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NAVFAC
Naval Facilities Engineering Command

Groundwater Sample Results, Combined Level 2 and Level 4 Laboratory Report, Electronic Data Deliverable, Data Validation Report, and the Sample Location Report, SDG 1701832

Naval Weapons Industrial Reserve Plant Calverton
Riverhead, New York

August 2019

APPROVED FOR PUBLIC RELEASE; DISTRIBUTION UNLIMITED

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CALVERTON_NWIRP
SSIC 5000-33c

LABORATORY DATA PACKAGE, 1701832, NWIRP CALVERTON NY
01/16/2018
VISTA ANALYTICAL LABORATORY

Approved for public release: distribution unlimited.

January 16, 2018

Vista Work Order No. 1701832

Ms. Kristi Francisco
Tetra Tech
5700 Lake Wright Drive, Suite 309
Norfolk, VA 23502

Dear Ms. Francisco,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on December 02, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name '112G08005-WE05'. The SDG Number is WE05.

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,

for

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.

SDG Number WE05
Vista Work Order No. 1701832
Case Narrative

Sample Condition on Receipt:

Nine surface water samples, three groundwater samples and one QC water sample 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.

Analytical Notes:

Modified EPA Method 537

The following samples contained particulate and were centrifuged prior to extraction:

Laboratory ID	Sample Name
1701832-01	FT-SW10-20171201
1701832-02	FT-DUP04-20171201
1701832-03	FT-SW13-20171201
1701832-04	FT-SW12-20171201
1701832-05	SA-SW125-20171201
1701832-06	SA-SW124-20171201
1701832-07	SA-PZ124-20171201
1701832-08	SA-DUP05-20171201
1701832-09	SA-PZ147-20171201
1701832-10	SA-SW201-20171201

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

Holding Times

The samples were extracted within the method hold times. The re-injections of samples "SA-DP01-20171201", "SA-SW204-20171201" and "SA-SW204-FRB-20171201" for Et-FOSAA, as well as the dilutions for "SA-PZ124-20171201" and "SA-DUP05-20171201", were performed outside of the hold time.

Quality Control

The Initial Calibration met the method acceptance criteria. The recovery of PFDoA was 133% in one Continuing Calibration Verification; this analyte was not detected in the associated samples. The recoveries were within acceptance limits for all other analytes in the Continuing Calibration Verifications.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

The extracts of samples "SA-DP01-20171201", "SA-SW204-20171201" and "SA-SW204-FRB-20171201" were

re-injected because the ending Coninuing calibration Verification did not meet criteria for Et-FOSAA. The results for Et-FOSAA were reported from the re-injections.

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

As requested, an MS/MSD was performed on sample "SA-SW201-20171201". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for PFNA, MeFOSAA, PFUnA, EtFOSAA and PFTrDA.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1701832-01	FT-SW10-20171201	Modified EPA Method 537	13C3-PFBS	H	163
1701832-02	FT-DUP04-20171201	Modified EPA Method 537	13C3-PFBS	H	158
1701832-05	SA-SW125-20171201	Modified EPA Method 537	13C3-PFBS	H	154
1701832-07	SA-PZ124-20171201	Modified EPA Method 537	13C3-PFBS	H	153
1701832-09	SA-PZ147-20171201	Modified EPA Method 537	13C3-PFBS	H	155
1701832-10	SA-SW201-20171201	Modified EPA Method 537	13C3-PFBS	H	159
1701832-13	SA-SW204-FRB-20171201	Modified EPA Method 537	13C3-PFBS	H	163
B7L0088-MS1	B7L0088-MS1	Modified EPA Method 537	13C3-PFBS	H	152

H = Recovery was outside laboratory acceptance criteria.

In addition, the laboratory QC officer must read and sign a copy of the Quality Assurance Review Form displayed on the next page of this Attachment. Electronic deliverables are not considered to be complete without the accompanying Quality Assurance Review Form.

I Anna Helak, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (916) 673 1520 If there are any questions or problems with the enclosed electronic deliverables.

Signature: Anna Helak Title: QA Manager Date: 01/16/2018

Revision 9
ISG
08/18/16

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Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1701832-01	FT-SW10-20171201		01-Dec-17 09:40	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-02	FT-DUP04-20171201		01-Dec-17 10:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-03	FT-SW13-20171201		01-Dec-17 09:55	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-04	FT-SW12-20171201		01-Dec-17 10:05	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-05	SA-SW125-20171201		01-Dec-17 11:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-06	SA-SW124-20171201		01-Dec-17 11:30	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-07	SA-PZ124-20171201		01-Dec-17 11:42	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-08	SA-DUP05-20171201		01-Dec-17 09:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-09	SA-PZ147-20171201		01-Dec-17 12:15	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-10	SA-SW201-20171201	MS/MSD	01-Dec-17 12:25	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-11	SW-DP01-20171201		01-Dec-17 13:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-12	SA-SW204-20171201		01-Dec-17 13:25	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-13	SA-SW204-FRB-20171201		01-Dec-17 13:25	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL

Vista Project: 1701832

Client Project: 112G08005-WE05

ANALYTICAL RESULTS

Sample ID: Method Blank

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
Matrix: Aqueous

Laboratory Data

Lab Sample: B7L0088-BLK1
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.895	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFHxA	ND	1.09	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFHpA	ND	0.296	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFHxS	ND	0.474	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFOA	ND	0.326	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFOS	ND	0.404	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFNA	ND	0.405	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFDA	ND	0.745	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFUnA	ND	0.525	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFDoA	ND	0.396	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFTrDA	ND	0.247	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFTeDA	ND	0.378	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	131	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFHxA	IS	138	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C4-PFHpA	IS	125	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
18O2-PFHxS	IS	143	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFOA	IS	136	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C8-PFOS	IS	115	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C5-PFNA	IS	111	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFDA	IS	130	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
d3-MeFOSAA	IS	105	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFUnA	IS	108	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
d5-EtFOSAA	IS	111	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFDoA	IS	110	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFTeDA	IS	108	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	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: OPR **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
Matrix: Aqueous

Laboratory Data

Lab Sample: B7L0088-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	35.0	40.0	87.5	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFHxA	37.1	40.0	92.8	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFHpA	35.7	40.0	89.3	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFHxS	35.6	40.0	89.1	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFOA	38.5	40.0	96.3	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFOS	35.3	40.0	88.2	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFNA	28.3	40.0	70.8	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFDA	32.1	40.0	80.2	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
MeFOSAA	36.0	40.0	90.0	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFUnA	31.2	40.0	77.9	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
EtFOSAA	35.6	40.0	89.1	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFDoA	33.6	40.0	84.0	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFTrDA	42.3	40.0	106	60-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFTeDA	39.7	40.0	99.3	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	132	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFHxA	IS	116	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C4-PFHpA	IS	126	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
18O2-PFHxS	IS	118	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFOA	IS	121	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C8-PFOS	IS	113	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C5-PFNA	IS	123	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFDA	IS	106	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
d3-MeFOSAA	IS	110	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFUnA	IS	111	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
d5-EtFOSAA	IS	102	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFDoA	IS	110	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFTeDA	IS	148	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1

Sample ID: FT-SW10-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 09:40

Laboratory Data

Lab Sample: 1701832-01
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.899	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFHxA	2.18	1.09	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFHpA	1.37	0.297	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFHxS	0.636	0.475	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFOA	2.38	0.327	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFOS	0.531	0.405	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFNA	4.48	0.407	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFDA	1.14	0.748	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
MeFOSAA	ND	0.828	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFUnA	1.21	0.527	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
EtFOSAA	ND	0.688	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFDoA	ND	0.398	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFTrDA	ND	0.248	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFTeDA	ND	0.379	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	163	50 - 150	H	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFHxA	IS	137	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C4-PFHpA	IS	142	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
18O2-PFHxS	IS	123	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFOA	IS	117	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C8-PFOS	IS	122	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C5-PFNA	IS	111	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFDA	IS	86.7	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
d3-MeFOSAA	IS	111	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFUnA	IS	124	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
d5-EtFOSAA	IS	114	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFDoA	IS	92.7	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFTeDA	IS	68.9	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	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: FT-DUP04-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 10:00

Laboratory Data

Lab Sample: 1701832-02
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.863	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFHxA	2.50	1.05	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFHpA	1.26	0.285	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFHxS	0.627	0.457	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFOA	2.41	0.314	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFOS	0.898	0.389	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFNA	4.27	0.391	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFDA	0.954	0.719	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
MeFOSAA	ND	0.796	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFUnA	1.11	0.507	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
EtFOSAA	ND	0.661	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFDoA	ND	0.382	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFTrDA	ND	0.238	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFTeDA	ND	0.364	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	158	50 - 150	H	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFHxA	IS	134	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C4-PFHpA	IS	131	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
18O2-PFHxS	IS	135	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFOA	IS	127	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C8-PFOS	IS	135	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C5-PFNA	IS	139	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFDA	IS	137	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
d3-MeFOSAA	IS	98.5	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFUnA	IS	96.7	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
d5-EtFOSAA	IS	114	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFDoA	IS	115	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFTeDA	IS	72.9	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	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: FT-SW13-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 09:55

Laboratory Data

Lab Sample: 1701832-03
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.889	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFHxA	6.18	1.08	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFHpA	6.50	0.294	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFHxS	13.6	0.470	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFOA	22.6	0.323	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFOS	19.6	0.401	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFNA	68.7	0.402	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFDA	5.19	0.740	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
MeFOSAA	ND	0.820	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFUnA	9.48	0.522	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
EtFOSAA	ND	0.681	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFDoA	ND	0.393	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFTrDA	ND	0.245	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFTeDA	ND	0.375	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	134	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFHxA	IS	121	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C4-PFHpA	IS	120	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
18O2-PFHxS	IS	143	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFOA	IS	99.1	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C8-PFOS	IS	113	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C5-PFNA	IS	108	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFDA	IS	103	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
d3-MeFOSAA	IS	84.2	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFUnA	IS	89.1	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
d5-EtFOSAA	IS	87.9	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFDoA	IS	79.2	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFTeDA	IS	90.5	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	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: FT-SW12-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 10:05

Laboratory Data

Lab Sample: 1701832-04
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.878	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFHxA	6.30	1.07	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFHpA	5.92	0.290	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFHxS	16.2	0.465	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFOA	21.9	0.319	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFOS	30.3	0.396	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFNA	67.0	0.397	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFDA	6.09	0.731	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
MeFOSAA	ND	0.809	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFUnA	30.9	0.515	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
EtFOSAA	ND	0.672	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFDoA	ND	0.389	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFTrDA	ND	0.242	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFTeDA	ND	0.370	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	132	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFHxA	IS	119	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C4-PFHpA	IS	113	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
18O2-PFHxS	IS	113	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFOA	IS	112	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C8-PFOS	IS	127	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C5-PFNA	IS	119	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFDA	IS	118	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
d3-MeFOSAA	IS	99.4	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFUnA	IS	91.9	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
d5-EtFOSAA	IS	96.6	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFDoA	IS	94.4	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFTeDA	IS	83.1	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	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: SA-SW125-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 11:00

Laboratory Data

Lab Sample: 1701832-05
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.858	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFHxA	9.23	1.05	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFHpA	8.27	0.283	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFHxS	7.85	0.454	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFOA	9.89	0.312	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFOS	25.0	0.387	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFNA	167	0.388	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFDA	3.23	0.715	2.39	3.84	J	B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
MeFOSAA	ND	0.791	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFUnA	12.3	0.504	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
EtFOSAA	ND	0.657	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFDoA	ND	0.380	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFTrDA	ND	0.237	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFTeDA	ND	0.362	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	154	50 - 150	H	B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFHxA	IS	127	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C4-PFHpA	IS	129	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
18O2-PFHxS	IS	123	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFOA	IS	95.1	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C8-PFOS	IS	134	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C5-PFNA	IS	108	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFDA	IS	117	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
d3-MeFOSAA	IS	105	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFUnA	IS	125	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
d5-EtFOSAA	IS	122	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFDoA	IS	108	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFTeDA	IS	130	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	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: SA-SW124-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 11:30

Laboratory Data

Lab Sample: 1701832-06
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.909	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFHxA	6.91	1.11	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFHpA	5.10	0.300	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFHxS	2.45	0.481	2.54	4.06	J	B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFOA	8.62	0.331	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFOS	4.43	0.410	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFNA	253	0.411	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFDA	6.11	0.757	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
MeFOSAA	ND	0.838	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFUnA	24.4	0.533	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
EtFOSAA	ND	0.696	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFDoA	ND	0.402	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFTrDA	ND	0.251	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFTeDA	ND	0.384	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	131	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFHxA	IS	118	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C4-PFHpA	IS	114	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
18O2-PFHxS	IS	123	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFOA	IS	128	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C8-PFOS	IS	144	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C5-PFNA	IS	108	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFDA	IS	120	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
d3-MeFOSAA	IS	112	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFUnA	IS	103	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
d5-EtFOSAA	IS	110	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFDoA	IS	108	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFTeDA	IS	115	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	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: SA-PZ124-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 11:42

Laboratory Data

Lab Sample: 1701832-07
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.14	1.01	2.82	4.51	J	B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFHxA	18.6	1.23	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFHpA	32.2	0.333	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFHxS	14.7	0.534	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFOA	67.9	0.367	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFOS	7.92	0.455	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFNA	2180	4.57	28.2	45.1	D	B7L0088	14-Dec-17	0.222 L	12-Jan-18 09:10	10
PFDA	40.6	0.841	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
MeFOSAA	ND	0.931	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFUnA	121	0.592	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
EtFOSAA	ND	0.773	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFDoA	ND	0.447	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFTrDA	ND	0.279	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFTeDA	ND	0.426	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	153	50 - 150	H	B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFHxA	IS	135	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C4-PFHpA	IS	120	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
18O2-PFHxS	IS	120	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFOA	IS	110	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C8-PFOS	IS	122	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C5-PFNA	IS	138	50 - 150	D	B7L0088	14-Dec-17	0.222 L	12-Jan-18 09:10	10
13C2-PFDA	IS	129	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
d3-MeFOSAA	IS	103	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFUnA	IS	110	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
d5-EtFOSAA	IS	98.9	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFDoA	IS	72.1	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFTeDA	IS	72.5	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	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: SA-DUP05-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 09:00

