ANALYTICAL REPORT

Job Number: 320-11644-1

Job Description: Village of Hoosick Falls

For:
CT Male Associates PC
50 Century Hill Dr
Latham, NY 12110

Attention: Dan Reilly

Approved for release.
Jill Kellmann
Manager of Project Management
2/25/2015 4:04 PM

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Qualifiers

LCMS

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
X	Surrogate is outside control limits

Glossary

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

Receipt
The samples were received on 2/12/2015 10:20 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.6º C.

LCMS
The following samples are reported at a dilution due to matrix interference with one or both of the surrogates. One analyte also required dilution doe to elevated concentrations. The matrix intereference was confirmed by re-analysis. Only the second analysis is reported due to failing QC criteria in the CCV's of the first analysis. Well 6 (320-11644-7), Well 7 (320-11644-2), Well 7 (320-11644-2 MS), Well 7 (320-11644-2 MSD)

The surrogate recovery for the following samples was outside control limits: Field Equipment Blank (320-11644-3). Evidence of matrix interference is present as shown by re-analysis; therefore, re-extraction was not performed. The results for the re-analysis are reported due to failed QC criteria for the CCV's of the first analysis.

Due to the high concentration of perfluorooctanoic acid, the matrix spike / matrix spike duplicate (MS/MSD) for batch 65881 could not be evaluated for accuracy and precision. The associated laboratory control sample (LCS) met acceptance criteria.

The surrogate recovery for the closing CCV associated with the following samples was outside control limits: (CCV 320-66293/33), (LCS 320-65881/2-A), (MB 320-65881/1-A), Finished Water (320-11644-1), Well 7 (320-11644-2). Evidence of matrix interference is present as shown by re-analysis; therefore, re-extraction was not performed. The results for the re-analysis are reported due to failed QC criteria for the CCV's of the first analysis.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Client Sample ID: Finished Water — Lab Sample ID: 320-11644-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.96		0.20	0.093	ug/L	10		537	Total/NA

Client Sample ID: Well 7 — Lab Sample ID: 320-11644-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	1.0		0.20	0.094	ug/L	10		537	Total/NA

Client Sample ID: Field Equipment Blank — Lab Sample ID: 320-11644-3

No Detections.

Client Sample ID: Lab Trip Blanks — Lab Sample ID: 320-11644-4

No Detections.

Client Sample ID: Well 3 — Lab Sample ID: 320-11644-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.0053	J	0.0097	0.0045	ug/L	1		537	Total/NA
Perfluorooctanoic acid (PFOA) - DL	0.27		0.097	0.046	ug/L	5		537	Total/NA

Client Sample ID: Well 10 — Lab Sample ID: 320-11644-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluoroheptanoic acid (PFHpA)	0.0053	J	0.0097	0.0045	ug/L	1		537	Total/NA
Perfluorooctanoic acid (PFOA) - DL	0.29		0.097	0.046	ug/L	5		537	Total/NA

Client Sample ID: Well 6 — Lab Sample ID: 320-11644-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Perfluorooctanoic acid (PFOA)	0.74		0.19	0.091	ug/L	10		537	Total/NA
Perfluoroheptanoic acid (PFHpA)	0.066	J	0.096	0.044	ug/L	10		537	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample Results

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Client Sample ID: Finished Water

Lab Sample ID: 320-11644-1

Date Collected: 02/11/15 09:39
Matrix: Water
Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.40	0.15	ug/L		02/18/15 09:18	02/23/15 16:25	10
Perfluorooctanoic acid (PFOA)	**0.96**		0.20	0.093	ug/L		02/18/15 09:18	02/23/15 16:25	10
Perfluorononanoic acid (PFNA)	ND		0.20	0.11	ug/L		02/18/15 09:18	02/23/15 16:25	10
Perfluorohexanesulfonic acid(PFHxS)	ND		0.30	0.12	ug/L		02/18/15 09:18	02/23/15 16:25	10
Perfluoroheptanoic acid (PFHpA)	ND		0.099	0.045	ug/L		02/18/15 09:18	02/23/15 16:25	10
Perfluorobutanesulfonic acid (PFBS)	ND		0.89	0.47	ug/L		02/18/15 09:18	02/23/15 16:25	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*104*		*70 - 130*	*02/18/15 09:18*	*02/23/15 16:25*	*10*
13C2 PFDA	*106*		*70 - 130*	*02/18/15 09:18*	*02/23/15 16:25*	*10*

Client Sample ID: Well 7

Lab Sample ID: 320-11644-2

Date Collected: 02/11/15 10:13
Matrix: Water
Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.40	0.15	ug/L		02/18/15 09:18	02/23/15 16:54	10
Perfluorooctanoic acid (PFOA)	**1.0**		0.20	0.094	ug/L		02/18/15 09:18	02/23/15 16:54	10
Perfluorononanoic acid (PFNA)	ND		0.20	0.11	ug/L		02/18/15 09:18	02/23/15 16:54	10
Perfluorohexanesulfonic acid(PFHxS)	ND		0.30	0.12	ug/L		02/18/15 09:18	02/23/15 16:54	10
Perfluoroheptanoic acid (PFHpA)	ND		0.10	0.046	ug/L		02/18/15 09:18	02/23/15 16:54	10
Perfluorobutanesulfonic acid (PFBS)	ND		0.90	0.47	ug/L		02/18/15 09:18	02/23/15 16:54	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*101*		*70 - 130*	*02/18/15 09:18*	*02/23/15 16:54*	*10*
13C2 PFDA	*111*		*70 - 130*	*02/18/15 09:18*	*02/23/15 16:54*	*10*

Client Sample ID: Field Equipment Blank

Lab Sample ID: 320-11644-3

Date Collected: 02/11/15 10:36
Matrix: Water
Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015	ug/L		02/18/15 09:18	02/24/15 11:04	1
Perfluorooctanoic acid (PFOA)	ND		0.019	0.0092	ug/L		02/18/15 09:18	02/24/15 11:04	1
Perfluorononanoic acid (PFNA)	ND		0.019	0.011	ug/L		02/18/15 09:18	02/24/15 11:04	1
Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012	ug/L		02/18/15 09:18	02/24/15 11:04	1
Perfluoroheptanoic acid (PFHpA)	ND		0.0097	0.0045	ug/L		02/18/15 09:18	02/24/15 11:04	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.088	0.046	ug/L		02/18/15 09:18	02/24/15 11:04	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*145*	*X*	*70 - 130*	*02/18/15 09:18*	*02/24/15 11:04*	*1*
13C2 PFDA	*147*	*X*	*70 - 130*	*02/18/15 09:18*	*02/24/15 11:04*	*1*

Client Sample ID: Lab Trip Blanks

Lab Sample ID: 320-11644-4

Date Collected: 02/11/15 00:00
Matrix: Water
Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015	ug/L		02/18/15 09:18	02/24/15 11:34	1
Perfluorooctanoic acid (PFOA)	ND		0.020	0.0092	ug/L		02/18/15 09:18	02/24/15 11:34	1
Perfluorononanoic acid (PFNA)	ND		0.020	0.011	ug/L		02/18/15 09:18	02/24/15 11:34	1
Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012	ug/L		02/18/15 09:18	02/24/15 11:34	1
Perfluoroheptanoic acid (PFHpA)	ND		0.0098	0.0045	ug/L		02/18/15 09:18	02/24/15 11:34	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.088	0.046	ug/L		02/18/15 09:18	02/24/15 11:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*118*		*70 - 130*	*02/18/15 09:18*	*02/24/15 11:34*	*1*
13C2 PFDA	*117*		*70 - 130*	*02/18/15 09:18*	*02/24/15 11:34*	*1*

Client Sample ID: Well 3

Lab Sample ID: 320-11644-5

Date Collected: 02/11/15 10:59
Matrix: Water
Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015	ug/L		02/18/15 09:18	02/24/15 12:33	1
Perfluorononanoic acid (PFNA)	ND		0.019	0.011	ug/L		02/18/15 09:18	02/24/15 12:33	1
Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012	ug/L		02/18/15 09:18	02/24/15 12:33	1
Perfluoroheptanoic acid (PFHpA)	**0.0053**	**J**	0.0097	0.0045	ug/L		02/18/15 09:18	02/24/15 12:33	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.087	0.046	ug/L		02/18/15 09:18	02/24/15 12:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*122*		*70 - 130*	*02/18/15 09:18*	*02/24/15 12:33*	*1*
13C2 PFDA	*128*		*70 - 130*	*02/18/15 09:18*	*02/24/15 12:33*	*1*

Method: 537 - Perfluorinated Alkyl Acids (LC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**0.27**		0.097	0.046	ug/L		02/18/15 09:18	02/23/15 18:23	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*109*		*70 - 130*	*02/18/15 09:18*	*02/23/15 18:23*	*5*
13C2 PFDA	*104*		*70 - 130*	*02/18/15 09:18*	*02/23/15 18:23*	*5*

Client Sample ID: Well 10

Lab Sample ID: 320-11644-6

Date Collected: 02/11/15 11:30
Matrix: Water
Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015	ug/L		02/18/15 09:18	02/24/15 13:02	1
Perfluorononanoic acid (PFNA)	ND		0.019	0.011	ug/L		02/18/15 09:18	02/24/15 13:02	1
Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012	ug/L		02/18/15 09:18	02/24/15 13:02	1
Perfluoroheptanoic acid (PFHpA)	**0.0053**	**J**	0.0097	0.0045	ug/L		02/18/15 09:18	02/24/15 13:02	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.088	0.046	ug/L		02/18/15 09:18	02/24/15 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*114*		*70 - 130*	*02/18/15 09:18*	*02/24/15 13:02*	*1*
13C2 PFDA	*116*		*70 - 130*	*02/18/15 09:18*	*02/24/15 13:02*	*1*

Client Sample ID: Well 10

Lab Sample ID: 320-11644-6

Date Collected: 02/11/15 11:30

Matrix: Water

Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS) - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctanoic acid (PFOA)	**0.29**		0.097	0.046	ug/L		02/18/15 09:18	02/23/15 18:53	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*109*		*70 - 130*	*02/18/15 09:18*	*02/23/15 18:53*	*5*
13C2 PFDA	*106*		*70 - 130*	*02/18/15 09:18*	*02/23/15 18:53*	*5*

Client Sample ID: Well 6

Lab Sample ID: 320-11644-7

Date Collected: 02/11/15 11:29

Matrix: Water

Date Received: 02/12/15 10:20

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.39	0.15	ug/L		02/18/15 09:18	02/23/15 19:22	10
Perfluorooctanoic acid (PFOA)	**0.74**		0.19	0.091	ug/L		02/18/15 09:18	02/23/15 19:22	10
Perfluorononanoic acid (PFNA)	ND		0.19	0.11	ug/L		02/18/15 09:18	02/23/15 19:22	10
Perfluorohexanesulfonic acid(PFHxS)	ND		0.29	0.11	ug/L		02/18/15 09:18	02/23/15 19:22	10
Perfluoroheptanoic acid (PFHpA)	**0.066**	**J**	0.096	0.044	ug/L		02/18/15 09:18	02/23/15 19:22	10
Perfluorobutanesulfonic acid (PFBS)	ND		0.87	0.46	ug/L		02/18/15 09:18	02/23/15 19:22	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*108*		*70 - 130*	*02/18/15 09:18*	*02/23/15 19:22*	*10*
13C2 PFDA	*93*		*70 - 130*	*02/18/15 09:18*	*02/23/15 19:22*	*10*

Default Detection Limits

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Analyte	RL	MDL	Units	Method
Perfluorobutanesulfonic acid (PFBS)	0.090	0.048	ug/L	537
Perfluoroheptanoic acid (PFHpA)	0.010	0.0046	ug/L	537
Perfluorohexanesulfonic acid(PFHxS)	0.030	0.012	ug/L	537
Perfluorononanoic acid (PFNA)	0.020	0.011	ug/L	537
Perfluorooctane Sulfonate (PFOS)	0.040	0.016	ug/L	537
Perfluorooctanoic acid (PFOA)	0.020	0.0094	ug/L	537

Surrogate Summary

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

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

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	3C2 PFHxA (70-130)	13C2 PFDA (70-130)						
320-11644-1	Finished Water	104	106						
320-11644-2	Well 7	101	111						
320-11644-2 MS	Well 7	95	95						
320-11644-2 MSD	Well 7	111	104						
320-11644-3	Field Equipment Blank	145 X	147 X						
320-11644-4	Lab Trip Blanks	118	117						
320-11644-5	Well 3	122	128						
320-11644-5 - DL	Well 3	109	104						
320-11644-6	Well 10	114	116						
320-11644-6 - DL	Well 10	109	106						
320-11644-7	Well 6	108	93						
LCS 320-65881/2-A	Lab Control Sample	120	93						
MB 320-65881/1-A	Method Blank	112	94						

Surrogate Legend

13C2 PFHxA = 13C2 PFHxA

13C2 PFDA = 13C2 PFDA

Method: 537 - Perfluorinated Alkyl Acids (LC/MS)

Lab Sample ID: MB 320-65881/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 66293 — **Prep Batch: 65881**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Perfluorooctane Sulfonate (PFOS)	ND		0.040	0.016	ug/L		02/18/15 09:18	02/24/15 04:44	1
Perfluorooctanoic acid (PFOA)	ND		0.020	0.0094	ug/L		02/18/15 09:18	02/24/15 04:44	1
Perfluorononanoic acid (PFNA)	ND		0.020	0.011	ug/L		02/18/15 09:18	02/24/15 04:44	1
Perfluorohexanesulfonic acid(PFHxS)	ND		0.030	0.012	ug/L		02/18/15 09:18	02/24/15 04:44	1
Perfluoroheptanoic acid (PFHpA)	ND		0.010	0.0046	ug/L		02/18/15 09:18	02/24/15 04:44	1
Perfluorobutanesulfonic acid (PFBS)	ND		0.090	0.048	ug/L		02/18/15 09:18	02/24/15 04:44	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
13C2 PFHxA	*112*		*70 - 130*	*02/18/15 09:18*	*02/24/15 04:44*	*1*
13C2 PFDA	*94*		*70 - 130*	*02/18/15 09:18*	*02/24/15 04:44*	*1*

Lab Sample ID: LCS 320-65881/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 66293 — **Prep Batch: 65881**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctane Sulfonate (PFOS)	0.160	0.157		ug/L		98	70 - 130
Perfluorooctanoic acid (PFOA)	0.0803	0.0741		ug/L		92	70 - 130
Perfluorononanoic acid (PFNA)	0.0801	0.0796		ug/L		99	70 - 130
Perfluorohexanesulfonic acid(PFHxS)	0.120	0.118		ug/L		98	70 - 130
Perfluoroheptanoic acid (PFHpA)	0.0396	0.0380		ug/L		96	70 - 130
Perfluorobutanesulfonic acid (PFBS)	0.361	0.317		ug/L		88	70 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
13C2 PFHxA	*120*		*70 - 130*
13C2 PFDA	*93*		*70 - 130*

Lab Sample ID: 320-11644-2 MS — **Client Sample ID: Well 7**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 66293 — **Prep Batch: 65881**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Perfluorooctane Sulfonate (PFOS)	ND		0.0398	ND		ug/L		NC	70 - 130
Perfluorooctanoic acid (PFOA)	1.0		0.0199	0.906	4	ug/L		-457	70 - 130
Perfluorononanoic acid (PFNA)	ND		0.0199	ND		ug/L		NC	70 - 130
Perfluorohexanesulfonic acid(PFHxS)	ND		0.0299	ND		ug/L		NC	70 - 130
Perfluoroheptanoic acid (PFHpA)	ND		0.00984	ND		ug/L		NC	70 - 130
Perfluorobutanesulfonic acid (PFBS)	ND		0.0897	ND		ug/L		NC	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
13C2 PFHxA	*95*		*70 - 130*
13C2 PFDA	*95*		*70 - 130*

Method: 537 - Perfluorinated Alkyl Acids (LC/MS) (Continued)

Lab Sample ID: 320-11644-2 MSD
Matrix: Water
Analysis Batch: 66293

Client Sample ID: Well 7
Prep Type: Total/NA
Prep Batch: 65881

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Perfluorooctane Sulfonate (PFOS)	ND		0.0394	ND		ug/L		NC	70 - 130	NC	30
Perfluorooctanoic acid (PFOA)	1.0		0.0197	0.981	4	ug/L		-83	70 - 130	8	30
Perfluorononanoic acid (PFNA)	ND		0.0197	ND		ug/L		NC	70 - 130	NC	30
Perfluorohexanesulfonic acid(PFHxS)	ND		0.0295	ND		ug/L		NC	70 - 130	NC	30
Perfluoroheptanoic acid (PFHpA)	ND		0.00973	0.0467	J	ug/L		NC	70 - 130	NC	30
Perfluorobutanesulfonic acid (PFBS)	ND		0.0886	ND		ug/L		NC	70 - 130	NC	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
13C2 PFHxA	*111*		*70 - 130*
13C2 PFDA	*104*		*70 - 130*

QC Association Summary

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

LCMS

Prep Batch: 65881

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-11644-1	Finished Water	Total/NA	Water	537	
320-11644-2	Well 7	Total/NA	Water	537	
320-11644-2 MS	Well 7	Total/NA	Water	537	
320-11644-2 MSD	Well 7	Total/NA	Water	537	
320-11644-3	Field Equipment Blank	Total/NA	Water	537	
320-11644-4	Lab Trip Blanks	Total/NA	Water	537	
320-11644-5	Well 3	Total/NA	Water	537	
320-11644-5 - DL	Well 3	Total/NA	Water	537	
320-11644-6 - DL	Well 10	Total/NA	Water	537	
320-11644-6	Well 10	Total/NA	Water	537	
320-11644-7	Well 6	Total/NA	Water	537	
LCS 320-65881/2-A	Lab Control Sample	Total/NA	Water	537	
MB 320-65881/1-A	Method Blank	Total/NA	Water	537	

Analysis Batch: 66293

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
320-11644-1	Finished Water	Total/NA	Water	537	65881
320-11644-2	Well 7	Total/NA	Water	537	65881
320-11644-2 MS	Well 7	Total/NA	Water	537	65881
320-11644-2 MSD	Well 7	Total/NA	Water	537	65881
320-11644-3	Field Equipment Blank	Total/NA	Water	537	65881
320-11644-4	Lab Trip Blanks	Total/NA	Water	537	65881
320-11644-5 - DL	Well 3	Total/NA	Water	537	65881
320-11644-5	Well 3	Total/NA	Water	537	65881
320-11644-6 - DL	Well 10	Total/NA	Water	537	65881
320-11644-6	Well 10	Total/NA	Water	537	65881
320-11644-7	Well 6	Total/NA	Water	537	65881
LCS 320-65881/2-A	Lab Control Sample	Total/NA	Water	537	65881
MB 320-65881/1-A	Method Blank	Total/NA	Water	537	65881

Lab Chronicle

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Client Sample ID: Finished Water — Lab Sample ID: 320-11644-1

Date Collected: 02/11/15 09:39 — **Matrix: Water**
Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		10	66293	02/23/15 16:25	JSS	TAL SAC

Client Sample ID: Well 7 — Lab Sample ID: 320-11644-2

Date Collected: 02/11/15 10:13 — **Matrix: Water**
Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		10	66293	02/23/15 16:54	JSS	TAL SAC

Client Sample ID: Field Equipment Blank — Lab Sample ID: 320-11644-3

Date Collected: 02/11/15 10:36 — **Matrix: Water**
Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		1	66293	02/24/15 11:04	JSS	TAL SAC

Client Sample ID: Lab Trip Blanks — Lab Sample ID: 320-11644-4

Date Collected: 02/11/15 00:00 — **Matrix: Water**
Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		1	66293	02/24/15 11:34	JSS	TAL SAC

Client Sample ID: Well 3 — Lab Sample ID: 320-11644-5

Date Collected: 02/11/15 10:59 — **Matrix: Water**
Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537	DL		65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537	DL	5	66293	02/23/15 18:23	JSS	TAL SAC
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		1	66293	02/24/15 12:33	JSS	TAL SAC

Client Sample ID: Well 10

Lab Sample ID: 320-11644-6

Date Collected: 02/11/15 11:30

Matrix: Water

Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537	DL		65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537	DL	5	66293	02/23/15 18:53	JSS	TAL SAC
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		1	66293	02/24/15 13:02	JSS	TAL SAC

Client Sample ID: Well 6

Lab Sample ID: 320-11644-7

Date Collected: 02/11/15 11:29

Matrix: Water

Date Received: 02/12/15 10:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	537			65881	02/18/15 09:18	SNE	TAL SAC
Total/NA	Analysis	537		10	66293	02/23/15 19:22	JSS	TAL SAC

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Certification Summary

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Laboratory: TestAmerica Sacramento

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

Authority	Program	EPA Region	Certification ID	Expiration Date
USEPA UCMR	Federal	1	CA00044	11-06-16

Analysis Method	Prep Method	Matrix	Analyte

Method Summary

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Method	Method Description	Protocol	Laboratory
537	Perfluorinated Alkyl Acids (LC/MS)	EPA	TAL SAC

Protocol References:

EPA = US Environmental Protection Agency

Laboratory References:

TAL SAC = TestAmerica Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

Sample Summary

Client: CT Male Associates PC
Project/Site: Village of Hoosick Falls

TestAmerica Job ID: 320-11644-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
320-11644-1	Finished Water	Water	02/11/15 09:39	02/12/15 10:20
320-11644-2	Well 7	Water	02/11/15 10:13	02/12/15 10:20
320-11644-3	Field Equipment Blank	Water	02/11/15 10:36	02/12/15 10:20
320-11644-4	Lab Trip Blanks	Water	02/11/15 00:00	02/12/15 10:20
320-11644-5	Well 3	Water	02/11/15 10:59	02/12/15 10:20
320-11644-6	Well 10	Water	02/11/15 11:30	02/12/15 10:20
320-11644-7	Well 6	Water	02/11/15 11:29	02/12/15 10:20

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
LC537-ICV_00008	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	270 uL	Perfluorobutanesulfonic acid (PFBS)	92.5452 ng/mL
							Perfluoroheptanoic acid (PFHpA)	10.1574 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	30.8278 ng/mL
							Perfluorononanoic acid (PFNA)	20.5413 ng/mL
							Perfluorooctanoic acid (PFOA)	20.5866 ng/mL
							Perfluorooctane Sulfonate (PFOS)	41.1081 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
....LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
....LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16		Fluka, Lot SZBB187XV		(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19		Wellington Laboratories, Lot MPFDA0414		(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19		Wellington Laboratories, Lot MPFHxA0414		(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
.LCM2PFOA_00004	03/19/17		Wellington Laboratories, Lot M2PFOA0312		(Purchased Reagent)		13C2-PFOA	50 ug/mL
.LCMPFOS_00007	10/09/19		Wellington Laboratories, Lot MPFOS1014		(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
LC537-L1_00009	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	26 uL	Perfluorobutanesulfonic acid (PFBS)	8.91176 ng/mL
							Perfluoroheptanoic acid (PFHpA)	0.97812 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	2.9686 ng/mL
							Perfluorononanoic acid (PFNA)	1.97805 ng/mL
							Perfluorooctanoic acid (PFOA)	1.98241 ng/mL
							Perfluorooctane Sulfonate (PFOS)	3.95856 ng/mL
					LC537-IS_00008	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
....LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
....LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16	Fluka, Lot SZBB187XV			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00007	10/09/19	Wellington Laboratories, Lot MPFOS1014			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19	Wellington Laboratories, Lot MPFDA0414			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19	Wellington Laboratories, Lot MPFHxA0414			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L2_00008	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	68 uL	Perfluorobutanesulfonic acid (PFBS)	23.3077 ng/mL
							Perfluoroheptanoic acid (PFHpA)	2.55816 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	7.76404 ng/mL
							Perfluorononanoic acid (PFNA)	5.17337 ng/mL
							Perfluorooctanoic acid (PFOA)	5.18477 ng/mL
							Perfluorooctane Sulfonate (PFOS)	10.3532 ng/mL
					LC537-IS_00008	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
....LC537_PFBS_00001	07/13/17		Sigma, Lot MKBF7792		(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16		Aldrich, Lot BCBG3662V		(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
....LC537_PFHxS_00001	07/06/16		Sigma, Lot BCBF9742V		(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17		TCI America, Lot QN44F		(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15		Fluka, Lot SZBA162XV		(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16		Fluka, Lot SZBB187XV		(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
..LCM2PFOA_00004	03/19/17		Wellington Laboratories, Lot M2PFOA0312		(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00007	10/09/19		Wellington Laboratories, Lot MPFOS1014		(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19		Wellington Laboratories, Lot MPFDA0414		(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19		Wellington Laboratories, Lot MPFHxA0414		(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L3_00008	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	134 uL	Perfluorobutanesulfonic acid (PFBS)	45.9298 ng/mL
							Perfluoroheptanoic acid (PFHpA)	5.04108 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	15.2997 ng/mL
							Perfluorononanoic acid (PFNA)	10.1946 ng/mL
							Perfluorooctanoic acid (PFOA)	10.2171 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorooctane Sulfonate (PFOS)	20.4018 ng/mL
					LC537-IS_00008	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
....LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
....LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16	Fluka, Lot SZBB187XV			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
..LCMPFOS_00007	10/09/19	Wellington Laboratories, Lot MPFOS1014			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19	Wellington Laboratories, Lot MPFDA0414			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19	Wellington Laboratories, Lot MPFHxA0414			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L4_00009	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	270 uL	Perfluorobutanesulfonic acid (PFBS)	92.5452 ng/mL
							Perfluoroheptanoic acid (PFHpA)	10.1574 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	30.8278 ng/mL
							Perfluorononanoic acid (PFNA)	20.5413 ng/mL
							Perfluorooctanoic acid (PFOA)	20.5866 ng/mL
							Perfluorooctane Sulfonate (PFOS)	41.1081 ng/mL
					LC537-IS_00008	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
....LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
....LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16	Fluka, Lot SZBB187XV			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00007	10/09/19	Wellington Laboratories, Lot MPFOS1014			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19	Wellington Laboratories, Lot MPFDA0414			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19	Wellington Laboratories, Lot MPFHxA0414			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L5_00008	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	400 uL	Perfluorobutanesulfonic acid (PFBS)	137.104 ng/mL
							Perfluoroheptanoic acid (PFHpA)	15.048 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	45.6708 ng/mL
							Perfluorononanoic acid (PFNA)	30.4316 ng/mL
							Perfluorooctanoic acid (PFOA)	30.4987 ng/mL
							Perfluorooctane Sulfonate (PFOS)	60.9009 ng/mL
					LC537-IS_00008	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
....LC537_PFBS_00001	07/13/17		Sigma, Lot MKBF7792		(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16		Aldrich, Lot BCBG3662V		(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
....LC537_PFHxS_00001	07/06/16		Sigma, Lot BCBF9742V		(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17		TCI America, Lot QN44F		(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15		Fluka, Lot SZBA162XV		(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16		Fluka, Lot SZBB187XV		(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
..LCM2PFOA_00004	03/19/17		Wellington Laboratories, Lot M2PFOA0312		(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00007	10/09/19		Wellington Laboratories, Lot MPFOS1014		(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19		Wellington Laboratories, Lot MPFDA0414		(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19		Wellington Laboratories, Lot MPFHxA0414		(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-L6_00008	06/30/15	02/13/15	MeOH/H2O, Lot 090285	10 mL	LC537-HSP_00004	530 uL	Perfluorobutanesulfonic acid (PFBS)	181.663 ng/mL
							Perfluoroheptanoic acid (PFHpA)	19.9386 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	60.5138 ng/mL
							Perfluorononanoic acid (PFNA)	40.3218 ng/mL
							Perfluorooctanoic acid (PFOA)	40.4107 ng/mL
							Perfluorooctane Sulfonate (PFOS)	80.6937 ng/mL
					LC537-IS_00008	100 uL	13C2-PFOA	10 ng/mL
							13C4 PFOS	28.68 ng/mL
					LC537-SU_00010	500 uL	13C2 PFDA	10 ng/mL
							13C2 PFHxA	10 ng/mL
.LC537-HSP_00004	06/30/15	02/13/15	Methanol, Lot 90285	10 mL	LC537SPIM_00006	0.38 mL	Perfluorobutanesulfonic acid (PFBS)	3427.6 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluoroheptanoic acid (PFHpA)	376.2 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	1141.77 ng/mL
							Perfluorononanoic acid (PFNA)	760.789 ng/mL
							Perfluorooctanoic acid (PFOA)	762.467 ng/mL
							Perfluorooctane Sulfonate (PFOS)	1522.52 ng/mL
..LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
...LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
....LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutanesulfonic acid (PFBS)	1 g/g
...LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
....LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
...LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
....LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
...LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
....LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
...LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
....LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
...LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
....LC537_PFOS_00001	07/06/16	Fluka, Lot SZBB187XV			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
.LC537-IS_00008	08/12/15	02/02/15	Methanol, Lot 090285	10 mL	LCM2PFOA_00004	0.2 mL	13C2-PFOA	1 ug/mL
					LCMPFOS_00007	0.6 mL	13C4 PFOS	2.868 ug/mL
..LCM2PFOA_00004	03/19/17	Wellington Laboratories, Lot M2PFOA0312			(Purchased Reagent)		13C2-PFOA	50 ug/mL
..LCMPFOS_00007	10/09/19	Wellington Laboratories, Lot MPFOS1014			(Purchased Reagent)		13C4 PFOS	47.8 ug/mL
.LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
..LCMPFDA_00004	04/13/19	Wellington Laboratories, Lot MPFDA0414			(Purchased Reagent)		13C2 PFDA	50 ug/mL
..LCMPFHxA_00005	04/13/19	Wellington Laboratories, Lot MPFHxA0414			(Purchased Reagent)		13C2 PFHxA	50 ug/mL
LC537-LSP_00004	06/30/15	02/13/15	Methanol, Lot 090285	10 mL	LC537SPIM_00006	0.05 mL	Perfluorobutane Sulfonate	451 ng/mL

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorobutanesulfonic acid (PFBS)	451 ng/mL
							Perfluoroheptanoic acid (PFHpA)	49.5 ng/mL
							Perfluorohexanesulfonic acid(PFHxS)	150.233 ng/mL
							Perfluorononanoic acid (PFNA)	100.104 ng/mL
							Perfluorooctanoic acid (PFOA)	100.325 ng/mL
							Perfluorooctane Sulfonate (PFOS)	200.332 ng/mL
.LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutane Sulfonate	90.2 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
..LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutane Sulfonate	2050 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
...LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutane Sulfonate	1 g/g
							Perfluorobutanesulfonic acid (PFBS)	1 g/g
..LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
...LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
..LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
...LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
..LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
...LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
..LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
...LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
..LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
...LC537_PFOS_00001	07/06/16	Fluka, Lot SZBB187XV			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
LC537-MSP_00004	06/30/15	02/13/15	Methanol, Lot 090285	10 mL	LC537SPIM_00006	0.2 mL	Perfluorobutane Sulfonate	1804 ng/mL
							Perfluorobutanesulfonic acid (PFBS)	1804 ng/mL
							Perfluoroheptanoic acid (PFHpA)	198 ng/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Perfluorohexanesulfonic acid(PFHxS)	600.932 ng/mL
							Perfluorononanoic acid (PFNA)	400.415 ng/mL
							Perfluorooctanoic acid (PFOA)	401.298 ng/mL
							Perfluorooctane Sulfonate (PFOS)	801.328 ng/mL
.LC537SPIM_00006	06/30/15	02/12/15	Methanol, Lot 090285	10 mL	LC537-PFBS_00003	0.44 mL	Perfluorobutane Sulfonate	90.2 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	90.2 ug/mL
					LC537-PFHpA_00006	0.1 mL	Perfluoroheptanoic acid (PFHpA)	9.9 ug/mL
					LC537-PFHxS_00004	0.295 mL	Perfluorohexanesulfonic acid(PFHxS)	30.0466 ug/mL
					LC537-PFNA_00004	0.189 mL	Perfluorononanoic acid (PFNA)	20.0208 ug/mL
					LC537-PFOA_00005	0.0975 mL	Perfluorooctanoic acid (PFOA)	20.0649 ug/mL
					LC537-PFOS_00003	0.4 mL	Perfluorooctane Sulfonate (PFOS)	40.0664 ug/mL
..LC537-PFBS_00003	09/13/15	09/13/14	Methanol, Lot 067374	6 mL	LC537_PFBS_00001	0.0123 g	Perfluorobutane Sulfonate	2050 ug/mL
							Perfluorobutanesulfonic acid (PFBS)	2050 ug/mL
...LC537_PFBS_00001	07/13/17	Sigma, Lot MKBF7792			(Purchased Reagent)		Perfluorobutane Sulfonate	1 g/g
							Perfluorobutanesulfonic acid (PFBS)	1 g/g
..LC537-PFHpA_00006	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHpA_00001	0.005 g	Perfluoroheptanoic acid (PFHpA)	990 ug/mL
...LC537_PFHpA_00001	10/31/16	Aldrich, Lot BCBG3662V			(Purchased Reagent)		Perfluoroheptanoic acid (PFHpA)	0.99 g/g
..LC537-PFHxS_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFHxS_00001	0.0056 g	Perfluorohexanesulfonic acid(PFHxS)	1018.53 ug/mL
...LC537_PFHxS_00001	07/06/16	Sigma, Lot BCBF9742V			(Purchased Reagent)		Perfluorohexanesulfonic acid(PFHxS)	0.9094 g/g
..LC537-PFNA_00004	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFNA_00001	0.0055 g	Perfluorononanoic acid (PFNA)	1059.3 ug/mL
...LC537_PFNA_00001	07/25/17	TCI America, Lot QN44F			(Purchased Reagent)		Perfluorononanoic acid (PFNA)	0.963 g/g
..LC537-PFOA_00005	06/30/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOA_00001	0.0103 g	Perfluorooctanoic acid (PFOA)	2057.94 ug/mL
...LC537_PFOA_00001	06/30/15	Fluka, Lot SZBA162XV			(Purchased Reagent)		Perfluorooctanoic acid (PFOA)	0.999 g/g
..LC537-PFOS_00003	09/13/15	09/13/14	Methanol, Lot 067374	5 mL	LC537_PFOS_00001	0.0055 g	Perfluorooctane Sulfonate (PFOS)	1001.66 ug/mL
...LC537_PFOS_00001	07/06/16	Fluka, Lot SZBB187XV			(Purchased Reagent)		Perfluorooctane Sulfonate (PFOS)	0.9106 g/g
LC537-SU_00010	08/12/15	02/12/15	Methanol, Lot 090285	25 mL	LCMPFDA_00004	100 uL	13C2 PFDA	0.2 ug/mL
					LCMPFHxA_00005	100 uL	13C2 PFHxA	0.2 ug/mL
.LCMPFDA_00004	04/13/19	Wellington Laboratories, Lot MPFDA0414			(Purchased Reagent)		13C2 PFDA	50 ug/mL
.LCMPFHxA_00005	04/13/19	Wellington Laboratories, Lot MPFHxA0414			(Purchased Reagent)		13C2 PFHxA	50 ug/mL

Reagent

LC537_PFBS_00001

7-13-12 DEG

SIGMA-ALDRICH®

sigma-aldrich.com

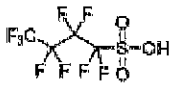
3050 Spruce Street,Saint Louis,MO 63103,USA
Website: www.sigmaaldrich.com
Email USA: techserv@sial.com
Outside USA: eurtechserv@sial.com

12LCMS0509

Certificate of Analysis

Product Name:
Nonafluorobutane-1-sulfonic acid - 97%

Product Number:	**562629**
Lot Number:	**MKBF7792**
Brand:	ALDRICH
CAS Number:	375-73-5
MDL Number:	MFCD01320794
Formula:	C4HF9O3S
Formula Weight:	300.1 g/mol
Storage Temperature:	Store at 2 - 8 °C
Quality Release Date:	18 APR 2011



PFBS

Test	Specification	Result
Appearance (Color)	Colorless	Colorless
Appearance (Form)	Liquid	Liquid
Infrared spectrum	Conforms to Structure	Conforms
Fluorine NMR Spectra	Conforms to Structure	Conforms
Purity (Titration by NaOH)	96.5 - 103.5%	100.2%

Jamie Gleason

Jamie Gleason, Manager
Quality Control
Milwaukee, Wisconsin US

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.

Reagent

LC537_PFHpA_00001

SIGMA-ALDRICH®

ALDRICH chemistry

Industriestrasse 25, CH-9471 Buchs (SG), Switzerland
Tel: +41 81 755 2511 Fax: +41 81 756 5449

Certificate of Analysis

Inv 821
12LCMS 0580

Product Name:	PERFLUOROHEPTANOIC ACID 99 %
Product Number:	342041
Product Brand:	Aldrich
Molecular Formula:	$C_7HF_{13}O_2$
Molecular Mass:	364.06
CAS Number:	375-85-9

TEST	SPECIFICATION	LOT BCBG3662V RESULTS
APPEARANCE (COLOR)	COLORLESS OR WHITE	WHITE
APPEARANCE (FORM)	LIQUID OR SOLID	SOLID
TITRATION	98.5 - 101.5 %	101.5 %
TITRATION (METHOD)	BACK TITRATION	BACK TITRATION
PURITY (GC AREA %)	≥ 98.5 %	99.0 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

QC RELEASE DATE	02/NOV/11
RECOMMENDED RETEST DATE	OCT/16

Dr. Claudia Geitner
Manager Quality Control
Buchs, Switzerland

Sigma-Aldrich warrants, that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice for additional terms and conditions of sale. The values given on the 'Certificate of Analysis' are the results determined at the time of analysis.

Reagent

LC537_PFHxS_00001

SIGMA-ALDRICH

ALDRICH Chemistry

Industriestrasse 25, CH-9471 Buchs (SG), Switzerland
Tel: +41 81 755 2511 Fax: +41 81 756 5449

7-13-12 DEG
12LCMS0510

Certificate of Analysis

Product Name:	TRIDECAFLUOROHEXANE-1-SULFONIC ACID POTASSIUM SALT >= 98.0 % T
Product Number:	50929
Product Brand:	Aldrich
Molecular Formula:	$C_6F_{13}KO_3S$
Molecular Mass:	438.20
CAS Number:	3871-99-6

TEST	SPECIFICATION	LOT BCBF9742V RESULTS
APPEARANCE (COLOR)	WHITE TO FAINT BEIGE	WHITE
APPEARANCE (FORM)	POWDER OR CRYSTALS	POWDER
TITRATION (ION EXCHANGE)	≥ 98.0 %	99.6 %
INFRARED SPECTRUM	CONFORMS TO STRUCTURE	CONFORMS

QC RELEASE DATE	29/JUN/11

Claudia Geitner

Dr. Claudia Geitner
Manager Quality Control
Buchs, Switzerland

$$\text{MW Corr} = \frac{(K_{form}) - (K) + (H)}{(438.20 - 39.10 + 1.01)} = 0.91307 \text{ (anion form)}$$

$$438.20 \text{ (K form)}$$

Purity = 90.94% w/M.W correction

PFHxS CAS # 355-46-4

Sigma-Aldrich warrants, that its products conform to the information contained in this and other Sigma-Aldrich publications. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice for additional terms and conditions of sale. The values given on the 'Certificate of Analysis' are the results determined at the time of analysis.

Reagent

LC537_PFNA_00001

Certificate of Analysis

Jul 26, 2012 (JST)

TOKYO CHEMICAL INDUSTRY CO.,LTD.
4-10-1 Nihonbashi-Honcho, Chuo-ku, Tokyo 103-0023 Japan

Chemical Name: Heptadecafluorononanoic Acid		
Product Number: H0843	Lot: QN44F	

Tests	Results	Specifications
Purity(GC)	96.3 %	min. 95.0 %
Purity(Neutralization titration)	98.1 %	min. 95.0 %
Melting point	63.3 deg-C	62.0 to 67.0 deg-C

Customer service:
TCI AMERICA
Tel: +1-800-423-8616 / +1-503-283-1681
Fax: +1-888-520-1075 / +1-503-283-1987
E-mail: sales@tciamerica.com

PFNA

Reagent

LC537_PFOA_00001

SIGMA-ALDRICH®

CERTIFICATE OF ANALYSIS

Sigma-Aldrich Laborchemikalien GmbH D-30918 Seelze
Telefon: +49 5137 8238-150

Seelze, 07.02.2011/159919/10/12640

Order-No.:
Customer-No.:

Order-Code:

Quantity:

Production Date: 11.Jun.2010
Expiry Date: 11.Jun.2015

Article/Product: 33824 Batch : SZBA162XV

Pentadecafluorooctanoic acid OEKANAL®

PFOA

Reference Material (RM)

1. General Information

Formula: C8HF15O2
CAS-No.: [335-67-1]
Usage : PFOA

Molar mass: 414.07 g/Mole
Recomm. storage temp.: roomtemp.

2. Batch Analysis

identiy (GC-MS)	complying
Assay (GCMS)	>99.9 %
Date of Analysis	16.Jun.2010

3. Advice and Remarks

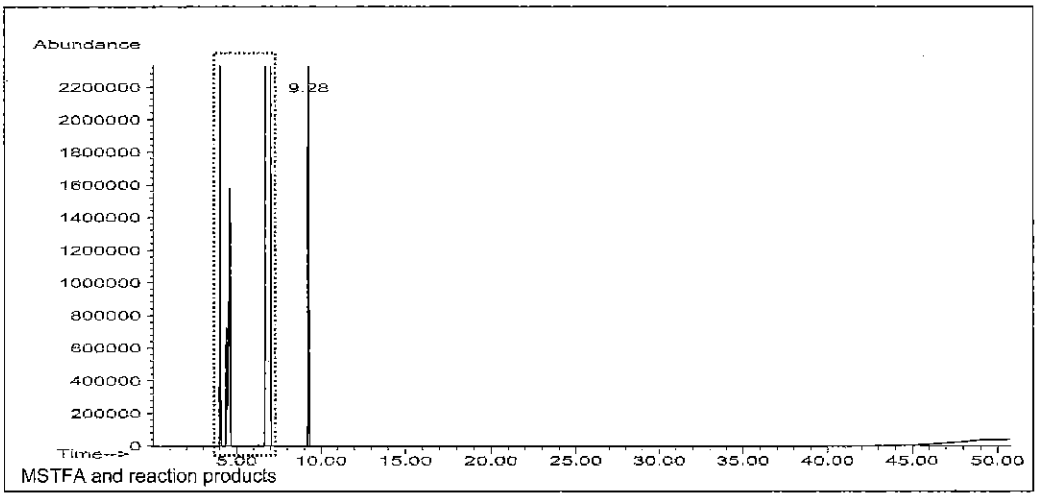
- The minimum shelf life is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.
- Whenever the container is opened for removal of aliqout portions of the substance, the person handling the substance must assure, that the integrity of the substance is maintained and proper records of all its handlings are kept. Special care has to be taken to avoid any contamination or adulteration of the substance.
- We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.
- Particular properties of the products or the suitability for a particular area of application are not assured.
- We guarantee a proper quality within our General Conditions of Sales.

