



**Groundwater Sample Results,
Level 2 Laboratory Report, Level 4 Laboratory Report,
Electronic Data Deliverable, Data Validation Report,
and the Sample Location Report, SDG 1800600**

*Naval Air Station Whidbey Island
Oak Harbor, Washington*

June 2019

April 11, 2018

Vista Work Order No. 1800600

Ms. Tiffany Hill
CH2M Hill
1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on April 04, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'CTO-4041, Whidbey Island Area 6'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1800600

Case Narrative

Sample Condition on Receipt:

Two drinking water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The report was amended to include PFUnA on the datasheets.

Analytical Notes:

EPA Method 537

The samples were extracted and analyzed for a selected list of 14 PFAS using EPA Method 537.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Laboratory Reagent Blank (LRB) and Laboratory Fortified Blank (LFB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank above 1/2 of the LOQ concentrations. The Laboratory Fortified Blank recoveries were within the acceptance criteria.

The results for MeFOSAA and EtFOSAA are reported from separate injections for all field and QC samples, except the MS/MSD

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

As requested, an MS/MSD was performed on sample "WI-A06-RW19-0318". The MSD recovery and RPD for PFHxS were outside the method acceptance criteria. The MS/MSD recoveries and RPDs were within the method acceptance criteria for all other analytes.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800600-01	WI-A06-RW19-0318	MS/MSD28-Mar-18 13:25	03-Apr-18 10:07	HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800600-02	WI-A06-FB19-0318	28-Mar-18 13:25	03-Apr-18 10:07	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	B8D0033-BLK1	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFHxA	ND	0.871	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFHpA	ND	0.533	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFHxS	ND	0.415	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFOA	ND	1.08	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFNA	ND	1.44	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFOS	ND	1.04	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFDA	ND	1.28	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
MeFOSAA	ND	3.04	5.00	10.0		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:36	1
EtFOSAA	ND	1.93	5.00	10.0		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:36	1
PFOA	ND	0.255	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFDoA	ND	0.952	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFTTrDA	ND	0.943	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFTeDA	ND	0.777	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	101	70 - 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1	
13C2-PFDA	SURR	86.2	70 - 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1	
d5-EtFOSAA	SURR	99.6	70 - 130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:36	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: LFB

EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	B8D0033-BS1	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6						

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	77.6	70.8	110	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFHxA	81.1	80.0	101	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFHpA	82.1	80.0	103	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFHxS	81.1	72.8	111	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFOA	83.8	80.0	105	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFNA	86.7	80.0	108	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFOS	77.2	74.0	104	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFDA	92.3	80.0	115	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
MeFOSAA	84.9	80.0	106	70-130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:25	1
EtFOSAA	85.5	80.0	107	70-130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:25	1
PFOxA	82.2	80.0	103	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFDoA	88.6	80.0	111	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFTTrDA	93.5	80.0	117	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFTeDA	71.1	80.0	88.9	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR		102	70- 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
13C2-PFDA	SURR		107	70- 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
d5-EtFOSAA	SURR		97.2	70- 130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:25	1

Sample ID: WI-A06-RW19-0318

EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800600-01	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6	Date Collected:	28-Mar-18 13:25	Date Received:	04-Apr-18 10:07		
Location:	DW						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	64.7	0.444	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHxA	61.8	0.873	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHpA	33.4	0.534	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHxS	233	0.416	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFOA	44.7	1.08	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFNA	2.36	1.44	5.02	10.0	J	B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFOS	75.1	1.04	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFDA	ND	1.28	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
MeFOSAA	ND	3.05	5.02	10.0		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1
EtFOSAA	ND	1.93	5.02	10.0		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1
PFOA	ND	0.256	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFDoA	ND	0.954	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFTeDA	ND	0.945	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFTeDA	ND	0.779	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
13C2-PFDA	SURR	95.1	70 - 130		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
d5-EtFOSAA	SURR	85.8	70 - 130		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW19-0318

EPA Method 537

Name: CH2M Hill	Lab Sample: B8D0033-MS1/B8D0033-MSD1	Source Lab Sample: 1800600-01
Project: CTO-4041, Whidbey Island Area 6	QC Batch: B8D0033	Date Extracted: 05-Apr-18
Matrix: Aqueous	Samp Size: 0.252/0.250 L	Column: BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	64.7	128	70.2	90.5		151	70.9	122	29.6		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFHxA	61.8	137	79.3	95.3		148	80.1	107	11.6		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFHpA	33.4	113	79.3	99.9		116	80.1	103	3.06		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFHxS	233	296	72.2	87.4		343	72.9	151	53.4	H	70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFOA	44.7	124	79.3	100.0		133	80.1	111	10.4		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFNA	2.36	79.8	79.3	97.6		81.3	80.1	98.6	1.02		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFOS	75.1	148	73.4	99.7		154	74.1	106	6.13		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFDA	ND	83.2	79.3	105		88.5	80.1	111	5.56		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
MeFOSAA	ND	89.2	79.3	112		72.9	80.1	91.0	20.7		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
EtFOSAA	ND	84.9	79.3	107		71.7	80.1	89.5	17.8		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFUnA	ND	76.4	79.3	96.4		81.3	80.1	102	5.65		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFDoA	ND	82.8	79.3	104		90.9	80.1	113	8.29		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFTTrDA	ND	71.1	79.3	89.7		82.3	80.1	103	13.8		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFTeDA	ND	73.2	79.3	92.3		97.5	80.1	122	27.7		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
Labeled Standards	Type			MS % Rec	MS Quals			MSD % Rec		MSD Quals	Limits		MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFHxA	SURR			93.6				102			70-130		08-Apr-18 18:48	1	08-Apr-18 18:59	1
13C2-PFDA	SURR			96.2				98.2			70-130		08-Apr-18 18:48	1	08-Apr-18 18:59	1
d5-EtFOSAA	SURR			113				86.3			70-130		08-Apr-18 18:48	1	08-Apr-18 18:59	1

Sample ID: WI-A06-FB19-0318

EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800600-02	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6	Date Collected:	28-Mar-18 13:25	Date Received:	04-Apr-18 10:07		
Location:	DW						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.428	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHxA	ND	0.842	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHpA	ND	0.515	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHxS	ND	0.401	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFOA	ND	1.04	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFNA	ND	1.39	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFOS	ND	1.01	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFDA	ND	1.24	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
MeFOSAA	ND	2.94	4.83	9.67		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1
EtFOSAA	ND	1.87	4.83	9.67		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1
PFOA	ND	0.247	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFDoA	ND	0.921	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFTTrDA	ND	0.912	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFTeDA	ND	0.751	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	98.1	70 - 130		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
13C2-PFDA	SURR	91.7	70 - 130		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
d5-EtFOSAA	SURR	98.2	70 - 130		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.

EXACT COPY OF THE ORIGINAL
INIT PPB 04/04/18



CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1800595 Temp: 2.2 °C
Storage ID: WR-2 Storage Secured: Yes No

Project ID: CTO-4041 NAVY CLEAN PO#: 10006-7-108295 Sampler: E. Cutler, G. Gardner
B. Prentice,
(name)

TAT Standard: 21 days
(check one): Rush (surcharge may apply)
 14 days 7 days Specify: 10 days

Invoice to: Name Rebecca Maco Company CH2M Hill/Jacobs Address 1100 112th Ave. NE City Bellevue State WA
Relinquished by (printed name and signature) Gerrit Gardner Date 4/2/2018 Time 09:00 Received by (printed name and signature) Marissa Sparks Date 04/03/18 Time 1015

Relinquished by (printed name and signature) Gerrit Gardner Date 4/2/2018 Time 09:00 Received by (printed name and signature) Marissa Sparks Date 04/03/18 Time 1015

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106
Method of Shipment: FedEx
Tracking No.: _____
Add Analysis(es) Requested: _____
Container(s): _____
Mod. EPA Method 537
EPA Method 537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
* W1-AF-3RW41-0318	3/24/18	09:30	DW	2	P	DW								X	
* W1-AF-3RW41P-0318		09:35													
* W1-AF-3FB41-0318		09:31													
* W1-AF-1RW12-0318		09:55													
* W1-AF-1FB12-0318		09:56													
* W1-CV-1RW37-0318	3/27/18	08:10													
* W1-CV-1FB37-0318		08:10													
W1-A06-RW19-0318	3/28/18	13:25													
W1-A06-RW19-0318-MS		13:25													
W1-A06-RW19-0318-MSD		13:25													

Special Instructions/Comments:
WO # 1800595

SEND DOCUMENTATION AND RESULTS TO:

Name: Tiffany Hill
Company: CH2M Hill/Jacobs
Address: 1100 NE Circle Blvd
City: Corvallis State: OR Zip: 97330
Phone: 757-671-6278 Fax: _____
Email: _____

Container Types: P= HDPE, PJ= HDPE Jar
Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:
Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

EXACT COPY OF THE ORIGINAL
INIT PAB 04/04/18



CHAIN OF CUSTODY

See Page 1

For Laboratory Use Only
 Work Order #: 1800595 PAB Temp: 2.2 °C
 Storage ID: WR-2 Storage Secured: Yes No

Project ID: _____ PO#: _____ Sampler: _____ (name)

TAT Standard: 21 days
 (check one): Rush (surcharge may apply)
 14 days 7 days Specify: _____

Invoice to: Name _____ Company _____ Address _____ City _____ State _____ Ph# _____ Fax# _____

Relinquished by (printed name and signature) *	Date	Time	Received by (printed name and signature) Marissa Sparks - US Sparks	Date 04/03/18	Time 10:15
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

SHIP TO: Vista Analytical Laboratory
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 673-1520 * Fax (916) 673-0106

Method of Shipment: _____

ATTN: _____

Tracking No.: _____

Add Analysis(es) Requested

Container(s)

Mod. EPA Method 537

EPA Method 537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14	Comments
WI-A06-RW1-FB14-0318	3/28/18	13:25	DW	2	P	DW									
*WI-AF-1RW40-0318		14:05													
*WI-AF-1FB40-0318		14:05													
*WI-CV-1RW90-0318	3/30/18	12:15													
*WI-CV-1FB90-0318	3/30/18	12:15													

Special Instructions/Comments: * WO 1800595
* see "relinquished" signature on page 1 COC
was 04/03/18

SEND DOCUMENTATION AND RESULTS TO:

Name: _____
 Company: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____
 Email: _____

Container Types: P= HDPE, PJ= HDPE Jar
 Bottle Preservation Type: T = Thiosulfate, TZ = Trizma
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other

Vista Work Order #: 1800595 1800600 TAT 10 days
WWS 04/04/18

Samples Arrival:	Date/Time ^{WWS 04/03/18} 04/03/18 1000 1007	Initials: WWS	Location: WR-2
Logged In:	Date/Time ^{WWS 4/4/18 0826} 04/03/18 1045 1045 <i>WWS 4/4/18</i>	Initials: WWS	Location: WR-2
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac
	<input type="checkbox"/> GSO	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered
	<input type="checkbox"/> Other		
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice
	<input type="checkbox"/> None		
Temp °C: 2.3 (uncorrected)	Time: 1014	Thermometer ID: IR-4	
Temp °C: 2.2 (corrected)	Probe used: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		

	YES	NO	NA
Adequate Sample Volume Received?	<input checked="" type="checkbox"/>		
Holding Time Acceptable?	<input checked="" type="checkbox"/>		
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>		
Shipping Custody Seals Intact?	<input checked="" type="checkbox"/>		
Shipping Documentation Present?	<input checked="" type="checkbox"/>		
Airbill	Trk # 8121 0190 3866	<input checked="" type="checkbox"/>	
Sample Container Intact?	<input checked="" type="checkbox"/>		
Sample Custody Seals Intact?			<input checked="" type="checkbox"/>
Chain of Custody / Sample Documentation Present?	<input checked="" type="checkbox"/>		
COC Anomaly/Sample Acceptance Form completed?		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
If Chlorinated or Drinking Water Samples, Acceptable Preservation?	<input checked="" type="checkbox"/>		
Preservation Documented:	Na ₂ S ₂ O ₃	<input checked="" type="checkbox"/> Trizma	<input type="checkbox"/> None
	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Shipping Container	<input checked="" type="checkbox"/> Vista	<input type="checkbox"/> Client	<input checked="" type="checkbox"/> Retain
	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	

Comments:

April 11, 2018

Vista Work Order No. 1800600

Ms. Tiffany Hill
CH2M Hill
1100 NE Circle Blvd. Suite 300
Corvallis, OR 97330

Dear Ms. Hill,

Enclosed are the amended results for the sample set received at Vista Analytical Laboratory on April 04, 2018. This sample set was analyzed on a rush turn-around time, under your Project Name 'CTO-4041, Whidbey Island Area 6'.

Vista Analytical Laboratory is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at mmaier@vista-analytical.com.

Thank you for choosing Vista as part of your analytical support team.

Sincerely,

Martha Maier
Laboratory Director



Vista Analytical Laboratory certifies that the report herein meets all the requirements set forth by NELAP for those applicable test methods. Results relate only to the samples as received by the laboratory. This report should not be reproduced except in full without the written approval of Vista.

Vista Work Order No. 1800600

Case Narrative

Sample Condition on Receipt:

Two drinking water samples were received in good condition and within the method temperature requirements. The samples were received and stored securely in accordance with Vista standard operating procedures and EPA methodology. The report was amended to include PFUnA on the datasheets.

Analytical Notes:

EPA Method 537

The samples were extracted and analyzed for a selected list of 14 PFAS using EPA Method 537.

Holding Times

The samples were extracted and analyzed within the method hold times.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Laboratory Reagent Blank (LRB) and Laboratory Fortified Blank (LFB) were extracted and analyzed with the preparation batch. No analytes were detected in the Laboratory Reagent Blank above 1/2 of the LOQ concentrations. The Laboratory Fortified Blank recoveries were within the acceptance criteria.

The results for MeFOSAA and EtFOSAA are reported from separate injections for all field and QC samples, except the MS/MSD

The labeled standard recoveries for all QC and field samples were within the acceptance criteria.

As requested, an MS/MSD was performed on sample "WI-A06-RW19-0318". The MSD recovery and RPD for PFHxS were outside the method acceptance criteria. The MS/MSD recoveries and RPDs were within the method acceptance criteria for all other analytes.

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Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
1800600-01	WI-A06-RW19-0318	MS/MSD28-Mar-18 13:25	03-Apr-18 10:07	HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL HDPE Bottle, 250 mL
1800600-02	WI-A06-FB19-0318	28-Mar-18 13:25	03-Apr-18 10:07	HDPE Bottle, 250 mL HDPE Bottle, 250 mL

ANALYTICAL RESULTS

Sample ID: LRB **EPA Method 537**

Client Data					Laboratory Data					
Name:	CH2M Hill	Matrix:	Aqueous		Lab Sample:	B8D0033-BLK1	Column:	BEH C18		
Project:	CTO-4041, Whidbey Island Area 6									

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.443	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFHxA	ND	0.871	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFHpA	ND	0.533	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFHxS	ND	0.415	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFOA	ND	1.08	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFNA	ND	1.44	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFOS	ND	1.04	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFDA	ND	1.28	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
MeFOSAA	ND	3.04	5.00	10.0		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:36	1
EtFOSAA	ND	1.93	5.00	10.0		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:36	1
PFOA	ND	0.255	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFDoA	ND	0.952	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFTTrDA	ND	0.943	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
PFTeDA	ND	0.777	5.00	10.0		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	101	70 - 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1	
13C2-PFDA	SURR	86.2	70 - 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:14	1	
d5-EtFOSAA	SURR	99.6	70 - 130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:36	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

Sample ID: LFB

EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Aqueous	Lab Sample:	B8D0033-BS1	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6						

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	77.6	70.8	110	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFHxA	81.1	80.0	101	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFHpA	82.1	80.0	103	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFHxS	81.1	72.8	111	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFOA	83.8	80.0	105	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFNA	86.7	80.0	108	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFOS	77.2	74.0	104	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFDA	92.3	80.0	115	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
MeFOSAA	84.9	80.0	106	70-130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:25	1
EtFOSAA	85.5	80.0	107	70-130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:25	1
PFOxA	82.2	80.0	103	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFDoA	88.6	80.0	111	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFTTrDA	93.5	80.0	117	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
PFTeDA	71.1	80.0	88.9	70-130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
Labeled Standards	Type		% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR		102	70- 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
13C2-PFDA	SURR		107	70- 130		B8D0033	05-Apr-18	0.250 L	07-Apr-18 21:03	1
d5-EtFOSAA	SURR		97.2	70- 130		B8D0033	05-Apr-18	0.250 L	08-Apr-18 18:25	1

Sample ID: WI-A06-RW19-0318

EPA Method 537

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800600-01	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6	Date Collected:	28-Mar-18 13:25	Date Received:	04-Apr-18 10:07		
Location:	DW						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	64.7	0.444	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHxA	61.8	0.873	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHpA	33.4	0.534	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHxS	233	0.416	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFOA	44.7	1.08	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFNA	2.36	1.44	5.02	10.0	J	B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFOS	75.1	1.04	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFDA	ND	1.28	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
MeFOSAA	ND	3.05	5.02	10.0		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1
EtFOSAA	ND	1.93	5.02	10.0		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1
PFOA	ND	0.256	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFDoA	ND	0.954	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFTeDA	ND	0.945	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFTeDA	ND	0.779	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
13C2-PFDA	SURR	95.1	70 - 130		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
d5-EtFOSAA	SURR	85.8	70 - 130		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1

DL - Detection Limit

LOD - Limit of Detection

LCL-UCL- Lower control limit - upper control limit

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.

LOQ - Limit of quantitation

Results reported to the DL.

Only the linear isomer is reported for all other analytes.

Sample ID: WI-A06-RW19-0318

EPA Method 537

Name: CH2M Hill	Lab Sample: B8D0033-MS1/B8D0033-MSD1	Source Lab Sample: 1800600-01
Project: CTO-4041, Whidbey Island Area 6	QC Batch: B8D0033	Date Extracted: 05-Apr-18
Matrix: Aqueous	Samp Size: 0.252/0.250 L	Column: BEH C18

Analyte	Sample (ng/L)	MS (ng/L)	MS Spike Amt	MS % Rec	MS Quals	MSD (ng/L)	MSD Spike Amt	MSD % Rec	RPD	MSD Quals	%Rec Limits	RPD Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
PFBS	64.7	128	70.2	90.5		151	70.9	122	29.6		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFHxA	61.8	137	79.3	95.3		148	80.1	107	11.6		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFHpA	33.4	113	79.3	99.9		116	80.1	103	3.06		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFHxS	233	296	72.2	87.4		343	72.9	151	53.4	H	70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFOA	44.7	124	79.3	100.0		133	80.1	111	10.4		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFNA	2.36	79.8	79.3	97.6		81.3	80.1	98.6	1.02		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFOS	75.1	148	73.4	99.7		154	74.1	106	6.13		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFDA	ND	83.2	79.3	105		88.5	80.1	111	5.56		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
MeFOSAA	ND	89.2	79.3	112		72.9	80.1	91.0	20.7		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
EtFOSAA	ND	84.9	79.3	107		71.7	80.1	89.5	17.8		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFUnA	ND	76.4	79.3	96.4		81.3	80.1	102	5.65		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFDoA	ND	82.8	79.3	104		90.9	80.1	113	8.29		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFTTrDA	ND	71.1	79.3	89.7		82.3	80.1	103	13.8		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
PFTeDA	ND	73.2	79.3	92.3		97.5	80.1	122	27.7		70-130	30	08-Apr-18 18:48	1	08-Apr-18 18:59	1
Labeled Standards	Type			MS % Rec	MS Quals			MSD % Rec		MSD Quals	Limits		MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C2-PFHxA	SURR			93.6				102			70-130		08-Apr-18 18:48	1	08-Apr-18 18:59	1
13C2-PFDA	SURR			96.2				98.2			70-130		08-Apr-18 18:48	1	08-Apr-18 18:59	1
d5-EtFOSAA	SURR			113				86.3			70-130		08-Apr-18 18:48	1	08-Apr-18 18:59	1

Sample ID: WI-A06-FB19-0318 **EPA Method 537**

Client Data				Laboratory Data			
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800600-02	Column:	BEH C18
Project:	CTO-4041, Whidbey Island Area 6	Date Collected:	28-Mar-18 13:25	Date Received:	04-Apr-18 10:07		
Location:	DW						

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.428	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHxA	ND	0.842	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHpA	ND	0.515	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHxS	ND	0.401	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFOA	ND	1.04	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFNA	ND	1.39	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFOS	ND	1.01	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFDA	ND	1.24	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
MeFOSAA	ND	2.94	4.83	9.67		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1
EtFOSAA	ND	1.87	4.83	9.67		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1
PFOA	ND	0.247	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFDoA	ND	0.921	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFTTrDA	ND	0.912	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFTeDA	ND	0.751	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	
13C2-PFHxA	SURR	98.1	70 - 130		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1	
13C2-PFDA	SURR	91.7	70 - 130		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1	
d5-EtFOSAA	SURR	98.2	70 - 130		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1	

DL - Detection Limit

LOD - Limit of Detection
LOQ - Limit of quantitation

LCL-UCL- Lower control limit - upper control limit
Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
Only the linear isomer is reported for all other analytes.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank.
D	Dilution
E	The associated compound concentration exceeded the calibration range of the instrument.
H	Recovery and/or RPD was outside laboratory acceptance limits.
I	Chemical Interference
J	The amount detected is below the Reporting Limit/LOQ.
M	Estimated Maximum Possible Concentration. (CA Region 2 projects only)
*	See Cover Letter
Conc.	Concentration
NA	Not applicable
ND	Not Detected
TEQ	Toxic Equivalency
U	Not Detected (specific projects only)

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

CERTIFICATIONS

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	17-015-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025:2005	3091.01
Florida Department of Health	E87777-18
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2016026
Minnesota Department of Health	1322288
New Hampshire Environmental Accreditation Program	207717
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Oregon Laboratory Accreditation Program	4042-008
Pennsylvania Department of Environmental Protection	014
Texas Commission on Environmental Quality	T104704189-17-8
Virginia Department of General Services	9077
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters are located in the Quality Assurance office and are available upon request.



CHAIN OF CUSTODY

For Laboratory Use Only
 Work Order #: 1800595 Temp: 2.2 °C
 Storage ID: WR-2 Storage Secured: Yes No

Project ID: CTO-4041 NAVY CLEAN PO#: 10006-7-108295 Sampler: E. Cutler, G. Gardner
 (name) B. Prentice,

TAT Standard: 21 days
 (check one): Rush (surcharge may apply)
 14 days 7 days Specify: 10 days

Invoice to: Name Rebecca Maco Company CH2M Hill/Jacobs Address 1100 112th Ave. NE City Bellevue State WA
 Relinquished by (printed name and signature) Gerrit Gardner Date 4/2/2018 Time 09:00 Received by (printed name and signature) Marissa Sparks Date 04/03/18 Time 1015

Relinquished by (printed name and signature) Gerrit Gardner Date 4/2/2018 Time 09:00 Received by (printed name and signature) Marissa Sparks Date 04/03/18 Time 1015

SHIP TO: Vista Analytical Laboratory
 1104 Windfield Way
 El Dorado Hills, CA 95762
 (916) 673-1520 * Fax (916) 673-0106
 ATTN: Martha Majer
 Method of Shipment: FedEx
 Tracking No.: _____
 Add Analysis(es) Requested: _____
 Container(s): _____
 Mod. EPA Method 537
 EPA Method 537(DW only)

Sample ID	Date	Time	Location/Sample Description	Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List:6	537 List: 14	Full List of 26	Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List:6	PFAS List: 14	Comments
* W1-AF-3RW41-0318	3/24/18	09:30	DW	2	P	DW								X	
* W1-AF-3RW41P-0318		09:35													
* W1-AF-3FB41-0318		09:31													
* W1-AF-1RW12-0318		09:55													
* W1-AF-1FB12-0318		09:56													
* W1-CV-1RW37-0318	3/27/18	08:10													
* W1-CV-1FB37-0318		08:10													
W1-A06-RW19-0318	3/28/18	13:25													
W1-A06-RW19-0318-MS		13:25													
W1-A06-RW19-0318-MSD		13:25													

Special Instructions/Comments:
WO # 1800595

SEND DOCUMENTATION AND RESULTS TO:
 Name: Tiffany Hill
 Company: CH2M Hill/Jacobs
 Address: 1100 NE Circle Blvd
 City: Corvallis State: OR Zip: 97330
 Phone: 757-671-6278 Fax: _____
 Email: _____

Container Types: P= HDPE, PJ= HDPE Jar
 Bottle Preservation Type: T = Thiosulfate, TZ = Trizma:
 Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other:

INIT PAB 04/04/18



CHAIN OF CUSTODY

See Page 1

For Laboratory Use Only
 Work Order #: 1800595 ^{PAB} Temp: 2.2 °C
 Storage ID: WR-2 Storage Secured: Yes No

Project ID: _____ PO#: _____ Sampler: _____ (name)

TAT Standard: 21 days
 (check one): Rush (surcharge may apply)
 14 days 7 days Specify: _____

Invoice to: Name _____ Company _____ Address _____ City _____ State _____ Ph# _____ Fax# _____

Relinquished by (printed name and signature) *	Date	Time	Received by (printed name and signature) Marissa Sparks - US Sparks	Date 04/03/18	Time 10:15
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time

Sample ID	Date	Time	Location/Sample Description	Add Analysis(es) Requested							EPA Method 537 (DW only)			Comments	
				Quantity	Type	Matrix	PFOA/PFOS	UCMR3 PFAS List 6	537 List: 14	Full List of 26 Other: Please List Below	PFOA/PFOS	UCMR3 PFAS List 6	PFAS List: 14		
WI-A06-RW1-FB14-0318	3/28/18	13:25	DW	2	P	DW									
*WI-AF-1RW40-0318		14:05													
*WI-AF-1FB40-0318		14:05													
*WI-CV-1RW90-0318	3/30/18	12:15													
*WI-CV-1FB90-0318	3/30/18	12:15													

Special Instructions/Comments: * WO 1800595
* see "relinquished" signature on page 1 COC
was 04/03/18

SEND DOCUMENTATION AND RESULTS TO:
 Name: _____
 Company: _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____
 Email: _____

Container Types: P= HDPE, PJ= HDPE Jar Bottle Preservation Type: T = Thiosulfate, Matrix Types: AQ = Aqueous, DW = Drinking Water, EF = Effluent, PP = Pulp/Paper, SD = Sediment, O = Other, TZ = Trizma: _____ SL = Sludge, SO = Soil, WW = Wastewater, B = Blood/Serum, O = Other: _____

Vista Work Order #: 1800595 1800600 TAT 10 days
WWS 04/04/18

Samples Arrival:	Date/Time <u>04/03/18</u> <u>WWS</u> <u>1000 1007</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>N/A</u>				
Logged In:	Date/Time <u>4/4/18 0826</u> <u>WWS</u> <u>1045</u> <u>4/4/18</u>	Initials: <u>WWS</u>	Location: <u>WR-2</u> Shelf/Rack: <u>B4</u>				
Delivered By:	<input checked="" type="checkbox"/> FedEx	<input type="checkbox"/> UPS	<input type="checkbox"/> On Trac	<input type="checkbox"/> GSO	<input type="checkbox"/> DHL	<input type="checkbox"/> Hand Delivered	<input type="checkbox"/> Other
Preservation:	<input checked="" type="checkbox"/> Ice	<input type="checkbox"/> Blue Ice	<input type="checkbox"/> Dry Ice	<input type="checkbox"/> None			
Temp °C: <u>2.3</u> (uncorrected)	Time: <u>1014</u>		Thermometer ID: IR-4				
Temp °C: <u>2.2</u> (corrected)	Probe used: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>						

		YES	NO	NA
Adequate Sample Volume Received?		✓		
Holding Time Acceptable?		✓		
Shipping Container(s) Intact?		✓		
Shipping Custody Seals Intact?		✓		
Shipping Documentation Present?		✓		
Airbill	Trk # <u>8121 0190 3866</u>	✓		
Sample Container Intact?		✓		
Sample Custody Seals Intact?				✓
Chain of Custody / Sample Documentation Present?		✓		
COC Anomaly/Sample Acceptance Form completed?			✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?		✓		
Preservation Documented:	<u>Na₂S₂O₃</u> <u>Trizma</u> None	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> NA
Shipping Container	<u>Vista</u> Client <u>Retain</u>	<input type="checkbox"/> Return	<input type="checkbox"/> Dispose	

Comments:

EXTRACTION INFORMATION

Process Sheet



Workorder: 1800600

Prep Expiration: 2018-Apr-11

Client: CH2M Hill

Workorder Due: 06-Apr-18 00:00

TAT: 10

Method: 537 PFAS DW DoD Unmodified

Matrix: Aqueous

Prep Batch: B8D0033

Version: 14 Analytes

DoD: DoD QSM 5.1

Prep Data Entered: 4.6.18 FR

Date and Initials

Initial Sequence: S8D0016

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1800600-01	A B,C	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	WI-A06-RW19-0318	MS/MSD	WR-2 B-6	HDPE Bottle, 250 mL
1800600-02	J	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	WI-A06-FB19-0318		WR-2 B-6	HDPE Bottle, 250 mL

Pre-Prep Check Out: KC 4/5/18

Prep Check Out: NA

Prep Reconciled Initials/Date: KC 4/5/18

Pre-Prep Check In: NA

Prep Check In: NA

Spike Reconciled Initials/Date: MA 4/5/18

VialBoxID: oddish

PREPARATION BENCH SHEET

Matrix: Aqueous

B8D0033

Chemist: KC

Method: 537 PFAS DW DoD Unmodified

Prep Date/Time: 04-Apr-18 17:36

5 8:30

Prepared using: LCMS - SPE Extraction-LCMS

KC 4/5/18

BalanceID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
<input type="checkbox"/>	B8D0033-BLK1 <u>(C)</u>	NA	NA	(0.250)	KC MA 4/5/18	KC MA 4/5/18	HN FR 4/5/18
<input type="checkbox"/>	B8D0033-BS1	NA	NA	(0.250)			
<input type="checkbox"/>	B8D0033-MS1 1800600-01	290.22	38.08	0.25214			
<input type="checkbox"/>	B8D0033-MSD1 1800600-01	287.56	37.83	0.24973			
<input checked="" type="checkbox"/>	1800595-01 <u>(A)(B)(D)</u>	290.12	37.88	0.25224			
<input checked="" type="checkbox"/>	1800595-02 <u>↓↓↓</u>	279.42	37.86	0.24156			
<input type="checkbox"/>	1800595-03	280.48	27.66	0.25282			
<input type="checkbox"/>	1800595-04	287.17	38.12	0.24905			
<input type="checkbox"/>	1800595-05	286.85	27.23	0.25962			
<input type="checkbox"/>	1800595-06	285.40	37.98	0.24742			
<input type="checkbox"/>	1800595-07	281.37	27.61	0.25376			
<input checked="" type="checkbox"/>	1800595-08 <u>(A)(B)(D)</u>	288.42	38.12	0.25030			
<input type="checkbox"/>	1800595-09	284.08	27.92	0.25616			
<input type="checkbox"/>	1800595-10	294.39	37.88	0.25651			
<input type="checkbox"/>	1800595-11	291.43	27.86	0.26357			
<input type="checkbox"/>	1800600-01	286.69	37.32	0.24937			

SS/IS: <u>18C1216, 20µL (VI)</u> NS: <u>18C1218, 20µL (VI)</u> IS/RS: <u>18C1217, 20µL (VI)</u>	SPE Chem: <u>Strata-X 33µm 500mg 6mL</u> Lot#: <u>S17-005658</u> Ele SOLV: <u>MeOH</u> Lot#: <u>JB064809</u> Final Volume(s) <u>1 mL</u>	Notes: <u>(A) Samples discolored w/ visible particulate. Centrifuged. KC 4/5/18</u> <u>(B) Samples still discolored after centrifuging. KC 4/5/18</u> <u>(C) 1.25g Trizma added MA 04/05/18</u> <u>(D) Samples discolored after extraction. KC 4/5/18</u>
---	--	--

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537 PFAS DW DoD Unmodified

B8D0033

Chemist: KC

Prep Date/Time: 04-Apr-18 17:26

5 8:30
KC 4/5/18

Prepared using: LCMS - SPE Extraction-LCMS

Balance ID: HRMS-8

Cen	VISTA Sample ID	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	SS/NS CHEM/WIT DATE	SPE	IS CHEM/WIT DATE
<input type="checkbox"/>	1800600-02	286.40	27.86	0.25854	KC MA 4/5/18	KC MA 4/5/18	HN FR 4/5/18

SS/IS: <u>18C1216, 20µL (VI)</u> NS: <u>18C1218, 20µL (VI)</u> IS/RS: <u>18C1217, 20µL (VI)</u>	SPE Chem: <u>Strata-X 33µm 500mg wml</u> Lot#: <u>517-005658</u> Ele SOLV: <u>MeOH</u> Lot#: <u>5B064809</u> Final Volume(s) <u>1 ml</u>	Notes:
---	--	--------

Comments: Assume 1 g = 1 mL
Cen = Centrifuged

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1800595-01	0.25224 -	NA	NA	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-02	0.24156 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-03	0.25282 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-04	0.24905 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-05	0.25962 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-06	0.24742 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-07	0.25376 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-08	0.2503 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-09	0.25616 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-10	0.25651 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800595-11	0.26357 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800600-01	0.24937 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
1800600-02	0.25854 -	↓	↓	1000	05-Apr-18 08:30	KC			Drinking Water	537 PFAS DW DoD Unmoc
B8D0033-BLK1	0.25 -	↓	↓	1000	05-Apr-18 08:30	KC				QC
B8D0033-BS1	0.25 -	↓	↓	1000	05-Apr-18 08:30	KC	18C1218 -	20 -		QC
B8D0033-MS1	0.25214 -	↓	↓	1000	05-Apr-18 08:30	KC	18C1218 -	20 -		QC
B8D0033-MSD1	0.24973 -	↓	↓	1000	05-Apr-18 08:30	KC	18C1218 -	20 -		QC

FR 4.6.18

SAMPLE DATA –EPA METHOD 537

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-37.qld

Last Altered: Sunday, April 08, 2018 18:34:21 Pacific Daylight Time

Printed: Sunday, April 08, 2018 18:34:39 Pacific Daylight Time

Method: Z:\Projects\PFAS.pro\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.pro\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

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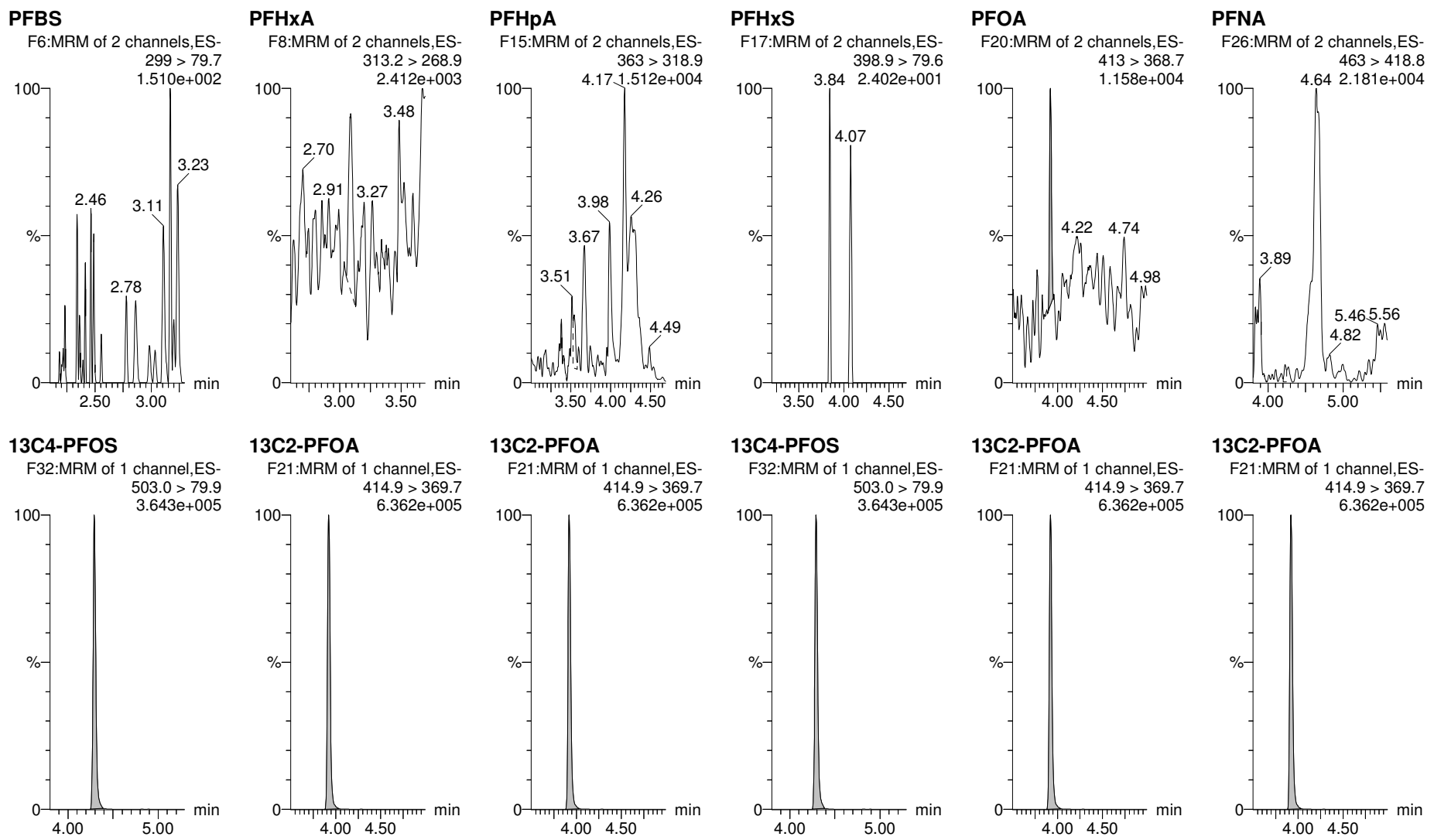
	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		1.30e4	0.2500		2.71				
2	2 PFHxA	313.2 > 268.9		2.15e4	0.2500		3.10				
3	3 PFHpA	363 > 318.9		2.15e4	0.2500		3.55				
4	4 PFHxS	398.9 > 79.6		1.30e4	0.2500		3.65				
5	5 PFOA	413 > 368.7	2.06e2	2.15e4	0.2500		3.93	3.92	0.0959	0.397	
6	6 PFNA	463 > 418.8		2.15e4	0.2500		4.24				
7	7 PFOS	499 > 79.9		1.30e4	0.2500		4.30				
8	8 PFDA	513 > 468.8		2.15e4	0.2500		4.51				
9	11 PFUnA	563 > 518.9		2.15e4	0.2500		5.42				
10	12 PFDoA	612.9 > 318.8		2.15e4	0.2500		4.95				
11	13 PFTrDA	662.9 > 618.9		2.15e4	0.2500		5.13				
12	14 PFTeDA	712.9 > 668.8		2.15e4	0.2500		5.30				
13	15 13C2-PFHxA	315 > 269.8	1.62e4	2.15e4	0.2500	0.745	3.15	3.09	7.53	40.4	101.0
14	16 13C2-PFDA	515.1 > 469.9	1.53e4	2.15e4	0.2500	0.827	4.50	4.50	7.12	34.5	86.2
15	18 13C2-PFOA	414.9 > 369.7	2.15e4	2.15e4	0.2500	1.000	3.92	3.92	10.0	40.0	100.0
16	19 13C4-PFOS	503.0 > 79.9	1.30e4	1.30e4	0.2500	1.000	4.29	4.29	28.7	115	100.0

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-37.qld

Last Altered: Sunday, April 08, 2018 18:34:21 Pacific Daylight Time
Printed: Sunday, April 08, 2018 18:34:39 Pacific Daylight Time

Method: Z:\Projects\PFAS.pro\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52
Calibration: Z:\Projects\PFAS.pro\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

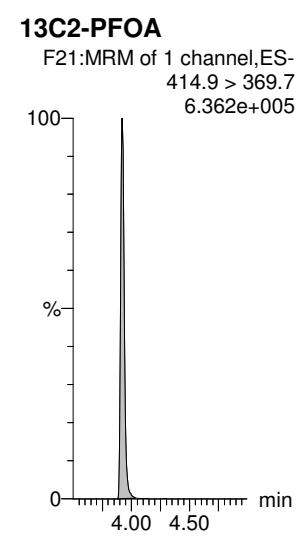
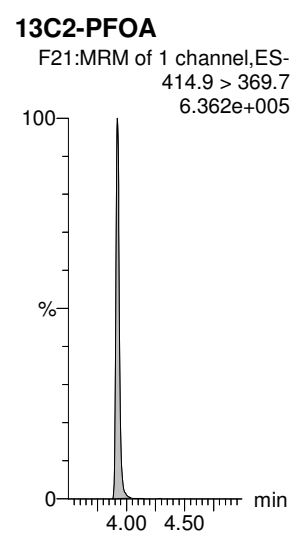
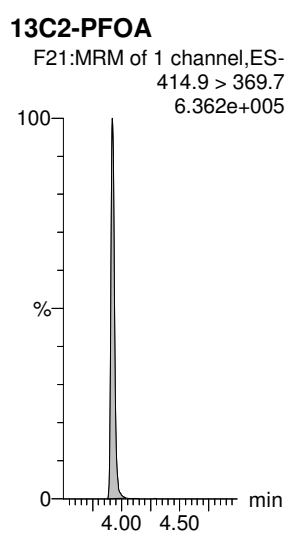
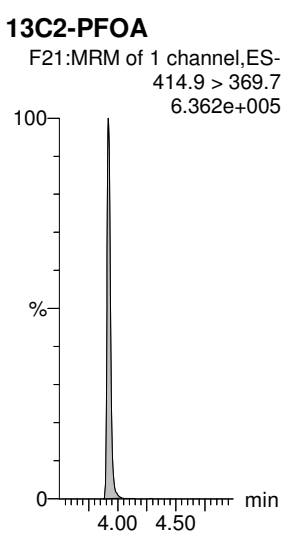
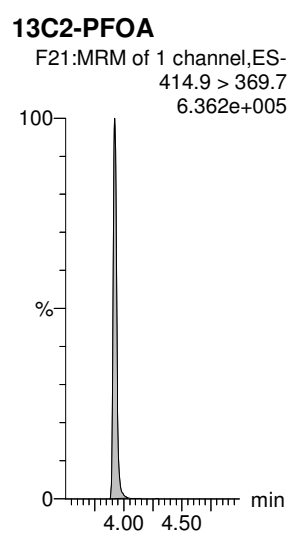
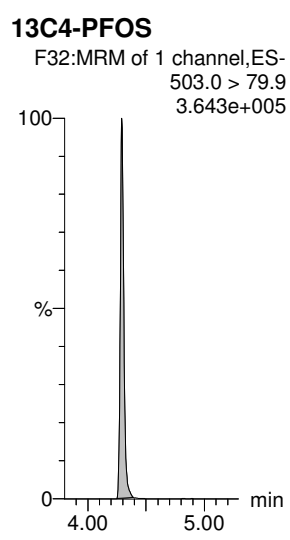
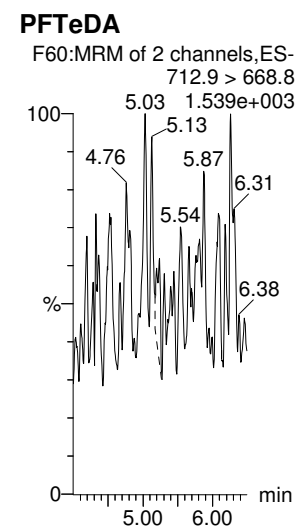
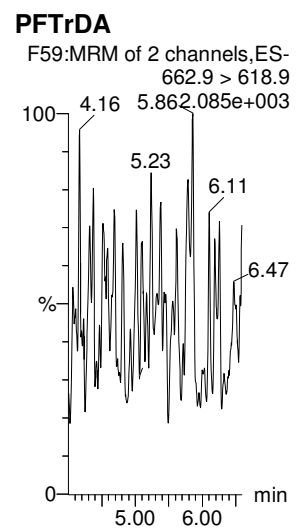
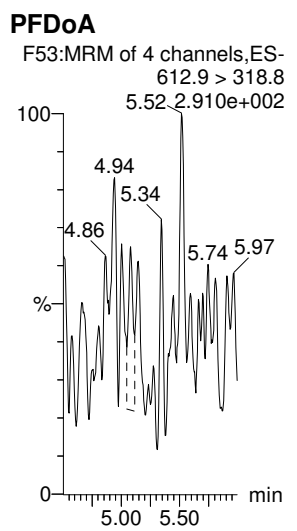
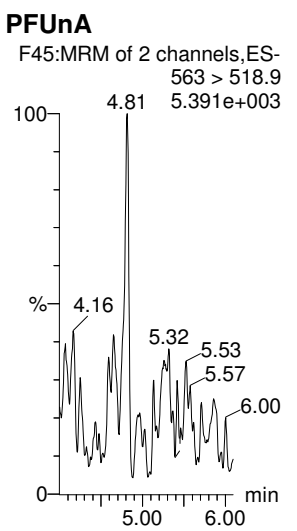
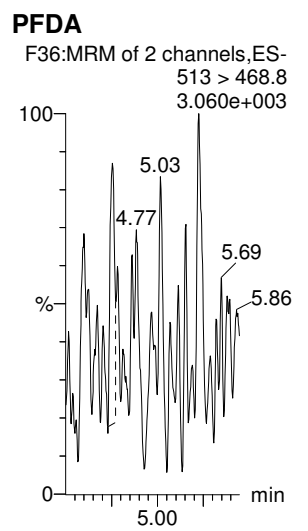
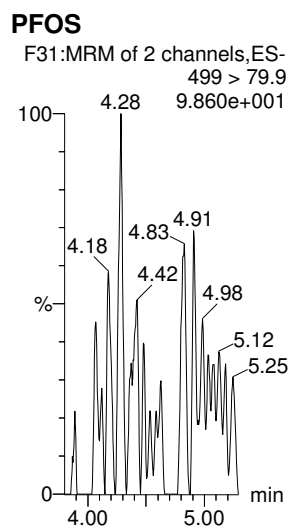
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Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-37.qld

Last Altered: Sunday, April 08, 2018 18:34:21 Pacific Daylight Time
Printed: Sunday, April 08, 2018 18:34:39 Pacific Daylight Time

Name: 180407M3_37, Date: 07-Apr-2018, Time: 21:14:39, ID: B8D0033-BLK1 LRB 0.25, Description: LRB



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-37.qld

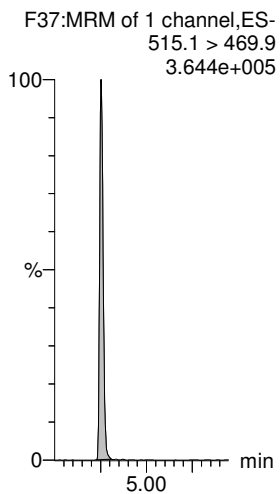
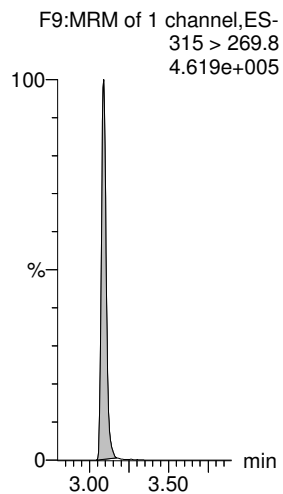
Last Altered: Sunday, April 08, 2018 18:34:21 Pacific Daylight Time

Printed: Sunday, April 08, 2018 18:34:39 Pacific Daylight Time

Name: 180407M3_37, Date: 07-Apr-2018, Time: 21:14:39, ID: B8D0033-BLK1 LRB 0.25, Description: LRB

13C2-PFHxA

13C2-PFDA



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-14.qld

Last Altered: Monday, April 09, 2018 10:22:46 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:23:38 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_14, Date: 08-Apr-2018, Time: 18:36:47, ID: B8D0033-BLK1 LRB 0.25, Description: LRB

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	9 N-MeFOSAA	570.1 > 419.0		3.57e4	0.2500		4.66				
2	10 N-EtFOSAA	584.2 >419.0		3.57e4	0.2500		4.78				
3	17 d5-N-EtFOSAA	589.3 > 419.0	3.77e4	3.57e4	0.2500	1.059	4.66	4.76	42.2	159	99.6
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.57e4	3.57e4	0.2500	1.000	4.62	4.66	40.0	160	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-14.qld

Last Altered: Monday, April 09, 2018 10:22:46 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:23:38 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

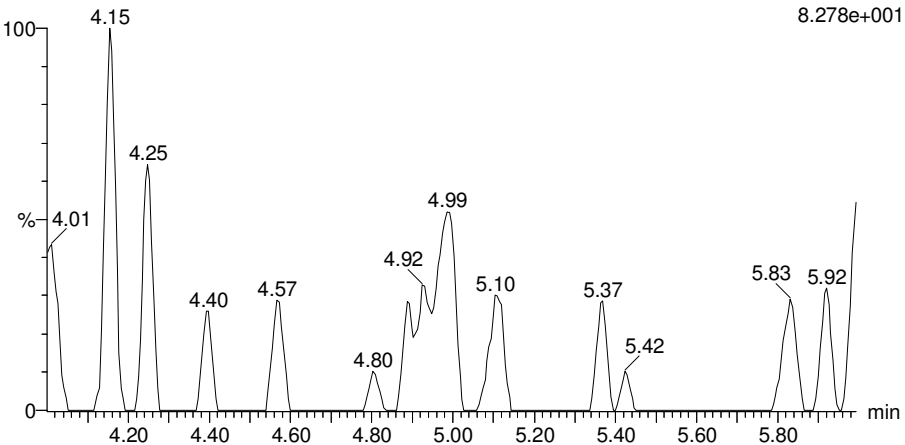
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_14, Date: 08-Apr-2018, Time: 18:36:47, ID: B8D0033-BLK1 LRB 0.25, Description: LRB

N-MeFOSAA

180408M1_14 Smooth(Mn,1x2)
LRB B8D0033-BLK1 LRB 0.25

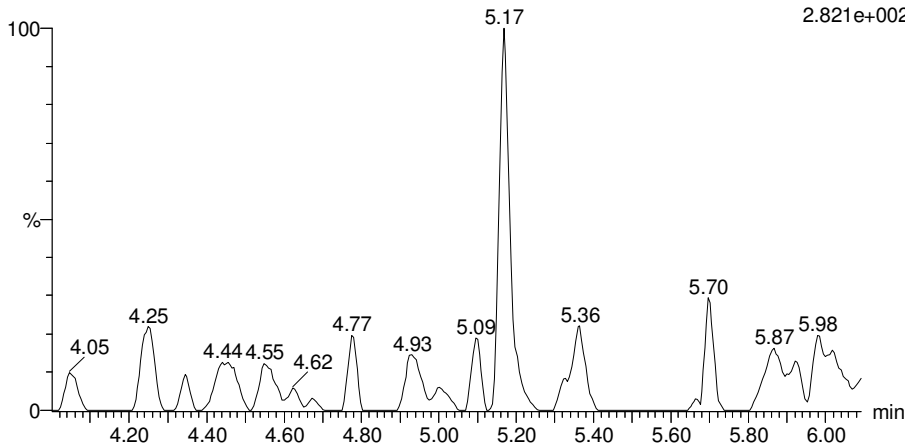
F47:MRM of 2 channels,ES-
570.1 > 419.0
8.278e+001



N-EtFOSAA

180408M1_14 Smooth(Mn,1x2)
LRB B8D0033-BLK1 LRB 0.25

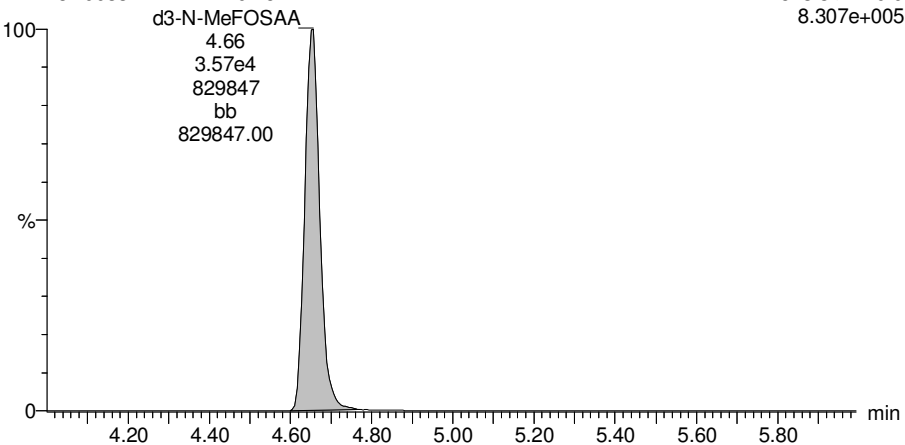
F50:MRM of 2 channels,ES-
584.2 > 419.0
2.821e+002



d3-N-MeFOSAA

180408M1_14 Smooth(Mn,1x2)
LRB B8D0033-BLK1 LRB 0.25

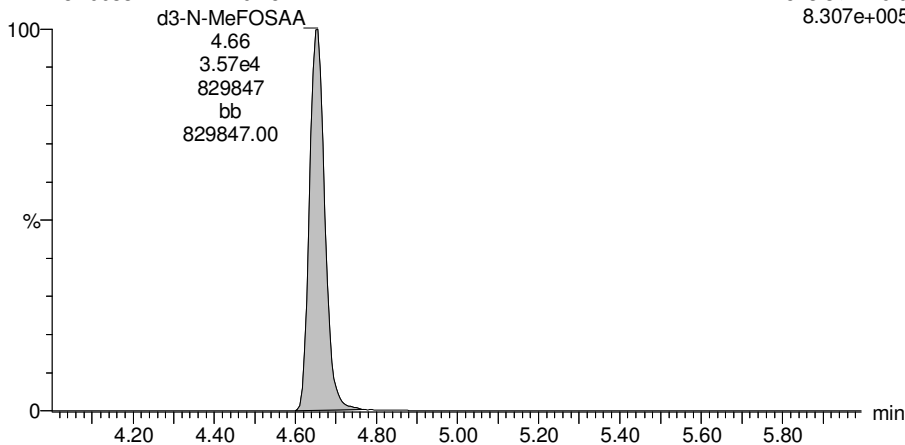
F49:MRM of 1 channel,ES-
573.3 > 419.0
8.307e+005



d3-N-MeFOSAA

180408M1_14 Smooth(Mn,1x2)
LRB B8D0033-BLK1 LRB 0.25

F49:MRM of 1 channel,ES-
573.3 > 419.0
8.307e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-14.qld

Last Altered: Monday, April 09, 2018 10:22:46 Pacific Daylight Time

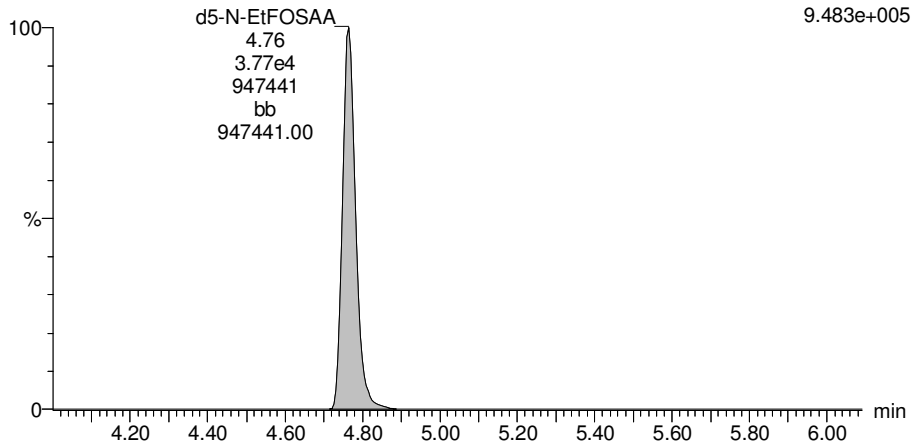
Printed: Monday, April 09, 2018 10:23:38 Pacific Daylight Time

Name: 180408M1_14, Date: 08-Apr-2018, Time: 18:36:47, ID: B8D0033-BLK1 LRB 0.25, Description: LRB

d5-N-EtFOSAA

180408M1_14 Smooth(Mn,1x2)
LRB B8D0033-BLK1 LRB 0.25

F51:MRM of 1 channel,ES-
589.3 > 419.0
9.483e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-36.qld

Last Altered: Sunday, April 08, 2018 18:32:07 Pacific Daylight Time

Printed: Sunday, April 08, 2018 18:32:44 Pacific Daylight Time

Method: Z:\Projects\PFAS.pro\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.pro\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_36, Date: 07-Apr-2018, Time: 21:03:10, ID: B8D0033-BS1 LFB 0.25, Description: LFB

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	7.53e3	1.04e4	0.2500		2.71	2.73	20.8	77.6	109.6
2	2 PFHxA	313.2 > 268.9	4.50e4	1.99e4	0.2500		3.10	3.09	22.6	81.1	101.4
3	3 PFHpA	363 > 318.9	3.80e4	1.99e4	0.2500		3.55	3.54	19.1	82.1	102.6
4	4 PFHxS	398.9 > 79.6	5.57e3	1.04e4	0.2500		3.65	3.64	15.4	81.1	111.2
5	5 PFOA	413 > 368.7	4.04e4	1.99e4	0.2500		3.93	3.92	20.3	83.8	104.8
6	6 PFNA	463 > 418.8	4.31e4	1.99e4	0.2500		4.24	4.24	21.6	86.7	108.3
7	7 PFOS	499 > 79.9	7.57e3	1.04e4	0.2500		4.30	4.29	20.9	77.2	104.3
8	8 PFDA	513 > 468.8	4.33e4	1.99e4	0.2500		4.51	4.50	21.7	92.3	115.4
9	11 PFUnA	563 > 518.9	3.68e4	1.99e4	0.2500		5.42	4.74	18.5	82.2	102.7
10	12 PFDoA	612.9 > 318.8	4.34e3	1.99e4	0.2500		4.95	4.95	2.18	88.6	110.7
11	13 PFTrDA	662.9 > 618.9	4.22e4	1.99e4	0.2500		5.13	5.13	21.2	93.5	116.9
12	14 PFTeDA	712.9 > 668.8	2.58e4	1.99e4	0.2500		5.30	5.30	12.9	71.1	88.9
13	15 13C2-PFHxA	315 > 269.8	1.52e4	1.99e4	0.2500	0.745	3.15	3.09	7.62	40.9	102.2
14	16 13C2-PFDA	515.1 > 469.9	1.76e4	1.99e4	0.2500	0.827	4.50	4.50	8.83	42.7	106.8
15	18 13C2-PFOA	414.9 > 369.7	1.99e4	1.99e4	0.2500	1.000	3.92	3.92	10.0	40.0	100.0
16	19 13C4-PFOS	503.0 > 79.9	1.04e4	1.04e4	0.2500	1.000	4.29	4.29	28.7	115	100.0

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-36.qld

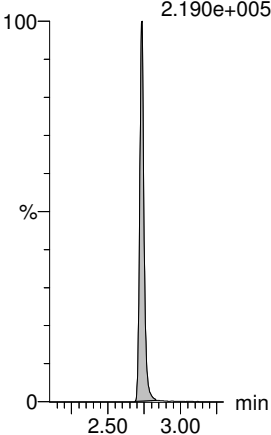
Last Altered: Sunday, April 08, 2018 18:32:07 Pacific Daylight Time
Printed: Sunday, April 08, 2018 18:32:44 Pacific Daylight Time

Method: Z:\Projects\PFAS.pro\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52
Calibration: Z:\Projects\PFAS.pro\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_36, Date: 07-Apr-2018, Time: 21:03:10, ID: B8D0033-BS1 LFB 0.25, Description: LFB

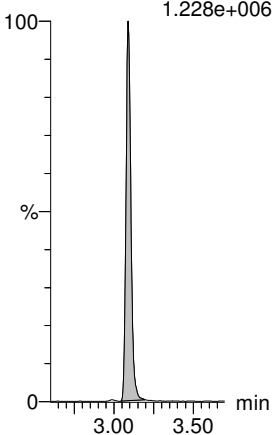
PFBS

F6:MRM of 2 channels,ES-
299 > 79.7
2.190e+005



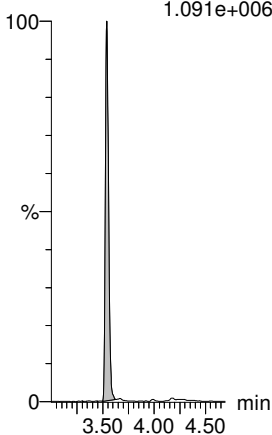
PFHxA

F8:MRM of 2 channels,ES-
313.2 > 268.9
1.228e+006



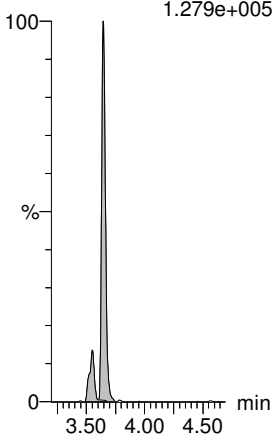
PFHpA

F15:MRM of 2 channels,ES-
363 > 318.9
1.091e+006



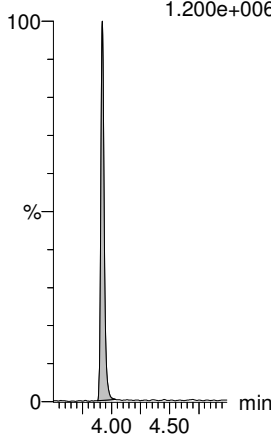
PFHxS

F17:MRM of 2 channels,ES-
398.9 > 79.6
1.279e+005



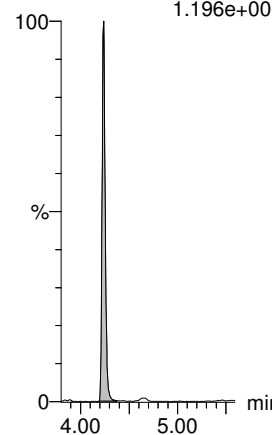
PFOA

F20:MRM of 2 channels,ES-
413 > 368.7
1.200e+006



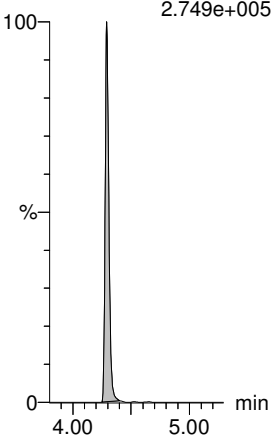
PFNA

F26:MRM of 2 channels,ES-
463 > 418.8
1.196e+006



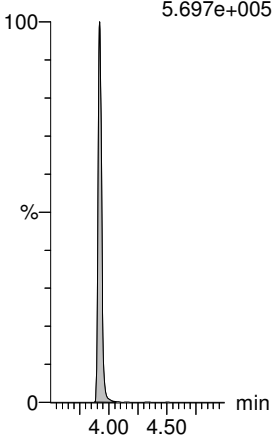
13C4-PFOS

F32:MRM of 1 channel,ES-
503.0 > 79.9
2.749e+005



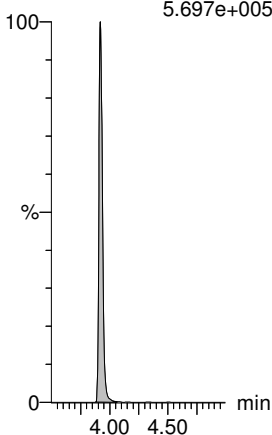
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



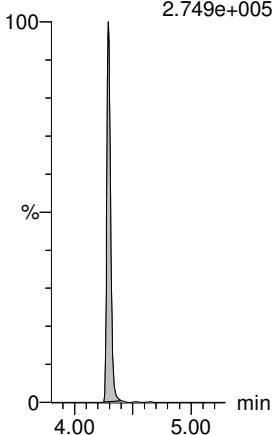
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



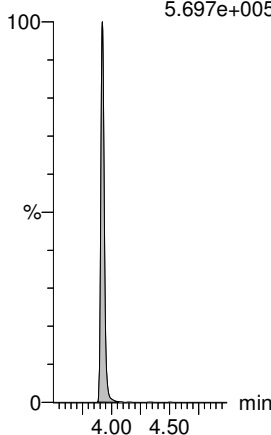
13C4-PFOS

F32:MRM of 1 channel,ES-
503.0 > 79.9
2.749e+005



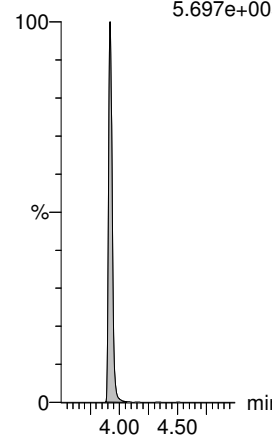
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



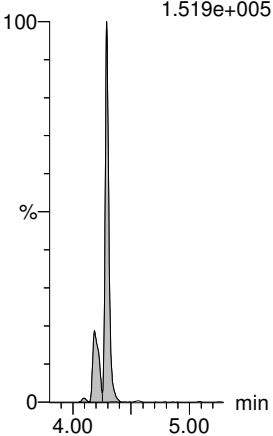
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-36.qld

Last Altered: Sunday, April 08, 2018 18:32:07 Pacific Daylight Time
Printed: Sunday, April 08, 2018 18:32:44 Pacific Daylight Time

Name: 180407M3_36, Date: 07-Apr-2018, Time: 21:03:10, ID: B8D0033-BS1 LFB 0.25, Description: LFB

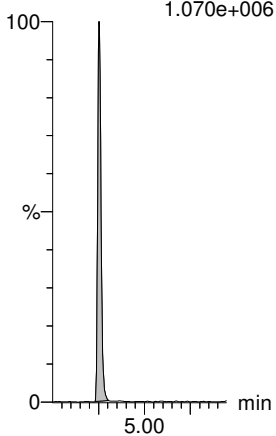
PFOS

F31:MRM of 2 channels,ES-
499 > 79.9
1.519e+005



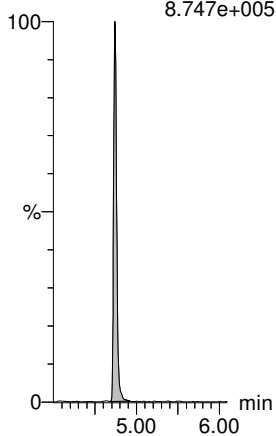
PFDA

F36:MRM of 2 channels,ES-
513 > 468.8
1.070e+006



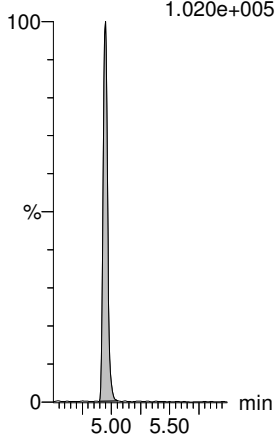
PFUnA

F45:MRM of 2 channels,ES-
563 > 518.9
8.747e+005



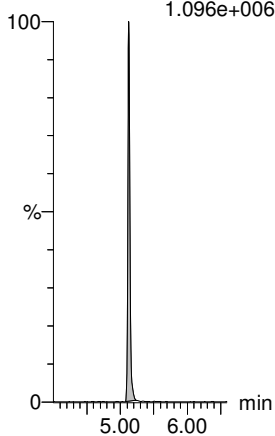
PFDaA

F53:MRM of 4 channels,ES-
612.9 > 318.8
1.020e+005



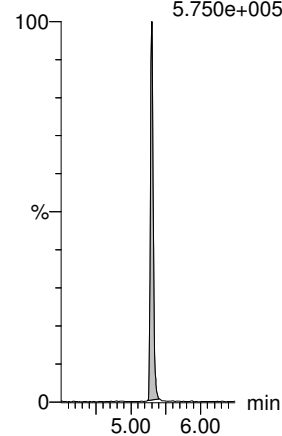
PFTrDA

F59:MRM of 2 channels,ES-
662.9 > 618.9
1.096e+006



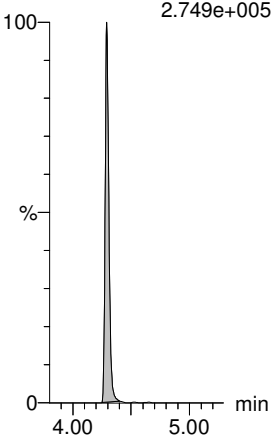
PFTeDA

F60:MRM of 2 channels,ES-
712.9 > 668.8
5.750e+005



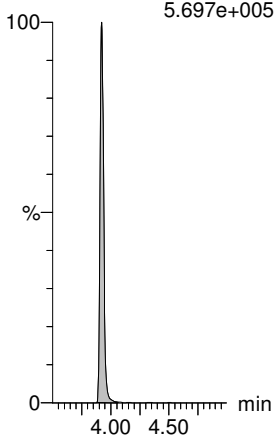
13C4-PFOS

F32:MRM of 1 channel,ES-
503.0 > 79.9
2.749e+005



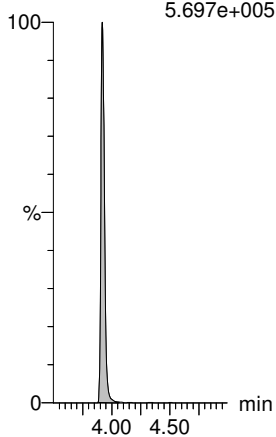
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



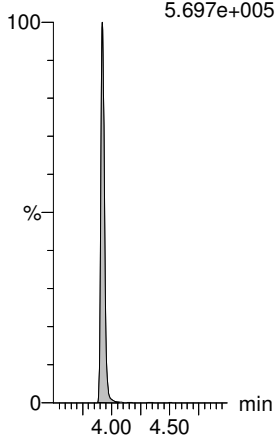
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



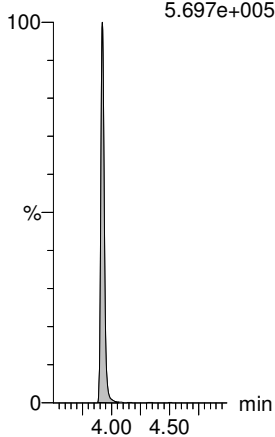
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



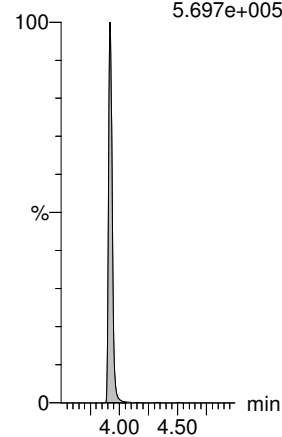
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.697e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-36.qld

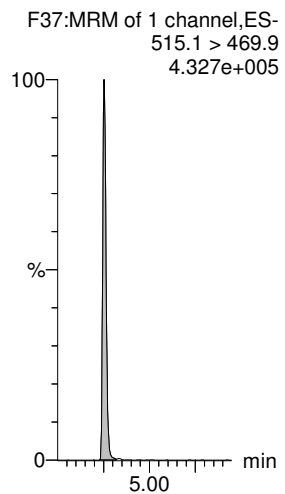
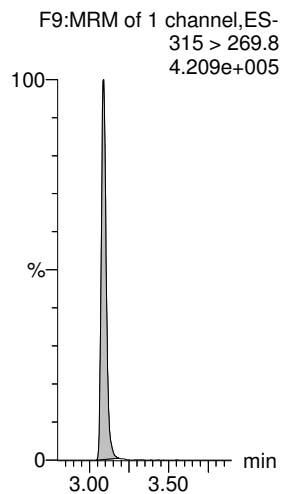
Last Altered: Sunday, April 08, 2018 18:32:07 Pacific Daylight Time

Printed: Sunday, April 08, 2018 18:32:44 Pacific Daylight Time

Name: 180407M3_36, Date: 07-Apr-2018, Time: 21:03:10, ID: B8D0033-BS1 LFB 0.25, Description: LFB

13C2-PFHxA

13C2-PFDA



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-13.qld

Last Altered: Monday, April 09, 2018 10:19:20 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:22:07 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_13, Date: 08-Apr-2018, Time: 18:25:21, ID: B8D0033-BS1 LFB 0.25, Description: LFB

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	9 N-MeFOSAA	570.1 > 419.0	2.42e4	3.23e4	0.2500		4.65	4.65	30.0	84.9	106.1
2	10 N-EtFOSAA	584.2 >419.0	1.97e4	3.23e4	0.2500		4.77	4.77	24.4	85.5	106.9
3	17 d5-N-EtFOSAA	589.3 > 419.0	3.33e4	3.23e4	0.2500	1.059	4.65	4.76	41.2	155	97.2
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.23e4	3.23e4	0.2500	1.000	4.62	4.65	40.0	160	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-13.qld

Last Altered: Monday, April 09, 2018 10:19:20 Pacific Daylight Time
Printed: Monday, April 09, 2018 10:22:07 Pacific Daylight Time

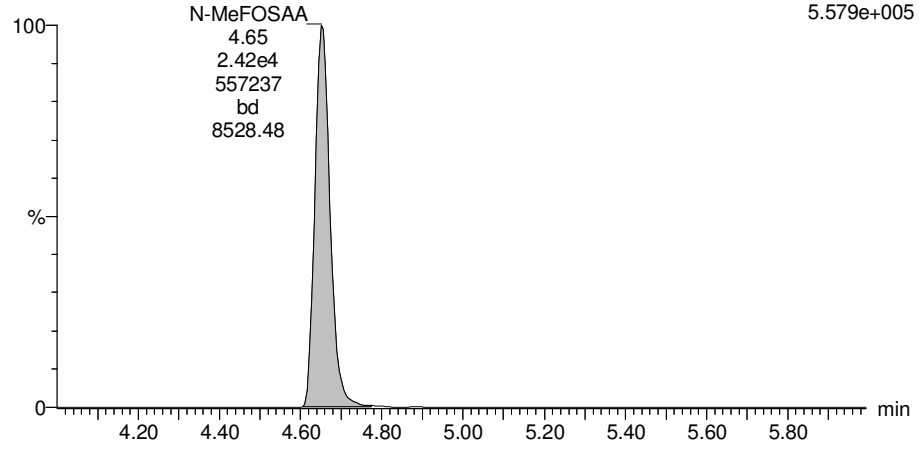
Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_13, Date: 08-Apr-2018, Time: 18:25:21, ID: B8D0033-BS1 LFB 0.25, Description: LFB

N-MeFOSAA

180408M1_13 Smooth(Mn,1x2)
LFB B8D0033-BS1 LFB 0.25

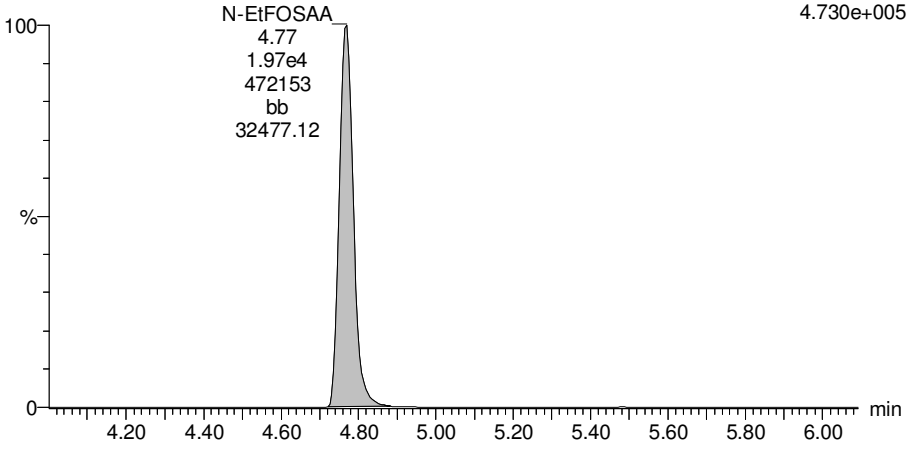
F47:MRM of 2 channels,ES-
570.1 > 419.0
5.579e+005



N-EtFOSAA

180408M1_13 Smooth(Mn,1x2)
LFB B8D0033-BS1 LFB 0.25

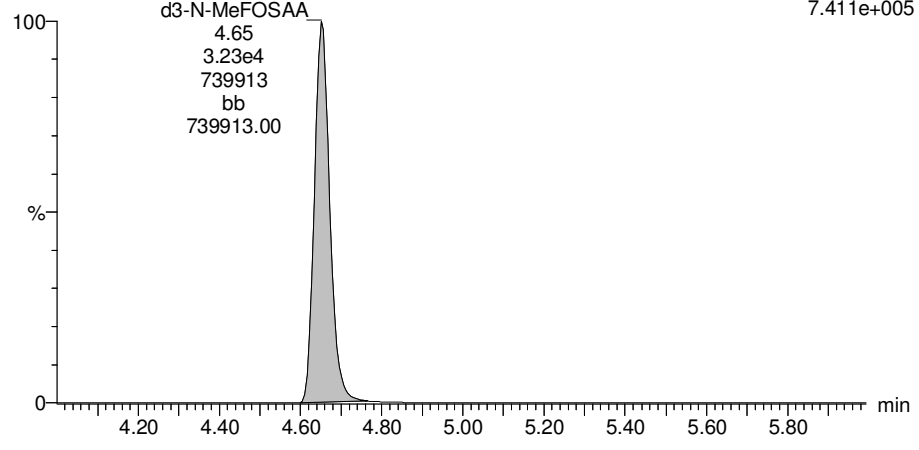
F50:MRM of 2 channels,ES-
584.2 > 419.0
4.730e+005



d3-N-MeFOSAA

180408M1_13 Smooth(Mn,1x2)
LFB B8D0033-BS1 LFB 0.25

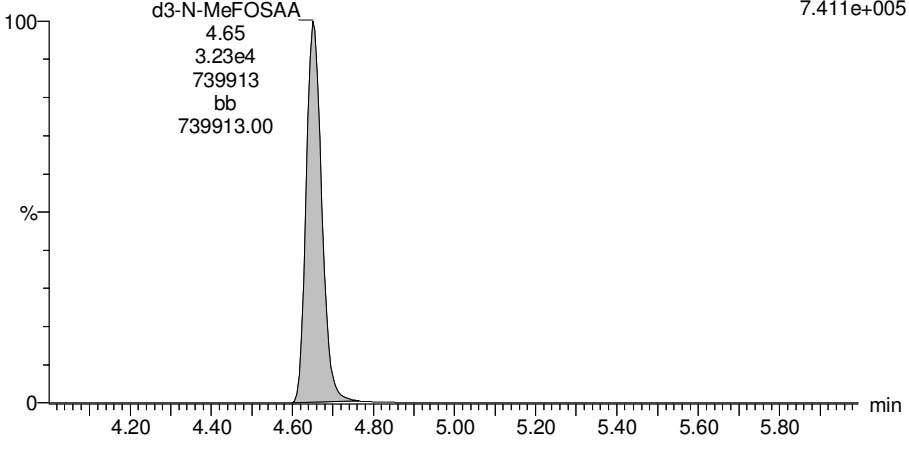
F49:MRM of 1 channel,ES-
573.3 > 419.0
7.411e+005



d3-N-MeFOSAA

180408M1_13 Smooth(Mn,1x2)
LFB B8D0033-BS1 LFB 0.25

F49:MRM of 1 channel,ES-
573.3 > 419.0
7.411e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-13.qld

Last Altered: Monday, April 09, 2018 10:19:20 Pacific Daylight Time

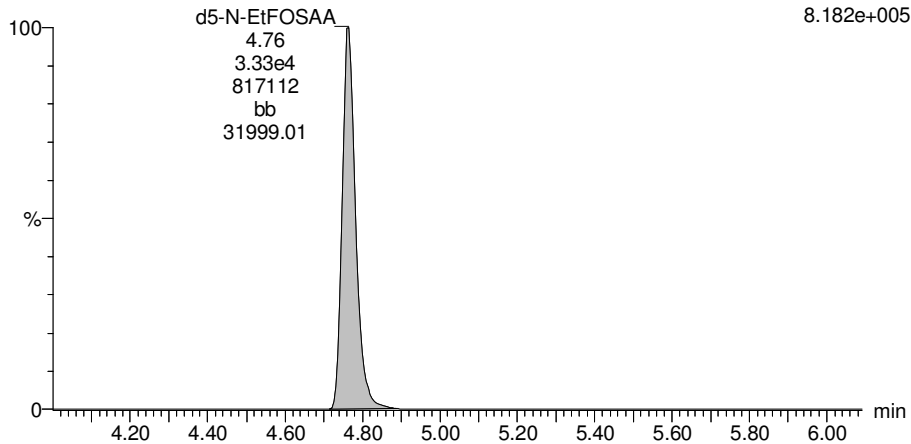
Printed: Monday, April 09, 2018 10:22:07 Pacific Daylight Time