Laboratory Data

Lab Sample: 1701832-08
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.17	0.943	2.64	4.21	J	B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHxA	20.8	1.15	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHpA	36.6	0.311	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHxS	13.3	0.499	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFOA	68.9	0.343	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFOS	8.49	0.425	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFNA	3010	4.27	26.4	42.1	D	B7L0088	14-Dec-17	0.237 L	12-Jan-18 09:22	10
PFDA	45.1	0.785	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
MeFOSAA	ND	0.869	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFUnA	112	0.553	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
EtFOSAA	ND	0.722	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFDoA	ND	0.417	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFTrDA	ND	0.260	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFTeDA	ND	0.398	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	150	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFHxA	IS	125	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C4-PFHpA	IS	116	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
18O2-PFHxS	IS	139	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFOA	IS	118	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C8-PFOS	IS	111	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C5-PFNA	IS	94.9	50 - 150	D	B7L0088	14-Dec-17	0.237 L	12-Jan-18 09:22	10
13C2-PFDA	IS	106	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
d3-MeFOSAA	IS	96.0	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFUnA	IS	110	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
d5-EtFOSAA	IS	91.3	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFDoA	IS	119	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFTeDA	IS	62.7	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	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: SA-PZ147-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 12:15

Laboratory Data

Lab Sample: 1701832-09
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.889	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFHxA	ND	1.08	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFHpA	0.602	0.294	2.48	3.97	J	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFHxS	ND	0.470	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFOA	0.691	0.323	2.48	3.97	J	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFOS	ND	0.401	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFNA	44.9	0.402	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFDA	1.06	0.740	2.48	3.97	J	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
MeFOSAA	ND	0.820	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFUnA	5.24	0.522	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
EtFOSAA	ND	0.681	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFDoA	ND	0.393	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFTrDA	ND	0.245	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFTeDA	ND	0.375	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	155	50 - 150	H	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFHxA	IS	145	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C4-PFHpA	IS	136	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
18O2-PFHxS	IS	127	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFOA	IS	131	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C8-PFOS	IS	122	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C5-PFNA	IS	129	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFDA	IS	143	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
d3-MeFOSAA	IS	96.9	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFUnA	IS	113	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
d5-EtFOSAA	IS	97.4	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFDoA	IS	107	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFTeDA	IS	80.7	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	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: SA-SW201-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 12:25

Laboratory Data

Lab Sample: 1701832-10
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.901	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFHxA	2.87	1.10	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFHpA	2.93	0.297	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFHxS	2.97	0.477	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFOA	5.08	0.328	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFOS	0.949	0.406	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFNA	25.5	0.408	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFDA	1.10	0.750	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
MeFOSAA	ND	0.830	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFUnA	1.19	0.528	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
EtFOSAA	ND	0.689	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFDoA	ND	0.399	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFTrDA	ND	0.249	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFTeDA	ND	0.380	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	159	50 - 150	H	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFHxA	IS	127	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C4-PFHpA	IS	134	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
18O2-PFHxS	IS	131	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFOA	IS	116	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C8-PFOS	IS	117	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C5-PFNA	IS	100	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFDA	IS	90.9	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
d3-MeFOSAA	IS	99.7	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFUnA	IS	96.2	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
d5-EtFOSAA	IS	98.4	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFDoA	IS	110	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFTeDA	IS	133	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	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: SA-SW201-20171201 **Modified EPA Method 537**

Name:	Tetra Tech	Lab Sample:	B7L0088-MS1/B7L0088-MSD1	Source Lab Sample:	1701832-10
Project:	112G08005-WE05	QC Batch:	B7L0088	Date Extracted:	14-Dec-17
Matrix:	Aqueous	Samp Size:	0.259/0.259 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	ND	34.6	38.7	89.4		34.5	38.6	89.3	0.112		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFHxA	2.87	38.7	38.7	92.5		37.8	38.6	90.4	2.30		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFHpA	2.93	33.0	38.7	77.6		30.7	38.6	71.9	7.63		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFHxS	2.97	36.6	38.7	86.9		44.3	38.6	107	20.7		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFOA	5.08	36.9	38.7	82.3		36.8	38.6	82.3	0		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFOS	0.949	42.7	38.7	108		31.9	38.6	80.2	29.5		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFNA	25.5	73.9	38.7	125		89.7	38.6	166	28.2	H	70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFDA	1.10	35.5	38.7	88.9		32.3	38.6	80.8	9.55		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
MeFOSAA	ND	25.7	38.7	66.4	H	26.8	38.6	69.4	4.42	H	70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFUnA	1.19	35.8	38.7	89.5		49.2	38.6	124	32.3	H	70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
EtFOSAA	ND	25.2	38.7	65.2	H	30.7	38.6	79.4	19.6		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFDoA	ND	46.3	38.7	120		41.8	38.6	108	10.5		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFTrDA	ND	50.9	38.7	132	H	35.1	38.6	90.8	37.0	H	60-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFTeDA	ND	32.3	38.7	83.4		29.0	38.6	75.1	10.5		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	152	H	129		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFHxA	IS	123		122		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C4-PFHpA	IS	132		124		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
18O2-PFHxS	IS	118		109		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFOA	IS	105		114		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C8-PFOS	IS	123		119		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C5-PFNA	IS	100		125		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFDA	IS	111		122		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
d3-MeFOSAA	IS	101		114		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFUnA	IS	89.5		96.7		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
d5-EtFOSAA	IS	107		111		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFDoA	IS	68.9		107		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFTeDA	IS	88.7		119		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1

Sample ID: SW-DP01-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 13:00

Laboratory Data

Lab Sample: 1701832-11
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.860	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFHxA	1.86	1.05	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFHpA	1.96	0.284	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFHxS	2.69	0.455	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFOA	4.78	0.313	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFOS	1.12	0.388	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFNA	5.15	0.389	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFDA	ND	0.715	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
MeFOSAA	ND	0.792	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFUnA	0.687	0.504	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
EtFOSAA	ND	0.658	2.40	3.84		B7L0088	14-Dec-17	0.260 L	12-Jan-18 11:11	1
PFDoA	ND	0.380	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFTrDA	ND	0.237	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFTeDA	ND	0.363	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	141	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFHxA	IS	142	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C4-PFHpA	IS	128	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
18O2-PFHxS	IS	146	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFOA	IS	113	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C8-PFOS	IS	146	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C5-PFNA	IS	125	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFDA	IS	109	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
d3-MeFOSAA	IS	115	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFUnA	IS	129	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
d5-EtFOSAA	IS	92.7	50 - 150		B7L0088	14-Dec-17	0.260 L	12-Jan-18 11:11	1
13C2-PFDoA	IS	101	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFTeDA	IS	144	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	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: SA-SW204-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 13:25

Laboratory Data

Lab Sample: 1701832-12
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.866	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFHxA	7.48	1.05	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFHpA	7.70	0.286	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFHxS	6.92	0.458	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFOA	8.54	0.315	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFOS	29.6	0.390	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFNA	190	0.392	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFDA	5.35	0.721	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
MeFOSAA	ND	0.798	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFUnA	29.9	0.508	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
EtFOSAA	ND	0.663	2.42	3.87		B7L0088	14-Dec-17	0.258 L	12-Jan-18 11:23	1
PFDoA	ND	0.383	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFTrDA	ND	0.239	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFTeDA	ND	0.365	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	138	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFHxA	IS	131	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C4-PFHpA	IS	127	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
18O2-PFHxS	IS	124	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFOA	IS	113	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C8-PFOS	IS	133	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C5-PFNA	IS	112	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFDA	IS	112	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
d3-MeFOSAA	IS	95.0	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFUnA	IS	101	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
d5-EtFOSAA	IS	115	50 - 150		B7L0088	14-Dec-17	0.258 L	12-Jan-18 11:23	1
13C2-PFDoA	IS	96.5	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFTeDA	IS	117	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	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: SA-SW204-FRB-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: QC Water
Date Collected: 01-Dec-17 13:25

Laboratory Data

Lab Sample: 1701832-13
Date Received: 02-Dec-17 09:37
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.863	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFHxA	ND	1.05	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFHpA	ND	0.285	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFHxS	ND	0.456	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFOA	ND	0.314	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFOS	ND	0.389	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFNA	ND	0.390	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFDA	ND	0.718	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
MeFOSAA	ND	0.795	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFUnA	ND	0.506	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
EtFOSAA	ND	0.660	2.41	3.86		B7L0088	14-Dec-17	0.259 L	12-Jan-18 11:34	1
PFDoA	ND	0.382	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFTrDA	ND	0.238	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFTeDA	ND	0.364	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	163	50 - 150	H	B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFHxA	IS	141	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C4-PFHpA	IS	116	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
18O2-PFHxS	IS	121	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFOA	IS	105	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C8-PFOS	IS	136	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C5-PFNA	IS	132	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFDA	IS	111	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
d3-MeFOSAA	IS	105	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFUnA	IS	106	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
d5-EtFOSAA	IS	121	50 - 150		B7L0088	14-Dec-17	0.259 L	12-Jan-18 11:34	1
13C2-PFDoA	IS	85.3	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFTeDA	IS	108	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	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.

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

1 of 2

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701832 Temp: 1.9 °C
Storage ID: WR-2 Storage Secured: Yes [X] No [ ]

Project ID: 112G08005 - WE05 PO#: _____ Sampler: JB/BB (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
	Tetra Tech	5700 Lake Wright Dr. Suite 102	Norfolk	VA		

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Dorston Lauren Dorston #	12/01/17	1700	FedEx		
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Fedex			Ian Arguello	12/2/17	1001

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

ATTN: Sample Custodian

Method of Shipment: Fed Ex

Tracking No.: _____

Add Analysis(es) Requested

Container(s): Quantity, Type, Matrix

Mod. EPA Method 537: PFOA/PFOS; UCMR3 PFAS List:6; 537 List: 14; Full List of 26; Other: Please List Below

EPA Method 537(DW only): PFOA/PFOS; UCMR3 PFAS List:6; PFAS List: 14

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
FT-SW10-20171201	12-01-17	0940	McKay Lake	2	P	SW			X						
FT-DUP04-20171201		1000	McKay Lake												Duplicate
FT-SW13-20171201		0955	Swan Pond												
FT-SW12-20171201		1005	Swan Pond												
SA-SW125-20171201		1100	Peconic River												
SA-SW124-20171201		1130													
SA-PZ124-20171201		1142				GW									
SA-DUP05-20171201		0900				GW									Duplicate
SA-PZ147-20171201		1215				GW									
SA-SW201-20171201		1225		6		SW									MS/MSD

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: 5700 Lake Wright Dr. Suite 102
City: Norfolk State: VA Zip: 23502
Phone: 757-466-4902 Fax: _____
Email: Kristi.Francisco@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: _____

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: SW = Surface water, GW = groundwater

Page: 1 of 1

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701832 Temp: 1.9 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 112G08005-WE05 PO#: _____ Sampler: JB/BB (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
	Tetra Tech	5700 Lake Wright Dr. Suite 102	Norfolk	VA		

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Dorston Lauren Dorston	12-01-17	1700	FedEX		
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Fed Ex			Ian Hyacille	12/2/17	1001

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

ATTN: Sample Custodian

Method of Shipment: FedEX

Tracking No.: _____

Add Analysis(es) Requested

Container(s): Quantity | Type | Matrix

Mod. EPA Method 537: PFOA/PFOS | UCMR3 PFAS List:6 | 537 List: 14 | Full List of 26 | Other: Please List Below

EPA Method 537(DW only): PFOA/PFOS | UCMR3 PFAS List:6 | PFAS List: 14

Sample ID	Date	Time	Location/Sample Description	Qty	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
SW-DP01-20171201	12-01-17	1300	Peconic River	2	P	SW			X						
SA-SW204-20171201	12-01-17	1325	Peconic River	2	P	SW			X						
SA-SW204-FRB-20171201	12-01-17	1325	Peconic River	2	P	QA			X						FRB

Special Instructions/Comments: ~~Extract FRB. Only analyze FRB extract if parent sample has positive detection for PFAS~~

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: 5700 Lake Wright Dr. Suite 102
City: Norfolk State: VA Zip: 23502
Phone: 757-466-4902 Fax: _____
Email: Kristi.Francisco@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: _____

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: SW = Surface water GW = groundwater

Page: 1 of 1

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701832 **TAT** Std

Samples Arrival:	**Date/Time** 0937 12/2/17	**Initials:** IA	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/2/17 1552	**Initials:** SR	**Location:** WR-2 **Shelf/Rack:** ~~A5~~ E6 SR 12/2/17

Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None

Temp °C: 1.8	(uncorrected)	**Time:** 1000	**Thermometer ID:** IR-1
Temp °C: 1.9	(corrected)	**Probe used:** Yes☐ No☑	

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill — Trk # 8102 9107 0455	✓		
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:	$Na_2S_2O_3$	Trizma	(None)		(Yes)	No	NA
Shipping Container	(Vista)	Client	Retain	Return		Dispose	

Comments:

EXTRACTION INFORMATION

Process Sheet

Workorder: 1701832

Prep Expiration: 2017-Dec-15
Client: Tetra Tech

Workorder Due: 27-Dec-17 00:00

TAT: 25

Method: **537M PFAS DOD (LOQ as mRL)**
Matrix: **Aqueous**

Prep Batch: B7L0088

Prep Data Entered: HN 12/18/17
Date and Initials

Version: 537 (14 Analyte)
DoD: DoD QSM 5.1

Initial Sequence: S7L0085

LabSampID	A/B	Prep Rec	Spike Rec	ClientSampleID	Comments	Location	Container
1701832-01	A	☑	☑	FT-SW10-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-02		☑	☑	FT-DUP04-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-03		☑	☑	FT-SW13-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-04		☑	☑	FT-SW12-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-05		☑	☑	SA-SW125-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-06		☑	☑	SA-SW124-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-07		☑	☑	SA-PZ124-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-08		☑	☑	SA-DUP05-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-09		☑	☑	SA-PZ147-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-10	B C	☑	☑	SA-SW201-20171201	**MS/MSD**	WR-2 E-6	HDPE Bottle, 250 mL
1701832-11	B	☑	☑	SW-DP01-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-12	A	☑	☑	SA-SW204-20171201		WR-2 E-6	HDPE Bottle, 250 mL
1701832-13		☑	☑	SA-SW204-FRB-20171201		WR-2 E-6	HDPE Bottle, 250 mL

B sample was used, could not find A. 12/13/17 ST

WO Comments: **Provide all analytical runs.**
MS/MSD per batch, if MS/MSD is not provided - LCS/LCSD.