Sigma-Aldrich Laborchemikalien GmbH
Quality Management SA-LC

Article: **Pentafluorooctanic acid OEKANAL**
Article-No.: **33824**
Batch: **SZBA162XV**

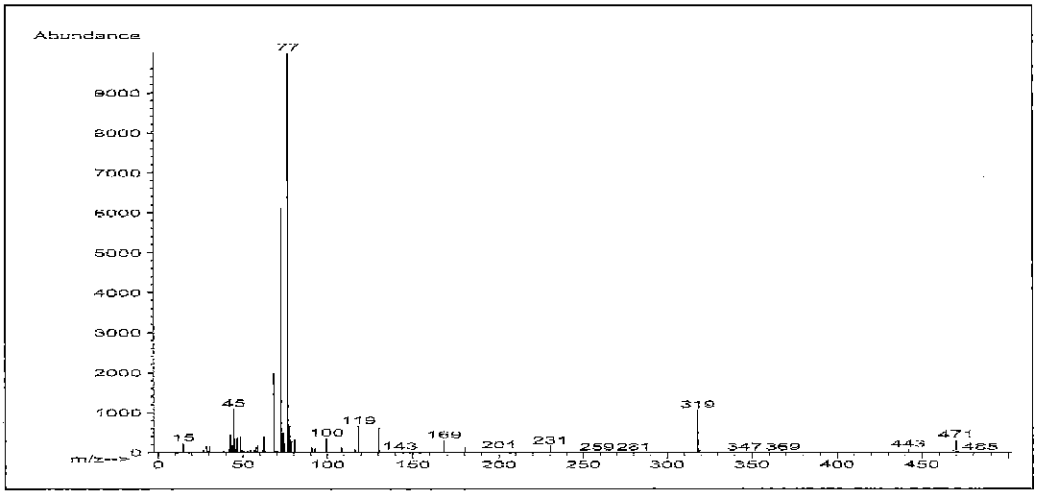
Column:	XTI-5 (Restek); 30 m; fs cap.; I.D.:0.25 mm; 1 µm df
Injector:	Split mode
Injection:	approx. 0.5 µl of reaction mixture with MSTFA (approx. 10 mg + 200 µl MSTFA)
Inj.-temp.:	280°C
Oven-temp.:	40°C (for 2 min) to 320°C (6°C/min) hold for 2 min
Split:	1:100
Flow:	1 ml He/min (Constant flow mode)
Detector:	MSD
Mass range:	10-600 amu (Scan mode)
Evaluation:	Purity: Total Ion Chromatogram (MSTFA and reaction products blinded out in report) Identity: Mass spectrum complies
Operator:	Ahrens

Total Ion Chromatogram:



Ret.time	Area	Area-%	Component
9.28	160.26	100.0	Pentadecafluoroctansäure (as TMS-ester)

Mass spectrum:



Reagent

LC537_PFOS_00001

SIGMA-ALDRICH 7-13-12 DEG

CERTIFICATE OF ANALYSIS 12LCMS0511

Sigma-Aldrich Laborchemikalien GmbH D-30918 Seelze
Telefon: +49 5137 8238-150

Seelze, 06.07.2011/212805/11/15770

Order-No.:
Customer-No.:

Order-Code:

Quantity:

Production Date: 06.Jul.2011
Expiry Date: 06.Jul.2016

Article/Product: 33829 Batch : SZBB187XV

Heptadecafluorooctanesulfonic acid potassium salt OEKANAL® PFOS-K+

Reference Material (RM)

1. General Information

Formula: C8F17KO3S
CAS-No.: [2795-39-3]
Usage : PFOS

Molar mass: 538.22 g/Mole
Recomm. storage temp.: roomtemp.

The estimated uncertainty of a single measurement of the assay can be expected to be 0.5 % relative (confidence level = 95%, n= 6) whereby the assay measurements are calculated by 100% minus found impurities.

2. Batch Analysis

Identity	complying
Assay (LC-MS)	98 %
Date of Analysis	06.Jul.2011

$$\text{MW correction} = \frac{538.22 - 39.10 + 1.01}{538.22} = \frac{500.13}{538.22} = 0.92923$$

3. Advice and Remarks

Purity = 91.06%

- The minimum shelf life is based on the current knowledge and holds only for proper storage conditions in the originally closed flasks/ packages.
- Whenever the container is opened for removal of aliqout portions of the substance, the person handling the substance must assure, that the integrity of the substance is maintained and proper records of all its handlings are kept. Special care has to be taken to avoid any contamination or adulteration of the substance.
- We herewith confirm that the delivery is effected according to the technical delivery conditions agreed.
- Particular properties of the products or the suitability for a particular area of application are not assured.
- We guarantee a proper quality within our General Conditions of Sales.

PFOS CAS# 1763-23-1

Sigma-Aldrich Laborchemikalien GmbH
Quality Management SA-LC

This document was produced electronically and is valid without a signature

537

Perflourinated Alkyl Acids (LC/MS)

FORM II
LCMS SURROGATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): Atlantis d-C ID: 2.1 (mm)

Client Sample ID	Lab Sample ID	PFHxA #	PFDA #
Finished Water	320-11644-1	104	106
Well 7	320-11644-2	101	111
Field Equipment Blank	320-11644-3	145 X	147 X
Lab Trip Blanks	320-11644-4	118	117
Well 3	320-11644-5	122	128
Well 3 DL	320-11644-5 DL	109	104
Well 10	320-11644-6	114	116
Well 10 DL	320-11644-6 DL	109	106
Well 6	320-11644-7	108	93
	MB 320-65881/1-A	112	94
	LCS 320-65881/2-A	120	93
Well 7 MS	320-11644-2 MS	95	95
Well 7 MSD	320-11644-2 MSD	111	104

	QC LIMITS
PFHxA = 13C2 PFHxA	70-130
PFDA = 13C2 PFDA	70-130

Column to be used to flag recovery values

FORM II 537

FORM III
LCMS LAB CONTROL SAMPLE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23FEB15A4A_43.d

Lab ID: LCS 320-65881/2-A Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Perfluorooctane Sulfonate (PFOS)	0.160	0.157	98	70-130	
Perfluorooctanoic acid (PFOA)	0.0803	0.0741	92	70-130	
Perfluorononanoic acid (PFNA)	0.0801	0.0796	99	70-130	
Perfluorohexanesulfonic acid(PFHxS)	0.120	0.118	98	70-130	
Perfluoroheptanoic acid (PFHpA)	0.0396	0.0380	96	70-130	
Perfluorobutanesulfonic acid (PFBS)	0.361	0.317	88	70-130	

Column to be used to flag recovery and RPD values

FORM III 537

FORM III
LCMS MATRIX SPIKE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23FEB15A4A_19.d

Lab ID: 320-11644-2 MS Client ID: Well 7 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
Perfluorooctane Sulfonate (PFOS)	0.0398	ND	ND	NC	70-130	
Perfluorooctanoic acid (PFOA)	0.0199	1.0	0.906	-457	70-130	4
Perfluorononanoic acid (PFNA)	0.0199	ND	ND	NC	70-130	
Perfluorohexanesulfonic acid(PFHxS)	0.0299	ND	ND	NC	70-130	
Perfluoroheptanoic acid (PFHpA)	0.00984	ND	ND	NC	70-130	
Perfluorobutanesulfonic acid (PFBS)	0.0897	ND	ND	NC	70-130	

Column to be used to flag recovery and RPD values

FORM III 537

FORM III
LCMS MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 23FEB15A4A_20.d

Lab ID: 320-11644-2 MSD Client ID: Well 7 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
Perfluorooctane Sulfonate (PFOS)	0.0394	ND	NC	NC	30	70-130	
Perfluorooctanoic acid (PFOA)	0.0197	0.981	-83	8	30	70-130	4
Perfluorononanoic acid (PFNA)	0.0197	ND	NC	NC	30	70-130	
Perfluorohexanesulfonic acid(PFHxS)	0.0295	ND	NC	NC	30	70-130	
Perfluoroheptanoic acid (PFHpA)	0.00973	0.0467 J	NC	NC	30	70-130	
Perfluorobutanesulfonic acid (PFBS)	0.0886	ND	NC	NC	30	70-130	

Column to be used to flag recovery and RPD values

FORM III 537

FORM IV
LCMS METHOD BLANK SUMMARY

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab File ID: 23FEB15A4A_42.d Lab Sample ID: MB 320-65881/1-A

Matrix: Water Date Extracted: 02/18/2015 09:18

Instrument ID: A4 Date Analyzed: 02/24/2015 04:44

Level:(Low/Med) Low

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
Finished Water	320-11644-1	23FEB15A4A_17.d	02/23/2015 16:25
Well 7	320-11644-2	23FEB15A4A_18.d	02/23/2015 16:54
Well 7 MS	320-11644-2 MS	23FEB15A4A_19.d	02/23/2015 17:24
Well 7 MSD	320-11644-2 MSD	23FEB15A4A_20.d	02/23/2015 17:54
Well 3 DL	320-11644-5 DL	23FEB15A4A_21.d	02/23/2015 18:23
Well 10 DL	320-11644-6 DL	23FEB15A4A_22.d	02/23/2015 18:53
Well 6	320-11644-7	23FEB15A4A_23.d	02/23/2015 19:22
	LCS 320-65881/2-A	23FEB15A4A_43.d	02/24/2015 05:14
Field Equipment Blank	320-11644-3	23FEB15A4A_54.d	02/24/2015 11:04
Lab Trip Blanks	320-11644-4	23FEB15A4A_55.d	02/24/2015 11:34
Well 3	320-11644-5	23FEB15A4A_57.d	02/24/2015 12:33
Well 10	320-11644-6	23FEB15A4A_58.d	02/24/2015 13:02

FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID: Finished Water
Lab Sample ID: 320-11644-1
Matrix: Water
Lab File ID: 23FEB15A4A_17.d
Analysis Method: 537
Date Collected: 02/11/2015 09:39
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 253.1(mL)
Date Analyzed: 02/23/2015 16:25
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 10
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.40	0.15
335-67-1	Perfluorooctanoic acid (PFOA)	0.96		0.20	0.093
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.20	0.11
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.30	0.12
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.099	0.045
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.89	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	104		70-130
STL00996	13C2 PFDA	106		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_17.d
Lims ID: 320-11644-B-1-A Lab Sample ID: 320-11644-1
Client ID: Finished Water
Sample Type: Client
Inject. Date: 23-Feb-2015 16:25:20 ALS Bottle#: 29 Worklist Smp#: 44
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 320-11644-B-1-A 10x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:03:28

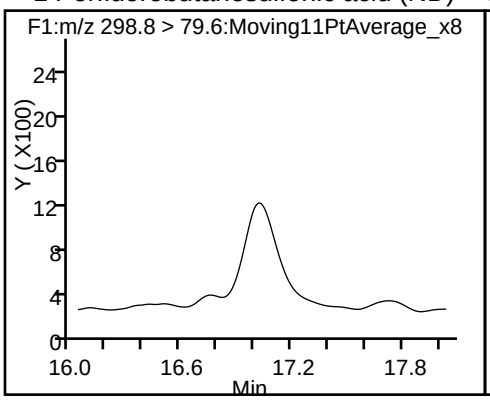
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.013	18.040	-0.027	1.000	105285	1.04	200	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.830	18.854	-0.024	1.000	50163	0.8037	42.2	
* 6 13C2-PFOA								
414.7 > 369.7	19.512	19.532	-0.020		163950	1.00	111	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.502	19.533	-0.031	1.000	2743735	24.4	856	
* 7 13C4 PFOS								
502.4 > 79.7	20.155	20.189	-0.034		343914	2.87	312	
$ 10 13C2 PFDA								
514.4 > 469.5	20.978	21.021	-0.043	1.000	130533	1.06	127	

Report Date: 24-Feb-2015 07:03:28 Chrom Revision: 2.2 15-Jan-2015 13:05:58

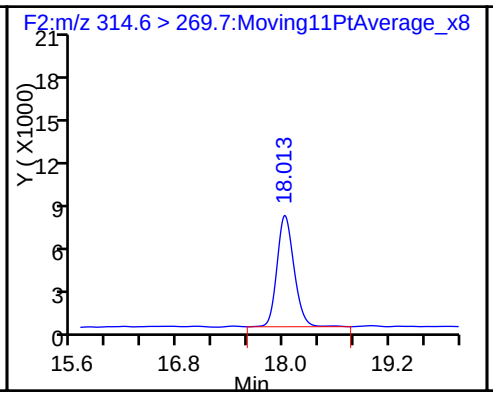
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_17.d				
Injection Date:	23-Feb-2015 16:25:20	Instrument ID:	A4		
Lims ID:	320-11644-B-1-A	Lab Sample ID:	320-11644-1		
Client ID:	Finished Water				
Operator ID:	JRB	ALS Bottle#:	29	Worklist Smp#:	44
Injection Vol:	10.0 ul	Dil. Factor:	10.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

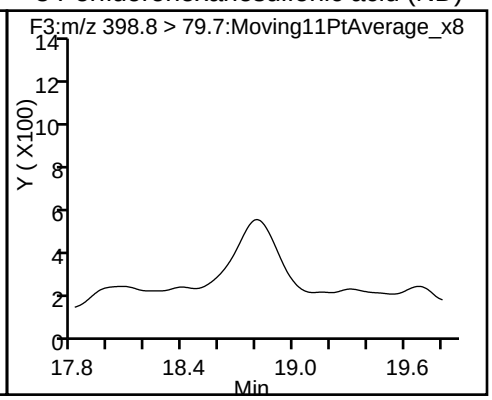
1 Perfluorobutanesulfonic acid (ND)



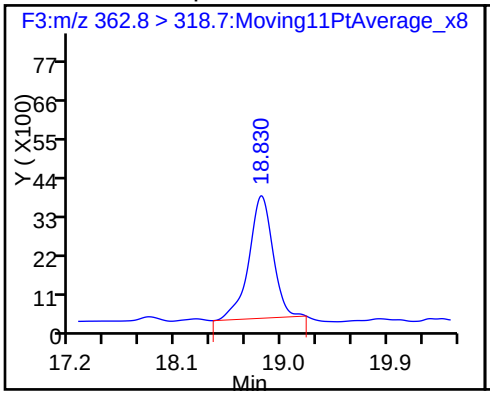
$ 2 13C2 PFHxA



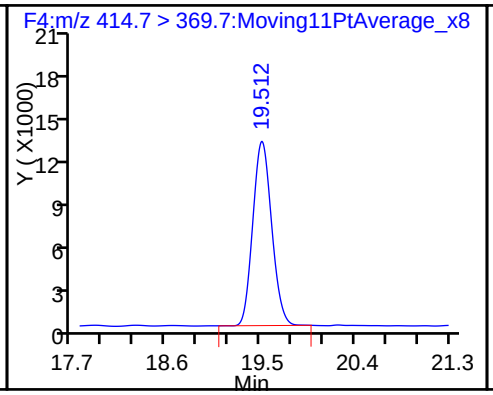
3 Perfluorohexanesulfonic acid (ND)



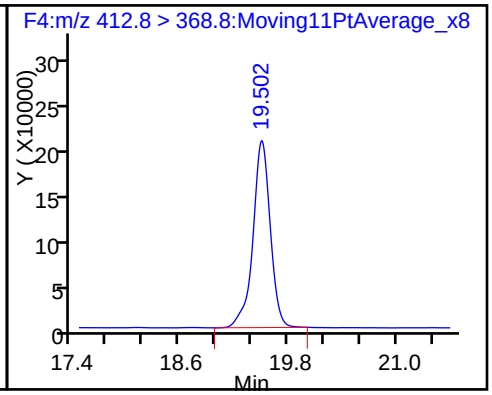
4 Perfluoroheptanoic acid



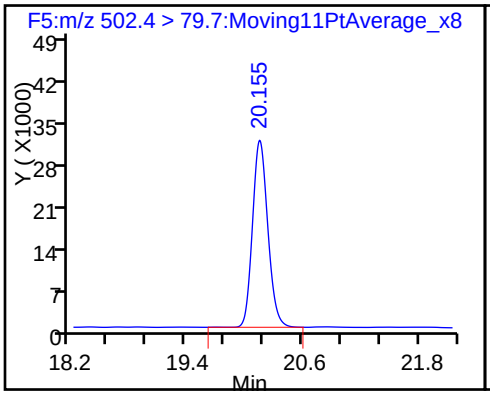
* 6 13C2-PFOA



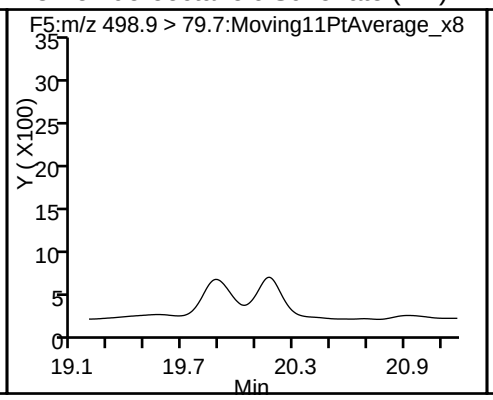
5 Perfluorooctanoic acid



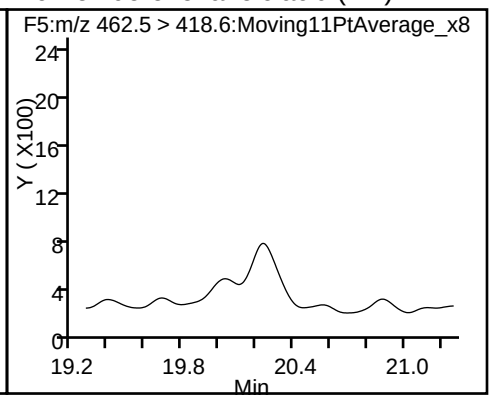
* 7 13C4 PFOS



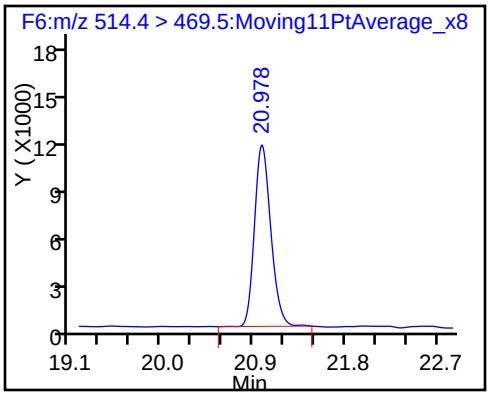
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-11644-1

SDG No.:

Client Sample ID: Well 7 | Lab Sample ID: 320-11644-2

Matrix: Water | Lab File ID: 23FEB15A4A_18.d

Analysis Method: 537 | Date Collected: 02/11/2015 10:13

Extraction Method: 537 | Date Extracted: 02/18/2015 09:18

Sample wt/vol: 250.8(mL) | Date Analyzed: 02/23/2015 16:54

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 10(uL) | GC Column: Atlantis d-C18 ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 66293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.40	0.15
335-67-1	Perfluorooctanoic acid (PFOA)	1.0		0.20	0.094
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.20	0.11
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.30	0.12
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.10	0.046
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.90	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	101		70-130
STL00996	13C2 PFDA	111		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_18.d
Lims ID: 320-11644-B-2-A Lab Sample ID: 320-11644-2
Client ID: Well 7
Sample Type: Client
Inject. Date: 23-Feb-2015 16:54:56 ALS Bottle#: 30 Worklist Smp#: 45
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 320-11644-B-2-A 10x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:03:38

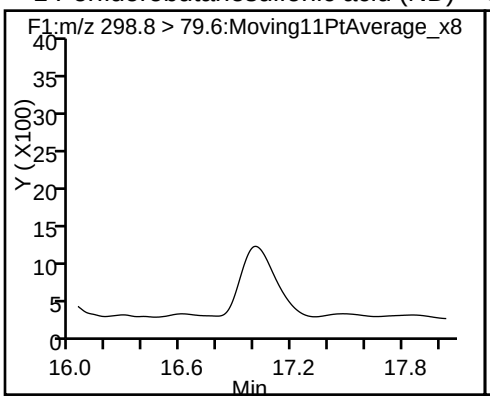
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.019	18.040	-0.021	1.000	86378	1.01	157	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.836	18.854	-0.018	1.000	44504	0.8430	37.4	
* 6 13C2-PFOA								
414.7 > 369.7	19.507	19.532	-0.025		138661	1.00	108	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.502	19.533	-0.031	1.000	2376876	25.0	739	
* 7 13C4 PFOS								
502.4 > 79.7	20.155	20.189	-0.034		283333	2.87	239	
$ 10 13C2 PFDA								
514.4 > 469.5	20.978	21.021	-0.043	1.000	114967	1.11	118	

Report Date: 24-Feb-2015 07:03:38 Chrom Revision: 2.2 15-Jan-2015 13:05:58

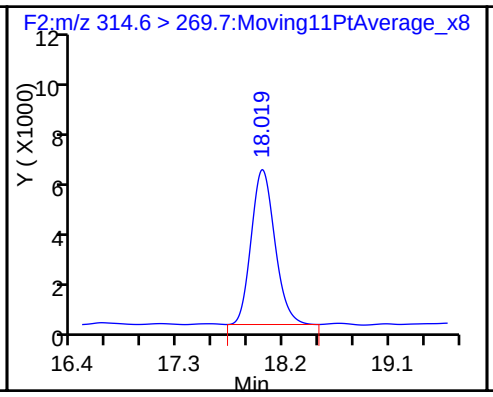
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_18.d				
Injection Date:	23-Feb-2015 16:54:56	Instrument ID:	A4		
Lims ID:	320-11644-B-2-A	Lab Sample ID:	320-11644-2		
Client ID:	Well 7				
Operator ID:	JRB	ALS Bottle#:	30	Worklist Smp#:	45
Injection Vol:	10.0 ul	Dil. Factor:	10.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

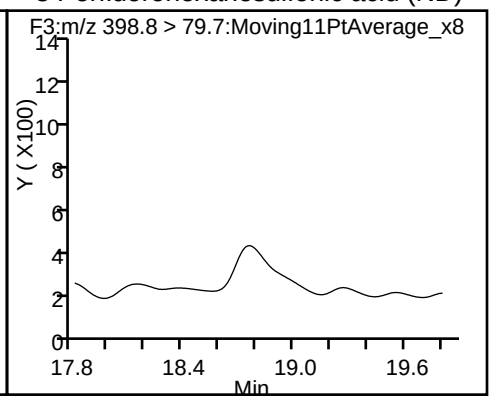
1 Perfluorobutanesulfonic acid (ND)



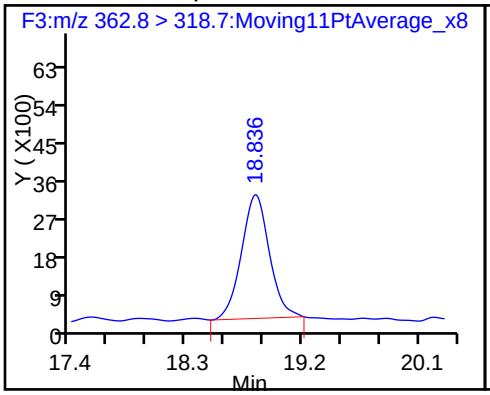
$ 2 13C2 PFHxA



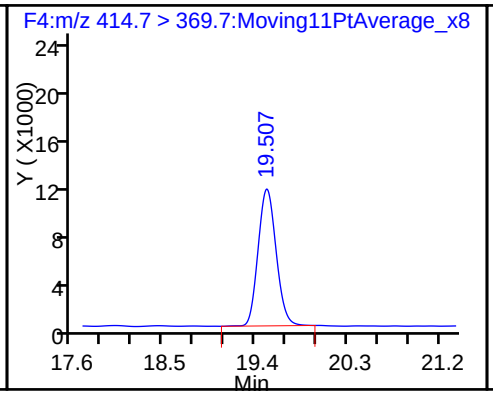
3 Perfluorohexanesulfonic acid (ND)



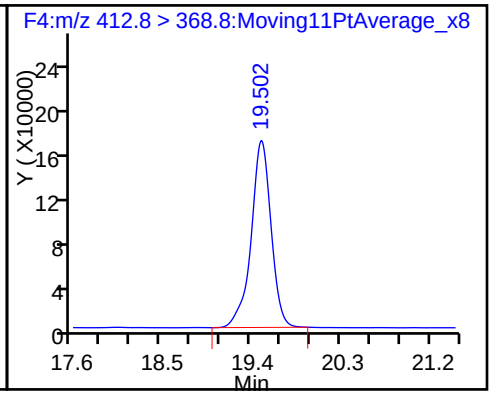
4 Perfluoroheptanoic acid



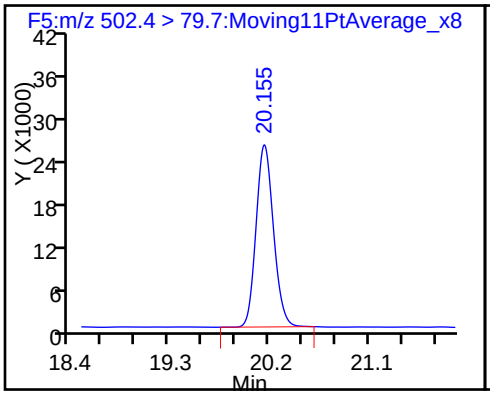
* 6 13C2-PFOA



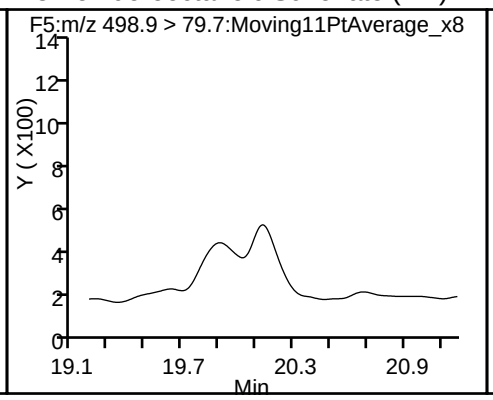
5 Perfluorooctanoic acid



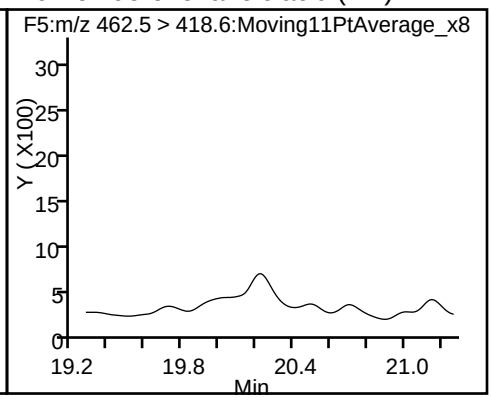
* 7 13C4 PFOS



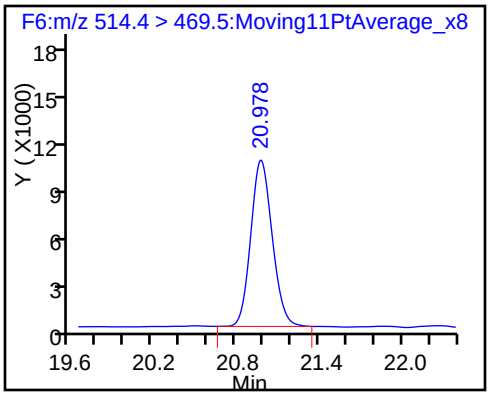
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-11644-1

SDG No.:

Client Sample ID: Field Equipment Blank | Lab Sample ID: 320-11644-3

Matrix: Water | Lab File ID: 23FEB15A4A_54.d

Analysis Method: 537 | Date Collected: 02/11/2015 10:36

Extraction Method: 537 | Date Extracted: 02/18/2015 09:18

Sample wt/vol: 256.9(mL) | Date Analyzed: 02/24/2015 11:04

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Atlantis d-C18 ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 66293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.019	0.0092
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.019	0.011
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.0097	0.0045
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.088	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	145	X	70-130
STL00996	13C2 PFDA	147	X	70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_54.d
Lims ID: 320-11644-B-3-A Lab Sample ID: 320-11644-3
Client ID: Field Equipment Blank
Sample Type: Client
Inject. Date: 24-Feb-2015 11:04:36 ALS Bottle#: 23 Worklist Smp#: 36
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-11644-B-3-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 13:21:50 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 12:36:32

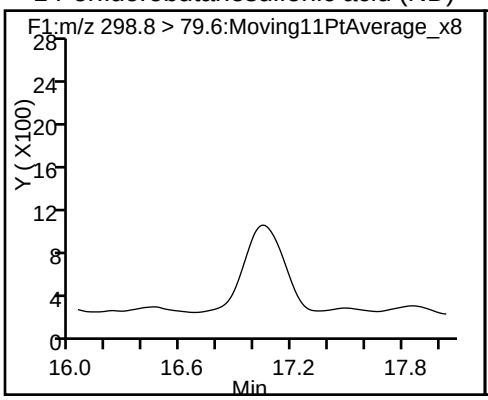
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.013	18.040	-0.027	1.000	1838157	14.5	2643	
* 6 13C2-PFOA								
414.7 > 369.7	19.517	19.532	-0.015		2051513	10.0	1320	
* 7 13C4 PFOS								
502.4 > 79.7	20.168	20.189	-0.021		5094443	28.7	3285	
$ 10 13C2 PFDA								
514.4 > 469.5	20.992	21.021	-0.029	1.000	2263841	14.7	1822	

Report Date: 24-Feb-2015 14:06:45 Chrom Revision: 2.2 15-Jan-2015 13:05:58

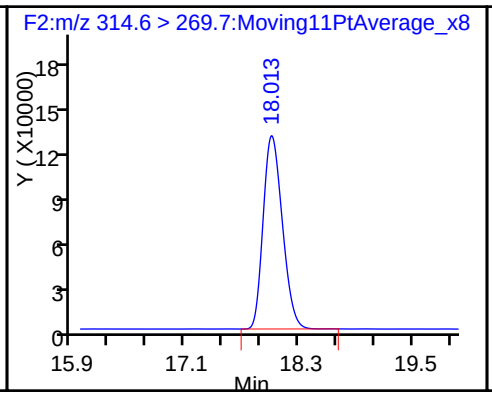
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_54.d				
Injection Date:	24-Feb-2015 11:04:36	Instrument ID:	A4		
Lims ID:	320-11644-B-3-A	Lab Sample ID:	320-11644-3		
Client ID:	Field Equipment Blank				
Operator ID:	JRB	ALS Bottle#:	23	Worklist Smp#:	36
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

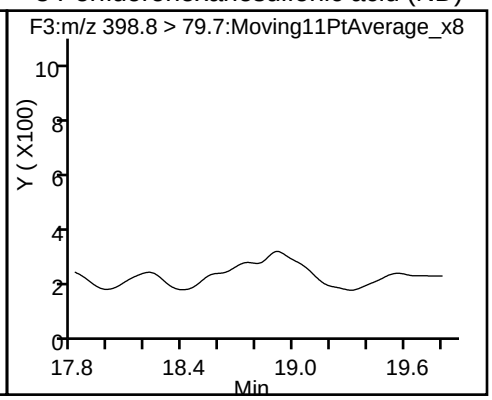
1 Perfluorobutanesulfonic acid (ND)



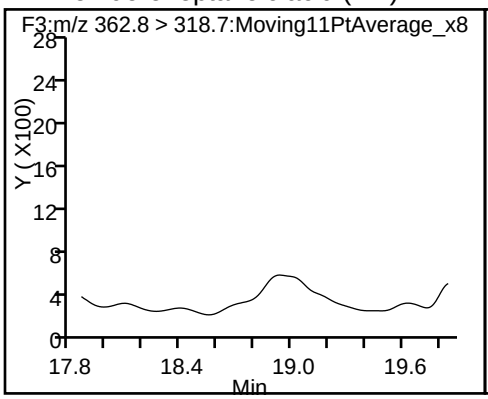
$ 2 13C2 PFHxA



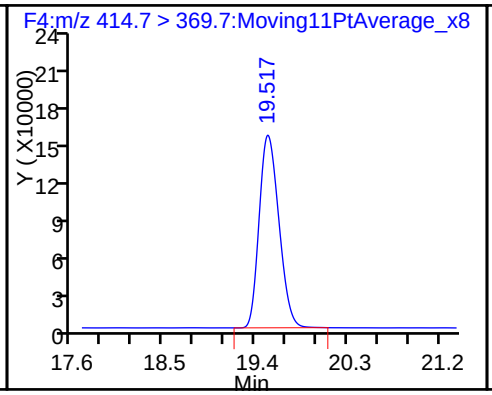
3 Perfluorohexanesulfonic acid (ND)



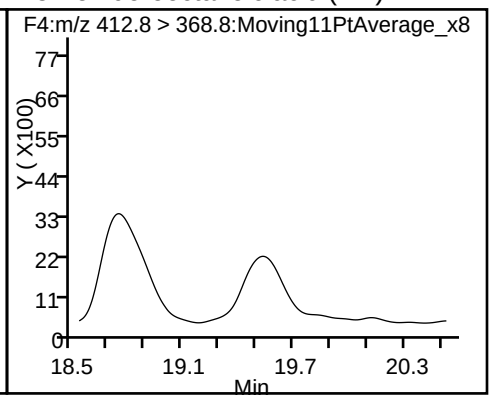
4 Perfluoroheptanoic acid (ND)



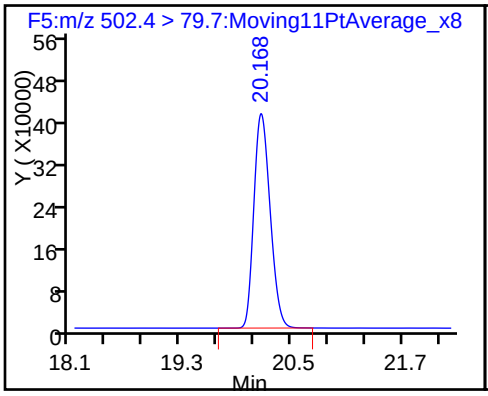
* 6 13C2-PFOA



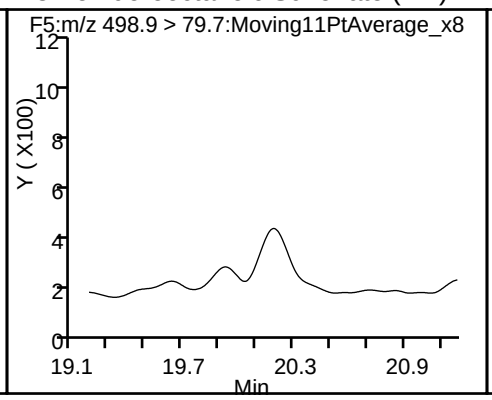
5 Perfluorooctanoic acid (ND)



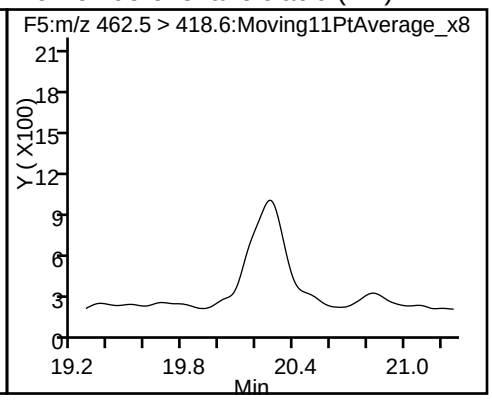
* 7 13C4 PFOS



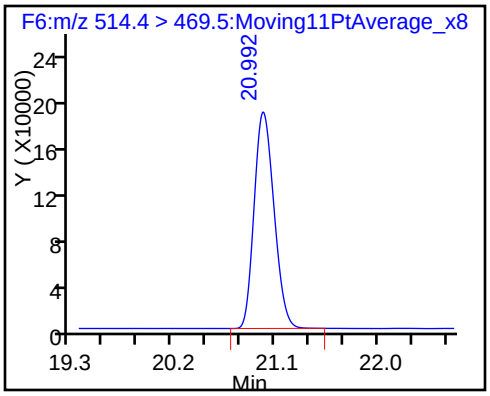
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-11644-1

SDG No.:

Client Sample ID: Lab Trip Blanks | Lab Sample ID: 320-11644-4

Matrix: Water | Lab File ID: 23FEB15A4A_55.d

Analysis Method: 537 | Date Collected: 02/11/2015 00:00

Extraction Method: 537 | Date Extracted: 02/18/2015 09:18

Sample wt/vol: 256.3(mL) | Date Analyzed: 02/24/2015 11:34

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 1

Injection Volume: 10(uL) | GC Column: Atlantis d-C18 ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 66293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.020	0.0092
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.020	0.011
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.0098	0.0045
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.088	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	118		70-130
STL00996	13C2 PFDA	117		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_55.d
Lims ID: 320-11644-B-4-A Lab Sample ID: 320-11644-4
Client ID: Lab Trip Blanks
Sample Type: Client
Inject. Date: 24-Feb-2015 11:34:10 ALS Bottle#: 24 Worklist Smp#: 37
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-11644-B-4-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 12:35:39 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 12:36:42

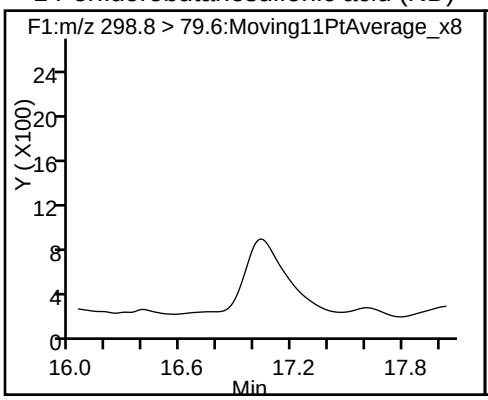
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.007	18.040	-0.033	1.000	1115129	11.8	1881	
* 6 13C2-PFOA								
414.7 > 369.7	19.507	19.532	-0.025		1528726	10.0	1115	
* 7 13C4 PFOS								
502.4 > 79.7	20.160	20.189	-0.029		3475034	28.7	2693	
$ 10 13C2 PFDA								
514.4 > 469.5	20.992	21.021	-0.029	1.000	1345725	11.7	1148	

Report Date: 24-Feb-2015 12:36:42 Chrom Revision: 2.2 15-Jan-2015 13:05:58

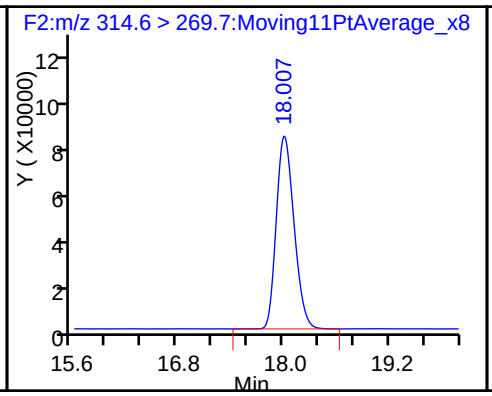
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_55.d				
Injection Date:	24-Feb-2015 11:34:10	Instrument ID:	A4		
Lims ID:	320-11644-B-4-A	Lab Sample ID:	320-11644-4		
Client ID:	Lab Trip Blanks				
Operator ID:	JRB	ALS Bottle#:	24	Worklist Smp#:	37
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

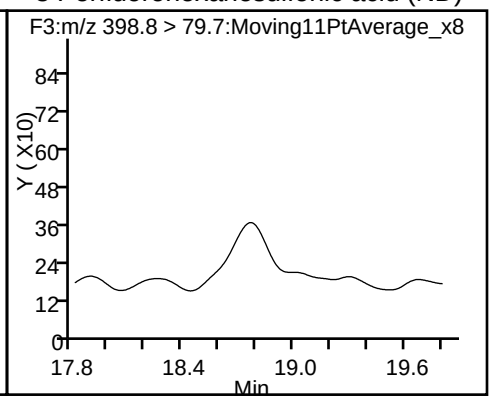
1 Perfluorobutanesulfonic acid (ND)



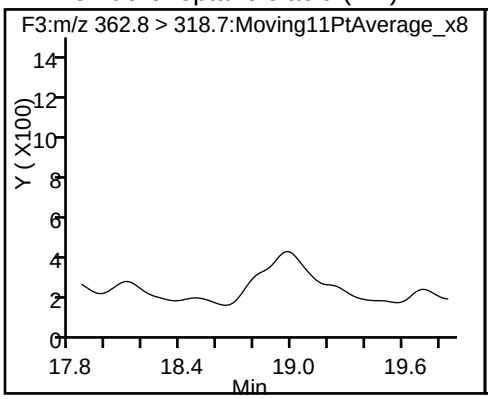
$ 2 13C2 PFHxA



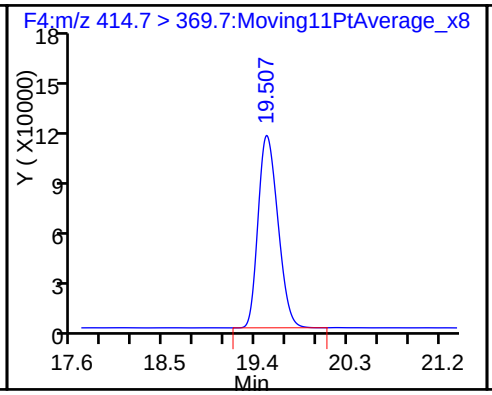
3 Perfluorohexanesulfonic acid (ND)