Name: 180408M1_13, Date: 08-Apr-2018, Time: 18:25:21, ID: B8D0033-BS1 LFB 0.25, Description: LFB

d5-N-EtFOSAA

180408M1_13 Smooth(Mn,1x2)
LFB B8D0033-BS1 LFB 0.25

F51:MRM of 1 channel,ES-
589.3 > 419.0
8.182e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-38.qld

Last Altered: Sunday, April 08, 2018 17:06:19 Pacific Daylight Time

Printed: Sunday, April 08, 2018 17:06:38 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_38, Date: 07-Apr-2018, Time: 21:26:08, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318

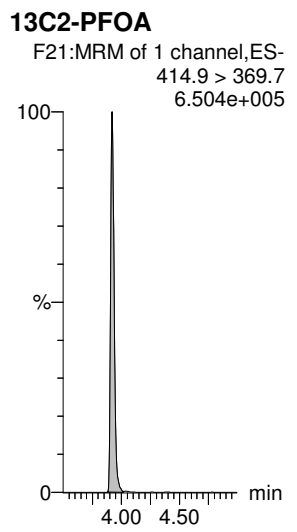
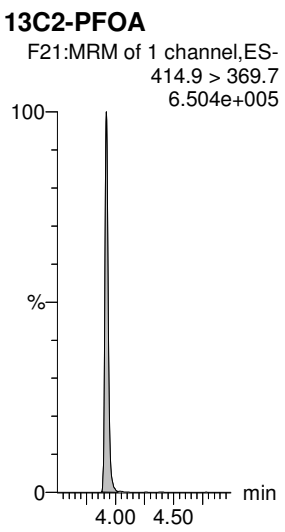
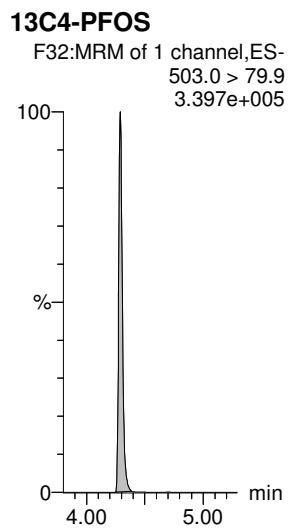
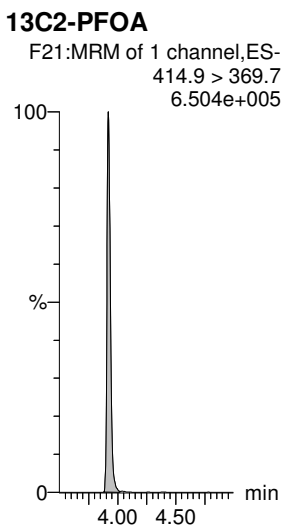
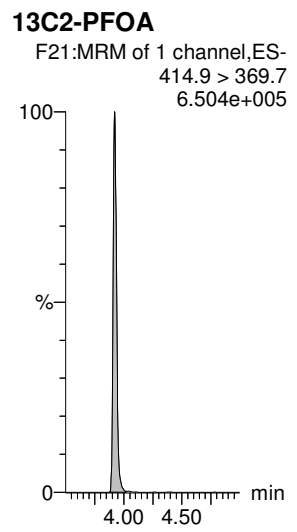
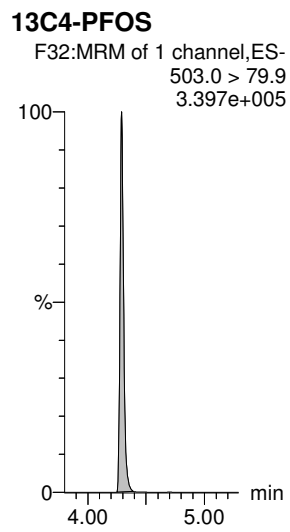
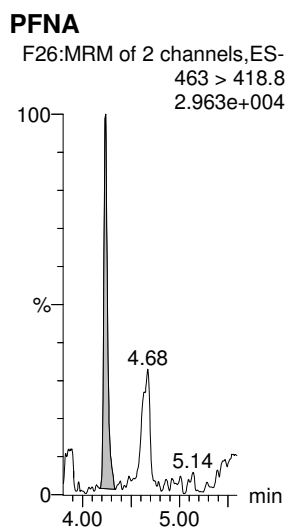
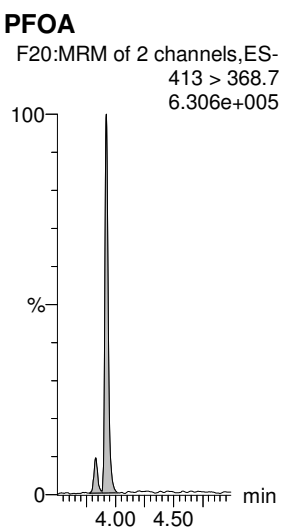
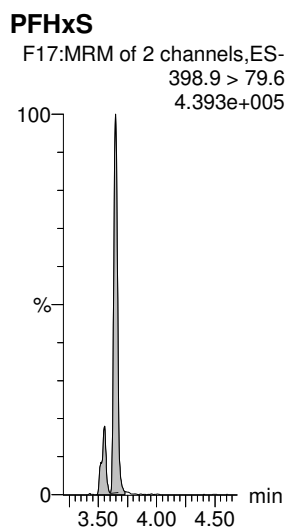
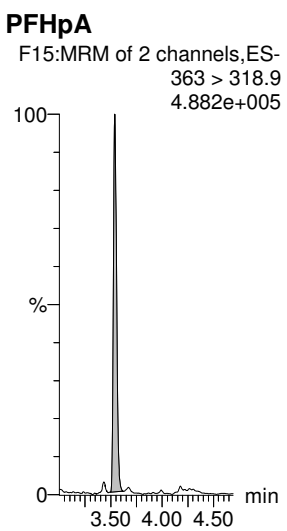
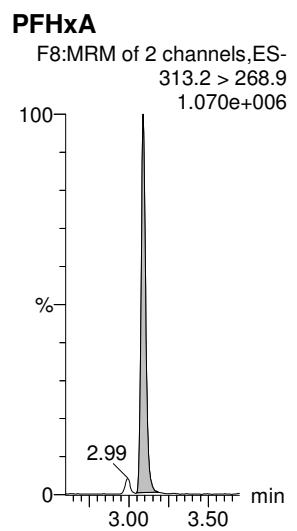
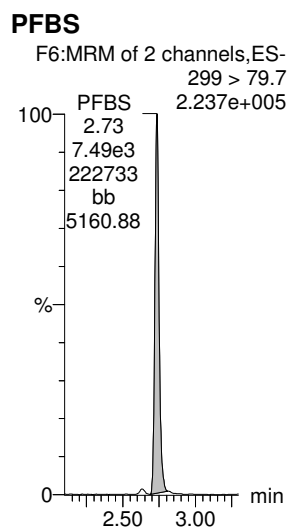
	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	7.49e3	1.25e4	0.2494		2.71	2.73	17.2	64.7	
2	2 PFHxA	313.2 > 268.9	3.73e4	2.17e4	0.2494		3.10	3.09	17.2	61.8	
3	3 PFHpA	363 > 318.9	1.68e4	2.17e4	0.2494		3.55	3.54	7.74	33.4	
4	4 PFHxS	398.9 > 79.6	1.99e4	1.25e4	0.2494		3.65	3.65	45.8	233	
5	5 PFOA	413 > 368.7	2.34e4	2.17e4	0.2494		3.93	3.92	10.8	44.7	
6	6 PFNA	463 > 418.8	1.28e3	2.17e4	0.2494		4.24	4.24	0.588	2.36	
7	7 PFOS	499 > 79.9	8.81e3	1.25e4	0.2494		4.30	4.19	20.3	75.1	
8	8 PFDA	513 > 468.8		2.17e4	0.2494		4.51				
9	11 PFUnA	563 > 518.9		2.17e4	0.2494		4.74				
10	12 PFDoA	612.9 > 318.8		2.17e4	0.2494		4.95				
11	13 PFTrDA	662.9 > 618.9		2.17e4	0.2494		5.13				
12	14 PFTeDA	712.9 > 668.8		2.17e4	0.2494		5.30				
13	15 13C2-PFHxA	315 > 269.8	1.65e4	2.17e4	0.2494	0.745	3.15	3.09	7.60	40.9	101.9
14	16 13C2-PFDA	515.1 > 469.9	1.71e4	2.17e4	0.2494	0.827	4.50	4.50	7.86	38.1	95.1
15	18 13C2-PFOA	414.9 > 369.7	2.17e4	2.17e4	0.2494	1.000	3.92	3.92	10.0	40.1	100.0
16	19 13C4-PFOS	503.0 > 79.9	1.25e4	1.25e4	0.2494	1.000	4.29	4.29	28.7	115	100.0

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-38.qld

Last Altered: Sunday, April 08, 2018 17:06:19 Pacific Daylight Time
Printed: Sunday, April 08, 2018 17:06:38 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

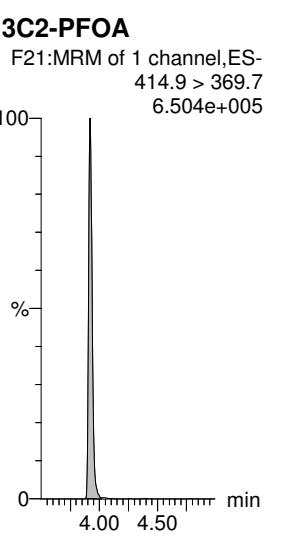
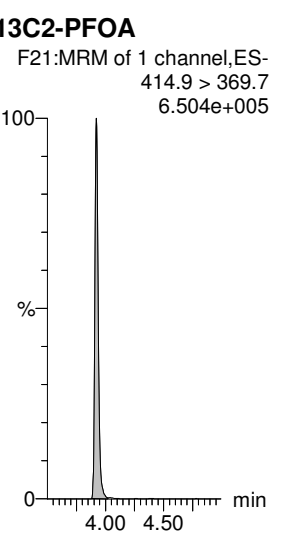
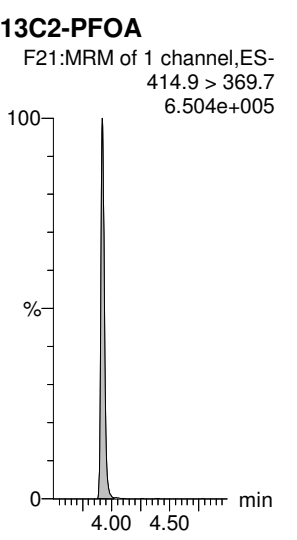
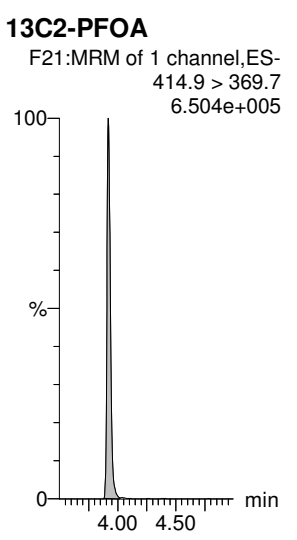
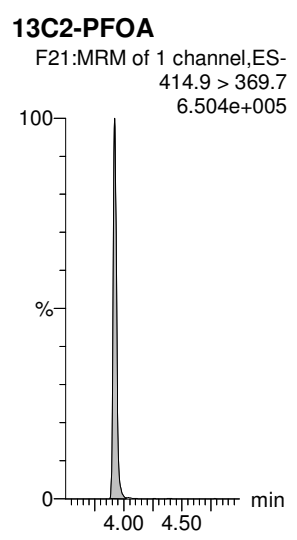
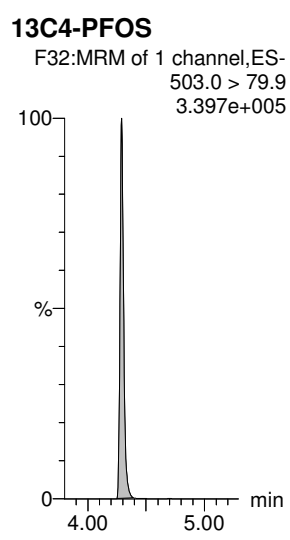
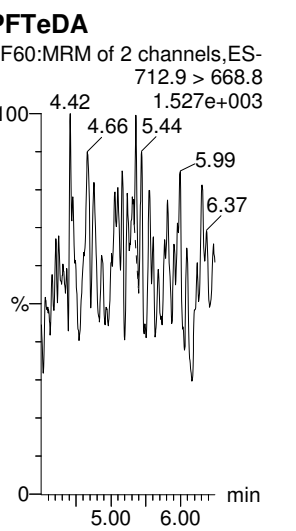
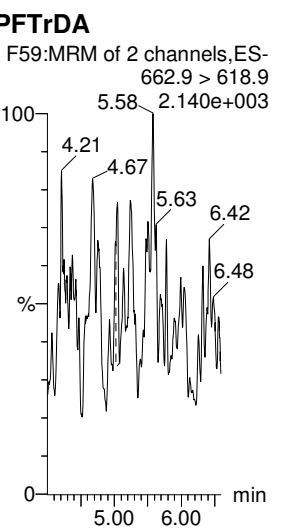
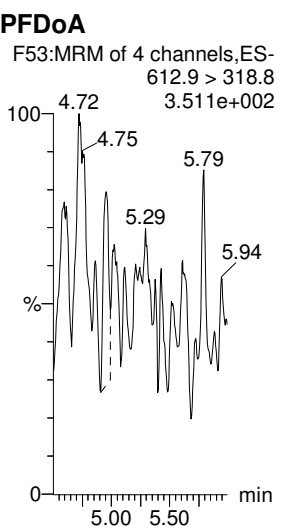
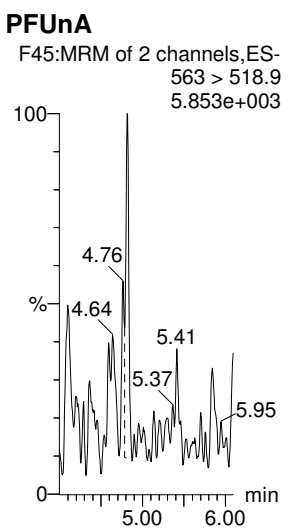
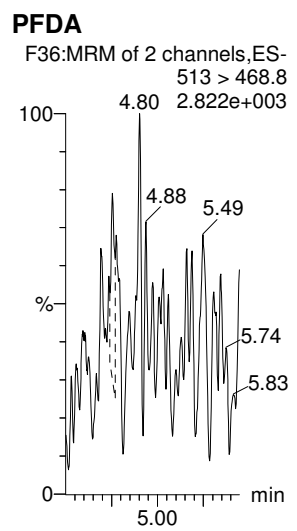
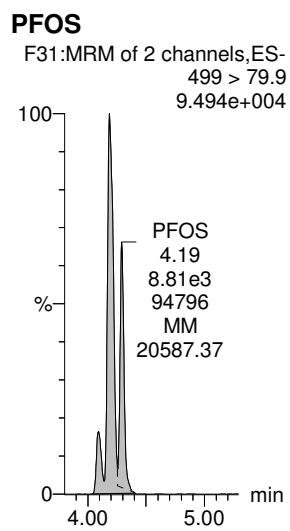
Name: 180407M3_38, Date: 07-Apr-2018, Time: 21:26:08, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-38.qld

Last Altered: Sunday, April 08, 2018 17:06:19 Pacific Daylight Time
Printed: Sunday, April 08, 2018 17:06:38 Pacific Daylight Time

Name: 180407M3_38, Date: 07-Apr-2018, Time: 21:26:08, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-38.qld

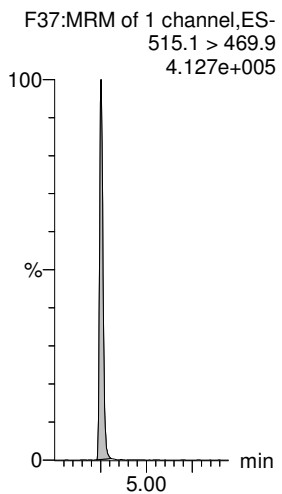
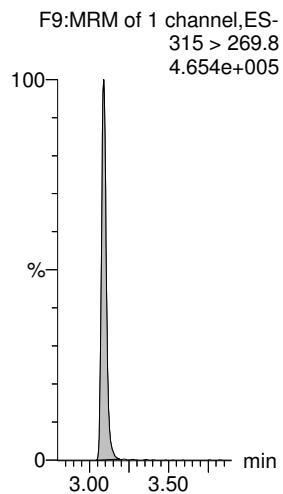
Last Altered: Sunday, April 08, 2018 17:06:19 Pacific Daylight Time

Printed: Sunday, April 08, 2018 17:06:38 Pacific Daylight Time

Name: 180407M3_38, Date: 07-Apr-2018, Time: 21:26:08, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318

13C2-PFHxA

13C2-PFDA



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-17.qld

Last Altered: Monday, April 09, 2018 10:28:36 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:28:54 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_17, Date: 08-Apr-2018, Time: 19:11:15, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	9 N-MeFOSAA	570.1 > 419.0		3.82e4	0.2494		4.65				
2	10 N-EtFOSAA	584.2 >419.0		3.82e4	0.2494		4.77				
3	17 d5-N-EtFOSAA	589.3 > 419.0	3.48e4	3.82e4	0.2494	1.059	4.65	4.76	36.3	138	85.8
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.82e4	3.82e4	0.2494	1.000	4.62	4.65	40.0	160	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-17.qld

Last Altered: Monday, April 09, 2018 10:28:36 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:28:54 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

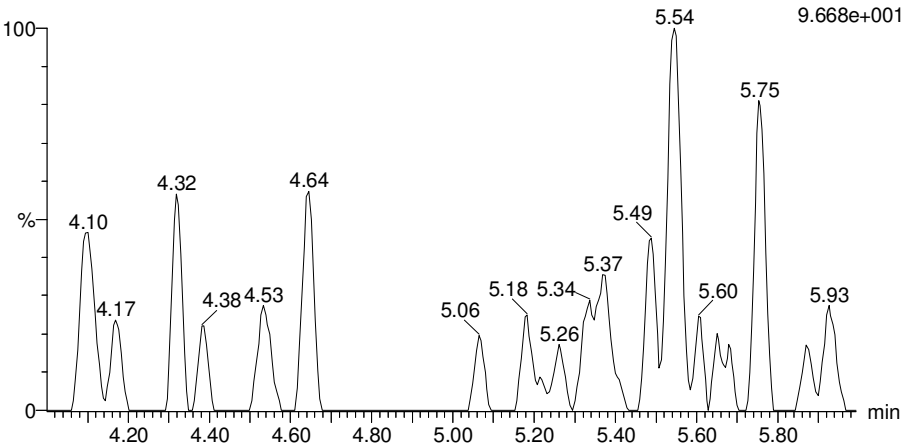
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_17, Date: 08-Apr-2018, Time: 19:11:15, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318

N-MeFOSAA

180408M1_17 Smooth(Mn,1x2)
WI-A06-RW19-0318 1800600-01 WI-A06-RW19-0318 0.24937

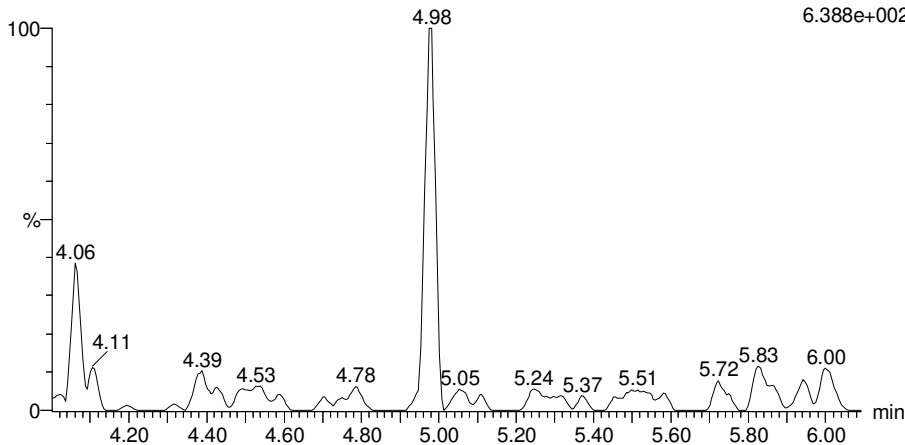
F47:MRM of 2 channels,ES-
570.1 > 419.0
9.668e+001



N-EtFOSAA

180408M1_17 Smooth(Mn,1x2)
WI-A06-RW19-0318 1800600-01 WI-A06-RW19-0318 0.24937

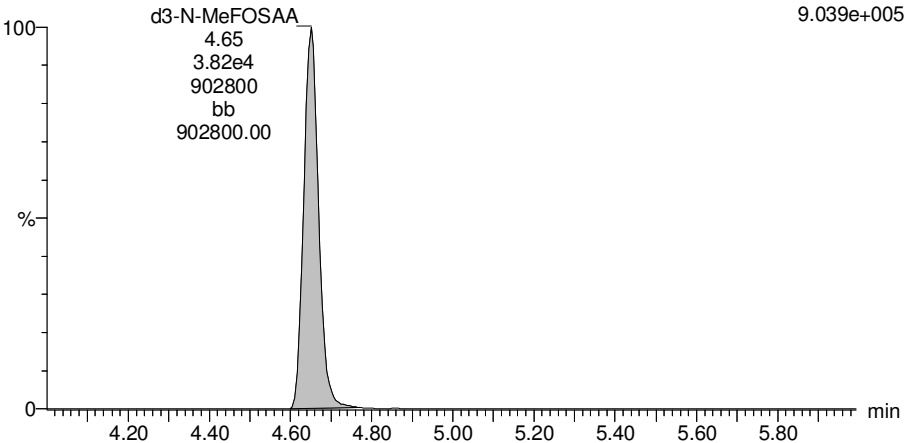
F50:MRM of 2 channels,ES-
584.2 > 419.0
6.388e+002



d3-N-MeFOSAA

180408M1_17 Smooth(Mn,1x2)
WI-A06-RW19-0318 1800600-01 WI-A06-RW19-0318 0.24937

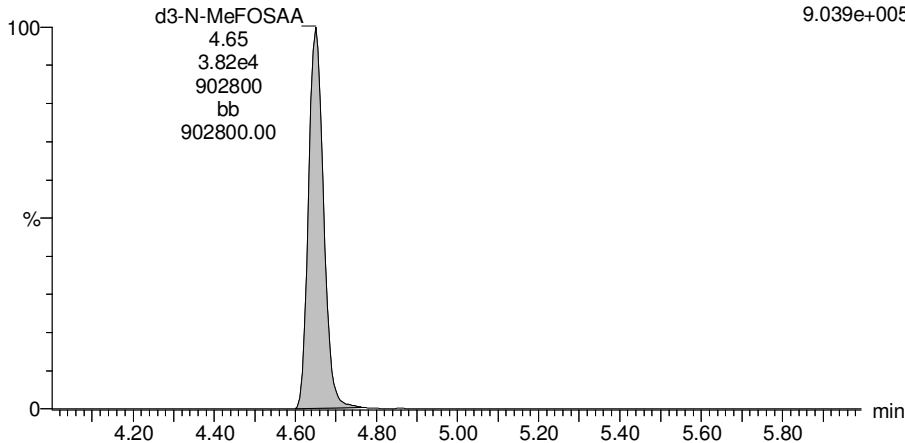
F49:MRM of 1 channel,ES-
573.3 > 419.0
9.039e+005



d3-N-MeFOSAA

180408M1_17 Smooth(Mn,1x2)
WI-A06-RW19-0318 1800600-01 WI-A06-RW19-0318 0.24937

F49:MRM of 1 channel,ES-
573.3 > 419.0
9.039e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-17.qld

Last Altered: Monday, April 09, 2018 10:28:36 Pacific Daylight Time

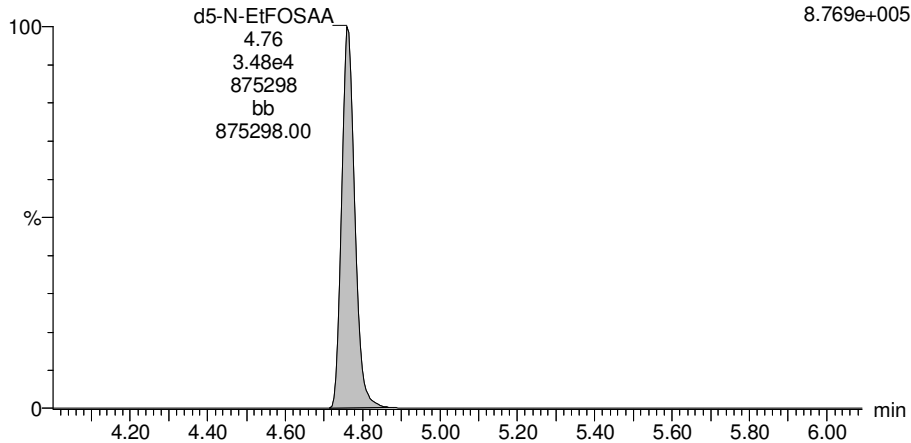
Printed: Monday, April 09, 2018 10:28:54 Pacific Daylight Time

Name: 180408M1_17, Date: 08-Apr-2018, Time: 19:11:15, ID: 1800600-01 WI-A06-RW19-0318 0.24937, Description: WI-A06-RW19-0318

d5-N-EtFOSAA

180408M1_17 Smooth(Mn,1x2)
WI-A06-RW19-0318 1800600-01 WI-A06-RW19-0318 0.24937

F51:MRM of 1 channel,ES-
589.3 > 419.0
8.769e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-15_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 10:42:51 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:43:44 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.27e4	1.06e4	0.2521		2.75	2.77	34.6	128	
2	2 PFHxA	313.2 > 268.9	7.51e4	1.95e4	0.2521		3.14	3.13	38.6	137	
3	3 PFHpA	363 > 318.9	5.14e4	1.95e4	0.2521		3.59	3.58	26.4	113	
4	4 PFHxS	398.9 > 79.6	2.21e4	1.06e4	0.2521		3.69	3.68	59.9	296	
5	5 PFOA	413 > 368.7	5.89e4	1.95e4	0.2521		3.97	3.96	30.2	124	
6	6 PFNA	463 > 418.8	3.91e4	1.95e4	0.2521		4.28	4.27	20.1	79.8	
7	7 PFOS	499 > 79.9	1.49e4	1.06e4	0.2521		4.34	4.33	40.5	148	
8	8 PFDA	513 > 468.8	3.84e4	1.95e4	0.2521		4.55	4.54	19.7	83.2	
9	11 PFUnA	563 > 518.9	3.37e4	1.95e4	0.2521		4.78	4.77	17.3	76.4	
10	12 PFDoA	612.9 > 318.8	3.99e3	1.95e4	0.2521		4.99	4.98	2.05	82.8	
11	13 PFTTrDA	662.9 > 618.9	3.16e4	1.95e4	0.2521		5.17	5.16	16.2	71.1	
12	14 PFTeDA	712.9 > 668.8	2.62e4	1.95e4	0.2521		5.34	5.33	13.4	73.2	
13	15 13C2-PFHxA	315 > 269.8	1.36e4	1.95e4	0.2521	0.745	3.17	3.13	6.98	37.1	93.6
14	16 13C2-PFDA	515.1 > 469.9	1.55e4	1.95e4	0.2521	0.827	4.54	4.54	7.95	38.2	96.2
15	18 13C2-PFOA	414.9 > 369.7	1.95e4	1.95e4	0.2521	1.000	3.92	3.96	10.0	39.7	100.0
16	19 13C4-PFOS	503.0 > 79.9	1.06e4	1.06e4	0.2521	1.000	4.29	4.33	28.7	114	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-15_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 10:42:51 Pacific Daylight Time

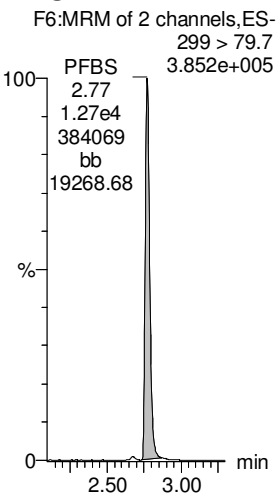
Printed: Monday, April 09, 2018 10:43:44 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

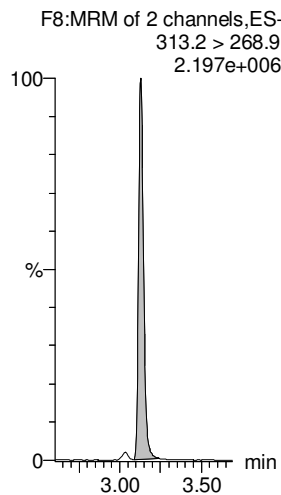
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

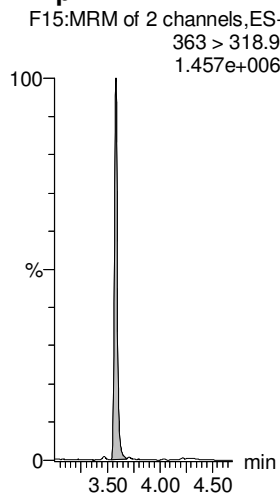
PFBS



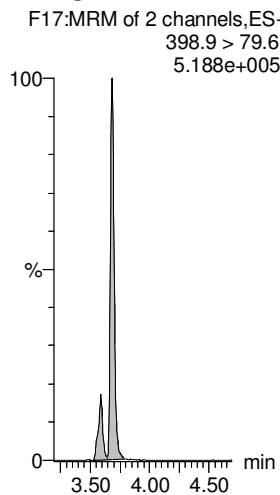
PFHxA



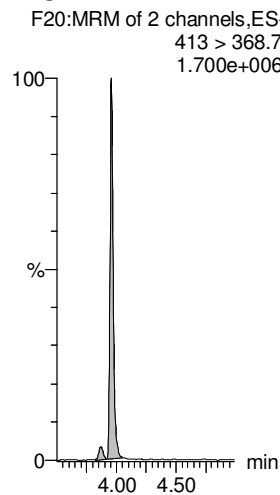
PFHpA



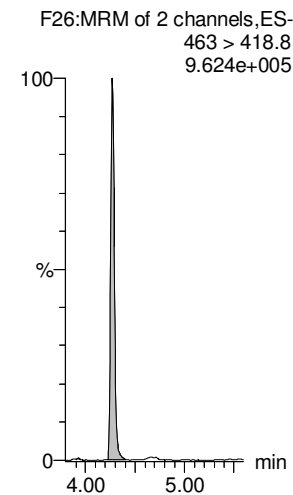
PFHxS



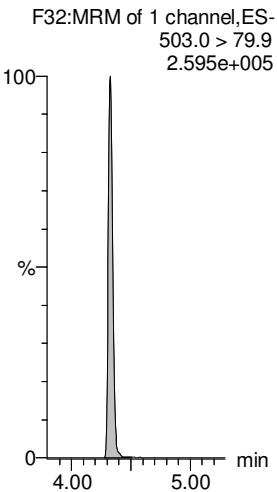
PFOA



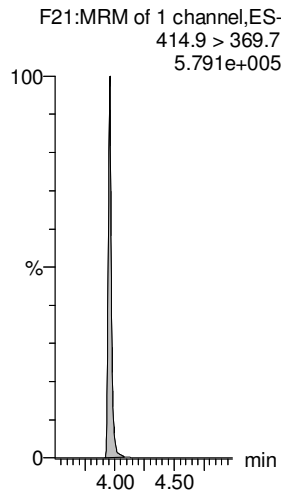
PFNA



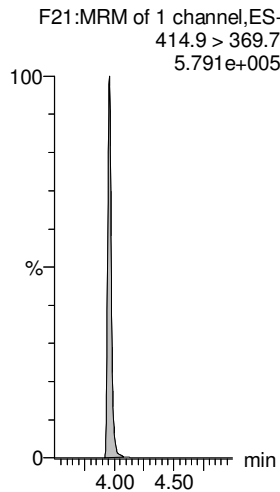
13C4-PFOS



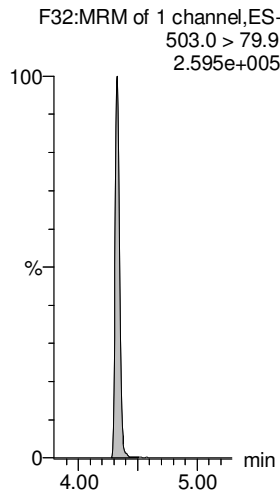
13C2-PFOA



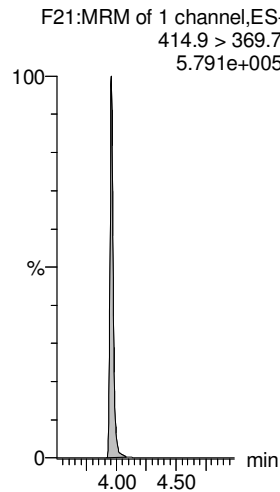
13C2-PFOA



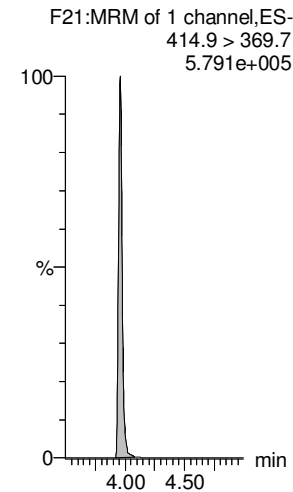
13C4-PFOS



13C2-PFOA



13C2-PFOA



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-15_PFOA_PFOS.qld

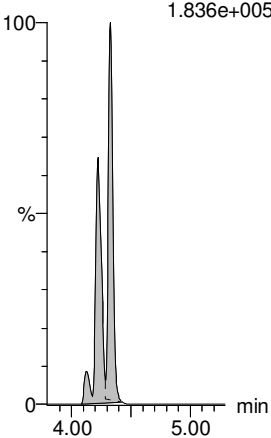
Last Altered: Monday, April 09, 2018 10:42:51 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:43:44 Pacific Daylight Time

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

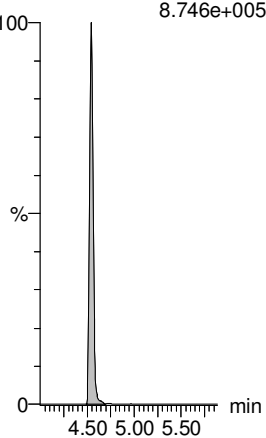
PFOS

F31:MRM of 2 channels,ES-
499 > 79.9
1.836e+005



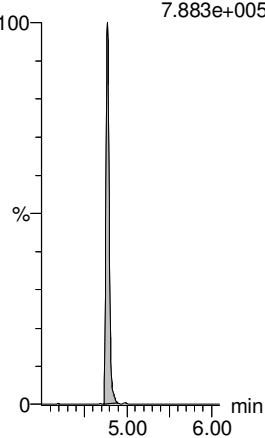
PFDA

F36:MRM of 2 channels,ES-
513 > 468.8
8.746e+005



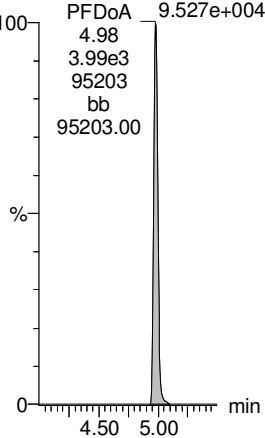
PFUnA

F45:MRM of 2 channels,ES-
563 > 518.9
7.883e+005



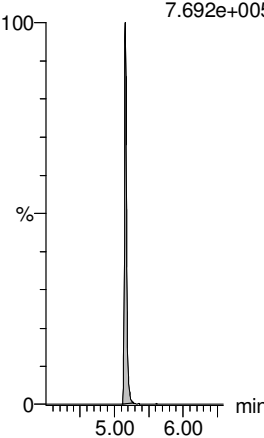
PFDaA

F53:MRM of 4 channels,ES-
612.9 > 318.8
9.527e+004



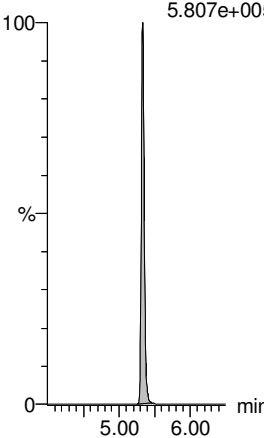
PFTrDA

F59:MRM of 2 channels,ES-
662.9 > 618.9
7.692e+005



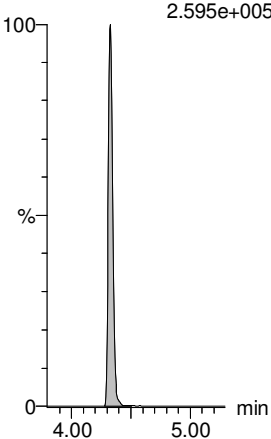
PFTeDA

F60:MRM of 2 channels,ES-
712.9 > 668.8
5.807e+005



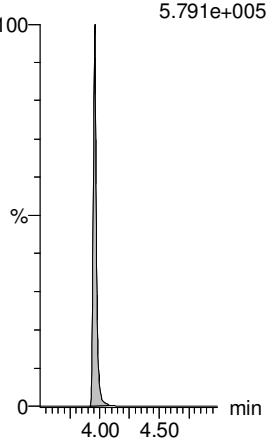
13C4-PFOS

F32:MRM of 1 channel,ES-
503.0 > 79.9
2.595e+005



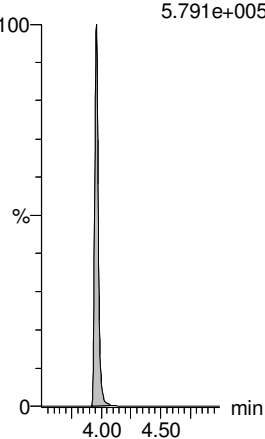
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.791e+005



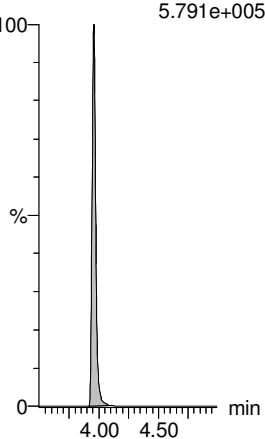
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.791e+005



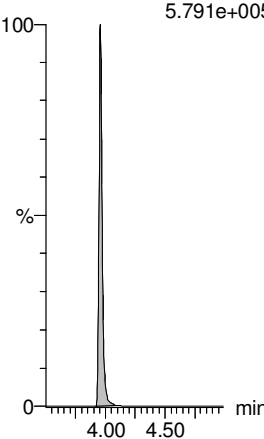
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.791e+005



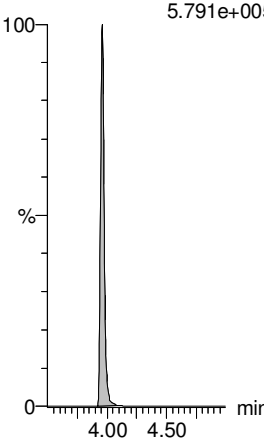
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.791e+005



13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
5.791e+005



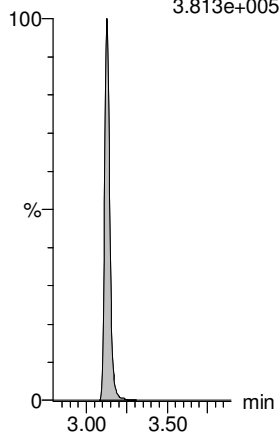
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Last Altered: Monday, April 09, 2018 10:42:51 Pacific Daylight Time

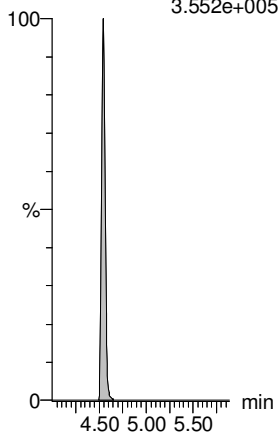
Printed: Monday, April 09, 2018 10:43:44 Pacific Daylight Time

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
3.813e+005



13C2-PFDA
F37:MRM of 1 channel,ES-
515.1 > 469.9
3.552e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-15.qld

Last Altered: Monday, April 09, 2018 10:26:53 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:27:21 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	9 N-MeFOSAA	570.1 > 419.0	2.25e4	2.83e4	0.2521		4.65	4.66	31.9	89.2	
2	10 N-EtFOSAA	584.2 >419.0	1.72e4	2.83e4	0.2521		4.77	4.76	24.4	84.9	
3	17 d5-N-EtFOSAA	589.3 > 419.0	3.38e4	2.83e4	0.2521	1.059	4.65	4.76	47.8	179	112.9
4	20 d3-N-MeFOSAA	573.3 > 419.0	2.83e4	2.83e4	0.2521	1.000	4.62	4.65	40.0	159	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-15.qld

Last Altered: Monday, April 09, 2018 10:26:53 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:27:21 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

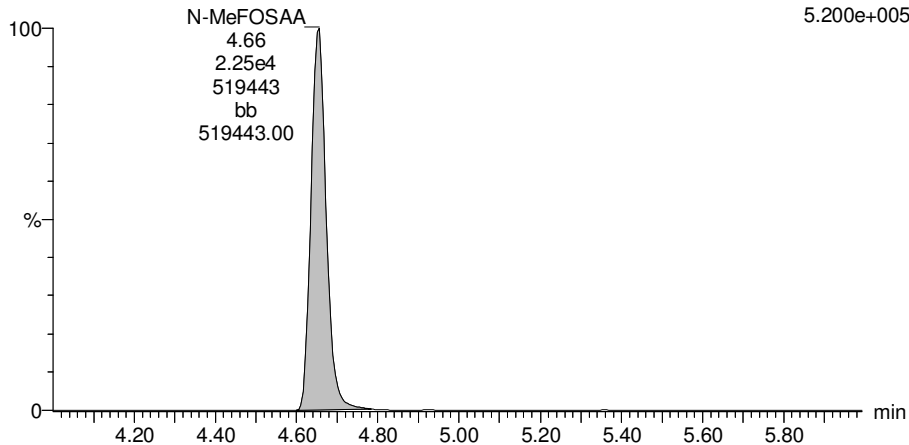
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

N-MeFOSAA

180408M1_15 Smooth(Mn,1x2)
LFSM B8D0033-MS1 LFSM 0.25214

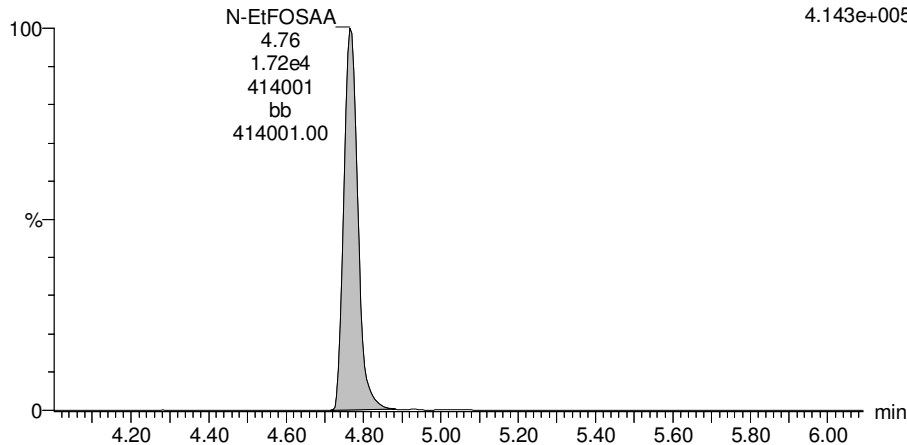
F47:MRM of 2 channels,ES-
570.1 > 419.0
5.200e+005



N-EtFOSAA

180408M1_15 Smooth(Mn,1x2)
LFSM B8D0033-MS1 LFSM 0.25214

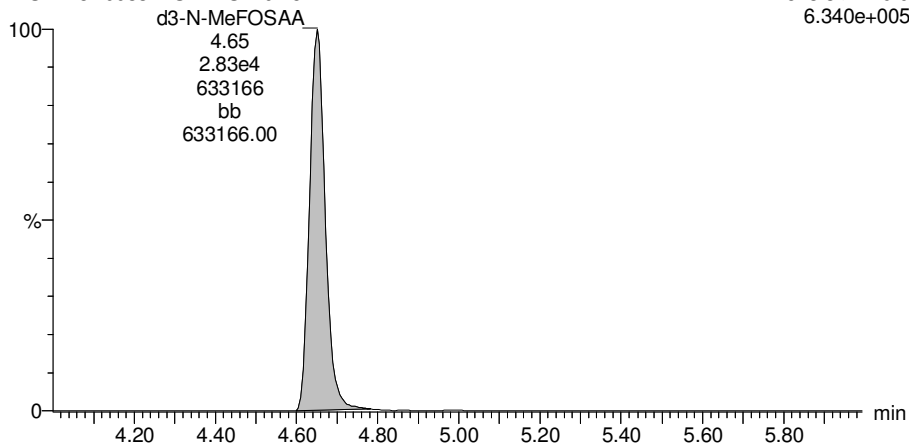
F50:MRM of 2 channels,ES-
584.2 > 419.0
4.143e+005



d3-N-MeFOSAA

180408M1_15 Smooth(Mn,1x2)
LFSM B8D0033-MS1 LFSM 0.25214

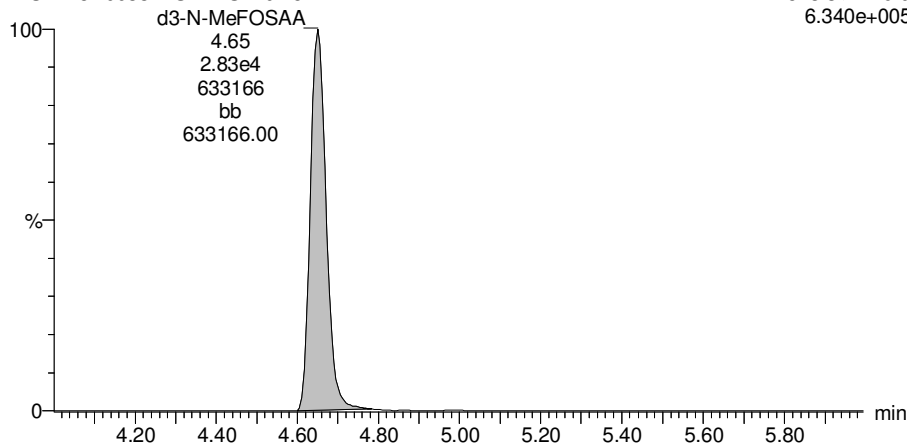
F49:MRM of 1 channel,ES-
573.3 > 419.0
6.340e+005



d3-N-MeFOSAA

180408M1_15 Smooth(Mn,1x2)
LFSM B8D0033-MS1 LFSM 0.25214

F49:MRM of 1 channel,ES-
573.3 > 419.0
6.340e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-15.qld

Last Altered: Monday, April 09, 2018 10:26:53 Pacific Daylight Time

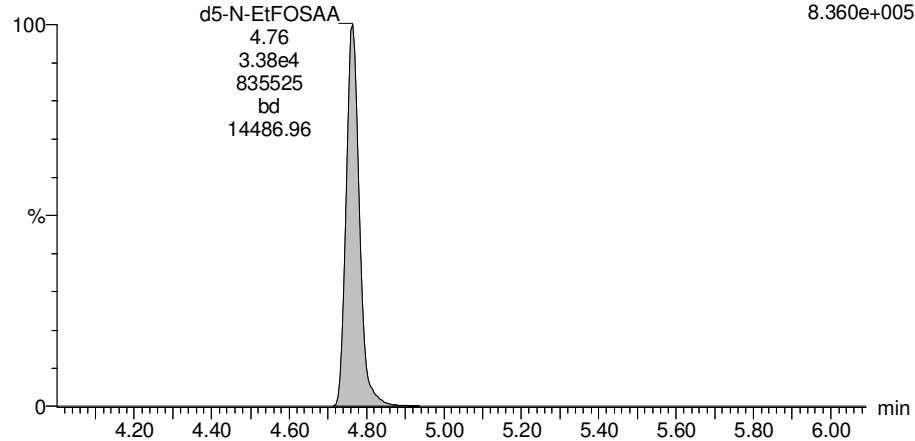
Printed: Monday, April 09, 2018 10:27:21 Pacific Daylight Time

Name: 180408M1_15, Date: 08-Apr-2018, Time: 18:48:15, ID: B8D0033-MS1 LFSM 0.25214, Description: LFSM

d5-N-EtFOSAA

180408M1_15 Smooth(Mn,1x2)
LFSM B8D0033-MS1 LFSM 0.25214

F51:MRM of 1 channel,ES-
589.3 > 419.0
8.360e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 10:44:48 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:45:16 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7	1.30e4	9.26e3	0.2497		2.75	2.77	40.5	151	
2	2 PFHxA	313.2 > 268.9	7.41e4	1.80e4	0.2497		3.14	3.13	41.1	148	
3	3 PFHpA	363 > 318.9	4.86e4	1.80e4	0.2497		3.59	3.58	26.9	116	
4	4 PFHxS	398.9 > 79.6	2.24e4	9.26e3	0.2497		3.69	3.68	69.5	343	
5	5 PFOA	413 > 368.7	5.81e4	1.80e4	0.2497		3.97	3.96	32.2	133	
6	6 PFNA	463 > 418.8	3.66e4	1.80e4	0.2497		4.28	4.27	20.3	81.3	
7	7 PFOS	499 > 79.9	1.34e4	9.26e3	0.2497		4.34	4.33	41.6	154	
8	8 PFDA	513 > 468.8	3.75e4	1.80e4	0.2497		4.55	4.54	20.8	88.5	
9	11 PFUnA	563 > 518.9	3.30e4	1.80e4	0.2497		4.78	4.77	18.3	81.3	
10	12 PFDoA	612.9 > 318.8	4.03e3	1.80e4	0.2497		4.99	4.98	2.23	90.9	
11	13 PFTTrDA	662.9 > 618.9	3.36e4	1.80e4	0.2497		5.17	5.16	18.6	82.3	
12	14 PFTeDA	712.9 > 668.8	3.20e4	1.80e4	0.2497		5.34	5.33	17.7	97.5	
13	15 13C2-PFHxA	315 > 269.8	1.37e4	1.80e4	0.2497	0.745	3.17	3.13	7.58	40.7	101.8
14	16 13C2-PFDA	515.1 > 469.9	1.46e4	1.80e4	0.2497	0.827	4.54	4.54	8.12	39.3	98.2
15	18 13C2-PFOA	414.9 > 369.7	1.80e4	1.80e4	0.2497	1.000	3.92	3.96	10.0	40.0	100.0
16	19 13C4-PFOS	503.0 > 79.9	9.26e3	9.26e3	0.2497	1.000	4.29	4.33	28.7	115	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 10:44:48 Pacific Daylight Time

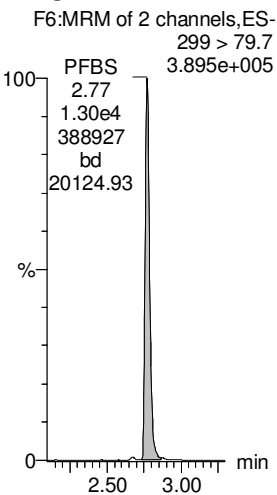
Printed: Monday, April 09, 2018 10:45:16 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

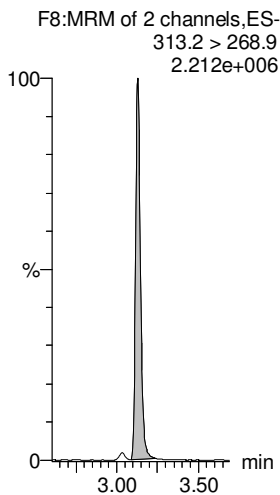
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD

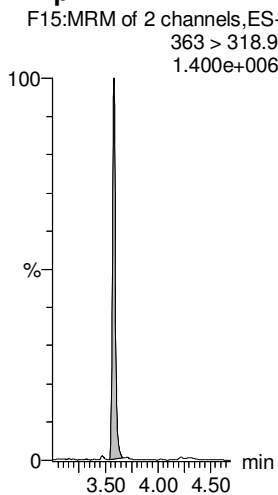
PFBS



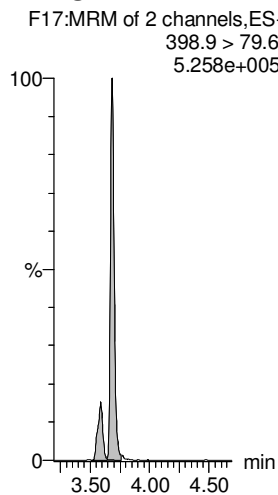
PFHxA



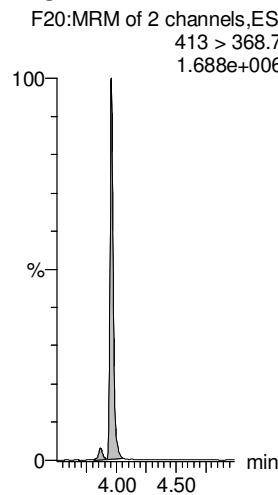
PFHpA



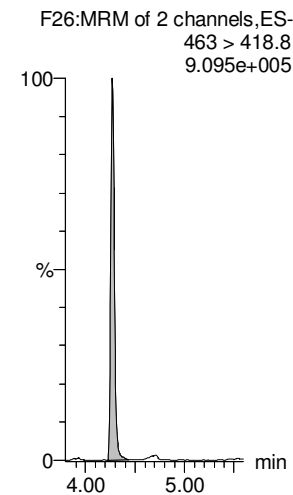
PFHxS



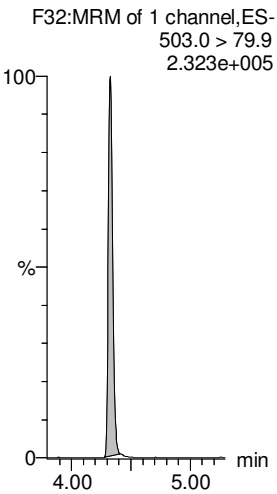
PFOA



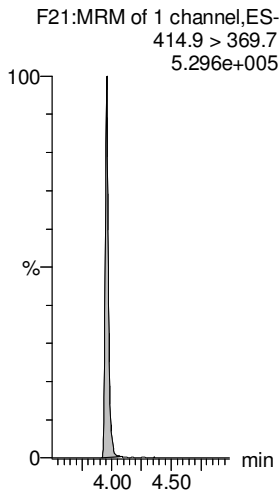
PFNA



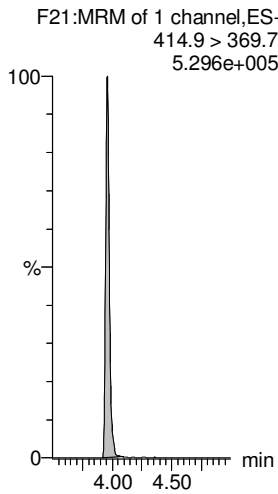
13C4-PFOS



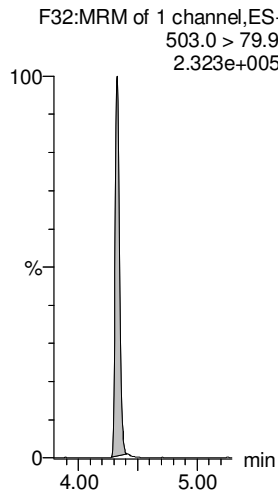
13C2-PFOA



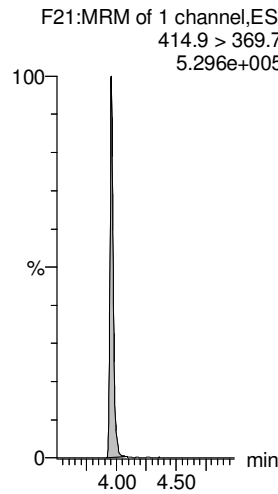
13C2-PFOA



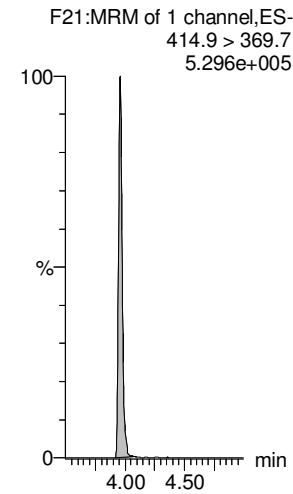
13C4-PFOS



13C2-PFOA



13C2-PFOA

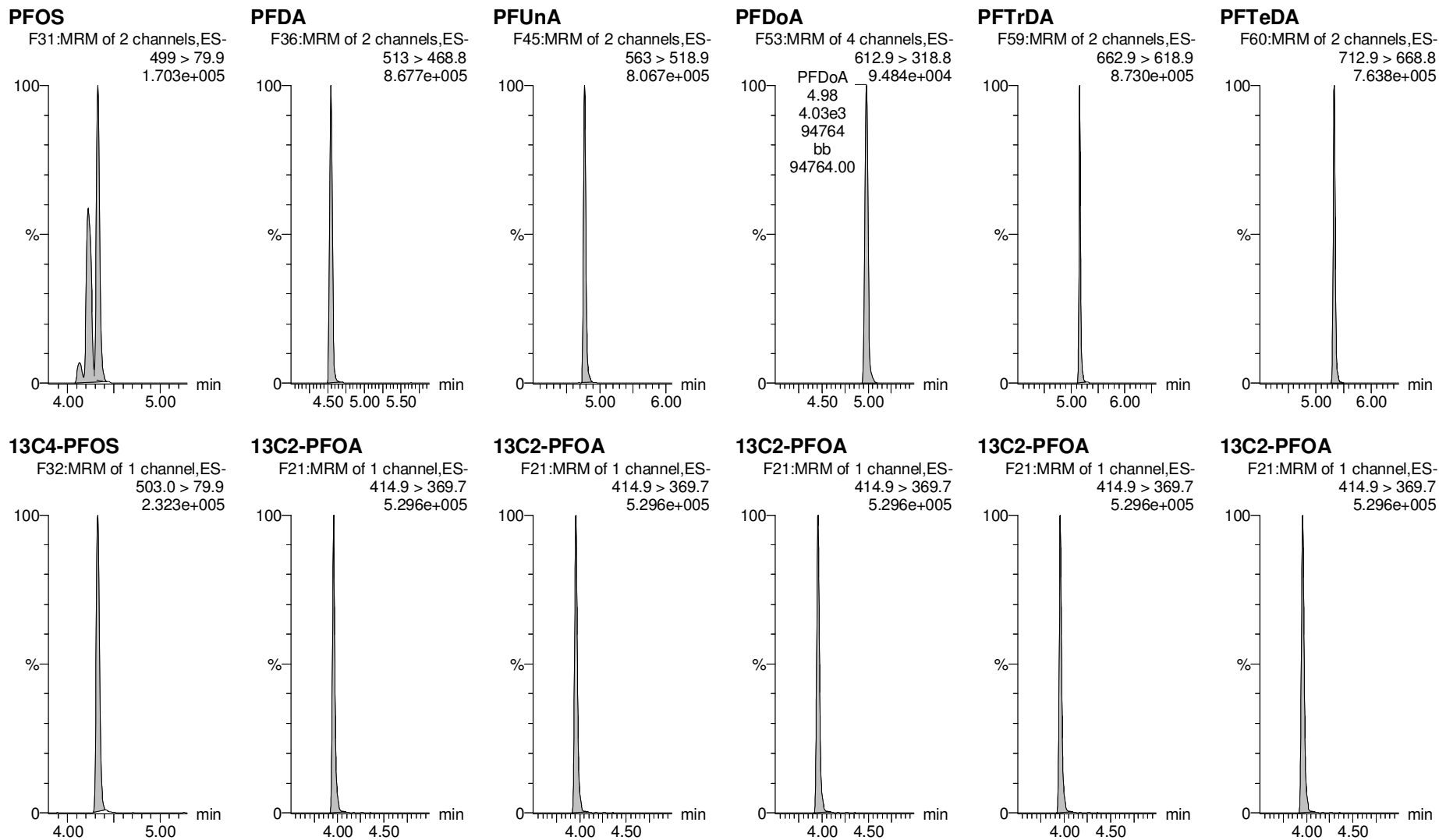


Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 10:44:48 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:45:16 Pacific Daylight Time

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD



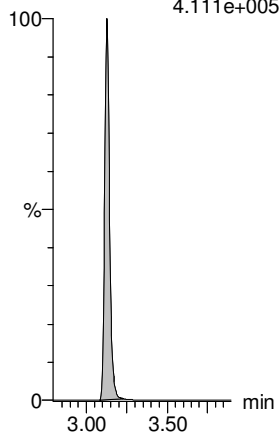
Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 10:44:48 Pacific Daylight Time

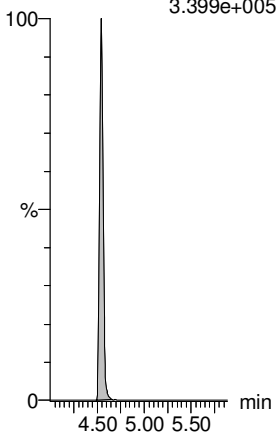
Printed: Monday, April 09, 2018 10:45:16 Pacific Daylight Time

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD

13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
4.111e+005



13C2-PFDA
F37:MRM of 1 channel,ES-
515.1 > 469.9
3.399e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16.qld

Last Altered: Monday, April 09, 2018 10:27:39 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:28:02 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	9 N-MeFOSAA	570.1 > 419.0	2.22e4	3.48e4	0.2497		4.65	4.66	25.5	72.9	
2	10 N-EtFOSAA	584.2 >419.0	1.78e4	3.48e4	0.2497		4.77	4.76	20.4	71.7	
3	17 d5-N-EtFOSAA	589.3 > 419.0	3.18e4	3.48e4	0.2497	1.059	4.65	4.76	36.6	138	86.3
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.48e4	3.48e4	0.2497	1.000	4.62	4.65	40.0	160	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16.qld

Last Altered: Monday, April 09, 2018 10:27:39 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:28:02 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

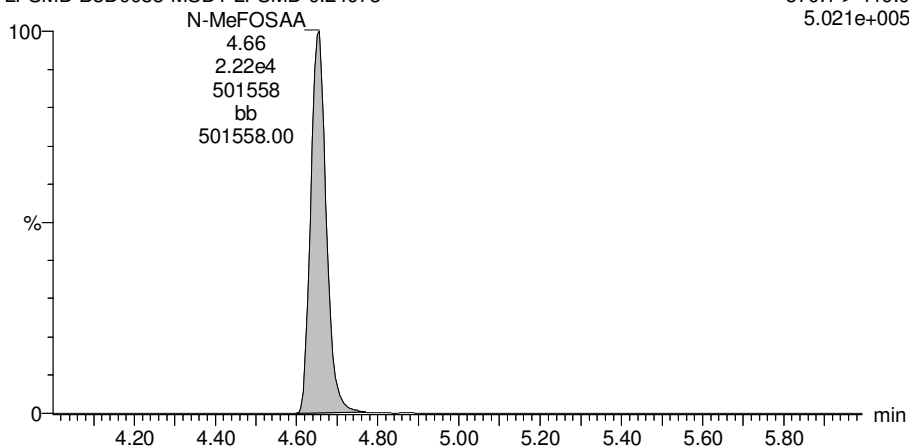
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD

N-MeFOSAA

180408M1_16 Smooth(Mn,1x2)
LFSMD B8D0033-MSD1 LFSMD 0.24973

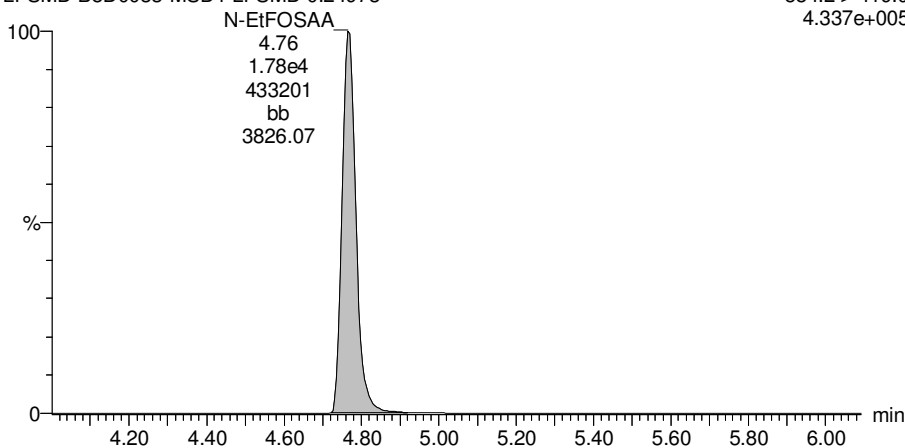
F47:MRM of 2 channels,ES-
570.1 > 419.0
5.021e+005



N-EtFOSAA

180408M1_16 Smooth(Mn,1x2)
LFSMD B8D0033-MSD1 LFSMD 0.24973

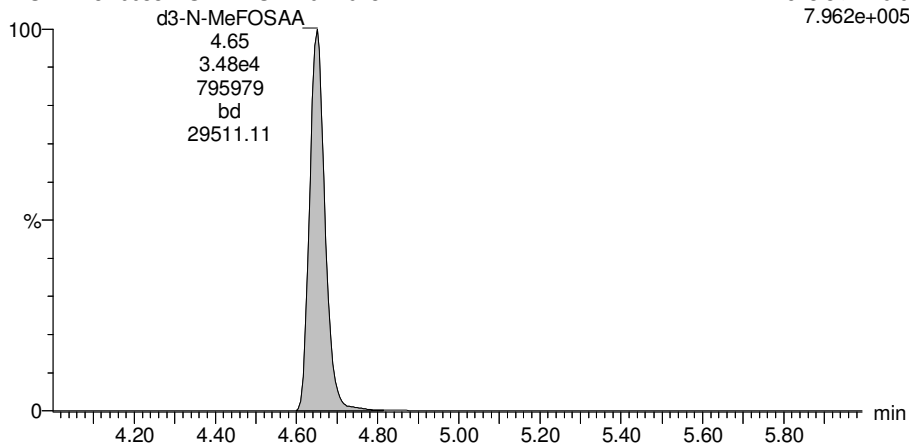
F50:MRM of 2 channels,ES-
584.2 > 419.0
4.337e+005



d3-N-MeFOSAA

180408M1_16 Smooth(Mn,1x2)
LFSMD B8D0033-MSD1 LFSMD 0.24973

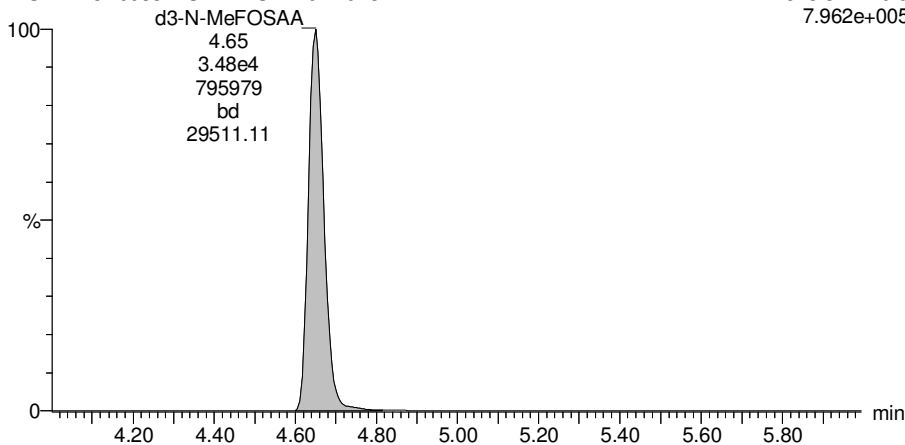
F49:MRM of 1 channel,ES-
573.3 > 419.0
7.962e+005



d3-N-MeFOSAA

180408M1_16 Smooth(Mn,1x2)
LFSMD B8D0033-MSD1 LFSMD 0.24973

F49:MRM of 1 channel,ES-
573.3 > 419.0
7.962e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-16.qld

Last Altered: Monday, April 09, 2018 10:27:39 Pacific Daylight Time

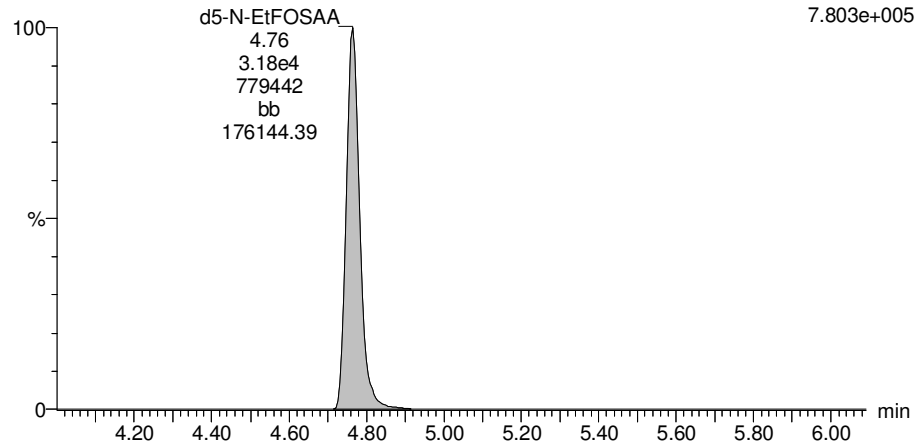
Printed: Monday, April 09, 2018 10:28:02 Pacific Daylight Time

Name: 180408M1_16, Date: 08-Apr-2018, Time: 18:59:45, ID: B8D0033-MSD1 LFSMD 0.24973, Description: LFSMD

d5-N-EtFOSAA

180408M1_16 Smooth(Mn,1x2)
LFSMD B8D0033-MSD1 LFSMD 0.24973

F51:MRM of 1 channel,ES-
589.3 > 419.0
7.803e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-39.qld

Last Altered: Sunday, April 08, 2018 17:07:43 Pacific Daylight Time
Printed: Sunday, April 08, 2018 17:08:04 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_39, Date: 07-Apr-2018, Time: 21:37:38, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1 PFBS	299 > 79.7		9.79e3	0.2585		2.71				
2	2 PFHxA	313.2 > 268.9		2.07e4	0.2585		3.10				
3	3 PFHpA	363 > 318.9		2.07e4	0.2585		3.55				
4	4 PFHxS	398.9 > 79.6		9.79e3	0.2585		3.65				
5	5 PFOA	413 > 368.7	2.43e2	2.07e4	0.2585		3.93	3.92	0.117	0.470	
6	6 PFNA	463 > 418.8		2.07e4	0.2585		4.24				
7	7 PFOS	499 > 79.9		9.79e3	0.2585		4.30				
8	8 PFDA	513 > 468.8		2.07e4	0.2585		4.51				
9	11 PFUnA	563 > 518.9		2.07e4	0.2585		4.74				
10	12 PFDoA	612.9 > 318.8		2.07e4	0.2585		4.95				
11	13 PFTrDA	662.9 > 618.9		2.07e4	0.2585		5.13				
12	14 PFTeDA	712.9 > 668.8		2.07e4	0.2585		5.30				
13	15 13C2-PFHxA	315 > 269.8	1.51e4	2.07e4	0.2585	0.745	3.15	3.09	7.31	38.0	98.1
14	16 13C2-PFDA	515.1 > 469.9	1.57e4	2.07e4	0.2585	0.827	4.50	4.50	7.58	35.5	91.7
15	18 13C2-PFOA	414.9 > 369.7	2.07e4	2.07e4	0.2585	1.000	3.92	3.92	10.0	38.7	100.0
16	19 13C4-PFOS	503.0 > 79.9	9.79e3	9.79e3	0.2585	1.000	4.29	4.29	28.7	111	100.0

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-39.qld

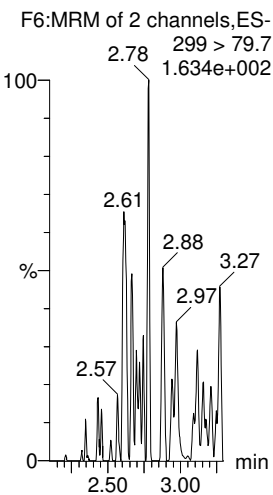
Last Altered: Sunday, April 08, 2018 17:07:43 Pacific Daylight Time
Printed: Sunday, April 08, 2018 17:08:04 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

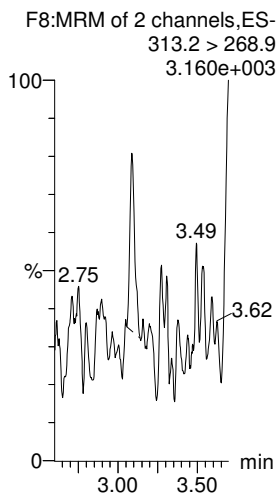
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_39, Date: 07-Apr-2018, Time: 21:37:38, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

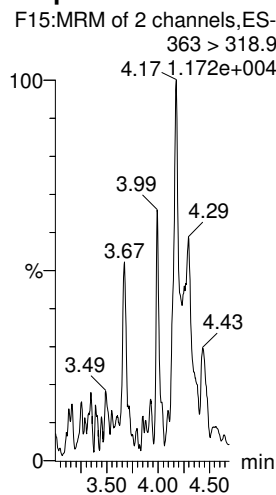
PFBS



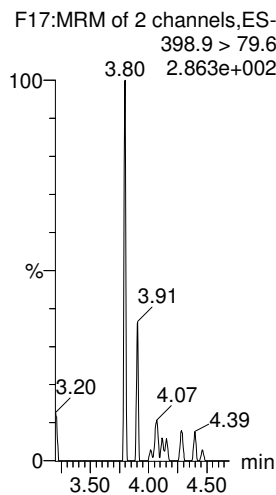
PFHxA



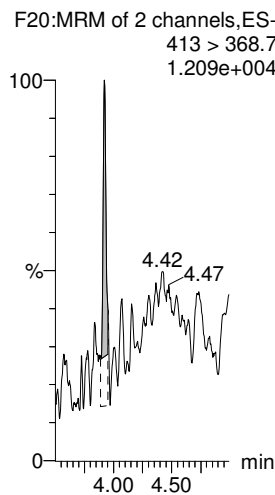
PFHpA



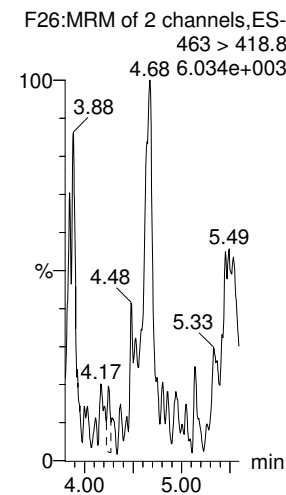
PFHxS



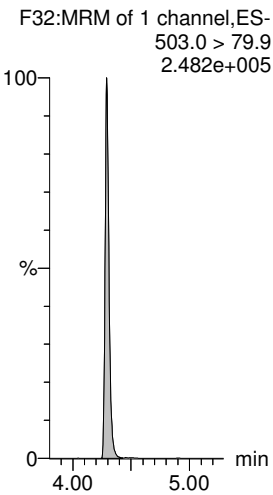
PFOA



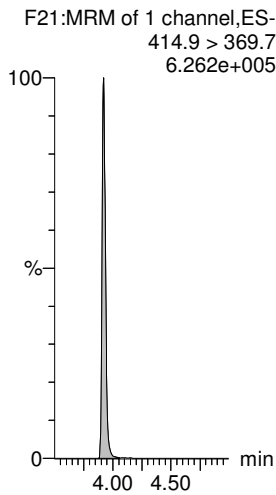
PFNA



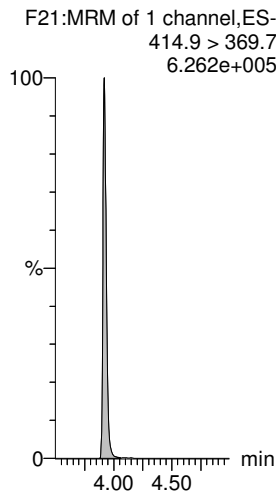
13C4-PFOS



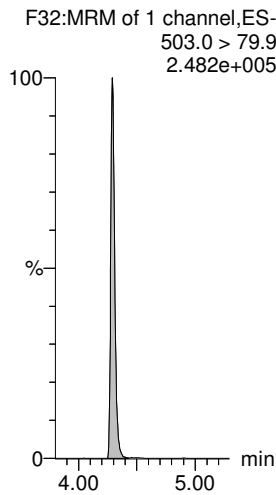
13C2-PFOA



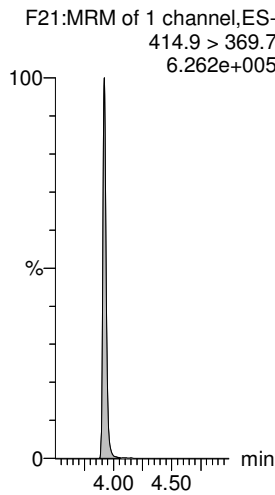
13C2-PFOA



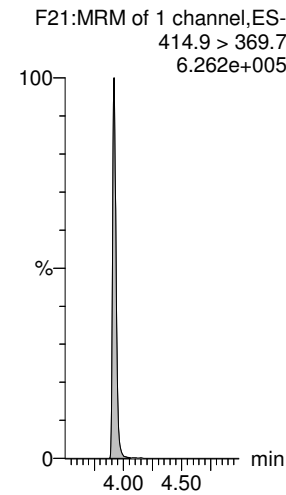
13C4-PFOS



13C2-PFOA



13C2-PFOA

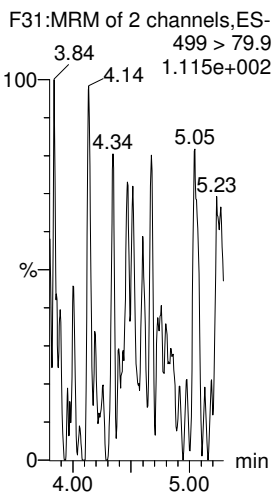


Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-39.qld

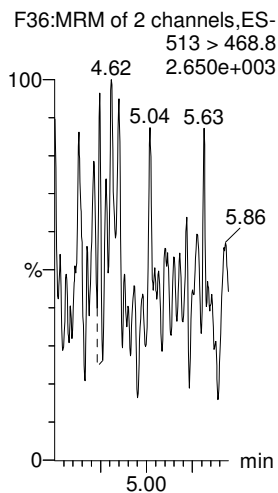
Last Altered: Sunday, April 08, 2018 17:07:43 Pacific Daylight Time
Printed: Sunday, April 08, 2018 17:08:04 Pacific Daylight Time

Name: 180407M3_39, Date: 07-Apr-2018, Time: 21:37:38, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