Pre-Prep Check Out: 12/13/17 ST
Pre-Prep Check In: 12/13/17 ST

Prep Check Out: GRB 12/14/17
Prep Check In: NA

Prep Reconciled Initals/Date: 12/13/17 ST
Spike Reconciled Initals/Date: GRB 12/14/17
VialBoxID: Kreigers GF

Batch: B7L0088 Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701832-01	0.24901	NA	NA	1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-02	0.25912			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-03	0.25163			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-04	0.25479			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-05	0.26063			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-06	0.24606			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-07	0.22152			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-08	0.23726			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-09	0.25163			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-10	0.24837			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-11	0.26032			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-12	0.25842			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-13	0.25939			1000	14-Dec-17 09:15	HAC			QC Water	537M PFAS DOD (LOQ as
1701841-06	0.11813			1000	14-Dec-17 09:15	HAC			Aqueous	537M PFAS DOD (LOQ as
1701841-07	0.12048			1000	14-Dec-17 09:15	HAC			Aqueous	537M PFAS DOD (LOQ as
B7L0088-BLK1	0.125			1000	14-Dec-17 09:15	HAC				QC
B7L0088-BS1	0.125			1000	14-Dec-17 09:15	HAC				QC
B7L0088-MS1	0.25868			1000	14-Dec-17 09:15	HAC	17J1820	10		QC
B7L0088-MSD1	0.2594			1000	14-Dec-17 09:15	HAC	17J1820	10		QC

HN 12/18/17

Printed: 12/18/2017 1:08:35PM

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0088

Chemist: HC

Prep Date/Time: ~~13~~-Dec-17 ~~10:57~~ 12.14.17 0915 GRB 12/14/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/13/17 ST | BalanceID: ARMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	B7L0088-BLK1	5	2	0	2	N/A	N/A	(0.250)	HC GRB 12.14.17	GRB 12.14.17	HC GRB 12/14/17
☐	B7L0088-BS1	5	2	0	2	↓	↓	(0.250)	↓	↓	↓
☒	B7L0088-MS1 1701832-10	5	2	0	2	286.43	27.75	0.25868			
☒	B7L0088-MSD1 1701832-10	5	2	0	2	286.49	27.09	0.25940			
☒	1701832-01	5	2	0	2	276.72	27.71	0.24901			
☒	1701832-02	5	2	0	2	286.12	27.00	0.25912			
☒	1701832-03	5	2	0	2	279.42	27.79	0.25163			
☒	1701832-04	5	2	0	2	282.62	27.83	0.25479			
☒	1701832-05	5	2	0	2	288.30	27.67	0.26063			
☒	1701832-06	5	2	0	2	273.07	27.01	0.24606			
☒	1701832-07	5	2	0	2	249.37	27.85	0.22152			
☒	1701832-08	5	2	0	2	264.88	27.62	0.23726			
☒	1701832-09	5	2	0	2	279.54	27.91	0.25163			
☒	1701832-10	5	2	0	2	276.07	27.70	0.24837			
☐	1701832-11	5	2	0	2	288.09	27.77	0.26032			
☐	1701832-12	5	2	0	2	286.05	27.63	0.25842			

IS: 17L0402, 10µL (V5)

IS SUP: NA

NS: 17J1820, 10µL (V2)

RS: 17K2502, 10µL (V3)

SPE Chem: STRATA X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% NH_4OH in MeOH/MeOH

Final Volume(s): 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0088

Chemist: HC

Prep Date/Time: 13-Dec-17 10:57 ~~12-14-17~~ 12.14.17 0915

GRB 12/14/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/13/17 ST

BalanceID: HRMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	1701832-13	5	2	0	2	297.22	27.83	0.25939	HC GRB 12.14.17	GRB 12.14.17	KC GRB 12/14/17
☐	1701841-06	5	2	0	1	145.19	27.06	0.11813	↓	↓	↓
☐	1701841-07	5	2	0	1	147.61	27.13	0.12049	↓	↓	↓

IS: 17L0402, 10µL (V5)

IS SUP: NA

NS: 17J1820, 10µL (V2)

RS: 17K2502, 10µL (V3)

SPE Chem: Strata X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% NH4OH in MeOH/MeOH

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

SAMPLE DATA – MODIFIED EPA METHOD 537

Vista Analytical Laboratory

Rev'd: MM 1/5/18

Dataset: U:\Q4.PRO\results\171230M3\171230M3-22.qld

Last Altered: Wednesday, January 03, 2018 09:32:59 Pacific Standard Time
Printed: Wednesday, January 03, 2018 09:33:42 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_22, Date: 31-Dec-2017, Time: 02:39:17, ID: B7L0088-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		2.05e3	0.250		2.70				
2	4	PFHxA	313.2 > 268.9		5.18e3	0.250		3.12				
3	5	PFHpA	363.0 > 318.9		1.20e4	0.250		3.75				
4	6	L-PFHxS	398.9 > 79.6		1.58e3	0.250		3.85				
5	9	L-PFOA	413 > 368.7	2.26e2	1.74e4	0.250		4.25	4.26	0.163		
6	12	PFNA	463.0 > 418.8		1.18e4	0.250		4.70				
7	14	L-PFOS	499 > 79.9		3.98e3	0.250		4.75				
8	16	PFDA	513 > 468.8		1.26e4	0.250		5.05				
9	18	N-MeFOSAA	570.1 > 419		5.37e3	0.250		5.20				
10	19	N-EtFOSAA	584.2 > 419		6.42e3	0.250		5.42				
11	20	PFUdA	563.0 > 518.9		1.52e4	0.250		5.35				
12	22	PFDoA	612.9 > 569.0		1.32e4	0.250		5.70				

MJT 1/3/2018

Vista Analytical Laboratory

Rev'd: MM 1/5/18

Dataset: U:\Q4.PRO\results\171230M3\171230M3-22.qld

Last Altered: Wednesday, January 03, 2018 09:32:59 Pacific Standard Time
Printed: Wednesday, January 03, 2018 09:34:07 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_22, Date: 31-Dec-2017, Time: 02:39:17, ID: B7L0088-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		1.32e4	0.250		5.95				
2	25	PFTeDA	712.9 > 668.8		4.27e3	0.250		6.16				
3	31	13C3-PFBA	216.1 > 171.8	1.20e4	1.24e4	0.250	0.780	1.47	1.41	12.1	62.1448	124.3
4	32	13C3-PFPeA	266. > 221.8	1.55e4	1.52e4	0.250	0.771	2.44	2.36	12.7	65.8447	131.7
5	33	13C3-PFBS	302. > 98.8	2.05e3	1.52e4	0.250	0.103	2.70	2.64	1.68	65.2991	130.6
6	34	13C2-PFHxA	315 > 269.8	5.18e3	1.52e4	0.250	0.619	3.20	3.13	4.26	27.5084	137.5
7	35	13C4-PFHpA	367.2 > 321.8	1.20e4	1.52e4	0.250	0.634	3.80	3.74	9.88	62.3691	124.7
8	36	18O2-PFHxS	403.0 > 102.6	1.58e3	3.48e3	0.250	0.320	3.95	3.89	5.69	71.2697	142.5
9	37	13C2-6:2 FTS	429.1 > 408.9	3.93e3	1.23e4	0.250	0.244	4.26	4.20	4.01	65.7875	131.6
10	38	13C2-PFOA	414.9 > 369.7	1.74e4	1.23e4	0.250	1.046	4.32	4.26	17.7	67.7686	135.5
11	39	13C5-PFNA	468.2 > 422.9	1.18e4	1.27e4	0.250	0.838	4.75	4.69	11.7	55.6122	111.2
12	40	13C8-PFOSA	506.1 > 77.7	1.65e3	1.67e4	0.250	0.162	4.81	4.75	1.23	30.3145	60.6
13	41	13C8-PFOS	507.0 > 79.9	3.98e3	4.01e3	0.250	0.863	4.83	4.77	12.4	57.5649	115.1
14	42	13C2-PFDA	515.1 > 469.9	1.26e4	1.17e4	0.250	0.828	5.11	5.06	13.4	64.7914	129.6
15	43	13C2-8:2 FTS	529.1 > 508.7	2.86e3	1.52e4	0.250	0.139	5.09	5.03	2.35	67.5979	135.2
16	44	d3-N-MeFOSAA	573.3 > 419	5.37e3	1.67e4	0.250	0.306	5.26	5.20	4.02	52.4885	105.0
17	45	d5-N-EtFOSAA	589.3 > 419	6.42e3	1.67e4	0.250	0.346	5.42	5.36	4.80	55.4861	111.0
18	46	13C2-PFUdA	565 > 519.8	1.52e4	1.67e4	0.250	0.842	5.43	5.38	11.4	54.0202	108.0
19	47	13C2-PFDoA	615.0 > 569.7	1.32e4	1.67e4	0.250	0.714	5.70	5.66	9.85	55.2080	110.4
20	49	13C2-PFTeDA	714.8 > 669.6	4.27e3	1.67e4	0.250	0.236	6.16	6.12	3.19	54.0741	108.1
21	54	13C4-PFBA	217. > 171.8	1.24e4	1.24e4	0.250	1.000	1.47	1.41	12.5	50.0000	100.0
22	55	13C5-PFHxA	318 > 272.9	1.52e4	1.52e4	0.250	1.000	3.20	3.13	12.5	50.0000	100.0
23	56	13C3-PFHxS	401.9 > 79.9	3.48e3	3.48e3	0.250	1.000	3.95	3.89	12.5	50.0000	100.0
24	57	13C8-PFOA	421.3 > 376	1.23e4	1.23e4	0.250	1.000	4.32	4.25	12.5	50.0000	100.0
25	58	13C9-PFNA	472.2 > 426.9	1.27e4	1.27e4	0.250	1.000	4.75	4.69	12.5	50.0000	100.0
26	59	13C4-PFOS	503 > 79.9	4.01e3	4.01e3	0.250	1.000	4.83	4.76	12.5	50.0000	100.0
27	60	13C6-PFDA	519.1 > 473.7	1.17e4	1.17e4	0.250	1.000	5.11	5.06	12.5	50.0000	100.0
28	61	13C7-PFUdA	570.1 > 524.8	1.67e4	1.67e4	0.250	1.000	5.43	5.38	12.5	50.0000	100.0
29	62	Total PFHxS	398.9 > 79.6	0.00e0	1.58e3	0.250		4.00		0.000		
30	63	Total PFOA	413 > 368.7	2.26e2	1.74e4	0.250		4.30		0.000		
31	64	Total PFOS	499 > 79.9	0.00e0	3.98e3	0.250		4.80		0.000		
32	65	Total N-MeFOSAA	570.1 > 419	0.00e0	5.37e3	0.250		5.20		0.000		

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Rev'd: MM 1/5/18

Dataset: U:\Q4.PRO\results\171230M3\171230M3-22.qld

Last Altered: Wednesday, January 03, 2018 09:32:59 Pacific Standard Time
Printed: Wednesday, January 03, 2018 09:34:07 Pacific Standard Time

Name: 171230M3_22, Date: 31-Dec-2017, Time: 02:39:17, ID: B7L0088-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
33	66	Total N-EtFOSAA	584.2 > 419	0.00e0	6.42e3	0.250		5.40		0.000		

MJT 1/3/2018

Vista Analytical Laboratory

Rev'd: MM 1/5/18

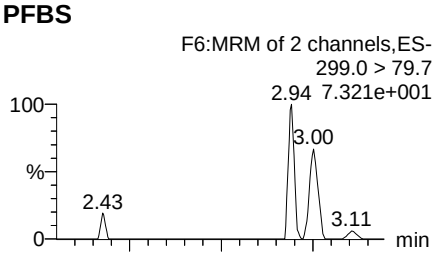
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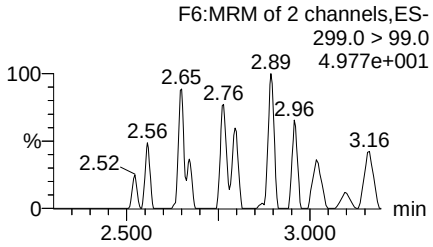
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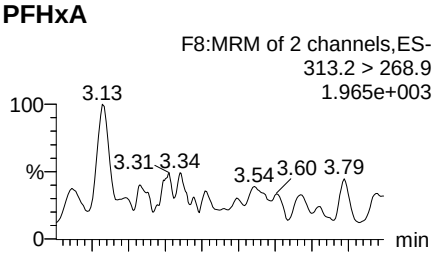
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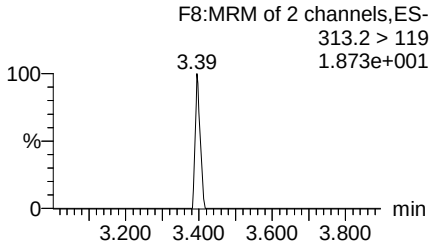
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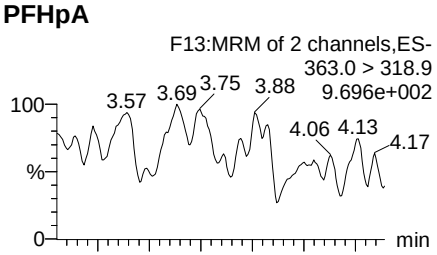


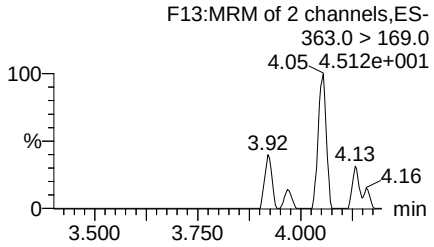
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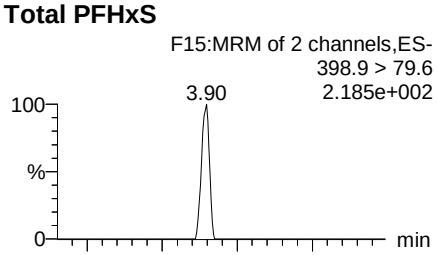


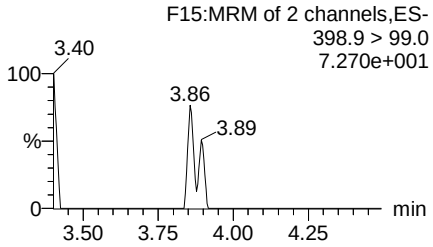
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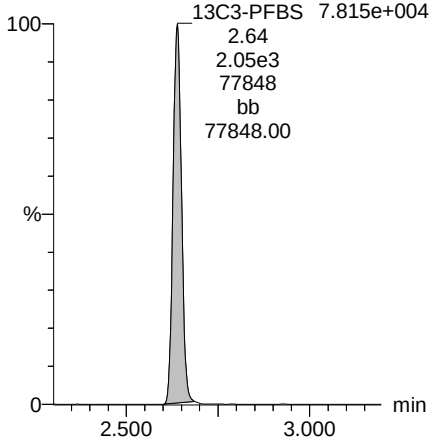