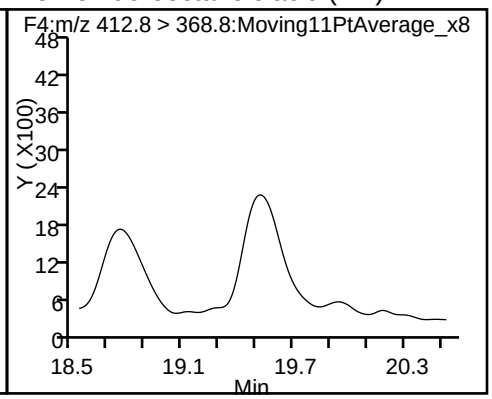
4 Perfluoroheptanoic acid (ND)



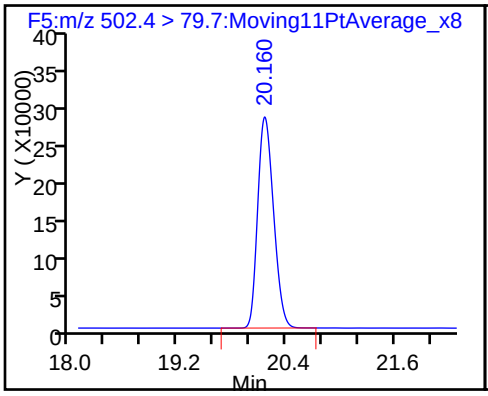
* 6 13C2-PFOA



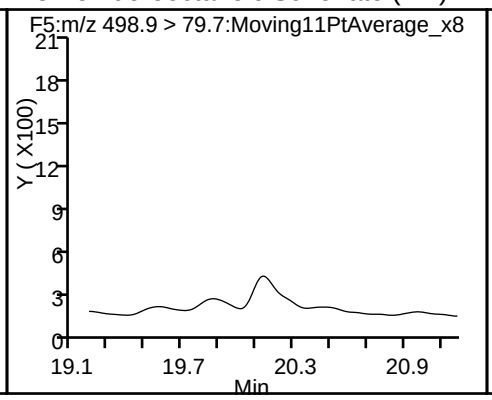
5 Perfluorooctanoic acid (ND)



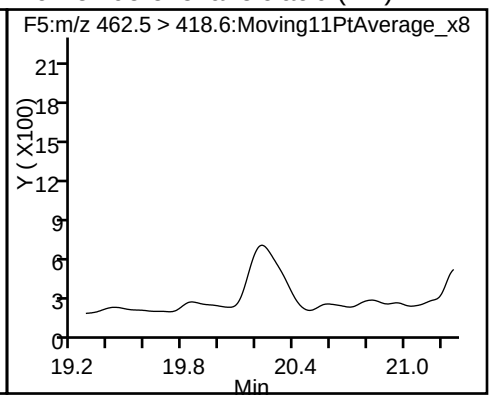
* 7 13C4 PFOS



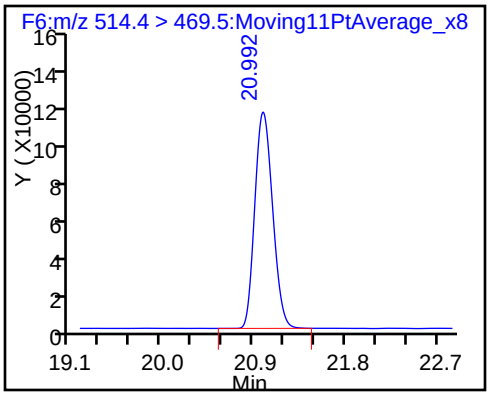
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID: Well 3
Lab Sample ID: 320-11644-5
Matrix: Water
Lab File ID: 23FEB15A4A_57.d
Analysis Method: 537
Date Collected: 02/11/2015 10:59
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 258(mL)
Date Analyzed: 02/24/2015 12:33
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 1
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.019	0.011
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.0053	J	0.0097	0.0045
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.087	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	122		70-130
STL00996	13C2 PFDA	128		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_57.d
Lims ID: 320-11644-B-5-A Lab Sample ID: 320-11644-5
Client ID: Well 3
Sample Type: Client
Inject. Date: 24-Feb-2015 12:33:21 ALS Bottle#: 25 Worklist Smp#: 38
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-11644-B-5-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 25-Feb-2015 06:58:11 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK022

First Level Reviewer: strumj Date: 25-Feb-2015 06:59:31

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.004	17.040	-0.036	1.000	32749	0.2729	20.8	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.001	18.040	-0.039	1.000	1025145	12.2	1407	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.830	18.854	-0.024	1.000	71300	1.37	23.1	
* 6 13C2-PFOA								
414.7 > 369.7	19.512	19.532	-0.020		1362252	10.0	727	
5 Perfluorooctanoic acid								E
412.8 > 368.8	19.512	19.533	-0.021	1.000	6580969	70.5	1326	E
* 7 13C4 PFOS								
502.4 > 79.7	20.163	20.189	-0.026		3345150	28.7	2024	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.159	20.189	-0.030	1.000	271491	2.69	95.1	
9 Perfluorononanoic acid								
462.5 > 418.6	20.252	20.270	-0.018	1.000	31980	0.3978	13.3	
$ 10 13C2 PFDA								
514.4 > 469.5	20.991	21.021	-0.030	1.000	1310896	12.8	936	

QC Flag Legend

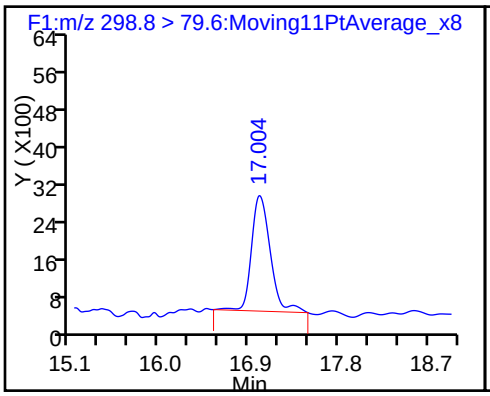
Processing Flags
E - Exceeded Maximum Amount

Report Date: 25-Feb-2015 06:59:32 Chrom Revision: 2.2 15-Jan-2015 13:05:58

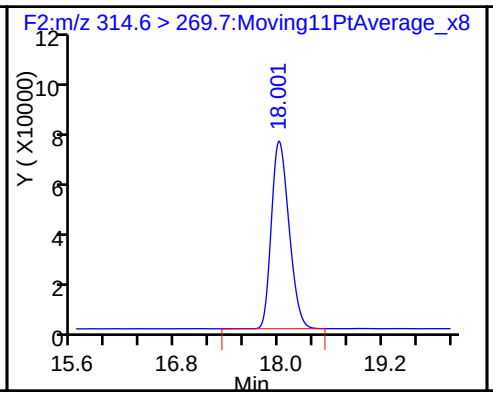
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_57.d				
Injection Date:	24-Feb-2015 12:33:21	Instrument ID:	A4		
Lims ID:	320-11644-B-5-A	Lab Sample ID:	320-11644-5		
Client ID:	Well 3				
Operator ID:	JRB	ALS Bottle#:	25	Worklist Smp#:	38
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

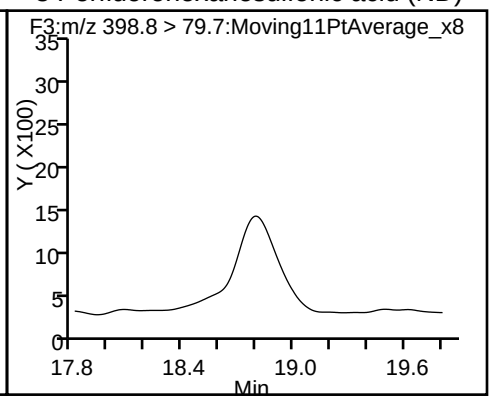
1 Perfluorobutanesulfonic acid



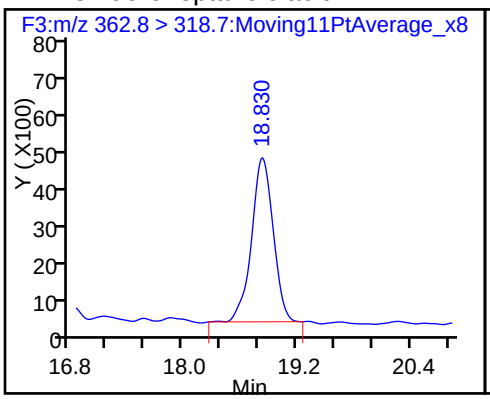
$ 2 13C2 PFHxA



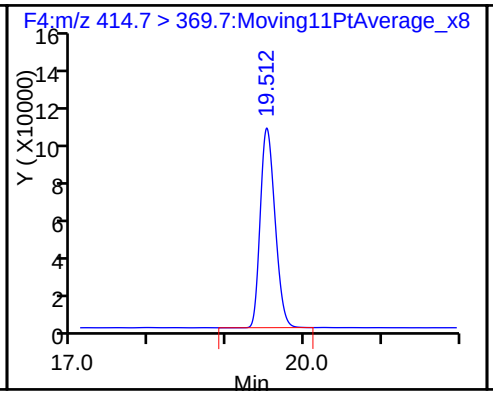
3 Perfluorohexanesulfonic acid (ND)



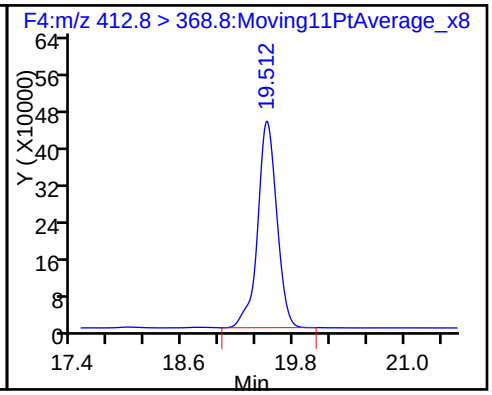
4 Perfluoroheptanoic acid



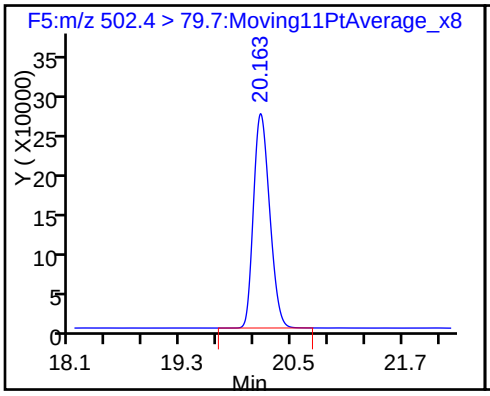
* 6 13C2-PFOA



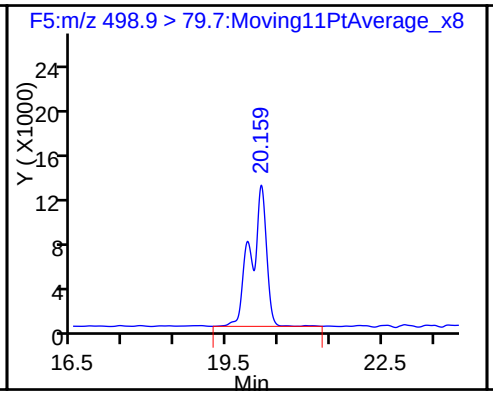
5 Perfluorooctanoic acid



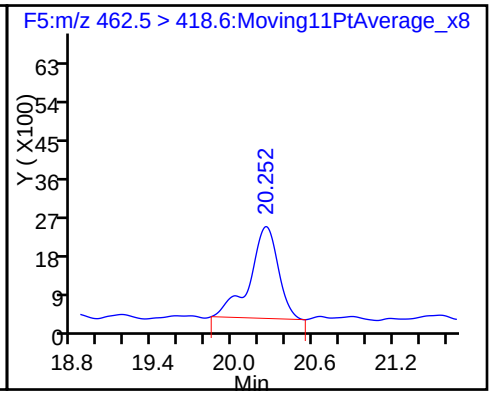
* 7 13C4 PFOS



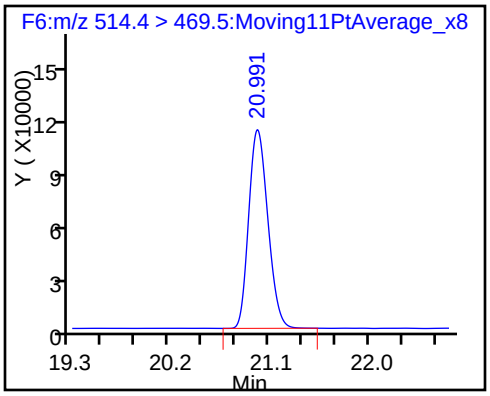
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID: Well 3 DL
Lab Sample ID: 320-11644-5 DL
Matrix: Water
Lab File ID: 23FEB15A4A_21.d
Analysis Method: 537
Date Collected: 02/11/2015 10:59
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 258(mL)
Date Analyzed: 02/23/2015 18:23
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 5
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
335-67-1	Perfluorooctanoic acid (PFOA)	0.27		0.097	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	109		70-130
STL00996	13C2 PFDA	104		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_21.d
Lims ID: 320-11644-B-5-A Lab Sample ID: 320-11644-5
Client ID: Well 3
Sample Type: Client
Inject. Date: 23-Feb-2015 18:23:42 ALS Bottle#: 33 Worklist Smp#: 48
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 320-11644-B-5-A 5x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:04:18

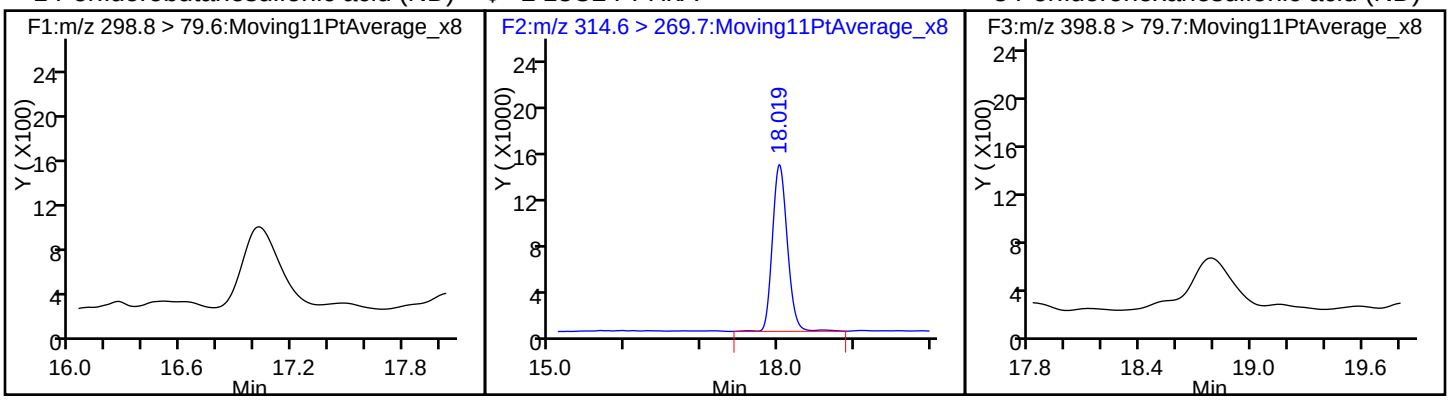
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.019	18.040	-0.021	1.000	200734	2.19	304	
* 6 13C2-PFOA								
414.7 > 369.7	19.507	19.532	-0.025		297978	2.00	209	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.507	19.533	-0.026	1.000	1425770	14.0	377	
* 7 13C4 PFOS								
502.4 > 79.7	20.150	20.189	-0.039		629199	5.74	432	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.154	20.189	-0.035	1.000	57629	0.6083	24.8	
$ 10 13C2 PFDA								
514.4 > 469.5	20.982	21.021	-0.039	1.000	232176	2.08	211	

Report Date: 24-Feb-2015 07:04:18 Chrom Revision: 2.2 15-Jan-2015 13:05:58

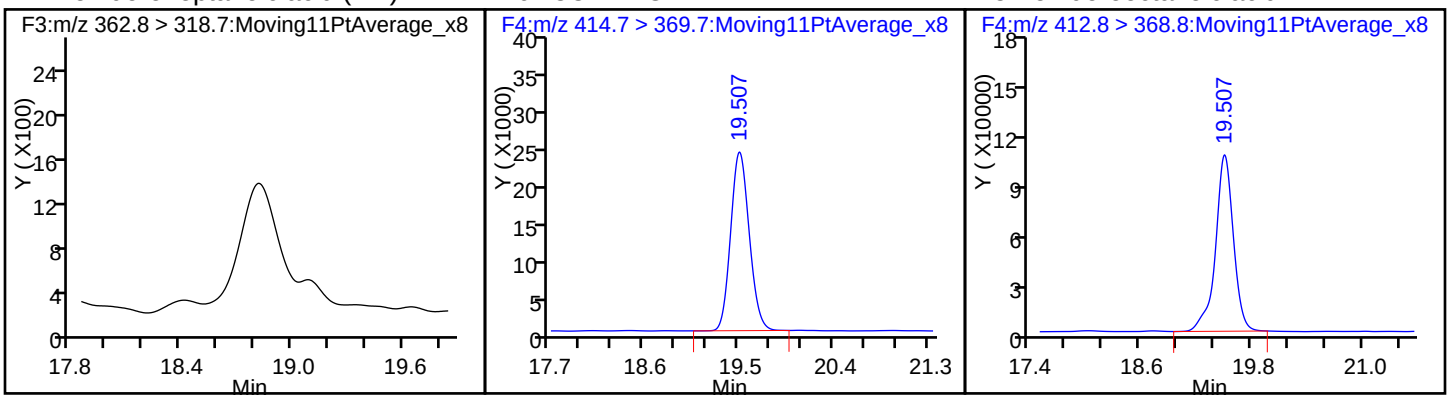
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_21.d				
Injection Date:	23-Feb-2015 18:23:42	Instrument ID:	A4		
Lims ID:	320-11644-B-5-A	Lab Sample ID:	320-11644-5		
Client ID:	Well 3				
Operator ID:	JRB	ALS Bottle#:	33	Worklist Smp#:	48
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

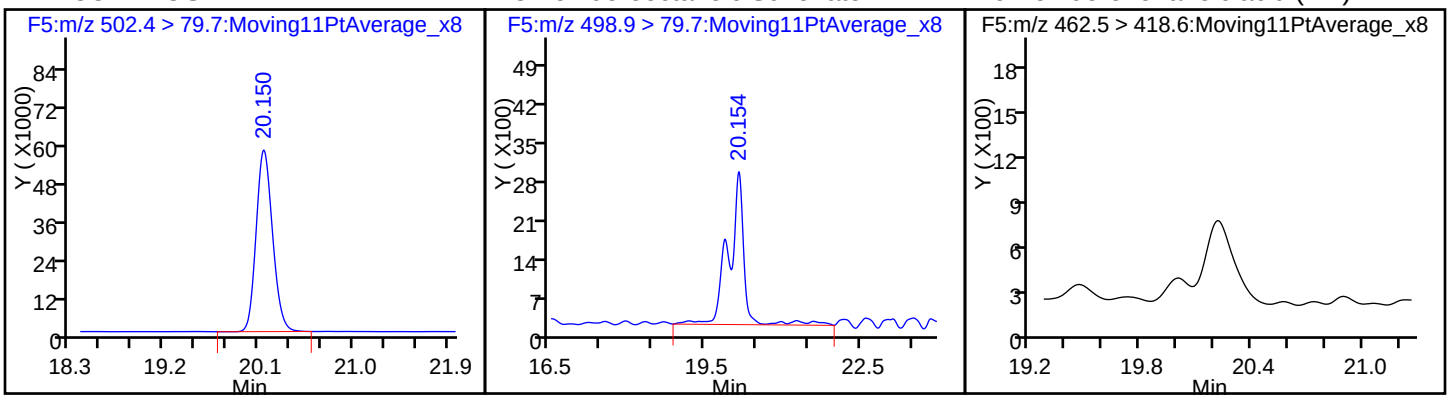
1 Perfluorobutanesulfonic acid (ND) $ 2 13C2 PFHxA 3 Perfluorohexanesulfonic acid (ND)



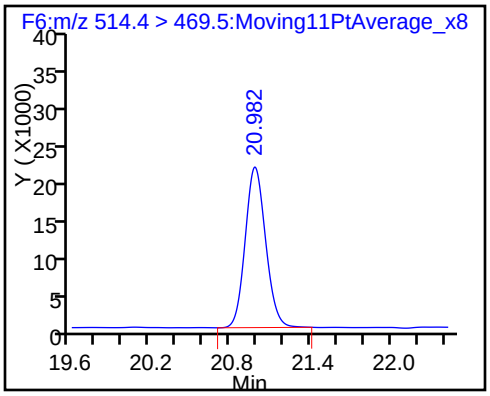
4 Perfluoroheptanoic acid (ND) * 6 13C2-PFOA 5 Perfluorooctanoic acid



* 7 13C4 PFOS 8 Perfluorooctanoic Sulfonate 9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID: Well 10
Lab Sample ID: 320-11644-6
Matrix: Water
Lab File ID: 23FEB15A4A_58.d
Analysis Method: 537
Date Collected: 02/11/2015 11:30
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 256.8(mL)
Date Analyzed: 02/24/2015 13:02
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 1
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.039	0.015
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.019	0.011
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.029	0.012
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.0053	J	0.0097	0.0045
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.088	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	114		70-130
STL00996	13C2 PFDA	116		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_58.d
Lims ID: 320-11644-B-6-A Lab Sample ID: 320-11644-6
Client ID: Well 10
Sample Type: Client
Inject. Date: 24-Feb-2015 13:02:54 ALS Bottle#: 26 Worklist Smp#: 39
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: 320-11644-B-6-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 25-Feb-2015 06:58:11 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK022

First Level Reviewer: strumj Date: 25-Feb-2015 06:59:46

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.004	17.040	-0.036	1.000	28385	0.2421	14.8	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.007	18.040	-0.033	1.000	1000608	11.4	1439	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.824	18.854	-0.030	1.000	73610	1.35	27.1	
* 6 13C2-PFOA								
414.7 > 369.7	19.512	19.532	-0.020		1430038	10.0	993	
5 Perfluorooctanoic acid								E
412.8 > 368.8	19.507	19.533	-0.026	1.000	6933161	70.7	1300	E
* 7 13C4 PFOS								
502.4 > 79.7	20.168	20.189	-0.021		3268261	28.7	2260	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.168	20.189	-0.021	1.000	252281	2.56	132	
9 Perfluorononanoic acid								
462.5 > 418.6	20.239	20.270	-0.031	1.000	24358	0.2887	6.9	
$ 10 13C2 PFDA								
514.4 > 469.5	20.991	21.021	-0.030	1.000	1242994	11.6	773	

QC Flag Legend

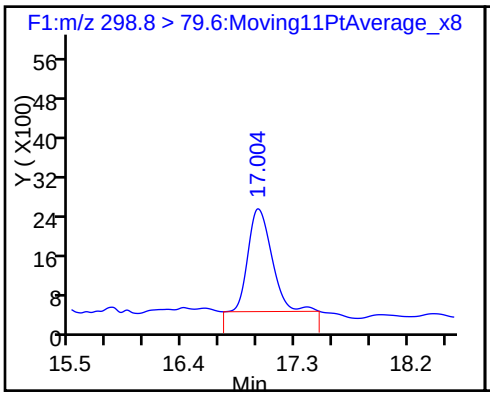
Processing Flags
E - Exceeded Maximum Amount

Report Date: 25-Feb-2015 06:59:46 Chrom Revision: 2.2 15-Jan-2015 13:05:58

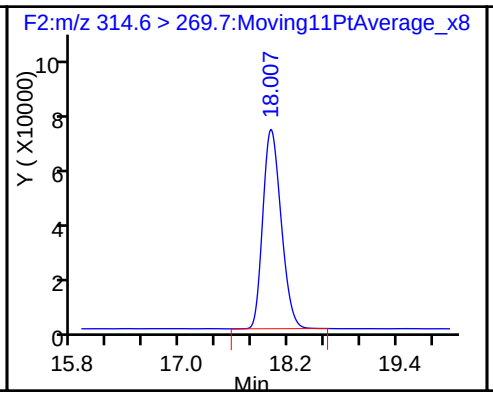
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_58.d				
Injection Date:	24-Feb-2015 13:02:54	Instrument ID:	A4		
Lims ID:	320-11644-B-6-A	Lab Sample ID:	320-11644-6		
Client ID:	Well 10				
Operator ID:	JRB	ALS Bottle#:	26	Worklist Smp#:	39
Injection Vol:	10.0 ul	Dil. Factor:	1.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

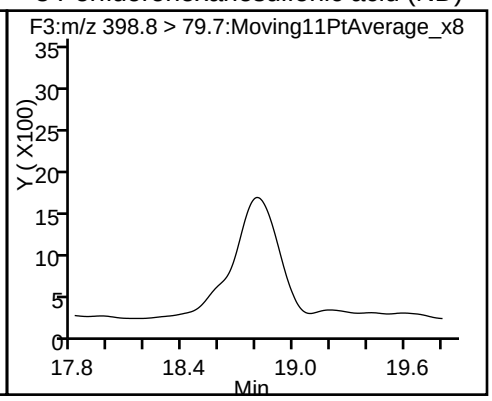
1 Perfluorobutanesulfonic acid



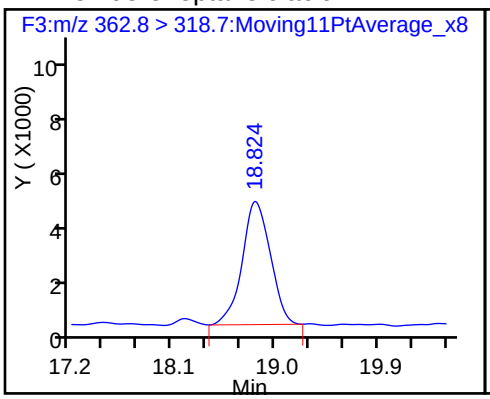
$ 2 13C2 PFHxA



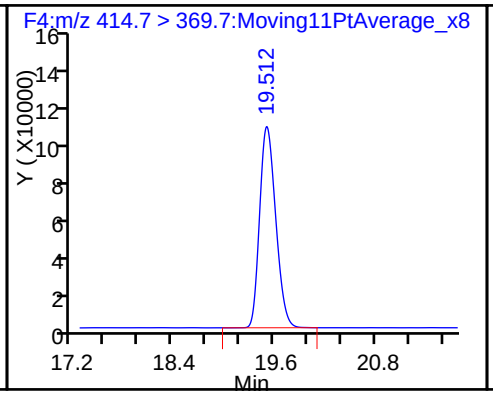
3 Perfluorohexanesulfonic acid (ND)



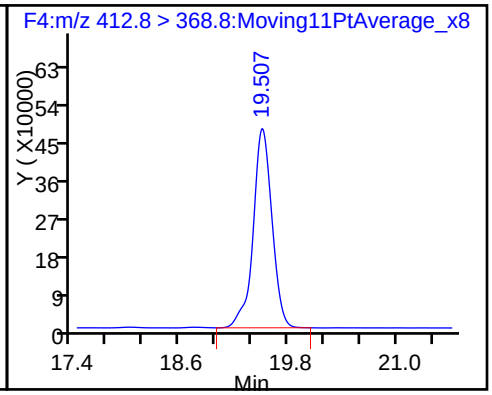
4 Perfluoroheptanoic acid



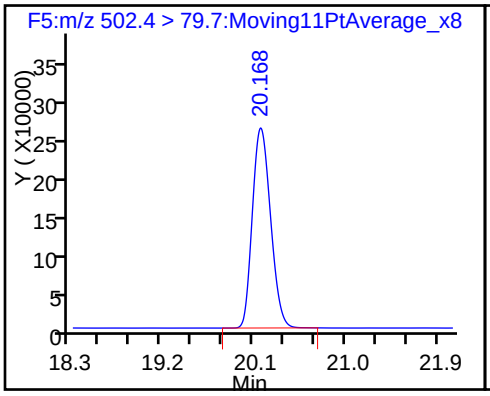
* 6 13C2-PFOA



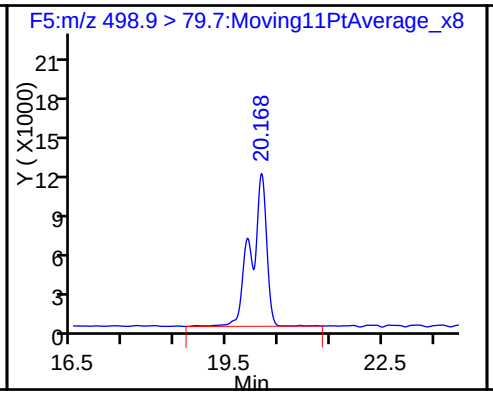
5 Perfluorooctanoic acid



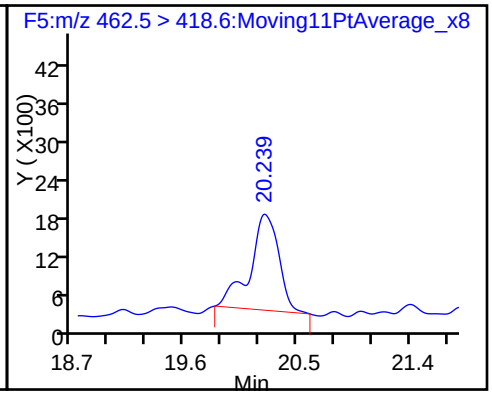
* 7 13C4 PFOS



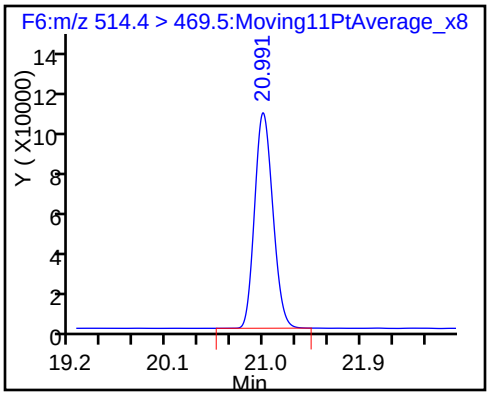
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID: Well 10 DL
Lab Sample ID: 320-11644-6 DL
Matrix: Water
Lab File ID: 23FEB15A4A_22.d
Analysis Method: 537
Date Collected: 02/11/2015 11:30
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 256.8(mL)
Date Analyzed: 02/23/2015 18:53
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 5
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
335-67-1	Perfluorooctanoic acid (PFOA)	0.29		0.097	0.046

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	109		70-130
STL00996	13C2 PFDA	106		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_22.d
Lims ID: 320-11644-B-6-A Lab Sample ID: 320-11644-6
Client ID: Well 10
Sample Type: Client
Inject. Date: 23-Feb-2015 18:53:16 ALS Bottle#: 34 Worklist Smp#: 49
Injection Vol: 10.0 ul Dil. Factor: 5.0000
Sample Info: 320-11644-B-6-A 5x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:04:31

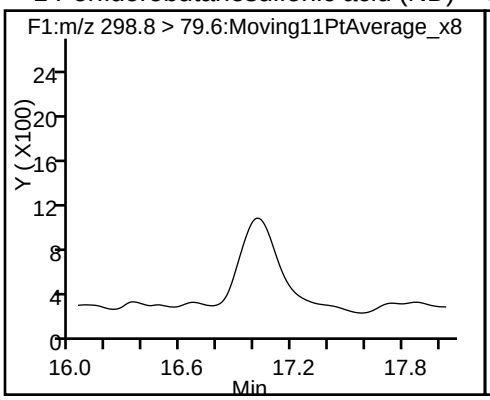
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.013	18.040	-0.027	1.000	204163	2.18	289	
* 6 13C2-PFOA								
414.7 > 369.7	19.502	19.532	-0.030		304105	2.00	229	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.502	19.533	-0.031	1.000	1531475	14.7	431	
* 7 13C4 PFOS								
502.4 > 79.7	20.151	20.189	-0.038		682381	5.74	504	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.137	20.189	-0.052	1.000	52306	0.5091	25.4	
$ 10 13C2 PFDA								
514.4 > 469.5	20.974	21.021	-0.047	1.000	241263	2.12	217	

Report Date: 24-Feb-2015 07:04:31 Chrom Revision: 2.2 15-Jan-2015 13:05:58

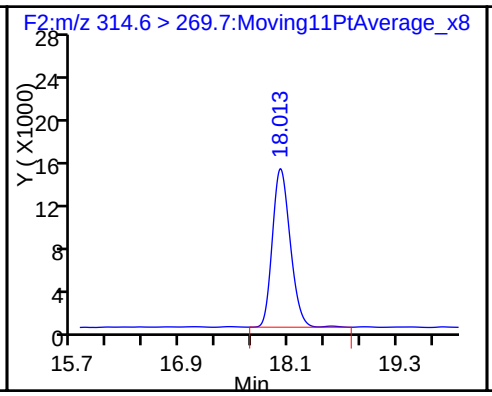
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_22.d				
Injection Date:	23-Feb-2015 18:53:16	Instrument ID:	A4		
Lims ID:	320-11644-B-6-A	Lab Sample ID:	320-11644-6		
Client ID:	Well 10				
Operator ID:	JRB	ALS Bottle#:	34	Worklist Smp#:	49
Injection Vol:	10.0 ul	Dil. Factor:	5.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

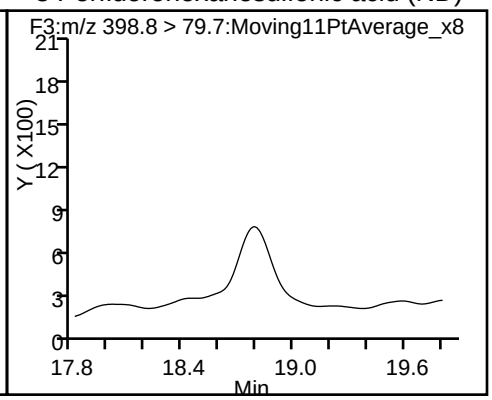
1 Perfluorobutanesulfonic acid (ND)



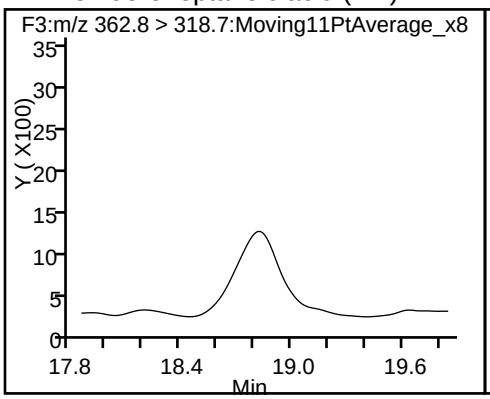
$ 2 13C2 PFHxA



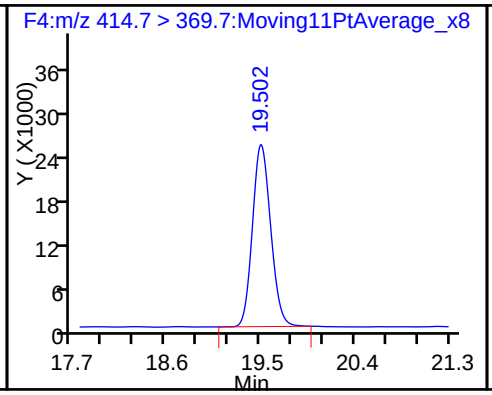
3 Perfluorohexanesulfonic acid (ND)



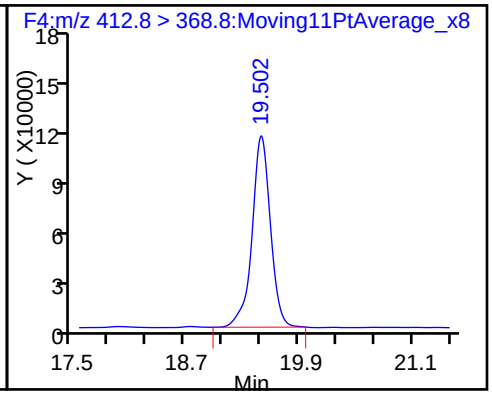
4 Perfluoroheptanoic acid (ND)



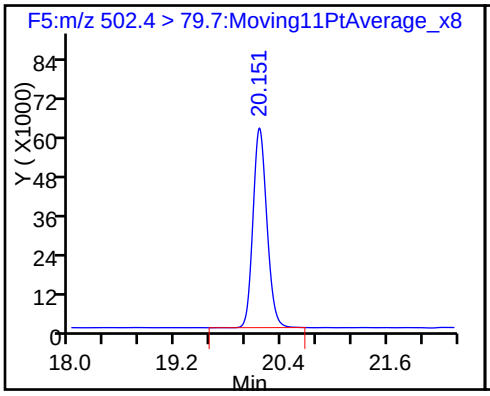
* 6 13C2-PFOA



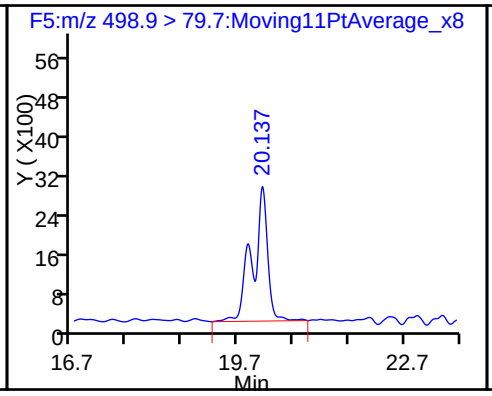
5 Perfluorooctanoic acid



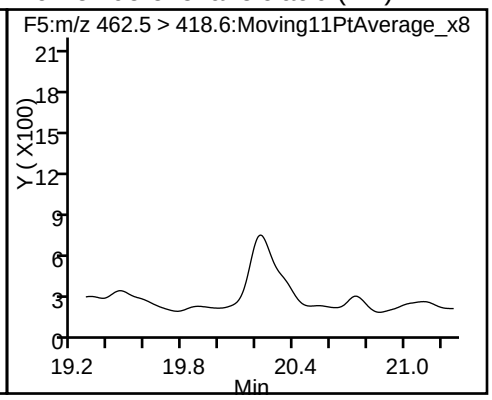
* 7 13C4 PFOS



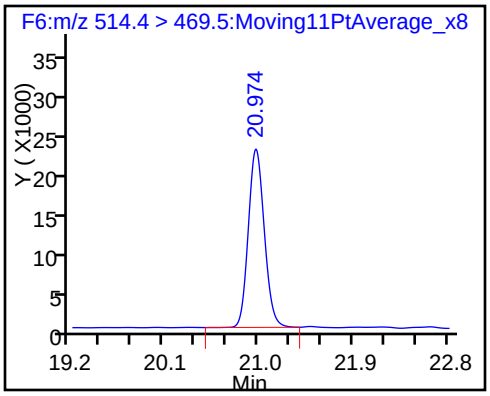
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-11644-1

SDG No.:

Client Sample ID: Well 6 | Lab Sample ID: 320-11644-7

Matrix: Water | Lab File ID: 23FEB15A4A_23.d

Analysis Method: 537 | Date Collected: 02/11/2015 11:29

Extraction Method: 537 | Date Extracted: 02/18/2015 09:18

Sample wt/vol: 259.5(mL) | Date Analyzed: 02/23/2015 19:22

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 10(uL) | GC Column: Atlantis d-C18 ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 66293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.39	0.15
335-67-1	Perfluorooctanoic acid (PFOA)	0.74		0.19	0.091
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.19	0.11
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.29	0.11
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.066	J	0.096	0.044
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.87	0.46

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	108		70-130
STL00996	13C2 PFDA	93		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_23.d
Lims ID: 320-11644-B-7-A Lab Sample ID: 320-11644-7
Client ID: Well 6
Sample Type: Client
Inject. Date: 23-Feb-2015 19:22:50 ALS Bottle#: 35 Worklist Smp#: 50
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 320-11644-B-7-A 10x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:04:41

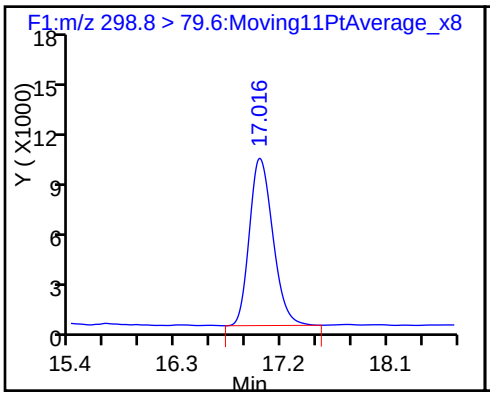
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.016	17.040	-0.024	1.000	135129	1.17	120	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.007	18.040	-0.033	1.000	105133	1.08	178	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.830	18.854	-0.024	1.000	103247	1.72	78.8	
* 6 13C2-PFOA								
414.7 > 369.7	19.507	19.532	-0.025		157812	1.00	116	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.502	19.533	-0.031	1.000	2065816	19.1	560	
* 7 13C4 PFOS								
502.4 > 79.7	20.151	20.189	-0.038		322821	2.87	269	
$ 10 13C2 PFDA								
514.4 > 469.5	20.983	21.021	-0.038	1.000	110654	0.9348	96.1	