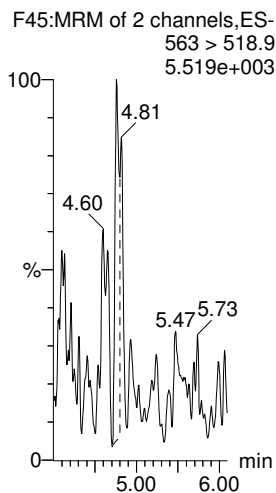
PFOS



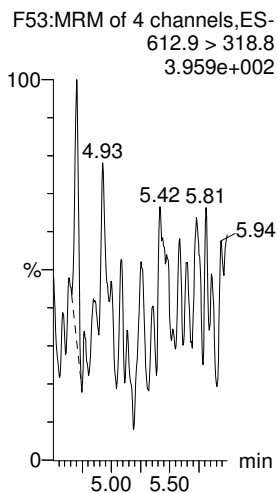
PFDA



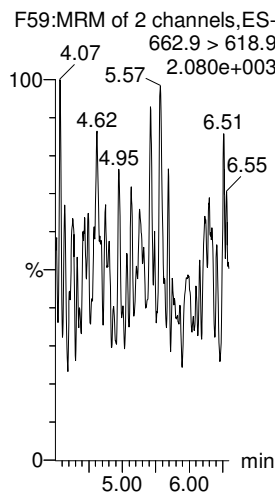
PFUnA



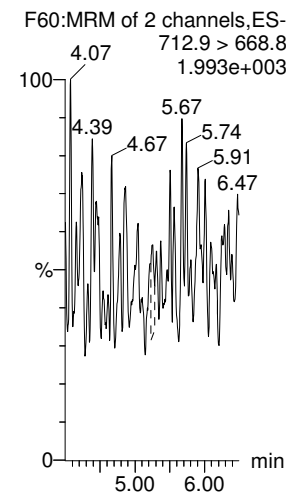
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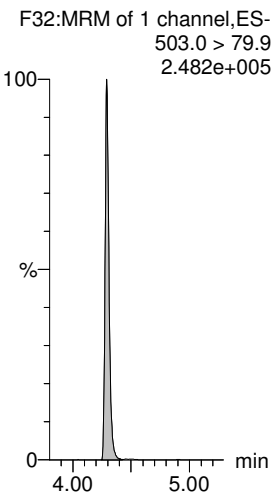
PFTrDA



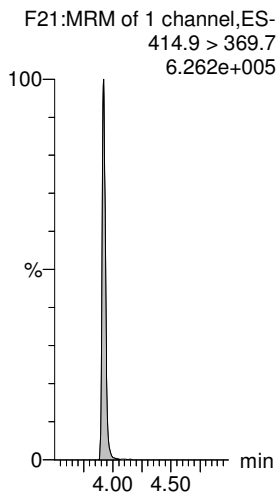
PFTeDA



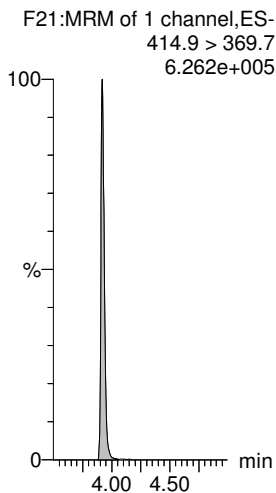
13C4-PFOS



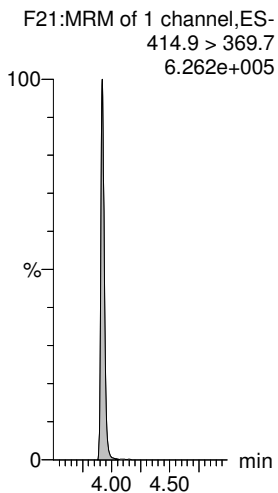
13C2-PFOA



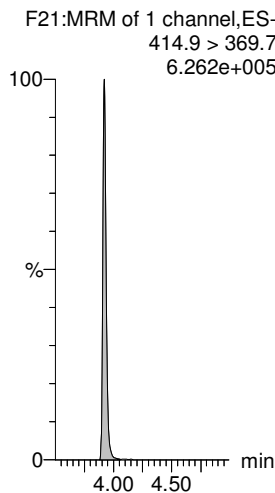
13C2-PFOA



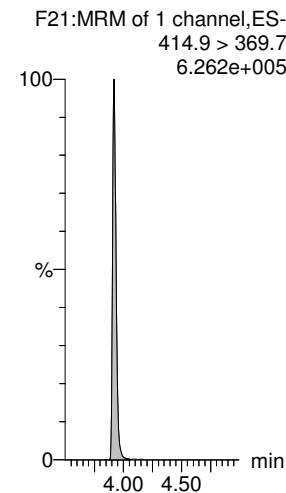
13C2-PFOA



13C2-PFOA



13C2-PFOA

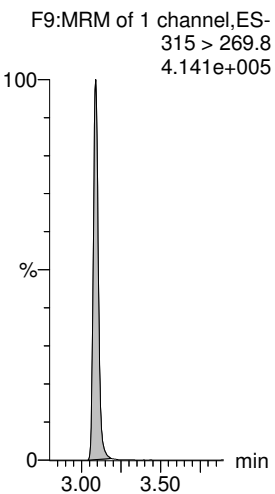


Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-39.qld

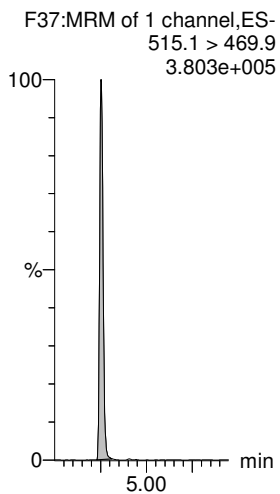
Last Altered: Sunday, April 08, 2018 17:07:43 Pacific Daylight Time
Printed: Sunday, April 08, 2018 17:08:04 Pacific Daylight Time

Name: 180407M3_39, Date: 07-Apr-2018, Time: 21:37:38, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

13C2-PFHxA



13C2-PFDA



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-18.qld

Last Altered: Monday, April 09, 2018 10:29:12 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:29:29 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_18, Date: 08-Apr-2018, Time: 19:22:44, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

	# Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	9 N-MeFOSAA	570.1 > 419.0		3.08e4	0.2585		4.65				
2	10 N-EtFOSAA	584.2 >419.0		3.08e4	0.2585		4.77				
3	17 d5-N-EtFOSAA	589.3 > 419.0	3.20e4	3.08e4	0.2585	1.059	4.65	4.76	41.6	152	98.2
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.08e4	3.08e4	0.2585	1.000	4.62	4.65	40.0	155	100.0

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-18.qld

Last Altered: Monday, April 09, 2018 10:29:12 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:29:29 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

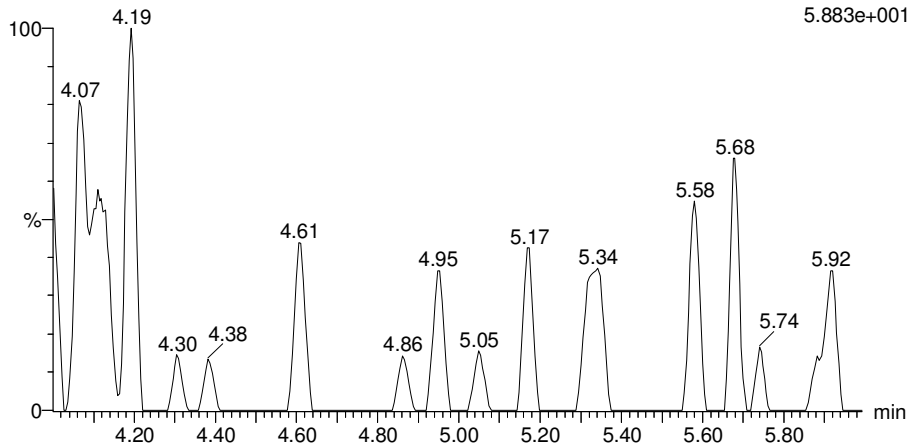
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_18, Date: 08-Apr-2018, Time: 19:22:44, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

N-MeFOSAA

180408M1_18 Smooth(Mn,1x2)
WI-A06-FB19-0318 1800600-02 WI-A06-FB19-0318 0.25854

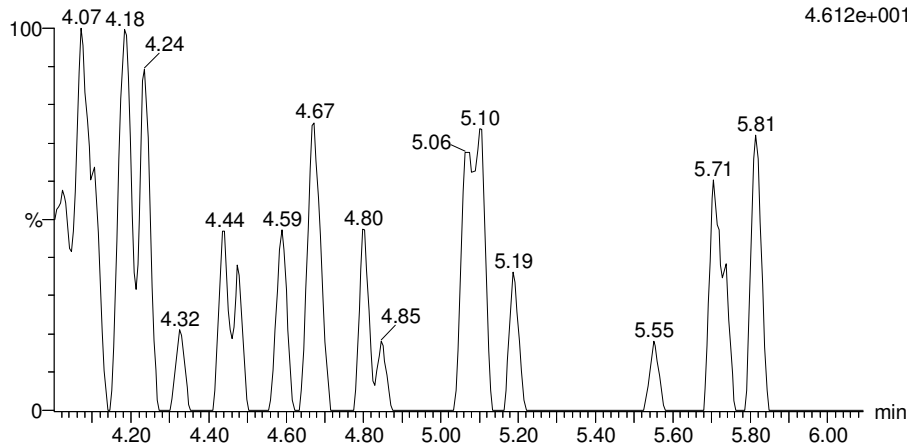
F47:MRM of 2 channels,ES-
570.1 > 419.0
5.883e+001



N-EtFOSAA

180408M1_18 Smooth(Mn,1x2)
WI-A06-FB19-0318 1800600-02 WI-A06-FB19-0318 0.25854

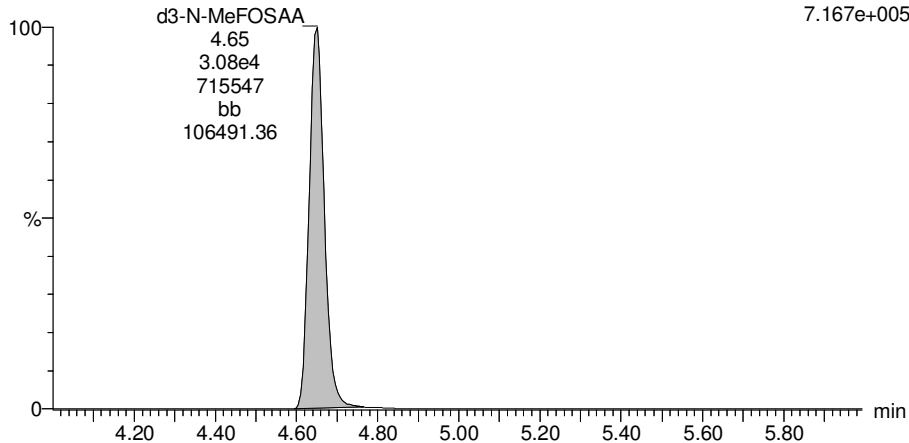
F50:MRM of 2 channels,ES-
584.2 > 419.0
4.612e+001



d3-N-MeFOSAA

180408M1_18 Smooth(Mn,1x2)
WI-A06-FB19-0318 1800600-02 WI-A06-FB19-0318 0.25854

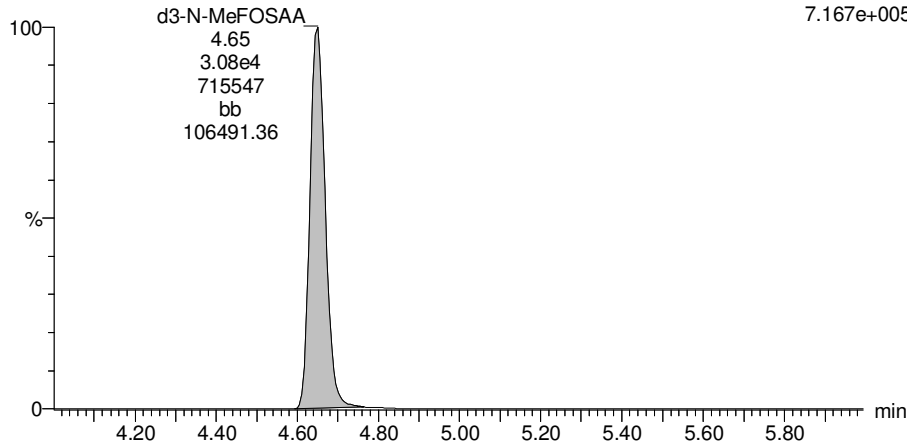
F49:MRM of 1 channel,ES-
573.3 > 419.0
7.167e+005



d3-N-MeFOSAA

180408M1_18 Smooth(Mn,1x2)
WI-A06-FB19-0318 1800600-02 WI-A06-FB19-0318 0.25854

F49:MRM of 1 channel,ES-
573.3 > 419.0
7.167e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-18.qld

Last Altered: Monday, April 09, 2018 10:29:12 Pacific Daylight Time

Printed: Monday, April 09, 2018 10:29:29 Pacific Daylight Time

Name: 180408M1_18, Date: 08-Apr-2018, Time: 19:22:44, ID: 1800600-02 WI-A06-FB19-0318 0.25854, Description: WI-A06-FB19-0318

d5-N-EtFOSAA

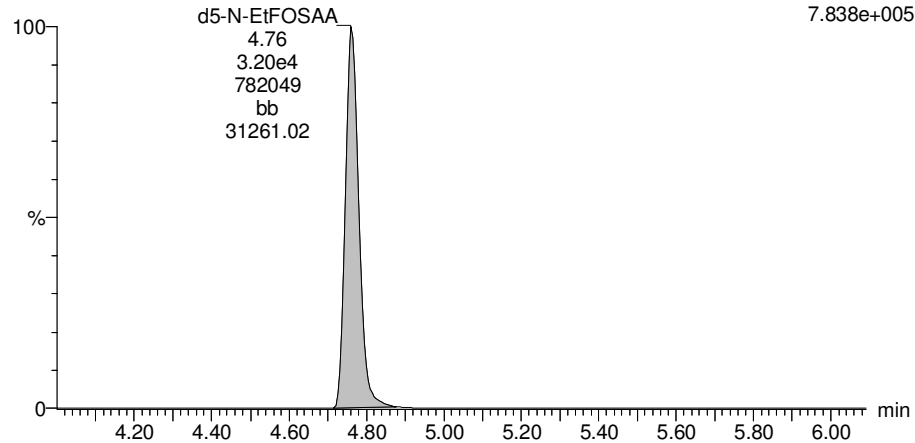
180408M1_18 Smooth(Mn,1x2)

WI-A06-FB19-0318 1800600-02 WI-A06-FB19-0318 0.25854

F51:MRM of 1 channel,ES-

589.3 > 419.0

7.838e+005



**INJECTION INTERNAL STANDARD (IIS) AREAS,
INSTRUMENT BLANKS (IB)
AND
CONTINUING CALIBRATION VERIFICATIONS (CCV)**

IS Areas

Ical

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	B8A0192-BS2 LFB 0.25	180407M3 Analyte	10	3.92	17969.85	17969.85	22825.47	78.73
2	B8A0192-BS3 LFB 0.25	180407M3 Analyte	10	3.92	19574.49	19574.49	22825.47	85.76
3	B8A0192-BS4 LFB 0.25	180407M3 Analyte	10	3.92	20015.2	20015.2	22825.47	87.69
4	B8A0192-BS5 LFB 0.25	180407M3 Analyte	10	3.92	19125.4	19125.4	22825.47	83.79
5	B8A0192-BLK1 LRB 0.25	180407M3 Analyte	10	3.92	19898.51	19898.51	22825.47	87.18
6	1800570-05 WI-CV-1FB07-0318 0.25384	180407M3 Analyte	10	3.92	23294.11	23294.11	22825.47	102.05
7	1800570-06 WI-CV-1RW07P-0318 0.25614	180407M3 Analyte	10	3.92	23113.2	23113.2	22825.47	101.26
8	1800570-07 WI-CV-3RW17-0318 0.25422	180407M3 Analyte	10	3.92	24469.77	24469.77	22825.47	107.20
9	1800570-08 WI-CV-3FB17-0318 0.26058	180407M3 Analyte	10	3.92	21035.44	21035.44	22825.47	92.16
10	1800570-09 WI-CV-3RW10-0318 0.2571	180407M3 Analyte	10	3.92	21812.31	21812.31	22825.47	95.56
11	1800570-10 WI-CV-3FB10-0318 0.25634	180407M3 Analyte	10	3.92	23728.47	23728.47	22825.47	103.96
12	1800570-11 WI-CV-1RW34-0318 0.2563	180407M3 Analyte	10	3.92	22768.87	22768.87	22825.47	99.75
13	1800570-12 WI-CV-1FB34-0318 0.25634	180407M3 Analyte	10	3.92	23517.75	23517.75	22825.47	103.03
14	1800570-13 WI-CV-1RW01-0318 0.25556	180407M3 Analyte	10	3.92	22345.55	22345.55	22825.47	97.90
15	1800570-14 WI-CV-1FB01-0318 0.25887	180407M3 Analyte	10	3.92	22611.32	22611.32	22825.47	99.06
16	1800570-15 WI-CV-1RW22-0318 0.25311	180407M3 Analyte	10	3.92	23137.63	23137.63	22825.47	101.37
17	1800570-16 WI-CV-1FB22-0318 0.2552	180407M3 Analyte	10	3.92	22242.79	22242.79	22825.47	97.45
18	1800570-17 WI-CV-2RW04-0318 0.25681	180407M3 Analyte	10	3.92	23058.37	23058.37	22825.47	101.02
19	1800570-18 WI-CV-2FB04-0318 0.25969	180407M3 Analyte	10	3.92	24058.32	24058.32	22825.47	105.40
20	1800569-05@30X WI-AF-1RW32-0318 0.24919	180407M3 Analyte	10	3.92	767.896	767.896	22825.47	3.36
21	1800569-06 WI-AF-1FB32-0318 0.24917	180407M3 Analyte	10	3.92	21109.16	21109.16	22825.47	92.48
22	B8D0033-BS1 LFB 0.25	180407M3 Analyte	10	3.92	19920.29	19920.29	22825.47	87.27
23	B8D0033-BLK1 LRB 0.25	180407M3 Analyte	10	3.92	21484.47	21484.47	22825.47	94.13
24	1800600-01 WI-A06-RW19-0318 0.24937	180407M3 Analyte	10	3.92	21698.31	21698.31	22825.47	95.06
25	1800600-02 WI-A06-FB19-0318 0.25854	180407M3 Analyte	10	3.92	20674.23	20674.23	22825.47	90.58
26	IPA	180407M3 Analyte	10				22825.47	0.00
27	ST180407M3-10 PFC CS2 537 18C2906	180407M3 Analyte	10	3.92	25393.47	25393.47	22825.47	111.25

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	B8A0192-BS2 LFB 0.25	180407M3 Analyte	28.7	4.29	10748.81	10748.81	12330.69	87.17
2	B8A0192-BS3 LFB 0.25	180407M3 Analyte	28.7	4.29	11157.28	11157.28	12330.69	90.48
3	B8A0192-BS4 LFB 0.25	180407M3 Analyte	28.7	4.29	10102.18	10102.18	12330.69	81.93
4	B8A0192-BS5 LFB 0.25	180407M3 Analyte	28.7	4.29	10331.6	10331.6	12330.69	83.79
5	B8A0192-BLK1 LRB 0.25	180407M3 Analyte	28.7	4.29	10523.21	10523.21	12330.69	85.34
6	1800570-05 WI-CV-1FB07-0318 0.25384	180407M3 Analyte	28.7	4.29	13300.83	13300.83	12330.69	107.87
7	1800570-06 WI-CV-1RW07P-0318 0.25614	180407M3 Analyte	28.7	4.29	10933.53	10933.53	12330.69	88.67
8	1800570-07 WI-CV-3RW17-0318 0.25422	180407M3 Analyte	28.7	4.29	14245.21	14245.21	12330.69	115.53
9	1800570-08 WI-CV-3FB17-0318 0.26058	180407M3 Analyte	28.7	4.29	10253.42	10253.42	12330.69	83.15
10	1800570-09 WI-CV-3RW10-0318 0.2571	180407M3 Analyte	28.7	4.29	12653.57	12653.57	12330.69	102.62
11	1800570-10 WI-CV-3FB10-0318 0.25634	180407M3 Analyte	28.7	4.29	13041.71	13041.71	12330.69	105.77
12	1800570-11 WI-CV-1RW34-0318 0.2563	180407M3 Analyte	28.7	4.29	11571.63	11571.63	12330.69	93.84
13	1800570-12 WI-CV-1FB34-0318 0.25634	180407M3 Analyte	28.7	4.29	12595.9	12595.9	12330.69	102.15
14	1800570-13 WI-CV-1RW01-0318 0.25556	180407M3 Analyte	28.7	4.29	13238.48	13238.48	12330.69	107.36
15	1800570-14 WI-CV-1FB01-0318 0.25887	180407M3 Analyte	28.7	4.29	11678.71	11678.71	12330.69	94.71
16	1800570-15 WI-CV-1RW22-0318 0.25311	180407M3 Analyte	28.7	4.29	11732.55	11732.55	12330.69	95.15
17	1800570-16 WI-CV-1FB22-0318 0.2552	180407M3 Analyte	28.7	4.29	11803.65	11803.65	12330.69	95.73
18	1800570-17 WI-CV-2RW04-0318 0.25681	180407M3 Analyte	28.7	4.29	13897.17	13897.17	12330.69	112.70
19	1800570-18 WI-CV-2FB04-0318 0.25969	180407M3 Analyte	28.7	4.29	12992.11	12992.11	12330.69	105.36
20	1800569-05@30X WI-AF-1RW32-0318 0.24919	180407M3 Analyte	28.7	4.29	435.229	435.229	12330.69	3.53
21	1800569-06 WI-AF-1FB32-0318 0.24917	180407M3 Analyte	28.7	4.29	12262.95	12262.95	12330.69	99.45
22	B8D0033-BS1 LFB 0.25	180407M3 Analyte	28.7	4.29	10408.06	10408.06	12330.69	84.41
23	B8D0033-BLK1 LRB 0.25	180407M3 Analyte	28.7	4.29	12996.5	12996.5	12330.69	105.40
24	1800600-01 WI-A06-RW19-0318 0.24937	180407M3 Analyte	28.7	4.29	12473.2	12473.2	12330.69	101.16
25	1800600-02 WI-A06-FB19-0318 0.25854	180407M3 Analyte	28.7	4.29	9792.127	9792.127	12330.69	79.41
26	IPA	180407M3 Analyte	28.7	4.43	5.456	5.456	12330.69	0.04
27	ST180407M3-10 PFC CS2 537 18C2906	180407M3 Analyte	28.7	4.29	13494.16	13494.16	12330.69	109.44

LC Calibration Standards Review Checklist

04

Calibration ID:	LMH	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
<u>ST1900407M3-10</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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MA

Full Mass Cal. Date: 4/2/16

Run Log Present:

of Samples per Sequence Checked:

Instrument Blank Saved

IIS Area Saved

Reviewed By: YJT 4/9/18
Initials/Date

Comments:

L12, DW

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-41.qld

Last Altered: Sunday, April 08, 2018 13:48:49 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:49:02 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

*MT
4/9/18*

Name: 180407M3_41, Date: 07-Apr-2018, Time: 22:00:38, ID: ST180407M3-10 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	1 PFBS	299 > 79.7	1.03e4	1.35e4	1.0000		2.71	2.73	22.0	20.6	93.0	NO
2	2 PFHxA	313.2 > 268.9	6.46e4	2.54e4	1.0000		3.10	3.09	25.4	22.8	91.3	NO
3	3 PFHpA	363 > 318.9	5.70e4	2.54e4	1.0000		3.55	3.54	22.4	24.2	96.6	NO
4	4 PFHxS	398.9 > 79.6	8.58e3	1.35e4	1.0000		3.65	3.65	18.2	24.0	108.6	NO
5	5 PFOA	413 > 368.7	5.92e4	2.54e4	1.0000		3.93	3.92	23.3	24.1	96.5	NO
6	6 PFNA	463 > 418.8	5.83e4	2.54e4	1.0000		4.24	4.24	23.0	23.0	92.0	NO
7	7 PFOS	499 > 79.9	1.12e4	1.35e4	1.0000		4.30	4.29	23.9	22.1	95.5	NO
8	8 PFDA	513 > 468.8	5.83e4	2.54e4	1.0000		4.51	4.51	23.0	24.4	97.5	NO
9	11 PFUnA	563 > 518.9	5.46e4	2.54e4	1.0000		4.74	4.74	21.5	23.9	95.7	NO
10	12 PFDoA	612.9 > 318.8	6.23e3	2.54e4	1.0000		4.95	4.95	2.45	24.9	99.5	NO
11	13 PFTrDA	662.9 > 618.9	4.87e4	2.54e4	1.0000		5.13	5.13	19.2	21.2	84.7	NO
12	14 PFTeDA	712.9 > 668.8	4.05e4	2.54e4	1.0000		5.30	5.30	16.0	21.9	87.7	NO
13	15 13C2-PFHxA	315 > 269.8	1.80e4	2.54e4	1.0000	0.745	3.15	3.09	7.07	9.49	94.9	NO
14	16 13C2-PFDA	515.1 > 469.9	1.94e4	2.54e4	1.0000	0.827	4.50	4.50	7.64	9.24	92.4	NO
15	18 13C2-PFOA	414.9 > 369.7	2.54e4	2.54e4	1.0000	1.000	3.92	3.92	10.0	10.0	100.0	NO
16	19 13C4-PFOS	503.0 > 79.9	1.35e4	1.35e4	1.0000	1.000	4.29	4.29	28.7	28.7	100.0	NO

*DM
4/8/18*

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Sunday, April 08, 2018 13:51:14 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:51:28 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180407M3_1	IPA	07-Apr-18	14:22:47
2	180407M3_2	ST180407M3-1 PFC CS-3 537 18C2901	07-Apr-18	14:39:24
3	180407M3_3	ST180407M3-2 PFC CS-2 537 18C2902	07-Apr-18	14:50:51
4	180407M3_4	ST180407M3-3 PFC CS-1 537 18D0504	07-Apr-18	15:02:17
5	180407M3_5	ST180407M3-4 PFC CS0 537 18C2904	07-Apr-18	15:13:44
6	180407M3_7	ST180407M3-5 PFC CS1 537 18C2905	07-Apr-18	15:28:53
7	180407M3_8	ST180407M3-6 PFC CS2 537 18D0503	07-Apr-18	15:41:48
8	180407M3_9	ST180407M3-7 PFC CS3 537 18C2907	07-Apr-18	15:53:12
9	180407M3_10	ST180407M3-8 PFC CS4 537 18D0502	07-Apr-18	16:04:39
10	180407M3_11	ST180407M3-9 PFC CS5 537 18C2909	07-Apr-18	16:16:08
11	180407M3_12	IPA	07-Apr-18	16:27:38
12	180407M3_13	ICV180407M2-1 PFC ICV 18C2910	07-Apr-18	16:39:07
13	180407M3_14	IPA	07-Apr-18	16:50:37
14	180407M3_15	B8A0192-BS2 LFB 0.25	07-Apr-18	17:02:07
15	180407M3_16	B8A0192-BS3 LFB 0.25	07-Apr-18	17:13:37
16	180407M3_17	B8A0192-BS4 LFB 0.25	07-Apr-18	17:25:03
17	180407M3_18	B8A0192-BS5 LFB 0.25	07-Apr-18	17:36:33
18	180407M3_19	B8A0192-BLK1 LRB 0.25	07-Apr-18	17:48:00
19	180407M3_20	1800570-05 WI-CV-1FB07-0318 0.25384	07-Apr-18	17:59:29
20	180407M3_21	1800570-06 WI-CV-1RW07P-0318 0.25614	07-Apr-18	18:10:59
21	180407M3_22	1800570-07 WI-CV-3RW17-0318 0.25422	07-Apr-18	18:22:28
22	180407M3_23	1800570-08 WI-CV-3FB17-0318 0.26058	07-Apr-18	18:33:58
23	180407M3_24	1800570-09 WI-CV-3RW10-0318 0.2571	07-Apr-18	18:45:27
24	180407M3_25	1800570-10 WI-CV-3FB10-0318 0.25634	07-Apr-18	18:56:57
25	180407M3_26	1800570-11 WI-CV-1RW34-0318 0.2563	07-Apr-18	19:08:24
26	180407M3_27	1800570-12 WI-CV-1FB34-0318 0.25634	07-Apr-18	19:19:51
27	180407M3_28	1800570-13 WI-CV-1RW01-0318 0.25556	07-Apr-18	19:31:18
28	180407M3_29	1800570-14 WI-CV-1FB01-0318 0.25887	07-Apr-18	19:42:45
29	180407M3_30	1800570-15 WI-CV-1RW22-0318 0.25311	07-Apr-18	19:54:14
30	180407M3_31	1800570-16 WI-CV-1FB22-0318 0.2552	07-Apr-18	20:05:45
31	180407M3_32	1800570-17 WI-CV-2RW04-0318 0.25681	07-Apr-18	20:17:11

Dataset: Untitled

Last Altered: Sunday, April 08, 2018 13:51:14 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:51:28 Pacific Daylight Time

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
32	180407M3_33	1800570-18 WI-CV-2FB04-0318 0.25969	07-Apr-18	20:28:41
33	180407M3_34	1800569-05@30X WI-AF-1RW32-0318 0.24919	07-Apr-18	20:40:10
34	180407M3_35	1800569-06 WI-AF-1FB32-0318 0.24917	07-Apr-18	20:51:40
35	180407M3_36	B8D0033-BS1 LFB 0.25	07-Apr-18	21:03:10
36	180407M3_37	B8D0033-BLK1 LRB 0.25	07-Apr-18	21:14:39
37	180407M3_38	1800600-01 WI-A06-RW19-0318 0.24937	07-Apr-18	21:26:08
38	180407M3_39	1800600-02 WI-A06-FB19-0318 0.25854	07-Apr-18	21:37:38
39	180407M3_40	IPA	07-Apr-18	21:49:08
40	180407M3_41	ST180407M3-10 PFC CS2 537 18C2906	07-Apr-18	22:00:38
41	180407M3_42	IPA	07-Apr-18	22:12:05

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-41.qld

Last Altered: Sunday, April 08, 2018 13:48:49 Pacific Daylight Time

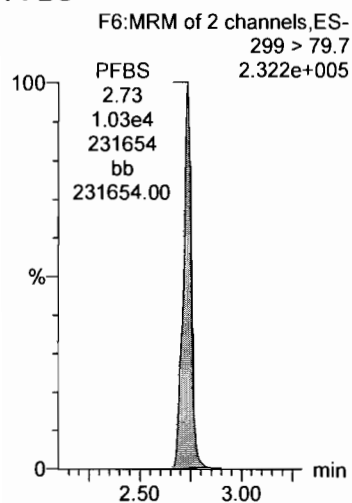
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Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

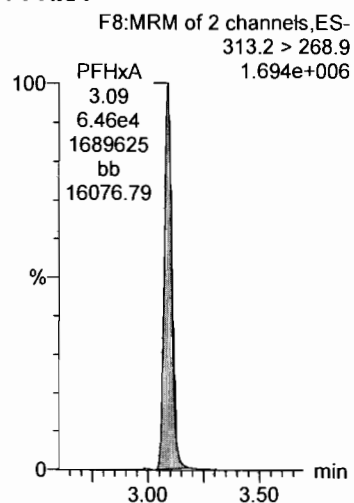
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_41, Date: 07-Apr-2018, Time: 22:00:38, ID: ST180407M3-10 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

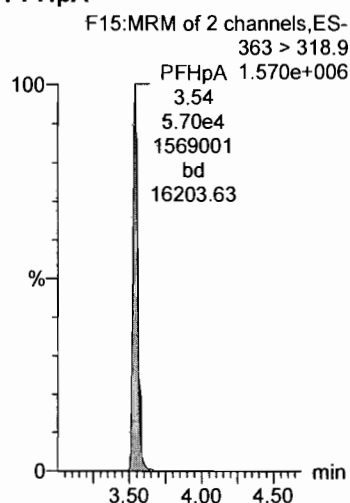
PFBS



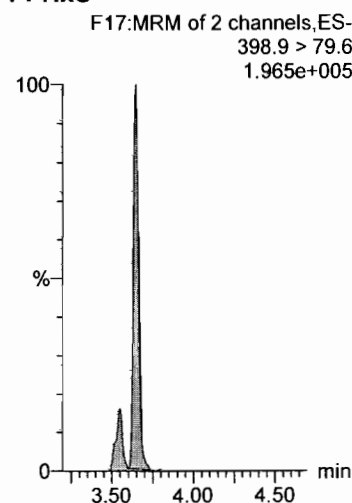
PFHxA



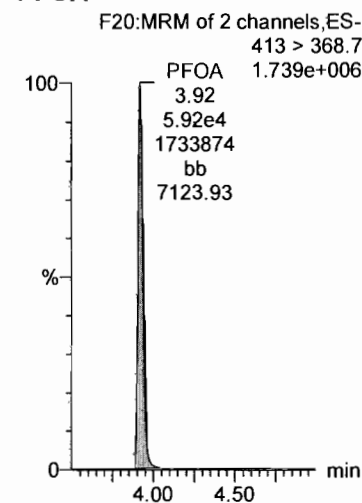
PFHpA



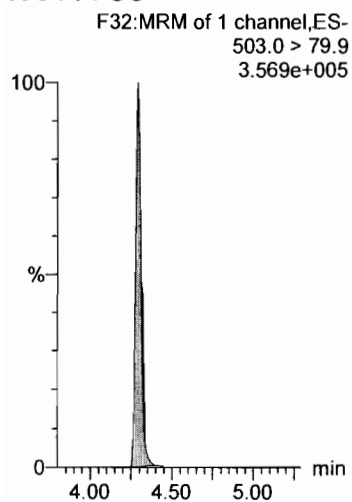
PFHxS



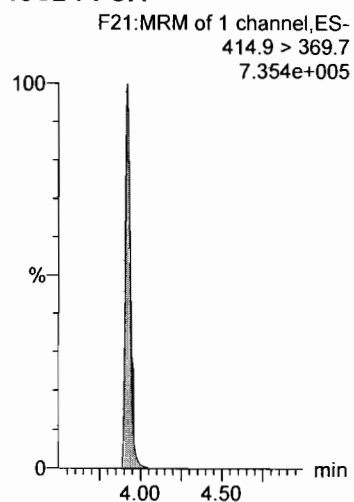
PFOA



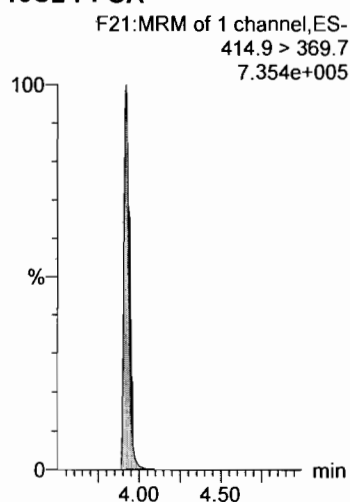
13C4-PFOS



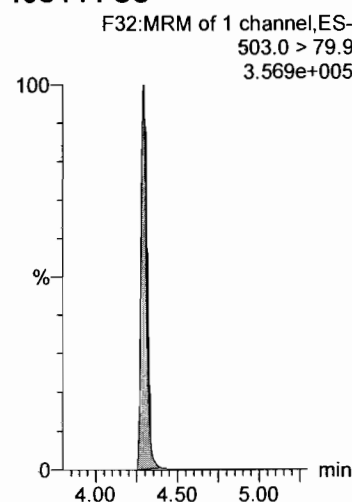
13C2-PFOA



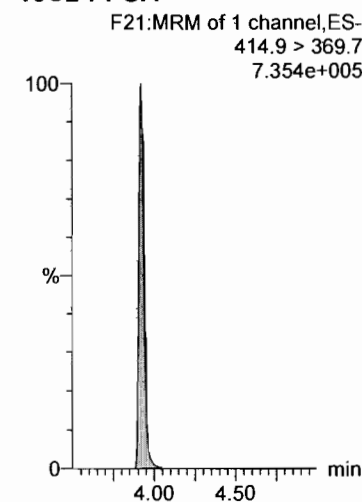
13C2-PFOA



13C4-PFOS



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-41.qld

Last Altered: Sunday, April 08, 2018 13:48:49 Pacific Daylight Time

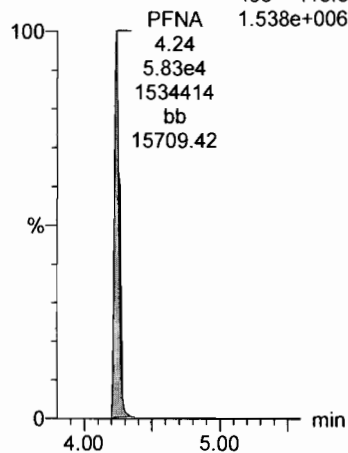
Printed: Sunday, April 08, 2018 13:49:02 Pacific Daylight Time

Name: 180407M3_41, Date: 07-Apr-2018, Time: 22:00:38, ID: ST180407M3-10 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

PFNA

F26:MRM of 2 channels,ES-

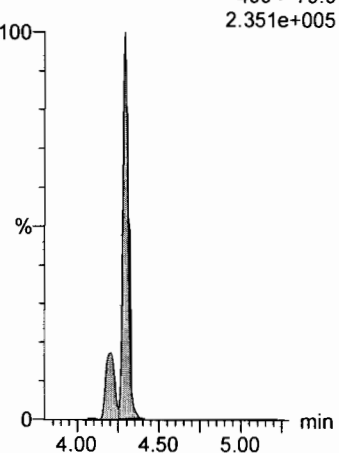
463 > 418.8
1.538e+006



PFOS

F31:MRM of 2 channels,ES-

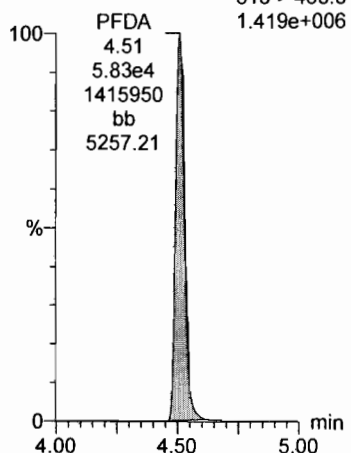
499 > 79.9
2.351e+005



PFDA

F36:MRM of 2 channels,ES-

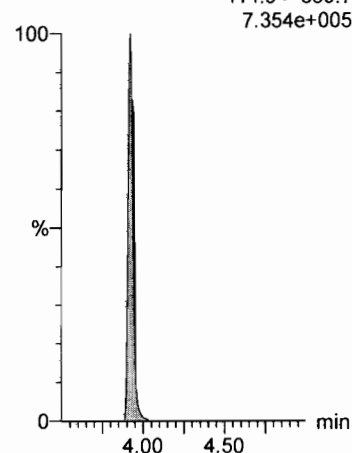
513 > 468.8
1.419e+006



13C2-PFOA

F21:MRM of 1 channel,ES-

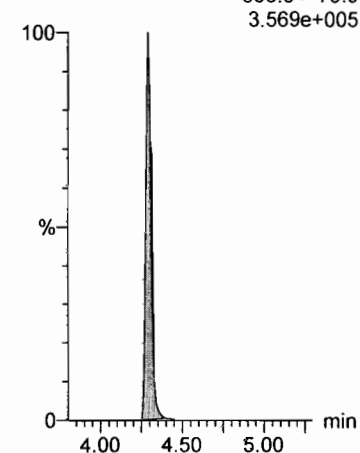
414.9 > 369.7
7.354e+005



13C4-PFOS

F32:MRM of 1 channel,ES-

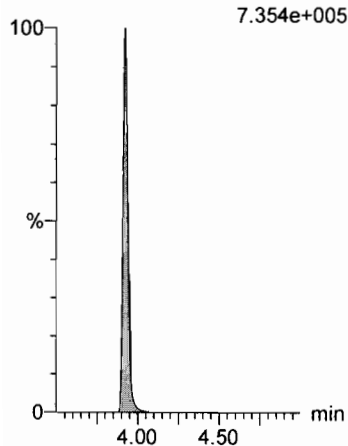
503.0 > 79.9
3.569e+005



13C2-PFOA

F21:MRM of 1 channel,ES-

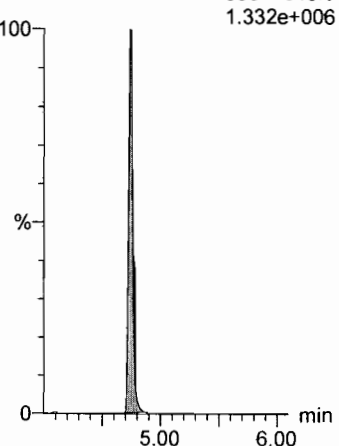
414.9 > 369.7
7.354e+005



PFUnA

F45:MRM of 2 channels,ES-

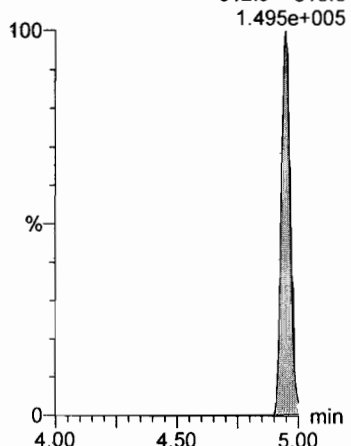
563 > 518.9
1.332e+006



PFDoA

F53:MRM of 4 channels,ES-

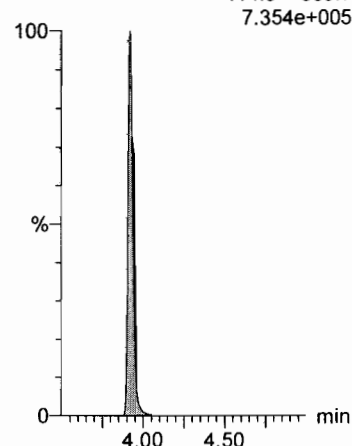
612.9 > 318.8
1.495e+005



13C2-PFOA

F21:MRM of 1 channel,ES-

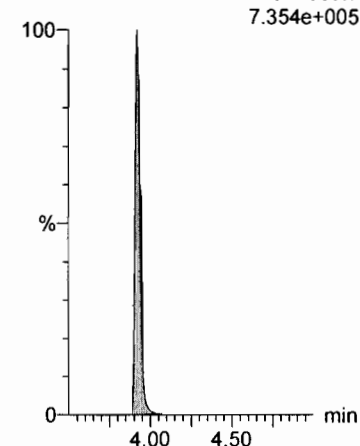
414.9 > 369.7
7.354e+005



13C2-PFOA

F21:MRM of 1 channel,ES-

414.9 > 369.7
7.354e+005



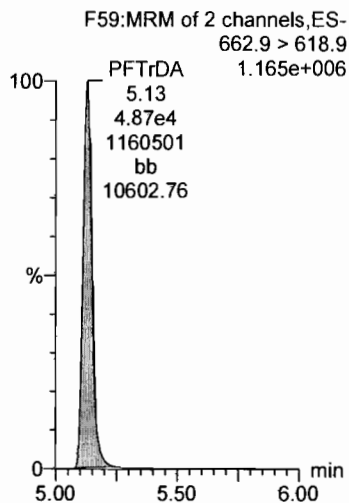
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Last Altered: Sunday, April 08, 2018 13:48:49 Pacific Daylight Time

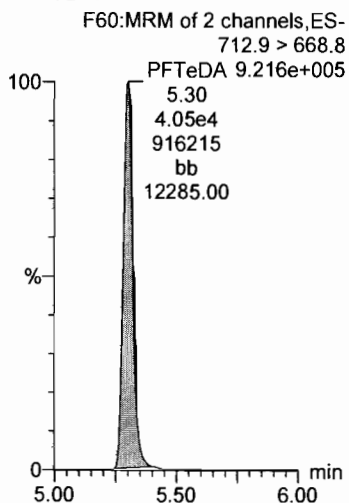
Printed: Sunday, April 08, 2018 13:49:02 Pacific Daylight Time

Name: 180407M3_41, Date: 07-Apr-2018, Time: 22:00:38, ID: ST180407M3-10 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

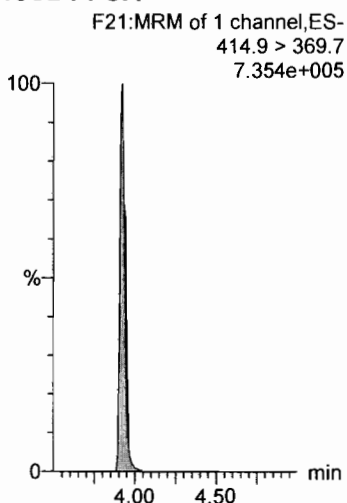
PFTrDA



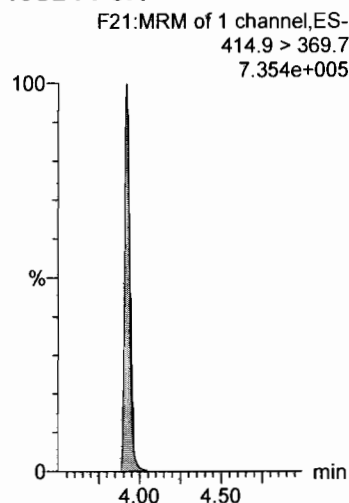
PFTeDA



13C2-PFOA



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-41.qld

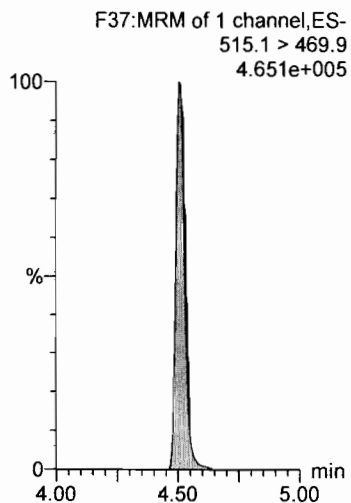
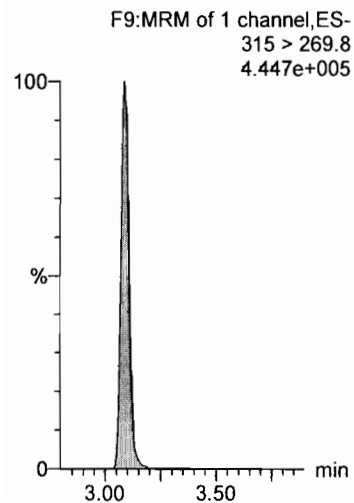
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Name: 180407M3_41, Date: 07-Apr-2018, Time: 22:00:38, ID: ST180407M3-10 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

13C2-PFHxA

13C2-PFDA



IIS Area

C18_537_Q4_04-06-18_DW

Ical

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	ST180408M1-1 PFC CS-1 537 18D0504	180408M1 Analyte	40	4.68	38597.99	38597.99	33745.31	114.38
2	IPA	180408M1 Analyte	40				33745.31	0.00
3	B8D0033-BS1 LFB 0.25	180408M1 Analyte	40	4.65	32339.88	32339.88	33745.31	95.84
4	B8D0033-BLK1 LRB 0.25	180408M1 Analyte	40	4.66	35730.7	35730.7	33745.31	105.88
5	B8D0033-MS1 LFSM 0.25214	180408M1 Analyte	40	4.65	28265.24	28265.24	33745.31	83.76
6	B8D0033-MSD1 LFSMD 0.24973	180408M1 Analyte	40	4.65	34800.67	34800.67	33745.31	103.13
7	1800600-01 WI-A06-RW19-0318 0.24937	180408M1 Analyte	40	4.65	38249.18	38249.18	33745.31	113.35
8	1800600-02 WI-A06-FB19-0318 0.25854	180408M1 Analyte	40	4.65	30823.78	30823.78	33745.31	91.34
9	1800570-11@5X WI-CV-1RW34-0318 0.2563	180408M1 Analyte	40	4.65	9610.488	9610.488	33745.31	28.48
10	1800570-13@5X WI-CV-1RW01-0318 0.25556	180408M1 Analyte	40	4.65	8641.928	8641.928	33745.31	25.61
11	1800569-05@30X WI-AF-1RW32-0318 0.24919	180408M1 Analyte	40	4.65	1497.608	1497.608	33745.31	4.44
12	IPA	180408M1 Analyte	40				33745.31	0.00
13	ST180408M1-2 PFC CS2 537 18C2906	180408M1 Analyte	40	4.65	38877.86	38877.86	33745.31	115.21

Ccal

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
1	ST180408M1-1 PFC CS-1 537 18D0504	180408M1 Analyte	40	4.68	38597.99	38597.99	38597.99	100.00
2	IPA	180408M1 Analyte	40				38597.99	0.00
3	B8D0033-BS1 LFB 0.25	180408M1 Analyte	40	4.65	32339.88	32339.88	38597.99	83.79
4	B8D0033-BLK1 LRB 0.25	180408M1 Analyte	40	4.66	35730.7	35730.7	38597.99	92.57
5	B8D0033-MS1 LFSM 0.25214	180408M1 Analyte	40	4.65	28265.24	28265.24	38597.99	73.23
6	B8D0033-MSD1 LFSMD 0.24973	180408M1 Analyte	40	4.65	34800.67	34800.67	38597.99	90.16
7	1800600-01 WI-A06-RW19-0318 0.24937	180408M1 Analyte	40	4.65	38249.18	38249.18	38597.99	99.10
8	1800600-02 WI-A06-FB19-0318 0.25854	180408M1 Analyte	40	4.65	30823.78	30823.78	38597.99	79.86
9	1800570-11@5X WI-CV-1RW34-0318 0.2563	180408M1 Analyte	40	4.65	9610.488	9610.488	38597.99	24.90

10	1800570-13@5X WI-CV-1RW01-0318 0.25556	180408M1 Analyte	40	4.65	8641.928	8641.928	38597.99	22.39
11	1800569-05@30X WI-AF-1RW32-0318 0.24919	180408M1 Analyte	40	4.65	1497.608	1497.608	38597.99	3.88
12	IPA	180408M1 Analyte	40				38597.99	0.00
13	ST180408M1-2 PFC CS2 537 18C2906	180408M1 Analyte	40	4.65	38877.86	38877.86	38597.99	100.73

Ical

C18_537_Q4_04-07-18_DW

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	ST180408M1-1 PFC CS-1 537 18D0504	180408M1 Analyte	10	3.99	24836.57	24836.57	22825.47	108.81
2	IPA	180408M1 Analyte	10				22825.47	0.00
3	B8D0033-BS1 LFB 0.25	180408M1 Analyte	10	3.96	20749.73	20749.73	22825.47	90.91
4	B8D0033-BLK1 LRB 0.25	180408M1 Analyte	10	3.96	19849.06	19849.06	22825.47	86.96
5	B8D0033-MS1 LFSM 0.25214	180408M1 Analyte	10	3.96	19464.06	19464.06	22825.47	85.27
6	B8D0033-MSD1 LFSMD 0.24973	180408M1 Analyte	10	3.96	18042.15	18042.15	22825.47	79.04
7	1800600-01 WI-A06-RW19-0318 0.24937	180408M1 Analyte	10	3.96	20545.96	20545.96	22825.47	90.01
8	1800600-02 WI-A06-FB19-0318 0.25854	180408M1 Analyte	10	3.95	19020.97	19020.97	22825.47	83.33
9	1800570-11@5X WI-CV-1RW34-0318 0.2563	180408M1 Analyte	10	3.95	5498.542	5498.542	22825.47	24.09
10	1800570-13@5X WI-CV-1RW01-0318 0.25556	180408M1 Analyte	10	3.96	5319.091	5319.091	22825.47	23.30
11	1800569-05@30X WI-AF-1RW32-0318 0.24919	180408M1 Analyte	10	3.95	975.892	975.892	22825.47	4.28
12	IPA	180408M1 Analyte	10				22825.47	0.00
13	ST180408M1-2 PFC CS2 537 18C2906	180408M1 Analyte	10	3.96	23792.83	23792.83	22825.47	104.24

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ical Area	Area %
1	ST180408M1-1 PFC CS-1 537 18D0504	180408M1 Analyte	28.7	4.36	11550.59	11550.59	12330.69	93.67
2	IPA	180408M1 Analyte	28.7				12330.69	0.00
3	B8D0033-BS1 LFB 0.25	180408M1 Analyte	28.7	4.32	11094.81	11094.81	12330.69	89.98
4	B8D0033-BLK1 LRB 0.25	180408M1 Analyte	28.7	4.33	12051.89	12051.89	12330.69	97.74

5	B8D0033-MS1 LFSM 0.25214	180408M1 Analyte	28.7	4.33	10580.77	10580.77	12330.69	85.81
6	B8D0033-MSD1 LFSMD 0.24973	180408M1 Analyte	28.7	4.33	9255.155	9255.155	12330.69	75.06
7	1800600-01 WI-A06-RW19-0318 0.24937	180408M1 Analyte	28.7	4.33	11532.72	11532.72	12330.69	93.53
8	1800600-02 WI-A06-FB19-0318 0.25854	180408M1 Analyte	28.7	4.32	10175.68	10175.68	12330.69	82.52
9	1800570-11@5X WI-CV-1RW34-0318 0.2563	180408M1 Analyte	28.7	4.33	2683.599	2683.599	12330.69	21.76
10	1800570-13@5X WI-CV-1RW01-0318 0.25556	180408M1 Analyte	28.7	4.33	2702.44	2702.44	12330.69	21.92
11	1800569-05@30X WI-AF-1RW32-0318 0.24919	180408M1 Analyte	28.7	4.33	461.83	461.83	12330.69	3.75
12	IPA	180408M1 Analyte	28.7				12330.69	0.00
13	ST180408M1-2 PFC CS2 537 18C2906	180408M1 Analyte	28.7	4.32	13209.65	13209.65	12330.69	107.13

ccal

Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
1	ST180408M1-1 PFC CS-1 537 18D0504	180408M1 Analyte	10	3.99	24836.57	24836.57	24836.57	100.00
2	IPA	180408M1 Analyte	10				24836.57	0.00
3	B8D0033-BS1 LFB 0.25	180408M1 Analyte	10	3.96	20749.73	20749.73	24836.57	83.55
4	B8D0033-BLK1 LRB 0.25	180408M1 Analyte	10	3.96	19849.06	19849.06	24836.57	79.92
5	B8D0033-MS1 LFSM 0.25214	180408M1 Analyte	10	3.96	19464.06	19464.06	24836.57	78.37
6	B8D0033-MSD1 LFSMD 0.24973	180408M1 Analyte	10	3.96	18042.15	18042.15	24836.57	72.64
7	1800600-01 WI-A06-RW19-0318 0.24937	180408M1 Analyte	10	3.96	20545.96	20545.96	24836.57	82.72
8	1800600-02 WI-A06-FB19-0318 0.25854	180408M1 Analyte	10	3.95	19020.97	19020.97	24836.57	76.58
9	1800570-11@5X WI-CV-1RW34-0318 0.2563	180408M1 Analyte	10	3.95	5498.542	5498.542	24836.57	22.14
10	1800570-13@5X WI-CV-1RW01-0318 0.25556	180408M1 Analyte	10	3.96	5319.091	5319.091	24836.57	21.42
11	1800569-05@30X WI-AF-1RW32-0318 0.24919	180408M1 Analyte	10	3.95	975.892	975.892	24836.57	3.93
12	IPA	180408M1 Analyte	10				24836.57	0.00
13	ST180408M1-2 PFC CS2 537 18C2906	180408M1 Analyte	10	3.96	23792.83	23792.83	24836.57	95.80

Compound 19: 13C4-PFOS

ID	Name	Type	Std. Conc	RT	Area	IS Area	Ccal Area	Area %
1	ST180408M1-1 PFC CS-1 537 18D0504	180408M1 Analyte	28.7	4.36	11550.59	11550.59	11550.59	100.00

2	IPA	180408M1 Analyte	28.7					11550.59	0.00
3	B8D0033-BS1 LFB 0.25	180408M1 Analyte	28.7	4.32	11094.81	11094.81		11550.59	96.05
4	B8D0033-BLK1 LRB 0.25	180408M1 Analyte	28.7	4.33	12051.89	12051.89		11550.59	104.34
5	B8D0033-MS1 LFSM 0.25214	180408M1 Analyte	28.7	4.33	10580.77	10580.77		11550.59	91.60
6	B8D0033-MSD1 LFSMD 0.24973	180408M1 Analyte	28.7	4.33	9255.155	9255.155		11550.59	80.13
7	1800600-01 WI-A06-RW19-0318 0.24937	180408M1 Analyte	28.7	4.33	11532.72	11532.72		11550.59	99.85
8	1800600-02 WI-A06-FB19-0318 0.25854	180408M1 Analyte	28.7	4.32	10175.68	10175.68		11550.59	88.10
9	1800570-11@5X WI-CV-1RW34-0318 0.2563	180408M1 Analyte	28.7	4.33	2683.599	2683.599		11550.59	23.23
10	1800570-13@5X WI-CV-1RW01-0318 0.25556	180408M1 Analyte	28.7	4.33	2702.44	2702.44		11550.59	23.40
11	1800569-05@30X WI-AF-1RW32-0318 0.24919	180408M1 Analyte	28.7	4.33	461.83	461.83		11550.59	4.00
12	IPA	180408M1 Analyte	28.7					11550.59	0.00
13	ST180408M1-2 PFC CS2 537 18C2906	180408M1 Analyte	28.7	4.32	13209.65	13209.65		11550.59	114.36

LC Calibration Standards Review Checklist

64

Calibration ID:	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
<u>ST190409MI-1</u> LMH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<u>J-2</u> LMH	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ LMH	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NA
↓

Full Mass Cal. Date: 4/2/18

- Run Log Present:
- # of Samples per Sequence Checked:
- Instrument Blank Saved: *NA DW*
- IIS Area Saved:
- Reviewed By: MJT 4/9/18
Initials/Date

Comments:
 1362 PFDs & 1364 PFDs referencing compounds.
 DW

Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-11_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:26:59 Pacific Daylight Time
Printed: Monday, April 09, 2018 09:27:39 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

MTT
4/9/18

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	1 PFBS	299 > 79.7	8.33e2	1.16e4	1.0000		2.78	2.81	2.07	1.94	109.3	NO
2	2 PFHxA	313.2 > 268.9	5.33e3	2.48e4	1.0000		3.17	3.17	2.15	1.93	96.3	NO
3	3 PFHpA	363 > 318.9	4.42e3	2.48e4	1.0000		3.62	3.61	1.78	1.92	95.8	NO
4	4 PFHxS	398.9 > 79.6	5.85e2	1.16e4	1.0000		3.72	3.72	1.45	1.96	107.6	NO
5	5 PFOA	413 > 368.7	5.10e3	2.48e4	1.0000		4.00	3.99	2.05	2.12	106.1	NO
6	6 PFNA	463 > 418.8	4.58e3	2.48e4	1.0000		4.31	4.30	1.84	1.85	92.4	NO
7	7 PFOS	499 > 79.9	7.54e2	1.16e4	1.0000		4.37	4.36	1.87	1.73	93.6	NO
8	8 PFDA	513 > 468.8	4.82e3	2.48e4	1.0000		4.58	4.57	1.94	2.10	104.8	NO
9	11 PFUnA	563 > 518.9	4.85e3	2.48e4	1.0000		4.81	4.80	1.95	2.17	108.5	NO
10	12 PFDoA	612.9 > 318.8	5.81e2	2.48e4	1.0000		5.02	5.00	0.234	2.45	122.5	NO
11	13 PFTTrDA	662.9 > 618.9	4.54e3	2.48e4	1.0000		5.20	5.19	1.83	2.02	100.9	NO
12	14 PFTeDA	712.9 > 668.8	3.18e3	2.48e4	1.0000		5.37	5.37	1.28	1.76	88.1	NO
13	15 13C2-PFHxA	315 > 269.8	1.69e4	2.48e4	1.0000	0.745	3.20	3.17	6.80	9.13	91.3	NO
14	16 13C2-PFDA	515.1 > 469.9	1.66e4	2.48e4	1.0000	0.827	4.57	4.57	6.68	8.09	80.9	NO
15	18 13C2-PFOA	414.9 > 369.7	2.48e4	2.48e4	1.0000	1.000	3.92	3.99	10.0	10.0	100.0	NO
16	19 13C4-PFOS	503.0 > 79.9	1.16e4	1.16e4	1.0000	1.000	4.29	4.36	28.7	28.7	100.0	NO

Om
4/9/18

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, April 09, 2018 09:48:10 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:50:08 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180408M1_11	ST180408M1-1 PFC CS-1 537 18D0504	08-Apr-18	18:02:01
2	180408M1_12	IPA	08-Apr-18	18:13:55
3	180408M1_13	B8D0033-BS1 LFB 0.25	08-Apr-18	18:25:21
4	180408M1_14	B8D0033-BLK1 LRB 0.25	08-Apr-18	18:36:47
5	180408M1_15	B8D0033-MS1 LFSM 0.25214	08-Apr-18	18:48:15
6	180408M1_16	B8D0033-MSD1 LFSMD 0.24973	08-Apr-18	18:59:45
7	180408M1_17	1800600-01 WI-A06-RW19-0318 0.24937	08-Apr-18	19:11:15
8	180408M1_18	1800600-02 WI-A06-FB19-0318 0.25854	08-Apr-18	19:22:44
9	180408M1_19	1800570-11@5X WI-CV-1RW34-0318 0.2563	08-Apr-18	19:34:14
10	180408M1_20	1800570-13@5X WI-CV-1RW01-0318 0.25556	08-Apr-18	19:45:41
11	180408M1_21	1800569-05@30X WI-AF-1RW32-0318 0.24919	08-Apr-18	19:57:11
12	180408M1_22	IPA	08-Apr-18	20:08:41
13	180408M1_23	ST180408M1-2 PFC CS2 537 18C2906	08-Apr-18	20:20:10
14	180408M1_24	IPA	08-Apr-18	20:31:40

Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-11_PFOA_PFOS.qld

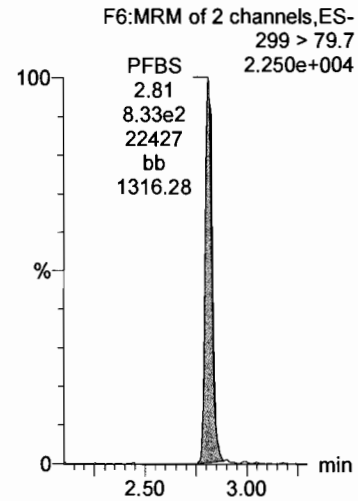
Last Altered: Monday, April 09, 2018 09:26:59 Pacific Daylight Time
Printed: Monday, April 09, 2018 09:27:39 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

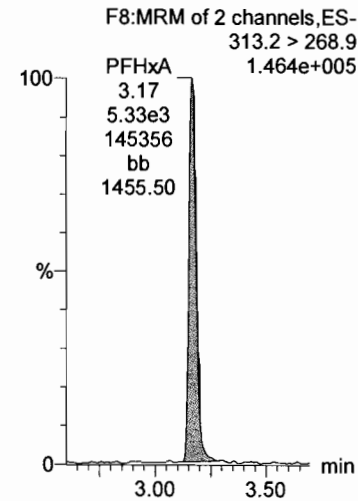
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

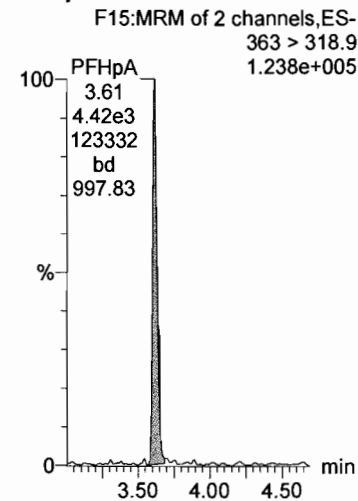
PFBS



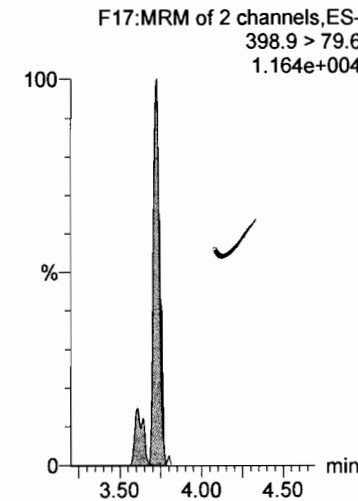
PFHxA



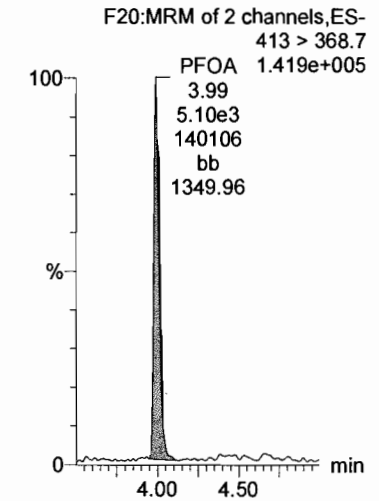
PFHpA



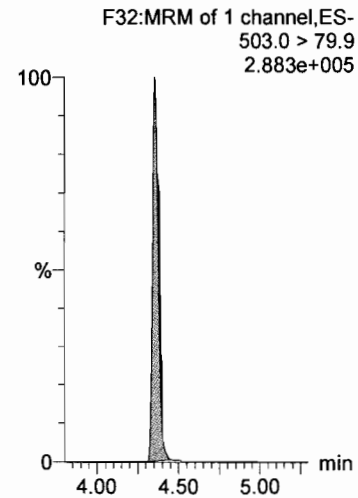
PFHxS



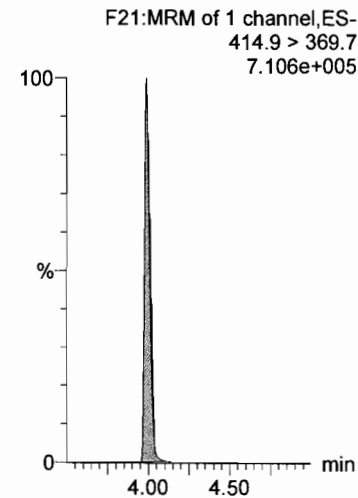
PFOA



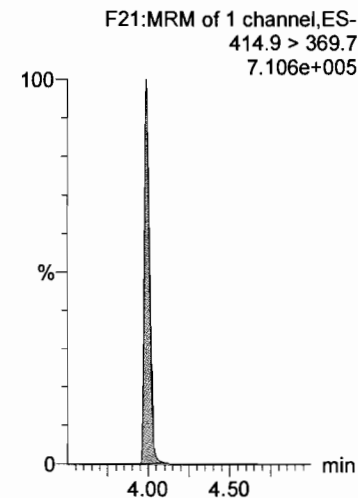
13C4-PFOS



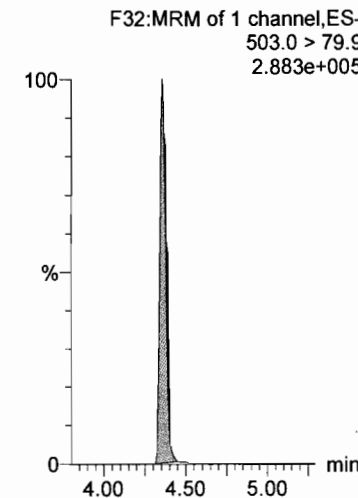
13C2-PFOA



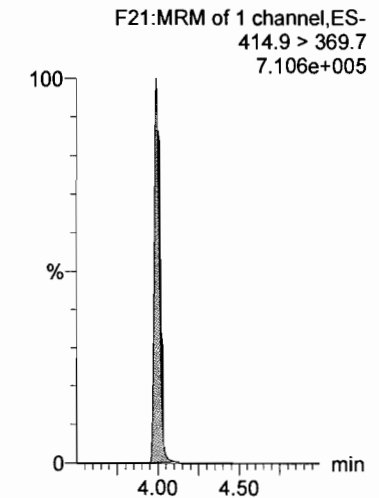
13C2-PFOA



13C4-PFOS



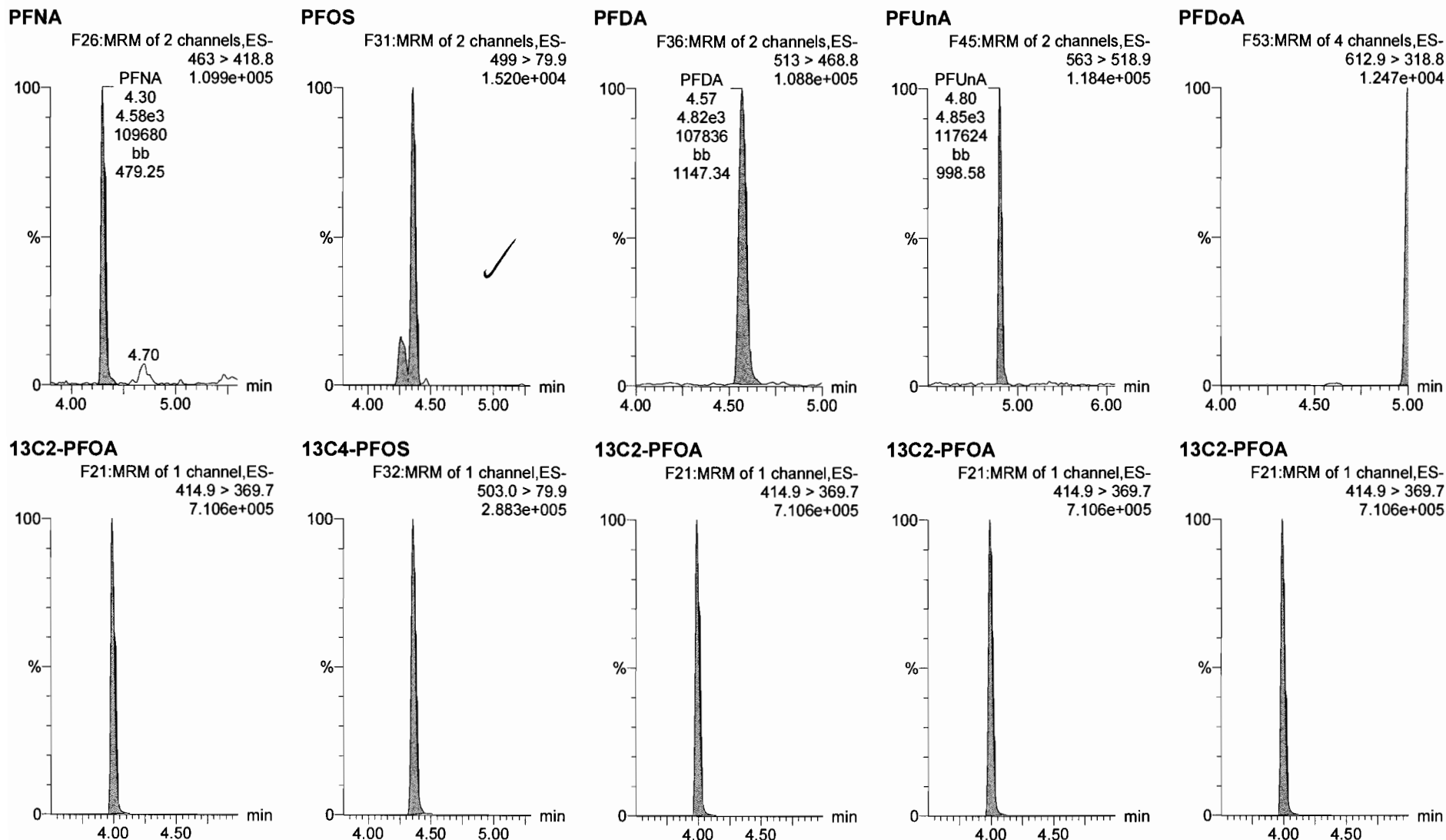
13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-11_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:26:59 Pacific Daylight Time
Printed: Monday, April 09, 2018 09:27:39 Pacific Daylight Time

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504



Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-11_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:26:59 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:27:39 Pacific Daylight Time

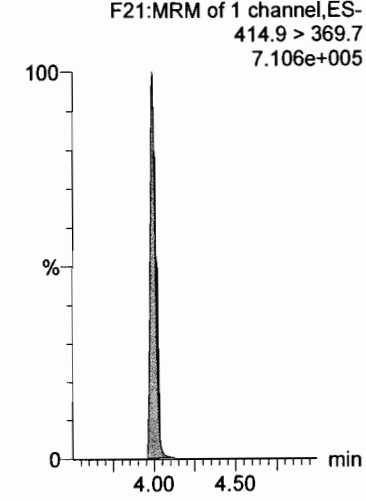
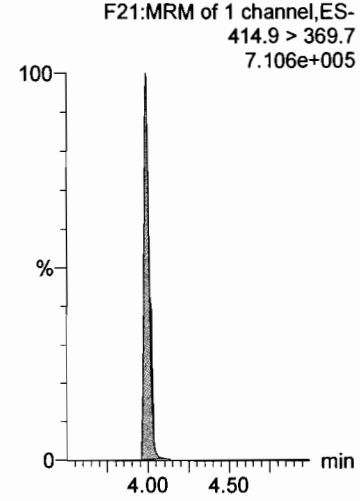
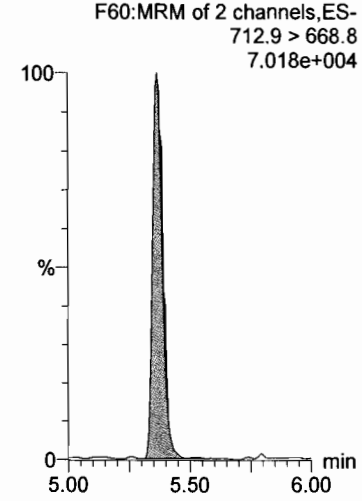
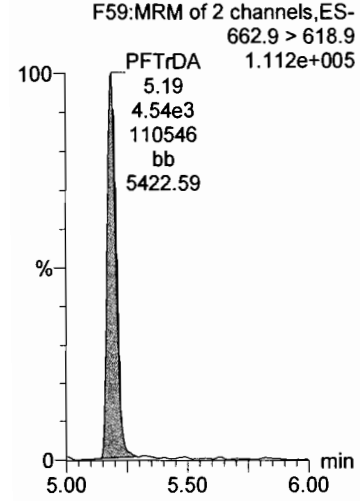
Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

PFTrDA

PFTeDA

13C2-PFOA

13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-11_PFOA_PFOS.qld

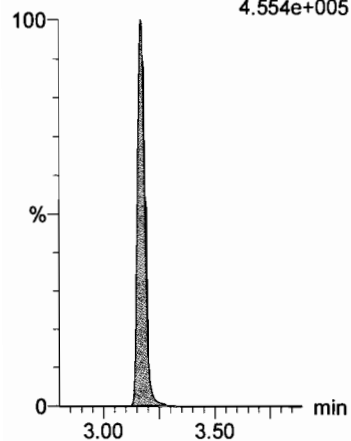
Last Altered: Monday, April 09, 2018 09:26:59 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:27:39 Pacific Daylight Time

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

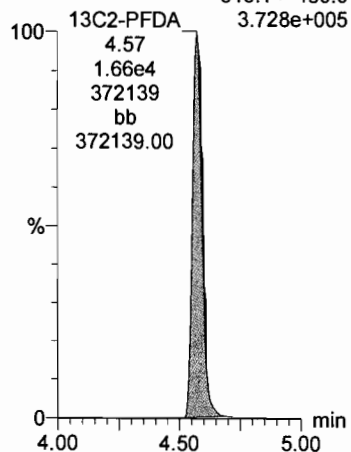
13C2-PFHxA

F9:MRM of 1 channel,ES-
315 > 269.8
4.554e+005



13C2-PFDA

F37:MRM of 1 channel,ES-
515.1 > 469.9
3.728e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-23_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:28:05 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:28:23 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

MTT
4/9/18

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	1 PFBS	299 > 79.7	9.75e3	1.32e4	1.0000		2.74	2.77	21.2	19.8	89.7	NO
2	2 PFHxA	313.2 > 268.9	6.43e4	2.38e4	1.0000		3.14	3.13	27.0	24.3	97.1	NO
3	3 PFHpA	363 > 318.9	5.15e4	2.38e4	1.0000		3.59	3.58	21.6	23.3	93.2	NO
4	4 PFHxS	398.9 > 79.6	8.09e3	1.32e4	1.0000		3.68	3.68	17.6	23.1	104.7	NO
5	5 PFOA	413 > 368.7	5.65e4	2.38e4	1.0000		3.97	3.95	23.7	24.5	98.2	NO
6	6 PFNA	463 > 418.8	5.56e4	2.38e4	1.0000		4.28	4.27	23.4	23.4	93.7	NO
7	7 PFOS	499 > 79.9	1.12e4	1.32e4	1.0000		4.33	4.32	24.4	22.6	97.8	NO
8	8 PFDA	513 > 468.8	5.61e4	2.38e4	1.0000		4.55	4.54	23.6	25.0	100.1	NO
9	11 PFUnA	563 > 518.9	5.28e4	2.38e4	1.0000		4.78	4.77	22.2	24.7	98.8	NO
10	12 PFDoA	612.9 > 318.8	5.70e3	2.38e4	1.0000		4.99	4.98	2.39	24.3	97.1	NO
11	13 PFTrDA	662.9 > 618.9	4.61e4	2.38e4	1.0000		5.17	5.15	19.4	21.4	85.5	NO
12	14 PFTeDA	712.9 > 668.8	3.75e4	2.38e4	1.0000		5.34	5.33	15.7	21.6	86.6	NO
13	15 13C2-PFHxA	315 > 269.8	1.72e4	2.38e4	1.0000	0.745	3.17	3.13	7.24	9.71	97.1	NO
14	16 13C2-PFDA	515.1 > 469.9	1.85e4	2.38e4	1.0000	0.827	4.54	4.54	7.78	9.41	94.1	NO
15	18 13C2-PFOA	414.9 > 369.7	2.38e4	2.38e4	1.0000	1.000	3.92	3.96	10.0	10.0	100.0	NO
16	19 13C4-PFOS	503.0 > 79.9	1.32e4	1.32e4	1.0000	1.000	4.29	4.32	28.7	28.7	100.0	NO

DM
4/9/18

Dataset: Untitled

Last Altered: Monday, April 09, 2018 09:48:10 Pacific Daylight Time
Printed: Monday, April 09, 2018 09:50:08 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180408M1_11	ST180408M1-1 PFC CS-1 537 18D0504	08-Apr-18	18:02:01
2	180408M1_12	IPA	08-Apr-18	18:13:55
3	180408M1_13	B8D0033-BS1 LFB 0.25	08-Apr-18	18:25:21
4	180408M1_14	B8D0033-BLK1 LRB 0.25	08-Apr-18	18:36:47
5	180408M1_15	B8D0033-MS1 LFSM 0.25214	08-Apr-18	18:48:15
6	180408M1_16	B8D0033-MSD1 LFSMD 0.24973	08-Apr-18	18:59:45
7	180408M1_17	1800600-01 WI-A06-RW19-0318 0.24937	08-Apr-18	19:11:15
8	180408M1_18	1800600-02 WI-A06-FB19-0318 0.25854	08-Apr-18	19:22:44
9	180408M1_19	1800570-11@5X WI-CV-1RW34-0318 0.2563	08-Apr-18	19:34:14
10	180408M1_20	1800570-13@5X WI-CV-1RW01-0318 0.25556	08-Apr-18	19:45:41
11	180408M1_21	1800569-05@30X WI-AF-1RW32-0318 0.24919	08-Apr-18	19:57:11
12	180408M1_22	IPA	08-Apr-18	20:08:41
13	180408M1_23	ST180408M1-2 PFC CS2 537 18C2906	08-Apr-18	20:20:10
14	180408M1_24	IPA	08-Apr-18	20:31:40

Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-23_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:28:05 Pacific Daylight Time

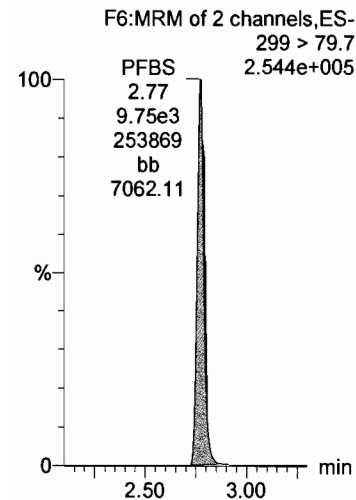
Printed: Monday, April 09, 2018 09:28:23 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

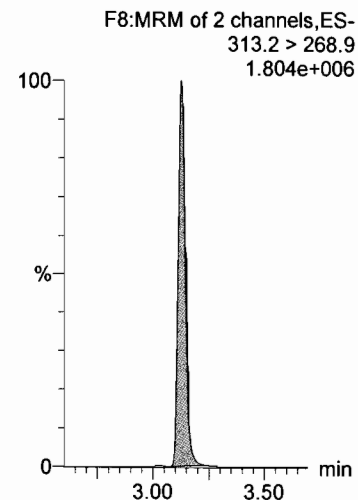
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

