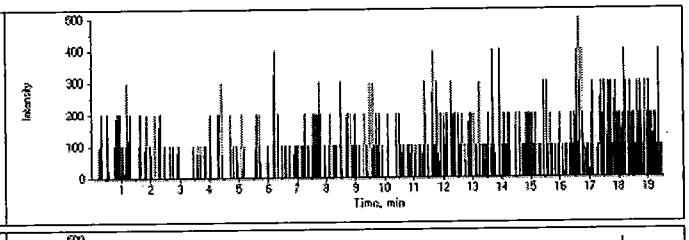
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.97 (15.97) min
Calculated conc: 0.000007
Area Ratio: 1.447e-4
Sample Type: (Quality Control)



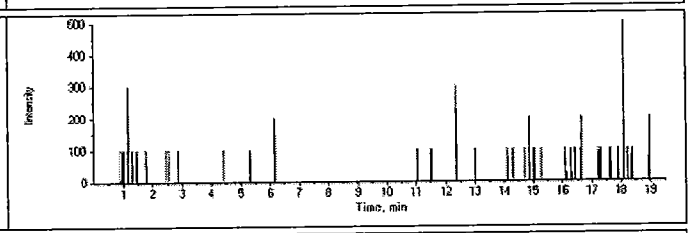
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.58 (16.60) min
Calculated conc: 0.000007
Area Ratio: 1.928e-4
Sample Type: (Quality Control)



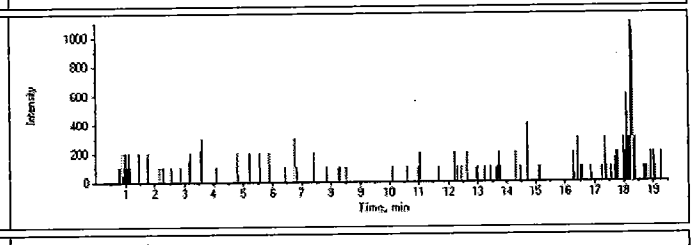
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): N/A (16.60) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



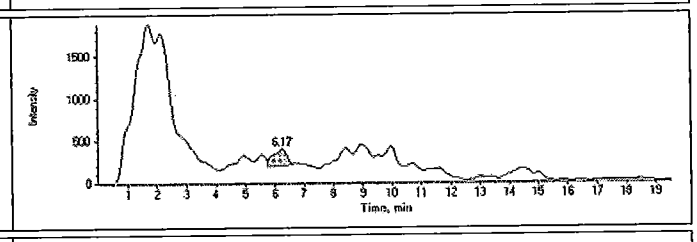
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.25 (17.15) min
Calculated conc: 0.000034
Area Ratio: 9.646e-5
Sample Type: (Quality Control)



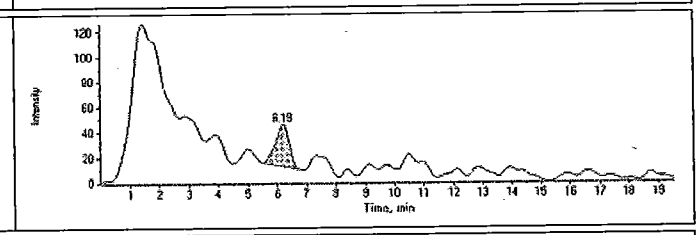
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.17 (6.27) min
Calculated conc: 0.000408
Area Ratio: 4.966e-3
Sample Type: (Quality Control)



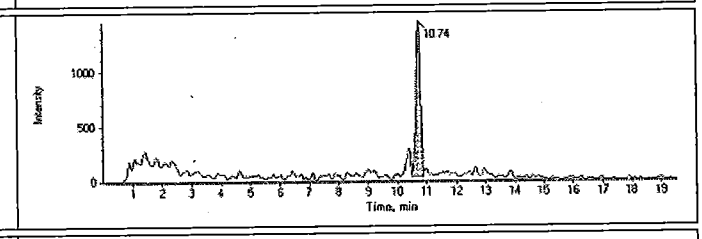
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.19 (6.28) min
Calculated conc: 0.000268
Area Ratio: 8.562e-4
Sample Type: (Quality Control)



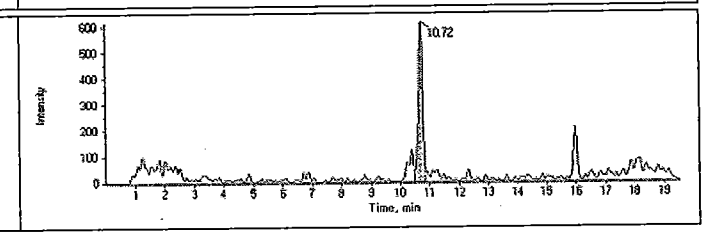
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min
Calculated conc: 0.000845
Area Ratio: 1.102e-2
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.72 (10.73) min
Calculated conc: 0.001141
Area Ratio: 4.718e-3
Sample Type: (Quality Control)



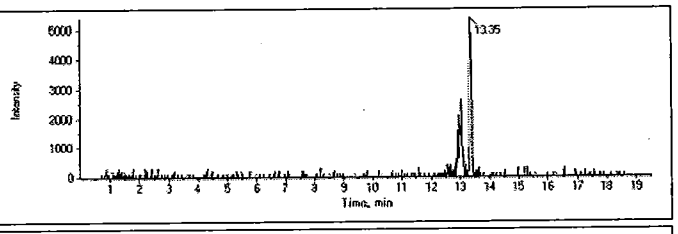
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.001739

Area Ratio: 1.908e-2

Sample Type: (Quality Control)



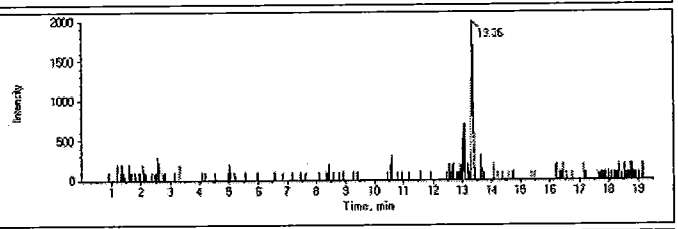
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.001603

Area Ratio: 5.233e-3

Sample Type: (Quality Control)



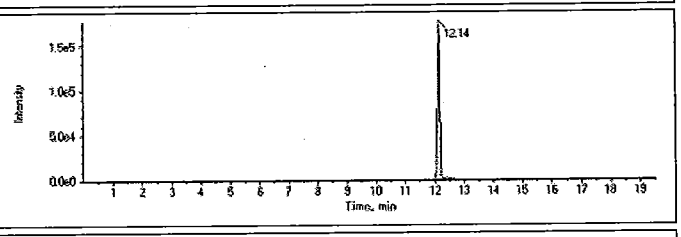
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 70.591765

Area Ratio: N/A

Sample Type: (Quality Control)



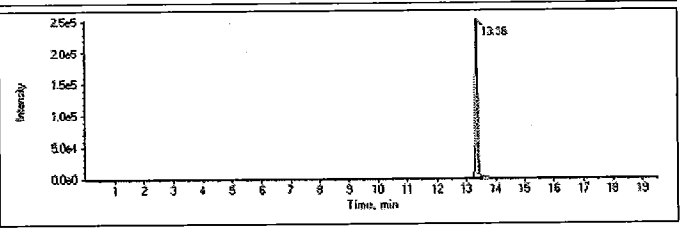
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 82.709334

Area Ratio: N/A

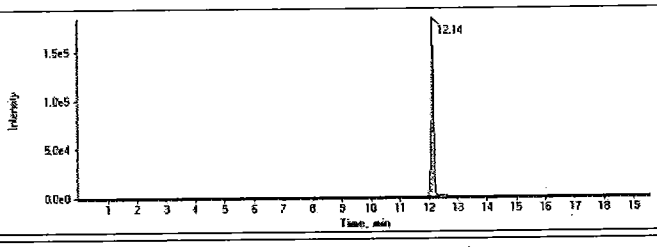
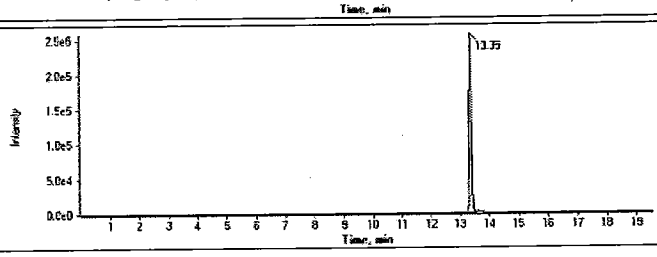
Sample Type: (Quality Control)



Sample Name	201312140137A_Reinj	**Injection Vial**	41
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 1:10:29 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1012253.450000	12.14	100.00000	-
IS-13C-PFOS	1261363.450000	13.35	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.887e+04	8.50	0.00000	0.000840
Surr-13c-PFHxA	9.986e+05	8.54	100.00000	101.292866
PFHpA	7.625e+03	10.61	0.00000	0.000212
PFHpA 2	2.101e+03	10.60	0.00000	0.000228
PFOA	5.762e+04	12.14	0.00000	0.001748
PFOA 2	1.609e+04	12.14	0.00000	0.001570
PFNA	1.782e+04	13.37	0.00000	0.000767
PFNA 2	4.218e+03	13.37	0.00000	0.000764
PFDA	3.189e+02	14.37	0.00000	0.000012
PFDA 2	N/A	N/A	0.00000	N/A
Surr-13c-PFDA	8.547e+05	14.39	100.00000	101.656412
PFUnA	6.375e+02	15.23	0.00000	0.000028
PFUnA 2	9.805e+01	15.25	0.00000	0.000028
PFDoA	2.943e+02	15.98	0.00000	0.000014
PFTrDA	1.471e+02	16.58	0.00000	0.000005
PFTrDA 2	1.471e+02	16.27	0.00000	0.000028
PFTA	4.413e+02	17.20	0.00000	0.000153
PFBS	2.025e+03	6.14	0.00000	0.000132
PFBS 2	3.656e+02	6.21	0.00000	0.000091
PFHxS	1.595e+03	10.74	0.00000	0.000097
PFHxS 2	7.763e+02	10.74	0.00000	0.000149
PFOS	2.697e+03	13.35	0.00000	0.000195
PFOS 2	3.927e+02	13.35	0.00000	0.000095
13C-PFOA	1.012e+06	12.14	100.00000	70.263546
13C-PFOS	1.261e+06	13.35	100.00000	81.849224

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.14(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.35(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

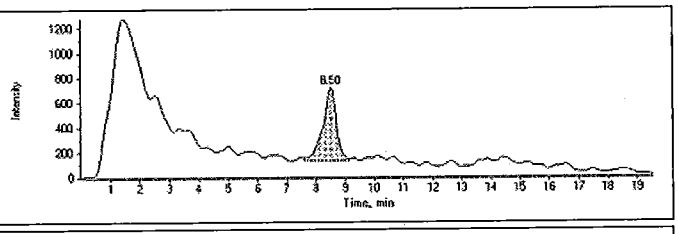
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.50 (8.55) min

Calculated conc: 0.000840

Area Ratio: 1.864e-2

Sample Type: (Quality Control)



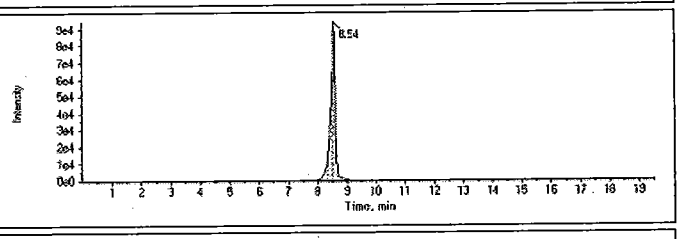
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.54 (8.54) min

Calculated conc: 101.292866

Area Ratio: 9.865e-1

Sample Type: (Quality Control)



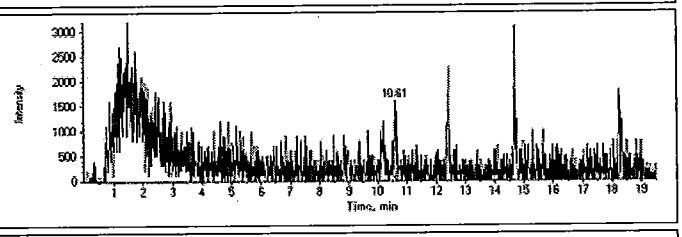
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.000212

Area Ratio: 7.533e-3

Sample Type: (Quality Control)



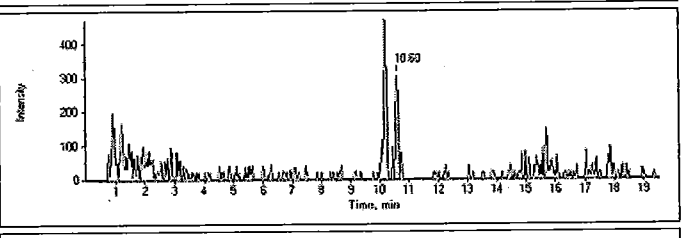
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.60 (10.60) min

Calculated conc: 0.000228

Area Ratio: 2.076e-3

Sample Type: (Quality Control)



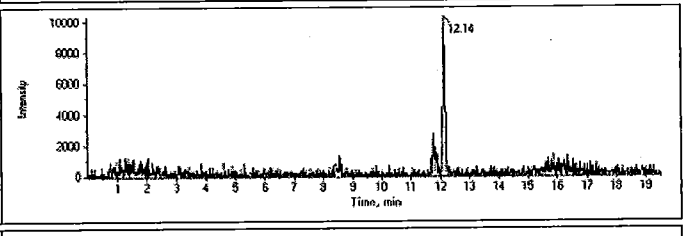
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.001748

Area Ratio: 5.692e-2

Sample Type: (Quality Control)



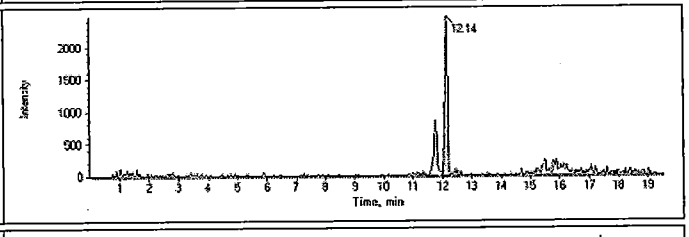
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.001570

Area Ratio: 1.589e-2

Sample Type: (Quality Control)



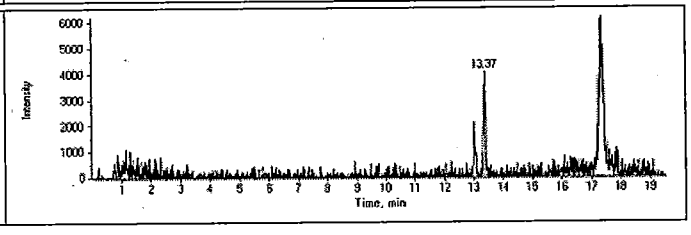
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.000767

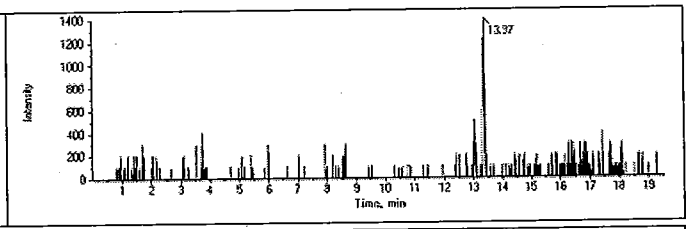
Area Ratio: 1.761e-2

Sample Type: (Quality Control)



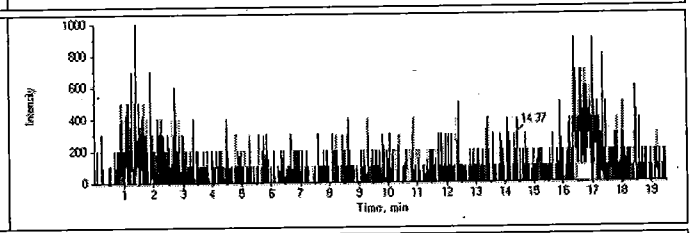
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min
Calculated conc: 0.000764
Area Ratio: 4.167e-3
Sample Type: (Quality Control)



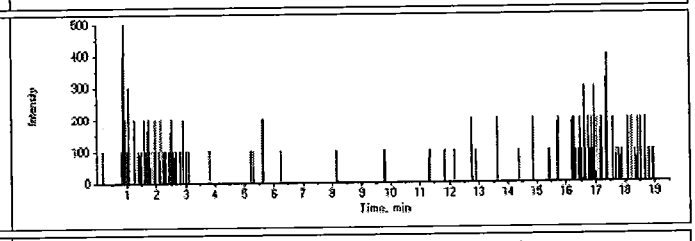
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.37 (14.37) min
Calculated conc: 0.000012
Area Ratio: 3.150e-4
Sample Type: (Quality Control)



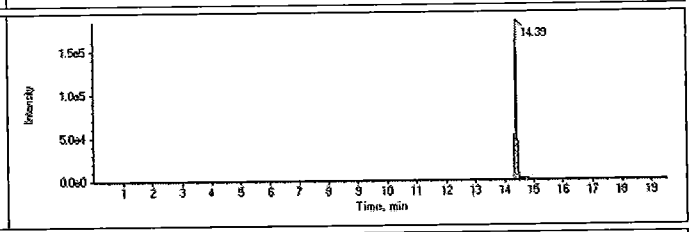
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): N/A (14.37) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



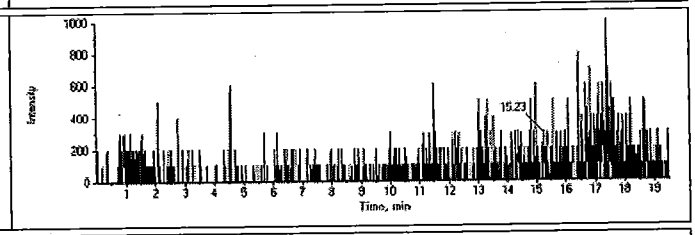
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min
Calculated conc: 101.656412
Area Ratio: 8.443e-1
Sample Type: (Quality Control)



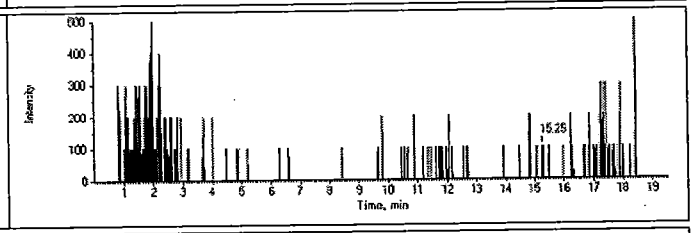
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.23 (15.23) min
Calculated conc: 0.000028
Area Ratio: 6.297e-4
Sample Type: (Quality Control)



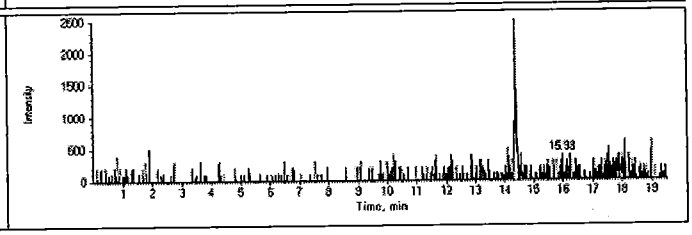
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min
Calculated conc: 0.000028
Area Ratio: 9.686e-5
Sample Type: (Quality Control)



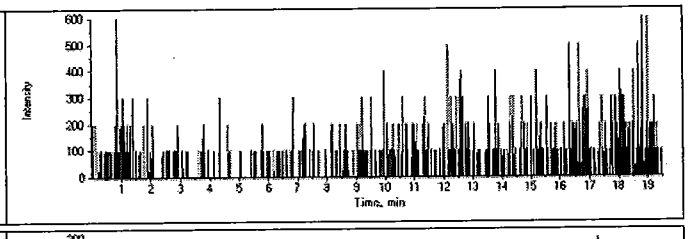
PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.98 (15.97) min
Calculated conc: 0.000014
Area Ratio: 2.907e-4
Sample Type: (Quality Control)



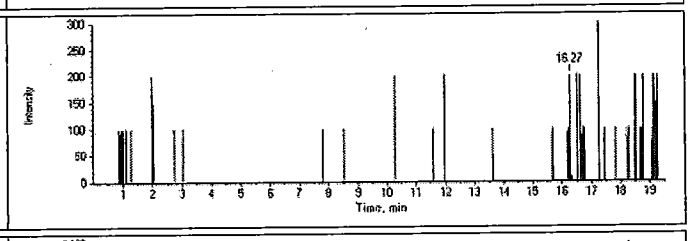
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.58 (16.60) min
Calculated conc: 0.000005
Area Ratio: 1.453e-4
Sample Type: (Quality Control)



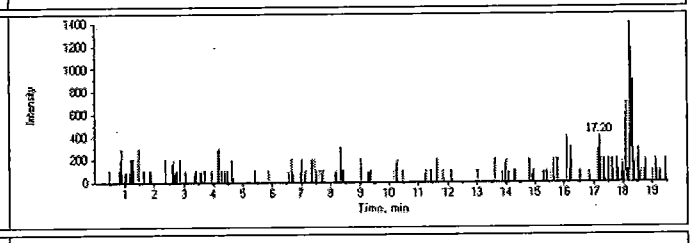
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.27 (16.60) min
Calculated conc: 0.000028
Area Ratio: 1.453e-4
Sample Type: (Quality Control)



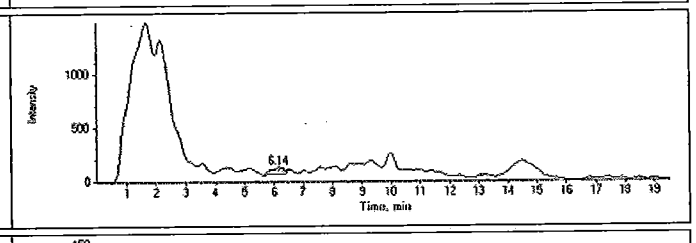
PFTA (713.3 / 669.0)

RT (Exp. RT): 17.20 (17.15) min
Calculated conc: 0.000153
Area Ratio: 4.360e-4
Sample Type: (Quality Control)



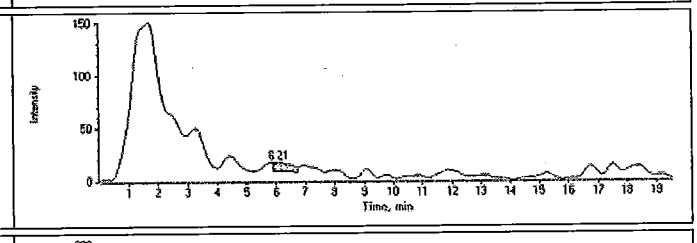
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.14 (6.27) min
Calculated conc: 0.000132
Area Ratio: 1.605e-3
Sample Type: (Quality Control)



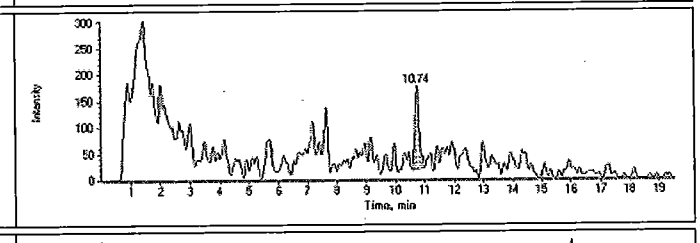
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.21 (6.28) min
Calculated conc: 0.000091
Area Ratio: 2.898e-4
Sample Type: (Quality Control)



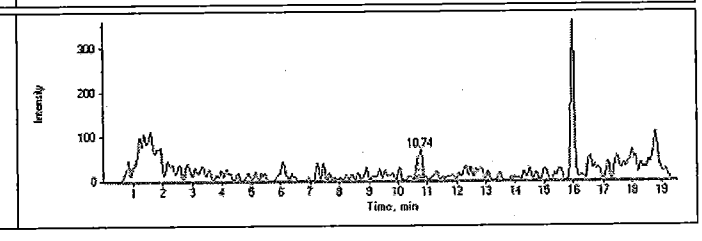
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min
Calculated conc: 0.000097
Area Ratio: 1.264e-3
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min
Calculated conc: 0.000149
Area Ratio: 6.154e-4
Sample Type: (Quality Control)



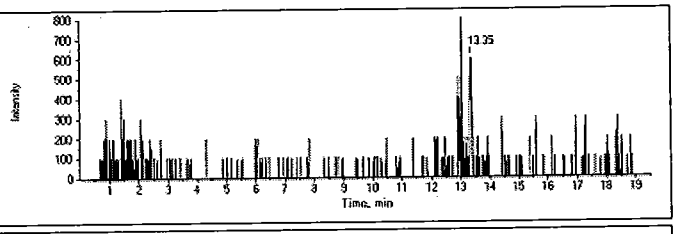
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000195

Area Ratio: 2.138e-3

Sample Type: (Quality Control)



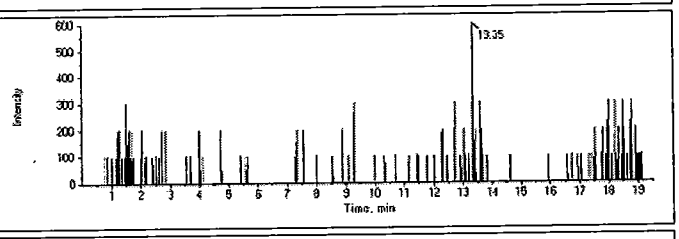
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.35 (13.34) min

Calculated conc: 0.000095

Area Ratio: 3.113e-4

Sample Type: (Quality Control)



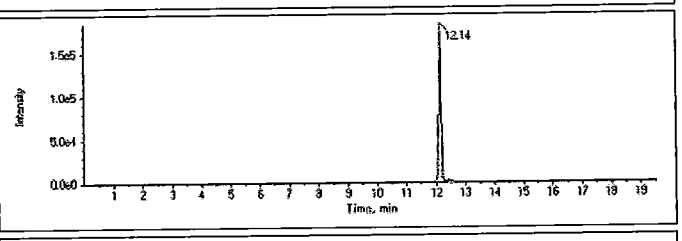
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 70.263546

Area Ratio: N/A

Sample Type: (Quality Control)



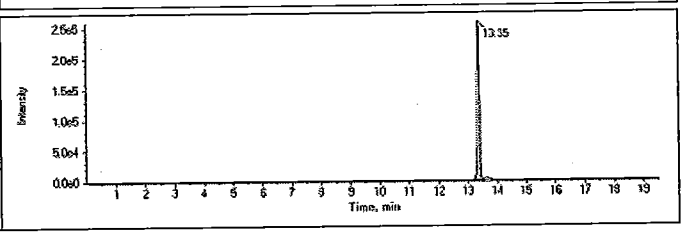
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.35 (13.36) min

Calculated conc: 81.849224

Area Ratio: N/A

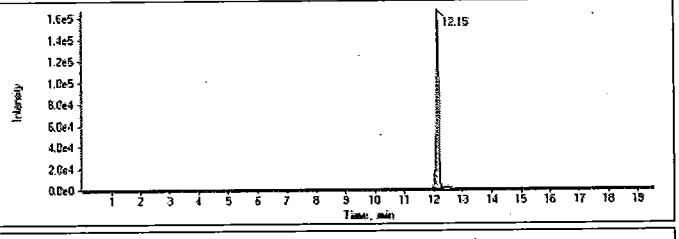
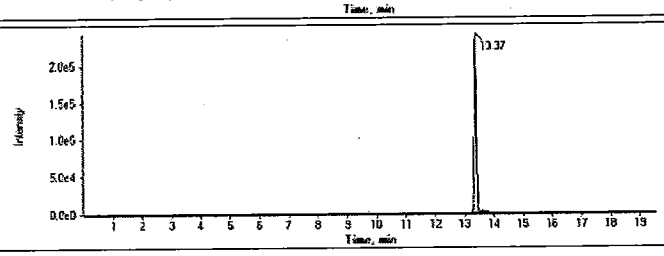
Sample Type: (Quality Control)



Sample Name	201312140140A_Reinj	**Injection Vial**	42
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 1:30:39 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Prep. By FAM@12/17/13 Prep. Run#742660		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	969629.500000	12.15	100.00000	-
IS-13C-PFOS	1264861.350000	13.37	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	1.866e+04	8.53	0.00000	0.000867
Surr-13c-PFHxA	9.352e+05	8.55	100.00000	99.029005
PFHpA	5.859e+03	10.63	0.00000	0.000170
PFHpA 2	1.272e+03	10.64	0.00000	0.000144
PFOA	4.669e+04	12.15	0.00000	0.001478
PFOA 2	1.572e+04	12.15	0.00000	0.001602
PFNA	3.924e+02	13.38	0.00000	0.000018
PFNA 2	1.471e+02	13.33	0.00000	0.000028
PFDA	3.434e+02	14.17	0.00000	0.000014
PFDA 2	9.805e+01	14.38	0.00000	0.000025
Surr-13c-PFDA	7.051e+05	14.40	100.00000	87.548819
PFUnA	1.472e+02	15.21	0.00000	0.000007
PFUnA 2	N/A	N/A	0.00000	N/A
PFDoA	4.902e+02	16.00	0.00000	0.000025
PFTrDA	1.471e+02	16.62	0.00000	0.000005
PFTrDA 2	N/A	N/A	0.00000	N/A
PFTA	N/A	N/A	0.00000	N/A
PFBS	3.421e+02	6.34	0.00000	0.000022
PFBS 2	3.377e+02	6.20	0.00000	0.000084
PFHxS	2.749e+02	10.67	0.00000	0.000017
PFHxS 2	2.368e+02	10.76	0.00000	0.000045
PFOS	2.942e+02	13.34	0.00000	0.000021
PFOS 2	1.960e+02	13.34	0.00000	0.000047
13C-PFOA	9.941e+05	12.15	100.00000	69.000401
13C-PFOS	1.265e+06	13.37	100.00000	82.076201

IS-13C-PFOA (Internal Standard) RT (Exp. RT): 12.15(12.12) min Concentration: 100.00000 Sample Type: (Quality Control)	
IS-13C-PFOS (Internal Standard) RT (Exp. RT): 13.37(13.36) min Concentration: 100.00000 Sample Type: (Quality Control)	

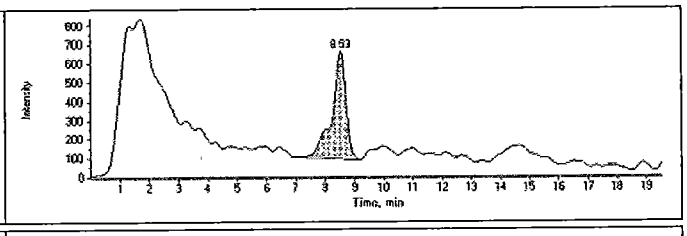
PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.53 (8.55) min

Calculated conc: 0.000867

Area Ratio: 1.924e-2

Sample Type: (Quality Control)



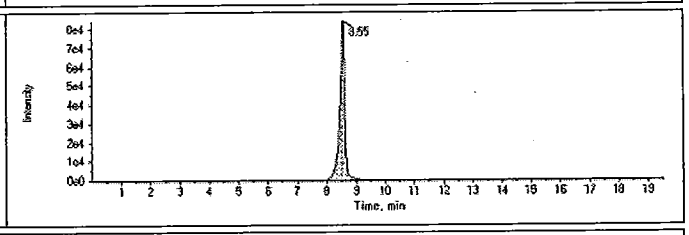
Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 99.029005

Area Ratio: 9.645e-1

Sample Type: (Quality Control)



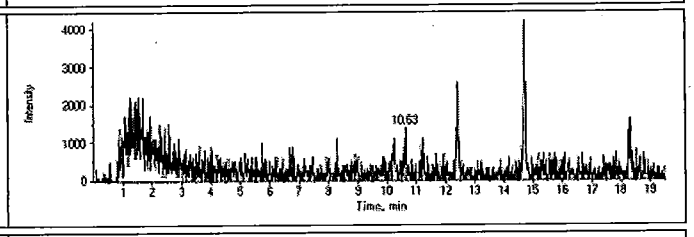
PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.63 (10.60) min

Calculated conc: 0.000170

Area Ratio: 6.043e-3

Sample Type: (Quality Control)



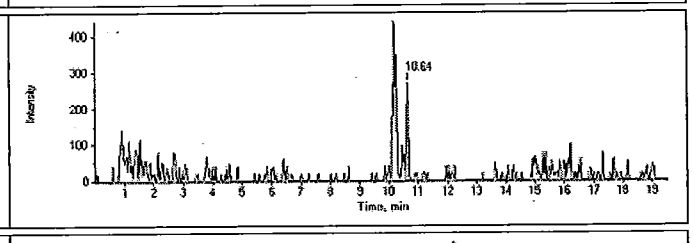
PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.64 (10.60) min

Calculated conc: 0.000144

Area Ratio: 1.312e-3

Sample Type: (Quality Control)



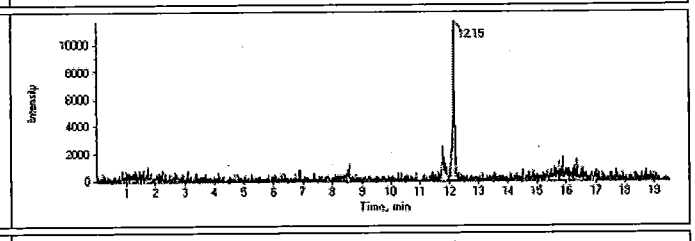
PFOA (413.0 / 368.9)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.001478

Area Ratio: 4.815e-2

Sample Type: (Quality Control)



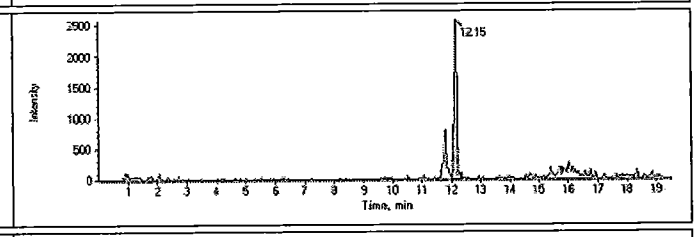
PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.15 (12.13) min

Calculated conc: 0.001602

Area Ratio: 1.622e-2

Sample Type: (Quality Control)



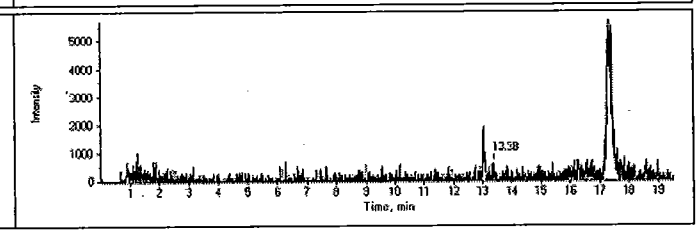
PFNA (463.0 / 419.0)

RT (Exp. RT): 13.38 (13.35) min

Calculated conc: 0.000018

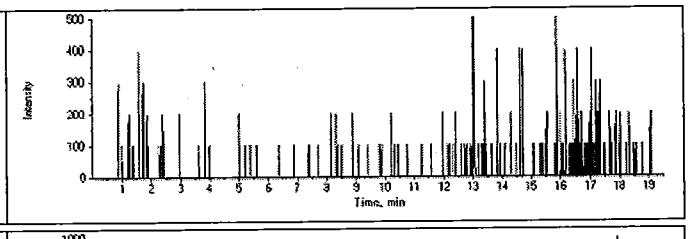
Area Ratio: 4.046e-4

Sample Type: (Quality Control)



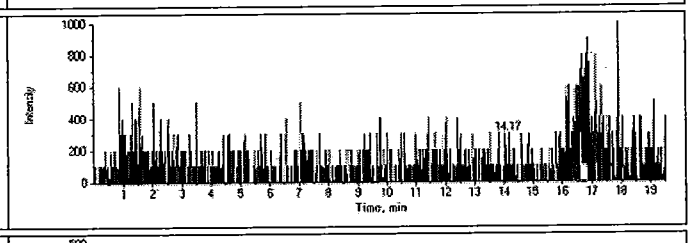
PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.33 (13.35) min
Calculated conc: 0.000028
Area Ratio: 1.517e-4
Sample Type: (Quality Control)



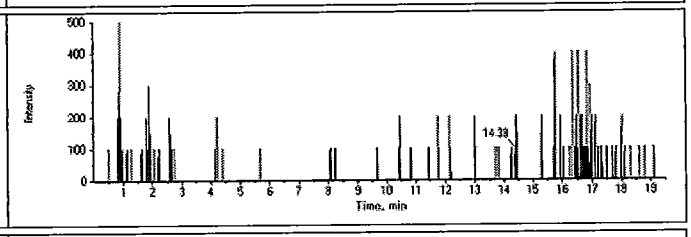
PFDA (513.0 / 469.0)

RT (Exp. RT): 14.17 (14.37) min
Calculated conc: 0.000014
Area Ratio: 3.541e-4
Sample Type: (Quality Control)



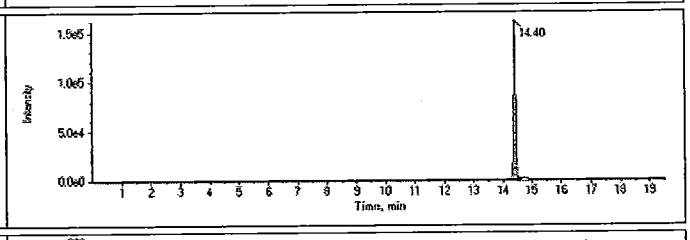
PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.38 (14.37) min
Calculated conc: 0.000025
Area Ratio: 1.011e-4
Sample Type: (Quality Control)



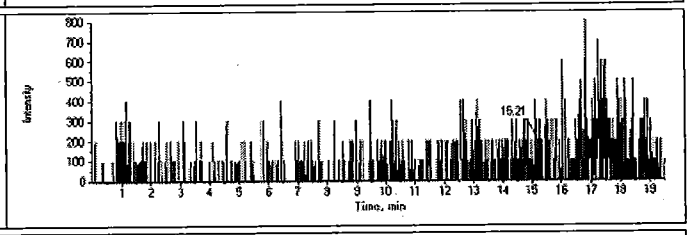
Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.40 (14.37) min
Calculated conc: 87.548819
Area Ratio: 7.271e-1
Sample Type: (Quality Control)



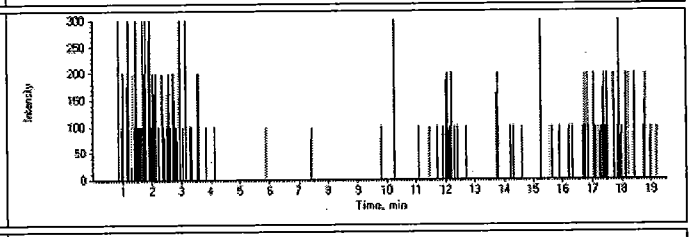
PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.21 (15.23) min
Calculated conc: 0.000007
Area Ratio: 1.518e-4
Sample Type: (Quality Control)



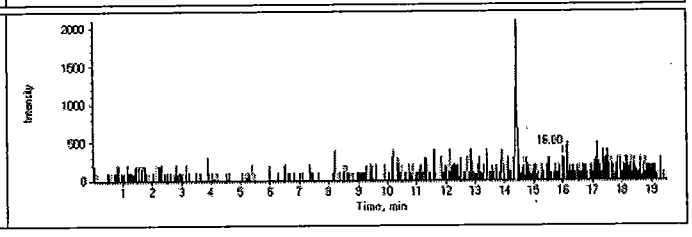
PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): N/A (15.23) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



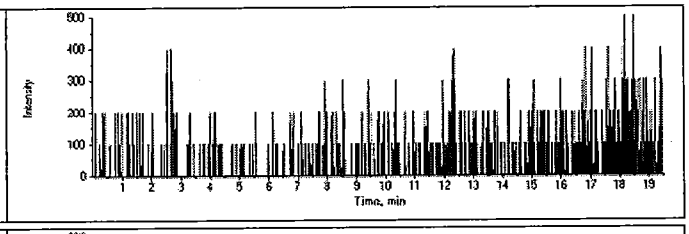
PFDoA (612.8 / 569.0)

RT (Exp. RT): 16.00 (15.97) min
Calculated conc: 0.000025
Area Ratio: 5.056e-4
Sample Type: (Quality Control)



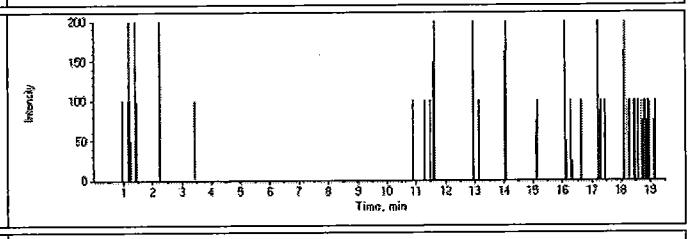
PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min
Calculated conc: 0.000005
Area Ratio: 1.517e-4
Sample Type: (Quality Control)



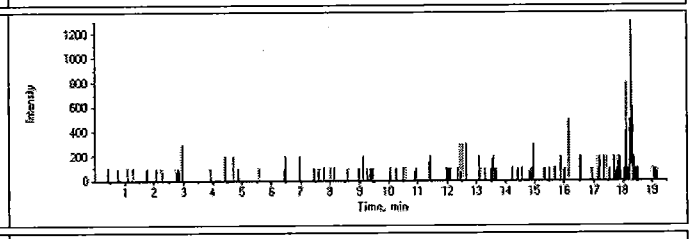
PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): N/A (16.60) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



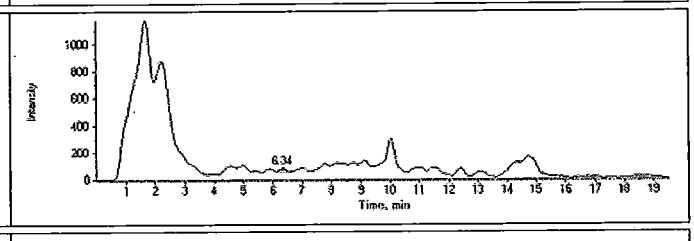
PFTA (713.3 / 669.0)

RT (Exp. RT): N/A (17.15) min
Calculated conc: N/A
Area Ratio: N/A
Sample Type: (Quality Control)



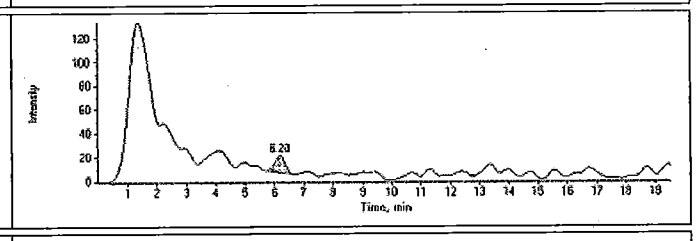
PFBS (299.0 / 79.9)

RT (Exp. RT): 6.34 (6.27) min
Calculated conc: 0.000022
Area Ratio: 2.704e-4
Sample Type: (Quality Control)



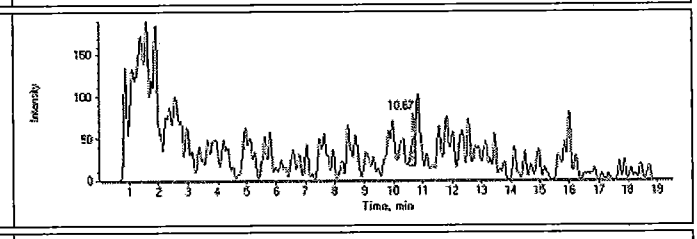
PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.20 (6.28) min
Calculated conc: 0.000084
Area Ratio: 2.670e-4
Sample Type: (Quality Control)



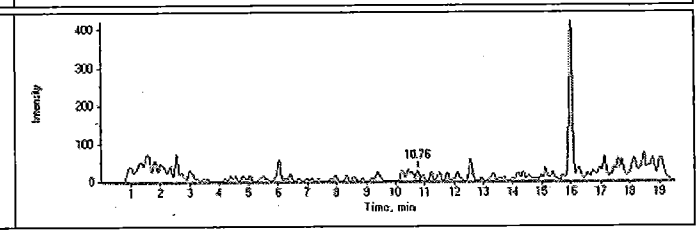
PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.67 (10.73) min
Calculated conc: 0.000017
Area Ratio: 2.173e-4
Sample Type: (Quality Control)



PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.76 (10.73) min
Calculated conc: 0.000045
Area Ratio: 1.872e-4
Sample Type: (Quality Control)

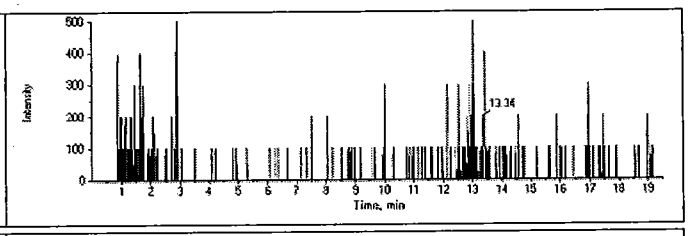


PFOS (499.0 / 79.9)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.000021

Area Ratio: 2.326e-4
Sample Type: (Quality Control)

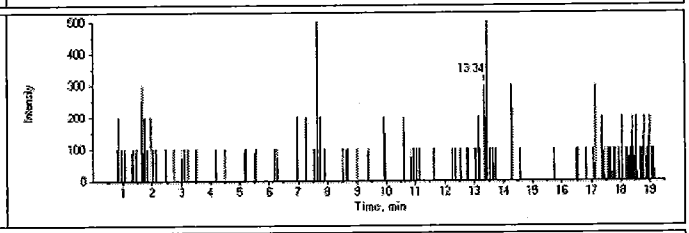


PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.34 (13.34) min

Calculated conc: 0.000047

Area Ratio: 1.550e-4
Sample Type: (Quality Control)

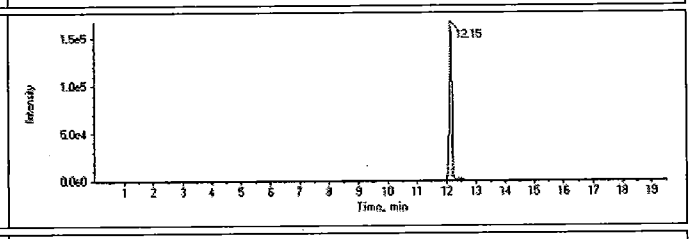


13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.15 (12.12) min

Calculated conc: 69.000401

Area Ratio: N/A
Sample Type: (Quality Control)

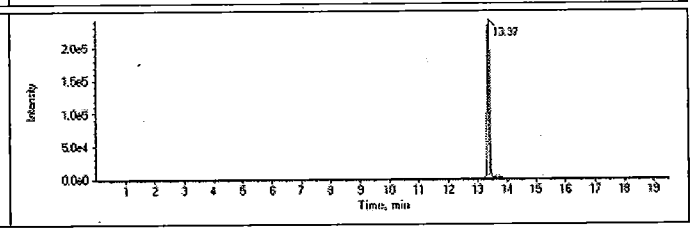


13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.37 (13.36) min

Calculated conc: 82.076201

Area Ratio: N/A
Sample Type: (Quality Control)



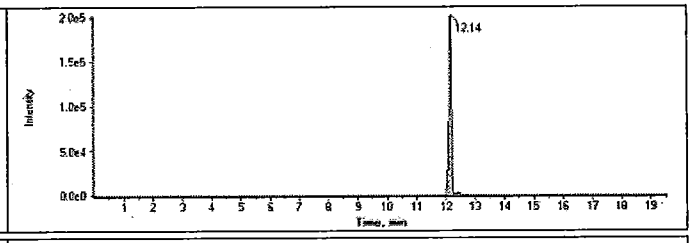
Sample Name	CCCM	**Injection Vial**	43
Sample ID		**Injection Volume**	10.00
Sample Type	Quality Control	**Algorithm Used**	MQ4
Acquisition Date	12/27/2013 1:50:48 PM	**Dilution Factor**	1.00
Acquisition Method	@537-ShortRun-110613-Ali.dam	**Weight to Volume**	N/A
Project	EPA537\2013_12_26	**Instrument Name**	API 4000
Data File	@537-Batch#742660-122613.wiff		
Result Table	@537-Batch#742660-122613		
Sample Comment	Lot#@537Cal-122613-LHZ, Exp.01/09/14		

Internal Standard	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
IS-13C-PFOA	1187094.100000	12.14	100.00000	-
IS-13C-PFOS	1386244.800000	13.36	100.00000	-

Target Analyte	Area (cps)	RT (min)	Target conc. ()	Calc. Conc. ()
PFHxA	4.788e+05	8.52	0.02000	0.018183
Surr-13c-PFHxA	1.173e+06	8.55	100.00000	101.457427
PFHpA	7.997e+05	10.61	0.02000	0.018976
PFHpA 2	2.047e+05	10.61	0.02000	0.018905
PFOA	7.634e+05	12.14	0.02000	0.019743
PFOA 2	2.524e+05	12.14	0.02000	0.021006
PFNA	5.850e+05	13.37	0.02000	0.021471
PFNA 2	1.367e+05	13.37	0.02000	0.021123
PFDA	6.272e+05	14.39	0.02000	0.020712
PFDA 2	9.349e+04	14.39	0.02000	0.019220
Surr-13c-PFDA	1.030e+06	14.39	100.00000	104.489142
PFUnA	5.904e+05	15.25	0.02000	0.022397
PFUnA 2	9.280e+04	15.25	0.02000	0.022595
PFDoA	5.200e+05	15.99	0.02000	0.021265
PFTrDA	6.977e+05	16.62	0.02000	0.020041
PFTrDA 2	1.162e+05	16.62	0.02000	0.019203
PFTA	7.062e+04	17.17	0.02000	0.020939
PFBS	2.897e+05	6.26	0.01770	0.017181
PFBS 2	7.316e+04	6.24	0.01770	0.016517
PFHxS	3.314e+05	10.74	0.01900	0.018328
PFHxS 2	1.066e+05	10.74	0.01900	0.018603
PFOS	3.003e+05	13.36	0.01920	0.019736
PFOS 2	7.728e+04	13.36	0.01920	0.017081
13C-PFOA	1.187e+06	12.14	100.00000	82.399759
13C-PFOS	1.386e+06	13.36	100.00000	89.952711

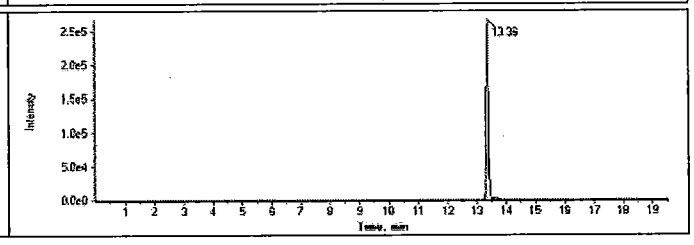
IS-13C-PFOA (Internal Standard)

RT (Exp. RT): 12:14(12.12) min
Concentration: 100.00000
Sample Type: (Quality Control)



IS-13C-PFOS (Internal Standard)

RT (Exp. RT): 13.36(13.36) min
Concentration: 100.00000
Sample Type: (Quality Control)

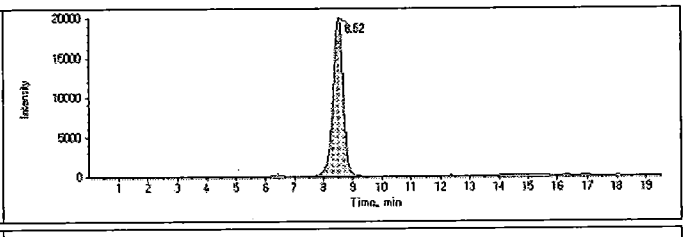


PFHxA (313.0 / 268.8)

RT (Exp. RT): 8.52 (8.55) min

Calculated conc: 0.018183

Area Ratio: 4.033e-1
Sample Type: (Quality Control)

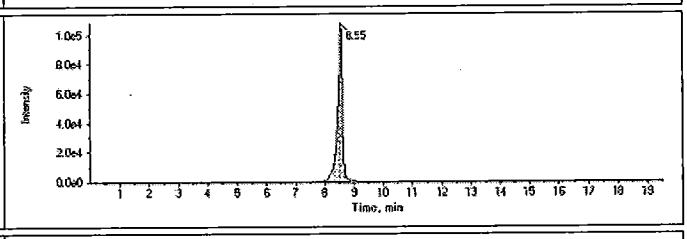


Surr-13c-PFHxA (315.0 / 270.0)

RT (Exp. RT): 8.55 (8.54) min

Calculated conc: 101.457427

Area Ratio: 9.881e-1
Sample Type: (Quality Control)

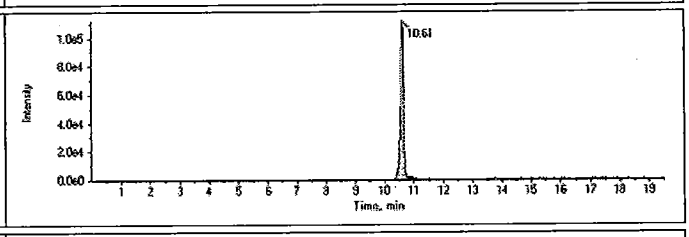


PFHpA (363.0 / 318.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.018976

Area Ratio: 6.737e-1
Sample Type: (Quality Control)

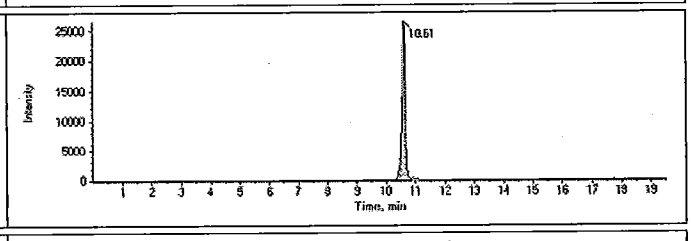


PFHpA 2 (363.0 / 168.9)

RT (Exp. RT): 10.61 (10.60) min

Calculated conc: 0.018905

Area Ratio: 1.724e-1
Sample Type: (Quality Control)

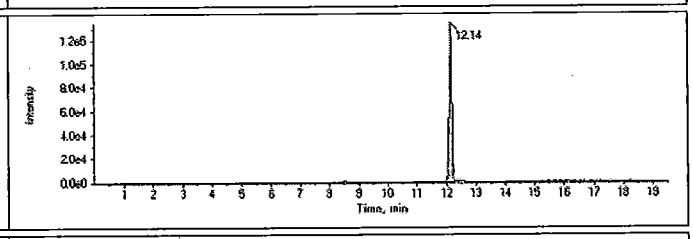


PFOA (413.0 / 368.9)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.019743

Area Ratio: 6.431e-1
Sample Type: (Quality Control)

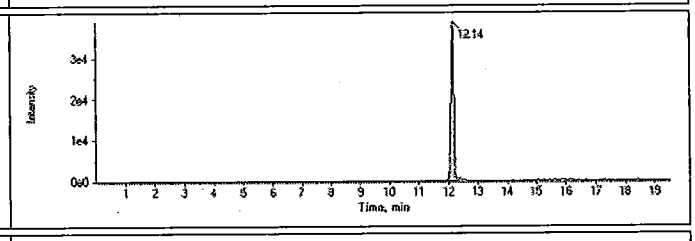


PFOA 2 (413.0 / 168.8)

RT (Exp. RT): 12.14 (12.13) min

Calculated conc: 0.021006

Area Ratio: 2.127e-1
Sample Type: (Quality Control)

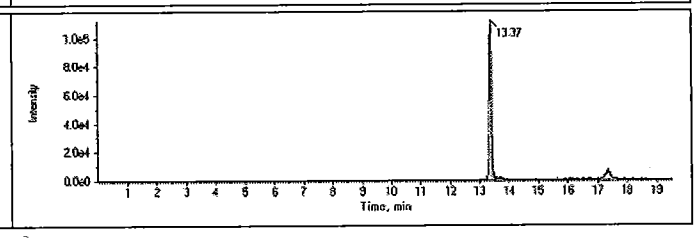


PFNA (463.0 / 419.0)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.021471

Area Ratio: 4.928e-1
Sample Type: (Quality Control)

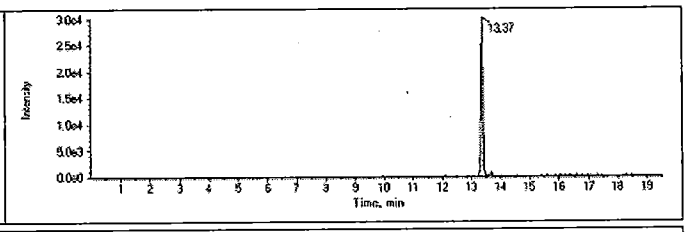


PFNA 2 (463.0 / 218.9)

RT (Exp. RT): 13.37 (13.35) min

Calculated conc: 0.021123

Area Ratio: 1.152e-1
Sample Type: (Quality Control)

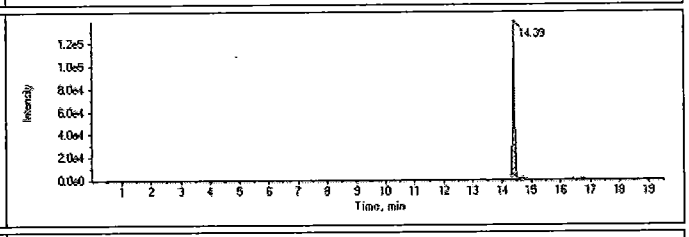


PFDA (513.0 / 469.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.020712

Area Ratio: 5.284e-1
Sample Type: (Quality Control)

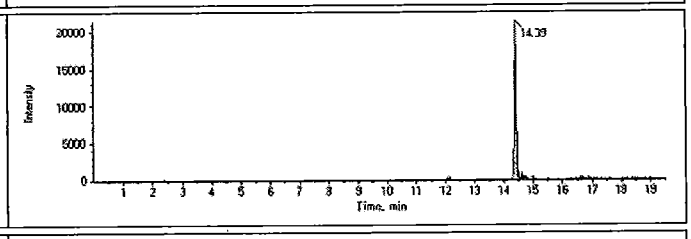


PFDA 2 (513.0 / 218.8)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 0.019220

Area Ratio: 7.875e-2
Sample Type: (Quality Control)

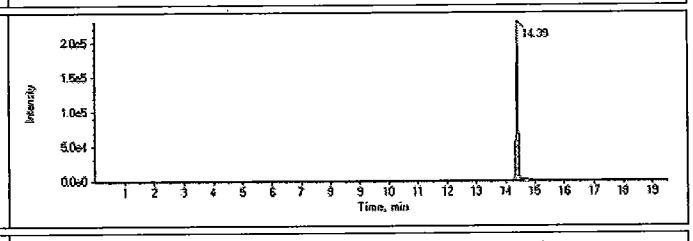


Surr-13c-PFDA (515.0 / 470.0)

RT (Exp. RT): 14.39 (14.37) min

Calculated conc: 104.489142

Area Ratio: 8.678e-1
Sample Type: (Quality Control)

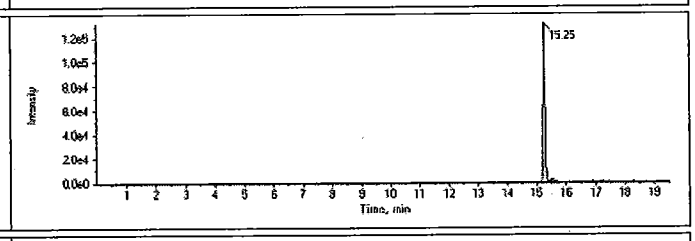


PFUnA (563.0 / 519.0)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.022397

Area Ratio: 4.973e-1
Sample Type: (Quality Control)

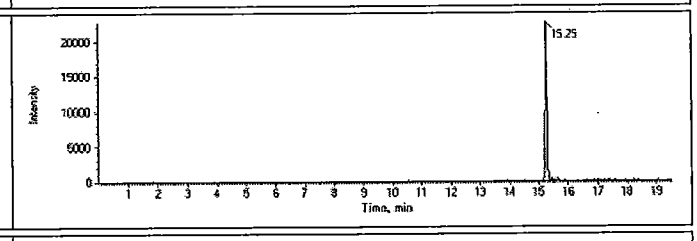


PFUnA 2 (563.0 / 268.8)

RT (Exp. RT): 15.25 (15.23) min

Calculated conc: 0.022595

Area Ratio: 7.817e-2
Sample Type: (Quality Control)

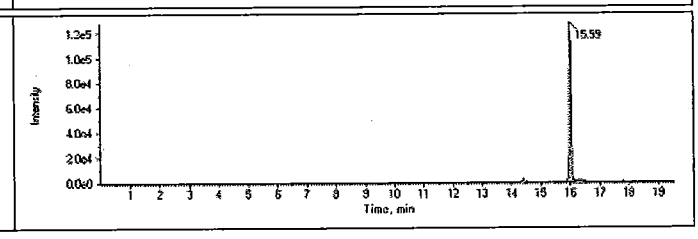


PFDoA (612.8 / 569.0)

RT (Exp. RT): 15.99 (15.97) min

Calculated conc: 0.021265

Area Ratio: 4.380e-1
Sample Type: (Quality Control)

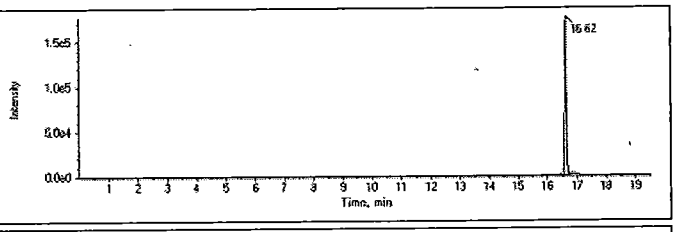


PFTrDA (662.9 / 619.0)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.020041

Area Ratio: 5.878e-1
Sample Type: (Quality Control)

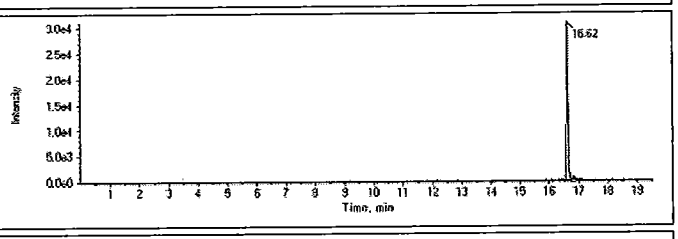


PFTrDA 2 (662.9 / 168.9)

RT (Exp. RT): 16.62 (16.60) min

Calculated conc: 0.019203

Area Ratio: 9.792e-2
Sample Type: (Quality Control)

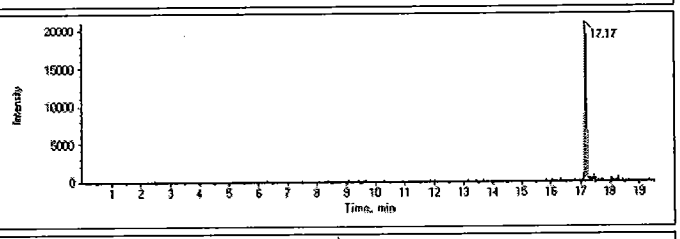


PFTA (713.3 / 669.0)

RT (Exp. RT): 17.17 (17.15) min

Calculated conc: 0.020939

Area Ratio: 5.949e-2
Sample Type: (Quality Control)

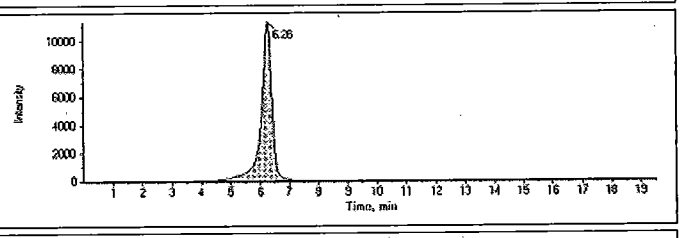


PFBS (299.0 / 79.9)

RT (Exp. RT): 6.26 (6.27) min

Calculated conc: 0.017181

Area Ratio: 2.090e-1
Sample Type: (Quality Control)

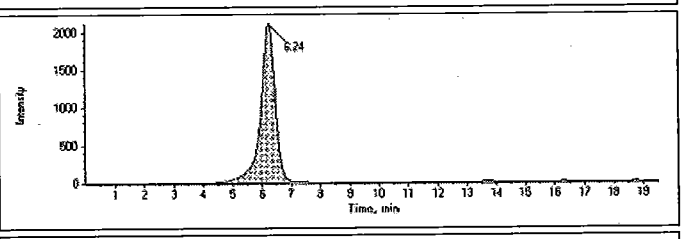


PFBS 2 (299.0 / 99.0)

RT (Exp. RT): 6.24 (6.28) min

Calculated conc: 0.016517

Area Ratio: 5.277e-2
Sample Type: (Quality Control)

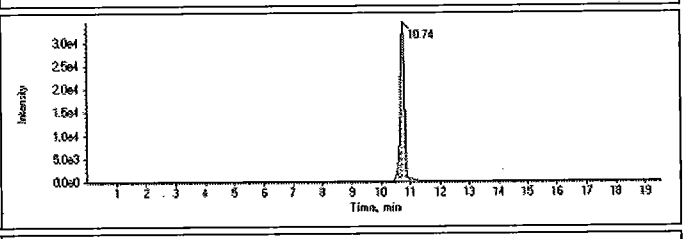


PFHxS (398.9 / 80.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.018328

Area Ratio: 2.391e-1
Sample Type: (Quality Control)

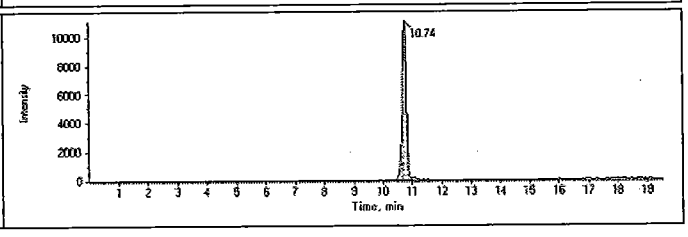


PFHxS 2 (398.9 / 99.0)

RT (Exp. RT): 10.74 (10.73) min

Calculated conc: 0.018603

Area Ratio: 7.690e-2
Sample Type: (Quality Control)



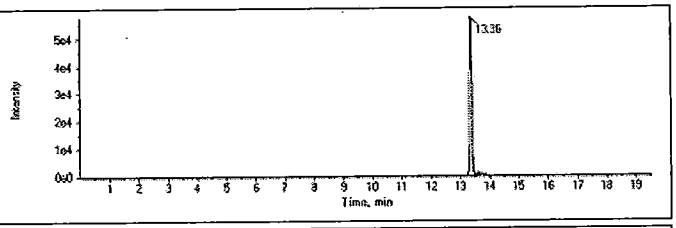
PFOS (499.0 / 79.9)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.019736

Area Ratio: 2.166e-1

Sample Type: (Quality Control)



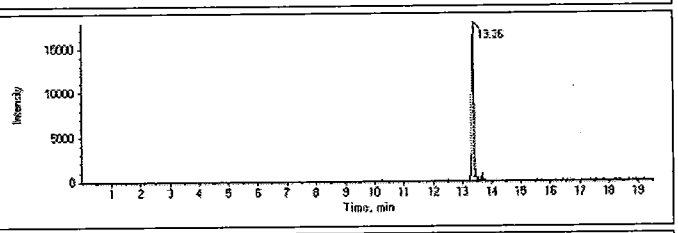
PFOS 2 (499.0 / 99.0)

RT (Exp. RT): 13.36 (13.34) min

Calculated conc: 0.017081

Area Ratio: 5.575e-2

Sample Type: (Quality Control)



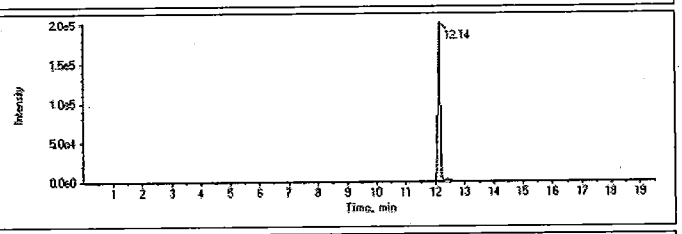
13C-PFOA (417.0 / 372.0)

RT (Exp. RT): 12.14 (12.12) min

Calculated conc: 82.399759

Area Ratio: N/A

Sample Type: (Quality Control)



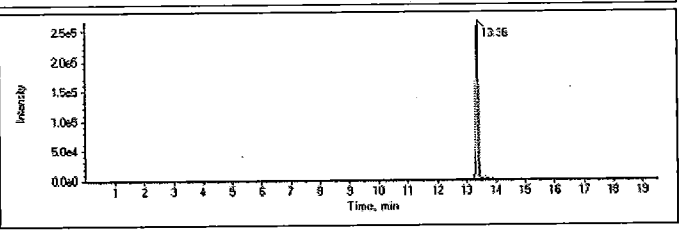
13C-PFOS (503.0 / 80.0)

RT (Exp. RT): 13.36 (13.36) min

Calculated conc: 89.952711

Area Ratio: N/A

Sample Type: (Quality Control)



TestAmerica Laboratory Reports

- LDC Validation Report – Westville, Woodbury, West Deptford Blended (460-68260-1)
- TestAmerica Laboratory Report (J68260-1)

LDC Validation Report

– Westville, Woodbury, West Deptford Blended (460-68260-1)

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 8, 2014

SUBJECT: PFCs, Project #C1165, Data Validation

Dear Mr. Hutchings,

Enclosed is the final validation report for the fraction listed below. This SDG was received January 2, 2014. Attachment 1 is a summary of the samples that were reviewed for each analysis.

LDC Project # 31095:

SDG#	Fraction
460-68260-1	Wet Chemistry

The data validation was performed under Stage 2B & 4 guidelines. The laboratory revised the data packages to remove the Nitrate/Nitrite as N re-analysis from 12/26/13. The re-analysis was not necessary because the original analysis from 12/13/13 was performed within holding time. The laboratory also removed Nitrate as N from the analysis list.

100% verification was performed on the sample results in the Electronic Data Deliverable (EDD) against hardcopy results. Only one set of results was reported for Nitrate/Nitrite as N, however, the data package had two sets of results. Data packages were revised as noted above. EDD was correct as reported.

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

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

- **TestAmercia SOP**
  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

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

Legally Privileged & Confidential

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

Sincerely,

Stella Cuenco
Operations Manager/Senior Chemist

908 pages-SF 1 WEEK TAT

Attachment 1

EDD

LDC #31095 (Integral Consulting, Inc.-Olympia, WA / PFCs, Project #C1165)

LDC	SDG#	DATE REC'D	(3) DATE DUE	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
A	460-68260-1	01/02/14	01/09/14	7	0	7	0	7	0	7	0	7	0	7	0	7	0	7	0	4	0												
A	460-68260-1	01/02/14	01/09/14	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0												
Total	T/SC					8	0	8	0	8	0	8	0	8	0	8	0	8	0	5	0	0	0	0	0	0	0	0	0	0	0	0	61

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

31095ST.wpd

LDC Report# 31095A6

Laboratory Data Consultants, Inc.
Data Validation Report

Project/Site Name: PFCs, Project#C1165

LDC Report Date: January 8, 2014

Matrix: Water

Parameters: Wet Chemistry

Validation Level: Stage 2B & 4

Laboratory: TestAmerica, Inc.

Sample Delivery Group (SDG): 460-68260-1

Sample Identification	Collection Date	Laboratory Sample Identification
GW0008	12/12/13	460-68260-1
GW0009	12/12/13	460-68260-2
GW0010	12/12/13	460-68260-3
GW0011	12/12/13	460-68260-4
GW0012**	12/12/13	460-68260-5
GW0013	12/12/13	460-68260-6
GW0014	12/12/13	460-68260-7
GW0015	12/12/13	460-68260-8
GW0008DUP	12/12/13	460-68260-1DUP
GW0013MS	12/12/13	460-68260-6MS
GW0013MSD	12/12/13	460-68260-6MSD
GW0014MS	12/12/13	460-68260-7MS

**Indicates sample underwent Stage 4 review

Introduction

This data review covers 12 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
GW0008 GW0009 GW0010 GW0011 GW0012** GW0013 GW0014 GW0015	pH	12 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 with the following exceptions:

Method Blank ID	Analyte	Concentration	Associated Samples
ICB/CCB	Total organic carbon	0.485 mg/L	GW0012**
ICB/CCB	Total organic carbon	0.303 mg/L	GW0008 GW0009 GW0010 GW0011

Sample concentrations were compared to concentrations detected in the blanks. The sample concentrations were either not detected or were significantly greater (>5X blank contaminants) than the concentrations found in the associated blanks.

No field blanks were identified in this SDG.

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 GW0008 and GW0009, samples GW0011 and GW0012**, and samples GW0015 and GW0016 (from SDG 460-68263-1) were identified as field duplicates. No contaminant concentrations were detected in any of the samples with the following exceptions:

Analyte	Concentration		RPD (Limits)
	GW0008	GW0009	
Chloride	22.1 mg/L	22.1 mg/L	0 (≤35)
Fluoride	0.27 mg/L	0.27 mg/L	0 (≤35)
Sulfate	15.5 mg/L	16.5 mg/L	6 (≤35)
Ammonia as N	2.0 mg/L	1.7 mg/L	16 (≤35)
Bicarbonate Alkalinity	213 mg/L	221 mg/L	4 (≤35)
Alkalinity	213 mg/L	221 mg/L	4 (≤35)
Hardness	202 mg/L	202 mg/L	0 (≤35)

Analyte	Concentration		RPD (Limits)
	GW0008	GW0009	
Total suspended solids	43.6 mg/L	16.4 mg/L	91 (≤35)
pH	7.70 units	7.71 units	0 (≤35)
Orthophosphate as P	0.086 mg/L	0.073 mg/L	16 (≤35)
Total organic carbon	2.7 mg/L	2.9 mg/L	7 (≤35)

Analyte	Concentration		RPD (Limits)
	GW0011	GW0012**	
Chloride	29.1 mg/L	29.1 mg/L	0 (≤35)
Fluoride	0.25 mg/L	0.24 mg/L	4 (≤35)
Sulfate	16.7 mg/L	16.6 mg/L	1 (≤35)
Nitrate/Nitrite as N	1.7 mg/L	1.7 mg/L	0 (≤35)
Bicarbonate Alkalinity	213 mg/L	193 mg/L	10 (≤35)
Alkalinity	213 mg/L	193 mg/L	10 (≤35)
Hardness	200 mg/L	202 mg/L	1 (≤35)
pH	7.91 units	7.94 units	0 (≤35)
Orthophosphate as P	0.35 mg/L	0.45 mg/L	25 (≤35)
Total organic carbon	2.8 mg/L	2.4 mg/L	15 (≤35)

Analyte	Concentration		RPD (Limits)
	GW0015	GW0016	
Chloride	21.2 mg/L	21.2 mg/L	0 (≤35)
Fluoride	0.31 mg/L	0.32 mg/L	3 (≤35)
Sulfate	29.1 mg/L	29.7 mg/L	2 (≤35)
Ammonia as N	0.34 mg/L	0.23 mg/L	39 (≤35)
Total suspended solids	1.2U mg/L	1.4 mg/L	200 (≤35)
Bicarbonate Alkalinity	131 mg/L	161 mg/L	21 (≤35)
Alkalinity	131 mg/L	161 mg/L	21 (≤35)

Analyte	Concentration		RPD (Limits)
	GW0015	GW0016	
Hardness	134 mg/L	122 mg/L	9 (≤35)
pH	8.05 units	8.14 units	1 (≤35)
Orthophosphate as P	0.24 mg/L	0.24 mg/L	0 (≤35)
Total organic carbon	1.5 mg/L	1.3 mg/L	14 (≤35)

PFCs, Project#C1165
Wet Chemistry - Data Qualification Summary - SDG 460-68260-1

SDG	Sample	Analyte	Flag	A or P	Reason (Code)
460-68260-1	GW0008 GW0009 GW0010 GW0011 GW0012** GW0013 GW0014 GW0015	pH	J- (all detects) UJ (all non-detects)	P	Technical holding time (1)

PFCs, Project#C1165
Wet Chemistry - Laboratory Blank Data Qualification Summary - SDG 460-68260-1

No Sample Data Qualified in this SDG

PFCs, Project#C1165
Wet Chemistry - Field Blank Data Qualification Summary - SDG 460-68260-1

No Sample Data Qualified in this SDG

LDC #: 31095A6
SDG #: 460-68260-1
Laboratory: Test America, Inc.