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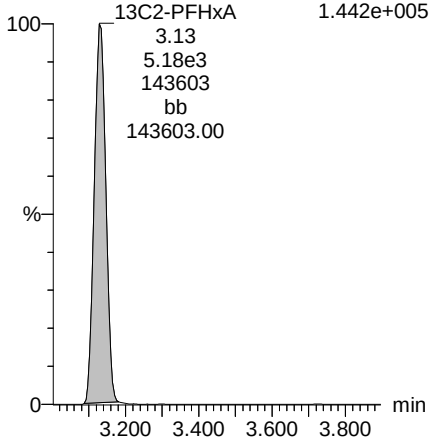




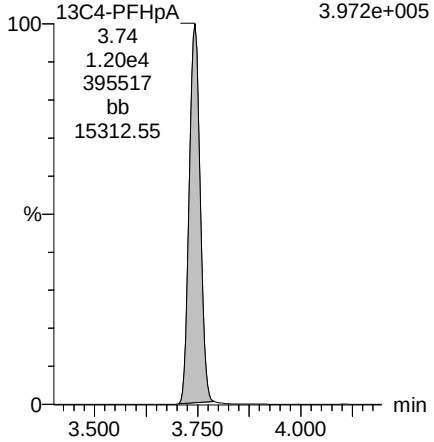
13C3-PFBS



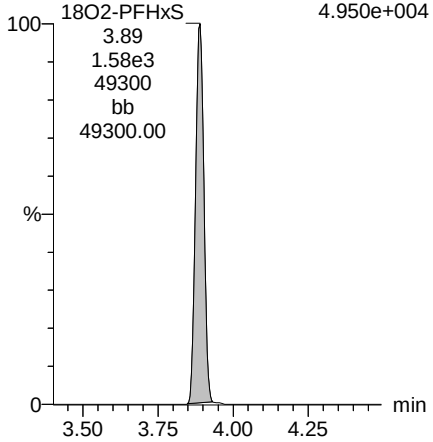
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13C4-PFHpA



18O2-PFHxS



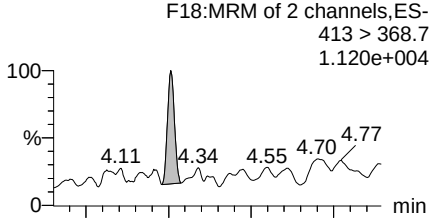
MJT 1/3/2018

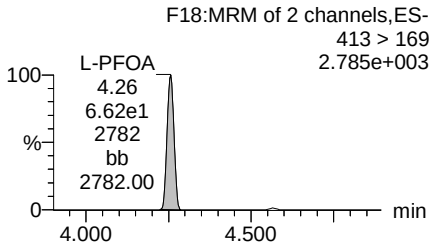
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Printed: Wednesday, January 03, 2018 09:34:07 Pacific Standard Time

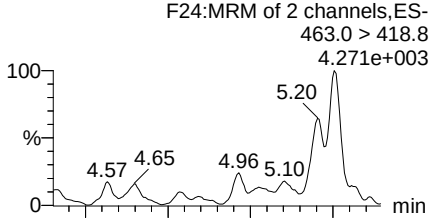
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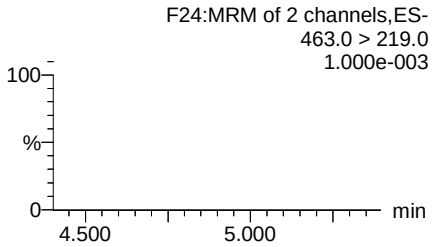
Total PFOA



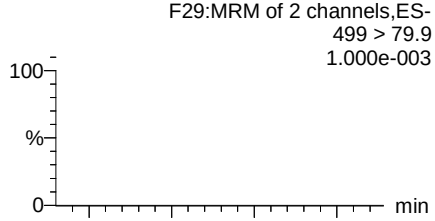


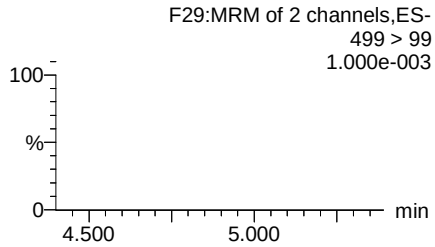
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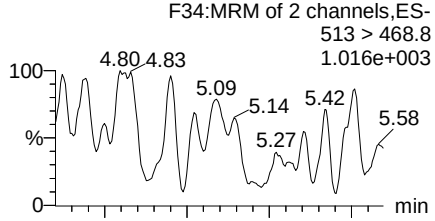


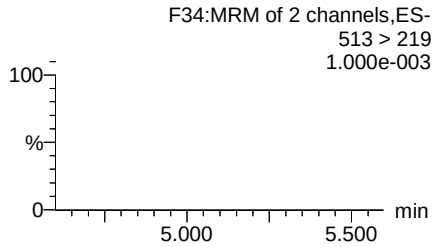
Total PFOS



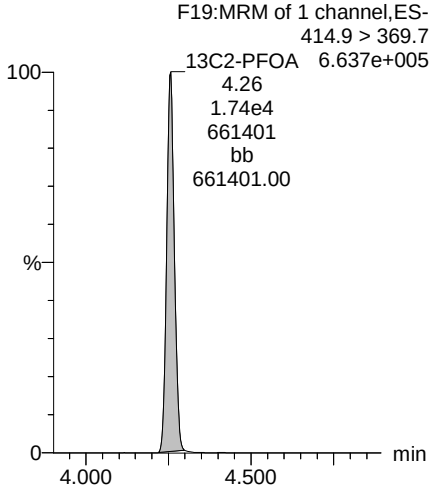


PFDA

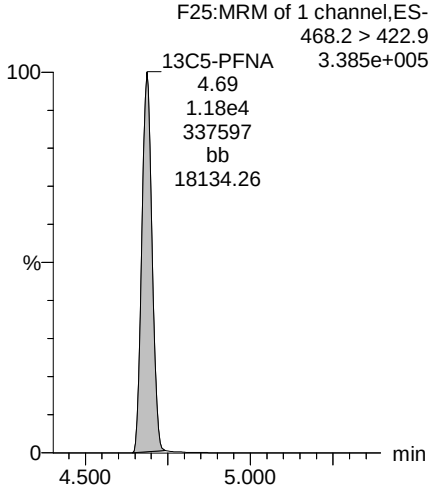




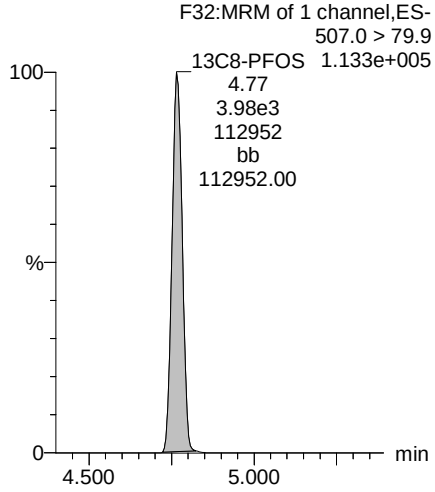
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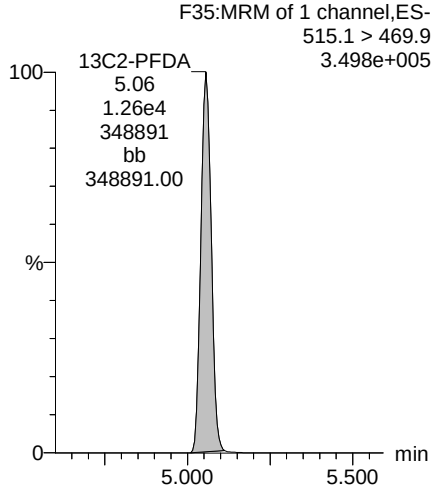
13C5-PFNA



13C8-PFOS



13C2-PFDA



MJT 1/3/2018

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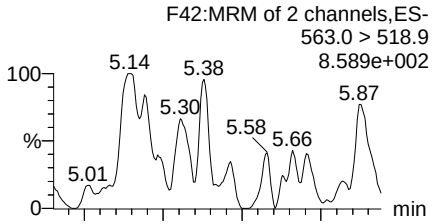
Rev'd: MM 1/5/18

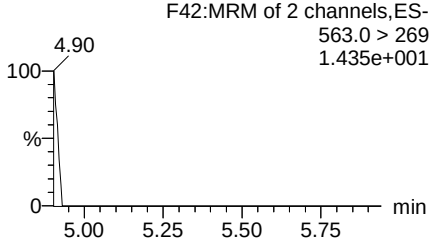
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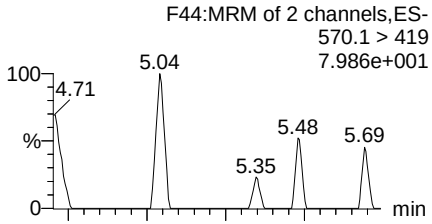
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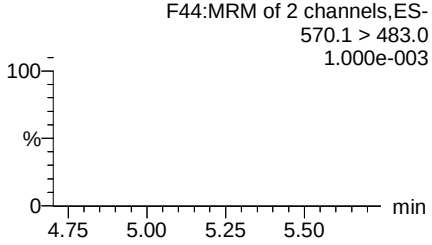
PFUdA



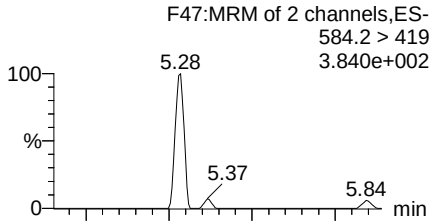


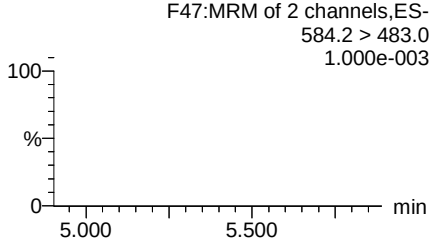
N-MeFOSAA



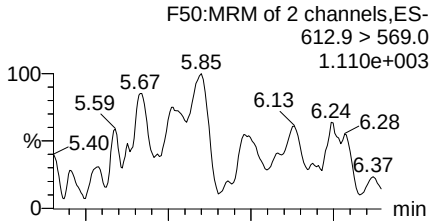


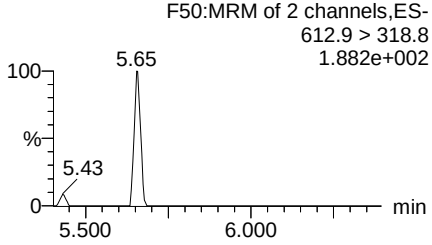
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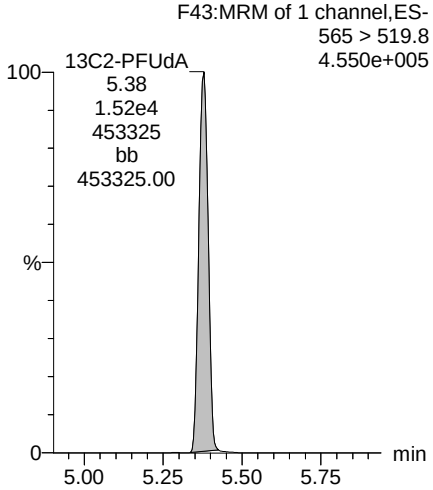


PFDoA

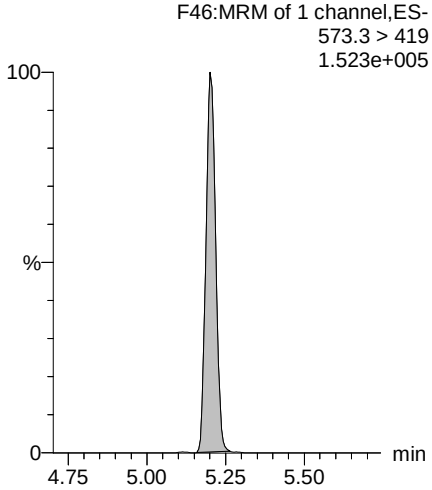




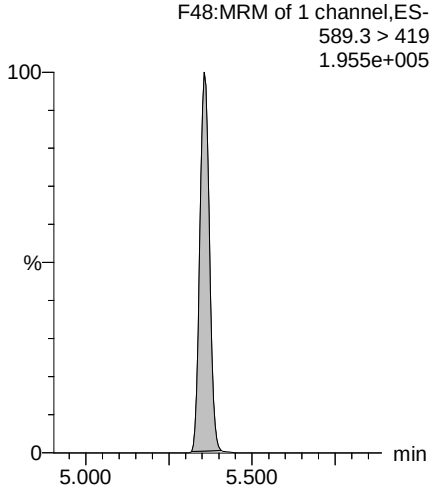
13C2-PFUdA



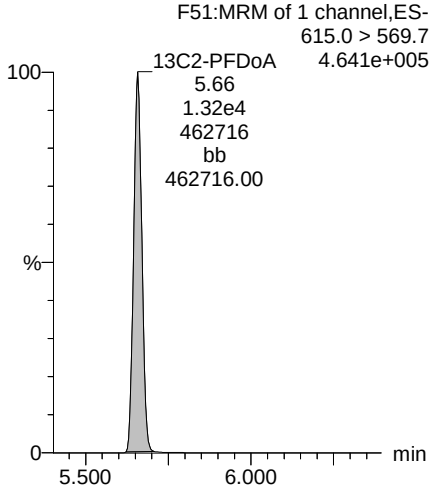
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