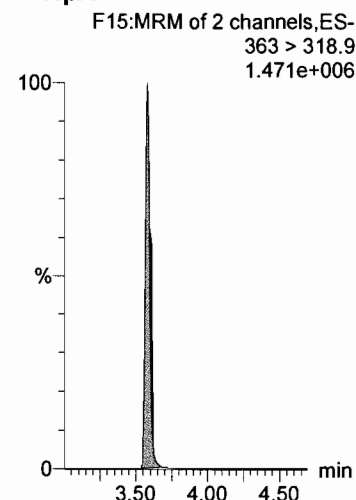
PFBS



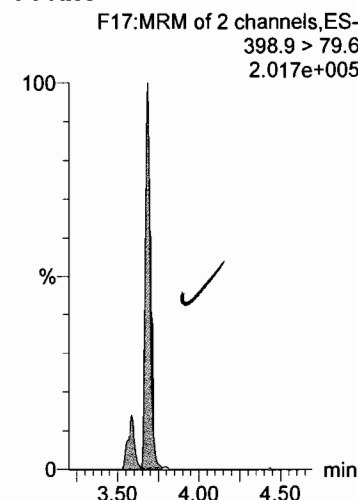
PFHxA



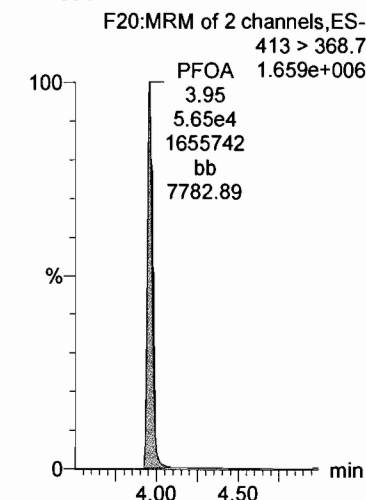
PFHpA



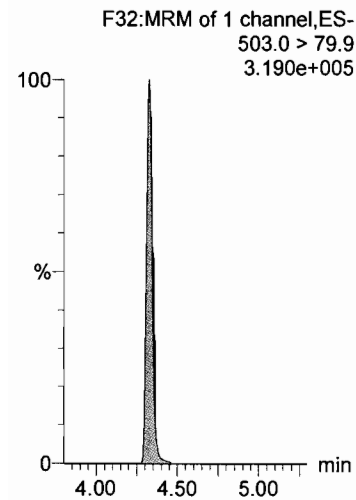
PFHxS



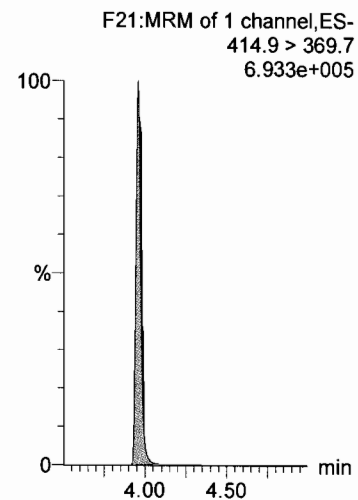
PFOA



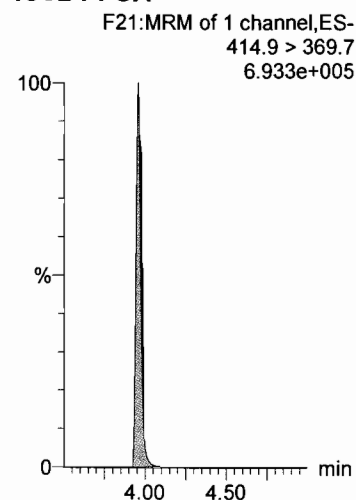
13C4-PFOS



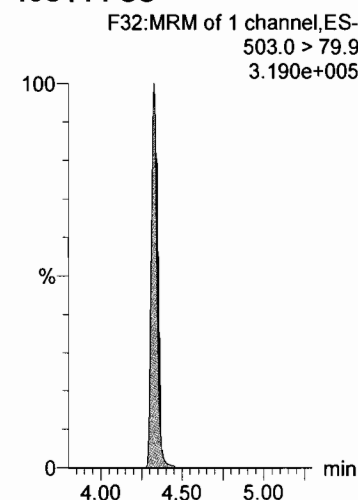
13C2-PFOA



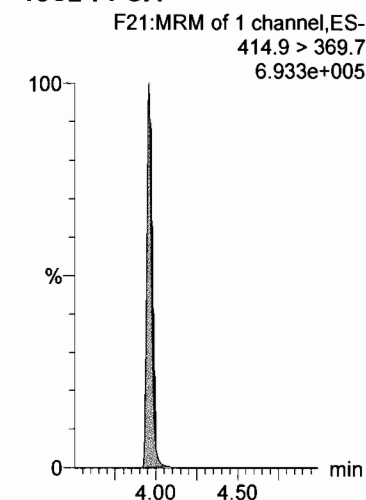
13C2-PFOA



13C4-PFOS



13C2-PFOA



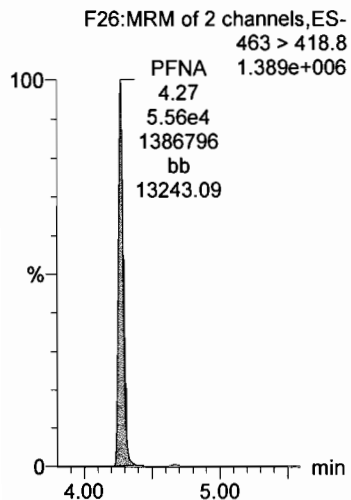
Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-23_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:28:05 Pacific Daylight Time

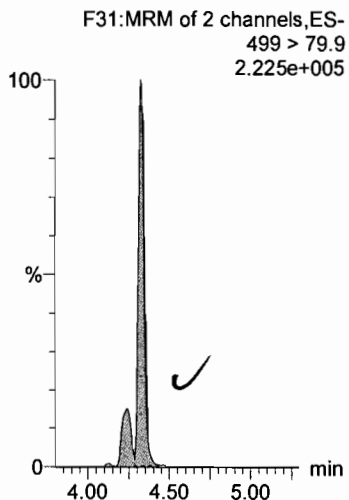
Printed: Monday, April 09, 2018 09:28:23 Pacific Daylight Time

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

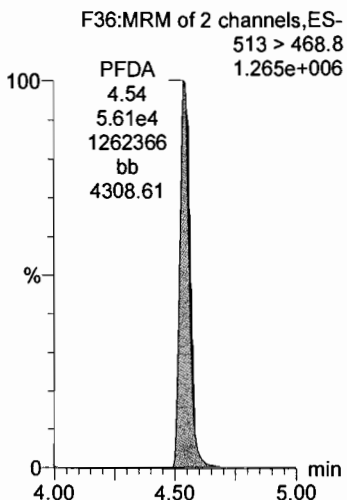
PFNA



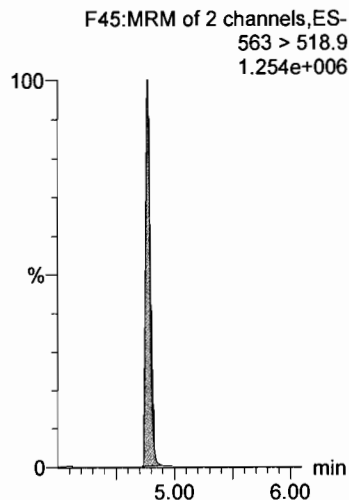
PFOS



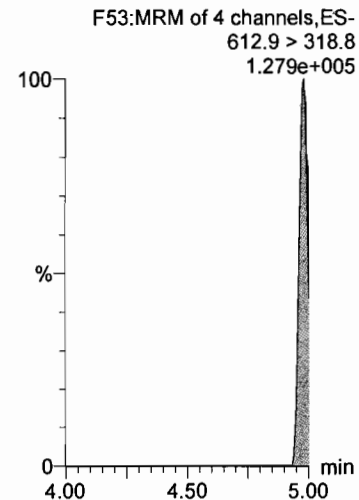
PFDA



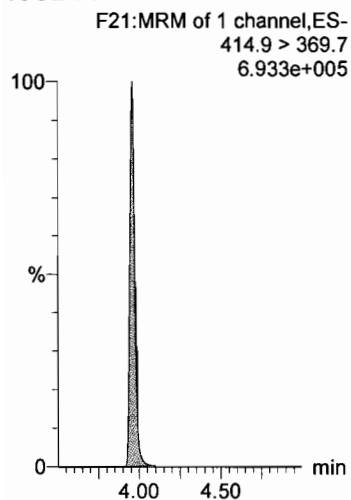
PFUnA



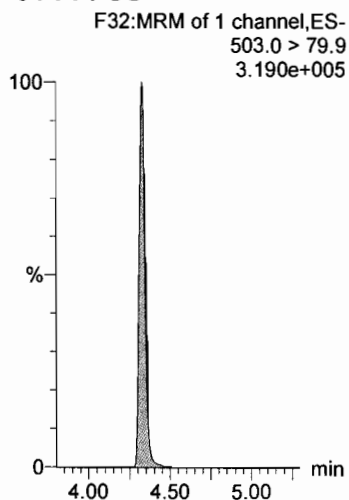
PFDoA



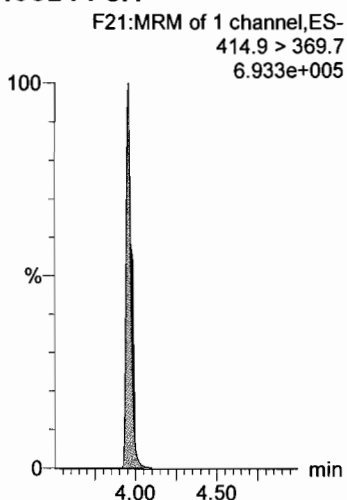
13C2-PFOA



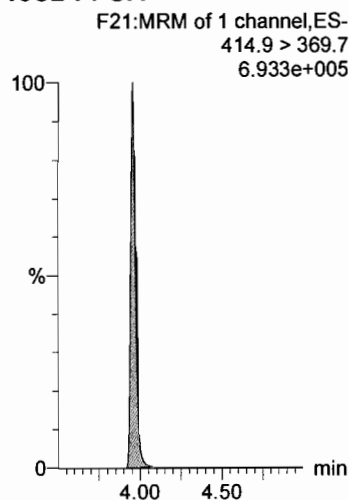
13C4-PFOS



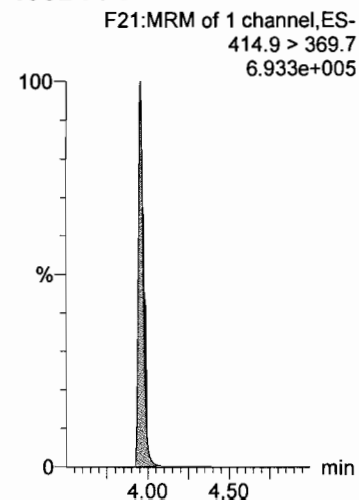
13C2-PFOA



13C2-PFOA



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-23_PFOA_PFOS.qld

Last Altered: Monday, April 09, 2018 09:28:05 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:28:23 Pacific Daylight Time

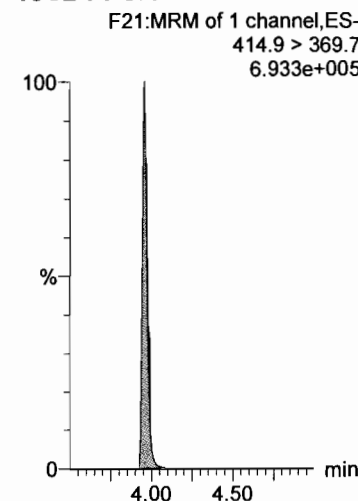
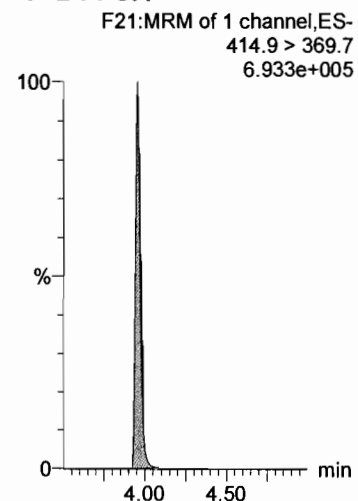
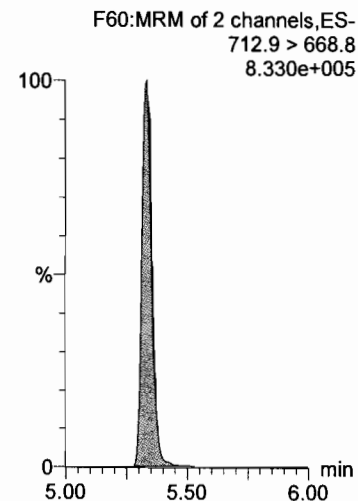
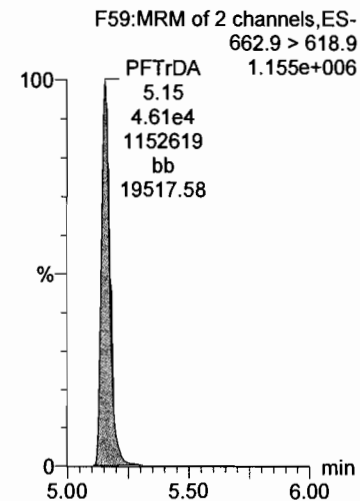
Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

PFTTrDA

PFTeDA

13C2-PFOA

13C2-PFOA

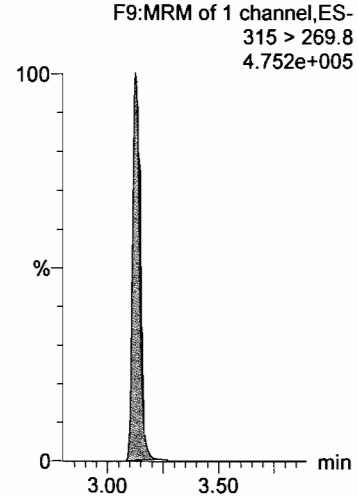


Dataset: Z:\Projects\PFAS.PRO\Results\180408m1\180408M1-23_PFOA_PFOS.qld

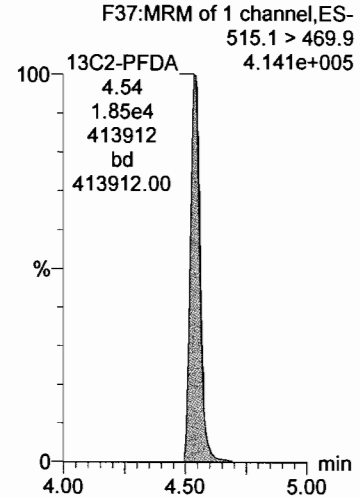
Last Altered: Monday, April 09, 2018 09:28:05 Pacific Daylight Time
Printed: Monday, April 09, 2018 09:28:23 Pacific Daylight Time

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

13C2-PFHxA



13C2-PFDA



LC Calibration Standards Review Checklist

Q4

Calibration ID:	ION Ratio	Concentration	C-Cals Name	Sign Date	Correct I-Cal	Manual Integrations	
ST1600408M1-1 (L M H)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NA ↓
↓ -2 (L M H)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	↓
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
_____ (L M H)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Full Mass Cal. Date: 4/2/19

Run Log Present:

of Samples per Sequence Checked:

Instrument Blank Saved: *NA DW*

IIS Area Saved:

Reviewed By: UJT 4/9/18
Initials/Date

Comments:

*MEFOAAA
EFOAAA

DW*

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-11.qld

Last Altered: Monday, April 09, 2018 08:50:07 Pacific Daylight Time

Printed: Monday, April 09, 2018 08:53:49 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

*MT
4/9/18*

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	9 N-MeFOSAA	570.1 > 419.0	2.25e3	3.86e4	1.0000		4.68	4.68	2.33	1.74	87.2	NO
2	10 N-EtFOSAA	584.2 > 419.0	2.13e3	3.86e4	1.0000		4.80	4.79	2.21	1.94	96.8	NO
3	17 d5-N-EtFOSAA	589.3 > 419.0	4.11e4	3.86e4	1.0000	1.059	4.68	4.79	42.6	40.2	100.5	NO
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.86e4	3.86e4	1.0000	1.000	4.62	4.68	40.0	40.0	100.0	NO

*QW
4/9/18*

Dataset: Untitled

Last Altered: Monday, April 09, 2018 09:53:18 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:53:32 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180408M1_11	ST180408M1-1 PFC CS-1 537 18D0504	08-Apr-18	18:02:01
2	180408M1_12	IPA	08-Apr-18	18:13:55
3	180408M1_13	B8D0033-BS1 LFB 0.25	08-Apr-18	18:25:21
4	180408M1_14	B8D0033-BLK1 LRB 0.25	08-Apr-18	18:36:47
5	180408M1_15	B8D0033-MS1 LFSM 0.25214	08-Apr-18	18:48:15
6	180408M1_16	B8D0033-MSD1 LFSMD 0.24973	08-Apr-18	18:59:45
7	180408M1_17	1800600-01 WI-A06-RW19-0318 0.24937	08-Apr-18	19:11:15
8	180408M1_18	1800600-02 WI-A06-FB19-0318 0.25854	08-Apr-18	19:22:44
9	180408M1_19	1800570-11@5X WI-CV-1RW34-0318 0.2563	08-Apr-18	19:34:14
10	180408M1_20	1800570-13@5X WI-CV-1RW01-0318 0.25556	08-Apr-18	19:45:41
11	180408M1_21	1800569-05@30X WI-AF-1RW32-0318 0.24919	08-Apr-18	19:57:11
12	180408M1_22	IPA	08-Apr-18	20:08:41
13	180408M1_23	ST180408M1-2 PFC CS2 537 18C2906	08-Apr-18	20:20:10
14	180408M1_24	IPA	08-Apr-18	20:31:40

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-11.qld

Last Altered: Monday, April 09, 2018 08:50:07 Pacific Daylight Time

Printed: Monday, April 09, 2018 08:53:49 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

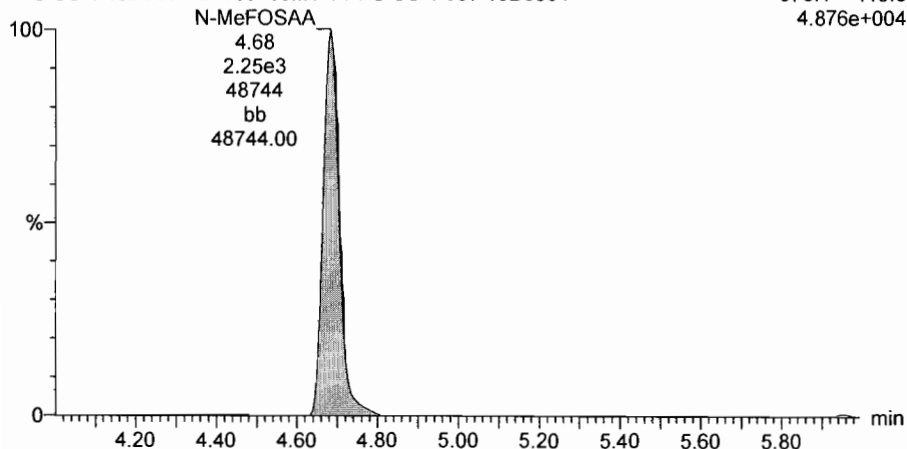
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

N-MeFOSAA

180408M1_11 Smooth(Mn,1x2)
PFC CS-1 18D0504 ST180408M1-1 PFC CS-1 537 18D0504

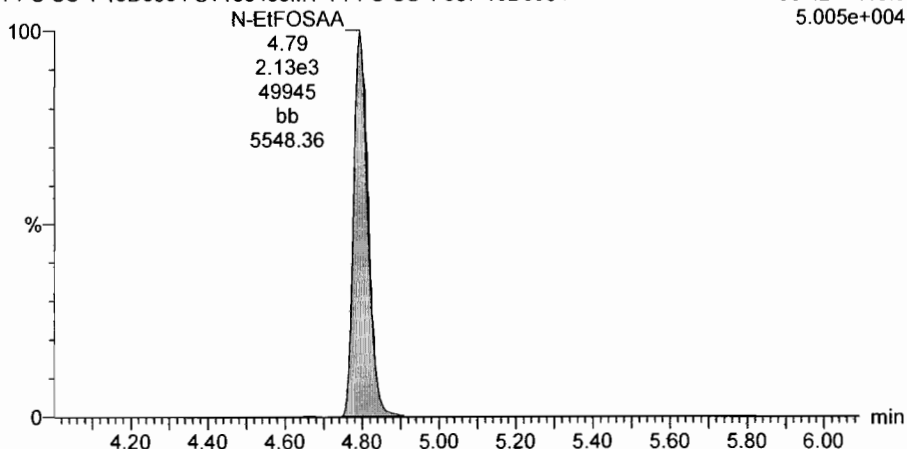
F47:MRM of 2 channels,ES-
570.1 > 419.0
4.876e+004



N-EtFOSAA

180408M1_11 Smooth(Mn,1x2)
PFC CS-1 18D0504 ST180408M1-1 PFC CS-1 537 18D0504

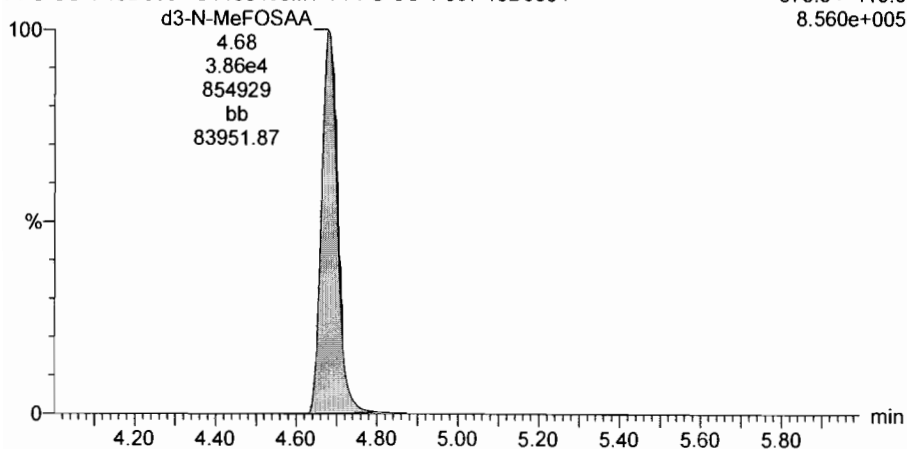
F50:MRM of 2 channels,ES-
584.2 > 419.0
5.005e+004



d3-N-MeFOSAA

180408M1_11 Smooth(Mn,1x2)
PFC CS-1 18D0504 ST180408M1-1 PFC CS-1 537 18D0504

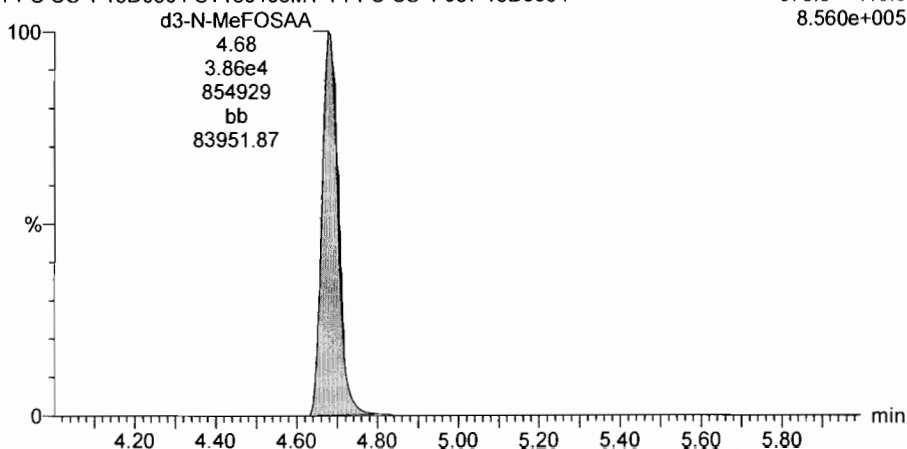
F49:MRM of 1 channel,ES-
573.3 > 419.0
8.560e+005



d3-N-MeFOSAA

180408M1_11 Smooth(Mn,1x2)
PFC CS-1 18D0504 ST180408M1-1 PFC CS-1 537 18D0504

F49:MRM of 1 channel,ES-
573.3 > 419.0
8.560e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-11.qld

Last Altered: Monday, April 09, 2018 08:50:07 Pacific Daylight Time

Printed: Monday, April 09, 2018 08:53:49 Pacific Daylight Time

Name: 180408M1_11, Date: 08-Apr-2018, Time: 18:02:01, ID: ST180408M1-1 PFC CS-1 537 18D0504, Description: PFC CS-1 18D0504

d5-N-EtFOSAA

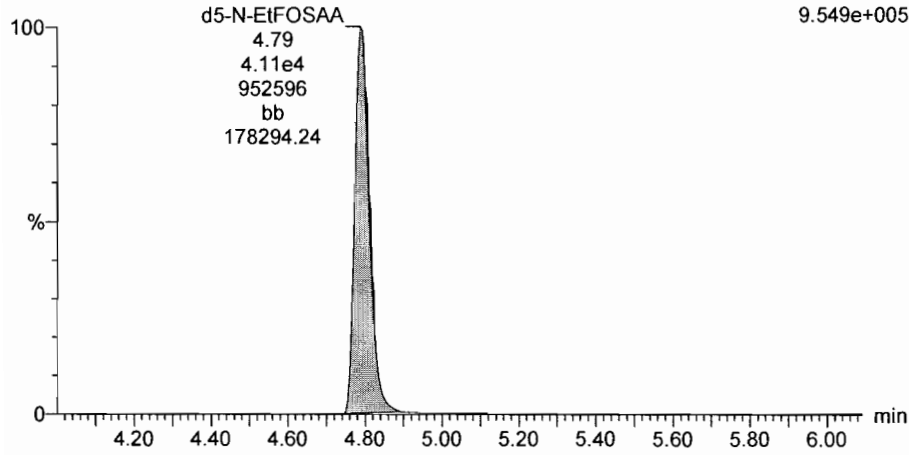
180408M1_11 Smooth(Mn,1x2)

PFC CS-1 18D0504 ST180408M1-1 PFC CS-1 537 18D0504

F51:MRM of 1 channel,ES-

589.3 > 419.0

9.549e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-23.qld

Last Altered: Monday, April 09, 2018 08:53:56 Pacific Daylight Time

Printed: Monday, April 09, 2018 08:54:29 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

MTT
4/9/18

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	9 N-MeFOSAA	570.1 > 419.0	3.47e4	3.89e4	1.0000		4.65	4.65	35.7	25.0	99.9	NO
2	10 N-EtFOSAA	584.2 > 419.0	2.97e4	3.89e4	1.0000		4.77	4.76	30.6	26.8	107.4	NO
3	17 d5-N-EtFOSAA	589.3 > 419.0	4.28e4	3.89e4	1.0000	1.059	4.65	4.76	44.0	41.5	103.9	NO
4	20 d3-N-MeFOSAA	573.3 > 419.0	3.89e4	3.89e4	1.0000	1.000	4.62	4.65	40.0	40.0	100.0	NO

DM
4/11/18

Dataset: Untitled

Last Altered: Monday, April 09, 2018 09:53:18 Pacific Daylight Time

Printed: Monday, April 09, 2018 09:53:32 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180408M1_11	ST180408M1-1 PFC CS-1 537 18D0504	08-Apr-18	18:02:01
2	180408M1_12	IPA	08-Apr-18	18:13:55
3	180408M1_13	B8D0033-BS1 LFB 0.25	08-Apr-18	18:25:21
4	180408M1_14	B8D0033-BLK1 LRB 0.25	08-Apr-18	18:36:47
5	180408M1_15	B8D0033-MS1 LFSM 0.25214	08-Apr-18	18:48:15
6	180408M1_16	B8D0033-MSD1 LFSMD 0.24973	08-Apr-18	18:59:45
7	180408M1_17	1800600-01 WI-A06-RW19-0318 0.24937	08-Apr-18	19:11:15
8	180408M1_18	1800600-02 WI-A06-FB19-0318 0.25854	08-Apr-18	19:22:44
9	180408M1_19	1800570-11@5X WI-CV-1RW34-0318 0.2563	08-Apr-18	19:34:14
10	180408M1_20	1800570-13@5X WI-CV-1RW01-0318 0.25556	08-Apr-18	19:45:41
11	180408M1_21	1800569-05@30X WI-AF-1RW32-0318 0.24919	08-Apr-18	19:57:11
12	180408M1_22	IPA	08-Apr-18	20:08:41
13	180408M1_23	ST180408M1-2 PFC CS2 537 18C2906	08-Apr-18	20:20:10
14	180408M1_24	IPA	08-Apr-18	20:31:40

Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-23.qld

Last Altered: Monday, April 09, 2018 08:53:56 Pacific Daylight Time

Printed: Monday, April 09, 2018 08:54:29 Pacific Daylight Time

Method: F:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

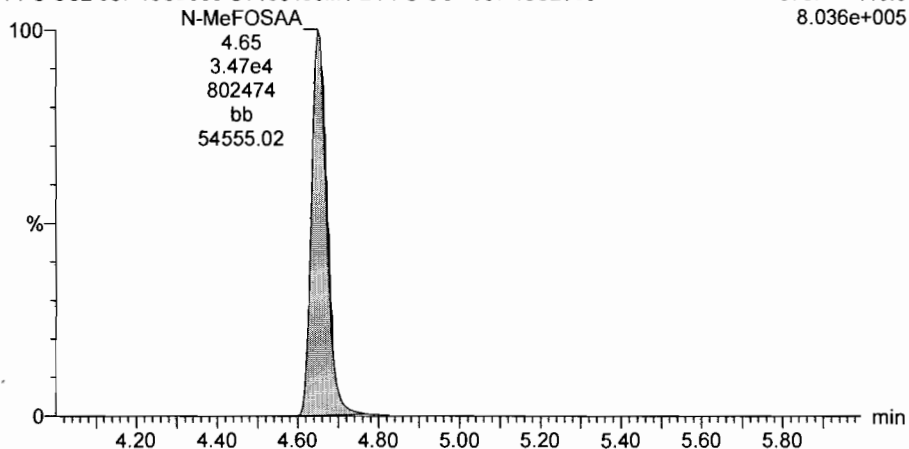
Calibration: F:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

N-MeFOSAA

180408M1_23 Smooth(Mn,1x2)
PFC CS2 537 18C2906 ST180408M1-2 PFC CS2 537 18C2906

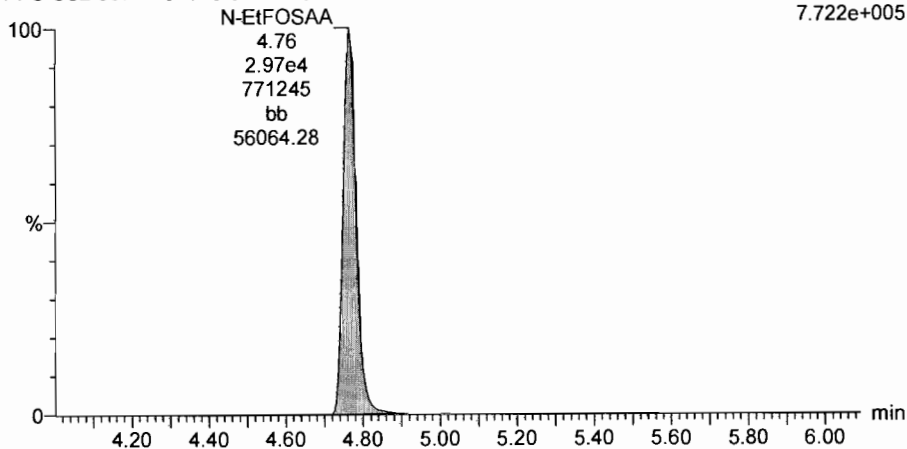
F47:MRM of 2 channels,ES-
570.1 > 419.0
8.036e+005



N-EtFOSAA

180408M1_23 Smooth(Mn,1x2)
PFC CS2 537 18C2906 ST180408M1-2 PFC CS2 537 18C2906

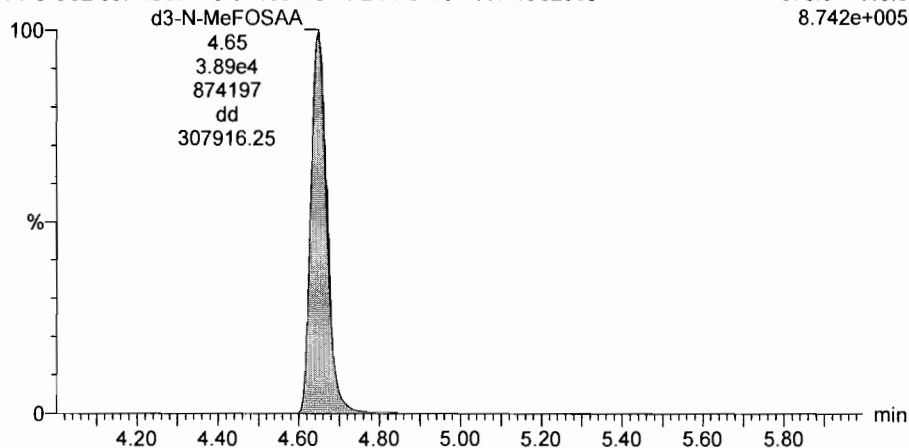
F50:MRM of 2 channels,ES-
584.2 > 419.0
7.722e+005



d3-N-MeFOSAA

180408M1_23 Smooth(Mn,1x2)
PFC CS2 537 18C2906 ST180408M1-2 PFC CS2 537 18C2906

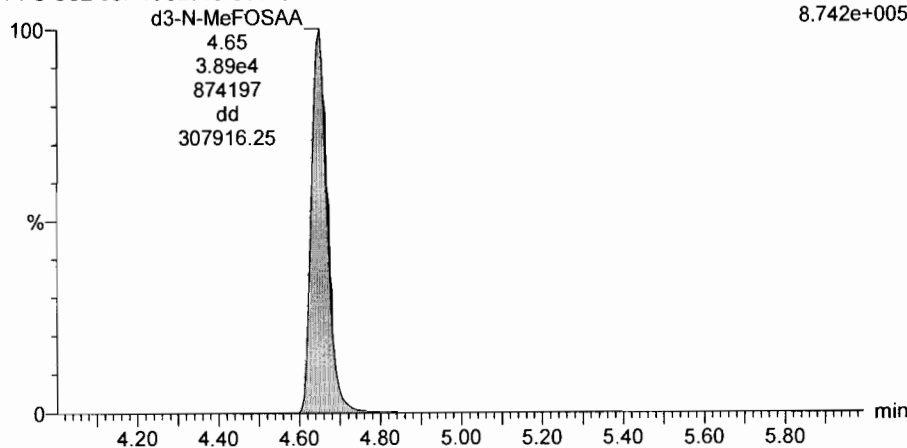
F49:MRM of 1 channel,ES-
573.3 > 419.0
8.742e+005



d3-N-MeFOSAA

180408M1_23 Smooth(Mn,1x2)
PFC CS2 537 18C2906 ST180408M1-2 PFC CS2 537 18C2906

F49:MRM of 1 channel,ES-
573.3 > 419.0
8.742e+005



Dataset: F:\Projects\PFAS.PRO\Results\180408m1\180408M1-23.qld

Last Altered: Monday, April 09, 2018 08:53:56 Pacific Daylight Time

Printed: Monday, April 09, 2018 08:54:29 Pacific Daylight Time

Name: 180408M1_23, Date: 08-Apr-2018, Time: 20:20:10, ID: ST180408M1-2 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

d5-N-EtFOSAA

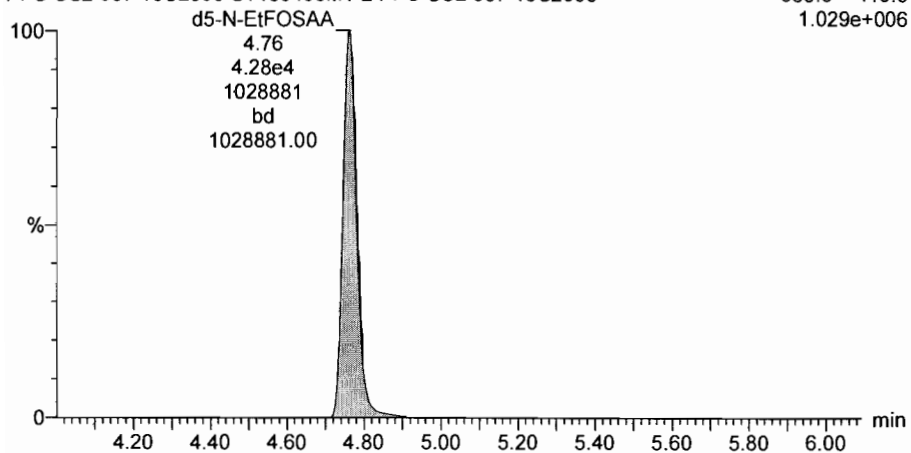
180408M1_23 Smooth(Mn,1x2)

PFC CS2 537 18C2906 ST180408M1-2 PFC CS2 537 18C2906

F51:MRM of 1 channel,ES-

589.3 > 419.0

1.029e+006



INITIAL CALIBRATION (ICAL)
INCLUDING ASSOCIATED
INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
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high
 $\frac{PFHxH}{PFHxP} \approx SD$
 $\frac{low}{MCFOSAH} = \frac{1.0}{ETOSAH}$

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 11:21:46
 Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Compound name: PFHxA
 Coefficient of Determination: $R^2 = 0.999351$
 Calibration curve: $1.08131 * x$
 Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
 Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

AM
4/9/18
MT
4/19/18

#	Name	Type	Std. Conc.	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180406M1_2	Standard	0.500	3.20	1073.906	19043.063	0.564	0.5	4.3	NO	0.999	NO	bb
2	2 180406M1_3	Standard	1.000	3.20	2178.548	20523.285	1.062	1.0	-1.8	NO	0.999	NO	bb
3	3 180406M1_4	Standard	2.000	3.20	5050.410	21353.799	2.365	2.2	9.4	NO	0.999	NO	bb
4	4 180406M1_5	Standard	5.000	3.20	11744.070	20603.201	5.700	5.3	5.4	NO	0.999	NO	MM
5	5 180406M1_6	Standard	10.000	3.20	22704.096	20373.469	11.144	10.3	3.1	NO	0.999	NO	bd
6	6 180406M1_7	Standard	25.000	3.20	59196.820	21996.598	26.912	24.9	-0.4	NO	0.999	NO	MM
7	7 180406M1_8	Standard	50.000	3.21	116095.398	21758.434	53.357	49.3	-1.3	NO	0.999	NO	MM
8	8 180406M1_9	Standard	75.000	3.21	75820.477	8742.470	86.727	80.2	6.9	NO	0.999	NO	MMX
9	9 180406M1_10	Standard	100.000	3.21	229047.891	21049.262	108.815	100.6	0.6	NO	0.999	NO	MMX

Compound name: PFHpA
 Coefficient of Determination: $R^2 = 0.999814$
 Calibration curve: $0.917722 * x$
 Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
 Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

#	Name	Type	Std. Conc.	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180406M1_2	Standard	0.500	3.82	901.247	19043.063	0.473	0.5	3.1	NO	1.000	NO	MM
2	2 180406M1_3	Standard	1.000	3.82	1966.102	20523.285	0.958	1.0	4.4	NO	1.000	NO	MM
3	3 180406M1_4	Standard	2.000	3.82	4073.196	21353.799	1.907	2.1	3.9	NO	1.000	NO	bb
4	4 180406M1_5	Standard	5.000	3.82	9681.323	20603.201	4.699	5.1	2.4	NO	1.000	NO	MM
5	5 180406M1_6	Standard	10.000	3.82	18286.707	20373.469	8.976	9.8	-2.2	NO	1.000	NO	bb
6	6 180406M1_7	Standard	25.000	3.82	50096.773	21996.598	22.775	24.8	-0.7	NO	1.000	NO	bb
7	7 180406M1_8	Standard	50.000	3.82	100129.734	21758.434	46.019	50.1	0.3	NO	1.000	NO	bb
8	8 180406M1_9	Standard	75.000	3.82	61162.184	8742.470	69.960	76.2	1.6	NO	1.000	NO	bbX
9	9 180406M1_10	Standard	100.000	3.82	197072.203	21049.262	93.624	102.0	2.0	NO	1.000	NO	bbX

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
 Printed: Sunday, April 08, 2018 14:19:19 Pacific Daylight Time

Compound name: PFOA

Coefficient of Determination: R² = 0.999055

Calibration curve: 0.959979 * x

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180406M1_2	Standard	0.500	4.33	1102.600	19043.063	0.579	0.6	20.6	NO	0.999	NO	bb
2	2 180406M1_3	Standard	1.000	4.34	2281.311	20523.285	1.112	1.2	15.8	NO	0.999	NO	bb
3	3 180406M1_4	Standard	2.000	4.33	4264.548	21353.799	1.997	2.1	4.0	NO	0.999	NO	MM
4	4 180406M1_5	Standard	5.000	4.33	10211.668	20603.201	4.956	5.2	3.3	NO	0.999	NO	bb
5	5 180406M1_6	Standard	10.000	4.33	19092.412	20373.469	9.371	9.8	-2.4	NO	0.999	NO	bb
6	6 180406M1_7	Standard	25.000	4.33	51595.387	21996.598	23.456	24.4	-2.3	NO	0.999	NO	bb
7	7 180406M1_8	Standard	50.000	4.34	105064.414	21758.434	48.287	50.3	0.6	NO	0.999	NO	bb
8	8 180406M1_9	Standard	75.000	4.34	68274.547	8742.470	78.095	81.4	8.5	NO	0.999	NO	bbX
9	9 180406M1_10	Standard	100.000	4.34	201885.141	21049.262	95.911	99.9	-0.1	NO	0.999	NO	bbX

Compound name: N-MeFOSAA

Coefficient of Determination: R² = 0.999580

Calibration curve: 0.00402425 * x² + 1.32763 * x

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180406M1_2	Standard	0.500	5.28	453.436	27885.506	0.650	0.5	-2.2	NO	1.000	NO	bbX
2	2 180406M1_3	Standard	1.000	5.28	1104.567	32466.947	1.361	1.0	2.2	NO	1.000	NO	bb
3	3 180406M1_4	Standard	2.000	5.28	2391.967	35067.512	2.728	2.0	2.1	NO	1.000	NO	bb
4	4 180406M1_5	Standard	5.000	5.28	6187.086	34574.012	7.158	5.3	6.1	NO	1.000	NO	bb
5	5 180406M1_6	Standard	10.000	5.28	11653.901	34224.164	13.621	10.0	-0.4	NO	1.000	NO	bb
6	6 180406M1_7	Standard	25.000	5.28	30107.037	34529.227	34.877	24.5	-2.2	NO	1.000	NO	bb
7	7 180406M1_8	Standard	50.000	5.28	60709.539	31609.996	76.823	50.2	0.4	NO	1.000	NO	bb
8	8 180406M1_9	Standard	75.000	5.28	39263.828	13950.054	112.584	70.0	-6.7	NO	1.000	NO	bbX
9	9 180406M1_10	Standard	100.000	5.28	113526.508	32377.924	140.252	84.2	-15.8	NO	1.000	NO	bbX

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
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Compound name: N-EtFOSAA

Coefficient of Determination: R² = 0.998993

Calibration curve: 1.14002 * x

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180406M1_2	Standard	0.500	5.43	433.490	27885.506	0.622	0.5	9.1	NO	0.999	NO	bbX
2	180406M1_3	Standard	1.000	5.43	948.804	32466.947	1.169	1.0	2.5	NO	0.999	NO	bb
3	180406M1_4	Standard	2.000	5.43	1837.861	35067.512	2.096	1.8	-8.1	NO	0.999	NO	bd
4	180406M1_5	Standard	5.000	5.43	4680.914	34574.012	5.416	4.8	-5.0	NO	0.999	NO	bb
5	180406M1_6	Standard	10.000	5.43	9617.149	34224.164	11.240	9.9	-1.4	NO	0.999	NO	bb
6	180406M1_7	Standard	25.000	5.43	23938.754	34529.227	27.732	24.3	-2.7	NO	0.999	NO	bb
7	180406M1_8	Standard	50.000	5.43	46126.113	31609.996	58.369	51.2	2.4	NO	0.999	NO	bb
8	180406M1_9	Standard	75.000	5.43	31232.330	13950.054	89.555	78.6	4.7	NO	0.999	NO	bbX
9	180406M1_10	Standard	100.000	5.43	99959.320	32377.924	123.491	108.3	8.3	NO	0.999	NO	bbX

Compound name: 13C2-PFHxA

Response Factor: 0.756513

RRF SD: 0.0401633, Relative SD: 5.30901

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180406M1_2	Standard	10.000	3.20	15114.573	19043.063	7.937	10.5	4.9	NO		NO	bd
2	180406M1_3	Standard	10.000	3.20	15032.272	20523.285	7.324	9.7	-3.2	NO		NO	bb
3	180406M1_4	Standard	10.000	3.20	16447.479	21353.799	7.702	10.2	1.8	NO		NO	bd
4	180406M1_5	Standard	10.000	3.20	16099.713	20603.201	7.814	10.3	3.3	NO		NO	bd
5	180406M1_6	Standard	10.000	3.20	16151.791	20373.469	7.928	10.5	4.8	NO		NO	bb
6	180406M1_7	Standard	10.000	3.20	16317.051	21996.598	7.418	9.8	-1.9	NO		NO	bb
7	180406M1_8	Standard	10.000	3.21	14865.262	21758.434	6.832	9.0	-9.7	NO		NO	bb
8	180406M1_9	Standard	10.000	3.21	6878.384	8742.470	7.868	10.4	4.0	NO		NO	bdX
9	180406M1_10	Standard	10.000	3.20	15600.756	21049.262	7.412	9.8	-2.0	NO		NO	bbX

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:19:19 Pacific Daylight Time

Compound name: 13C2-PFDA

Response Factor: 0.794455

RRF SD: 0.0388932, Relative SD: 4.89558

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180406M1_2	Standard	10.000	5.13	14826.251	19043.063	7.786	9.8	-2.0	NO		NO	MM!
2	180406M1_3	Standard	10.000	5.13	15204.002	20523.285	7.408	9.3	-6.8	NO		NO	MM
3	180406M1_4	Standard	10.000	5.13	18136.273	21353.799	8.493	10.7	6.9	NO		NO	MM
4	180406M1_5	Standard	10.000	5.13	16696.082	20603.201	8.104	10.2	2.0	NO		NO	MM
5	180406M1_6	Standard	10.000	5.13	16497.773	20373.469	8.098	10.2	1.9	NO		NO	MM
6	180406M1_7	Standard	10.000	5.13	16545.379	21996.598	7.522	9.5	-5.3	NO		NO	MM
7	180406M1_8	Standard	10.000	5.13	17845.600	21758.434	8.202	10.3	3.2	NO		NO	MM
8	180406M1_9	Standard	10.000	5.13	7503.391	8742.470	8.583	10.8	8.0	NO		NO	MMX
9	180406M1_10	Standard	10.000	5.13	16956.811	21049.262	8.056	10.1	1.4	NO		NO	MMX

Compound name: d5-N-EtFOSAA

Response Factor: 1.05898

RRF SD: 0.0728456, Relative SD: 6.87884

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180406M1_2	Standard	40.000	5.43	32336.941	27885.506	46.385	43.8	9.5	NO		NO	bbX
2	180406M1_3	Standard	40.000	5.43	30001.561	32466.947	36.963	34.9	-12.7	NO		NO	bb
3	180406M1_4	Standard	40.000	5.43	36719.859	35067.512	41.885	39.6	-1.1	NO		NO	bb
4	180406M1_5	Standard	40.000	5.43	36824.926	34574.012	42.604	40.2	0.6	NO		NO	bb
5	180406M1_6	Standard	40.000	5.43	37990.703	34224.164	44.402	41.9	4.8	NO		NO	bb
6	180406M1_7	Standard	40.000	5.43	37156.836	34529.227	43.044	40.6	1.6	NO		NO	bb
7	180406M1_8	Standard	40.000	5.43	35764.797	31609.996	45.258	42.7	6.8	NO		NO	bd
8	180406M1_9	Standard	40.000	5.43	15397.194	13950.054	44.149	41.7	4.2	NO		NO	bdX
9	180406M1_10	Standard	40.000	5.43	35149.500	32377.924	43.424	41.0	2.5	NO		NO	bbX

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
 Printed: Sunday, April 08, 2018 14:19:19 Pacific Daylight Time

Compound name: 13C2-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180406M1_2	Standard	10.000	4.33	19043.063	19043.063	10.000	10.0	0.0	NO		NO	bd
2	180406M1_3	Standard	10.000	4.33	20523.285	20523.285	10.000	10.0	0.0	NO		NO	bb
3	180406M1_4	Standard	10.000	4.33	21353.799	21353.799	10.000	10.0	0.0	NO		NO	bd
4	180406M1_5	Standard	10.000	4.33	20603.201	20603.201	10.000	10.0	0.0	NO		NO	bb
5	180406M1_6	Standard	10.000	4.33	20373.469	20373.469	10.000	10.0	0.0	NO		NO	bb
6	180406M1_7	Standard	10.000	4.33	21996.598	21996.598	10.000	10.0	0.0	NO		NO	bd
7	180406M1_8	Standard	10.000	4.34	21758.434	21758.434	10.000	10.0	0.0	NO		NO	bb
8	180406M1_9	Standard	10.000	4.34	8742.470	8742.470	10.000	10.0	0.0	NO		NO	MM
9	180406M1_10	Standard	10.000	4.33	21049.262	21049.262	10.000	10.0	0.0	NO		NO	bd

Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	180406M1_2	Standard	28.700	4.84	11248.509	11248.509	28.700	28.7	0.0	NO		NO	bb
2	180406M1_3	Standard	28.700	4.84	11295.023	11295.023	28.700	28.7	0.0	NO		NO	bd
3	180406M1_4	Standard	28.700	4.84	13104.747	13104.747	28.700	28.7	0.0	NO		NO	bb
4	180406M1_5	Standard	28.700	4.84	12982.220	12982.220	28.700	28.7	0.0	NO		NO	MM
5	180406M1_6	Standard	28.700	4.84	11520.945	11520.945	28.700	28.7	0.0	NO		NO	bb
6	180406M1_7	Standard	28.700	4.84	12478.854	12478.854	28.700	28.7	0.0	NO		NO	bb
7	180406M1_8	Standard	28.700	4.84	11592.370	11592.370	28.700	28.7	0.0	NO		NO	MM
8	180406M1_9	Standard	28.700	4.84	4763.219	4763.219	28.700	28.7	0.0	NO		NO	MM
9	180406M1_10	Standard	28.700	4.84	12290.704	12290.704	28.700	28.7	0.0	NO		NO	bd

*Not used.
 am 4/10/18*

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:19:19 Pacific Daylight Time

Compound name: d3-N-MeFOSAA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180406M1_2	Standard	40.000	5.28	27885.506	27885.506	40.000	40.0	0.0	NO		NO	MMX
2	2 180406M1_3	Standard	40.000	5.28	32466.947	32466.947	40.000	40.0	0.0	NO		NO	MM
3	3 180406M1_4	Standard	40.000	5.28	35067.512	35067.512	40.000	40.0	0.0	NO		NO	bd
4	4 180406M1_5	Standard	40.000	5.27	34574.012	34574.012	40.000	40.0	0.0	NO		NO	bb
5	5 180406M1_6	Standard	40.000	5.27	34224.164	34224.164	40.000	40.0	0.0	NO		NO	bb
6	6 180406M1_7	Standard	40.000	5.28	34529.227	34529.227	40.000	40.0	0.0	NO		NO	bb
7	7 180406M1_8	Standard	40.000	5.28	31609.996	31609.996	40.000	40.0	0.0	NO		NO	bb
8	8 180406M1_9	Standard	40.000	5.28	13950.054	13950.054	40.000	40.0	0.0	NO		NO	bbX
9	9 180406M1_10	Standard	40.000	5.28	32377.924	32377.924	40.000	40.0	0.0	NO		NO	bbX

Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:19:19 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 11:21:46

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180406M1_2, Date: 06-Apr-2018, Time: 16:23:17, ID: ST180406M1-1 PFC CS-3 537 18C2901, Description: PFC CS-3 537 18C2901

	# Name	IS#	CoD	CoD Flag	%RSD
1	2 PFHxA	18	0.9994	NO	
2	3 PFHpA	18	0.9998	NO	
3	5 PFOA	18	0.9991	NO	
4	9 N-MeFOSAA	20	0.9996	NO	
5	10 N-EtFOSAA	20	0.9990	NO	
6	15 13C2-PFHxA	18		NO	5.309
7	16 13C2-PFDA	18		NO	4.896
8	17 d5-N-EtFOSAA	20		NO	6.879
9	18 13C2-PFOA	18		NO	0.000
10	19 13C4-PFOS	19		NO	0.000
11	20 d3-N-MeFOSAA	20		NO	0.000

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Sunday, April 08, 2018 16:02:10 Pacific Daylight Time

Printed: Sunday, April 08, 2018 16:02:22 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 15:17:56

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180406M1_1	IPA	06-Apr-18	16:11:46
2	180406M1_2	ST180406M1-1 PFC CS-3 537 18C2901	06-Apr-18	16:23:17
3	180406M1_3	ST180406M1-2 PFC CS-2 537 18C2902	06-Apr-18	16:34:47
4	180406M1_4	ST180406M1-3 PFC CS-1 537 18C2903	06-Apr-18	16:46:14
5	180406M1_5	ST180406M1-4 PFC CS0 537 18C2904	06-Apr-18	16:57:44
6	180406M1_6	ST180406M1-5 PFC CS1 537 18C2905	06-Apr-18	17:09:13
7	180406M1_7	ST180406M1-6 PFC CS2 537 18C2906	06-Apr-18	17:20:43
8	180406M1_8	ST180406M1-7 PFC CS3 537 18C2907	06-Apr-18	17:32:12
9	180406M1_9	ST180406M1-8 PFC CS4 537 18C2908	06-Apr-18	17:43:42
10	180406M1_10	ST180406M1-9 PFC CS5 537 18C2909	06-Apr-18	17:55:09
11	180406M1_11	IPA	06-Apr-18	18:06:36
12	180406M1_12	ICV180406M1-1 PFC ICV 18C2910	06-Apr-18	18:18:05
13	180406M1_13	IPA	06-Apr-18	18:29:35

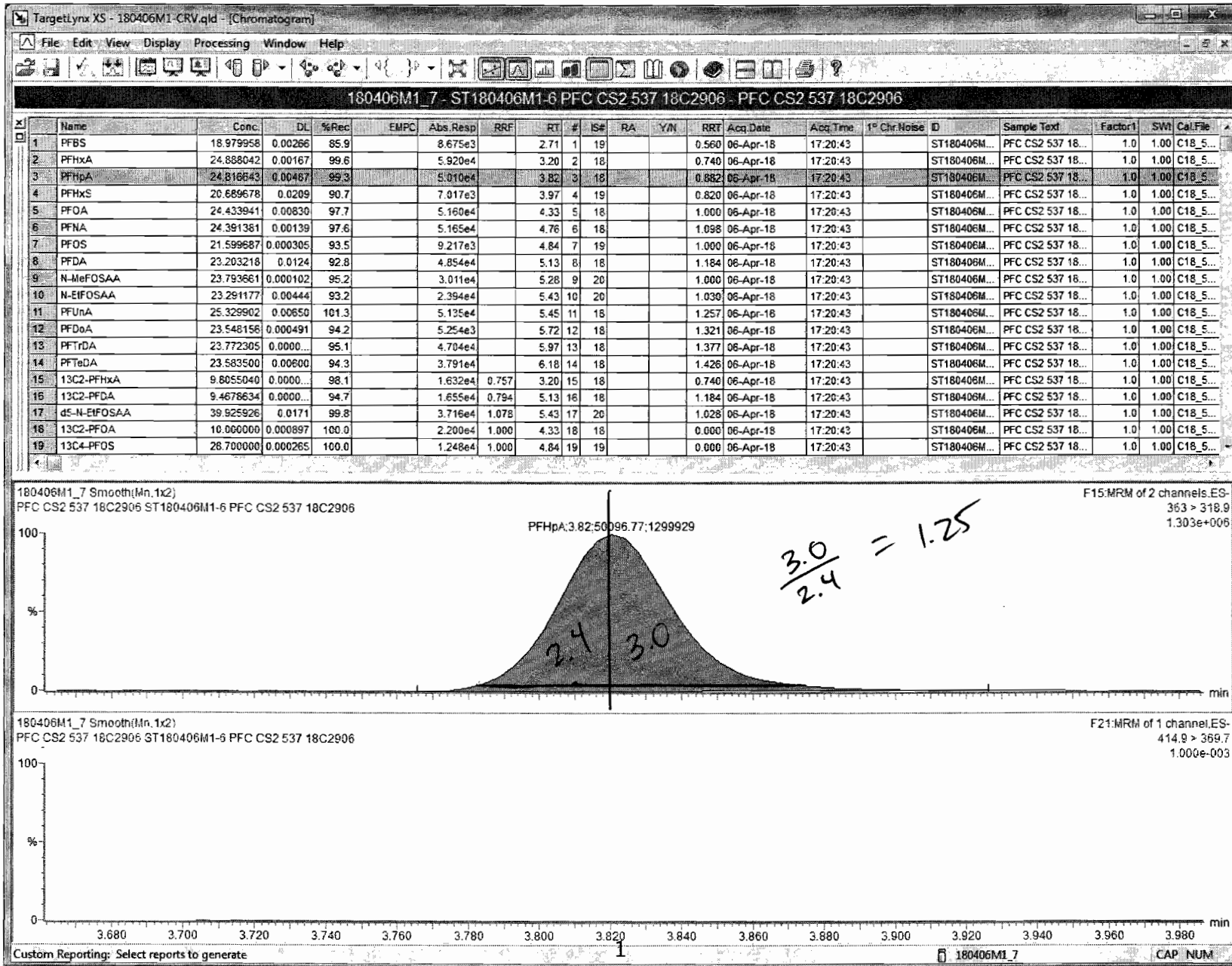
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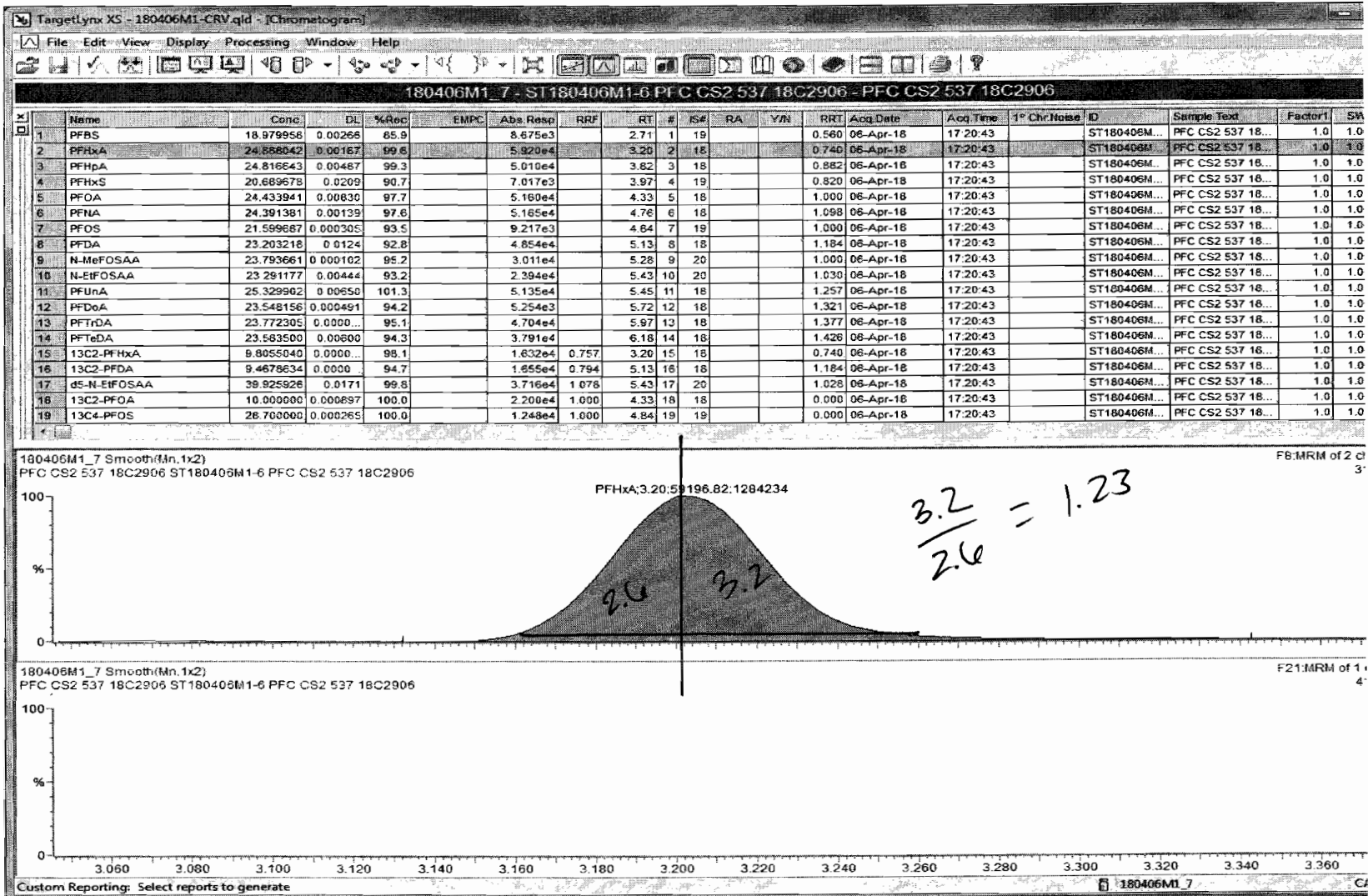
Compound 18: 13C2-PFOA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Primary Fla
1	ST180406M1-1 PFC CS-3 537 18C2901	180406M1_2	Standard	10	4.33	19043.063	19043.06 bd
2	ST180406M1-2 PFC CS-2 537 18C2902	180406M1_3	Standard	10	4.33	20523.285	20523.29 bb
3	ST180406M1-3 PFC CS-1 537 18C2903	180406M1_4	Standard	10	4.33	21353.799	21353.8 bd
4	ST180406M1-4 PFC CS0 537 18C2904	180406M1_5	Standard	10	4.33	20603.201	20603.2 bb
5	ST180406M1-5 PFC CS1 537 18C2905	180406M1_6	Standard	10	4.33	20373.469	20373.47 bb
6	ST180406M1-6 PFC CS2 537 18C2906	180406M1_7	Standard	10	4.33	21996.598	21996.6 bd
7	ST180406M1-7 PFC CS3 537 18C2907	180406M1_8	Standard	10	4.34	21758.434	21758.43 bb
8	ST180406M1-8 PFC CS4 537 18C2908	180406M1_9	Standard	10	4.34	8742.47	8742.47 MMX
9	ST180406M1-9 PFC CS5 537 18C2909	180406M1_10	Standard	10	4.33	21049.262	21049.26 bdX
		AVERAGE				HIGH	21996.6 RPD
		20807.41				LOW	19043.06 14.39356

Compound 20: d3-N-MeFOSAA

ID	Name	Type	Std. Conc	RT	Area	IS Area	Primary Fla
1	ST180406M1-1 PFC CS-3 537 18C2901	180406M1_2	Standard	40	5.28	27885.506	27885.51 MMX
2	ST180406M1-2 PFC CS-2 537 18C2902	180406M1_3	Standard	40	5.28	32466.947	32466.95 MM
3	ST180406M1-3 PFC CS-1 537 18C2903	180406M1_4	Standard	40	5.28	35067.512	35067.51 bd
4	ST180406M1-4 PFC CS0 537 18C2904	180406M1_5	Standard	40	5.27	34574.012	34574.01 bb
5	ST180406M1-5 PFC CS1 537 18C2905	180406M1_6	Standard	40	5.27	34224.164	34224.16 bb
6	ST180406M1-6 PFC CS2 537 18C2906	180406M1_7	Standard	40	5.28	34529.227	34529.23 bb
7	ST180406M1-7 PFC CS3 537 18C2907	180406M1_8	Standard	40	5.28	31609.996	31609.996 bb
8	ST180406M1-8 PFC CS4 537 18C2908	180406M1_9	Standard	40	5.28	13950.054	13950.05 bbX
9	ST180406M1-9 PFC CS5 537 18C2909	180406M1_10	Standard	40	5.28	32377.924	32377.92 bbX
					AVERAGE	HIGH	35067.51 RPD
					33745.31	LOW	31610 10.37086





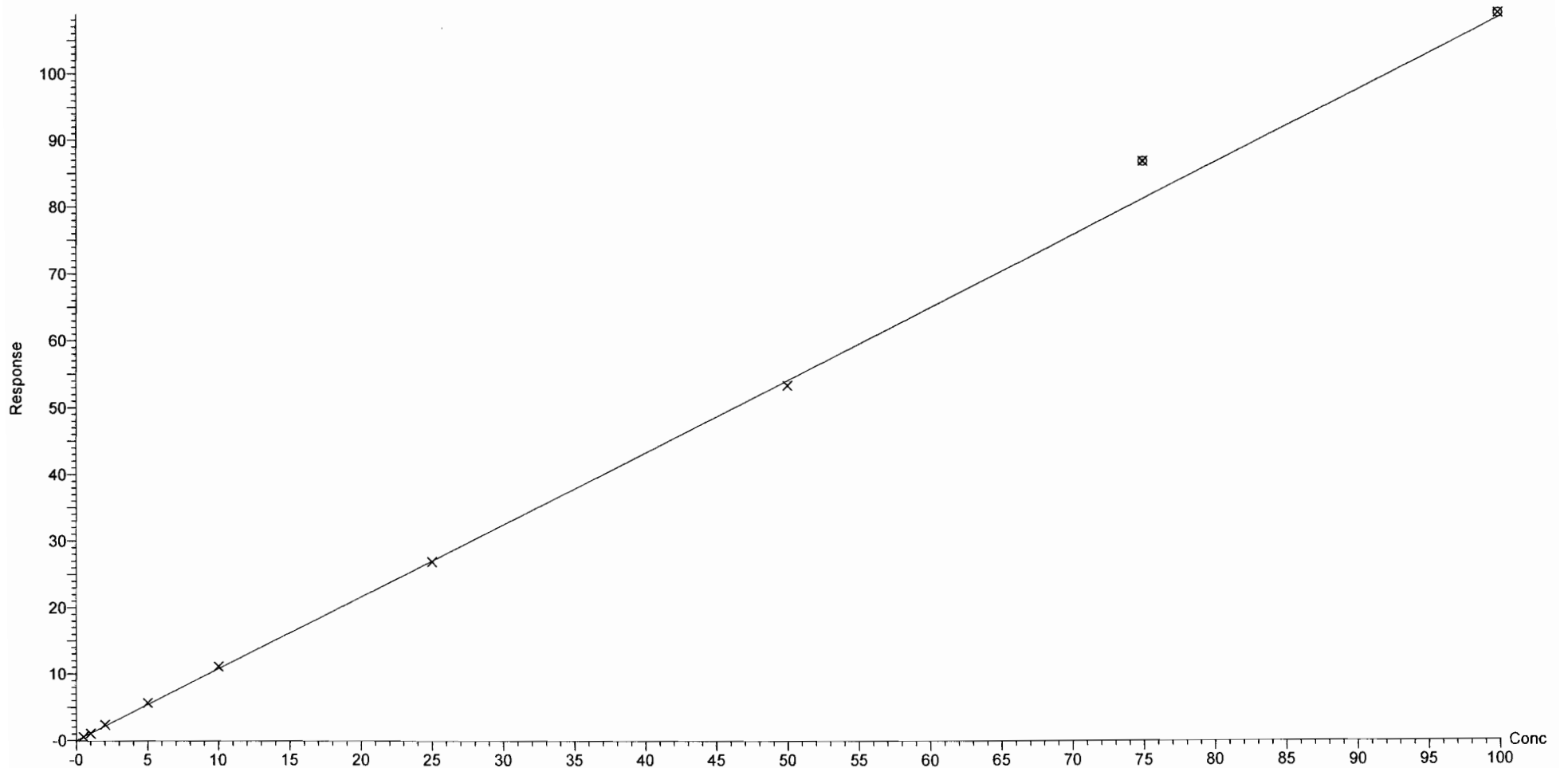
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Printed: Sunday, April 08, 2018 14:19:06 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 11:21:46
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Compound name: PFHxA
Coefficient of Determination: $R^2 = 0.999351$
Calibration curve: $1.08131 * x$
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:19:06 Pacific Daylight Time

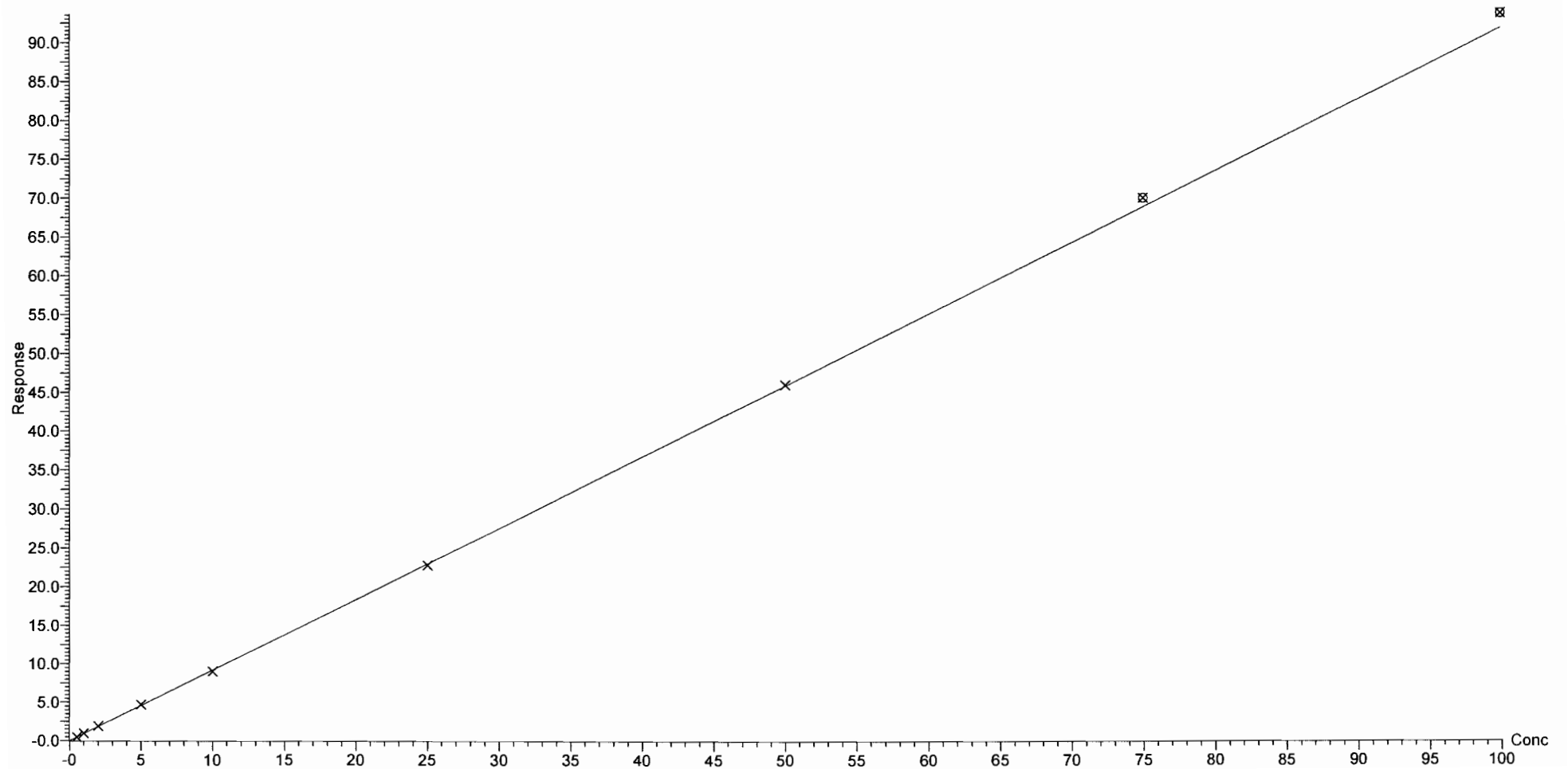
Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.999814$

Calibration curve: $0.917722 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:19:06 Pacific Daylight Time

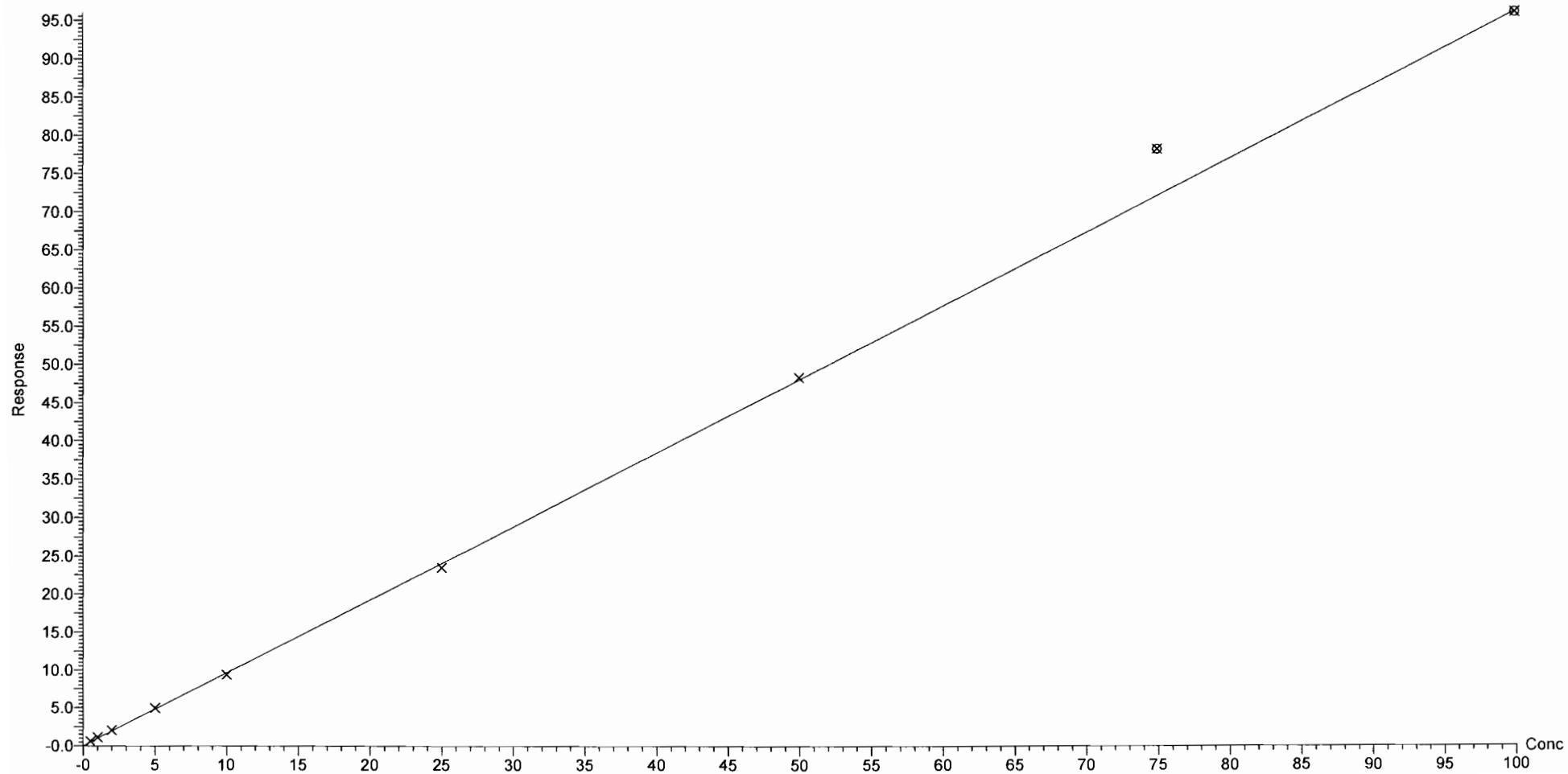
Compound name: PFOA

Coefficient of Determination: $R^2 = 0.999055$

Calibration curve: $0.959979 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

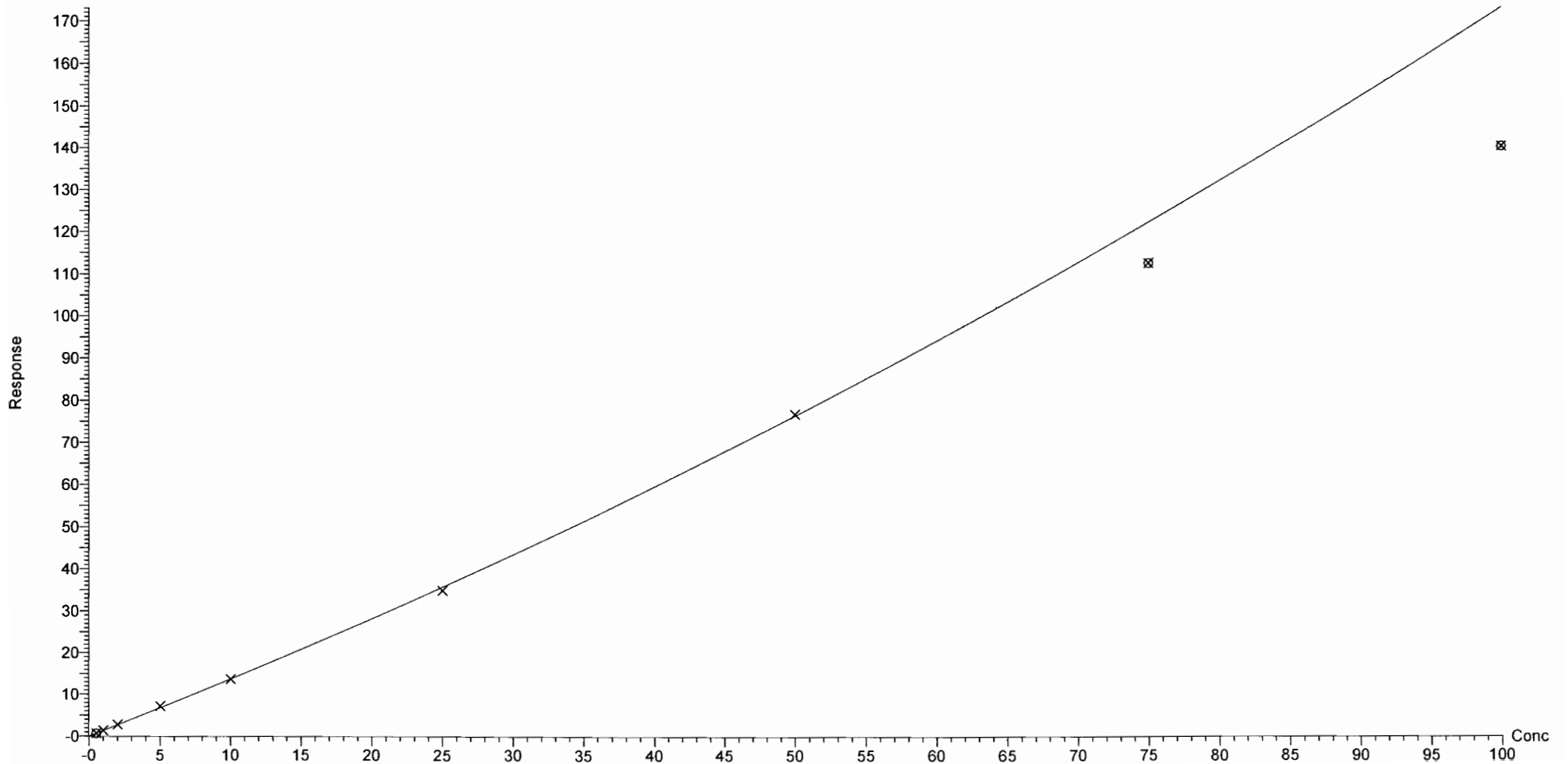
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
Printed: Sunday, April 08, 2018 14:19:06 Pacific Daylight Time