VALIDATION COMPLETENESS WORKSHEET
Level III/IV

Date: 1/3/14
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), ~~Nitrate-N Calculation~~ ca \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	SW	Sampling dates: 12/12/13
II	Initial calibration	A	
III.	Calibration verification	A	
IV	Blanks	SW	
V	Matrix Spike/Matrix Spike Duplicates	A	MS/D
VI.	Duplicates	A	DUP
VII.	Laboratory control samples	SW	LCS
VIII.	Sample result verification	A	Not reviewed for Level III validation.
IX.	Overall assessment of data	~~SW~~ A	
X.	Field duplicates	SW	(1,2) (4,5) (8, GW0016 (SDG: 460-68263-
XI	Field blanks	N	~~FB= GW0027 (SDG: CR~~

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	GW0008	11	GW0013MSD	21	~~A8 RE~~ CR	31	
2	GW0009	12	GW0014MS	22		32	
3	GW0010	~~13~~	~~GW0014MSD~~ CR	23		33	
4	GW0011	14	~~(A1) RE~~	24		34	
5	GW0012**	15	A2	25		35	
6	GW0013	16	A3	26		36	
7	GW0014	17	A4	27		37	
8	GW0015	18	A5	28		38	
9	GW0008DUP	19	A6	29		39	
10	GW0013MS	20	~~A7~~ CR	30		40	

Notes:

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LDC #: 31095A6

VALIDATION FINDINGS CHECKLIST

Reviewer: CR
2nd Reviewer: R

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 #: 31095AC

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 #: 31095A6

VALIDATION FINDINGS WORKSHEET
Sample Specific Analysis Reference

Reviewer: CR
2nd reviewer: [illegible]

All circled methods are applicable to each sample.

Sample ID	Parameter
1-8	pH TDS Cl F NO_3/NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Br ~~NO_3~~ 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
~~14-21~~	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
9	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
10	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
11	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4
12	pH TDS Cl F NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 Br
~~13~~	pH TDS ~~Cl~~ ~~F~~ NO_3 NO_2 SO_4 O-PO_4 Alk CN NH_3 TKN TOC Cr6+ ClO_4 ~~Br~~
	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 #: 31095A6

VALIDATION FINDINGS WORKSHEET
Technical Holding Times

Reviewer: QR
2nd reviewer: M

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:		SM4500HB					
Parameters:		pH					
Technical holding time:		48hrs					
Sample ID	**Sampling date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Analysis date**	**Qualifier**
1-8	12/12/13	~~12/17/13~~ 02	(12 days)				J/UJ/P
		12/24/13					

LDC #: 31095A6

VALIDATION FINDINGS WORKSHEET
Blanks

Page: 1 of 1
Reviewer: CL
2nd Reviewer: K

METHOD: Inorganics, Method See Cover

Conc. units: mg/L **Associated Samples:** 5

Analyte	Blank ID	Blank ID	Blank Action Limit										
	PB	ICB/CCB (mg/L)		No Qualifiers (>RL)									
TOC		0.485											

Conc. units: mg/L **Associated Samples:** 1-4

Analyte	Blank ID	Blank ID	Blank Action Limit										
	PB	ICB/CCB (mg/L)		No Qualifiers (>RL)									
TOC		0.303											

CIRCLED RESULTS WERE NOT QUALIFIED. ALL RESULTS NOT CIRCLED WERE QUALIFIED BY THE FOLLOWING STATEMENT:
All contaminants within five times the method blank concentration were qualified as not detected, "U".

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LDC #: 3109SA6

VALIDATION FINDINGS WORKSHEET
Laboratory Control Samples (LCS)

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

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 Was a laboratory control sample (LCS) analyzed for each matrix in this SDG?

Y N N/A Were all LCS percent recoveries (%R) within the control limits of 80-120% (85-115% for Method 300.0)?

LEVEL IV ONLY:

Y N N/A Were recalculated results acceptable? See Level IV Recalculation Worksheet for recalculations.

#	Date	LCS ID	Matrix	Analyte	%R (limits)	Associated Samples	Qualifications
		LCS 480-157769/51		Br	82 (90-110)	None	No Qual
				Cl	86 (90-110)	↓	↓

Comments:

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LDC: 31095A6

VALIDATION FINDINGS WORKSHEET
Field Duplicates

Reviewer: CR
2nd Reviewer:

Method: Inorganics (see cover)

Analyte	Concentration (mg/L)		RPD (≤ 35)
	1	2	
Chloride	22.1	22.1	0
Fluoride	0.27	0.27	0
Sulfate	15.5	16.5	6
Ammonia as N	2.0	1.7	16
Bicarbonate Alkalinity	213	221	4
Alkalinity	213	221	4
Hardness	202	202	0
TSS	43.6	16.4	91
pH (units)	7.70	7.71	0
Orthophosphate as P	0.086	0.073	16
TOC	2.7	2.9	7

Analyte	Concentration (mg/L)		RPD (≤ 35)
	4	5	
Chloride	29.1	29.1	0
Fluoride	0.25	0.24	4
Sulfate	16.7	16.6	1
Nitrate/Nitrite as N	1.7	1.7	0
~~Nitrate as N~~	~~1.7~~	~~1.7~~	~~0~~ CR
Bicarbonate Alkalinity	213	193	10
Alkalinity	213	193	10
Hardness	200	202	1
pH (units)	7.91	7.94	0
Orthophosphate as P	0.35	0.45	25
TOC	2.8	2.4	15

Analyte	Concentration (mg/L)		RPD (≤ 35)
	8	GW0016	
Chloride	21.2	21.2	0
Fluoride	0.31	0.32	3
Sulfate	29.1	29.7	2
Ammonia as N	0.34	0.23	39
TSS	1.2U	1.4	200
Bicarbonate Alkalinity	131	161	21
Alkalinity	131	161	21
Hardness	134	122	9
pH (units)	8.05	8.14	1
Orthophosphate as P	0.24	0.24	0
TOC	1.5	1.3	14

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LDC #: 31095A6

Validation Findings Worksheet
Initial and Continuing Calibration Calculation Verification

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

Method: Inorganics, Method See Cover

The correlation coefficient (r) for the calibration of NO_3/NO_2-N was recalculated. Calibration date: 12/13/13

An initial or continuing calibration verification percent recovery (%R) was recalculated for each type of analysis using the following formula:

$$\%R = \frac{\text{Found} \times 100}{\text{True}}$$

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	47299	0.9998	0.9998	Y
		s2	0.1	952448			
		s3	0.5	4172768			
		s4	1	8589011			
		s5	1.5	12613370			
		s6	2	16526279			
Calibration verification	OPO_4	CCV	0.2	0.200252	101	101	
Calibration verification	TOC	↓	50	46.95	98	98	
Calibration verification	NH_3-N	↓	2	2.02	101	101	↓

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.

LDC #: 3109SAC

VALIDATION FINDINGS WORKSHEET
Level IV Recalculation Worksheet

Page: 1 of 1
Reviewer: 9R
2nd Reviewer: K

METHOD: Inorganics, Method Seecover

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)
~~Br~~ or LCS	Laboratory control sample	Br	1.82	2	91	91	Y
12	Matrix spike sample	F	(SSR-SR) 2.4	2.5	96	96	
9	Duplicate sample	Alk	213	215.1	1	1	

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 #: 31095A6

VALIDATION FINDINGS WORKSHEET
Sample Calculation Verification

Page: 1 of 1
Reviewer: CR
2nd reviewer: JL

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 OPO_4 reported with a positive detect were recalculated and verified using the following equation:

Concentration = $y = 1.39x + 0.00236$

Recalculation: $0.323(1.39) + 0.00236 = 0.451$ mg

#	Sample ID	Analyte	Reported Concentration (mg/L)	Calculated Concentration (mg/L)	Acceptable (Y/N)
	5	Cl	29.1	29.1	Y
		F	0.24	0.24	
		SO_4	16.6	16.6	
		NO_3/NO_2-N	1.7	1.7	
		NO_3-N	1.7	1.7	
		Alk	193	193	
		Hardness	202	202	
		pH (units)	7.94	7.94	
		OPO_4-P	0.45	0.45	
		TOC	2.4	2.4	✓

Note:

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RECALC.6

TestAmerica Laboratory Report

– J68260-1

ANALYTICAL REPORT

Job Number: 460-68260-1

Job Description: Solvay

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

Attention: Craig Hutchings

Approved for release.
Jannel O Franklin
Project Manager I
1/8/2014 12:36 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
Revision: 1

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CASE NARRATIVE - REVISED

Client: Integral Consulting Inc

Project: Solvay

Report Number: 460-68260-1

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.

REVISED REPORT:
The following report(s) required a revision: 460-68260. Details are as follows: Due to laboratory error, duplicate results for Nitrate/Nitrite were reported; this has been corrected.

RECEIPT
The samples were received on 12/13/2013; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 3.1 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 460-68260-1 through 460-68260-8 were analyzed for alkalinity in accordance with SM 2320B. The samples were analyzed on 12/26/2013.

No difficulties were encountered during the alkalinity analyses.

All quality control parameters were within the acceptance limits.

HARDNESS
Samples 460-68260-1 through 460-68260-8 were analyzed for hardness in accordance with SM 2340C. The samples were analyzed on 12/26/2013.

No difficulties were encountered during the hardness analyses.

All quality control parameters were within the acceptance limits.

TOTAL SUSPENDED SOLIDS
Samples 460-68260-1 through 460-68260-8 were analyzed for total suspended solids in accordance with SM 2540D. The samples were analyzed on 12/17/2013.

The matrix duplicate %RPD for Total Suspended Solids associated with batch 198189 was outside the control limits .

Total Suspended Solids exceeded the rpd limit for the duplicate of sample 460-68392-5.

Refer to the QC report for details.

No other difficulties were encountered during the TSS analyses.

All other quality control parameters were within the acceptance limits.

ANIONS

Samples 460-68260-1 through 460-68260-8 were analyzed for anions in accordance with EPA Method 300.0_28D Anions by Ion Chromatograph. The samples were analyzed on 12/16/2013 and 12/17/2013.

Bromide and Chloride were detected in method blank MB 480-157769/52 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Refer to the QC report for details.

Refer to the QC report for details.

No other difficulties were encountered during the anions analyses.

All other quality control parameters were within the acceptance limits.

NITRATE-NITRITE AS NITROGEN

Samples 460-68260-1 through 460-68260-8 were analyzed for nitrate-nitrite as nitrogen in accordance with EPA Method 353.2. The samples were analyzed on 12/26/2013.

Nitrate Nitrite as N failed the recovery criteria low for the MS/MSD of sample 460-68195-4 in batch 460-200085.

Nitrate Nitrite as N failed the recovery criteria low for the MS/MSD of sample 460-68739-9 in batch 460-200085.

Refer to the QC report for details.

No other difficulties were encountered during the nitrate-nitrite analyses.

All other quality control parameters were within the acceptance limits.

ORTHOPHOSPHATE AS P

Samples 460-68260-1 through 460-68260-8 were analyzed for orthophosphate as P in accordance with SM 4500 P E. The samples were analyzed on 12/14/2013.

Sample 460-68260-7(5X) required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the orthophosphate analyses.

All quality control parameters were within the acceptance limits.

NITRATE BY CALCULATION

Samples 460-68260-1 through 460-68260-8 were analyzed for nitrate by calculation in accordance with Nitrate (a calculated method). The samples were analyzed on 12/23/2013.

Due to a failing closing CCV for Nitrate, only Nitrate-Nitrite and Nitrite were reported by 353.2 on Lachat. Nitrate was determined by calculation.

No difficulties were encountered during the nitrate analyses.

All quality control parameters were within the acceptance limits.

PH

Samples 460-68260-1 through 460-68260-8 were analyzed for pH in accordance with SM 4500 H+. The samples were analyzed on 12/24/2013.

This analysis is normally performed in the field and has a method-defined holding time of 15 minutes. The following sample(s) has been qualified with the "HF" flag to indicate analysis was performed in the laboratory outside the 15 minute timeframe: GW0008 (460-68260-1), GW0009 (460-68260-2), GW0010 (460-68260-3), GW0011 (460-68260-4), GW0012 (460-68260-5), GW0013 (460-68260-6), GW0014 (460-68260-7), GW0015 (460-68260-8)

No other difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

AMMONIA

Samples 460-68260-1 through 460-68260-8 were analyzed for ammonia in accordance with SM 4500 NH3 H. The samples were prepared and analyzed on 12/23/2013.

The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 200085 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No other difficulties were encountered during the ammonia analyses.

All quality control parameters were within the acceptance limits.

TOTAL ORGANIC CARBON

Samples 460-68260-1 through 460-68260-8 were analyzed for total organic carbon in accordance with SM 5310B. The samples were analyzed on 12/17/2013.

Replicate injection exceeds 10% RPD.

No other difficulties were encountered during the TOC analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68260-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
460-68260-1	GW0008	Water	12/12/2013 0927	12/13/2013 0945
460-68260-2	GW0009	Water	12/12/2013 0935	12/13/2013 0945
460-68260-3	GW0010	Water	12/12/2013 0955	12/13/2013 0945
460-68260-4	GW0011	Water	12/12/2013 1017	12/13/2013 0945
460-68260-5	GW0012	Water	12/12/2013 1020	12/13/2013 0945
460-68260-6	GW0013	Water	12/12/2013 1030	12/13/2013 0945
460-68260-7	GW0014	Water	12/12/2013 1141	12/13/2013 0945
460-68260-8	GW0015	Water	12/12/2013 1149	12/13/2013 0945

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68260-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-68260-1	**GW0008**					
Chloride		22.1		0.50	mg/L	300.0
Fluoride		0.27		0.050	mg/L	300.0
Sulfate		15.5		2.0	mg/L	300.0
Ammonia (as N)		2.0		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		213		5.0	mg/L	SM 2320B
Alkalinity		213		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		202		5.0	mg/L	SM 2340C
Total Suspended Solids		43.6		2.0	mg/L	SM 2540D
pH		7.70	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.086		0.030	mg/L	SM 4500 P E
Total Organic Carbon		2.7		1.0	mg/L	SM 5310B
460-68260-2	**GW0009**					
Chloride		22.1		0.50	mg/L	300.0
Fluoride		0.27		0.050	mg/L	300.0
Sulfate		16.5		2.0	mg/L	300.0
Ammonia (as N)		1.7		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		221		5.0	mg/L	SM 2320B
Alkalinity		221		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		202		5.0	mg/L	SM 2340C
Total Suspended Solids		16.4		2.0	mg/L	SM 2540D
pH		7.71	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.073		0.030	mg/L	SM 4500 P E
Total Organic Carbon		2.9		1.0	mg/L	SM 5310B
460-68260-3	**GW0010**					
Chloride		21.2		0.50	mg/L	300.0
Fluoride		0.20		0.050	mg/L	300.0
Sulfate		1.6	J	2.0	mg/L	300.0
Ammonia (as N)		1.8		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		222		5.0	mg/L	SM 2320B
Alkalinity		222		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		216		5.0	mg/L	SM 2340C
Total Suspended Solids		9.2		1.3	mg/L	SM 2540D
pH		7.36	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.057		0.030	mg/L	SM 4500 P E
Total Organic Carbon		2.1		1.0	mg/L	SM 5310B

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68260-1

Lab Sample ID	Client Sample ID			Reporting		
Analyte		Result	Qualifier	Limit	Units	Method
460-68260-4	**GW0011**					
Chloride		29.1		0.50	mg/L	300.0
Fluoride		0.25		0.050	mg/L	300.0
Sulfate		16.7		2.0	mg/L	300.0
Nitrate Nitrite as N		1.7		0.10	mg/L	353.2
Bicarbonate Alkalinity as CaCO3		213		5.0	mg/L	SM 2320B
Alkalinity		213		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		200		5.0	mg/L	SM 2340C
pH		7.91	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.35		0.030	mg/L	SM 4500 P E
Total Organic Carbon		2.8		1.0	mg/L	SM 5310B
460-68260-5	**GW0012**					
Chloride		29.1		0.50	mg/L	300.0
Fluoride		0.24		0.050	mg/L	300.0
Sulfate		16.6		2.0	mg/L	300.0
Nitrate Nitrite as N		1.7		0.10	mg/L	353.2
Bicarbonate Alkalinity as CaCO3		193		5.0	mg/L	SM 2320B
Alkalinity		193		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		202		5.0	mg/L	SM 2340C
pH		7.94	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.45		0.030	mg/L	SM 4500 P E
Total Organic Carbon		2.4		1.0	mg/L	SM 5310B
460-68260-6	**GW0013**					
Chloride		19.6		0.50	mg/L	300.0
Fluoride		0.21		0.050	mg/L	300.0
Sulfate		4.5		2.0	mg/L	300.0
Ammonia (as N)		1.7		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		230		5.0	mg/L	SM 2320B
Alkalinity		230		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		206		5.0	mg/L	SM 2340C
Total Suspended Solids		9.6		1.3	mg/L	SM 2540D
pH		8.26	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.057		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.9		1.0	mg/L	SM 5310B

EXECUTIVE SUMMARY - Detections

Client: Integral Consulting Inc

Job Number: 460-68260-1

Lab Sample ID / Analyte	Client Sample ID	Result	Qualifier	Reporting Limit	Units	Method
460-68260-7	**GW0014**					
Chloride		25.1		0.50	mg/L	300.0
Fluoride		0.34		0.050	mg/L	300.0
Sulfate		35.5		2.0	mg/L	300.0
Ammonia (as N)		0.11		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		130		5.0	mg/L	SM 2320B
Alkalinity		130		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		142		5.0	mg/L	SM 2340C
pH		7.99	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.85		0.15	mg/L	SM 4500 P E
Total Organic Carbon		1.7		1.0	mg/L	SM 5310B
460-68260-8	**GW0015**					
Chloride		21.2		0.50	mg/L	300.0
Fluoride		0.31		0.050	mg/L	300.0
Sulfate		29.1		2.0	mg/L	300.0
Ammonia (as N)		0.34		0.10	mg/L	4500 NH3 H
Bicarbonate Alkalinity as CaCO3		131		5.0	mg/L	SM 2320B
Alkalinity		131		5.0	mg/L	SM 2320B
Hardness as calcium carbonate		134		5.0	mg/L	SM 2340C
pH		8.05	HF		SU	SM 4500 H+ B
Orthophosphate as P		0.24		0.030	mg/L	SM 4500 P E
Total Organic Carbon		1.5		1.0	mg/L	SM 5310B

METHOD SUMMARY

Client: Integral Consulting Inc

Job Number: 460-68260-1

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: 460-68260-1

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	Brown, Sarah E	SEB
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: **GW0008**

Lab Sample ID: 460-68260-1

Client Matrix: Water

Date Sampled: 12/12/2013 0927

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1812						
Chloride	22.1		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1812						
Fluoride	0.27		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1812						
Sulfate	15.5		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157767	Analysis Date: 12/16/2013 1930						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1137						
Ammonia (as N)	2.0		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1724						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	213		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1217						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1217						
Alkalinity	213		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1217						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1217						
Hardness as calcium carbonate	202		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	43.6		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	7.70	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1445						
Orthophosphate as P	0.086		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0910						
Total Organic Carbon	2.7		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 1017						

General Chemistry

Client Sample ID: **GW0009**

Lab Sample ID: 460-68260-2

Client Matrix: Water

Date Sampled: 12/12/2013 0935

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1822						
Chloride	22.1		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1822						
Fluoride	0.27		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1822						
Sulfate	16.5		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157767	Analysis Date: 12/16/2013 1940						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1139						
Ammonia (as N)	1.7		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1725						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	221		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1258						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1258						
Alkalinity	221		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1258						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1258						
Hardness as calcium carbonate	202		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	16.4		mg/L	2.0	2.0	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	7.71	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1447						
Orthophosphate as P	0.073		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0910						
Total Organic Carbon	2.9		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 1116						

General Chemistry

Client Sample ID: **GW0010**

Lab Sample ID: 460-68260-3

Client Matrix: Water

Date Sampled: 12/12/2013 0955

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1832						
Chloride	21.2		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1832						
Fluoride	0.20		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1832						
Sulfate	1.6	J	mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157767	Analysis Date: 12/16/2013 1950						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1140						
Ammonia (as N)	1.8		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1727						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	222		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1304						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1304						
Alkalinity	222		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1304						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1304						
Hardness as calcium carbonate	216		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	9.2		mg/L	1.3	1.3	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	7.36	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1449						
Orthophosphate as P	0.057		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0910						
Total Organic Carbon	2.1		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 1136						

General Chemistry

Client Sample ID: **GW0011**

Lab Sample ID: 460-68260-4

Client Matrix: Water

Date Sampled: 12/12/2013 1017

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1842						
Chloride	29.1		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1842						
Fluoride	0.25		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1842						
Sulfate	16.7		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157767	Analysis Date: 12/16/2013 2000						
Nitrate Nitrite as N	1.7		mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1142						
Ammonia (as N)	0.080	U	mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1728						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	213		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1311						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1311						
Alkalinity	213		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1311						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1311						
Hardness as calcium carbonate	200		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	1.3	U	mg/L	1.3	1.3	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	7.91	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1451						
Orthophosphate as P	0.35		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0945						
Total Organic Carbon	2.8		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 1258						

General Chemistry

Client Sample ID: **GW0012**

Lab Sample ID: 460-68260-5

Client Matrix: Water

Date Sampled: 12/12/2013 1020

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1852						
Chloride	29.1		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1852						
Fluoride	0.24		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1852						
Sulfate	16.6		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157767	Analysis Date: 12/16/2013 2010						
Nitrate Nitrite as N	1.7		mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1143						
Ammonia (as N)	0.080	U	mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1730						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	193		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1318						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1318						
Alkalinity	193		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1318						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1318						
Hardness as calcium carbonate	202		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	1.1	U	mg/L	1.1	1.1	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	7.94	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1454						
Orthophosphate as P	0.45		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0945						
Total Organic Carbon	2.4		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 0449						

General Chemistry

Client Sample ID: **GW0013**

Lab Sample ID: 460-68260-6

Client Matrix: Water

Date Sampled: 12/12/2013 1030

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1903						
Chloride	19.6		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1903						
Fluoride	0.21		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1903						
Sulfate	4.5		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157767	Analysis Date: 12/16/2013 2020						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1145						
Ammonia (as N)	1.7		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1731						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	230		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1325						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1325						
Alkalinity	230		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1325						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1325						
Hardness as calcium carbonate	206		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	9.6		mg/L	1.3	1.3	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	8.26	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1457						
Orthophosphate as P	0.057		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0945						
Total Organic Carbon	1.9		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 0548						

General Chemistry

Client Sample ID: **GW0014**

Lab Sample ID: 460-68260-7

Client Matrix: Water

Date Sampled: 12/12/2013 1141

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1913						
Chloride	25.1		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1913						
Fluoride	0.34		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1913						
Sulfate	35.5		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157769	Analysis Date: 12/16/2013 2131						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1146						
Ammonia (as N)	0.11		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1737						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	130		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1332						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1332						
Alkalinity	130		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1332						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1332						
Hardness as calcium carbonate	142		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	1.3	U	mg/L	1.3	1.3	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	7.99	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1459						
Orthophosphate as P	0.85		mg/L	0.050	0.15	5.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 1130						
Total Organic Carbon	1.7		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 0608						

General Chemistry

Client Sample ID: **GW0015**

Lab Sample ID: 460-68260-8

Client Matrix: Water

Date Sampled: 12/12/2013 1149

Date Received: 12/13/2013 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: 480-158039	Analysis Date: 12/17/2013 1953						
Chloride	21.2		mg/L	0.28	0.50	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1953						
Fluoride	0.31		mg/L	0.0060	0.050	1.0	300.0
Analysis Batch: 480-158039	Analysis Date: 12/17/2013 1953						
Sulfate	29.1		mg/L	0.35	2.0	1.0	300.0
Analysis Batch: 480-157769	Analysis Date: 12/16/2013 2141						
Nitrate Nitrite as N	0.047	U	mg/L	0.047	0.10	1.0	353.2
Analysis Batch: 460-197566	Analysis Date: 12/13/2013 1148						
Ammonia (as N)	0.34		mg/L	0.080	0.10	1.0	4500 NH3 H
Analysis Batch: 460-199611	Analysis Date: 12/23/2013 1738						
Prep Batch: 460-199450	Prep Date: 12/23/2013 0630						
Bicarbonate Alkalinity as CaCO3	131		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1338						
Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1338						
Alkalinity	131		mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1338						
Hydroxide Alkalinity	5.0	U	mg/L	5.0	5.0	1.0	SM 2320B
Analysis Batch: 460-200246	Analysis Date: 12/26/2013 1338						
Hardness as calcium carbonate	134		mg/L	1.6	5.0	1.0	SM 2340C
Analysis Batch: 460-200035	Analysis Date: 12/26/2013 1100						
Total Suspended Solids	1.2	U	mg/L	1.2	1.2	1.0	SM 2540D
Analysis Batch: 460-198189	Analysis Date: 12/17/2013 0717						
pH	8.05	HF	SU			1.0	SM 4500 H+ B
Analysis Batch: 460-199829	Analysis Date: 12/24/2013 1501						
Orthophosphate as P	0.24		mg/L	0.010	0.030	1.0	SM 4500 P E
Analysis Batch: 460-197786	Analysis Date: 12/14/2013 0945						
Total Organic Carbon	1.5		mg/L	0.30	1.0	1.0	SM 5310B
Analysis Batch: 460-198482	Analysis Date: 12/17/2013 0627						

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 480-157767

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-157767/28	Analysis Batch:	480-157767	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121613-1_028.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/16/2013 1718	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: 480-157767

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-157767/27	Analysis Batch:	480-157767	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121613-1_027.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/16/2013 1708	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	2.00	1.82	91	90 - 110	
Chloride	20.0	19.09	95	90 - 110	
Fluoride	2.00	1.97	99	90 - 110	
Sulfate	20.0	20.32	102	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-157767

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	460-68260-6	Analysis Batch:	480-157767	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121613-1_047.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/16/2013 2031			Final Weight/Volume:	
Prep Date:	N/A				1 uL
Leach Date:	N/A				

MSD Lab Sample ID:	460-68260-6	Analysis Batch:	480-157767	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121613-1_048.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/16/2013 2041			Final Weight/Volume:	
Prep Date:	N/A				1 uL
Leach Date:	N/A				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Sulfate	96	95	90 - 110	1	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 480-157767

Method: 300.0
Preparation: N/A

MS Lab Sample ID:	460-68260-6	Units: mg/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	12/16/2013 2031		
Prep Date:	N/A		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68260-6
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	12/16/2013 2041
Prep Date:	N/A
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Sulfate	4.5	25.0	25.0	28.40	28.16

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 480-157769

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-157769/52	Analysis Batch:	480-157769	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121613-1_052.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/16/2013 2121	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: 480-157769

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-157769/51	Analysis Batch:	480-157769	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121613-1_051.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/16/2013 2111	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Bromide	2.00	1.65	82	90 - 110	^ *
Chloride	20.0	17.23	86	90 - 110	^ *
Fluoride	2.00	1.80	90	90 - 110	
Sulfate	20.0	18.55	93	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 480-158039

Method: 300.0
Preparation: N/A

Lab Sample ID:	MB 480-158039/4	Analysis Batch:	480-158039	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121713-1_015.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/17/2013 1802	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: 480-158039

Method: 300.0
Preparation: N/A

Lab Sample ID:	LCS 480-158039/3	Analysis Batch:	480-158039	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121713-1_014.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/17/2013 1752	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	19.93	100	90 - 110	
Fluoride	2.00	2.05	102	90 - 110	
Sulfate	20.0	20.02	100	90 - 110	

Matrix Spike - Batch: 480-158039

Method: 300.0
Preparation: N/A

Lab Sample ID:	460-68260-7	Analysis Batch:	480-158039	Instrument ID:	IC-1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	121713-1_023.d
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1 mL
Analysis Date:	12/17/2013 1923	Units:	mg/L	Final Weight/Volume:	
Prep Date:	N/A				1 uL
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Bromide	0.073	U	2.50	2.47	99	90 - 110	
Chloride	25.1		25.0	48.79	95	90 - 110	
Fluoride	0.34		2.50	2.74	96	90 - 110	
Sulfate	34.9		25.0	58.20	93	90 - 110	

Client: Integral Consulting Inc

Job Number: 460-68260-1

LCS-Certified Reference Material - Batch: 460-197566

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCSSRM 460-197566/63	Analysis Batch:	460-197566	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131213A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/13/2013 1129	Units:	mg/L	Final Weight/Volume:	10 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrite as N	0.612	0.587	96.0	88.9 - 110.5	

LCS-Certified Reference Material - Batch: 460-197566

Method: 353.2
Preparation: N/A

Lab Sample ID:	LCSSRM 460-197566/64	Analysis Batch:	460-197566	Instrument ID:	Lachat1
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	N131213A.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/13/2013 1130	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	1.41	93.5	87.4 - 112.6	^
Nitrate Nitrite as N	1.51	1.41	93.5	85.4 - 109.9	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-199450

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

Lab Sample ID:	MB 460-199450/1-A	Analysis Batch:	460-199611	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-199450	Lab File ID:	A131223.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	12/23/2013 1702	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	12/23/2013 0630				
Leach Date:	N/A				

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

Lab Control Sample - Batch: 460-199450

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

Lab Sample ID:	LCS 460-199450/2-A	Analysis Batch:	460-199611	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-199450	Lab File ID:	A131223.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	12/23/2013 1703	Units:	mg/L	Final Weight/Volume:	50.0 mL
Prep Date:	12/23/2013 0630				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ammonia (as N)	1.00	0.998	100	85 - 117	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199450

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

MS Lab Sample ID:	460-68263-D-8-B MS	Analysis Batch:	460-199611	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-199450	Lab File ID:	A131223.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	12/23/2013 1706			Final Weight/Volume:	50.0 mL
Prep Date:	12/23/2013 0630				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68263-D-8-C MSD	Analysis Batch:	460-199611	Instrument ID:	Lachat2
Client Matrix:	Water	Prep Batch:	460-199450	Lab File ID:	A131223.FDT
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	50.0 mL
Analysis Date:	12/23/2013 1708			Final Weight/Volume:	50.0 mL
Prep Date:	12/23/2013 0630				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ammonia (as N)	101	101	60 - 147	0	16		

Client: Integral Consulting Inc

Job Number: 460-68260-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-199450

Method: 4500 NH3 H
Preparation: SM 4500 NH3 B

MS Lab Sample ID:	460-68263-D-8-B MS	Units: mg/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	12/23/2013 1706		
Prep Date:	12/23/2013 0630		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68263-D-8-C MSD
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	12/23/2013 1708
Prep Date:	12/23/2013 0630
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Ammonia (as N)	0.19	1.00	1.00	1.21	1.21

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-200246

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	MB 460-200246/2	Analysis Batch:	460-200246	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613alk.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/26/2013 1114	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: 460-200246

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-200246/3	Analysis Batch:	460-200246	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613alk.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/26/2013 1121	Units:	mg/L	Final Weight/Volume:	25 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Alkalinity	37.7	35.32	93.7	90.9 - 110.0	

Duplicate - Batch: 460-200246

Method: SM 2320B
Preparation: N/A

Lab Sample ID:	460-68260-1	Analysis Batch:	460-200246	Instrument ID:	Auto_Titrator
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	122613alk.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/26/2013 1224	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	213		215.1	1	27	
Carbonate Alkalinity as CaCO3	5.0	U	5.0	NC	27	U
Alkalinity	213		215.1	1	27	
Hydroxide Alkalinity	5.0	U	5.0	NC	27	U

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-200035

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	MB 460-200035/1	Analysis Batch:	460-200035	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 1100	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: 460-200035

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	LCSSRM 460-200035/2	Analysis Batch:	460-200035	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:	25 mL
Analysis Date:	12/26/2013 1100	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	208	204.0	98.1	91.3 - 109.1	

Duplicate - Batch: 460-200035

Method: SM 2340C
Preparation: N/A

Lab Sample ID:	460-68263-E-11 DU	Analysis Batch:	460-200035	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 1100	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	84.0	84.00	0	10	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-198189

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	MB 460-198189/1	Analysis Batch:	460-198189	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:	12/17/2013 0717	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: 460-198189

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	LCSSRM 460-198189/2	Analysis Batch:	460-198189	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:	12/17/2013 0717	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	70.00	92.7	82.6 - 107.9	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Duplicate - Batch: 460-198189

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	460-68392-A-5 DU	Analysis Batch:	460-198189	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:	12/17/2013 0717	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	158	140.0	12	5	F

Duplicate - Batch: 460-198189

Method: SM 2540D
Preparation: N/A

Lab Sample ID:	460-68392-B-1 DU	Analysis Batch:	460-198189	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:	12/17/2013 0717	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	874	910.0	4	5	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-199829

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

Lab Sample ID:	MB 460-199829/2	Analysis Batch:	460-199829	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:	12/24/2013 1408	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
pH	4.790			

LCS-Certified Reference Material - Batch: 460-199829

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

Lab Sample ID:	LCSSRM 460-199829/3	Analysis Batch:	460-199829	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:	12/24/2013 1410	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: 460-199829

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

Lab Sample ID:	460-68091-C-11 DU	Analysis Batch:	460-199829	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:	12/24/2013 1414	Units:	SU	Final Weight/Volume:	20 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.99	8.020	0.4	10	

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-197786

Method: SM 4500 P E
Preparation: N/A

Lab Sample ID:	MB 460-197786/3	Analysis Batch:	460-197786	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:	12/14/2013 0910	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: 460-197786

Method: SM 4500 P E
Preparation: N/A

Lab Sample ID:	LCSSRM 460-197786/4	Analysis Batch:	460-197786	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:	12/14/2013 0910	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	5.79	108.5	86.1 - 109.0	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-197786

Method: SM 4500 P E
Preparation: N/A

MS Lab Sample ID:	460-68263-C-9 MS	Analysis Batch:	460-197786	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:	12/14/2013 1130			Final Weight/Volume:	50 mL
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-68263-C-9 MSD	Analysis Batch:	460-197786	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:	12/14/2013 1130			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	105	104	82 - 118	1	10		

Client: Integral Consulting Inc

Job Number: 460-68260-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-197786

Method: SM 4500 P E
Preparation: N/A

MS Lab Sample ID:	460-68263-C-9 MS	Units: mg/L	
Client Matrix:	Water		
Dilution:	1.0		
Analysis Date:	12/14/2013 1130		
Prep Date:	N/A		
Leach Date:	N/A		

MSD Lab Sample ID:	460-68263-C-9 MSD
Client Matrix:	Water
Dilution:	1.0
Analysis Date:	12/14/2013 1130
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	0.090	0.200	0.200	0.300	0.297

Client: Integral Consulting Inc

Job Number: 460-68260-1

Method Blank - Batch: 460-198482

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	MB 460-198482/3	Analysis Batch:	460-198482	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131216.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/16/2013 2159	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: 460-198482

Method: SM 5310B
Preparation: N/A

Lab Sample ID:	LCSSRM 460-198482/4	Analysis Batch:	460-198482	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131216.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/16/2013 2219	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	71.51	99.3	86.9 - 113.1	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-198482

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-67893-D-1 MS	Analysis Batch:	460-198482	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131216.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/16/2013 2259			Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

MSD Lab Sample ID:	460-67893-D-1 MSD	Analysis Batch:	460-198482	Instrument ID:	TOC_Shimadzu
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	131216.txt
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	12/16/2013 2319			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: 460-68260-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 460-198482

Method: SM 5310B
Preparation: N/A

MS Lab Sample ID:	460-67893-D-1 MS	Units:	mg/L	MSD Lab Sample ID:	460-67893-D-1 MSD
Client Matrix:	Water			Client Matrix:	Water
Dilution:	1.0			Dilution:	1.0
Analysis Date:	12/16/2013 2259			Analysis Date:	12/16/2013 2319
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	0.41	J	50.0	50.0	50.47	50.32

DATA REPORTING QUALIFIERS

Client: Integral Consulting Inc

Job Number: 460-68260-1

Lab Section	Qualifier	Description
General Chemistry		
	F	Duplicate RPD exceeds the control limit
	HF	Field parameter with a holding time of 15 minutes
	U	Indicates the analyte was analyzed for but not detected.
	^	Instrument related QC exceeds the control limits
	*	Recovery or RPD exceeds control limits
	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: 460-68260-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:480-157767					
LCS 480-157767/27	Lab Control Sample	T	Water	300.0	
MB 480-157767/28	Method Blank	T	Water	300.0	
460-68260-1	GW0008	T	Water	300.0	
460-68260-2	GW0009	T	Water	300.0	
460-68260-3	GW0010	T	Water	300.0	
460-68260-4	GW0011	T	Water	300.0	
460-68260-5	GW0012	T	Water	300.0	
460-68260-6	GW0013	T	Water	300.0	
460-68260-6MS	Matrix Spike	T	Water	300.0	
460-68260-6MSD	Matrix Spike Duplicate	T	Water	300.0	
Analysis Batch:480-157769					
LCS 480-157769/51	Lab Control Sample	T	Water	300.0	
MB 480-157769/52	Method Blank	T	Water	300.0	
460-68260-7	GW0014	T	Water	300.0	
460-68260-8	GW0015	T	Water	300.0	
Analysis Batch:480-158039					
LCS 480-158039/3	Lab Control Sample	T	Water	300.0	
MB 480-158039/4	Method Blank	T	Water	300.0	
460-68260-1	GW0008	T	Water	300.0	
460-68260-2	GW0009	T	Water	300.0	
460-68260-3	GW0010	T	Water	300.0	
460-68260-4	GW0011	T	Water	300.0	
460-68260-5	GW0012	T	Water	300.0	
460-68260-6	GW0013	T	Water	300.0	
460-68260-7	GW0014	T	Water	300.0	
460-68260-7MS	Matrix Spike	T	Water	300.0	
460-68260-8	GW0015	T	Water	300.0	
Analysis Batch:460-197566					
LCSSRM 460-197566/63	LCS-Certified Reference Material	T	Water	353.2	
LCSSRM 460-197566/64	LCS-Certified Reference Material	T	Water	353.2	
460-68260-1	GW0008	T	Water	353.2	
460-68260-2	GW0009	T	Water	353.2	
460-68260-3	GW0010	T	Water	353.2	
460-68260-4	GW0011	T	Water	353.2	
460-68260-5	GW0012	T	Water	353.2	
460-68260-6	GW0013	T	Water	353.2	
460-68260-7	GW0014	T	Water	353.2	
460-68260-8	GW0015	T	Water	353.2	

Client: Integral Consulting Inc

Job Number: 460-68260-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-197786					
LCSSRM 460-197786/4	LCS-Certified Reference Material	T	Water	SM 4500 P E	
MB 460-197786/3	Method Blank	T	Water	SM 4500 P E	
460-68260-1	GW0008	T	Water	SM 4500 P E	
460-68260-2	GW0009	T	Water	SM 4500 P E	
460-68260-3	GW0010	T	Water	SM 4500 P E	
460-68260-4	GW0011	T	Water	SM 4500 P E	
460-68260-5	GW0012	T	Water	SM 4500 P E	
460-68260-6	GW0013	T	Water	SM 4500 P E	
460-68260-7	GW0014	T	Water	SM 4500 P E	
460-68260-8	GW0015	T	Water	SM 4500 P E	
460-68263-C-9 MS	Matrix Spike	T	Water	SM 4500 P E	
460-68263-C-9 MSD	Matrix Spike Duplicate	T	Water	SM 4500 P E	
Analysis Batch:460-198189					
LCSSRM 460-198189/2	LCS-Certified Reference Material	T	Water	SM 2540D	
MB 460-198189/1	Method Blank	T	Water	SM 2540D	
460-68260-1	GW0008	T	Water	SM 2540D	
460-68260-2	GW0009	T	Water	SM 2540D	
460-68260-3	GW0010	T	Water	SM 2540D	
460-68260-4	GW0011	T	Water	SM 2540D	
460-68260-5	GW0012	T	Water	SM 2540D	
460-68260-6	GW0013	T	Water	SM 2540D	
460-68260-7	GW0014	T	Water	SM 2540D	
460-68260-8	GW0015	T	Water	SM 2540D	
460-68392-B-1 DU	Duplicate	T	Water	SM 2540D	
460-68392-A-5 DU	Duplicate	T	Water	SM 2540D	
Analysis Batch:460-198482					
LCSSRM 460-198482/4	LCS-Certified Reference Material	T	Water	SM 5310B	
MB 460-198482/3	Method Blank	T	Water	SM 5310B	
460-67893-D-1 MS	Matrix Spike	T	Water	SM 5310B	
460-67893-D-1 MSD	Matrix Spike Duplicate	T	Water	SM 5310B	
460-68260-1	GW0008	T	Water	SM 5310B	
460-68260-2	GW0009	T	Water	SM 5310B	
460-68260-3	GW0010	T	Water	SM 5310B	
460-68260-4	GW0011	T	Water	SM 5310B	
460-68260-5	GW0012	T	Water	SM 5310B	
460-68260-6	GW0013	T	Water	SM 5310B	
460-68260-7	GW0014	T	Water	SM 5310B	
460-68260-8	GW0015	T	Water	SM 5310B	

Client: Integral Consulting Inc

Job Number: 460-68260-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Prep Batch: 460-199450					
LCS 460-199450/2-A	Lab Control Sample	T	Water	SM 4500 NH3 B	
MB 460-199450/1-A	Method Blank	T	Water	SM 4500 NH3 B	
460-68260-1	GW0008	T	Water	SM 4500 NH3 B	
460-68260-2	GW0009	T	Water	SM 4500 NH3 B	
460-68260-3	GW0010	T	Water	SM 4500 NH3 B	
460-68260-4	GW0011	T	Water	SM 4500 NH3 B	
460-68260-5	GW0012	T	Water	SM 4500 NH3 B	
460-68260-6	GW0013	T	Water	SM 4500 NH3 B	
460-68260-7	GW0014	T	Water	SM 4500 NH3 B	
460-68260-8	GW0015	T	Water	SM 4500 NH3 B	
460-68263-D-8-B MS	Matrix Spike	T	Water	SM 4500 NH3 B	
460-68263-D-8-C MSD	Matrix Spike Duplicate	T	Water	SM 4500 NH3 B	
Analysis Batch:460-199611					
LCS 460-199450/2-A	Lab Control Sample	T	Water	4500 NH3 H	460-199450
MB 460-199450/1-A	Method Blank	T	Water	4500 NH3 H	460-199450
460-68260-1	GW0008	T	Water	4500 NH3 H	460-199450
460-68260-2	GW0009	T	Water	4500 NH3 H	460-199450
460-68260-3	GW0010	T	Water	4500 NH3 H	460-199450
460-68260-4	GW0011	T	Water	4500 NH3 H	460-199450
460-68260-5	GW0012	T	Water	4500 NH3 H	460-199450
460-68260-6	GW0013	T	Water	4500 NH3 H	460-199450
460-68260-7	GW0014	T	Water	4500 NH3 H	460-199450
460-68260-8	GW0015	T	Water	4500 NH3 H	460-199450
460-68263-D-8-B MS	Matrix Spike	T	Water	4500 NH3 H	460-199450
460-68263-D-8-C MSD	Matrix Spike Duplicate	T	Water	4500 NH3 H	460-199450
Analysis Batch:460-199829					
LCSSRM 460-199829/3	LCS-Certified Reference Material	T	Water	SM 4500 H+ B	
MB 460-199829/2	Method Blank	T	Water	SM 4500 H+ B	
460-68091-C-11 DU	Duplicate	T	Water	SM 4500 H+ B	
460-68260-1	GW0008	T	Water	SM 4500 H+ B	
460-68260-2	GW0009	T	Water	SM 4500 H+ B	
460-68260-3	GW0010	T	Water	SM 4500 H+ B	
460-68260-4	GW0011	T	Water	SM 4500 H+ B	
460-68260-5	GW0012	T	Water	SM 4500 H+ B	
460-68260-6	GW0013	T	Water	SM 4500 H+ B	
460-68260-7	GW0014	T	Water	SM 4500 H+ B	
460-68260-8	GW0015	T	Water	SM 4500 H+ B	

Client: Integral Consulting Inc

Job Number: 460-68260-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:460-200035					
LCSSRM 460-200035/2	LCS-Certified Reference Material	T	Water	SM 2340C	
MB 460-200035/1	Method Blank	T	Water	SM 2340C	
460-68260-1	GW0008	T	Water	SM 2340C	
460-68260-2	GW0009	T	Water	SM 2340C	
460-68260-3	GW0010	T	Water	SM 2340C	
460-68260-4	GW0011	T	Water	SM 2340C	
460-68260-5	GW0012	T	Water	SM 2340C	
460-68260-6	GW0013	T	Water	SM 2340C	
460-68260-7	GW0014	T	Water	SM 2340C	
460-68260-8	GW0015	T	Water	SM 2340C	
460-68263-E-11 DU	Duplicate	T	Water	SM 2340C	
Analysis Batch:460-200246					
LCSSRM 460-200246/3	LCS-Certified Reference Material	T	Water	SM 2320B	
MB 460-200246/2	Method Blank	T	Water	SM 2320B	
460-68260-1	GW0008	T	Water	SM 2320B	
460-68260-1DU	Duplicate	T	Water	SM 2320B	
460-68260-2	GW0009	T	Water	SM 2320B	
460-68260-3	GW0010	T	Water	SM 2320B	
460-68260-4	GW0011	T	Water	SM 2320B	
460-68260-5	GW0012	T	Water	SM 2320B	
460-68260-6	GW0013	T	Water	SM 2320B	
460-68260-7	GW0014	T	Water	SM 2320B	
460-68260-8	GW0015	T	Water	SM 2320B	

Report Basis

T = Total

Client: Integral Consulting Inc

Job Number: 460-68260-1

Laboratory Chronicle

Lab ID: 460-68260-1 **Client ID:** GW0008

Sample Date/Time: 12/12/2013 09:27 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-1		480-157767		12/16/2013 19:30	1	TAL BUF	KRC
A:300.0	460-68260-A-1		480-158039		12/17/2013 18:12	1	TAL BUF	KAC
A:353.2	460-68260-A-1		460-197566		12/13/2013 11:37	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-1-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-1-A		460-199611	460-199450	12/23/2013 17:24	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-1		460-200246		12/26/2013 12:17	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-1		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-1		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-1		460-199829		12/24/2013 14:45	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-1		460-197786		12/14/2013 09:10	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-1		460-198482		12/17/2013 10:17	1	TAL EDI	HTV

Lab ID: 460-68260-1 DU **Client ID:** GW0008

Sample Date/Time: 12/12/2013 09:27 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2320B	460-68260-G-1 DU		460-200246		12/26/2013 12:24	1	TAL EDI	MCC

Lab ID: 460-68260-2 **Client ID:** GW0009

Sample Date/Time: 12/12/2013 09:35 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-2		480-157767		12/16/2013 19:40	1	TAL BUF	KRC
A:300.0	460-68260-A-2		480-158039		12/17/2013 18:22	1	TAL BUF	KAC
A:353.2	460-68260-A-2		460-197566		12/13/2013 11:39	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-2-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-2-A		460-199611	460-199450	12/23/2013 17:25	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-2		460-200246		12/26/2013 12:58	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-2		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-2		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-2		460-199829		12/24/2013 14:47	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-2		460-197786		12/14/2013 09:10	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-2		460-198482		12/17/2013 11:16	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68260-1

Laboratory Chronicle

Lab ID: **460-68260-3** **Client ID:** **GW0010**

Sample Date/Time: 12/12/2013 09:55 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-3		480-157767		12/16/2013 19:50	1	TAL BUF	KRC
A:300.0	460-68260-A-3		480-158039		12/17/2013 18:32	1	TAL BUF	KAC
A:353.2	460-68260-A-3		460-197566		12/13/2013 11:40	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-3-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-3-A		460-199611	460-199450	12/23/2013 17:27	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-3		460-200246		12/26/2013 13:04	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-3		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-3		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-3		460-199829		12/24/2013 14:49	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-3		460-197786		12/14/2013 09:10	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-3		460-198482		12/17/2013 11:36	1	TAL EDI	HTV

Lab ID: **460-68260-4** **Client ID:** **GW0011**

Sample Date/Time: 12/12/2013 10:17 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-4		480-157767		12/16/2013 20:00	1	TAL BUF	KRC
A:300.0	460-68260-A-4		480-158039		12/17/2013 18:42	1	TAL BUF	KAC
A:353.2	460-68260-A-4		460-197566		12/13/2013 11:42	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-4-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-4-A		460-199611	460-199450	12/23/2013 17:28	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-4		460-200246		12/26/2013 13:11	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-4		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-4		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-4		460-199829		12/24/2013 14:51	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-4		460-197786		12/14/2013 09:45	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-4		460-198482		12/17/2013 12:58	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68260-1

Laboratory Chronicle

Lab ID: **460-68260-5** **Client ID:** **GW0012**

Sample Date/Time: 12/12/2013 10:20 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-5		480-157767		12/16/2013 20:10	1	TAL BUF	KRC
A:300.0	460-68260-A-5		480-158039		12/17/2013 18:52	1	TAL BUF	KAC
A:353.2	460-68260-A-5		460-197566		12/13/2013 11:43	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-5-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-5-A		460-199611	460-199450	12/23/2013 17:30	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-5		460-200246		12/26/2013 13:18	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-5		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-5		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-5		460-199829		12/24/2013 14:54	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-5		460-197786		12/14/2013 09:45	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-5		460-198482		12/17/2013 04:49	1	TAL EDI	HTV

Lab ID: **460-68260-6** **Client ID:** **GW0013**

Sample Date/Time: 12/12/2013 10:30 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-6		480-157767		12/16/2013 20:20	1	TAL BUF	KRC
A:300.0	460-68260-A-6		480-158039		12/17/2013 19:03	1	TAL BUF	KAC
A:353.2	460-68260-A-6		460-197566		12/13/2013 11:45	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-6-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-6-A		460-199611	460-199450	12/23/2013 17:31	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-6		460-200246		12/26/2013 13:25	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-6		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-6		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-6		460-199829		12/24/2013 14:57	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-6		460-197786		12/14/2013 09:45	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-6		460-198482		12/17/2013 05:48	1	TAL EDI	HTV

Lab ID: **460-68260-6 MS** **Client ID:** **GW0013**

Sample Date/Time: 12/12/2013 10:30 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-6 MS		480-157767		12/16/2013 20:31	1	TAL BUF	KRC

Lab ID: **460-68260-6 MSD** **Client ID:** **GW0013**

Sample Date/Time: 12/12/2013 10:30 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-6 MSD		480-157767		12/16/2013 20:41	1	TAL BUF	KRC

Client: Integral Consulting Inc

Job Number: 460-68260-1

Laboratory Chronicle

Lab ID: **460-68260-7** **Client ID:** **GW0014**

Sample Date/Time: 12/12/2013 11:41 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-7		480-157769		12/16/2013 21:31	1	TAL BUF	KRC
A:300.0	460-68260-A-7		480-158039		12/17/2013 19:13	1	TAL BUF	KAC
A:353.2	460-68260-A-7		460-197566		12/13/2013 11:46	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-7-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-7-A		460-199611	460-199450	12/23/2013 17:37	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-7		460-200246		12/26/2013 13:32	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-7		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-7		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-7		460-199829		12/24/2013 14:59	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-7		460-197786		12/14/2013 11:30	5	TAL EDI	RAK
A:SM 5310B	460-68260-B-7		460-198482		12/17/2013 06:08	1	TAL EDI	HTV

Lab ID: **460-68260-7 MS** **Client ID:** **GW0014**

Sample Date/Time: 12/12/2013 11:41 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-7 MS		480-158039		12/17/2013 19:23	1	TAL BUF	KAC

Lab ID: **460-68260-8** **Client ID:** **GW0015**

Sample Date/Time: 12/12/2013 11:49 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:300.0	460-68260-A-8		480-157769		12/16/2013 21:41	1	TAL BUF	KRC
A:300.0	460-68260-A-8		480-158039		12/17/2013 19:53	1	TAL BUF	KAC
A:353.2	460-68260-A-8		460-197566		12/13/2013 11:48	1	TAL EDI	MAL
P:SM 4500 NH3 B	460-68260-D-8-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68260-D-8-A		460-199611	460-199450	12/23/2013 17:38	1	TAL EDI	SEB
A:SM 2320B	460-68260-G-8		460-200246		12/26/2013 13:38	1	TAL EDI	MCC
A:SM 2340C	460-68260-E-8		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68260-F-8		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68260-C-8		460-199829		12/24/2013 15:01	1	TAL EDI	YAH
A:SM 4500 P E	460-68260-F-8		460-197786		12/14/2013 09:45	1	TAL EDI	RAK
A:SM 5310B	460-68260-B-8		460-198482		12/17/2013 06:27	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68260-1

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 480-157767/28		480-157767		12/16/2013 17:18	1	TAL BUF	KRC
A:300.0	MB 480-157769/52		480-157769		12/16/2013 21:21	1	TAL BUF	KRC
A:300.0	MB 480-158039/4		480-158039		12/17/2013 18:02	1	TAL BUF	KAC
P:SM 4500 NH3 B	MB 460-199450/1-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	MB 460-199450/1-A		460-199611	460-199450	12/23/2013 17:02	1	TAL EDI	SEB
A:SM 2320B	MB 460-200246/2		460-200246		12/26/2013 11:14	1	TAL EDI	MCC
A:SM 2340C	MB 460-200035/1		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	MB 460-198189/1		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	MB 460-199829/2		460-199829		12/24/2013 14:08	1	TAL EDI	YAH
A:SM 4500 P E	MB 460-197786/3		460-197786		12/14/2013 09:10	1	TAL EDI	RAK
A:SM 5310B	MB 460-198482/3		460-198482		12/16/2013 21:59	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 480-157767/27		480-157767		12/16/2013 17:08	1	TAL BUF	KRC
A:300.0	LCS 480-157769/51		480-157769		12/16/2013 21:11	1	TAL BUF	KRC
A:300.0	LCS 480-158039/3		480-158039		12/17/2013 17:52	1	TAL BUF	KAC
P:SM 4500 NH3 B	LCS 460-199450/2-A		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	LCS 460-199450/2-A		460-199611	460-199450	12/23/2013 17:03	1	TAL EDI	SEB

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 460-197566/63		460-197566		12/13/2013 11:29	1	TAL EDI	MAL
A:353.2	LCSSRM 460-197566/64		460-197566		12/13/2013 11:30	1	TAL EDI	MAL
A:SM 2320B	LCSSRM 460-200246/3		460-200246		12/26/2013 11:21	1	TAL EDI	MCC
A:SM 2340C	LCSSRM 460-200035/2		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	LCSSRM 460-198189/2		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	LCSSRM 460-199829/3		460-199829		12/24/2013 14:10	1	TAL EDI	YAH
A:SM 4500 P E	LCSSRM 460-197786/4		460-197786		12/14/2013 09:10	25	TAL EDI	RAK
A:SM 5310B	LCSSRM 460-198482/4		460-198482		12/16/2013 22:19	1	TAL EDI	HTV

Client: Integral Consulting Inc

Job Number: 460-68260-1

Laboratory Chronicle

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

Sample Date/Time: 12/12/2013 13:44 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:SM 4500 NH3 B	460-68263-D-8-B MS		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68263-D-8-B MS		460-199611	460-199450	12/23/2013 17:06	1	TAL EDI	SEB
A:SM 4500 P E	460-68263-C-9 MS		460-197786		12/14/2013 11:30	1	TAL EDI	RAK
A:SM 5310B	460-67893-D-1 MS		460-198482		12/16/2013 22:59	1	TAL EDI	HTV

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

Sample Date/Time: 12/12/2013 13:44 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
P:SM 4500 NH3 B	460-68263-D-8-C MSD		460-199611	460-199450	12/23/2013 06:30	1	TAL EDI	IAA
A:4500 NH3 H	460-68263-D-8-C MSD		460-199611	460-199450	12/23/2013 17:08	1	TAL EDI	SEB
A:SM 4500 P E	460-68263-C-9 MSD		460-197786		12/14/2013 11:30	1	TAL EDI	RAK
A:SM 5310B	460-67893-D-1 MSD		460-198482		12/16/2013 23:19	1	TAL EDI	HTV

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

Sample Date/Time: 12/12/2013 14:38 Received Date/Time: 12/13/2013 09:45

Method	Bottle ID	Run	Analysis Batch	Prep Batch	Date Prepared / Analyzed	Dil	Lab	Analyst
A:SM 2340C	460-68263-E-11 DU		460-200035		12/26/2013 11:00	1	TAL EDI	IAA
A:SM 2540D	460-68392-A-5 DU		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 2540D	460-68392-B-1 DU		460-198189		12/17/2013 07:17	1	TAL EDI	PLS
A:SM 4500 H+ B	460-68091-C-11 DU		460-199829		12/24/2013 14:14	1	TAL EDI	YAH

Lab References:

TAL BUF = TestAmerica Buffalo

TAL EDI = TestAmerica Edison

GENERAL CHEMISTRY

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GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job Number: 460-68260-1

SDG No.:

Project: Solvay

Client Sample ID	Lab Sample ID
GW0008	460-68260-1
GW0009	460-68260-2
GW0010	460-68260-3
GW0011	460-68260-4
GW0012	460-68260-5
GW0013	460-68260-6
GW0014	460-68260-7
GW0015	460-68260-8

Comments:

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GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job Number: 460-68260-1

SDG No.:

Project: Solvay

Client Sample ID	Lab Sample ID
GW0008	460-68260-1
GW0009	460-68260-2
GW0010	460-68260-3
GW0011	460-68260-4
GW0012	460-68260-5
GW0013	460-68260-6
GW0014	460-68260-7
GW0015	460-68260-8

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0008 | Lab Sample ID: 460-68260-1

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 09:27

Reporting Basis: WET | Date Received: 12/13/2013 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	202	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	213	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	213	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	43.6	2.0	2.0	mg/L			1	SM 2540D
	Orthophosphate as P	0.086	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	2.7	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	2.0	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.70			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0009 | Lab Sample ID: 460-68260-2

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 09:35

Reporting Basis: WET | Date Received: 12/13/2013 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	202	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	221	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	221	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	16.4	2.0	2.0	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	2.9	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	1.7	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.71			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0010 | Lab Sample ID: 460-68260-3

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 09:55

Reporting Basis: WET | Date Received: 12/13/2013 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	216	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	222	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	222	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	9.2	1.3	1.3	mg/L			1	SM 2540D
	Orthophosphate as P	0.057	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	2.1	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	1.8	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.36			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0011 | Lab Sample ID: 460-68260-4

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 10:17

Reporting Basis: WET | Date Received: 12/13/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	1.7	0.10	0.047	mg/L			1	353.2
	Hardness as calcium carbonate	200	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	213	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	213	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	1.3	1.3	1.3	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.35	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	2.8	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	7.91			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0012 | Lab Sample ID: 460-68260-5

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 10:20

Reporting Basis: WET | Date Received: 12/13/2013 09:45

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
	Nitrate Nitrite as N	1.7	0.10	0.047	mg/L			1	353.2
	Hardness as calcium carbonate	202	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	193	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	193	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	0.45	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	2.4	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	7.94			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0013 | Lab Sample ID: 460-68260-6

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

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

Reporting Basis: WET | Date Received: 12/13/2013 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	206	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	230	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	230	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	9.6	1.3	1.3	mg/L			1	SM 2540D
	Orthophosphate as P	0.057	0.030	0.010	mg/L			1	SM 4500 P E
7440-44-0	Total Organic Carbon	1.9	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	1.7	0.10	0.080	mg/L			1	4500 NH3 H
	pH	8.26			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0014 | Lab Sample ID: 460-68260-7

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 11:41

Reporting Basis: WET | Date Received: 12/13/2013 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	142	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	130	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	130	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	1.3	1.3	1.3	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.85	0.15	0.050	mg/L			5	SM 4500 P E
7440-44-0	Total Organic Carbon	1.7	1.0	0.30	mg/L			1	SM 5310B
7664-41-7	Ammonia (as N)	0.11	0.10	0.080	mg/L			1	4500 NH3 H
	pH	7.99			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0015 | Lab Sample ID: 460-68260-8

Lab Name: TestAmerica Edison | Job No.: 460-68260-1

SDG ID.:

Matrix: Water | Date Sampled: 12/12/2013 11:49

Reporting Basis: WET | Date Received: 12/13/2013 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	134	5.0	1.6	mg/L			1	SM 2340C
	Bicarbonate Alkalinity as CaCO3	131	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	131	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	1.2	1.2	mg/L	U		1	SM 2540D
	Orthophosphate as P	0.24	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)	0.34	0.10	0.080	mg/L			1	4500 NH3 H
	pH	8.05			SU		HF	1	SM 4500 H+ B

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0008
Lab Sample ID: 460-68260-1
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 09:27
Reporting Basis: WET
Date Received: 12/13/2013 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	22.1	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.27	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	15.5	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0009
Lab Sample ID: 460-68260-2
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 09:35
Reporting Basis: WET
Date Received: 12/13/2013 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	22.1	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.27	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: GW0010
Lab Sample ID: 460-68260-3
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 09:55
Reporting Basis: WET
Date Received: 12/13/2013 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	21.2	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.20	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	1.6	2.0	0.35	mg/L	J		1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0011
Lab Sample ID: 460-68260-4
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 10:17
Reporting Basis: WET
Date Received: 12/13/2013 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	29.1	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.25	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	16.7	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0012
Lab Sample ID: 460-68260-5
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 10:20
Reporting Basis: WET
Date Received: 12/13/2013 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	29.1	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.24	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	16.6	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0013
Lab Sample ID: 460-68260-6
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 10:30
Reporting Basis: WET
Date Received: 12/13/2013 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	19.6	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.21	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	4.5	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0014
Lab Sample ID: 460-68260-7
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 11:41
Reporting Basis: WET
Date Received: 12/13/2013 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	25.1	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.34	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	35.5	2.0	0.35	mg/L			1	300.0

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: GW0015
Lab Sample ID: 460-68260-8
Lab Name: TestAmerica Buffalo
Job No.: 460-68260-1
SDG ID.:
Matrix: Water
Date Sampled: 12/12/2013 11:49
Reporting Basis: WET
Date Received: 12/13/2013 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	21.2	0.50	0.28	mg/L			1	300.0
16984-48-8	Fluoride	0.31	0.050	0.0060	mg/L			1	300.0
14808-79-8	Sulfate	29.1	2.0	0.35	mg/L			1	300.0

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Analyst: MAL Batch Start Date: 12/13/2013

Reporting Units: mg/L Analytical Batch No.: 197566

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	10:04	Nitrate Nitrite as N	1.03	1.00	103	90-110		WTno3+2IM2_00242
8	ICB	10:05	Nitrate Nitrite as N	0.047				U	
55	CCV	11:17	Nitrate Nitrite as N	0.952	1.00	95	90-110		WTno3+2IM2_00242
56	CCB	11:18	Nitrate Nitrite as N	0.047				U	
67	CCV	11:34	Nitrate Nitrite as N	0.949	1.00	95	90-110		WTno3+2IM2_00242
68	CCB	11:36	Nitrate Nitrite as N	0.047				U	
79	CCV	11:52	Nitrate Nitrite as N	0.941	1.00	94	90-110		WTno3+2IM2_00242
80	CCB	11:53	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.: 460-68260-1

SDG No.:

Analyst: RAK Batch Start Date: 12/14/2013

Reporting Units: mg/L Analytical Batch No.: 197786

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	09:10	Orthophosphate as P	0.203	0.200	101	90-110		WTphosSS1_00018
2	ICB	09:10	Orthophosphate as P	0.010				U	
13	CCV	09:45	Orthophosphate as P	0.203	0.200	101	90-110		WTphosSS1_00018
14	CCB	09:45	Orthophosphate as P	0.010				U	
25	CCV	11:30	Orthophosphate as P	0.203	0.200	101	90-110		WTphosSS1_00018
26	CCB	11:30	Orthophosphate as P	0.010				U	
31	CCV	11:30	Orthophosphate as P	0.203	0.200	101	90-110		WTphosSS1_00018
32	CCB	11:30	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.: 460-68260-1

SDG No.:

Analyst: HTV Batch Start Date: 12/16/2013

Reporting Units: mg/L Analytical Batch No.: 198482

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	21:21	Total Organic Carbon	48.23	50.0	96	90-110		WTtocSP2_00019
2	ICB	21:40	Total Organic Carbon	0.30				U	
13	CCV	01:16	Total Organic Carbon	48.15	50.0	96	90-110		WTtocSP2_00019
14	CCB	01:35	Total Organic Carbon	0.485				J	
25	CCV	05:09	Total Organic Carbon	48.04	50.0	96	90-110		WTtocSP2_00019
26	CCB	05:28	Total Organic Carbon	0.30				U	
30	CCV	06:47	Total Organic Carbon	48.95	50.0	98	90-110		WTtocSP2_00019
31	CCB	07:07	Total Organic Carbon	0.30				U	
39	CCV	13:18	Total Organic Carbon	48.55	50.0	97	90-110		WTtocSP2_00019
40	CCB	13:38	Total Organic Carbon	0.303				J	

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

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Analyst: SEB Batch Start Date: 12/23/2013

Reporting Units: mg/L Analytical Batch No.: 199611

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
7	ICV	16:58	Ammonia (as N)	1.95	2.00	97	90-110		WTamnSS1_00005
8	ICB	17:00	Ammonia (as N)	0.080				U	
17	CCV	17:14	Ammonia (as N)	2.02	2.00	101	90-110		WTamnSS1_00005
18	CCB	17:15	Ammonia (as N)	0.080				U	
29	CCV	17:32	Ammonia (as N)	2.02	2.00	101	90-110		WTamnSS1_00005
30	CCB	17:34	Ammonia (as N)	0.080				U	
33	CCV	17:40	Ammonia (as N)	2.02	2.00	101	90-110		WTamnSS1_00005
34	CCB	17:42	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.: 460-68260-1

SDG No.:

Analyst: YAH Batch Start Date: 12/24/2013

Reporting Units: SU Analytical Batch No.: 199829

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	14:05	pH	7.010	7.00	100	99-101		WTpHCCV_00020
18	CCV	14:43	pH	7.050	7.00	101	99-101		WTpHCCV_00020
27	CCV	15:03	pH	7.020	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.: 460-68260-1

SDG No.:

Analyst: KRC Batch Start Date: 12/16/2013

Reporting Units: mg/L Analytical Batch No.: 157767

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
25	CCV	16:48	Bromide	1.82	2.00	91	90-110		IC_ANION_LCS__00023
			Chloride	19.06	20.0	95	90-110		IC_ANION_LCS__00023
			Fluoride	1.97	2.00	98	90-110		IC_ANION_LCS__00023
			Sulfate	19.82	20.0	99	90-110		IC_ANION_LCS__00023
26	CCB	16:58	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.776				J	
37	CCV	18:49	Bromide	1.82	2.00	91	90-110		IC_ANION_LCS__00023
			Chloride	19.05	20.0	95	90-110		IC_ANION_LCS__00023
			Fluoride	1.97	2.00	98	90-110		IC_ANION_LCS__00023
			Sulfate	20.29	20.0	101	90-110		IC_ANION_LCS__00023
38	CCB	18:59	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
49	CCV	20:51	Bromide	1.64	2.00	82	90-110		IC_ANION_LCS__00023
			Chloride	17.68	20.0	88	90-110		IC_ANION_LCS__00023
			Fluoride	1.80	2.00	90	90-110		IC_ANION_LCS__00023
			Sulfate	18.48	20.0	92	90-110		IC_ANION_LCS__00023
50	CCB	21:01	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.: 460-68260-1

SDG No.:

Analyst: KRC Batch Start Date: 12/16/2013

Reporting Units: mg/L Analytical Batch No.: 157769

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
49	CCV	20:51	Bromide	1.64	2.00	82	90-110		IC_ANION_LCS__00023
			Chloride	17.68	20.0	88	90-110		IC_ANION_LCS__00023
			Fluoride	1.80	2.00	90	90-110		IC_ANION_LCS__00023
			Sulfate	18.48	20.0	92	90-110		IC_ANION_LCS__00023
50	CCB	21:01	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
61	CCV	22:52	Bromide	1.65	2.00	83	90-110		IC_ANION_LCS__00023
			Chloride	18.07	20.0	90	90-110		IC_ANION_LCS__00023
			Fluoride	1.80	2.00	90	90-110		IC_ANION_LCS__00023
			Sulfate	18.57	20.0	93	90-110		IC_ANION_LCS__00023
62	CCB	23:03	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.: 460-68260-1

SDG No.:

Analyst: KAC Batch Start Date: 12/17/2013

Reporting Units: mg/L Analytical Batch No.: 158039

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	CCV	17:31	Bromide	1.92	2.00	96	90-110		IC_ANION_LCS__00023
			Chloride	19.89	20.0	99	90-110		IC_ANION_LCS__00023
			Fluoride	2.03	2.00	102	90-110		IC_ANION_LCS__00023
			Sulfate	20.01	20.0	100	90-110		IC_ANION_LCS__00023
2	CCB	17:41	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
13	CCV	19:33	Bromide	1.91	2.00	95	90-110		IC_ANION_LCS__00023
			Chloride	19.94	20.0	100	90-110		IC_ANION_LCS__00023
			Fluoride	2.02	2.00	101	90-110		IC_ANION_LCS__00023
			Sulfate	19.92	20.0	100	90-110		IC_ANION_LCS__00023
14	CCB	19:43	Bromide	0.073				U	
			Chloride	0.28				U	
			Fluoride	0.0060				U	
			Sulfate	0.35				U	
25	CCV	21:34	Bromide	1.86	2.00	93	90-110		IC_ANION_LCS__00023
			Chloride	19.88	20.0	99	90-110		IC_ANION_LCS__00023
			Fluoride	1.98	2.00	99	90-110		IC_ANION_LCS__00023
			Sulfate	19.88	20.0	99	90-110		IC_ANION_LCS__00023
26	CCB	21:45	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.: 460-68260-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 199611	Date: 12/23/2013 17:02	Prep Batch: 199450	Date: 12/23/2013 06:30				
4500 NH3 H	MB 460-199450/1-A	Ammonia (as N)	0.080	U	mg/L	0.10	1
Batch ID: 200246	Date: 12/26/2013 11:14						
SM 2320B	MB 460-200246/2	Bicarbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-200246/2	Carbonate Alkalinity as CaCO3	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-200246/2	Alkalinity	5.0	U	mg/L	5.0	1
SM 2320B	MB 460-200246/2	Hydroxide Alkalinity	5.0	U	mg/L	5.0	1
Batch ID: 200035	Date: 12/26/2013 11:00						
SM 2340C	MB 460-200035/1	Hardness as calcium carbonate	1.6	U	mg/L	5.0	1
Batch ID: 198189	Date: 12/17/2013 07:17						
SM 2540D	MB 460-198189/1	Total Suspended Solids	1.0	U	mg/L	1.0	1
Batch ID: 199829	Date: 12/24/2013 14:08						
SM 4500 H+ B	MB 460-199829/2	pH	4.790		SU		1
Batch ID: 197786	Date: 12/14/2013 09:10						
SM 4500 P E	MB 460-197786/3	Orthophosphate as P	0.010	U	mg/L	0.030	1
Batch ID: 198482	Date: 12/16/2013 21:59						
SM 5310B	MB 460-198482/3	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.: 460-68260-1

SDG No.:

Method	Lab Sample ID	Analyte	Result	Qual	Units	RL	Dil
Batch ID: 157767 Date: 12/16/2013 17:18							
300.0	MB 480-157767/28	Bromide	0.073	U	mg/L	0.20	1
300.0	MB 480-157767/28	Chloride	0.28	U	mg/L	0.50	1
300.0	MB 480-157767/28	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-157767/28	Sulfate	0.35	U	mg/L	2.0	1
Batch ID: 157769 Date: 12/16/2013 21:21							
300.0	MB 480-157769/52	Bromide	0.073	U ^	mg/L	0.20	1
300.0	MB 480-157769/52	Chloride	0.28	U ^	mg/L	0.50	1
300.0	MB 480-157769/52	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-157769/52	Sulfate	0.35	U	mg/L	2.0	1
Batch ID: 158039 Date: 12/17/2013 18:02							
300.0	MB 480-158039/4	Bromide	0.073	U	mg/L	0.20	1
300.0	MB 480-158039/4	Chloride	0.28	U	mg/L	0.50	1
300.0	MB 480-158039/4	Fluoride	0.0060	U	mg/L	0.050	1
300.0	MB 480-158039/4	Sulfate	0.35	U	mg/L	2.0	1