Report Date: 24-Feb-2015 07:04:41 Chrom Revision: 2.2 15-Jan-2015 13:05:58

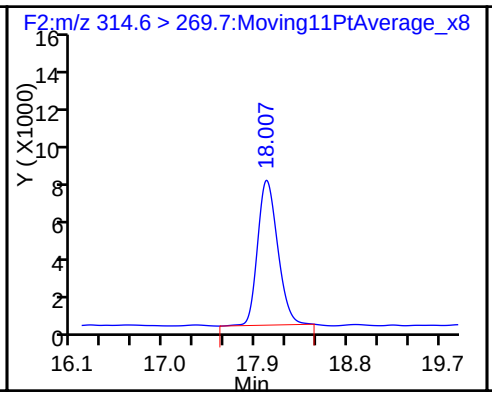
TestAmerica Sacramento

Data File:	\\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_23.d				
Injection Date:	23-Feb-2015 19:22:50	Instrument ID:	A4		
Lims ID:	320-11644-B-7-A	Lab Sample ID:	320-11644-7		
Client ID:	Well 6				
Operator ID:	JRB	ALS Bottle#:	35	Worklist Smp#:	50
Injection Vol:	10.0 ul	Dil. Factor:	10.0000		
Method:	537_A4	Limit Group:	LC 537 ICAL		

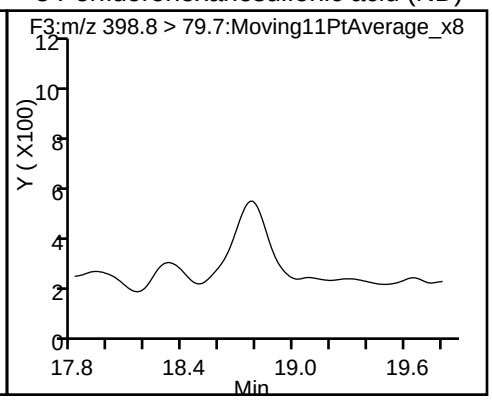
1 Perfluorobutanesulfonic acid



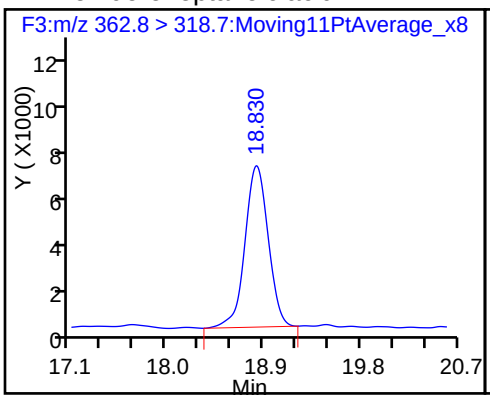
$ 2 13C2 PFHxA



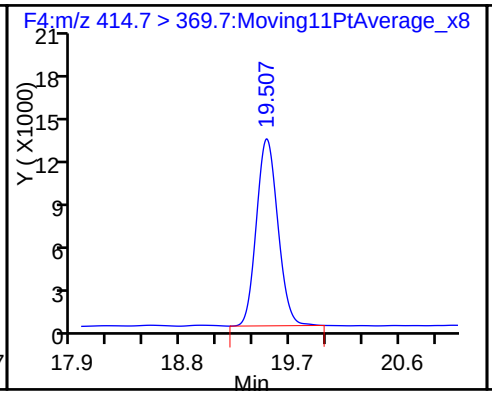
3 Perfluorohexanesulfonic acid (ND)



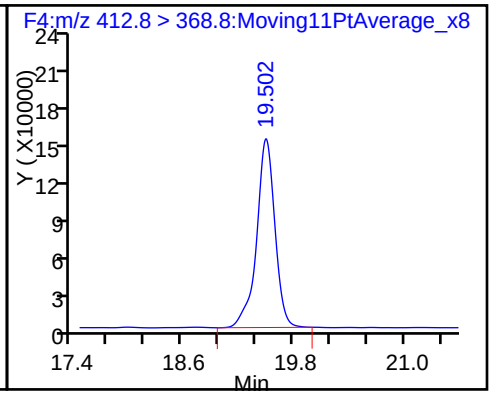
4 Perfluoroheptanoic acid



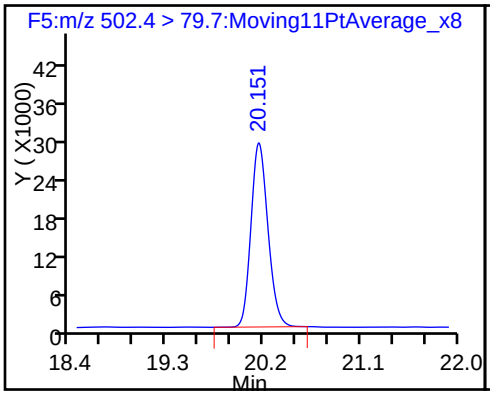
* 6 13C2-PFOA



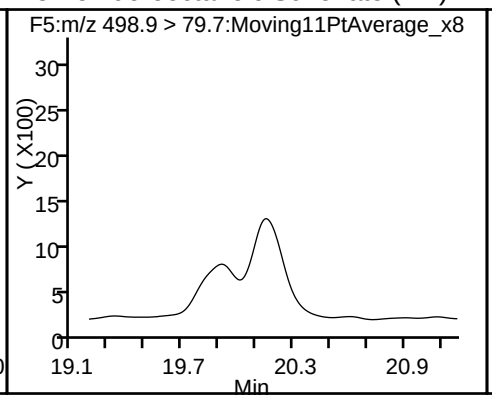
5 Perfluorooctanoic acid



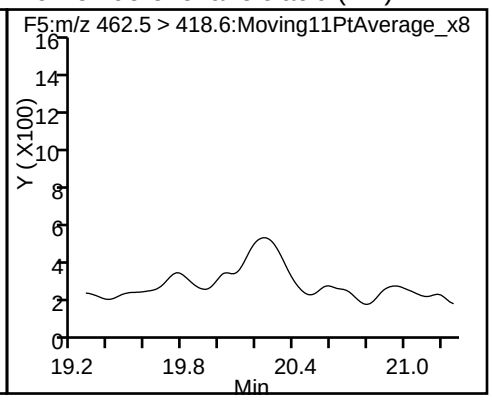
* 7 13C4 PFOS



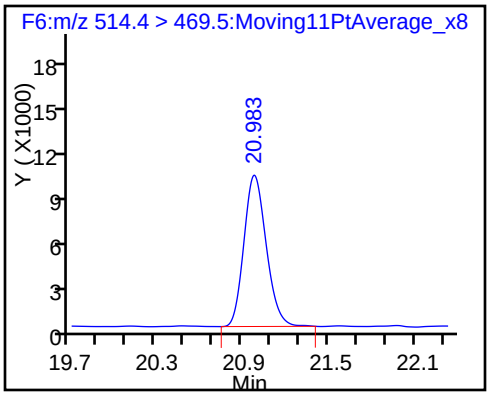
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD CURVE EVALUATION

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1 Analy Batch No.: 66293

SDG No.:

Instrument ID: A4 GC Column: Atlantis d-C ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/23/2015 10:30 Calibration End Date: 02/23/2015 12:58 Calibration ID: 11834

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	L1	23FEB15A4A_05.d
Level 2	L2	23FEB15A4A_06.d
Level 3	L3	23FEB15A4A_07.d
Level 4	L4	23FEB15A4A_08.d
Level 5	L5	23FEB15A4A_09.d
Level 6	L6	23FEB15A4A_10.d

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5		B	M1	M2								
Perfluorobutanesulfonic acid (PFBS)	1.0308 0.9899	1.0372	1.0917	0.9985	1.0241	Lin2F		1.0287							0.9980		0.9600
Perfluorohexanesulfonic acid(PFHxS)	0.8812 1.0194	0.8773	1.0239	0.9897	0.9993	Lin2F		0.9651							0.9930		0.9600
Perfluoroheptanoic acid (PFHpA)	0.4164 0.3628	0.3913	0.3788	0.3760	0.3589	Lin2F		0.3807							0.9950		0.9600
Perfluorooctanoic acid (PFOA)	0.7089 0.7052	0.6718	0.6987	0.6342	0.6943	Lin2F		0.6855							0.9970		0.9600
Perfluorooctane Sulfonate (PFOS)	0.7956 0.8875	0.8319	0.9334	0.8562	0.8776	Lin2F		0.8637							0.9960		0.9600
Perfluorononanoic acid (PFNA)	0.6306 0.5597	0.6183	0.6067	0.5457	0.5795	Lin2F		0.5901							0.9950		0.9600
13C2 PFHxA	0.7022 0.5950	0.6255	0.6084	0.5783	0.5886	Ave		0.6163				7.3		20.0			
13C2 PFDA	0.8557 0.7375	0.7501	0.7183	0.7235	0.7153	Ave		0.7501				7.1		20.0			

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

FORM VI
LCMS INITIAL CALIBRATION DATA
INTERNAL STANDARD RESPONSE AND CONCENTRATION

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1 Analy Batch No.: 66293

SDG No.:

Instrument ID: A4 GC Column: Atlantis d-C ID: 2.1(mm) Heated Purge: (Y/N) N

Calibration Start Date: 02/23/2015 10:30 Calibration End Date: 02/23/2015 12:58 Calibration ID: 11834

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	L1	23FEB15A4A_05.d
Level 2	L2	23FEB15A4A_06.d
Level 3	L3	23FEB15A4A_07.d
Level 4	L4	23FEB15A4A_08.d
Level 5	L5	23FEB15A4A_09.d
Level 6	L6	23FEB15A4A_10.d

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (NG/ML)				
			LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2	LVL 3	LVL 4	LVL 5
Perfluorobutanesulfonic acid (PFBS)	PFOS	Lin2F	968698 15439070	2735719	5363056	9574703	13747258	8.91 182	23.3	45.9	92.5	137
Perfluorohexanesulfonic acid(PFHxS)	PFOS	Lin2F	275864 5296490	770782	1675540	3161588	4468755	2.97 60.5	7.76	15.3	30.8	45.7
Perfluoroheptanoic acid (PFHpA)	PFOA	Lin2F	67645 1150143	181470	368819	702504	958482	0.978 19.9	2.56	5.04	10.2	15.0
Perfluorooctanoic acid (PFOA)	PFOA	Lin2F	233374 4530322	631353	1378884	2401668	3758142	1.98 40.4	5.18	10.2	20.6	30.5
Perfluorooctane Sulfonate (PFOS)	PFOS	Lin2F	332136 6148598	974588	2036849	3647014	5233131	3.96 80.7	10.4	20.4	41.1	60.9
Perfluorononanoic acid (PFNA)	PFOA	Lin2F	207139 3588025	579818	1194702	2061836	3129986	1.98 40.3	5.17	10.2	20.5	30.4
13C2 PFHxA	PFOA	Ave	1166082 945862	1133866	1175121	1063891	1044602	10.0 10.0	10.0	10.0	10.0	10.0
13C2 PFDA	PFOA	Ave	1421043 1172459	1359818	1387389	1330848	1269632	10.0 10.0	10.0	10.0	10.0	10.0

Curve Type Legend:

Ave = Average ISTD
Lin2F = Linear 1/conc^2 ISTD forced zero

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_05.d
Lims ID: L1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 23-Feb-2015 10:30:36 ALS Bottle#: 17 Worklist Smp#: 3
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: L1
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:12 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 06:36:52

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.045	17.040	0.005	1.000	968698	8.93	1459	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.042	18.040	0.002	1.000	1166082	11.4	1915	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.813	18.810	0.003	1.000	275864	2.71	379	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.848	18.854	-0.006	1.000	67645	1.07	76.4	
* 6 13C2-PFOA								
414.7 > 369.7	19.533	19.532	0.001		1660664	10.0	1273	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.538	19.533	0.005	1.000	233374	2.05	73.0	
* 7 13C4 PFOS								
502.4 > 79.7	20.195	20.189	0.006		3024447	28.7	2910	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.195	20.189	0.006	1.000	332136	3.65	197	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	207139	2.11	134	
$ 10 13C2 PFDA								
514.4 > 469.5	21.027	21.021	0.006	1.000	1421043	11.4	1194	

Reagents:

LC537-L1_00009 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:12 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_05.d

Injection Date: 23-Feb-2015 10:30:36 Instrument ID: A4

Lims ID: L1

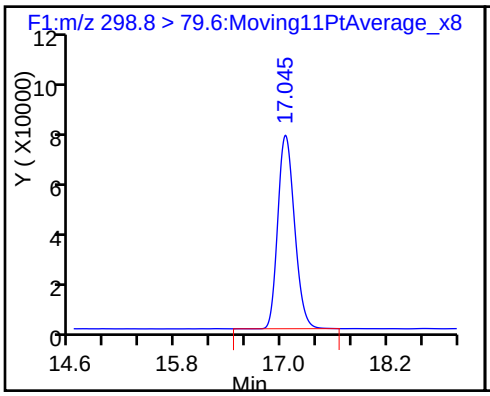
Client ID:

Operator ID: JRB ALS Bottle#: 17 Worklist Smp#: 3

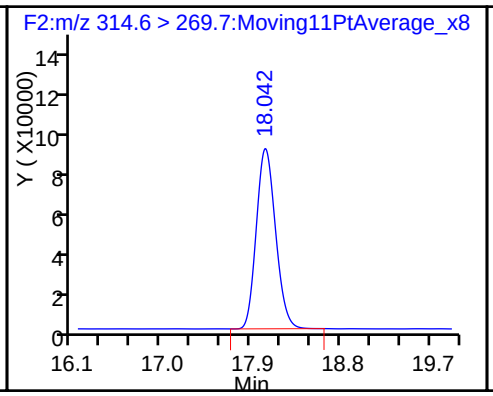
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

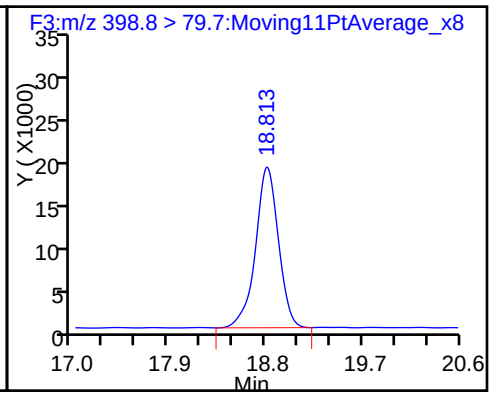
1 Perfluorobutanesulfonic acid



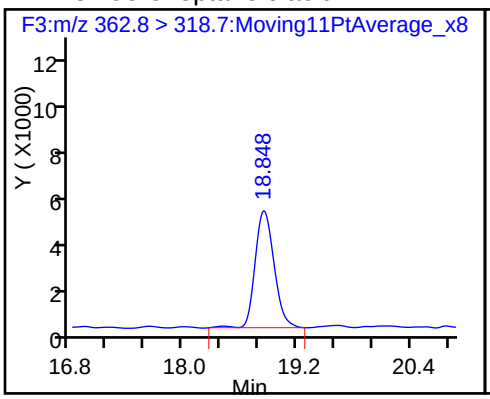
$ 2 13C2 PFHxA



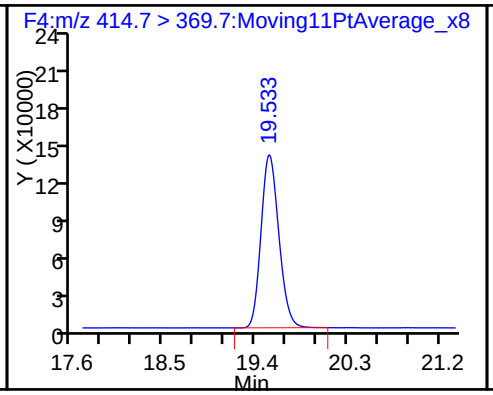
3 Perfluorohexanesulfonic acid



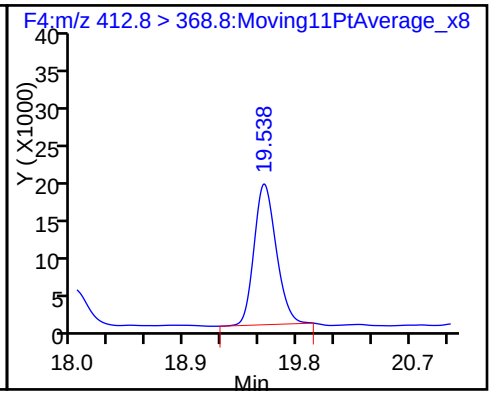
4 Perfluoroheptanoic acid



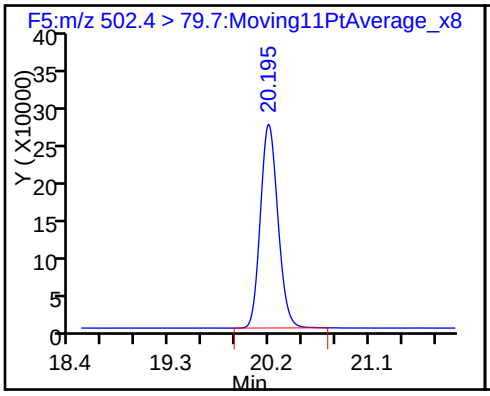
* 6 13C2-PFOA



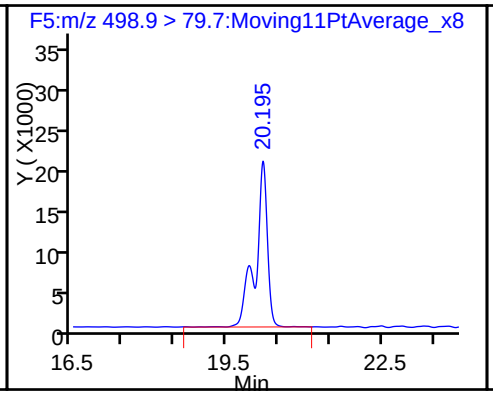
5 Perfluorooctanoic acid



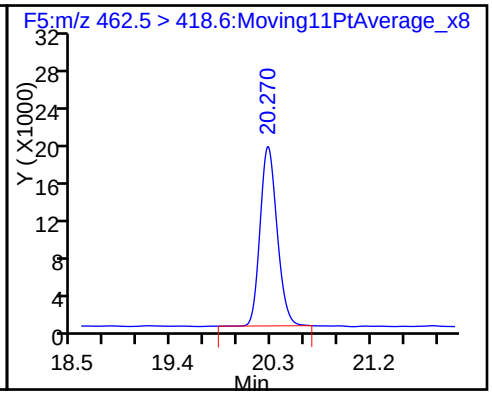
* 7 13C4 PFOS



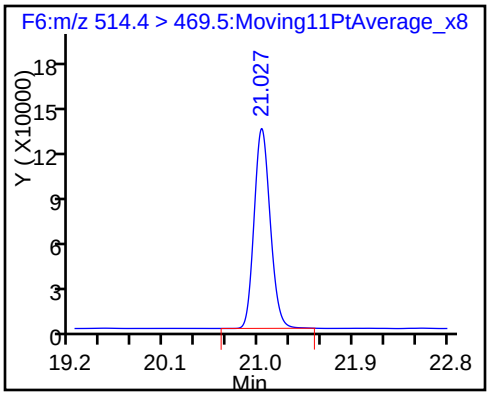
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_06.d
Lims ID: L2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 23-Feb-2015 11:00:10 ALS Bottle#: 18 Worklist Smp#: 4
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: L2
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:13 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 06:34:51

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.039	17.040	-0.001	1.000	2735719	23.5	3459	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.042	18.040	0.002	1.000	1133866	10.1	1661	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.807	18.810	-0.003	1.000	770782	7.06	1045	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.859	18.854	0.005	1.000	181470	2.63	197	
* 6 13C2-PFOA								
414.7 > 369.7	19.532	19.532	0.0		1812736	10.0	1452	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.538	19.533	0.005	1.000	631353	5.08	176	
* 7 13C4 PFOS								
502.4 > 79.7	20.190	20.189	0.001		3245474	28.7	2894	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.190	20.189	0.001	1.000	974588	9.97	493	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	579818	5.42	293	
$ 10 13C2 PFDA								
514.4 > 469.5	21.022	21.021	0.001	1.000	1359818	10.0	1125	

Reagents:

LC537-L2_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_06.d

Injection Date: 23-Feb-2015 11:00:10 Instrument ID: A4

Lims ID: L2

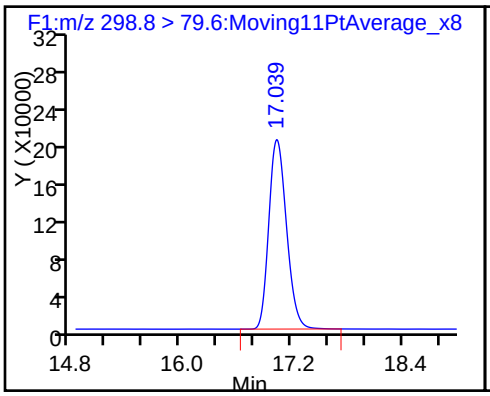
Client ID:

Operator ID: JRB ALS Bottle#: 18 Worklist Smp#: 4

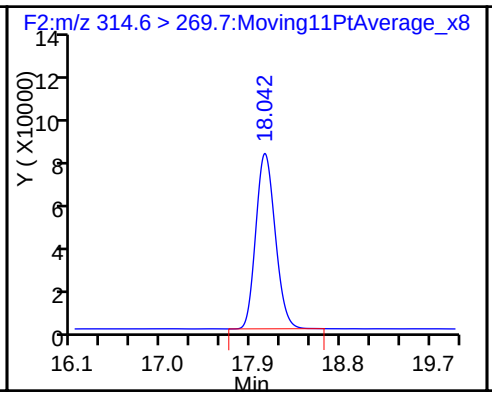
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

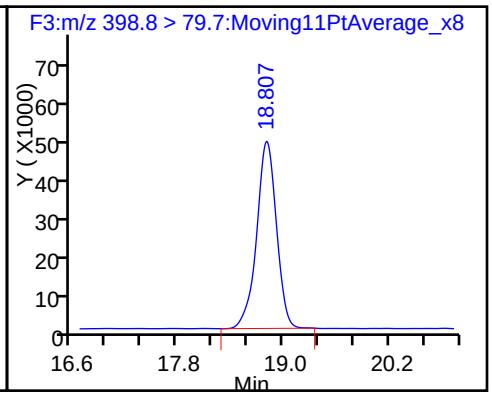
1 Perfluorobutanesulfonic acid



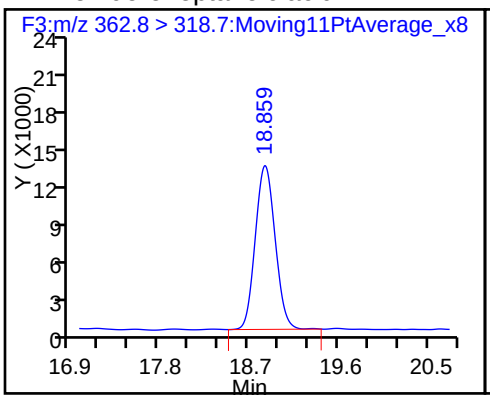
$ 2 13C2 PFHxA



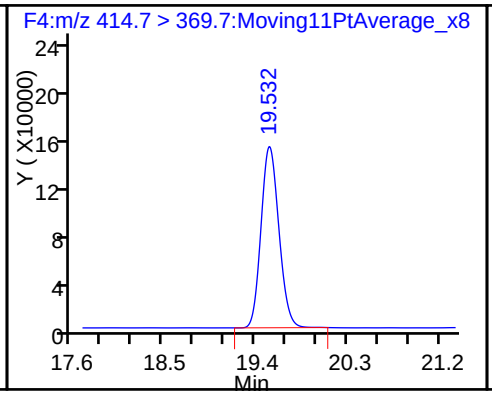
3 Perfluorohexanesulfonic acid



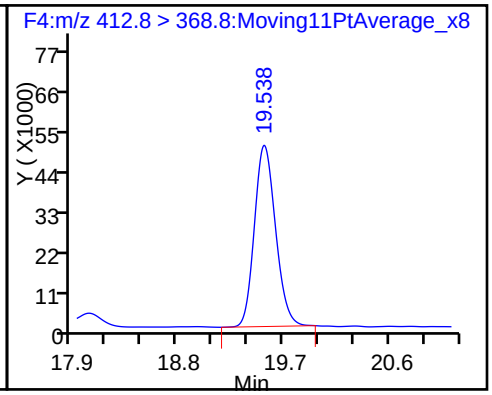
4 Perfluoroheptanoic acid



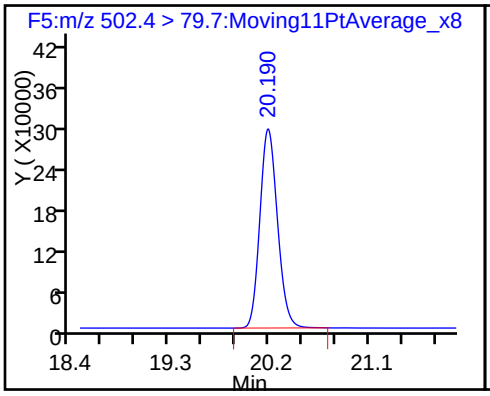
* 6 13C2-PFOA



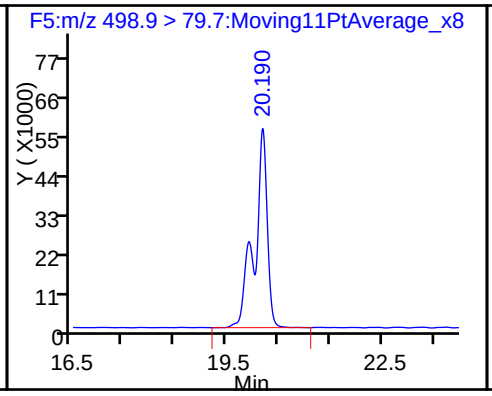
5 Perfluorooctanoic acid



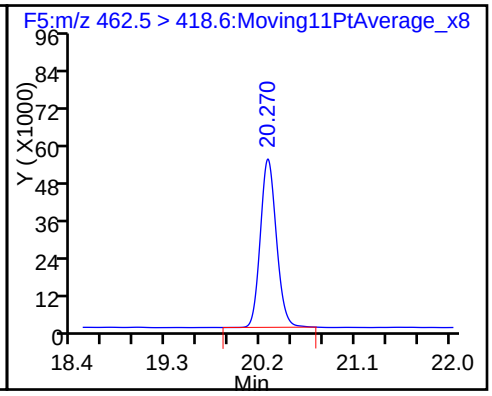
* 7 13C4 PFOS



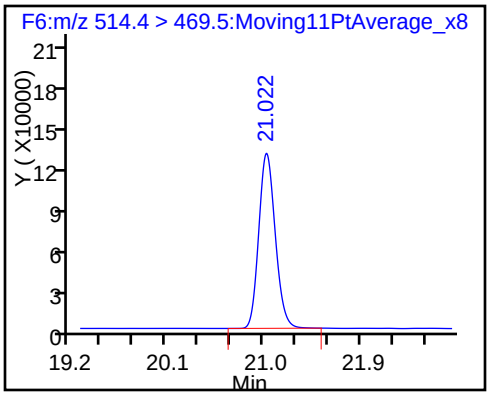
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_07.d
Lims ID: L3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 23-Feb-2015 11:29:44 ALS Bottle#: 19 Worklist Smp#: 5
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: L3
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:13 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.033	17.040	-0.007	1.000	5363056	48.7	6422	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.042	18.040	0.002	1.000	1175121	9.87	1389	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.813	18.810	0.003	1.000	1675540	16.2	1930	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.859	18.854	0.005	1.000	368819	5.02	368	
* 6 13C2-PFOA								
414.7 > 369.7	19.532	19.532	0.0		1931451	10.0	1757	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.532	19.533	-0.001	1.000	1378884	10.4	361	
* 7 13C4 PFOS								
502.4 > 79.7	20.190	20.189	0.001		3067664	28.7	2577	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.190	20.189	0.001	1.000	2036849	22.0	1044	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	1194702	10.5	551	
$ 10 13C2 PFDA								
514.4 > 469.5	21.022	21.021	0.001	1.000	1387389	9.58	1259	

Reagents:

LC537-L3_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:13 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_07.d

Injection Date: 23-Feb-2015 11:29:44 Instrument ID: A4

Lims ID: L3

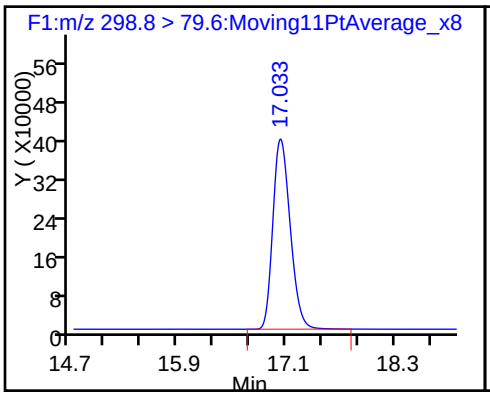
Client ID:

Operator ID: JRB ALS Bottle#: 19 Worklist Smp#: 5

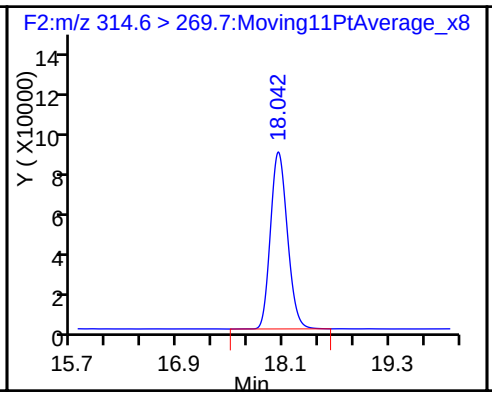
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

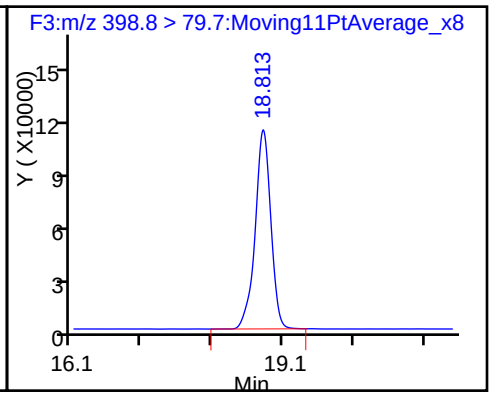
1 Perfluorobutanesulfonic acid



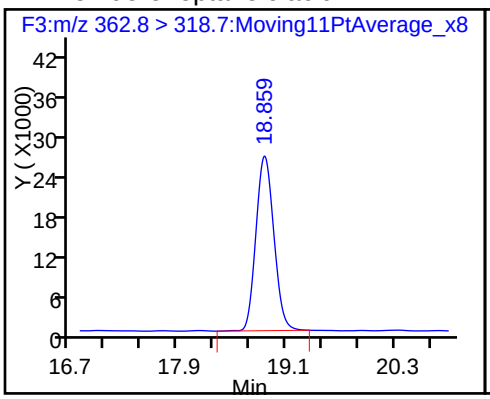
$ 2 13C2 PFHxA



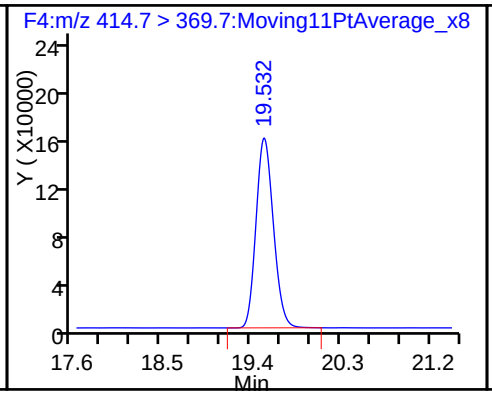
3 Perfluorohexanesulfonic acid



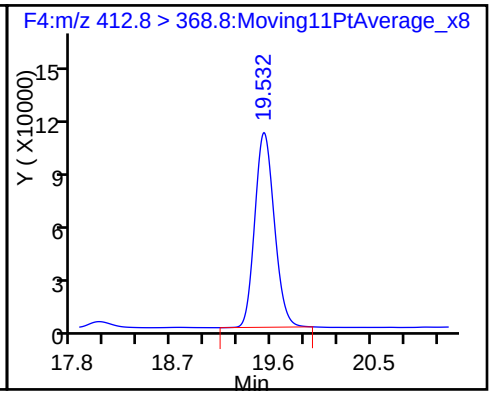
4 Perfluoroheptanoic acid



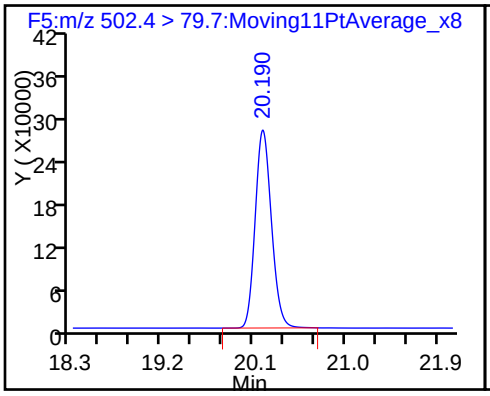
* 6 13C2-PFOA



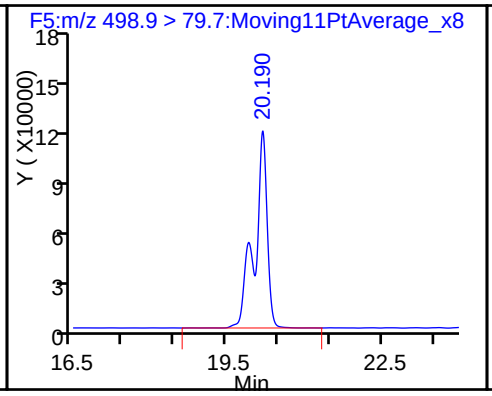
5 Perfluorooctanoic acid



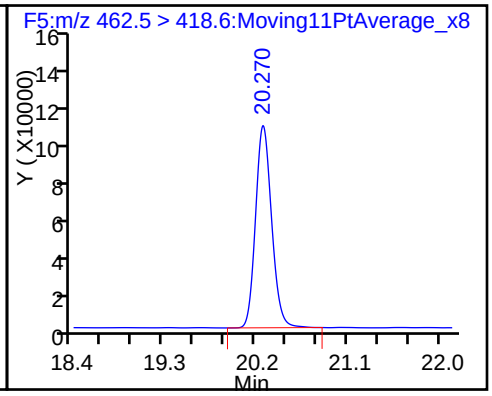
* 7 13C4 PFOS



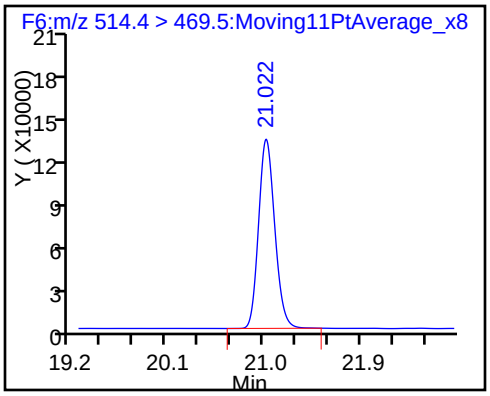
8 Perfluorooctanoic Sulfonate

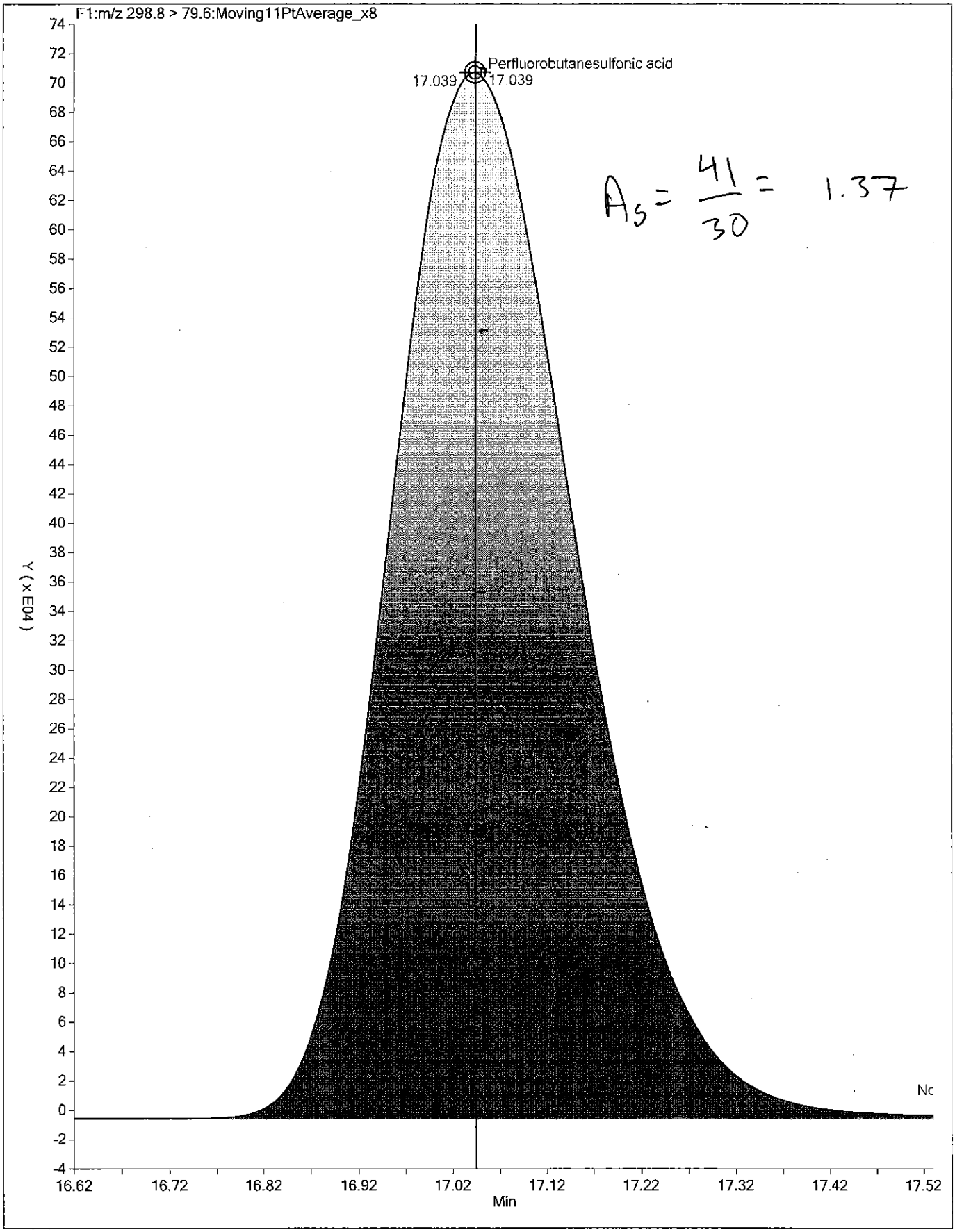


9 Perfluorononanoic acid

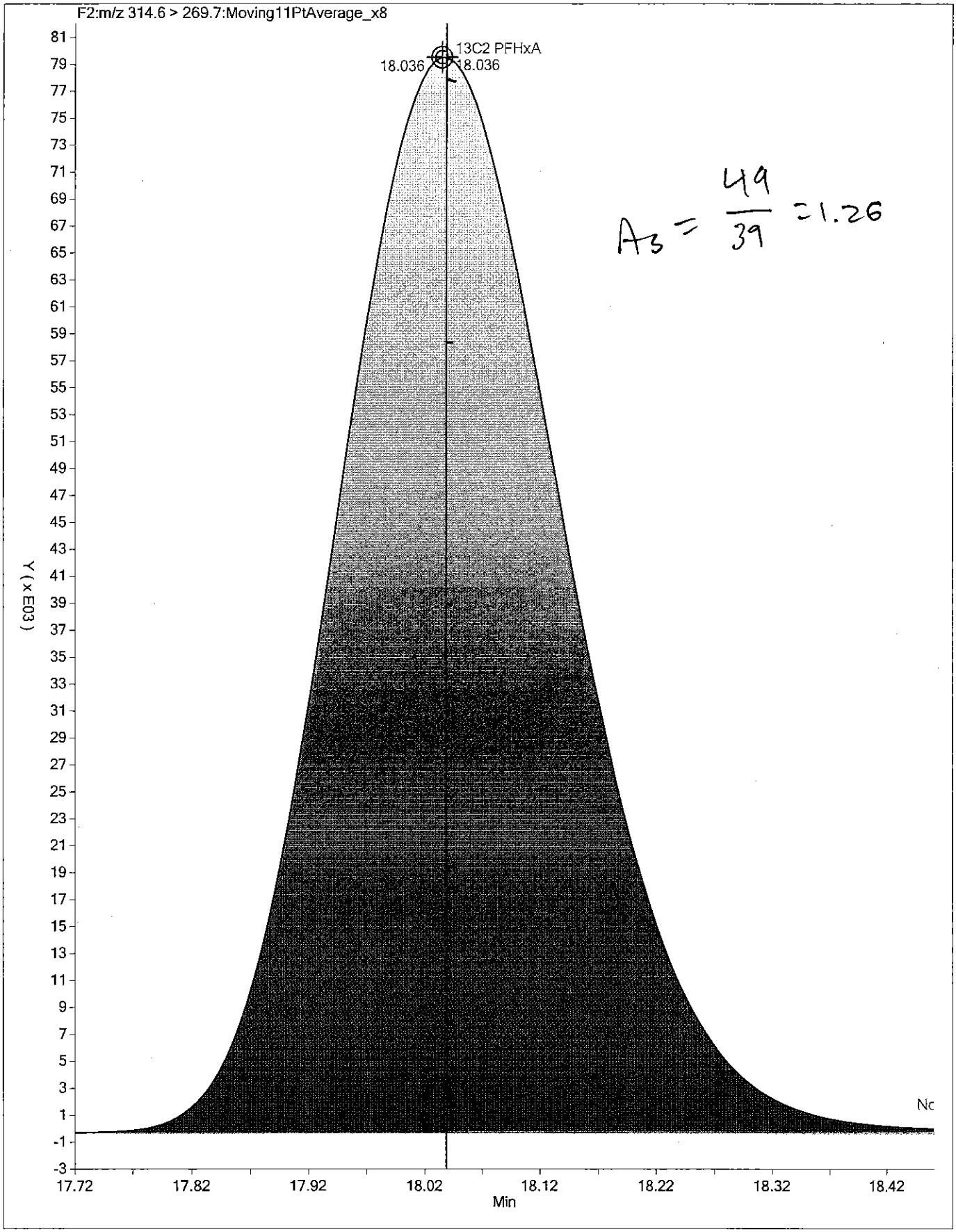


$ 10 13C2 PFDA





$A_s = \frac{41}{30} = 1.37$



$A_s = \frac{49}{39} = 1.26$

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_08.d
Lims ID: L4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 23-Feb-2015 11:59:18 ALS Bottle#: 20 Worklist Smp#: 6
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: L4
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:14 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.039	17.040	-0.001	1.000	9574703	89.8	8725	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.036	18.040	-0.004	1.000	1063891	9.38	1245	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.807	18.810	-0.003	1.000	3161588	31.6	3106	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.853	18.854	-0.001	1.000	702504	10.0	582	
* 6 13C2-PFOA								
414.7 > 369.7	19.533	19.532	0.001		1839534	10.0	1250	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.527	19.533	-0.006	1.000	2401668	19.0	485	
* 7 13C4 PFOS								
502.4 > 79.7	20.186	20.189	-0.003		2971803	28.7	2492	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.190	20.189	0.001	1.000	3647014	40.8	2341	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	2061836	19.0	1108	
$ 10 13C2 PFDA								
514.4 > 469.5	21.022	21.021	0.001	1.000	1330848	9.65	1227	