Compound name: N-MeFOSAA
Coefficient of Determination: $R^2 = 0.999580$
Calibration curve: $0.00402425 * x^2 + 1.32763 * x$
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

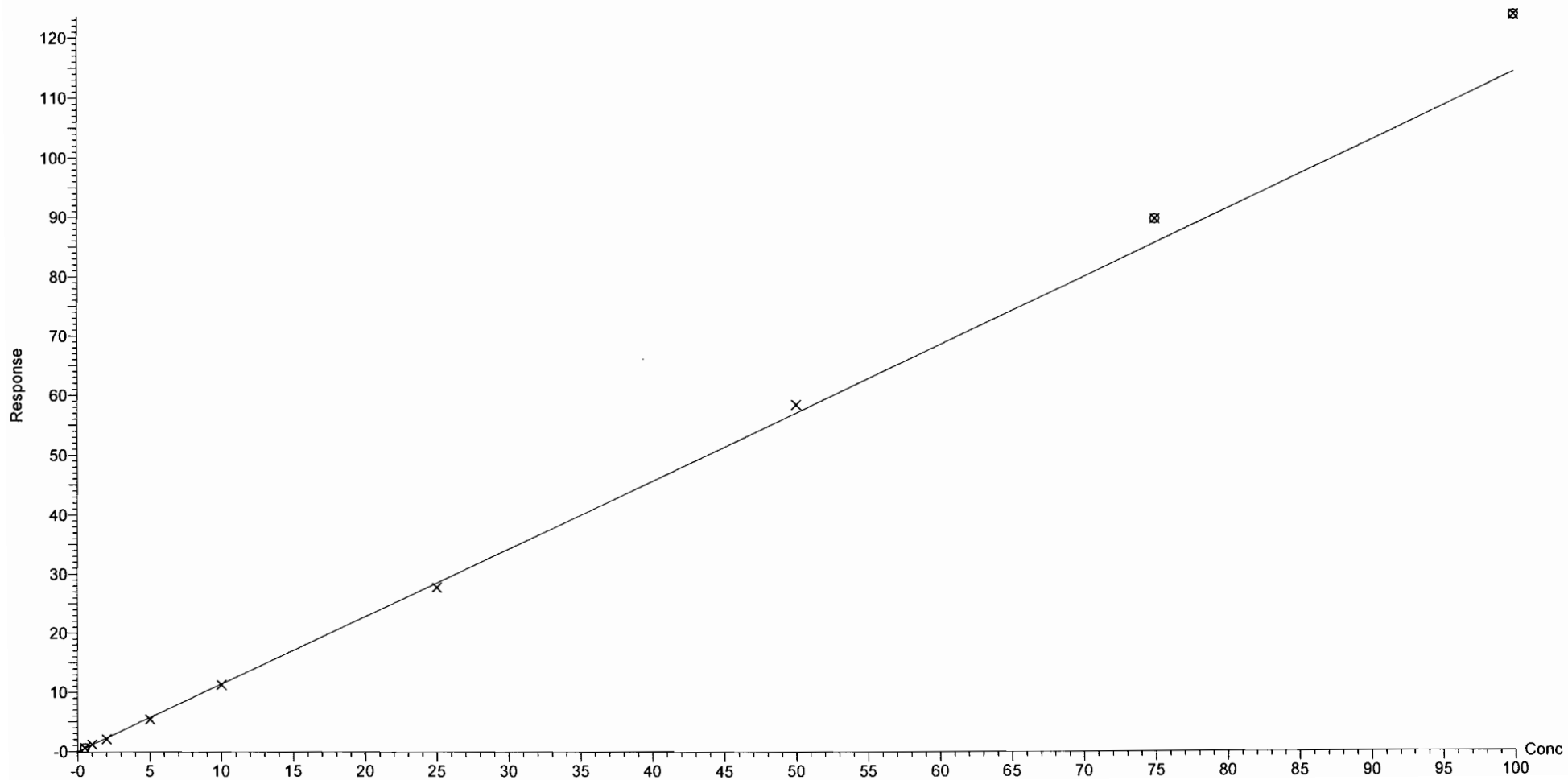


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Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:19:06 Pacific Daylight Time

Compound name: N-EtFOSAA
Coefficient of Determination: $R^2 = 0.998993$
Calibration curve: $1.14002 * x$
Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



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Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

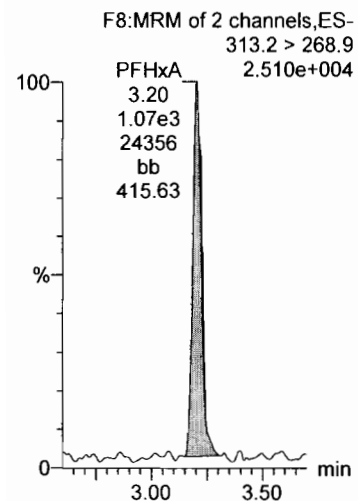
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Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 11:21:46

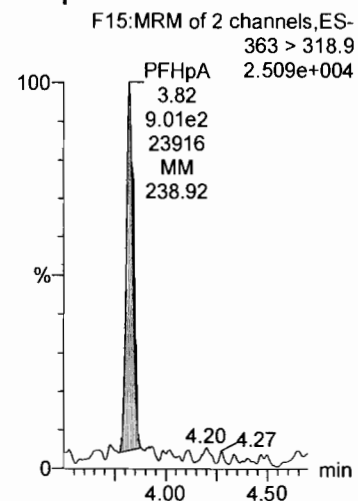
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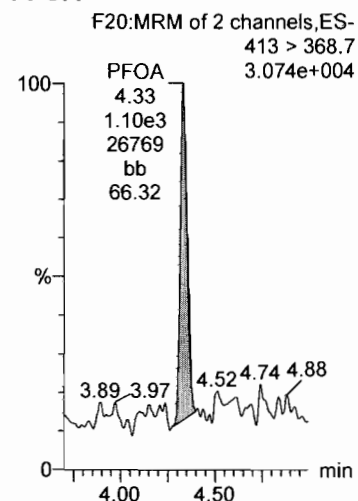
PFHxA



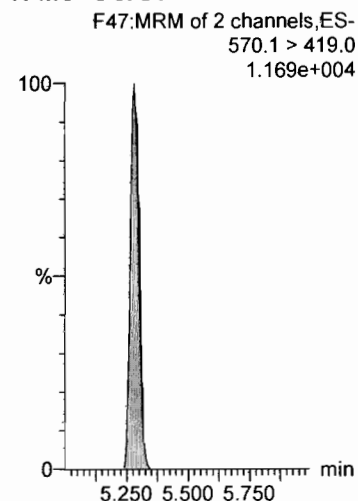
PFHpA



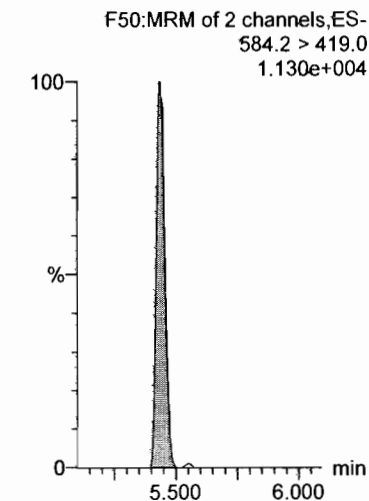
PFOA



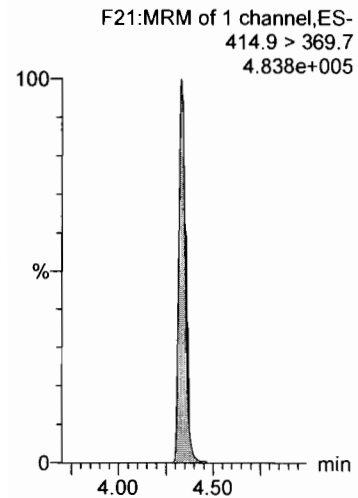
N-MeFOSAA



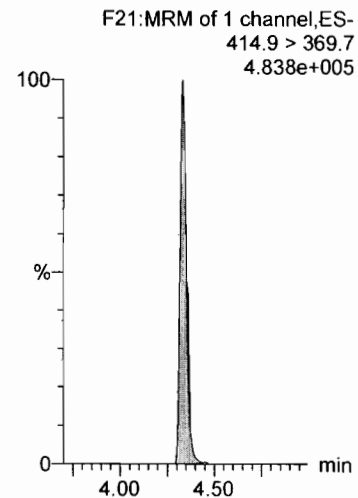
N-EtFOSAA



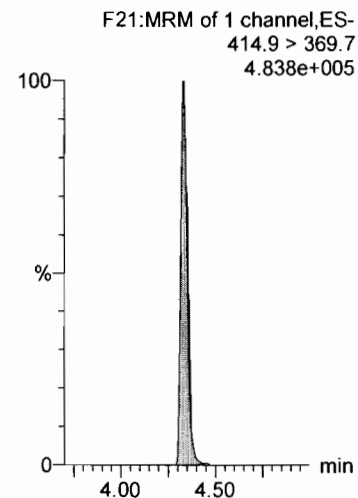
13C2-PFOA



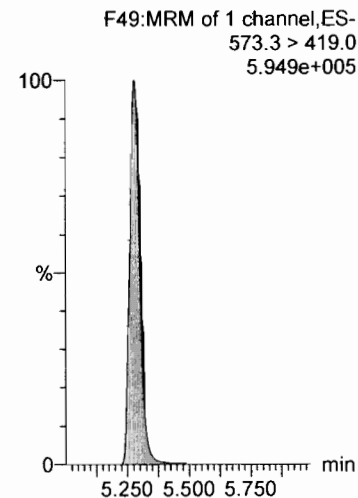
13C2-PFOA



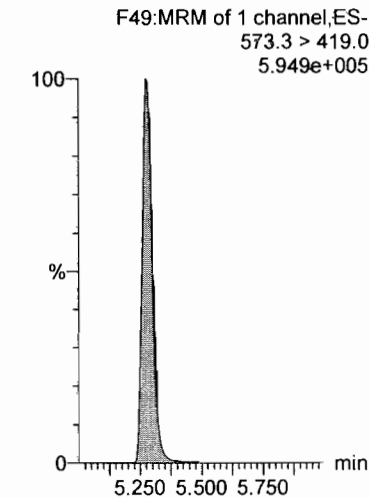
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

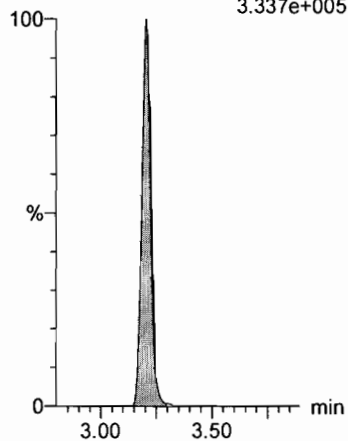
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Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

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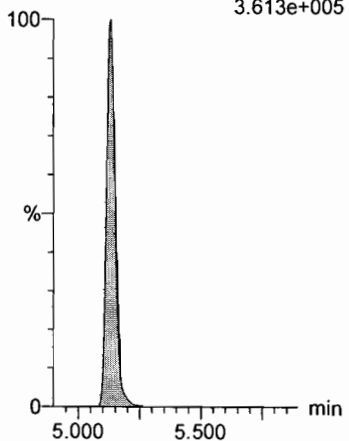
13C2-PFHxA

F9:MRM of 1 channel,ES-
315 > 269.8
3.337e+005



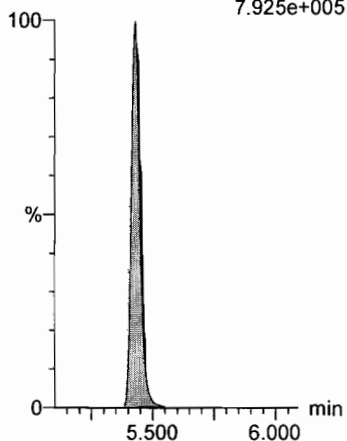
13C2-PFDA

F37:MRM of 1 channel,ES-
515.1 > 469.9
3.613e+005



d5-N-EtFOSAA

F51:MRM of 1 channel,ES-
589.3 > 419.0
7.925e+005

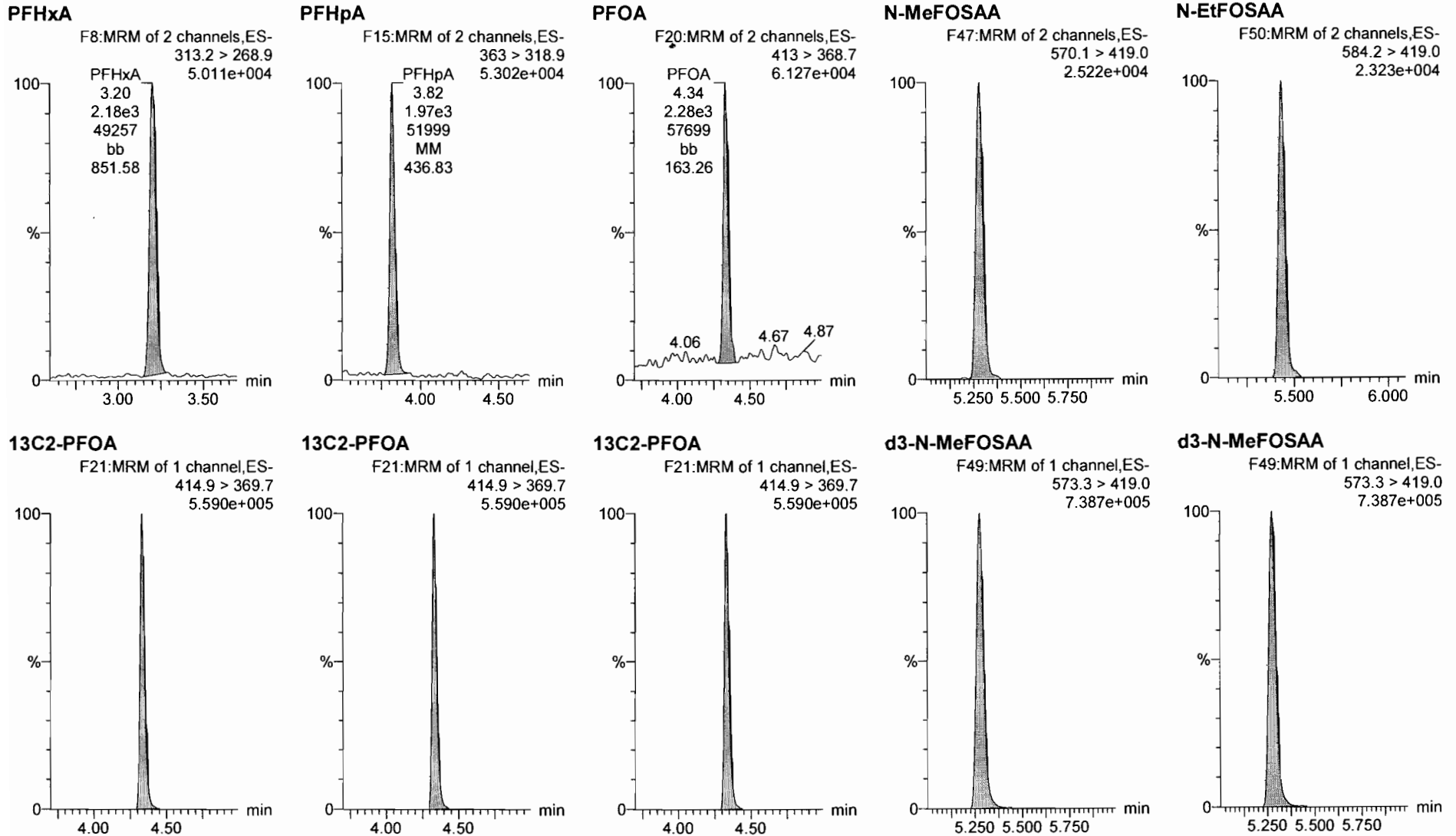


Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

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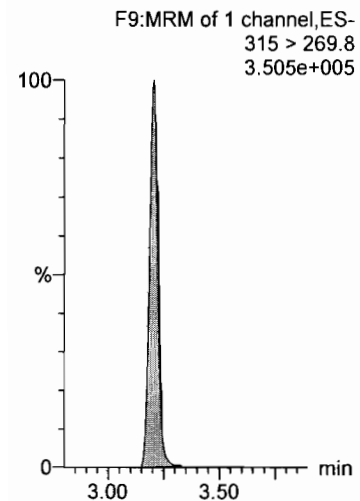
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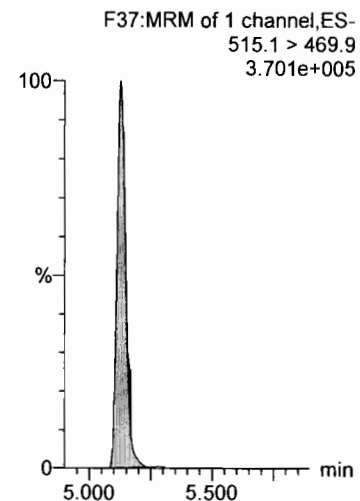
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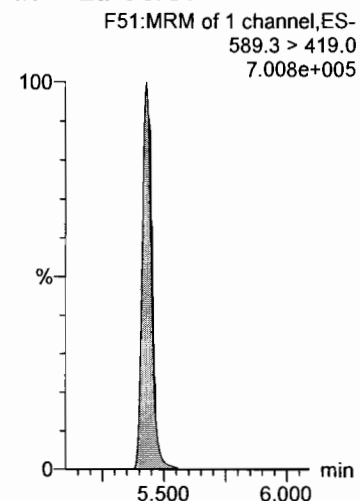
13C2-PFHxA



13C2-PFDA



d5-N-EtFOSAA

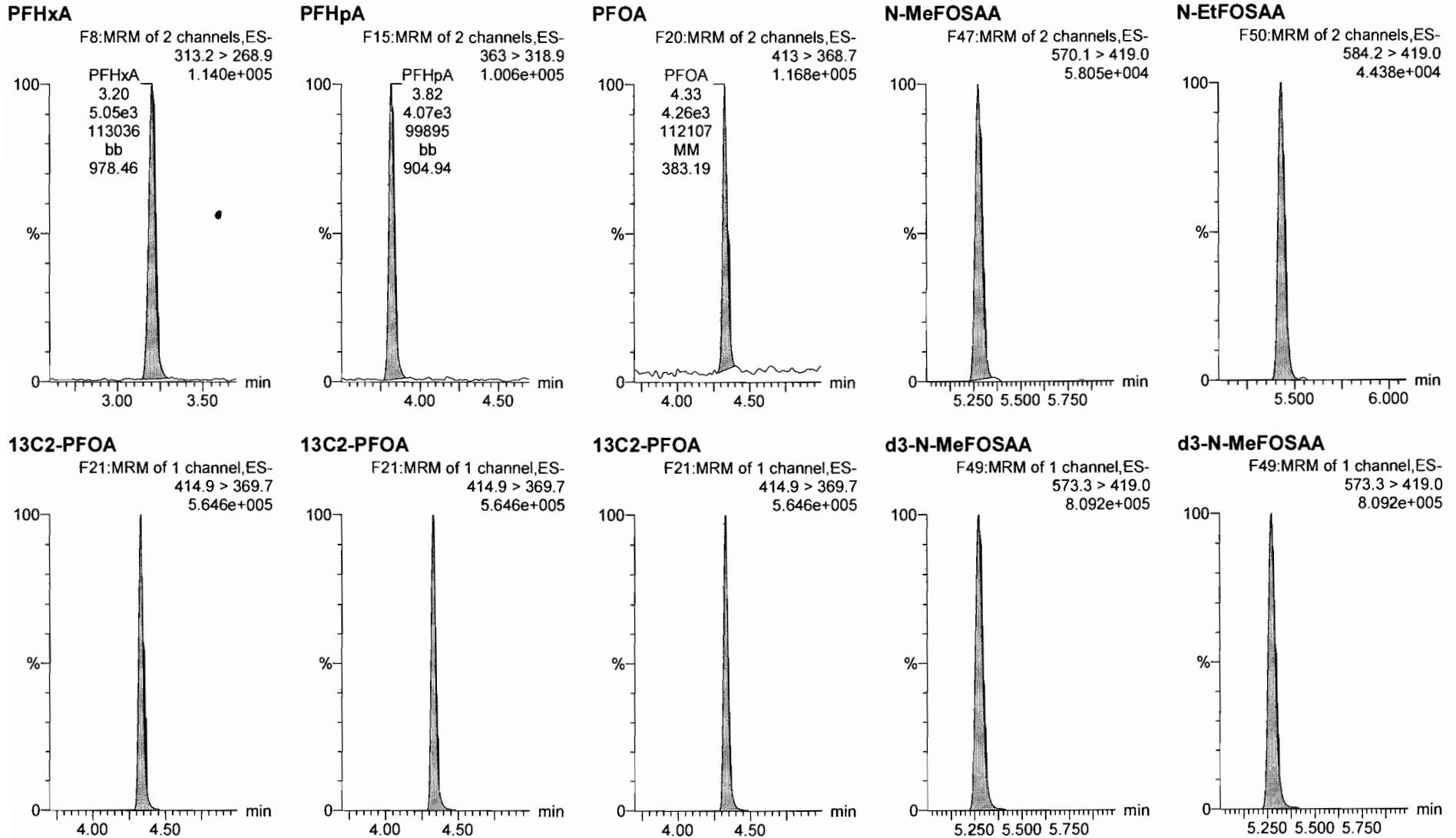


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Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

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Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

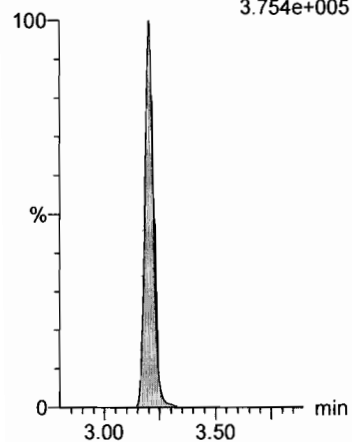
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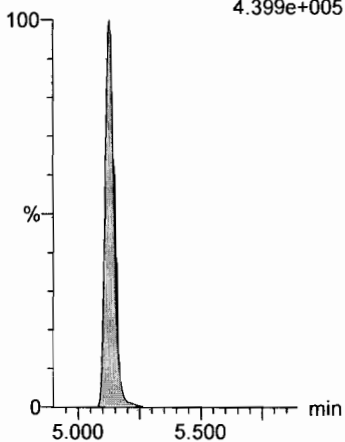
13C2-PFHxA

F9:MRM of 1 channel,ES-
315 > 269.8
3.754e+005



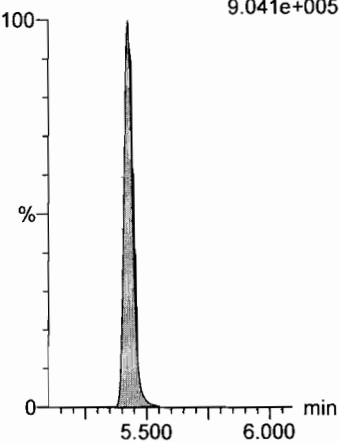
13C2-PFDA

F37:MRM of 1 channel,ES-
515.1 > 469.9
4.399e+005



d5-N-EtFOSAA

F51:MRM of 1 channel,ES-
589.3 > 419.0
9.041e+005



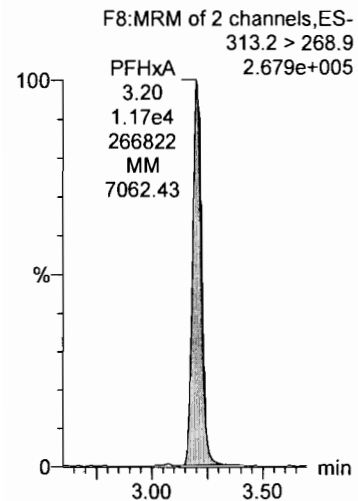
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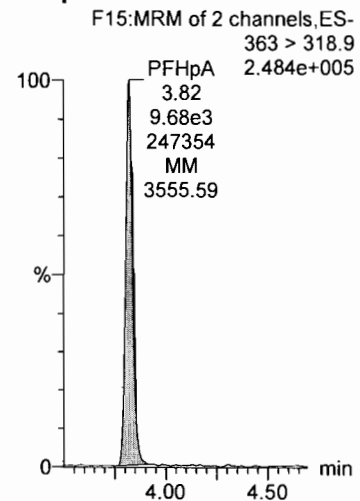
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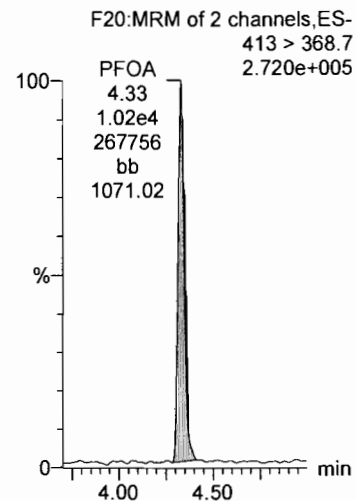
PFHxA



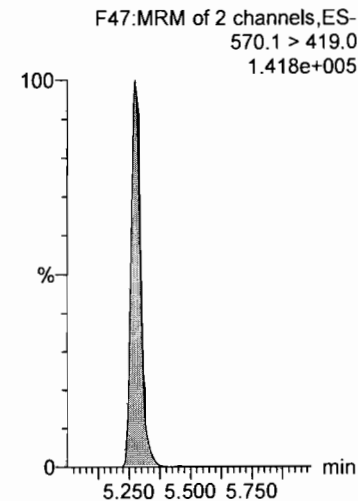
PFHpA



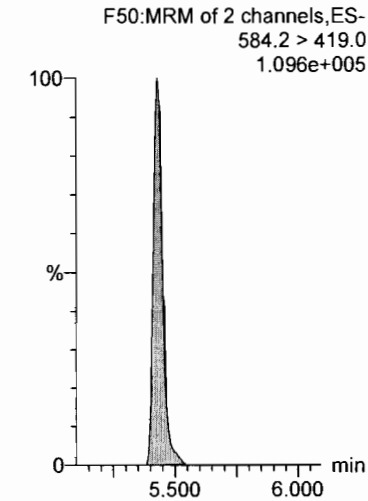
PFOA



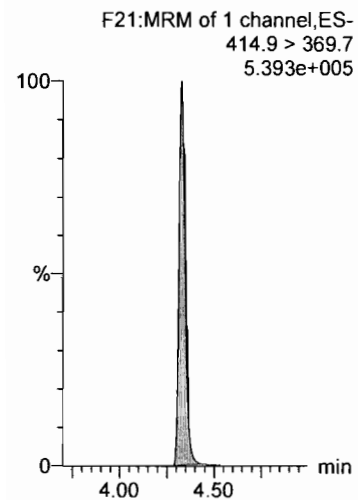
N-MeFOSAA



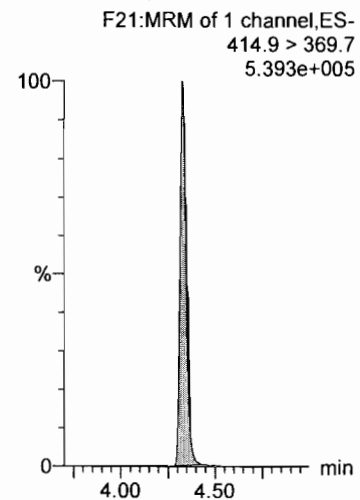
N-EtFOSAA



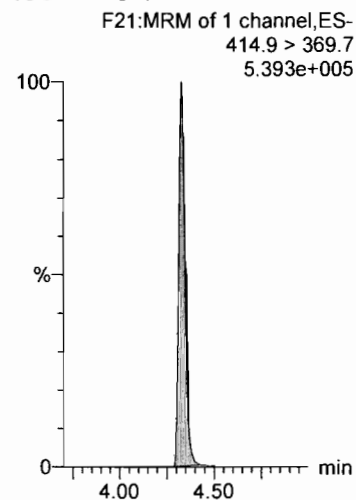
13C2-PFOA



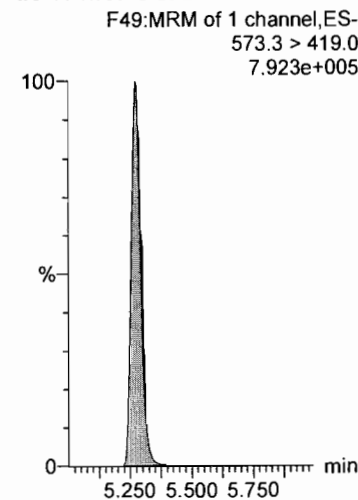
13C2-PFOA



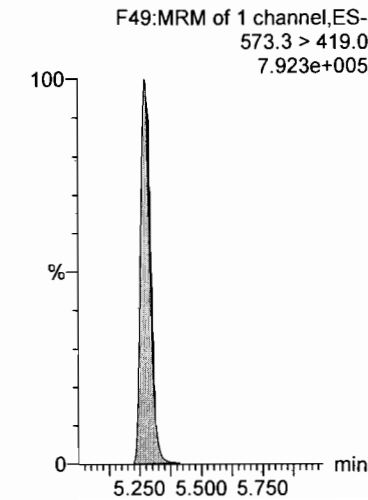
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

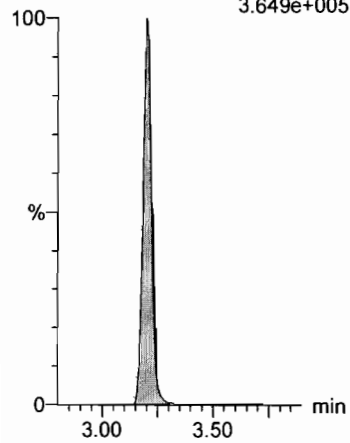
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Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

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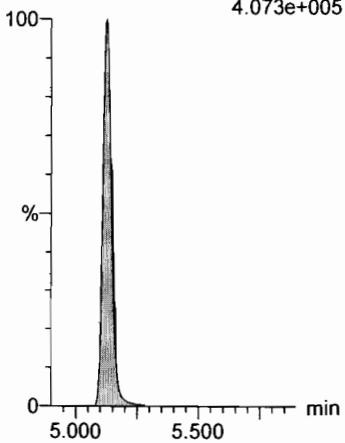
13C2-PFHxA

F9:MRM of 1 channel,ES-
315 > 269.8
3.649e+005



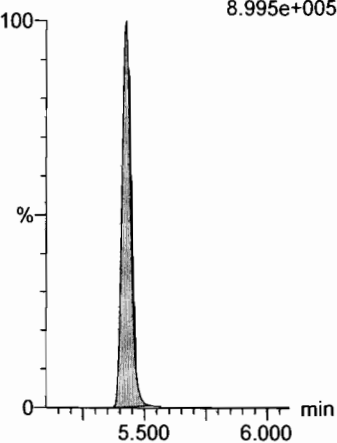
13C2-PFDA

F37:MRM of 1 channel,ES-
515.1 > 469.9
4.073e+005



d5-N-EtFOSAA

F51:MRM of 1 channel,ES-
589.3 > 419.0
8.995e+005

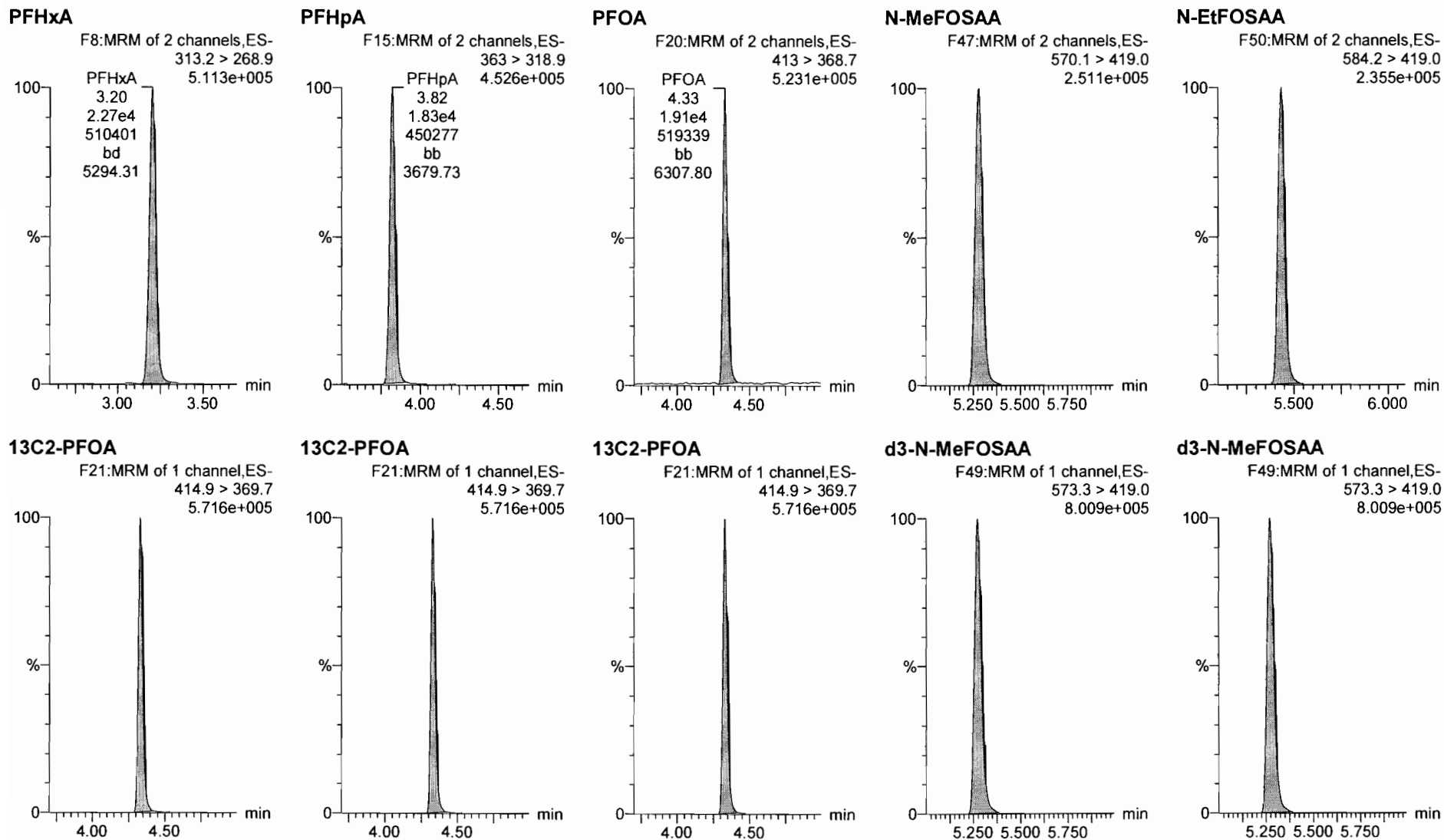


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Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

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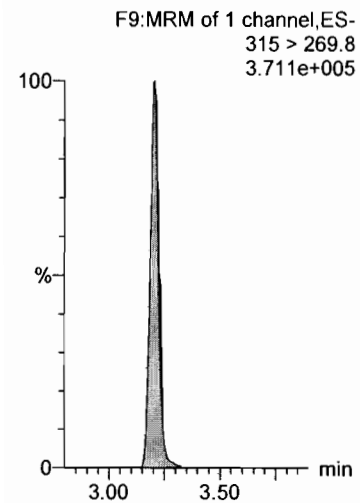
Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

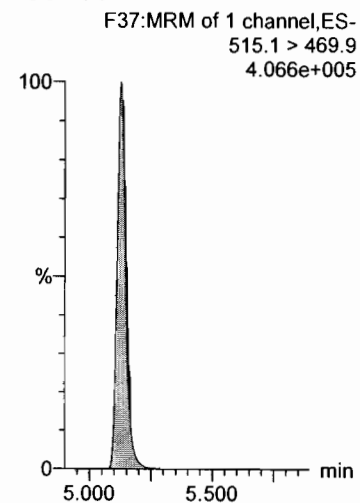
Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_6, Date: 06-Apr-2018, Time: 17:09:13, ID: ST180406M1-5 PFC CS1 537 18C2905, Description: PFC CS1 537 18C2905

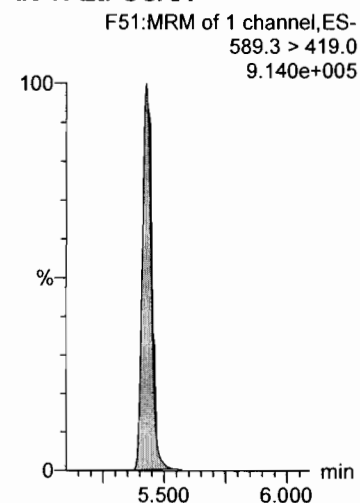
13C2-PFHxA



13C2-PFDA



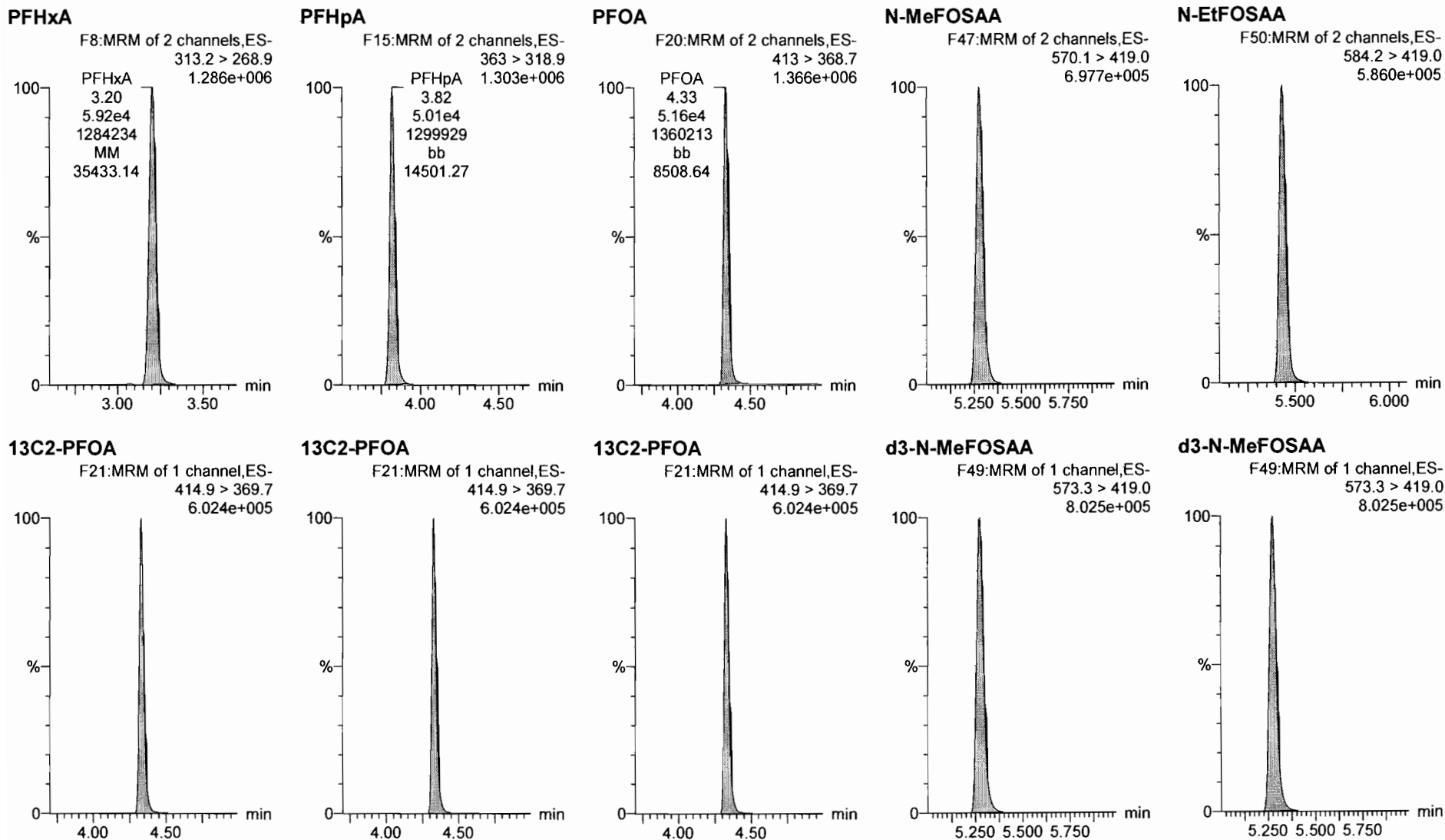
d5-N-EtFOSAA



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_7, Date: 06-Apr-2018, Time: 17:20:43, ID: ST180406M1-6 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906



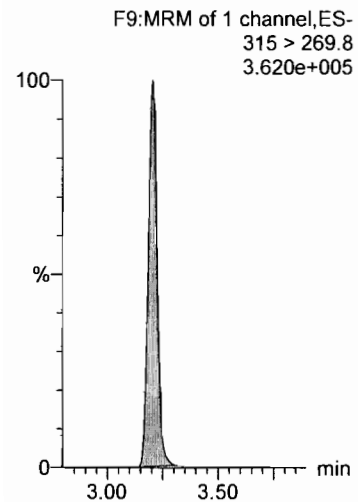
Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

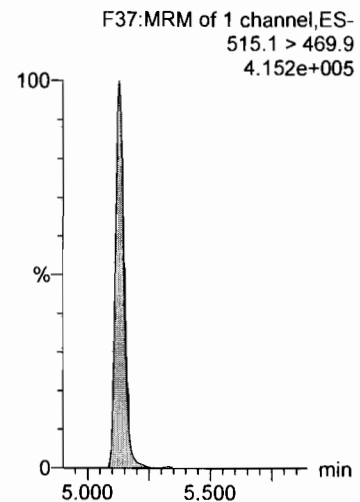
Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_7, Date: 06-Apr-2018, Time: 17:20:43, ID: ST180406M1-6 PFC CS2 537 18C2906, Description: PFC CS2 537 18C2906

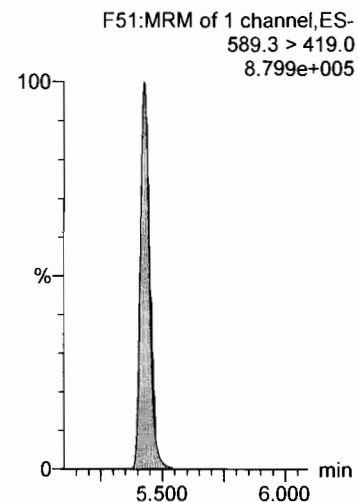
13C2-PFHxA



13C2-PFDA



d5-N-EtFOSAA

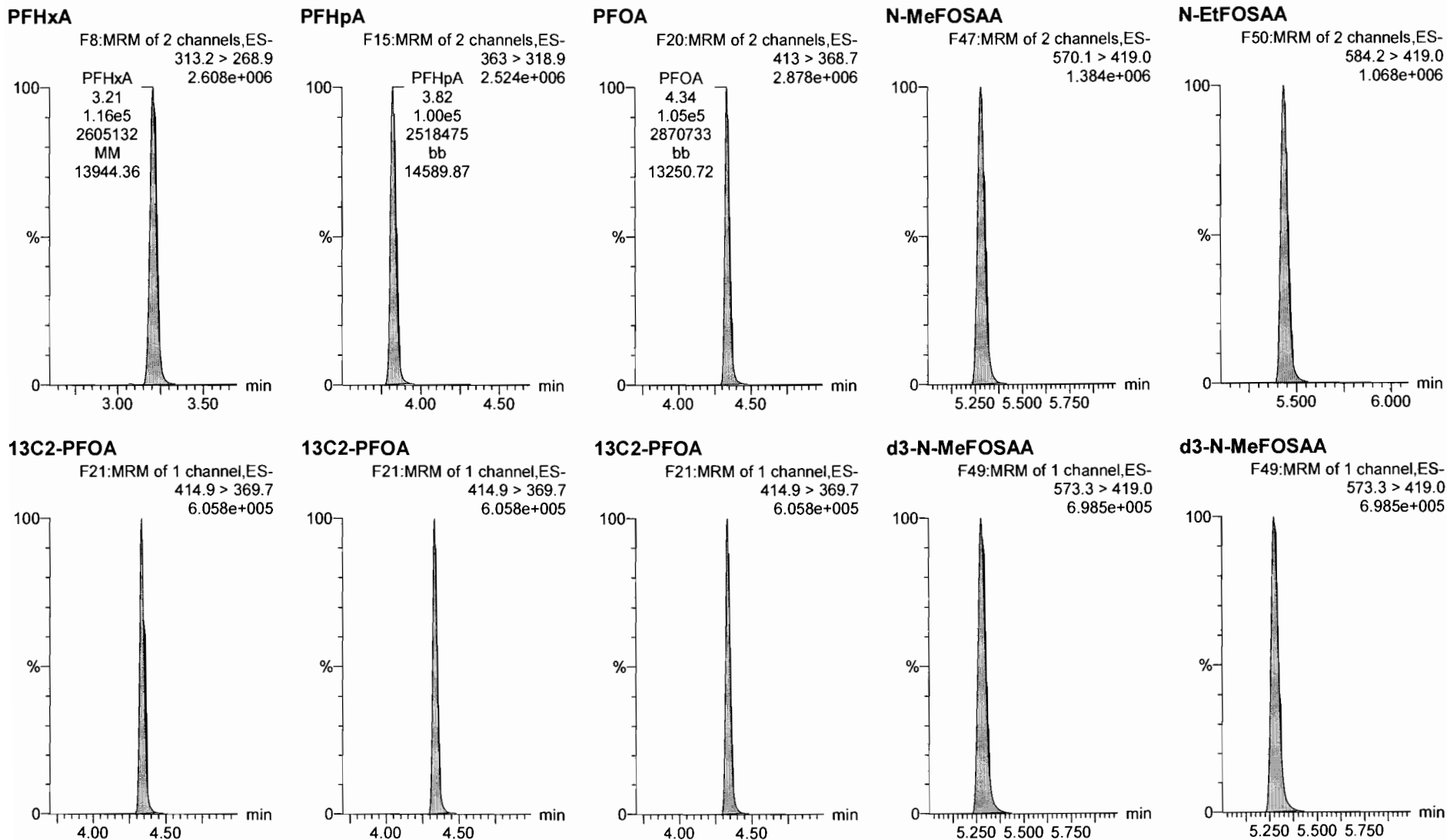


Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_8, Date: 06-Apr-2018, Time: 17:32:12, ID: ST180406M1-7 PFC CS3 537 18C2907, Description: PFC CS3 537 18C2907



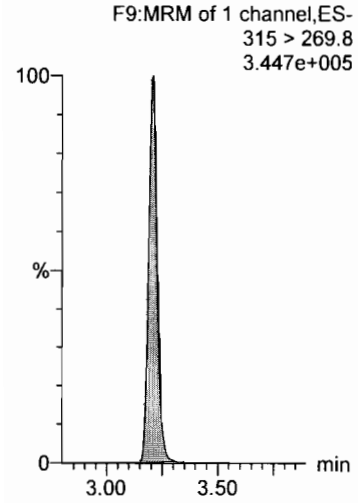
Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

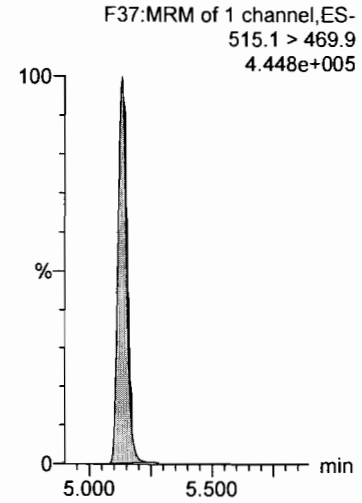
Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_8, Date: 06-Apr-2018, Time: 17:32:12, ID: ST180406M1-7 PFC CS3 537 18C2907, Description: PFC CS3 537 18C2907

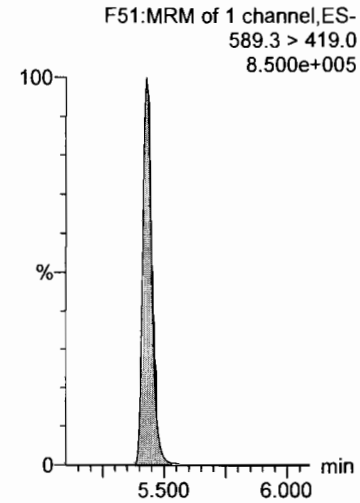
13C2-PFHxA



13C2-PFDA



d5-N-EtFOSAA

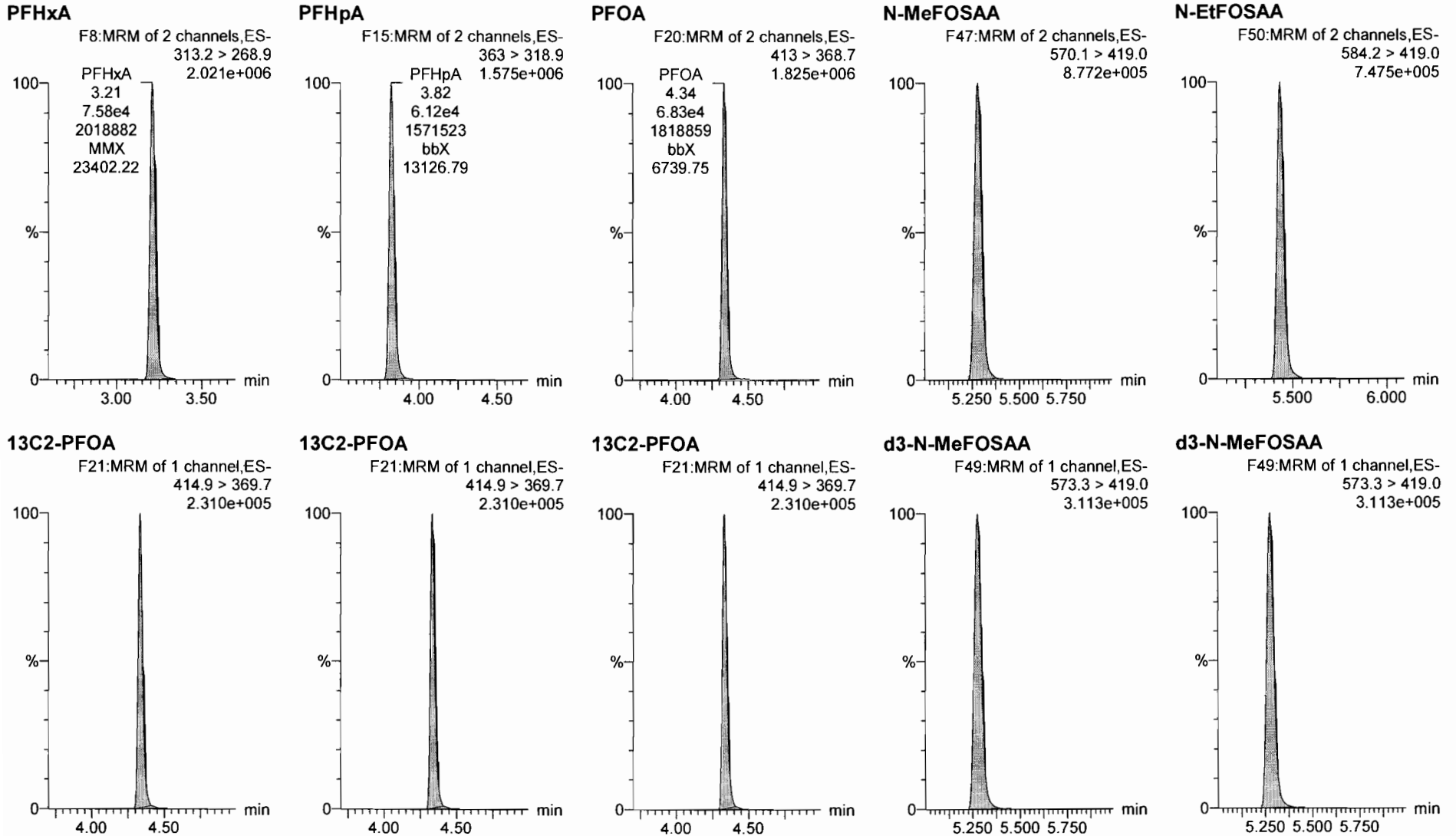


Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_9, Date: 06-Apr-2018, Time: 17:43:42, ID: ST180406M1-8 PFC CS4 537 18C2908, Description: PFC CS4 537 18C2908



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

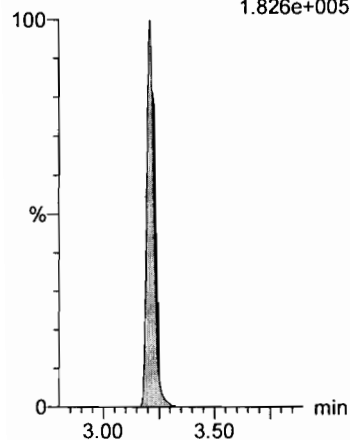
Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_9, Date: 06-Apr-2018, Time: 17:43:42, ID: ST180406M1-8 PFC CS4 537 18C2908, Description: PFC CS4 537 18C2908

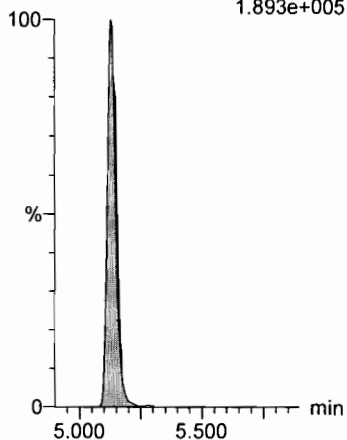
13C2-PFHxA

F9:MRM of 1 channel,ES-
315 > 269.8
1.826e+005



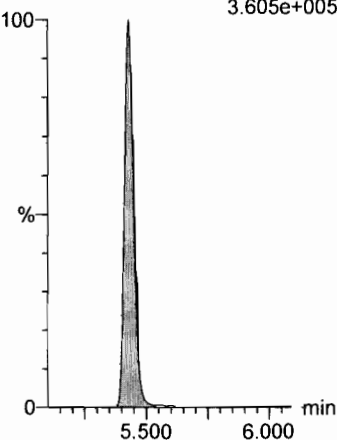
13C2-PFDA

F37:MRM of 1 channel,ES-
515.1 > 469.9
1.893e+005



d5-N-EtFOSAA

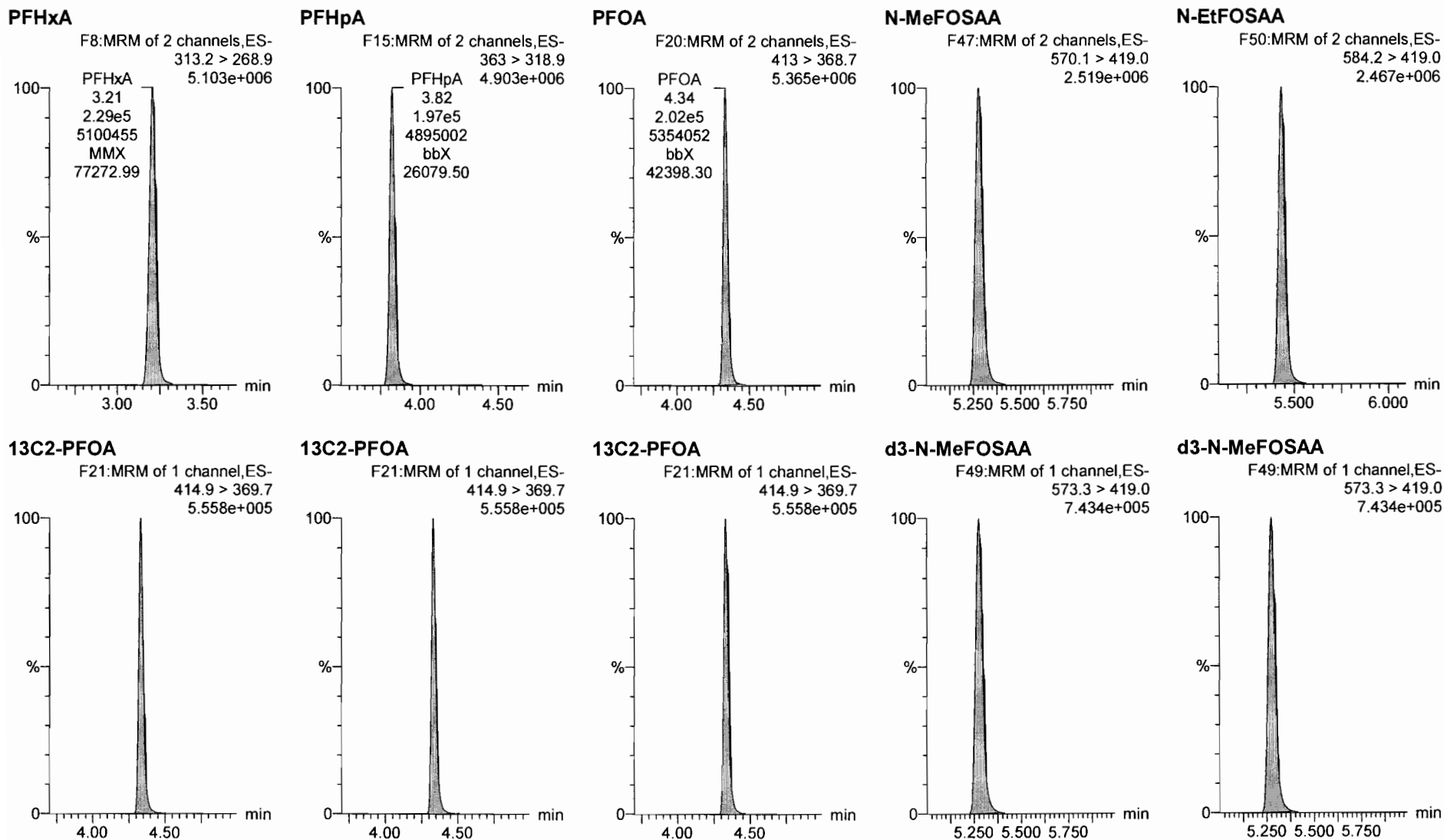
F51:MRM of 1 channel,ES-
589.3 > 419.0
3.605e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time
Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_10, Date: 06-Apr-2018, Time: 17:55:09, ID: ST180406M1-9 PFC CS5 537 18C2909, Description: PFC CS5 537 18C2909



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-CRV.qld

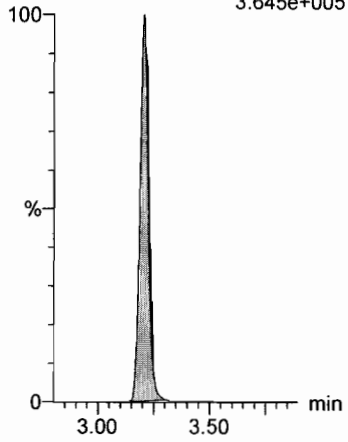
Last Altered: Sunday, April 08, 2018 14:12:25 Pacific Daylight Time

Printed: Sunday, April 08, 2018 14:17:29 Pacific Daylight Time

Name: 180406M1_10, Date: 06-Apr-2018, Time: 17:55:09, ID: ST180406M1-9 PFC CS5 537 18C2909, Description: PFC CS5 537 18C2909

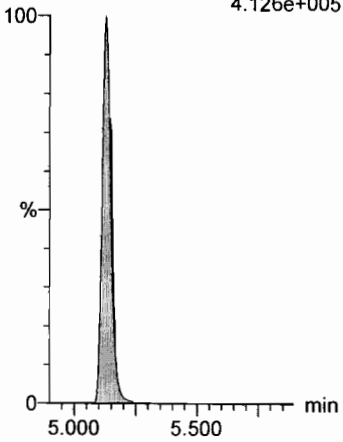
13C2-PFHxA

F9:MRM of 1 channel,ES-
315 > 269.8
3.645e+005



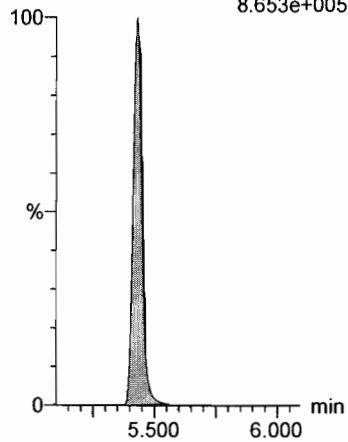
13C2-PFDA

F37:MRM of 1 channel,ES-
515.1 > 469.9
4.126e+005



d5-N-EtFOSAA

F51:MRM of 1 channel,ES-
589.3 > 419.0
8.653e+005



Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-C12.qld

Last Altered: Sunday, April 08, 2018 15:34:51 Pacific Daylight Time

Printed: Sunday, April 08, 2018 15:35:14 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 15:17:56

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180406M1_12, Date: 06-Apr-2018, Time: 18:18:05, ID: ICV180406M1-1 PFC ICV 18C2910, Description: PFC ICV 18C2910

MTT
4/9/18

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	2 PFHxA	313.2 > 268.9	2.43e4	2.16e4	1.0000		3.13	3.20	11.2	10.362	103.6	NO
2	3 PFHpA	363 > 318.9	2.12e4	2.16e4	1.0000		3.75	3.82	9.78	10.659	106.6	NO
3	5 PFOA	413 > 368.7	2.20e4	2.16e4	1.0000		4.26	4.33	10.2	10.581	105.8	NO
4	9 N-MeFOSAA	570.1 > 419.0	1.18e4	3.41e4	1.0000		5.28	5.28	13.9	10.135	101.3	NO
5	10 N-EtFOSAA	584.2 > 419.0	1.03e4	3.41e4	1.0000		5.43	5.44	12.1	10.573	105.7	NO
6	15 13C2-PFHxA	315 > 269.8	1.53e4	2.16e4	1.0000	0.757	3.48	3.20	7.06	9.326	93.3	NO
7	16 13C2-PFDA	515.1 > 469.9	1.83e4	2.16e4	1.0000	0.794	5.07	5.13	8.46	10.643	106.4	NO
8	17 d5-N-EtFOSAA	589.3 > 419.0	3.89e4	3.41e4	1.0000	1.059	5.28	5.43	45.7	43.152	107.9	NO
9	18 13C2-PFOA	414.9 > 369.7	2.16e4	2.16e4	1.0000	1.000	4.40	4.34	10.0	10.000	100.0	NO
10	19 13C4-PFOS	503.0 > 79.9	1.17e4	1.17e4	1.0000	1.000	4.84	4.84	28.7	28.700	100.0	NO
11	20 d3-N-MeFOSAA	573.3 > 419.0	3.41e4	3.41e4	1.0000	1.000	5.28	5.28	40.0	40.000	100.0	NO

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Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-C12.qld

Last Altered: Sunday, April 08, 2018 15:34:51 Pacific Daylight Time

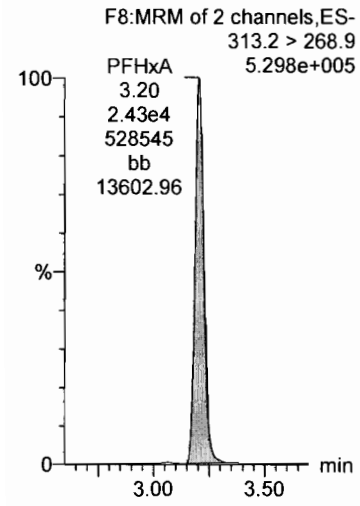
Printed: Sunday, April 08, 2018 15:35:14 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0402.mdb 07 Apr 2018 15:17:56

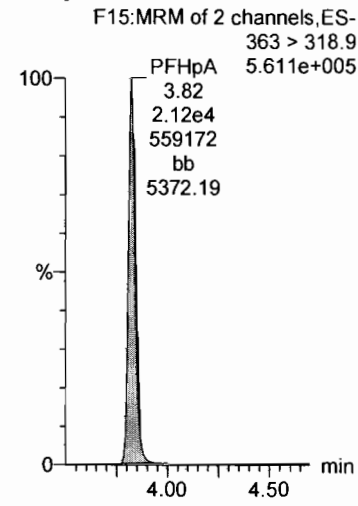
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-06-18_DW.cdb 08 Apr 2018 14:12:25

Name: 180406M1_12, Date: 06-Apr-2018, Time: 18:18:05, ID: ICV180406M1-1 PFC ICV 18C2910, Description: PFC ICV 18C2910

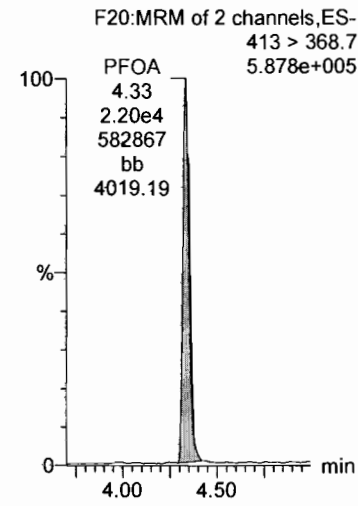
PFHxA



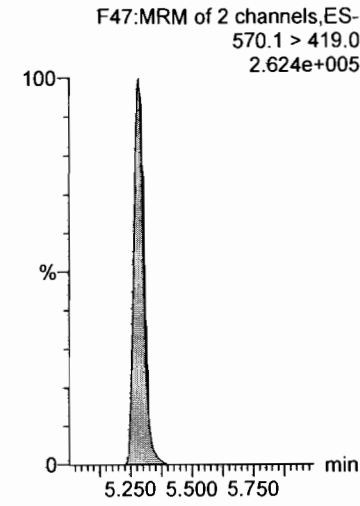
PFHpA



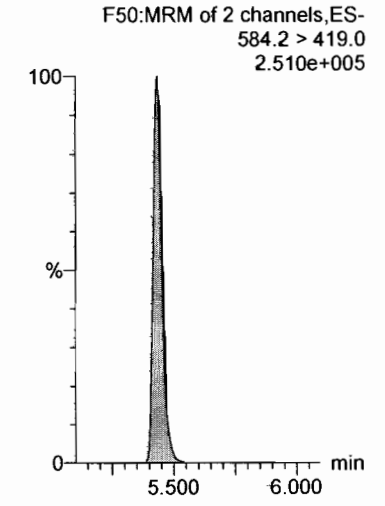
PFOA



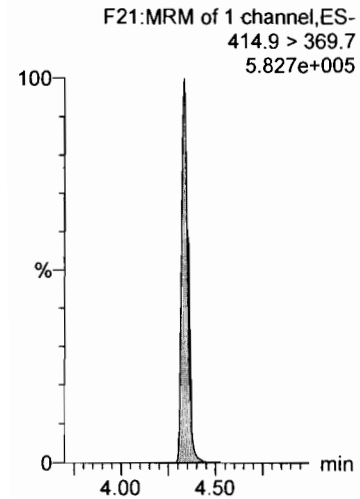
N-MeFOSAA



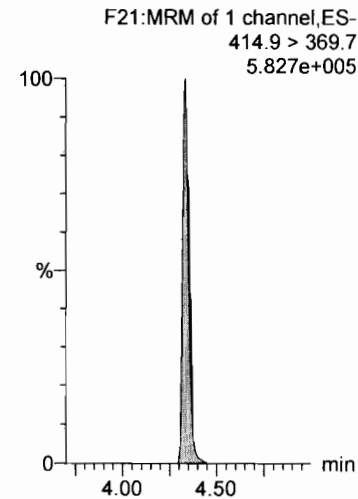
N-EtFOSAA



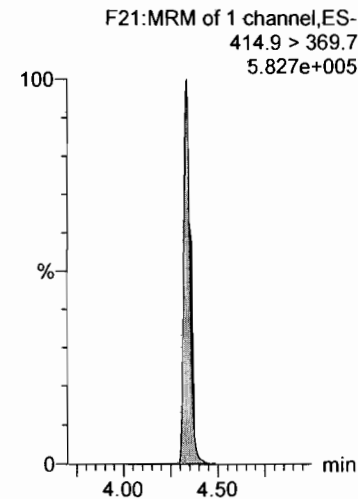
13C2-PFOA



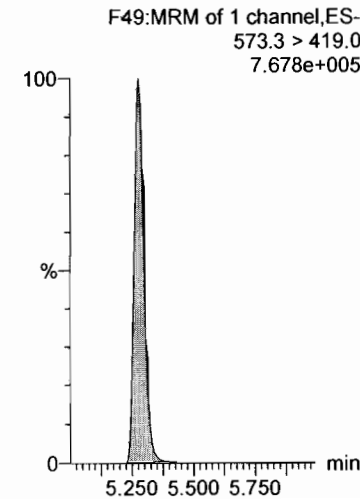
13C2-PFOA



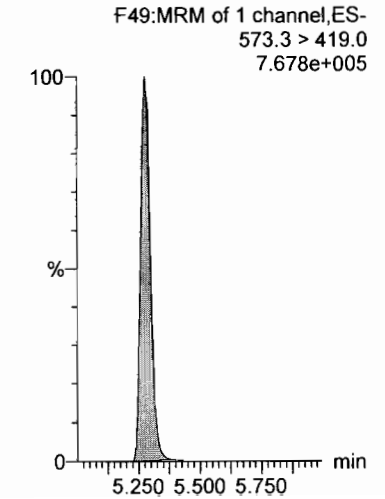
13C2-PFOA



d3-N-MeFOSAA



d3-N-MeFOSAA



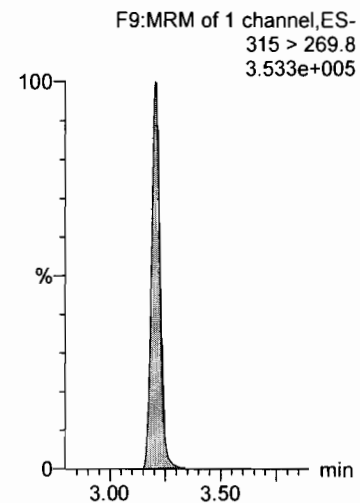
Dataset: Z:\Projects\PFAS.PRO\Results\180406M1\180406M1-C12.qld

Last Altered: Sunday, April 08, 2018 15:34:51 Pacific Daylight Time

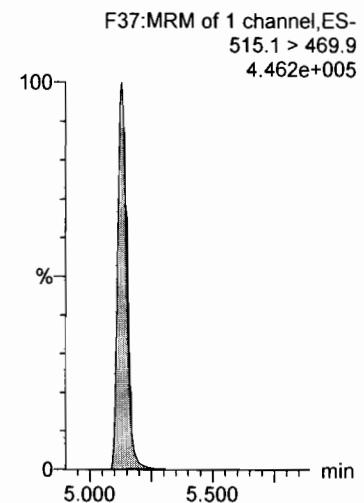
Printed: Sunday, April 08, 2018 15:35:14 Pacific Daylight Time

Name: 180406M1_12, Date: 06-Apr-2018, Time: 18:18:05, ID: ICV180406M1-1 PFC ICV 18C2910, Description: PFC ICV 18C2910

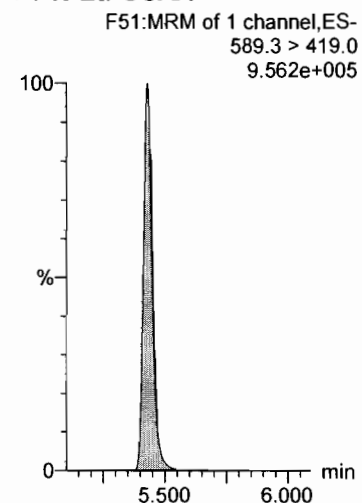
13C2-PFHxA



13C2-PFDA



d5-N-EtFOSAA



PFDA = high
PFDA = 75
low
PFDA = 10

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
 Printed: Sunday, April 08, 2018 13:33:56 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52
 Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Compound name: PFBS

Coefficient of Determination: R² = 0.997613

Calibration curve: 1.06923 * x

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

CM 4/9/18
MT 4/9/18

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.443	2.74	192.839	12438.835	0.445	0.4	-6.0	NO	0.998	NO	bb
2	2 180407M3_3	Standard	0.885	2.74	357.618	12024.172	0.854	0.8	-9.8	NO	0.998	NO	bb
3	3 180407M3_4	Standard	1.770	2.74	818.980	13257.679	1.773	1.7	-6.3	NO	0.998	NO	bb
4	4 180407M3_5	Standard	4.420	2.74	1861.089	10957.775	4.874	4.6	3.1	NO	0.998	NO	bb
5	5 180407M3_7	Standard	8.850	2.72	3927.388	12067.570	9.340	8.7	-1.3	NO	0.998	NO	bd
6	6 180407M3_8	Standard	22.100	2.72	9716.973	13387.511	20.831	19.5	-11.8	NO	0.998	NO	bb
7	7 180407M3_9	Standard	44.200	2.73	20219.488	11682.316	49.673	46.5	5.1	NO	0.998	NO	bd
8	8 180407M3_10	Standard	66.300	2.73	31358.035	12335.021	72.961	68.2	2.9	NO	0.998	NO	bb
9	9 180407M3_11	Standard	88.400	2.73	41580.957	12825.303	93.048	87.0	-1.6	NO	0.998	NO	bb

Compound name: PFHxA

Coefficient of Determination: R² = 0.998980

Calibration curve: 1.11374 * x

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

#	Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	3.10	1239.851	22188.439	0.559	0.5	0.3	NO	0.999	NO	bb
2	2 180407M3_3	Standard	1.000	3.10	2350.878	21164.959	1.111	1.0	-0.3	NO	0.999	NO	bb
3	3 180407M3_4	Standard	2.000	3.10	5310.141	21768.635	2.439	2.2	9.5	NO	0.999	NO	bb
4	4 180407M3_5	Standard	5.000	3.10	12032.687	22345.799	5.385	4.8	-3.3	NO	0.999	NO	bb
5	5 180407M3_7	Standard	10.000	3.09	23586.332	22677.426	10.401	9.3	-6.6	NO	0.999	NO	bb
6	6 180407M3_8	Standard	25.000	3.09	64837.957	25084.717	25.848	23.2	-7.2	NO	0.999	NO	bb
7	7 180407M3_9	Standard	50.000	3.09	133522.703	23445.844	56.949	51.1	2.3	NO	0.999	NO	bb
8	8 180407M3_10	Standard	75.000	3.09	199060.500	23963.189	83.069	74.6	-0.6	NO	0.999	NO	bb
9	9 180407M3_11	Standard	100.000	3.09	258165.703	22790.213	113.279	101.7	1.7	NO	0.999	NO	bb

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:33:56 Pacific Daylight Time

Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.997731$

Calibration curve: $0.928742 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	3.55	1010.755	22188.439	0.456	0.5	-1.9	NO	0.998	NO	bb
2	2 180407M3_3	Standard	1.000	3.55	1919.606	21164.959	0.907	1.0	-2.3	NO	0.998	NO	bb
3	3 180407M3_4	Standard	2.000	3.55	4068.532	21768.635	1.869	2.0	0.6	NO	0.998	NO	bb
4	4 180407M3_5	Standard	5.000	3.55	10093.261	22345.799	4.517	4.9	-2.7	NO	0.998	NO	bb
5	5 180407M3_7	Standard	10.000	3.54	21305.670	22677.426	9.395	10.1	1.2	NO	0.998	NO	bb
6	6 180407M3_8	Standard	25.000	3.54	51320.715	25084.717	20.459	22.0	-11.9	NO	0.998	NO	bd
7	7 180407M3_9	Standard	50.000	3.54	109192.367	23445.844	46.572	50.1	0.3	NO	0.998	NO	bb
8	8 180407M3_10	Standard	75.000	3.54	163857.469	23963.189	68.379	73.6	-1.8	NO	0.998	NO	bb
9	9 180407M3_11	Standard	100.000	3.54	220640.938	22790.213	96.814	104.2	4.2	NO	0.998	NO	bb

Compound name: PFHxS

Coefficient of Determination: $R^2 = 0.996387$

Calibration curve: $0.000850214 * x^2 + 0.739947 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.455	3.65	117.349	12438.835	0.271	0.4	-19.6	NO	0.996	NO	MM
2	2 180407M3_3	Standard	0.910	3.65	222.681	12024.172	0.532	0.7	-21.1	NO	0.996	NO	MM
3	3 180407M3_4	Standard	1.820	3.65	496.339	13257.679	1.074	1.4	-20.3	NO	0.996	NO	MM
4	4 180407M3_5	Standard	4.560	3.65	1509.091	10957.775	3.953	5.3	16.4	NO	0.996	NO	MM
5	5 180407M3_7	Standard	9.120	3.64	2674.721	12067.570	6.361	8.5	-6.6	NO	0.996	NO	MM
6	6 180407M3_8	Standard	22.800	3.64	7254.899	13387.511	15.553	20.5	-9.9	NO	0.996	NO	MM
7	7 180407M3_9	Standard	45.600	3.65	15500.464	11682.316	38.080	48.7	6.9	NO	0.996	NO	MM
8	8 180407M3_10	Standard	68.400	3.65	24133.582	12335.021	56.152	70.2	2.7	NO	0.996	NO	MM
9	9 180407M3_11	Standard	91.200	3.65	32426.678	12825.303	72.563	89.0	-2.4	NO	0.996	NO	MM

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: PFOA

Coefficient of Determination: R² = 0.998773

Calibration curve: 0.966966 * x

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	3.93	1032.306	22188.439	0.465	0.5	-3.8	NO	0.999	NO	MM
2	2 180407M3_3	Standard	1.000	3.93	2049.356	21164.959	0.968	1.0	0.1	NO	0.999	NO	MM
3	3 180407M3_4	Standard	2.000	3.93	4305.048	21768.635	1.978	2.0	2.3	NO	0.999	NO	bb
4	4 180407M3_5	Standard	5.000	3.93	10504.985	22345.799	4.701	4.9	-2.8	NO	0.999	NO	bb
5	5 180407M3_7	Standard	10.000	3.92	21396.887	22677.426	9.435	9.8	-2.4	NO	0.999	NO	bb
6	6 180407M3_8	Standard	25.000	3.92	55553.500	25084.717	22.146	22.9	-8.4	NO	0.999	NO	bb
7	7 180407M3_9	Standard	50.000	3.92	116874.609	23445.844	49.849	51.6	3.1	NO	0.999	NO	bb
8	8 180407M3_10	Standard	75.000	3.92	178534.781	23963.189	74.504	77.0	2.7	NO	0.999	NO	bb
9	9 180407M3_11	Standard	100.000	3.92	217837.656	22790.213	95.584	98.8	-1.2	NO	0.999	NO	bb

Compound name: PFNA

Coefficient of Determination: R² = 0.997372

Calibration curve: 0.998118 * x

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	4.24	986.400	22188.439	0.445	0.4	-10.9	NO	0.997	NO	MM
2	2 180407M3_3	Standard	1.000	4.24	2031.447	21164.959	0.960	1.0	-3.8	NO	0.997	NO	bb
3	3 180407M3_4	Standard	2.000	4.24	4634.122	21768.635	2.129	2.1	6.6	NO	0.997	NO	bd
4	4 180407M3_5	Standard	5.000	4.24	11614.995	22345.799	5.198	5.2	4.2	NO	0.997	NO	bd
5	5 180407M3_7	Standard	10.000	4.23	24628.064	22677.426	10.860	10.9	8.8	NO	0.997	NO	bb
6	6 180407M3_8	Standard	25.000	4.24	56012.320	25084.717	22.329	22.4	-10.5	NO	0.997	NO	bb
7	7 180407M3_9	Standard	50.000	4.24	115488.047	23445.844	49.257	49.4	-1.3	NO	0.997	NO	bb
8	8 180407M3_10	Standard	75.000	4.24	173927.391	23963.189	72.581	72.7	-3.0	NO	0.997	NO	bb
9	9 180407M3_11	Standard	100.000	4.24	237555.625	22790.213	104.236	104.4	4.4	NO	0.997	NO	bb