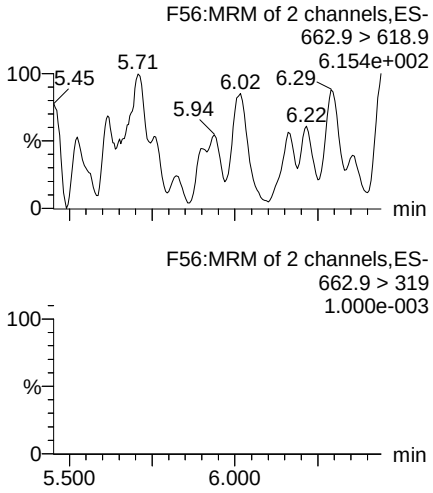
MJT 1/3/2018

Dataset: U:\Q4.PRO\results\171230M3\171230M3-22.qld

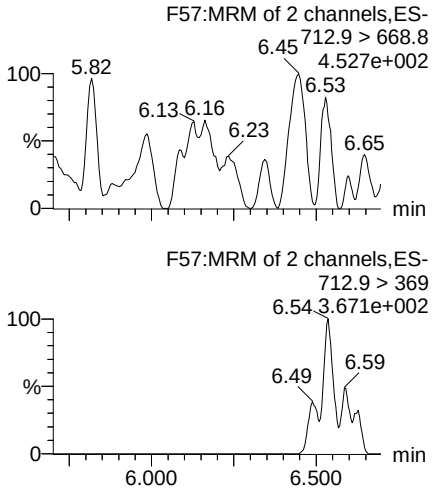
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Printed: Wednesday, January 03, 2018 09:34:07 Pacific Standard Time

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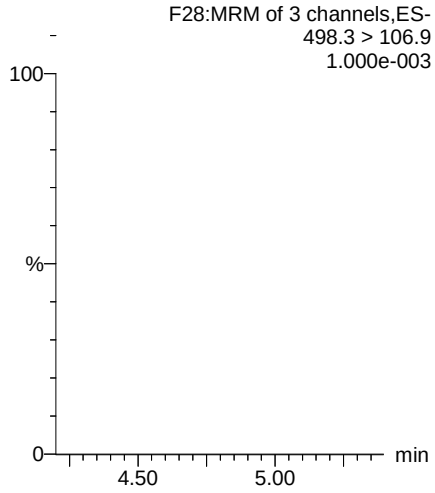
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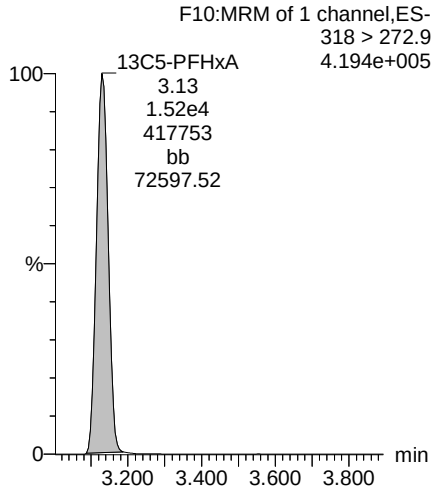
PFTeDA



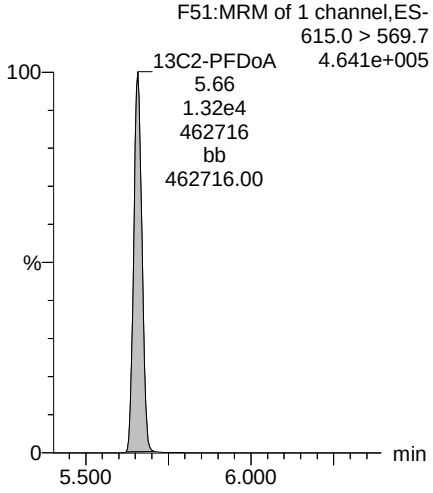
TCDA



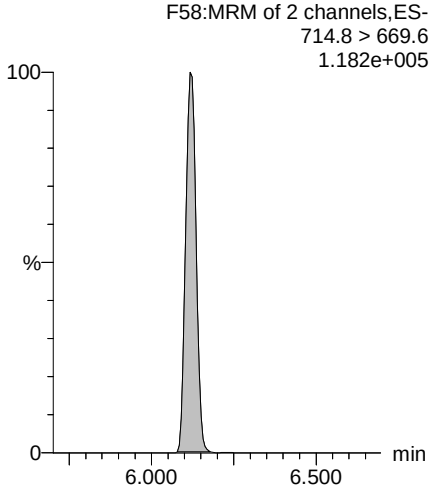
13C5-PFHxA



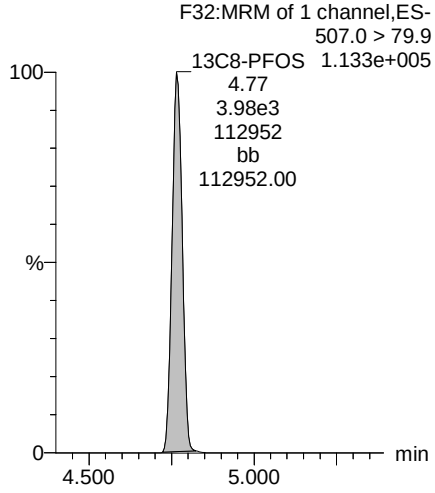
13C2-PFDoA



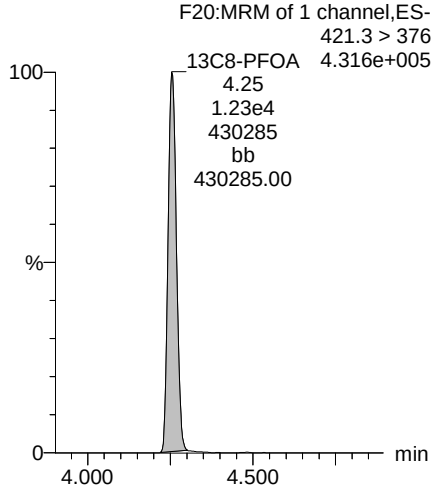
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



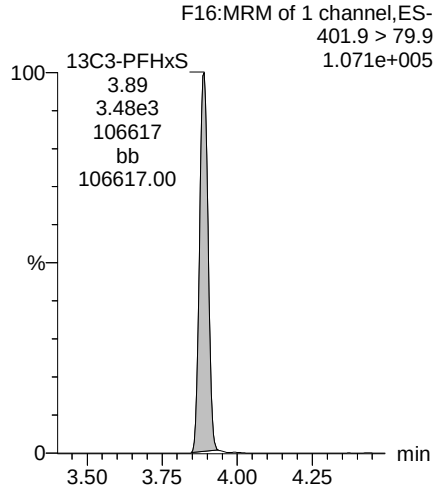
MJT 1/3/2018

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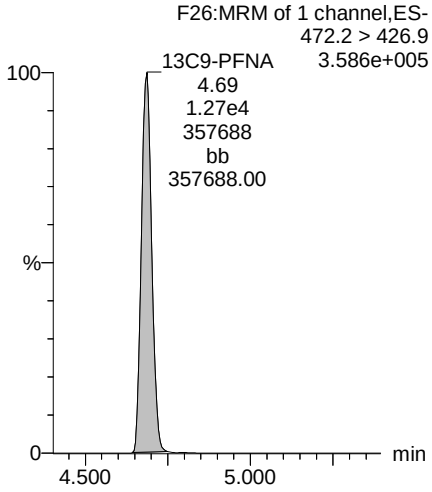
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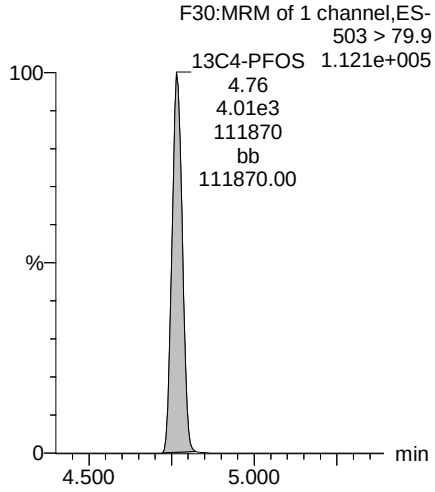
13C3-PFHxS



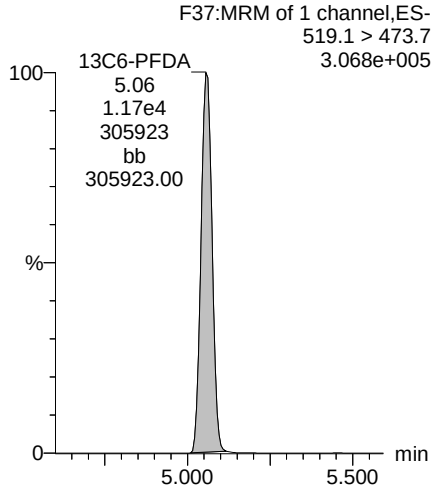
13C9-PFNA



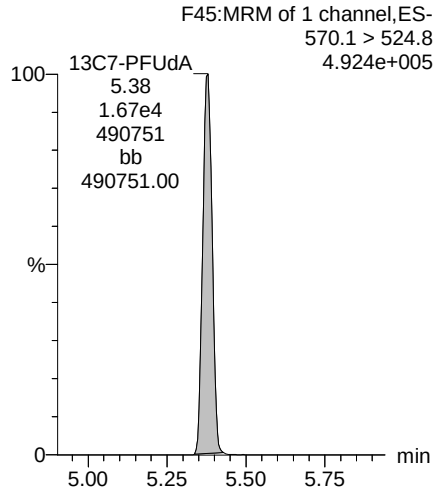
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/5/18

Dataset: U:\Q4.PRO\results\171230M3\171230M3-20.qld

Last Altered: Wednesday, January 03, 2018 09:10:54 Pacific Standard Time
Printed: Wednesday, January 03, 2018 09:13:09 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_20, Date: 31-Dec-2017, Time: 02:16:55, ID: B7L0088-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.84e3	1.85e3	0.250		2.70	2.65	19.2	34.9846	87.5
2	4	PFHxA	313.2 > 268.9	1.41e4	3.89e3	0.250		3.12	3.14	18.1	37.1109	92.8
3	5	PFHpA	363.0 > 318.9	1.17e4	1.07e4	0.250		3.75	3.75	13.7	35.7247	89.3
4	6	L-PFHxS	398.9 > 79.6	2.05e3	1.40e3	0.250		3.85	3.89	18.4	35.6479	89.1
5	9	L-PFOA	413 > 368.7	1.41e4	1.62e4	0.250		4.25	4.26	10.9	38.5292	96.3
6	12	PFNA	463.0 > 418.8	1.22e4	1.28e4	0.250		4.70	4.69	11.9	28.3379	70.8
7	14	L-PFOS	499 > 79.9	3.13e3	3.49e3	0.250		4.75	4.77	11.2	35.2934	88.2
8	16	PFDA	513 > 468.8	1.14e4	1.08e4	0.250		5.05	5.06	13.2	32.0948	80.2
9	18	N-MeFOSAA	570.1 > 419	5.48e3	4.78e3	0.250		5.20	5.21	14.3	36.0055	90.0
10	19	N-EtFOSAA	584.2 > 419	4.71e3	5.04e3	0.250		5.42	5.37	11.7	35.6246	89.1
11	20	PFUdA	563.0 > 518.9	9.58e3	1.33e4	0.250		5.35	5.38	9.00	31.1575	77.9
12	22	PFDoA	612.9 > 569.0	1.14e4	1.12e4	0.250		5.70	5.66	12.8	33.6100	84.0

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Vista Analytical Laboratory

Rev'd: MM 1/5/18

Dataset: U:\Q4.PRO\results\171230M3\171230M3-20.qld

Last Altered: Wednesday, January 03, 2018 09:10:54 Pacific Standard Time
Printed: Wednesday, January 03, 2018 09:13:26 Pacific Standard Time

Method: U:\Q4.pro\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.pro\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_20, Date: 31-Dec-2017, Time: 02:16:55, ID: B7L0088-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	1.35e4	1.12e4	0.250		5.95	5.91	15.1	42.3135	105.8
2	25	PFTeDA	712.9 > 668.8	1.09e4	4.98e3	0.250		6.16	6.12	27.3	39.7372	99.3
3	31	13C3-PFBA	216.1 > 171.8	1.07e4	1.13e4	0.250	0.780	1.47	1.41	11.8	60.5828	121.2
4	32	13C3-PFPeA	266. > 221.8	1.23e4	1.35e4	0.250	0.771	2.44	2.37	11.4	59.2024	118.4
5	33	13C3-PFBS	302. > 98.8	1.85e3	1.35e4	0.250	0.103	2.70	2.64	1.71	66.2219	132.4
6	34	13C2-PFHxA	315 > 269.8	3.89e3	1.35e4	0.250	0.619	3.20	3.14	3.59	23.2376	116.2
7	35	13C4-PFHpA	367.2 > 321.8	1.07e4	1.35e4	0.250	0.634	3.80	3.75	9.94	62.7266	125.5
8	36	18O2-PFHxS	403.0 > 102.6	1.40e3	3.72e3	0.250	0.320	3.95	3.90	4.70	58.8538	117.7
9	37	13C2-6:2 FTS	429.1 > 408.9	3.48e3	1.27e4	0.250	0.244	4.26	4.21	3.42	55.9999	112.0
10	38	13C2-PFOA	414.9 > 369.7	1.62e4	1.27e4	0.250	1.046	4.32	4.26	15.9	60.6850	121.4
11	39	13C5-PFNA	468.2 > 422.9	1.28e4	1.24e4	0.250	0.838	4.75	4.69	12.9	61.5385	123.1
12	40	13C8-PFOSA	506.1 > 77.7	1.62e3	1.42e4	0.250	0.162	4.81	4.76	1.42	35.0040	70.0
13	41	13C8-PFOS	507.0 > 79.9	3.49e3	3.59e3	0.250	0.863	4.83	4.78	12.1	56.2703	112.5
14	42	13C2-PFDA	515.1 > 469.9	1.08e4	1.23e4	0.250	0.828	5.11	5.06	11.0	52.9377	105.9
15	43	13C2-8:2 FTS	529.1 > 508.7	2.53e3	1.35e4	0.250	0.139	5.09	5.03	2.34	67.4017	134.8
16	44	d3-N-MeFOSAA	573.3 > 419	4.78e3	1.42e4	0.250	0.306	5.26	5.21	4.20	54.8786	109.8
17	45	d5-N-EtFOSAA	589.3 > 419	5.04e3	1.42e4	0.250	0.346	5.42	5.36	4.43	51.2185	102.4
18	46	13C2-PFUdA	565 > 519.8	1.33e4	1.42e4	0.250	0.842	5.43	5.38	11.7	55.5516	111.1
19	47	13C2-PFDoA	615.0 > 569.7	1.12e4	1.42e4	0.250	0.714	5.70	5.66	9.84	55.1274	110.3
20	49	13C2-PFTeDA	714.8 > 669.6	4.98e3	1.42e4	0.250	0.236	6.16	6.12	4.38	74.1108	148.2
21	54	13C4-PFBA	217. > 171.8	1.13e4	1.13e4	0.250	1.000	1.47	1.42	12.5	50.0000	100.0
22	55	13C5-PFHxA	318 > 272.9	1.35e4	1.35e4	0.250	1.000	3.20	3.14	12.5	50.0000	100.0
23	56	13C3-PFHxS	401.9 > 79.9	3.72e3	3.72e3	0.250	1.000	3.95	3.89	12.5	50.0000	100.0
24	57	13C8-PFOA	421.3 > 376	1.27e4	1.27e4	0.250	1.000	4.32	4.26	12.5	50.0000	100.0
25	58	13C9-PFNA	472.2 > 426.9	1.24e4	1.24e4	0.250	1.000	4.75	4.69	12.5	50.0000	100.0
26	59	13C4-PFOS	503 > 79.9	3.59e3	3.59e3	0.250	1.000	4.83	4.78	12.5	50.0000	100.0
27	60	13C6-PFDA	519.1 > 473.7	1.23e4	1.23e4	0.250	1.000	5.11	5.06	12.5	50.0000	100.0
28	61	13C7-PFUdA	570.1 > 524.8	1.42e4	1.42e4	0.250	1.000	5.43	5.38	12.5	50.0000	100.0
29	62	Total PFHxS	398.9 > 79.6	2.05e3	1.40e3	0.250		4.00		18.4	35.6479	
30	63	Total PFOA	413 > 368.7	1.41e4	1.62e4	0.250		4.30		10.9	38.5292	
31	64	Total PFOS	499 > 79.9	3.13e3	3.49e3	0.250		4.80		11.2	35.2934	
32	65	Total N-MeFOSAA	570.1 > 419	5.48e3	4.78e3	0.250		5.20		14.3	36.0055	