Reagents:

LC537-L4_00009 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_08.d

Injection Date: 23-Feb-2015 11:59:18 Instrument ID: A4

Lims ID: L4

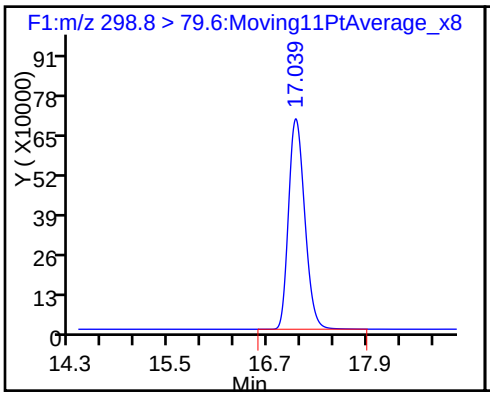
Client ID:

Operator ID: JRB ALS Bottle#: 20 Worklist Smp#: 6

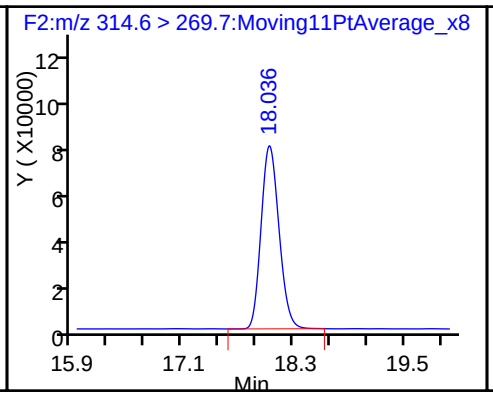
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

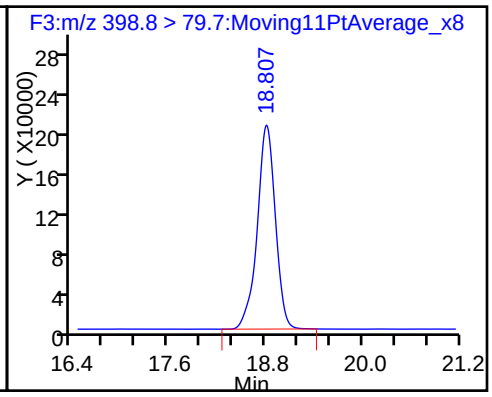
1 Perfluorobutanesulfonic acid



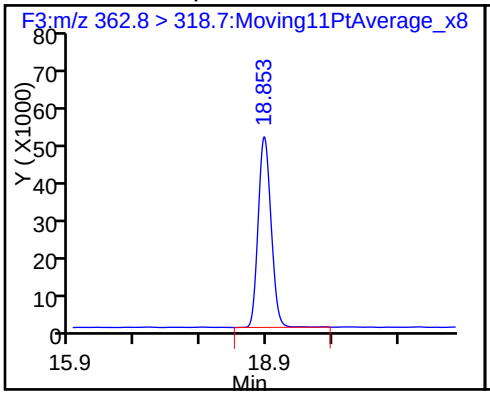
$ 2 13C2 PFHxA



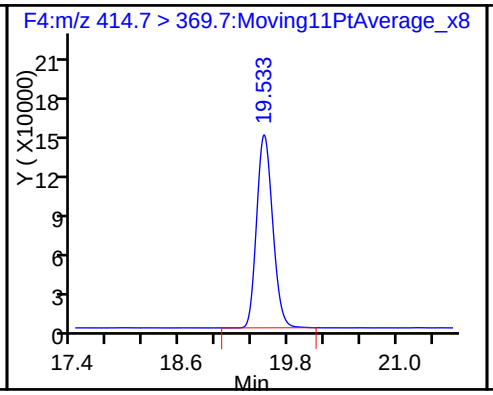
3 Perfluorohexanesulfonic acid



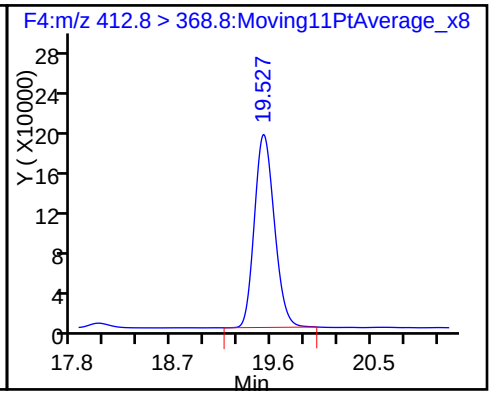
4 Perfluoroheptanoic acid



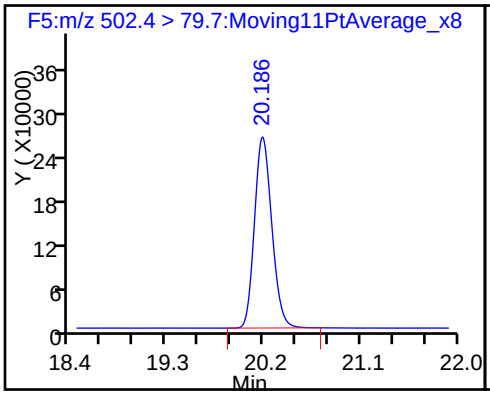
* 6 13C2-PFOA



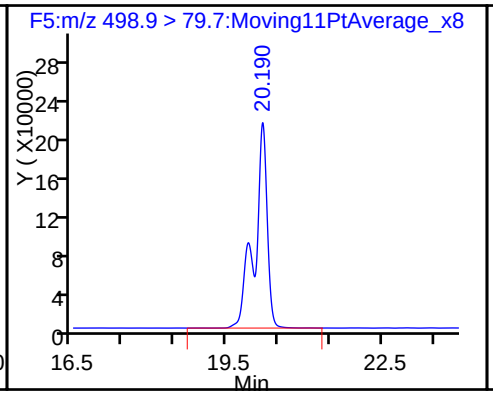
5 Perfluorooctanoic acid



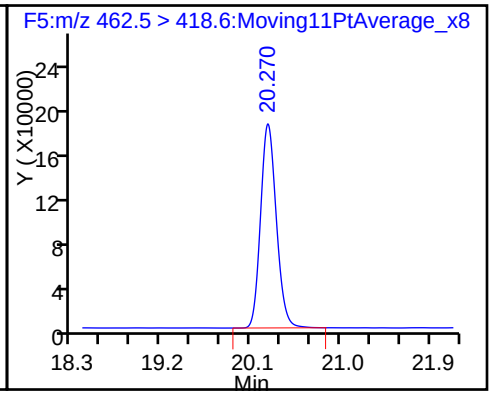
* 7 13C4 PFOS



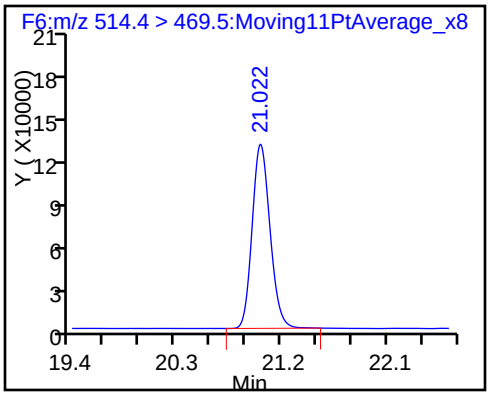
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_09.d
Lims ID: L5
Client ID:
Sample Type: IC Calib Level: 5
Inject. Date: 23-Feb-2015 12:28:52 ALS Bottle#: 21 Worklist Smp#: 7
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: L5
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:15 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.039	17.040	-0.001	1.000	13747258	136.5	11988	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.036	18.040	-0.004	1.000	1044602	9.55	1679	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.807	18.810	-0.003	1.000	4468755	47.3	3396	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.854	18.854	0.0	1.000	958482	14.2	881	
* 6 13C2-PFOA								
414.7 > 369.7	19.528	19.532	-0.004		1774855	10.0	1319	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.533	19.533	0.0	1.000	3758142	30.9	732	
* 7 13C4 PFOS								
502.4 > 79.7	20.186	20.189	-0.003		2808098	28.7	2038	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.186	20.189	-0.003	1.000	5233131	61.9	2789	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	3129986	29.9	1362	
$ 10 13C2 PFDA								
514.4 > 469.5	21.018	21.021	-0.003	1.000	1269632	9.54	1077	

Reagents:

LC537-L5_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:15 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_09.d

Injection Date: 23-Feb-2015 12:28:52 Instrument ID: A4

Lims ID: L5

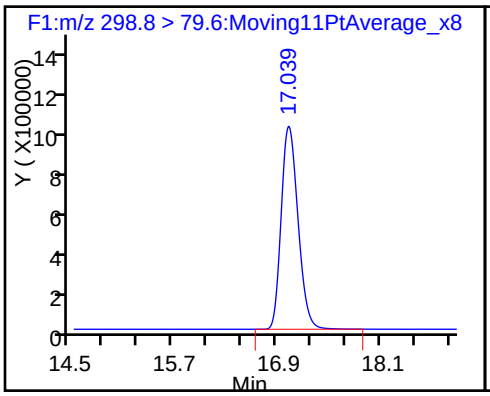
Client ID:

Operator ID: JRB ALS Bottle#: 21 Worklist Smp#: 7

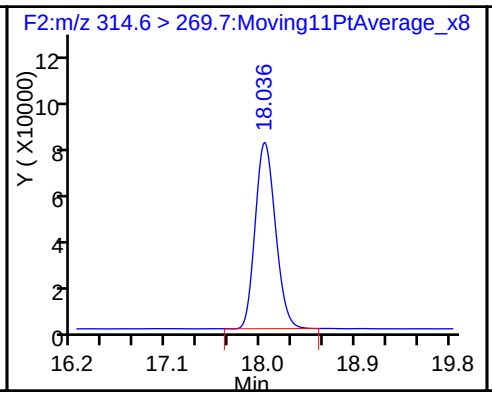
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

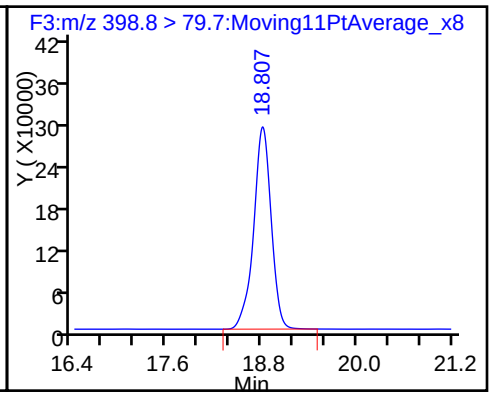
1 Perfluorobutanesulfonic acid



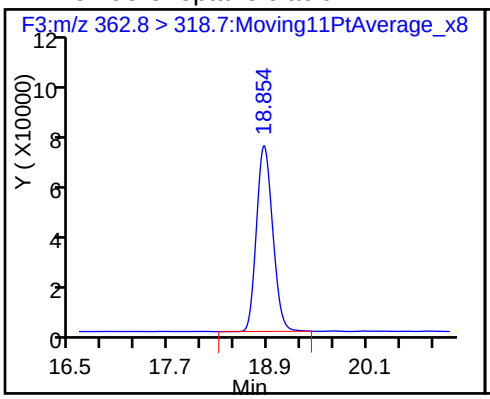
$ 2 13C2 PFHxA



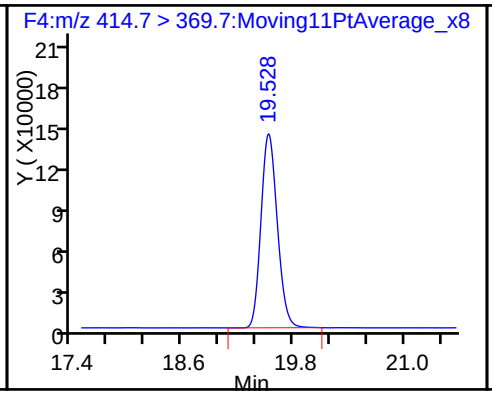
3 Perfluorohexanesulfonic acid



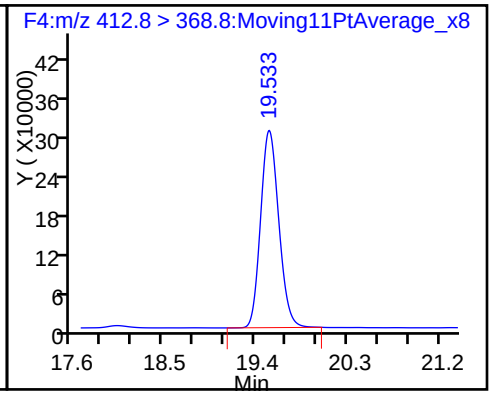
4 Perfluoroheptanoic acid



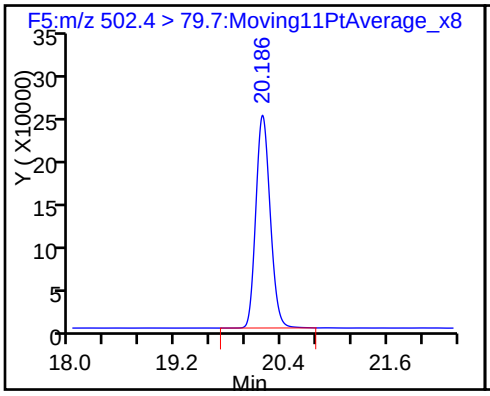
* 6 13C2-PFOA



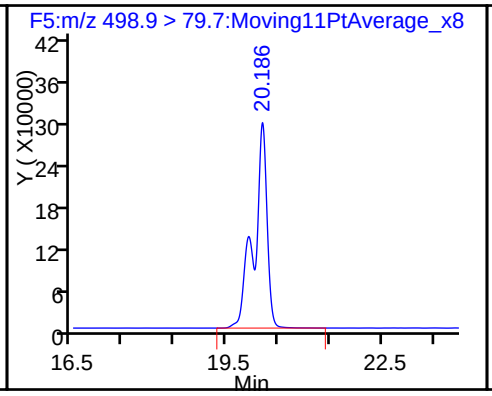
5 Perfluorooctanoic acid



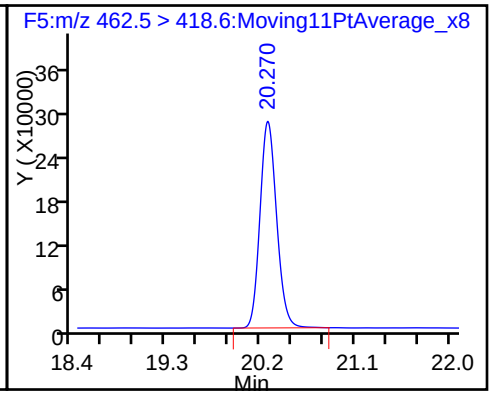
* 7 13C4 PFOS



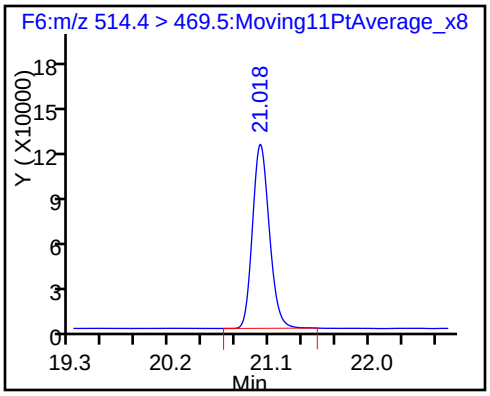
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d
Lims ID: L6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 23-Feb-2015 12:58:26 ALS Bottle#: 22 Worklist Smp#: 8
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: L6
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:16 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.045	17.040	0.005	1.000	15439070	174.8	16961	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.042	18.040	0.002	1.000	945862	9.65	1717	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.813	18.810	0.003	1.000	5296490	63.9	3727	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.853	18.854	-0.001	1.000	1150143	19.0	1036	
* 6 13C2-PFOA								
414.7 > 369.7	19.533	19.532	0.001		1589760	10.0	1282	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.533	19.533	0.0	1.000	4530322	41.6	839	
* 7 13C4 PFOS								
502.4 > 79.7	20.186	20.189	-0.003		2462354	28.7	2049	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.186	20.189	-0.003	1.000	6148598	82.9	3402	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	3588025	38.2	1665	
$ 10 13C2 PFDA								
514.4 > 469.5	21.018	21.021	-0.003	1.000	1172459	9.83	1037	

Reagents:

LC537-L6_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Injection Date: 23-Feb-2015 12:58:26 Instrument ID: A4

Lims ID: L6

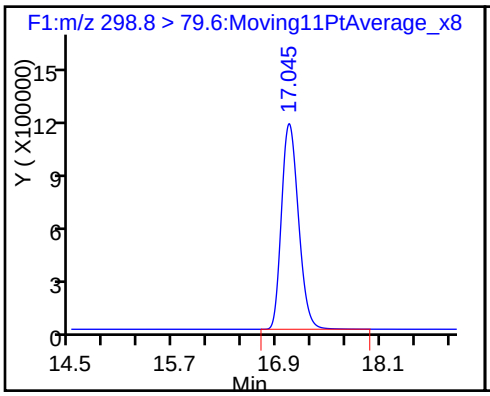
Client ID:

Operator ID: JRB ALS Bottle#: 22 Worklist Smp#: 8

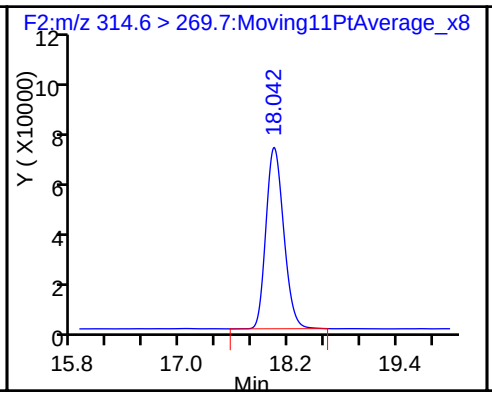
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

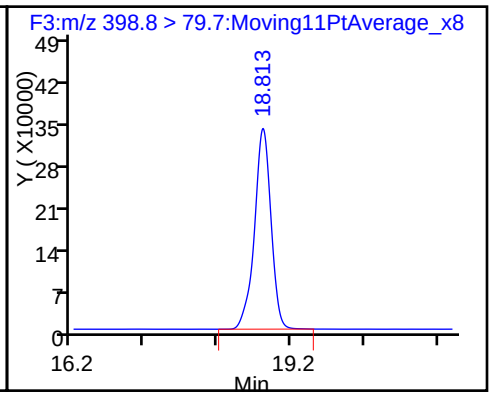
1 Perfluorobutanesulfonic acid



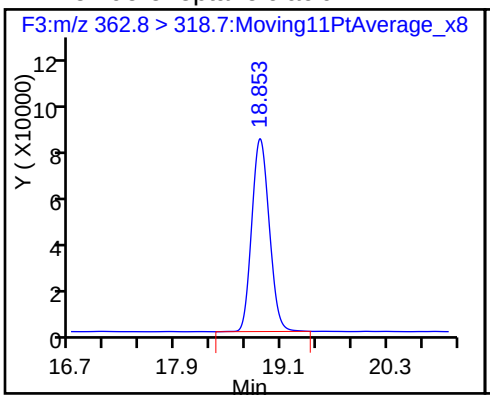
$ 2 13C2 PFHxA



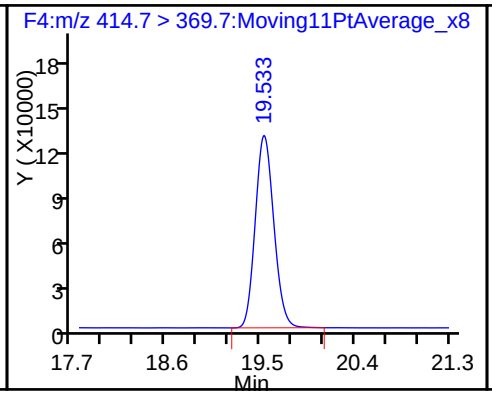
3 Perfluorohexanesulfonic acid



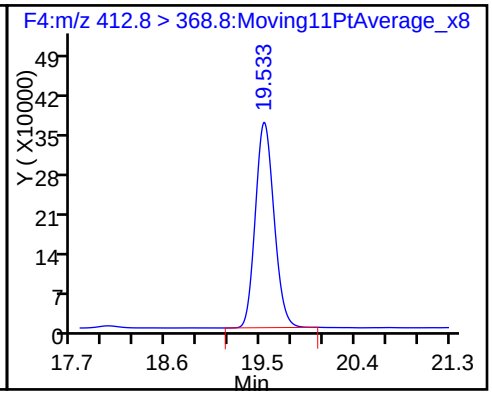
4 Perfluoroheptanoic acid



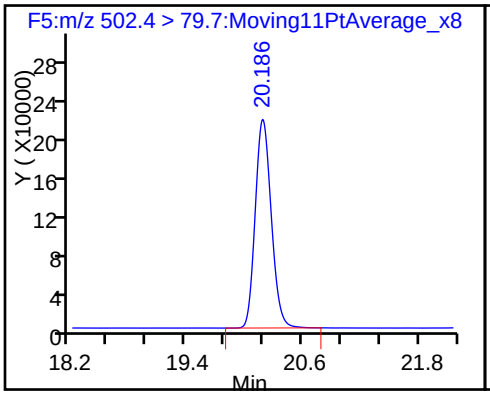
* 6 13C2-PFOA



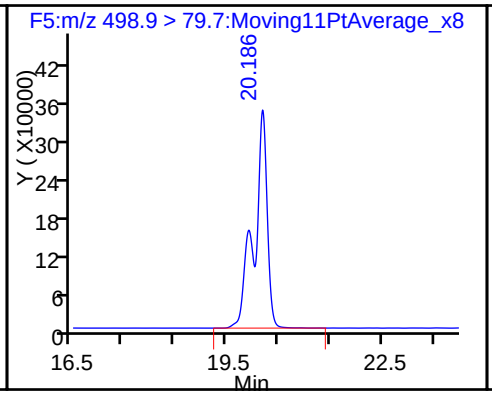
5 Perfluorooctanoic acid



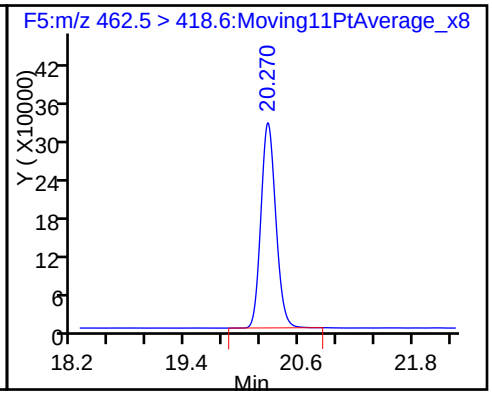
* 7 13C4 PFOS



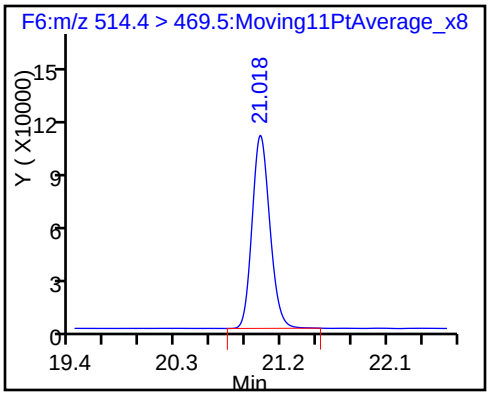
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: ICV 320-66293/10 Calibration Date: 02/23/2015 13:57

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_12.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		1.162		105	92.5	13.0	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		1.125		35.9	30.8	16.6	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.4043		10.8	10.2	6.2	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.7600		22.8	20.6	10.9	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.998		47.5	41.1	15.6	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.6192		21.6	20.5	4.9	30.0
13C2 PFHxA	Ave	0.6163	0.5636		9.14	10.0	-8.6	30.0
13C2 PFDA	Ave	0.7501	0.7517		10.0	10.0	0.2	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_12.d
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 23-Feb-2015 13:57:36 ALS Bottle#: 24 Worklist Smp#: 10
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:17 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.033	17.040	-0.007	1.000	9697038	104.5	9906	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.031	18.040	-0.009	1.000	945701	9.14	1827	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.807	18.810	-0.003	1.000	3127512	35.9	3450	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.842	18.854	-0.012	1.000	689045	10.8	621	
* 6 13C2-PFOA								
414.7 > 369.7	19.527	19.532	-0.005		1677886	10.0	1206	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.527	19.533	-0.006	1.000	2625139	22.8	609	
* 7 13C4 PFOS								
502.4 > 79.7	20.185	20.189	-0.004		2585997	28.7	2871	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.185	20.189	-0.004	1.000	3699465	47.5	1926	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	2134067	21.6	984	
$ 10 13C2 PFDA								
514.4 > 469.5	21.013	21.021	-0.008	1.000	1261310	10.0	1033	

Reagents:

LC537-ICV_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:17 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_12.d

Injection Date: 23-Feb-2015 13:57:36 Instrument ID: A4

Lims ID: ICV

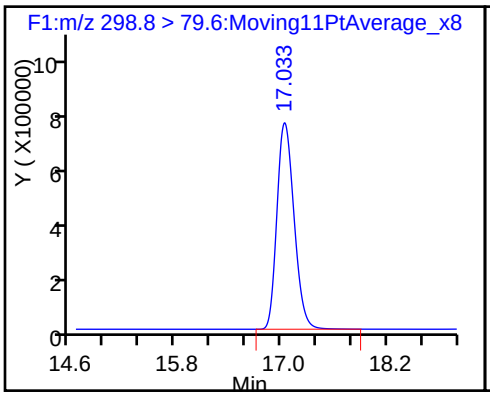
Client ID:

Operator ID: JRB ALS Bottle#: 24 Worklist Smp#: 10

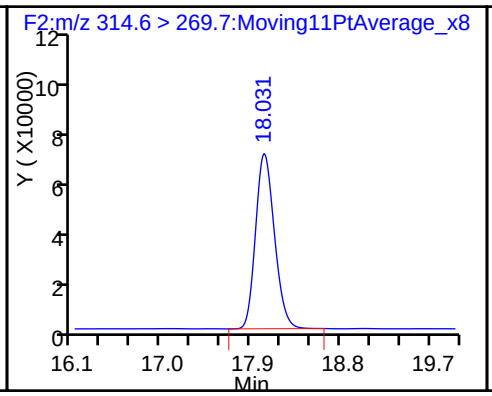
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

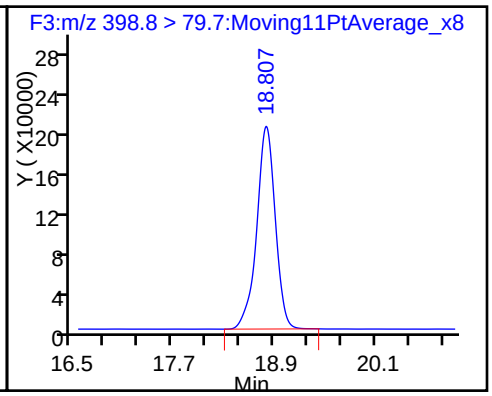
1 Perfluorobutanesulfonic acid



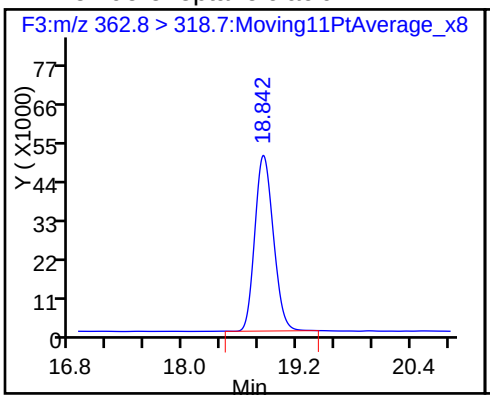
$ 2 13C2 PFHxA



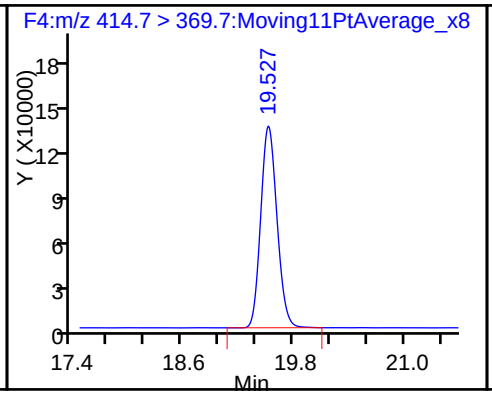
3 Perfluorohexanesulfonic acid



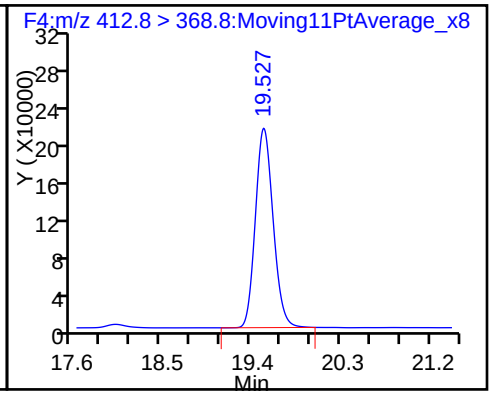
4 Perfluoroheptanoic acid



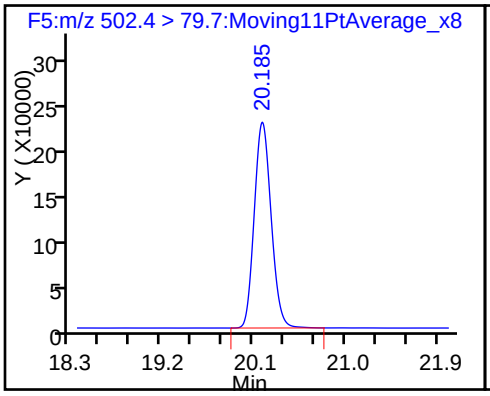
* 6 13C2-PFOA



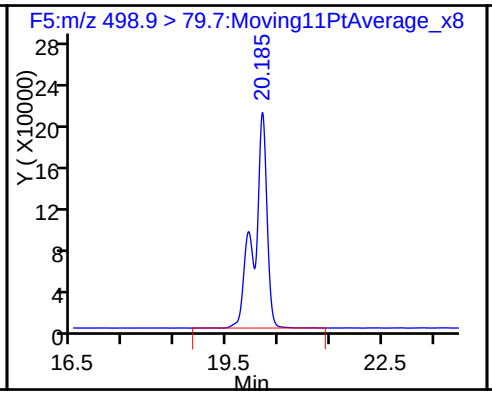
5 Perfluorooctanoic acid



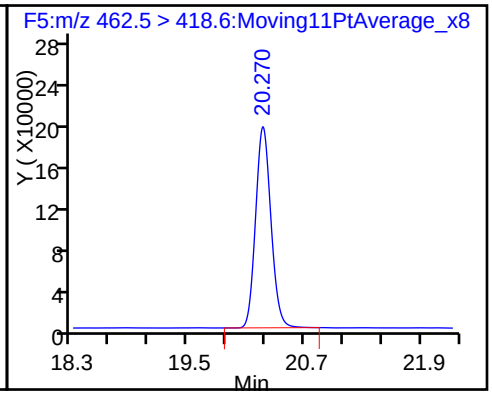
* 7 13C4 PFOS



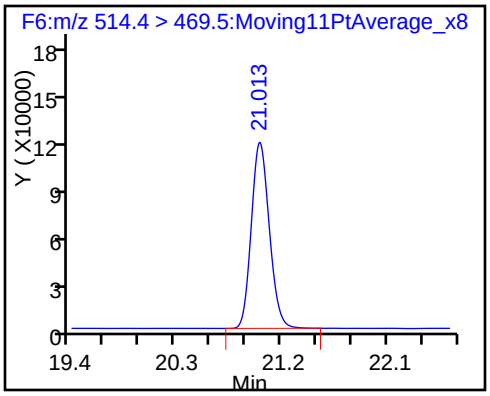
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCVL 320-66293/11 Calibration Date: 02/23/2015 14:27

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_13.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		1.029		23.3	23.3	0.0	50.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		0.9259		7.45	7.76	-4.1	50.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3907		2.63	2.56	2.6	50.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.7141		5.40	5.18	4.2	50.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8374		10.0	10.4	-3.0	50.0
Perfluorononanoic acid (PFNA)	Lin2F		0.6175		5.41	5.17	4.6	50.0
13C2 PFHxA	Ave	0.6163	0.5893		9.56	10.0	-4.4	30.0
13C2 PFDA	Ave	0.7501	0.7183		9.58	10.0	-4.2	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_13.d
Lims ID: CCVL
Client ID:
Sample Type: CCVL
Inject. Date: 23-Feb-2015 14:27:11 ALS Bottle#: 18 Worklist Smp#: 11
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCVL
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.039	17.040	-0.001	1.000	2438411	23.3	4830	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.036	18.040	-0.004	1.000	954862	9.56	1348	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.807	18.810	-0.003	1.000	730778	7.45	1104	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.853	18.854	-0.001	1.000	161934	2.63	182	
* 6 13C2-PFOA								
414.7 > 369.7	19.528	19.532	-0.004		1620353	10.0	1182	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.528	19.533	-0.005	1.000	599938	5.40	155	
* 7 13C4 PFOS								
502.4 > 79.7	20.186	20.189	-0.003		2915417	28.7	2335	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.186	20.189	-0.003	1.000	881306	10.0	473	
9 Perfluorononanoic acid								
462.5 > 418.6	20.270	20.270	0.0	1.000	517591	5.41	312	
$ 10 13C2 PFDA								
514.4 > 469.5	21.018	21.021	-0.003	1.000	1163916	9.58	1162	

Reagents:

LC537-L2_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:18 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_13.d

Injection Date: 23-Feb-2015 14:27:11 Instrument ID: A4

Lims ID: CCVL

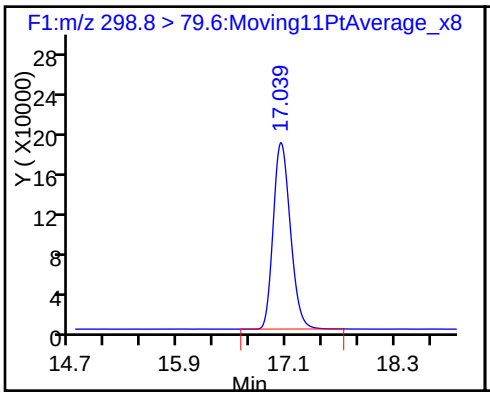
Client ID:

Operator ID: JRB ALS Bottle#: 18 Worklist Smp#: 11

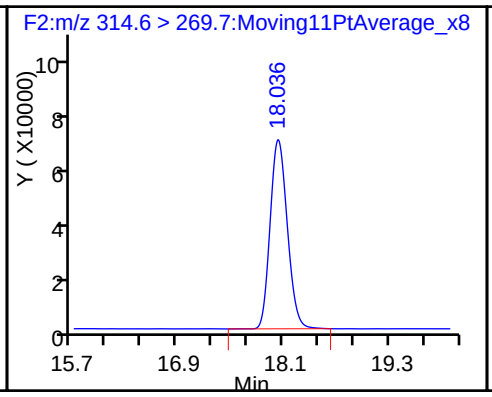
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

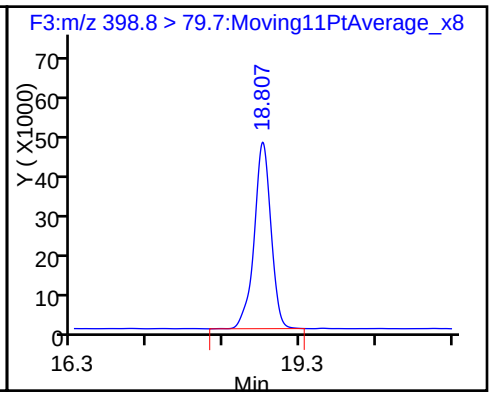
1 Perfluorobutanesulfonic acid



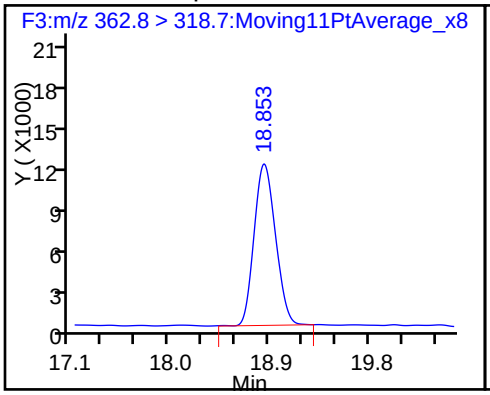
$ 2 13C2 PFHxA



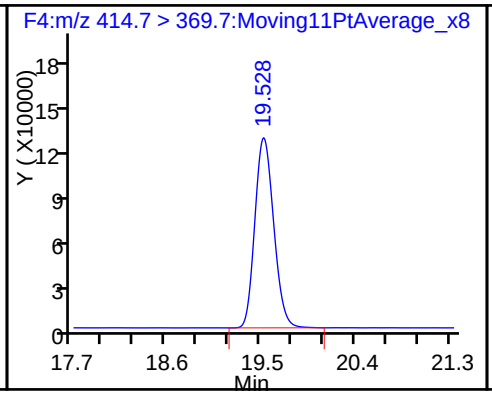
3 Perfluorohexanesulfonic acid



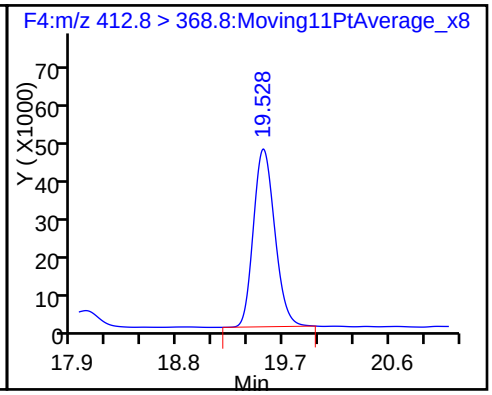
4 Perfluoroheptanoic acid



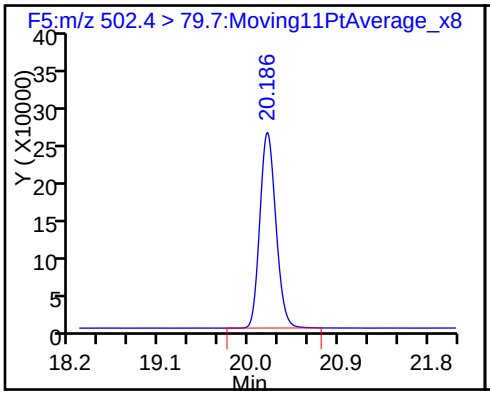
* 6 13C2-PFOA



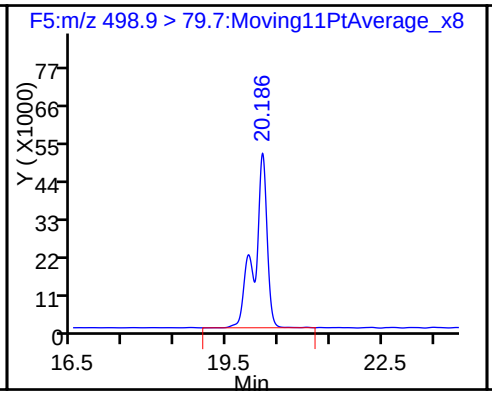
5 Perfluorooctanoic acid



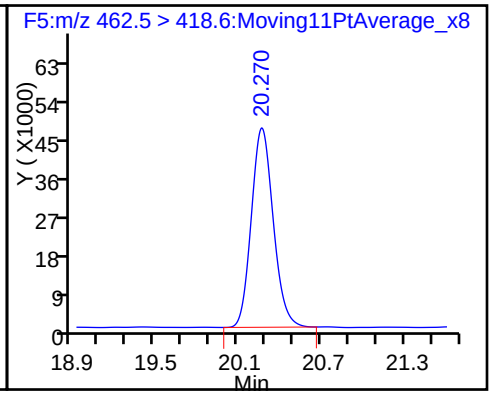
* 7 13C4 PFOS



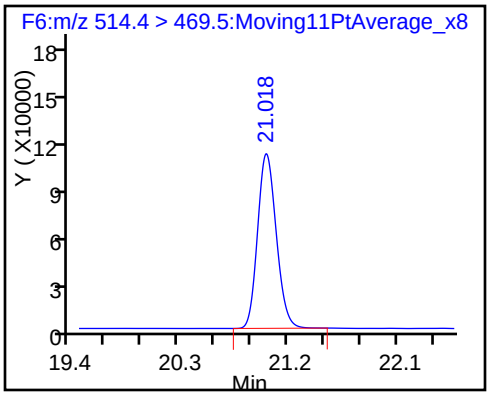
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCV 320-66293/43 Calibration Date: 02/23/2015 20:51