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: PFOS

Coefficient of Determination: R² = 0.998321

Calibration curve: 1.08178 * x

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.464	4.30	178.092	12438.835	0.411	0.4	-18.1	NO	0.998	NO	MM
2	2 180407M3_3	Standard	0.925	4.30	331.379	12024.172	0.791	0.7	-21.0	NO	0.998	NO	MM
3	3 180407M3_4	Standard	1.850	4.30	879.632	13257.679	1.904	1.8	-4.9	NO	0.998	NO	MM
4	4 180407M3_5	Standard	4.625	4.30	1939.524	10957.775	5.080	4.7	1.5	NO	0.998	NO	MM
5	5 180407M3_7	Standard	9.250	4.29	4253.651	12067.570	10.116	9.4	1.1	NO	0.998	NO	MM
6	6 180407M3_8	Standard	23.100	4.29	10676.609	13387.511	22.888	21.2	-8.4	NO	0.998	NO	MM
7	7 180407M3_9	Standard	46.200	4.29	21394.619	11682.316	52.560	48.6	5.2	NO	0.998	NO	MM
8	8 180407M3_10	Standard	69.300	4.29	32745.100	12335.021	76.188	70.4	1.6	NO	0.998	NO	MM
9	9 180407M3_11	Standard	92.400	4.29	44001.563	12825.303	98.465	91.0	-1.5	NO	0.998	NO	MM

Compound name: PFDA

Coefficient of Determination: R² = 0.999257

Calibration curve: 0.000803993 * x² + 0.922982 * x

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	4.51	1299.788	22188.439	0.586	0.6	26.9	NO	0.999	NO	db
2	2 180407M3_3	Standard	1.000	4.51	1924.600	21164.959	0.909	1.0	-1.6	NO	0.999	NO	MM
3	3 180407M3_4	Standard	2.000	4.51	4897.838	21768.635	2.250	2.4	21.6	NO	0.999	NO	bb
4	4 180407M3_5	Standard	5.000	4.51	10981.034	22345.799	4.914	5.3	6.0	NO	0.999	NO	bb
5	5 180407M3_7	Standard	10.000	4.50	21681.775	22677.426	9.561	10.3	2.7	NO	0.999	NO	bb
6	6 180407M3_8	Standard	25.000	4.50	57719.570	25084.717	23.010	24.4	-2.4	NO	0.999	NO	bb
7	7 180407M3_9	Standard	50.000	4.50	111153.586	23445.844	47.409	49.3	-1.5	NO	0.999	NO	bb
8	8 180407M3_10	Standard	75.000	4.50	174877.469	23963.189	72.978	74.3	-1.0	NO	0.999	NO	bb
9	9 180407M3_11	Standard	100.000	4.50	231056.453	22790.213	101.384	101.0	1.0	NO	0.999	NO	bb

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.997750$

Calibration curve: $0.899628 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	4.74	961.582	22188.439	0.433	0.5	-3.7	NO	0.998	NO	MM
2	2 180407M3_3	Standard	1.000	4.74	2201.711	21164.959	1.040	1.2	15.6	NO	0.998	NO	MM
3	3 180407M3_4	Standard	2.000	4.74	4687.742	21768.635	2.153	2.4	19.7	NO	0.998	NO	MM
4	4 180407M3_5	Standard	5.000	4.74	10063.409	22345.799	4.503	5.0	0.1	NO	0.998	NO	MM
5	5 180407M3_7	Standard	10.000	4.74	22893.400	22677.426	10.095	11.2	12.2	NO	0.998	NO	MM
6	6 180407M3_8	Standard	25.000	4.74	57897.371	25084.717	23.081	25.7	2.6	NO	0.998	NO	MM
7	7 180407M3_9	Standard	50.000	4.74	106467.703	23445.844	45.410	50.5	1.0	NO	0.998	NO	MM
8	8 180407M3_10	Standard	75.000	4.74	152210.219	23963.189	63.518	70.6	-5.9	NO	0.998	NO	MM
9	9 180407M3_11	Standard	100.000	4.74	208109.406	22790.213	91.315	101.5	1.5	NO	0.998	NO	MM

Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995789$

Calibration curve: $0.000146922 * x^2 + 0.0950257 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	4.95	141.128	22188.439	0.064	0.7	33.7	NO	0.996	NO	bbX
2	2 180407M3_3	Standard	1.000	4.95	112.617	21164.959	0.053	0.6	-44.1	NO	0.996	NO	bb
3	3 180407M3_4	Standard	2.000	4.95	531.419	21768.635	0.244	2.6	27.9	NO	0.996	NO	bb
4	4 180407M3_5	Standard	5.000	4.95	1018.431	22345.799	0.456	4.8	-4.8	NO	0.996	NO	bb
5	5 180407M3_7	Standard	10.000	4.94	2502.385	22677.426	1.103	11.4	14.1	NO	0.996	NO	bb
6	6 180407M3_8	Standard	25.000	4.95	5747.535	25084.717	2.291	23.3	-6.9	NO	0.996	NO	bd
7	7 180407M3_9	Standard	50.000	4.95	12059.216	23445.844	5.143	50.2	0.5	NO	0.996	NO	bb
8	8 180407M3_10	Standard	75.000	4.95	19117.209	23963.189	7.978	75.2	0.3	NO	0.996	NO	bb
9	9 180407M3_11	Standard	100.000	4.95	21464.363	22790.213	9.418	87.3	-12.7	NO	0.996	NO	bbX

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: PFTrDA

Coefficient of Determination: $R^2 = 0.995064$

Calibration curve: $0.906006 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	5.13	1253.284	22188.439	0.565	0.6	24.7	NO	0.995	NO	bb
2	2 180407M3_3	Standard	1.000	5.13	2197.039	21164.959	1.038	1.1	14.6	NO	0.995	NO	bd
3	3 180407M3_4	Standard	2.000	5.13	4231.540	21768.635	1.944	2.1	7.3	NO	0.995	NO	bb
4	4 180407M3_5	Standard	5.000	5.13	9689.256	22345.799	4.336	4.8	-4.3	NO	0.995	NO	bb
5	5 180407M3_7	Standard	10.000	5.13	20181.758	22677.426	8.899	9.8	-1.8	NO	0.995	NO	bb
6	6 180407M3_8	Standard	25.000	5.13	50401.387	25084.717	20.092	22.2	-11.3	NO	0.995	NO	bd
7	7 180407M3_9	Standard	50.000	5.13	106273.891	23445.844	45.327	50.0	0.1	NO	0.995	NO	bb
8	8 180407M3_10	Standard	75.000	5.13	177986.063	23963.189	74.275	82.0	9.3	NO	0.995	NO	bb
9	9 180407M3_11	Standard	100.000	5.13	197786.375	22790.213	86.786	95.8	-4.2	NO	0.995	NO	bb

Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.997293$

Calibration curve: $0.727809 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	0.500	5.31	628.352	22188.439	0.283	0.4	-22.2	NO	0.997	NO	MM
2	2 180407M3_3	Standard	1.000	5.30	1595.069	21164.959	0.754	1.0	3.5	NO	0.997	NO	bb
3	3 180407M3_4	Standard	2.000	5.30	3410.143	21768.635	1.567	2.2	7.6	NO	0.997	NO	MM
4	4 180407M3_5	Standard	5.000	5.30	8420.078	22345.799	3.768	5.2	3.5	NO	0.997	NO	bb
5	5 180407M3_7	Standard	10.000	5.30	18644.193	22677.426	8.221	11.3	13.0	NO	0.997	NO	bb
6	6 180407M3_8	Standard	25.000	5.30	41620.074	25084.717	16.592	22.8	-8.8	NO	0.997	NO	bb
7	7 180407M3_9	Standard	50.000	5.30	80419.695	23445.844	34.300	47.1	-5.7	NO	0.997	NO	bb
8	8 180407M3_10	Standard	75.000	5.30	131427.094	23963.189	54.845	75.4	0.5	NO	0.997	NO	bb
9	9 180407M3_11	Standard	100.000	5.30	171123.375	22790.213	75.086	103.2	3.2	NO	0.997	NO	bb

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: 13C2-PFHxA

Response Factor: 0.745313

RRF SD: 0.0271067, Relative SD: 3.63696

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	10.000	3.10	16464.219	22188.439	7.420	10.0	-0.4	NO		NO	bb
2	2 180407M3_3	Standard	10.000	3.10	15514.452	21164.959	7.330	9.8	-1.6	NO		NO	bb
3	3 180407M3_4	Standard	10.000	3.10	17283.977	21768.635	7.940	10.7	6.5	NO		NO	bb
4	4 180407M3_5	Standard	10.000	3.10	16962.346	22345.799	7.591	10.2	1.8	NO		NO	bb
5	5 180407M3_7	Standard	10.000	3.08	16920.590	22677.426	7.461	10.0	0.1	NO		NO	bb
6	6 180407M3_8	Standard	10.000	3.09	17670.504	25084.717	7.044	9.5	-5.5	NO		NO	bd
7	7 180407M3_9	Standard	10.000	3.09	17929.656	23445.844	7.647	10.3	2.6	NO		NO	bb
8	8 180407M3_10	Standard	10.000	3.09	17077.170	23963.189	7.126	9.6	-4.4	NO		NO	bd
9	9 180407M3_11	Standard	10.000	3.09	17132.762	22790.213	7.518	10.1	0.9	NO		NO	bd

Compound name: 13C2-PFDA

Response Factor: 0.82654

RRF SD: 0.0383054, Relative SD: 4.63443

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	10.000	4.51	18687.420	22188.439	8.422	10.2	1.9	NO		NO	bd
2	2 180407M3_3	Standard	10.000	4.51	18453.920	21164.959	8.719	10.5	5.5	NO		NO	bb
3	3 180407M3_4	Standard	10.000	4.51	18833.324	21768.635	8.652	10.5	4.7	NO		NO	bb
4	4 180407M3_5	Standard	10.000	4.51	18180.918	22345.799	8.136	9.8	-1.6	NO		NO	bd
5	5 180407M3_7	Standard	10.000	4.50	19558.172	22677.426	8.625	10.4	4.3	NO		NO	bb
6	6 180407M3_8	Standard	10.000	4.50	19075.633	25084.717	7.604	9.2	-8.0	NO		NO	bd
7	7 180407M3_9	Standard	10.000	4.51	18786.377	23445.844	8.013	9.7	-3.1	NO		NO	bb
8	8 180407M3_10	Standard	10.000	4.50	18898.506	23963.189	7.886	9.5	-4.6	NO		NO	bb
9	9 180407M3_11	Standard	10.000	4.50	18987.701	22790.213	8.332	10.1	0.8	NO		NO	bb

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: d5-N-EtFOSAA

Not used MJT 4/9/18

Response Factor: 1.11641

RRF SD: 0.0881208, Relative SD: 7.89322

Response type: Internal Std (Ref 20), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	40.000	4.73	39384.391	39467.957	39.915	35.8	-10.6	NO		NO	bd
2	2 180407M3_3	Standard	40.000	4.73	40989.441	35413.840	46.298	41.5	3.7	NO		NO	bb
3	3 180407M3_4	Standard	40.000	4.74	41357.395	41656.410	39.713	35.6	-11.1	NO		NO	bd
4	4 180407M3_5	Standard	40.000	4.73	41539.730	37249.137	44.607	40.0	-0.1	NO		NO	bb
5	5 180407M3_7	Standard	40.000	4.73	40354.840	38241.105	42.211	37.8	-5.5	NO		NO	bb
6	6 180407M3_8	Standard	40.000	4.73	42592.188	37962.602	44.878	40.2	0.5	NO		NO	bb
7	7 180407M3_9	Standard	40.000	4.73	42074.828	33532.051	50.191	45.0	12.4	NO		NO	bd
8	8 180407M3_10	Standard	40.000	4.73	43671.125	37869.715	46.128	41.3	3.3	NO		NO	bd
9	9 180407M3_11	Standard	40.000	4.73	39898.301	33271.297	47.967	43.0	7.4	NO		NO	bd

Compound name: 13C2-PFOA

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	10.000	3.93	22188.439	22188.439	10.000	10.0	0.0	NO		NO	bb
2	2 180407M3_3	Standard	10.000	3.93	21164.959	21164.959	10.000	10.0	0.0	NO		NO	bb
3	3 180407M3_4	Standard	10.000	3.93	21768.635	21768.635	10.000	10.0	0.0	NO		NO	bb
4	4 180407M3_5	Standard	10.000	3.93	22345.799	22345.799	10.000	10.0	0.0	NO		NO	bd
5	5 180407M3_7	Standard	10.000	3.92	22677.426	22677.426	10.000	10.0	0.0	NO		NO	bb
6	6 180407M3_8	Standard	10.000	3.92	25084.717	25084.717	10.000	10.0	0.0	NO		NO	bb
7	7 180407M3_9	Standard	10.000	3.92	23445.844	23445.844	10.000	10.0	0.0	NO		NO	bd
8	8 180407M3_10	Standard	10.000	3.92	23963.189	23963.189	10.000	10.0	0.0	NO		NO	bd
9	9 180407M3_11	Standard	10.000	3.92	22790.213	22790.213	10.000	10.0	0.0	NO		NO	bd

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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Compound name: 13C4-PFOS

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: RF

	# Name	Type	Std. Conc	RT	Area	IS Area	Response	Conc.	%Dev	Conc. Flag	CoD	CoD Flag	x=excluded
1	1 180407M3_2	Standard	28.700	4.30	12438.835	12438.835	28.700	28.7	0.0	NO		NO	MM
2	2 180407M3_3	Standard	28.700	4.30	12024.172	12024.172	28.700	28.7	0.0	NO		NO	bb
3	3 180407M3_4	Standard	28.700	4.30	13257.679	13257.679	28.700	28.7	0.0	NO		NO	MM
4	4 180407M3_5	Standard	28.700	4.30	10957.775	10957.775	28.700	28.7	0.0	NO		NO	MM
5	5 180407M3_7	Standard	28.700	4.29	12067.570	12067.570	28.700	28.7	0.0	NO		NO	MM
6	6 180407M3_8	Standard	28.700	4.29	13387.511	13387.511	28.700	28.7	0.0	NO		NO	MM
7	7 180407M3_9	Standard	28.700	4.29	11682.316	11682.316	28.700	28.7	0.0	NO		NO	MM
8	8 180407M3_10	Standard	28.700	4.29	12335.021	12335.021	28.700	28.7	0.0	NO		NO	bb
9	9 180407M3_11	Standard	28.700	4.29	12825.303	12825.303	28.700	28.7	0.0	NO		NO	MM

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:33:56 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_2, Date: 07-Apr-2018, Time: 14:39:24, ID: ST180407M3-1 PFC CS-3 537 18C2901, Description: PFC CS-2/18C2901

*2 dm 4/8/18
4/8/18*

#	Name	IS#	CoD	CoD Flag	%RSD
1	1 PFBS	19	0.9976	NO	
2	2 PFHxA	18	0.9990	NO	
3	3 PFHpA	18	0.9977	NO	
4	4 PFHxS	19	0.9964	NO	
5	5 PFOA	18	0.9988	NO	
6	6 PFNA	18	0.9974	NO	
7	7 PFOS	19	0.9983	NO	
8	8 PFDA	18	0.9993	NO	
9	11 PFUnA	18	0.9978	NO	
10	12 PFDoA	18	0.9958	NO	
11	13 PFTrDA	18	0.9951	NO	
12	14 PFTeDA	18	0.9973	NO	
13	15 13C2-PFHxA	18		NO	3.637
14	16 13C2-PFDA	18		NO	4.634
15	17 d5-N-EtFOSAA	20		NO	7.893
16	18 13C2-PFOA	18		NO	0.000
17	19 13C4-PFOS	19		NO	0.000

Not used.

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Monday, April 09, 2018 07:22:14 Pacific Daylight Time

Printed: Monday, April 09, 2018 07:24:33 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Compound name: PFBS

	Name	ID	Acq.Date	Acq.Time
1	180407M3_1	IPA	07-Apr-18	14:22:47
2	180407M3_2	ST180407M3-1 PFC CS-3 537 18C2901	07-Apr-18	14:39:24
3	180407M3_3	ST180407M3-2 PFC CS-2 537 18C2902	07-Apr-18	14:50:51
4	180407M3_4	ST180407M3-3 PFC CS-1 537 18D0504	07-Apr-18	15:02:17
5	180407M3_5	ST180407M3-4 PFC CS0 537 18C2904	07-Apr-18	15:13:44
6	180407M3_7	ST180407M3-5 PFC CS1 537 18C2905	07-Apr-18	15:28:53
7	180407M3_8	ST180407M3-6 PFC CS2 537 18D0503	07-Apr-18	15:41:48
8	180407M3_9	ST180407M3-7 PFC CS3 537 18C2907	07-Apr-18	15:53:12
9	180407M3_10	ST180407M3-8 PFC CS4 537 18D0502	07-Apr-18	16:04:39
10	180407M3_11	ST180407M3-9 PFC CS5 537 18C2909	07-Apr-18	16:16:08
11	180407M3_12	IPA	07-Apr-18	16:27:38
12	180407M3_13	ICV180407M2-1 PFC ICV 18C2910	07-Apr-18	16:39:07
13	180407M3_14	IPA	07-Apr-18	16:50:37

Compound 18: 13C2-PFOA

ID	Name	Type	RT	Area	IS Area	Response	Primary Fla
1	ST180407M3-1 PFC CS-3 537 18C2901	180407M3	Standard	3.93	22188.44	22188.439	10 bb
2	ST180407M3-2 PFC CS-2 537 18C2902	180407M3	Standard	3.93	21164.96	21164.959	10 bb
3	ST180407M3-3 PFC CS-1 537 18D0504	180407M3	Standard	3.93	21768.64	21768.635	10 bb
4	ST180407M3-4 PFC CS0 537 18C2904	180407M3	Standard	3.93	22345.799	22345.799	10 bd
5	ST180407M3-5 PFC CS1 537 18C2905	180407M3	Standard	3.92	22677.43	22677.426	10 bb
6	ST180407M3-6 PFC CS2 537 18D0503	180407M3	Standard	3.92	25084.72	25084.717	10 bb
7	ST180407M3-7 PFC CS3 537 18C2907	180407M3	Standard	3.92	23445.84	23445.844	10 bd
8	ST180407M3-8 PFC CS4 537 18D0502	180407M3	Standard	3.92	23963.19	23963.189	10 bd
9	ST180407M3-9 PFC CS5 537 18C2909	180407M3	Standard	3.92	22790.21	22790.213	10 bd
			average			high	25084.72 rpd
			22825.47			low	21164.96 16.95042

Compound 19: 13C4-PFOS

ID	Name	Type	RT	Area	IS Area	Response	Primary Fla
1	ST180407M3-1 PFC CS-3 537 18C2901	180407M3	Standard	4.3	12438.84	12438.835	28.7 MM
2	ST180407M3-2 PFC CS-2 537 18C2902	180407M3	Standard	4.3	12024.17	12024.172	28.7 bb
3	ST180407M3-3 PFC CS-1 537 18D0504	180407M3	Standard	4.3	13257.68	13257.679	28.7 MM
4	ST180407M3-4 PFC CS0 537 18C2904	180407M3	Standard	4.3	10957.78	10957.775	28.7 MM
5	ST180407M3-5 PFC CS1 537 18C2905	180407M3	Standard	4.29	12067.57	12067.57	28.7 MM
6	ST180407M3-6 PFC CS2 537 18D0503	180407M3	Standard	4.29	13387.51	13387.511	28.7 MM
7	ST180407M3-7 PFC CS3 537 18C2907	180407M3	Standard	4.29	11682.32	11682.316	28.7 MM
8	ST180407M3-8 PFC CS4 537 18D0502	180407M3	Standard	4.29	12335.02	12335.021	28.7 bb
9	ST180407M3-9 PFC CS5 537 18C2909	180407M3	Standard	4.29	12825.3	12825.303	28.7 MM
			average			high	13387.51 rpd
			12330.69			low	10957.78 19.96063

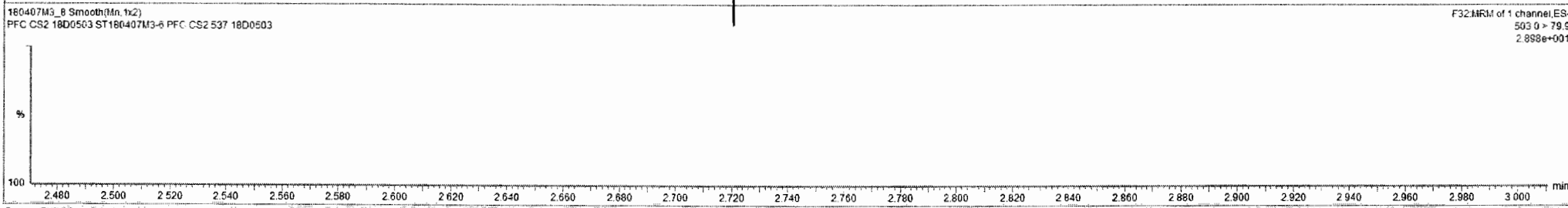
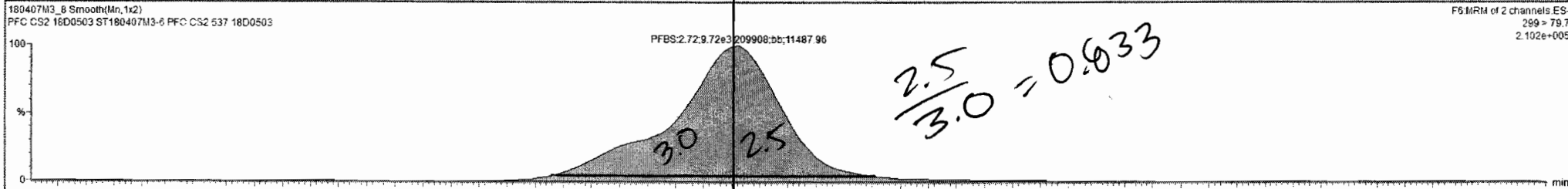
Compound 20: d3-N-MeFOSAA

NOT used for new curve.

ID	Name	Type	RT	Area	IS Area	Response	Primary Fla
1	ST180407M3-1 PFC CS-3 537 18C2901	180407M3	Standard	4.62	39467.96	39467.957	40 MM
2	ST180407M3-2 PFC CS-2 537 18C2902	180407M3	Standard	4.62	35413.84	35413.84	40 MM
3	ST180407M3-3 PFC CS-1 537 18D0504	180407M3	Standard	4.62	41656.41	41656.41	40 MM
4	ST180407M3-4 PFC CS0 537 18C2904	180407M3	Standard	4.62	37249.14	37249.137	40 MM
5	ST180407M3-5 PFC CS1 537 18C2905	180407M3	Standard	4.61	38241.11	38241.105	40 MM
6	ST180407M3-6 PFC CS2 537 18D0503	180407M3	Standard	4.62	37962.6	37962.602	40 MM
7	ST180407M3-7 PFC CS3 537 18C2907	180407M3	Standard	4.62	33532.05	33532.051	40 MM
8	ST180407M3-8 PFC CS4 537 18D0502	180407M3	Standard	4.62	37869.72	37869.715	40 MM
9	ST180407M3-9 PFC CS5 537 18C2909	180407M3	Standard	4.62	33271.3	33271.297	40 MMx
					high	41656.41	41656.41 rpd
					low	33532.05	21.61065

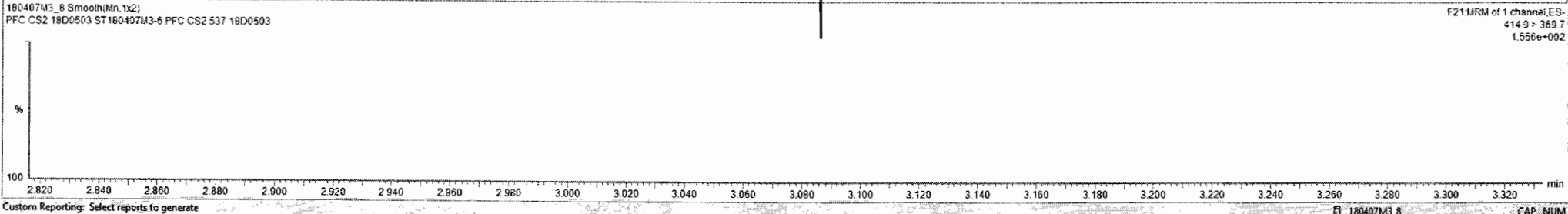
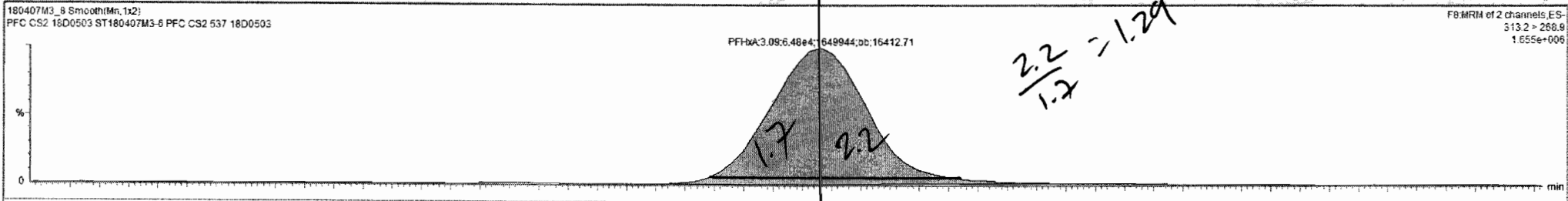
180407M3_8 - ST180407M3-6 PFC CS2 537 18D0503 - PFC CS2 18D0503

#	Name	Trace	RT	Area	IS Area	Response	Prmar	Conc.	%Dev
1	PFBS	296 > 79.7	2.72	9716.973	13493.983	20.667	bb	22.1	0.0
2	PFHxA	313.2 > 268.9	3.09	84637.957	25084.717	25.848	bb	25.0	0.0
3	PFHpA	363 > 318.9	3.54	51320.715	25084.717	20.459	bd	25.0	0.0
4	PFHxS	398.9 > 79.6	3.64	6051.062	13493.983	12.870	bb	22.8	0.0
5	PFDA	413 > 368.7	3.92	55553.500	25084.717	22.146	bb	25.0	0.0
6	PFNA	463 > 418.8	4.47	9.140	25084.717	0.004	bd	25.0	0.0
7	PFOS	499 > 79.9	4.29	8330.221	13493.983	17.717	sd	23.1	0.0
8	PFDA	513 > 468.8	4.50	56417.973	25084.717	22.491	bb		
9	N-MeFOSAA	570.1 > 419.0							
10	N-EFOSAA	584.2 > 419.0							
11	PFUnA	583 > 518.9			25084.717				
12	PFDoA	612.9 > 318.8			25084.717				
13	PFTiDA	662.9 > 618.9			25084.717				
14	PFTeDA	712.9 > 668.8			25084.717				
15	13C2-PFHxA	315 > 269.8	3.09	17670.504	25084.717	7.044	bd	10.0	0.0
16	13C2-PFDA	515.1 > 469.9			25084.717				
17	d5-N-EFOSAA	589.3 > 419.0							
18	13C2-PFOA	414.9 > 369.7	3.92	25084.717	25084.717	10.000	bb	10.0	0.0
19	13C4-PFOS	503.0 > 79.9	4.29	13493.983	13493.983	26.700	bb	28.7	0.0
20	d3-N-MeFOSAA	573.3 > 419.0							



180407M3_8 - ST180407M3-6 PFC CS2 537 18D0503 - PFC CS2 18D0503

Name	Conc.	DL	%Rec	EMPC	Abs Resp	RRF	RT	#	IS#	RA	Y/N	RRF	Acq Date	Acq Time	1° Chr Noise	ID	Sample Text	Factor	SN	Cal File	+MDL	(b/c)	Asym
1 PFBS	22.100000	0.00389	100.0		9.717e3		2.72	1	19			0.635	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	0.57	NO
2 PFHxA	25.000000	0.00314	100.0		6.484e4		3.09	2	18			0.788	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	0.96	NO
3 PFHpA	25.000000	0.00762	100.0		5.132e4		3.54	3	18			0.902	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	1.25	NO
4 PFHxS	22.800000	0.0252	100.0		6.051e3		3.84	4	19			0.850	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	1.26	NO
5 PFOA	25.000000	0.0111	100.0		5.555e4		3.92	5	18			1.000	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	1.35	NO
6 PFNA	25.000000	26.2	100.0		9.140e0		4.47	6	18			1.140	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	0.66	NO
7 PFOS	23.100000	0.00278	100.0		8.330e3		4.29	7	19			1.000	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		YES	1.33	NO
8 PFDA					5.642e4		4.50	8	18			1.150	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		NO	1.35	NO
9 N-MeFOSAA							9	20					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
10 N-EFOSAA							10	20					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
11 PFUnA							11	18					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
12 PFDoA							12	18					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
13 PFTDA							13	18					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
14 PFTeDA							14	18					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
15 13C2-PFHxA	10.000000	0.00000	100.0		1.767e4	0.704	3.09	15	18			0.788	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		NO	0.99	NO
16 13C2-PFDA							16	18					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
17 d5-N-EFOSAA							17	20					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO
18 13C2-PFOA	10.000000	0.00000	100.0		2.508e4	1.000	3.92	18	18			0.000	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		NO	1.37	NO
19 13C4-PFOS	28.700000	0.000199	100.0		1.348e4	1.000	4.29	19	19			0.000	07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00		NO	1.37	NO
20 d3-N-MeFOSAA							20	20					07-Apr-18	15:41:48		ST180407M...	PFC CS2 18D0503	1.0	1.00				NO



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

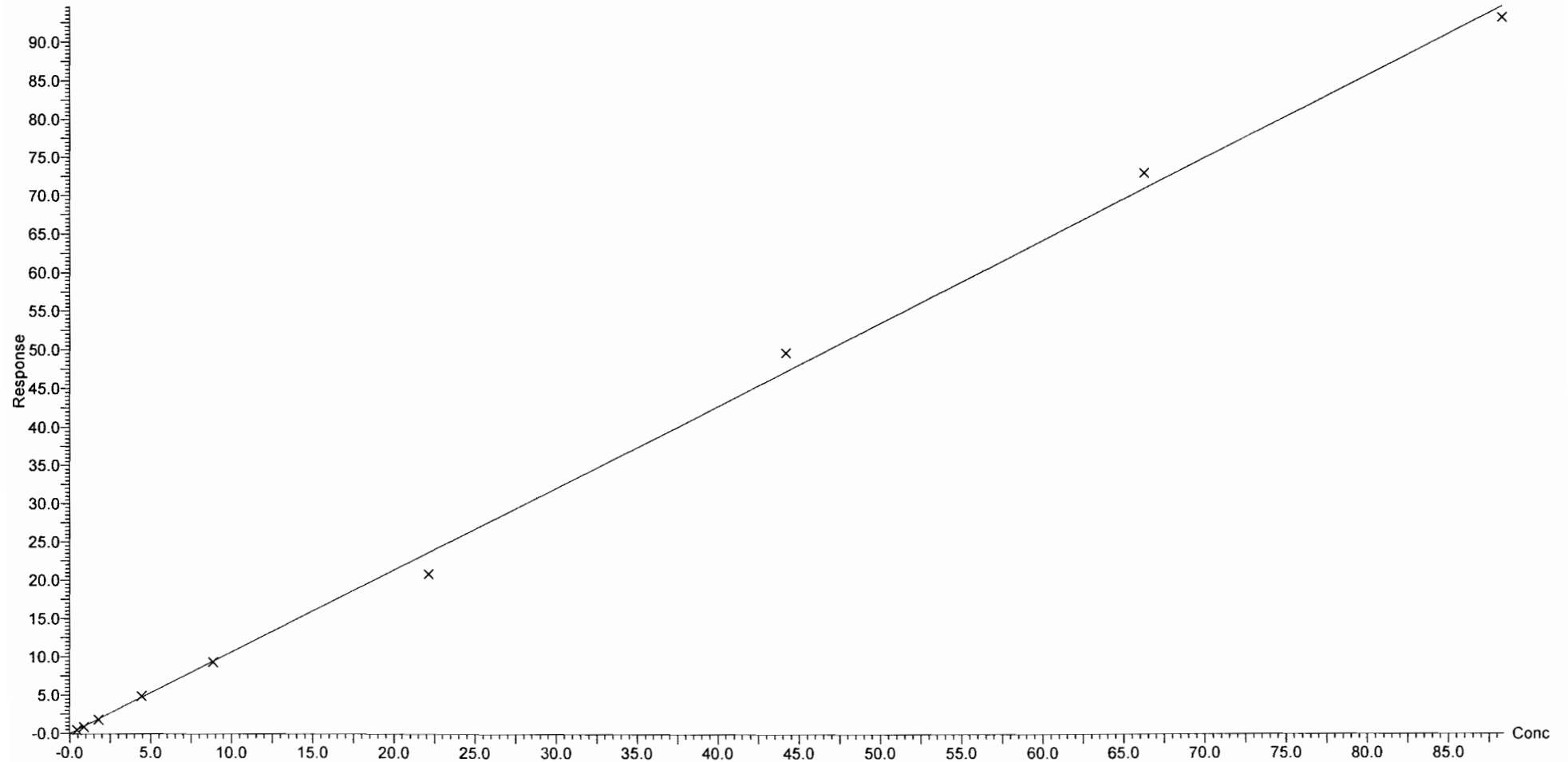
Compound name: PFBS

Coefficient of Determination: $R^2 = 0.997613$

Calibration curve: $1.06923 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

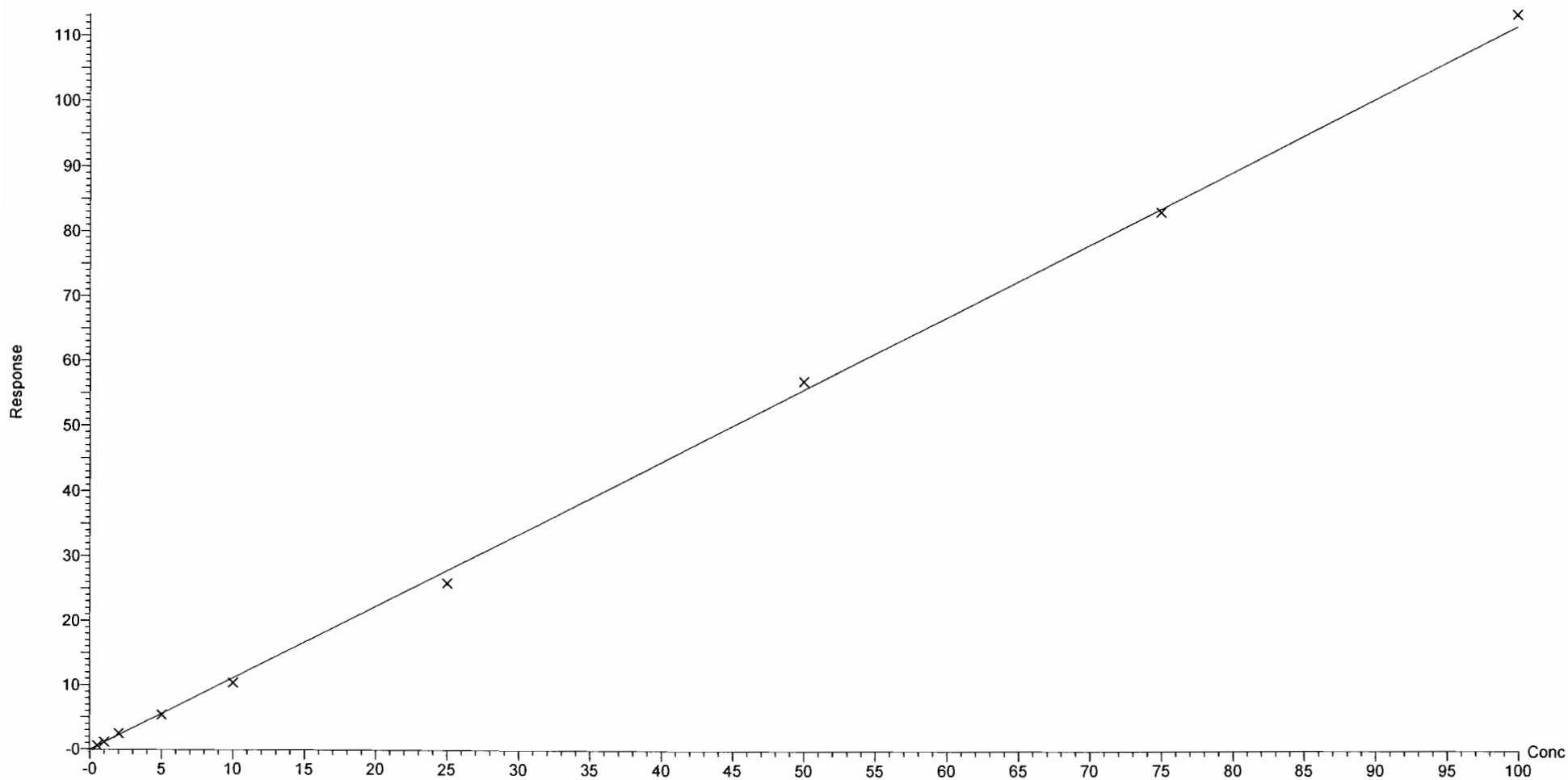
Compound name: PFHxA

Coefficient of Determination: $R^2 = 0.998980$

Calibration curve: $1.11374 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

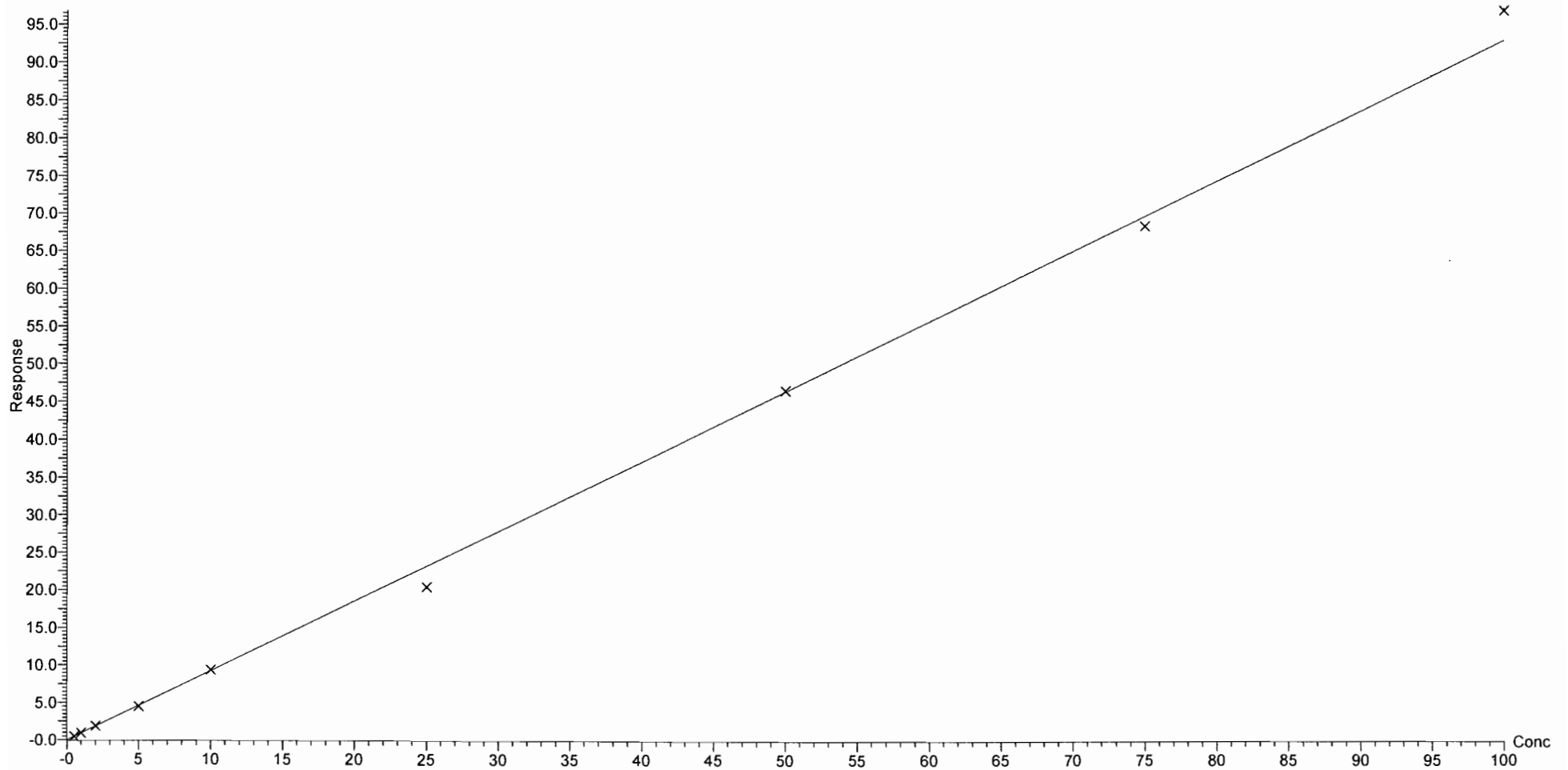
Compound name: PFHpA

Coefficient of Determination: $R^2 = 0.997731$

Calibration curve: $0.928742 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None

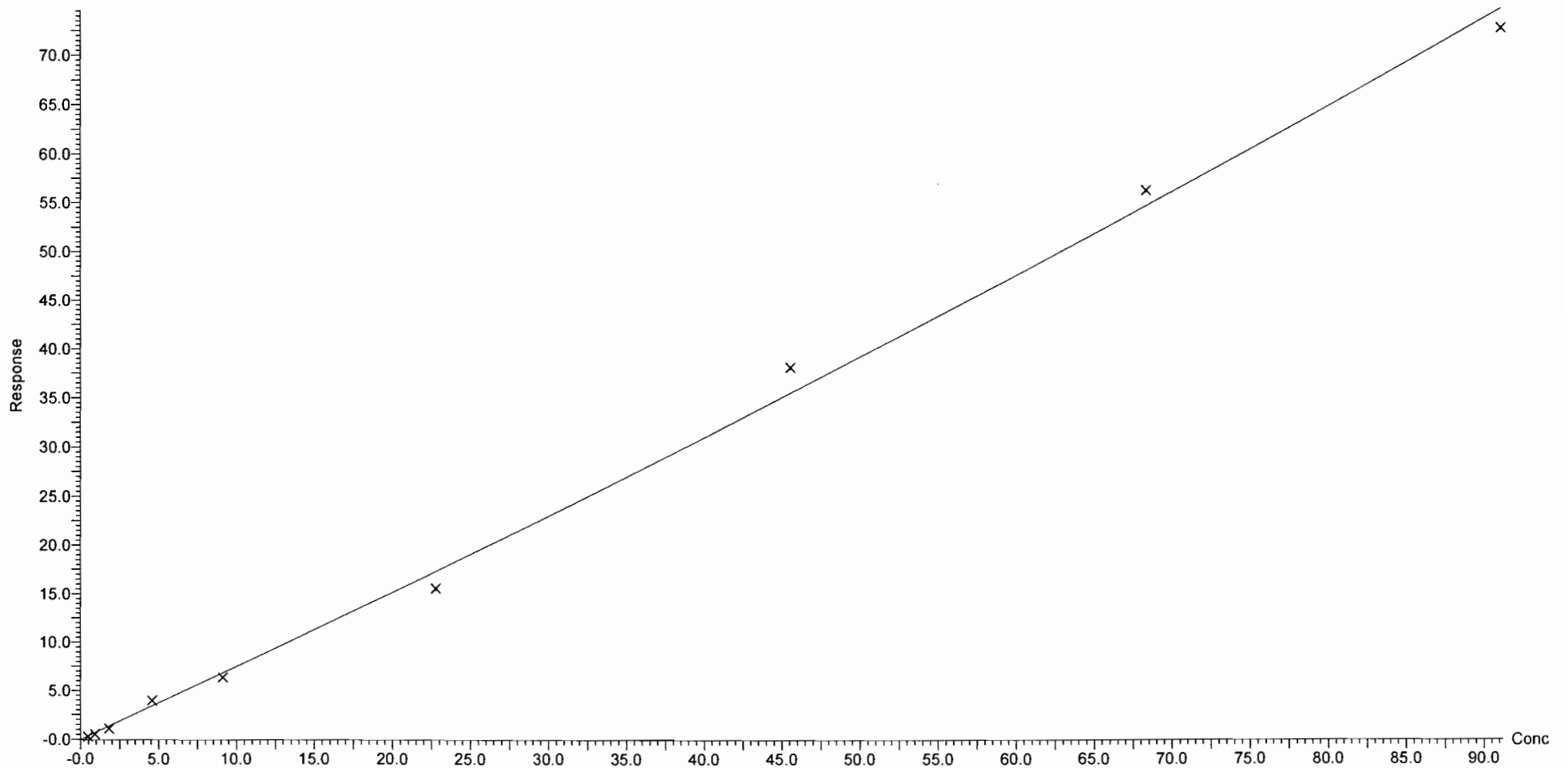


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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

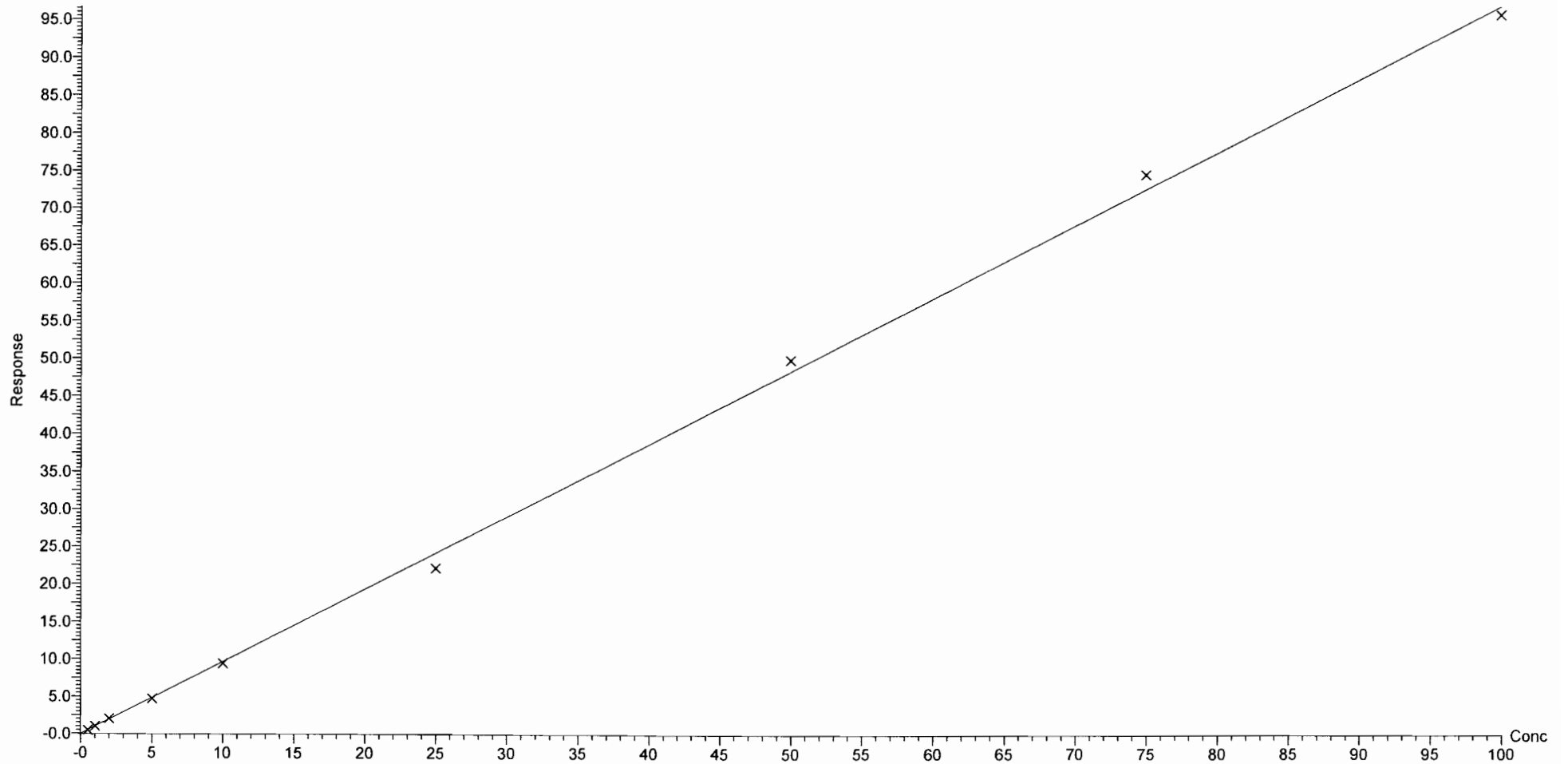
Compound name: PFHxS
Coefficient of Determination: $R^2 = 0.996387$
Calibration curve: $0.000850214 * x^2 + 0.739947 * x$
Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

Compound name: PFOA
Coefficient of Determination: $R^2 = 0.998773$
Calibration curve: $0.966966 * x$
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

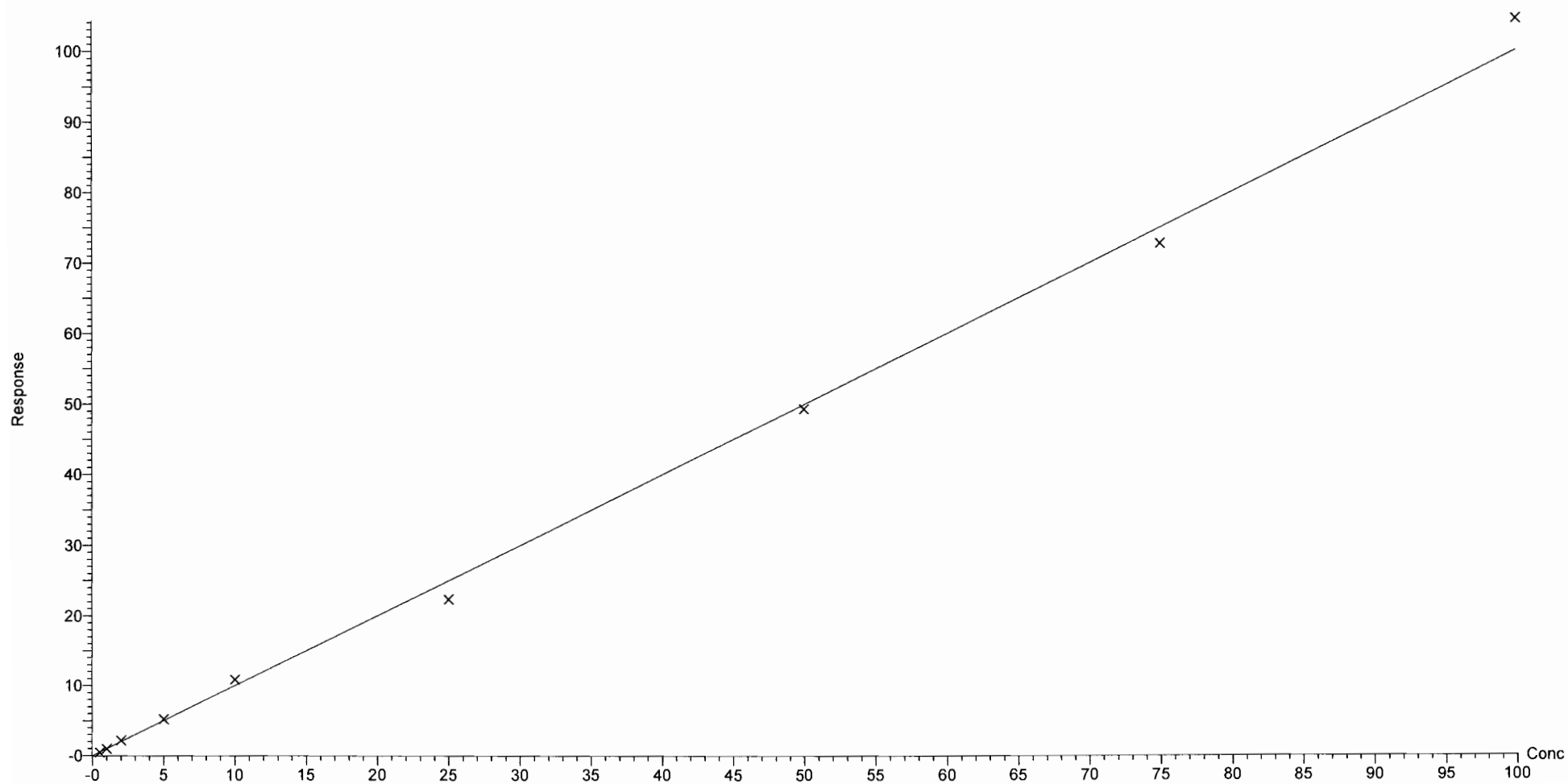
Compound name: PFNA

Coefficient of Determination: $R^2 = 0.997372$

Calibration curve: $0.998118 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

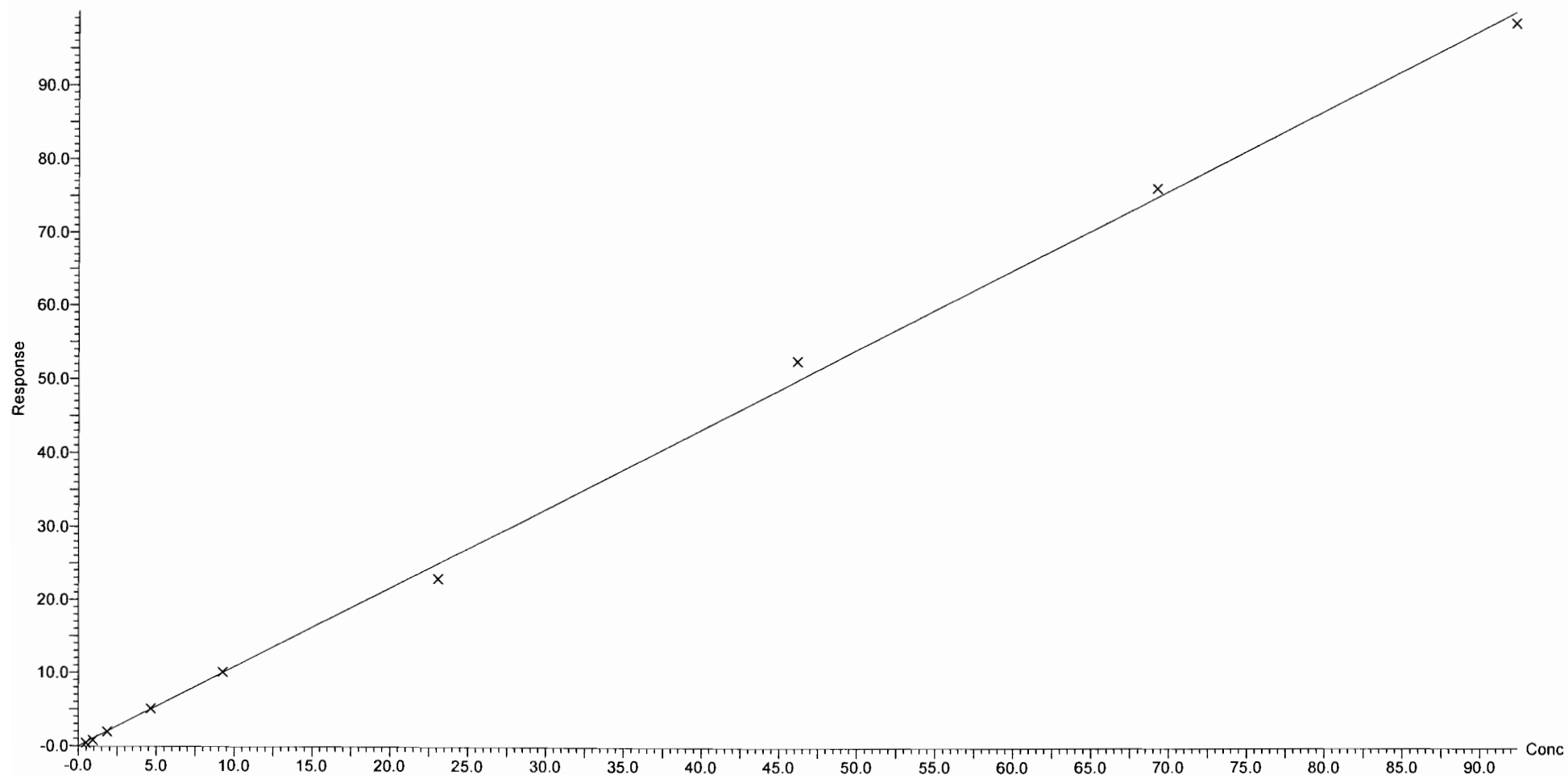
Compound name: PFOS

Coefficient of Determination: $R^2 = 0.998321$

Calibration curve: $1.08178 * x$

Response type: Internal Std (Ref 19), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

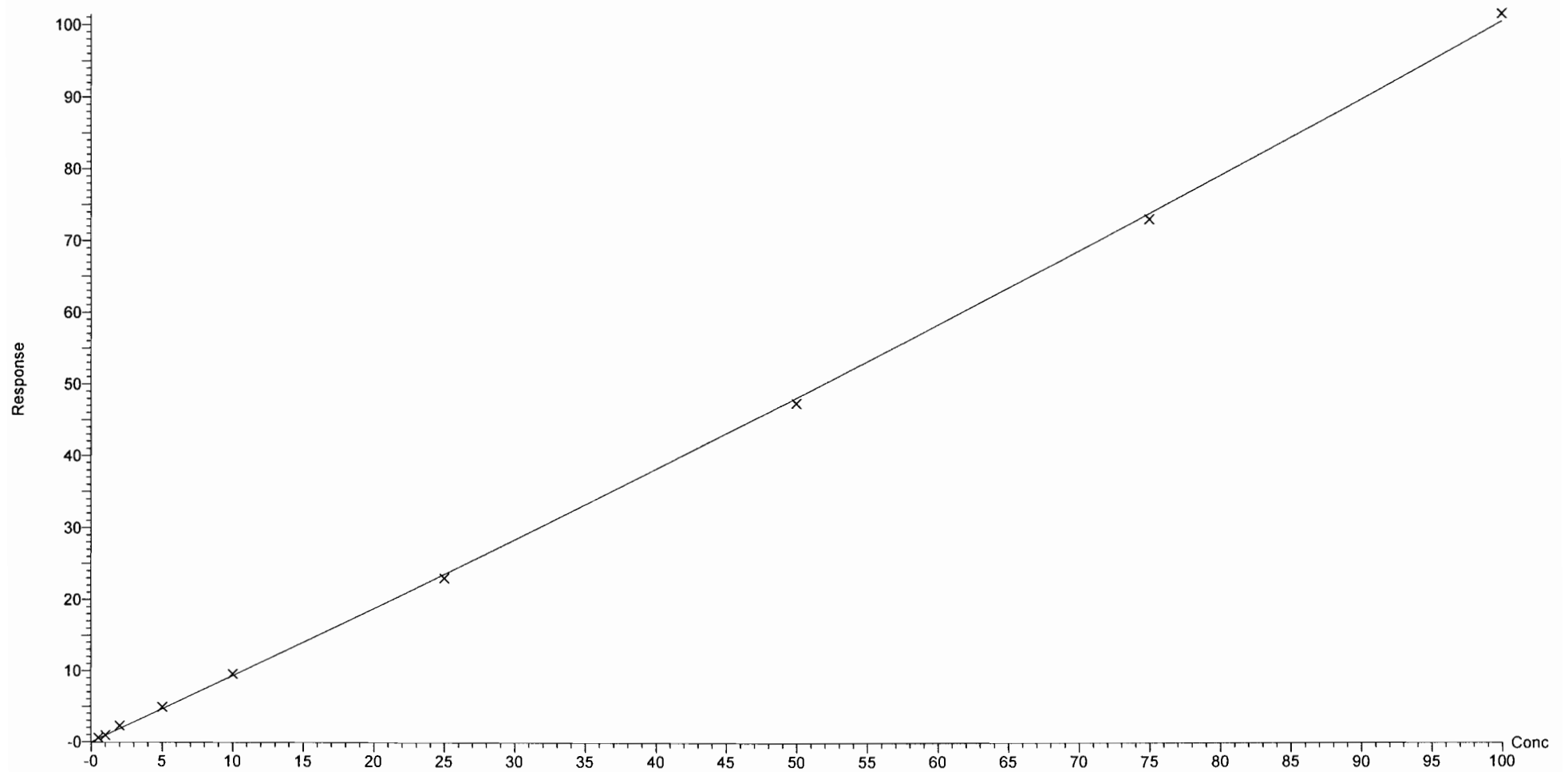
Compound name: PFDA

Coefficient of Determination: $R^2 = 0.999257$

Calibration curve: $0.000803993 * x^2 + 0.922982 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

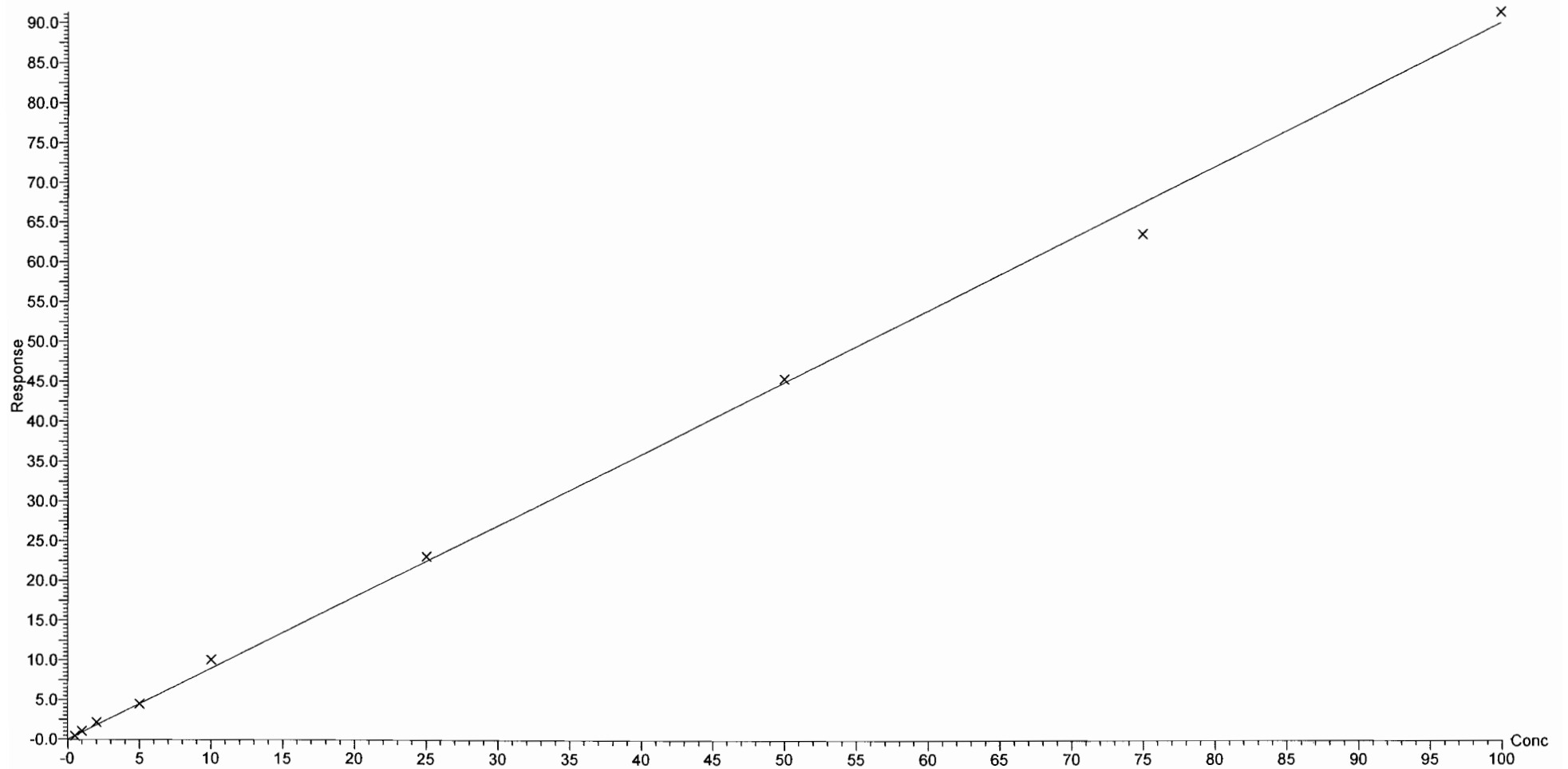
Compound name: PFUnA

Coefficient of Determination: $R^2 = 0.997750$

Calibration curve: $0.899628 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

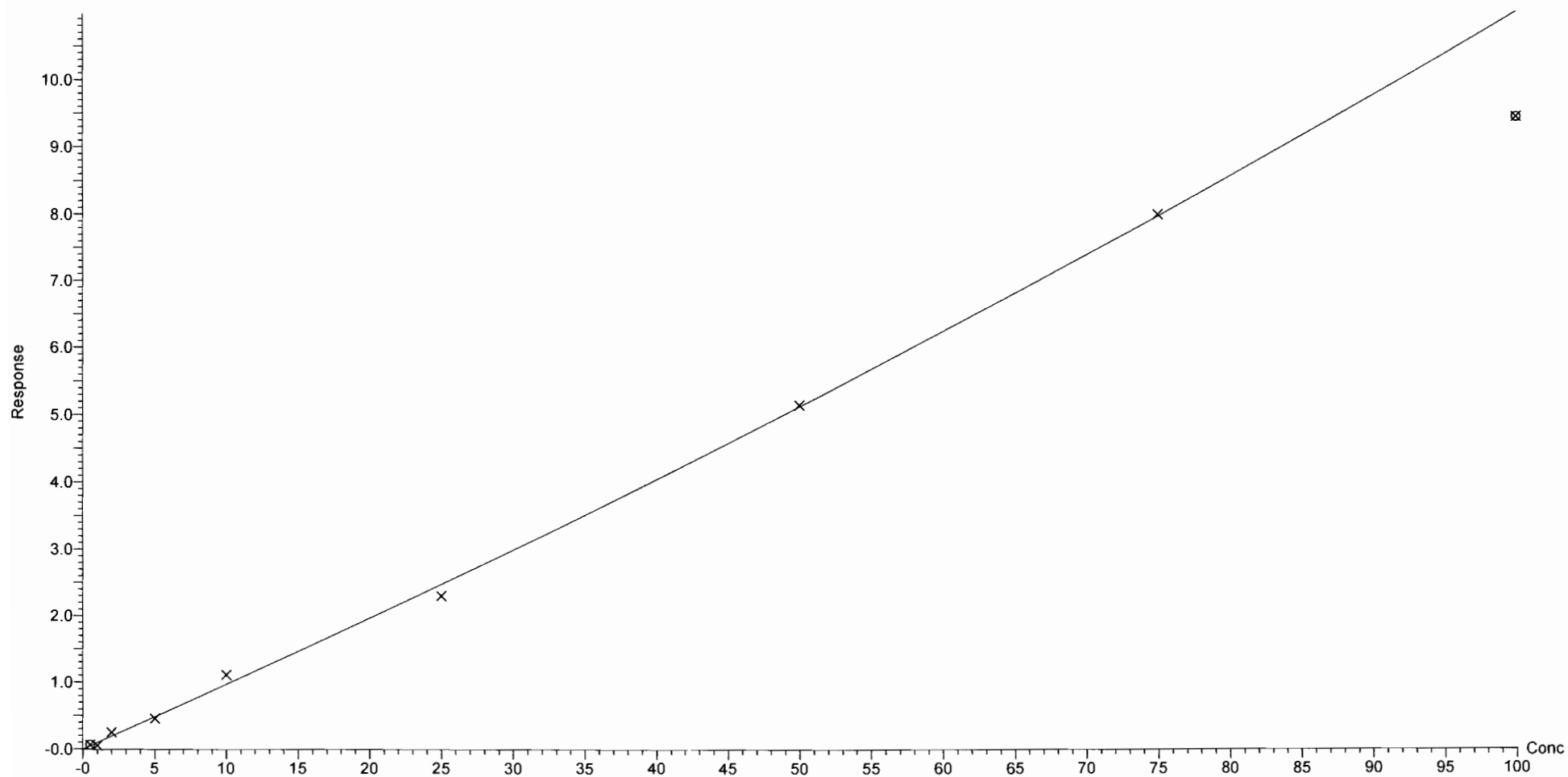
Compound name: PFDoA

Coefficient of Determination: $R^2 = 0.995789$

Calibration curve: $0.000146922 * x^2 + 0.0950257 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

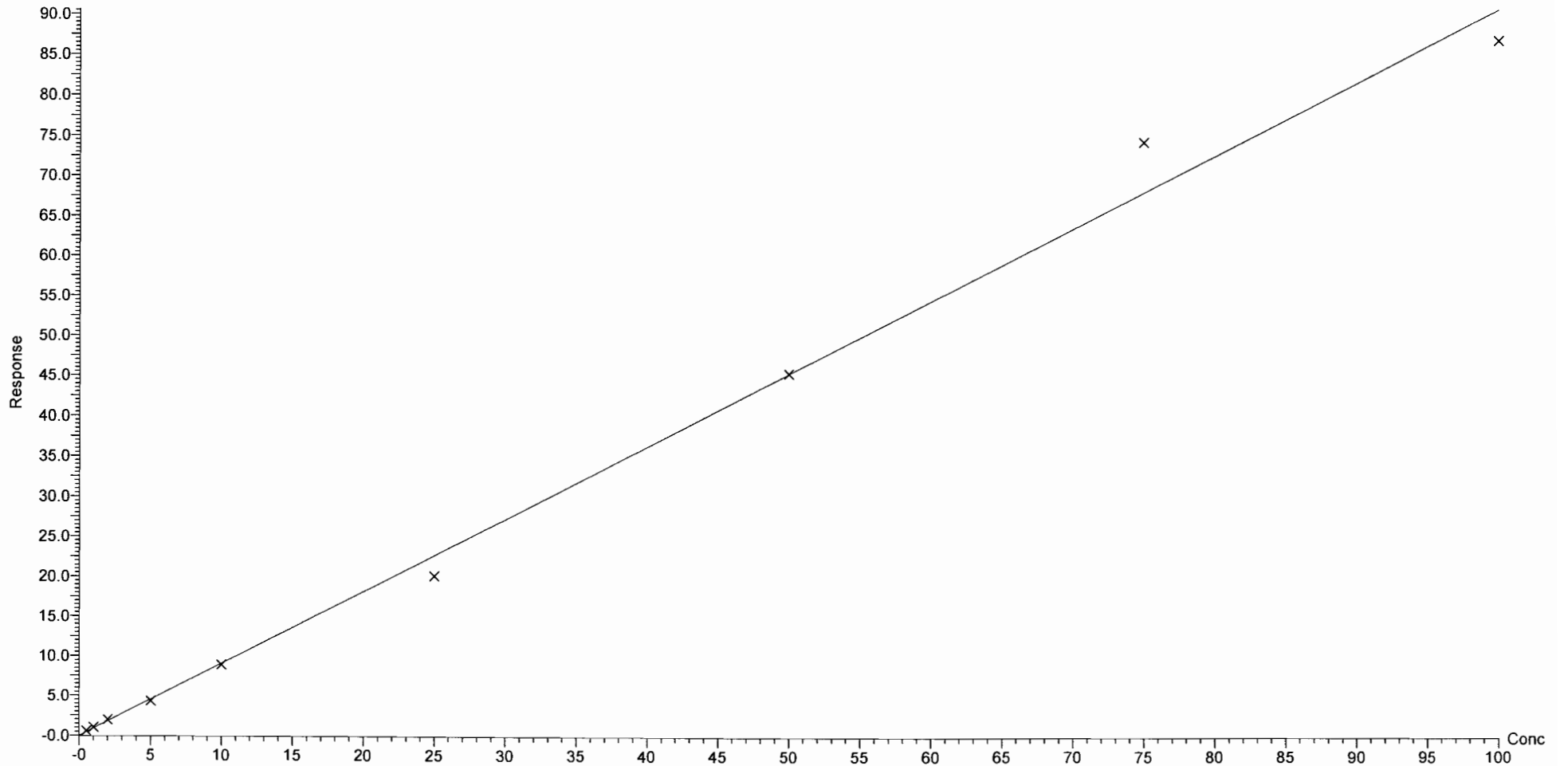
Curve type: 2nd Order, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

Compound name: PFTrDA
Coefficient of Determination: $R^2 = 0.995064$
Calibration curve: $0.906006 * x$
Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:31:39 Pacific Daylight Time

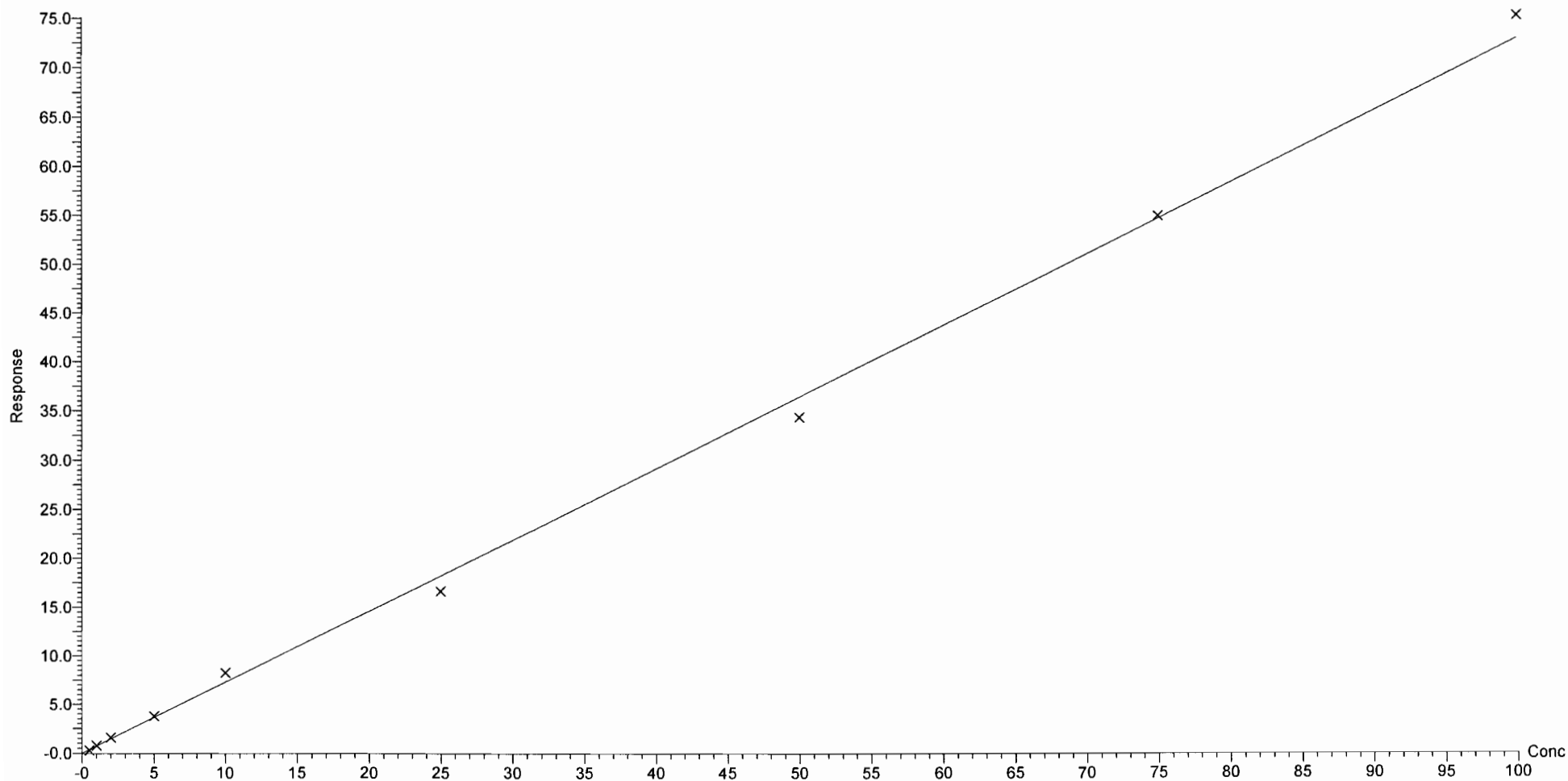
Compound name: PFTeDA

Coefficient of Determination: $R^2 = 0.997293$

Calibration curve: $0.727809 * x$

Response type: Internal Std (Ref 18), Area * (IS Conc. / IS Area)

Curve type: Linear, Origin: Force, Weighting: 1/x, Axis trans: None



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

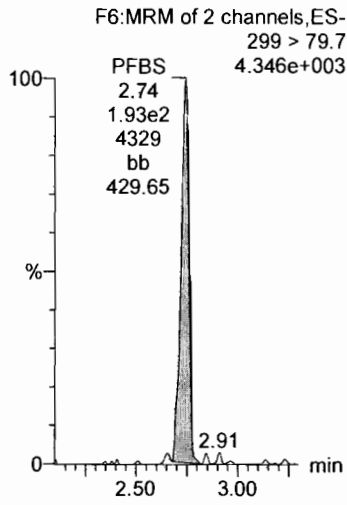
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0407.mdb 08 Apr 2018 09:26:52
Calibration: 08 Apr 2018 13:23:09

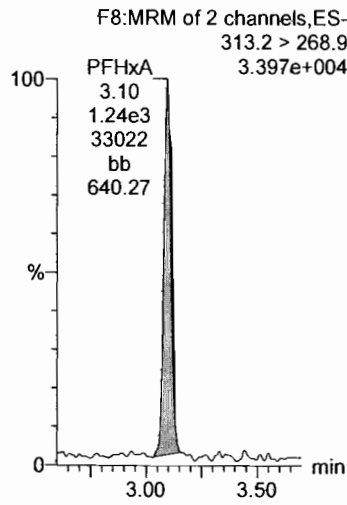
Name: 180407M3_2, Date: 07-Apr-2018, Time: 14:39:24, ID: ST180407M3-1 PFC CS-3 537 18C2901, Description: PFC CS-3 537 18C2901