FORM III-IN

5-IN
MATRIX SPIKE SAMPLE RECOVERY
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199611	Date: 12/23/2013 17:06		Prep Batch: 199450			Date: 12/23/2013 06:30					
4500 NH3 H	460-68263-D-8 -B	Ammonia (as N)	0.19		mg/L						
4500 NH3 H	460-68263-D-8 -B MS	Ammonia (as N)	1.21		mg/L	1.00	101	60-147			
Batch ID: 197786	Date: 12/14/2013 11:30										
SM 4500 P E	460-68263-C-9	Orthophosphate as P	0.090		mg/L						
SM 4500 P E	460-68263-C-9 MS	Orthophosphate as P	0.300		mg/L	0.200	105	82-118			
Batch ID: 198482	Date: 12/16/2013 22:59										
SM 5310B	460-67893-D-1	Total Organic Carbon	0.41	J	mg/L						
SM 5310B	460-67893-D-1 MS	Total Organic Carbon	50.47		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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199611	Date: 12/23/2013 17:08		Prep Batch: 199450			Date: 12/23/2013 06:30					
4500 NH3 H	460-68263-D-8 -C MSD	Ammonia (as N)	1.21		mg/L	1.00	101	60-147	0	16	
Batch ID: 197786	Date: 12/14/2013 11:30										
SM 4500 P E	460-68263-C-9 MSD	Orthophosphate as P	0.297		mg/L	0.200	104	82-118	1	10	
Batch ID: 198482	Date: 12/16/2013 23:19										
SM 5310B	460-67893-D-1 MSD	Total Organic Carbon	50.32		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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 157767	Date: 12/16/2013 20:31										
300.0	460-68260-6	Sulfate	4.5		mg/L						
300.0	460-68260-6 MS	Sulfate	28.40		mg/L	25.0	96	90-110			
Batch ID: 158039	Date: 12/17/2013 19:23										
300.0	460-68260-7	Bromide	0.073	U	mg/L						
300.0	460-68260-7 MS	Bromide	2.47		mg/L	2.50	99	90-110			
300.0	460-68260-7	Chloride	25.1		mg/L						
300.0	460-68260-7 MS	Chloride	48.79		mg/L	25.0	95	90-110			
300.0	460-68260-7	Fluoride	0.34		mg/L						
300.0	460-68260-7 MS	Fluoride	2.74		mg/L	2.50	96	90-110			
300.0	460-68260-7	Sulfate	34.9		mg/L						
300.0	460-68260-7 MS	Sulfate	58.20		mg/L	25.0	93	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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 157767	Date: 12/16/2013 20:41										
300.0	460-68260-6 MSD	Sulfate	28.16		mg/L	25.0	95	90-110	1	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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 200246	Date: 12/26/2013 12:24							
SM 2320B	GW0008	460-68260-1	Bicarbonate Alkalinity as CaCO3	213	mg/L			
SM 2320B	GW0008	460-68260-1 DU	Bicarbonate Alkalinity as CaCO3	215.1	mg/L	1	27	
SM 2320B	GW0008	460-68260-1	Carbonate Alkalinity as CaCO3	5.0	mg/L			U
SM 2320B	GW0008	460-68260-1 DU	Carbonate Alkalinity as CaCO3	5.0	mg/L	NC	27	U
SM 2320B	GW0008	460-68260-1	Alkalinity	213	mg/L			
SM 2320B	GW0008	460-68260-1 DU	Alkalinity	215.1	mg/L	1	27	
SM 2320B	GW0008	460-68260-1	Hydroxide Alkalinity	5.0	mg/L			U
SM 2320B	GW0008	460-68260-1 DU	Hydroxide Alkalinity	5.0	mg/L	NC	27	U
Batch ID: 200035	Date: 12/26/2013 11:00							
SM 2340C		460-68263-E-11	Hardness as calcium carbonate	84.0	mg/L			
SM 2340C		460-68263-E-11 DU	Hardness as calcium carbonate	84.00	mg/L	0	10	
Batch ID: 198189	Date: 12/17/2013 07:17							
SM 2540D		460-68392-B-1	Total Suspended Solids	874	mg/L			
SM 2540D		460-68392-B-1 DU	Total Suspended Solids	910.0	mg/L	4	5	
Batch ID: 198189	Date: 12/17/2013 07:17							
SM 2540D		460-68392-A-5	Total Suspended Solids	158	mg/L			
SM 2540D		460-68392-A-5 DU	Total Suspended Solids	140.0	mg/L	12	5	F
Batch ID: 199829	Date: 12/24/2013 14:14							
SM 4500 H+ B		460-68091-C-11	pH	7.99	SU			
SM 4500 H+ B		460-68091-C-11 DU	pH	8.020	SU	0.4	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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 199611	Date: 12/23/2013 17:03		Prep Batch: 199450			Date: 12/23/2013 06:30					
						LCS Source: WTamnIM1_00035					
4500 NH3 H	LCS 460-199450/2-A	Ammonia (as N)	0.998		mg/L	1.00	100	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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 197566	Date: 12/13/2013 11:29										
						LCS Source:	WTntritLCS_00020				
353.2	LCSSRM 460-197566/63	Nitrite as N	0.587		mg/L	0.612	96.0	88.9-11 0.5			
Batch ID: 197566	Date: 12/13/2013 11:30										
						LCS Source:	WTno3LCS_00014				
353.2	LCSSRM 460-197566/64	Nitrate as N	1.41		mg/L	1.51	93.5	87.4-11 2.6			^
353.2	LCSSRM 460-197566/64	Nitrate Nitrite as N	1.41		mg/L	1.51	93.5	85.4-10 9.9			
Batch ID: 200246	Date: 12/26/2013 11:21										
						LCS Source:	WTalkLCS_00093				
SM 2320B	LCSSRM 460-200246/3	Alkalinity	35.32		mg/L	37.7	93.7	90.9-11 0.0			
Batch ID: 200035	Date: 12/26/2013 11:00										
						LCS Source:	WThardLCS0001_00012				
SM 2340C	LCSSRM 460-200035/2	Hardness as calcium carbonate	204.0		mg/L	208	98.1	91.3-10 9.1			
Batch ID: 198189	Date: 12/17/2013 07:17										
						LCS Source:	WTtssLCS_00045				
SM 2540D	LCSSRM 460-198189/2	Total Suspended Solids	70.00		mg/L	75.5	92.7	82.6-10 7.9			
Batch ID: 199829	Date: 12/24/2013 14:10										
						LCS Source:	WTpHLCS_00015				
SM 4500 H+ B	LCSSRM 460-199829/3	pH	7.020		SU	7.03	99.9	98.0-10 2.0			
Batch ID: 197786	Date: 12/14/2013 09:10										
						LCS Source:	WTophosLCS_00004				
SM 4500 P E	LCSSRM 460-197786/4	Orthophosphate as P	5.79		mg/L	5.34	108.5	86.1-10 9.0			
Batch ID: 198482	Date: 12/16/2013 22:19										
						LCS Source:	WTtocLCS_00022				
SM 5310B	LCSSRM 460-198482/4	Total Organic Carbon	71.51		mg/L	72.0	99.3	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.: 460-68260-1

SDG No.:

Matrix: Water

Method	Lab Sample ID	Analyte	Result	C	Unit	Spike Amount	Pct. Rec.	Limits	RPD	RPD Limit	Q
Batch ID: 157767	Date: 12/16/2013 17:08										
						LCS Source: IC_ANION_LCS__00023					
300.0	LCS 480-157767/27	Bromide	1.82		mg/L	2.00	91	90-110			
300.0	LCS 480-157767/27	Chloride	19.09		mg/L	20.0	95	90-110			
300.0	LCS 480-157767/27	Fluoride	1.97		mg/L	2.00	99	90-110			
300.0	LCS 480-157767/27	Sulfate	20.32		mg/L	20.0	102	90-110			
Batch ID: 157769	Date: 12/16/2013 21:11										
						LCS Source: IC_ANION_LCS__00023					
300.0	LCS 480-157769/51	Bromide	1.65		mg/L	2.00	82	90-110			^ *
300.0	LCS 480-157769/51	Chloride	17.23		mg/L	20.0	86	90-110			^ *
300.0	LCS 480-157769/51	Fluoride	1.80		mg/L	2.00	90	90-110			
300.0	LCS 480-157769/51	Sulfate	18.55		mg/L	20.0	93	90-110			
Batch ID: 158039	Date: 12/17/2013 17:52										
						LCS Source: IC_ANION_LCS__00023					
300.0	LCS 480-158039/3	Bromide	1.92		mg/L	2.00	96	90-110			
300.0	LCS 480-158039/3	Chloride	19.93		mg/L	20.0	100	90-110			
300.0	LCS 480-158039/3	Fluoride	2.05		mg/L	2.00	102	90-110			
300.0	LCS 480-158039/3	Sulfate	20.02		mg/L	20.0	100	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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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: 460-68260-1

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.: 460-68260-1

SDG No.:

Prep Method: SM 4500 NH3 B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight	Initial Volume (mL)	Final Volume (mL)
MB 460-199450/1-A	12/23/2013 06:30	199450		50.0	50.0
LCS 460-199450/2-A	12/23/2013 06:30	199450		50.0	50.0
460-68263-D-8-B MS	12/23/2013 06:30	199450		50.0	50.0
460-68263-D-8-C MSD	12/23/2013 06:30	199450		50.0	50.0
460-68260-1	12/23/2013 06:30	199450		50.0	50.0
460-68260-2	12/23/2013 06:30	199450		50.0	50.0
460-68260-3	12/23/2013 06:30	199450		50.0	50.0
460-68260-4	12/23/2013 06:30	199450		50.0	50.0
460-68260-5	12/23/2013 06:30	199450		50.0	50.0
460-68260-6	12/23/2013 06:30	199450		50.0	50.0
460-68260-7	12/23/2013 06:30	199450		50.0	50.0
460-68260-8	12/23/2013 06:30	199450		50.0	50.0

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/13/2013 09:54 End Date: 12/13/2013 11:56

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3																	
ZZZZZZ			09:54																				
ZZZZZZ			09:56																				
ZZZZZZ			09:57																				
ZZZZZZ			09:59																				
ZZZZZZ			10:00																				
ZZZZZZ			10:01																				
ICV 460-197566/7	1		10:04	X	X	X																	
ICB 460-197566/8	1		10:05		X																		
ZZZZZZ			10:07																				
ZZZZZZ			10:08																				
ZZZZZZ			10:10																				
ZZZZZZ			10:11																				
ZZZZZZ			10:12																				
ZZZZZZ			10:14																				
ZZZZZZ			10:15																				
ZZZZZZ			10:20																				
ZZZZZZ			10:21																				
ZZZZZZ			10:23																				
CCV 460-197566/19			10:24																				
CCB 460-197566/20			10:26																				
ZZZZZZ			10:27																				
ZZZZZZ			10:28																				
ZZZZZZ			10:30																				
ZZZZZZ			10:31																				
ZZZZZZ			10:33																				
ZZZZZZ			10:34																				
ZZZZZZ			10:36																				
ZZZZZZ			10:37																				
ZZZZZZ			10:39																				
ZZZZZZ			10:40																				
CCV 460-197566/31			10:42																				
CCB 460-197566/32			10:43																				
ZZZZZZ			10:45																				
ZZZZZZ			10:46																				
ZZZZZZ			10:47																				
ZZZZZZ			10:49																				
ZZZZZZ			10:50																				
ZZZZZZ			10:52																				
ZZZZZZ			10:53																				
ZZZZZZ			10:55																				
ZZZZZZ			10:56																				
ZZZZZZ			10:58																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/13/2013 09:54 End Date: 12/13/2013 11:56

Lab Sample ID	D/F	Type	Time	Analytes																			
				N-No2	NNO32	NO3																	
CCV 460-197566/43			10:59																				
CCB 460-197566/44			11:01																				
ZZZZZZ			11:02																				
ZZZZZZ			11:04																				
ZZZZZZ			11:05																				
ZZZZZZ			11:06																				
ZZZZZZ			11:08																				
ZZZZZZ			11:09																				
ZZZZZZ			11:11																				
ZZZZZZ			11:12																				
ZZZZZZ			11:14																				
ZZZZZZ			11:15																				
CCV 460-197566/55	1		11:17	X	X	X																	
CCB 460-197566/56	1		11:18		X																		
ZZZZZZ			11:20																				
ZZZZZZ			11:21																				
ZZZZZZ			11:23																				
ZZZZZZ			11:24																				
ZZZZZZ			11:26																				
ZZZZZZ			11:27																				
LCSSRM 460-197566/63	1	T	11:29	X	X																		
LCSSRM 460-197566/64	1	T	11:30		X	X																	
ZZZZZZ			11:31																				
ZZZZZZ			11:33																				
CCV 460-197566/67	1		11:34	X	X	X																	
CCB 460-197566/68	1		11:36		X																		
460-68260-1	1	T	11:37		X																		
460-68260-2	1	T	11:39		X																		
460-68260-3	1	T	11:40		X																		
460-68260-4	1	T	11:42		X																		
460-68260-5	1	T	11:43		X																		
460-68260-6	1	T	11:45		X																		
460-68260-7	1	T	11:46		X																		
460-68260-8	1	T	11:48		X																		
ZZZZZZ			11:49																				
ZZZZZZ			11:51																				
CCV 460-197566/79	1		11:52	X	X	X																	
CCB 460-197566/80	1		11:53		X																		
ZZZZZZ			11:55																				
ZZZZZZ			11:56																				

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: Lachat1 Method: 353.2

Start Date: 12/13/2013 09:54 End Date: 12/13/2013 11:56

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2340C

Start Date: 12/26/2013 11:00 End Date: 12/26/2013 11:00

Lab Sample ID	D/F	Type	Time	Analytes																			
				HardCC																			
MB 460-200035/1	1	T	11:00	X																			
LCSSRM 460-200035/2	1	T	11:00	X																			
ZZZZZZ			11:00																				
460-68263-E-11 DU	1	T	11:00	X																			
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
ZZZZZZ			11:00																				
460-68260-1	1	T	11:00	X																			
460-68260-2	1	T	11:00	X																			
460-68260-3	1	T	11:00	X																			
460-68260-4	1	T	11:00	X																			
460-68260-5	1	T	11:00	X																			
460-68260-6	1	T	11:00	X																			
460-68260-7	1	T	11:00	X																			
460-68260-8	1	T	11:00	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: Auto_Titrator Method: SM 2320B

Start Date: 12/26/2013 11:07 End Date: 12/26/2013 14:32

Lab Sample ID	D/F	Type	Time	Analytes																			
				Alk	BALKCC	CarAlk	OHAlk																
RINSE 460-200246/1			11:07																				
MB 460-200246/2	1	T	11:14	X	X	X	X																
LCSSRM 460-200246/3	1	T	11:21	X																			
460-68260-1	1	T	12:17	X	X	X	X																
460-68260-1 DU	1	T	12:24	X	X	X	X																
ZZZZZZ			12:31																				
ZZZZZZ			12:38																				
ZZZZZZ			12:44																				
ZZZZZZ			12:50																				
460-68260-2	1	T	12:58	X	X	X	X																
460-68260-3	1	T	13:04	X	X	X	X																
460-68260-4	1	T	13:11	X	X	X	X																
460-68260-5	1	T	13:18	X	X	X	X																
460-68260-6	1	T	13:25	X	X	X	X																
460-68260-7	1	T	13:32	X	X	X	X																
460-68260-8	1	T	13:38	X	X	X	X																
ZZZZZZ			13:46																				
ZZZZZZ			13:52																				
ZZZZZZ			13:58																				
ZZZZZZ			14:04																				
ZZZZZZ			14:11																				
ZZZZZZ			14:18																				
ZZZZZZ			14:24																				
ZZZZZZ			14:32																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 2540D

Start Date: 12/17/2013 07:17 End Date: 12/17/2013 07:17

Lab Sample ID	D/F	Type	Time	Analytes																			
				TSS																			
MB 460-198189/1	1	T	07:17	X																			
LCSSRM 460-198189/2	1	T	07:17	X																			
ZZZZZZ			07:17																				
460-68392-B-1 DU	1	T	07:17	X																			
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
460-68260-1	1	T	07:17	X																			
460-68260-2	1	T	07:17	X																			
460-68260-3	1	T	07:17	X																			
460-68260-4	1	T	07:17	X																			
460-68260-5	1	T	07:17	X																			
ZZZZZZ			07:17																				
460-68392-A-5 DU	1	T	07:17	X																			
460-68260-6	1	T	07:17	X																			
460-68260-7	1	T	07:17	X																			
460-68260-8	1	T	07:17	X																			
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				
ZZZZZZ			07:17																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: WetPhosSpec Method: SM 4500 P E

Start Date: 12/14/2013 09:10 End Date: 12/14/2013 11:30

Lab Sample ID	D/F	Type	Time	Analytes																			
				Orthop																			
ICV 460-197786/1	1		09:10	X																			
ICB 460-197786/2	1		09:10	X																			
MB 460-197786/3	1	T	09:10	X																			
LCSSRM 460-197786/4	25	T	09:10	X																			
460-68260-1	1	T	09:10	X																			
460-68260-2	1	T	09:10	X																			
460-68260-3	1	T	09:10	X																			
460-68260-4	1	T	09:45	X																			
460-68260-5	1	T	09:45	X																			
460-68260-6	1	T	09:45	X																			
ZZZZZZ			09:45																				
460-68260-8	1	T	09:45	X																			
CCV 460-197786/13	1		09:45	X																			
CCB 460-197786/14	1		09:45	X																			
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
ZZZZZZ			11:30																				
CCV 460-197786/25	1		11:30	X																			
CCB 460-197786/26	1		11:30	X																			
ZZZZZZ			11:30																				
460-68260-7	5	T	11:30	X																			
460-68263-C-9 MS	1	T	11:30	X																			
460-68263-C-9 MSD	1	T	11:30	X																			
CCV 460-197786/31	1		11:30	X																			
CCB 460-197786/32	1		11:30	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: TOC_Shimadzu Method: SM 5310B

Start Date: 12/16/2013 21:21 End Date: 12/17/2013 13:38

Lab Sample ID	D/F	Type	Time	Analytes																			
				TOC																			
ICV 460-198482/1	1		21:21	X																			
ICB 460-198482/2	1		21:40	X																			
MB 460-198482/3	1	T	21:59	X																			
LCSSRM 460-198482/4	1	T	22:19	X																			
ZZZZZZ			22:39																				
460-67893-D-1 MS	1	T	22:59	X																			
460-67893-D-1 MSD	1	T	23:19	X																			
ZZZZZZ			23:39																				
ZZZZZZ			23:58																				
ZZZZZZ			00:17																				
ZZZZZZ			00:36																				
ZZZZZZ			00:56																				
CCV 460-198482/13	1		01:16	X																			
CCB 460-198482/14	1		01:35	X																			
ZZZZZZ			01:54																				
ZZZZZZ			02:14																				
ZZZZZZ			02:33																				
ZZZZZZ			02:52																				
ZZZZZZ			03:12																				
ZZZZZZ			03:32																				
ZZZZZZ			03:51																				
ZZZZZZ			04:10																				
ZZZZZZ			04:30																				
460-68260-5	1	T	04:49	X																			
CCV 460-198482/25	1		05:09	X																			
CCB 460-198482/26	1		05:28	X																			
460-68260-6	1	T	05:48	X																			
460-68260-7	1	T	06:08	X																			
460-68260-8	1	T	06:27	X																			
CCV 460-198482/30	1		06:47	X																			
CCB 460-198482/31	1		07:07	X																			
ZZZZZZ			08:50																				
ZZZZZZ			09:38																				
ZZZZZZ			09:58																				
460-68260-1	1	T	10:17	X																			
460-68260-2	1	T	11:16	X																			
460-68260-3	1	T	11:36	X																			
460-68260-4	1	T	12:58	X																			
CCV 460-198482/39	1		13:18	X																			
CCB 460-198482/40	1		13:38	X																			

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: TOC_Shimadzu Method: SM 5310B

Start Date: 12/16/2013 21:21 End Date: 12/17/2013 13:38

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: Lachat2 Method: 4500 NH3 H

Start Date: 12/23/2013 16:48 End Date: 12/23/2013 17:42

Lab Sample ID	D/F	Type	Time	Analytes																			
				NH3																			
ICV 460-199611/7	1		16:58	X																			
ICB 460-199611/8	1		17:00	X																			
MB 460-199450/1-A	1	T	17:02	X																			
LCS 460-199450/2-A	1	T	17:03	X																			
460-68263-D-8-B MS	1	T	17:06	X																			
460-68263-D-8-C MSD	1	T	17:08	X																			
CCV 460-199611/17	1		17:14	X																			
CCB 460-199611/18	1		17:15	X																			
460-68260-1	1	T	17:24	X																			
460-68260-2	1	T	17:25	X																			
460-68260-3	1	T	17:27	X																			
460-68260-4	1	T	17:28	X																			
460-68260-5	1	T	17:30	X																			
460-68260-6	1	T	17:31	X																			
CCV 460-199611/29	1		17:32	X																			
CCB 460-199611/30	1		17:34	X																			
460-68260-7	1	T	17:37	X																			
460-68260-8	1	T	17:38	X																			
CCV 460-199611/33	1		17:40	X																			
CCB 460-199611/34	1		17:42	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Instrument ID: NOEQUIP Method: SM 4500 H+ B

Start Date: 12/24/2013 14:05 End Date: 12/24/2013 15:03

Lab Sample ID	D/F	Type	Time	Analytes																			
				pH																			
CCV 460-199829/1	1		14:05	X																			
MB 460-199829/2	1	T	14:08	X																			
LCSSRM 460-199829/3	1	T	14:10	X																			
460-68091-C-11 DU	1	T	14:14	X																			
CCV 460-199829/18	1		14:43	X																			
460-68260-1	1	T	14:45	X																			
460-68260-2	1	T	14:47	X																			
460-68260-3	1	T	14:49	X																			
460-68260-4	1	T	14:51	X																			
460-68260-5	1	T	14:54	X																			
460-68260-6	1	T	14:57	X																			
460-68260-7	1	T	14:59	X																			
460-68260-8	1	T	15:01	X																			
CCV 460-199829/27	1		15:03	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68260-1

SDG No.:

Instrument ID: IC-1 Method: 300.0

Start Date: 12/16/2013 16:48 End Date: 12/16/2013 21:01

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-157767/25	1		16:48	X	X	X	X																
CCB 480-157767/26	1		16:58	X	X	X	X																
LCS 480-157767/27	1	T	17:08	X	X	X	X																
MB 480-157767/28	1	T	17:18	X	X	X	X																
ZZZZZZ			17:28																				
ZZZZZZ			17:38																				
ZZZZZZ			17:48																				
ZZZZZZ			17:59																				
ZZZZZZ			18:09																				
ZZZZZZ			18:19																				
ZZZZZZ			18:29																				
ZZZZZZ			18:39																				
CCV 480-157767/37	1		18:49	X	X	X	X																
CCB 480-157767/38	1		18:59	X	X	X	X																
ZZZZZZ			19:10																				
ZZZZZZ			19:20																				
460-68260-1	1	T	19:30				X																
460-68260-2	1	T	19:40				X																
460-68260-3	1	T	19:50				X																
460-68260-4	1	T	20:00				X																
460-68260-5	1	T	20:10				X																
460-68260-6	1	T	20:20				X																
460-68260-6 MS	1	T	20:31				X																
460-68260-6 MSD	1	T	20:41				X																
CCV 480-157767/49	1		20:51	X	X	X	X																
CCB 480-157767/50	1		21:01	X	X	X	X																

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68260-1

SDG No.:

Instrument ID: IC-1 Method: 300.0

Start Date: 12/16/2013 20:51 End Date: 12/17/2013 01:04

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-157769/49	1		20:51	X	X	X	X																
CCB 480-157769/50	1		21:01	X	X	X	X																
LCS 480-157769/51	1	T	21:11	X	X	X	X																
MB 480-157769/52	1	T	21:21	X	X	X	X																
460-68260-7	1	T	21:31				X																
460-68260-8	1	T	21:41				X																
ZZZZZZ			21:52																				
ZZZZZZ			22:02																				
ZZZZZZ			22:12																				
ZZZZZZ			22:22																				
ZZZZZZ			22:32																				
ZZZZZZ			22:42																				
CCV 480-157769/61	1		22:52	X	X	X	X																
CCB 480-157769/62	1		23:03	X	X	X	X																
ZZZZZZ			23:13																				
ZZZZZZ			23:23																				
ZZZZZZ			23:33																				
ZZZZZZ			23:43																				
ZZZZZZ			23:53																				
ZZZZZZ			00:03																				
CCV 480-157769/73			00:54																				
CCB 480-157769/74			01:04																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Buffalo Job No.: 460-68260-1

SDG No.:

Instrument ID: IC-1 Method: 300.0

Start Date: 12/17/2013 17:31 End Date: 12/17/2013 21:45

Lab Sample ID	D/F	Type	Time	Analytes																			
				Br	CL-	F	SO4																
CCV 480-158039/1	1		17:31	X	X	X	X																
CCB 480-158039/2	1		17:41	X	X	X	X																
LCS 480-158039/3	1	T	17:52	X	X	X	X																
MB 480-158039/4	1	T	18:02	X	X	X	X																
460-68260-1	1	T	18:12	X	X	X																	
460-68260-2	1	T	18:22	X	X	X																	
460-68260-3	1	T	18:32	X	X	X																	
460-68260-4	1	T	18:42	X	X	X																	
460-68260-5	1	T	18:52	X	X	X																	
460-68260-6	1	T	19:03	X	X	X																	
460-68260-7	1	T	19:13	X	X	X																	
460-68260-7 MS	1	T	19:23	X	X	X	X																
CCV 480-158039/13	1		19:33	X	X	X	X																
CCB 480-158039/14	1		19:43	X	X	X	X																
460-68260-8	1	T	19:53	X	X	X																	
ZZZZZZ			20:03																				
ZZZZZZ			20:13																				
ZZZZZZ			20:24																				
ZZZZZZ			20:34																				
ZZZZZZ			20:44																				
ZZZZZZ			20:54																				
ZZZZZZ			21:04																				
ZZZZZZ			21:14																				
ZZZZZZ			21:24																				
CCV 480-158039/25	1		21:34	X	X	X	X																
CCB 480-158039/26	1		21:45	X	X	X	X																

Prep Types

T = Total/NA

Method - Ch. 1 (NO3+NO2)

OPERATOR:	leye
ACQ. TIME:	Dec 13, 2013 9:54:39
DATA FILENAME:PTION:	C:\OMNION\DATA\NITRATE\2013DA~1\N131213A.FDT
METHOD FILENAME:	C:\OMNION\METHODS\NO3NO2A.MET
TRAY FILENAME:	Dec 12, 2013 10:50:35
NO3+NO2a.met	
TRAY DESCRIPTION:	
Created:TE DATA:	Oct 18, 2013 14:04:36
Modified:ame:	Dec 13, 2013 11:42:15
360 trayration Units:	mg /L
DATA DESCRIPTION:	Direct
Created: Peak Start (s):	Dec 13, 2013 9:54:39
Modified:: Width (s):	Dec 13, 2013 9:54:39
% 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:

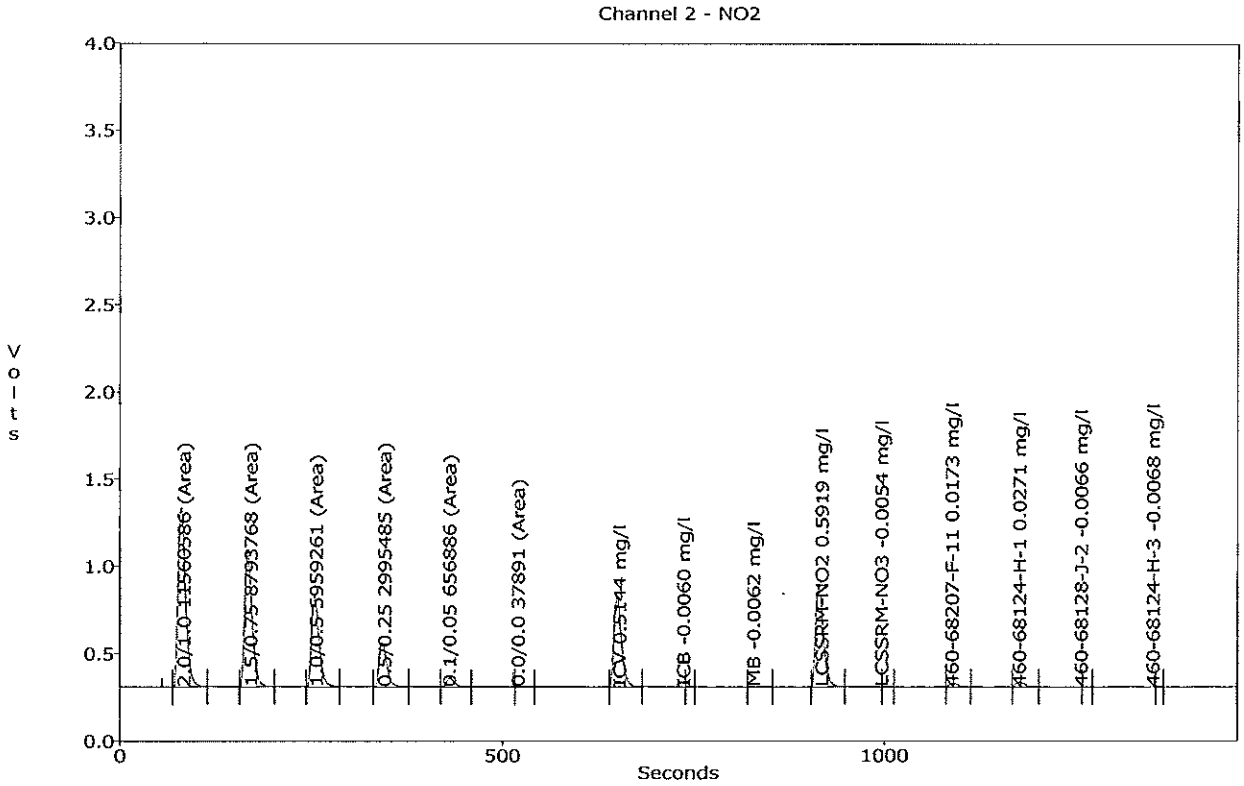
Method Cycle Period:	90.0
Sample Reaches 1st Valve:	37.0
Valve:	On
Load Time:	0.0
Load Period:	10.0
Inject Period:	80.0

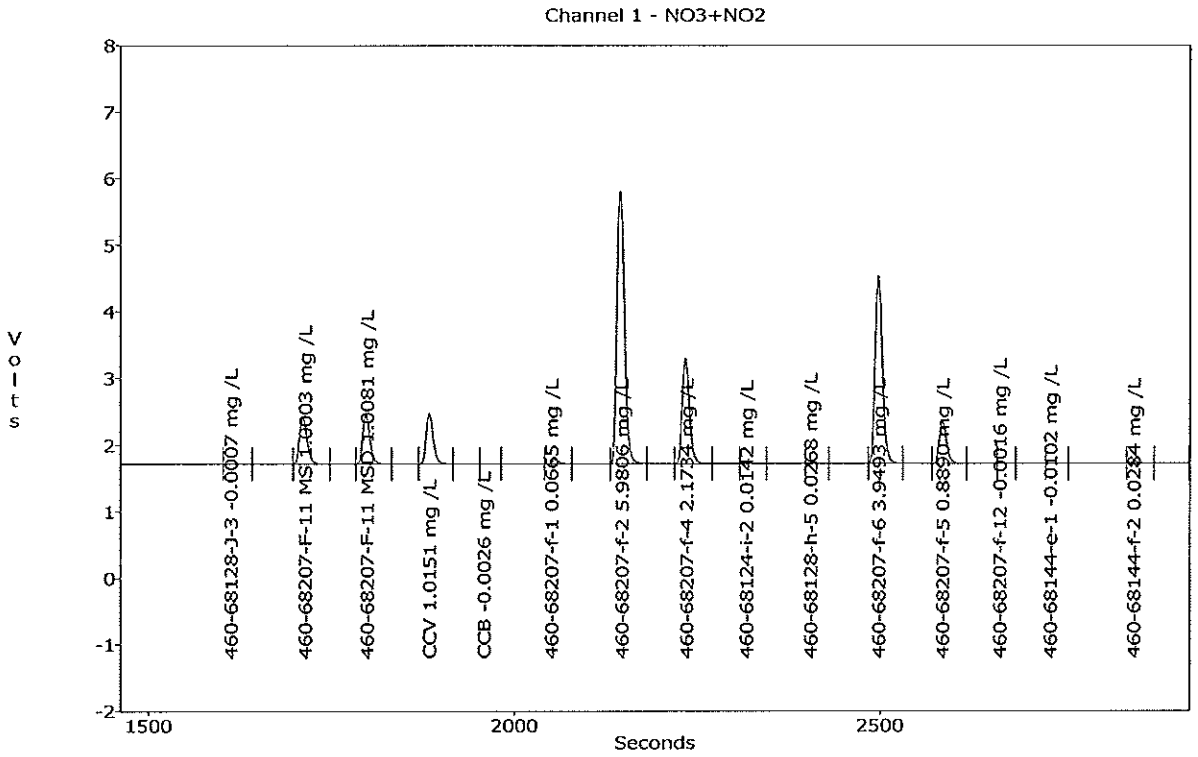
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 8 -- Cup Range: 1 to 50

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	13 Dec 2013	09:54:40	1	16526279.00	11560586.00	1.0	1.00	1.00000	g
2	1.5/0.75	13 Dec 2013	09:56:07	1	12613370.00	8793768.00	1.0	1.00	1.00000	g
3	1.0/0.5	13 Dec 2013	09:57:34	1	8589011.00	5959261.00	1.0	1.00	1.00000	g
4	0.5/0.25	13 Dec 2013	09:59:02	1	4172768.00	2995485.00	1.0	1.00	1.00000	g
5	0.1/0.05	13 Dec 2013	10:00:30	1	952448.00	656886.00	1.0	1.00	1.00000	g
6	0.0/0.0	13 Dec 2013	10:01:59	1	47299.00	37891.00	1.0	1.00	1.00000	g

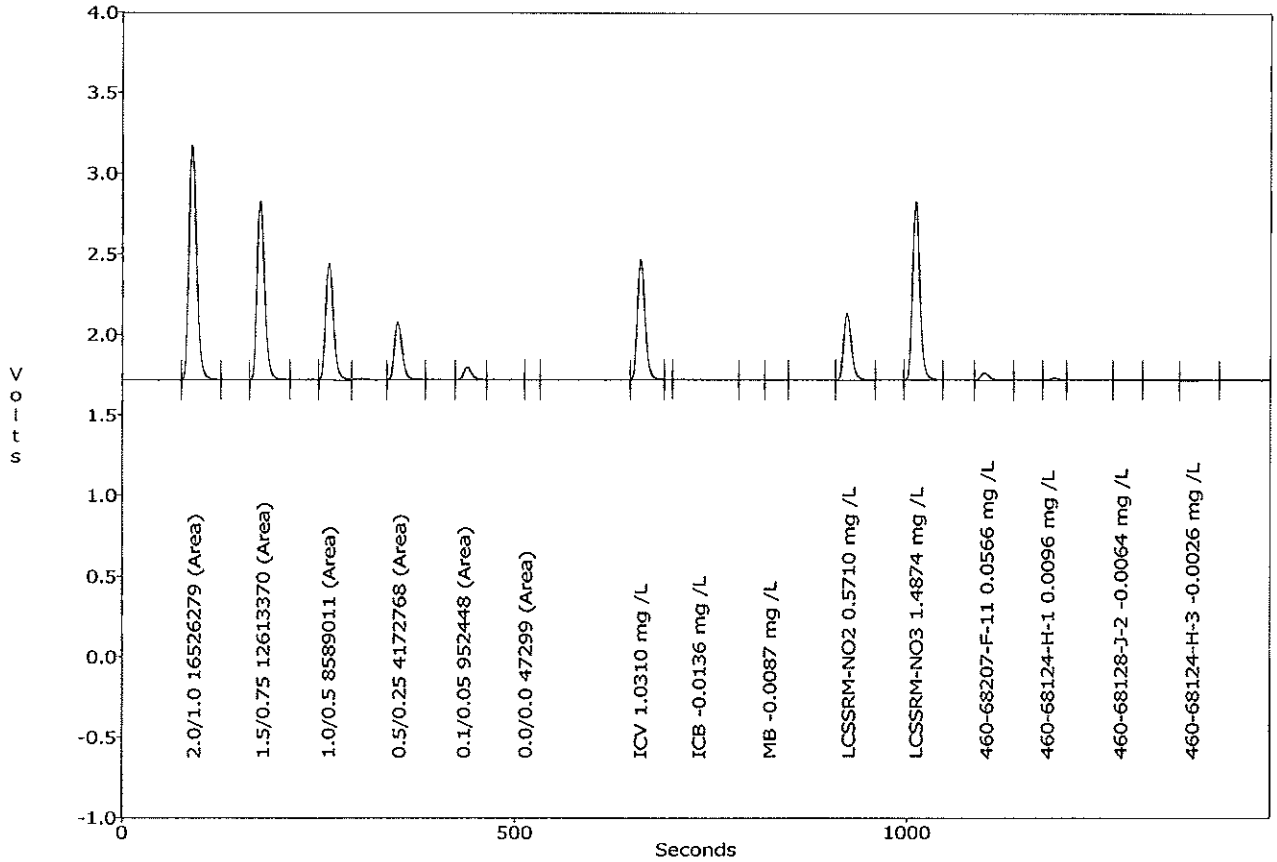
Multi-Channel Table
Type: Unknowns
Channel Range: 1 to 8 -- Cup Range: 1 to 50

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	13 Dec 2013	10:04:10	1	1.0310	0.5144	1.0	1.00	1.00000	g
2	ICB	13 Dec 2013	10:05:38	1	-0.0136	-0.0060	1.0	1.00	1.00000	g
3	MB	13 Dec 2013	10:07:06	1	-0.0087	-0.0062	1.0	1.00	1.00000	g
4	LCSSRM-NO2	13 Dec 2013	10:08:34	1	0.5710	0.5919	1.0	1.00	1.00000	g
5	LCSSRM-NO3	13 Dec 2013	10:10:01	1	1.4874	-0.0054	1.0	1.00	1.00000	g
6	460-68207-F-11	13 Dec 2013	10:11:29	1	0.0566	0.0173	1.0	1.00	1.00000	g
7	460-68124-H-1	13 Dec 2013	10:12:57	1	0.0096	0.0271	1.0	1.00	1.00000	g
8	460-68128-J-2	13 Dec 2013	10:14:24	1	-0.0064	-0.0066	1.0	1.00	1.00000	g
9	460-68124-H-3	13 Dec 2013	10:15:52	1	-0.0026	-0.0068	1.0	1.00	1.00000	g
10	460-68128-J-3	13 Dec 2013	10:20:15	1	-0.0007	-0.0032	1.0	1.00	1.00000	g
11	460-68207-F-11 MS	13 Dec 2013	10:21:42	1	1.0003	0.4954	1.0	1.00	1.00000	g
12	460-68207-F-11 MSD	13 Dec 2013	10:23:08	1	1.0081	0.4989	1.0	1.00	1.00000	g
13	CCV	13 Dec 2013	10:24:35	1	1.0151	0.5086	1.0	1.00	1.00000	g
14	CCB	13 Dec 2013	10:26:01	1	-0.0026	-0.0075	1.0	1.00	1.00000	g
15	460-68207-f-1	13 Dec 2013	10:27:28	1	0.0665	0.0141	1.0	1.00	1.00000	g
16	460-68207-f-2	13 Dec 2013	10:28:57	1	5.9806	-0.0062	1.0	1.00	1.00000	g
17	460-68207-f-4	13 Dec 2013	10:30:25	1	2.1734	0.0016	1.0	1.00	1.00000	g
18	460-68124-i-2	13 Dec 2013	10:31:54	1	0.0142	0.0256	1.0	1.00	1.00000	g
19	460-68128-h-5	13 Dec 2013	10:33:22	1	0.0268	0.0209	1.0	1.00	1.00000	g
20	460-68207-f-6	13 Dec 2013	10:34:49	1	3.9493	0.0282	1.0	1.00	1.00000	g
21	460-68207-f-5	13 Dec 2013	10:36:17	1	0.8890	0.2190	1.0	1.00	1.00000	g
22	460-68207-f-12	13 Dec 2013	10:37:44	1	-0.0016	-0.0066	1.0	1.00	1.00000	g
23	460-68144-e-1	13 Dec 2013	10:39:12	1	-0.0102	0.0494	1.0	1.00	1.00000	g
24	460-68144-f-2	13 Dec 2013	10:40:40	1	0.0284	0.0134	1.0	1.00	1.00000	g
25	CCV	13 Dec 2013	10:42:07	1	1.0053	0.5127	1.0	1.00	1.00000	g
26	CCB	13 Dec 2013	10:43:35	1	-0.0121	-0.0067	1.0	1.00	1.00000	g
27	MB	13 Dec 2013	10:45:02	1	-0.0107	-0.0061	1.0	1.00	1.00000	g
28	LCSSRM-NO2	13 Dec 2013	10:46:28	1	0.5579	0.5815	1.0	1.00	1.00000	g
29	LCSSRM-NO3	13 Dec 2013	10:47:55	1	1.4957	-0.0065	1.0	1.00	1.00000	g
30	460-68144-f-3	13 Dec 2013	10:49:22	1	0.0451	0.0041	1.0	1.00	1.00000	g
31	460-68144-e-5	13 Dec 2013	10:50:50	1	0.0649	0.0086	1.0	1.00	1.00000	g
32	460-68144-e-6	13 Dec 2013	10:52:19	1	0.7182	-0.0049	1.0	1.00	1.00000	g
33	460-68144-e-6 MS	13 Dec 2013	10:53:48	1	1.6421	0.4914	1.0	1.00	1.00000	g
34	460-68144-e-6 MSD	13 Dec 2013	10:55:16	1	1.6759	0.4935	1.0	1.00	1.00000	g
35	460-68144-e-7	13 Dec 2013	10:56:45	1	0.7112	-0.0045	1.0	1.00	1.00000	g
36	460-68207-f-8	13 Dec 2013	10:58:13	1	1.7750	-0.0050	1.0	1.00	1.00000	g
37	CCV	13 Dec 2013	10:59:40	1	1.0011	0.5091	1.0	1.00	1.00000	g
38	CCB	13 Dec 2013	11:01:08	1	-0.0103	-0.0064	1.0	1.00	1.00000	g
39	460-68207-f-7	13 Dec 2013	11:02:36	1	3.0312	-0.0037	1.0	1.00	1.00000	g
40	460-68207-f-10	13 Dec 2013	11:04:03	1	15.8949	0.0305	1.0	1.00	1.00000	g
41	460-68207-f-9	13 Dec 2013	11:05:31	1	10.6958	0.0121	1.0	1.00	1.00000	g
42	460-68207-f-3	13 Dec 2013	11:06:58	1	1.7529	0.0125	1.0	1.00	1.00000	g
43	460-68144-e-4	13 Dec 2013	11:08:25	1	0.0426	0.0204	1.0	1.00	1.00000	g
44	460-68207-f-13	13 Dec 2013	11:09:55	1	-0.0082	-0.0036	1.0	1.00	1.00000	g
45	460-68128-h-4	13 Dec 2013	11:11:22	1	-0.0082	-0.0063	1.0	1.00	1.00000	g
46	460-68217-g-5	13 Dec 2013	11:12:55	1	0.0133	0.0123	1.0	1.00	1.00000	g
47	460-68217-g-2	13 Dec 2013	11:14:24	1	0.0152	0.0151	1.0	1.00	1.00000	g
48	460-68217-g-3	13 Dec 2013	11:15:52	1	0.0166	0.0154	1.0	1.00	1.00000	g
49	CCV	13 Dec 2013	11:17:21	1	0.9516	0.5154	1.0	1.00	1.00000	g
50	CCB	13 Dec 2013	11:18:50	1	-0.0121	-0.0073	1.0	1.00	1.00000	g

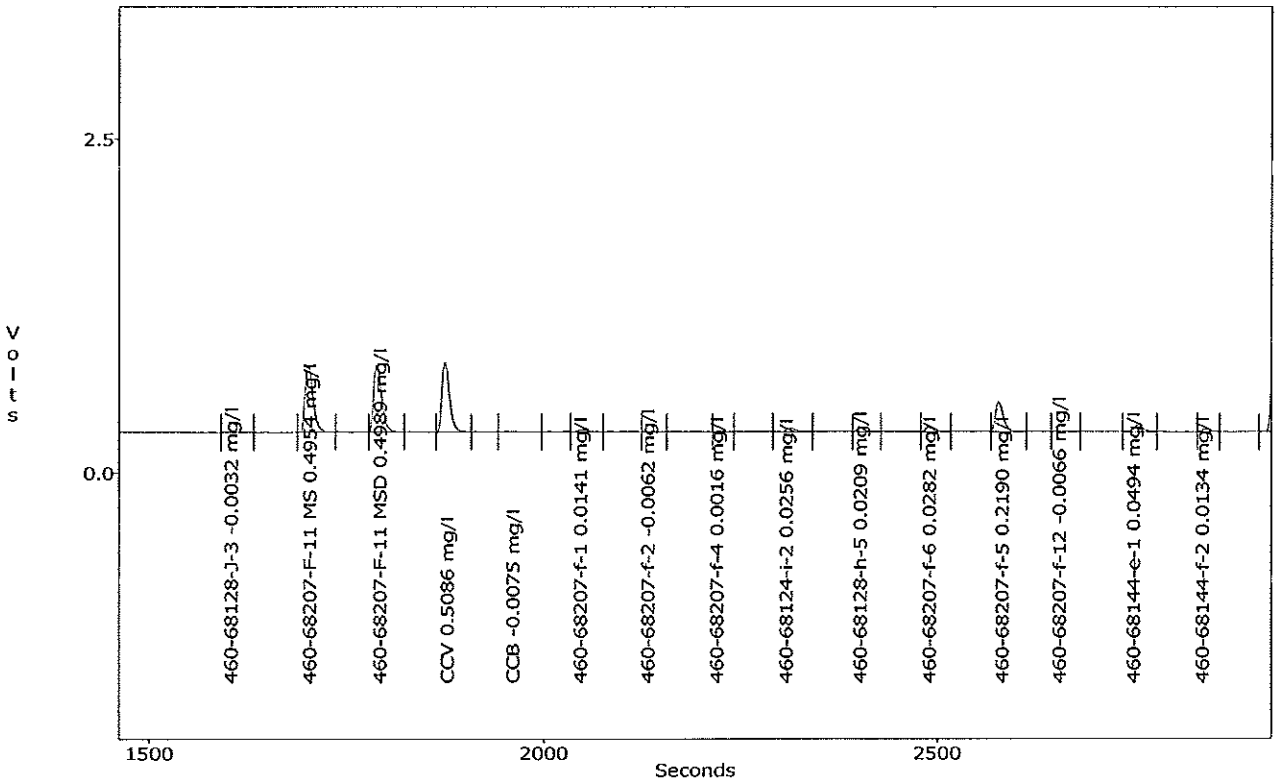

Channel 2 - NO2
Volts
Seconds
2.0/1.0 11560586 (Area)
1.5/0.75 8793768 (Area)
1.0/0.5 5959261 (Area)
0.5/0.25 2995485 (Area)
0.1/0.05 656886 (Area)
0.0/0.0 37891 (Area)
ICV 0.5144 mg/l
ICB -0.0060 mg/l
MB -0.0062 mg/l
LCSSRM-NO2 0.5919 mg/l
LCSSRM-NO3 -0.0054 mg/l
460-68207-F-11 0.0173 mg/l
460-68124-H-1 0.0271 mg/l
460-68128-J-2 -0.0066 mg/l
460-68124-H-3 -0.0068 mg/l


Channel 1 - NO3+NO2
Volts
Seconds
460-68128-J-3 -0.0007 mg /L
460-68207-F-11 MS 1.0003 mg /L
460-68207-F-11 MSD 1.0081 mg /L
CCV 1.0151 mg /L
CCB -0.0026 mg /L
460-68207-f-1 0.0665 mg /L
460-68207-f-2 5.9806 mg /L
460-68207-f-4 2.1733 mg /L
460-68124-i-2 0.0142 mg /L
460-68128-h-5 0.0268 mg /L
460-68207-f-6 3.9493 mg /L
460-68207-f-5 0.8890 mg /L
460-68207-f-12 -0.0016 mg /L
460-68144-e-1 -0.0102 mg /L
460-68144-f-2 0.0284 mg /L

Channel 1 - NO3+NO2



Channel 2 - NO2



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

Unknowns:

Cup: 1, Sample ID: ICV, Sample Type: Unknowme: Unknownn
Rep 1/1, Result: 0.5144 mg/l

Cup: 2, Sample ID: ICB, Sample Type: Unknowme: Unknown
Rep 1/1, Result: -0.0060 mg/l

Cup: 3, Sample ID: MB, Sample Type: Unknownype: Unknown
Rep 1/1, Result: -0.0062 mg/l

Cup: 4, Sample ID: LCSSRM-NO2, Sample Type: Unknownwn
Rep 1/1, Result: 0.5919 mg/l

Cup: 5, Sample ID: LCSSRM-NO3, Sample Type: Unknownwnn
Rep 1/1, Result: -0.0054 mg/l

Cup: 6, Sample ID: 460-68207-F-11, Sample Type: Unknown
Rep 1/1, Result: 0.0173 mg/ll

Cup: 7, Sample ID: 460-68124-H-1, Sample Type: Unknownn
Rep 1/1, Result: 0.0271 mg/ll

Cup: 8, Sample ID: 460-68128-J-2, Sample Type: Unknownn
Rep 1/1, Result: -0.0066 mg/l

Cup: 9, Sample ID: 460-68124-H-3, Sample Type: Unknownn
Rep 1/1, Result: -0.0068 mg/l

Cup: 10, Sample ID: 460-68128-J-3, Sample Type: Unknown
Rep 1/1, Result: -0.0032 mg/l

Cup: 11, Sample ID: 460-68207-F-11 MS, Sample Type: Unknown
Rep 1/1, Result: 0.4954 mg/ll

Cup: 12, Sample ID: 460-68207-F-11 MSD, Sample Type: Unknown
Rep 1/1, Result: 0.4989 mg/l

Cup: 13, Sample ID: CCV, Sample Type: Unknowme: Unknown
Rep 1/1, Result: 0.5086 mg/ll

Cup: 14, Sample ID: CCB, Sample Type: Unknown'ype: Unknown
Rep 1/1, Result: -0.0075 mg/l

Cup: 15, Sample ID: 460-68207-f-1, Sample Type: Unknownnown
Rep 1/1, Result: 0.0141 mg/l

Cup: 16, Sample ID: 460-68207-f-2, Sample Type: Unknownwn
Rep 1/1, Result: -0.0062 mg/l

Cup: 17, Sample ID: 460-68207-f-4, Sample Type: Unknown
Rep 1/1, Result: 0.0016 mg/ll

Cup: 18, Sample ID: 460-68124-i-2, Sample Type: Unknown
Rep 1/1, Result: 0.0256 mg/l

Cup: 19, Sample ID: 460-68128-h-5, Sample Type: Unknown
Rep 1/1, Result: 0.0209 mg/ll

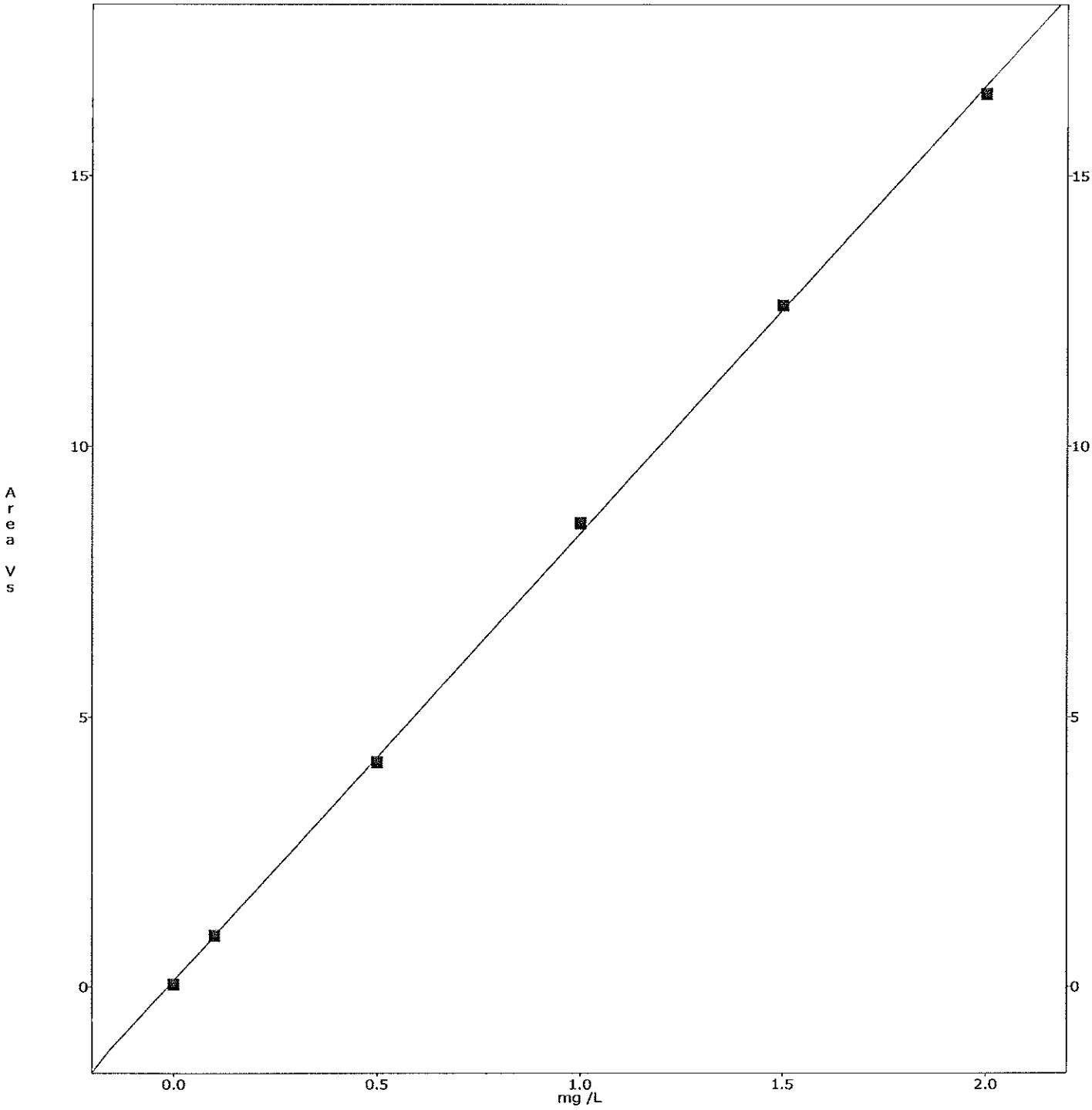
Cup: 39, Sample ID: 460-68207-f-7, Sample Type: Unknownown
Rep 1/1, Result: -0.0037 mg/l

NO3+NO2

Lvl	Area	mg /L	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	16526279	2.0	16526279					0.0	0.0	0.9
2	12613370	1.5	12613370					0.0	0.0	-0.7
3	8589011	1.0	8589011					0.0	0.0	-2.4
4	4172768	0.5	4172768					0.0	0.0	1.9
5	952448	0.1	952448					0.0	0.0	-1.4
6	47299	0.0	47299					0.0	0.0	

1st Order Poly
Conc = 1.208e-007 Area - 1.363e-002
r = 0.9998

Scaling: None - Weighting: None



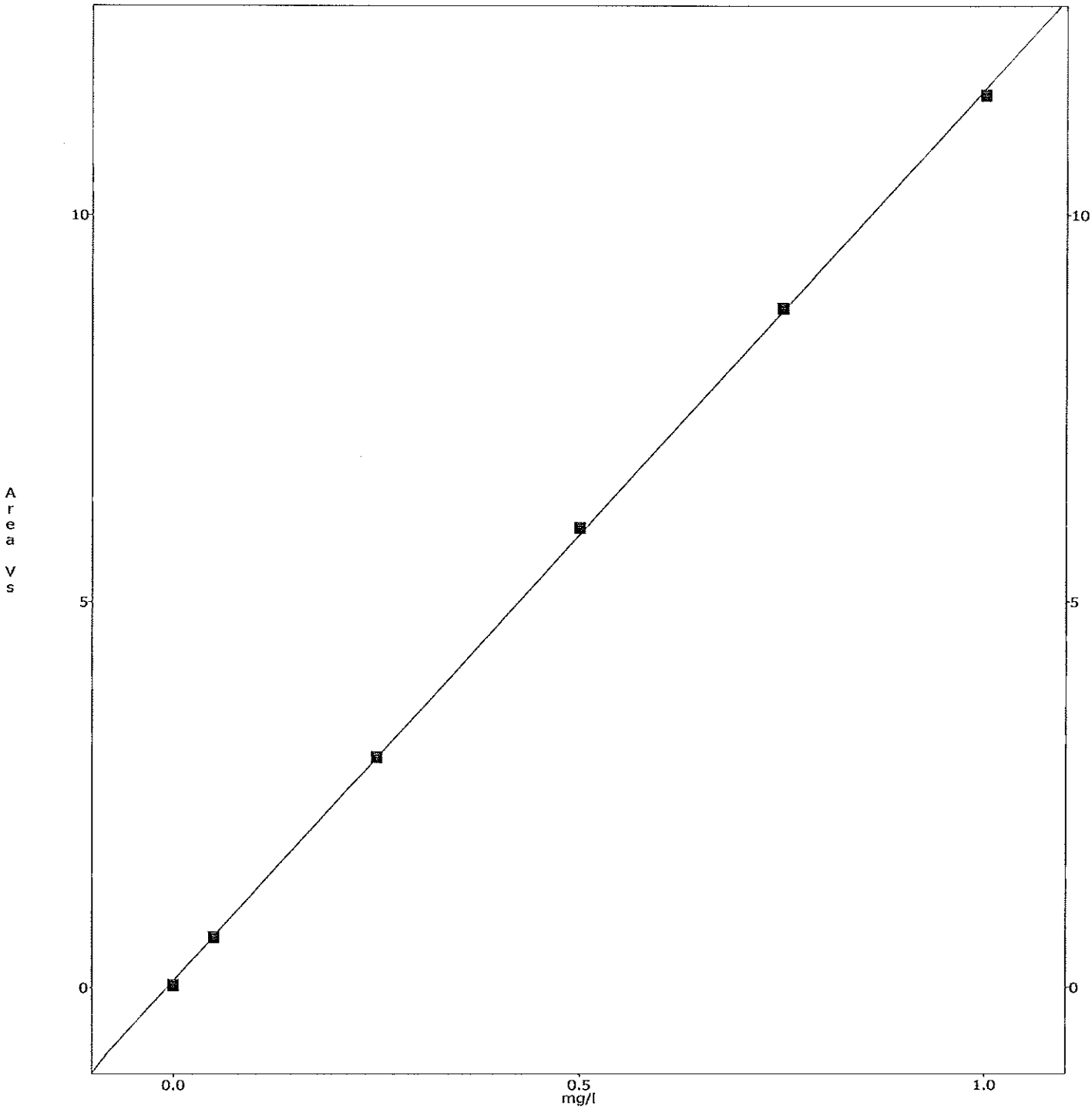
Printed: Friday, December 13, 2013 - 12:00 PM

NO2

Lvl	Area	mg/l	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	Replic STD	Replic % RSD	Residual 1st Poly
1	11560586	1.00	11560586					0.0	0.0	0.7
2	8793768	0.75	8793768					0.0	0.0	-0.5
3	5959261	0.50	5959261					0.0	0.0	-1.6
4	2995485	0.25	2995485					0.0	0.0	-0.6
5	656886	0.05	656886					0.0	0.0	2.2
6	37891	0.00	37891					0.0	0.0	

1st Order Poly
Conc = 8.658e-008 Area - 7.979e-003
r = 0.9999

Scaling: None - Weighting: None



Printed: Friday, December 13, 2013 - 12:00 PM

TESTAMERICA- EDISON

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

Run Number 4445 **Order Number** 20131226-2

Job#	Sample#	Analysis	amt	Batch#	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		ALKALINITY	25ML		12/26/2013	11:07 AM	19.14	5.357	.00	0.000	50.787	50.787	0.000	0.000	446.773	0.000	1.281	1.668
mb		ALKALINITY	25ML		12/26/2013	11:14 AM	18.63	5.383	.00	0.000	0.190	0.190	0.000	0.000	1.576	0.000	0.045	0.085
lcssrm		ALKALINITY	25ML		12/26/2013	11:21 AM	17.28	8.690	.00	7.703	35.324	19.919	15.405	0.000	0.081	0.194	0.891	0.946

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TESTAMERICA- EDISON

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

Run Number 4446 **Order Number** 20131226-3

Job# Sample#	Analysis amt Batch#	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
460-68260-G-1	ALKALINITY 25ML	12/26/2013	12:17 PM	14.26	7.591	.00	0.000	212.785	212.785	0.000	0.000	10.921	0.000	5.368	5.652
460-68260-G-1 du	ALKALINITY 25ML	12/26/2013	12:24 PM	13.86	7.635	.00	0.000	215.132	215.132	0.000	0.000	9.960	0.000	5.427	5.685
460-68217-G-2	ALKALINITY 25ML	12/26/2013	12:31 PM	14.65	7.966	.00	0.000	140.048	140.048	0.000	0.000	3.029	0.000	3.533	3.719
460-68217-G-3	ALKALINITY 25ML	12/26/2013	12:38 PM	14.82	7.942	.00	0.000	359.705	359.705	0.000	0.000	8.213	0.000	9.075	9.485
460-68217-G-4	ALKALINITY 25ML	12/26/2013	12:44 PM	15.35	7.985	.00	0.000	180.952	180.952	0.000	0.000	3.750	0.000	4.565	4.849
460-68217-G-5	ALKALINITY 25ML	12/26/2013	12:50 PM	15.00	7.950	.00	0.000	170.651	170.651	0.000	0.000	3.827	0.000	4.305	4.563
460-68260-G-2	ALKALINITY 25ML	12/26/2013	12:58 PM	15.14	7.624	.00	0.000	220.814	220.814	0.000	0.000	10.490	0.000	5.571	5.867
460-68260-G-3	ALKALINITY 25ML	12/26/2013	1:04 PM	15.41	7.615	.00	0.000	222.423	222.423	0.000	0.000	10.787	0.000	5.611	5.986
460-68260-G-4	ALKALINITY 25ML	12/26/2013	1:11 PM	15.62	7.630	.00	0.000	213.360	213.360	0.000	0.000	10.014	0.000	5.383	5.637
460-68260-G-5	ALKALINITY 25ML	12/26/2013	1:18 PM	15.20	7.653	.00	0.000	193.218	193.218	0.000	0.000	8.584	0.000	4.875	5.148
460-68260-G-6	ALKALINITY 25ML	12/26/2013	1:25 PM	15.07	7.712	.00	0.000	230.438	230.438	0.000	0.000	8.943	0.000	5.814	6.139
460-68260-G-7	ALKALINITY 25ML	12/26/2013	1:32 PM	15.92	7.739	.00	0.000	130.385	130.385	0.000	0.000	4.754	0.000	3.289	3.464
460-68260-G-8	ALKALINITY 25ML	12/26/2013	1:38 PM	16.79	7.797	.00	0.000	131.206	131.206	0.000	0.000	4.186	0.000	3.310	3.474
460-68228-J-1	ALKALINITY 25ML	12/26/2013	1:46 PM	17.11	5.851	.00	0.000	10.511	10.511	0.000	0.000	29.644	0.000	0.305	0.346
460-68228-J-2	ALKALINITY 25ML	12/26/2013	1:52 PM	15.87	8.033	.00	0.000	187.165	187.165	0.000	0.000	3.472	0.000	4.722	4.976
460-68228-J-3	ALKALINITY 25ML	12/26/2013	1:58 PM	16.72	5.577	.00	0.000	0.381	0.381	0.000	0.000	2.015	0.000	0.066	0.123
460-68336-F-1	ALKALINITY 25ML	12/26/2013	2:04 PM	17.25	6.814	.00	0.000	373.812	373.812	0.000	0.000	114.625	0.000	9.431	10.051
460-68263-F-1	ALKALINITY 25ML	12/26/2013	2:11 PM	17.53	7.820	.00	0.000	160.878	160.878	0.000	0.000	4.872	0.000	4.059	4.317
460-68263-F-2	ALKALINITY 25ML	12/26/2013	2:18 PM	17.18	7.804	.00	0.000	188.936	188.936	0.000	0.000	5.929	0.000	4.767	5.052
460-68263-F-3	ALKALINITY 25ML	12/26/2013	2:24 PM	16.77	7.390	.00	0.000	198.810	198.810	0.000	0.000	16.180	0.000	5.016	5.402
460-68263-F-5	ALKALINITY 25ML	12/26/2013	2:32 PM	17.57	8.041	.00	0.000	133.591	133.591	0.000	0.000	2.431	0.000	3.370	3.551

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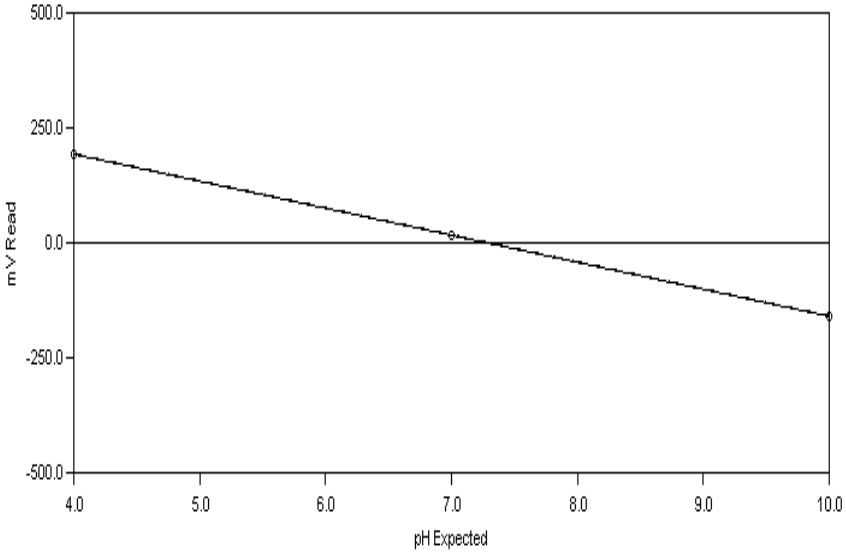
PC-TitratION PLUS
Calibration Report

Calibration Record # 1154



Calibration Settings

Calibration ID	PH CAL 4-7-10	Date	12/26/2013	
Channel	1	Time	10:47 AM	
Probe Type	pH	Temperature	290.28 K	17.13 C
Probe ID	PH ELECTRODE	Analysis Type	Single Line Fit	

Calibration Results

Slope	-58.918	CorrCoeff	1.0000
Intercept	17.250	Equation: Y = (-58.918) X + (17.250)	

Calibration Validity **True** Operator

	Result	Minimum	Maximum
Slope	-58.918	-65.00	-53.00
Intercept	17.250	-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	193.60
	7.00	18.06
	10.00	-159.91

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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

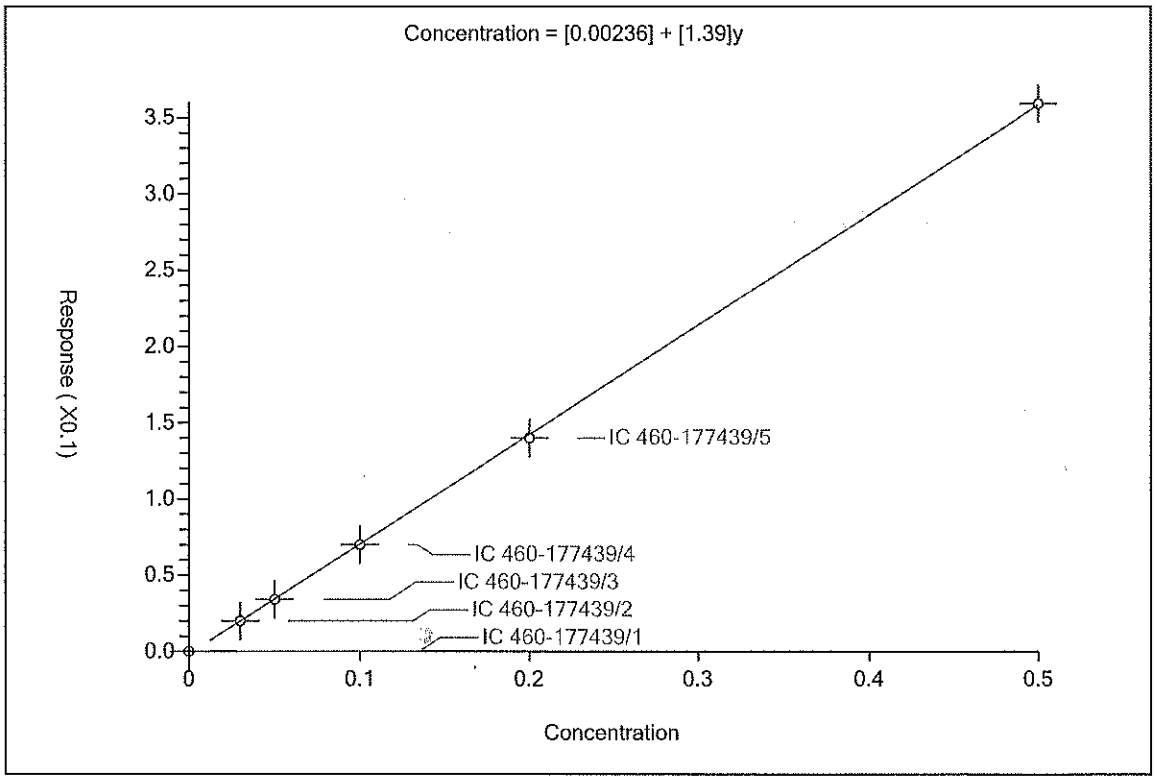
Curve Coefficients

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	Time
	0.0		0.00			
	0.03		0.020			
	0.05		0.034			
	0.1		Re ~~0.140~~ 0.070			
	0.2		Re ~~0.359~~ 0.140			
	0.5		Re ~~0.145~~ 0.359			
	ICV		0.144		0.20	8:50
	ICB		0.00			
	MB		0.00			
	LCS	2/50	0.165		5.79	
197186	68260-1		0.077	0.019	0.083	
	68260-2		0.055	0.004	0.073	
	68260-3		0.040	0.001	0.057	9:10
	68260-4		0.248	0.00	0.35	9:30
	68260-5		0.323	0.00	0.45	
	68260-6		0.039	0.00	0.057	
N/A	68260-7		0.564	—		
	68260-8		0.172	0.006	0.23	
	CCV		0.144			
	CCB		0.00			9:45
	68263-1		0.170		0.24	10:00
	68263-2		0.210		0.29	
	68263-3		0.312		0.44	
	68263-4		0.121		0.17	
	68263-5		0.140		0.20	
	68263-6		0.103		0.15	
	68263-7		0.101		0.14	
	68263-8		0.142		0.20	
	68263-9		0.063		0.090	
	68263-10		0.075		0.11	
	CCV		0.144			
	CCB		0.00			
	68263-11		0.132		0.19	

Continued on Page

Read and Understood By

Rae — Signed — Date 12/14/9

Signed — Date

Batch	Sample	D.F.	Abs	BB	Result	Time
	68260-7	10/50	0.120		0.45	
	68260-9 ms		0.214		0.30	
	68260-9 msd		0.212		0.30	
	CCV		0.144			
	CCB		0.00			11:30

Continued on Page

Read and Understood By

RER 12/14/13

Signed Date Signed Date

Dilution Form
Wet Chemistry

Method No.: 4500 P-E ORTHO

Analyst: 12/14/13

Prep Batch:

Analysis Date: Rec

Analytical Batch: 197786

Job/Sample Number	Dilution Factor	Sample Volume (ml)	Final Volume (ml)	Diluent
68260-7	5x	10	50	DI

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

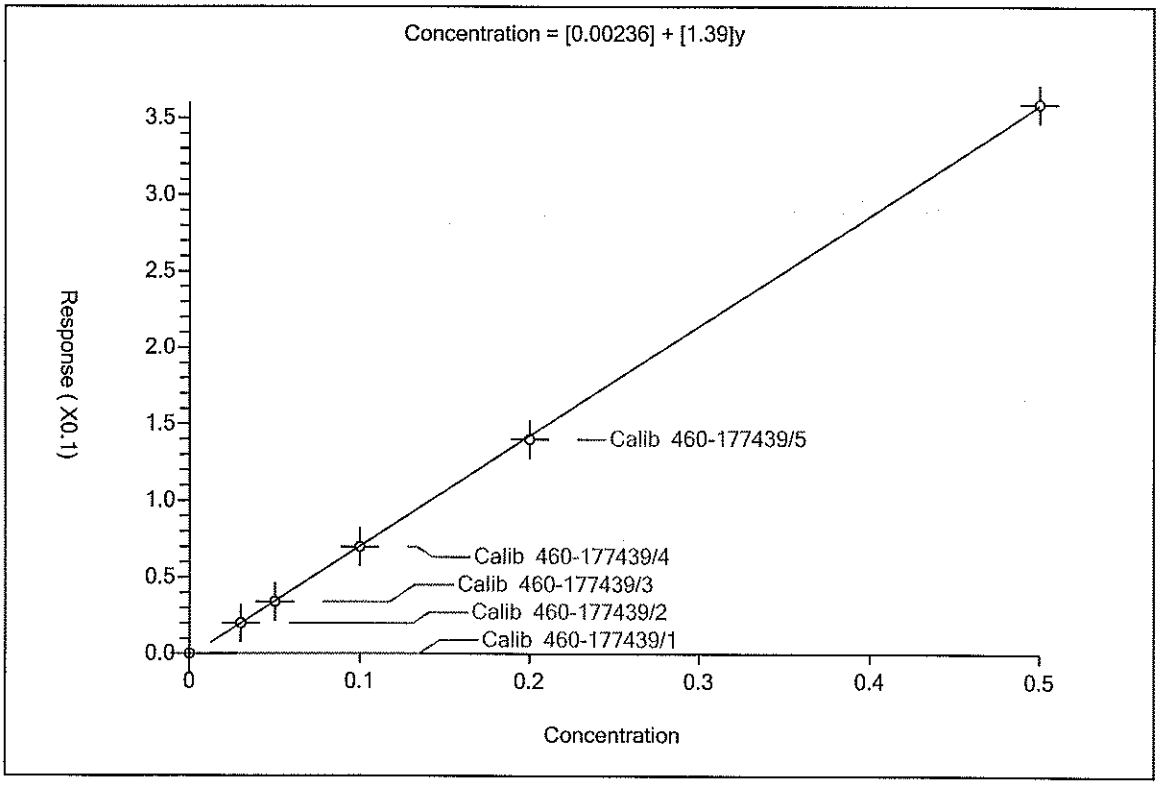
Curve Coefficients

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	

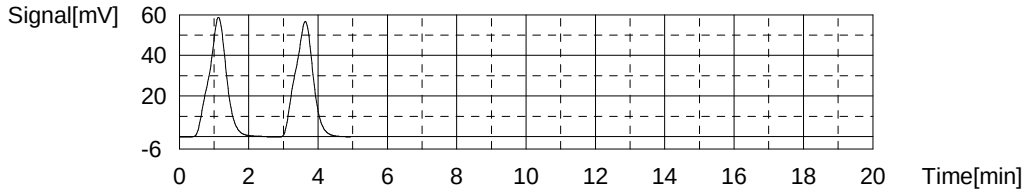
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.23mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	206.3	48.45mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 9:21:00 PM
2	204.4	48.00mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 9:23:33 PM

Mean Area 205.4
Mean Conc. 48.23mg/L



Sample

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

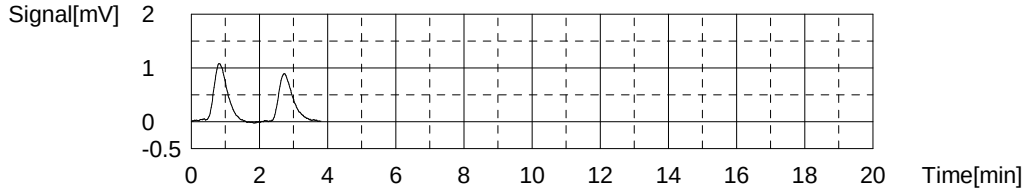
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2488mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.855	0.2939mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 9:40:42 PM
2	2.474	0.2037mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 9:42:45 PM