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Rev'd: MM 1/5/18

Dataset: U:\Q4.PRO\results\171230M3\171230M3-20.qld

Last Altered: Wednesday, January 03, 2018 09:10:54 Pacific Standard Time
Printed: Wednesday, January 03, 2018 09:13:26 Pacific Standard Time

Name: 171230M3_20, Date: 31-Dec-2017, Time: 02:16:55, ID: B7L0088-BS1 OPR 0.125, Description: OPR

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
33	66	Total N-EtFOSAA	584.2 > 419	4.71e3	5.04e3	0.250		5.40		11.7	35.6246	

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Rev'd: MM 1/5/18

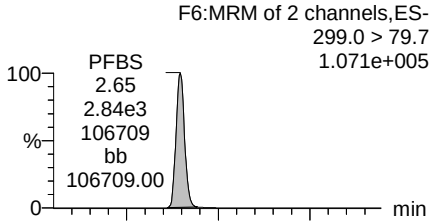
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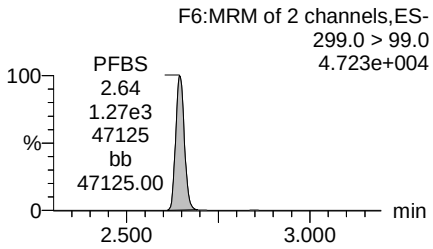
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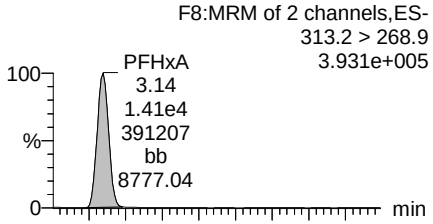
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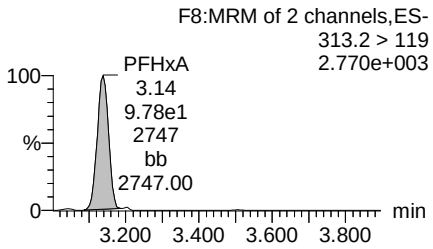
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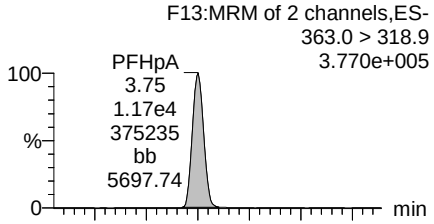


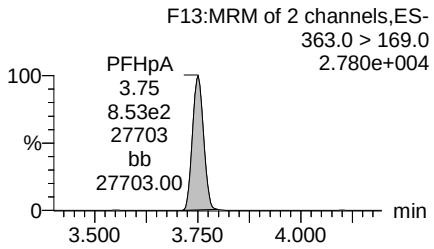
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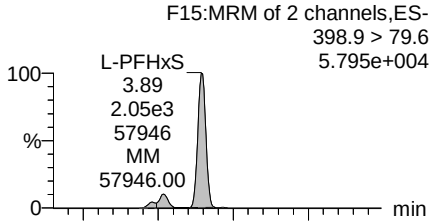


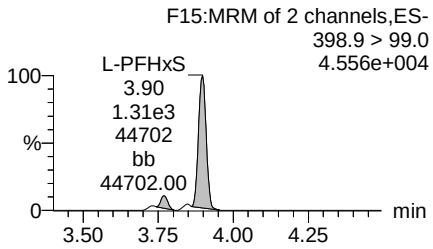
PFHpA



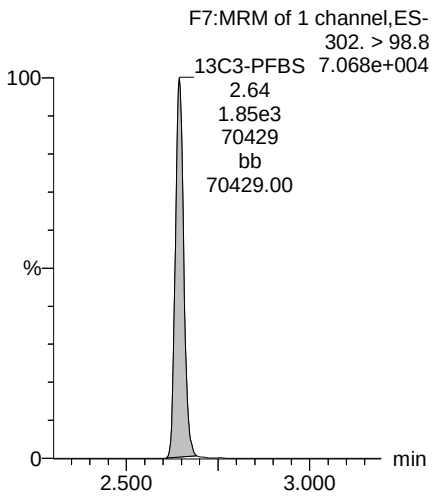


Total PFHxS

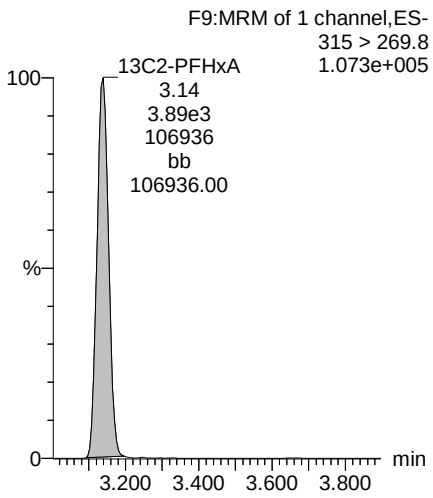




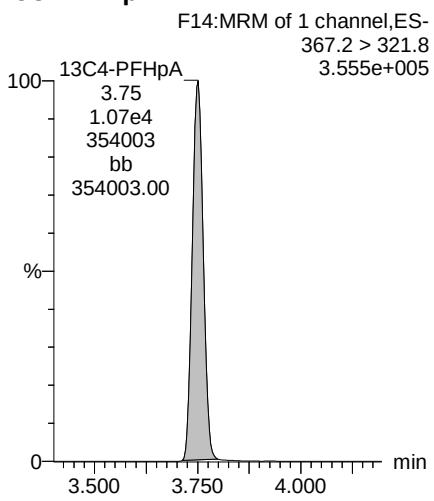
13C3-PFBS



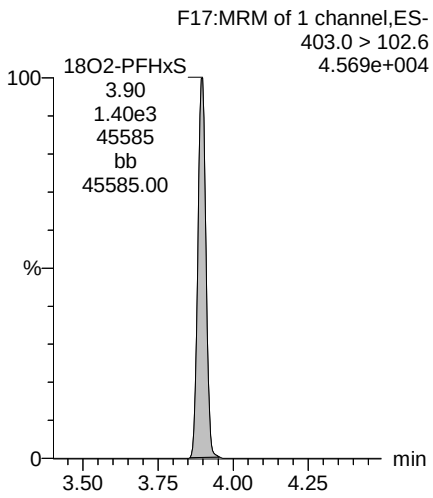
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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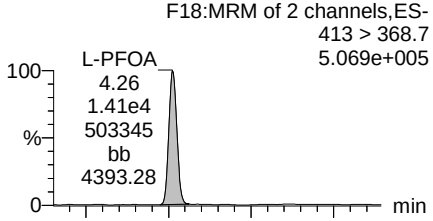
Rev'd: MM 1/5/18

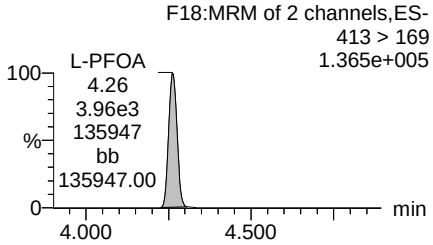
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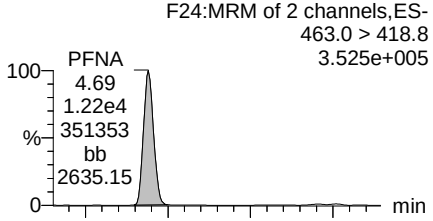
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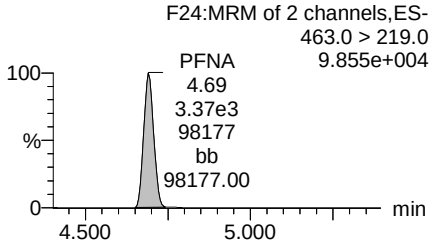
Total PFOA



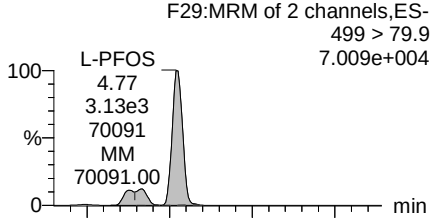


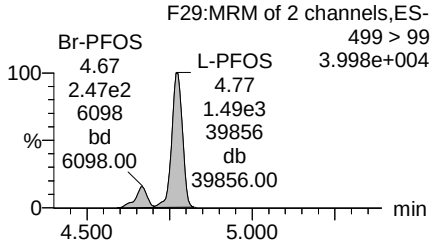
PFNA



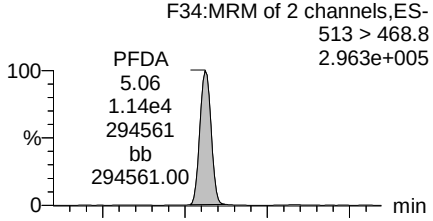


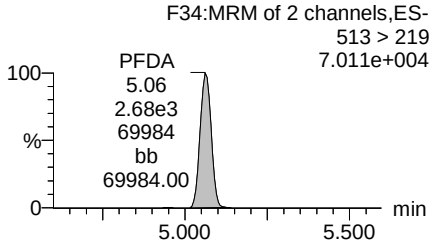
Total PFOS



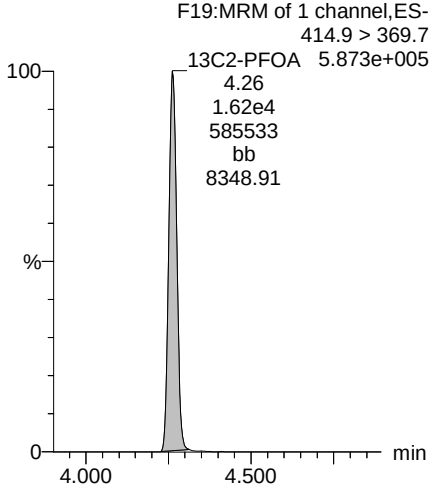


PFDA

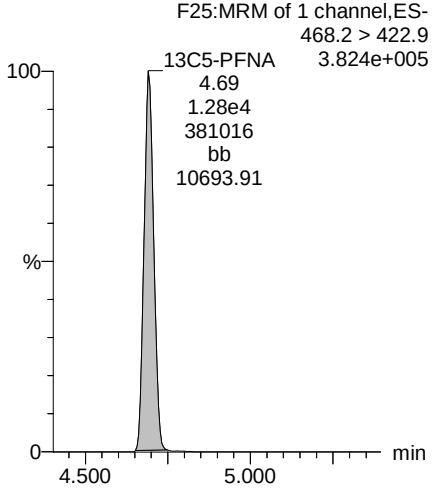




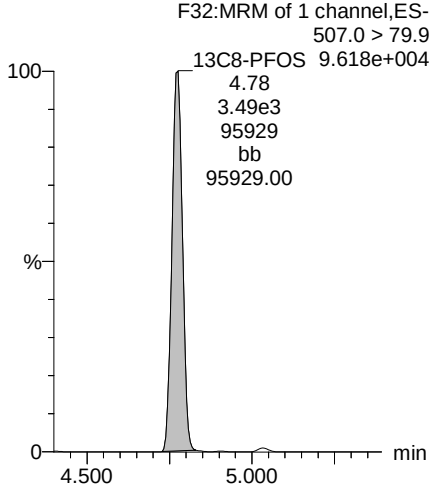
13C2-PFOA



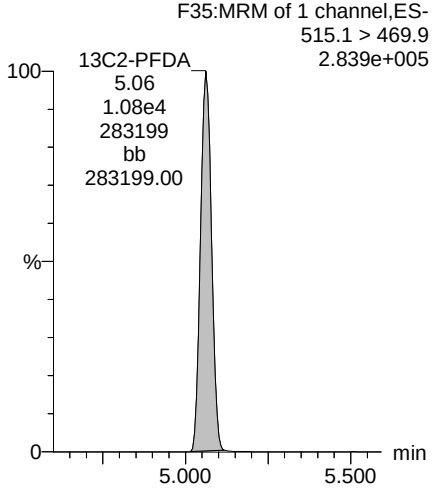
13C5-PFNA



13C8-PFOS



13C2-PFDA



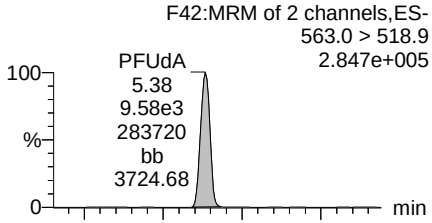
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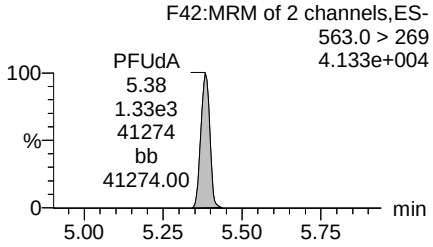
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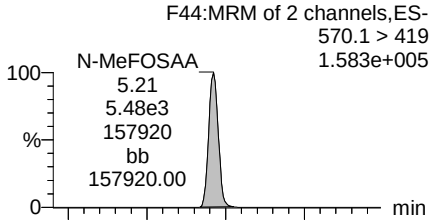
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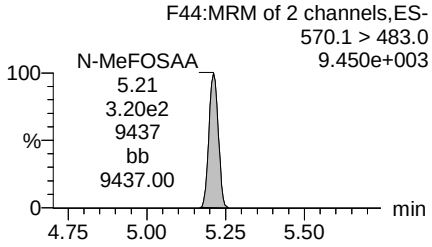
PFUdA