3
on 4/10/18

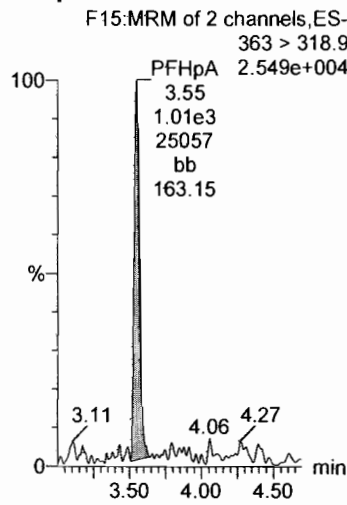
PFBS



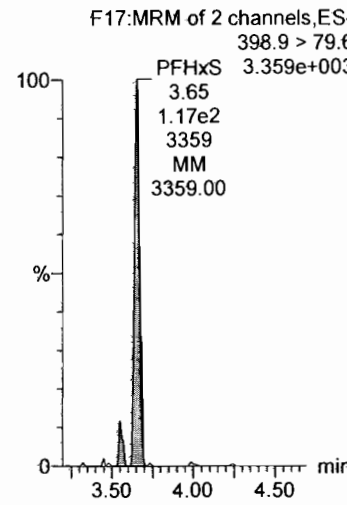
PFHxA



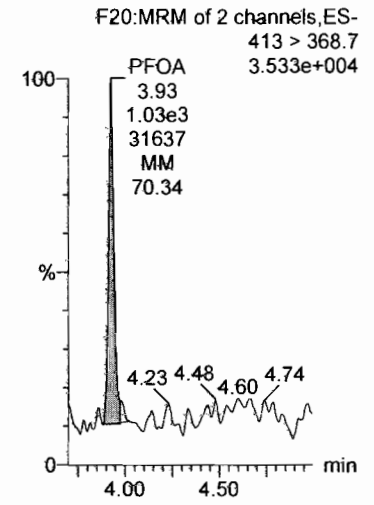
PFHpA



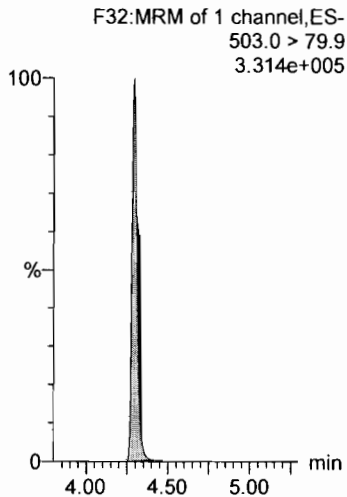
PFHxS



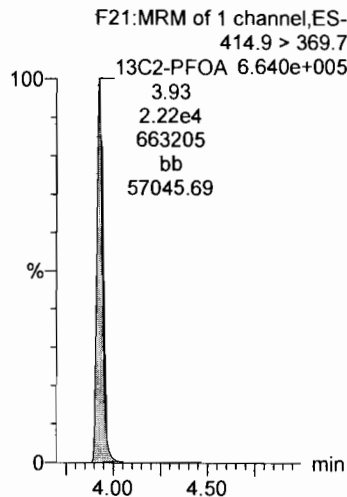
PFOA



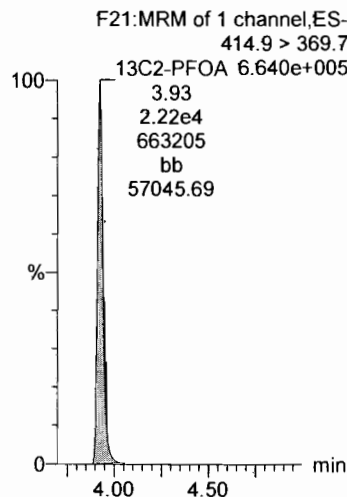
13C4-PFOS



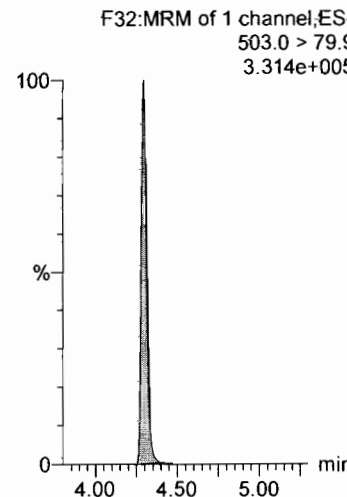
13C2-PFOA



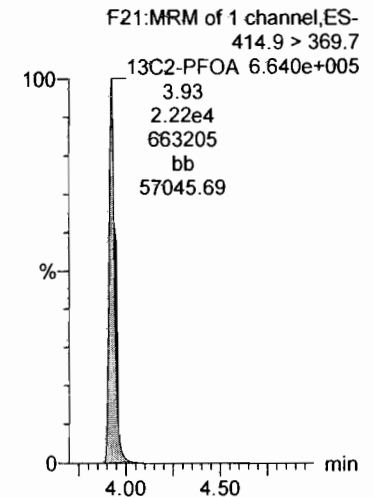
13C2-PFOA



13C4-PFOS



13C2-PFOA

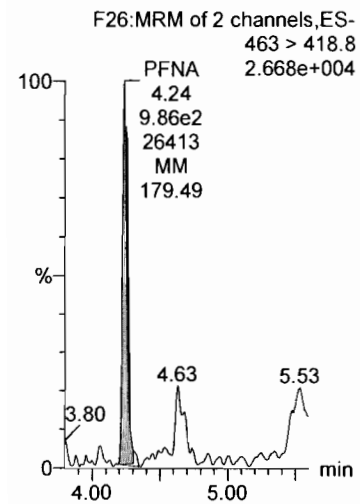


Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

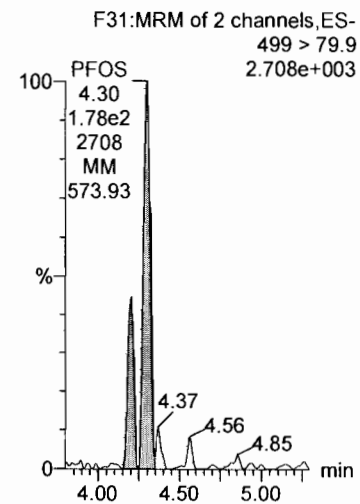
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_2, Date: 07-Apr-2018, Time: 14:39:24, ID: ST180407M3-1 PFC CS-3 537 18C2901, Description: PFC CS-2 18C2901

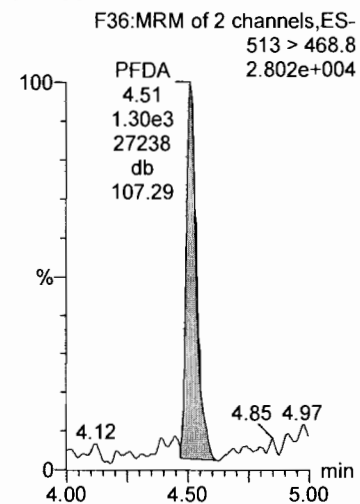
PFNA



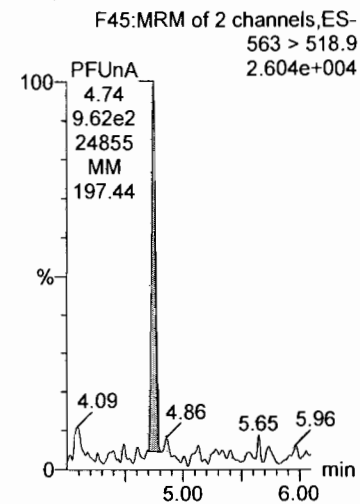
PFOS



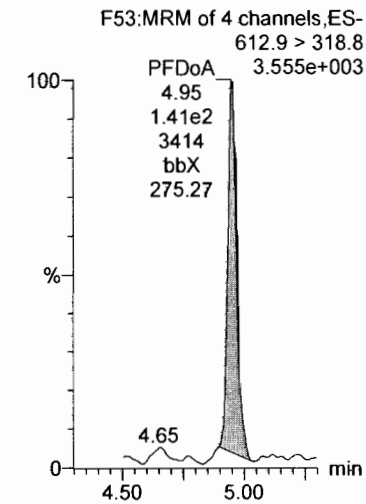
PFDA



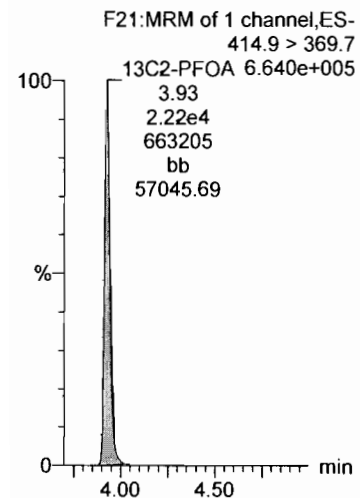
PFUnA



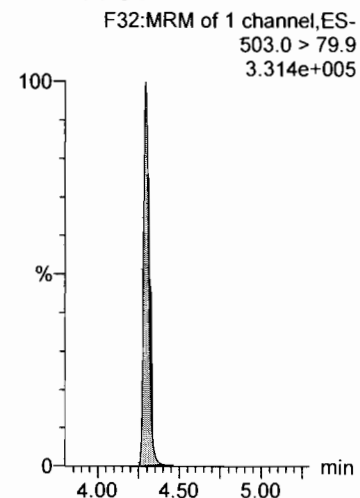
PFDoA



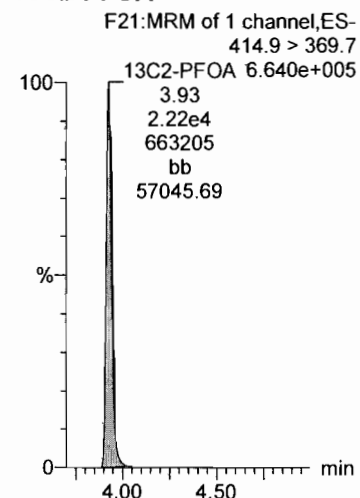
13C2-PFOA



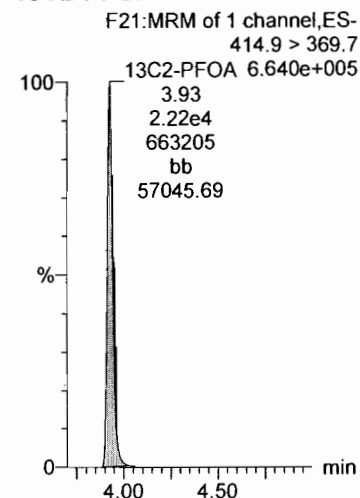
13C4-PFOS



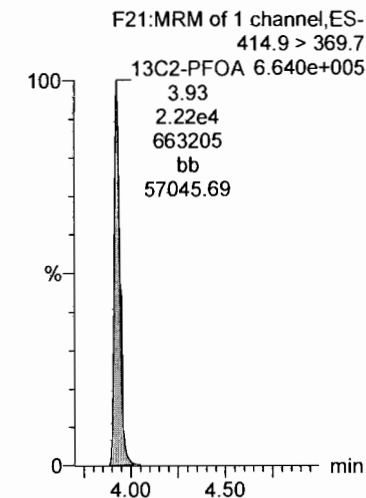
13C2-PFOA



13C2-PFOA



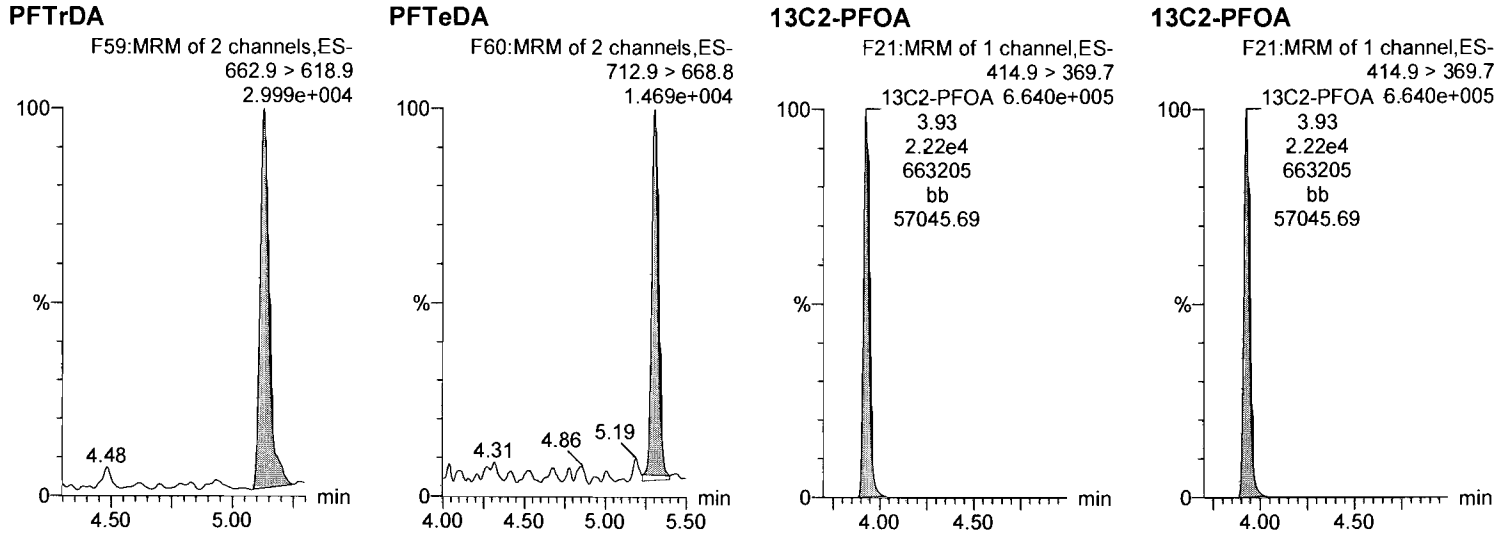
13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_2, Date: 07-Apr-2018, Time: 14:39:24, ID: ST180407M3-1 PFC CS-3 537 18C2901, Description: PFC CS-2 18C2901



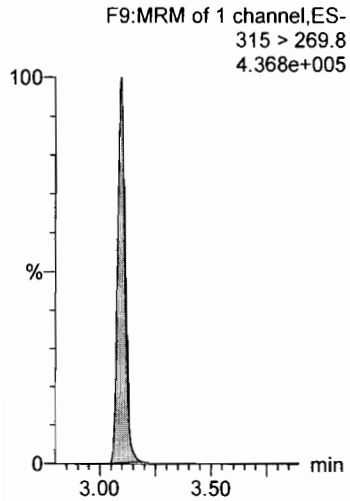
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

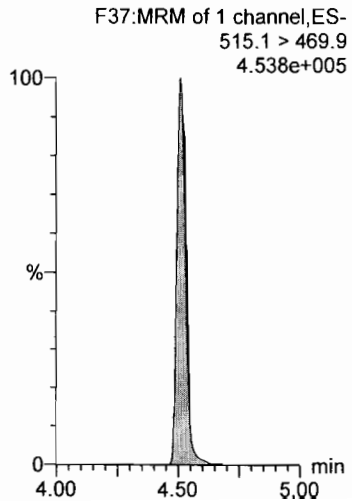
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_2, Date: 07-Apr-2018, Time: 14:39:24, ID: ST180407M3-1 PFC CS-3 537 18C2901, Description: PFC CS-2 18C2901

13C2-PFHxA



13C2-PFDA



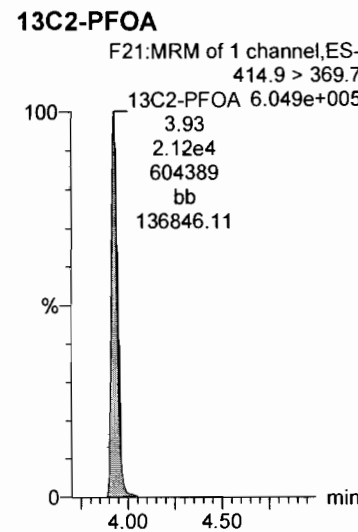
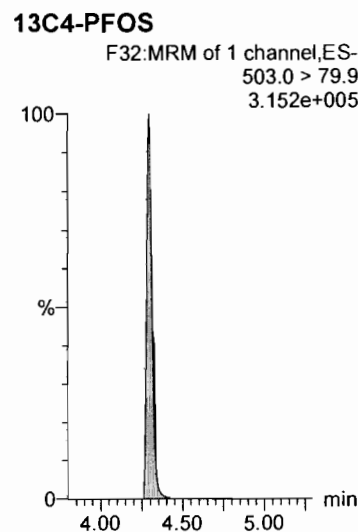
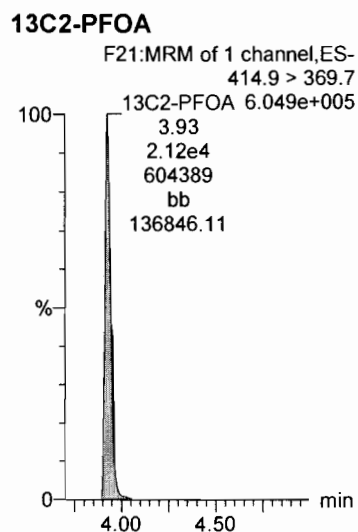
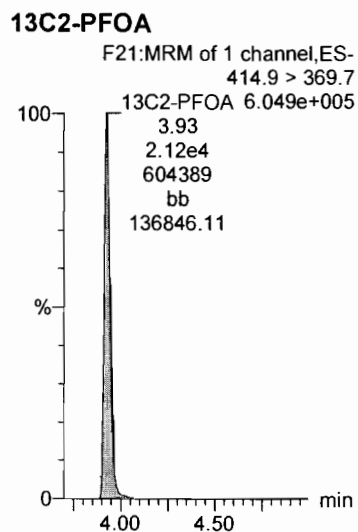
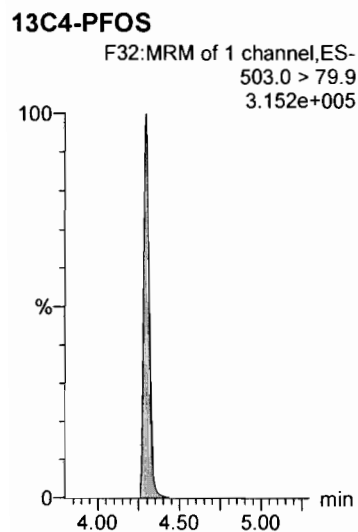
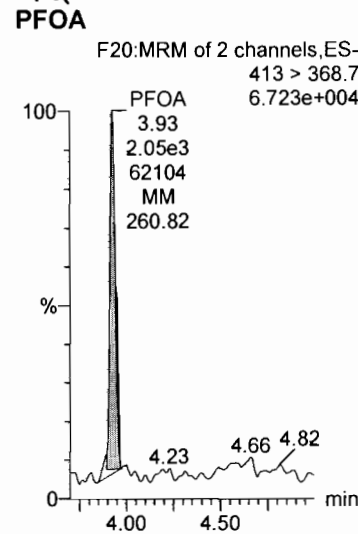
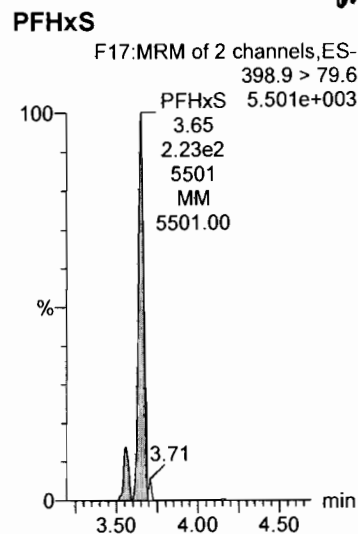
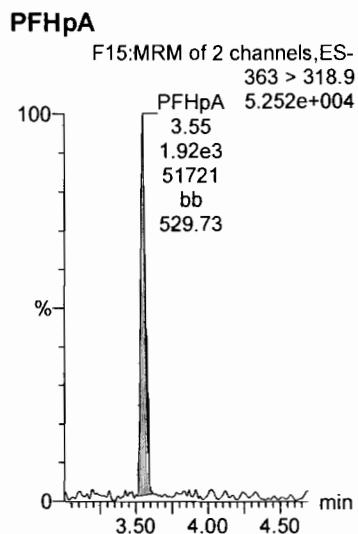
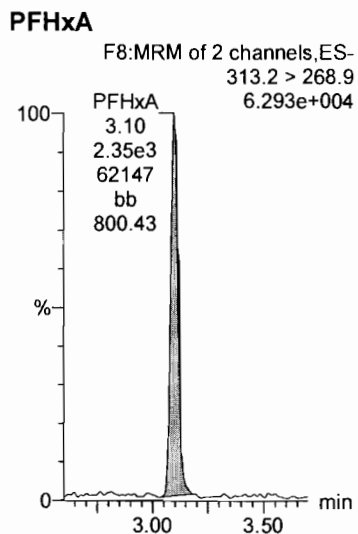
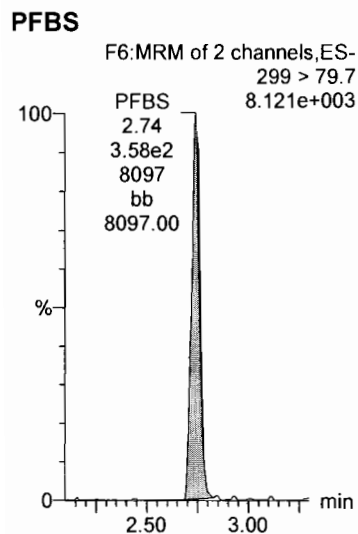
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_3, Date: 07-Apr-2018, Time: 14:50:51, ID: ST180407M3-2 PFC CS-2 537 18C2902, Description: PFC CS-2 537 18C2902

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PFOA

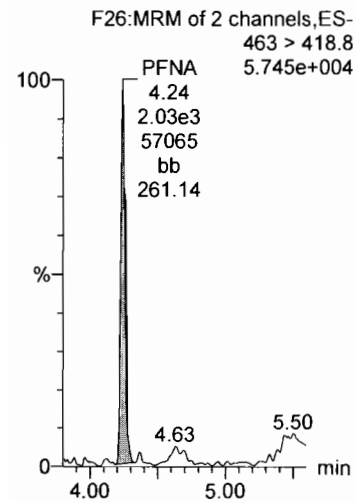


Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

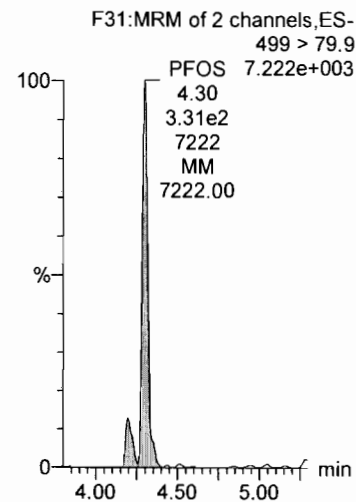
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_3, Date: 07-Apr-2018, Time: 14:50:51, ID: ST180407M3-2 PFC CS-2 537 18C2902, Description: PFC CS-1 18C2902

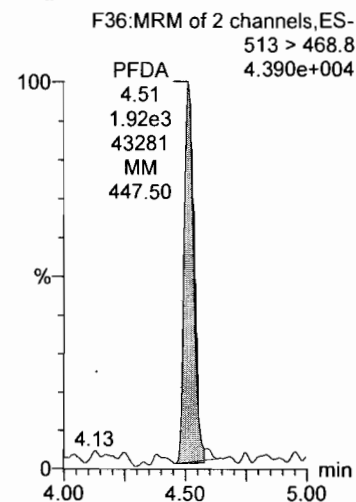
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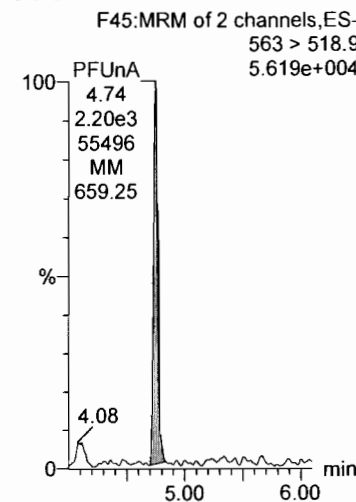
PFOS



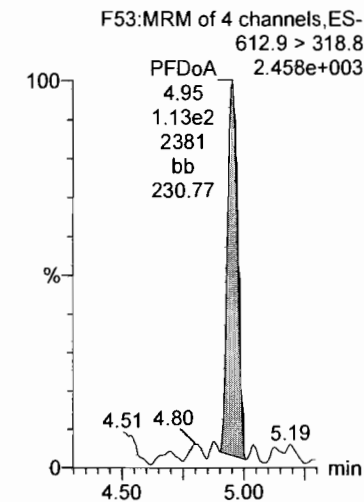
PFDA



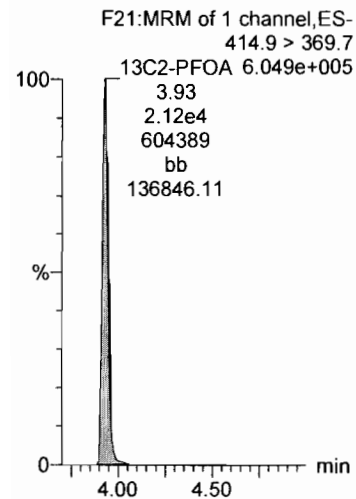
PFUnA



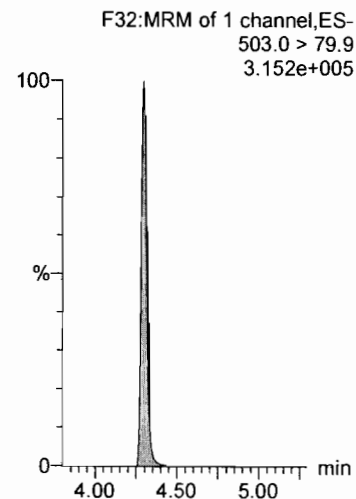
PFDoA



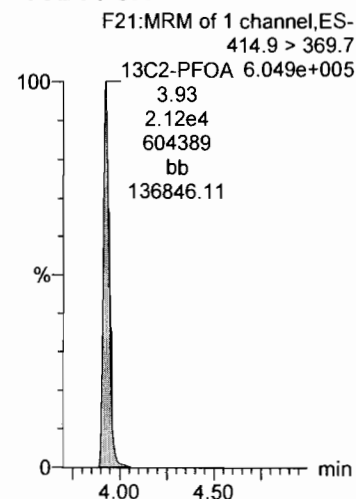
13C2-PFOA



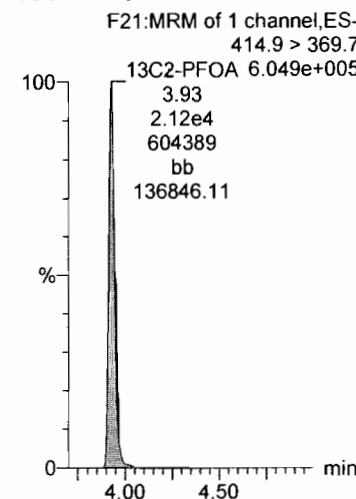
13C4-PFOS



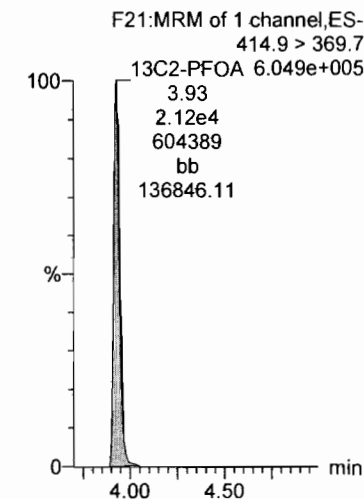
13C2-PFOA



13C2-PFOA



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

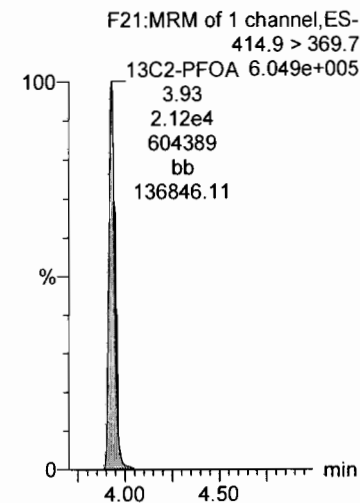
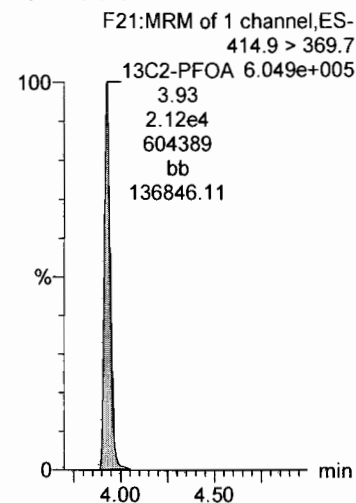
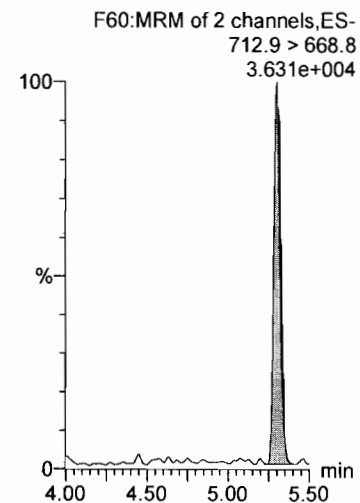
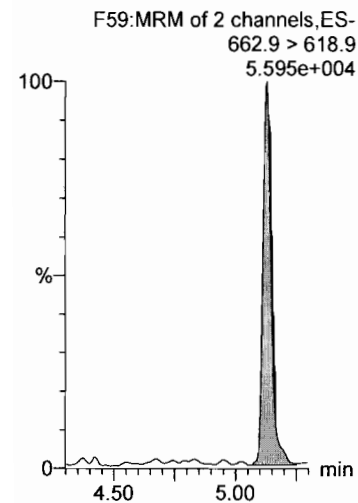
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PFTrDA

PFTeDA

13C2-PFOA

13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

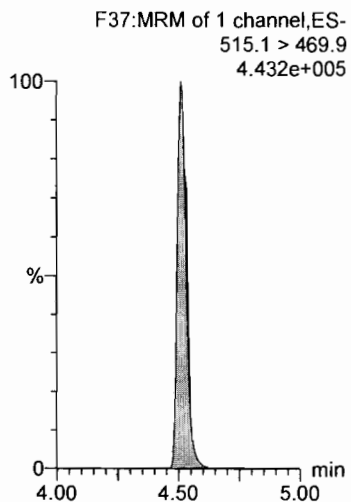
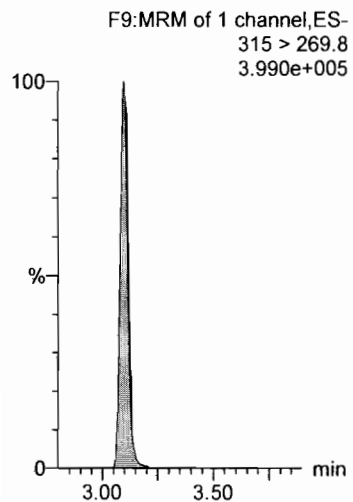
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_3, Date: 07-Apr-2018, Time: 14:50:51, ID: ST180407M3-2 PFC CS-2 537 18C2902, Description: PFC CS-1 18C2902

13C2-PFHxA

13C2-PFDA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

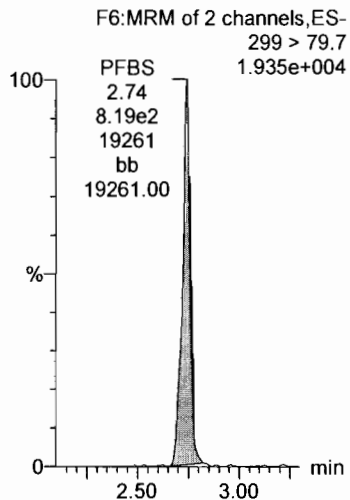
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

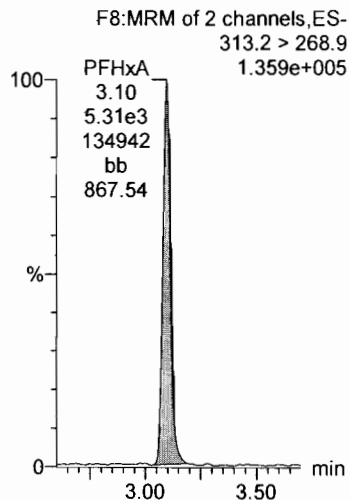
Name: 180407M3_4, Date: 07-Apr-2018, Time: 15:02:17, ID: ST180407M3-3 PFC CS-1 537 18D0504, Description: PFC CS-1 537 18D0504

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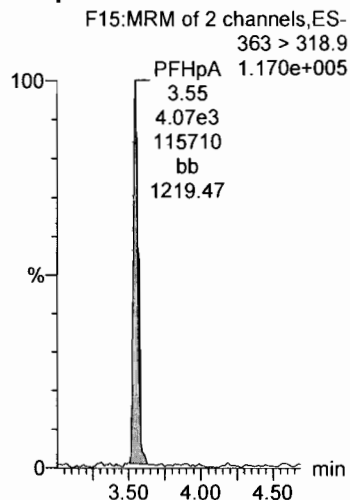
PFBS



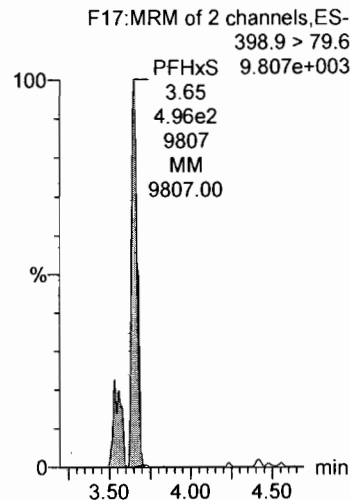
PFHxA



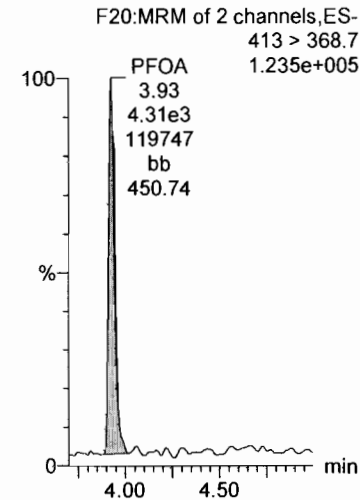
PFHpA



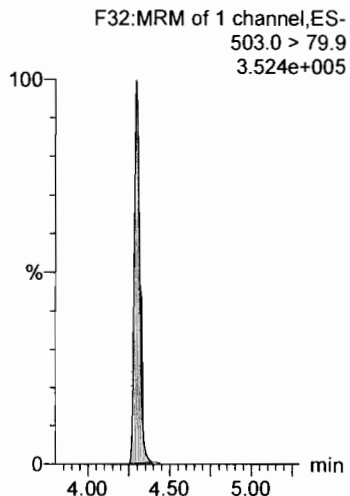
PFHxS



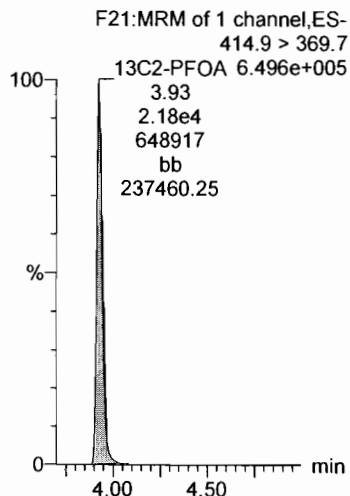
PFOA



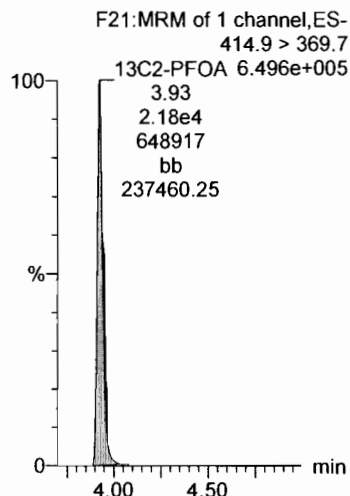
13C4-PFOS



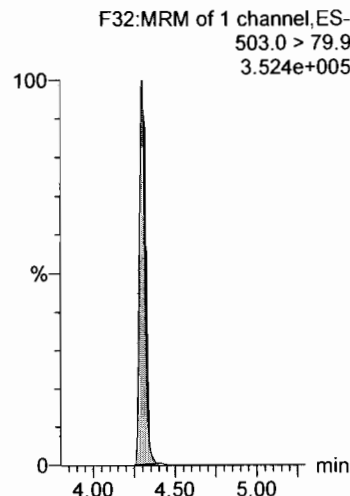
13C2-PFOA



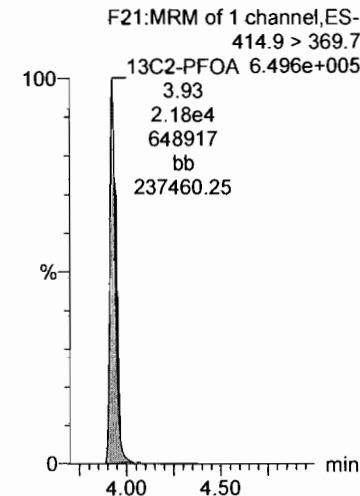
13C2-PFOA



13C4-PFOS



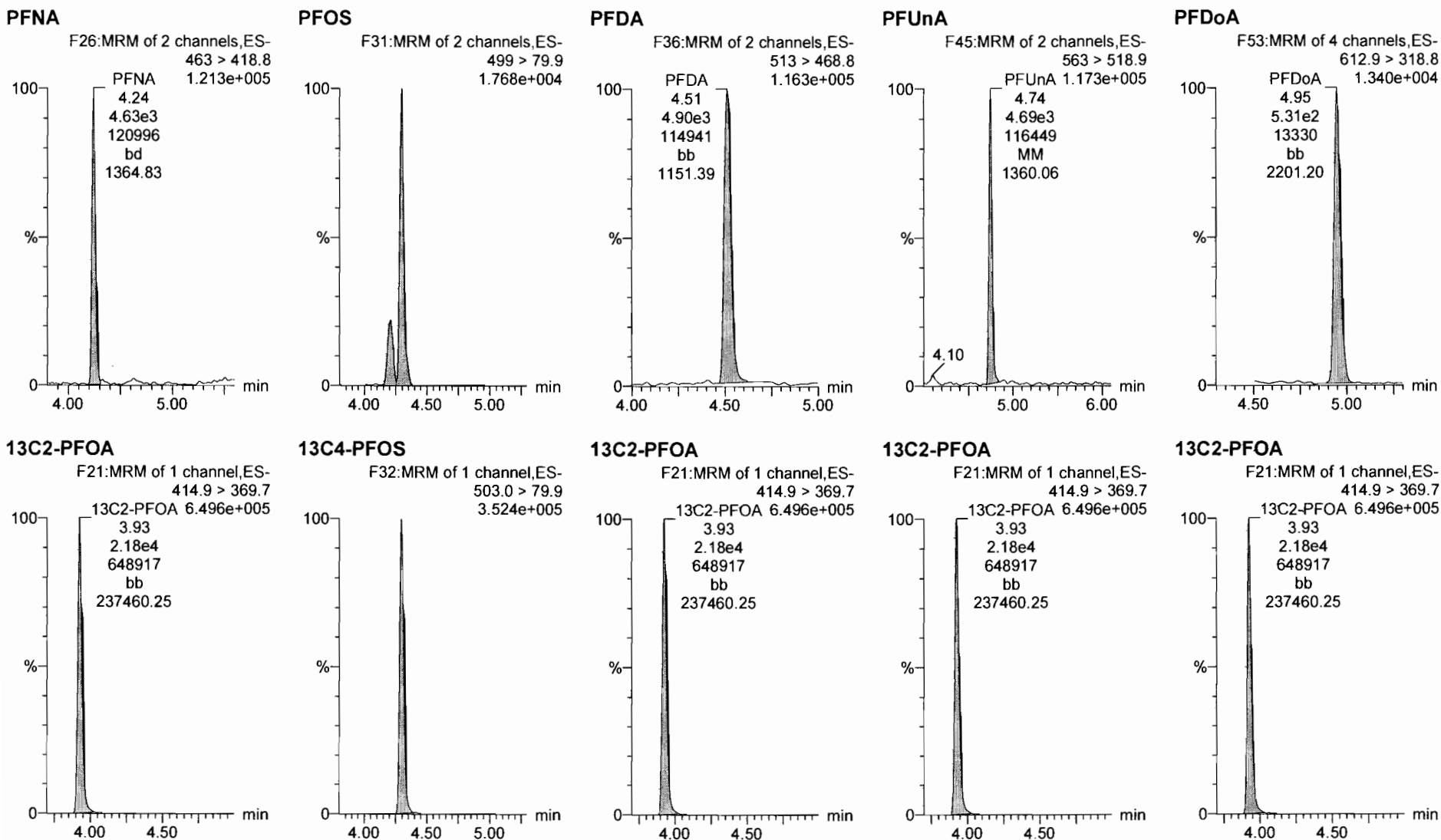
13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_4, Date: 07-Apr-2018, Time: 15:02:17, ID: ST180407M3-3 PFC CS-1 537 18D0504, Description: PFC CS0 18D0504

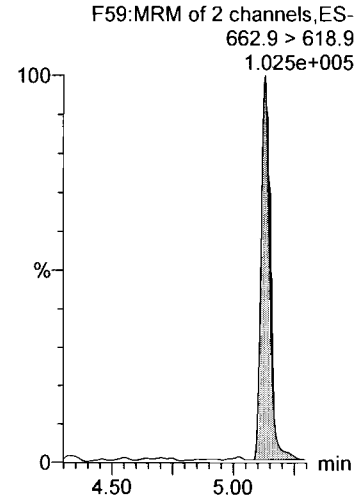


Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

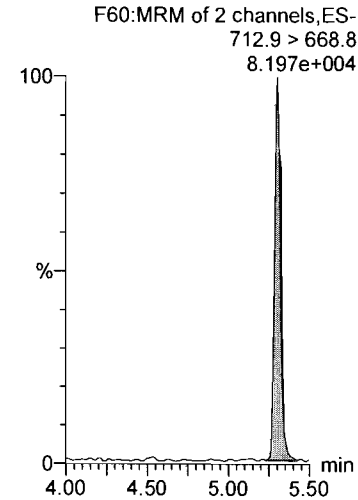
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_4, Date: 07-Apr-2018, Time: 15:02:17, ID: ST180407M3-3 PFC CS-1 537 18D0504, Description: PFC CS0 18D0504

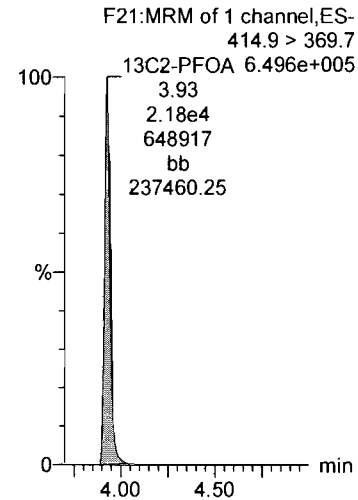
PFTrDA



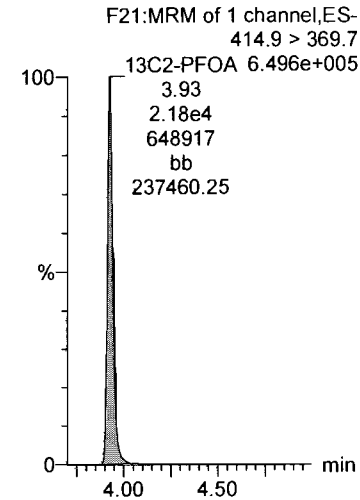
PFTeDA



13C2-PFOA



13C2-PFOA



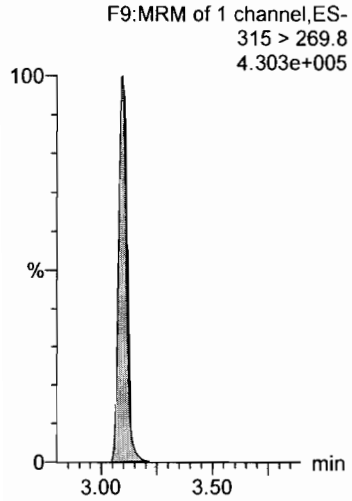
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

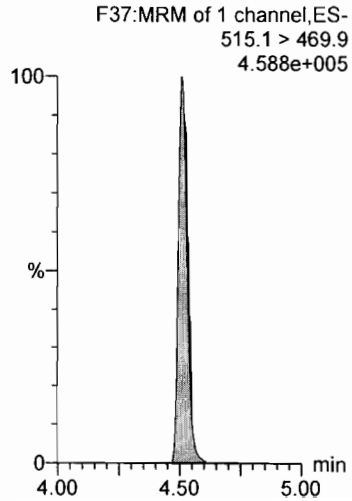
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_4, Date: 07-Apr-2018, Time: 15:02:17, ID: ST180407M3-3 PFC CS-1 537 18D0504, Description: PFC CS0 18D0504

13C2-PFHxA



13C2-PFDA



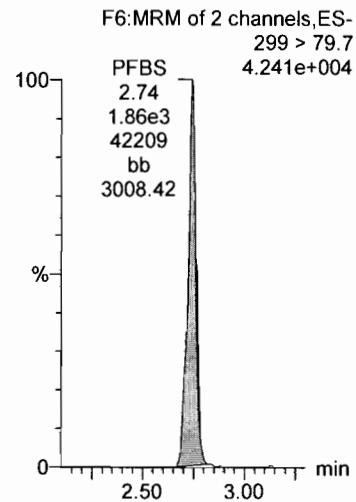
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

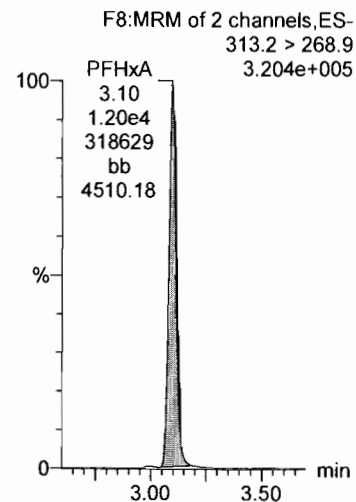
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_5, Date: 07-Apr-2018, Time: 15:13:44, ID: ST180407M3-4 PFC CS0 537 18C2904, Description: PFC CS0 18C2904

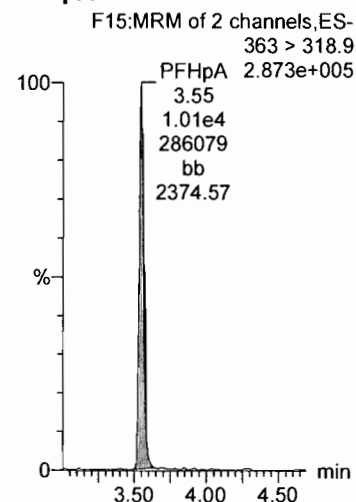
PFBS



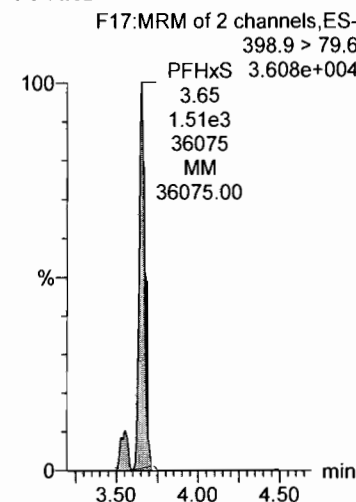
PFHxA



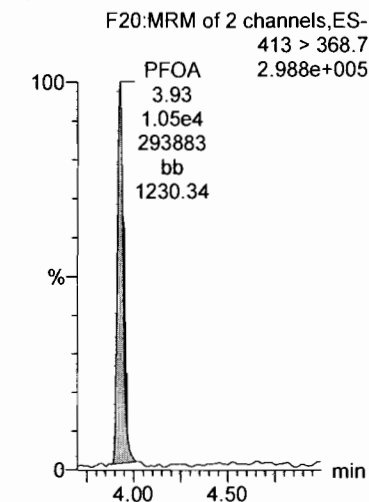
PFHpA



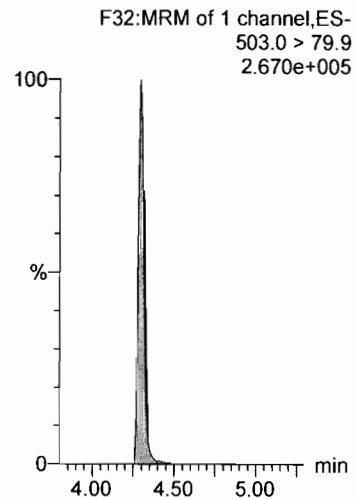
PFHxS



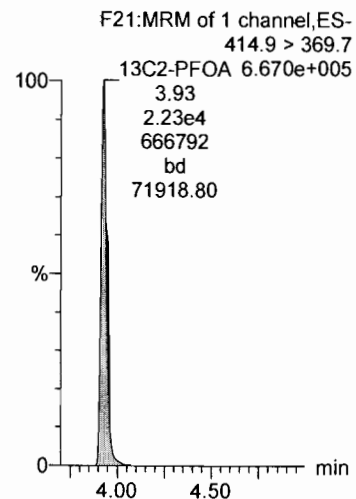
PFOA



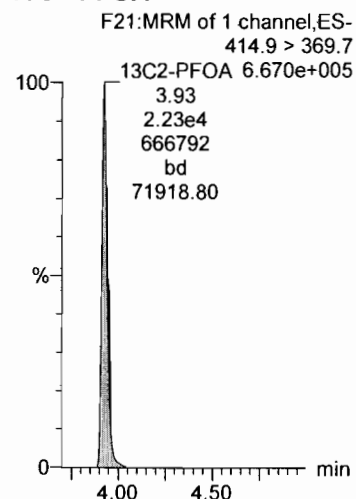
13C4-PFOS



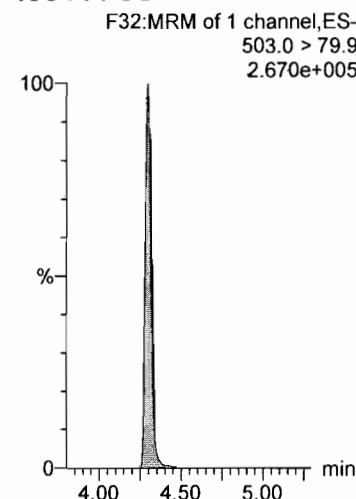
13C2-PFOA



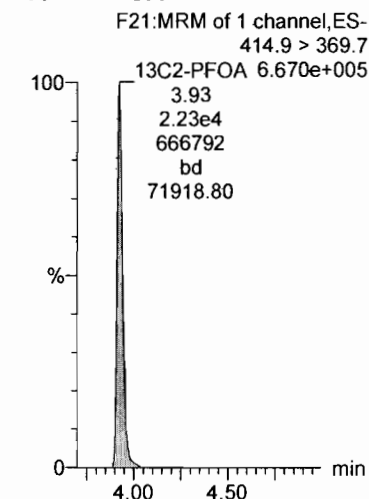
13C2-PFOA



13C4-PFOS



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

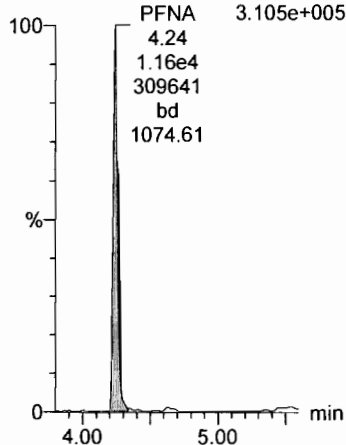
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Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_5, Date: 07-Apr-2018, Time: 15:13:44, ID: ST180407M3-4 PFC CS0 537 18C2904, Description: PFC CS0 18C2904

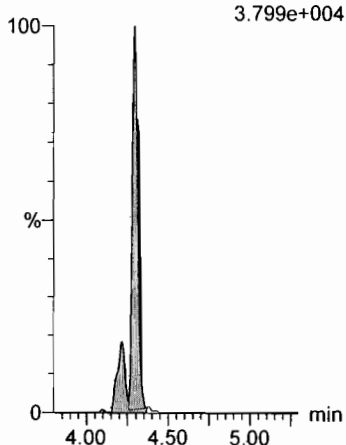
PFNA

F26:MRM of 2 channels,ES-
463 > 418.8
3.105e+005



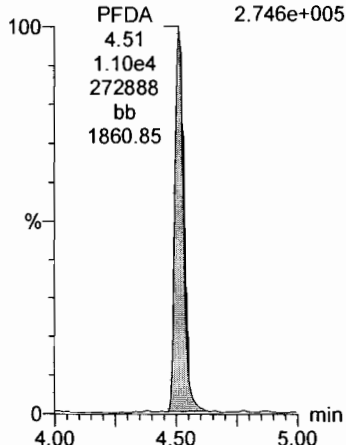
PFOS

F31:MRM of 2 channels,ES-
499 > 79.9
3.799e+004



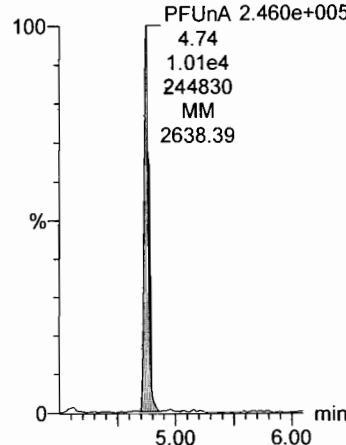
PFDA

F36:MRM of 2 channels,ES-
513 > 468.8
2.746e+005



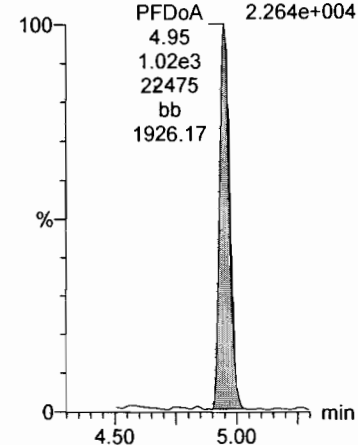
PFUnA

F45:MRM of 2 channels,ES-
563 > 518.9
2.460e+005



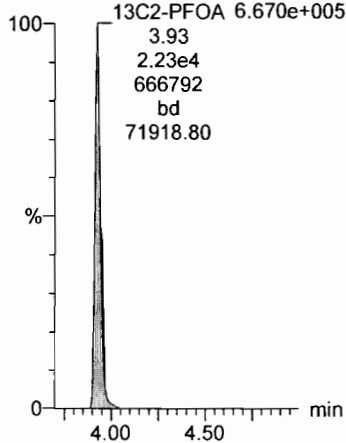
PFDoA

F53:MRM of 4 channels,ES-
612.9 > 318.8
2.264e+004



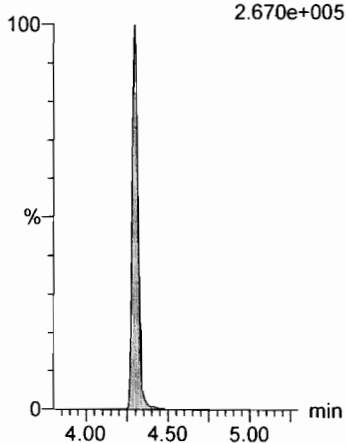
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.670e+005



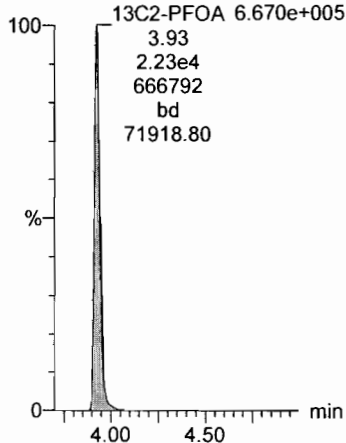
13C4-PFOS

F32:MRM of 1 channel,ES-
503.0 > 79.9
2.670e+005



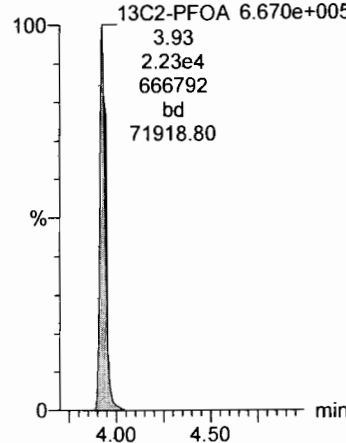
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.670e+005



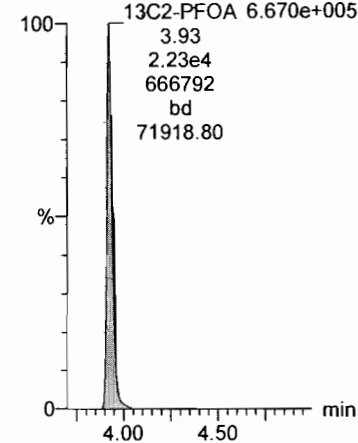
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.670e+005



13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.670e+005



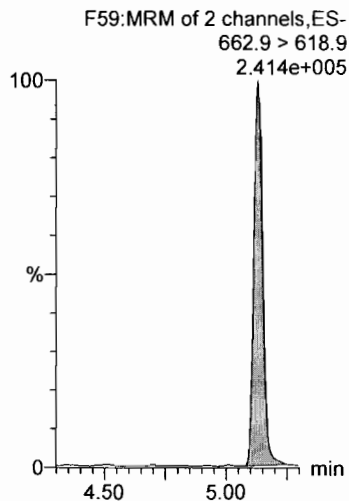
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

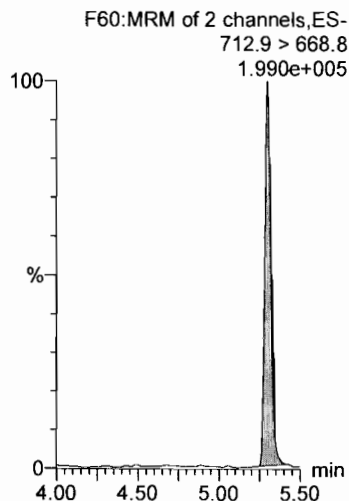
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_5, Date: 07-Apr-2018, Time: 15:13:44, ID: ST180407M3-4 PFC CS0 537 18C2904, Description: PFC CS0 18C2904

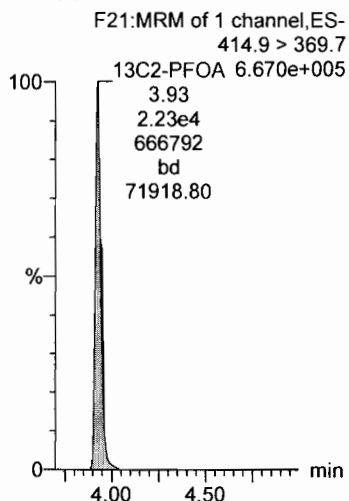
PFTrDA



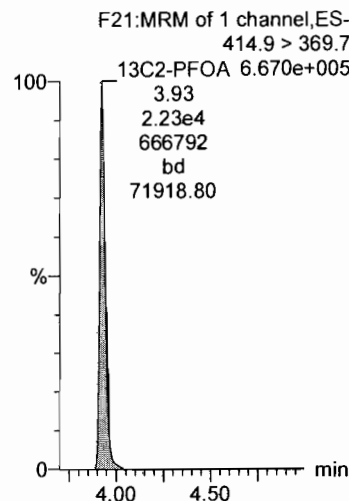
PFTeDA



13C2-PFOA



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

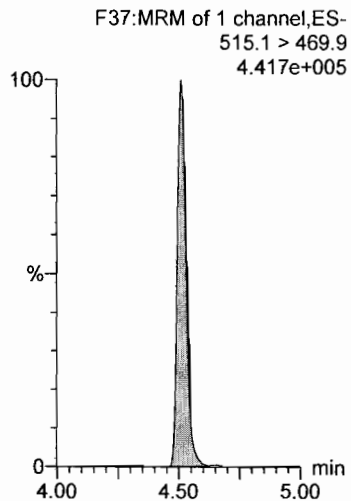
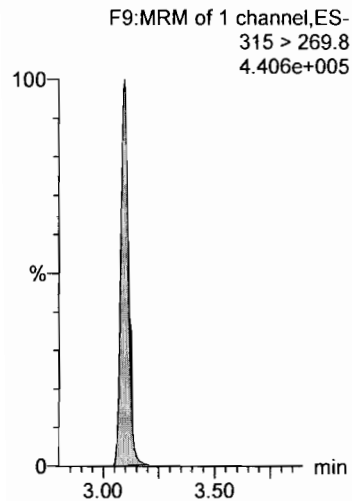
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_5, Date: 07-Apr-2018, Time: 15:13:44, ID: ST180407M3-4 PFC CS0 537 18C2904, Description: PFC CS0 18C2904

13C2-PFHxA

13C2-PFDA



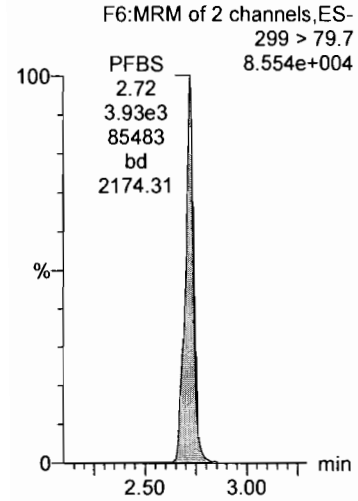
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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

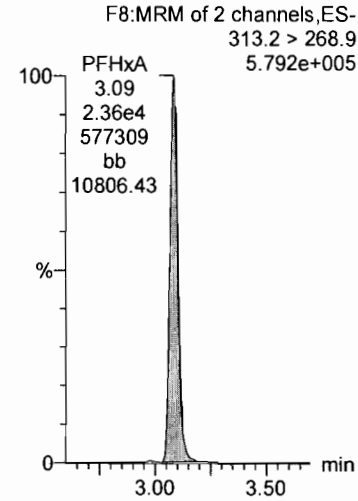
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_7, Date: 07-Apr-2018, Time: 15:28:53, ID: ST180407M3-5 PFC CS1 537 18C2905, Description: PFC CS1 537 18C2905

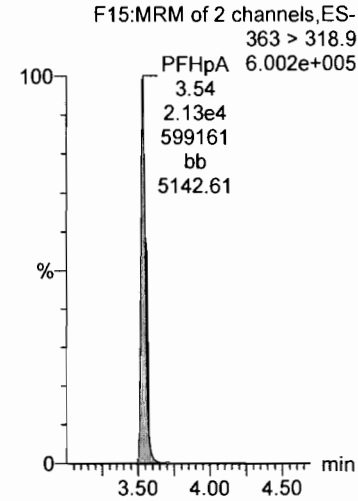
PFBS



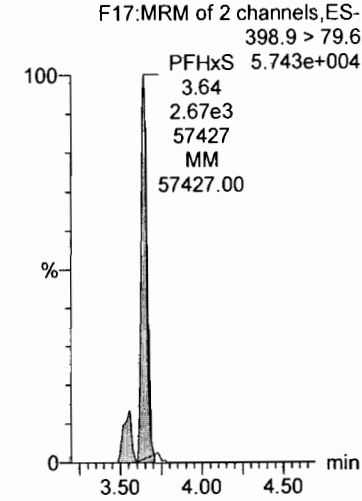
PFHxA



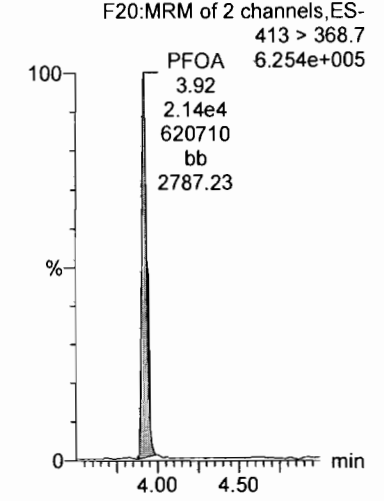
PFHpA



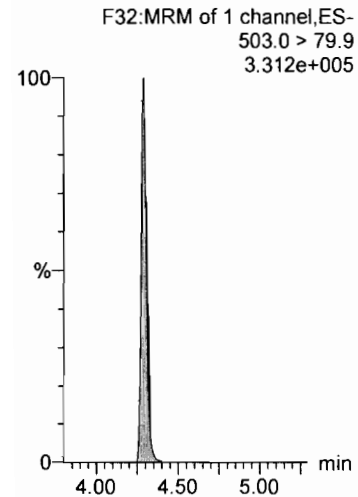
PFHxS



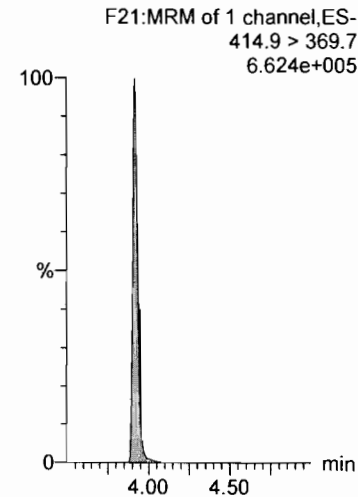
PFOA



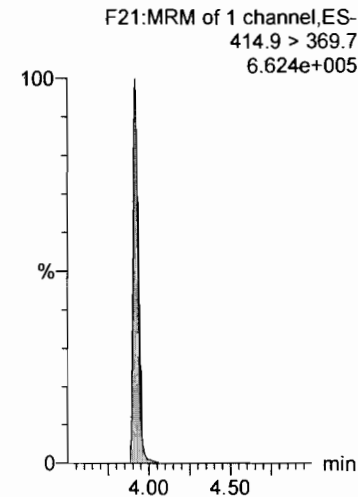
13C4-PFOS



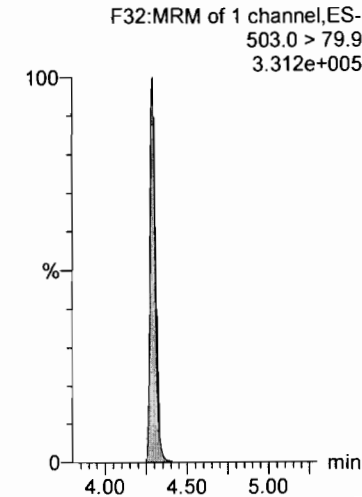
13C2-PFOA



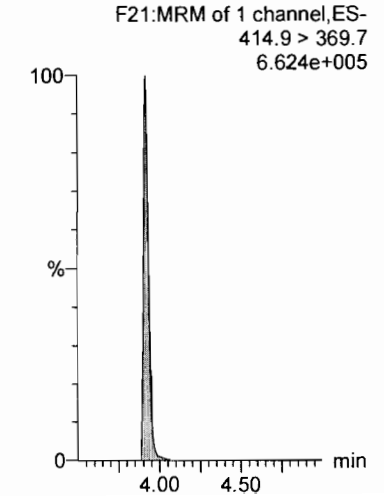
13C2-PFOA



13C4-PFOS



13C2-PFOA



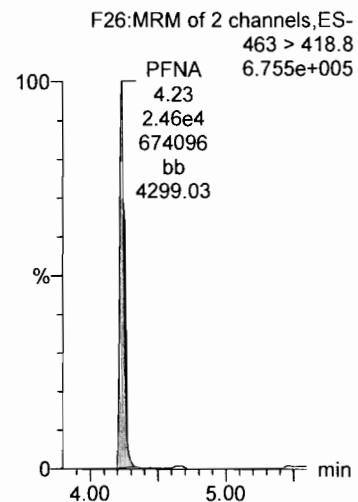
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

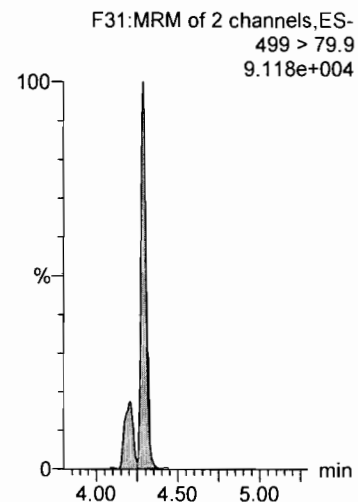
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Name: 180407M3_7, Date: 07-Apr-2018, Time: 15:28:53, ID: ST180407M3-5 PFC CS1 537 18C2905, Description: PFC CS1 537 18C2905

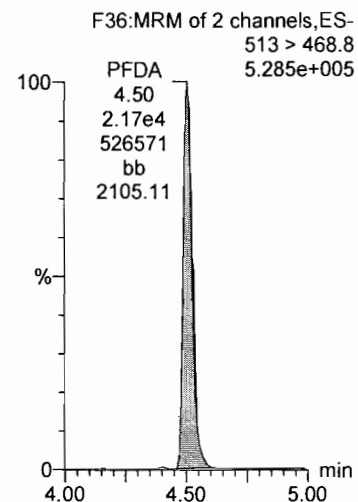
PFNA



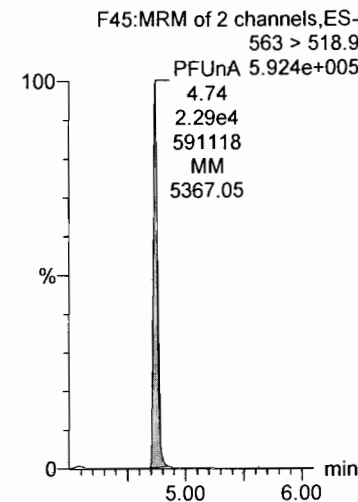
PFOS



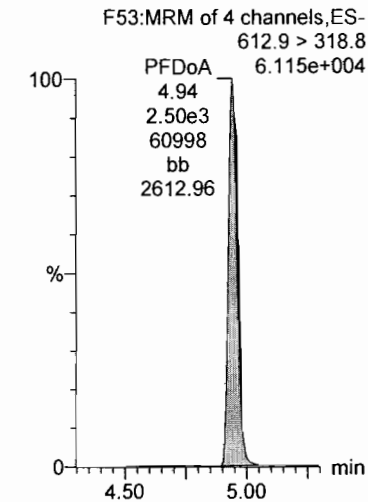
PFDA



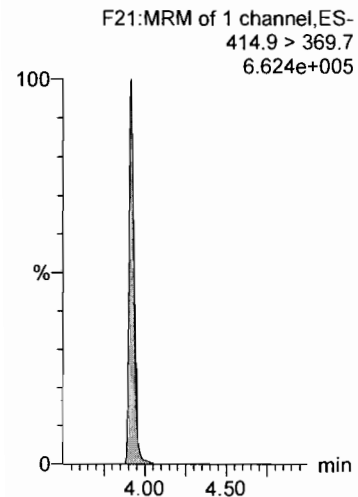
PFUnA



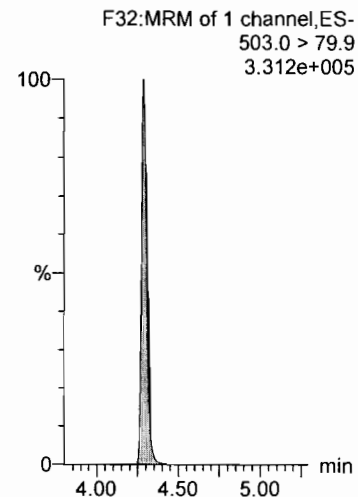
PFDoA



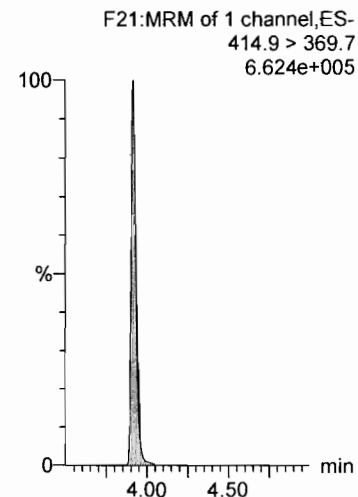
13C2-PFOA



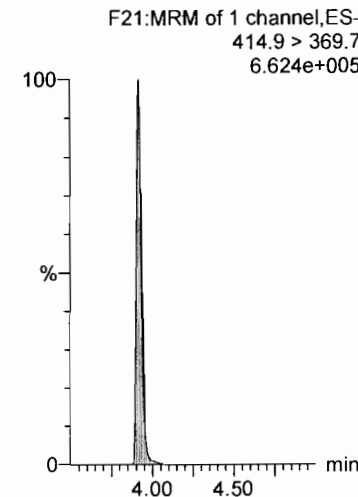
13C4-PFOS



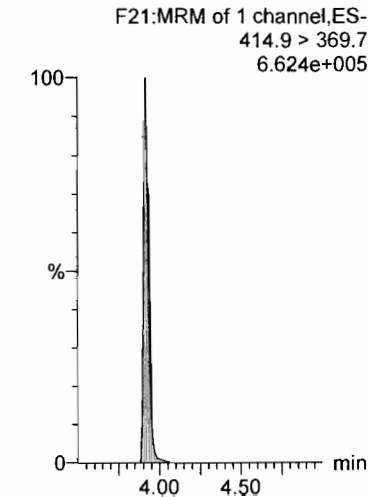
13C2-PFOA



13C2-PFOA



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

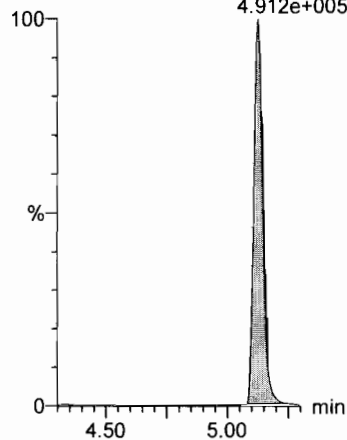
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_7, Date: 07-Apr-2018, Time: 15:28:53, ID: ST180407M3-5 PFC CS1 537 18C2905, Description: PFC CS1 537 18C2905

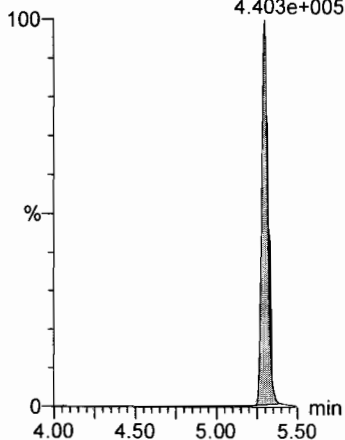
PFTrDA

F59:MRM of 2 channels,ES-
662.9 > 618.9
4.912e+005



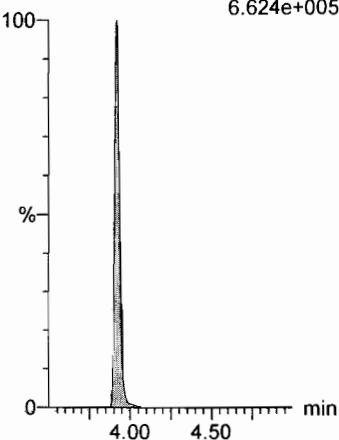
PFTeDA

F60:MRM of 2 channels,ES-
712.9 > 668.8
4.403e+005



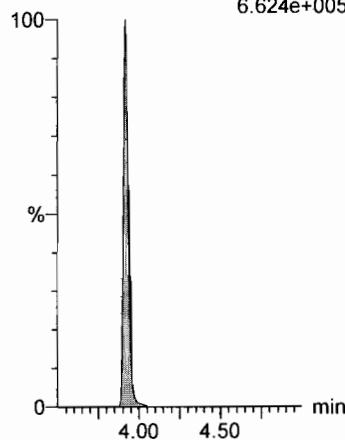
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.624e+005



13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.624e+005



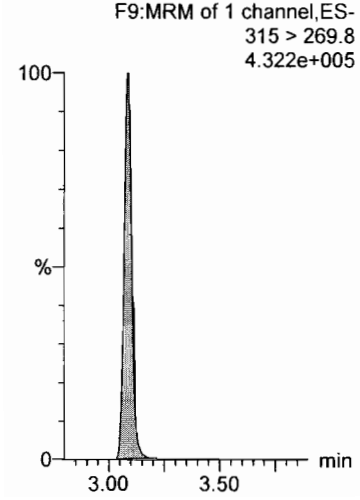
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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

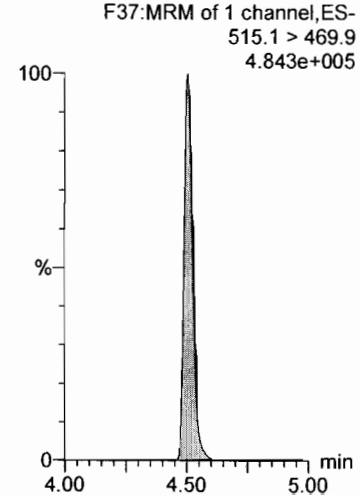
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_7, Date: 07-Apr-2018, Time: 15:28:53, ID: ST180407M3-5 PFC CS1 537 18C2905, Description: PFC CS1 537 18C2905

13C2-PFHxA



13C2-PFDA



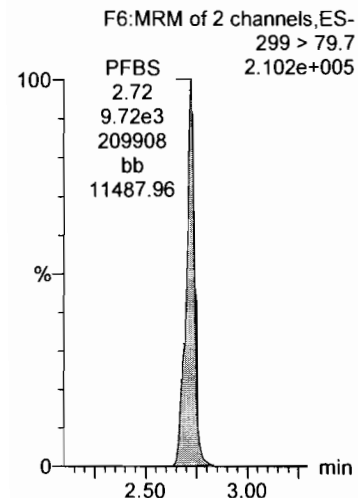
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

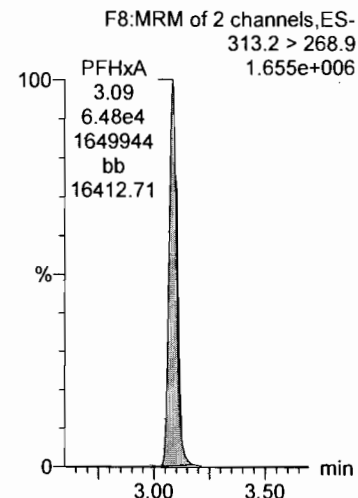
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_8, Date: 07-Apr-2018, Time: 15:41:48, ID: ST180407M3-6 PFC CS2 537 18D0503, Description: PFC CS2 18D0503

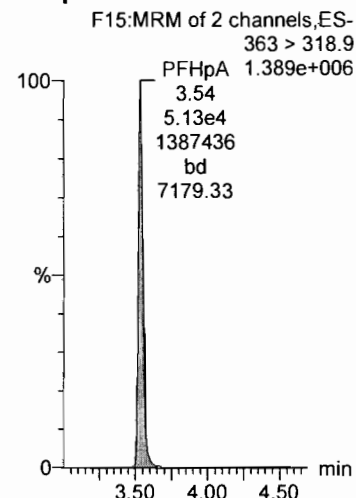
PFBS



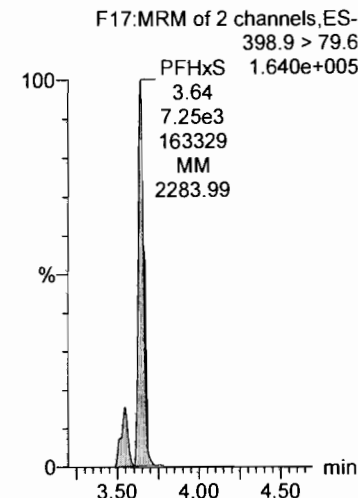
PFHxA



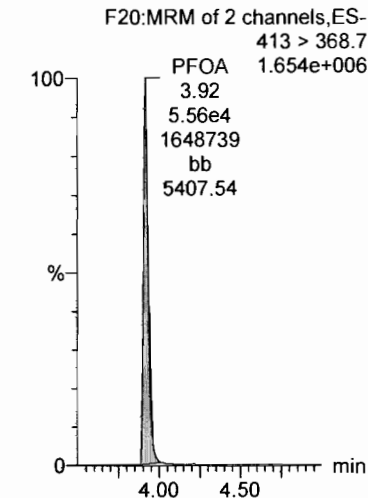
PFHpA



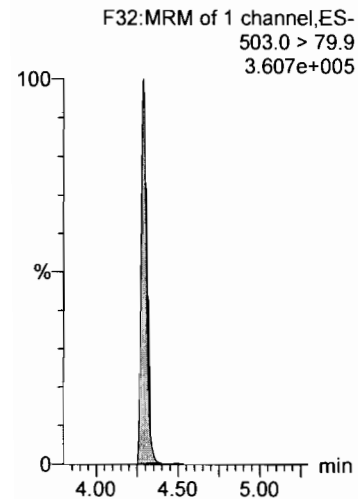
PFHxS



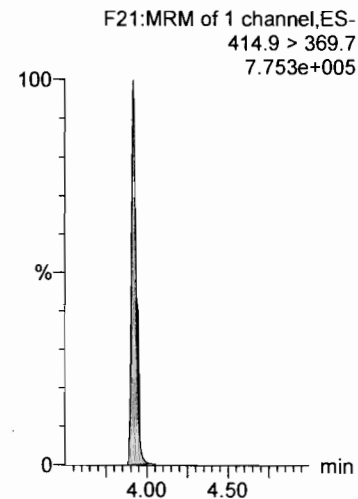
PFOA



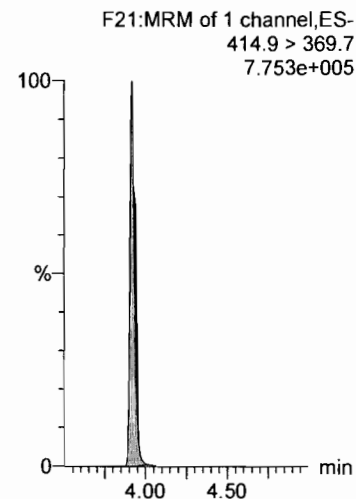
13C4-PFOS



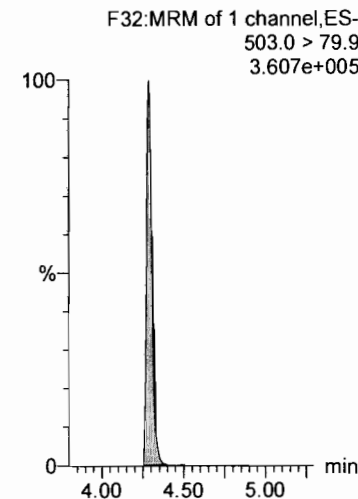
13C2-PFOA



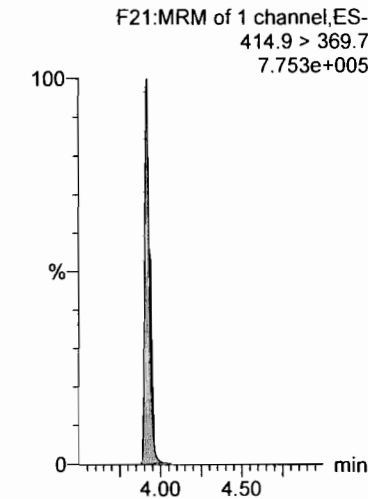
13C2-PFOA



13C4-PFOS



13C2-PFOA



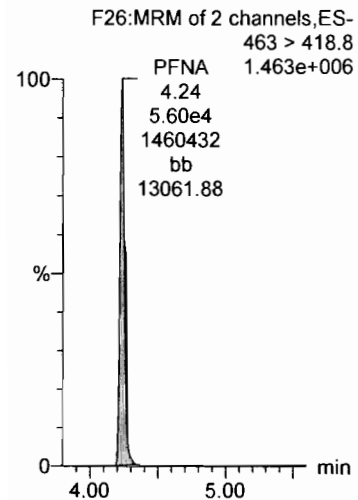
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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