Mean Area 2.665
Mean Conc. 0.2488mg/L



Sample

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

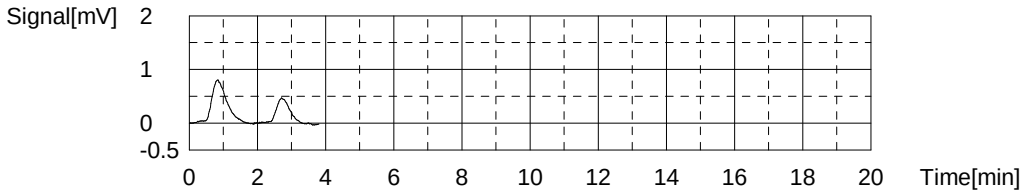
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.03007mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.310	0.1649mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 9:59:54 PM
2	1.171	-0.1047mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 10:01:57 PM

Mean Area 1.740
Mean Conc. 0.03007mg/L



Sample

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

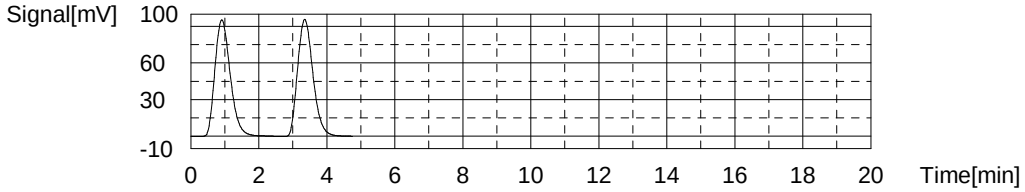
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:71.51mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	302.2	71.15mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 10:19:37 PM
2	305.2	71.86mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 10:22:06 PM

Mean Area 303.7
Mean Conc. 71.51mg/L



Sample

Sample Name: 460-67893-d-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

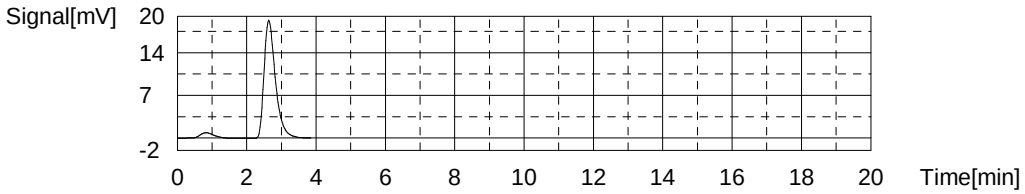
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:5.167mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.399	0.1859mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 10:39:15 PM
2	44.48	10.15mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 10:41:21 PM

Mean Area 23.44
Mean Conc. 5.167mg/L



Sample

Sample Name: 460-67893-d-1 MS
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

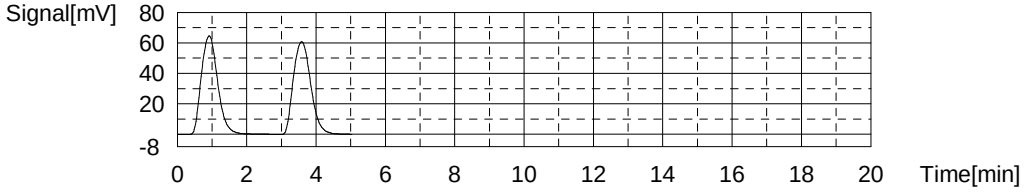
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:50.46mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.5	50.39mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 10:59:14 PM
2	215.1	50.54mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 11:01:47 PM

Mean Area 214.8
Mean Conc. 50.46mg/L



Sample

Sample Name: 460-67893-d-1 MSD
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

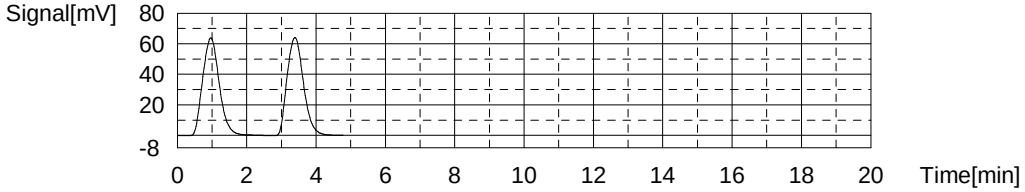
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:50.32mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	214.7	50.44mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 11:19:33 PM
2	213.7	50.20mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 11:22:01 PM

Mean Area 214.2
Mean Conc. 50.32mg/L



Sample

Sample Name: 460-67824-j-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

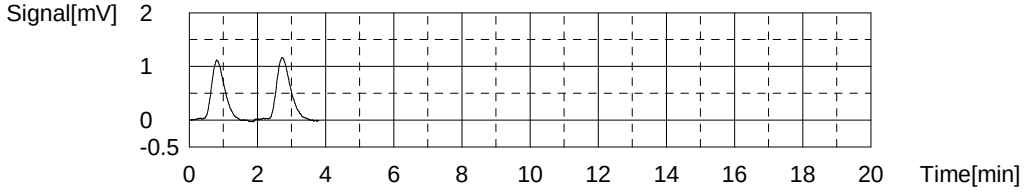
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3437mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.889	0.3019mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 11:39:10 PM
2	3.242	0.3855mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 11:41:13 PM

Mean Area 3.066
Mean Conc. 0.3437mg/L



Sample

Sample Name: 460-68142-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

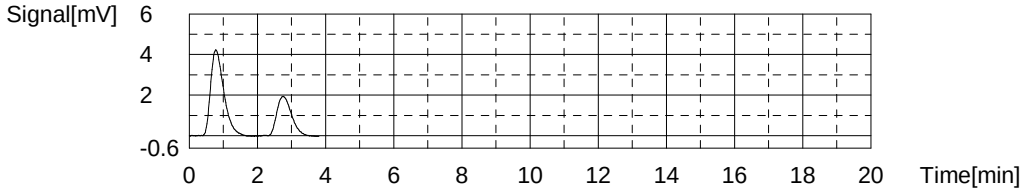
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.674mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.52	2.345mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/16/2013 11:58:22 PM
2	5.848	1.002mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:00:25 AM

Mean Area 8.684
Mean Conc. 1.674mg/L



Sample

Sample Name: 460-68142-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

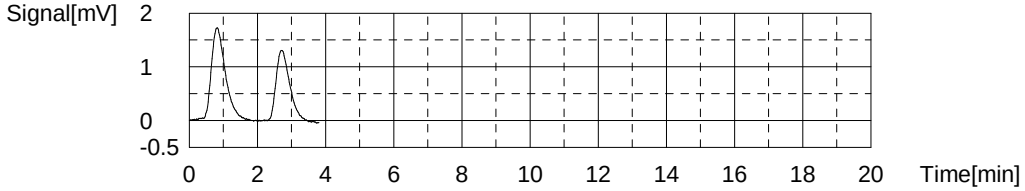
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.6224mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	4.811	0.7569mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:17:34 AM
2	3.675	0.4880mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:19:37 AM

Mean Area 4.243
Mean Conc. 0.6224mg/L



Sample

Sample Name: 460-68142-c-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

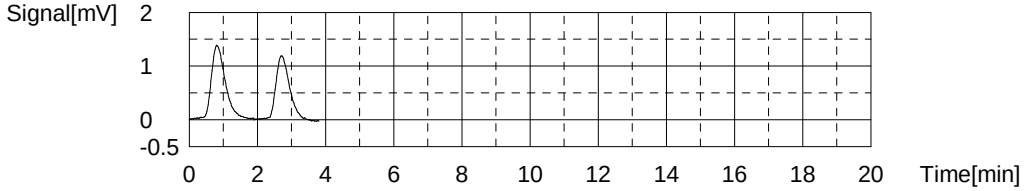
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4424mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.730	0.5010mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:36:46 AM
2	3.235	0.3838mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:38:59 AM

Mean Area 3.482
Mean Conc. 0.4424mg/L



Sample

Sample Name: 460-68142-b-5
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

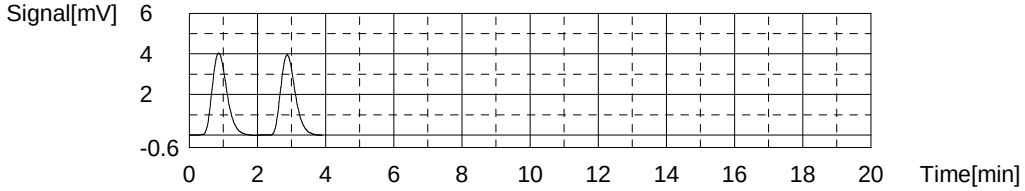
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.443mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.05	2.470mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:56:14 AM
2	11.82	2.416mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:58:17 AM

Mean Area 11.94
Mean Conc. 2.443mg/L



Sample

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

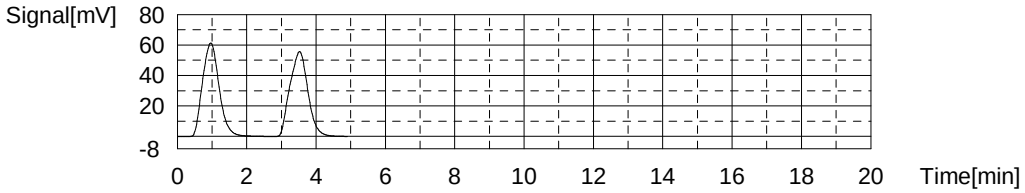
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.14mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	206.5	48.50mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:16:01 AM
2	203.5	47.79mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:18:35 AM

Mean Area 205.0
Mean Conc. 48.14mg/L



Sample

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

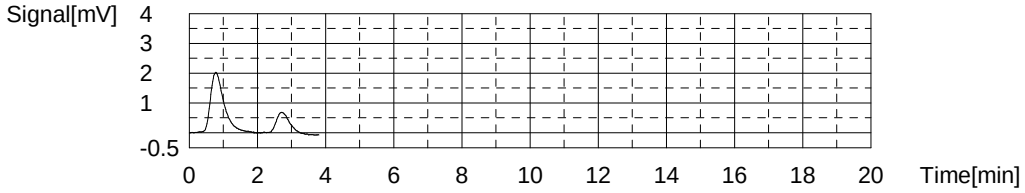
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4848mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.426	0.9025mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:35:44 AM
2	1.897	0.06712mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:37:47 AM

Mean Area 3.662
Mean Conc. 0.4848mg/L



Sample

Sample Name: 460-68142-b-6
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

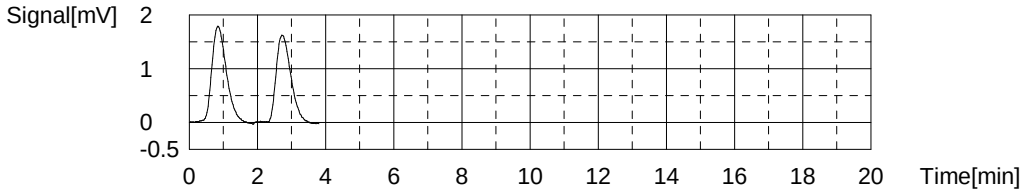
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.8082mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.277	0.8672mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:54:56 AM
2	4.778	0.7491mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:56:59 AM

Mean Area 5.027
Mean Conc. 0.8082mg/L



Sample

Sample Name: 460-68142-c-7
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

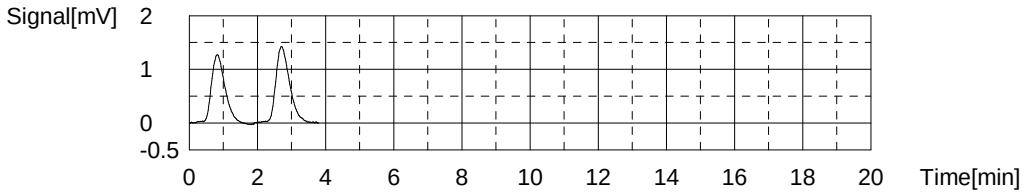
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4856mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.473	0.4402mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 2:14:08 AM
2	3.857	0.5311mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 2:16:11 AM

Mean Area 3.665
Mean Conc. 0.4856mg/L



Sample

Sample Name: 460-68249-e-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

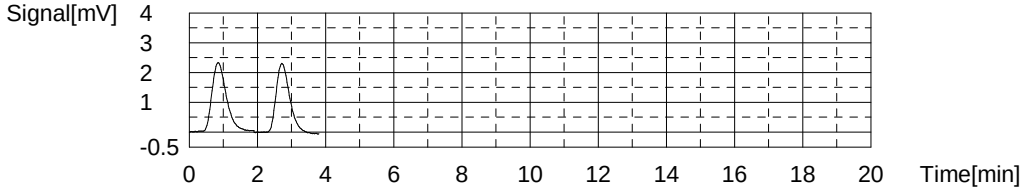
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.168mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.658	1.194mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 2:33:20 AM
2	6.441	1.143mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 2:35:23 AM

Mean Area 6.550
Mean Conc. 1.168mg/L



Sample

Sample Name: 460-68249-e-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

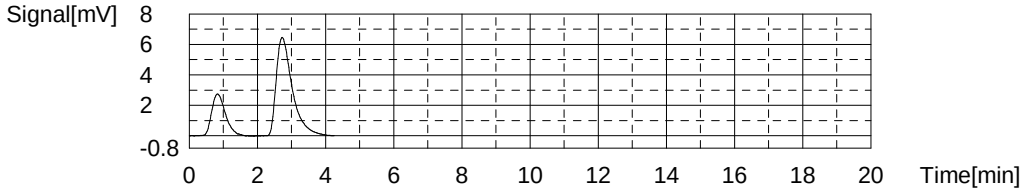
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:3.067mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	7.739	1.450mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 2:52:32 AM
2	21.40	4.684mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 2:55:02 AM

Mean Area 14.57
Mean Conc. 3.067mg/L



Sample

Sample Name: 460-68249-g-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

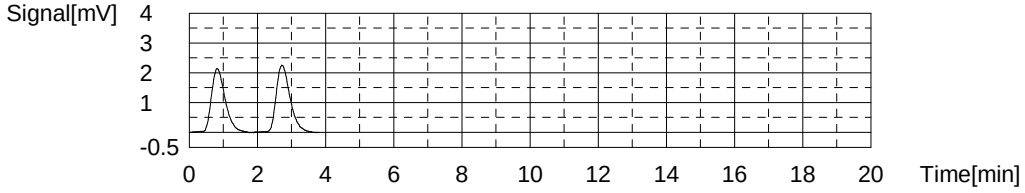
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.069mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	5.943	1.025mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 3:12:14 AM
2	6.315	1.113mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 3:14:17 AM

Mean Area 6.129
Mean Conc. 1.069mg/L



Sample

Sample Name: 460-68260-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

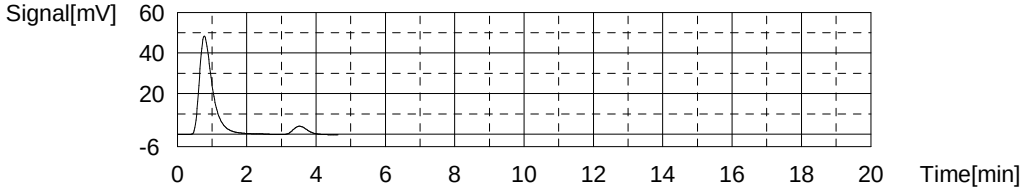
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:16.32mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	129.3	30.23mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 3:32:11 AM
2	11.85	2.423mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 3:34:19 AM

Mean Area 70.58
Mean Conc. 16.32mg/L



Sample

Sample Name: 460-68260-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

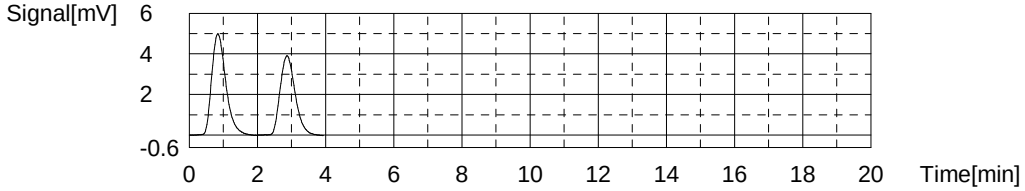
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.745mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.38	3.022mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 3:51:32 AM
2	12.04	2.468mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 3:53:39 AM

Mean Area 13.21
Mean Conc. 2.745mg/L



Sample

Sample Name: 460-68260-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

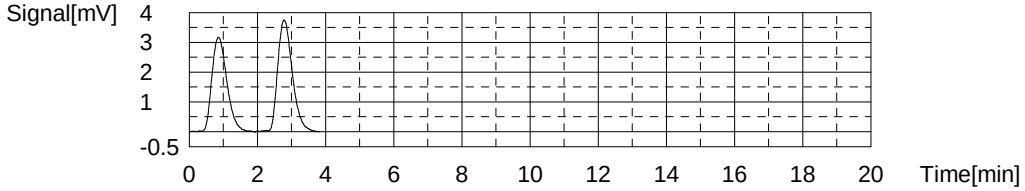
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.084mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.705	1.915mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 4:10:50 AM
2	11.13	2.253mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 4:12:53 AM

Mean Area 10.42
Mean Conc. 2.084mg/L



Sample

Sample Name: 460-68260-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

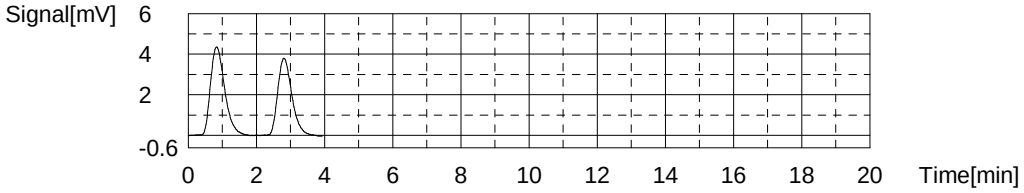
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.435mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	12.73	2.631mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 4:30:05 AM
2	11.07	2.238mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 4:32:13 AM

Mean Area 11.90
Mean Conc. 2.435mg/L



Sample

Sample Name: 460-68260-b-5
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

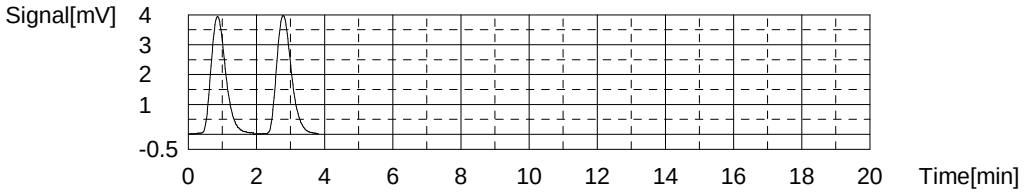
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.410mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	11.62	2.369mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 4:49:23 AM
2	11.97	2.452mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 4:51:26 AM

Mean Area 11.80
Mean Conc. 2.410mg/L



Sample

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

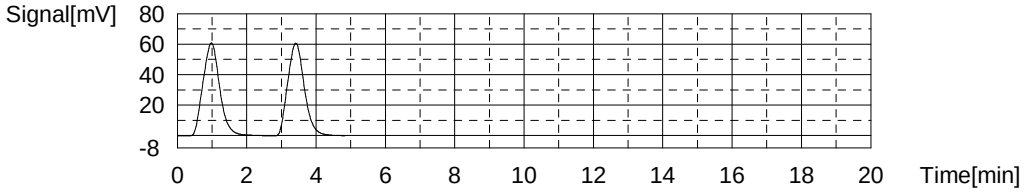
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.04mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	205.2	48.19mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 5:09:08 AM
2	203.9	47.88mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 5:11:40 AM

Mean Area 204.6
Mean Conc. 48.04mg/L



Sample

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

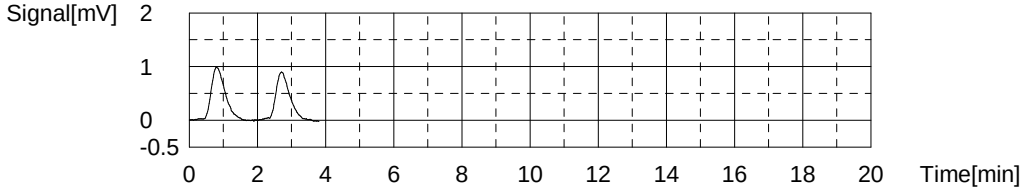
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2186mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.737	0.2660mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 5:28:59 AM
2	2.337	0.1713mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 5:31:02 AM

Mean Area 2.537
Mean Conc. 0.2186mg/L



Sample

Sample Name: 460-68260-b-6
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

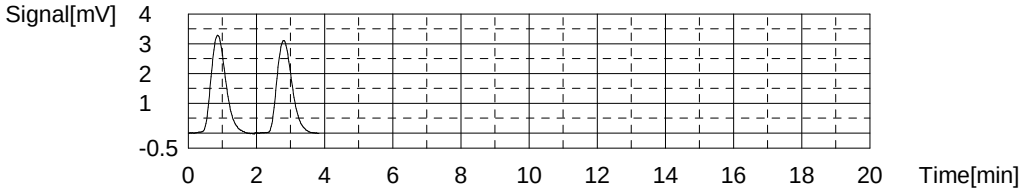
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.910mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.874	1.955mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 5:48:51 AM
2	9.489	1.864mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 5:50:55 AM

Mean Area 9.681
Mean Conc. 1.910mg/L



Sample

Sample Name: 460-68260-b-7
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

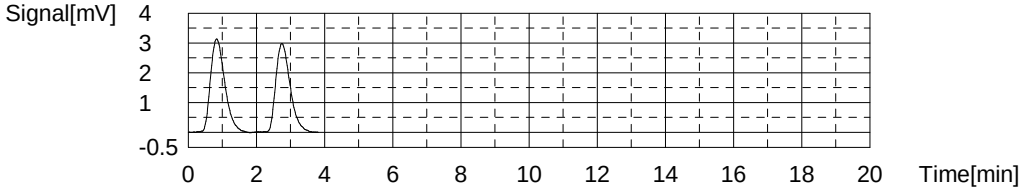
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.723mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	9.104	1.773mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 6:08:06 AM
2	8.678	1.672mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 6:10:09 AM

Mean Area 8.891
Mean Conc. 1.723mg/L



Sample

Sample Name: 460-68260-b-8
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

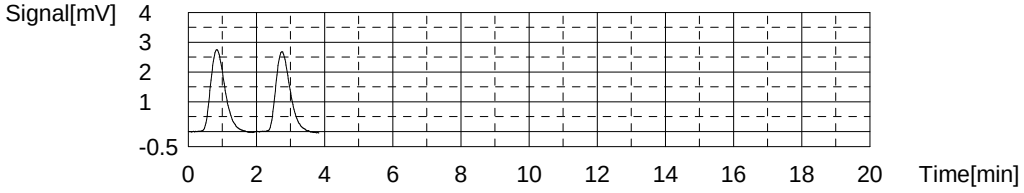
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.513mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	8.123	1.541mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 6:27:20 AM
2	7.890	1.486mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 6:29:24 AM

Mean Area 8.007
Mean Conc. 1.513mg/L



Sample

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

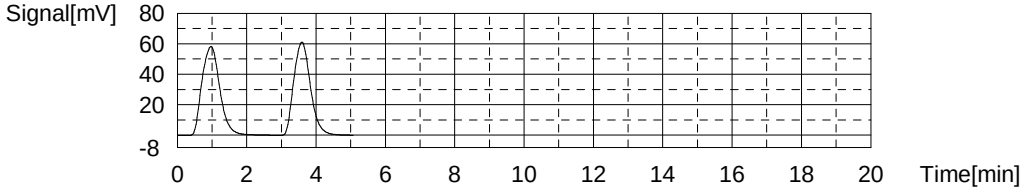
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.95mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	210.2	49.38mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 6:47:19 AM
2	206.6	48.52mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 6:49:53 AM

Mean Area 208.4
Mean Conc. 48.95mg/L



Sample

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

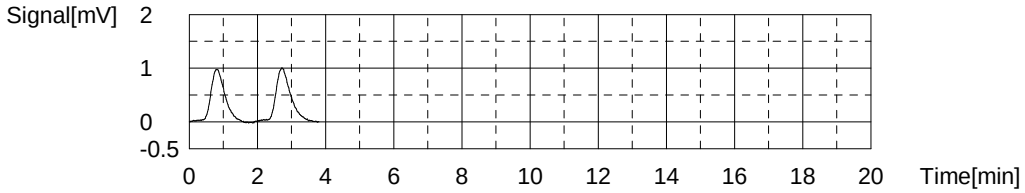
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.2681mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.679	0.2522mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 7:07:03 AM
2	2.813	0.2839mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 7:09:06 AM

Mean Area 2.746
Mean Conc. 0.2681mg/L



Sample

Sample Name: 460-67893-d-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

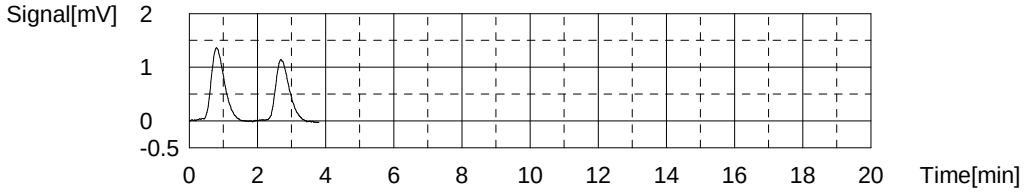
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.4126mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	3.568	0.4627mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 8:50:59 AM
2	3.145	0.3625mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 8:53:03 AM

Mean Area 3.357
Mean Conc. 0.4126mg/L



Sample

Sample Name: 460-68142-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

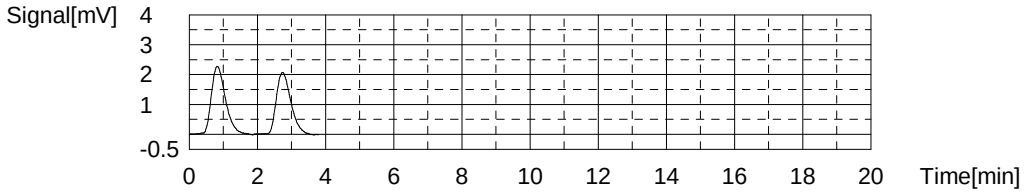
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.112mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.481	1.152mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 9:38:56 AM
2	6.140	1.071mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 9:41:00 AM

Mean Area 6.311
Mean Conc. 1.112mg/L



Sample

Sample Name: 460-68249-e-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

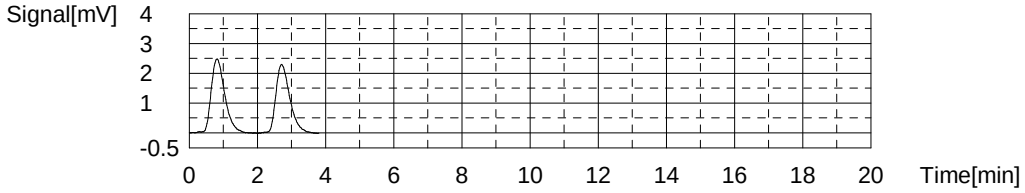
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:1.186mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	6.780	1.223mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 9:58:10 AM
2	6.470	1.150mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 10:00:13 AM

Mean Area 6.625
Mean Conc. 1.186mg/L



Sample

Sample Name: 460-68260-b-1
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

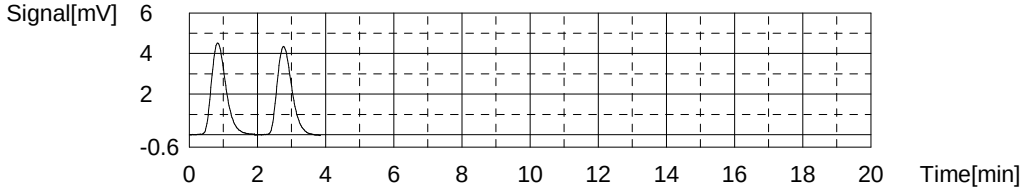
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.738mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	13.24	2.752mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 10:17:24 AM
2	13.12	2.724mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 10:19:32 AM

Mean Area 13.18
Mean Conc. 2.738mg/L



Sample

Sample Name: 460-68260-b-2
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

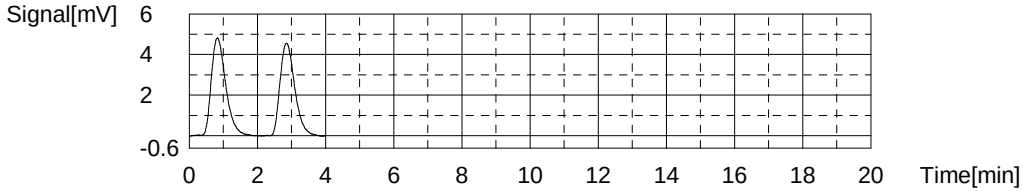
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.932mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.21	2.982mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 11:16:47 AM
2	13.79	2.882mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 11:18:55 AM

Mean Area 14.00
Mean Conc. 2.932mg/L



Sample

Sample Name: 460-68260-b-3
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

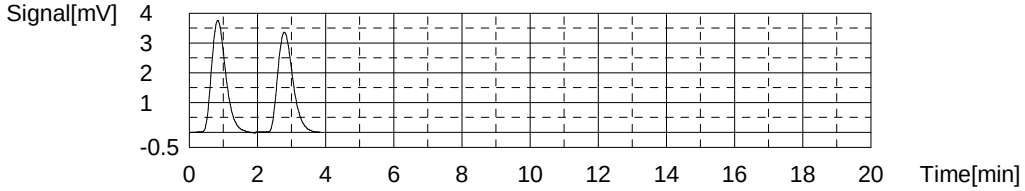
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.143mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	10.95	2.210mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 11:36:07 AM
2	10.38	2.075mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 11:38:10 AM

Mean Area 10.67
Mean Conc. 2.143mg/L



Sample

Sample Name: 460-68260-b-4
Sample ID: <Untitled>
Origin: method 5310b.met
Status Completed
Chk. Result

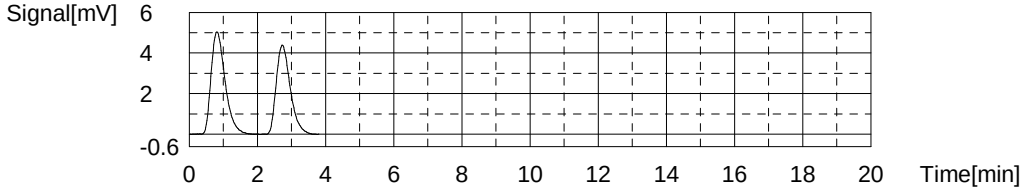
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:2.843mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	14.52	3.055mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 12:58:55 PM
2	12.73	2.631mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:00:59 PM

Mean Area 13.63
Mean Conc. 2.843mg/L



Sample

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

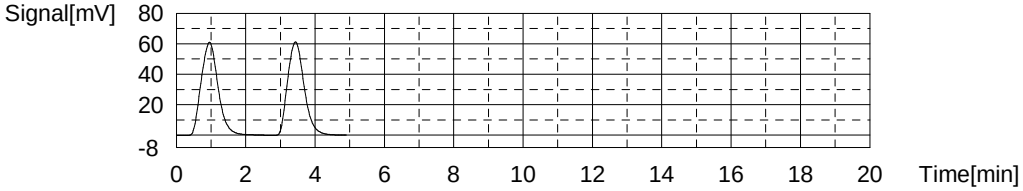
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:48.55mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	208.3	48.93mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:18:46 PM
2	205.1	48.17mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:21:18 PM

Mean Area 206.7
Mean Conc. 48.55mg/L



Sample

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

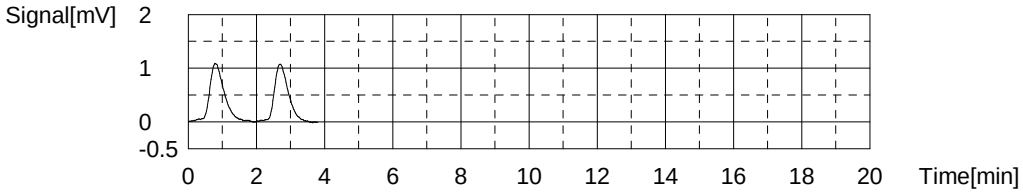
Type	Anal.	Dil.	Result
Unknown	NPOC	1.000	NPOC:0.3025mg/L

1. Det

Anal.: NPOC

No.	Area	Conc.	Inj. Vol.	Aut. Dil.	Ex.	Cal. Curve	Date / Time
1	2.909	0.3067mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:38:28 PM
2	2.874	0.2984mg/L	50uL	1		HV131205.2013_12_05_13_43_06.cal	12/17/2013 1:40:31 PM

Mean Area 2.892
Mean Conc. 0.3025mg/L



	Sample Name	Origin	Dil	Result	Status	Date / Time	Vial
1	ICV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.23mg/L	Complete	12/16/2013 9:23:33 PM	1
2	ICB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2488mg/L	Complete	12/16/2013 9:42:45 PM	2
3	MB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.03007mg/L	Complete	12/16/2013 10:01:57 PM	3
4	LCSSRM	C:\TOC3201\Methods\method 5310b	1.0	NPOC:71.51mg/L	Complete	12/16/2013 10:22:06 PM	4
5	460-67893-d-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:5.167mg/L	Complete	12/16/2013 10:41:21 PM	5
6	460-67893-d-1 MS	C:\TOC3201\Methods\method 5310b	1.0	NPOC:50.46mg/L	Complete	12/16/2013 11:01:47 PM	6
7	460-67893-d-1 MSD	C:\TOC3201\Methods\method 5310b	1.0	NPOC:50.32mg/L	Complete	12/16/2013 11:22:01 PM	7
8	460-67824-j-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.3437mg/L	Complete	12/16/2013 11:41:13 PM	8
9	460-68142-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.674mg/L	Complete	12/17/2013 12:00:25 AM	9
10	460-68142-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.6224mg/L	Complete	12/17/2013 12:19:37 AM	10
11	460-68142-c-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.4424mg/L	Complete	12/17/2013 12:38:59 AM	11
12	460-68142-b-5	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.443mg/L	Complete	12/17/2013 12:58:17 AM	12
13	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.14mg/L	Complete	12/17/2013 1:18:35 AM	13
14	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.4848mg/L	Complete	12/17/2013 1:37:47 AM	14
15	460-68142-b-6	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.8082mg/L	Complete	12/17/2013 1:56:59 AM	15
16	460-68142-c-7	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.4856mg/L	Complete	12/17/2013 2:16:11 AM	16
17	460-68249-e-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.168mg/L	Complete	12/17/2013 2:35:23 AM	17
18	460-68249-e-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:3.067mg/L	Complete	12/17/2013 2:55:02 AM	18
19	460-68249-g-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.069mg/L	Complete	12/17/2013 3:14:17 AM	19
20	460-68260-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:16.32mg/L	Complete	12/17/2013 3:34:19 AM	20
21	460-68260-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.745mg/L	Complete	12/17/2013 3:53:39 AM	21
22	460-68260-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.084mg/L	Complete	12/17/2013 4:12:53 AM	22
23	460-68260-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.435mg/L	Complete	12/17/2013 4:32:13 AM	23
24	460-68260-b-5	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.410mg/L	Complete	12/17/2013 4:51:26 AM	24
25	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.04mg/L	Complete	12/17/2013 5:11:40 AM	25
26	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2186mg/L	Complete	12/17/2013 5:31:02 AM	26
27	460-68260-b-6	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.910mg/L	Complete	12/17/2013 5:50:55 AM	27
28	460-68260-b-7	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.723mg/L	Complete	12/17/2013 6:10:09 AM	28
29	460-68260-b-8	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.513mg/L	Complete	12/17/2013 6:29:24 AM	29
30	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.95mg/L	Complete	12/17/2013 6:49:53 AM	30
31	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.2681mg/L	Complete	12/17/2013 7:09:06 AM	31
32	460-67893-d-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.4126mg/L	Complete	12/17/2013 8:53:03 AM	32
33	460-68142-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.112mg/L	Complete	12/17/2013 9:41:00 AM	33
34	460-68249-e-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:1.186mg/L	Complete	12/17/2013 10:00:13 AM	34
35	460-68260-b-1	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.738mg/L	Complete	12/17/2013 10:19:32 AM	35
36	460-68260-b-2	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.932mg/L	Complete	12/17/2013 11:18:55 AM	36
37	460-68260-b-3	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.143mg/L	Complete	12/17/2013 11:38:10 AM	37
38	460-68260-b-4	C:\TOC3201\Methods\method 5310b	1.0	NPOC:2.843mg/L	Complete	12/17/2013 1:00:59 PM	38
39	CCV	C:\TOC3201\Methods\method 5310b	1.0	NPOC:48.55mg/L	Complete	12/17/2013 1:21:18 PM	39
40	CCB	C:\TOC3201\Methods\method 5310b	1.0	NPOC:0.3025mg/L	Complete	12/17/2013 1:40:31 PM	40

Instr.Information

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

Cal. Curve

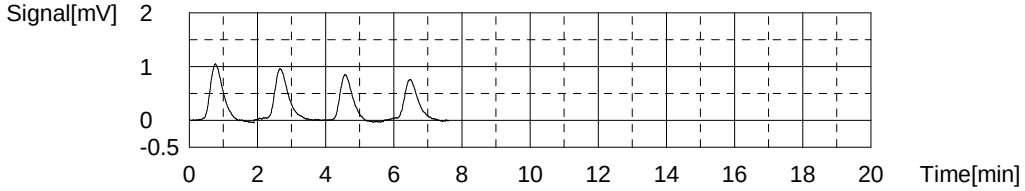
Sample Name:	Untitled
Sample ID:	Untitled
Cal. Curve:	HV131205.2013_12_05_13_43_06.cal
Status	Completed

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

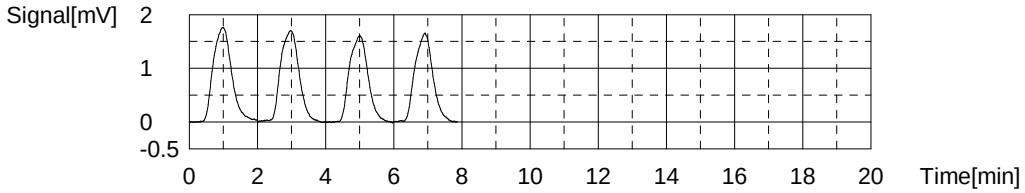
Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 2.309



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

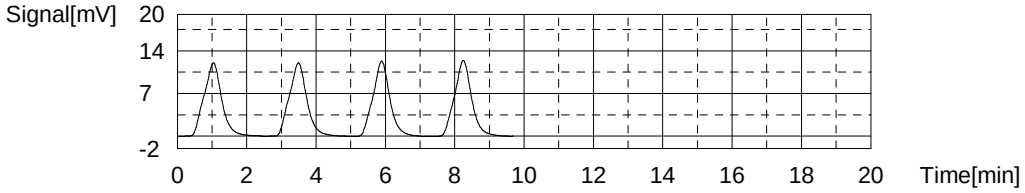
Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 6.187



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

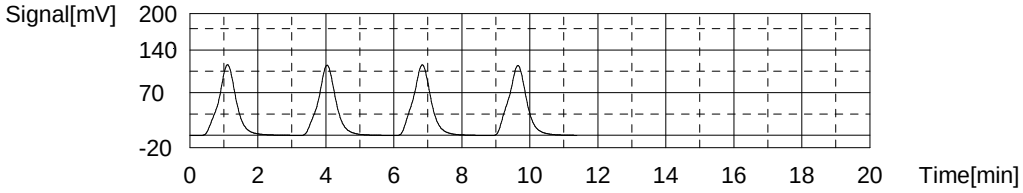
Acid Add. 1.500%
Sp. Time 600.0sec
Mean Area 42.70



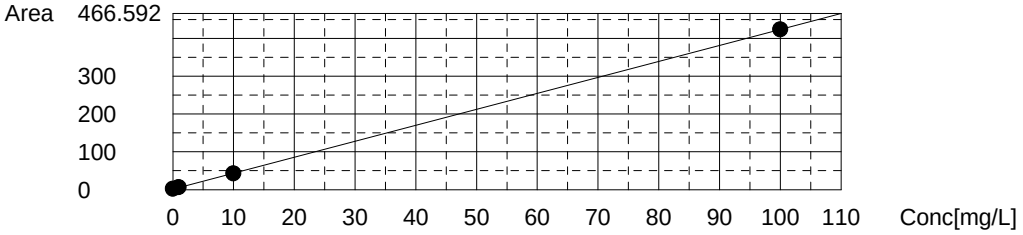
Conc: 100.0mg/L

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: ~~Juan~~ Sarah SB 12/23/13
ACQ. TIME: Dec 23, 2013 16:48:43
DATA FILENAME: C:\OMNION\DATA\AMMONIA\DATA2013\A131223.FDT
METHOD FILENAME: C:\OMNION\METHODS\AMMONIA.MET
TRAY FILENAME:

TRAY DESCRIPTION:
Created: Jan 28, 2013 14:17:09
Modified: Dec 23, 2013 17:09:37

DATA DESCRIPTION:
Created: Dec 23, 2013 16:48:43
Modified: Dec 23, 2013 16:48:43

Method - Ch. 1 (ammonia)

METHOD DESCRIPTION:
Created: Oct 20, 2012 10:22:20
Modified: Dec 18, 2013 14:54:33
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 ***

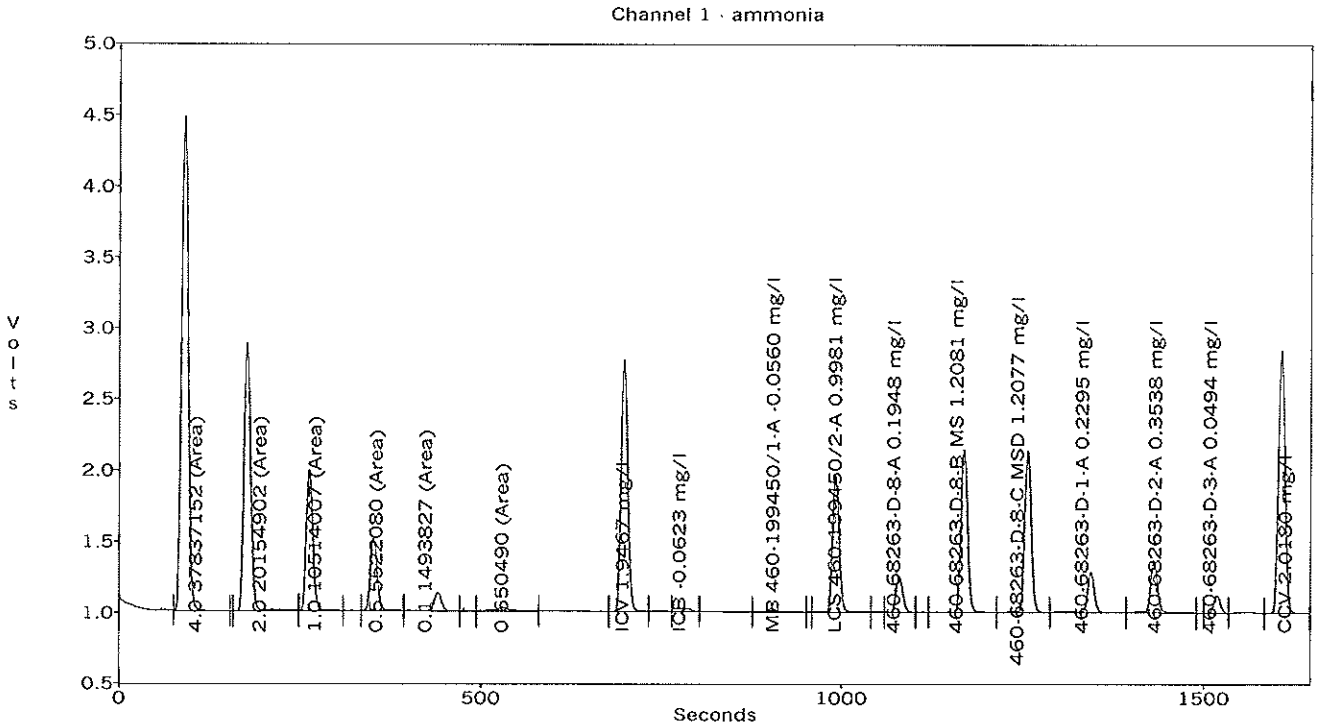
VALVE TIMING:
Method Cycle Period: 90.0
Sample Reaches 1st Valve: 30.0
Valve: On
Load Time: 0.0
Load Period: 18.0
Inject Period: 72.0

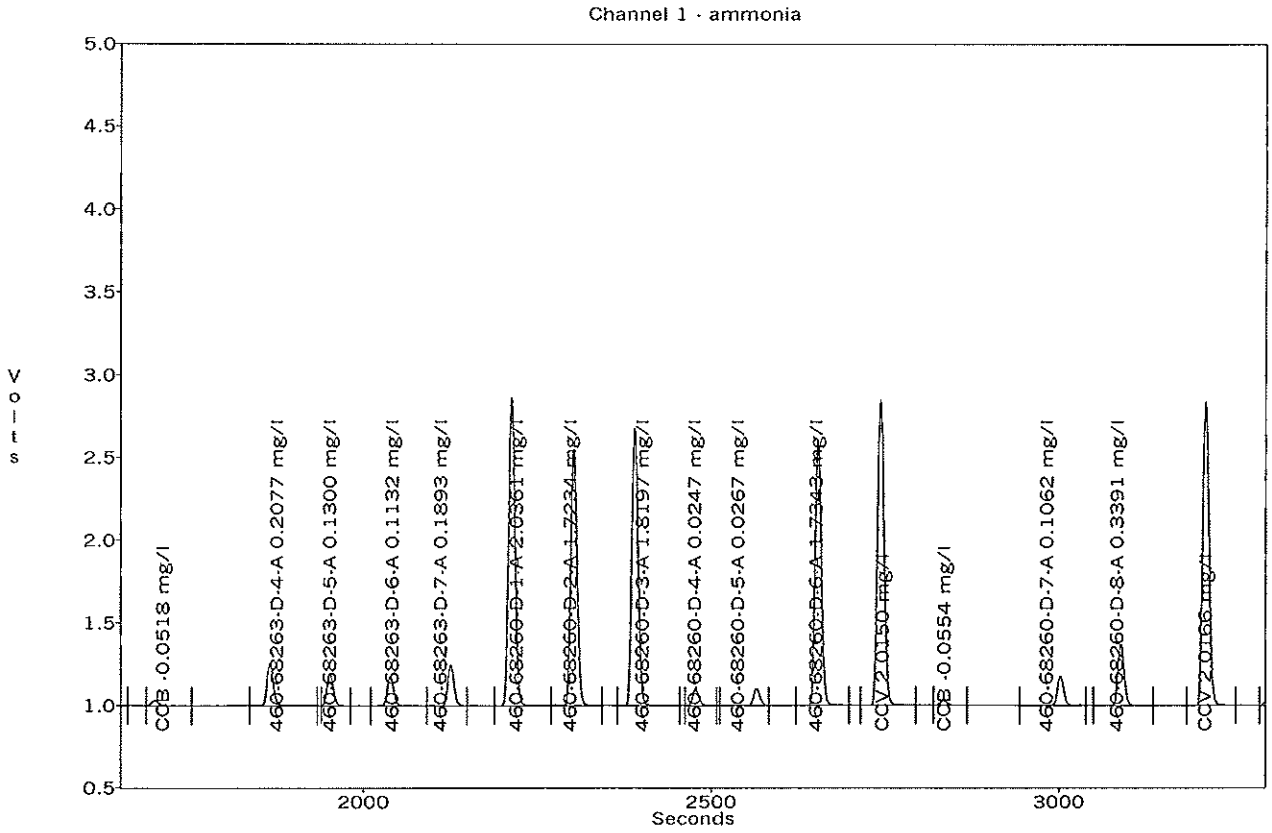
Multi-Channel Table
Type: Calibration Standards
Channel Range: 1 to 1 -- Cup Range: 1 to 8

Cup	Sample ID	Sampling Date	Sampling Time	# of Reps	ammonia (uv-s)	Man Dil Factor	Weight	Unit
1	4.0	23 Dec 2013	16:48:44	1	37837152.00	1.0	1.00000	g
2	2.0	23 Dec 2013	16:50:11	1	20154902.00	1.0	1.00000	g
3	1.0	23 Dec 2013	16:51:38	1	10514007.00	1.0	1.00000	g
4	0.5	23 Dec 2013	16:53:07	1	5522080.00	1.0	1.00000	g
5	0.1	23 Dec 2013	16:54:35	1	1493827.00	1.0	1.00000	g
6	0	23 Dec 2013	16:56:04	1	650490.00	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	23 Dec 2013	16:58:52	1	1.9467	1.0	1.00	1.00000	g
2	ICB	23 Dec 2013	17:00:21	1	-0.0623	1.0	1.00	1.00000	g
3	MB 460-199450/1-A	23 Dec 2013	17:02:18	1	-0.0560	1.0	1.00	1.00000	g
4	LCS 460-199450/2-A	23 Dec 2013	17:03:46	1	0.9981	1.0	1.00	1.00000	g
5	460-68263-D-8-A	23 Dec 2013	17:05:14	1	0.1948	1.0	1.00	1.00000	g
6	460-68263-D-8-B MS	23 Dec 2013	17:06:43	1	1.2081	1.0	1.00	1.00000	g
7	460-68263-D-8-C MSD	23 Dec 2013	17:08:10	1	1.2077	1.0	1.00	1.00000	g
8	460-68263-D-1-A	23 Dec 2013	17:09:38	1	0.2295	1.0	1.00	1.00000	g
9	460-68263-D-2-A	23 Dec 2013	17:11:06	1	0.3538	1.0	1.00	1.00000	g
10	460-68263-D-3-A	23 Dec 2013	17:12:33	1	0.0494	1.0	1.00	1.00000	g
11	460-68263-D-4-A	23 Dec 2013	17:18:20	1	0.2077	1.0	1.00	1.00000	g
12	460-68263-D-5-A	23 Dec 2013	17:19:47	1	0.1300	1.0	1.00	1.00000	g
13	460-68263-D-6-A	23 Dec 2013	17:21:13	1	0.1132	1.0	1.00	1.00000	g
14	460-68263-D-7-A	23 Dec 2013	17:22:40	1	0.1893	1.0	1.00	1.00000	g
15	460-68260-D-1-A	23 Dec 2013	17:24:06	1	2.0361	1.0	1.00	1.00000	g
16	460-68260-D-2-A	23 Dec 2013	17:25:35	1	1.7234	1.0	1.00	1.00000	g
17	460-68260-D-3-A	23 Dec 2013	17:27:04	1	1.8197	1.0	1.00	1.00000	g
18	460-68260-D-4-A	23 Dec 2013	17:28:33	1	0.0247	1.0	1.00	1.00000	g
19	460-68260-D-5-A	23 Dec 2013	17:30:01	1	0.0267	1.0	1.00	1.00000	g
20	460-68260-D-6-A	23 Dec 2013	17:31:30	1	1.7343	1.0	1.00	1.00000	g
21	460-68260-D-7-A	23 Dec 2013	17:37:17	1	0.1062	1.0	1.00	1.00000	g
22	460-68260-D-8-A	23 Dec 2013	17:38:45	1	0.3391	1.0	1.00	1.00000	g


Channel 1 · ammonia
Volts
Seconds
4.0 37.37152 (Area)
2.0 20154902 (Area)
1.0 10514007 (Area)
0.5 5622080 (Area)
0.1 1493827 (Area)
0 550490 (Area)
ICV 1.9467 mg/l
ICB -0.0623 mg/l
MB 460-199450/1-A -0.0560 mg/l
LCS 460-199450/2-A 0.9981 mg/l
460-68263-D-8-A 0.1948 mg/l
460-68263-D-8-B MS 1.2081 mg/l
460-68263-D-8-C MSD 1.2077 mg/l
460-68263-D-1-A 0.2295 mg/l
460-68263-D-2-A 0.3538 mg/l
460-68263-D-3-A 0.0494 mg/l
CCV 2.0180 mg/l


Channel 1 · ammonia
Volts
Seconds
CCB -0.0518 mg/l
460-68263-D-4-A 0.2077 mg/l
460-68263-D-5-A 0.1300 mg/l
460-68263-D-6-A 0.1132 mg/l
460-68263-D-7-A 0.1893 mg/l
460-68260-D-1-A 2.0361 mg/l
460-68260-D-2-A 1.7234 mg/l
460-68260-D-3-A 1.8197 mg/l
460-68260-D-4-A 0.0247 mg/l
460-68260-D-5-A 0.0267 mg/l
460-68260-D-6-A 1.7343 mg/l
CCV 2.0150 mg/l
CCB -0.0554 mg/l
460-68260-D-7-A 0.1062 mg/l
460-68260-D-8-A 0.3391 mg/l
CCV 2.0156 mg/l

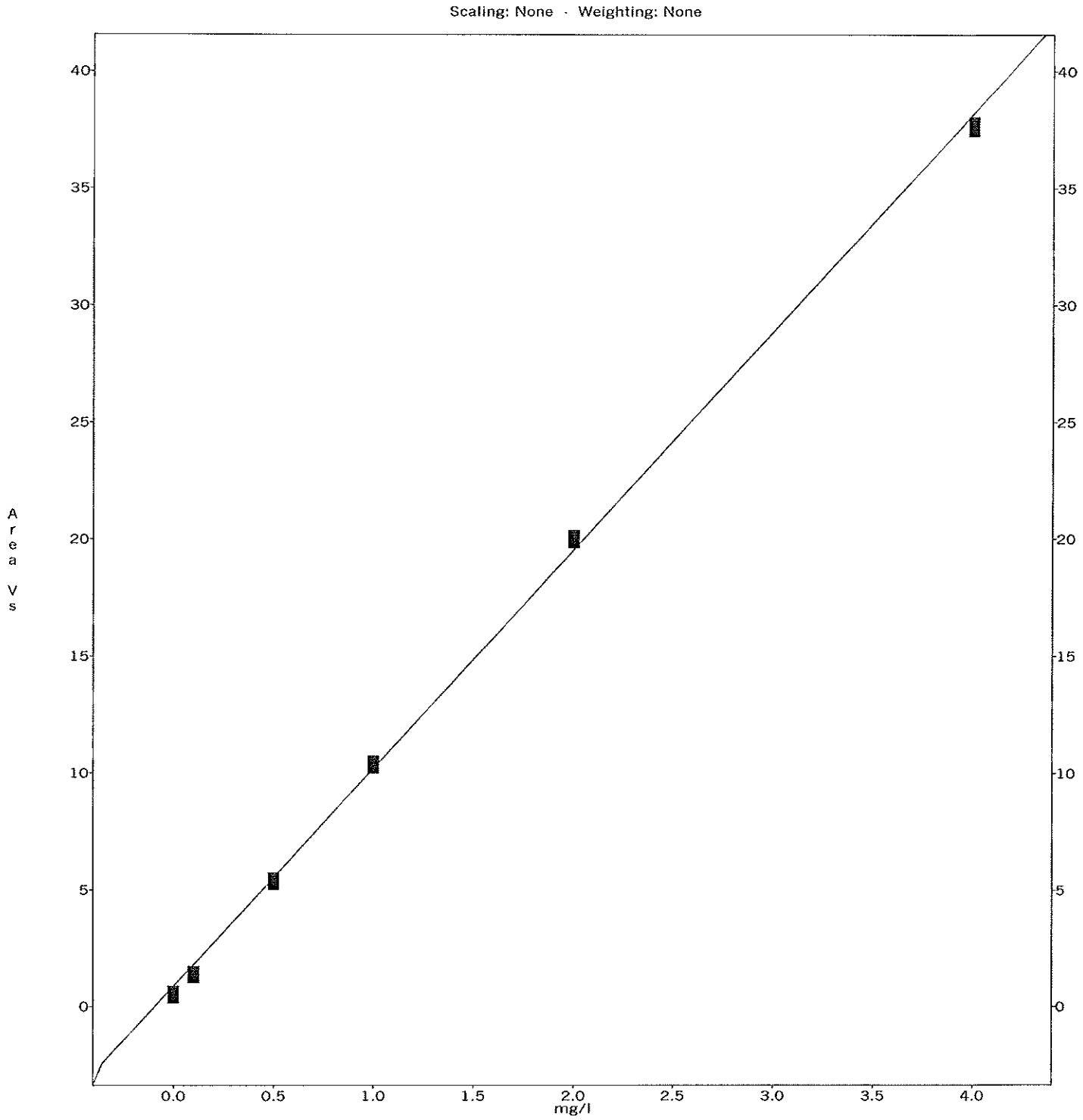
Multi-Channel Table
Type: DQM
Channel Range: 1 to 8 -- Cup Range: 1 to 50

Cup	Sample ID	Sample Type	Sampling Date	Sampling Time	Rep #	ammonia (mg/l)	Man Dil Factor	Auto Dil Factor	Weight	Unit
15	CCV	RelChkStd	23 Dec 2013	17:14:03	1	2.02	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		0.90				
15	CCV	RelChkStd	23 Dec 2013	17:32:59	1	2.02	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		0.75				
15	CCV	RelChkStd	23 Dec 2013	17:40:47	1	2.02	1.0	1.00	1.00000	g
				Known Concentration:		2.00				
				% Difference:		0.83				
16	CCB	Blank	23 Dec 2013	17:15:34	1	-0.05	1.0	1.00	1.00000	g
16	CCB	Blank	23 Dec 2013	17:34:29	1	-0.06	1.0	1.00	1.00000	g
16	CCB	Blank	23 Dec 2013	17:42:18	1	-0.06	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	37837152	4.0	37837152	37501268				237505.9	0.6	1.1
2	20154902	2.0	20154902	19886502				189787.5	0.9	-3.3
3	10514007	1.0	10514007	10258829				180438.1	1.7	-3.3
4	5522080	0.5	5522080	5274269				175228.8	3.2	0.2
5	1493827	0.1	1493827	1278813				152037.9	11.0	32.4
6	650490	0.0	650490	390390				183918.5	35.3	

1st Order Poly
Conc = 1.070e-007 Area - 9.229e-002
r = 0.9996



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_002.d
Lims ID: STD1 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 13-Dec-2013 11:24:24 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 002 Name: 480-0028121-002
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:45 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK031

First Level Reviewer: cudneyk Date: 13-Dec-2013 11:38:57

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.983	1.893	2.110	1479	4.29	4.36		1 Fluoride
2.870	2.727	3.130	22582	65.57	5.21		2 Chloride
4.447	4.347	4.553	283	0.82	6.15		3 Bromide
4.757	4.553	4.957	2614	7.59	7.06		
5.703	5.533	5.900	7480	21.72	5.67		5 Sulfate
			34438			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

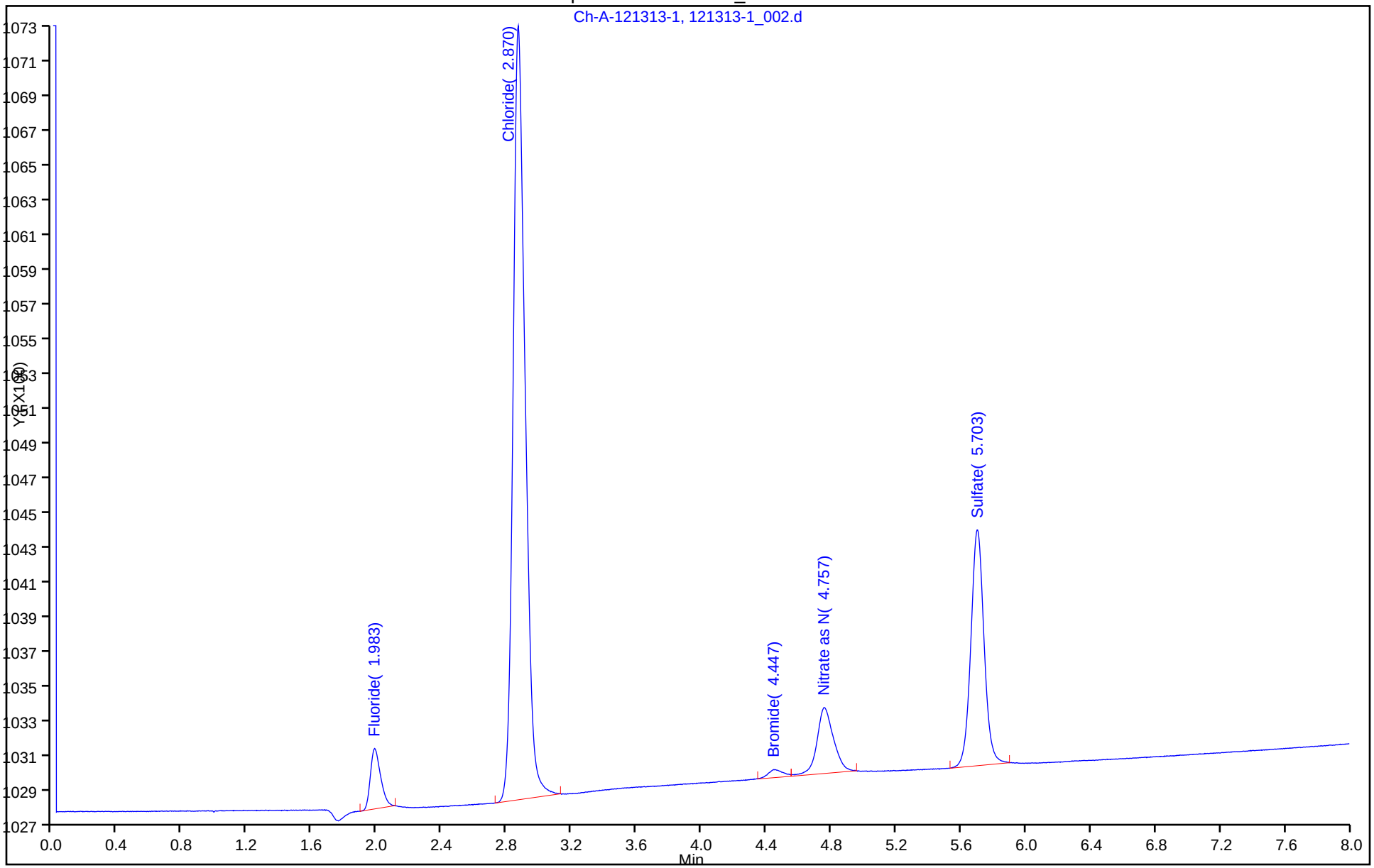
Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_002.d				
Lims ID:	STD1	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	13-Dec-2013 11:24:24	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 002 Name: 480-0028121-002				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	13-Dec-2013 13:08:45	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK031				
First Level Reviewer: cudneyk		Date:	13-Dec-2013 11:38:57		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.983	1.997	-0.014	1479	0.0483	
2 Chloride					
2.870	2.867	0.003	22582	0.8588	
3 Bromide					
4.447	4.443	0.004	283	0.0359	
4 Nitrate as N					
4.757	4.723	0.034	2614	0	
5 Sulfate					
5.703	5.620	0.083	7480	0.4534	

Report Date: 13-Dec-2013 13:08:46 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_002.d				
Injection Date:	13-Dec-2013 11:24:24	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\20131213-28121.b\121313-1_003.d
Lims ID: STD2 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 13-Dec-2013 11:34:31 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 003 Name: 480-0028121-003
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:44 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK031

First Level Reviewer: cudneyk Date: 13-Dec-2013 11:48:50

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	2.133	3212	5.93	4.38		1 Fluoride
2.870	2.730	3.170	31055	57.34	5.23		2 Chloride
4.453	4.330	4.563	611	1.13	6.43		3 Bromide
4.757	4.563	5.023	4878	9.01	7.05		
5.700	5.523	5.927	14405	26.60	5.67		5 Sulfate
			54161			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

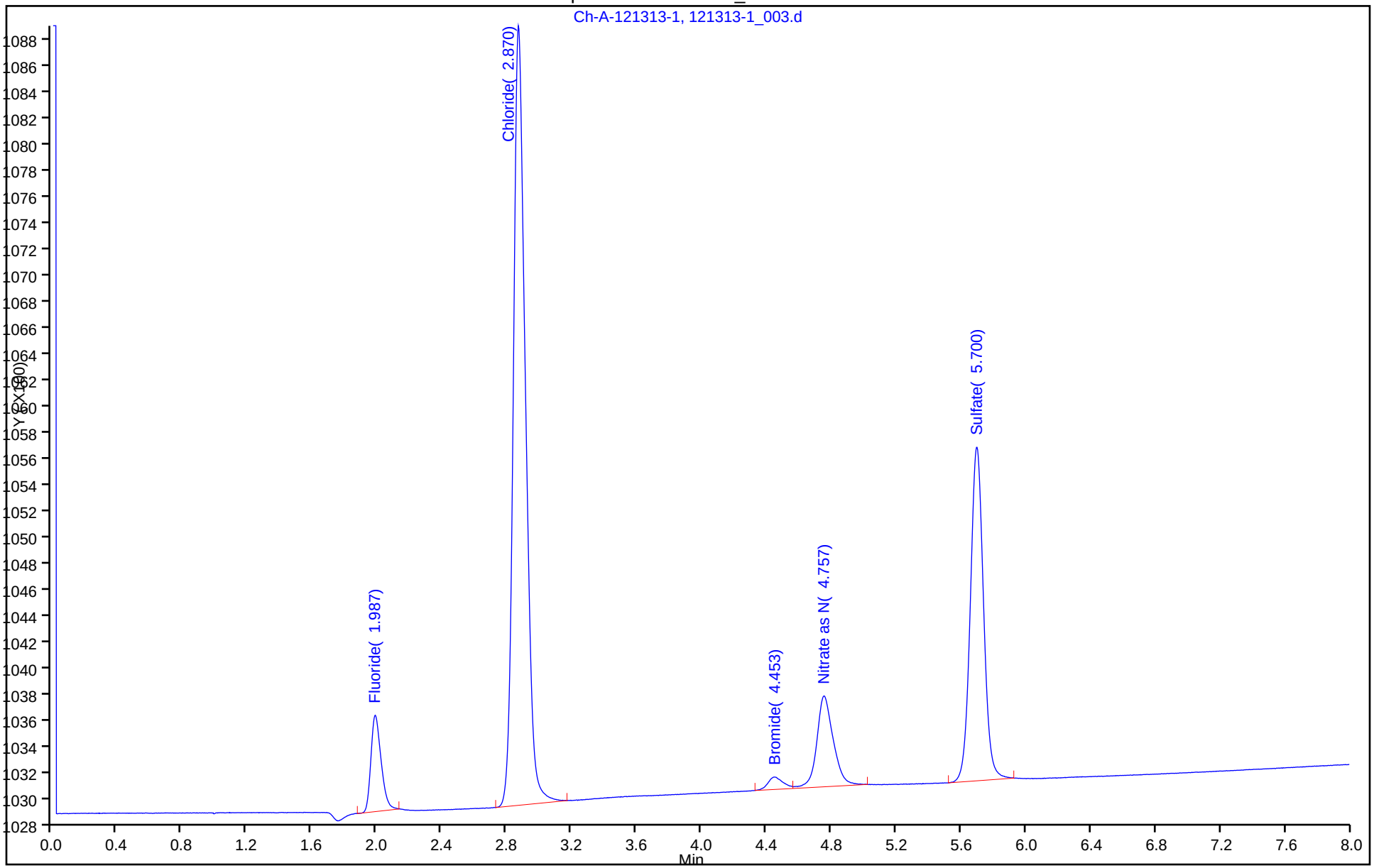
Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_003.d				
Lims ID:	STD2	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	13-Dec-2013 11:34:31	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 003 Name: 480-0028121-003				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	13-Dec-2013 13:08:44	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK031				
First Level Reviewer: cudneyk		Date:	13-Dec-2013 11:48:50		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.987	1.997	-0.010	3212	0.1048	
2 Chloride					
2.870	2.867	0.003	31055	1.31	
3 Bromide					
4.453	4.443	0.010	611	0.0774	
4 Nitrate as N					
4.757	4.723	0.034	4878	0	
5 Sulfate					
5.700	5.620	0.080	14405	0.9637	

Report Date: 13-Dec-2013 13:08:45 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_003.d				
Injection Date:	13-Dec-2013 11:34:31	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\20131213-28121.b\121313-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Dec-2013 11:44:39 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028121-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:43 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK031

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	1.867	2.243	16541	7.41	4.45		1 Fluoride
2.873	2.710	3.183	109977	49.24	5.27		2 Chloride
4.450	4.303	4.593	3490	1.56	6.24		3 Bromide
4.753	4.593	5.050	22622	10.13	6.96		
5.683	5.517	6.030	70740	31.67	6.03		5 Sulfate
			223370			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\20131213-28121.b\121313-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Dec-2013 11:44:39 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028121-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:43 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK031

Start Cal Date: 13-Dec-2013 11:14:16
End Cal Date: 13-Dec-2013 12:15:03

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	0.5000	-0.007	0.5399	33082	8.0	0
2 Chloride	5.00	0.006	5.49	21995	9.8	0
3 Bromide	0.5000	0.007	0.4421	6980.00	-11.6	0
5 Sulfate	5.00	0.063	5.11	14148	2.3	0

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_004.d
Lims ID: STD3 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 13-Dec-2013 11:44:39 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 004 Name: 480-0028121-004
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:43 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

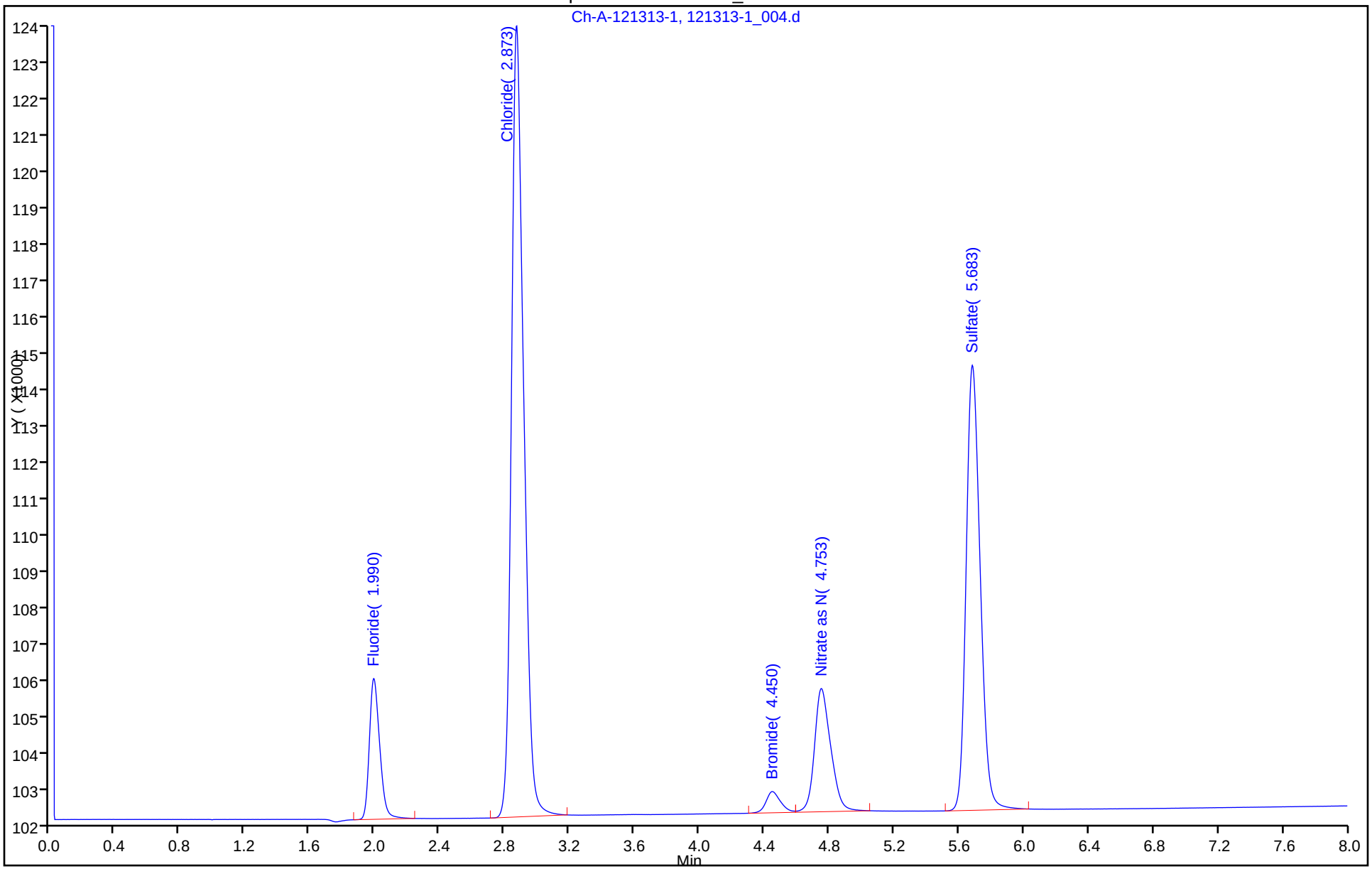
Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK031

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.990	1.997	-0.007	16541	0.5399	
2 Chloride					
2.873	2.867	0.006	109977	5.49	
3 Bromide					
4.450	4.443	0.007	3490	0.4421	
4 Nitrate as N					
4.753	4.723	0.030	22622	0	
5 Sulfate					
5.683	5.620	0.063	70740	5.11	

Report Date: 13-Dec-2013 13:08:44 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_004.d				
Injection Date:	13-Dec-2013 11:44:39	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\20131213-28121.b\121313-1_005.d
Lims ID: STD4 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 13-Dec-2013 11:54:47 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 005 Name: 480-0028121-005
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:42 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK031

First Level Reviewer: cudneyk Date: 13-Dec-2013 12:26:48

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	1.873	2.280	62065	7.56	4.75		1 Fluoride
2.867	2.707	3.297	378315	46.07	5.27		2 Chloride
4.443	4.273	4.583	15231	1.85	6.02		3 Bromide
4.723	4.583	5.103	91408	11.13	7.46		
5.620	5.487	6.077	274100	33.38	7.41		5 Sulfate
			821119			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