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_26.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		0.996		176	182	-3.1	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		1.001		62.7	60.5	3.7	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3639		19.1	19.9	-4.4	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.7006		41.3	40.4	2.2	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8950		83.6	80.7	3.6	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.5737		39.2	40.3	-2.8	30.0
13C2 PFHxA	Ave	0.6163	0.6472		10.5	10.0	5.0	30.0
13C2 PFDA	Ave	0.7501	0.7197		9.59	10.0	-4.1	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_26.d
Lims ID: CCV L6
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2015 20:51:33 ALS Bottle#: 22 Worklist Smp#: 43
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-66019/1-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:20:01 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:20:01

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.010	17.040	-0.030	1.000	16710761	176.0	13846	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.013	18.040	-0.027	1.000	1127954	10.5	1575	
3 Perfluorohexanesulfonic acid								E
398.8 > 79.7	18.778	18.810	-0.032	1.000	5589244	62.7	3920	E
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.824	18.854	-0.030	1.000	1264492	19.1	809	
* 6 13C2-PFOA								
414.7 > 369.7	19.497	19.532	-0.035		1742760	10.0	1143	
5 Perfluorooctanoic acid								E
412.8 > 368.8	19.497	19.533	-0.036	1.000	4933895	41.3	863	E
* 7 13C4 PFOS								
502.4 > 79.7	20.146	20.189	-0.043		2647510	28.7	2224	
8 Perfluorooctanoic Sulfonate								E
498.9 > 79.7	20.141	20.189	-0.048	1.000	6666822	83.6	3005	E
9 Perfluorononanoic acid								
462.5 > 418.6	20.226	20.270	-0.044	1.000	4031611	39.2	1674	
$ 10 13C2 PFDA								
514.4 > 469.5	20.969	21.021	-0.052	1.000	1254201	9.59	1032	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

LC537-L6_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:20:01 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_26.d

Injection Date: 23-Feb-2015 20:51:33 Instrument ID: A4

Lims ID: CCV L6

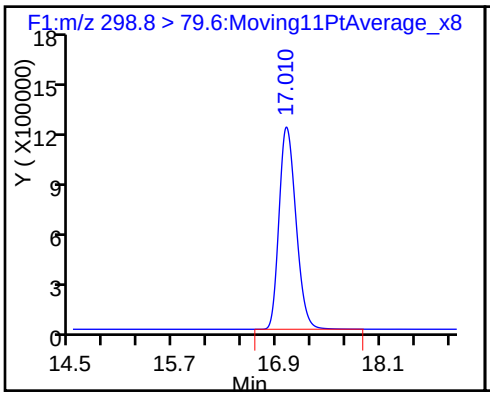
Client ID:

Operator ID: JRB ALS Bottle#: 22 Worklist Smp#: 43

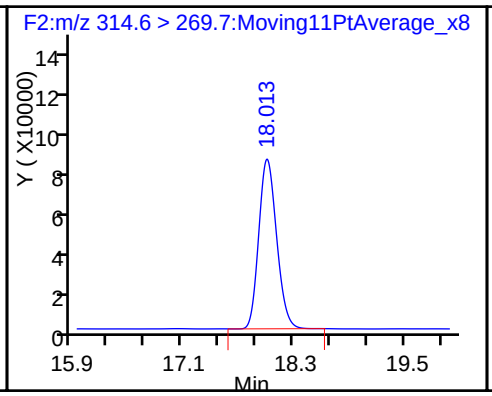
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

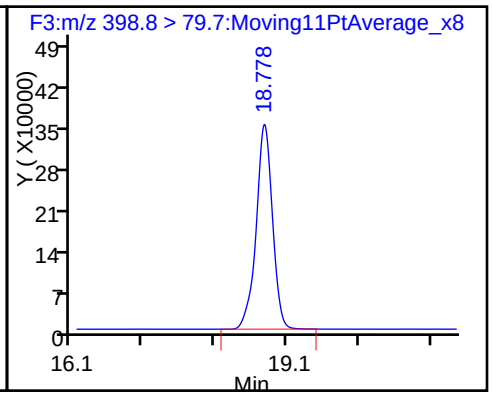
1 Perfluorobutanesulfonic acid



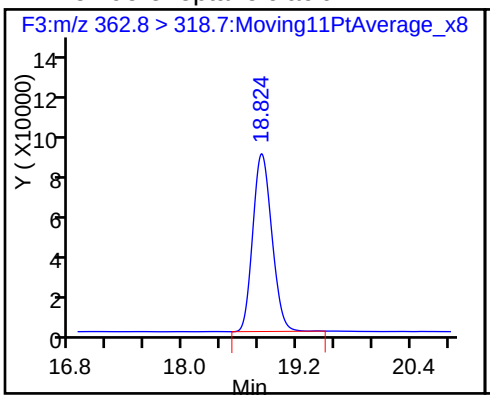
$ 2 13C2 PFHxA



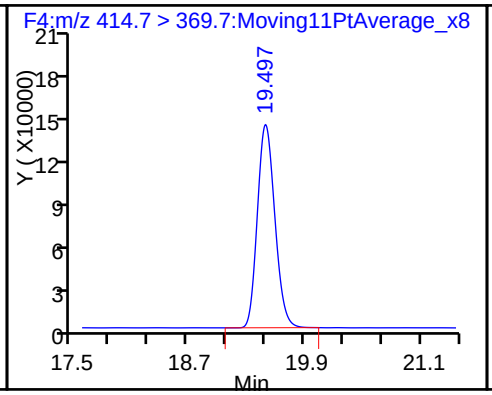
3 Perfluorohexanesulfonic acid



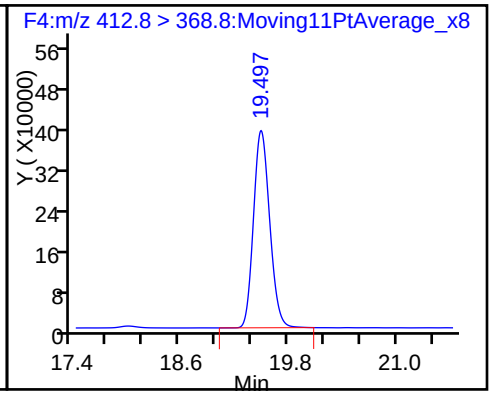
4 Perfluoroheptanoic acid



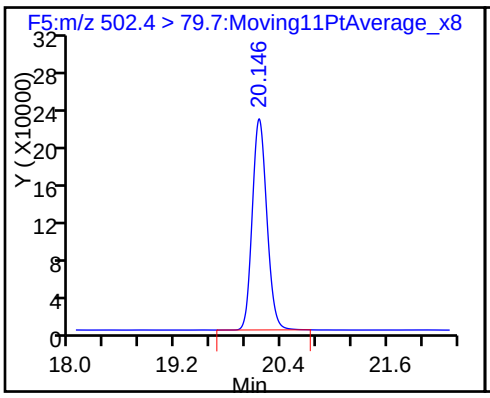
* 6 13C2-PFOA



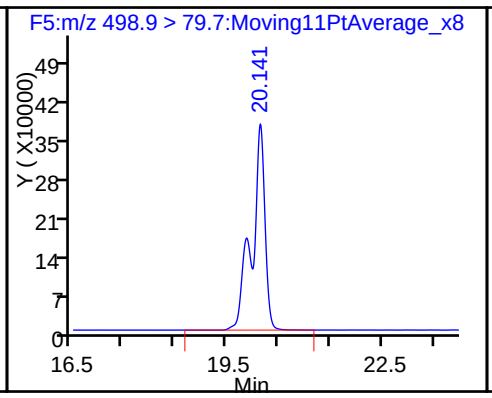
5 Perfluorooctanoic acid



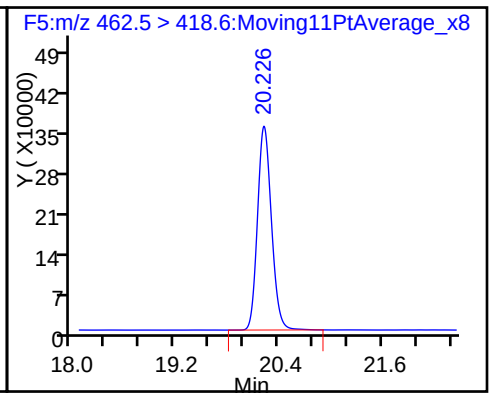
* 7 13C4 PFOS



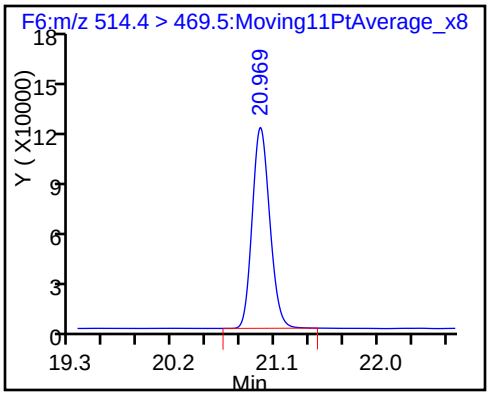
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCV 320-66293/22 Calibration Date: 02/24/2015 01:17

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_35.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		1.039		93.5	92.5	1.0	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		0.9847		31.5	30.8	2.0	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3914		10.4	10.2	2.8	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.6908		20.7	20.6	0.8	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8702		41.4	41.1	0.7	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.5826		20.3	20.5	-1.3	30.0
13C2 PFHxA	Ave	0.6163	0.7528		12.2	10.0	22.1	30.0
13C2 PFDA	Ave	0.7501	0.7515		10.0	10.0	0.2	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_35.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 24-Feb-2015 01:17:48 ALS Bottle#: 20 Worklist Smp#: 22
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-65881/1-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:22:14 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:22:14

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.004	17.040	-0.036	1.000	9500073	93.5	9090	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.001	18.040	-0.039	1.000	1334865	12.2	1521	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.778	18.810	-0.032	1.000	2998793	31.5	2933	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.813	18.854	-0.041	1.000	704973	10.4	657	
* 6 13C2-PFOA								
414.7 > 369.7	19.486	19.532	-0.046		1773304	10.0	1248	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.486	19.533	-0.047	1.000	2521933	20.7	544	
* 7 13C4 PFOS								
502.4 > 79.7	20.132	20.189	-0.057		2833335	28.7	2072	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.132	20.189	-0.057	1.000	3533879	41.4	1883	
9 Perfluorononanoic acid								
462.5 > 418.6	20.221	20.270	-0.049	1.000	2122200	20.3	1060	
$ 10 13C2 PFDA								
514.4 > 469.5	20.964	21.021	-0.057	1.000	1332636	10.0	1277	

Reagents:

LC537-L4_00009 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:22:14 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_35.d

Injection Date: 24-Feb-2015 01:17:48 Instrument ID: A4

Lims ID: CCV L4

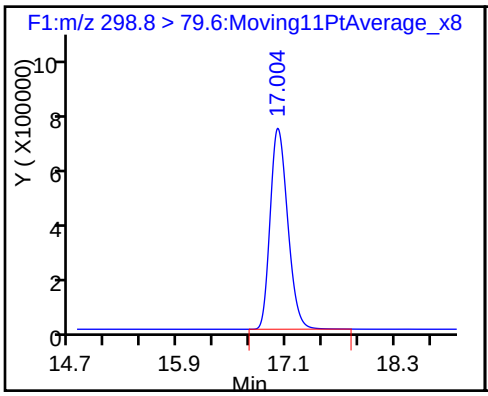
Client ID:

Operator ID: JRB ALS Bottle#: 20 Worklist Smp#: 22

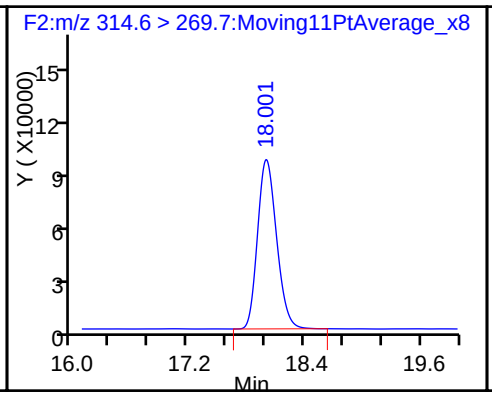
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

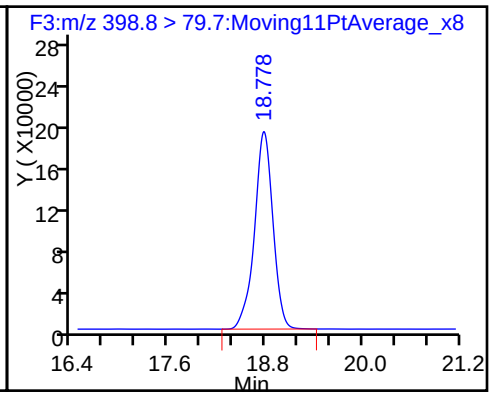
1 Perfluorobutanesulfonic acid



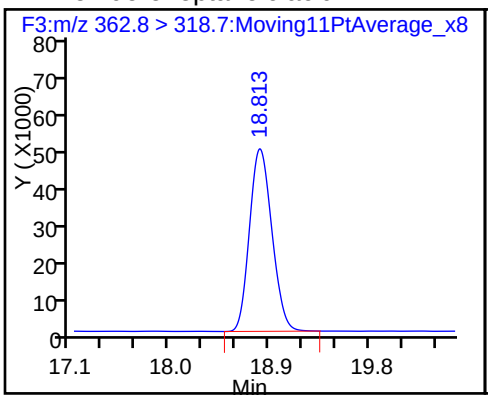
$ 2 13C2 PFHxA



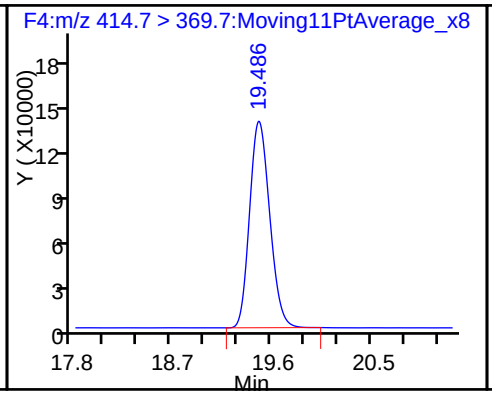
3 Perfluorohexanesulfonic acid



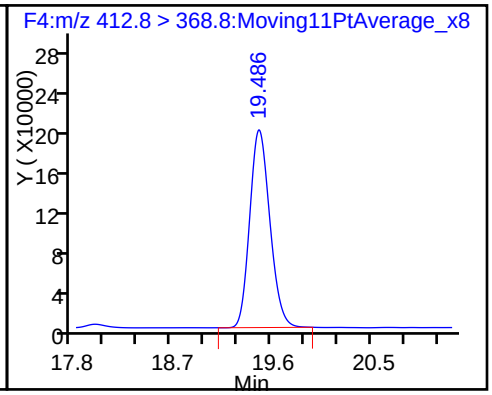
4 Perfluoroheptanoic acid



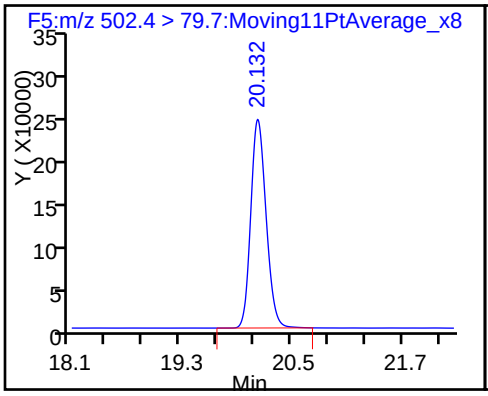
* 6 13C2-PFOA



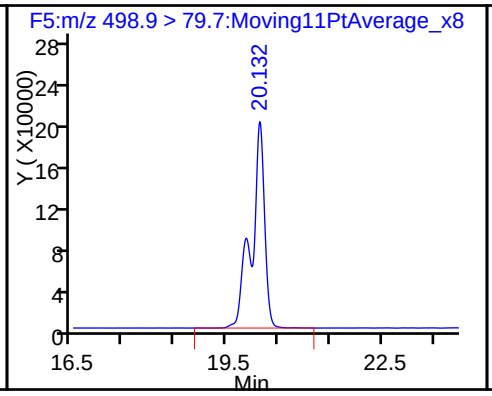
5 Perfluorooctanoic acid



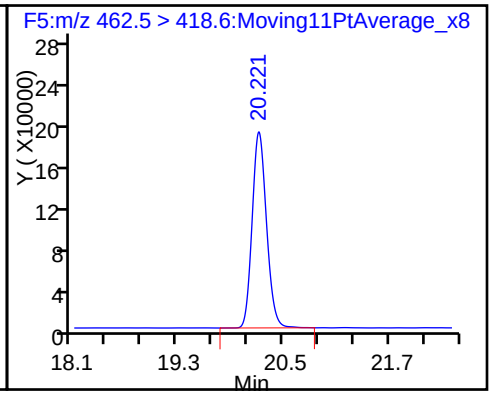
* 7 13C4 PFOS



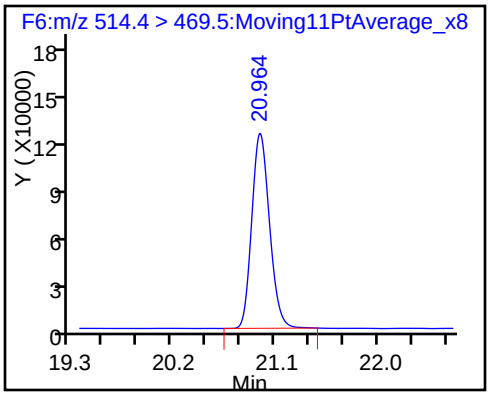
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCV 320-66293/33 Calibration Date: 02/24/2015 06:43

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_46.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		0.9791		173	182	-4.8	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		1.002		62.8	60.5	3.8	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3989		20.9	19.9	4.8	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.6955		41.0	40.4	1.5	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8920		83.3	80.7	3.3	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.5798		39.6	40.3	-1.7	30.0
13C2 PFHxA	Ave	0.6163	0.8095		13.1	10.0	31.3*	30.0
13C2 PFDA	Ave	0.7501	0.7123		9.50	10.0	-5.0	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_46.d
Lims ID: CCV L6
Client ID:
Sample Type: CCV
Inject. Date: 24-Feb-2015 06:43:13 ALS Bottle#: 22 Worklist Smp#: 33
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L6
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 12:34:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 12:34:18

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	16.998	17.040	-0.042	1.000	19778944	172.9	16012	
$ 2 13C2 PFHxA								
314.6 > 269.7	17.996	18.040	-0.044	1.000	1694724	13.1	2397	
3 Perfluorohexanesulfonic acid								E
398.8 > 79.7	18.766	18.810	-0.044	1.000	6744783	62.8	4211	E
4 Perfluoroheptanoic acid								E
362.8 > 318.7	18.807	18.854	-0.047	1.000	1665216	20.9	1102	E
* 6 13C2-PFOA								
414.7 > 369.7	19.476	19.532	-0.056		2093526	10.0	1530	
5 Perfluorooctanoic acid								E
412.8 > 368.8	19.481	19.533	-0.052	1.000	5883559	41.0	986	E
* 7 13C4 PFOS								
502.4 > 79.7	20.123	20.189	-0.066		3189323	28.7	2199	
8 Perfluorooctanoic Sulfonate								E
498.9 > 79.7	20.123	20.189	-0.066	1.000	8004578	83.3	3156	E
9 Perfluorononanoic acid								
462.5 > 418.6	20.208	20.270	-0.062	1.000	4894633	39.6	1857	
$ 10 13C2 PFDA								
514.4 > 469.5	20.955	21.021	-0.066	1.000	1491201	9.50	1191	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

LC537-L6_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 12:34:18 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_46.d

Injection Date: 24-Feb-2015 06:43:13 Instrument ID: A4

Lims ID: CCV L6

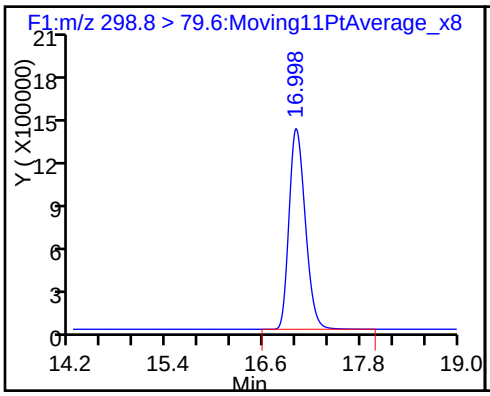
Client ID:

Operator ID: JRB ALS Bottle#: 22 Worklist Smp#: 33

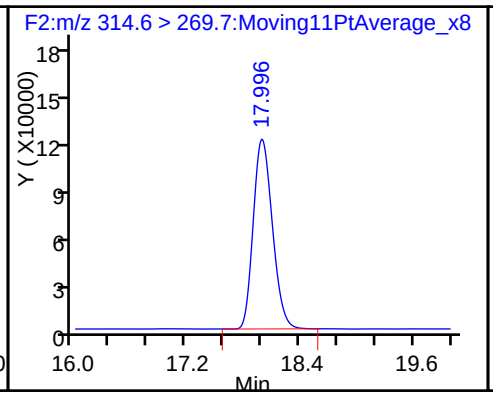
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

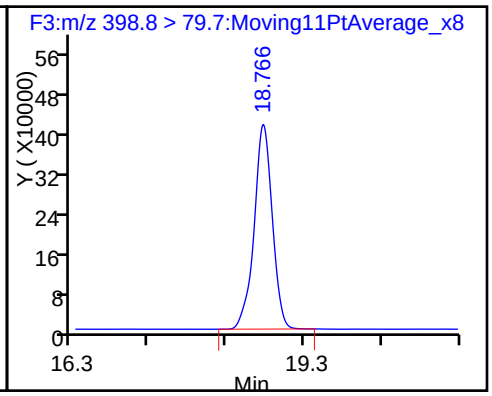
1 Perfluorobutanesulfonic acid



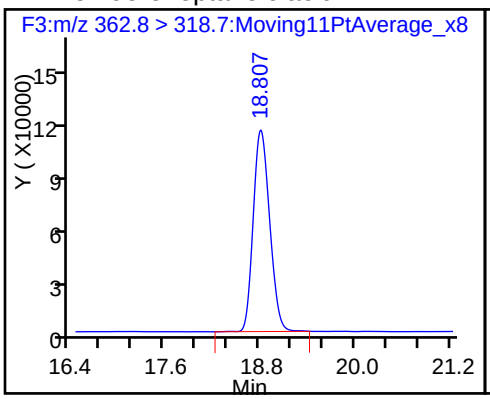
$ 2 13C2 PFHxA



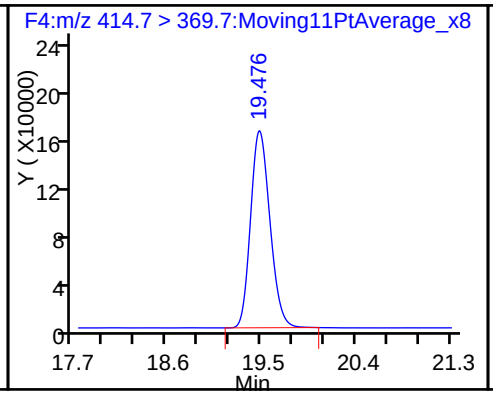
3 Perfluorohexanesulfonic acid



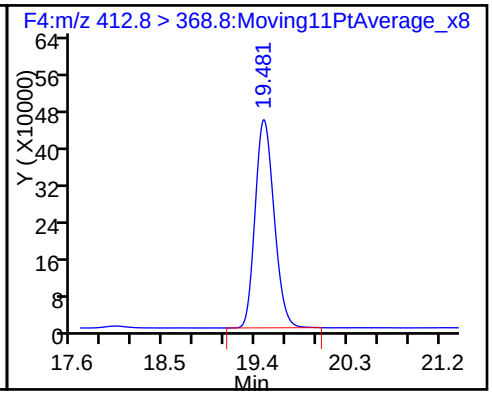
4 Perfluoroheptanoic acid



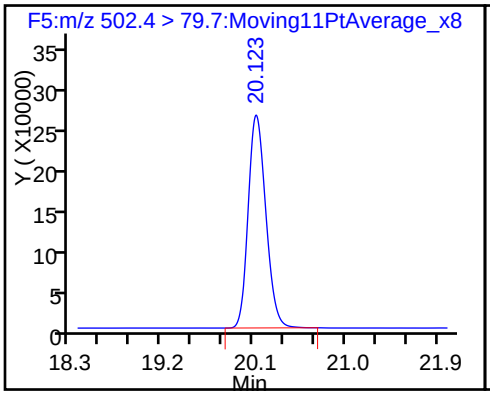
* 6 13C2-PFOA



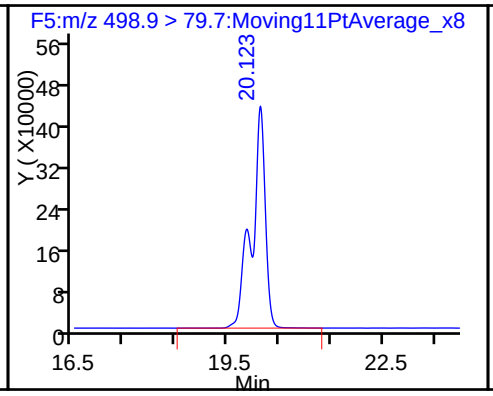
5 Perfluorooctanoic acid



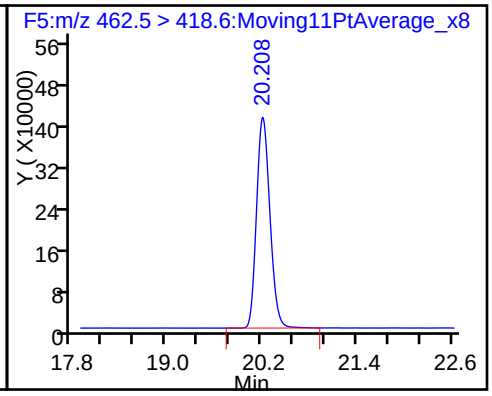
* 7 13C4 PFOS



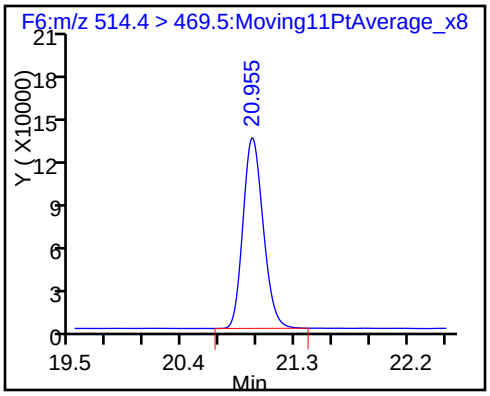
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCV 320-66293/53 Calibration Date: 02/24/2015 08:58

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_50.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		0.9857		174	182	-4.2	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		0.9905		62.1	60.5	2.6	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3735		19.6	19.9	-1.9	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.6672		39.3	40.4	-2.7	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8825		82.5	80.7	2.2	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.5721		39.1	40.3	-3.0	30.0
13C2 PFHxA	Ave	0.6163	0.7483		12.1	10.0	21.4	30.0
13C2 PFDA	Ave	0.7501	0.7331		9.77	10.0	-2.3	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_50.d
Lims ID: CCV L6
Client ID:
Sample Type: CCV
Inject. Date: 24-Feb-2015 08:58:06 ALS Bottle#: 22 Worklist Smp#: 53
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L6
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 12:35:39 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 12:35:39

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.022	17.040	-0.018	1.000	19127506	174.1	22213	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.013	18.040	-0.027	1.000	1447793	12.1	1903	
3 Perfluorohexanesulfonic acid								E
398.8 > 79.7	18.795	18.810	-0.015	1.000	6402458	62.1	4451	E
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.842	18.854	-0.012	1.000	1440716	19.6	879	
* 6 13C2-PFOA								
414.7 > 369.7	19.517	19.532	-0.015		1934667	10.0	1222	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.517	19.533	-0.016	1.000	5216550	39.3	870	
* 7 13C4 PFOS								
502.4 > 79.7	20.168	20.189	-0.021		3063581	28.7	2313	
8 Perfluorooctanoic Sulfonate								E
498.9 > 79.7	20.168	20.189	-0.021	1.000	7607037	82.5	3349	E
9 Perfluorononanoic acid								
462.5 > 418.6	20.257	20.270	-0.013	1.000	4462889	39.1	1447	
$ 10 13C2 PFDA								
514.4 > 469.5	21.000	21.021	-0.021	1.000	1418345	9.77	1120	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

LC537-L6_00008 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 12:35:39 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_50.d

Injection Date: 24-Feb-2015 08:58:06 Instrument ID: A4

Lims ID: CCV L6

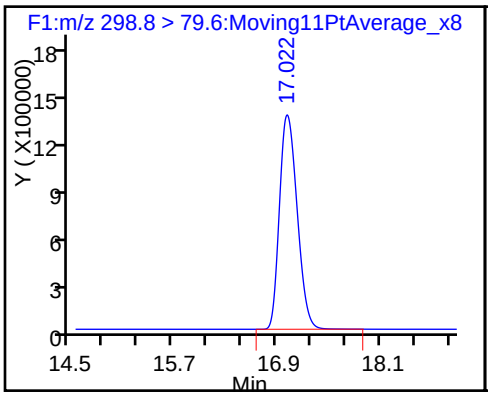
Client ID:

Operator ID: JRB ALS Bottle#: 22 Worklist Smp#: 53

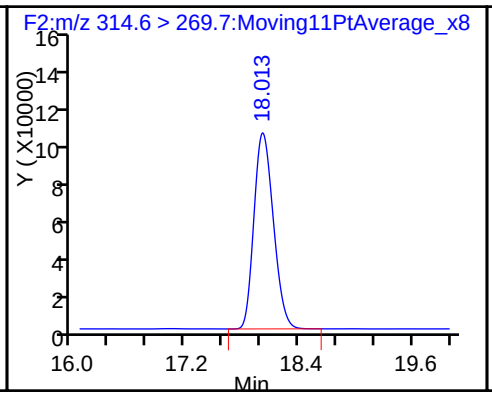
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

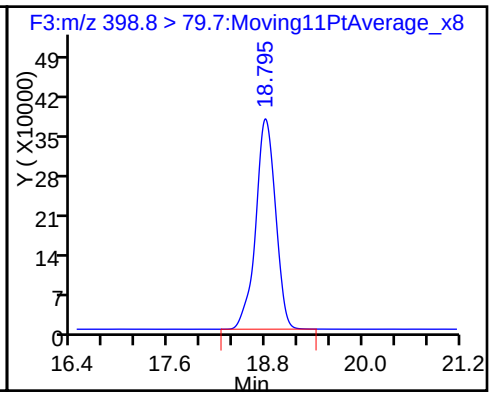
1 Perfluorobutanesulfonic acid



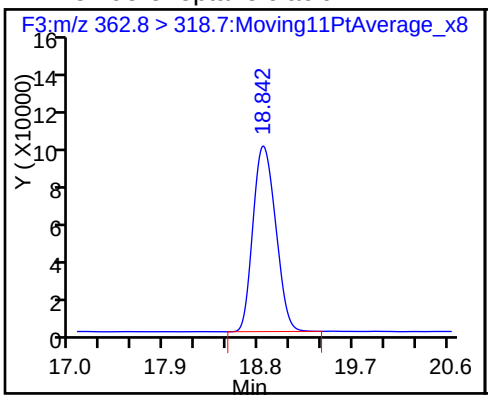
$ 2 13C2 PFHxA



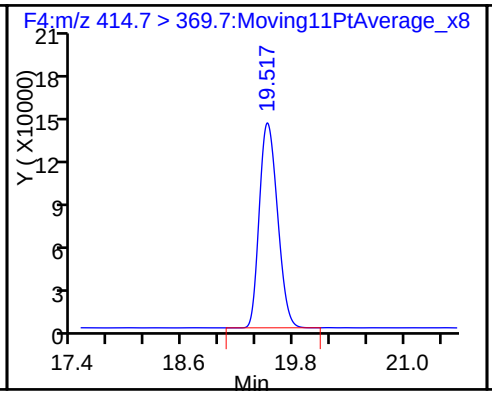
3 Perfluorohexanesulfonic acid



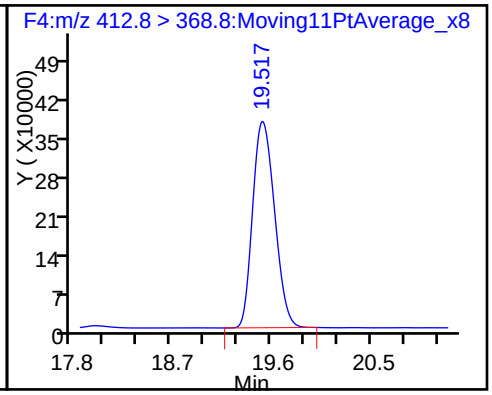
4 Perfluoroheptanoic acid



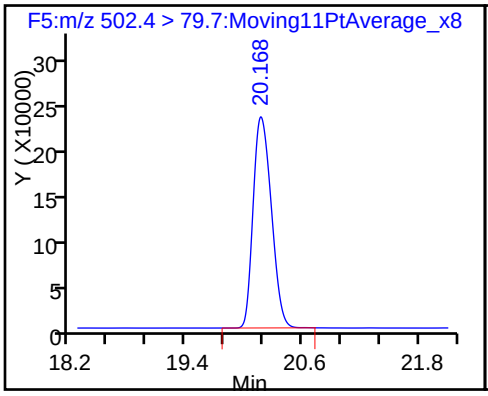
* 6 13C2-PFOA



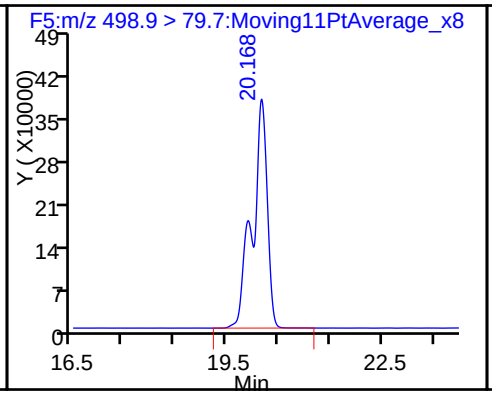
5 Perfluorooctanoic acid



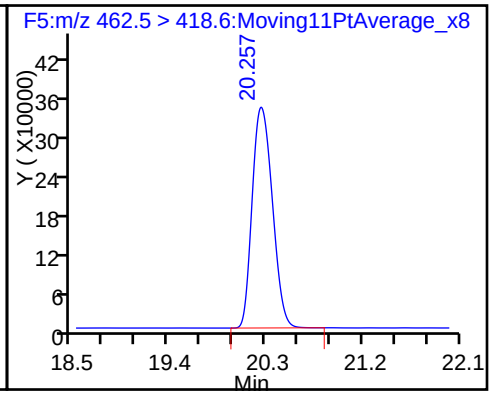
* 7 13C4 PFOS



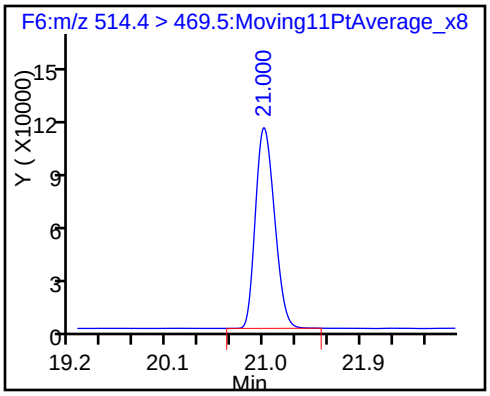
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCV 320-66293/58 Calibration Date: 02/24/2015 12:03

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_56.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		1.074		96.6	92.5	4.4	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		1.002		32.0	30.8	3.8	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3627		9.68	10.2	-4.7	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.6301		18.9	20.6	-8.1	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8783		41.8	41.1	1.7	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.5286		18.4	20.5	-10.4	30.0
13C2 PFHxA	Ave	0.6163	0.5662		9.19	10.0	-8.1	30.0
13C2 PFDA	Ave	0.7501	0.7080		9.44	10.0	-5.6	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_56.d
Lims ID: CCV L4
Client ID:
Sample Type: CCV
Inject. Date: 24-Feb-2015 12:03:48 ALS Bottle#: 20 Worklist Smp#: 58
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L4
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 12:36:53 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 12:36:52

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.010	17.040	-0.030	1.000	10243314	96.6	11375	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.007	18.040	-0.033	1.000	1068569	9.19	1511	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.789	18.810	-0.021	1.000	3184615	32.0	4110	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.836	18.854	-0.018	1.000	695217	9.68	629	
* 6 13C2-PFOA								
414.7 > 369.7	19.512	19.532	-0.020		1887175	10.0	1361	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.507	19.533	-0.026	1.000	2447779	18.9	528	
* 7 13C4 PFOS								
502.4 > 79.7	20.159	20.189	-0.030		2956382	28.7	2283	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.159	20.189	-0.030	1.000	3721642	41.8	1738	
9 Perfluorononanoic acid								
462.5 > 418.6	20.252	20.270	-0.018	1.000	2049068	18.4	1002	
$ 10 13C2 PFDA								
514.4 > 469.5	20.991	21.021	-0.030	1.000	1336105	9.44	1307	

Reagents:

LC537-L4_00009 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 12:36:53 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_56.d

Injection Date: 24-Feb-2015 12:03:48 Instrument ID: A4

Lims ID: CCV L4

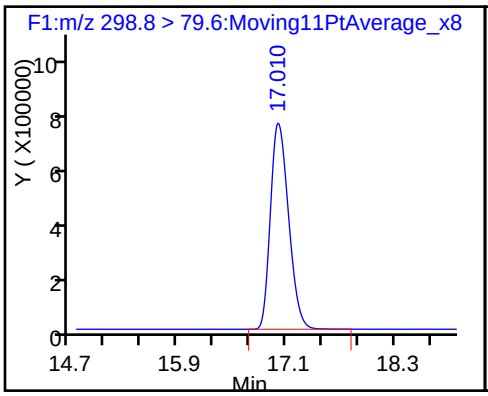
Client ID:

Operator ID: JRB ALS Bottle#: 20 Worklist Smp#: 58

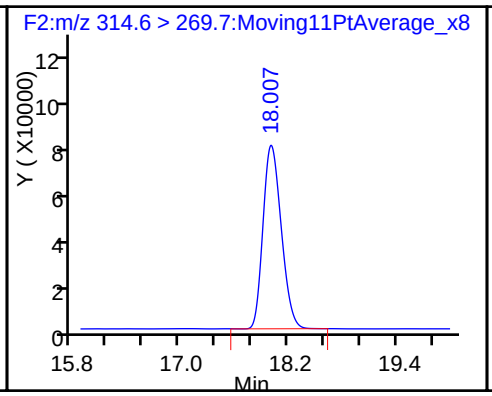
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