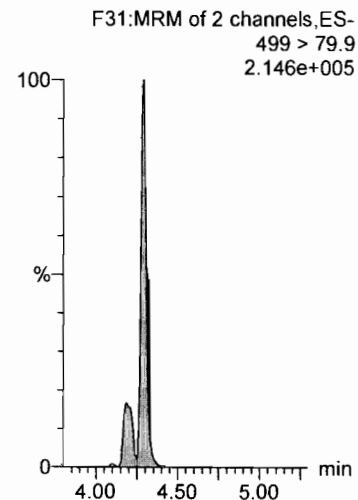
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_8, Date: 07-Apr-2018, Time: 15:41:48, ID: ST180407M3-6 PFC CS2 537 18D0503, Description: PFC CS2 18D0503

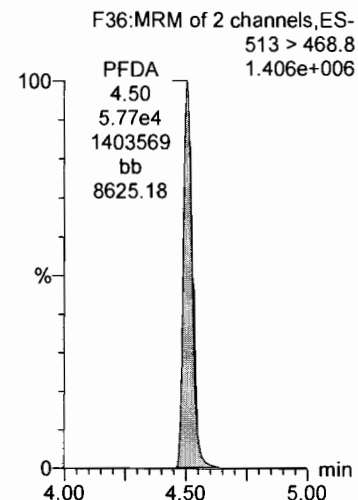
PFNA



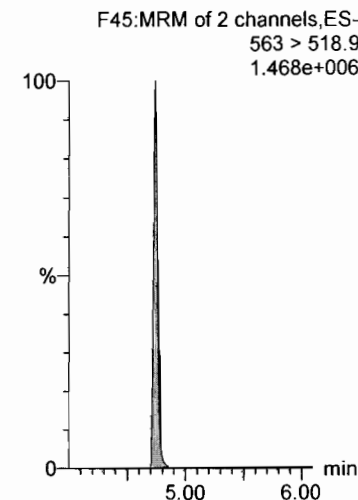
PFOS



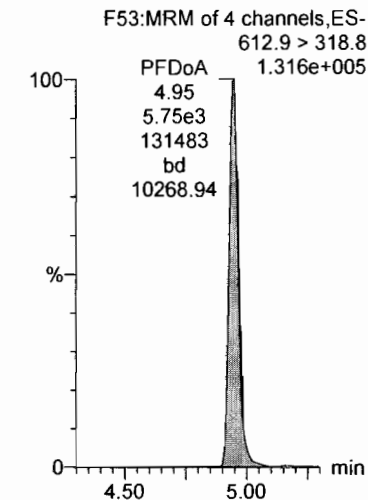
PFDA



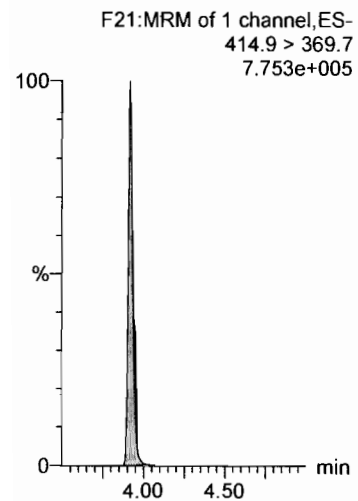
PFUnA



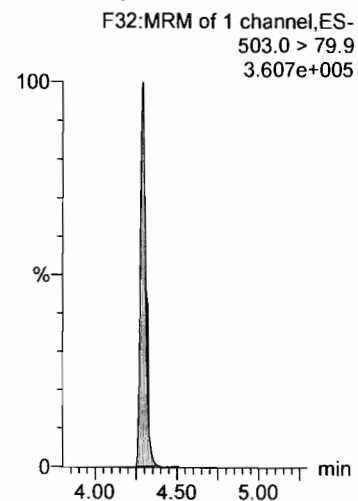
PFDaA



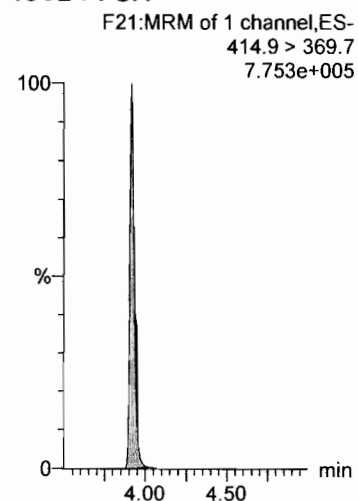
13C2-PFOA



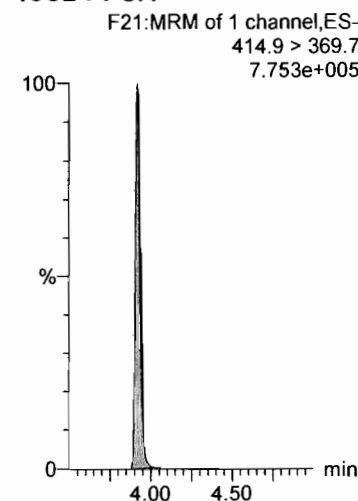
13C4-PFOS



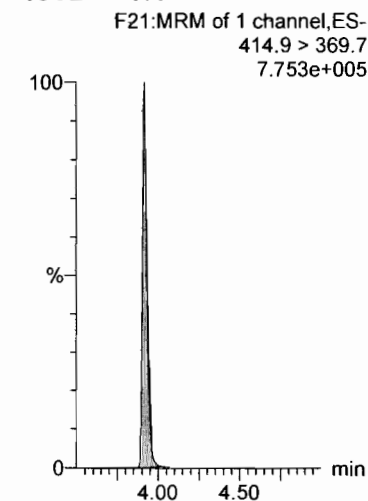
13C2-PFOA



13C2-PFOA



13C2-PFOA



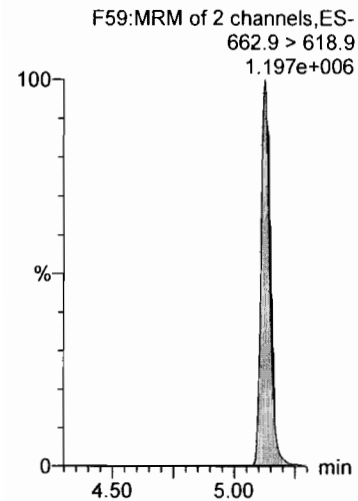
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

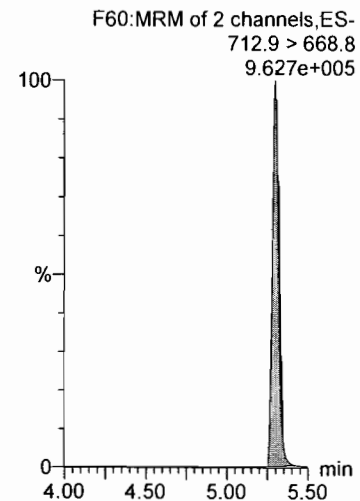
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Name: 180407M3_8, Date: 07-Apr-2018, Time: 15:41:48, ID: ST180407M3-6 PFC CS2 537 18D0503, Description: PFC CS2 18D0503

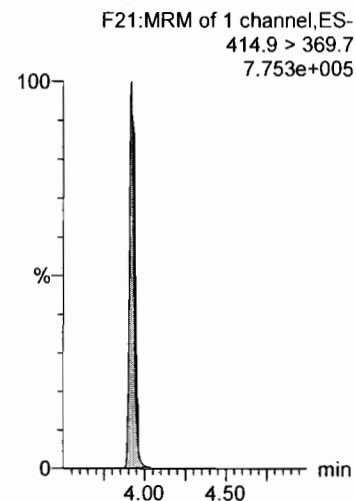
PFTrDA



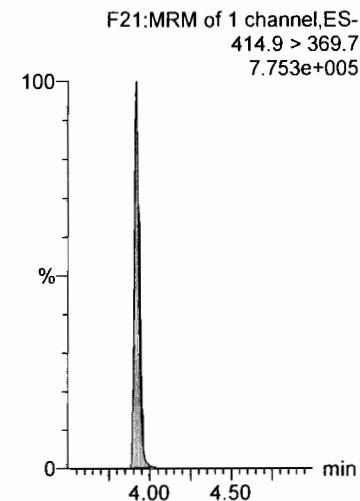
PFTeDA



13C2-PFOA



13C2-PFOA



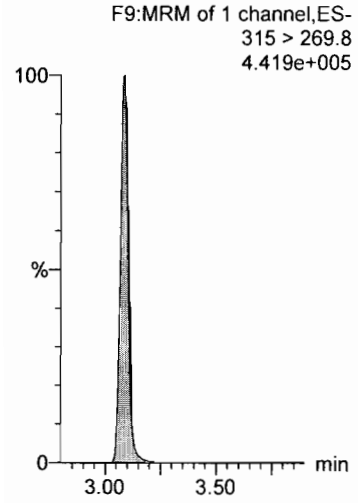
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

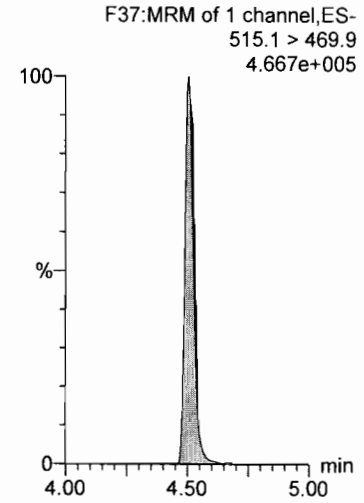
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_8, Date: 07-Apr-2018, Time: 15:41:48, ID: ST180407M3-6 PFC CS2 537 18D0503, Description: PFC CS2 18D0503

13C2-PFHxA



13C2-PFDA



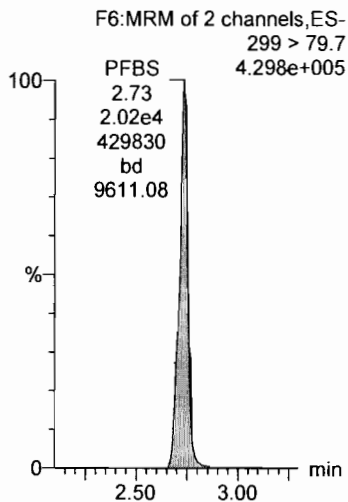
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

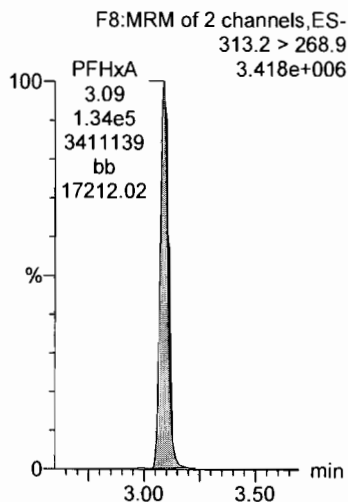
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_9, Date: 07-Apr-2018, Time: 15:53:12, ID: ST180407M3-7 PFC CS3 537 18C2907, Description: PFC CS3 18C2907

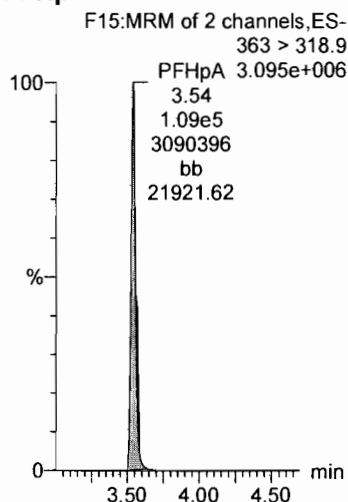
PFBS



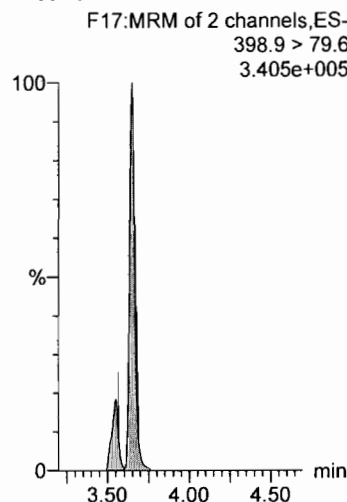
PFHxA



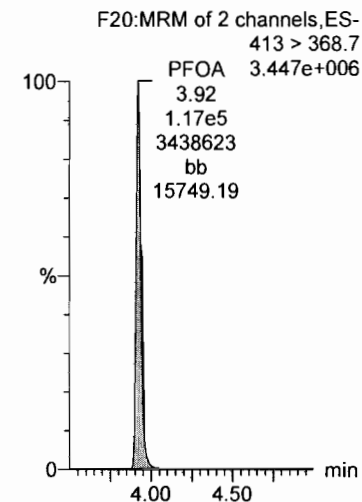
PFHpA



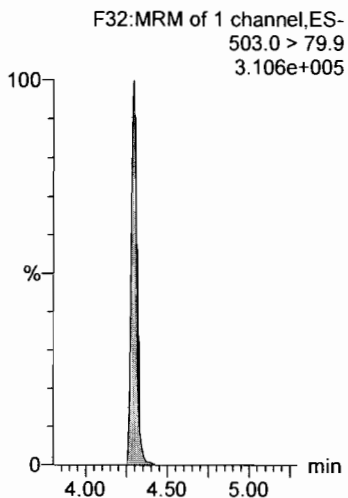
PFHxS



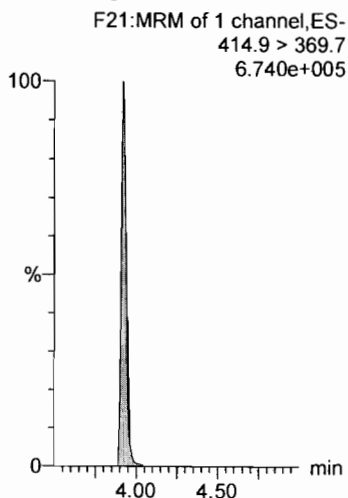
PFOA



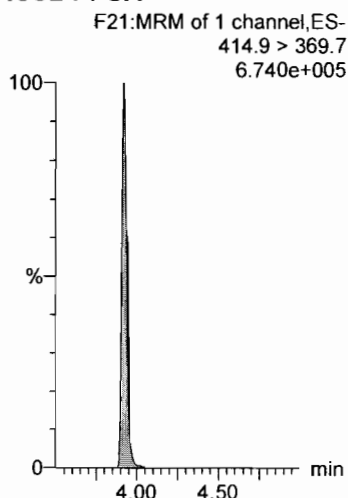
13C4-PFOS



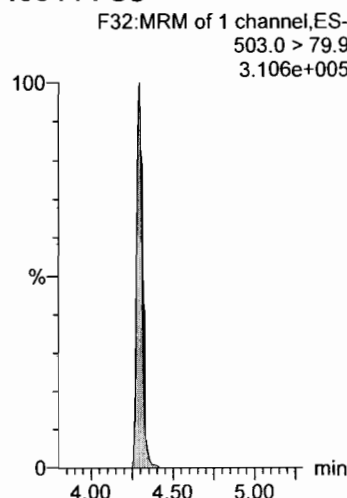
13C2-PFOA



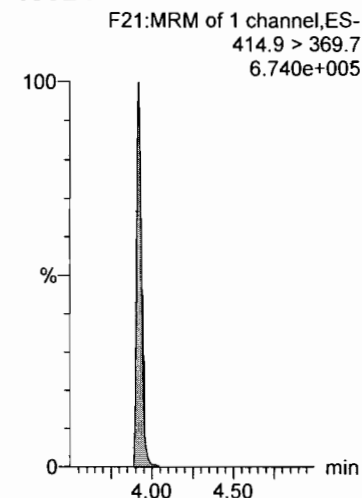
13C2-PFOA



13C4-PFOS



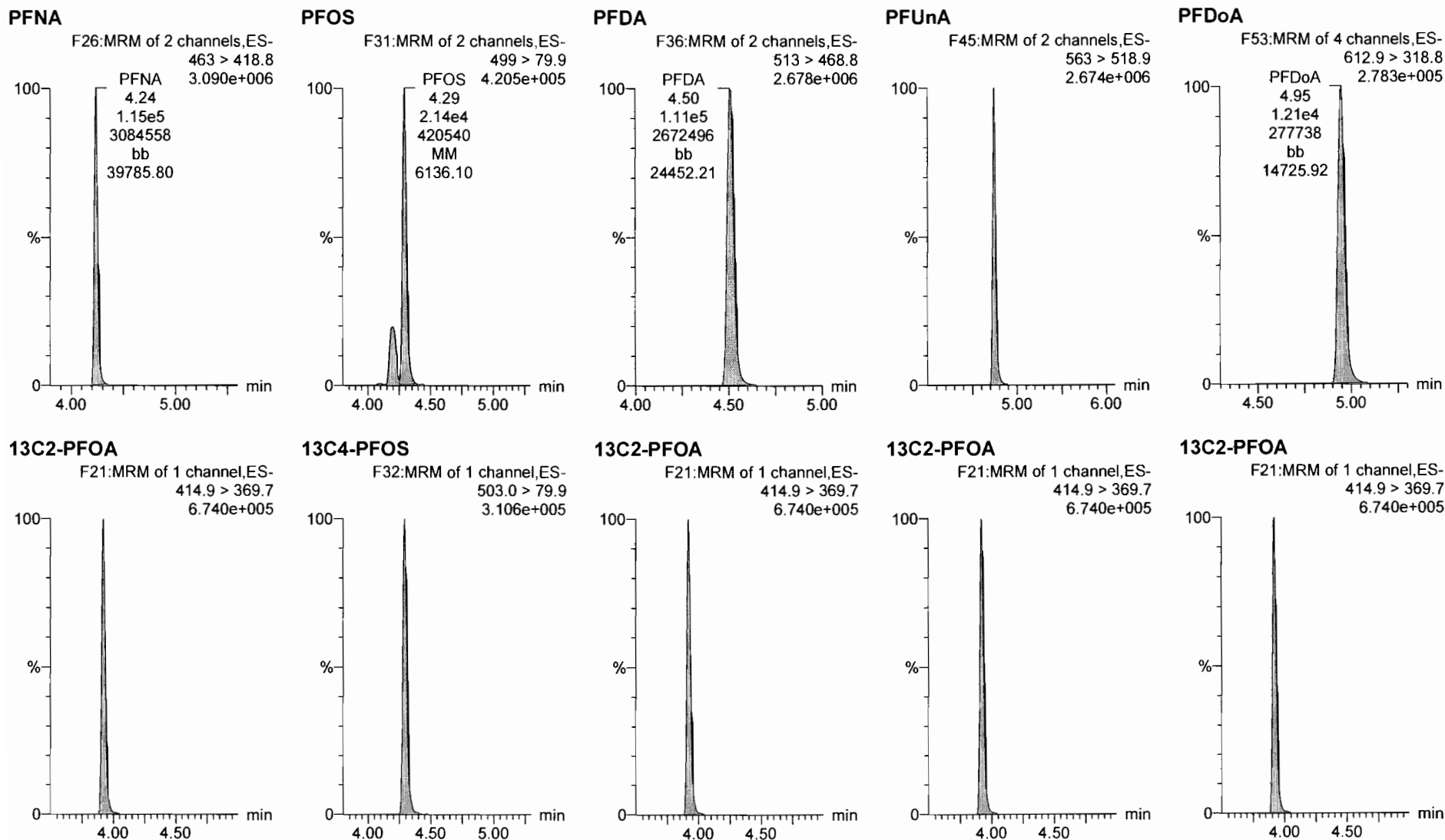
13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
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Name: 180407M3_9, Date: 07-Apr-2018, Time: 15:53:12, ID: ST180407M3-7 PFC CS3 537 18C2907, Description: PFC CS3 18C2907

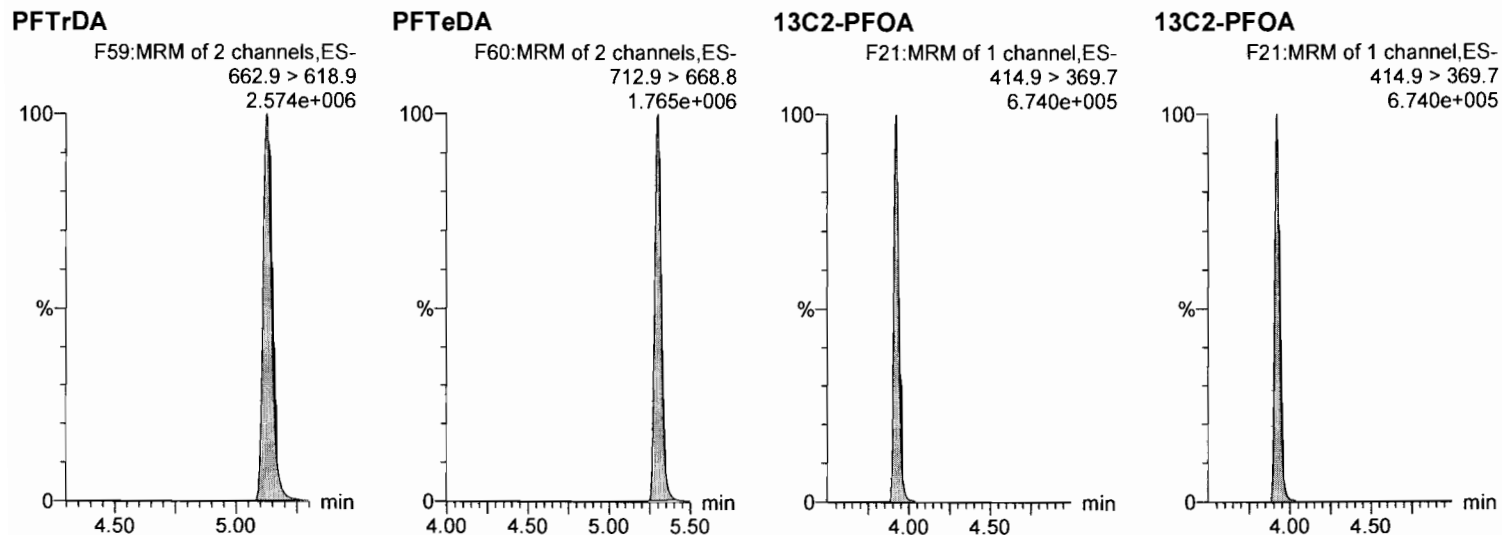


Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_9, Date: 07-Apr-2018, Time: 15:53:12, ID: ST180407M3-7 PFC CS3 537 18C2907, Description: PFC CS3 18C2907



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

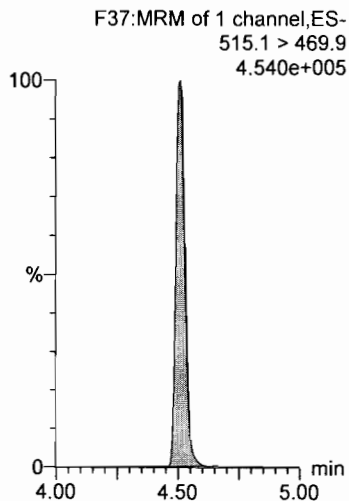
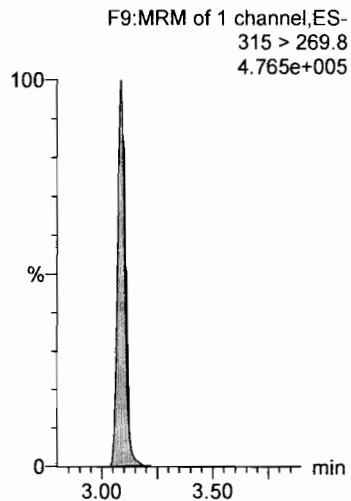
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_9, Date: 07-Apr-2018, Time: 15:53:12, ID: ST180407M3-7 PFC CS3 537 18C2907, Description: PFC CS3 18C2907

13C2-PFHxA

13C2-PFDA

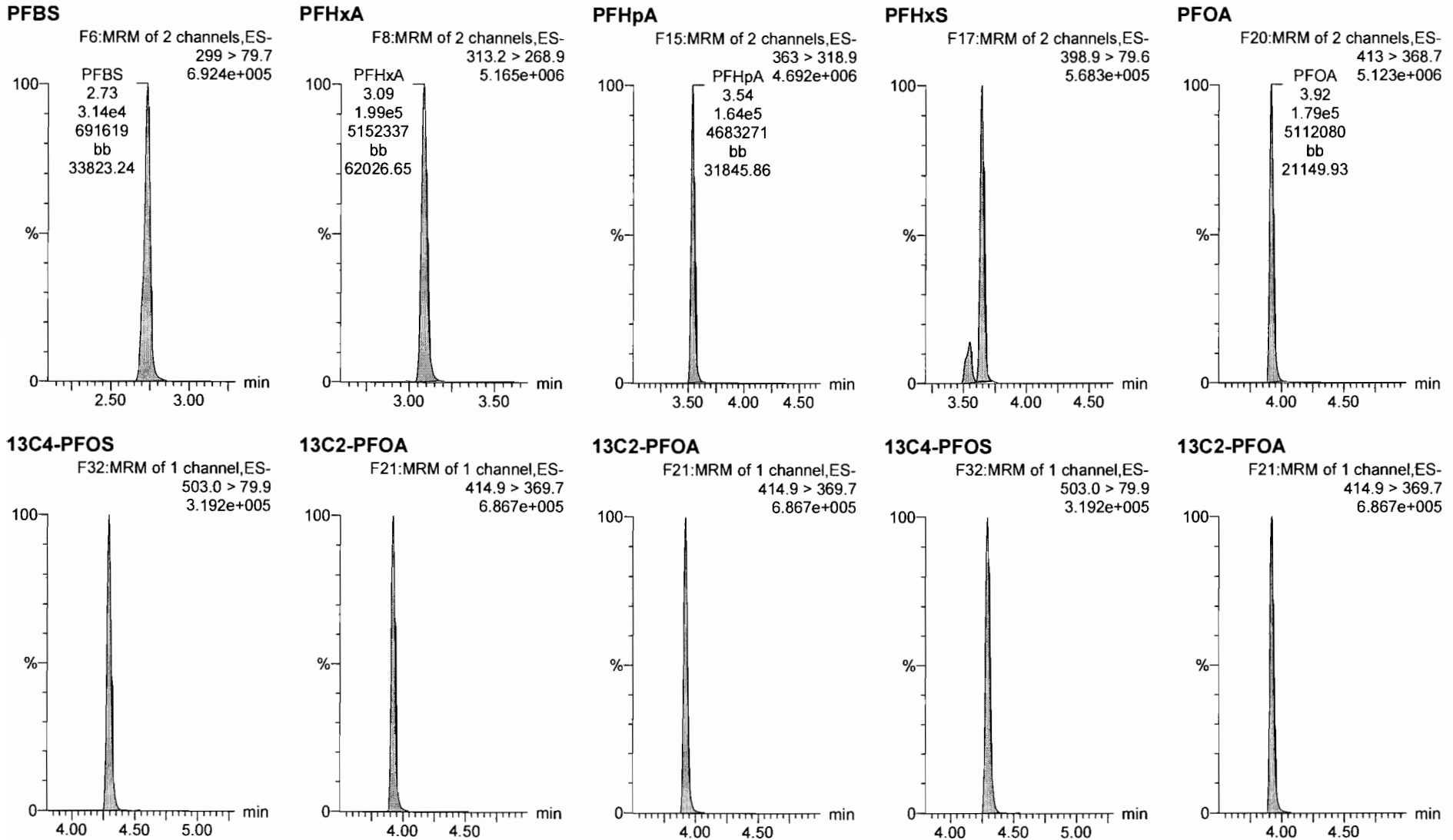


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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_10, Date: 07-Apr-2018, Time: 16:04:39, ID: ST180407M3-8 PFC CS4 537 18D0502, Description: PFC CS4 18D0502



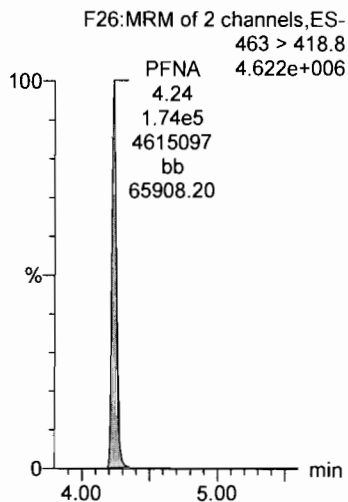
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

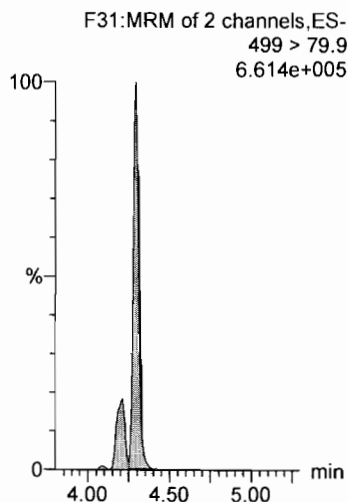
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

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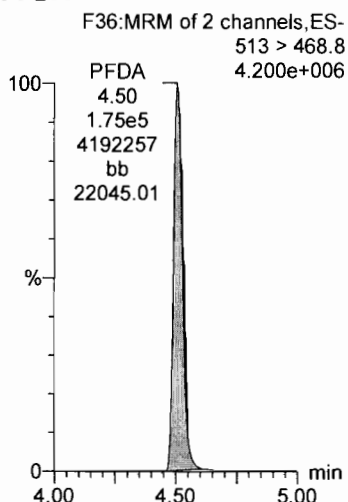
PFNA



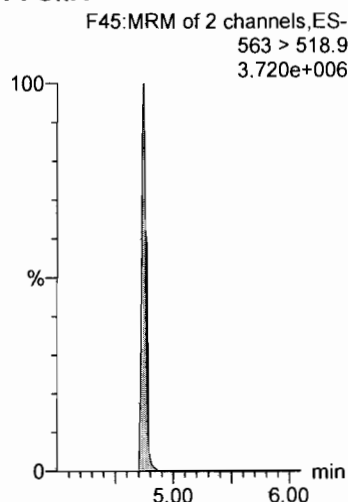
PFOS



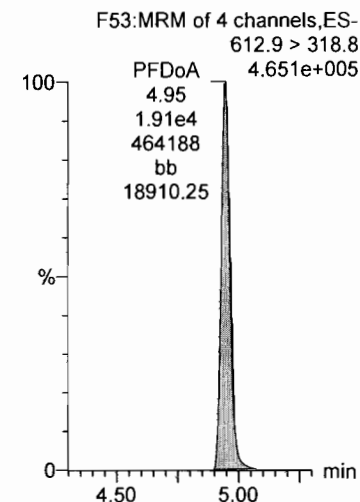
PFDA



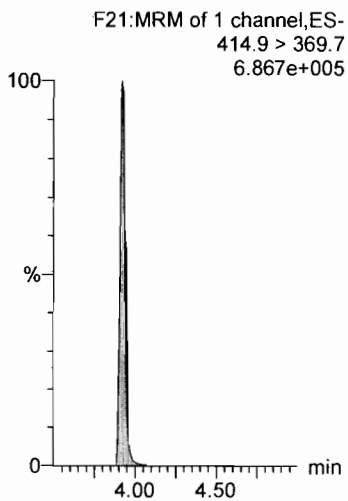
PFUnA



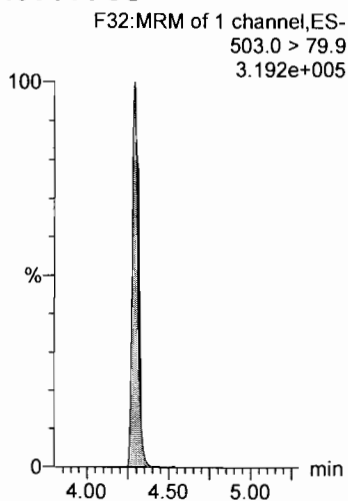
PFDoA



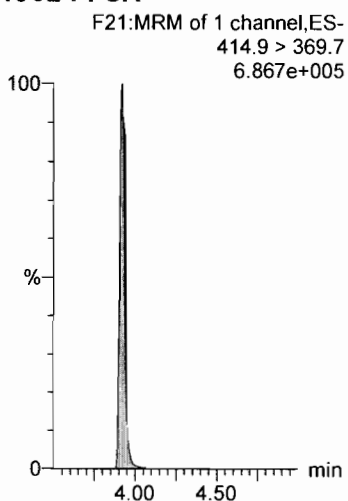
13C2-PFOA



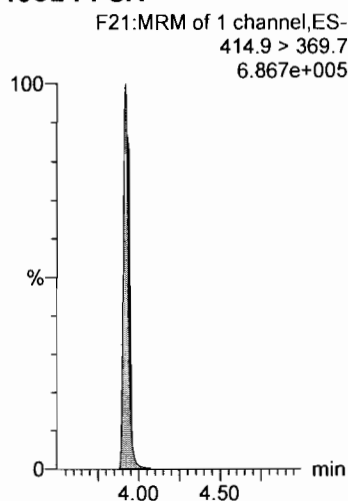
13C4-PFOS



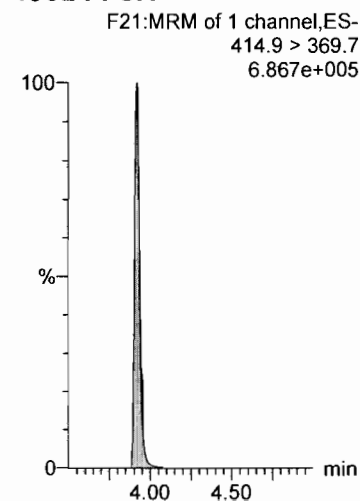
13C2-PFOA



13C2-PFOA



13C2-PFOA



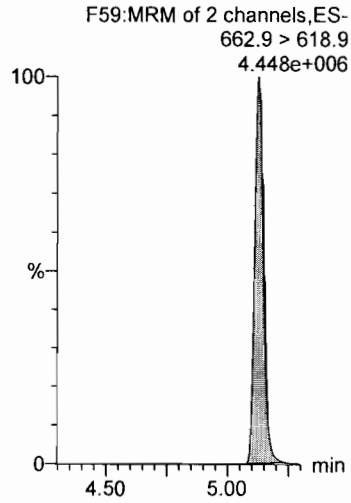
Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

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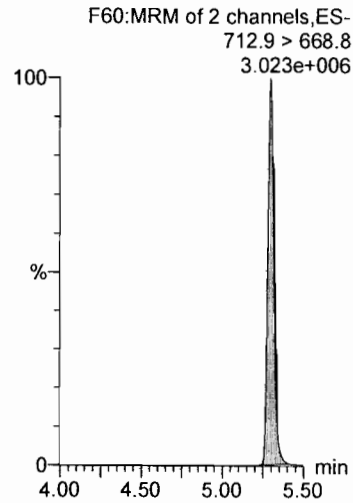
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_10, Date: 07-Apr-2018, Time: 16:04:39, ID: ST180407M3-8 PFC CS4 537 18D0502, Description: PFC CS4 18D0502

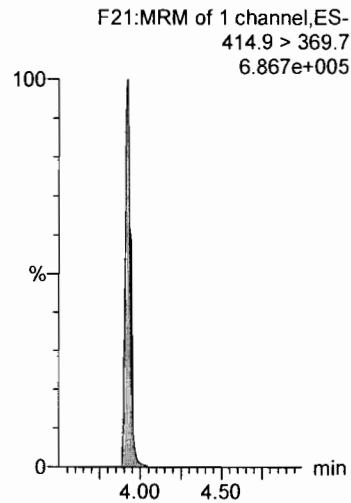
PFTeDA



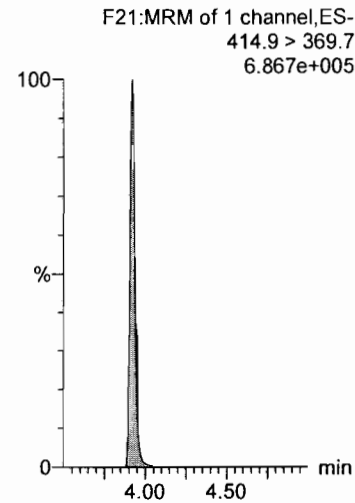
PFTeDA



13C2-PFOA



13C2-PFOA



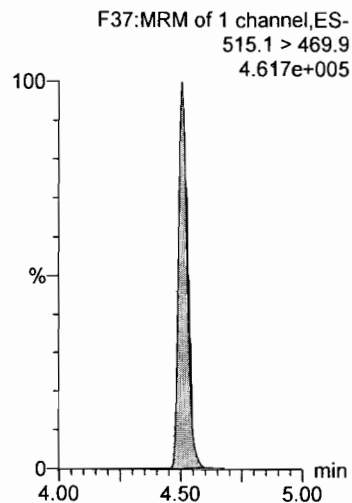
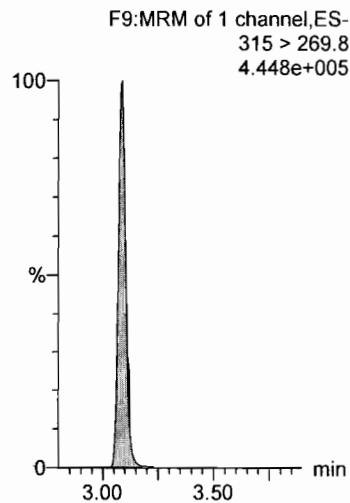
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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_10, Date: 07-Apr-2018, Time: 16:04:39, ID: ST180407M3-8 PFC CS4 537 18D0502, Description: PFC CS4 18D0502

13C2-PFHxA

13C2-PFDA



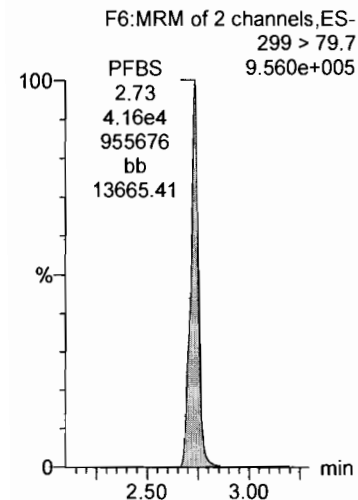
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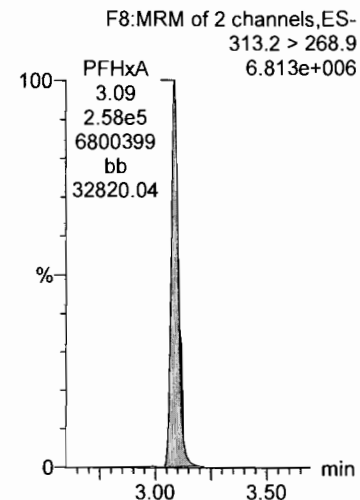
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_11, Date: 07-Apr-2018, Time: 16:16:08, ID: ST180407M3-9 PFC CS5 537 18C2909, Description: PFC CS5 18C2909

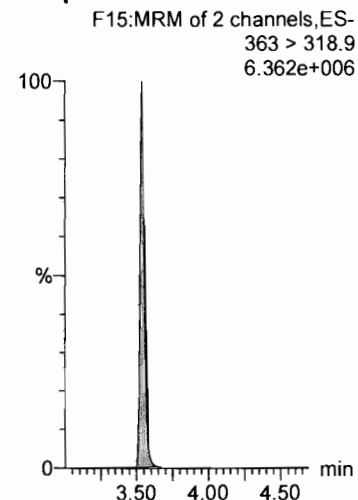
PFBS



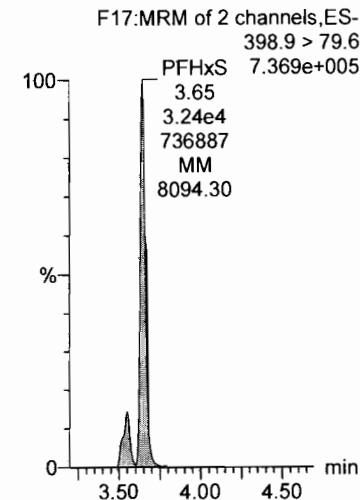
PFHxA



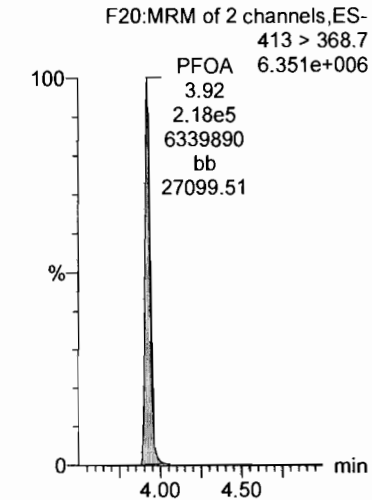
PFHpA



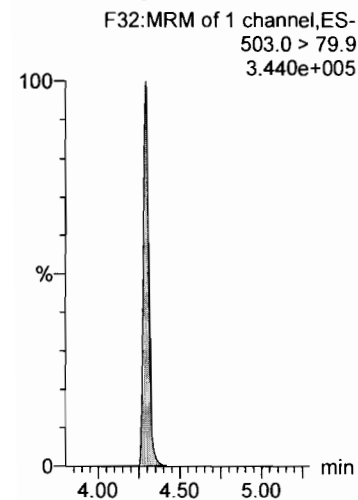
PFHxS



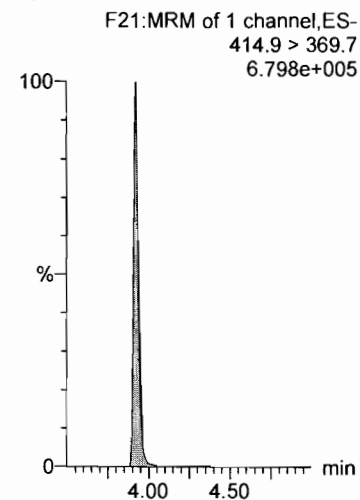
PFOA



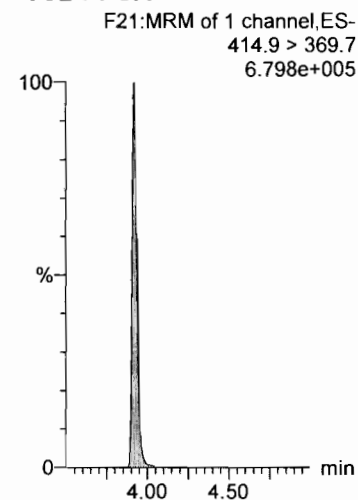
13C4-PFOS



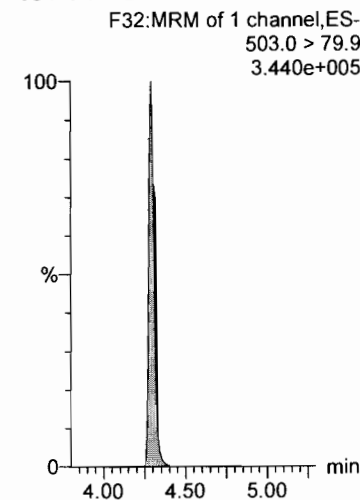
13C2-PFOA



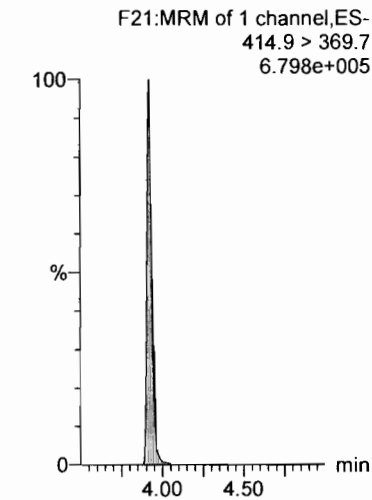
13C2-PFOA



13C4-PFOS



13C2-PFOA



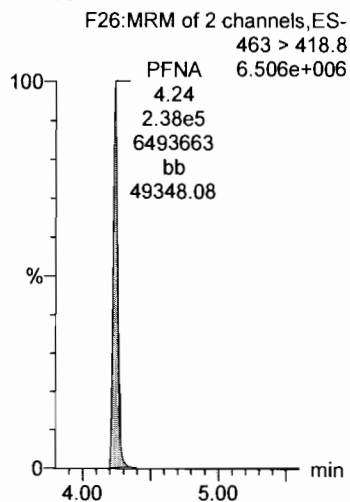
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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

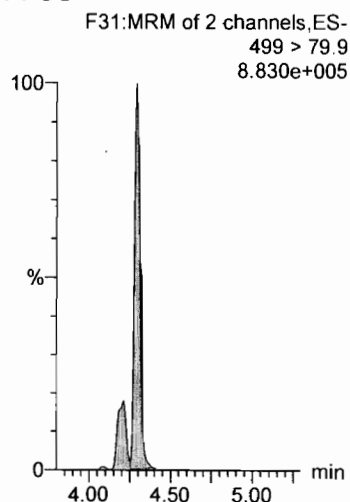
Printed: Sunday, April 08, 2018 13:29:31 Pacific Daylight Time

Name: 180407M3_11, Date: 07-Apr-2018, Time: 16:16:08, ID: ST180407M3-9 PFC CS5 537 18C2909, Description: PFC CS5 18C2909

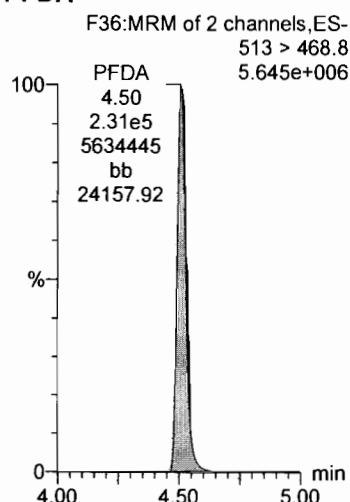
PFNA



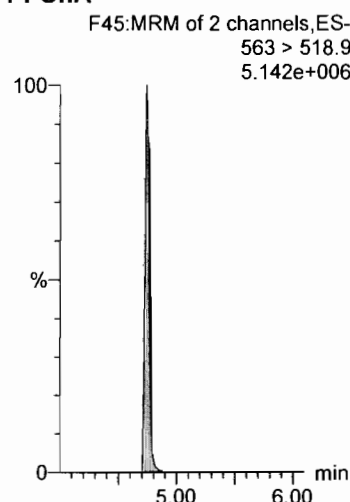
PFOS



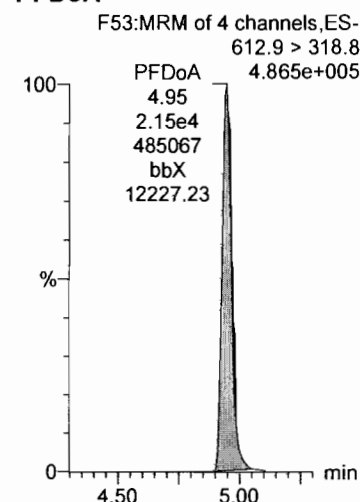
PFDA



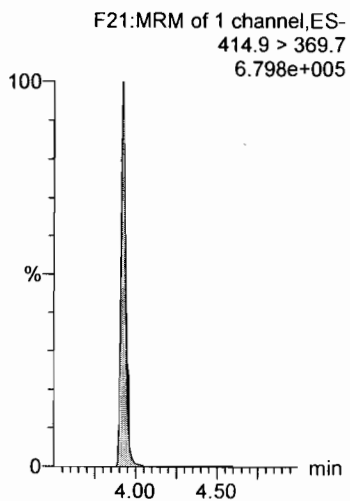
PFUnA



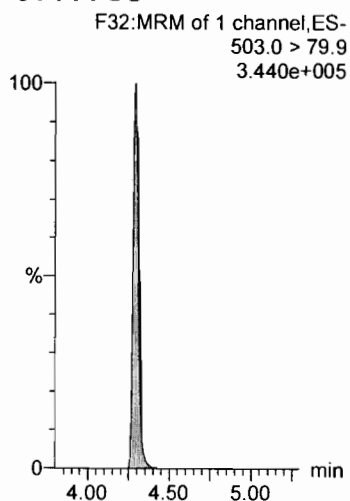
PFDoA



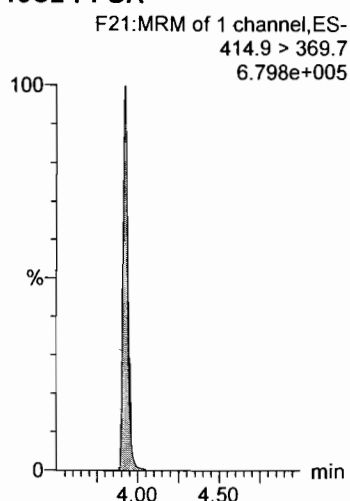
13C2-PFOA



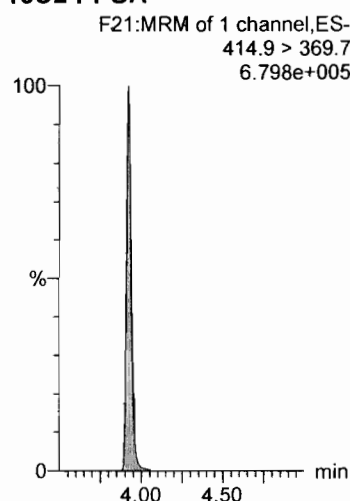
13C4-PFOS



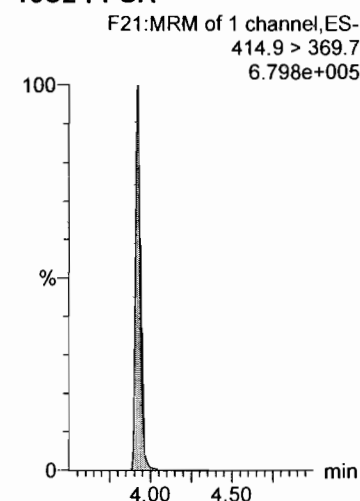
13C2-PFOA



13C2-PFOA



13C2-PFOA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-CRV_B.qld

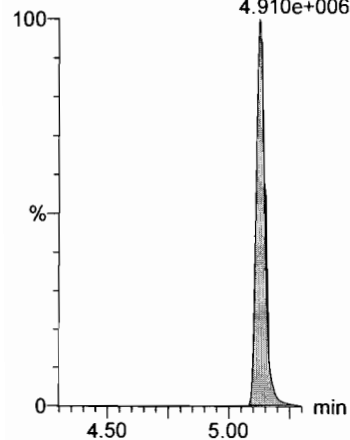
Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

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Name: 180407M3_11, Date: 07-Apr-2018, Time: 16:16:08, ID: ST180407M3-9 PFC CS5 537 18C2909, Description: PFC CS5 18C2909

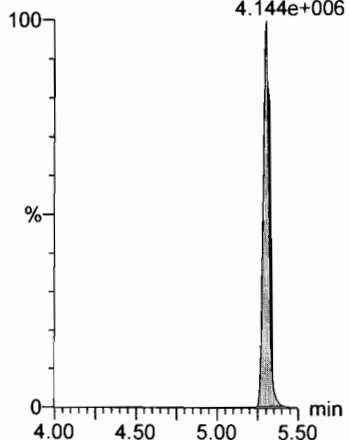
PFTrDA

F59:MRM of 2 channels,ES-
662.9 > 618.9
4.910e+006



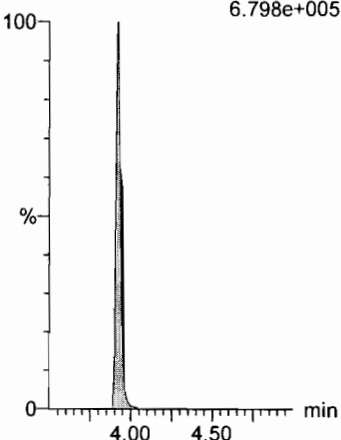
PFTeDA

F60:MRM of 2 channels,ES-
712.9 > 668.8
4.144e+006



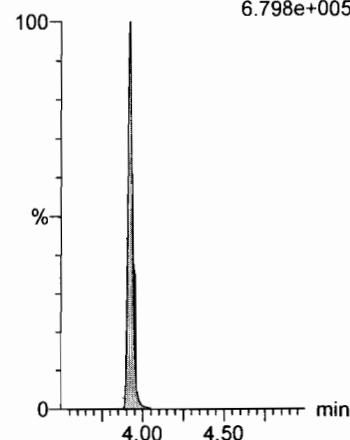
13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.798e+005



13C2-PFOA

F21:MRM of 1 channel,ES-
414.9 > 369.7
6.798e+005



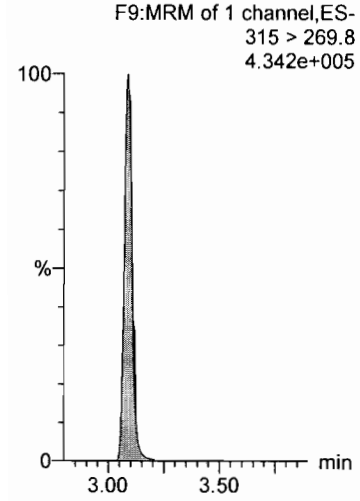
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Last Altered: Sunday, April 08, 2018 13:23:09 Pacific Daylight Time

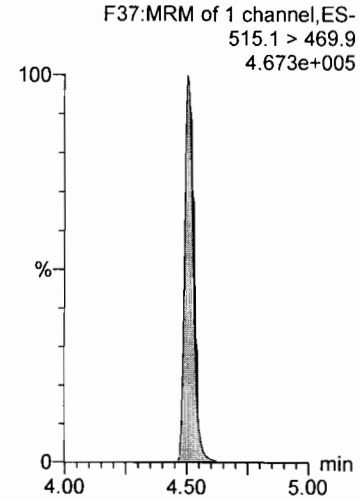
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Name: 180407M3_11, Date: 07-Apr-2018, Time: 16:16:08, ID: ST180407M3-9 PFC CS5 537 18C2909, Description: PFC CS5 18C2909

13C2-PFHxA



13C2-PFDA



Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-13.qld

Last Altered: Sunday, April 08, 2018 13:45:06 Pacific Daylight Time

Printed: Sunday, April 08, 2018 13:45:51 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34

Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_13, Date: 07-Apr-2018, Time: 16:39:07, ID: ICV180407M2-1 PFC ICV 18C2910, Description: PFC ICV 18C2910

*JST
4/9/18*

#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery ...
1	1 PFBS	299 > 79.7	4.89e3	1.17e4	1.0000		2.71	2.73	12.0	11.2	111.8	NO
2	2 PFHxA	313.2 > 268.9	2.70e4	2.52e4	1.0000		3.10	3.09	10.7	9.62	96.2	NO
3	3 PFHpA	363 > 318.9	2.35e4	2.52e4	1.0000		3.55	3.54	9.32	10.0	100.4	NO
4	4 PFHxS	398.9 > 79.6	3.44e3	1.17e4	1.0000		3.65	3.64	8.40	11.2	112.1	NO
5	5 PFOA	413 > 368.7	2.62e4	2.52e4	1.0000		3.93	3.92	10.4	10.7	107.3	NO
6	6 PFNA	463 > 418.8	2.57e4	2.52e4	1.0000		4.24	4.24	10.2	10.2	101.8	NO
7	7 PFOS	499 > 79.9	4.96e3	1.17e4	1.0000		4.30	4.30	12.1	11.2	112.1	NO
8	8 PFDA	513 > 468.8	2.36e4	2.52e4	1.0000		4.51	4.50	9.35	10.0	100.4	NO
9	11 PFUnA	563 > 518.9	2.65e4	2.52e4	1.0000		4.74	4.74	10.5	11.6	116.5	NO
10	12 PFDoA	612.9 > 318.8	2.64e3	2.52e4	1.0000		4.95	4.95	1.05	10.8	108.2	NO
11	13 PFTTrDA	662.9 > 618.9	2.16e4	2.52e4	1.0000		5.13	5.13	8.54	9.43	94.3	NO
12	14 PFTeDA	712.9 > 668.8	1.72e4	2.52e4	1.0000		5.30	5.30	6.83	9.38	93.8	NO
13	15 13C2-PFHxA	315 > 269.8	1.72e4	2.52e4	1.0000	0.745	3.14	3.09	6.82	9.15	91.5	NO
14	16 13C2-PFDA	515.1 > 469.9	1.85e4	2.52e4	1.0000	0.827	4.50	4.50	7.31	8.85	88.5	NO
15	17 d5-N-EtFOSAA	589.3 > 419.0	4.37e4	3.90e4	1.0000	1.116	4.62	4.73	44.9	40.2	100.5	NO
16	18 13C2-PFOA	414.9 > 369.7	2.52e4	2.52e4	1.0000	1.000	3.92	3.92	10.0	10.0	100.0	NO
17	19 13C4-PFOS	503.0 > 79.9	1.17e4	1.17e4	1.0000	1.000	4.29	4.29	28.7	28.7	100.0	NO

*JST
4/9/18*

ⓐ Not used.

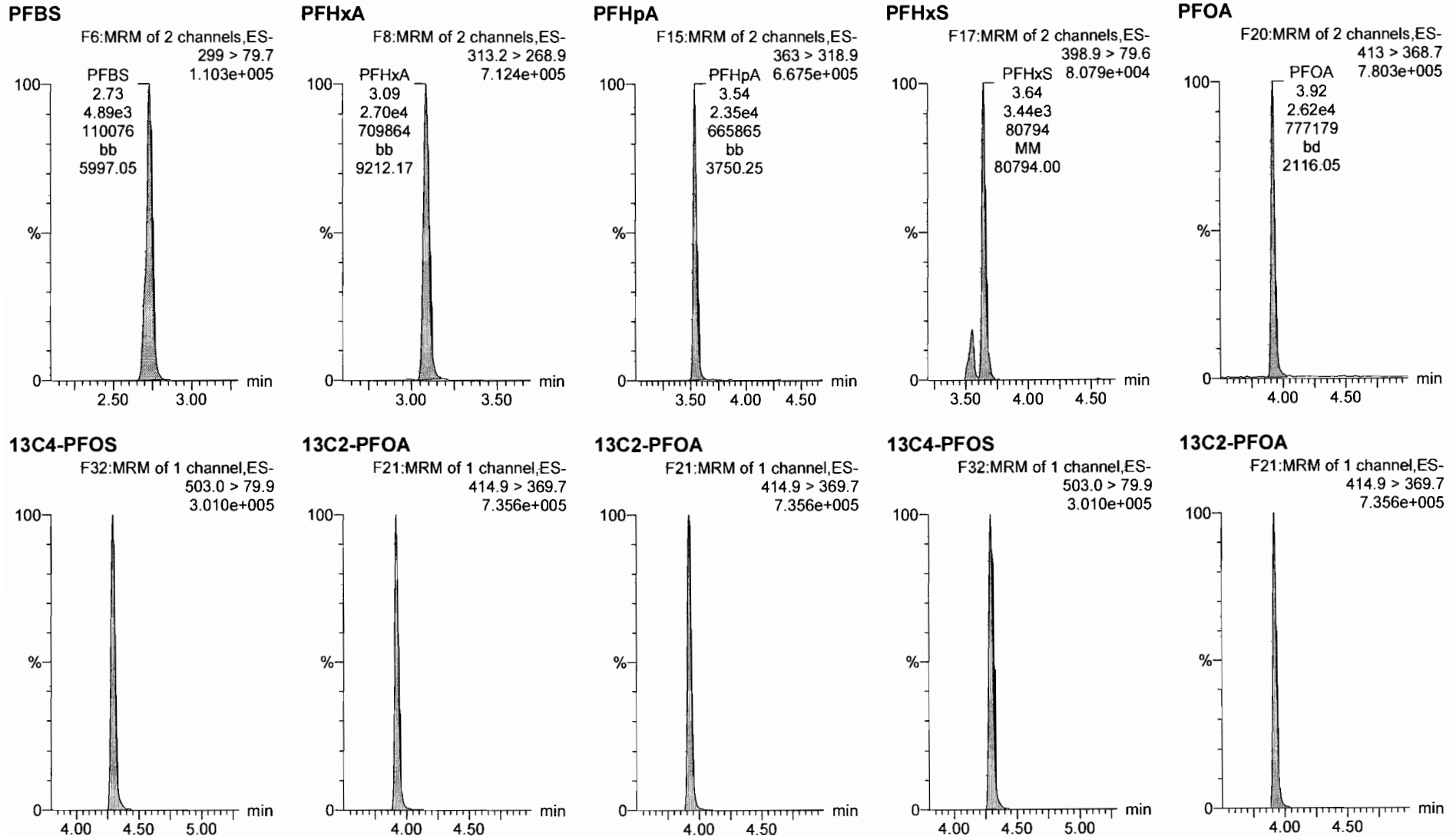
*DM
4/9/18*

Dataset: Z:\Projects\PFAS.PRO\Results\180407M3\180407M3-13.qld

Last Altered: Sunday, April 08, 2018 13:45:06 Pacific Daylight Time
Printed: Sunday, April 08, 2018 13:45:51 Pacific Daylight Time

Method: Z:\Projects\PFAS.PRO\MethDB\PFAS_DW_L14_0408.mdb 08 Apr 2018 13:44:34
Calibration: Z:\Projects\PFAS.PRO\CurveDB\C18_537_Q4_04-07-18_DW.cdb 08 Apr 2018 13:23:09

Name: 180407M3_13, Date: 07-Apr-2018, Time: 16:39:07, ID: ICV180407M2-1 PFC ICV 18C2910, Description: PFC ICV 18C2910



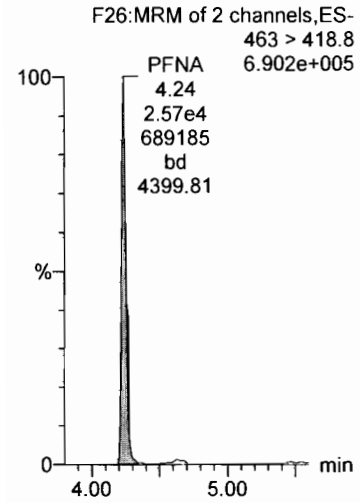
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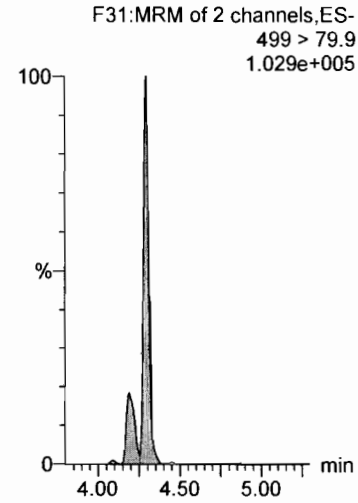
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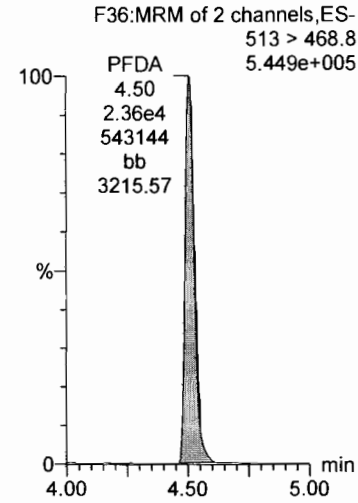
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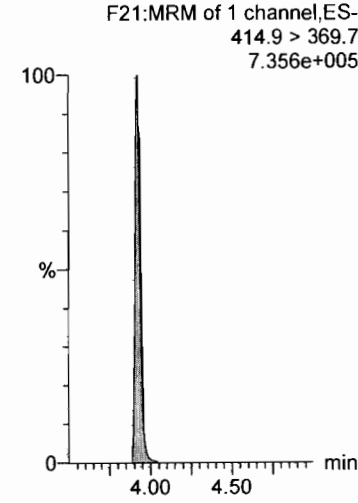
PFOS



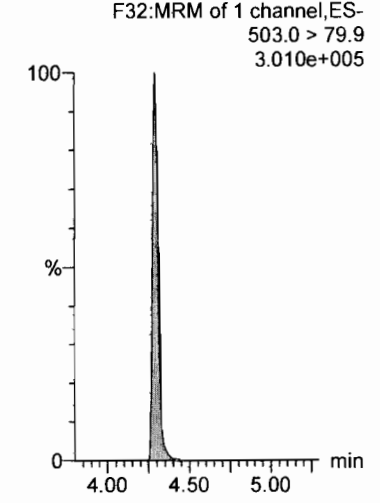
PFDA



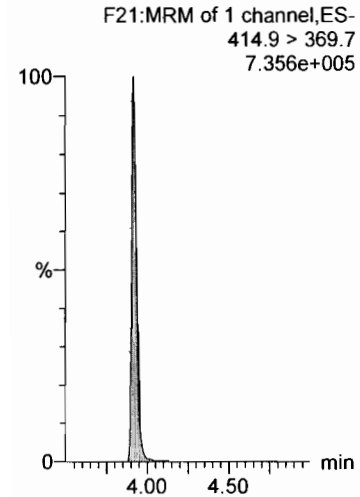
13C2-PFOA



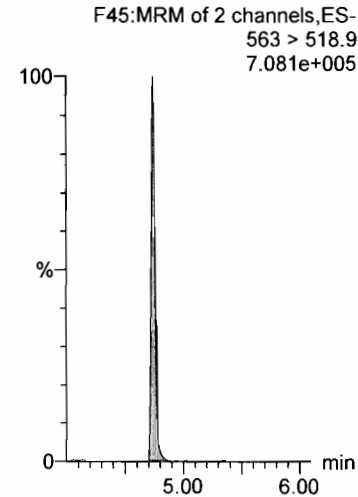
13C4-PFOS



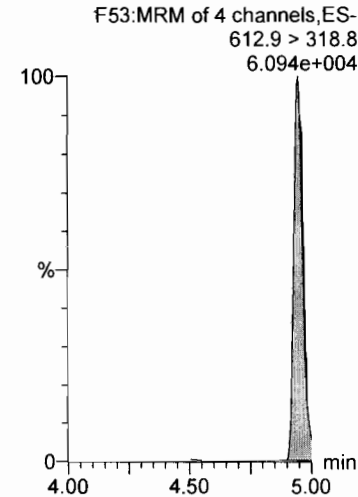
13C2-PFOA



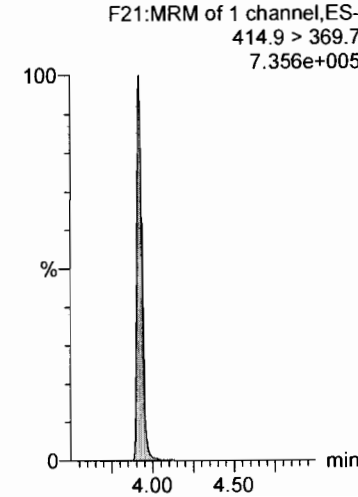
PFUnA



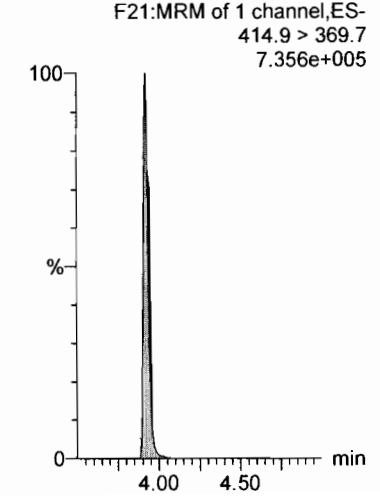
PFDoA



13C2-PFOA



13C2-PFOA



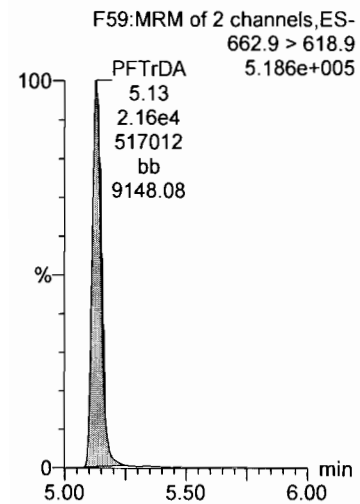
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Last Altered: Sunday, April 08, 2018 13:45:06 Pacific Daylight Time

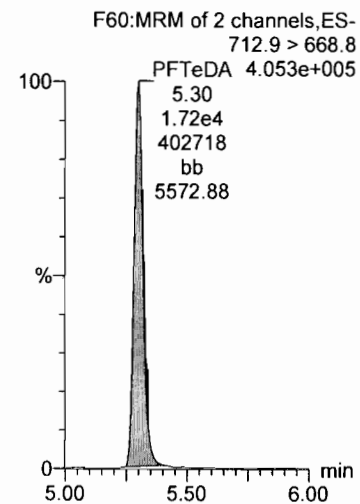
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Name: 180407M3_13, Date: 07-Apr-2018, Time: 16:39:07, ID: ICV180407M2-1 PFC ICV 18C2910, Description: PFC ICV 18C2910

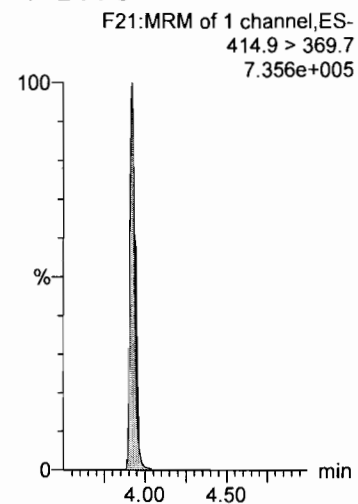
PFTrDA



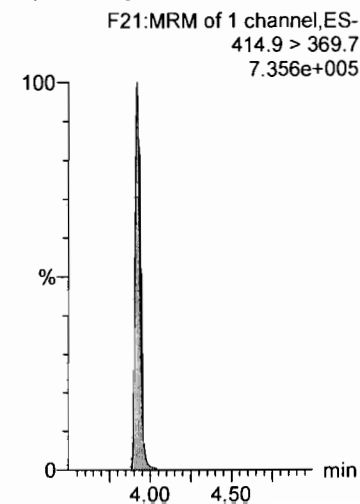
PFTeDA



13C2-PFOA



13C2-PFOA



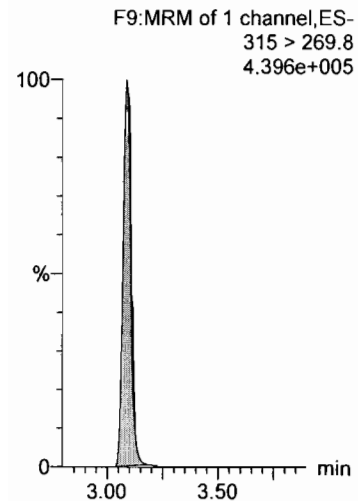
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Last Altered: Sunday, April 08, 2018 13:45:06 Pacific Daylight Time

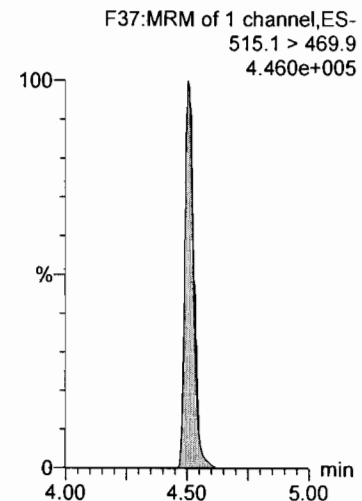
Printed: Sunday, April 08, 2018 13:45:51 Pacific Daylight Time

Name: 180407M3_13, Date: 07-Apr-2018, Time: 16:39:07, ID: ICV180407M2-1 PFC ICV 18C2910, Description: PFC ICV 18C2910

13C2-PFHxA



13C2-PFDA



**DATA VALIDATION SUMMARY REPORT
NAS WHIDBEY ISLAND, WASHINGTON**

Client: CH2M HILL, Inc., Corvallis, Oregon
SDG: 1800600
Laboratory: Vista Analytical Laboratory, El Dorado Hills, California
Site: NAS Whidbey Island, Area 6, CTO-4041, Washington
Date: June 4, 2018

PFCs			
EDS ID	Client Sample ID	Laboratory Sample ID	Matrix
1	WI-A06-RW19-0318	1800600-01	Water
1MS	WI-A06-RW19-0318MS	1800600-01MS	Water
1MSD	WI-A06-RW19-0318MSD	1800600-01MSD	Water
2	WI-A06-FB19-0318	1800600-02	Water

A full data validation was performed on the analytical data for one water sample, and one aqueous field blank sample collected on March 28, 2018 by CH2M HILL at the NAS Whidbey Island Area 6 site in Washington. The samples were analyzed under the EPA Method “Determination of Selected Perfluorinated Alkyl Acids in Drinking Water by Solid Phase Extraction and Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)”.

Specific method references are as follows:

Analysis
PFCs

Method References
USEPA Method 537 Modified

The data have been validated according to the protocols and quality control (QC) requirements of the analytical method and the USEPA National Functional Guidelines for Organic Data Review as follows:

- The USEPA “Contract Laboratories Program National Functional Guidelines for Superfund Organic Methods Data Review,” January 2017;
- and the reviewer's professional judgment.

The following data quality indicators were reviewed for this report:

Organics

- Date Completeness, Case Narrative & Custody Documentation
- Holding times
- Gas Chromatography/Mass Spectrometry (GC/MS) Tuning
- Initial and continuing calibration summaries

- Method blank and field QC blank contamination
- Surrogate Spike recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) recoveries
- Laboratory Control Sample/Laboratory Control Sample Duplicate (LCS/LCSD) recoveries
- Internal standard area and retention time summary forms
- Target Compound Identification
- Compound Quantitation
- Field Duplicate sample precision

A full (Level IV) data validation was performed with this review including a recalculation of 10% of the detected results in the samples.

Data Usability Assessment

There were no rejections of data.

Overall the data are acceptable for the intended purposes as qualified for the deficiencies detailed in this report.

Please note that any results qualified (U) due to blank contamination may be then qualified (J) due to another action. Therefore, the results may be qualified (UJ) due to the culmination of the blank contaminations and actions from other exceedances of QC criteria.

Perfluorinated Compounds (PFCs)

Data Completeness, Case Narrative & Custody Documentation

- The case narrative and chain-of-custody documentation were included in the data package as required. All criteria were met.

Holding Times

- All samples were extracted within 14 days for water samples and analyzed within 28 days.

GC/MS Tuning

- All criteria were met.

Initial Calibration

- All relative standard deviation (%RSD) and/or correlation coefficients criteria were met.

Continuing Calibration

- All percent difference (%D) and RRF criteria were met.

Method Blank

- The method blanks were free of contamination.

Field QC Blank

- Field QC sample result are summarized in the table below.

Blank ID	Compound	Conc. ng/L	Qualifier	Affected Samples
WI-A06-FB19-0318	None - ND	-	-	-

Surrogate Spike Recoveries

- All samples exhibited acceptable surrogate %R values.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Recoveries

- The MS/MSD sample exhibited acceptable percent recoveries (%R) and RPD values except for the following.

EDS Sample ID	Compound	MS %R/MSD %R/RPD	Qualifier
1	PFHxS	OK/151%/53.4	J

Laboratory Control Samples

- The LCS samples exhibited acceptable percent recoveries (%R).

Internal Standard (IS) Area Performance

- All internal standards met response and retention time (RT) criteria.

Target Compound Identification

- All mass spectra and quantitation criteria were met.

Compound Quantitation

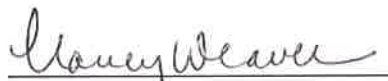
- All criteria were met.

Field Duplicate Sample Precision

- Field duplicate samples were not collected.

Please contact the undersigned at (757) 564-0090 if you have any questions or need further information.

Signed:



Nancy Weaver
Senior Chemist

Dated: 6/5/18

Data Qualifier	Definition
U	The analyte was analyzed for, but was not detected above the level of the reported sample quantitation limit.
J	The analyte is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample.
NJ	The analysis has been "tentatively identified" or "presumptively" as present and the associated numerical value is the estimated concentration in the samples.
UJ	The analyte was analyzed for but was not detected. The reported quantitation limit is approximate and may be inaccurate or imprecise.
R	The data are unusable. The sample results are rejected due to serious deficiencies in meeting QC criteria. The analyte may or may not be present in the samples.



Sample ID: WI-A06-RW19-0318

EPA Method 537

Client Data		Matrix:		Date Collected:		Drinking Water		Laboratory Data	
Name:	CH2M Hill							Lab Sample:	1800600-01
Project:	CTO-4041, Whidbey Island Area 6							Date Received:	04-Apr-18 10:07
Location:	DW							Column:	BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	64.7	0.444	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHxA	61.8	0.873	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHpA	33.4	0.534	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFHxS	233	0.416	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFOA	44.7	1.08	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFNA	2.36	1.44	5.02	10.0	J	B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFOS	75.1	1.04	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFDA	ND	1.28	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
MeFOSAA	ND	3.05	5.02	10.0		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1
EtFOSAA	ND	1.93	5.02	10.0		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1
PFUnA	ND	0.256	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFDoA	ND	0.954	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFTrDA	ND	0.945	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
PFTeDA	ND	0.779	5.02	10.0		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C2-PFHxA	SURR	102	70 - 130		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
13C2-PFDA	SURR	95.1	70 - 130		B8D0033	05-Apr-18	0.249 L	07-Apr-18 21:26	1
d5-EtFOSAA	SURR	85.8	70 - 130		B8D0033	05-Apr-18	0.249 L	08-Apr-18 19:11	1

DL - Detection Limit
 LOD - Limit of Detection
 LOQ - Limit of Quantitation

LCL-UCL - Lower control limit - upper control limit
 Results reported to the DL.

When reported, PFHxS, PFOA and PFOS include both linear and branched isomers.
 Only the linear isomer is reported for all other analytes.

MSH

J

nw 6/4/18

Client Data				Laboratory Data				EPA Method 537											
Name:	CH2M Hill	Matrix:	Drinking Water	Lab Sample:	1800600-02	Column:	BEH C18	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution					
Project:	CTO-4041, Whidbey Island Area 6	Date Collected:	28-Mar-18 13:25	Date Received:	04-Apr-18 10:07														
Location:	DW																		
Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.428	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1	SURR	98.1	70 - 130		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHxA	ND	0.842	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1	SURR	91.7	70 - 130		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFHpA	ND	0.515	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1	SURR	98.2	70 - 130		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1
PFHxS	ND	0.401	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFOA	ND	1.04	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFNA	ND	1.39	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFOS	ND	1.01	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFDA	ND	1.24	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
MeFOSAA	ND	2.94	4.83	9.67		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
EtFOSAA	ND	1.87	4.83	9.67		B8D0033	05-Apr-18	0.259 L	08-Apr-18 19:22	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFUnA	ND	0.247	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFDoA	ND	0.921	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFTrDA	ND	0.912	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1
PFTeDA	ND	0.751	4.83	9.67		B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1					B8D0033	05-Apr-18	0.259 L	07-Apr-18 21:37	1

DL - Detection Limit
 LOD - Limit of Detection
 LOQ - Limit of quantitation
 LCL-UCL - Lower control limit - upper control limit
 Results reported to the DL.
 When reported, PFHxS, PFOA and PFOS include both linear and branched isomers
 Only the linear isomer is reported for all other analytes.

new 6/4/18