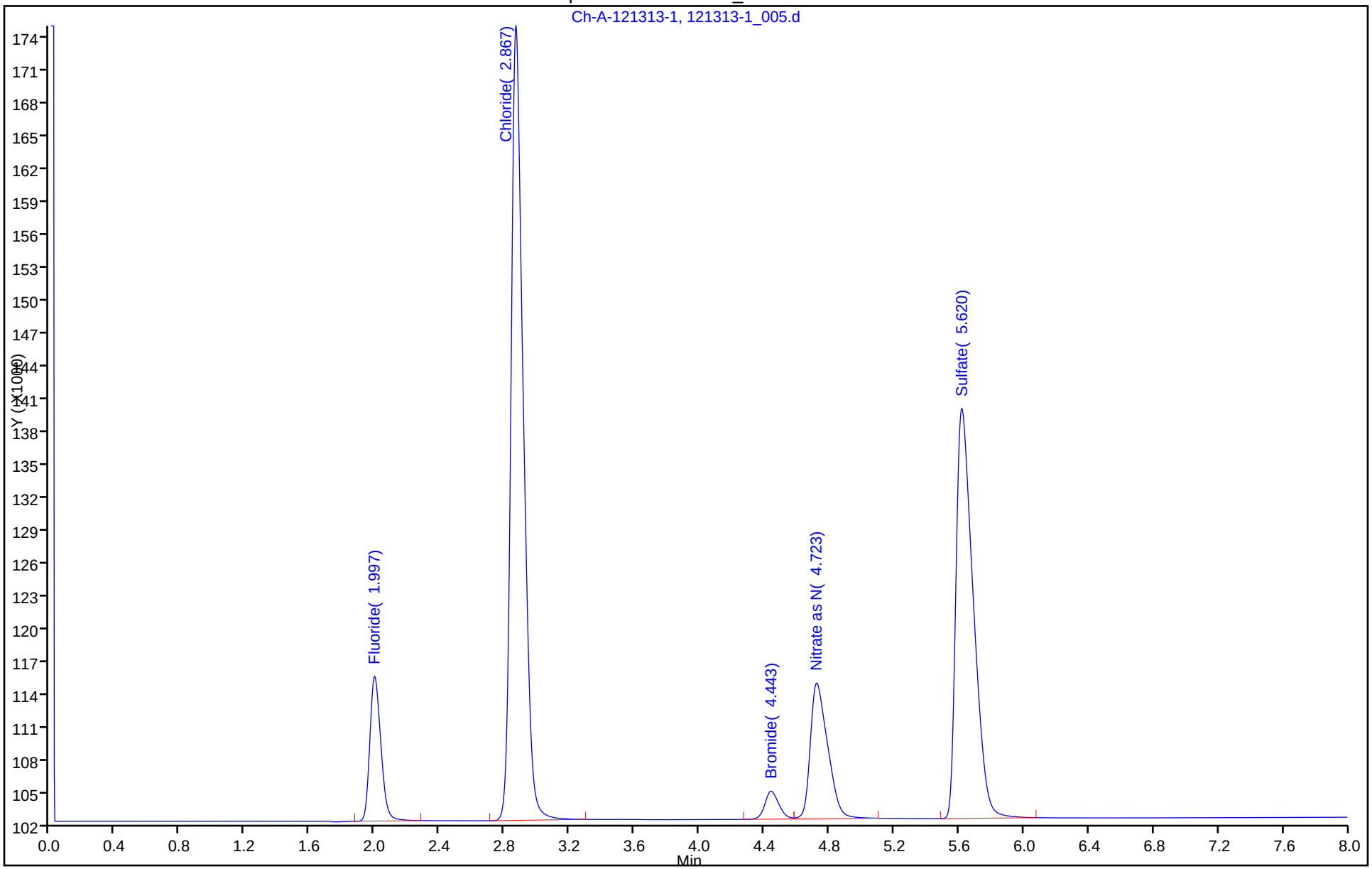
Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_005.d				
Lims ID:	STD4	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	13-Dec-2013 11:54:47	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 005 Name: 480-0028121-005				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	13-Dec-2013 13:08:42	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK031				
First Level Reviewer: cudneyk		Date:	13-Dec-2013 12:26:48		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.997	1.997	0.0	62065	2.03	
2 Chloride					
2.867	2.867	0.0	378315	19.7	
3 Bromide					
4.443	4.443	0.0	15231	1.93	
4 Nitrate as N					
4.723	4.723	0.0	91408	0	
5 Sulfate					
5.620	5.620	0.0	274100	20.1	

Report Date: 13-Dec-2013 13:08:42 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_005.d				
Injection Date:	13-Dec-2013 11:54:47	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\20131213-28121.b\121313-1_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-Dec-2013 12:04:55 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028121-006
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:40 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK031

First Level Reviewer: cudneyk Date: 13-Dec-2013 12:40:29

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.000	1.867	2.383	145452	7.19	5.18		1 Fluoride
2.860	2.707	3.390	928911	45.91	5.30		2 Chloride
4.430	4.257	4.570	39559	1.96	5.91		3 Bromide
4.683	4.570	5.210	229787	11.36	8.32		
5.540	5.413	6.170	679623	33.59	9.82		5 Sulfate
			2023332			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\20131213-28121.b\121313-1_006.d
Lims ID: STD5 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 13-Dec-2013 12:04:55 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 006 Name: 480-0028121-006
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:40 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK031

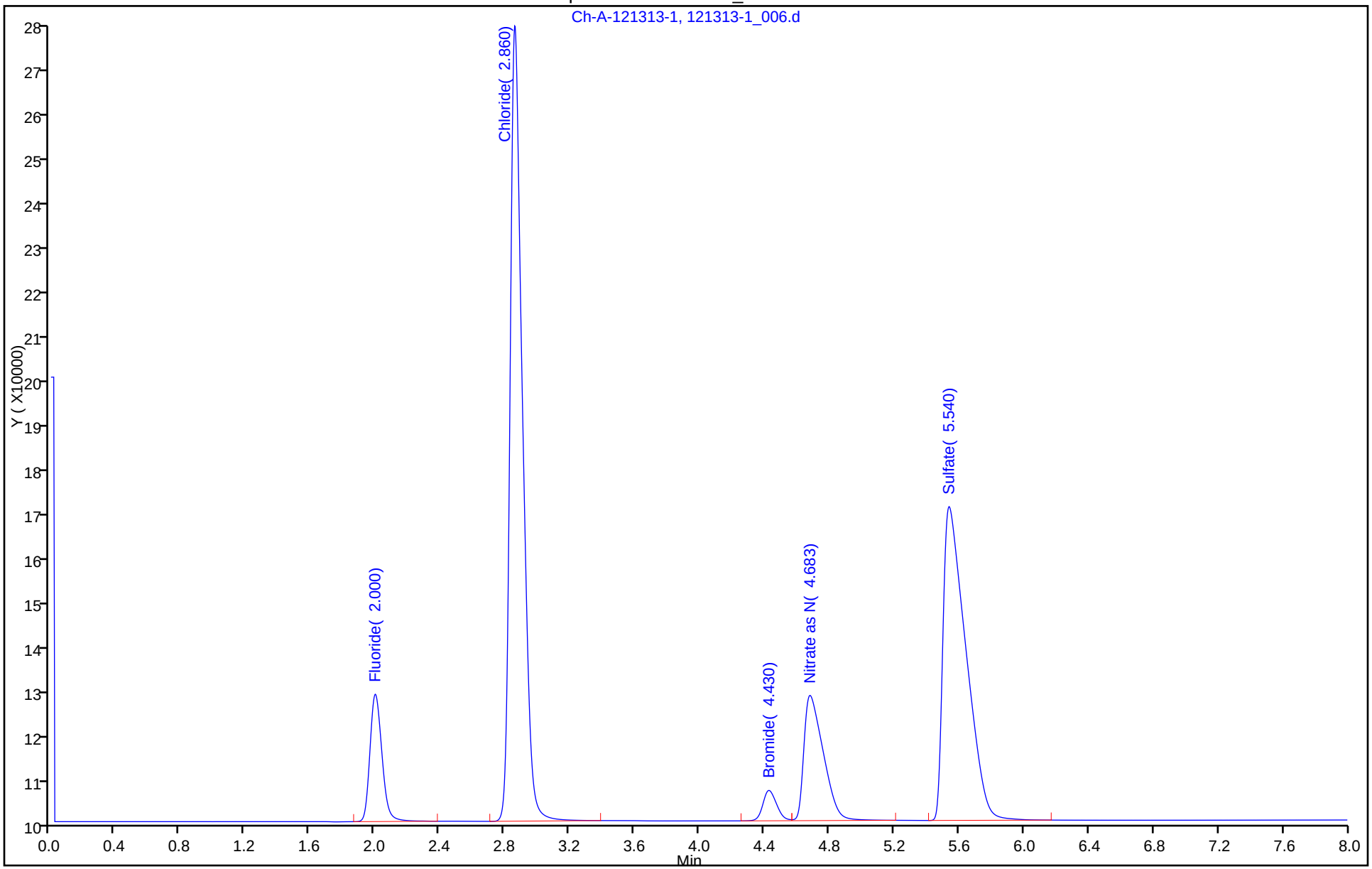
First Level Reviewer: cudneyk Date: 13-Dec-2013 12:40:29

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
2.000	2.000	0.0	145452	4.75	
2 Chloride					
2.860	2.860	0.0	928911	48.9	
3 Bromide					
4.430	4.430	0.0	39559	5.01	
4 Nitrate as N					
4.683	4.683	0.0	229787	0	
5 Sulfate					
5.540	5.540	0.0	679623	50.0	

Report Date: 13-Dec-2013 13:08:41 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_006.d				
Injection Date:	13-Dec-2013 12:04:55	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\20131213-28121.b\121313-1_007.d
Lims ID: STD6 Lab Sample ID:
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 13-Dec-2013 12:15:03 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 007 Name: 480-0028121-007
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 13-Dec-2013 13:08:39 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK031

First Level Reviewer: cudneyk Date: 13-Dec-2013 12:29:51

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.010	1.867	2.417	289291	7.06	5.77		1 Fluoride
2.857	2.713	3.757	1904544	46.46	5.10		2 Chloride
4.410	4.253	4.543	80159	1.96	5.41		3 Bromide
4.637	4.543	5.233	467422	11.40	9.30		
5.360	5.233	6.123	1358186	33.13	12.41		5 Sulfate
			4099602			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

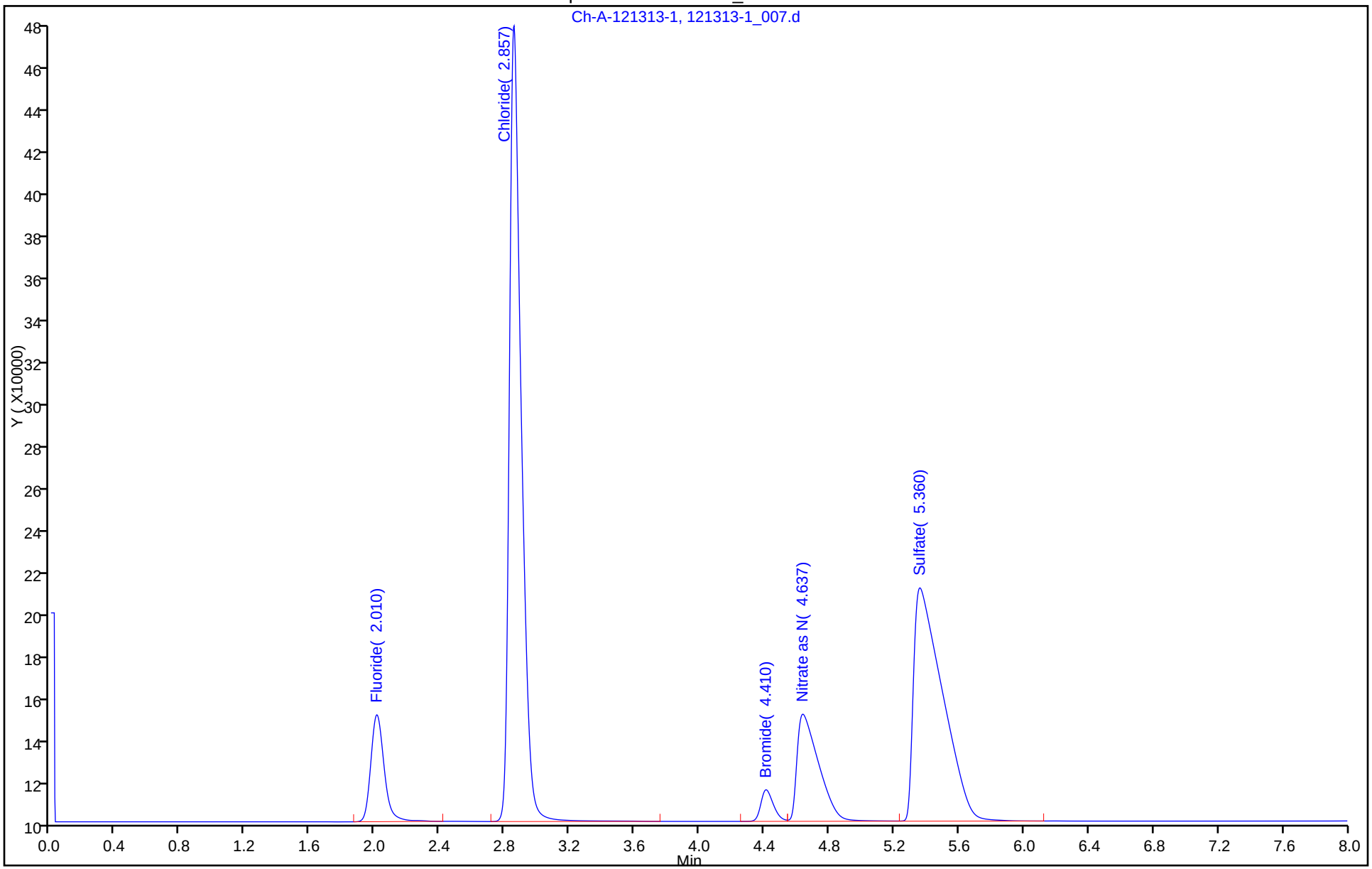
Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Lims ID:	STD6	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	13-Dec-2013 12:15:03	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 007 Name: 480-0028121-007				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Sublist:	chrom-IC1-300*sub2				
Method:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	13-Dec-2013 13:08:39	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK031				
First Level Reviewer: cudneyk		Date:	13-Dec-2013 12:29:51		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
2.010	2.010	0.0	289291	9.44	
2 Chloride					
2.857	2.857	0.0	1904544	100.6	
3 Bromide					
4.410	4.410	0.0	80159	10.2	
4 Nitrate as N					
4.637	4.637	0.0	467422	0	
5 Sulfate					
5.360	5.360	0.0	1358186	100.0	

Report Date: 13-Dec-2013 13:08:39 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Injection Date:	13-Dec-2013 12:15:03	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\20131216-28167.b\121613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 16:48:10 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028167-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 16-Dec-2013 16:58:16 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK050

First Level Reviewer: cudneyk Date: 16-Dec-2013 16:58:16

Detector: Ch-A-092410-2
Number of peaks found: 9

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.970	1.867	2.160	60270	7.42	4.44		1 Fluoride
2.200	2.160	2.463	1712	0.21	7.32		
2.830	2.697	3.053	366116	45.06	4.77		2 Chloride
3.117	3.053	3.450	11037	1.36	8.24		
4.383	4.243	4.540	14403	1.77	5.40		3 Bromide
4.663	4.540	4.980	84624	10.42	6.83		
5.050	4.980	5.330	1930	0.24	10.32		
5.580	5.453	5.987	270313	33.27	7.88		5 Sulfate
6.257	6.000	6.317	2016	0.25	17.38		
			812421			Totals	

Total Unknown Area% = 2.05

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\20131216-28167.b\121613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 16:48:10 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028167-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 16-Dec-2013 16:58:16 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK050

First Level Reviewer: cudneyk Date: 16-Dec-2013 16:58:16

Start Cal Date: 13-Dec-2013 11:14:16
End Cal Date: 13-Dec-2013 12:15:03

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	-0.007	1.97	30135	-1.6	10
2 Chloride	20.0	-0.010	19.1	18306	-4.7	10
3 Bromide	2.00	-0.010	1.82	7201.50	-8.8	10
5 Sulfate	20.0	-0.017	19.8	13516	-0.9	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_025.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 16:48:10 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028167-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 16-Dec-2013 16:58:16 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK050

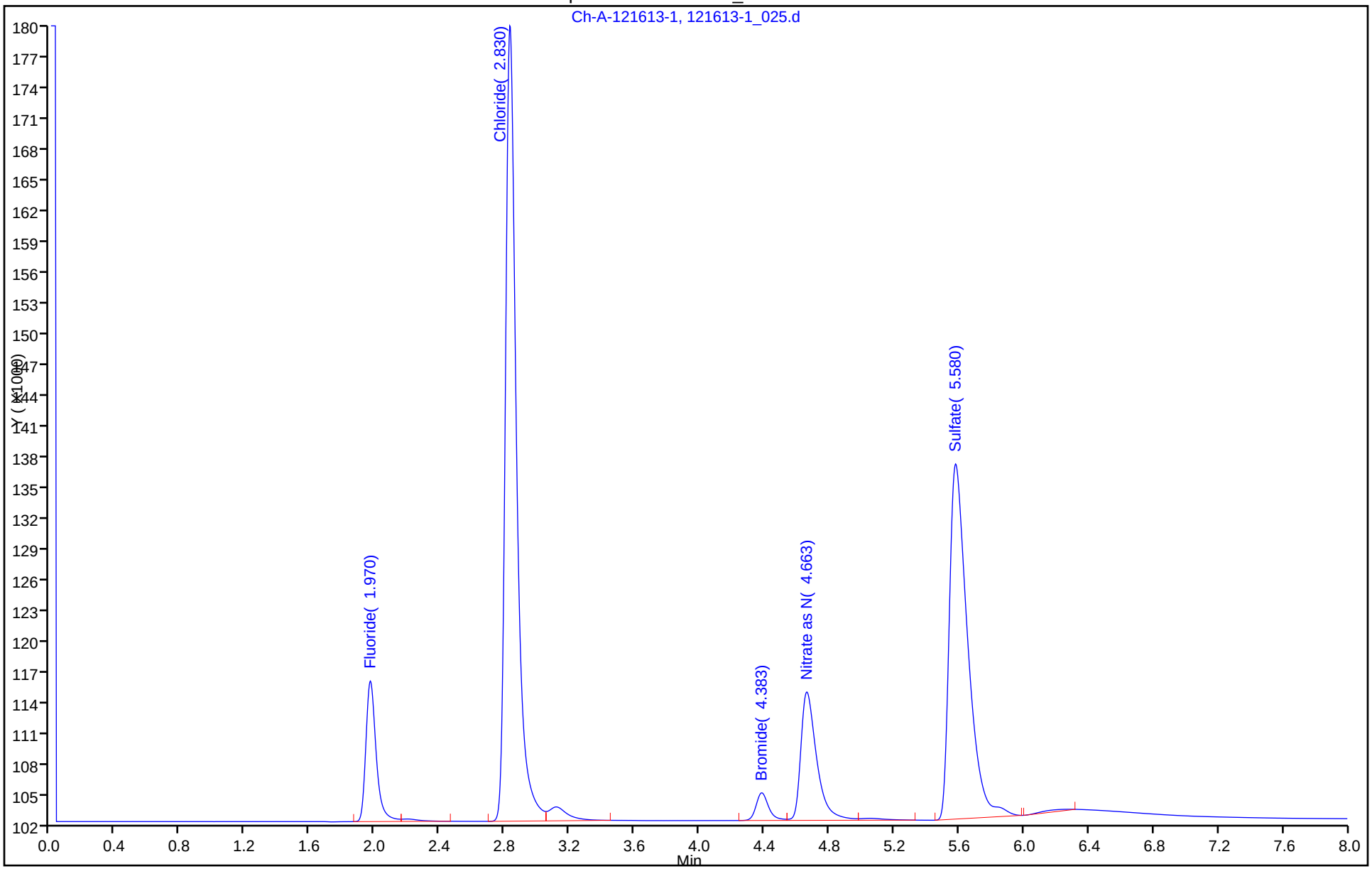
First Level Reviewer: cudneyk Date: 16-Dec-2013 16:58:16

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.970	1.977	-0.007	60270	1.97	
2 Chloride					
2.830	2.840	-0.010	366116	19.1	
3 Bromide					
4.383	4.393	-0.010	14403	1.82	
4 Nitrate as N					
4.663	4.673	-0.010	84624	0	
5 Sulfate					
5.580	5.597	-0.017	270313	19.8	

Report Date: 16-Dec-2013 16:58:17 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_025.d				
Injection Date:	16-Dec-2013 16:48:10	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\20131216-28167.b\121613-1_026.d
Lims ID: CCB Lab Sample ID: CCB 480-157772/26-A
Client ID:
Sample Type: CCB
Inject. Date: 16-Dec-2013 16:58:18 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 026 Name: 480-0028167-026
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 16-Dec-2013 17:25:37 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK050

First Level Reviewer: cudneyk Date: 16-Dec-2013 17:25:37

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.830	2.713	2.983	1759	10.21	4.34		2 Chloride
4.693	4.597	4.803	316	1.83	5.18		
5.667	5.507	5.880	11854	68.82	5.54		5 Sulfate
6.413	6.023	6.430	3296	19.13	67.27		
			17225			Totals	

Total Unknown Area% = 19.13

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

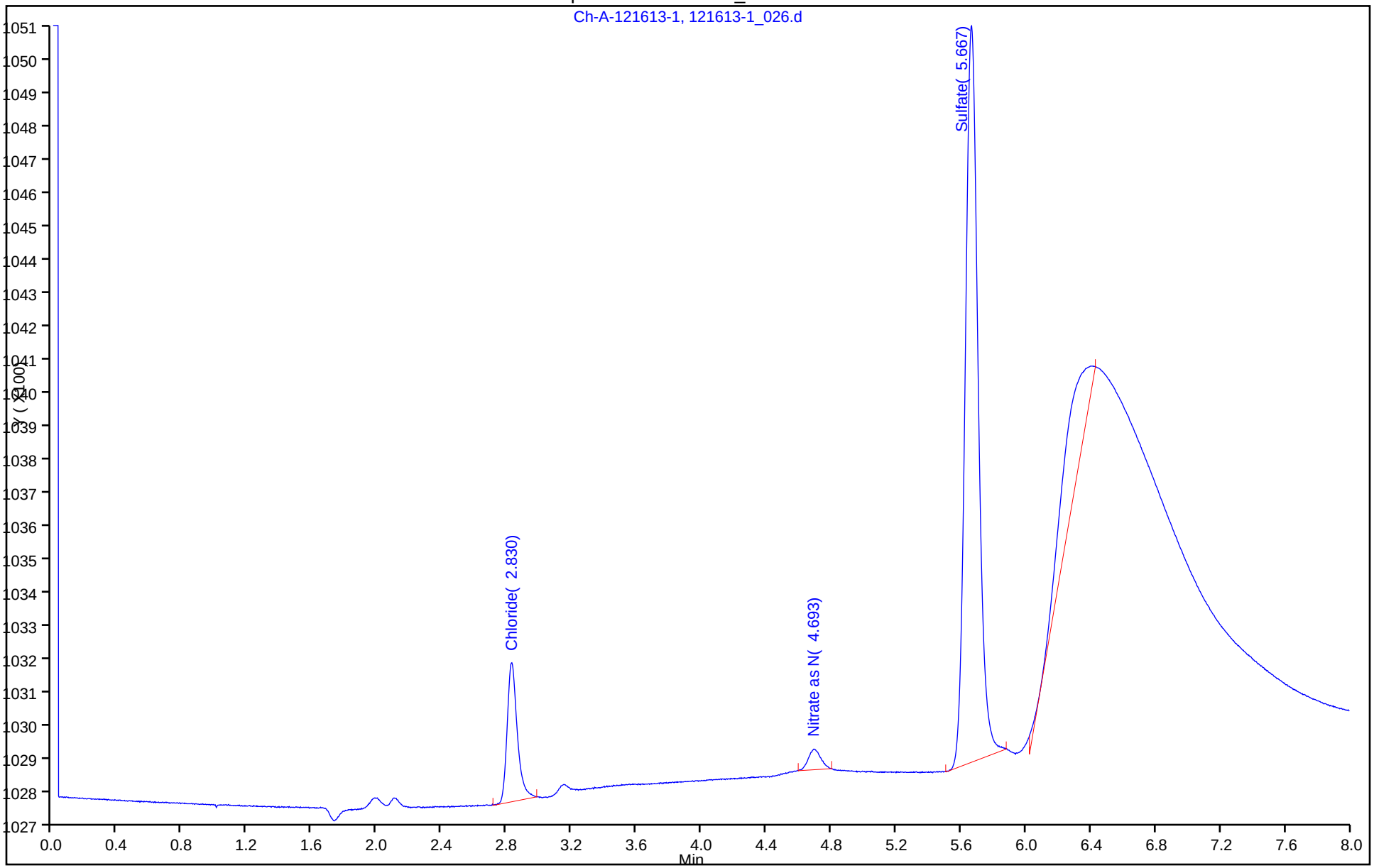
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_026.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/26-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Dec-2013 16:58:18	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 026 Name: 480-0028167-026				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	16-Dec-2013 17:25:37	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK050				
First Level Reviewer: cudneyk		Date:	16-Dec-2013 17:25:37		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.830	2.840	-0.010	1759	-0.2446	
4 Nitrate as N					
4.693	4.673	0.020	316	0	
5 Sulfate					
5.667	5.597	0.070	11854	0.7757	

Report Date: 16-Dec-2013 17:25:37 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_026.d				
Injection Date:	16-Dec-2013 16:58:18	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/26-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\20131216-28167.b\121613-1_027.d
Lims ID: LCS Lab Sample ID: LCS 480-157771/27-A
Client ID:
Sample Type: LCS
Inject. Date: 16-Dec-2013 17:08:26 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 027 Name: 480-0028167-027
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 16-Dec-2013 17:25:37 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK050

First Level Reviewer: cudneyk Date: 16-Dec-2013 17:26:01

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.970	1.867	2.163	60396	7.39	4.45		1 Fluoride
2.197	2.163	2.417	1591	0.19	6.80		
2.833	2.700	3.053	366546	44.83	4.78		2 Chloride
3.117	3.053	3.423	11015	1.35	8.12		
4.387	4.243	4.540	14388	1.76	5.40		3 Bromide
4.667	4.540	4.980	84709	10.36	6.85		
5.057	4.980	5.320	1937	0.24	10.19		
5.580	5.447	6.133	277133	33.89	8.04		5 Sulfate
			817715			Totals	

Total Unknown Area% = 1.78

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

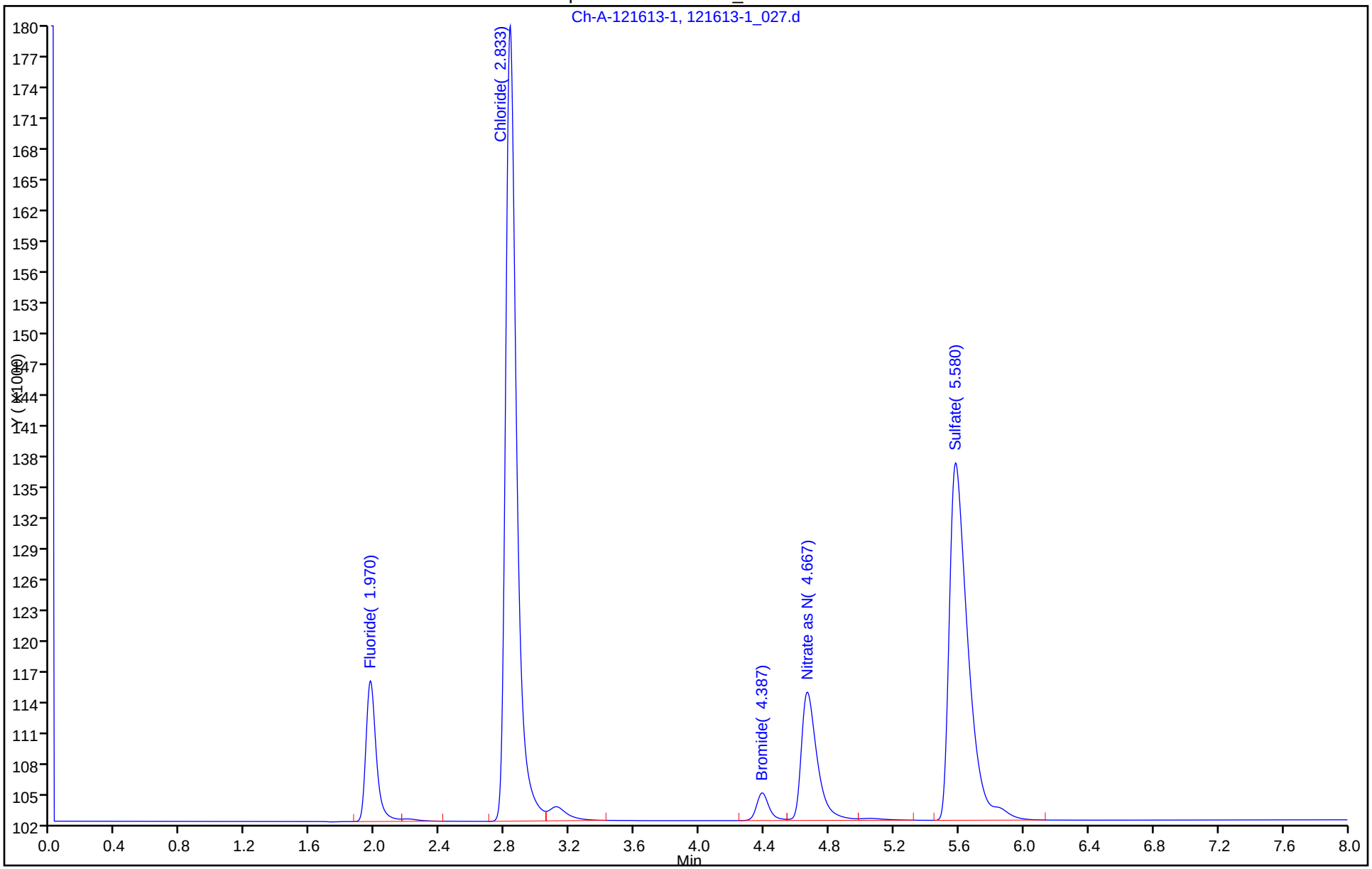
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_027.d				
Lims ID:	LCS	Lab Sample ID:	LCS 480-157771/27-A		
Client ID:					
Sample Type:	LCS				
Inject. Date:	16-Dec-2013 17:08:26	ALS Bottle#:	0	Worklist Smp#:	27
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 027 Name: 480-0028167-027				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	16-Dec-2013 17:25:37	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK050				
First Level Reviewer: cudneyk		Date:	16-Dec-2013 17:26:01		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.970	1.977	-0.007	60396	1.97	
2 Chloride					
2.833	2.840	-0.007	366546	19.1	
3 Bromide					
4.387	4.393	-0.006	14388	1.82	
4 Nitrate as N					
4.667	4.673	-0.006	84709	0	
5 Sulfate					
5.580	5.597	-0.017	277133	20.3	

Report Date: 16-Dec-2013 17:26:01 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_027.d				
Injection Date:	16-Dec-2013 17:08:26	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-157771/27-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\20131216-28167.b\121613-1_028.d
Lims ID: MB Lab Sample ID: MB 480-157771/28-A
Client ID:
Sample Type: MB
Inject. Date: 16-Dec-2013 17:18:34 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 028 Name: 480-0028167-028
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 16-Dec-2013 15:27:07 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK050

First Level Reviewer: cudneyk Date: 16-Dec-2013 17:27:59

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.830	2.740	2.930	388	63.82	4.22		2 Chloride
5.673	5.570	5.757	220	36.18	5.12		5 Sulfate
			608			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

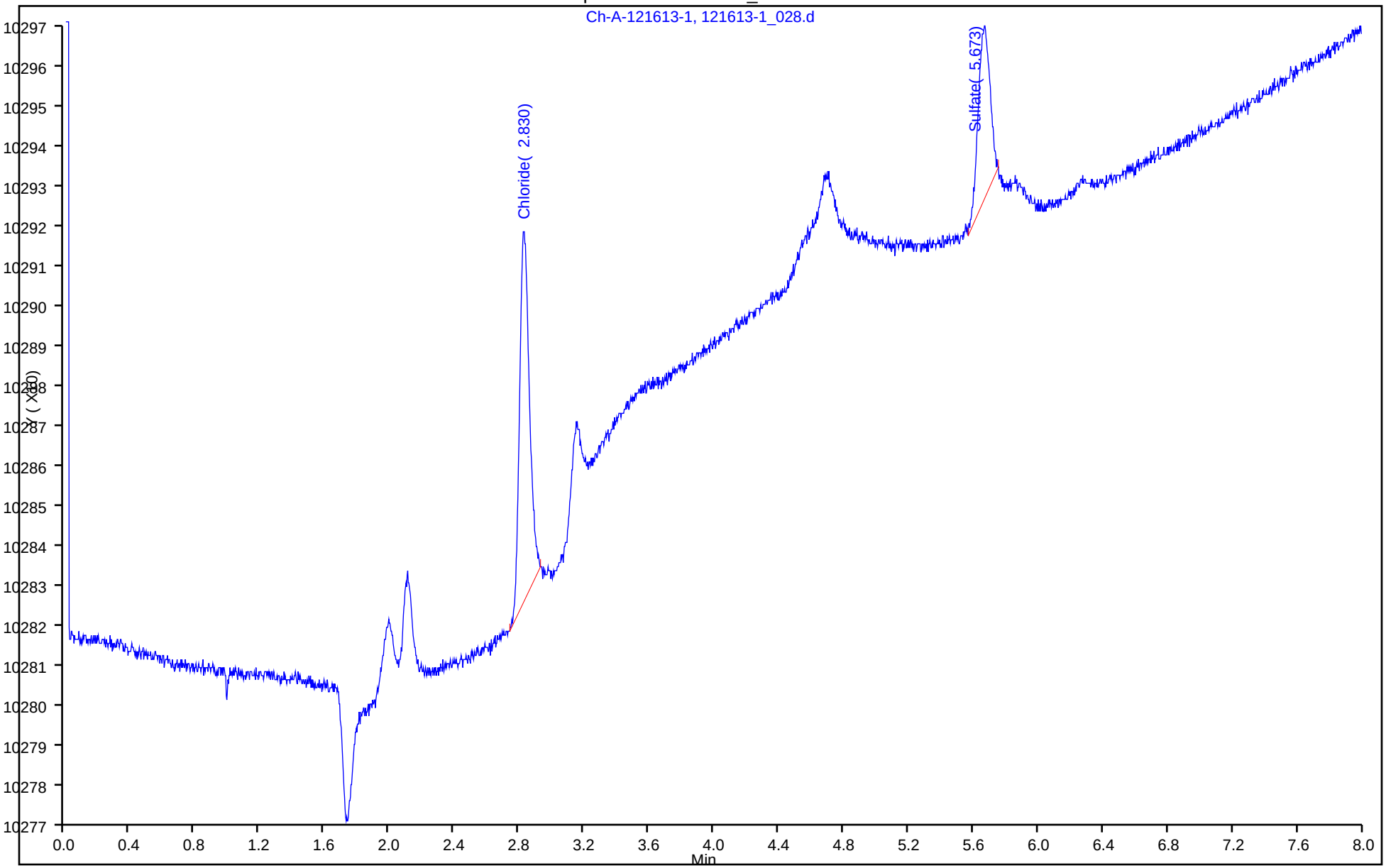
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_028.d				
Lims ID:	MB	Lab Sample ID:	MB 480-157771/28-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	16-Dec-2013 17:18:34	ALS Bottle#:	0	Worklist Smp#:	28
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 028 Name: 480-0028167-028				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	16-Dec-2013 15:27:07	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK050				
First Level Reviewer: cudneyk		Date:	16-Dec-2013 17:27:59		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.830	2.840	-0.010	388	-0.3173	
5 Sulfate					
5.673	5.597	0.076	220	-0.0816	

Report Date: 16-Dec-2013 17:27:59 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_028.d				
Injection Date:	16-Dec-2013 17:18:34	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-157771/28-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\20131216-28167.b\121613-1_037.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 18:49:45 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028167-037
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:10

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.970	1.867	2.160	60321	7.39	4.43		1 Fluoride
2.203	2.160	2.410	1573	0.19	6.90		
2.833	2.683	3.053	365866	44.82	4.78		2 Chloride
3.117	3.053	3.463	11178	1.37	8.20		
4.390	4.237	4.550	14360	1.76	5.39		3 Bromide
4.667	4.550	4.983	84439	10.34	6.85		
5.057	4.983	5.337	1956	0.24	10.29		
5.567	5.433	6.130	276684	33.89	8.03		5 Sulfate
			816377			Totals	

Total Unknown Area% = 1.80

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\20131216-28167.b\121613-1_037.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 18:49:45 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028167-037
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:10

Start Cal Date: 13-Dec-2013 11:14:16
End Cal Date: 13-Dec-2013 12:15:03

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	-0.007	1.97	30161	-1.6	10
2 Chloride	20.0	-0.007	19.0	18293	-4.8	10
3 Bromide	2.00	-0.003	1.82	7180.00	-9.0	10
5 Sulfate	20.0	-0.030	20.3	13834	1.5	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_037.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 18:49:45 ALS Bottle#: 0 Worklist Smp#: 37
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028167-037
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

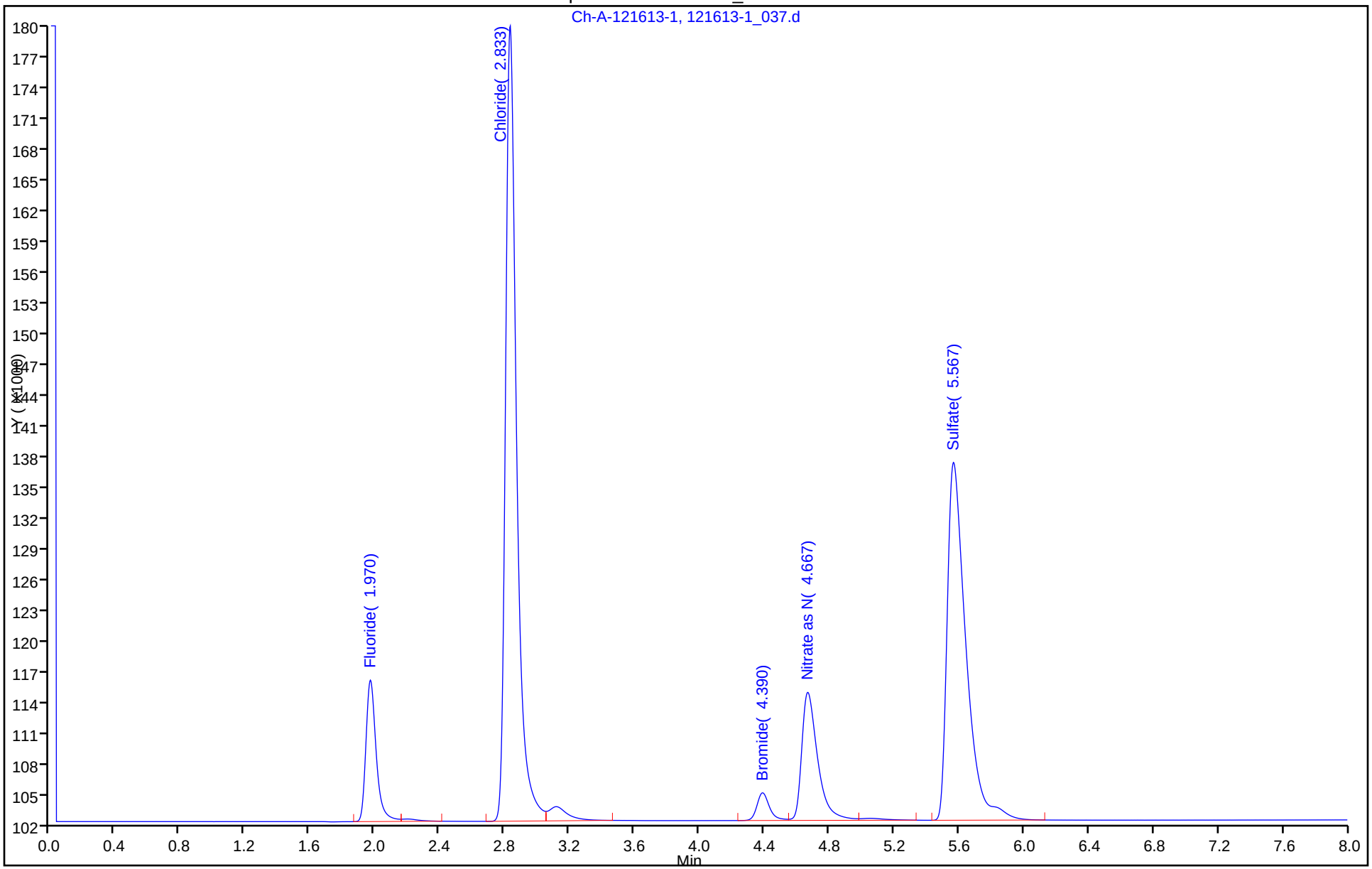
First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:10

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.970	1.977	-0.007	60321	1.97	
2 Chloride					
2.833	2.840	-0.007	365866	19.0	
3 Bromide					
4.390	4.393	-0.003	14360	1.82	
4 Nitrate as N					
4.667	4.673	-0.006	84439	0	
5 Sulfate					
5.567	5.597	-0.030	276684	20.3	

Report Date: 17-Dec-2013 08:06:10 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_037.d				
Injection Date:	16-Dec-2013 18:49:45	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\20131216-28167.b\121613-1_038.d
Lims ID: CCB Lab Sample ID: CCB 480-157771/38-A
Client ID:
Sample Type: CCB
Inject. Date: 16-Dec-2013 18:59:53 ALS Bottle#: 0 Worklist Smp#: 38
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 038 Name: 480-0028167-038
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:12

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.827	2.733	2.930	459	59.61	4.14		2 Chloride
5.653	5.543	5.800	311	40.39	5.87		5 Sulfate
			770			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

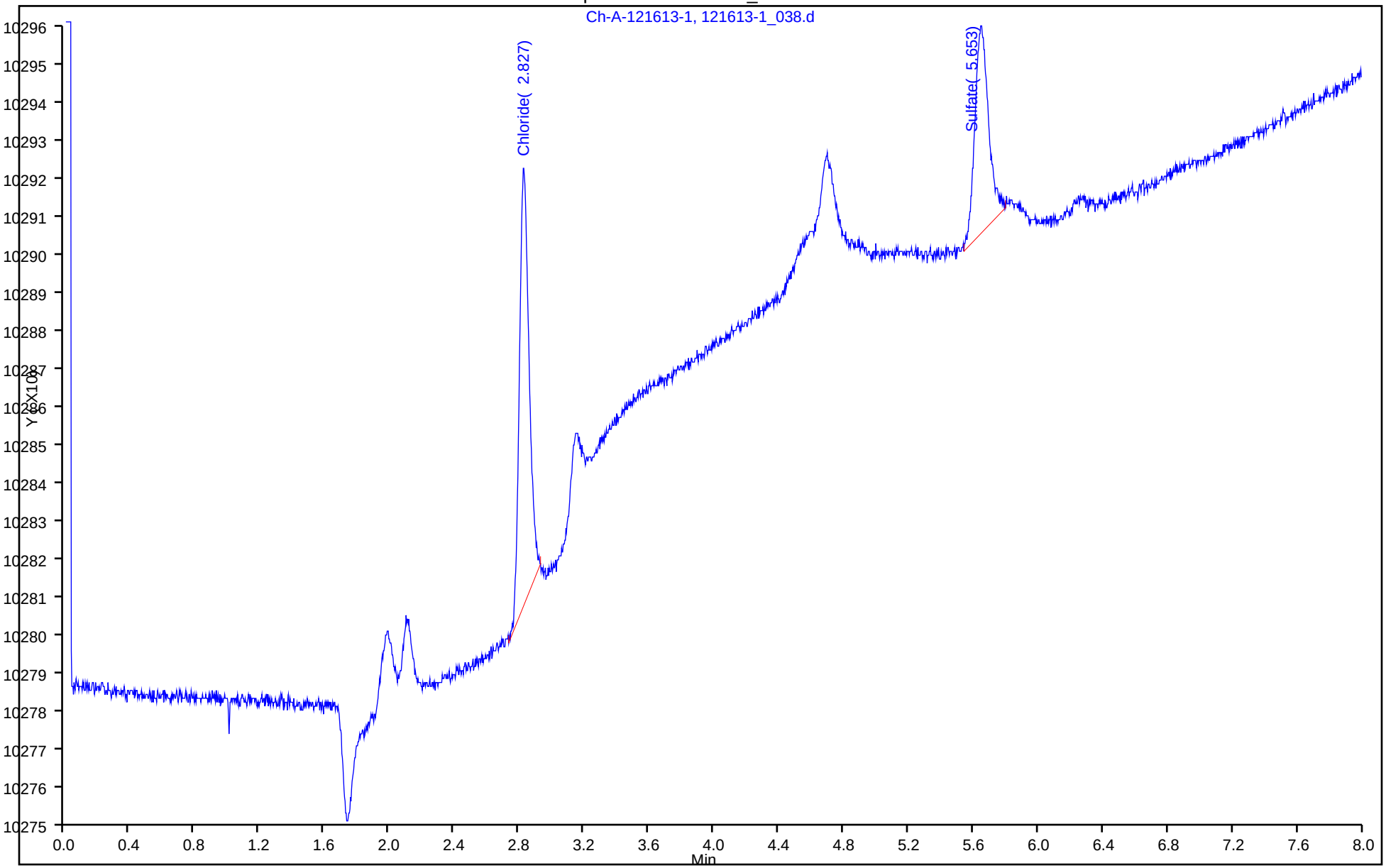
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_038.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-157771/38-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Dec-2013 18:59:53	ALS Bottle#:	0	Worklist Smp#:	38
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 038 Name: 480-0028167-038				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:06:10	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:06:12		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.827	2.840	-0.013	459	-0.3135	
5 Sulfate					
5.653	5.597	0.056	311	-0.0749	

Report Date: 17-Dec-2013 08:06:12 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_038.d				
Injection Date:	16-Dec-2013 18:59:53	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-157771/38-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		



TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_041.d
Lims ID: 460-68260-A-1 Lab Sample ID: 480-68260-1
Client ID: GW0008
Sample Type: Client
Inject. Date: 16-Dec-2013 19:30:17 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 041 Name: 480-0028167-041
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:33 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:33

Detector: Ch-A-092410-2
Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.960	1.870	2.223	7058	1.11	4.15		1 Fluoride
2.827	2.693	3.040	402305	63.15	4.73		2 Chloride
3.100	3.040	3.413	11155	1.75	8.18		
4.283	4.193	4.430	880	0.14	7.27	M	3 Bromide
4.663	4.553	4.960	3732	0.59	8.89		
5.567	5.440	5.820	211963	33.27	7.11		5 Sulfate
			637093			Totals	

Total Unknown Area% = 1.75

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\20131216-28167.b\121613-1_041.d
Lims ID: 460-68260-A-1 Lab Sample ID: 480-68260-1
Client ID: GW0008
Sample Type: Client
Inject. Date: 16-Dec-2013 19:30:17 ALS Bottle#: 0 Worklist Smp#: 41
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 041 Name: 480-0028167-041
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:33 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:33

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.960	1.977	-0.017	7058	0.2304	
2 Chloride					
2.827	2.840	-0.013	402305	21.0	
3 Bromide					M
4.283	4.393	-0.110	880	0.1115	M
5 Sulfate					
5.567	5.597	-0.030	211963	15.5	

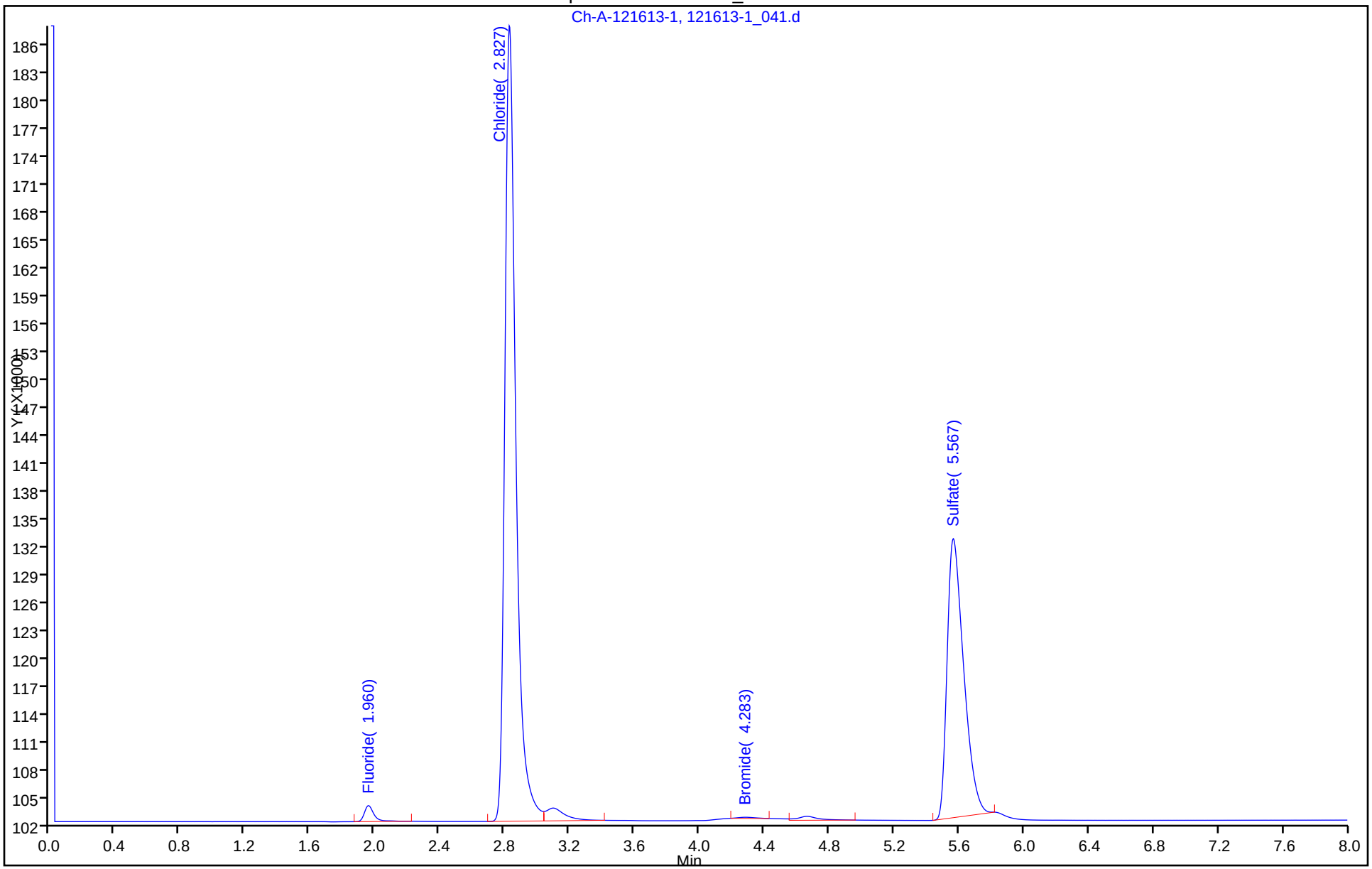
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:06:33 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_041.d				
Injection Date:	16-Dec-2013 19:30:17	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-1	Lab Sample ID:	480-68260-1	Worklist Smp#:	41
Client ID:	GW0008				
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\20131216-28167.b\121613-1_042.d
Lims ID: 460-68260-A-2 Lab Sample ID: 480-68260-2
Client ID: GW0009
Sample Type: Client
Inject. Date: 16-Dec-2013 19:40:24 ALS Bottle#: 0 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 042 Name: 480-0028167-042
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:46 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:46

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.960	1.870	2.177	7052	1.09	4.15		1 Fluoride
2.830	2.690	3.040	400646	62.08	4.73		2 Chloride
3.100	3.040	3.410	11117	1.72	8.13		
4.287	4.203	4.447	853	0.13	7.23	M	3 Bromide
5.567	5.417	6.170	225707	34.97	7.51		5 Sulfate
			645375			Totals	

Total Unknown Area% = 1.72

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\20131216-28167.b\121613-1_042.d
Lims ID: 460-68260-A-2 Lab Sample ID: 480-68260-2
Client ID: GW0009
Sample Type: Client
Inject. Date: 16-Dec-2013 19:40:24 ALS Bottle#: 0 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 042 Name: 480-0028167-042
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:46 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:46

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.960	1.977	-0.017	7052	0.2302	
2 Chloride					
2.830	2.840	-0.010	400646	20.9	
3 Bromide					M
4.287	4.393	-0.106	853	0.1081	M
5 Sulfate					
5.567	5.597	-0.030	225707	16.5	

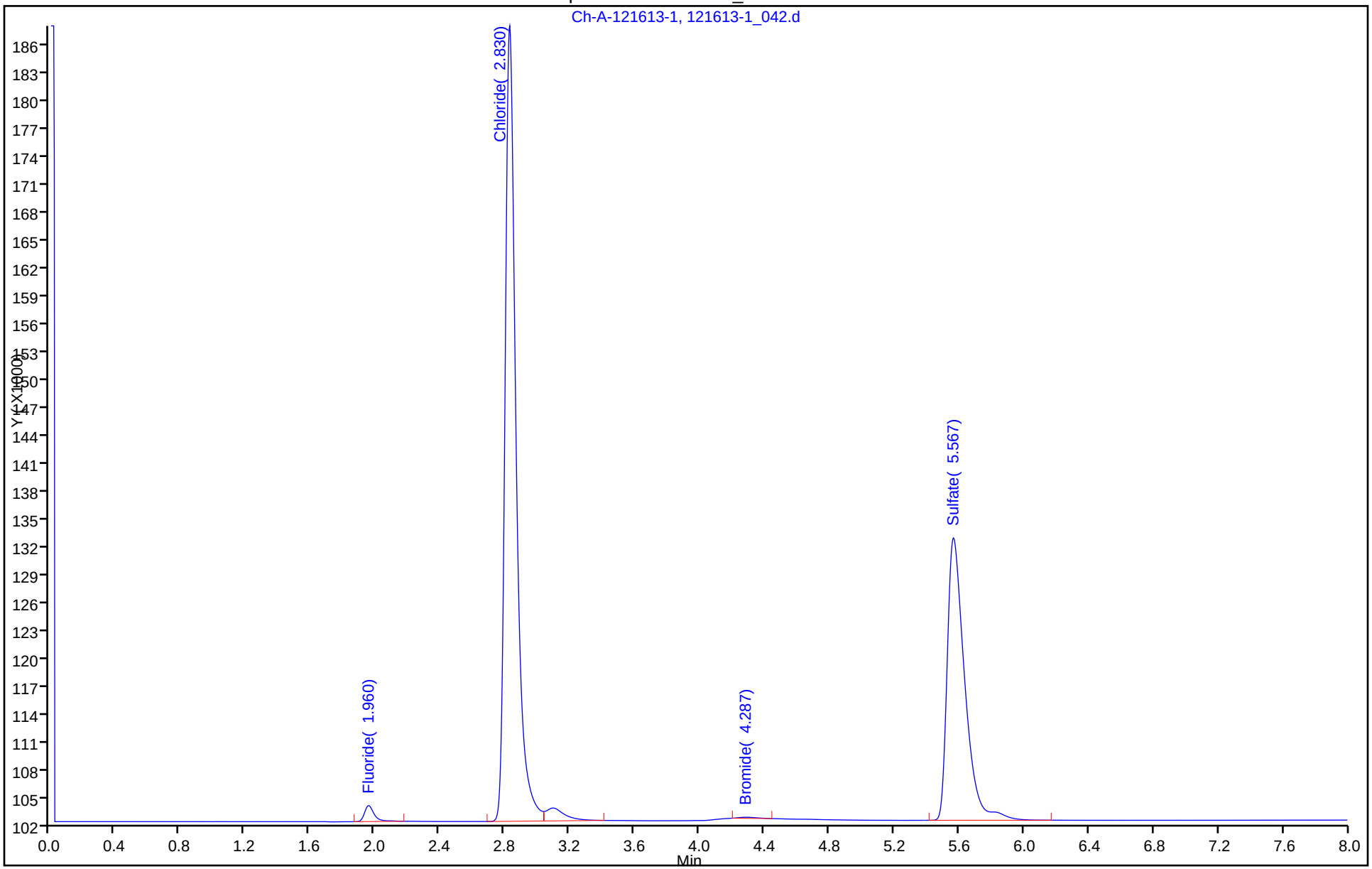
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:06:46 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_042.d				
Injection Date:	16-Dec-2013 19:40:24	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-2	Lab Sample ID:	480-68260-2	Worklist Smp#:	42
Client ID:	GW0009				
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\20131216-28167.b\121613-1_043.d
Lims ID: 460-68260-A-3 Lab Sample ID: 480-68260-3
Client ID: GW0010
Sample Type: Client
Inject. Date: 16-Dec-2013 19:50:32 ALS Bottle#: 0 Worklist Smp#: 43
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 043 Name: 480-0028167-043
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:06:58 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:06:58

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.957	1.870	2.097	5000	1.19	3.83		1 Fluoride
2.827	2.683	3.037	382995	90.79	4.72		2 Chloride
3.093	3.037	3.403	10384	2.46	8.09		
4.290	4.207	4.407	609	0.14	6.15	M	3 Bromide
5.627	5.437	6.003	22870	5.42	5.83		5 Sulfate
			421858			Totals	

Total Unknown Area% = 2.46

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\20131216-28167.b\121613-1_043.d				
Lims ID:	460-68260-A-3	Lab Sample ID:	480-68260-3		
Client ID:	GW0010				
Sample Type:	Client				
Inject. Date:	16-Dec-2013 19:50:32	ALS Bottle#:	0	Worklist Smp#:	43
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 043 Name: 480-0028167-043				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:06:58	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:06:58		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.957	1.977	-0.020	5000	0.1632	
2 Chloride					
2.827	2.840	-0.013	382995	20.0	
3 Bromide					M
4.290	4.393	-0.103	609	0.0771	M
5 Sulfate					
5.627	5.597	0.030	22870	1.59	

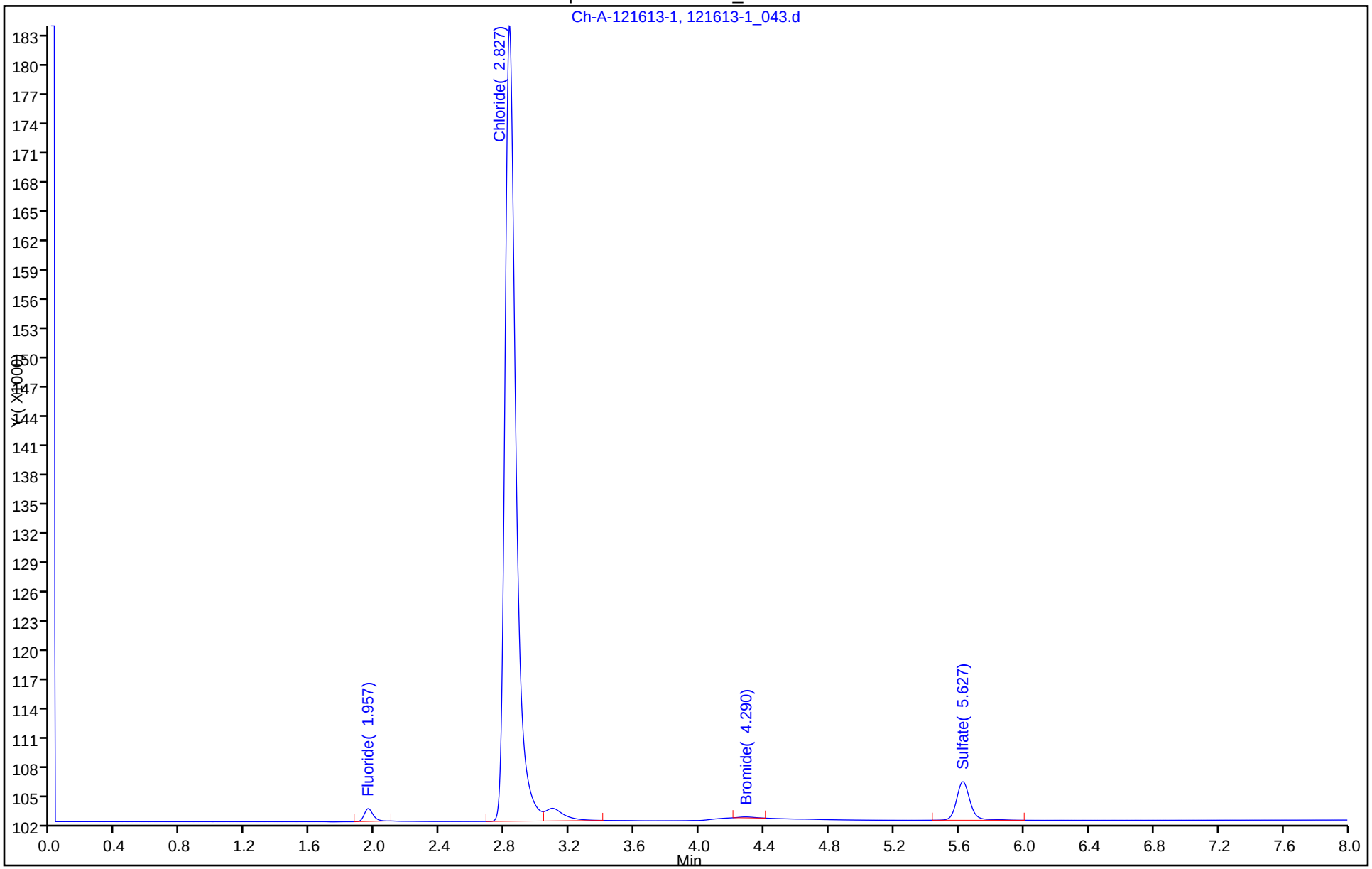
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:06:58 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_043.d				
Injection Date:	16-Dec-2013 19:50:32	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-3	Lab Sample ID:	480-68260-3	Worklist Smp#:	43
Client ID:	GW0010				
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\20131216-28167.b\121613-1_044.d
Lims ID: 460-68260-A-4 Lab Sample ID: 480-68260-4
Client ID: GW0011
Sample Type: Client
Inject. Date: 16-Dec-2013 20:00:40 ALS Bottle#: 0 Worklist Smp#: 44
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 044 Name: 480-0028167-044
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:07:19 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:07:19

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.960	1.870	2.173	6566	0.76	4.20		1 Fluoride
2.830	2.690	3.040	527629	61.15	4.76		2 Chloride
3.100	3.040	3.457	15519	1.80	8.29		
4.297	4.027	4.443	4663	0.54	16.71		
4.647	4.443	4.963	78522	9.10	7.75		
5.040	4.963	5.350	2527	0.29	10.15		
5.560	5.420	6.093	227382	26.35	7.51		5 Sulfate
			862808			Totals	

Total Unknown Area% = 2.63

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

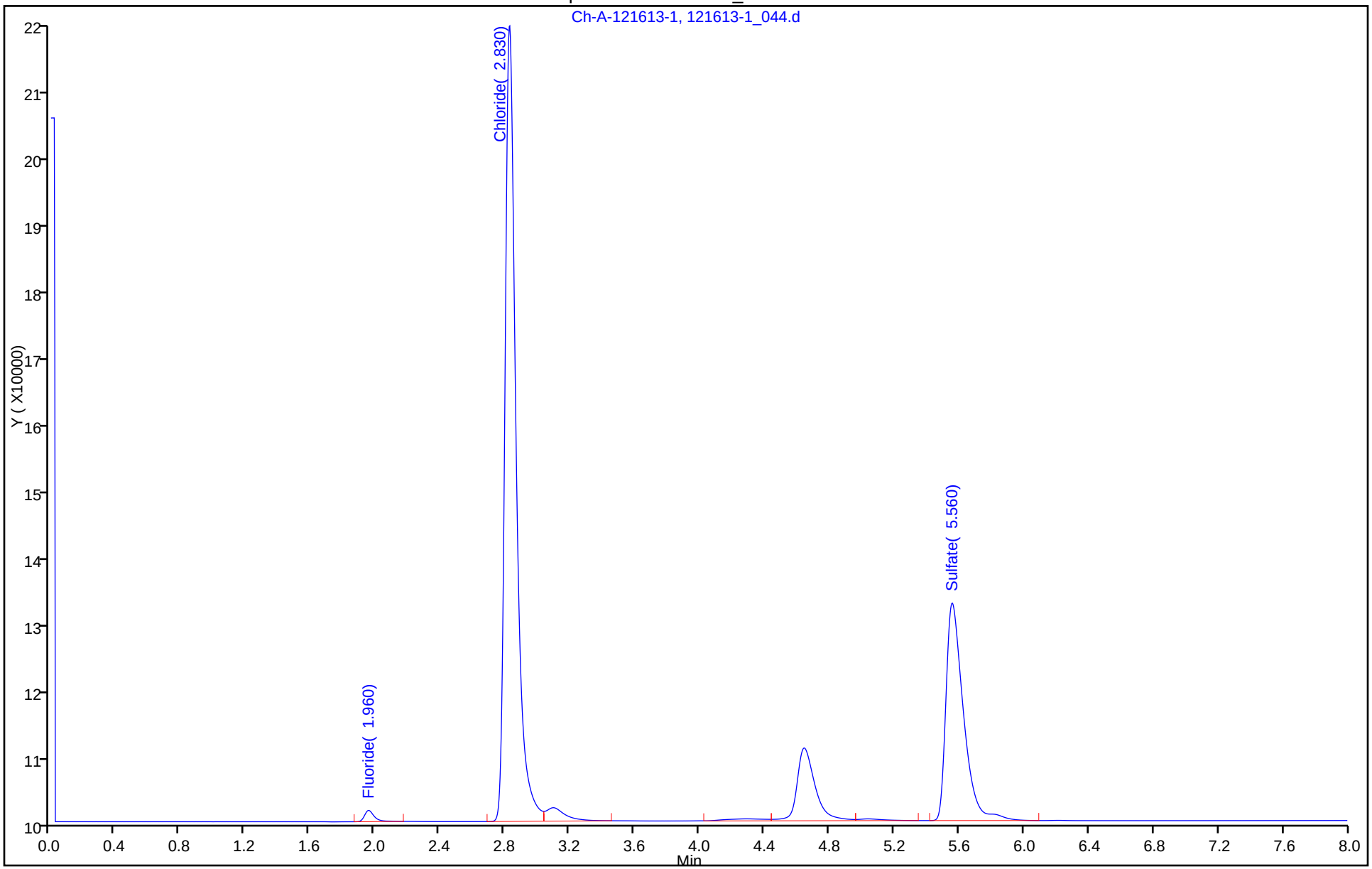
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_044.d				
Lims ID:	460-68260-A-4	Lab Sample ID:	480-68260-4		
Client ID:	GW0011				
Sample Type:	Client				
Inject. Date:	16-Dec-2013 20:00:40	ALS Bottle#:	0	Worklist Smp#:	44
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 044 Name: 480-0028167-044				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:07:19	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:07:19		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.960	1.977	-0.017	6566	0.2143	
2 Chloride					
2.830	2.840	-0.010	527629	27.6	
5 Sulfate					
5.560	5.597	-0.037	227382	16.7	

Report Date: 17-Dec-2013 08:07:19 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_044.d				
Injection Date:	16-Dec-2013 20:00:40	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-4	Lab Sample ID:	480-68260-4	Worklist Smp#:	44
Client ID:	GW0011				
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\20131216-28167.b\121613-1_045.d
Lims ID: 460-68260-A-5 Lab Sample ID: 480-68260-5
Client ID: GW0012
Sample Type: Client
Inject. Date: 16-Dec-2013 20:10:48 ALS Bottle#: 0 Worklist Smp#: 45
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 045 Name: 480-0028167-045
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:08:37 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:08:37

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.960	1.870	2.190	6583	0.77	4.21		1 Fluoride
2.830	2.693	3.043	525957	61.12	4.76		2 Chloride
3.100	3.043	3.437	15226	1.77	8.12		
4.297	4.033	4.450	4898	0.57	17.01		
4.650	4.450	4.960	78371	9.11	7.76		
5.040	4.960	5.347	2662	0.31	10.56		
5.563	5.427	6.097	226817	26.36	7.51		5 Sulfate
			860514			Totals	

Total Unknown Area% = 2.65

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

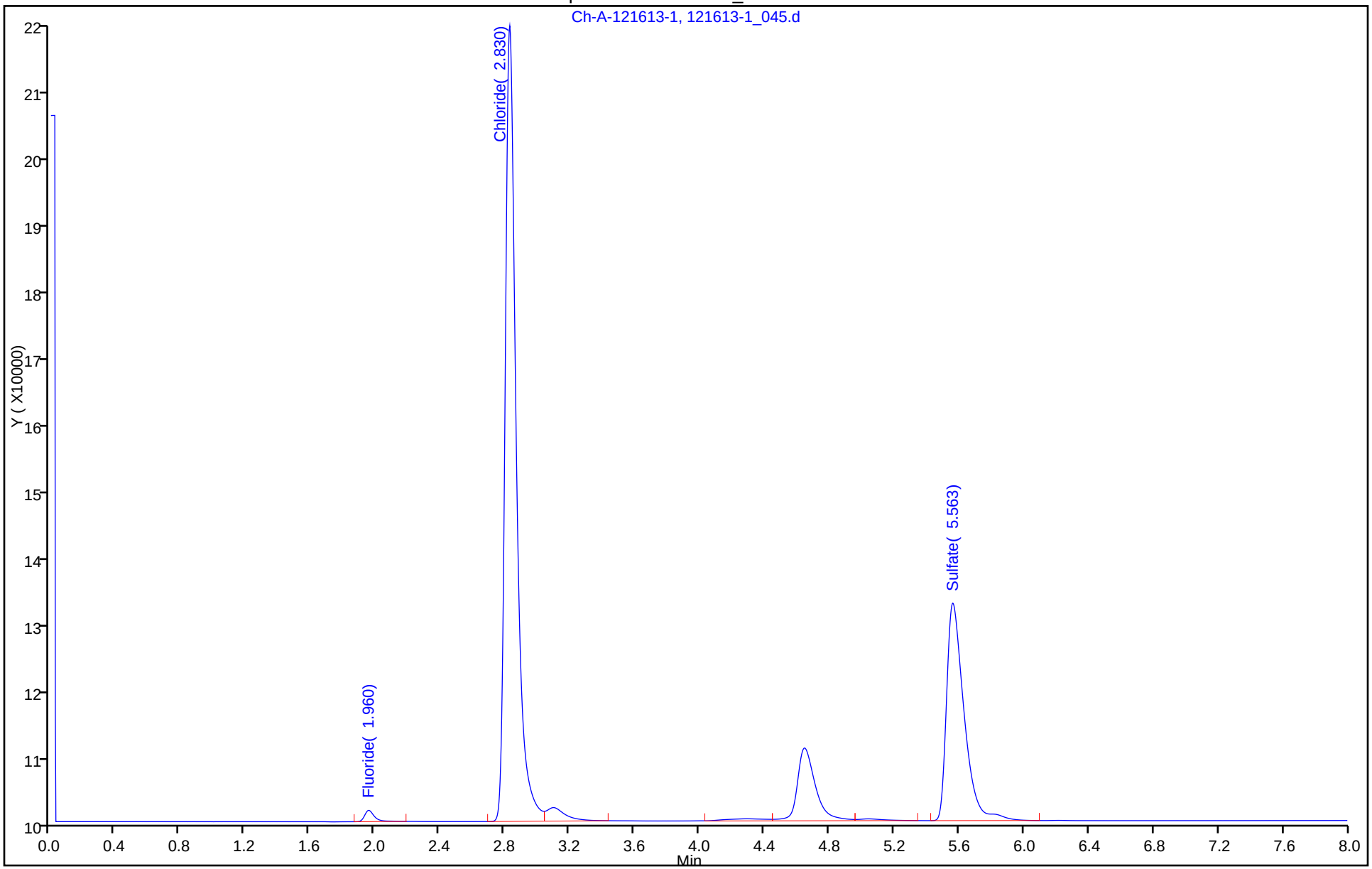
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_045.d				
Lims ID:	460-68260-A-5	Lab Sample ID:	480-68260-5		
Client ID:	GW0012				
Sample Type:	Client				
Inject. Date:	16-Dec-2013 20:10:48	ALS Bottle#:	0	Worklist Smp#:	45
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 045 Name: 480-0028167-045				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:08:37	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:08:37		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.960	1.977	-0.017	6583	0.2149	
2 Chloride					
2.830	2.840	-0.010	525957	27.5	
5 Sulfate					
5.563	5.597	-0.034	226817	16.6	

Report Date: 17-Dec-2013 08:08:37 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_045.d				
Injection Date:	16-Dec-2013 20:10:48	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-5	Lab Sample ID:	480-68260-5	Worklist Smp#:	45
Client ID:	GW0012				
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\20131216-28167.b\121613-1_046.d
Lims ID: 460-68260-A-6 Lab Sample ID: 480-68260-6
Client ID: GW0013
Sample Type: Client
Inject. Date: 16-Dec-2013 20:20:56 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 046 Name: 480-0028167-046
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:09 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:09

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.963	1.867	2.230	5945	1.37	4.20		1 Fluoride
2.833	2.693	3.043	356642	82.00	4.73		2 Chloride
3.097	3.043	3.433	9700	2.23	8.06		
4.297	4.197	4.417	780	0.18	6.84	M	3 Bromide
5.607	5.430	6.030	61843	14.22	6.17		5 Sulfate
			434910			Totals	

Total Unknown Area% = 2.23

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\20131216-28167.b\121613-1_046.d
Lims ID: 460-68260-A-6 Lab Sample ID: 480-68260-6
Client ID: GW0013
Sample Type: Client
Inject. Date: 16-Dec-2013 20:20:56 ALS Bottle#: 0 Worklist Smp#: 46
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 046 Name: 480-0028167-046
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:09 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:09

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.963	1.977	-0.014	5945	0.1940	
2 Chloride					
2.833	2.840	-0.007	356642	18.6	
3 Bromide					M
4.297	4.393	-0.096	780	0.0988	M
5 Sulfate					
5.607	5.597	0.010	61843	4.46	