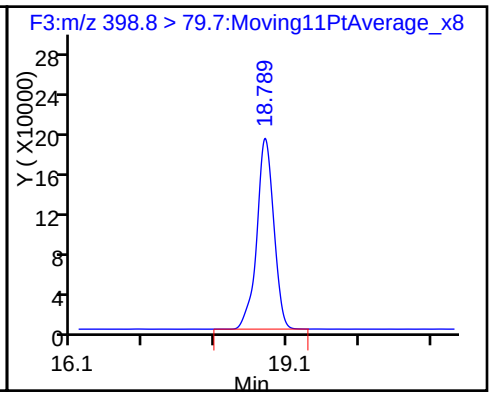
1 Perfluorobutanesulfonic acid



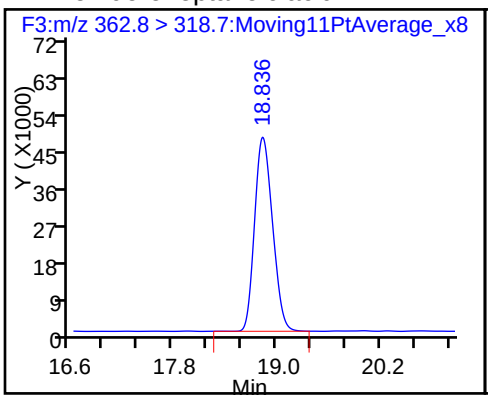
$ 2 13C2 PFHxA



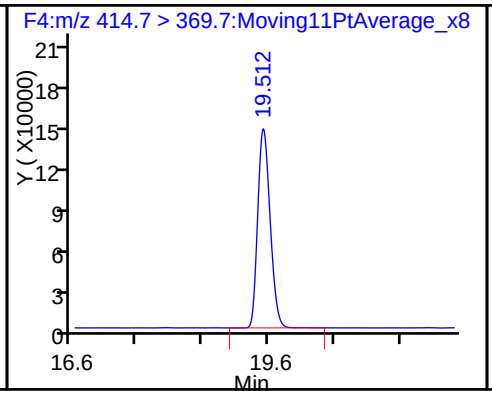
3 Perfluorohexanesulfonic acid



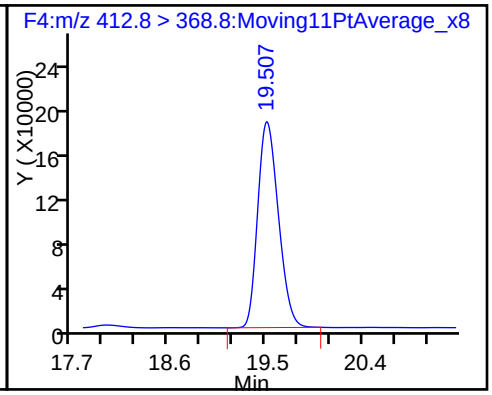
4 Perfluoroheptanoic acid



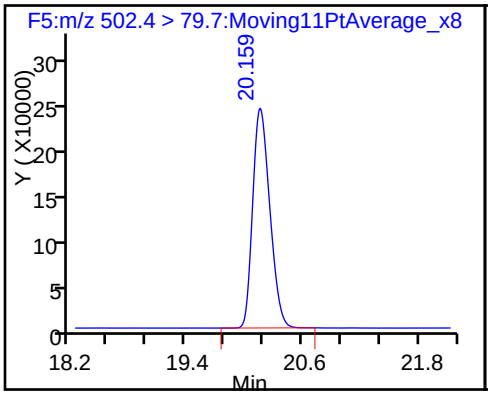
* 6 13C2-PFOA



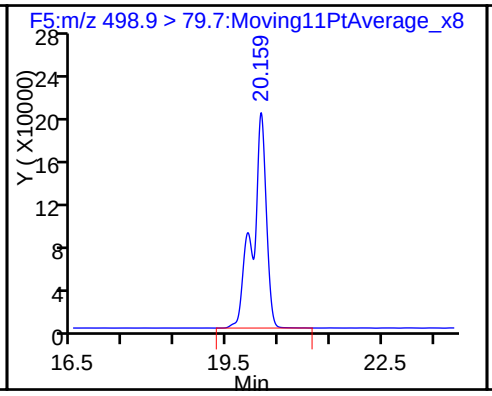
5 Perfluorooctanoic acid



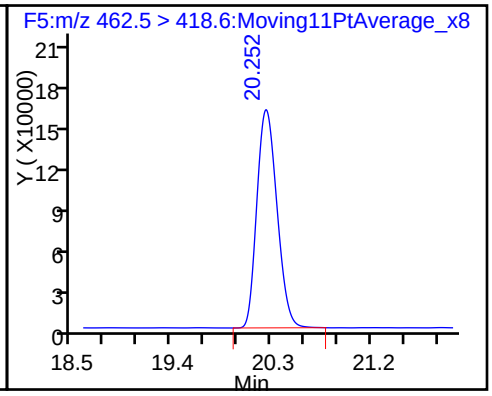
* 7 13C4 PFOS



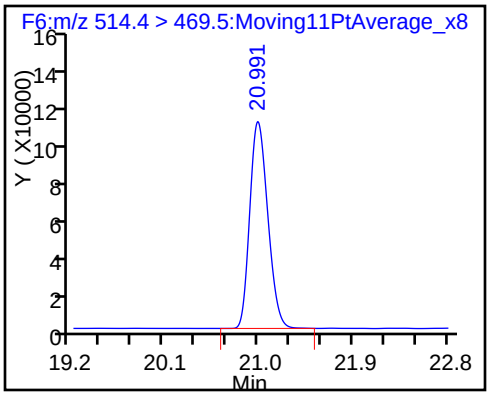
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM VII
LCMS CONTINUING CALIBRATION DATA

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Lab Sample ID: CCV 320-66293/59 Calibration Date: 02/24/2015 14:02

Instrument ID: A4 Calib Start Date: 02/23/2015 10:30

GC Column: Atlantis d-C18 ID: 2.10(mm) Calib End Date: 02/23/2015 12:58

Lab File ID: 23FEB15A4A_60.d Conc. Units: ng/mL

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Perfluorobutanesulfonic acid (PFBS)	Lin2F		1.024		181	182	-0.5	30.0
Perfluorohexanesulfonic acid(PFHxS)	Lin2F		1.019		63.9	60.5	5.6	30.0
Perfluoroheptanoic acid (PFHpA)	Lin2F		0.3599		18.8	19.9	-5.5	30.0
Perfluorooctanoic acid (PFOA)	Lin2F		0.7332		43.2	40.4	7.0	30.0
Perfluorooctane Sulfonate (PFOS)	Lin2F		0.8930		83.4	80.7	3.4	30.0
Perfluorononanoic acid (PFNA)	Lin2F		0.5803		39.7	40.3	-1.7	30.0
13C2 PFHxA	Ave	0.6163	0.5641		9.15	10.0	-8.5	30.0
13C2 PFDA	Ave	0.7501	0.7133		9.51	10.0	-4.9	30.0

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_60.d
Lims ID: CCV L6
Client ID:
Sample Type: CCV
Inject. Date: 24-Feb-2015 14:02:05 ALS Bottle#: 22 Worklist Smp#: 59
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: STD L6
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4
Sublist: chrom-537_A4*sub1

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 25-Feb-2015 07:00:15 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK022

First Level Reviewer: strumj Date: 25-Feb-2015 07:00:15

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.010	17.040	-0.030	1.000	20853308	180.8	20661	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.001	18.040	-0.039	1.000	1189632	9.15	2139	
3 Perfluorohexanesulfonic acid								E
398.8 > 79.7	18.789	18.810	-0.021	1.000	6914483	63.9	7210	E
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.836	18.854	-0.018	1.000	1513313	18.8	1126	
* 6 13C2-PFOA								
414.7 > 369.7	19.512	19.532	-0.020		2108859	10.0	1353	
5 Perfluorooctanoic acid								E
412.8 > 368.8	19.512	19.533	-0.021	1.000	6248220	43.2	1005	E
* 7 13C4 PFOS								
502.4 > 79.7	20.168	20.189	-0.021		3216323	28.7	2950	
8 Perfluorooctanoic Sulfonate								E
498.9 > 79.7	20.168	20.189	-0.021	1.000	8081280	83.4	3672	E
9 Perfluorononanoic acid								
462.5 > 418.6	20.248	20.270	-0.022	1.000	4934763	39.7	2083	
$ 10 13C2 PFDA								
514.4 > 469.5	20.991	21.021	-0.030	1.000	1504155	9.51	1280	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

Reagents:

LC537-L6_00008 Amount Added: 1.00 Units: mL

Report Date: 25-Feb-2015 07:00:15 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_60.d

Injection Date: 24-Feb-2015 14:02:05 Instrument ID: A4

Lims ID: CCV L6

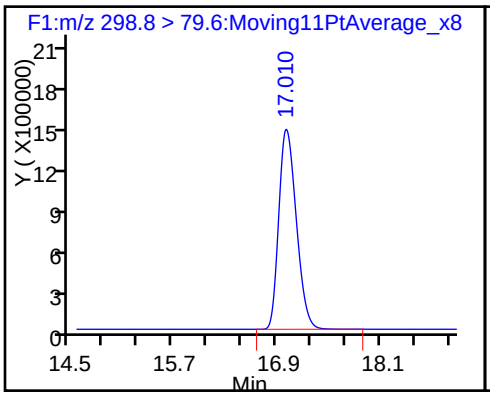
Client ID:

Operator ID: JRB ALS Bottle#: 22 Worklist Smp#: 59

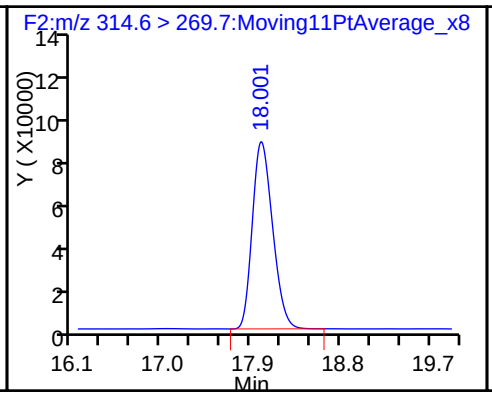
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

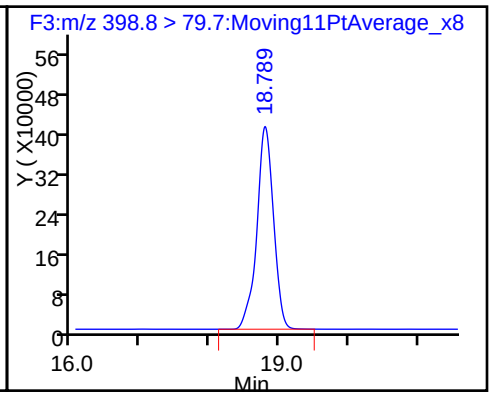
1 Perfluorobutanesulfonic acid



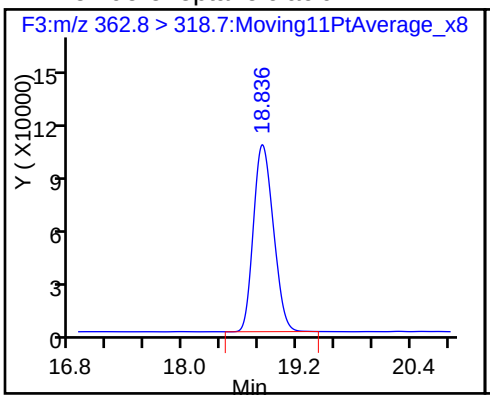
$ 2 13C2 PFHxA



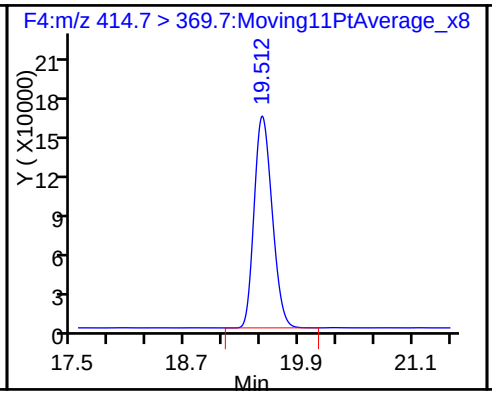
3 Perfluorohexanesulfonic acid



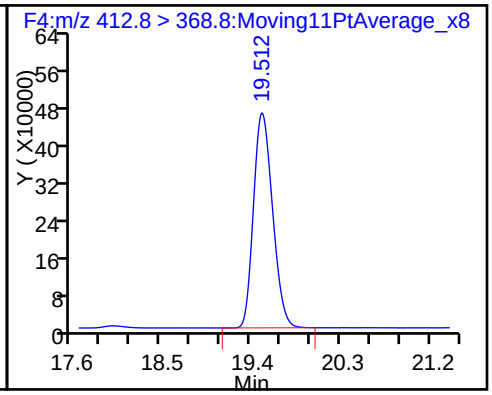
4 Perfluoroheptanoic acid



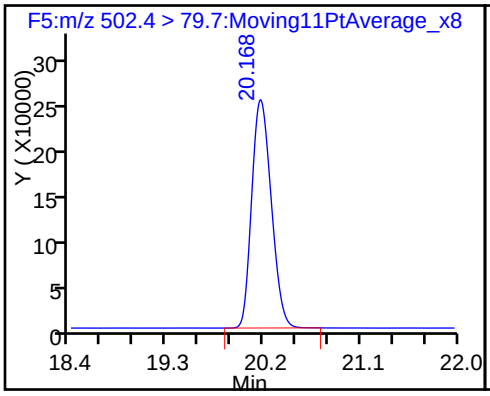
* 6 13C2-PFOA



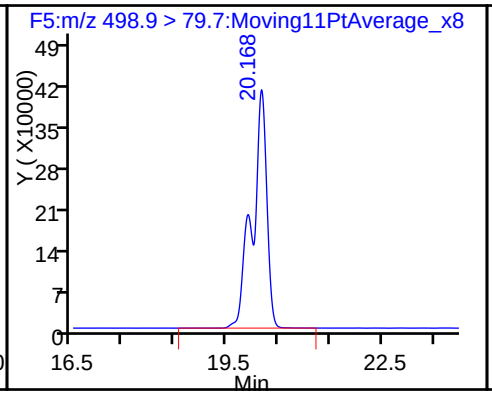
5 Perfluorooctanoic acid



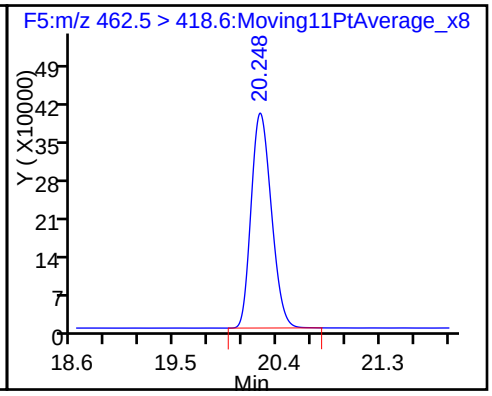
* 7 13C4 PFOS



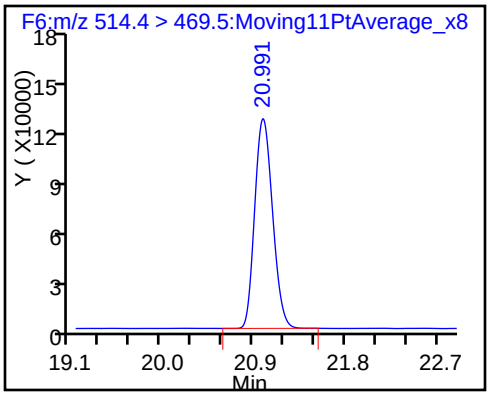
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID:
Lab Sample ID: MB 320-65881/1-A
Matrix: Water
Lab File ID: 23FEB15A4A_42.d
Analysis Method: 537
Date Collected:
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 250(mL)
Date Analyzed: 02/24/2015 04:44
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 1
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.040	0.016
335-67-1	Perfluorooctanoic acid (PFOA)	ND		0.020	0.0094
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.020	0.011
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.030	0.012
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.010	0.0046
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.090	0.048

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	112		70-130
STL00996	13C2 PFDA	94		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_42.d
Lims ID: MB 320-65881/1-A
Client ID:
Sample Type: MB
Inject. Date: 24-Feb-2015 04:44:56 ALS Bottle#: 17 Worklist Smp#: 29
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: MB 320-65881/1-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:23:00 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:23:59

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
$ 2 13C2 PFHxA								
314.6 > 269.7	18.001	18.040	-0.039	1.000	1488680	11.2	2089	
* 6 13C2-PFOA								
414.7 > 369.7	19.486	19.532	-0.046		2154957	10.0	1537	
* 7 13C4 PFOS								
502.4 > 79.7	20.132	20.189	-0.057		3445963	28.7	2903	
$ 10 13C2 PFDA								
514.4 > 469.5	20.960	21.021	-0.061	1.000	1521579	9.41	1292	

Report Date: 24-Feb-2015 07:23:59 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_42.d

Injection Date: 24-Feb-2015 04:44:56 Instrument ID: A4

Lims ID: MB 320-65881/1-A

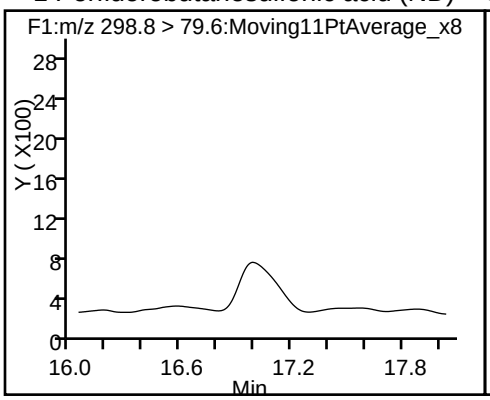
Client ID:

Operator ID: JRB ALS Bottle#: 17 Worklist Smp#: 29

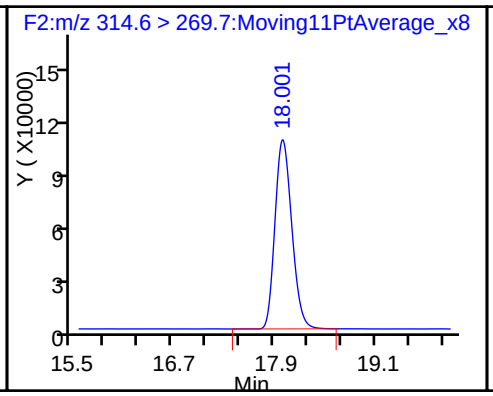
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

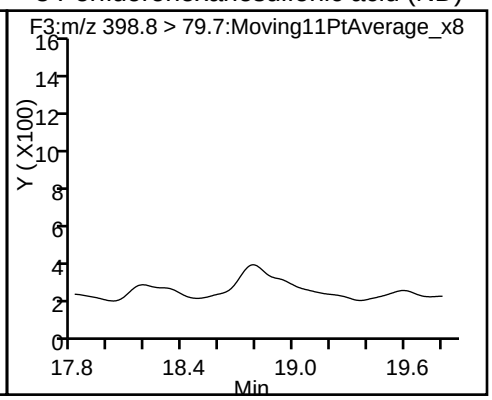
1 Perfluorobutanesulfonic acid (ND)



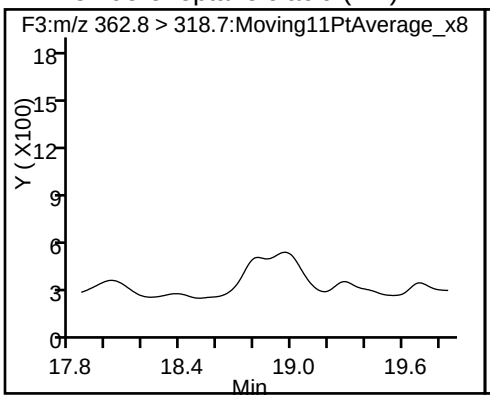
$ 2 13C2 PFHxA



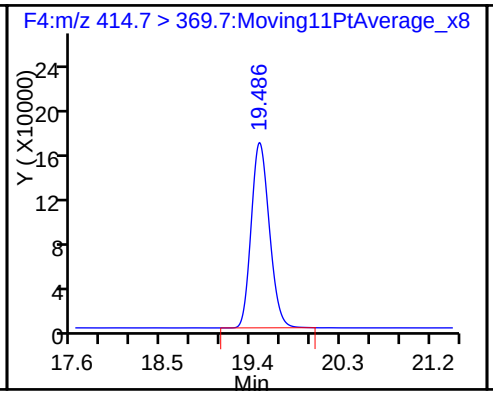
3 Perfluorohexanesulfonic acid (ND)



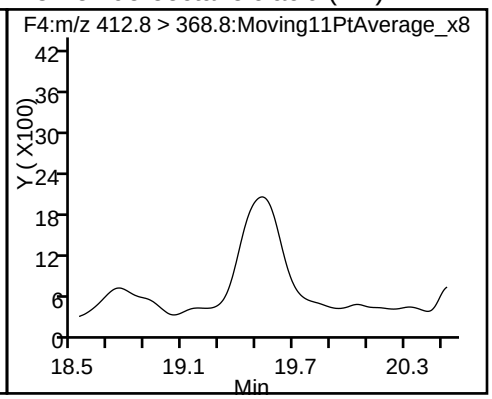
4 Perfluoroheptanoic acid (ND)



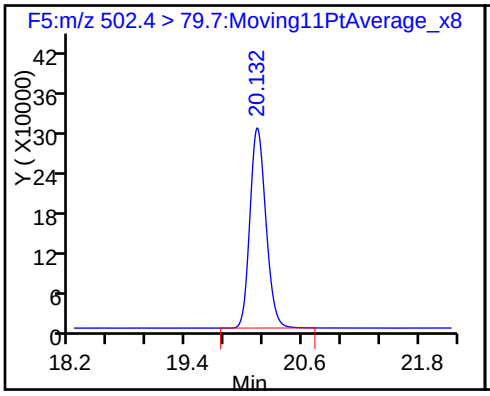
* 6 13C2-PFOA



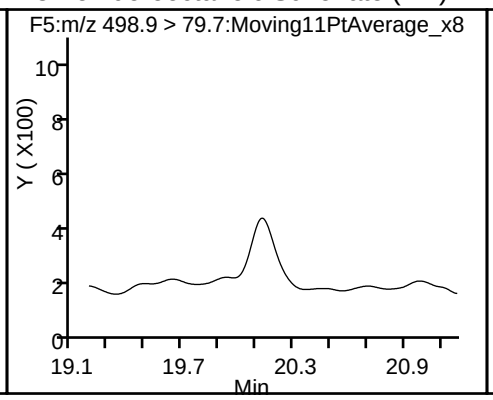
5 Perfluorooctanoic acid (ND)



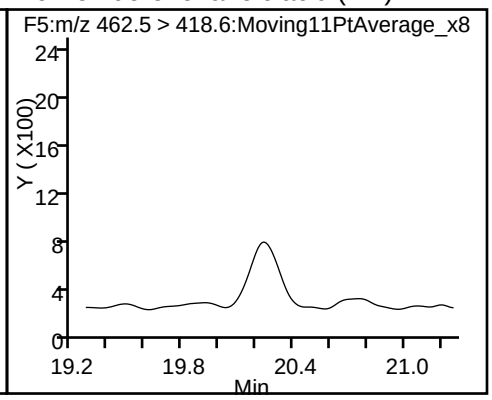
* 7 13C4 PFOS



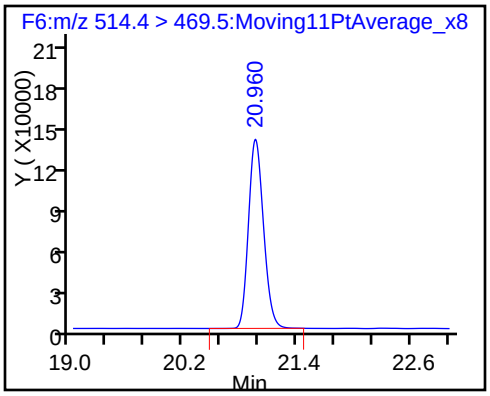
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID:
Lab Sample ID: CCB 320-66293/9
Matrix: Water
Lab File ID: 23FEB15A4A_11.d
Analysis Method: 537
Date Collected:
Extraction Method:
Date Extracted:
Sample wt/vol: 1(mL)
Date Analyzed: 02/23/2015 13:28
Con. Extract Vol.:
Dilution Factor: 1
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ng/mL

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		10	0.26
335-67-1	Perfluorooctanoic acid (PFOA)	ND		5.0	0.10
375-95-1	Perfluorononanoic acid (PFNA)	ND		5.0	0.32
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		7.5	0.43
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		2.5	0.16
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.283	J	23	0.080

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA			
STL00996	13C2 PFDA			

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_11.d
Lims ID: CCB
Client ID:
Sample Type: CCB
Inject. Date: 23-Feb-2015 13:28:01 ALS Bottle#: 23 Worklist Smp#: 9
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: CCB
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:16 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.033	17.040	-0.007	1.000	32610	0.2835	42.0	
* 6 13C2-PFOA								
414.7 > 369.7	19.533	19.532	0.001		1847385	10.0	1288	
* 7 13C4 PFOS								
502.4 > 79.7	20.190	20.189	0.001		3207484	28.7	2153	

Reagents:

LC537-L9_00005 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2015 07:01:16 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_11.d

Injection Date: 23-Feb-2015 13:28:01 Instrument ID: A4

Lims ID: CCB

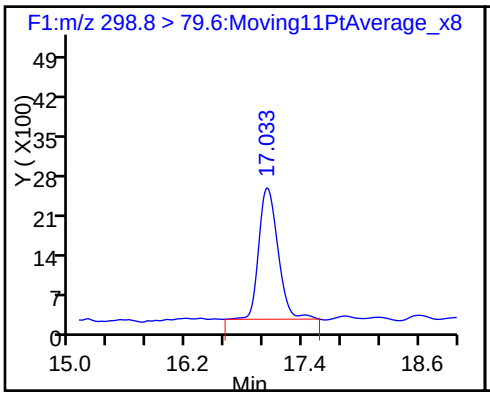
Client ID:

Operator ID: JRB ALS Bottle#: 23 Worklist Smp#: 9

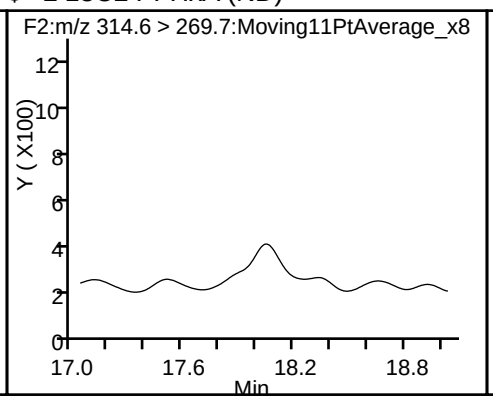
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

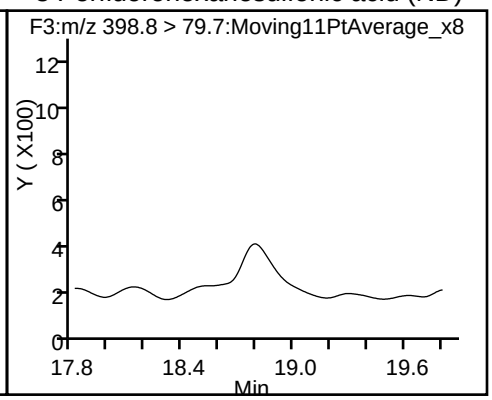
1 Perfluorobutanesulfonic acid



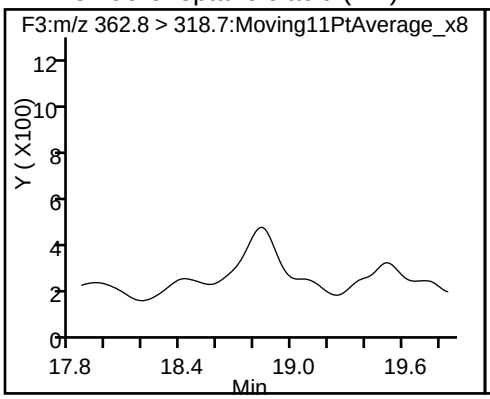
$ 2 13C2 PFHxA (ND)



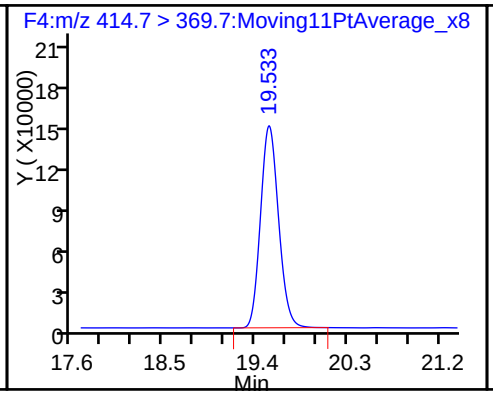
3 Perfluorohexanesulfonic acid (ND)



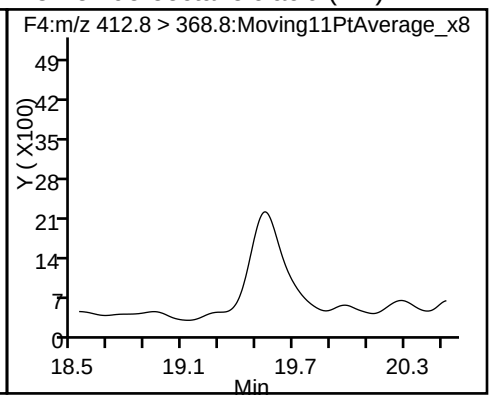
4 Perfluoroheptanoic acid (ND)



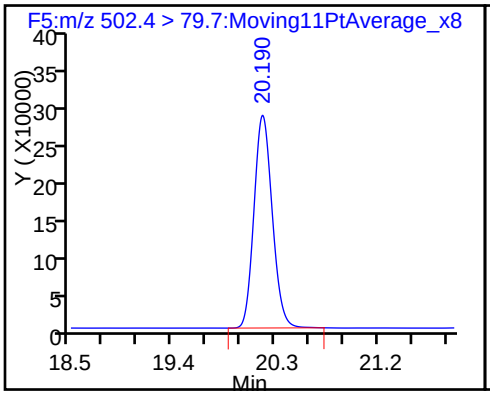
* 6 13C2-PFOA



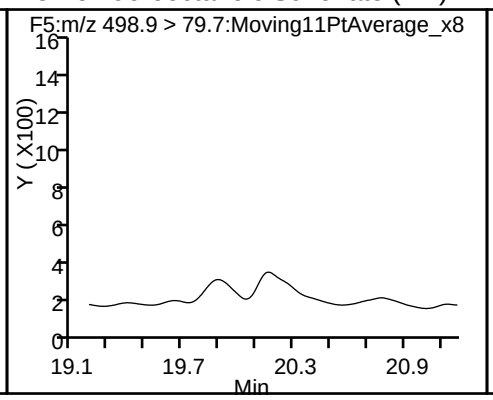
5 Perfluorooctanoic acid (ND)



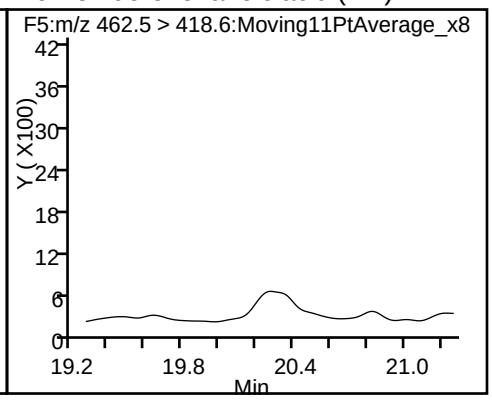
* 7 13C4 PFOS



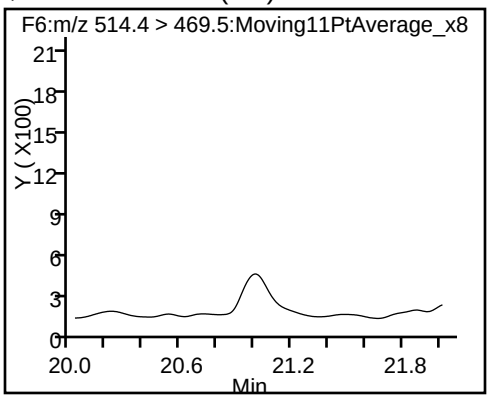
8 Perfluorooctanoic Sulfonate (ND)



9 Perfluorononanoic acid (ND)



$ 10 13C2 PFDA (ND)



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento
Job No.: 320-11644-1
SDG No.:
Client Sample ID:
Lab Sample ID: LCS 320-65881/2-A
Matrix: Water
Lab File ID: 23FEB15A4A_43.d
Analysis Method: 537
Date Collected:
Extraction Method: 537
Date Extracted: 02/18/2015 09:18
Sample wt/vol: 250(mL)
Date Analyzed: 02/24/2015 05:14
Con. Extract Vol.: 1.00(mL)
Dilution Factor: 1
Injection Volume: 10(uL)
GC Column: Atlantis d-C18 ID: 2.1(mm)
% Moisture:
GPC Cleanup:(Y/N) N
Analysis Batch No.: 66293
Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	0.157		0.040	0.016
335-67-1	Perfluorooctanoic acid (PFOA)	0.0741		0.020	0.0094
375-95-1	Perfluorononanoic acid (PFNA)	0.0796		0.020	0.011
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	0.118		0.030	0.012
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.0380		0.010	0.0046
375-73-5	Perfluorobutanesulfonic acid (PFBS)	0.317		0.090	0.048

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	120		70-130
STL00996	13C2 PFDA	93		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_43.d
Lims ID: LCS 320-65881/2-A
Client ID:
Sample Type: LCS
Inject. Date: 24-Feb-2015 05:14:30 ALS Bottle#: 18 Worklist Smp#: 30
Injection Vol: 10.0 ul Dil. Factor: 1.0000
Sample Info: LCS 320-65881/2-A
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:24:49 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:24:12

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.004	17.040	-0.036	1.000	9732986	79.2	10887	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.001	18.040	-0.039	1.000	1540424	12.0	1763	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.772	18.810	-0.038	1.000	3405962	29.5	3209	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.813	18.854	-0.041	1.000	756914	9.51	478	
* 6 13C2-PFOA								
414.7 > 369.7	19.486	19.532	-0.046		2090988	10.0	1391	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.486	19.533	-0.047	1.000	2653848	18.5	697	
* 7 13C4 PFOS								
502.4 > 79.7	20.132	20.189	-0.057		3426314	28.7	2366	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.132	20.189	-0.057	1.000	4044056	39.2	2087	
9 Perfluorononanoic acid								
462.5 > 418.6	20.217	20.270	-0.053	1.000	2455960	19.9	1306	
$ 10 13C2 PFDA								
514.4 > 469.5	20.955	21.021	-0.066	1.000	1455265	9.28	1422	

Report Date: 24-Feb-2015 07:28:25 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_43.d

Injection Date: 24-Feb-2015 05:14:30 Instrument ID: A4

Lims ID: LCS 320-65881/2-A

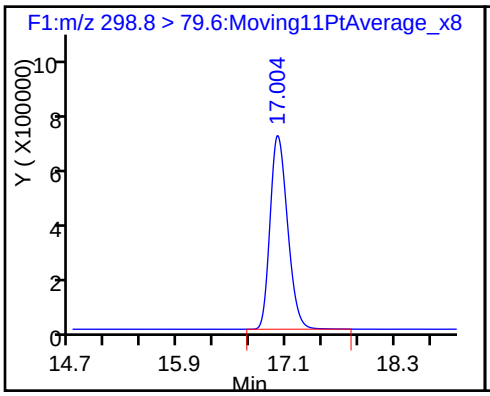
Client ID:

Operator ID: JRB ALS Bottle#: 18 Worklist Smp#: 30

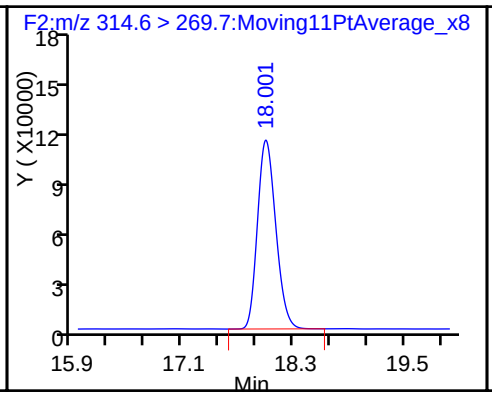
Injection Vol: 10.0 ul Dil. Factor: 1.0000

Method: 537_A4 Limit Group: LC 537 ICAL

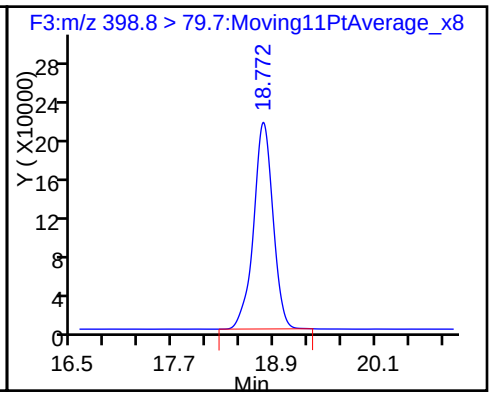
1 Perfluorobutanesulfonic acid



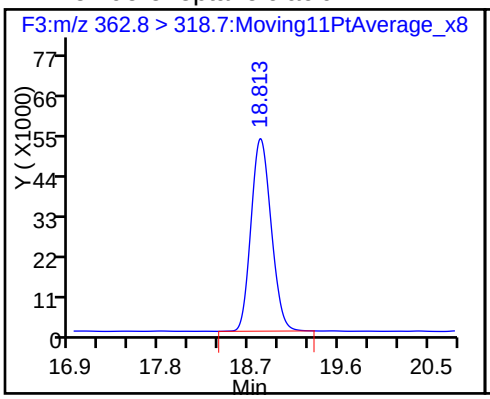
$ 2 13C2 PFHxA



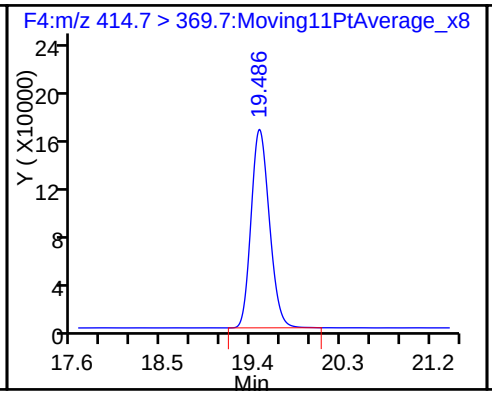
3 Perfluorohexanesulfonic acid



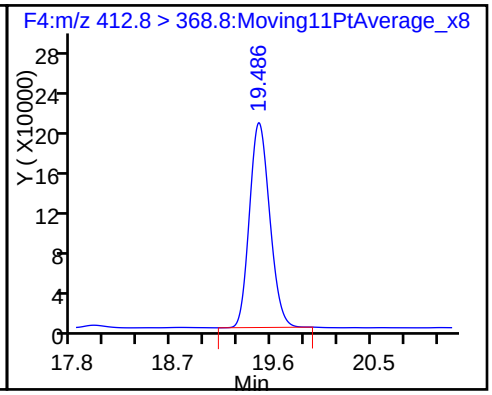
4 Perfluoroheptanoic acid



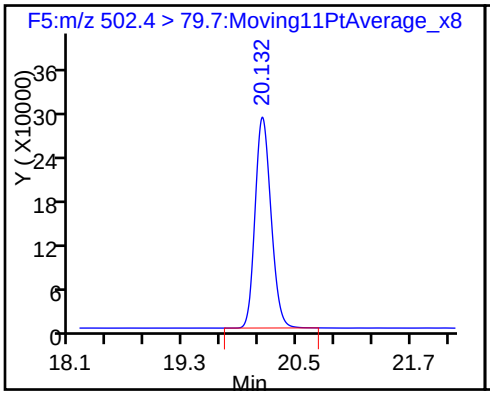
* 6 13C2-PFOA



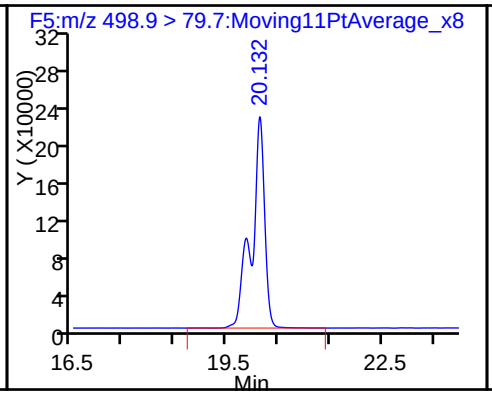
5 Perfluorooctanoic acid



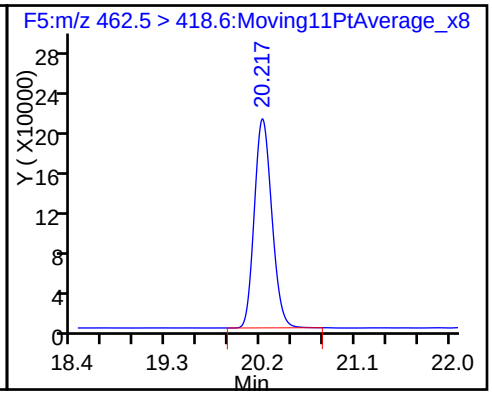
* 7 13C4 PFOS



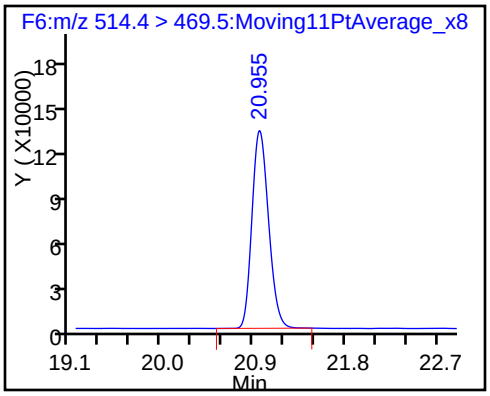
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-11644-1

SDG No.:

Client Sample ID: Well 7 MS | Lab Sample ID: 320-11644-2 MS

Matrix: Water | Lab File ID: 23FEB15A4A_19.d

Analysis Method: 537 | Date Collected: 02/11/2015 10:13

Extraction Method: 537 | Date Extracted: 02/18/2015 09:18

Sample wt/vol: 251.5(mL) | Date Analyzed: 02/23/2015 17:24

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 10(uL) | GC Column: Atlantis d-C18 ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 66293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.40	0.15
335-67-1	Perfluorooctanoic acid (PFOA)	0.906		0.20	0.094
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.20	0.11
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.30	0.12
375-85-9	Perfluoroheptanoic acid (PFHpA)	ND		0.099	0.046
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.89	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	95		70-130
STL00996	13C2 PFDA	95		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_19.d
Lims ID: 320-11644-B-2-B MS
Client ID: Well 7
Sample Type: MS
Inject. Date: 23-Feb-2015 17:24:31 ALS Bottle#: 31 Worklist Smp#: 46
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 320-11644-B-2-B MS 10x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:03:49

Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.016	17.040	-0.024	1.000	245165	2.13	284	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.019	18.040	-0.021	1.000	99352	0.9527	146	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.789	18.810	-0.021	1.000	87842	0.8152	120	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.819	18.854	-0.035	1.000	67580	1.05	59.1	
* 6 13C2-PFOA								
414.7 > 369.7	19.507	19.532	-0.025		169198	1.00	121	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.507	19.533	-0.026	1.000	2642714	22.8	851	
* 7 13C4 PFOS								
502.4 > 79.7	20.155	20.189	-0.034		320182	2.87	259	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.160	20.189	-0.029	1.000	97968	1.02	58.2	
9 Perfluorononanoic acid								
462.5 > 418.6	20.226	20.270	-0.044	1.000	63324	0.6342	37.2	
$ 10 13C2 PFDA								
514.4 > 469.5	20.983	21.021	-0.038	1.000	121006	0.9535	128	