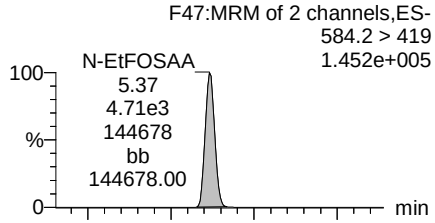


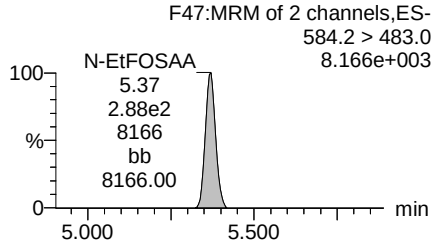
N-MeFOSAA



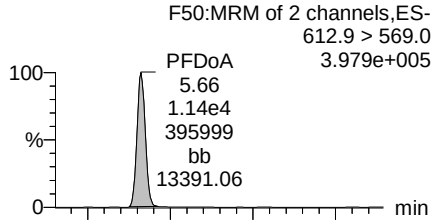


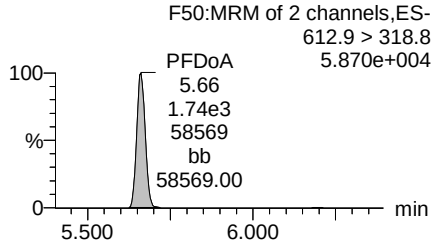
N-EtFOSAA



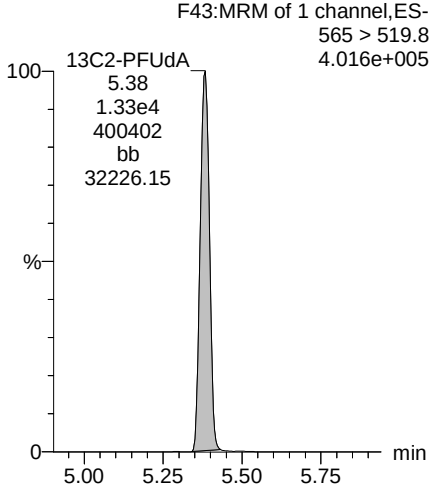


PFDoA

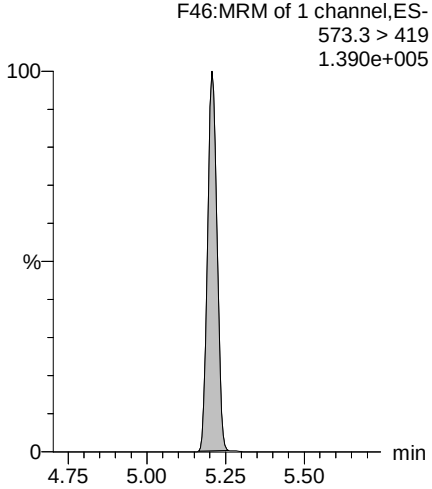




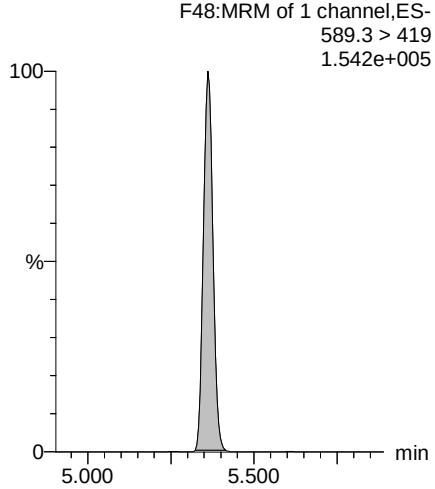
13C2-PFUdA



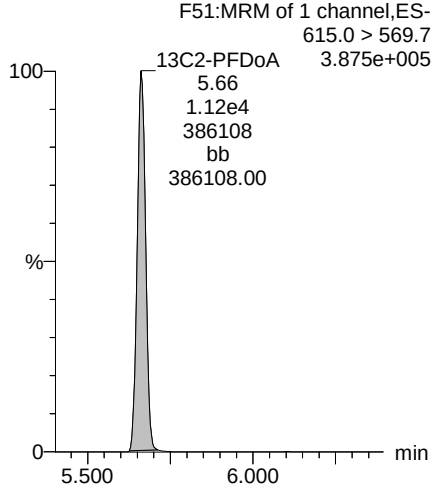
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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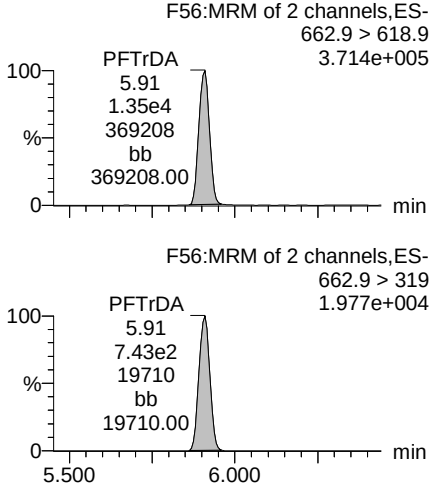
Rev'd: MM 1/5/18

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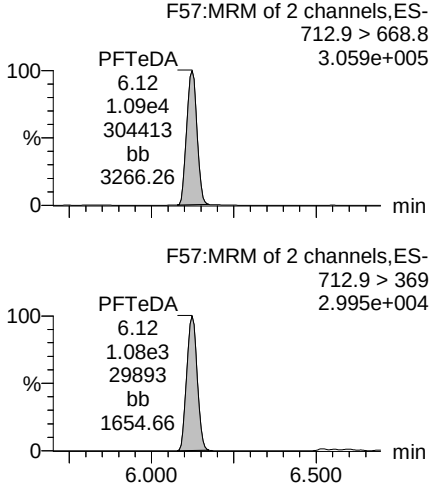
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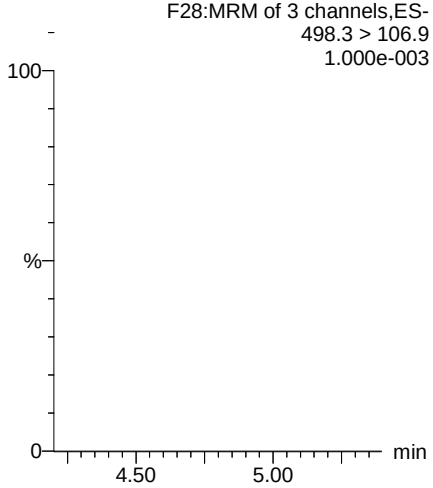
PFTrDA



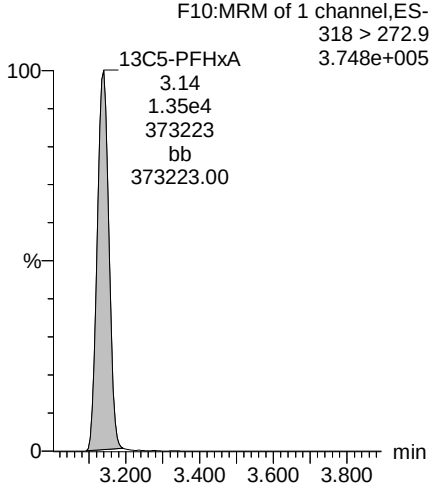
PFTeDA



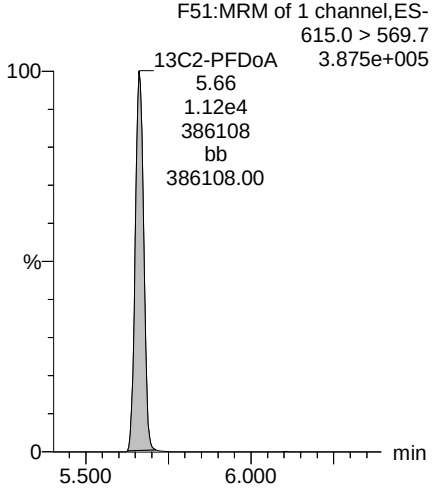
TCDA



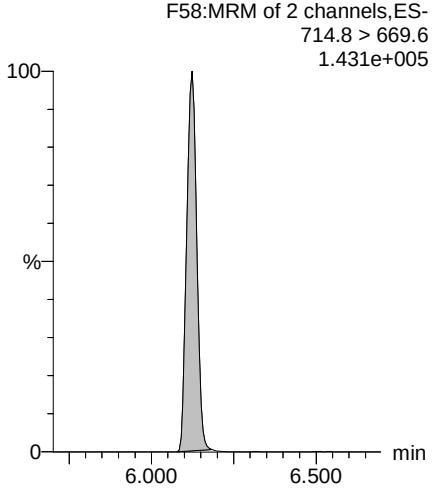
13C5-PFHxA



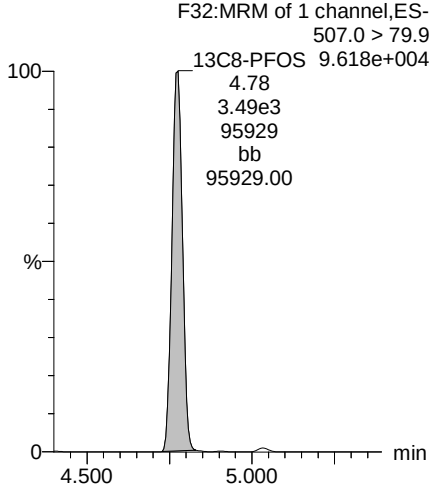
13C2-PFDoA



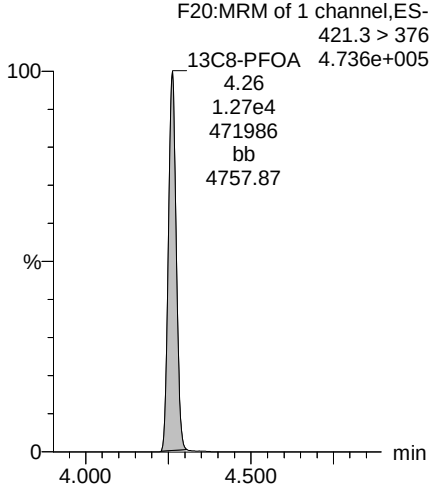
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



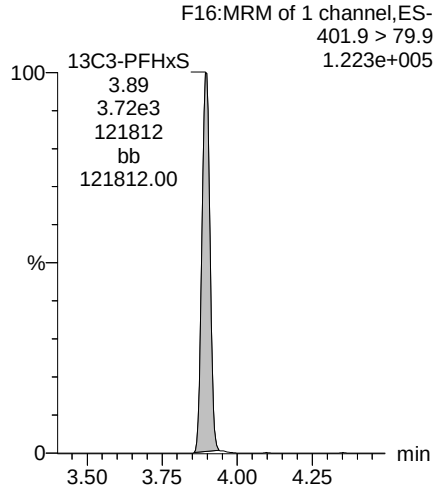
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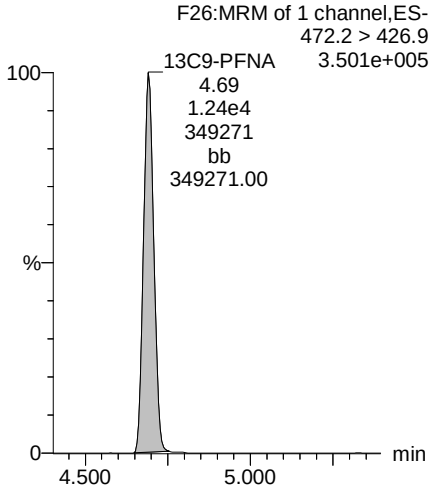
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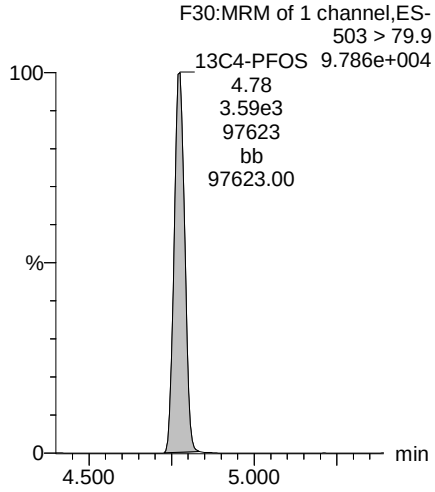
13C3-PFHxS



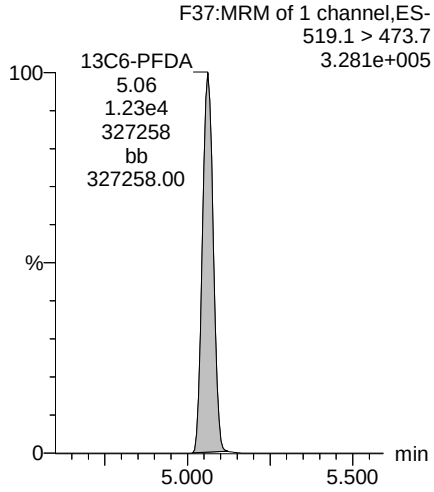
13C9-PFNA



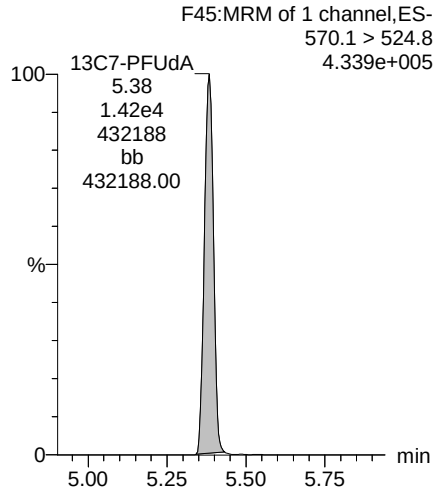
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_15.qld