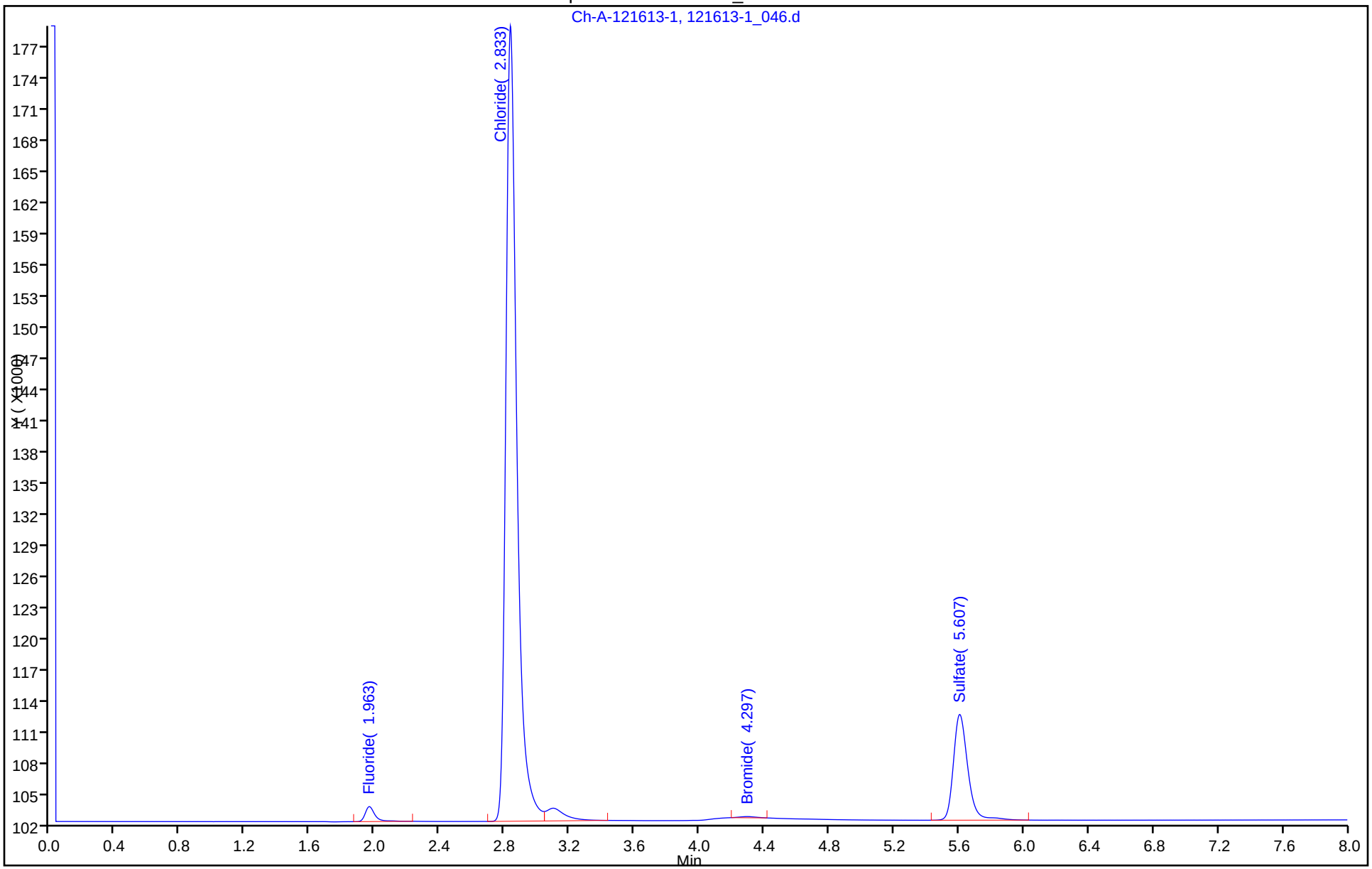
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:09:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_046.d				
Injection Date:	16-Dec-2013 20:20:56	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-6	Lab Sample ID:	480-68260-6	Worklist Smp#:	46
Client ID:	GW0013				
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\20131216-28167.b\121613-1_047.d
Lims ID: 460-68260-A-6 MS Lab Sample ID: 480-68260-6
Client ID:
Sample Type: MS
Inject. Date: 16-Dec-2013 20:31:04 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 047 Name: 480-0028167-047
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:09 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:14

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.973	1.867	2.173	79970	5.55	4.79		1 Fluoride
2.203	2.173	2.457	2231	0.15	7.02		
2.830	2.693	3.043	807914	56.07	4.81		2 Chloride
3.100	3.043	3.530	23930	1.66	8.38		
4.287	3.980	4.467	22813	1.58	9.00		3 Bromide
4.637	4.467	4.990	114952	7.98	8.04		
5.060	4.990	5.353	2432	0.17	10.67		
5.520	5.400	5.837	386763	26.84	8.32		5 Sulfate
			1441005			Totals	

Total Unknown Area% = 1.98

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\20131216-28167.b\121613-1_047.d
Lims ID: 460-68260-A-6 MS Lab Sample ID: 480-68260-6
Client ID:
Sample Type: MS
Inject. Date: 16-Dec-2013 20:31:04 ALS Bottle#: 0 Worklist Smp#: 47
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 047 Name: 480-0028167-047
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:09 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

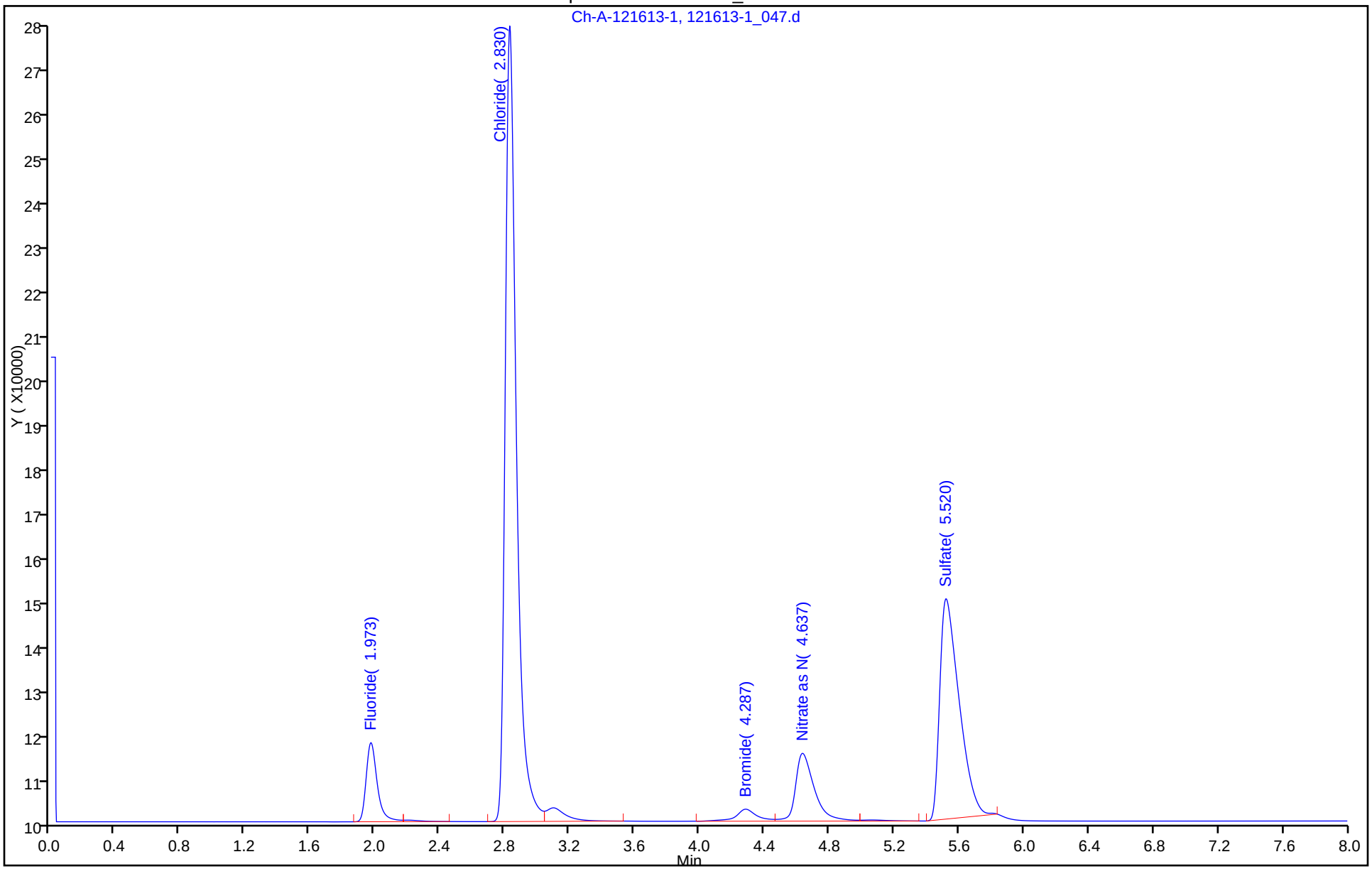
First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:14

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.973	1.977	-0.004	79970	2.61	
2 Chloride					
2.830	2.840	-0.010	807914	42.5	
3 Bromide					
4.287	4.393	-0.106	22813	2.89	
4 Nitrate as N					
4.637	4.673	-0.036	114952	0	
5 Sulfate					
5.520	5.597	-0.077	386763	28.4	

Report Date: 17-Dec-2013 08:09:14 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_047.d				
Injection Date:	16-Dec-2013 20:31:04	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-6 MS	Lab Sample ID:	480-68260-6	Worklist Smp#:	47
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\20131216-28167.b\121613-1_048.d
Lims ID: 460-68260-A-6 MSD Lab Sample ID: 480-68260-6
Client ID:
Sample Type: MSD
Inject. Date: 16-Dec-2013 20:41:12 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 048 Name: 480-0028167-048
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:09 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:18

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.973	1.867	2.173	79345	5.54	4.79		1 Fluoride
2.203	2.173	2.437	2167	0.15	6.88		
2.830	2.683	3.043	804561	56.15	4.82		2 Chloride
3.100	3.043	3.510	24139	1.68	8.34		
4.287	3.990	4.473	22807	1.59	9.06		3 Bromide
4.637	4.473	4.980	113700	7.94	7.98		
5.060	4.980	5.350	2555	0.18	11.16		
5.517	5.397	5.830	383522	26.77	8.29		5 Sulfate
			1432796			Totals	

Total Unknown Area% = 2.01

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\20131216-28167.b\121613-1_048.d
Lims ID: 460-68260-A-6 MSD Lab Sample ID: 480-68260-6
Client ID:
Sample Type: MSD
Inject. Date: 16-Dec-2013 20:41:12 ALS Bottle#: 0 Worklist Smp#: 48
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 048 Name: 480-0028167-048
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:09 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

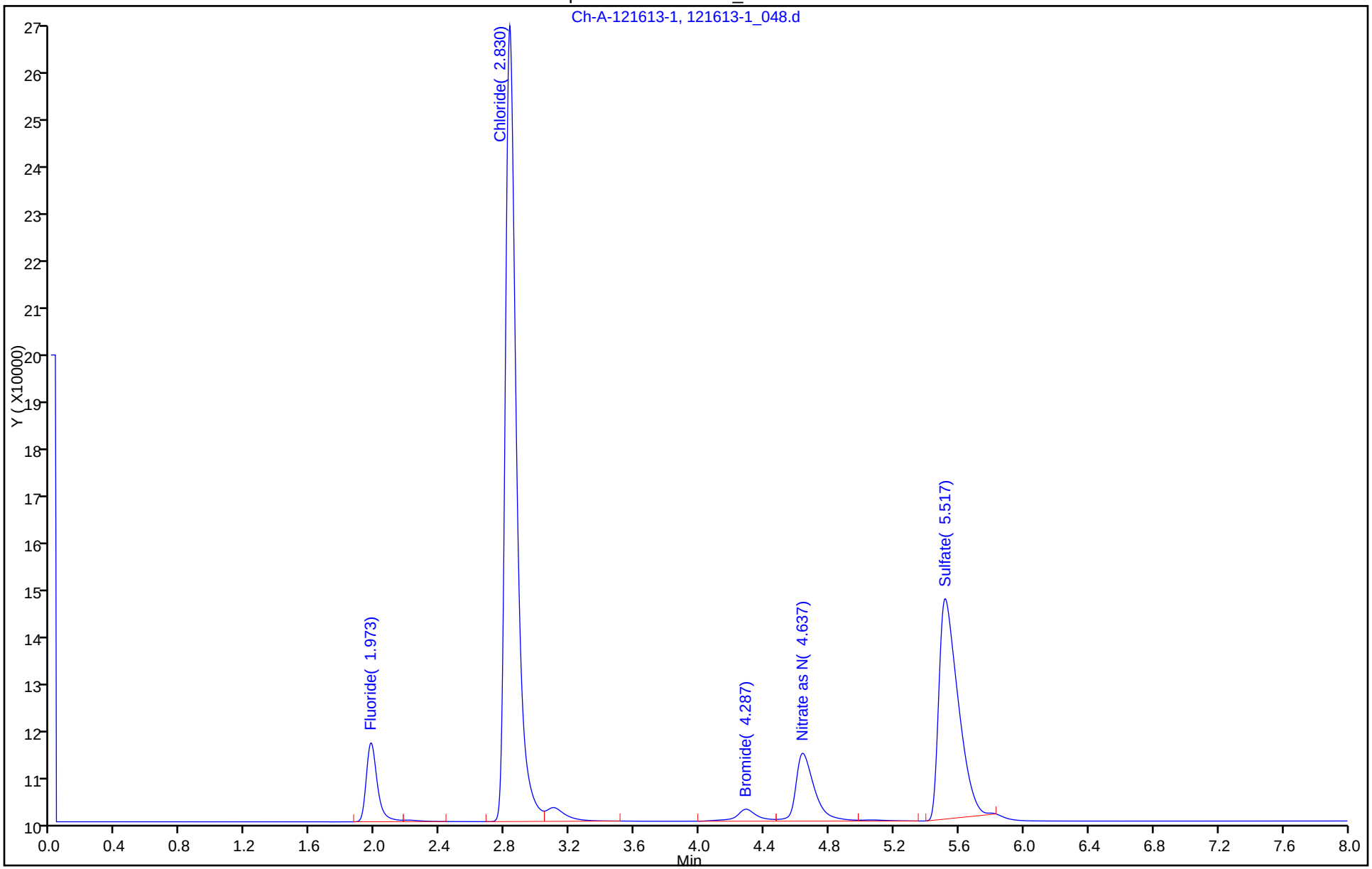
First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:18

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.973	1.977	-0.004	79345	2.59	
2 Chloride					
2.830	2.840	-0.010	804561	42.3	
3 Bromide					
4.287	4.393	-0.106	22807	2.89	
4 Nitrate as N					
4.637	4.673	-0.036	113700	0	
5 Sulfate					
5.517	5.597	-0.080	383522	28.2	

Report Date: 17-Dec-2013 08:09:18 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_048.d				
Injection Date:	16-Dec-2013 20:41:12	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-6 MSD	Lab Sample ID:	480-68260-6	Worklist Smp#:	48
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\20131216-28167.b\121613-1_049.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 20:51:20 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 049 Name: 480-0028167-049
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:23

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.977	1.867	2.167	55020	7.38	4.39		1 Fluoride
2.210	2.167	2.427	1463	0.20	7.39		
2.840	2.687	3.337	339995	45.62	4.89	M	2 Chloride
4.403	4.257	4.560	12955	1.74	5.34		3 Bromide
4.683	4.560	5.003	81922	10.99	6.79		
5.067	5.003	5.337	1720	0.23	9.94		
5.550	5.403	6.117	252157	33.84	7.82		5 Sulfate
			745232			Totals	

Total Unknown Area% = 0.43

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\20131216-28167.b\121613-1_049.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 20:51:20 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 049 Name: 480-0028167-049
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:23

Start Cal Date: 13-Dec-2013 11:14:16
End Cal Date: 13-Dec-2013 12:15:03

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.0	1.80	27510	-10.2	10
2 Chloride	20.0	0.0	17.7	17000	-11.6	10
3 Bromide	2.00	0.010	1.64	6477.50	-17.9	10
5 Sulfate	20.0	-0.047	18.5	12608	-7.6	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 20:51:20 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 049 Name: 480-0028167-049
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:23

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.977	1.977	0.0	55020	1.80	
2 Chloride					M
2.840	2.840	0.0	339995	17.7	M
3 Bromide					
4.403	4.393	0.010	12955	1.64	
4 Nitrate as N					
4.683	4.673	0.010	81922	0	
5 Sulfate					
5.550	5.597	-0.047	252157	18.5	

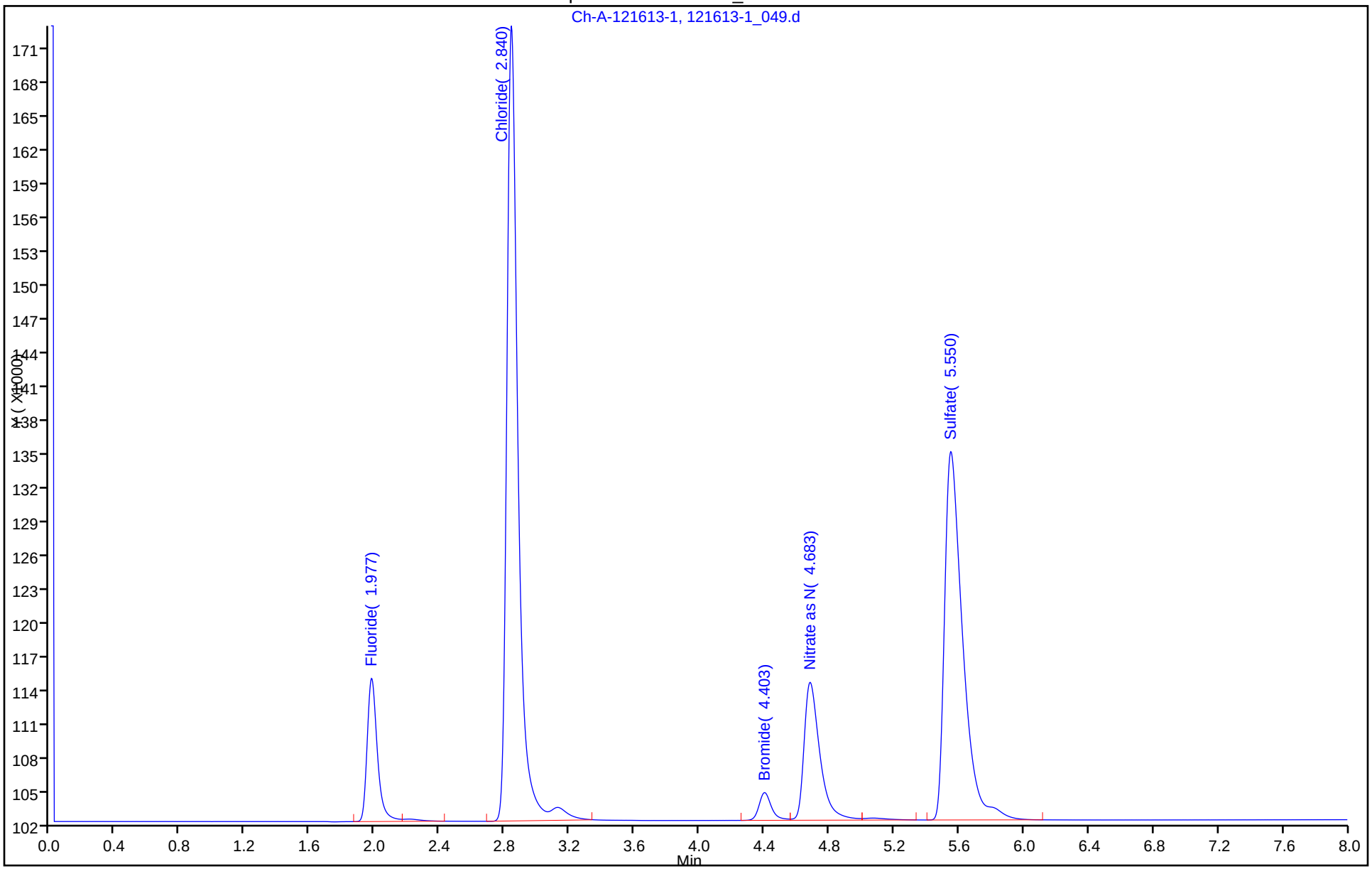
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:10:10 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d				
Injection Date:	16-Dec-2013 20:51:20	Instrument ID:	IC-1	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:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

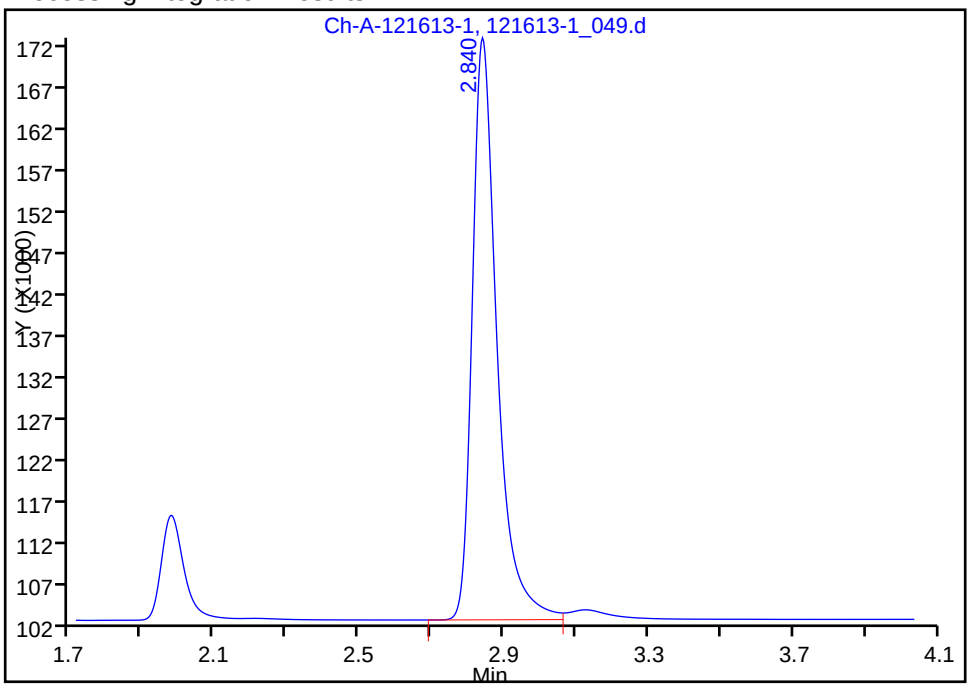
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d				
Injection Date:	16-Dec-2013 20:51:20	Instrument ID:	IC-1		
Lims ID:	CCV	Lab Sample ID:			
Client ID:					
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	49
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		

2 Chloride, CAS: 16887-00-6

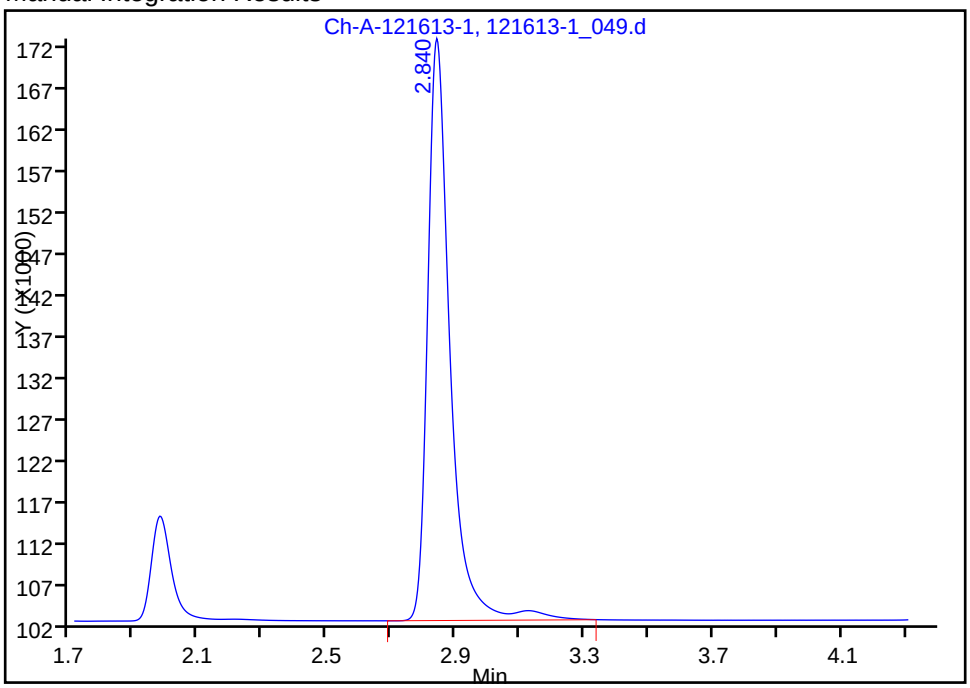
Processing Integration Results

RT: 2.84
Response: 331674
Amount: 17.237897



Manual Integration Results

RT: 2.84
Response: 339995
Amount: 17.678835



Reviewer: clarkk, 17-Dec-2013 08:10:10
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 20:51:20 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 049 Name: 480-0028167-049
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:23

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.977	1.867	2.167	55020	7.38	4.39		1 Fluoride
2.210	2.167	2.427	1463	0.20	7.39		
2.840	2.687	3.337	339995	45.62	4.89	M	2 Chloride
4.403	4.257	4.560	12955	1.74	5.34		3 Bromide
4.683	4.560	5.003	81922	10.99	6.79		
5.067	5.003	5.337	1720	0.23	9.94		
5.550	5.403	6.117	252157	33.84	7.82		5 Sulfate
			745232			Totals	

Total Unknown Area% = 0.43

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\20131216-28167.b\121613-1_049.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 20:51:20 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 049 Name: 480-0028167-049
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:23

Start Cal Date: 13-Dec-2013 11:14:16
End Cal Date: 13-Dec-2013 12:15:03

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.0	1.80	27510	-10.2	10
2 Chloride	20.0	0.0	17.7	17000	-11.6	10
3 Bromide	2.00	0.010	1.64	6477.50	-17.9	10
5 Sulfate	20.0	-0.047	18.5	12608	-7.6	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 20:51:20 ALS Bottle#: 0 Worklist Smp#: 49
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 049 Name: 480-0028167-049
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:23

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.977	1.977	0.0	55020	1.80	
2 Chloride					M
2.840	2.840	0.0	339995	17.7	M
3 Bromide					
4.403	4.393	0.010	12955	1.64	
4 Nitrate as N					
4.683	4.673	0.010	81922	0	
5 Sulfate					
5.550	5.597	-0.047	252157	18.5	

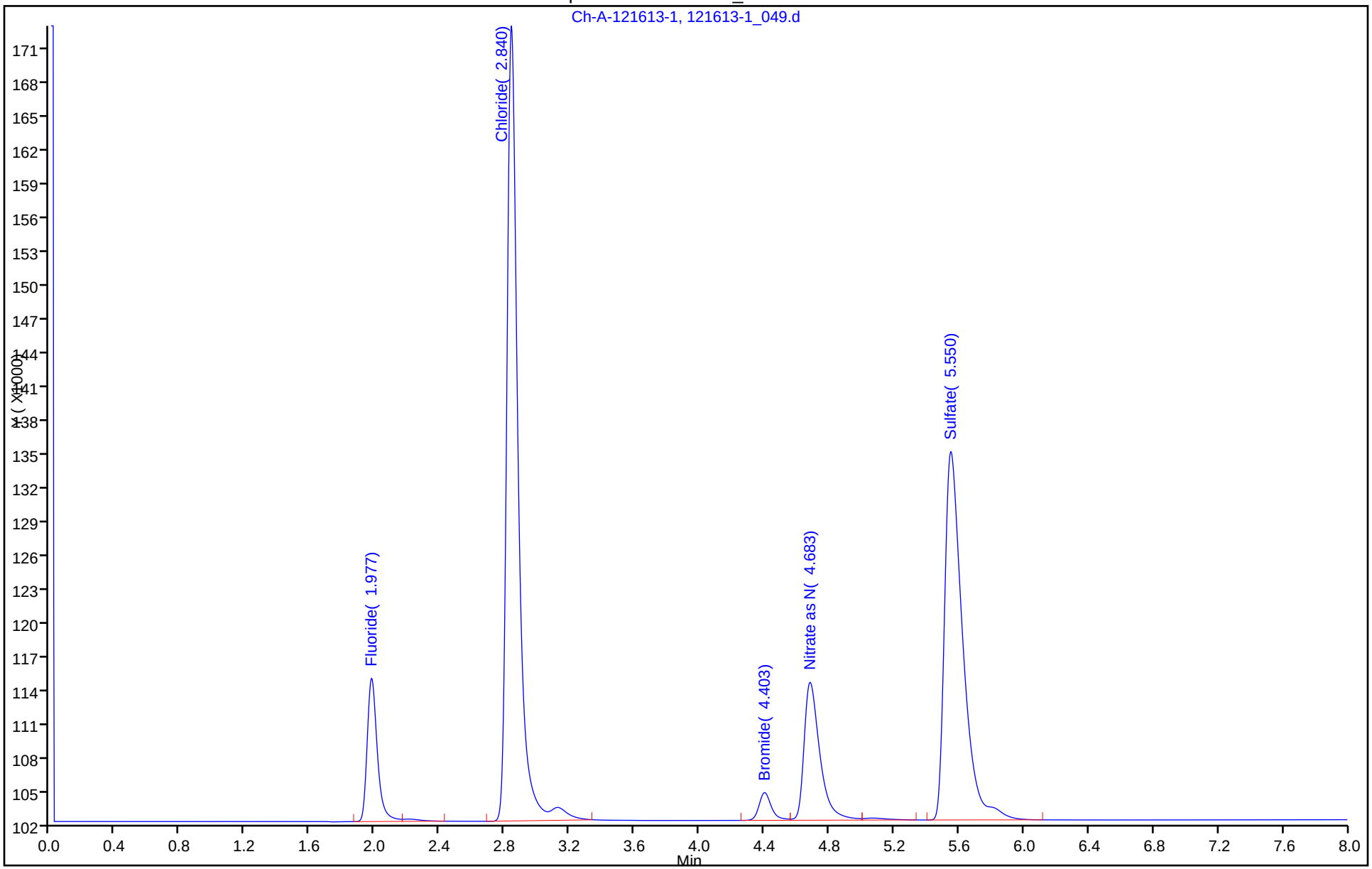
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:10:10 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d				
Injection Date:	16-Dec-2013 20:51:20	Instrument ID:	IC-1	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:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

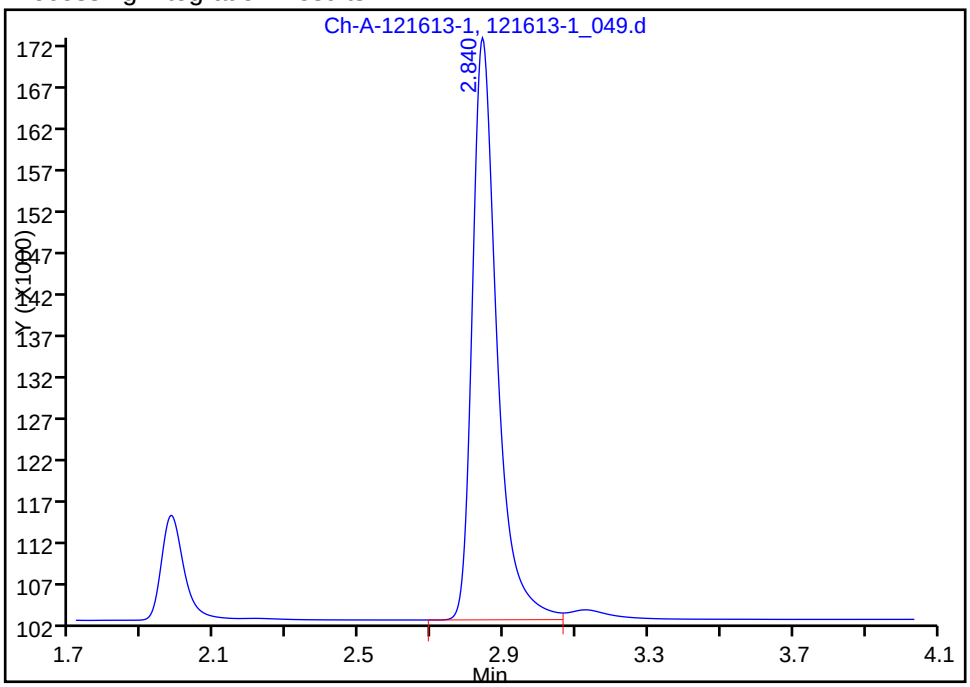
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_049.d				
Injection Date:	16-Dec-2013 20:51:20	Instrument ID:	IC-1		
Lims ID:	CCV	Lab Sample ID:			
Client ID:					
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	49
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		

2 Chloride, CAS: 16887-00-6

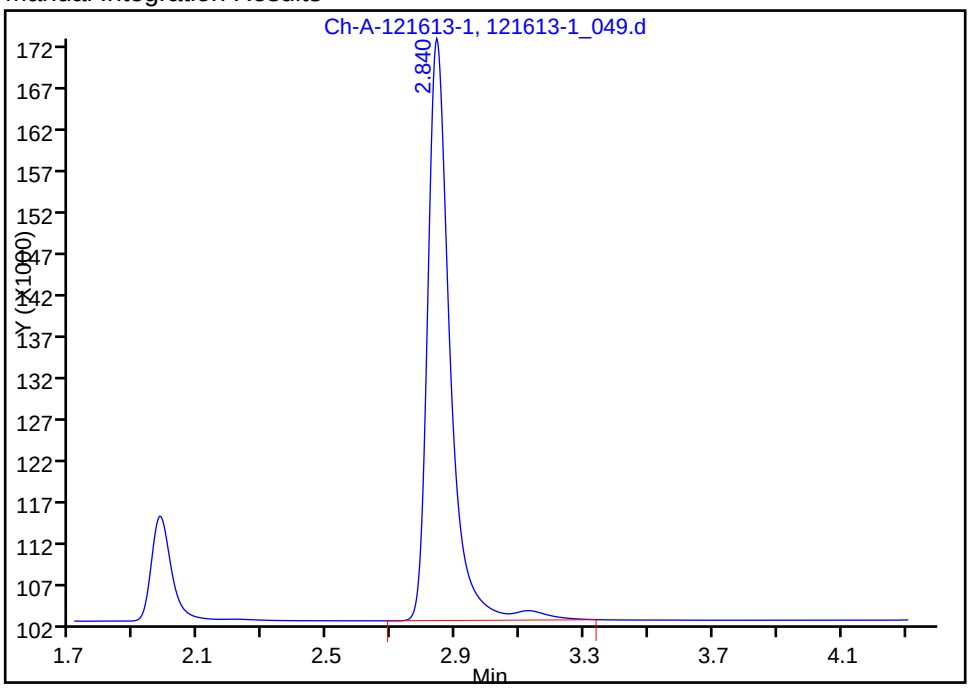
Processing Integration Results

RT: 2.84
Response: 331674
Amount: 17.237897



Manual Integration Results

RT: 2.84
Response: 339995
Amount: 17.678835



Reviewer: clarkk, 17-Dec-2013 08:10:10
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_050.d
Lims ID: CCB Lab Sample ID: CCB 480-157772/50-A
Client ID:
Sample Type: CCB
Inject. Date: 16-Dec-2013 21:01:28 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 050 Name: 480-0028167-050
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:23 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:30

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	2.923	274	54.80	3.97		2 Chloride
5.633	5.530	5.717	226	45.20	5.14		5 Sulfate
			500			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

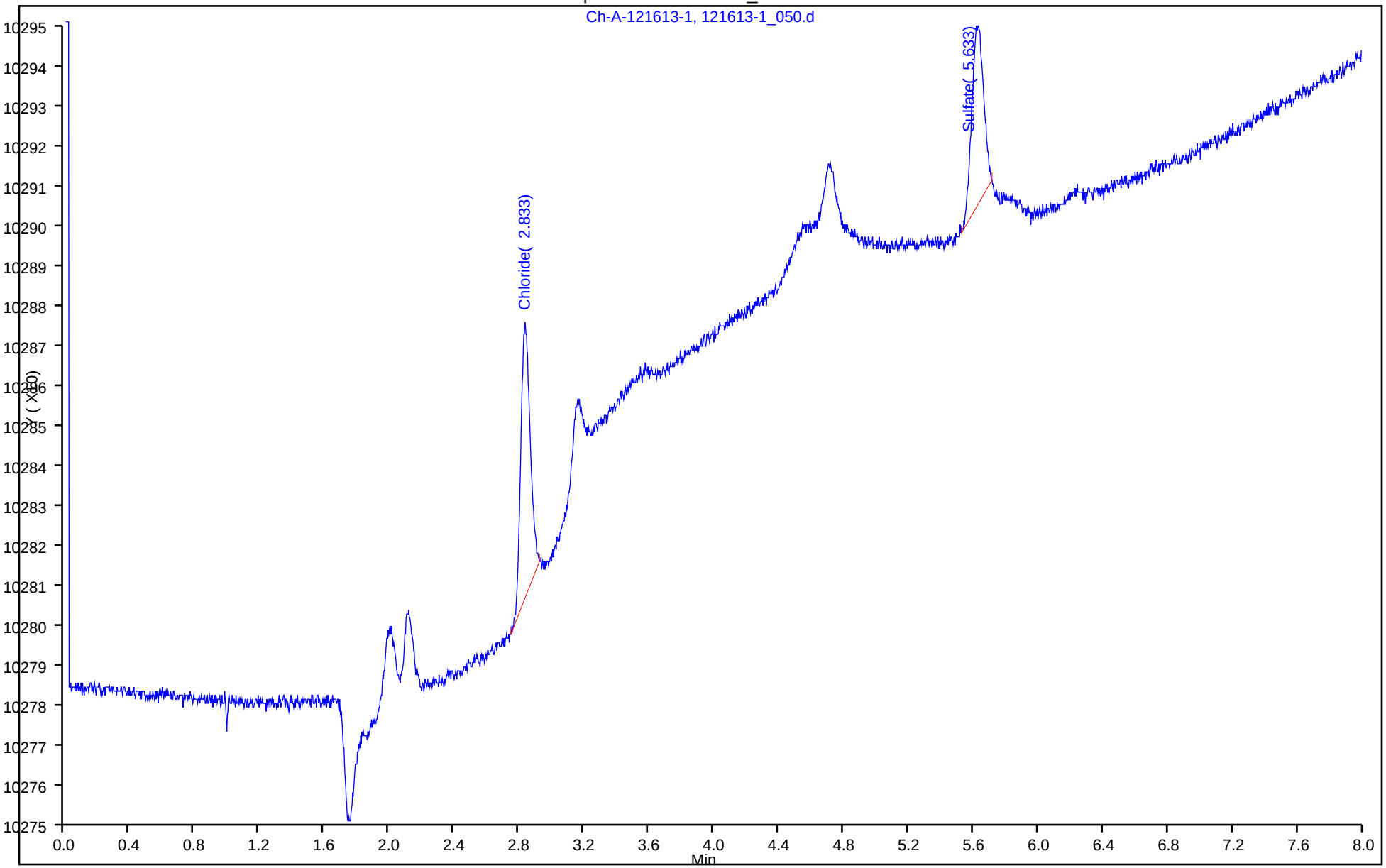
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_050.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/50-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Dec-2013 21:01:28	ALS Bottle#:	0	Worklist Smp#:	50
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 050 Name: 480-0028167-050				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:09:23	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:09:30		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.833	2.840	-0.007	274	-0.3233	
5 Sulfate					
5.633	5.597	0.036	226	-0.0811	

Report Date: 17-Dec-2013 08:09:30 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_050.d				
Injection Date:	16-Dec-2013 21:01:28	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/50-A	Worklist Smp#:	50
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\20131216-28167.b\121613-1_050.d
Lims ID: CCB Lab Sample ID: CCB 480-157772/50-A
Client ID:
Sample Type: CCB
Inject. Date: 16-Dec-2013 21:01:28 ALS Bottle#: 0 Worklist Smp#: 50
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 050 Name: 480-0028167-050
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:23 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:30

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	2.923	274	54.80	3.97		2 Chloride
5.633	5.530	5.717	226	45.20	5.14		5 Sulfate
			500			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

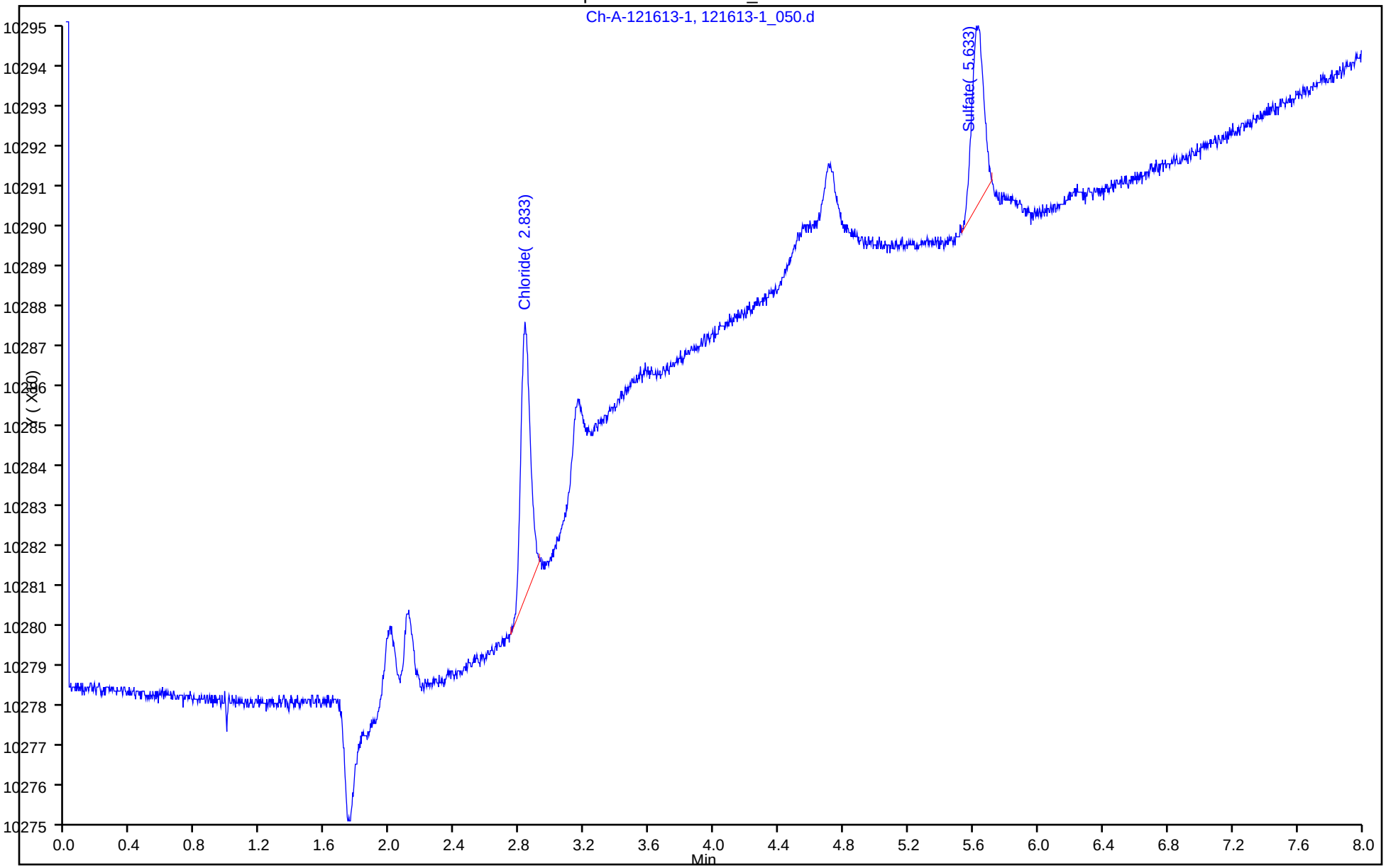
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_050.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/50-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Dec-2013 21:01:28	ALS Bottle#:	0	Worklist Smp#:	50
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 050 Name: 480-0028167-050				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:09:23	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:09:30		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.833	2.840	-0.007	274	-0.3233	
5 Sulfate					
5.633	5.597	0.036	226	-0.0811	

Report Date: 17-Dec-2013 08:09:31 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_050.d				
Injection Date:	16-Dec-2013 21:01:28	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/50-A	Worklist Smp#:	50
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\20131216-28167.b\121613-1_051.d
Lims ID: LCS Lab Sample ID: LCS 480-157772/51-A
Client ID:
Sample Type: LCS
Inject. Date: 16-Dec-2013 21:11:35 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 051 Name: 480-0028167-051
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:23 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:39

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.977	1.870	2.167	55234	7.39	4.39		1 Fluoride
2.207	2.167	2.430	1479	0.20	7.29		
2.840	2.707	3.063	331530	44.35	4.77		2 Chloride
3.123	3.063	3.430	9378	1.25	7.99		
4.403	4.253	4.563	12989	1.74	5.36		3 Bromide
4.683	4.563	4.990	81918	10.96	6.78		
5.067	4.990	5.370	1999	0.27	10.92		
5.557	5.417	6.097	253040	33.85	7.83		5 Sulfate
			747567			Totals	

Total Unknown Area% = 1.72

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\20131216-28167.b\121613-1_051.d
Lims ID: LCS Lab Sample ID: LCS 480-157772/51-A
Client ID:
Sample Type: LCS
Inject. Date: 16-Dec-2013 21:11:35 ALS Bottle#: 0 Worklist Smp#: 51
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 051 Name: 480-0028167-051
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:09:23 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

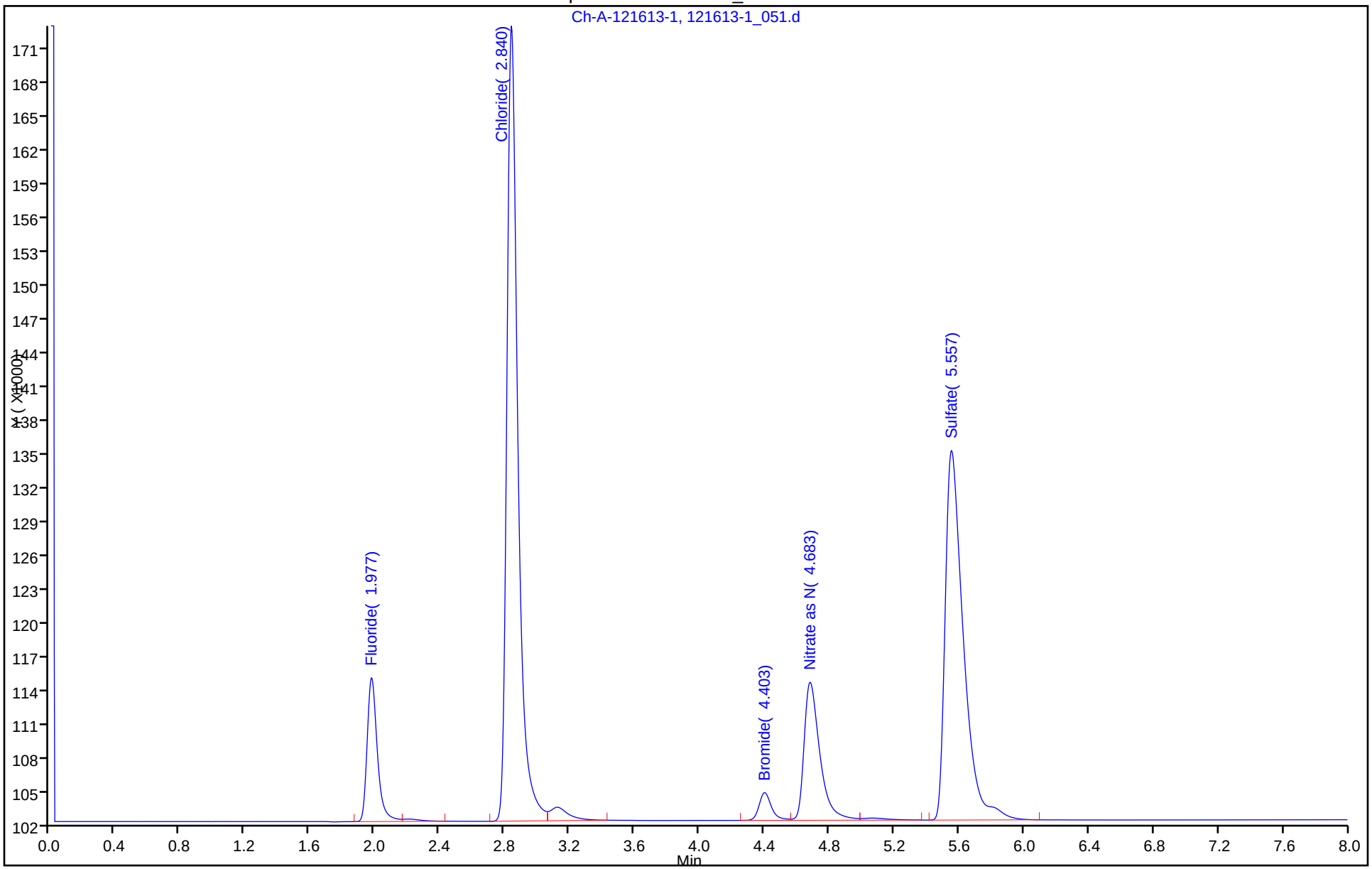
First Level Reviewer: clarkk Date: 17-Dec-2013 08:09:39

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.977	1.977	0.0	55234	1.80	
2 Chloride					
2.840	2.840	0.0	331530	17.2	
3 Bromide					
4.403	4.393	0.010	12989	1.65	
4 Nitrate as N					
4.683	4.673	0.010	81918	0	
5 Sulfate					
5.557	5.597	-0.040	253040	18.5	

Report Date: 17-Dec-2013 08:09:39 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_051.d				
Injection Date:	16-Dec-2013 21:11:35	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-157772/51-A	Worklist Smp#:	51
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\20131216-28167.b\121613-1_052.d
Lims ID: MB Lab Sample ID: MB 480-157772/52-A
Client ID:
Sample Type: MB
Inject. Date: 16-Dec-2013 21:21:43 ALS Bottle#: 0 Worklist Smp#: 52
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 052 Name: 480-0028167-052
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:10 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:10:19

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	2.930	294	46.67	4.20		2 Chloride
5.630	5.523	5.737	336	53.33	5.42		5 Sulfate
			630			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

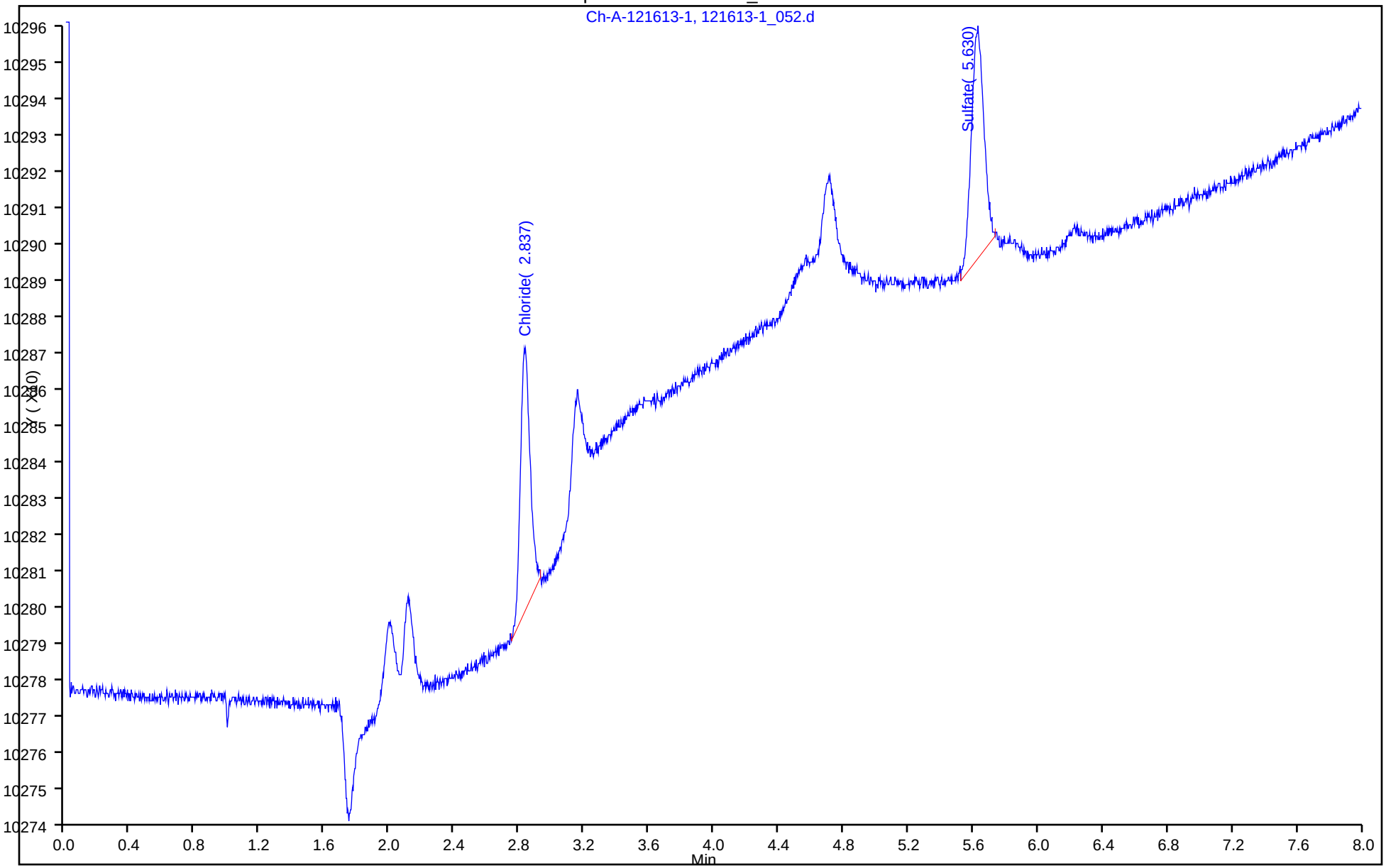
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_052.d				
Lims ID:	MB	Lab Sample ID:	MB 480-157772/52-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	16-Dec-2013 21:21:43	ALS Bottle#:	0	Worklist Smp#:	52
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 052 Name: 480-0028167-052				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:10:10	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:10:19		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.837	2.840	-0.003	294	-0.3222	
5 Sulfate					
5.630	5.597	0.033	336	-0.0730	

Report Date: 17-Dec-2013 08:10:19 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_052.d				
Injection Date:	16-Dec-2013 21:21:43	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-157772/52-A	Worklist Smp#:	52
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\20131216-28167.b\121613-1_053.d
Lims ID: 460-68260-A-7 Lab Sample ID: 480-68260-7
Client ID: GW0014
Sample Type: Client
Inject. Date: 16-Dec-2013 21:31:51 ALS Bottle#: 0 Worklist Smp#: 53
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 053 Name: 480-0028167-053
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:36 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:10:36

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.967	1.870	2.180	9345	0.97	4.08		1 Fluoride
2.837	2.693	3.053	457339	47.41	4.77		2 Chloride
3.110	3.053	3.450	13207	1.37	8.04		
4.353	4.130	4.373	455	0.05	22.75		
4.673	4.613	4.860	204	0.02	5.51		
5.037	4.937	5.177	502	0.05	5.52		
5.507	5.367	6.110	483666	50.14	9.27		5 Sulfate
			964718			Totals	

Total Unknown Area% = 1.47

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

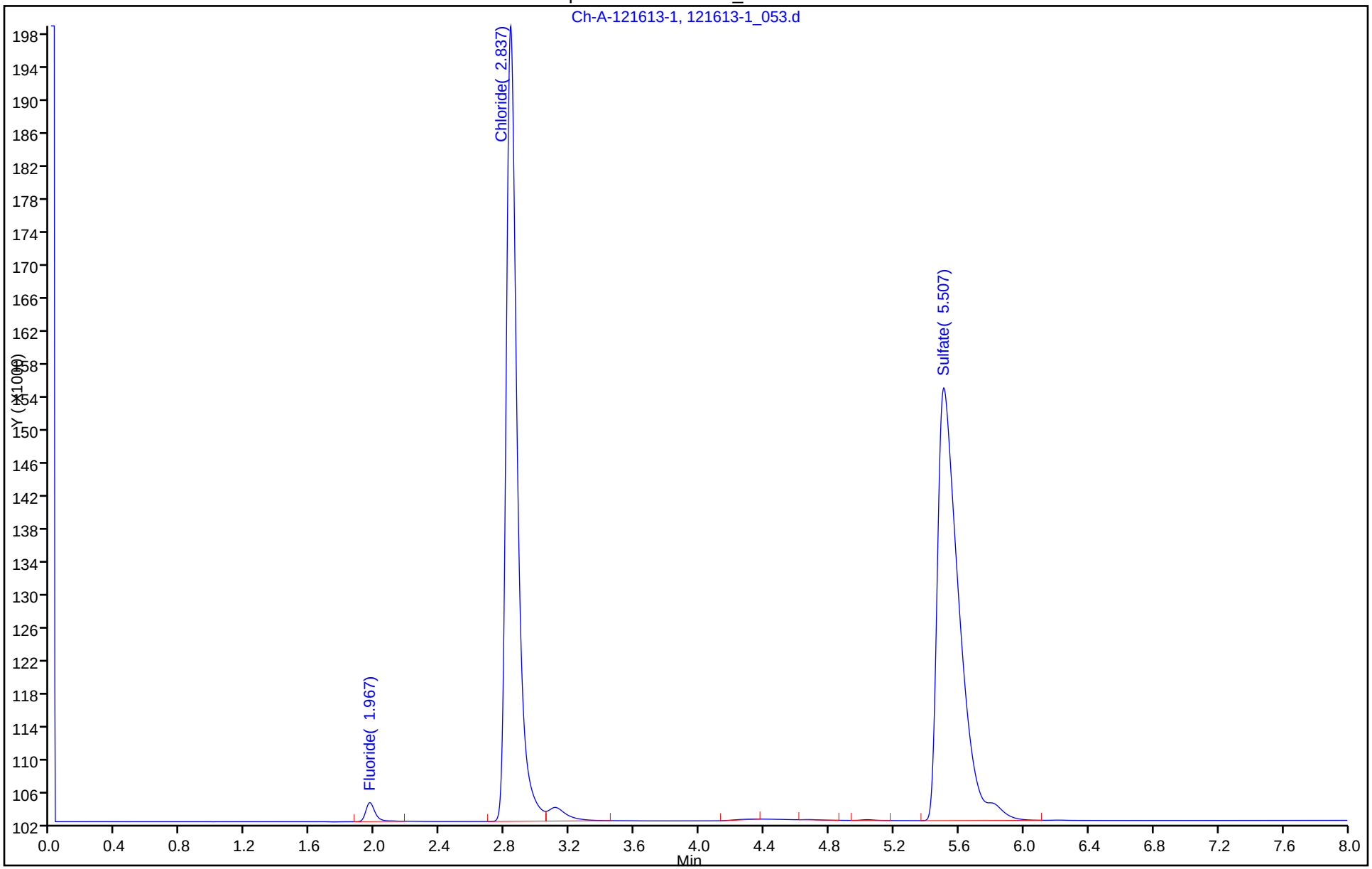
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_053.d				
Lims ID:	460-68260-A-7	Lab Sample ID:	480-68260-7		
Client ID:	GW0014				
Sample Type:	Client				
Inject. Date:	16-Dec-2013 21:31:51	ALS Bottle#:	0	Worklist Smp#:	53
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 053 Name: 480-0028167-053				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:10:36	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:10:36		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.967	1.977	-0.010	9345	0.3050	
2 Chloride					
2.837	2.840	-0.003	457339	23.9	
5 Sulfate					
5.507	5.597	-0.090	483666	35.5	

Report Date: 17-Dec-2013 08:10:36 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_053.d				
Injection Date:	16-Dec-2013 21:31:51	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-7	Lab Sample ID:	480-68260-7	Worklist Smp#:	53
Client ID:	GW0014				
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\20131216-28167.b\121613-1_054.d
Lims ID: 460-68260-A-8 Lab Sample ID: 480-68260-8
Client ID: GW0015
Sample Type: Client
Inject. Date: 16-Dec-2013 21:41:59 ALS Bottle#: 0 Worklist Smp#: 54
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 054 Name: 480-0028167-054
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:10:36 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:11:05

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.967	1.870	2.167	8878	1.10	3.97		1 Fluoride
2.837	2.700	3.053	385134	47.91	4.75		2 Chloride
3.113	3.053	3.423	11074	1.38	8.04		
4.330	4.107	4.617	2754	0.34	14.49		3 Bromide
5.520	5.387	6.117	396051	49.27	8.73		5 Sulfate
			803891			Totals	

Total Unknown Area% = 1.38

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

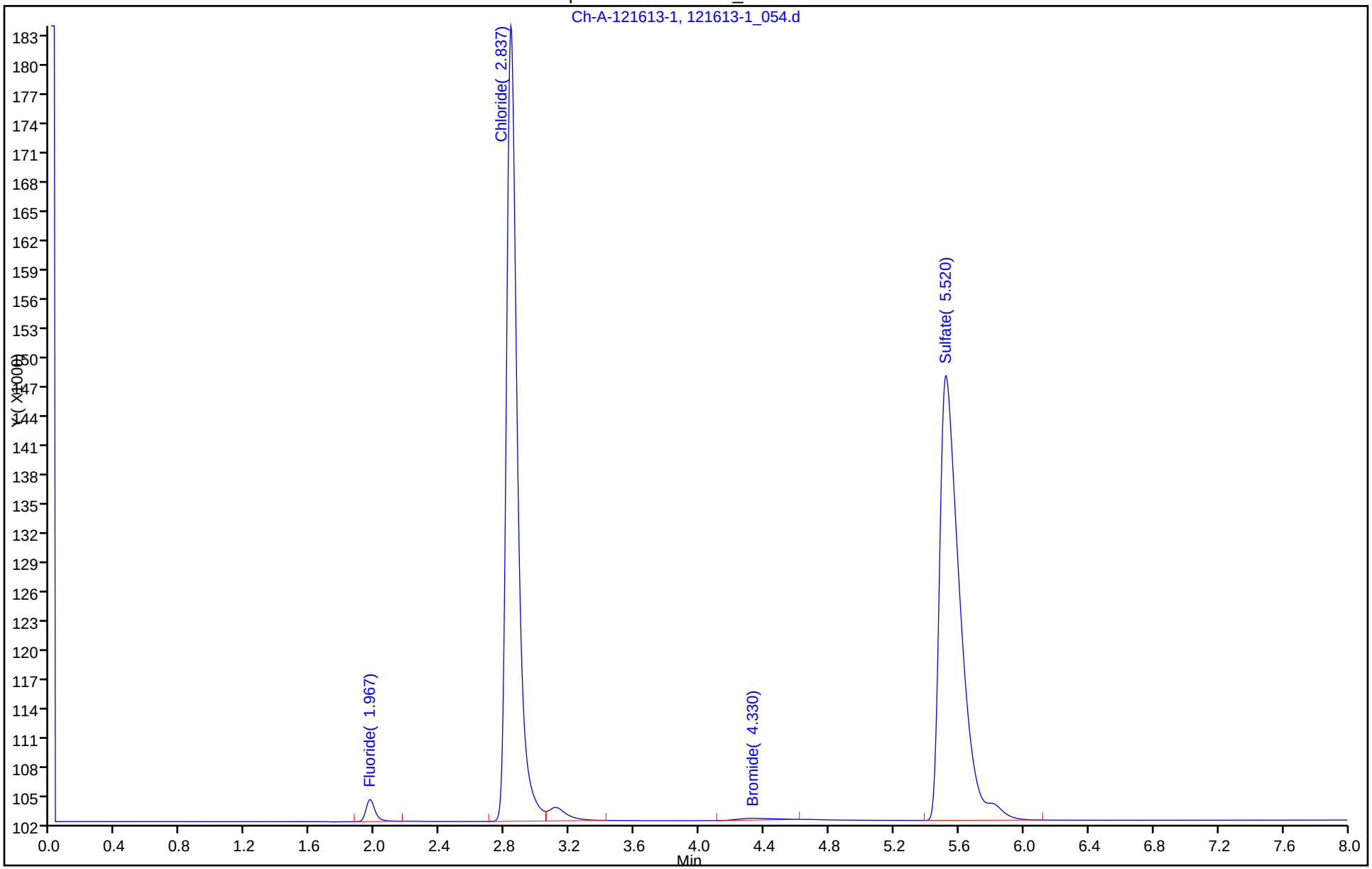
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_054.d				
Lims ID:	460-68260-A-8	Lab Sample ID:	480-68260-8		
Client ID:	GW0015				
Sample Type:	Client				
Inject. Date:	16-Dec-2013 21:41:59	ALS Bottle#:	0	Worklist Smp#:	54
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 054 Name: 480-0028167-054				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:10:36	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:11:05		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.967	1.977	-0.010	8878	0.2898	
2 Chloride					
2.837	2.840	-0.003	385134	20.1	
3 Bromide					
4.330	4.393	-0.063	2754	0.3489	
5 Sulfate					
5.520	5.597	-0.077	396051	29.1	

Report Date: 17-Dec-2013 08:11:05 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_054.d				
Injection Date:	16-Dec-2013 21:41:59	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-8	Lab Sample ID:	480-68260-8	Worklist Smp#:	54
Client ID:	GW0015				
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\20131216-28167.b\121613-1_061.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 22:52:54 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 061 Name: 480-0028167-061
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:11:53 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:11:53

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	1.873	2.173	55296	7.33	4.39		1 Fluoride
2.213	2.173	2.443	1480	0.20	7.25		
2.843	2.713	3.293	347296	46.02	4.98	M	2 Chloride
4.413	4.267	4.573	13047	1.73	5.32		3 Bromide
4.693	4.573	5.007	82314	10.91	6.73		
5.083	5.007	5.363	1899	0.25	10.38		
5.503	5.370	6.047	253329	33.57	7.78		5 Sulfate
			754661			Totals	

Total Unknown Area% = 0.45

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\20131216-28167.b\121613-1_061.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 22:52:54 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 061 Name: 480-0028167-061
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:11:53 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:11:53

Start Cal Date: 13-Dec-2013 11:14:16
End Cal Date: 13-Dec-2013 12:15:03

Compound	Standard RRF/Amt	DLT RT	Ccal Amt	Ccal RF	%D	Max. %D
1 Fluoride	2.00	0.003	1.80	27648	-9.8	10
2 Chloride	20.0	0.003	18.1	17365	-9.7	10
3 Bromide	2.00	0.020	1.65	6523.50	-17.4	10
5 Sulfate	20.0	-0.094	18.6	12666	-7.2	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_061.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 16-Dec-2013 22:52:54 ALS Bottle#: 0 Worklist Smp#: 61
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 061 Name: 480-0028167-061
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:11:53 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d

Column 1 : Detector Ch-A-092410-2
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:11:53

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.980	1.977	0.003	55296	1.80	
2 Chloride					M
2.843	2.840	0.003	347296	18.1	M
3 Bromide					
4.413	4.393	0.020	13047	1.65	
4 Nitrate as N					
4.693	4.673	0.020	82314	0	
5 Sulfate					
5.503	5.597	-0.094	253329	18.6	

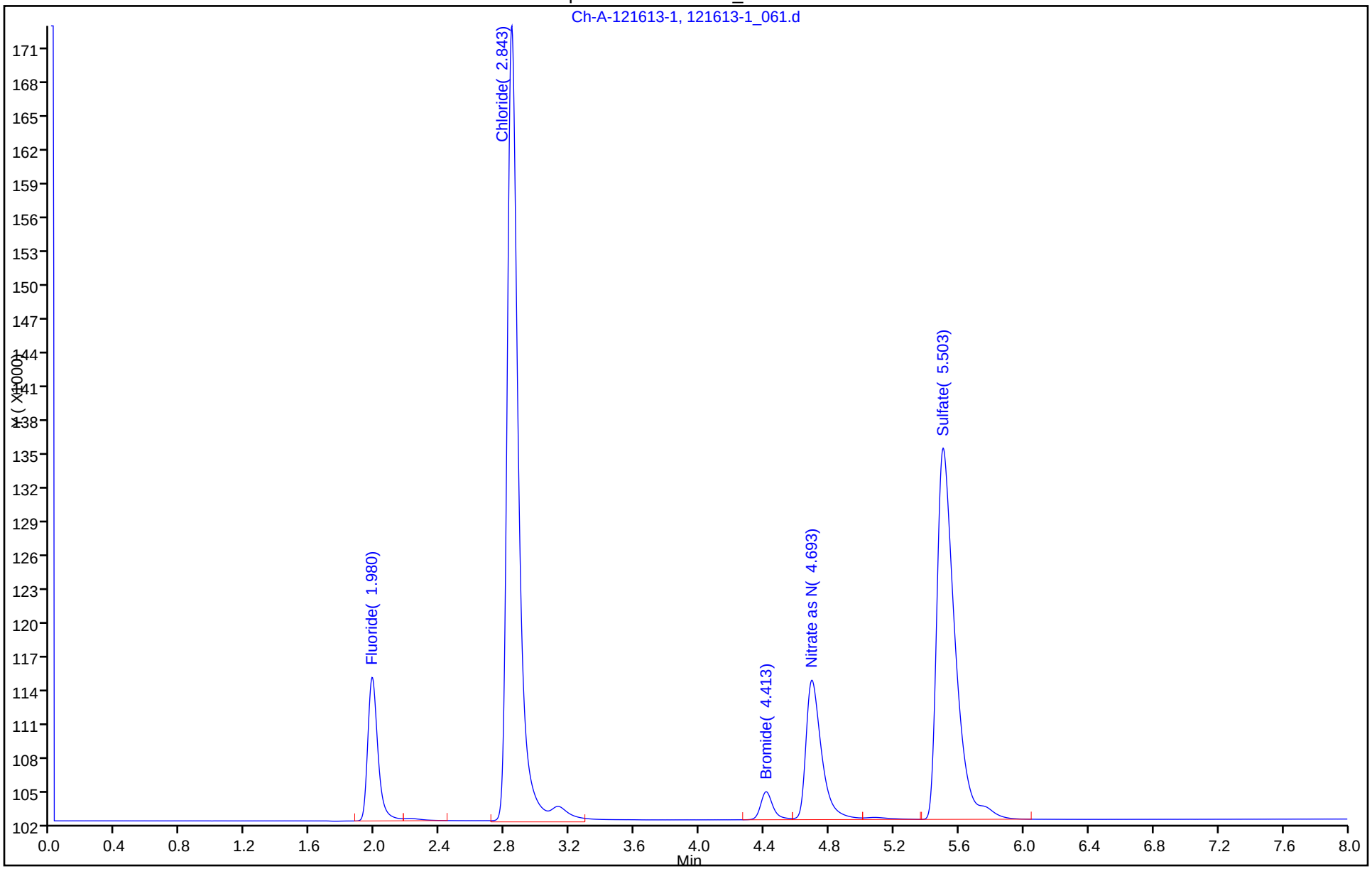
QC Flag Legend

Review Flags
M - Manually Integrated

Report Date: 17-Dec-2013 08:11:53 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_061.d				
Injection Date:	16-Dec-2013 22:52:54	Instrument ID:	IC-1	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:	IC1-300	Limit Group:	MB 300.0_28D ICAL		



Manual Integration/User Assign Peak Report

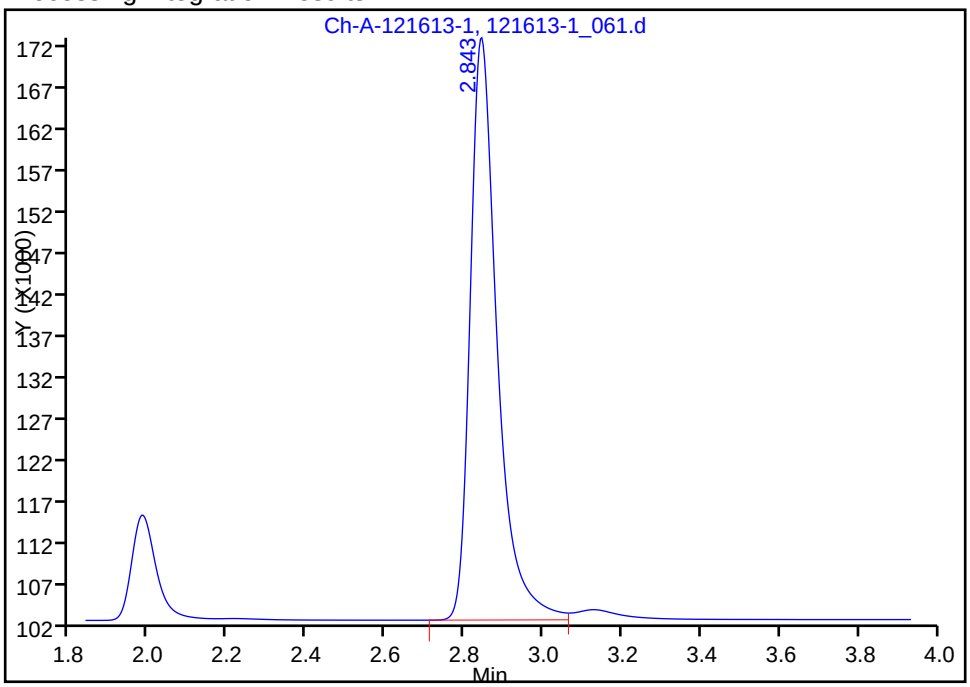
TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_061.d				
Injection Date:	16-Dec-2013 22:52:54	Instrument ID:	IC-1		
Lims ID:	CCV	Lab Sample ID:			
Client ID:					
Operator ID:	TCHROM	ALS Bottle#:	0	Worklist Smp#:	61
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		

2 Chloride, CAS: 16887-00-6

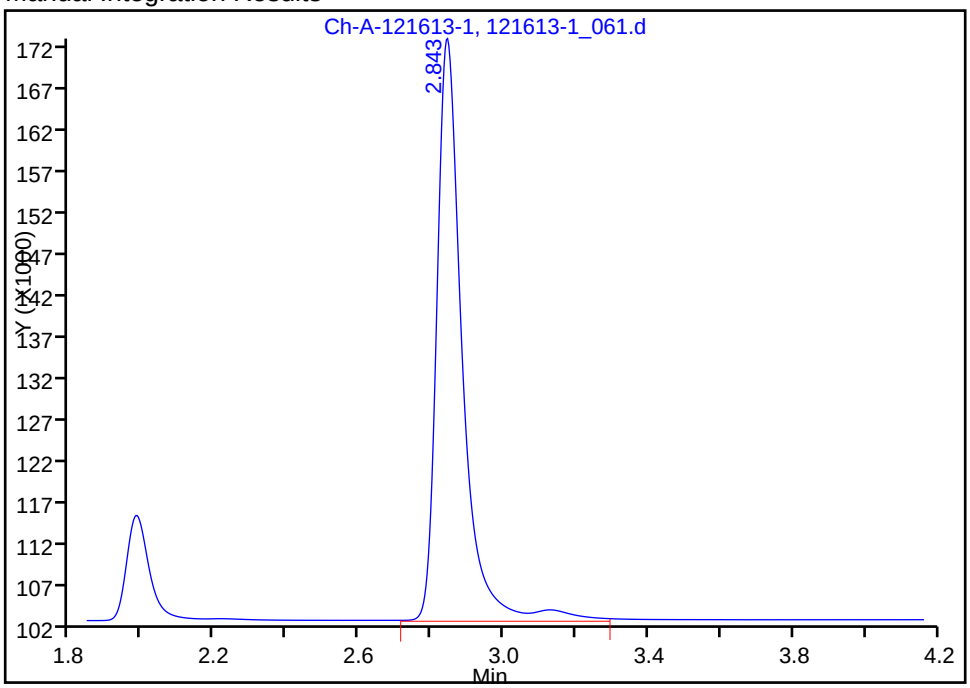
Processing Integration Results

RT: 2.84
Response: 332890
Amount: 17.302334



Manual Integration Results

RT: 2.84
Response: 347296
Amount: 18.065721



Reviewer: clarkk, 17-Dec-2013 08:11:53
Audit Action: Manually Integrated
Audit Reason: Baseline Smoothing