Report Date: 24-Feb-2015 07:03:49 Chrom Revision: 2.2 15-Jan-2015 13:05:58

TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_19.d

Injection Date: 23-Feb-2015 17:24:31 Instrument ID: A4

Lims ID: 320-11644-B-2-B MS

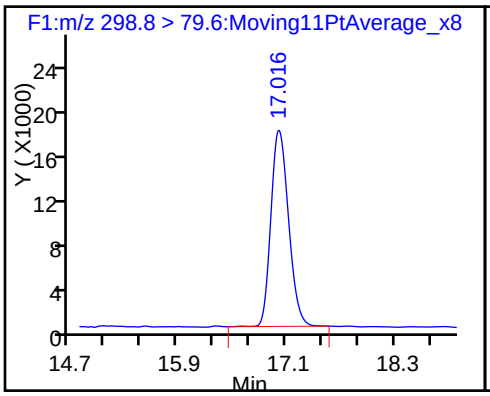
Client ID: Well 7

Operator ID: JRB ALS Bottle#: 31 Worklist Smp#: 46

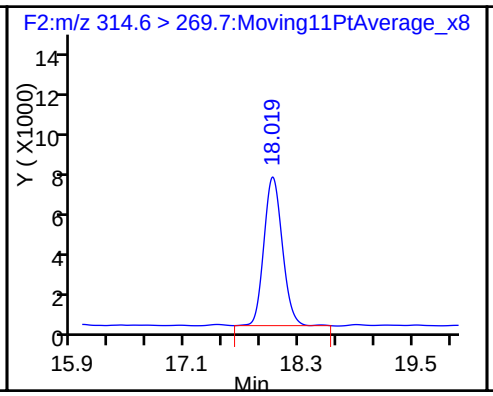
Injection Vol: 10.0 ul Dil. Factor: 10.0000

Method: 537_A4 Limit Group: LC 537 ICAL

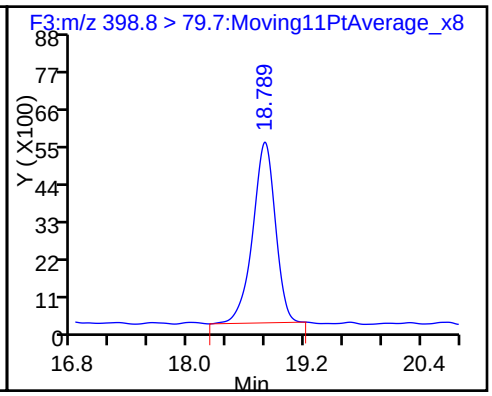
1 Perfluorobutanesulfonic acid



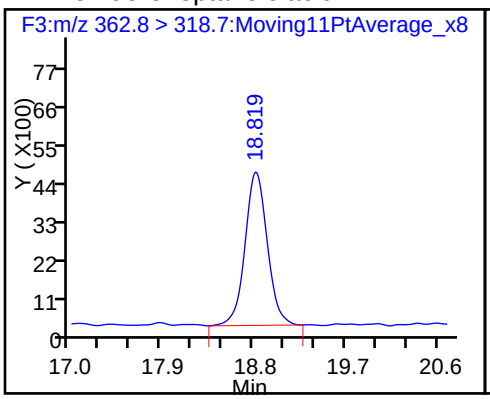
$ 2 13C2 PFHxA



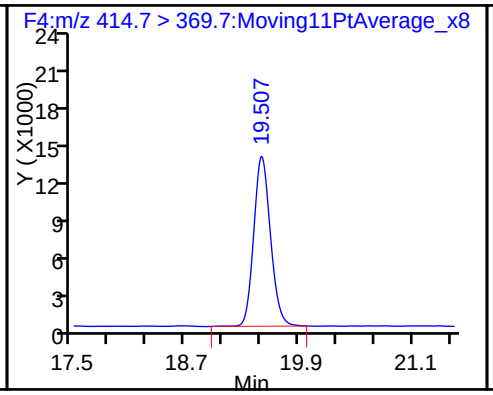
3 Perfluorohexanesulfonic acid



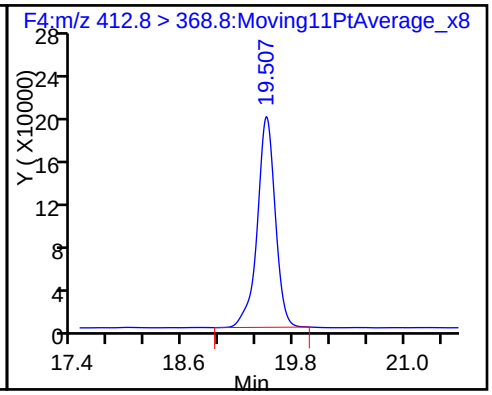
4 Perfluoroheptanoic acid



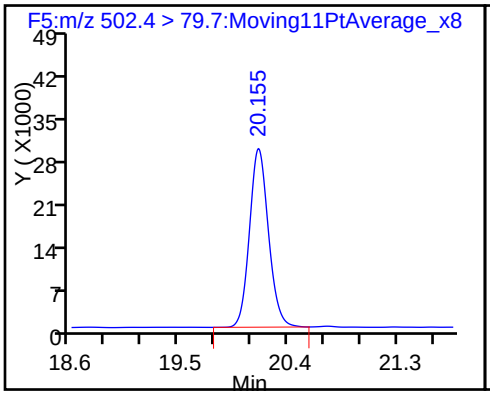
* 6 13C2-PFOA



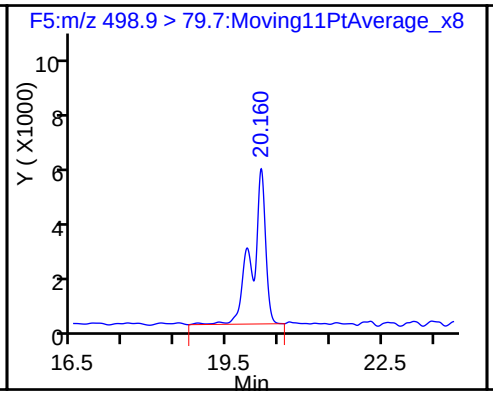
5 Perfluorooctanoic acid



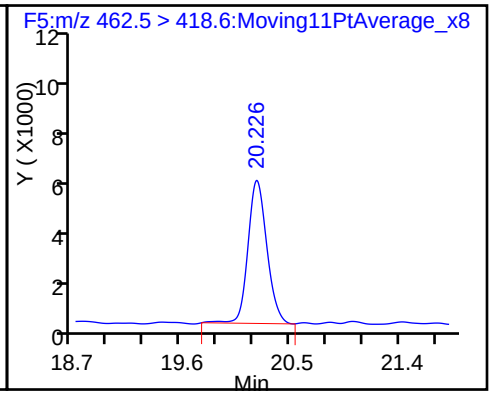
* 7 13C4 PFOS



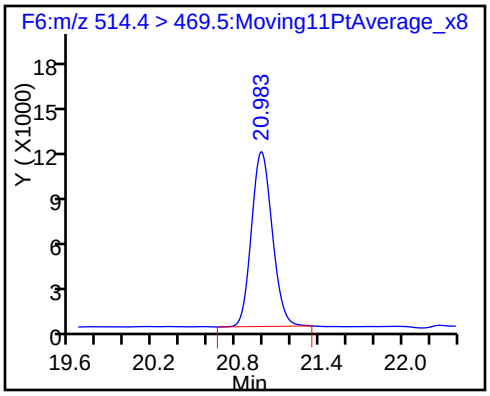
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



FORM I
LCMS ORGANICS ANALYSIS DATA SHEET

Lab Name: TestAmerica Sacramento | Job No.: 320-11644-1

SDG No.:

Client Sample ID: Well 7 MSD | Lab Sample ID: 320-11644-2 MSD

Matrix: Water | Lab File ID: 23FEB15A4A_20.d

Analysis Method: 537 | Date Collected: 02/11/2015 10:13

Extraction Method: 537 | Date Extracted: 02/18/2015 09:18

Sample wt/vol: 254.4(mL) | Date Analyzed: 02/23/2015 17:54

Con. Extract Vol.: 1.00(mL) | Dilution Factor: 10

Injection Volume: 10(uL) | GC Column: Atlantis d-C18 ID: 2.1(mm)

% Moisture: | GPC Cleanup:(Y/N) N

Analysis Batch No.: 66293 | Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
1763-23-1	Perfluorooctane Sulfonate (PFOS)	ND		0.39	0.15
335-67-1	Perfluorooctanoic acid (PFOA)	0.981		0.20	0.093
375-95-1	Perfluorononanoic acid (PFNA)	ND		0.20	0.11
355-46-4	Perfluorohexanesulfonic acid(PFHxS)	ND		0.29	0.12
375-85-9	Perfluoroheptanoic acid (PFHpA)	0.0467	J	0.098	0.045
375-73-5	Perfluorobutanesulfonic acid (PFBS)	ND		0.88	0.47

CAS NO.	SURROGATE	%REC	Q	LIMITS
STL00993	13C2 PFHxA	111		70-130
STL00996	13C2 PFDA	104		70-130

TestAmerica Sacramento
Target Compound Quantitation Report

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_20.d
Lims ID: 320-11644-B-2-C MSD
Client ID: Well 7
Sample Type: MSD
Inject. Date: 23-Feb-2015 17:54:06 ALS Bottle#: 32 Worklist Smp#: 47
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Sample Info: 320-11644-B-2-C MSD 10x
Misc. Info.: Acquity BEH C18,1.7u, 3X150mm,T=35C
Operator ID: JRB Instrument ID: A4

Method: \\Sacchrom\ChromData\A4\20150223-19633.b\537_A4.m
Limit Group: LC 537 ICAL
Last Update: 24-Feb-2015 07:01:18 Calib Date: 23-Feb-2015 12:58:26
Integrator: Picker
Quant Method: Isotopic Dilution Quant By: Initial Calibration
Last ICal File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_10.d

Column 1 : Atlantis d-C18 (2.10 mm) Det: F1:MRM
Process Host: XAWRK027

First Level Reviewer: strumj Date: 24-Feb-2015 07:04:00

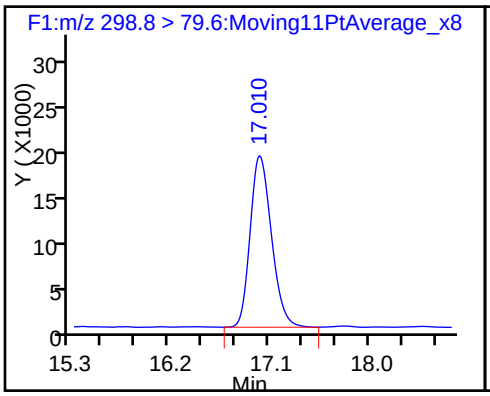
Signal	RT	EXP RT	DLT RT	REL RT	Response	Amount ng/ml	S/N	Flags
1 Perfluorobutanesulfonic acid								
298.8 > 79.6	17.010	17.040	-0.030	1.000	256117	2.24	366	
$ 2 13C2 PFHxA								
314.6 > 269.7	18.013	18.040	-0.027	1.000	105135	1.11	147	
3 Perfluorohexanesulfonic acid								
398.8 > 79.7	18.795	18.810	-0.015	1.000	75209	0.7025	123	
4 Perfluoroheptanoic acid								
362.8 > 318.7	18.818	18.854	-0.036	1.000	69796	1.19	59.1	
* 6 13C2-PFOA								
414.7 > 369.7	19.507	19.532	-0.025		154235	1.00	110	
5 Perfluorooctanoic acid								
412.8 > 368.8	19.501	19.533	-0.032	1.000	2637596	24.9	807	
* 7 13C4 PFOS								
502.4 > 79.7	20.159	20.189	-0.030		318127	2.87	271	
8 Perfluorooctanoic Sulfonate								
498.9 > 79.7	20.154	20.189	-0.035	1.000	103034	1.08	51.3	
9 Perfluorononanoic acid								
462.5 > 418.6	20.230	20.270	-0.040	1.000	60081	0.6601	45.4	
$ 10 13C2 PFDA								
514.4 > 469.5	20.991	21.021	-0.030	1.000	120376	1.04	109	

Report Date: 24-Feb-2015 07:04:00 Chrom Revision: 2.2 15-Jan-2015 13:05:58

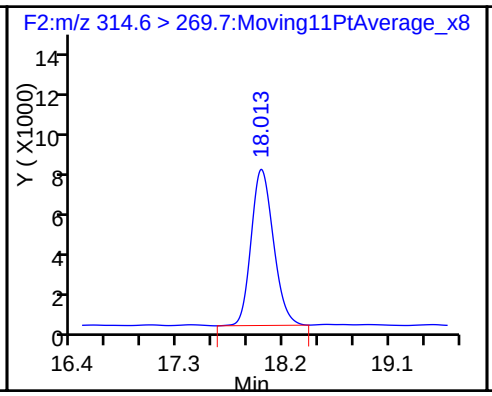
TestAmerica Sacramento

Data File: \\Sacchrom\ChromData\A4\20150223-19633.b\23FEB15A4A_20.d
Injection Date: 23-Feb-2015 17:54:06 Instrument ID: A4
Lims ID: 320-11644-B-2-C MSD
Client ID: Well 7
Operator ID: JRB ALS Bottle#: 32 Worklist Smp#: 47
Injection Vol: 10.0 ul Dil. Factor: 10.0000
Method: 537_A4 Limit Group: LC 537 ICAL

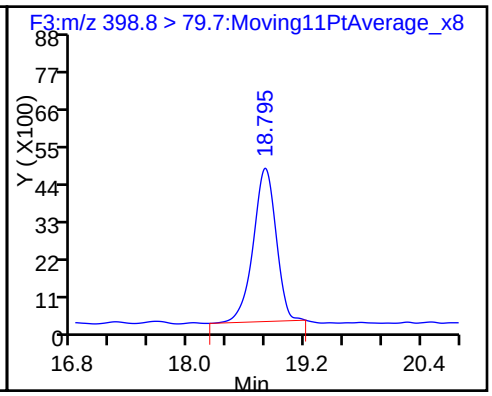
1 Perfluorobutanesulfonic acid



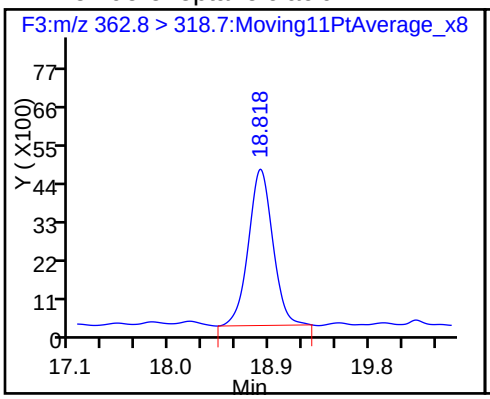
$ 2 13C2 PFHxA



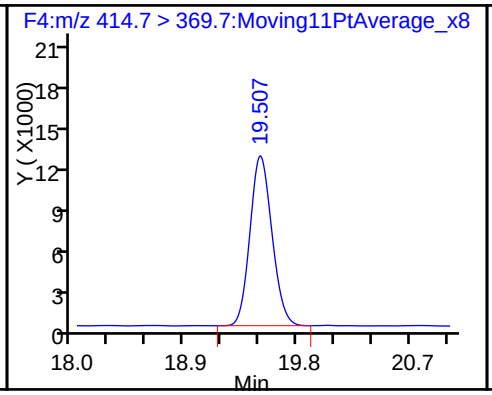
3 Perfluorohexanesulfonic acid



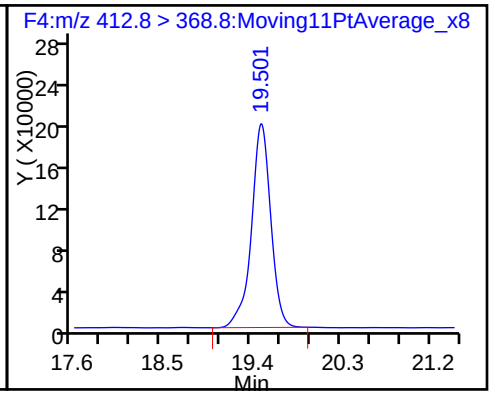
4 Perfluoroheptanoic acid



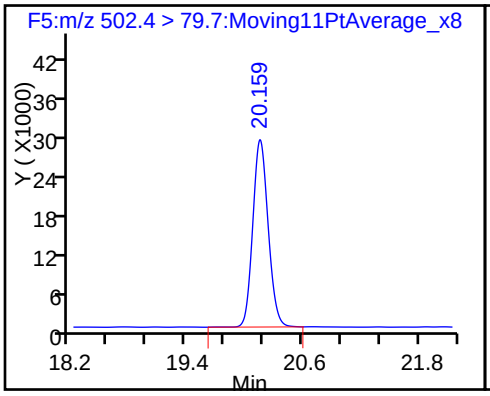
* 6 13C2-PFOA



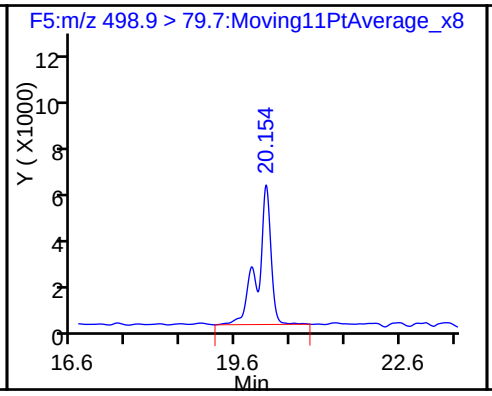
5 Perfluorooctanoic acid



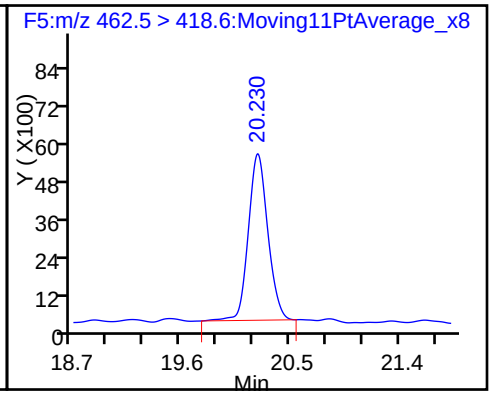
* 7 13C4 PFOS



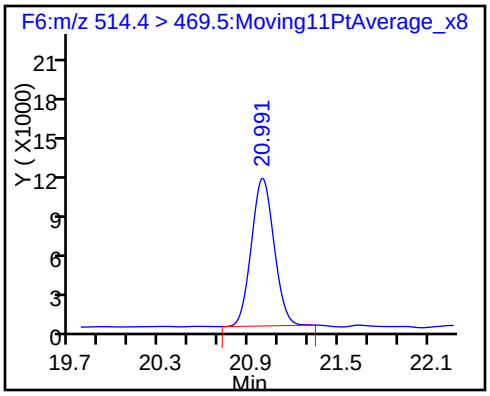
8 Perfluorooctanoic Sulfonate



9 Perfluorononanoic acid



$ 10 13C2 PFDA



LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Instrument ID: A4 Start Date: 02/23/2015 10:30

Analysis Batch Number: 66293 End Date: 02/24/2015 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
L1		02/23/2015 10:30	1	23FEB15A4A_05.d	Atlantis d-C18 2.1(mm)
L2		02/23/2015 11:00	1	23FEB15A4A_06.d	Atlantis d-C18 2.1(mm)
L3		02/23/2015 11:29	1	23FEB15A4A_07.d	Atlantis d-C18 2.1(mm)
L4		02/23/2015 11:59	1	23FEB15A4A_08.d	Atlantis d-C18 2.1(mm)
L5		02/23/2015 12:28	1	23FEB15A4A_09.d	Atlantis d-C18 2.1(mm)
L6		02/23/2015 12:58	1	23FEB15A4A_10.d	Atlantis d-C18 2.1(mm)
CCB 320-66293/9		02/23/2015 13:28	1	23FEB15A4A_11.d	Atlantis d-C18 2.1(mm)
ICV 320-66293/10		02/23/2015 13:57	1	23FEB15A4A_12.d	Atlantis d-C18 2.1(mm)
CCVL 320-66293/11		02/23/2015 14:27	1	23FEB15A4A_13.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 14:56	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 15:26	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 15:55	2		Atlantis d-C18 2.1(mm)
320-11644-1	Finished Water	02/23/2015 16:25	10	23FEB15A4A_17.d	Atlantis d-C18 2.1(mm)
320-11644-2	Well 7	02/23/2015 16:54	10	23FEB15A4A_18.d	Atlantis d-C18 2.1(mm)
320-11644-2 MS	Well 7 MS	02/23/2015 17:24	10	23FEB15A4A_19.d	Atlantis d-C18 2.1(mm)
320-11644-2 MSD	Well 7 MSD	02/23/2015 17:54	10	23FEB15A4A_20.d	Atlantis d-C18 2.1(mm)
320-11644-5 DL	Well 3 DL	02/23/2015 18:23	5	23FEB15A4A_21.d	Atlantis d-C18 2.1(mm)
320-11644-6 DL	Well 10 DL	02/23/2015 18:53	5	23FEB15A4A_22.d	Atlantis d-C18 2.1(mm)
320-11644-7	Well 6	02/23/2015 19:22	10	23FEB15A4A_23.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 19:52	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 20:21	1		Atlantis d-C18 2.1(mm)
CCV 320-66293/43		02/23/2015 20:51	1	23FEB15A4A_26.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 21:21	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 21:50	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 22:20	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 22:49	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 23:19	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/23/2015 23:49	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 00:18	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 00:48	1		Atlantis d-C18 2.1(mm)
CCV 320-66293/22		02/24/2015 01:17	1	23FEB15A4A_35.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 01:47	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 02:16	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 02:46	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 03:16	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 03:45	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 04:15	1		Atlantis d-C18 2.1(mm)
MB 320-65881/1-A		02/24/2015 04:44	1	23FEB15A4A_42.d	Atlantis d-C18 2.1(mm)
LCS 320-65881/2-A		02/24/2015 05:14	1	23FEB15A4A_43.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 05:44	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 06:13	1		Atlantis d-C18 2.1(mm)
CCV 320-66293/33		02/24/2015 06:43	1	23FEB15A4A_46.d	Atlantis d-C18 2.1(mm)
CCV 320-66293/53		02/24/2015 08:58	1	23FEB15A4A_50.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 09:35	1		Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 10:05	1		Atlantis d-C18 2.1(mm)

537

LCMS ANALYSIS RUN LOG

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Instrument ID: A4 Start Date: 02/23/2015 10:30

Analysis Batch Number: 66293 End Date: 02/24/2015 14:02

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
320-11644-3	Field Equipment Blank	02/24/2015 11:04	1	23FEB15A4A_54.d	Atlantis d-C18 2.1(mm)
320-11644-4	Lab Trip Blanks	02/24/2015 11:34	1	23FEB15A4A_55.d	Atlantis d-C18 2.1(mm)
CCV 320-66293/58		02/24/2015 12:03	1	23FEB15A4A_56.d	Atlantis d-C18 2.1(mm)
320-11644-5	Well 3	02/24/2015 12:33	1	23FEB15A4A_57.d	Atlantis d-C18 2.1(mm)
320-11644-6	Well 10	02/24/2015 13:02	1	23FEB15A4A_58.d	Atlantis d-C18 2.1(mm)
ZZZZZ		02/24/2015 13:32	1		Atlantis d-C18 2.1(mm)
CCV 320-66293/59		02/24/2015 14:02	1	23FEB15A4A_60.d	Atlantis d-C18 2.1(mm)

537

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Batch Number: 65881 Batch Start Date: 02/18/15 09:18 Batch Analyst: Edwards, Stephanie N

Batch Method: 537 Batch End Date: 02/19/15 15:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	GrossWeight	TareWeight	InitialAmount	FinalAmount	LC537-IS 00008	LC537-LSP 00004
MB 320-65881/1		537, 537				250 mL	1.00 mL	10 uL	
LCS 320-65881/2		537, 537				250 mL	1.00 mL	10 uL	
320-11644-B-1	Finished Water	537, 537	T	279.79 g	26.71 g	253.1 mL	1.00 mL	10 uL	
320-11644-B-2	Well 7	537, 537	T	277.72 g	26.96 g	250.8 mL	1.00 mL	10 uL	
320-11644-B-2 MS	Well 7	537, 537	T	278.51 g	27.05 g	251.5 mL	1.00 mL	10 uL	50 uL
320-11644-B-2 MSD	Well 7	537, 537	T	281.14 g	26.72 g	254.4 mL	1.00 mL	10 uL	50 uL
320-11644-B-3	Field Equipment Blank	537, 537	T	283.53 g	26.64 g	256.9 mL	1.00 mL	10 uL	
320-11644-B-4	Lab Trip Blanks	537, 537	T	283.02 g	26.73 g	256.3 mL	1.00 mL	10 uL	
320-11644-B-5	Well 3	537, 537	T	284.78 g	26.82 g	258 mL	1.00 mL	10 uL	
320-11644-B-6	Well 10	537, 537	T	284.01 g	27.19 g	256.8 mL	1.00 mL	10 uL	
320-11644-B-7	Well 6	537, 537	T	286.54 g	27.01 g	259.5 mL	1.00 mL	10 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	LC537-MSP 00004	LC537-SU 00010	AnalysisComment			
MB 320-65881/1		537, 537			50 uL	pH-7; Chlorine ND			
LCS 320-65881/2		537, 537		50 uL	50 uL	pH-7; Chlorine ND			
320-11644-B-1	Finished Water	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-2	Well 7	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-2 MS	Well 7	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-2 MSD	Well 7	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-3	Field Equipment Blank	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-4	Lab Trip Blanks	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-5	Well 3	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-6	Well 10	537, 537	T		50 uL	pH-7; Chlorine ND			
320-11644-B-7	Well 6	537, 537	T		50 uL	pH-7; Chlorine ND			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

LCMS BATCH WORKSHEET

Lab Name: TestAmerica Sacramento Job No.: 320-11644-1

SDG No.:

Batch Number: 65881 Batch Start Date: 02/18/15 09:18 Batch Analyst: Edwards, Stephanie N

Batch Method: 537 Batch End Date: 02/19/15 15:35

Batch Notes	
Batch Comment	Trizma sigma SLBF6022V; Cartridge Agilent 6234316-06; MeOH 390135; Water 2-6-15; Pipette EC15219

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.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

West Sacramento

HPLC/LCMS Data Review Checklist

Job Number(s): 11644, 11699 Work List ID(s): 19633 19606

Extraction Batch: 65881, 66019 Analysis Batch(es): 66293 66206

Delivery Rank 4 Due Date: 2/22/15

A. Calibration/Instrument Run QC	1st Level	2nd Level	N/A
1. ICAL locked in Chrom and TALS? ICAL Batch#	✓	✓	
2. ICAL, CCV Frequency & Criteria met.	✓	✓	
• $RF_{average}$ criteria appropriate for the method.	✓	✓	
• Linear Regression criteria appropriate if required ($r \geq 0.995$).	✓	✓	
• Quadratic fit criteria appropriate if required ($r^2 \geq 0.990$).			✓
• For Linear Regression and Quadratic fit – Does the y-intercept support ½ the reporting limit as described in CA-Q-S-005?	✓	✓	
• All curve points show calculated concentrations.	✓	✓	
3. Peaks correctly ID'd by data system.	✓	✓	
5. Tune check frequency & criteria met and Tune check report attached.			✓
B. QA/QC			
1. Are all QC samples properly linked in TALS?	✓	✓	
2. Method blank, LCS/LCSD and MS/SD frequencies met.	✓	✓	
3. LCS/LCSD and MB data are within control limits. If not, NCM is present.	✓	✓	
4. Are MS/MSD recoveries and RPD within control limits?	✓*	✓	
5. Holding Times were met for prep and analytical.	✓	✓	
6. IS/Surrogate recoveries meet criteria or properly noted.	✓*	✓	
C. Sample Analysis			
1. Was correct analysis performed and were project instructions followed?	✓	✓	
2. If required, are compounds within RT windows?	✓	✓	
3. If required, are positive hits confirmed and >40% RPD flagged?			✓
4. Manual Integrations reviewed and appropriate.			✓
5. All analytes correctly reported. (Primary, secondary, acceptable status)	✓	✓	
6. Correct reporting limits used. (based on client request, prep factors, and dilutions)	✓	✓	
D. Documentation 29392			
1. Are all non-conformances documented/attached? NCM# 29352, 4, 8; 29383, 7	✓	✓	
2. Do results make sense (e.g. dilutions, etc.)?	✓	✓	
3. Have all flags been reviewed for appropriateness?	✓	✓	
4. For level 3 and 4 reports, have forms and raw data been reviewed?		✓	
5. Was QC Checker run for this job?	✓	✓	

Upon completion of this checklist, the reviewer must scan and attach the checklist to the TALS job.

1st Level (Analyst): [signature] Date: 2/25/15

2nd Level Reviewer: MKWay Date: 2/25/2015

* see NCM

Box #34

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-65881

Method Code: 320-537_Prep-320

Analyst: Edwards, Stephanie N

Batch Open: 2/18/2015 9:18:16AM

Batch End: 2/19/15 15:35

Extraction of Perfluorinated Alkyl Acids

	Input Sample Lab ID (Analytical Method)	SDG	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Dlv Rank	Comments	Output Sample Lab ID
1	MB~320-65881/1 N/A	N/A		250 mL				N/A	N/A	N/A	pH-7; Chlorine ND	MB 320-65881/1-A
				1.00 mL								
2	LCS~320-65881/2 N/A	N/A		250 mL				N/A	N/A	N/A	pH-7; Chlorine ND	LCS 320-65881/2-A
				1.00 mL								
3	320-11644-B-1 (537)	N/A	279.79 g	253.1 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-1-A
			26.71 g	1.00 mL								
4	320-11644-B-2 (537)	N/A	277.72 g	250.8 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-2-A
			26.96 g	1.00 mL								
5	320-11644-B-2~MS (537)	N/A	278.51 g	251.5 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-2-B MS
			27.05 g	1.00 mL								
6	320-11644-B-2~MSD (537)	N/A	281.14 g	254.4 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-2-C MSD
			26.72 g	1.00 mL								
7	320-11644-B-3 (537)	N/A	283.53 g	256.9 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-3-A
			26.64 g	1.00 mL								
8	320-11644-B-4 (537)	N/A	283.02 g	256.3 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-4-A
			26.73 g	1.00 mL								
9	320-11644-B-5 (537)	N/A	284.78 g	258 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-5-A
			26.82 g	1.00 mL								
10	320-11644-B-6 (537)	N/A	284.01 g	256.8 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-6-A
			27.19 g	1.00 mL								

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-65881

Analyst: Edwards, Stephanie N

Batch Open: 2/18/2015 9:18:16AM

Batch End:

Method Code: 320-537_Prep-320

11	320-11644-B-7 (537)	N/A	286.54 g	259.5 mL				2/25/15	8_Days	4	pH-7; Chlorine ND	320-11644-B-7-A
			27.01 g	1.00 mL								

Batch Notes

Batch Comment Trizma sigma SLBF6022V; Cartridge Agilent 6234316-06; MeOH 390135; Water 2-6-15; Pipette EC15219

Comments

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-65881

Analyst: Edwards, Stephanie N

Batch Open: 2/18/2015 9:18:16AM

Method Code: 320-537_Prep-320

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-65881/1	LC537-SU_00010	50 uL	1.00 mL	AVM 2/18/15	SNE 2/18/15
LCS 320-65881/2	LC537-MSP_00004	50 uL	1.00 mL		
LCS 320-65881/2	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-1	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-2	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-2 MS	LC537-LSP_00004	50 uL	1.00 mL		
320-11644-B-2 MS	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-2 MSD	LC537-LSP_00004	50 uL	1.00 mL		
320-11644-B-2 MSD	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-3	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-4	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-5	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-6	LC537-SU_00010	50 uL	1.00 mL		
320-11644-B-7	LC537-SU_00010	50 uL	1.00 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-65881

Analyst: Edwards, Stephanie N

Batch Open: 2/18/2015 9:18:16AM

Method Code: 320-537_Prep-320

Batch End:

Other Reagents:

Reagent	Amount/Units	Lot#:
LC537-IS-00008 1-2.87 ug/mL	Spiked by: HFA 2-19-15	Witness: SNE 2/19/15
Exp: 8/12/15		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-65881 Test 537

Earliest Holding Time: 2/24/15

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	NA	NA
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	✓	✓
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	✓	✓
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: HJA Date: 2-19-15

2nd Level Reviewer: SNE Date: 2/19/15

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Sample Dilution Record

Method ID 320-537_Prep-320 Lot # 90285

Analyst (Print Name) John Strum Analyst Initials JSS

Date 2/23/15

Sample#	Original F.V. (uL)	Aliquot (uL)	Dilution F.V. (uL)	Dilution Factor
320-11699-4	1000	100	200	2x
320-11644-1		20	200	10x
320-11644-2		20	200	10x
320-11644-2 MS		20	200	10x
320-11644-2 MSD		20	200	10x
320-11644-5		20	100	5x
320-11644-6		20	100	5x
320-11644-7		20	200	10x

Comments:

Box #34

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-66019

Method Code: 320-537_Prep-320

Analyst: Arauz, Horacio J

Batch Open: 2/19/2015 10:21:57AM

Batch End: 2-20-15 10:00

Extraction of Perfluorinated Alkyl Acids

	Input Sample Lab ID (Analytical Method)	SDG	GrossWt TareWt	InitAmnt FinAmnt	PHs Rcvd	PHs Adj1	PHs Adj2	Due Date	Analytical TAT	Div Rank	Comments	Output Sample Lab ID
1	MB~320-66019/1 N/A	N/A		250 mL				N/A	N/A	N/A	Chlorine ND PH-7	MB 320-66019/1-A
				1.00 mL								
2	LCS~320-66019/2 N/A	N/A		250 mL				N/A	N/A	N/A	Chlorine ND PH-7	LCS 320-66019/2-A
				1.00 mL								
3	320-11699-A-1 (537)	DAS # R34467, SDG C0CF1	302.27 g	275.1 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-1-A
			27.22 g	1.00 mL								
4	320-11699-A-2 (537)	DAS # R34467, SDG C0CF1	306.37 g	278.6 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-2-A
			27.76 g	1.00 mL								
5	320-11699-A-3 (537)	DAS # R34467, SDG C0CF1	309.24 g	281.8 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-3-A
			27.43 g	1.00 mL								
6	320-11699-A-4 (537)	DAS # R34467, SDG C0CF1	265.75 g	221.4 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-4-A
			44.35 g	1.00 mL								
7	320-11699-A-5 (537)	DAS # R34467, SDG C0CF1	284.44 g	241.4 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-5-A
			43.05 g	1.00 mL								
8	320-11699-A-6 (537)	DAS # R34467, SDG C0CF1	284.28 g	243.4 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-6-A
			40.84 g	1.00 mL								
9	320-11699-A-7 (537)	DAS # R34467, SDG C0CF1	303.87 g	275.2 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-7-A
			28.72 g	1.00 mL								
10	320-11699-A-8 (537)	DAS # R34467, SDG C0CF1	308.42 g	281 mL				2/22/15	4_Days	4	Chlorine ND PH-7	320-11699-A-8-A
			27.47 g	1.00 mL								

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-66019

Analyst: Arauz, Horacio J

Batch Open: 2/19/2015 10:21:57AM

Method Code: 320-537_Prep-320

Batch End:

11	320-11699-A-9 (537)	DAS # R34467, SDG C0CF1	306.61 g	279.2 mL				2/22/15	4_Days	4	Chlorine ND PH-7		320-11699-A-9-A
			27.42 g	1.00 mL									
12	320-11699-A-10 (537)	DAS # R34467, SDG C0CF1	300.82 g	273.6 mL				2/22/15	4_Days	4	Chlorine ND PH-7		320-11699-A-10-A
			27.25 g	1.00 mL									
13	320-11699-A-11 (537)	DAS # R34467, SDG C0CF1	281.45 g	237.8 mL				2/22/15	4_Days	4	Chlorine ND PH-7		320-11699-A-11-A
			43.61 g	1.00 mL									
14	320-11699-A-12 (537)	DAS # R34467, SDG C0CF1	279.04 g	235.5 mL				2/22/15	4_Days	4	Chlorine ND PH-7		320-11699-A-12-A
			43.50 g	1.00 mL									
15	320-11699-A-13 (537)	DAS # R34467, SDG C0CF1	277.57 g	233.1 mL				2/22/15	4_Days	4	Chlorine ND PH-7		320-11699-A-13-A
			44.45 g	1.00 mL									
16	320-11699-A-14 (537)	DAS # R34467, SDG C0CF1	274.80 g	230.9 mL				2/22/15	4_Days	4	Chlorine ND PH-7		320-11699-A-14-A
			43.86 g	1.00 mL									

Batch Notes

Batch Comment Trizma SLBF6022V; Cartridge Agilent 6234316-06; H2O 2-17-16; MeOH 393949

Comments

Login Comments for Job 11699: samples 1-3, 7-9 are FB

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-66019

Analyst: Arauz, Horacio J

Batch Open: 2/19/2015 10:21:57AM

Method Code: 320-537_Prep-320

Batch End:

Reagent Additions Worksheet

Lab ID	Reagent Code	Amount Added	Final Amount	By	Witness
MB 320-66019/1	LC537-SU_00010	50 uL	1.00 mL	HJA 2-19-15	NCU 2/19/15
LCS 320-66019/2	LC537-HSP_00004	50 uL	1.00 mL		
LCS 320-66019/2	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-1	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-2	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-3	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-4	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-5	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-6	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-7	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-8	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-9	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-10	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-11	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-12	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-13	LC537-SU_00010	50 uL	1.00 mL		
320-11699-A-14	LC537-SU_00010	50 uL	1.00 mL		

Aqueous Extraction Analysis Sheet

(To Accompany Samples to Instruments)

Batch Number: 320-66019

Method Code: 320-537_Prep-320

Analyst: Arauz, Horacio J

Batch Open: 2/19/2015 10:21:57AM

Batch End:

Other Reagents:

Reagent	Amount/Units	Lot#:
LC537-15_00008 1-2.87ug/ml	10ul spiked by: HJA 2-20-15	witnessed by: SNE 2/20/15
EXP: 8-12-15		

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Sacramento
Preparation Data Review Checklist

Preparation Batch Number(s): 320-66019 Test: 537-L

Earliest Holding Time: 3-3-15

Sample List Tab	1st Level Reviewer	2nd Level Reviewer
Samples identified to the correct method	✓	✓
All necessary NCMs filed (including holding time)	✓	✓
Method/sample/login/QAS checked and correct	✓	✓
Worksheet Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All samples properly preserved	✓	✓
Weights in anticipated range and not targeted	✓	✓
All additional test requirements performed, documented, and uploaded to TALS correctly (e.g. final amount, initial amount, turbidity, and Cl Check)	✓	✓
The pH is transcribed correctly in TALS	✓	✓
All additional information transcribed into TALS is correct and raw data is attached	✓	✓
Comments are transcribed correctly in TALS	✓	✓
Reagents Tab	**1st Level Reviewer**	**2nd Level Reviewer**
All necessary reagents not expired and entered into TALS	✓	✓
All spike amounts correct and added to necessary samples and QC	✓	✓
Batch Information	**1st Level Reviewer**	**2nd Level Reviewer**
Date and time accurate and entered into TALS correctly	✓	✓
All necessary 'batch information' complete and entered into TALS correctly	✓	✓

1st Level Reviewer: HJA Date: 2-20-15

2nd Level Reviewer: SNE Date: 2/20/15

Comments:

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Test America – West Sacramento

Sample Dilution Record

Method ID 320 - 537_Prep-320 Lot # 90285

Analyst (Print Name) John Strum Analyst Initials JSS

Date 2/23/15

Sample#	Original F.V. (uL)	Aliquot (uL)	Dilution F.V. (uL)	Dilution Factor
320-11699-4	1000	100	200	2x
320-11644-1		20	200	10x
320-11644-2		20	200	10x
320-11644-2 MS		20	200	10x
320-11644-2 MSD		20	200	10x
320-11644-5-		20	100	5x
320-11644-6		20	100	5x
320-11644-7		20	200	10x

Comments:

Shipping and Receiving Documents

[redacted]

Chain of Custody Record

Temperature on Receipt 1.6°C

Drinking Water? Yes☐ No☐

Tes THE LEAD

320-11644 Chain of Custody

TAL-4124 (1007)

Client: CT Male Associates	Project Manager: Dan Reilly	Date: 2/11/15	Chain of Custody Number: 266225
Address: 50 Century Hill Drive	Telephone Number (Area Code)/Fax Number: 518-786-7400 / 518-786-7299	Lab Number	Page 1 of 1
City: Latham; State: NY; Zip Code: 12110	Site Contact: Dan Reilly	Lab Contact: David Alltucker	
Project Name and Location (State): Village Hoosick Falls, NY	Carrier/Waybill Number: UPS Next Day Air 1Z15A0380153563934		
Contract/Purchase Order/Quote No.: 14.4756 / Dan Reilly			

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Trizma	Analysis (Attach list if more space is needed): EPA 537	Special Instructions/ Conditions of Receipt
Finished Water	2/11/15	0939		X										2	X	
Well 7	2/11/15	1013		X										6	X	MS/MSD
Field Equipment Blank	2/11/15	1036		X										2	X	
Lab Trip Blanks	2/4/15	—		X										2	X	
Well 3	2/11/15	1059		X										2	X	
Well 10	2/11/15	1130		X										2	X	
Well 6	2/11/15	1129		X										2	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other 10 DAY

QC Requirements (Specify): EPA Level 4 Deliverable

1. Relinquished By	Date: 2/11/15	Time: 1430	1. Received By: Tim Nelson	Date: 2/12/15	Time: 1020
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Checklist

Client: CT Male Associates PC

Job Number: 320-11644-1

Login Number: 11644

List Source: TestAmerica Sacramento

List Number: 1

Creator: Nelson, Kym D

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
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?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	