TestAmerica Buffalo
Area/Height Percent Report

Data File: \\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_062.d
Lims ID: CCB Lab Sample ID: CCB 480-157772/62-A
Client ID:
Sample Type: CCB
Inject. Date: 16-Dec-2013 23:03:02 ALS Bottle#: 0 Worklist Smp#: 62
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 062 Name: 480-0028167-062
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 08:11:53 Calib Date: 13-Dec-2013 12:15:03
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d
Process Host: XAWRK012

First Level Reviewer: clarkk Date: 17-Dec-2013 08:11:56

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	2.760	2.930	237	47.59	4.16		2 Chloride
5.570	5.480	5.673	261	52.41	5.22		5 Sulfate
			498			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

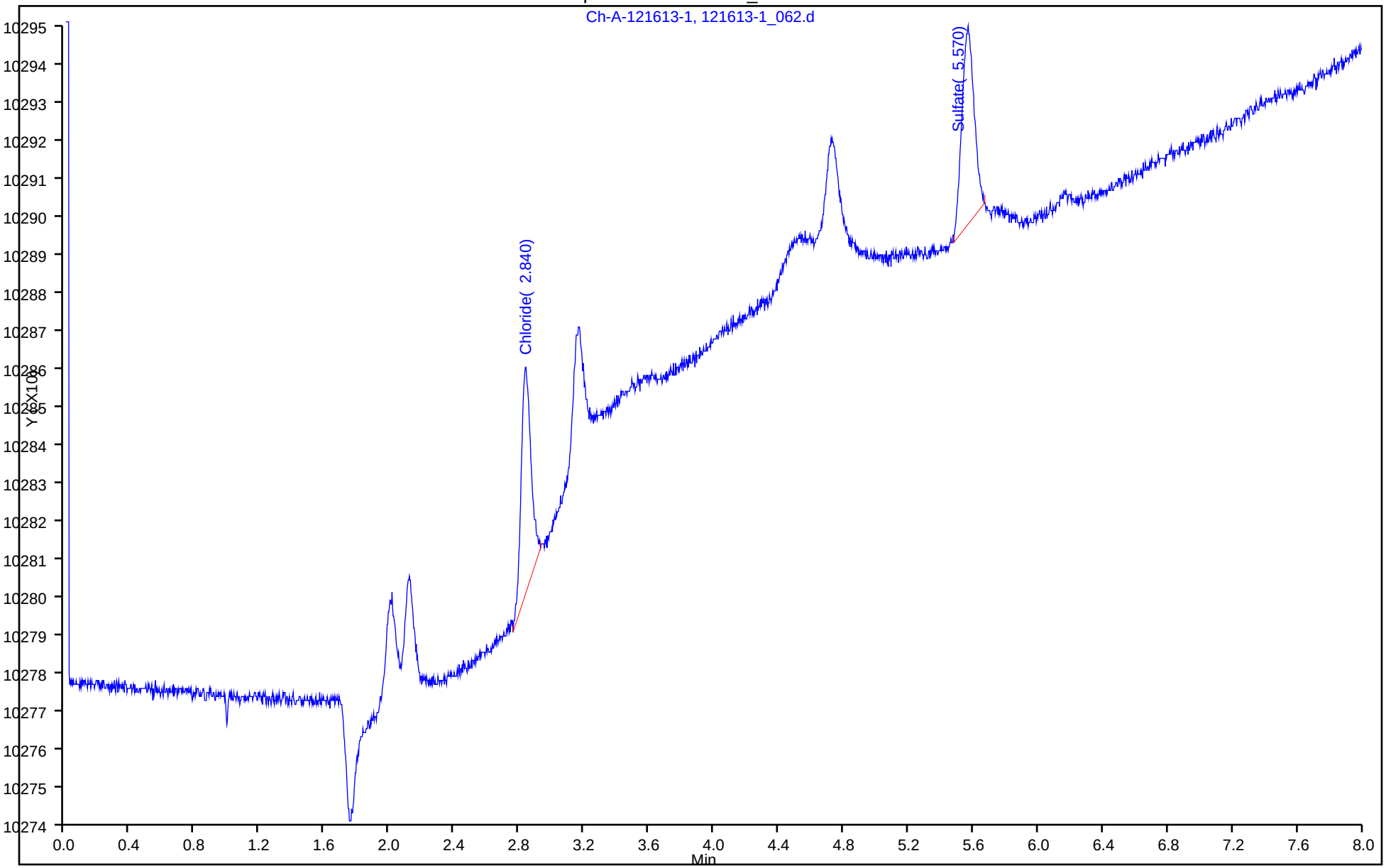
Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_062.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/62-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	16-Dec-2013 23:03:02	ALS Bottle#:	0	Worklist Smp#:	62
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 062 Name: 480-0028167-062				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 08:11:53	Calib Date:	13-Dec-2013 12:15:03		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\Bufchrom\ChromData\IC-1\20131213-28121.b\121313-1_007.d				
Column 1 :		Detector	Ch-A-092410-2		
Process Host:	XAWRK012				
First Level Reviewer: clarkk		Date:	17-Dec-2013 08:11:56		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.840	2.840	0.0	237	-0.3253	
5 Sulfate					
5.570	5.597	-0.027	261	-0.0786	

Report Date: 17-Dec-2013 08:11:56 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131216-28167.b\121613-1_062.d				
Injection Date:	16-Dec-2013 23:03:02	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-157772/62-A	Worklist Smp#:	62
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_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

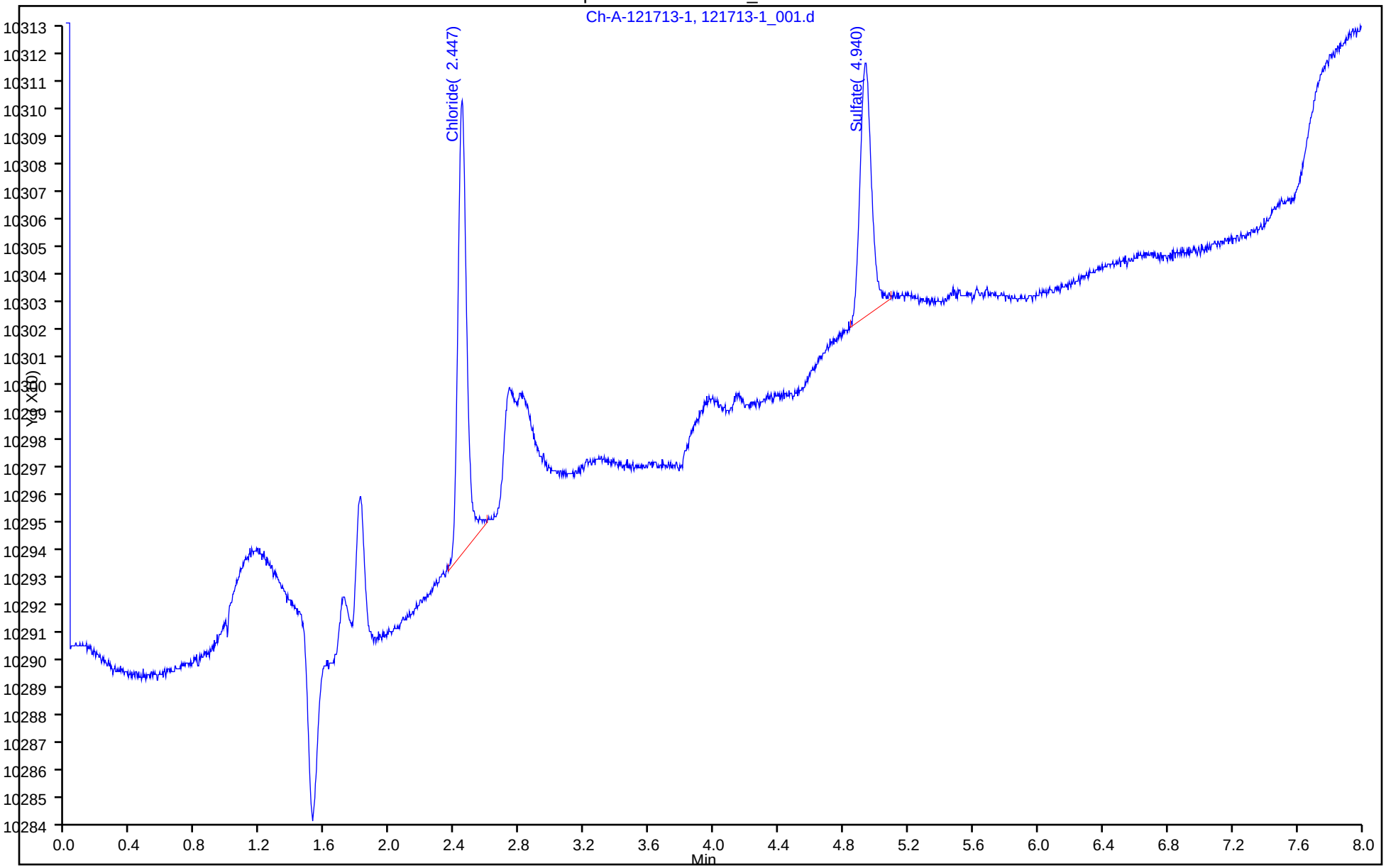
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_001.d				
Lims ID:	STD0	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	0		
Inject. Date:	17-Dec-2013 15:19:57	ALS Bottle#:	0	Worklist Smp#:	1
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 001 Name: 480-0028206-001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

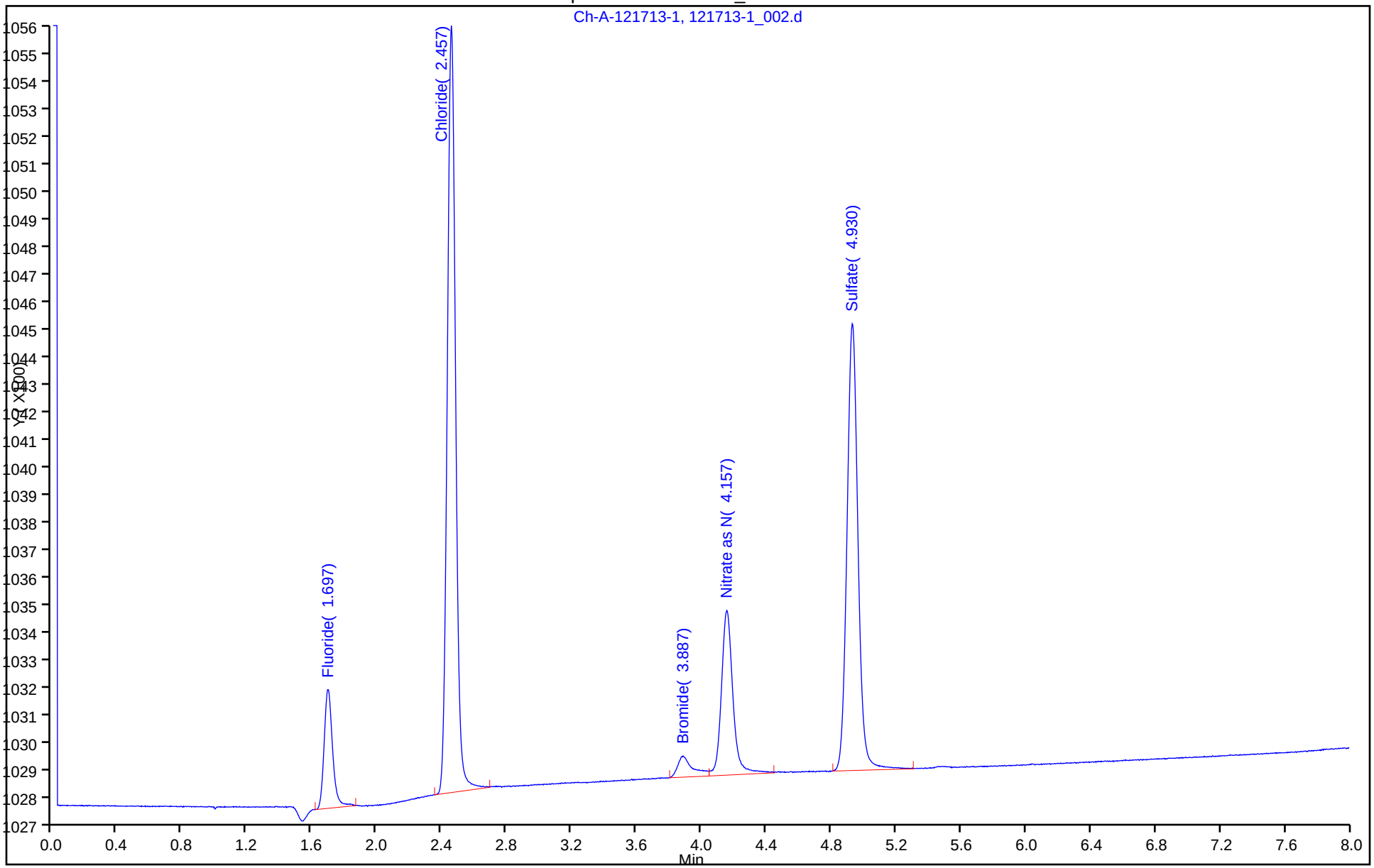
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_002.d				
Lims ID:	STD1	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	1		
Inject. Date:	17-Dec-2013 15:30:05	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 002 Name: 480-0028206-002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

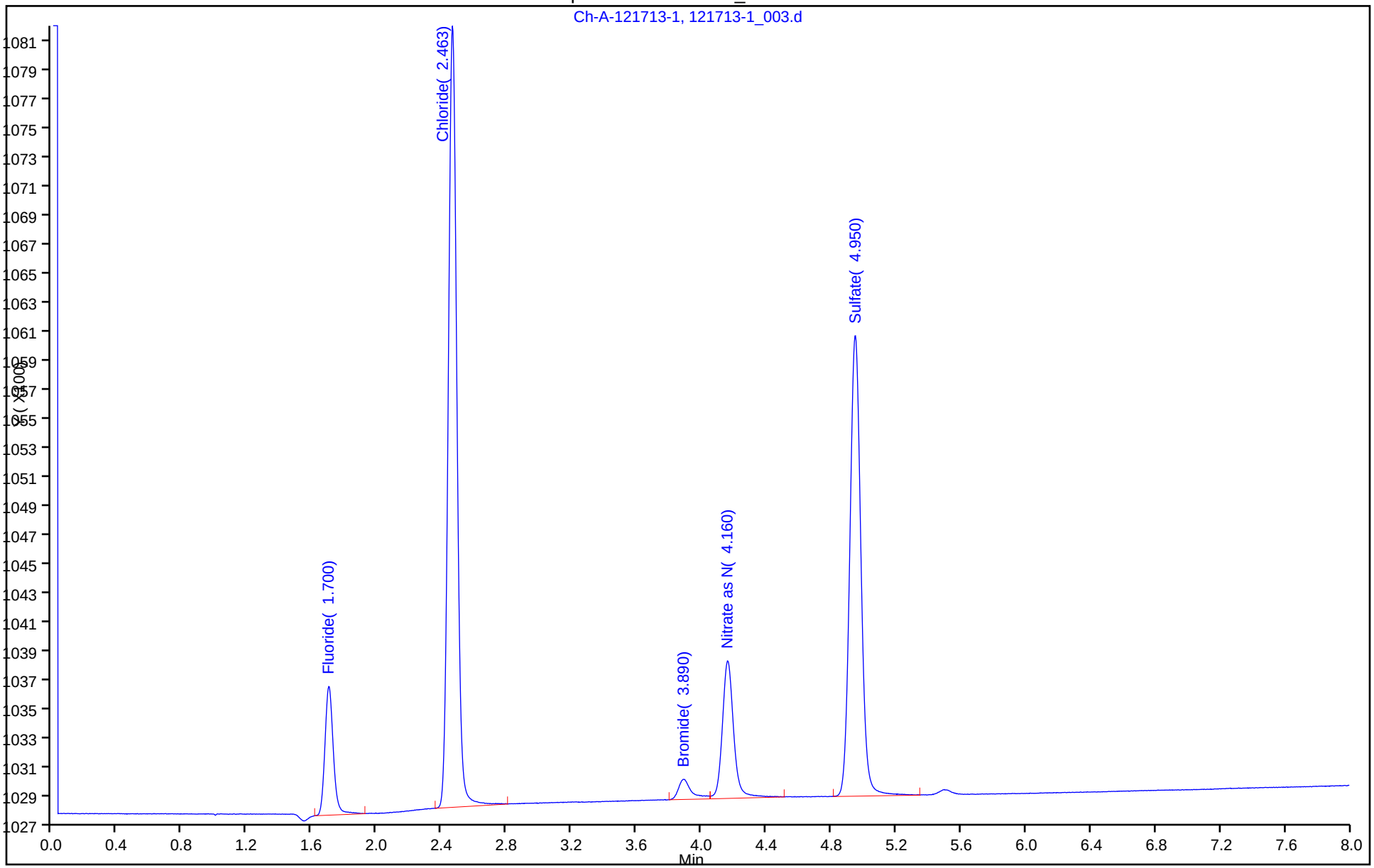
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_003.d				
Lims ID:	STD2	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	2		
Inject. Date:	17-Dec-2013 15:40:13	ALS Bottle#:	0	Worklist Smp#:	3
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 003 Name: 480-0028206-003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

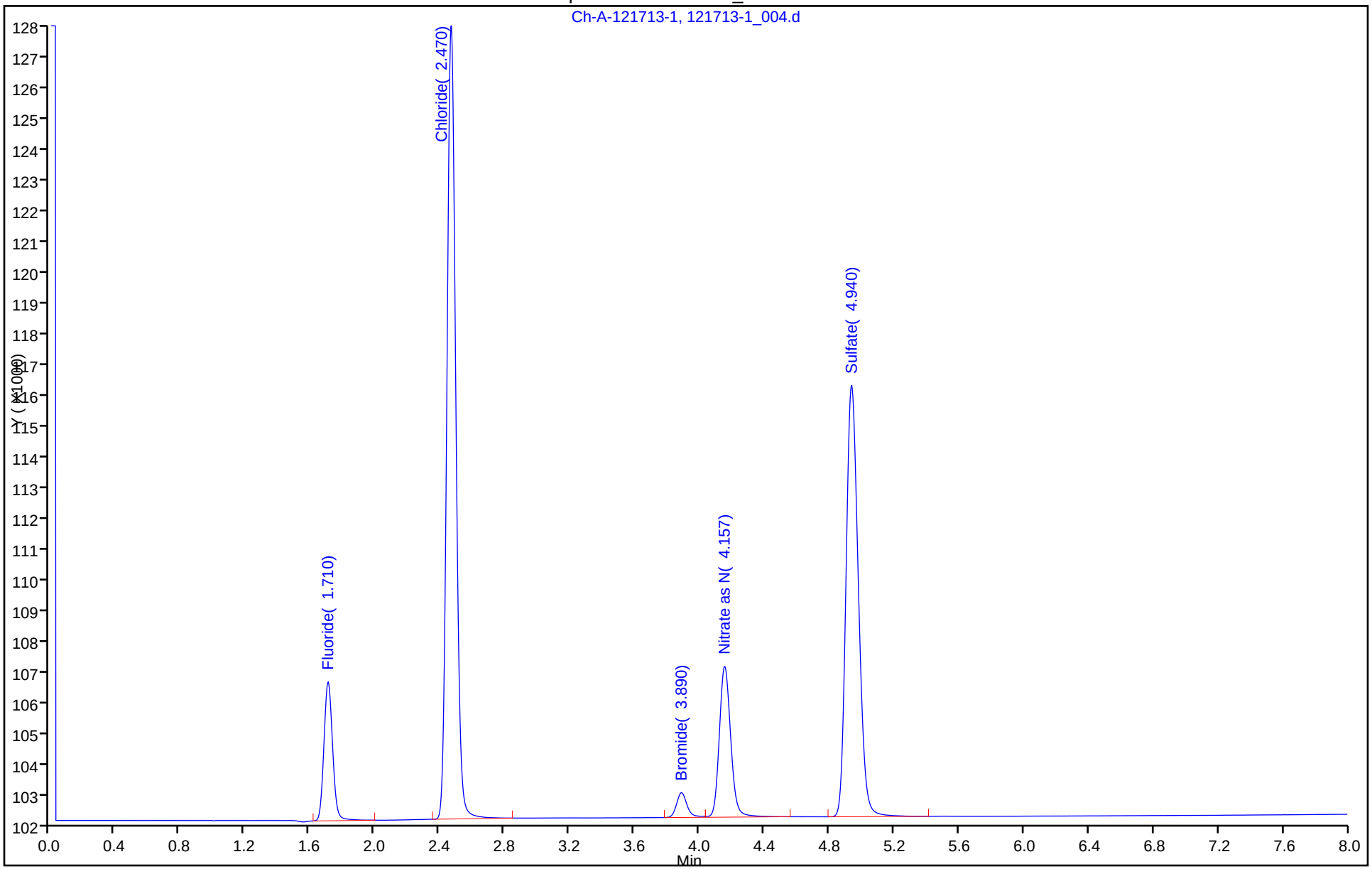
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:35

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

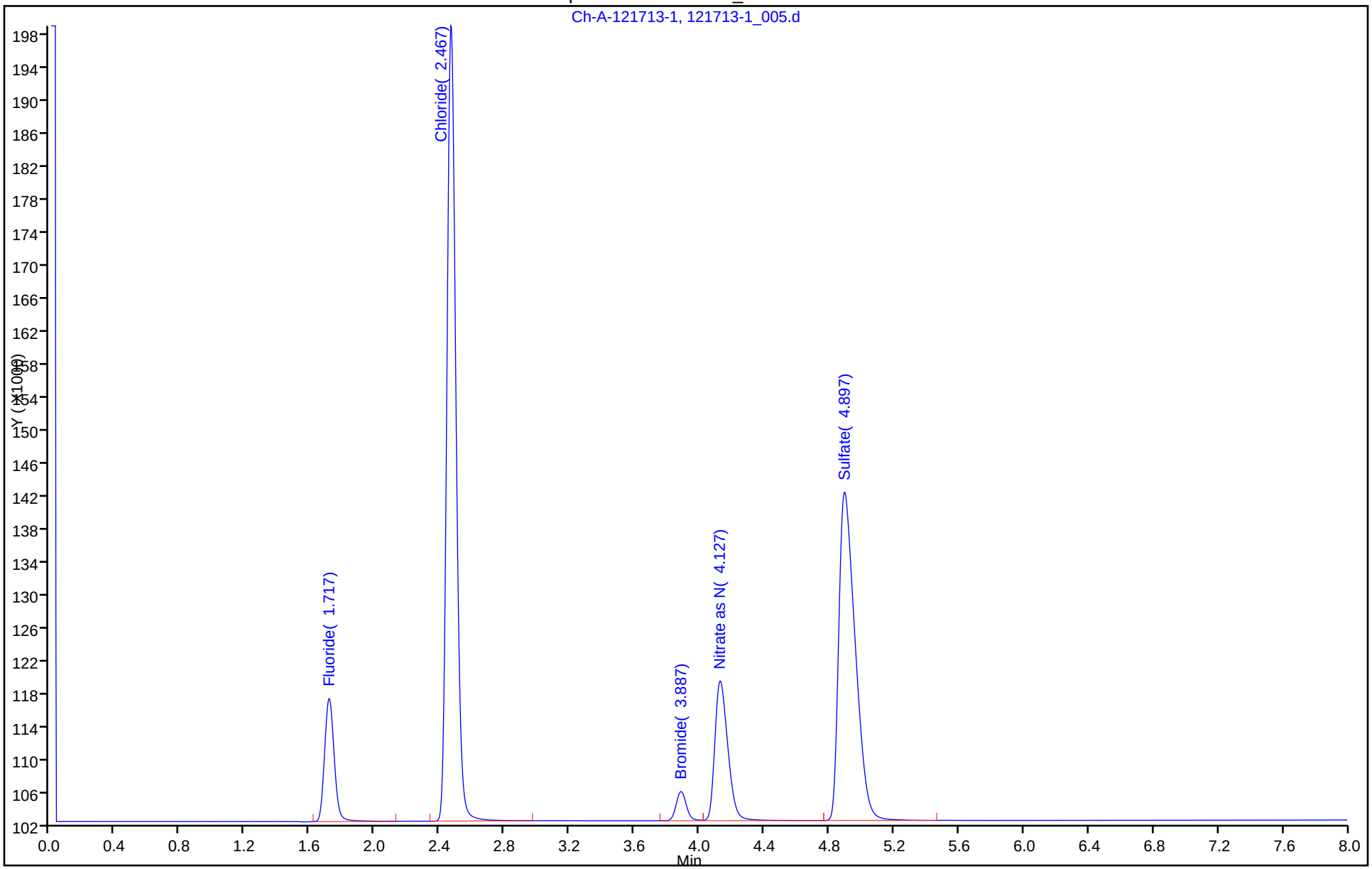
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_005.d				
Lims ID:	STD4	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	4		
Inject. Date:	17-Dec-2013 16:00:29	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 005 Name: 480-0028206-005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

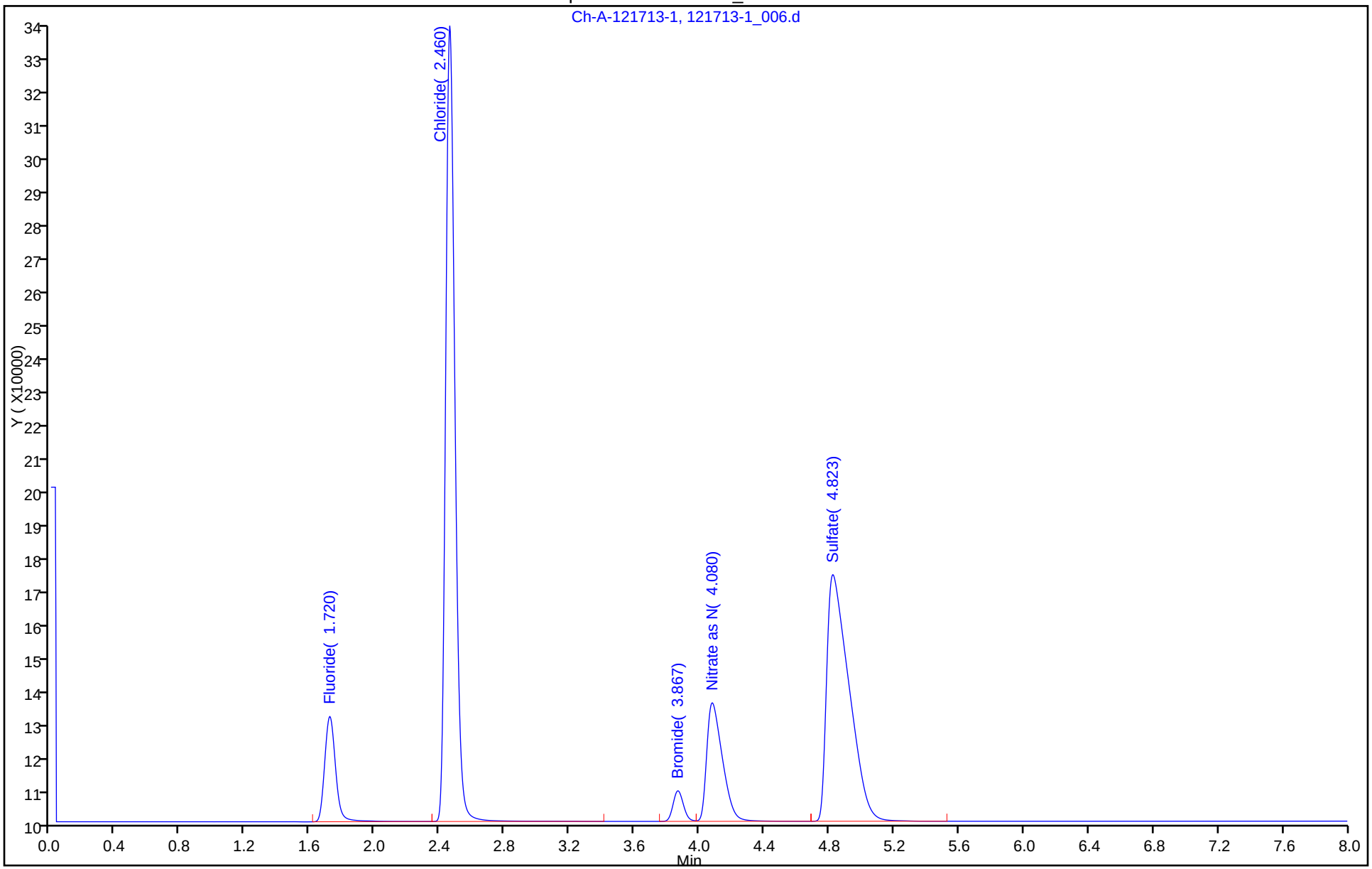
First Level Reviewer: cudneyk Date: 17-Dec-2013 16:37:14

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

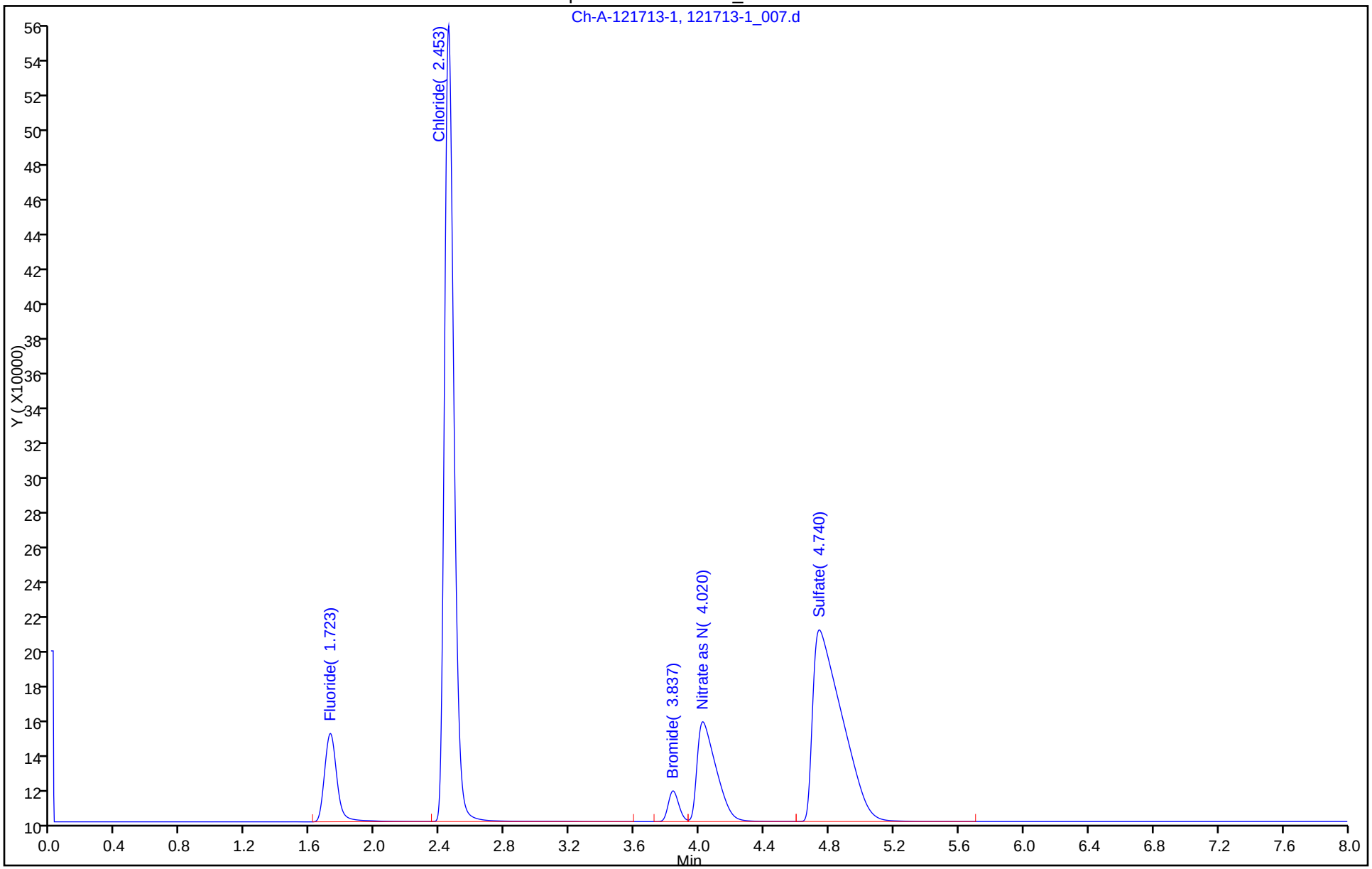
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28206.b\121713-1_007.d				
Lims ID:	STD6	Lab Sample ID:			
Client ID:					
Sample Type:	IC	Calib Level:	6		
Inject. Date:	17-Dec-2013 16:20:44	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 007 Name: 480-0028206-007				
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\20131217-28207.b\121713-1_012.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 17:31:49 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 012 Name: 480-0028207-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:58:46 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: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 17:58:46

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.613	2.250	61179	7.51	4.26		1 Fluoride
2.473	2.357	3.033	371161	45.53	3.91		2 Chloride
3.887	3.770	4.020	15281	1.87	4.39		3 Bromide
4.130	4.020	4.703	91502	11.23	5.58		
4.957	4.810	5.593	276036	33.86	7.10		5 Sulfate
			815159			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\20131217-28207.b\121713-1_012.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 17:31:49 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 012 Name: 480-0028207-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:58:46 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: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 17:58:46

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	2.03	30590	1.7	10
2 Chloride	20.0	0.0	19.9	18558	-0.6	10
3 Bromide	2.00	0.0	1.92	7640.50	-3.8	10
5 Sulfate	20.0	0.0	20.0	13802	0.03	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_012.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 17:31:49 ALS Bottle#: 0 Worklist Smp#: 1
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 012 Name: 480-0028207-001
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:58:46 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: XAWRK040

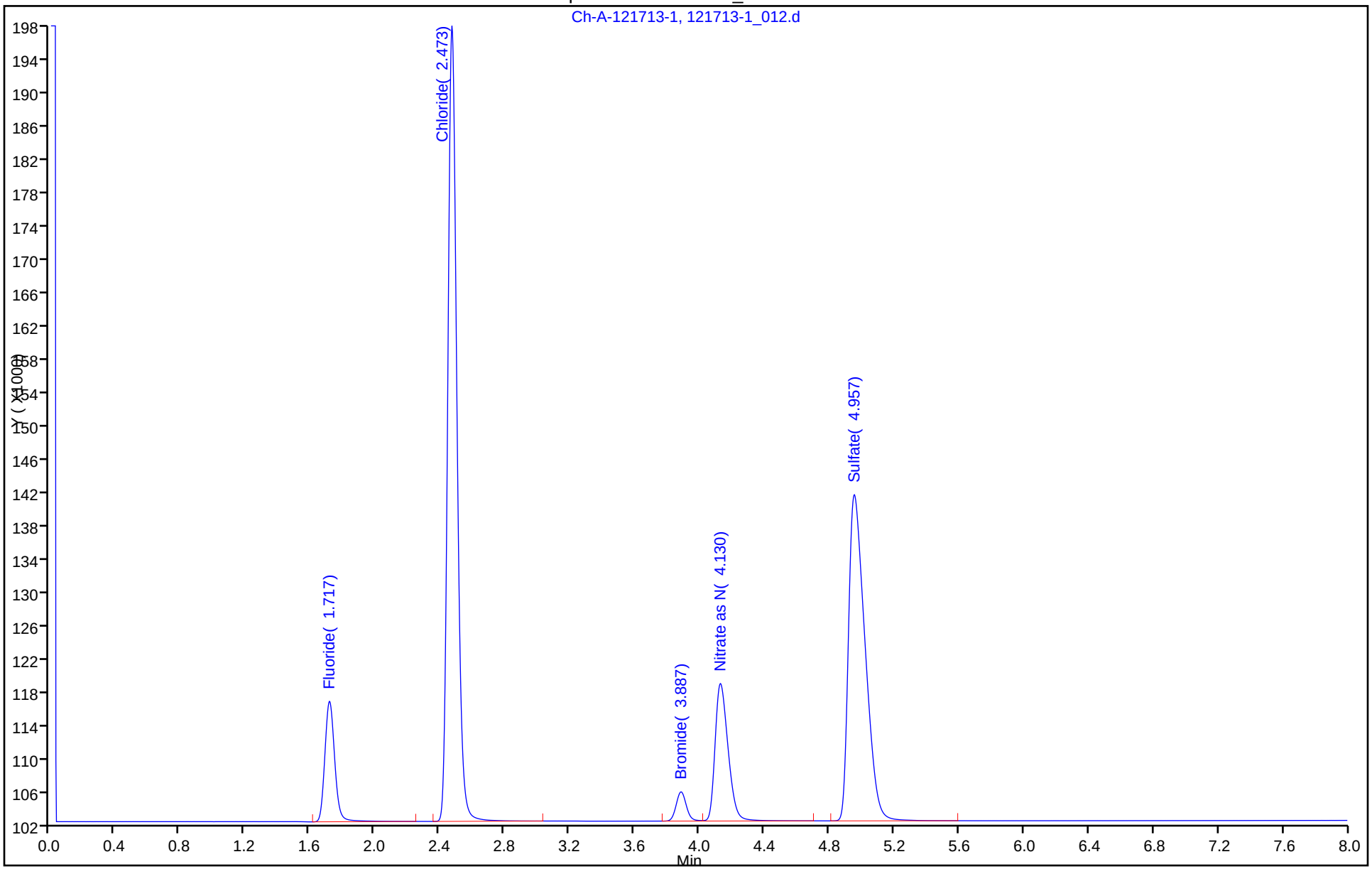
First Level Reviewer: cudneyk Date: 17-Dec-2013 17:58:46

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	61179	2.03	
2 Chloride					
2.473	2.473	0.0	371161	19.9	
3 Bromide					
3.887	3.887	0.0	15281	1.92	
4 Nitrate as N					
4.130	4.130	0.0	91502	0	
5 Sulfate					
4.957	4.957	0.0	276036	20.0	

Report Date: 17-Dec-2013 17:58:47 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_012.d				
Injection Date:	17-Dec-2013 17:31:49	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\20131217-28207.b\121713-1_013.d
Lims ID: CCB Lab Sample ID: CCB 480-158055/2-A
Client ID:
Sample Type: CCB
Inject. Date: 17-Dec-2013 17:41:56 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 013 Name: 480-0028207-002
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 17:58:46 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: XAWRK040

First Level Reviewer: cudneyk Date: 17-Dec-2013 17:58:50

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

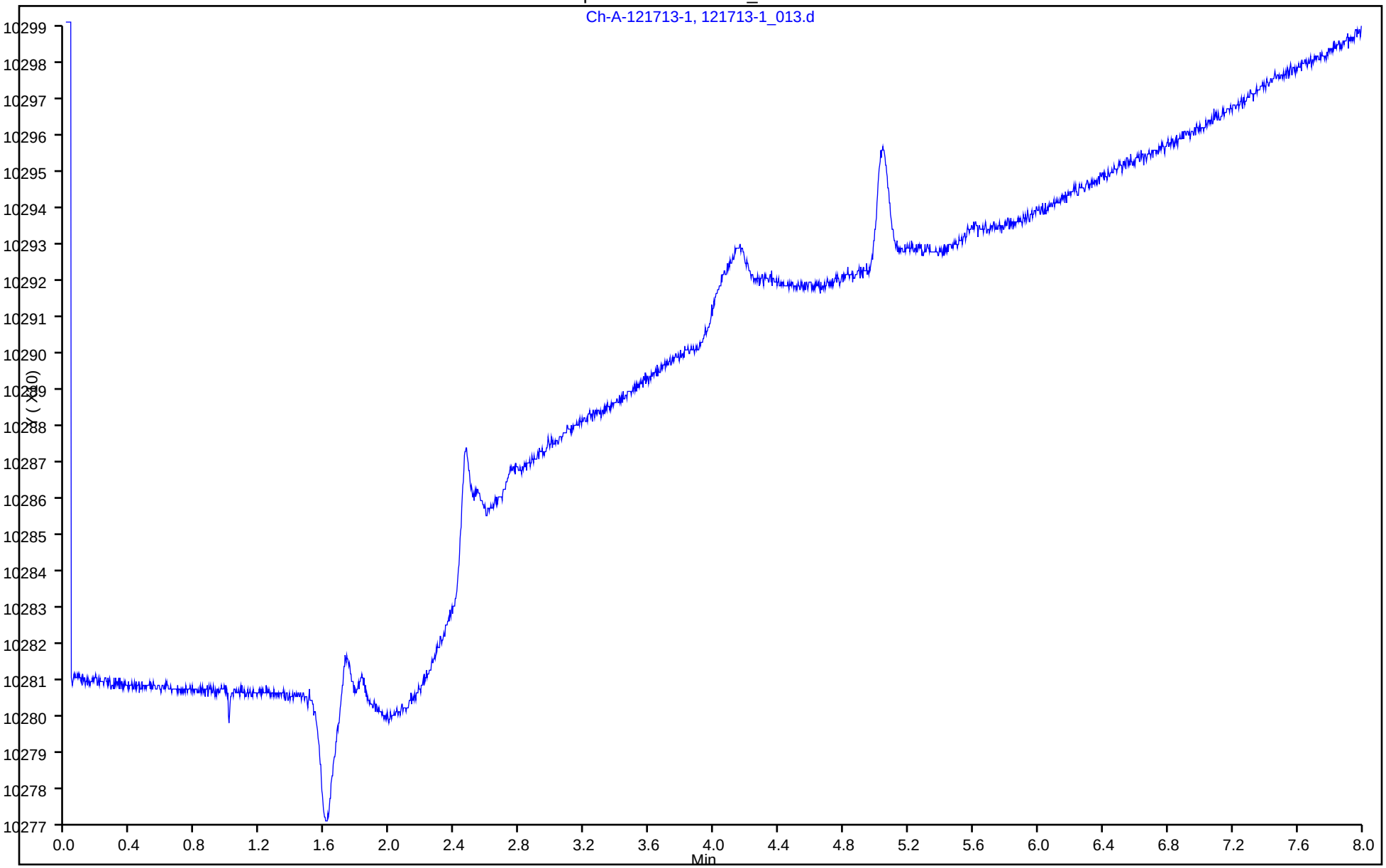
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_013.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-158055/2-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-Dec-2013 17:41:56	ALS Bottle#:	0	Worklist Smp#:	2
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 013 Name: 480-0028207-002				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 17:58:46	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:	XAWRK040				
First Level Reviewer: cudneyk		Date:	17-Dec-2013 17:58:50		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags

Report Date: 17-Dec-2013 17:58:50 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_013.d				
Injection Date:	17-Dec-2013 17:41:56	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-158055/2-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\20131217-28207.b\121713-1_014.d
Lims ID: LCS Lab Sample ID: LCS 480-158055/3-A
Client ID:
Sample Type: LCS
Inject. Date: 17-Dec-2013 17:52:04 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 014 Name: 480-0028207-003
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 16:30:51 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 18:32:04

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	2.217	61610	7.55	4.26		1 Fluoride
2.473	2.343	3.033	371977	45.55	3.93		2 Chloride
3.887	3.773	4.017	15226	1.86	4.38		3 Bromide
4.130	4.017	4.633	91451	11.20	5.58		
4.960	4.823	5.553	276288	33.84	7.10		5 Sulfate
			816552			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\20131217-28207.b\121713-1_014.d
Lims ID: LCS Lab Sample ID: LCS 480-158055/3-A
Client ID:
Sample Type: LCS
Inject. Date: 17-Dec-2013 17:52:04 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 014 Name: 480-0028207-003
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 16:30:51 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

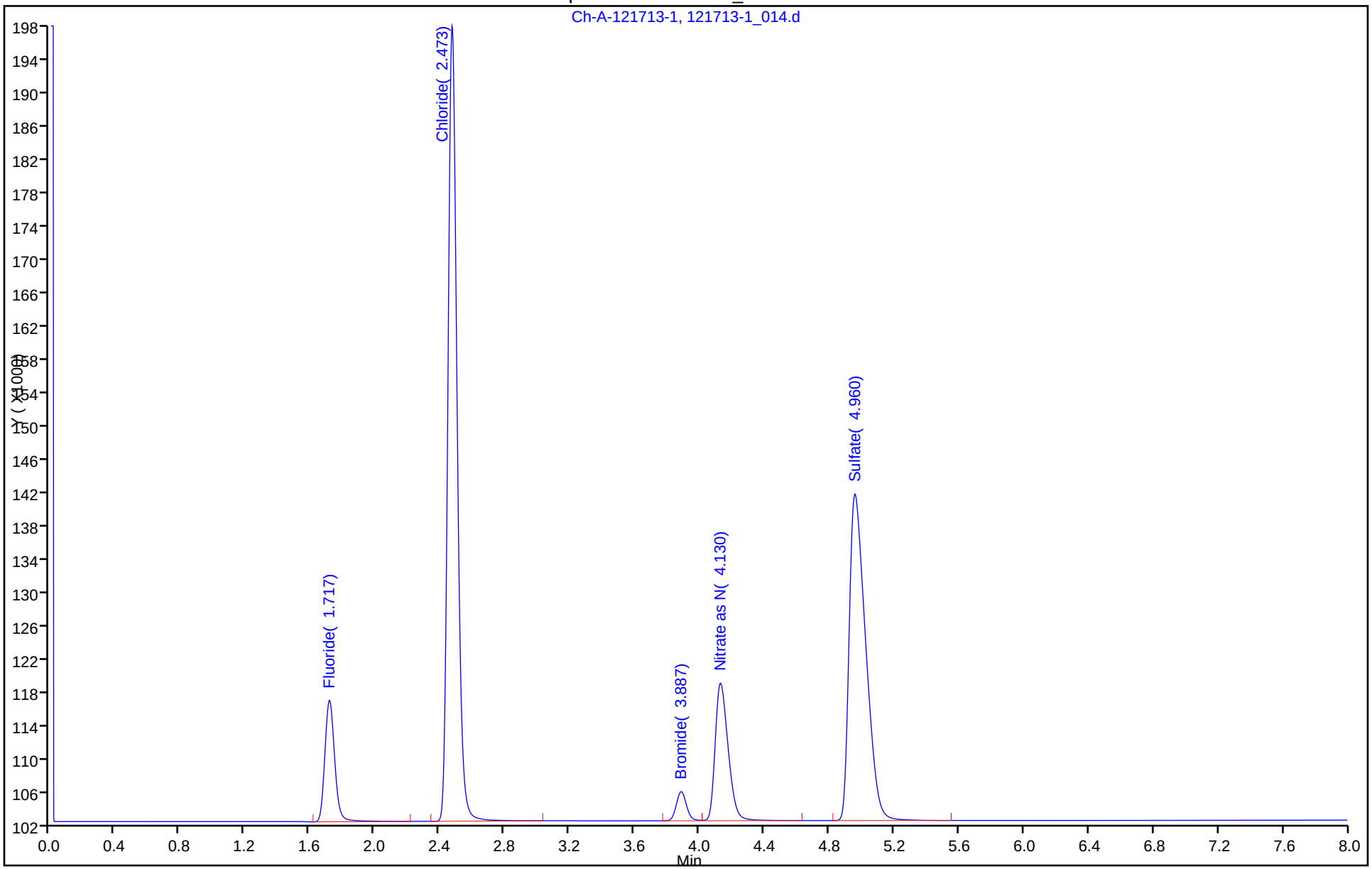
First Level Reviewer: cudneyk Date: 17-Dec-2013 18:32:04

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	61610	2.05	
2 Chloride					
2.473	2.473	0.0	371977	19.9	
3 Bromide					
3.887	3.887	0.0	15226	1.92	
4 Nitrate as N					
4.130	4.130	0.0	91451	0	
5 Sulfate					
4.960	4.957	0.003	276288	20.0	

Report Date: 17-Dec-2013 18:32:05 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_014.d				
Injection Date:	17-Dec-2013 17:52:04	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	LCS	Lab Sample ID:	LCS 480-158055/3-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\20131217-28207.b\121713-1_015.d
Lims ID: MB Lab Sample ID: MB 480-158055/4-A
Client ID:
Sample Type: MB
Inject. Date: 17-Dec-2013 18:02:12 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 015 Name: 480-0028207-004
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 16:30:51 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 18:32:06

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

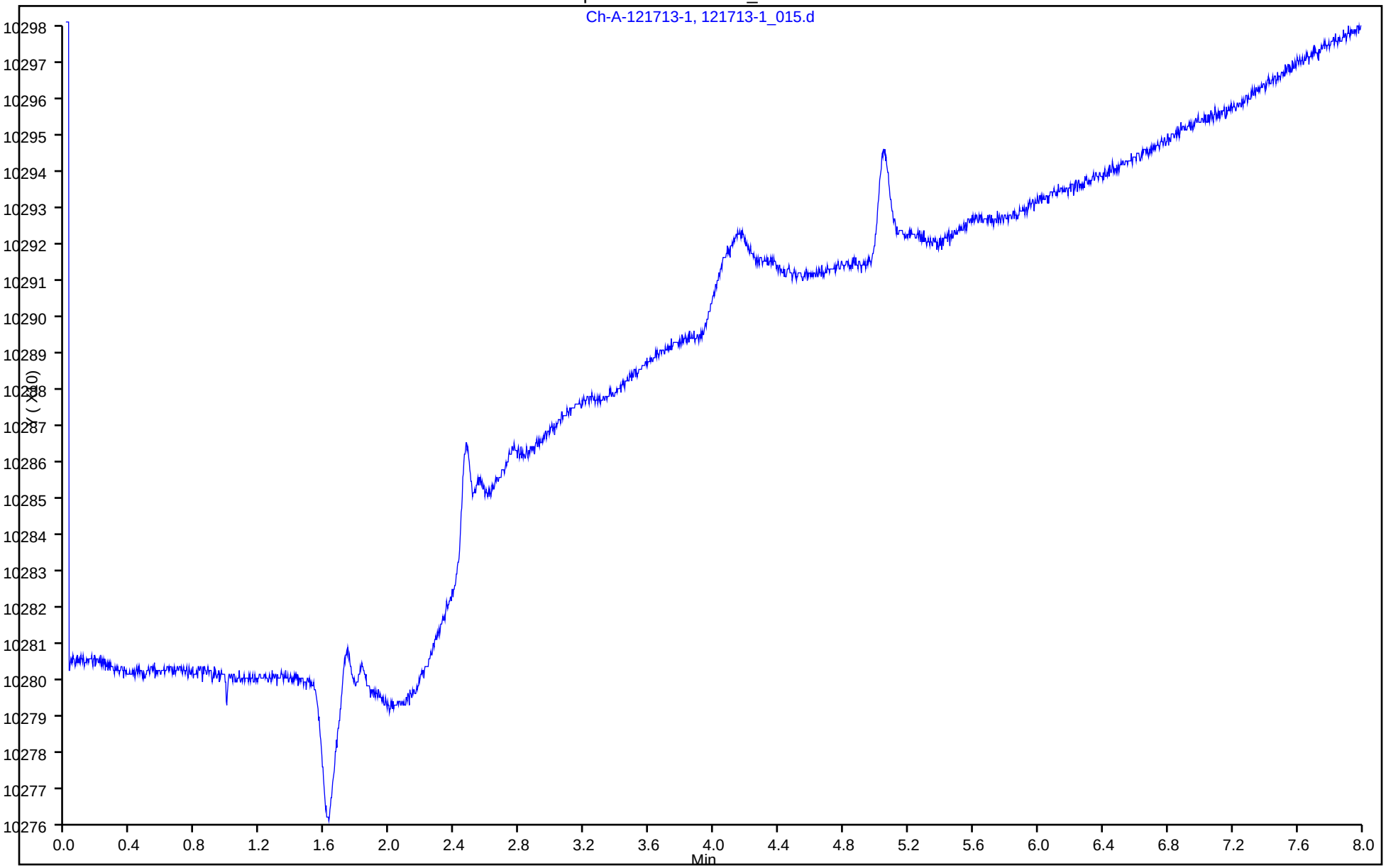
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_015.d				
Lims ID:	MB	Lab Sample ID:	MB 480-158055/4-A		
Client ID:					
Sample Type:	MB				
Inject. Date:	17-Dec-2013 18:02:12	ALS Bottle#:	0	Worklist Smp#:	4
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 015 Name: 480-0028207-004				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 16:30:51	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 18:32:06		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags

Report Date: 17-Dec-2013 18:32:06 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_015.d				
Injection Date:	17-Dec-2013 18:02:12	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	MB	Lab Sample ID:	MB 480-158055/4-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\20131217-28207.b\121713-1_016.d
Lims ID: 460-68260-A-1 Lab Sample ID: 480-68260-1
Client ID: GW0008
Sample Type: Client
Inject. Date: 17-Dec-2013 18:12:20 ALS Bottle#: 0 Worklist Smp#: 5
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 016 Name: 480-0028207-005
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 17-Dec-2013 18:32:40 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 18:32:40

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.713	1.617	2.090	8008	1.23	4.54		1 Fluoride
2.477	2.350	3.083	411890	63.43	3.95		2 Chloride
3.733	3.657	3.873	1018	0.16	6.93	M	
4.083	3.893	4.320	2154	0.33	6.30	M	
4.977	4.840	5.523	226276	34.85	6.91		5 Sulfate
			649346			Totals	

Total Unknown Area% = 0.16

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

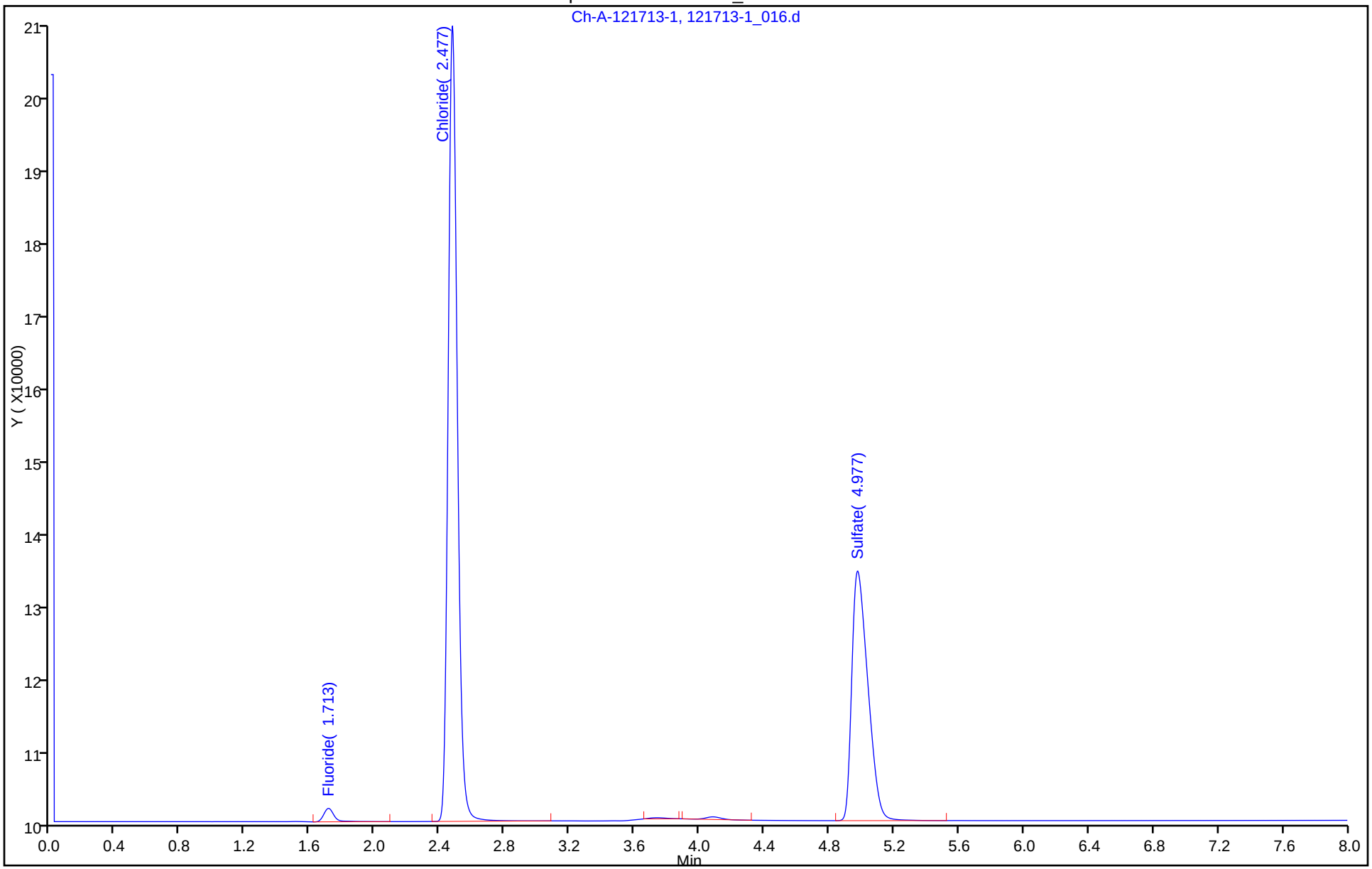
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_016.d				
Lims ID:	460-68260-A-1	Lab Sample ID:	480-68260-1		
Client ID:	GW0008				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 18:12:20	ALS Bottle#:	0	Worklist Smp#:	5
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 016 Name: 480-0028207-005				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	17-Dec-2013 18:32:40	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 18:32:40		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.713	1.717	-0.004	8008	0.2664	
2 Chloride					
2.477	2.473	0.004	411890	22.1	
5 Sulfate					
4.977	4.957	0.020	226276	16.4	

Report Date: 17-Dec-2013 18:32:40 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_016.d				
Injection Date:	17-Dec-2013 18:12:20	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-1	Lab Sample ID:	480-68260-1	Worklist Smp#:	5
Client ID:	GW0008				
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\20131217-28207.b\121713-1_017.d
Lims ID: 460-68260-A-2 Lab Sample ID: 480-68260-2
Client ID: GW0009
Sample Type: Client
Inject. Date: 17-Dec-2013 18:22:28 ALS Bottle#: 0 Worklist Smp#: 6
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 017 Name: 480-0028207-006
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 01:28:05 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:22:29

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.713	1.623	2.123	8007	1.22	4.63		1 Fluoride
2.477	2.343	3.033	413191	62.72	3.96		2 Chloride
3.730	3.500	4.820	10884	1.65	25.37		
4.977	4.820	5.573	226748	34.42	6.93		5 Sulfate
			658830			Totals	

Total Unknown Area% = 1.65

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

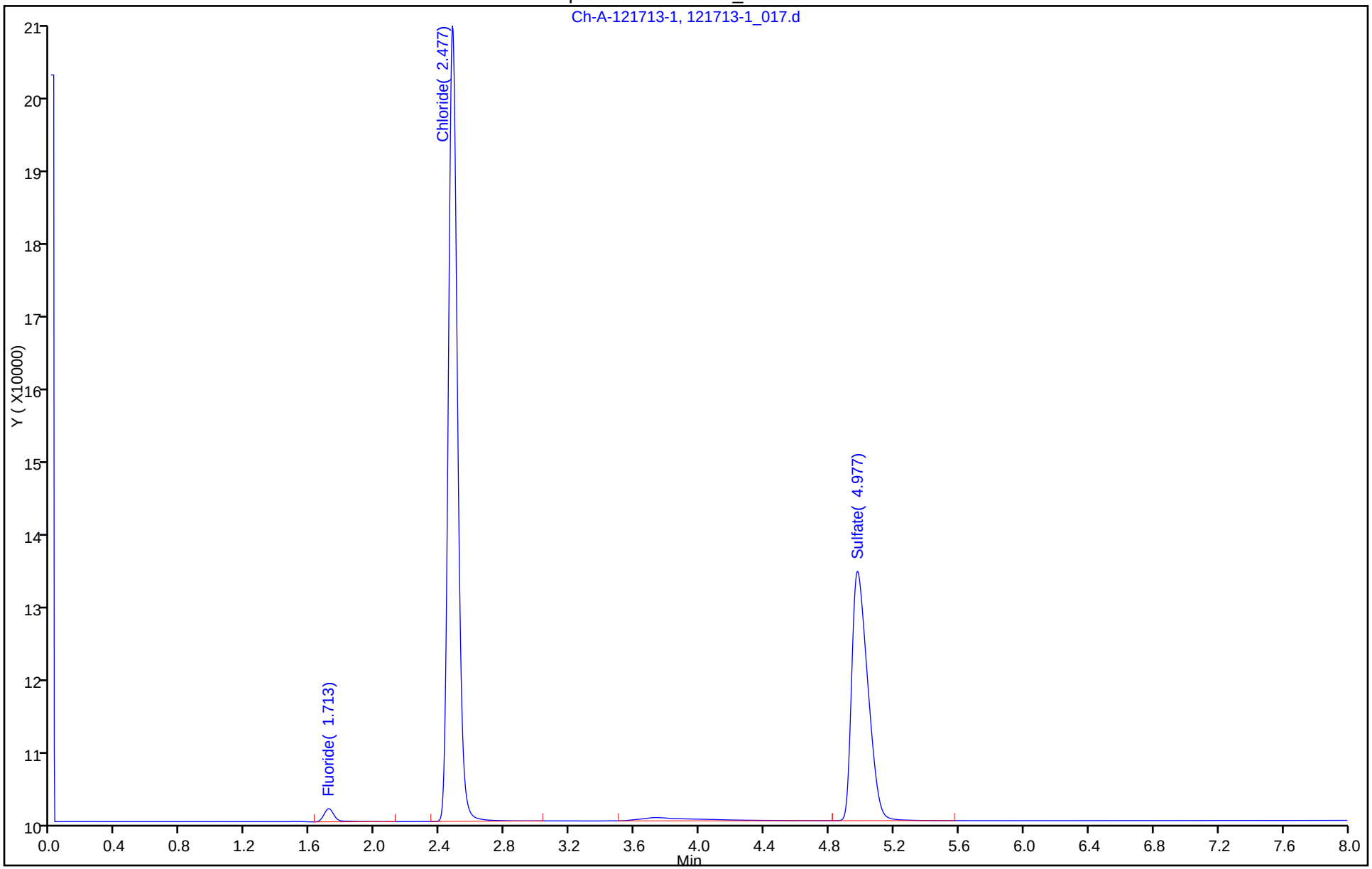
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_017.d				
Lims ID:	460-68260-A-2	Lab Sample ID:	480-68260-2		
Client ID:	GW0009				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 18:22:28	ALS Bottle#:	0	Worklist Smp#:	6
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 017 Name: 480-0028207-006				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 01:28:05	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:22:29		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.713	1.717	-0.004	8007	0.2663	
2 Chloride					
2.477	2.473	0.004	413191	22.1	
5 Sulfate					
4.977	4.957	0.020	226748	16.4	

Report Date: 18-Dec-2013 09:22:30 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_017.d				
Injection Date:	17-Dec-2013 18:22:28	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-2	Lab Sample ID:	480-68260-2	Worklist Smp#:	6
Client ID:	GW0009				
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\20131217-28207.b\121713-1_018.d
Lims ID: 460-68260-A-3 Lab Sample ID: 480-68260-3
Client ID: GW0010
Sample Type: Client
Inject. Date: 17-Dec-2013 18:32:36 ALS Bottle#: 0 Worklist Smp#: 7
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 018 Name: 480-0028207-007
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:22:38 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:22:38

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.713	1.620	2.097	6145	1.41	4.68		1 Fluoride
2.480	2.340	2.990	394856	90.46	3.96		2 Chloride
3.740	3.480	4.880	11999	2.75	26.90		
5.040	4.880	5.457	23474	5.38	5.62		5 Sulfate
			436474			Totals	

Total Unknown Area% = 2.75

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

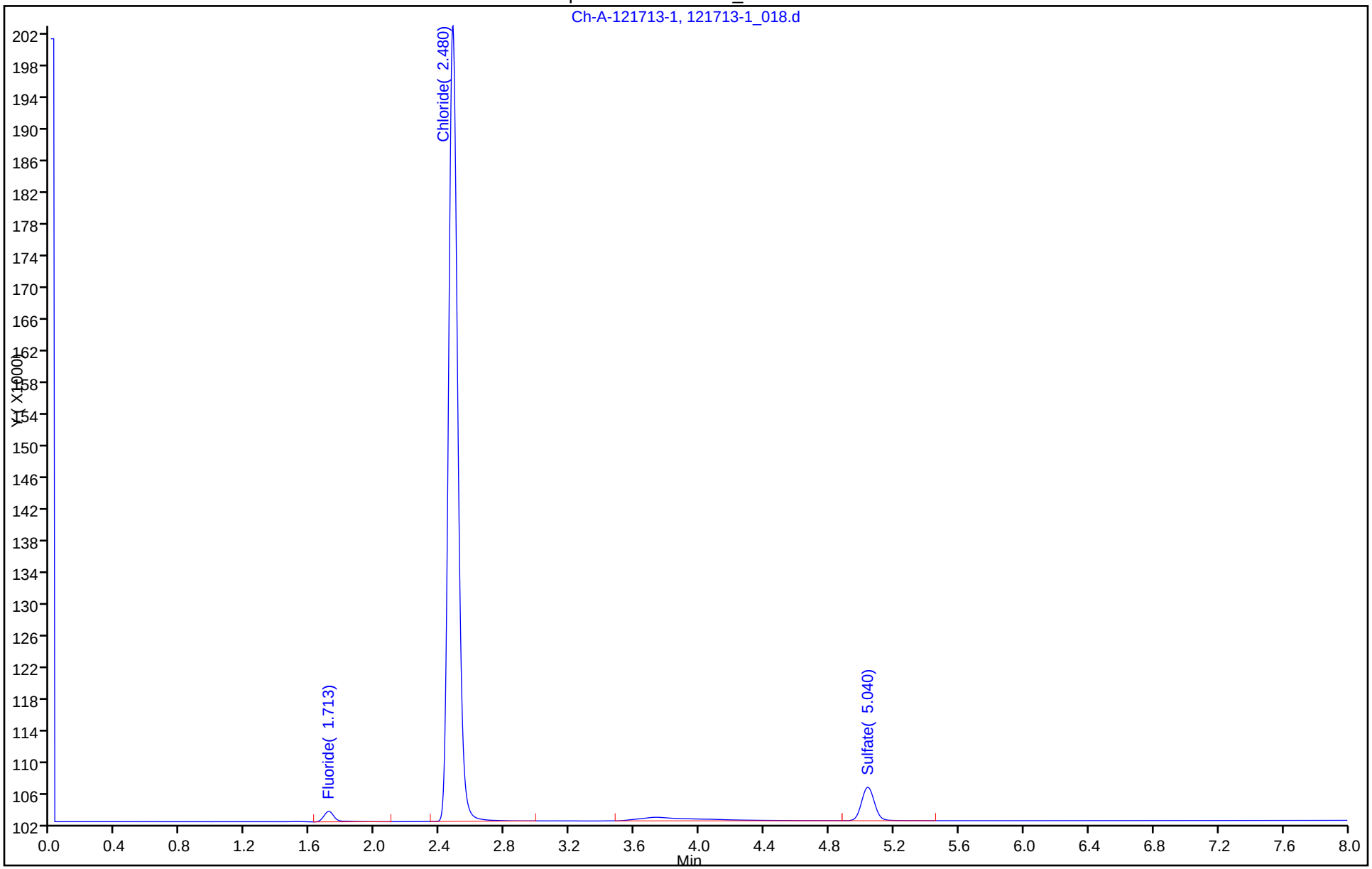
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_018.d				
Lims ID:	460-68260-A-3	Lab Sample ID:	480-68260-3		
Client ID:	GW0010				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 18:32:36	ALS Bottle#:	0	Worklist Smp#:	7
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 018 Name: 480-0028207-007				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:22:38	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:22:38		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.713	1.717	-0.004	6145	0.2044	
2 Chloride					
2.480	2.473	0.007	394856	21.2	
5 Sulfate					
5.040	4.957	0.083	23474	1.67	

Report Date: 18-Dec-2013 09:22:39 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_018.d				
Injection Date:	17-Dec-2013 18:32:36	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-3	Lab Sample ID:	480-68260-3	Worklist Smp#:	7
Client ID:	GW0010				
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\20131217-28207.b\121713-1_019.d
Lims ID: 460-68260-A-4 Lab Sample ID: 480-68260-4
Client ID: GW0011
Sample Type: Client
Inject. Date: 17-Dec-2013 18:42:44 ALS Bottle#: 0 Worklist Smp#: 8
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 019 Name: 480-0028207-008
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:22:56 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:22:56

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.713	1.623	2.087	7444	0.85	4.62		1 Fluoride
2.477	2.343	3.120	543422	62.38	3.97		2 Chloride
3.757	3.550	3.940	4546	0.52	15.36		
4.070	3.940	4.370	79404	9.11	7.23		
4.450	4.370	4.657	433	0.05	5.62		
4.983	4.847	5.520	228190	26.19	6.88		5 Sulfate
5.597	5.527	5.847	215	0.02	5.38		
7.347	7.203	7.843	7524	0.86	8.47		
			871178			Totals	

Total Unknown Area% = 1.46

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

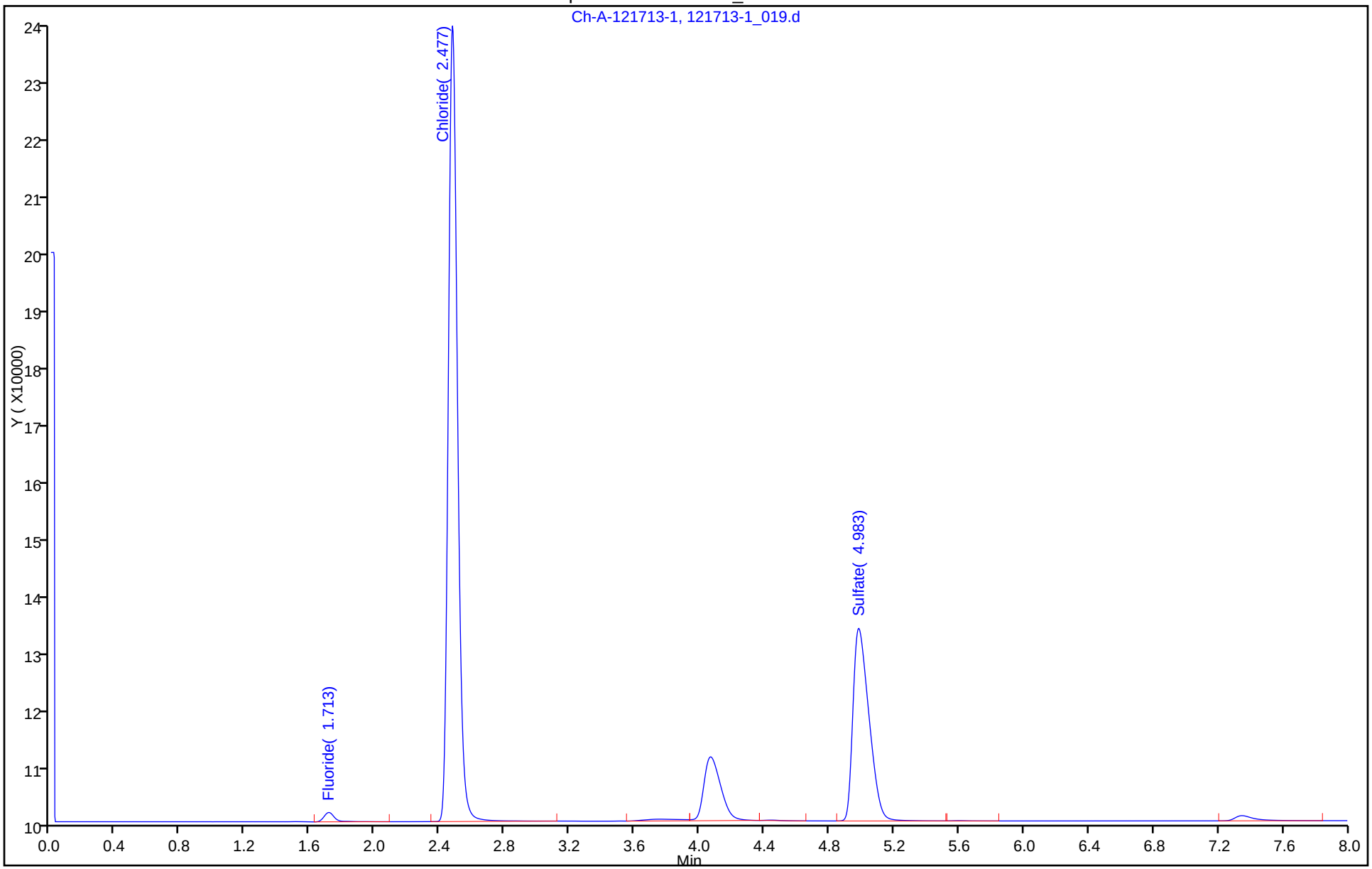
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_019.d				
Lims ID:	460-68260-A-4	Lab Sample ID:	480-68260-4		
Client ID:	GW0011				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 18:42:44	ALS Bottle#:	0	Worklist Smp#:	8
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 019 Name: 480-0028207-008				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:22:56	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:22:56		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.713	1.717	-0.004	7444	0.2476	
2 Chloride					
2.477	2.473	0.004	543422	29.1	
5 Sulfate					
4.983	4.957	0.026	228190	16.5	

Report Date: 18-Dec-2013 09:22:56 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_019.d				
Injection Date:	17-Dec-2013 18:42:44	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-4	Lab Sample ID:	480-68260-4	Worklist Smp#:	8
Client ID:	GW0011				
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\20131217-28207.b\121713-1_020.d
Lims ID: 460-68260-A-5 Lab Sample ID: 480-68260-5
Client ID: GW0012
Sample Type: Client
Inject. Date: 17-Dec-2013 18:52:52 ALS Bottle#: 0 Worklist Smp#: 9
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 020 Name: 480-0028207-009
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:23:03 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:23:03

Detector: Ch-A-092410-2
Number of peaks found: 7

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.627	1.960	7115	0.82	4.53		1 Fluoride
2.480	2.353	3.057	542648	62.32	3.97		2 Chloride
3.753	3.540	3.937	4523	0.52	15.49		
4.067	3.937	4.370	79451	9.12	7.29		
4.443	4.370	4.640	419	0.05	5.66		
4.983	4.847	5.483	228436	26.23	6.90		5 Sulfate
7.347	7.207	7.810	8221	0.94	8.21		
			870813			Totals	

Total Unknown Area% = 1.51

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

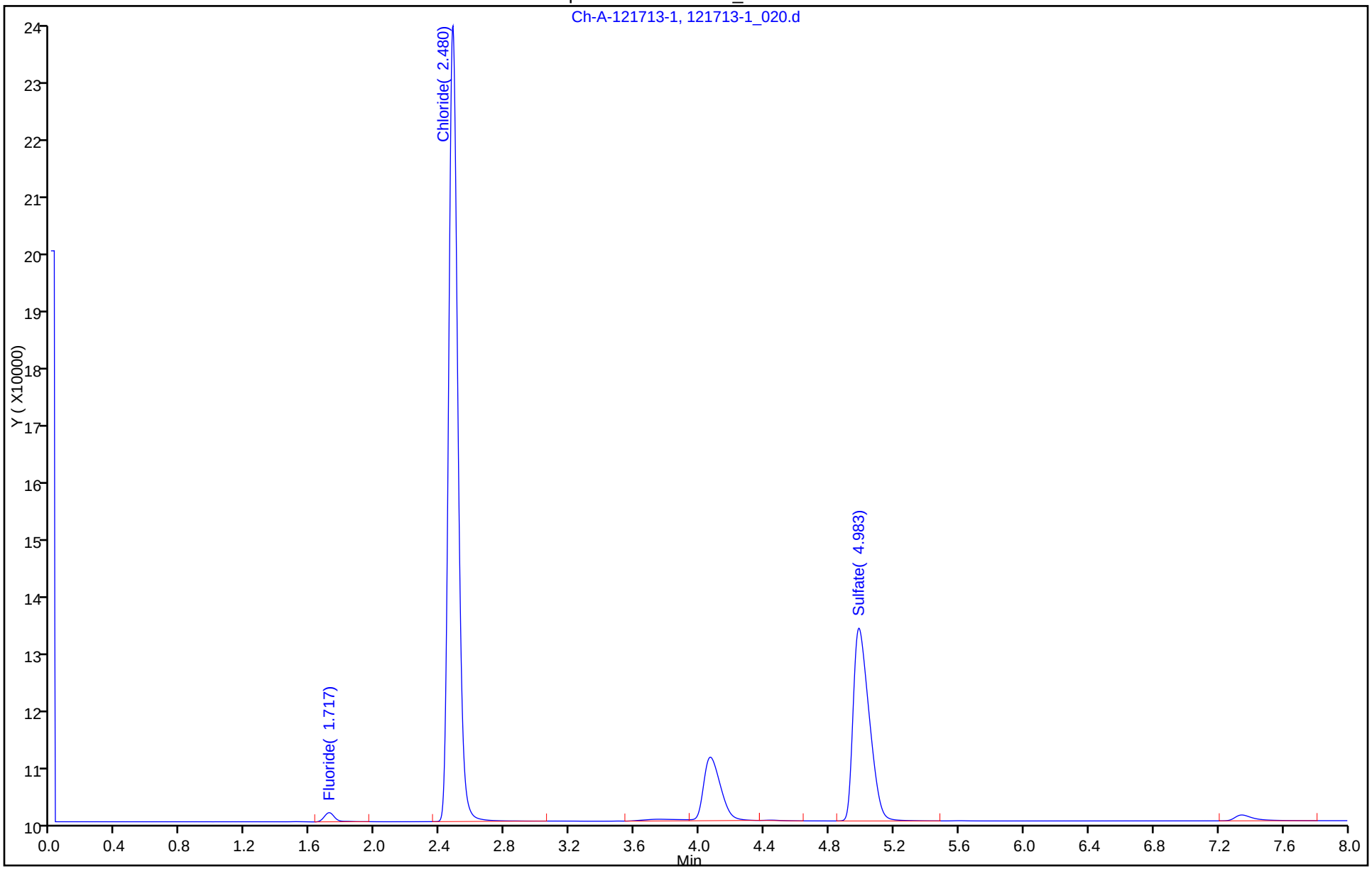
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_020.d				
Lims ID:	460-68260-A-5	Lab Sample ID:	480-68260-5		
Client ID:	GW0012				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 18:52:52	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 020 Name: 480-0028207-009				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:23:03	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:23:03		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	7115	0.2367	
2 Chloride					
2.480	2.473	0.007	542648	29.1	
5 Sulfate					
4.983	4.957	0.026	228436	16.6	

Report Date: 18-Dec-2013 09:23:04 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_020.d				
Injection Date:	17-Dec-2013 18:52:52	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-5	Lab Sample ID:	480-68260-5	Worklist Smp#:	9
Client ID:	GW0012				
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\20131217-28207.b\121713-1_021.d
Lims ID: 460-68260-A-6 Lab Sample ID: 480-68260-6
Client ID: GW0013
Sample Type: Client
Inject. Date: 17-Dec-2013 19:03:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 021 Name: 480-0028207-010
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:23:12 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:23:12

Detector: Ch-A-092410-2
Number of peaks found: 4

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.613	2.090	6196	1.40	4.72		1 Fluoride
2.480	2.353	3.010	365219	82.32	3.96		2 Chloride
3.743	3.500	4.647	10174	2.29	24.81		
5.037	4.893	5.510	62066	13.99	5.80		5 Sulfate
			443655			Totals	

Total Unknown Area% = 2.29

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

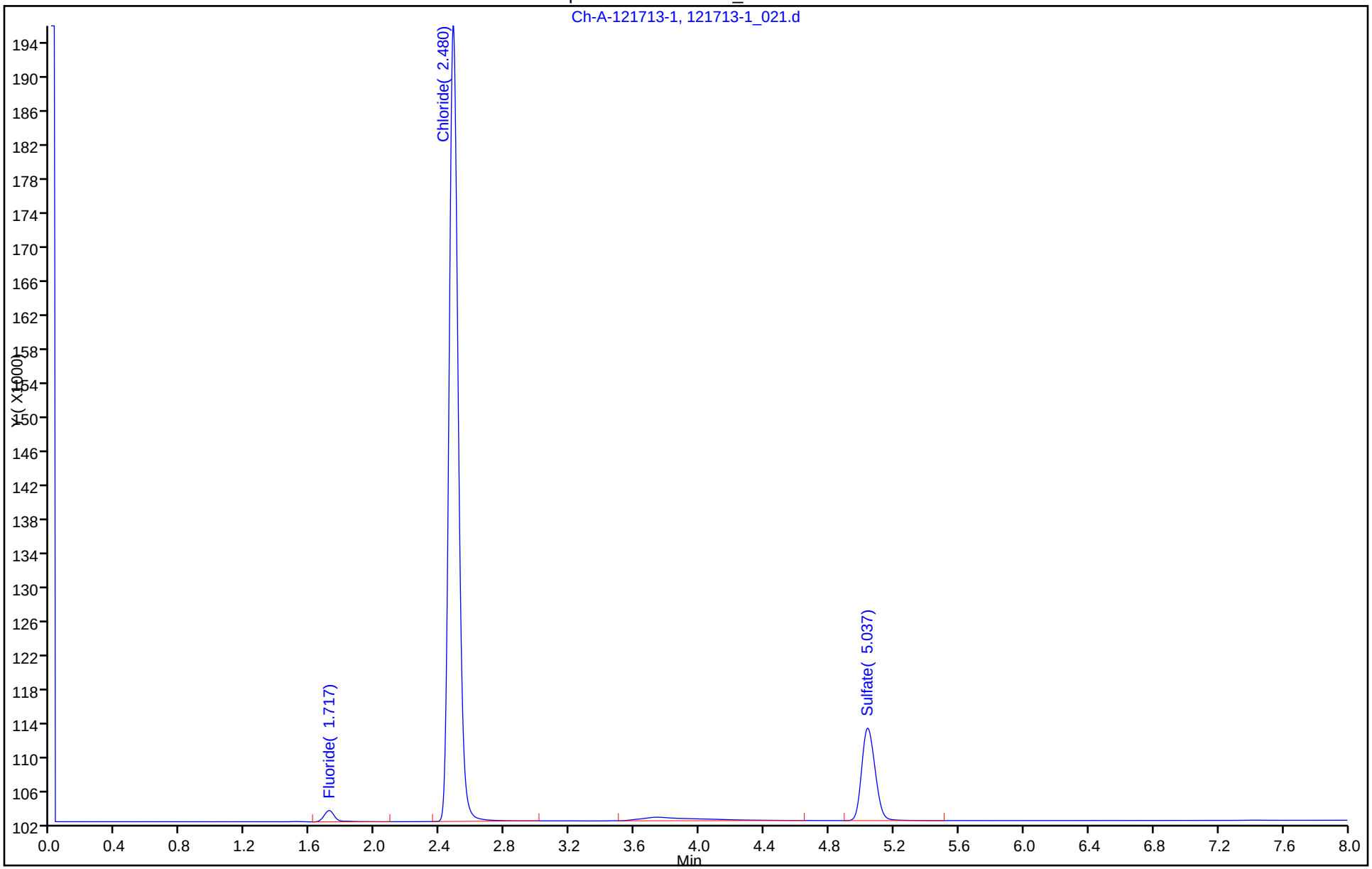
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_021.d				
Lims ID:	460-68260-A-6	Lab Sample ID:	480-68260-6		
Client ID:	GW0013				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 19:03:00	ALS Bottle#:	0	Worklist Smp#:	10
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 021 Name: 480-0028207-010				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:23:12	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:23:12		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	6196	0.2061	
2 Chloride					
2.480	2.473	0.007	365219	19.6	
5 Sulfate					
5.037	4.957	0.080	62066	4.47	

Report Date: 18-Dec-2013 09:23:13 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_021.d				
Injection Date:	17-Dec-2013 19:03:00	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-6	Lab Sample ID:	480-68260-6	Worklist Smp#:	10
Client ID:	GW0013				
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\20131217-28207.b\121713-1_022.d
Lims ID: 460-68260-A-7 Lab Sample ID: 480-68260-7
Client ID: GW0014
Sample Type: Client
Inject. Date: 17-Dec-2013 19:13:08 ALS Bottle#: 0 Worklist Smp#: 11
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 022 Name: 480-0028207-011
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:23:26 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:23:26

Detector: Ch-A-092410-2
Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.627	2.067	10150	1.05	4.33		1 Fluoride
2.483	2.353	3.107	468628	48.33	3.95		2 Chloride
3.867	3.637	4.353	5925	0.61	26.10		
4.460	4.353	4.800	1120	0.12	8.12		
4.943	4.800	5.510	481185	49.63	8.52		5 Sulfate
7.380	7.243	7.753	2578	0.27	8.29		
			969586			Totals	

Total Unknown Area% = 0.99

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

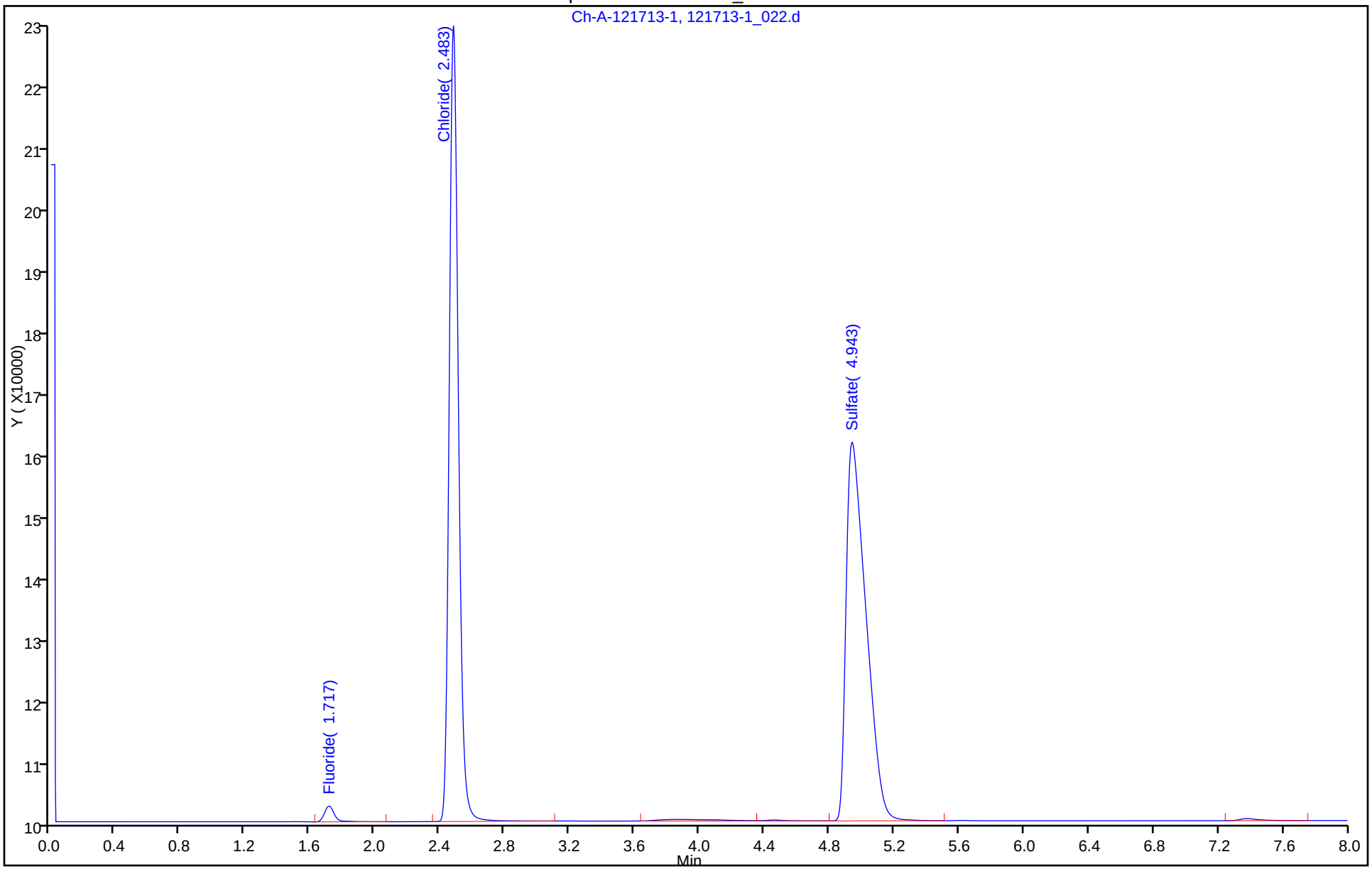
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_022.d				
Lims ID:	460-68260-A-7	Lab Sample ID:	480-68260-7		
Client ID:	GW0014				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 19:13:08	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 022 Name: 480-0028207-011				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:23:26	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:23:26		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.717	0.0	10150	0.3376	
2 Chloride					
2.483	2.473	0.010	468628	25.1	
5 Sulfate					
4.943	4.957	-0.014	481185	34.9	

Report Date: 18-Dec-2013 09:23:26 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_022.d				
Injection Date:	17-Dec-2013 19:13:08	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-7	Lab Sample ID:	480-68260-7	Worklist Smp#:	11
Client ID:	GW0014				
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\20131217-28207.b\121713-1_023.d
Lims ID: 460-68260-A-7 MS Lab Sample ID: 480-68260-7
Client ID:
Sample Type: MS
Inject. Date: 17-Dec-2013 19:23:15 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 023 Name: 480-0028207-012
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:23:26 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:23:57

Detector: Ch-A-092410-2
Number of peaks found: 8

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.723	1.613	2.227	82400	4.27	4.82		1 Fluoride
2.480	2.350	3.143	909581	47.19	4.02		2 Chloride
3.753	3.637	3.957	19653	1.02	6.00		3 Bromide
4.073	3.957	4.380	110469	5.73	7.24		
4.450	4.380	4.643	452	0.02	5.51		
4.897	4.767	5.530	802165	41.61	10.24		5 Sulfate
5.620	5.537	5.850	262	0.01	5.57		
7.390	7.260	7.837	2708	0.14	8.36		
			1927690			Totals	

Total Unknown Area% = 0.18

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

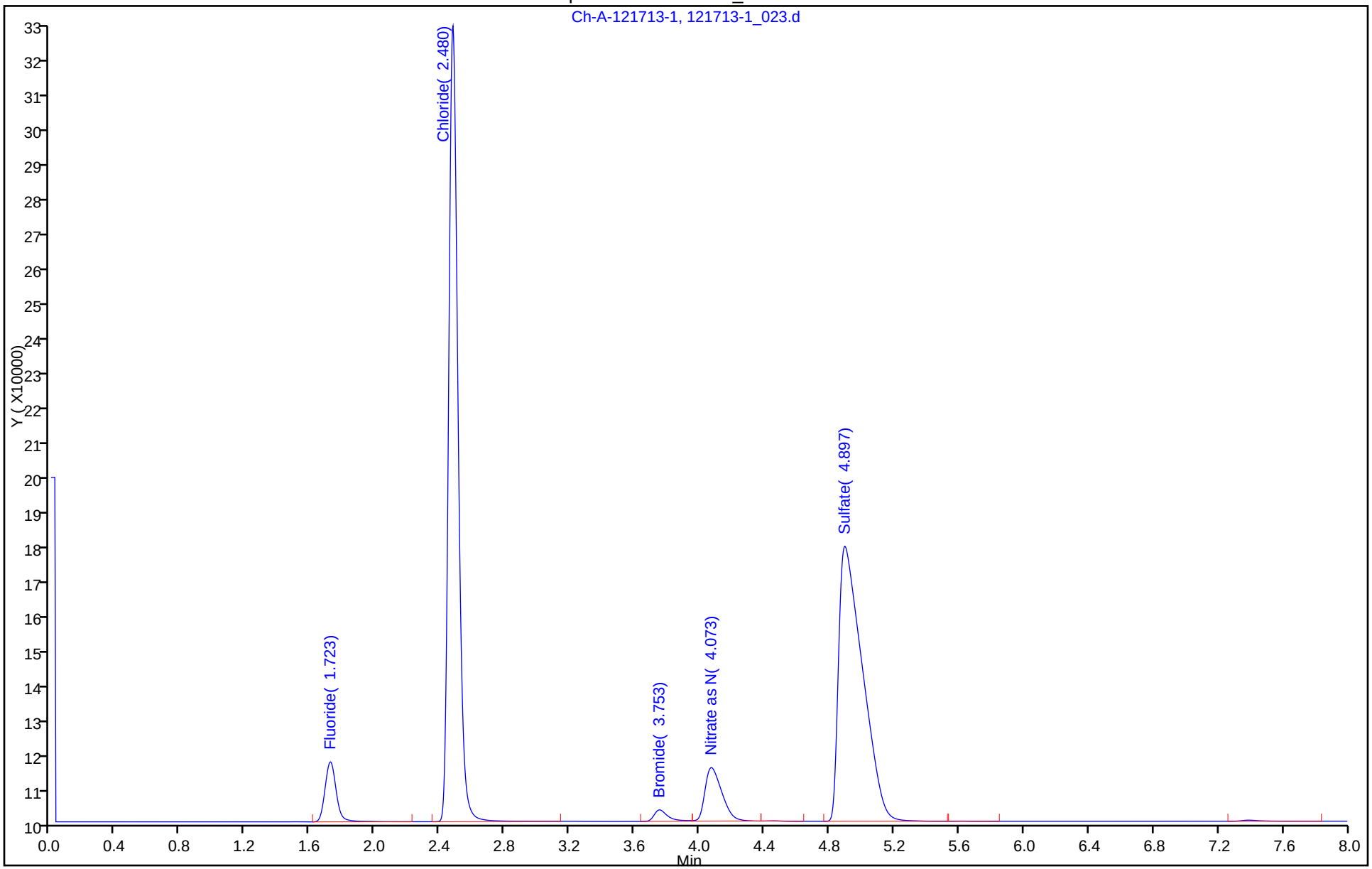
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_023.d				
Lims ID:	460-68260-A-7 MS	Lab Sample ID:	480-68260-7		
Client ID:					
Sample Type:	MS				
Inject. Date:	17-Dec-2013 19:23:15	ALS Bottle#:	0	Worklist Smp#:	12
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 023 Name: 480-0028207-012				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:23:26	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:23:57		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.723	1.717	0.006	82400	2.74	
2 Chloride					
2.480	2.473	0.007	909581	48.8	
3 Bromide					
3.753	3.887	-0.134	19653	2.47	
4 Nitrate as N					
4.073	4.130	-0.057	110469	0	
5 Sulfate					
4.897	4.957	-0.060	802165	58.2	

Report Date: 18-Dec-2013 09:23:57 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_023.d				
Injection Date:	17-Dec-2013 19:23:15	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-7 MS	Lab Sample ID:	480-68260-7	Worklist Smp#:	12
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\20131217-28207.b\121713-1_024.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 19:33:23 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 024 Name: 480-0028207-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:24:05 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:24:05

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	1.623	2.187	60862	7.47	4.29		1 Fluoride
2.487	2.377	3.010	372196	45.69	3.94		2 Chloride
3.907	3.793	4.043	15159	1.86	4.40		3 Bromide
4.150	4.043	4.790	91538	11.24	5.60		
4.997	4.843	5.580	274898	33.74	7.10		5 Sulfate
			814653			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\20131217-28207.b\121713-1_024.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 19:33:23 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 024 Name: 480-0028207-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:24:05 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:24:05

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	2.02	30431	1.2	10
2 Chloride	20.0	0.0	19.9	18610	-0.3	10
3 Bromide	2.00	0.0	1.91	7579.50	-4.6	10
5 Sulfate	20.0	0.0	19.9	13745	-0.4	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_024.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 19:33:23 ALS Bottle#: 0 Worklist Smp#: 13
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 024 Name: 480-0028207-013
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:24:05 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: XAWRK024

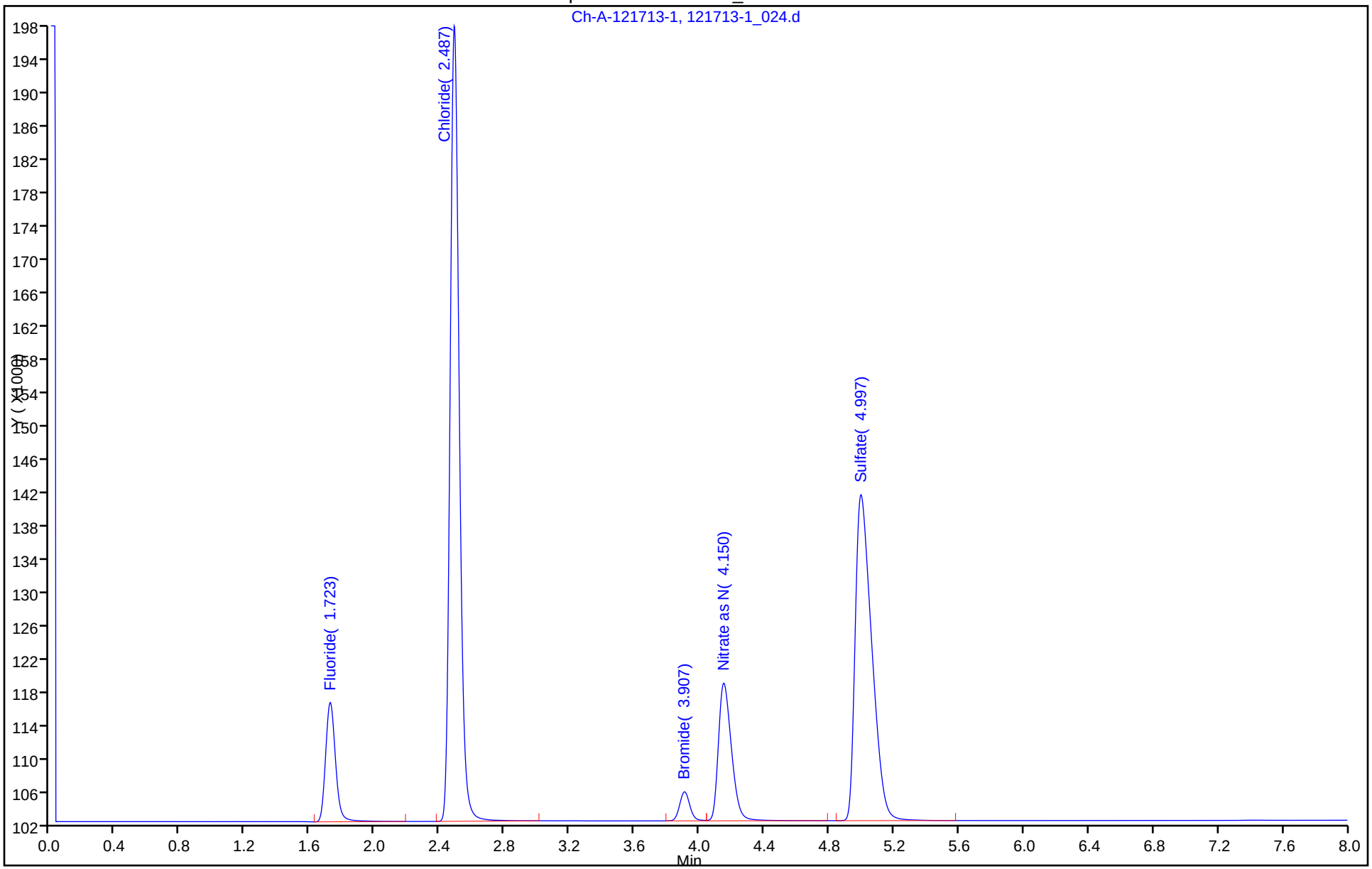
First Level Reviewer: cudneyk Date: 18-Dec-2013 09:24:05

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.723	1.723	0.0	60862	2.02	
2 Chloride					
2.487	2.487	0.0	372196	19.9	
3 Bromide					
3.907	3.907	0.0	15159	1.91	
4 Nitrate as N					
4.150	4.150	0.0	91538	0	
5 Sulfate					
4.997	4.997	0.0	274898	19.9	

Report Date: 18-Dec-2013 09:24:05 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_024.d				
Injection Date:	17-Dec-2013 19:33:23	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\20131217-28207.b\121713-1_025.d
Lims ID: CCB Lab Sample ID: CCB 480-158055/14-A
Client ID:
Sample Type: CCB
Inject. Date: 17-Dec-2013 19:43:31 ALS Bottle#: 0 Worklist Smp#: 14
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 025 Name: 480-0028207-014
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:24:05 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:24:09

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.487	2.400	2.617	457	49.41	3.91		2 Chloride
5.097	5.003	5.267	468	50.59	5.09		5 Sulfate
			925			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

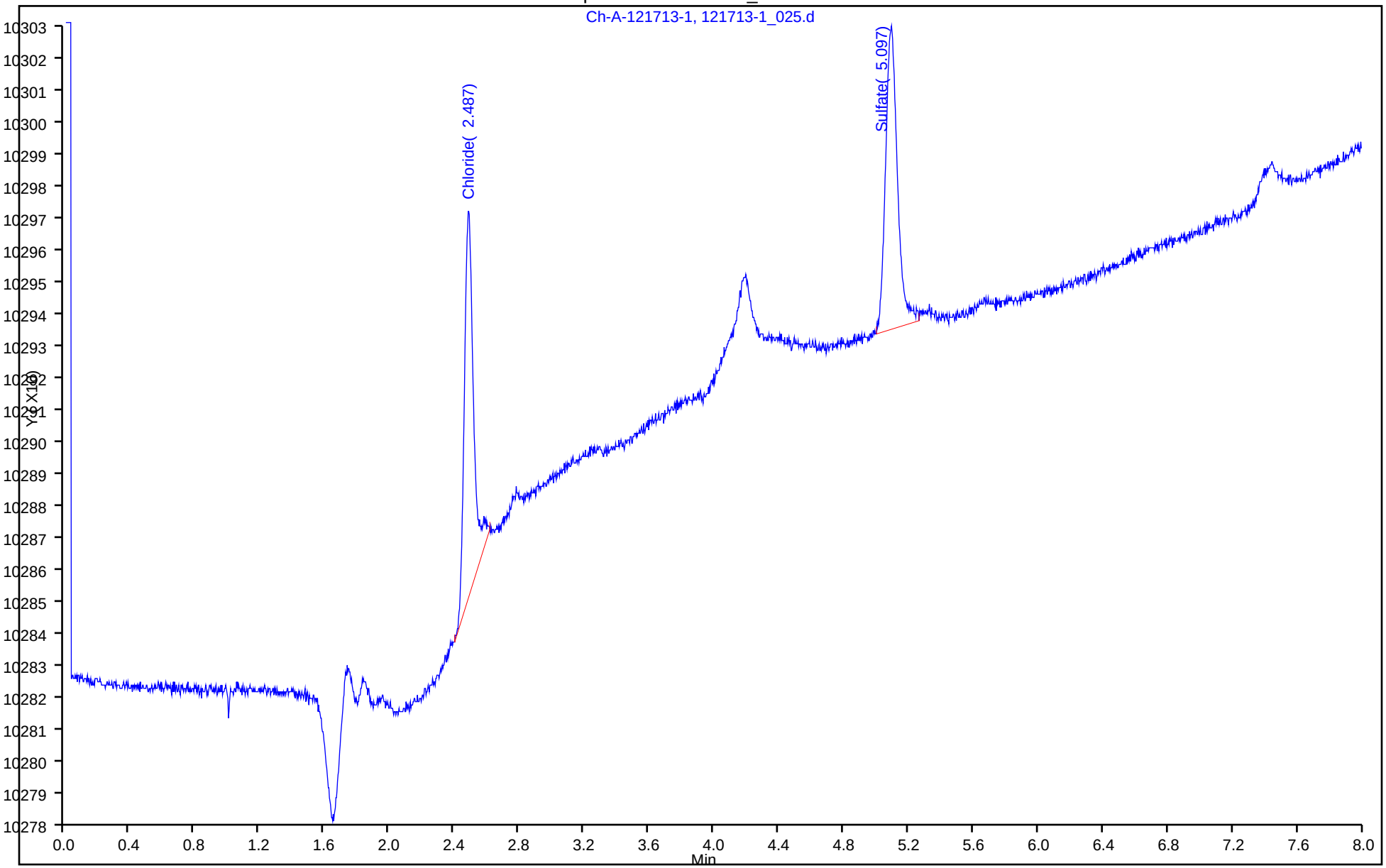
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_025.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-158055/14-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-Dec-2013 19:43:31	ALS Bottle#:	0	Worklist Smp#:	14
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 025 Name: 480-0028207-014				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:24:05	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:24:09		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.487	2.487	0.0	457	-0.007557	
5 Sulfate					
5.097	4.997	0.100	468	0.002260	

Report Date: 18-Dec-2013 09:24:09 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_025.d				
Injection Date:	17-Dec-2013 19:43:31	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-158055/14-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\20131217-28207.b\121713-1_026.d
Lims ID: 460-68260-A-8 Lab Sample ID: 480-68260-8
Client ID: GW0015
Sample Type: Client
Inject. Date: 17-Dec-2013 19:53:39 ALS Bottle#: 0 Worklist Smp#: 15
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 026 Name: 480-0028207-015
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:24:33 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:24:33

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

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.717	1.623	1.977	9337	1.17	4.02		1 Fluoride
2.490	2.363	3.003	394847	49.33	3.93		2 Chloride
3.803	3.673	3.940	1025	0.13	8.07		
4.977	4.833	5.677	394520	49.29	7.96		5 Sulfate
7.400	7.293	7.660	633	0.08	8.12		
			800362			Totals	

Total Unknown Area% = 0.21

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

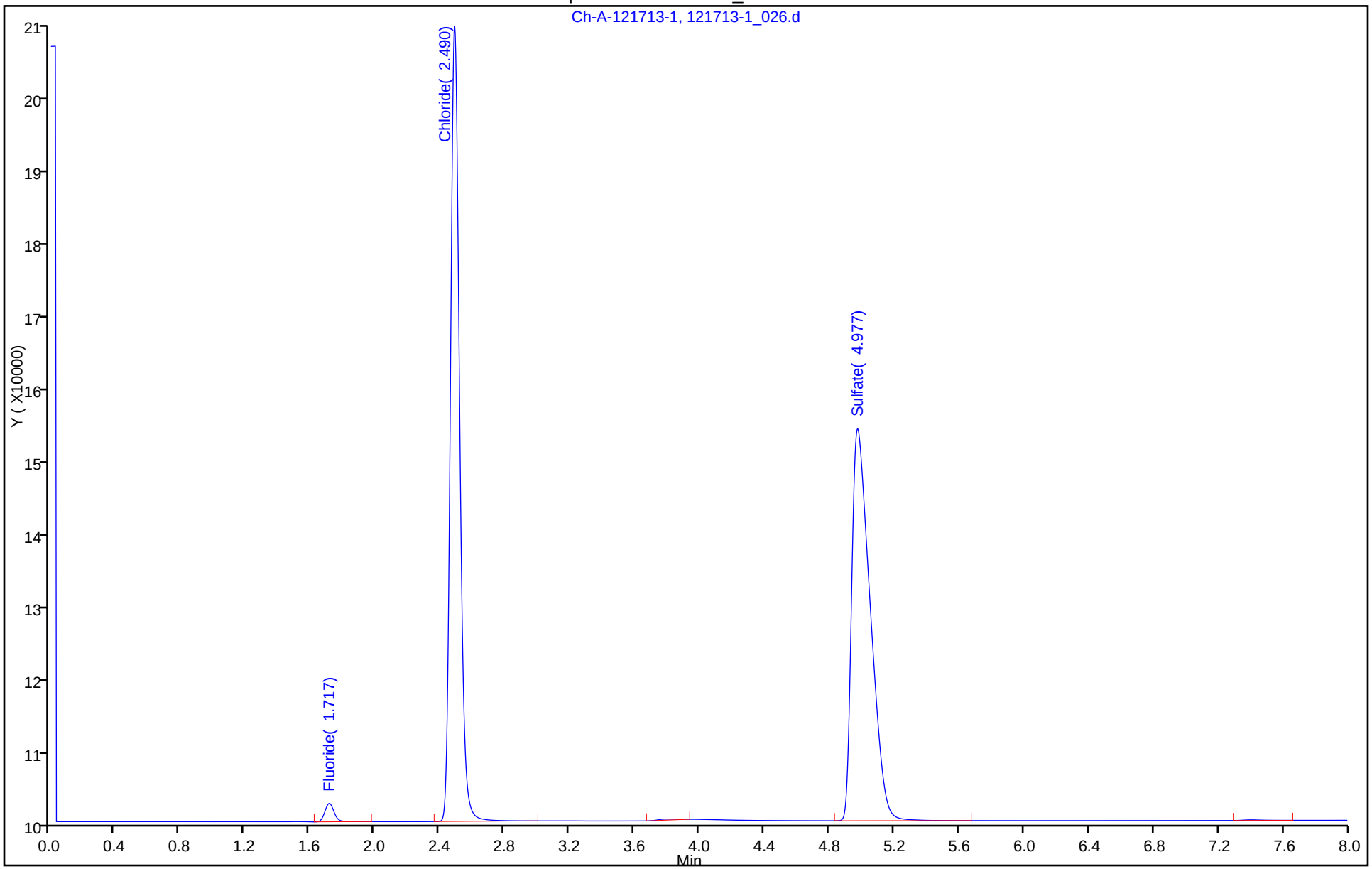
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_026.d				
Lims ID:	460-68260-A-8	Lab Sample ID:	480-68260-8		
Client ID:	GW0015				
Sample Type:	Client				
Inject. Date:	17-Dec-2013 19:53:39	ALS Bottle#:	0	Worklist Smp#:	15
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 026 Name: 480-0028207-015				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:24:33	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:24:33		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.717	1.723	-0.006	9337	0.3106	
2 Chloride					
2.490	2.487	0.003	394847	21.2	
5 Sulfate					
4.977	4.997	-0.020	394520	28.6	

Report Date: 18-Dec-2013 09:24:34 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_026.d				
Injection Date:	17-Dec-2013 19:53:39	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	460-68260-A-8	Lab Sample ID:	480-68260-8	Worklist Smp#:	15
Client ID:	GW0015				
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\20131217-28207.b\121713-1_036.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 21:34:58 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 036 Name: 480-0028207-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:26:32 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:26:32

Detector: Ch-A-092410-2
Number of peaks found: 6

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
1.707	1.613	2.177	59649	7.35	4.17		1 Fluoride
2.460	2.337	3.360	371080	45.74	4.13		2 Chloride
3.870	3.743	4.003	14818	1.83	4.76		3 Bromide
4.113	4.003	4.797	91184	11.24	5.99		
4.953	4.797	5.593	274338	33.82	8.53		5 Sulfate
7.373	7.280	7.600	220	0.03	8.15		
			811289			Totals	

Total Unknown Area% = 0.03

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\20131217-28207.b\121713-1_036.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 21:34:58 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 036 Name: 480-0028207-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:26:32 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:26:32

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	1.98	29825	-0.8	10
2 Chloride	20.0	0.0	19.9	18554	-0.6	10
3 Bromide	2.00	0.0	1.86	7409.00	-6.8	10
5 Sulfate	20.0	0.0	19.9	13717	-0.6	10

TestAmerica Buffalo
Target Compound Quantitation Report

Data File: \\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_036.d
Lims ID: CCV Lab Sample ID:
Client ID:
Sample Type: CCV
Inject. Date: 17-Dec-2013 21:34:58 ALS Bottle#: 0 Worklist Smp#: 25
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 036 Name: 480-0028207-025
Operator ID: TCHROM Instrument ID: IC-1
Sublist: chrom-IC1-300*sub2

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:26:32 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: XAWRK024

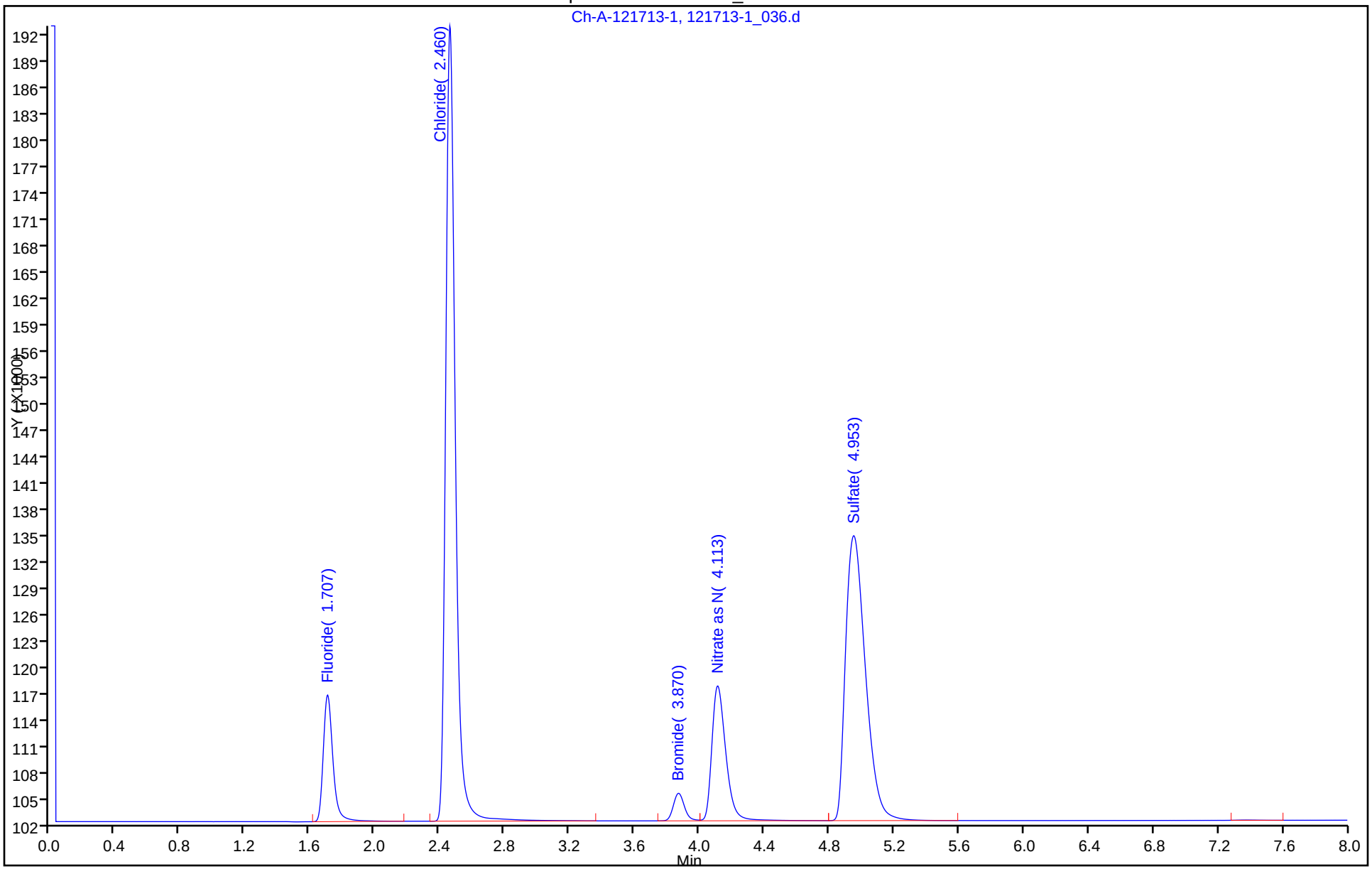
First Level Reviewer: cudneyk Date: 18-Dec-2013 09:26:32

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
1 Fluoride					
1.707	1.707	0.0	59649	1.98	
2 Chloride					
2.460	2.460	0.0	371080	19.9	
3 Bromide					
3.870	3.870	0.0	14818	1.86	
4 Nitrate as N					
4.113	4.113	0.0	91184	0	
5 Sulfate					
4.953	4.953	0.0	274338	19.9	

Report Date: 18-Dec-2013 09:26:32 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_036.d				
Injection Date:	17-Dec-2013 21:34:58	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\20131217-28207.b\121713-1_037.d
Lims ID: CCB Lab Sample ID: CCB 480-158056/26-A
Client ID:
Sample Type: CCB
Inject. Date: 17-Dec-2013 21:45:06 ALS Bottle#: 0 Worklist Smp#: 26
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: #: 037 Name: 480-0028207-026
Operator ID: TCHROM Instrument ID: IC-1

Method: \\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m
Limit Group: MB 300.0_28D ICAL
Last Update: 18-Dec-2013 09:26:32 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: XAWRK024

First Level Reviewer: cudneyk Date: 18-Dec-2013 09:26:36

Detector: Ch-A-092410-2
Number of peaks found: 3

RT	Start RT	End RT	Area	Area%	A/Ht Ratio	Flags	Compound Identification
2.460	2.373	2.657	2901	54.77	3.75		2 Chloride
4.150	4.047	4.353	1023	19.31	5.01		
5.027	4.920	5.223	1373	25.92	6.13		5 Sulfate
			5297			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

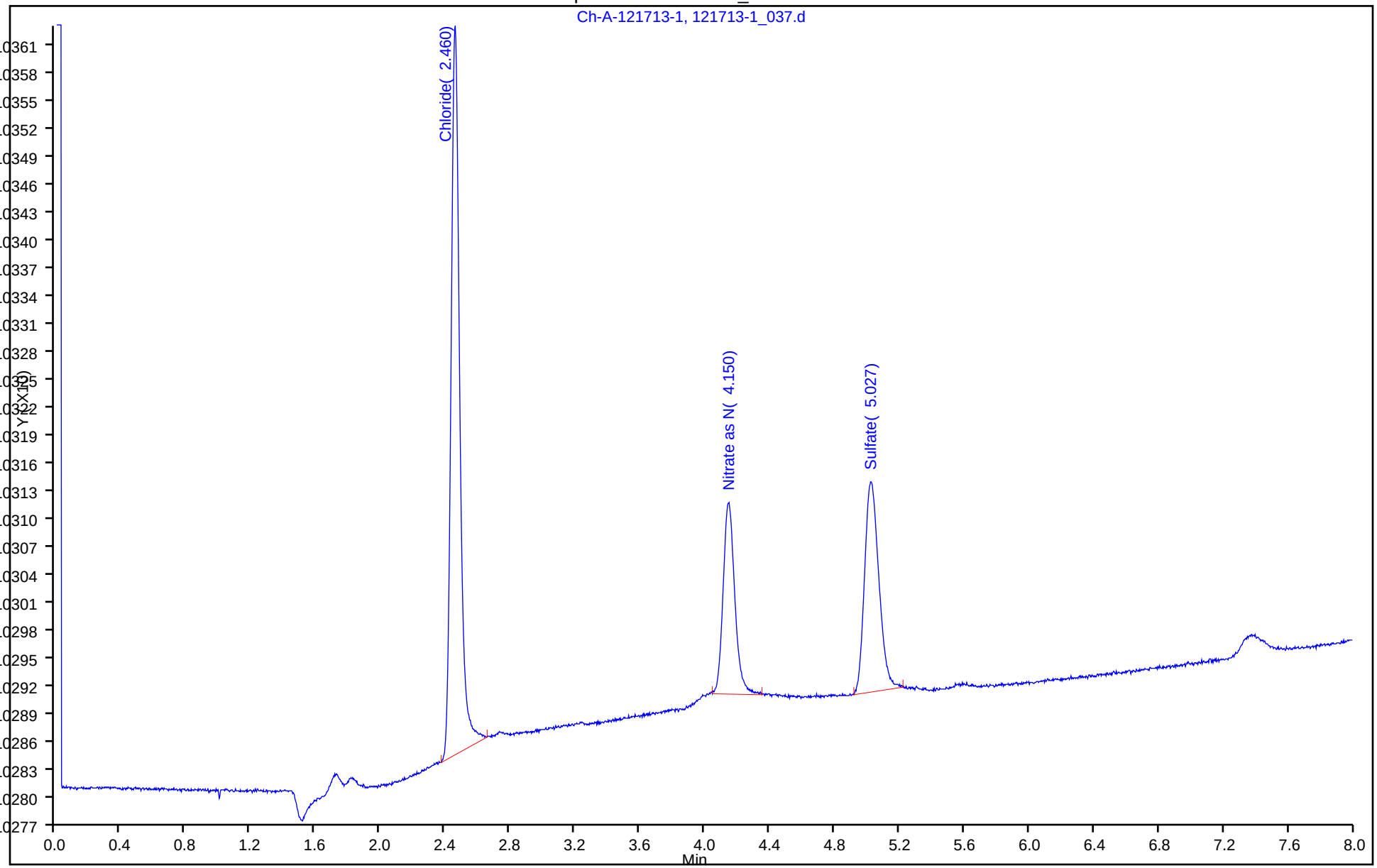
Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_037.d				
Lims ID:	CCB	Lab Sample ID:	CCB 480-158056/26-A		
Client ID:					
Sample Type:	CCB				
Inject. Date:	17-Dec-2013 21:45:06	ALS Bottle#:	0	Worklist Smp#:	26
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	#: 037 Name: 480-0028207-026				
Operator ID:	TCHROM	Instrument ID:	IC-1		
Method:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\IC1-300.m				
Limit Group:	MB 300.0_28D ICAL				
Last Update:	18-Dec-2013 09:26:32	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:	XAWRK024				
First Level Reviewer: cudneyk		Date:	18-Dec-2013 09:26:36		

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	On-Col Amt ng/uL	Flags
2 Chloride					
2.460	2.460	0.0	2901	0.1236	
4 Nitrate as N					
4.150	4.113	0.037	1023	0	
5 Sulfate					
5.027	4.953	0.074	1373	0.0680	

Report Date: 18-Dec-2013 09:26:37 Chrom Revision: 2.1 15-Oct-2013 07:52:24

TestAmerica Buffalo

Data File:	\\Bufchrom\ChromData\IC-1\20131217-28207.b\121713-1_037.d				
Injection Date:	17-Dec-2013 21:45:06	Instrument ID:	IC-1	Operator ID:	TCHROM
Lims ID:	CCB	Lab Sample ID:	CCB 480-158056/26-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		



GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Edison Job No.: 460-68260-1

SDG No.:

Batch Number: 197566 Batch Start Date: 12/13/13 09:54 Batch Analyst: Leye, Mamadou

Batch Method: 353.2 Batch End Date: 12/13/13 11:18

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTno3+2IM2 00242	WTno3LCS 00014	WTntritLCS 00020	AnalysisComment	
ICV 460-197566/7		353.2		100 mL	5 mL				
CCV 460-197566/55		353.2		100 mL	5 mL				
LCSSRM 460-197566/63		353.2		10 mL			10 mL		
LCSSRM 460-197566/64		353.2		10 mL		10 mL			
CCV 460-197566/67		353.2		100 mL	5 mL				
460-68260-A-1	GW0008	353.2	T					closing CCV failed for NO3	
460-68260-A-2	GW0009	353.2	T					closing CCV failed for NO3	
460-68260-A-3	GW0010	353.2	T					closing CCV failed for NO3	
460-68260-A-4	GW0011	353.2	T					closing CCV failed for NO3	
460-68260-A-5	GW0012	353.2	T					closing CCV failed for NO3	
460-68260-A-6	GW0013	353.2	T					closing CCV failed for NO3	
460-68260-A-7	GW0014	353.2	T					closing CCV failed for NO3	
460-68260-A-8	GW0015	353.2	T					closing CCV failed for NO3	
CCV 460-197566/79		353.2		100 mL	5 mL				

Batch Notes	
Batch Comment	A(58739-58744)-13 ; A(58745)-13 exp 12/14/13
Buffer Solution ID	C0124-13 exp 06/06/14
Color Reagent ID Number	C0123-13 exp 01/06/14

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.: 460-68260-1

SDG No.:

Batch Number: 200035 Batch Start Date: 12/26/13 11:00 Batch Analyst: Afremova, Izabella

Batch Method: SM 2340C Batch End Date: 12/26/13 13:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	BuretStart1	BuretStop1	TitrantVolume1	CalcMsg
MB 460-200035/1		SM 2340C		50 mL	50 mL	0 mL	0 mL	0 mL	OK
LCSSRM 460-200035/2		SM 2340C		25 mL	50 mL	0 mL	5.1 mL	5.1 mL	OK
460-68263-E-11 DU		SM 2340C	T	50 mL	50 mL	0 mL	4.2 mL	4.2 mL	OK
460-68260-E-1	GW0008	SM 2340C	T	50 mL	50 mL	0 mL	10.1 mL	10.1 mL	OK
460-68260-E-2	GW0009	SM 2340C	T	50 mL	50 mL	0 mL	10.1 mL	10.1 mL	OK
460-68260-E-3	GW0010	SM 2340C	T	50 mL	50 mL	0 mL	10.8 mL	10.8 mL	OK
460-68260-E-4	GW0011	SM 2340C	T	50 mL	50 mL	0 mL	10.0 mL	10 mL	OK
460-68260-E-5	GW0012	SM 2340C	T	50 mL	50 mL	0 mL	10.1 mL	10.1 mL	OK
460-68260-E-6	GW0013	SM 2340C	T	50 mL	50 mL	0 mL	10.3 mL	10.3 mL	OK
460-68260-E-7	GW0014	SM 2340C	T	50 mL	50 mL	0 mL	7.1 mL	7.1 mL	OK
460-68260-E-8	GW0015	SM 2340C	T	50 mL	50 mL	0 mL	6.7 mL	6.7 mL	OK

Lab Sample ID	Client Sample ID	Method Chain	Basis	WThardLCS0001 00012					
MB 460-200035/1		SM 2340C							
LCSSRM 460-200035/2		SM 2340C		25 mL					
460-68263-E-11 DU		SM 2340C	T						
460-68260-E-1	GW0008	SM 2340C	T						
460-68260-E-2	GW0009	SM 2340C	T						
460-68260-E-3	GW0010	SM 2340C	T						
460-68260-E-4	GW0011	SM 2340C	T						
460-68260-E-5	GW0012	SM 2340C	T						
460-68260-E-6	GW0013	SM 2340C	T						
460-68260-E-7	GW0014	SM 2340C	T						
460-68260-E-8	GW0015	SM 2340C	T						

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.: 460-68260-1

SDG No.:

Batch Number: 200035 Batch Start Date: 12/26/13 11:00 Batch Analyst: Afremova, Izabella

Batch Method: SM 2340C Batch End Date: 12/26/13 13:30

Batch Notes	
Buffer Lot #	Fisher/132206 exp.05/31/15
EDTA Lot Number	AQUA SOLUTIONS/2111362 exp.05/31/15
Inhibitor 1 Lot #	Eriochrome Black-T indicator #C - 9981-13exp.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	STD exp.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.: 460-68260-1

SDG No.:

Batch Number: 200246 Batch Start Date: 12/26/13 11:07 Batch Analyst: Cabanganan, Maria

Batch Method: SM 2320B Batch End Date: 12/26/13 14:32

Lab Sample ID	Client Sample ID	Method Chain	Basis	CalcMsg	FinalAmount	WTalkLCS 00093			
MB 460-200246/2		SM 2320B		InitialAmount is blank					
LCSSRM 460-200246/3		SM 2320B		InitialAmount is blank	25 mL	25 mL			
460-68260-G-1	GW0008	SM 2320B	T	InitialAmount is blank					
460-68260-G-1 DU	GW0008	SM 2320B	T	InitialAmount is blank					
460-68260-G-2	GW0009	SM 2320B	T	InitialAmount is blank					
460-68260-G-3	GW0010	SM 2320B	T	InitialAmount is blank					
460-68260-G-4	GW0011	SM 2320B	T	InitialAmount is blank					
460-68260-G-5	GW0012	SM 2320B	T	InitialAmount is blank					
460-68260-G-6	GW0013	SM 2320B	T	InitialAmount is blank					
460-68260-G-7	GW0014	SM 2320B	T	InitialAmount is blank					
460-68260-G-8	GW0015	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 xp. 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. 02/2014

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.: 460-68260-1

SDG No.:

Batch Number: 198189 Batch Start Date: 12/17/13 07:17 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/17/13 15:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CrucibleID	TareWeight	InitialAmount	Weight1	Weight2
MB 460-198189/1		SM 2540D		100 mL	a08TH 0.1214	0.1214 g	1000 mL	0.1217 g	0.1216 g
LCSSRM 460-198189/2		SM 2540D		100 mL	a08TI 0.1208	0.1208 g	50 mL	0.1243 g	0.1243 g
460-68392-B-1 DU		SM 2540D	T	100 mL	a08TK 0.1214	0.1214 g	50 mL	0.1694 g	0.1666 g
460-68260-F-1	GW0008	SM 2540D	T	100 mL	a08TP 0.1202	0.1202 g	500 mL	0.1418 g	0.1420 g
460-68260-F-2	GW0009	SM 2540D	T	100 mL	a08TQ 0.1172	0.1172 g	500 mL	0.1252 g	0.1254 g
460-68260-F-3	GW0010	SM 2540D	T	100 mL	a08TR 0.1197	0.1197 g	750 mL	0.1268 g	0.1266 g
460-68260-F-4	GW0011	SM 2540D	T	100 mL	a08TS 0.1186	0.1186 g	750 mL	0.1188 g	0.1185 g
460-68260-F-5	GW0012	SM 2540D	T	100 mL	a08TT 0.1184	0.1184 g	880 mL	0.1182 g	0.1185 g
460-68392-A-5 DU		SM 2540D	T	100 mL	a08TV 0.1196	0.1196 g	50 mL	0.1266 g	0.1266 g
460-68260-F-6	GW0013	SM 2540D	T	100 mL	a08TW 0.1160	0.1160 g	750 mL	0.1232 g	0.1232 g
460-68260-F-7	GW0014	SM 2540D	T	100 mL	a08TX 0.1195	0.1195 g	800 mL	0.1201 g	0.1201 g
460-68260-F-8	GW0015	SM 2540D	T	100 mL	a08TY 0.1166	0.1166 g	850 mL	0.1175 g	0.1173 g

Lab Sample ID	Client Sample ID	Method Chain	Basis	Weight3	WeightOne%Diff	WeightTwo%Diff	Residue	Residue2	Residue3
MB 460-198189/1		SM 2540D		0.1217 g	PASS <0.5mg	PASS <0.5mg	0.0003 g	0.0002 g	0.0003 g
LCSSRM 460-198189/2		SM 2540D		0.1243 g	PASS <0.5mg	PASS <0.5mg	0.0035 g	0.0035 g	0.0035 g
460-68392-B-1 DU		SM 2540D	T	0.1669 g	Fail >=0.5mg	PASS <0.5mg	0.048 g	0.0452 g	0.0455 g
460-68260-F-1	GW0008	SM 2540D	T	0 g	PASS <0.5mg		0.0216 g	0.0218 g	
460-68260-F-2	GW0009	SM 2540D	T	0 g	PASS <0.5mg		0.008 g	0.0082 g	
460-68260-F-3	GW0010	SM 2540D	T	0 g	PASS <0.5mg		0.0071 g	0.0069 g	
460-68260-F-4	GW0011	SM 2540D	T	0 g	PASS <0.5mg		0.0002 g	-0.0001 g	
460-68260-F-5	GW0012	SM 2540D	T	0 g	PASS <0.5mg		-0.0002 g	0.0001 g	
460-68392-A-5 DU		SM 2540D	T	0 g	PASS <0.5mg		0.007 g	0.007 g	
460-68260-F-6	GW0013	SM 2540D	T	0 g	PASS <0.5mg		0.0072 g	0.0072 g	
460-68260-F-7	GW0014	SM 2540D	T	0 g	PASS <0.5mg		0.0006 g	0.0006 g	
460-68260-F-8	GW0015	SM 2540D	T	0 g	PASS <0.5mg		0.0009 g	0.0007 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.: 460-68260-1

SDG No.:

Batch Number: 198189 Batch Start Date: 12/17/13 07:17 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/17/13 15:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	ResDishWt	DishWeight	WTtssLCS 00045			
MB 460-198189/1		SM 2540D		0.1217 g	0.1214 g				
LCSSRM 460-198189/2		SM 2540D		0.1243 g	0.1208 g	50 mL			
460-68392-B-1 DU		SM 2540D	T	0.1669 g	0.1214 g				
460-68260-F-1	GW0008	SM 2540D	T	0.142 g	0.1202 g				
460-68260-F-2	GW0009	SM 2540D	T	0.1254 g	0.1172 g				
460-68260-F-3	GW0010	SM 2540D	T	0.1266 g	0.1197 g				
460-68260-F-4	GW0011	SM 2540D	T	0.1185 g	0.1186 g				
460-68260-F-5	GW0012	SM 2540D	T	0.1185 g	0.1184 g				
460-68392-A-5 DU		SM 2540D	T	0.1266 g	0.1196 g				
460-68260-F-6	GW0013	SM 2540D	T	0.1232 g	0.116 g				
460-68260-F-7	GW0014	SM 2540D	T	0.1201 g	0.1195 g				
460-68260-F-8	GW0015	SM 2540D	T	0.1173 g	0.1166 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.: 460-68260-1

SDG No.:

Batch Number: 198189 Batch Start Date: 12/17/13 07:17 Batch Analyst: Staib, Patricia L

Batch Method: SM 2540D Batch End Date: 12/17/13 15:15

Batch Notes	
Balance ID	27
Constant Weight (WT2) Date/Time in Oven	12-17-13@11:52
Constant Weight (WT2) Date/Time Out	12-17-13@12:59
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	12-17-13@13:40
Constant Weight (WT3) Date/Time Out	12-17-13@14:48
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	12-17-13@7:55
Oven Temp when samples are put in oven	104 Celsius
Nominal Amount Used	100 mL
Date samples were removed from oven	12-17-13@9:02
Oven Temp when samples removed from oven	102 Celsius
Oven ID	36233
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.: 460-68260-1

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.: 460-68260-1

SDG No.:

Batch Number: 197786 Batch Start Date: 12/14/13 08:40 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 4500 P E Batch End Date: 12/14/13 11:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WTophosLCS 00004	WTphosSP1 00020	WTphosSS1 00018	
ICV 460-197786/1		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
ICB 460-197786/2		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
MB 460-197786/3		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
LCSSRM 460-197786/4		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run	2 mL			
460-68260-F-1	GW0008	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-2	GW0009	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-3	GW0010	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-4	GW0011	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-5	GW0012	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-6	GW0013	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-8	GW0015	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
CCV 460-197786/13		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-197786/14		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
CCV 460-197786/25		SM 4500 P E		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.: 460-68260-1

SDG No.:

Batch Number: 197786 Batch Start Date: 12/14/13 08:40 Batch Analyst: Kamenetskaya, Raisa

Batch Method: SM 4500 P E Batch End Date: 12/14/13 11:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	CalcMsg	WTophosLCS 00004	WTphosSP1 00020	WTphosSS1 00018	
CCB 460-197786/26		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run				
460-68260-F-7	GW0014	SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run				
460-68263-C-9 MS		SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run		0.2 mL		
460-68263-C-9 MSD		SM 4500 P E	T	50 mL	Not Calculated. RunCalculation not set to Run		0.2 mL		
CCV 460-197786/31		SM 4500 P E		50 mL	Not Calculated. RunCalculation not set to Run			0.2 mL	
CCB 460-197786/32		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 3015-13 exp 12/21/13
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.: 460-68260-1

SDG No.:

Batch Number: 198482 Batch Start Date: 12/16/13 21:21 Batch Analyst: Vu, Huan

Batch Method: SM 5310B Batch End Date: 12/18/13 11:01

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTtocLCS 00022	WTtocSP1 00021	WTtocSP2 00019		
ICV 460-198482/1		SM 5310B		50			1.25 mL		
ICB 460-198482/2		SM 5310B		50					
MB 460-198482/3		SM 5310B		50					
LCSSRM 460-198482/4		SM 5310B		50	50 mL				
460-67893-D-1 MS		SM 5310B	T	50		1.25 mL			
460-67893-D-1 MSD		SM 5310B	T	50		1.25 mL			
CCV 460-198482/13		SM 5310B		50			1.25 mL		
CCB 460-198482/14		SM 5310B		50					
460-68260-B-5	GW0012	SM 5310B	T	50					
CCV 460-198482/25		SM 5310B		50			1.25 mL		
CCB 460-198482/26		SM 5310B		50					
460-68260-B-6	GW0013	SM 5310B	T	50					
460-68260-B-7	GW0014	SM 5310B	T	50					
460-68260-B-8	GW0015	SM 5310B	T	50					
CCV 460-198482/30		SM 5310B		50			1.25 mL		
CCB 460-198482/31		SM 5310B		50					
460-68260-B-1	GW0008	SM 5310B	T	50					
460-68260-B-2	GW0009	SM 5310B	T	50					
460-68260-B-3	GW0010	SM 5310B	T	50					
460-68260-B-4	GW0011	SM 5310B	T	50					
CCV 460-198482/39		SM 5310B		50			1.25 mL		
CCB 460-198482/40		SM 5310B		50					

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.: 460-68260-1

SDG No.:

Batch Number: 198482 Batch Start Date: 12/16/13 21:21 Batch Analyst: Vu, Huan

Batch Method: SM 5310B Batch End Date: 12/18/13 11:01

Batch Notes	
Batch Comment	T(1245-1248)-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.: 460-68260-1

SDG No.:

Batch Number: 199450 Batch Start Date: 12/23/13 06:30 Batch Analyst: Afremova, Izabella

Batch Method: SM 4500 NH3 B Batch End Date: 12/23/13 09:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Final pH	WTamnIM1 00035		
MB 460-199450/1		SM 4500 NH3 B, 4500 NH3 H		50.0 mL	50.0 mL	ph=9.5 SU			
LCS 460-199450/2		SM 4500 NH3 B, 4500 NH3 H		50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68263-D-8 MS		SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68263-D-8 MSD		SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU	0.5 mL		
460-68260-D-1	GW0008	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-2	GW0009	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-3	GW0010	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-4	GW0011	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-5	GW0012	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-6	GW0013	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-7	GW0014	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			
460-68260-D-8	GW0015	SM 4500 NH3 B, 4500 NH3 H	T	50.0 mL	50.0 mL	ph=9.5 SU			

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.: 460-68260-1

SDG No.:

Batch Number: 199450 Batch Start Date: 12/23/13 06:30 Batch Analyst: Afremova, Izabella

Batch Method: SM 4500 NH3 B Batch End Date: 12/23/13 09:45

Batch Notes	
Acid used for pH adjustment	11 N H2SO4 # B - 9902-13 exp.03/25/14
Base used for pH adjustment	15 N NaOH # C - 9902-13 exp.02/17/14
Buffer Reagent ID Number	# C - 9857-43 exp.03/04/14
Distillation End Time	9:40 am
Distillation Start Time	8:00 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 - 0129-13 exp. 06/10/14

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.: 460-68260-1

SDG No.:

Batch Number: 199611 Batch Start Date: 12/23/13 16:48 Batch Analyst: Brown, Sarah E

Batch Method: 4500 NH3 H Batch End Date: 12/23/13 17:42

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	WTamnSS1 00005				
ICV 460-199611/7		4500 NH3 H		100 mL	0.2 mL				
CCV 460-199611/17		4500 NH3 H		100 mL	0.2 mL				
CCV 460-199611/29		4500 NH3 H		100 mL	0.2 mL				
CCV 460-199611/33		4500 NH3 H		100 mL	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.: 460-68260-1

SDG No.:

Batch Number: 199829 Batch Start Date: 12/24/13 14:05 Batch Analyst: Hu, Youhao

Batch Method: SM 4500 H+ B Batch End Date: 12/24/13 16:41

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount	SampleTemp	pHread1	pHRead2	CalcMsg	WTpHCCV 00020
CCV 460-199829/1		SM 4500 H+ B		20 mL	23.8 Celsius	7.02 SU	7.01 SU	Read 2 Pass	20 mL
MB 460-199829/2		SM 4500 H+ B		20 mL	23.2 Celsius	4.81 SU	4.79 SU	Read 2 Pass	
LCSSRM 460-199829/3		SM 4500 H+ B		20 mL	23.7 Celsius	7.02 SU	7.02 SU	Read 2 Pass	
460-68091-C-11 DU		SM 4500 H+ B	T	20 mL	22.6 Celsius	8.02 SU	8.02 SU	Read 2 Pass	
CCV 460-199829/18		SM 4500 H+ B		20 mL	23.6 Celsius	7.06 SU	7.05 SU	Read 2 Pass	20 mL
460-68260-C-1	GW0008	SM 4500 H+ B	T	20 mL	22.4 Celsius	7.69 SU	7.70 SU	Read 2 Pass	
460-68260-C-2	GW0009	SM 4500 H+ B	T	20 mL	22.8 Celsius	7.70 SU	7.71 SU	Read 2 Pass	
460-68260-C-3	GW0010	SM 4500 H+ B	T	20 mL	22.6 Celsius	7.36 SU	7.36 SU	Read 2 Pass	
460-68260-C-4	GW0011	SM 4500 H+ B	T	20 mL	23.1 Celsius	7.90 SU	7.91 SU	Read 2 Pass	
460-68260-C-5	GW0012	SM 4500 H+ B	T	20 mL	23.2 Celsius	7.93 SU	7.94 SU	Read 2 Pass	
460-68260-C-6	GW0013	SM 4500 H+ B	T	20 mL	23.4 Celsius	8.25 SU	8.26 SU	Read 2 Pass	
460-68260-C-7	GW0014	SM 4500 H+ B	T	20 mL	23.5 Celsius	7.98 SU	7.99 SU	Read 2 Pass	
460-68260-C-8	GW0015	SM 4500 H+ B	T	20 mL	22.9 Celsius	8.05 SU	8.05 SU	Read 2 Pass	
CCV 460-199829/27		SM 4500 H+ B		20 mL	23.6 Celsius	7.03 SU	7.02 SU	Read 2 Pass	20 mL

Lab Sample ID	Client Sample ID	Method Chain	Basis	WTpHLCS 00015					
CCV 460-199829/1		SM 4500 H+ B							
MB 460-199829/2		SM 4500 H+ B							
LCSSRM 460-199829/3		SM 4500 H+ B		20 mL					
460-68091-C-11 DU		SM 4500 H+ B	T						
CCV 460-199829/18		SM 4500 H+ B							
460-68260-C-1	GW0008	SM 4500 H+ B	T						
460-68260-C-2	GW0009	SM 4500 H+ B	T						
460-68260-C-3	GW0010	SM 4500 H+ B	T						
460-68260-C-4	GW0011	SM 4500 H+ B	T						
460-68260-C-5	GW0012	SM 4500 H+ B	T						

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.: 460-68260-1

SDG No.:

Batch Number: 199829 Batch Start Date: 12/24/13 14:05 Batch Analyst: Hu, Youhao

Batch Method: SM 4500 H+ B Batch End Date: 12/24/13 16:41

Lab Sample ID	Client Sample ID	Method Chain	Basis	WTpHLCS 00015					
460-68260-C-6	GW0013	SM 4500 H+ B	T						
460-68260-C-7	GW0014	SM 4500 H+ B	T						
460-68260-C-8	GW0015	SM 4500 H+ B	T						
CCV 460-199829/27		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
pH Buffer 4 ID	2.00buff Ricca 2306645 exp 5/15
pH Buffer 5 ID	12 buff : lab chem C035-04 exp 2/5/14
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.: 460-68260-1

SDG No.:

Batch Number: 157495 Batch Start Date: 12/13/13 11:14 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				
STD1 480-157495/2		300.0		1 mL	50 uL				
STD2 480-157495/3		300.0		1 mL	100 uL				
STD3 480-157495/4		300.0		1 mL	500 uL				
STD4 480-157495/5		300.0		1 mL	2 mL				
STD5 480-157495/6		300.0		1 mL	5 mL				
STD6 480-157495/7		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.: 460-68260-1

SDG No.:

Batch Number: 157767 Batch Start Date: 12/16/13 16:48 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_ 00023	IC_ANION_STD 00003			
CCV 480-157767/25		300.0		1 mL	5 mL				
CCB 480-157767/26		300.0		1 mL					
LCS 480-157767/27		300.0		1 mL	5 mL				
MB 480-157767/28		300.0		1 mL					
CCV 480-157767/37		300.0		1 mL	5 mL				
CCB 480-157767/38		300.0		1 mL					
460-68260-A-1	GW0008	300.0	T	1 mL					
460-68260-A-2	GW0009	300.0	T	1 mL					
460-68260-A-3	GW0010	300.0	T	1 mL					
460-68260-A-4	GW0011	300.0	T	1 mL					
460-68260-A-5	GW0012	300.0	T	1 mL					
460-68260-A-6	GW0013	300.0	T	1 mL					
460-68260-A-6 MS	GW0013	300.0	T	1 mL		125 uL			
460-68260-A-6 MSD	GW0013	300.0	T	1 mL		125 uL			
CCV 480-157767/49		300.0		1 mL	5 mL				
CCB 480-157767/50		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.: 460-68260-1

SDG No.:

Batch Number: 157769 Batch Start Date: 12/16/13 20:51 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_00023				
CCV 480-157769/49		300.0		1 mL	5 mL				
CCB 480-157769/50		300.0		1 mL					
LCS 480-157769/51		300.0		1 mL	5 mL				
MB 480-157769/52		300.0		1 mL					
460-68260-A-7	GW0014	300.0	T	1 mL					
460-68260-A-8	GW0015	300.0	T	1 mL					
CCV 480-157769/61		300.0		1 mL	5 mL				
CCB 480-157769/62		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.: 460-68260-1

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.: 460-68260-1

SDG No.:

Batch Number: 158039 Batch Start Date: 12/17/13 17:31 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_ 00023	IC_ANION_STD 00003			
CCV 480-158039/1		300.0		1 mL	5 mL				
CCB 480-158039/2		300.0		1 mL					
LCS 480-158039/3		300.0		1 mL	5 mL				
MB 480-158039/4		300.0		1 mL					
460-68260-A-1	GW0008	300.0	T	1 mL					
460-68260-A-2	GW0009	300.0	T	1 mL					
460-68260-A-3	GW0010	300.0	T	1 mL					
460-68260-A-4	GW0011	300.0	T	1 mL					
460-68260-A-5	GW0012	300.0	T	1 mL					
460-68260-A-6	GW0013	300.0	T	1 mL					
460-68260-A-7	GW0014	300.0	T	1 mL					
460-68260-A-7 MS	GW0014	300.0	T	1 mL		125 uL			
CCV 480-158039/13		300.0		1 mL	5 mL				
CCB 480-158039/14		300.0		1 mL					
460-68260-A-8	GW0015	300.0	T	1 mL					
CCV 480-158039/25		300.0		1 mL	5 mL				
CCB 480-158039/26		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.

Shipping and Receiving Documents

Chain of Custody Record

TestAmerica

Client Information	Sampler: Katie Cuso	Lab PM: Tanico, Thomas	Carrier Tracking No(s):	COC No: 460-41358-26297.1
Client Contact: Craig Hutchings	Phone:	E-Mail: thomas.tanico@testamericainc.com		Page: Page 1 of 2
Company: Integral Consulting Inc				Job #: 68260
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

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, 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_E_Ortho	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		
GW0008	12/12/13	0927	grab	Water	No	No	X	X	X	X	X	X	X	1	1008
GW0009	↓	0935	↓	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	2	1009
GW0010	↓	0955	↓	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	3	1010
GW0011	↓	~~0910~~ 1017	↓	Water	↓	↓	↓	↓	↓	↓	↓	↓	↓	4	1011
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											

460-68260 Chain of Custody

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:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Katie Cuso	12/12/13 1724	Integral	Jim (Fedex)	12/13/13 845	TAFD

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: NCS	Cooler Temperature(s) °C and Other Remarks: #4 3/3.1°C 1/1.1°C

Chain of Custody Record

TestAmerica

Client Information	Sampler: Katie Corso	Lab PM: Tanico, Thomas	Carrier Tracking No(s):	COC No: 460-41358-26297.2
Client Contact: Craig Hutchings	Phone:	E-Mail: thomas.tanico@testamericainc.com		Page: Page 2 of 2
Company: Integral Consulting Inc				Job # 66260
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: Solvay	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, 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_E_Ortho	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: Tag #
			Preservation Code:				D	N	N	N	N	S	S		
GW0012	12/12/13	1028	Grab	Water			x	x	x	x	x	x	x	5	1012
GW0013	↓	1030	↓	Water			↓	↓	↓	↓	↓	↓	↓	6	1013
GW0014	↓	1141	↓	Water			↓	↓	↓	↓	↓	↓	↓	7	1014
GW0015	↓	1149	↓	Water			↓	↓	↓	↓	↓	↓	↓	8	1015.
				Water											
				Water											
				Water											
				Water											
				Water											
				Water											

KC 12/12

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:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Katie Corso	12/12/13 1702	Integral	(FedEx)	12/13/13 9:45	TA60

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.: NO	Cooler Temperature(s) °C and Other Remarks: IR#4 3/3.1°C 1/1.1°C

TestAmerica Edison Receipt Temperature and pH Log

Page ____ of ____

Job Number: 68560

Number of Coolers: 1 IR Gun # 4

Temp. Cooler #1 (Deg C) (Raw/Corrected): 3.0/3.1 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
1	<2									<2			
2	<2									<2			
3	<2									<2			
4	<2									<2			
5	<2									<2			
6	<2									<2			
7	<2									<2			
8	<2									<2			

If pH adjustments are required record the information below:

Sample No(s). adjusted: ____

Preservative Name/Conc.: ____ Volume of Preservative used (ml): ____

Lot # of Preservative: ____ Expiration Date: ____

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: Gy Date: 12/12/13

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68260-1

Login Number: 68260

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.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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	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").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: Integral Consulting Inc

Job Number: 460-68260-1

Login Number: 68260
List Number: 1
Creator: Goliszek, Gregory T

List Source: TestAmerica Buffalo
List Creation: 12/14/13 01:49 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	3.3 #3
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	