Last Altered: Thursday, January 11, 2018 15:24:11 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:24:45 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_15, Date: 11-Jan-2018, Time: 11:59:21, ID: 1701832-01 FT-SW10-20171201 0.24901, Description: FT-SW10-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.48e3	0.249		2.66				
2	4	PFHxA	313.2 > 268.9	6.39e2	3.12e3	0.249		3.15	3.08	1.03	2.1759	
3	5	PFHpA	363.0 > 318.9	2.88e2	8.14e3	0.249		3.78	3.70	0.442	1.3657	
4	6	L-PFHxS	398.9 > 79.6	1.19e1	1.18e3	0.249		3.94	3.85	0.126	0.6357	
5	9	L-PFOA	413 > 368.7	8.28e2	1.11e4	0.249		4.31	4.22	0.932	2.3800	
6	12	PFNA	463.0 > 418.8	1.19e3	9.40e3	0.249		4.81	4.66	1.58	4.4757	
7	14	L-PFOS	499 > 79.9	5.00e1	3.35e3	0.249		4.89	4.74	0.187	0.5314	
8	16	PFDA	513 > 468.8	1.33e2	7.52e3	0.249		5.18	5.03	0.221	1.1421	
9	18	N-MeFOSAA	570.1 > 419		3.54e3	0.249		5.32				
10	19	N-EtFOSAA	584.2 > 419		4.10e3	0.249		5.48				
11	20	PFUdA	563.0 > 518.9	2.70e2	1.10e4	0.249		5.50	5.36	0.307	1.2116	
12	22	PFDoA	612.9 > 569.0		5.13e3	0.249		5.77				

ANP 1/11/2018

Vista Analytical Laboratory

Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_15.qld

Last Altered: Thursday, January 11, 2018 15:24:11 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:24:54 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_15, Date: 11-Jan-2018, Time: 11:59:21, ID: 1701832-01 FT-SW10-20171201 0.24901, Description: FT-SW10-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.13e3	0.249		6.00				
2	25	PFTeDA	712.9 > 668.8		1.79e3	0.249		6.22				
3	33	13C3-PFBS	302. > 98.8	1.48e3	9.51e3	0.249	0.095	2.77	2.58	1.95	82.0104	163.4
4	34	13C2-PFHxA	315 > 269.8	3.12e3	9.51e3	0.249	0.597	3.15	3.08	4.10	27.5640	137.3
5	35	13C4-PFHpA	367.2 > 321.8	8.14e3	9.51e3	0.249	0.604	3.78	3.70	10.7	71.0876	141.6
6	36	18O2-PFHxS	403.0 > 102.6	1.18e3	3.26e3	0.249	0.293	3.94	3.85	4.52	61.8631	123.2
7	37	13C2-6:2 FTS	429.1 > 408.9	2.59e3	1.04e4	0.249	0.215	4.25	4.16	3.12	58.1536	115.8
8	38	13C2-PFOA	414.9 > 369.7	1.11e4	1.04e4	0.249	0.916	4.31	4.22	13.3	58.5291	116.6
9	39	13C5-PFNA	468.2 > 422.9	9.40e3	1.04e4	0.249	0.817	4.81	4.66	11.3	55.5676	110.7
10	40	13C8-PFOSA	506.1 > 77.7	1.79e3	9.23e3	0.249	0.223	4.87	4.72	2.43	43.6877	87.0
11	41	13C8-PFOS	507.0 > 79.9	3.35e3	3.15e3	0.249	0.875	4.89	4.74	13.3	61.1340	121.8
12	42	13C2-PFDA	515.1 > 469.9	7.52e3	7.84e3	0.249	1.105	5.18	5.03	12.0	43.5442	86.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.11e3	9.51e3	0.249	0.101	5.15	5.01	1.46	58.0942	115.7
14	44	d3-N-MeFOSAA	573.3 > 419	3.54e3	9.23e3	0.249	0.345	5.32	5.18	4.79	55.7791	111.1
15	45	d5-N-EtFOSAA	589.3 > 419	4.10e3	9.23e3	0.249	0.390	5.47	5.34	5.55	57.1376	113.8
16	46	13C2-PFUdA	565 > 519.8	1.10e4	9.23e3	0.249	0.958	5.49	5.36	14.9	62.4302	124.4
17	47	13C2-PFDoA	615.0 > 569.7	5.13e3	9.23e3	0.249	0.599	5.77	5.64	6.94	46.5485	92.7
18	49	13C2-PFTeDA	714.8 > 669.6	1.79e3	9.23e3	0.249	0.282	6.22	6.11	2.42	34.5645	68.9
19	55	13C5-PFHxA	318 > 272.9	9.51e3	9.51e3	0.249	1.000	3.15	3.08	12.5	50.2008	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.26e3	3.26e3	0.249	1.000	4.02	3.85	12.5	50.2008	100.0
21	57	13C8-PFOA	421.3 > 376	1.04e4	1.04e4	0.249	1.000	4.38	4.22	12.5	50.2008	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.04e4	1.04e4	0.249	1.000	4.81	4.66	12.5	50.2008	100.0
23	59	13C4-PFOS	503 > 79.9	3.15e3	3.15e3	0.249	1.000	4.89	4.74	12.5	50.2008	100.0
24	60	13C6-PFDA	519.1 > 473.7	7.84e3	7.84e3	0.249	1.000	5.18	5.03	12.5	50.2008	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.23e3	9.23e3	0.249	1.000	5.49	5.36	12.5	50.2008	100.0
26	62	Total PFHxS	398.9 > 79.6	1.19e1	1.18e3	0.249		4.14		0.126	0.6357	
27	63	Total PFOA	413 > 368.7	8.28e2	1.11e4	0.249		4.51		0.932	2.3800	
28	64	Total PFOS	499 > 79.9	5.00e1	3.35e3	0.249		5.02		0.187	0.5314	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	3.54e3	0.249		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.10e3	0.249		5.61		0.000		

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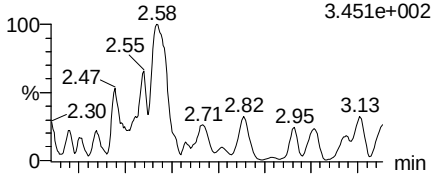
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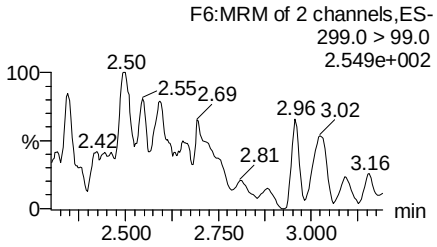
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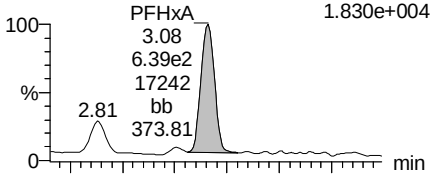
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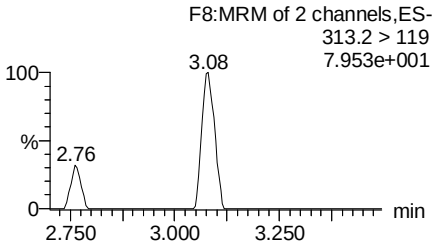
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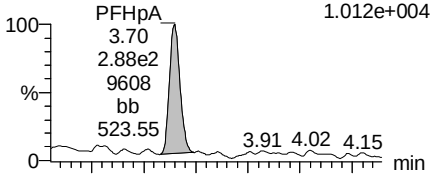


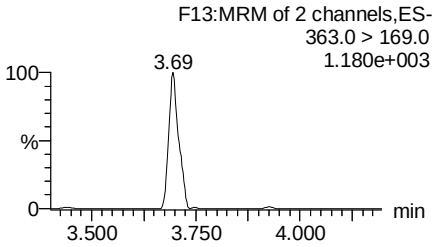
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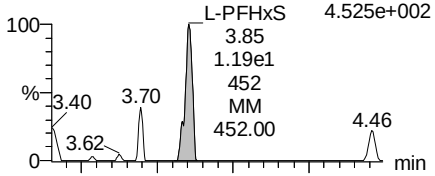


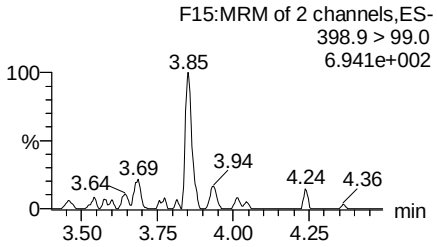
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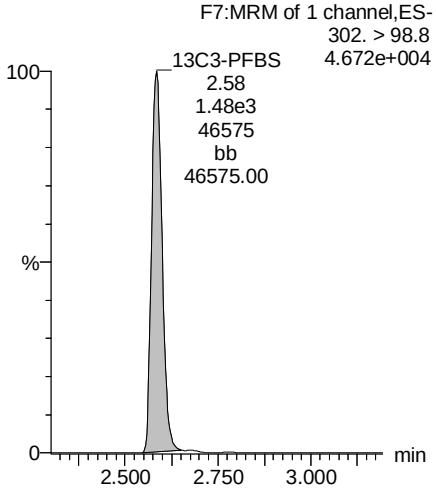


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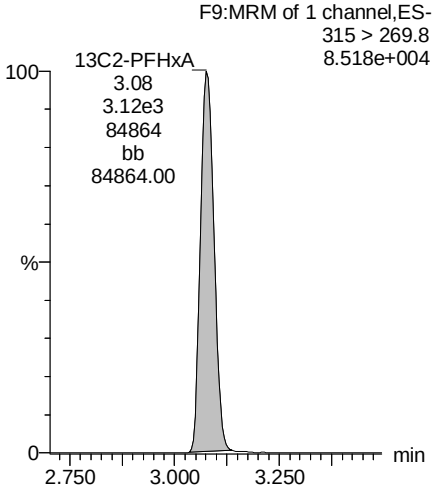




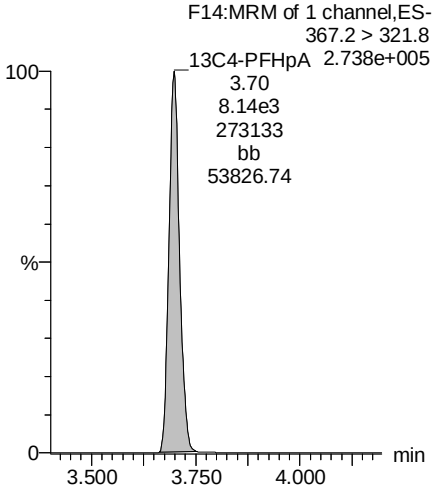
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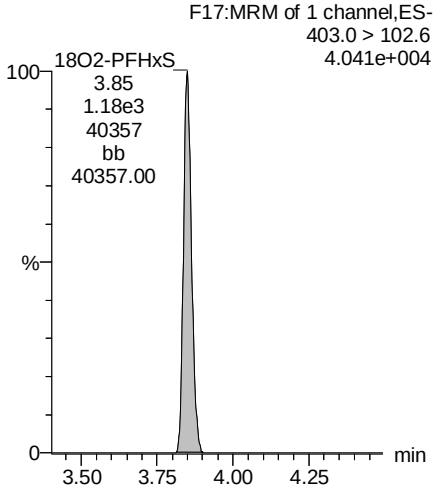
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13C4-PFHpA



18O2-PFHxS



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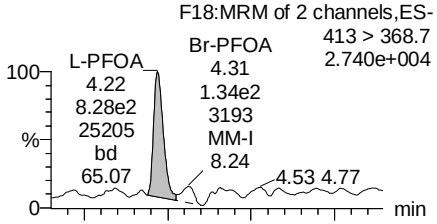
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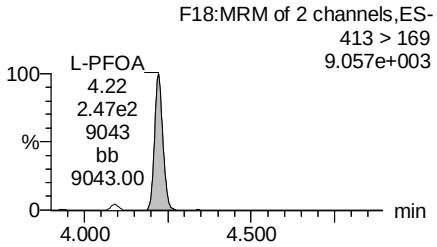
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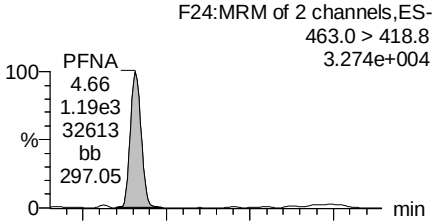
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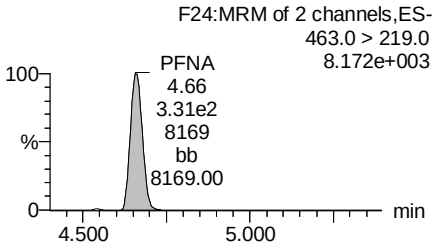
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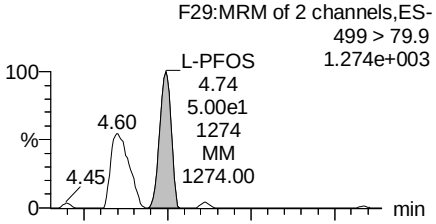


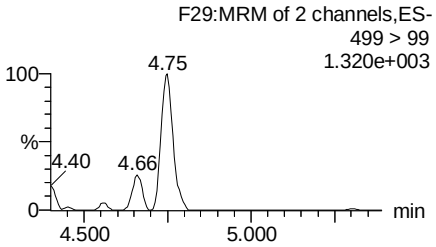
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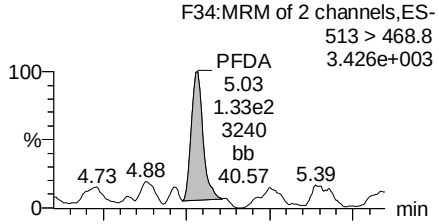


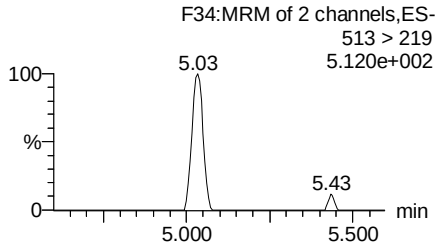
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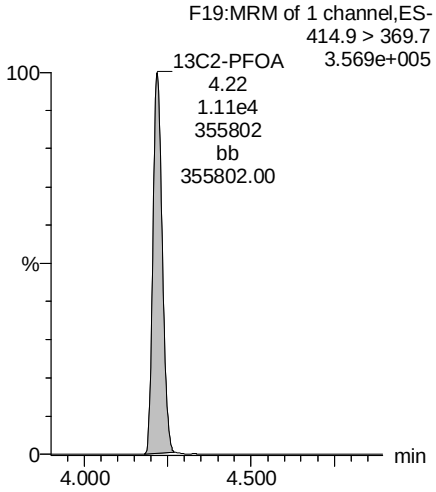


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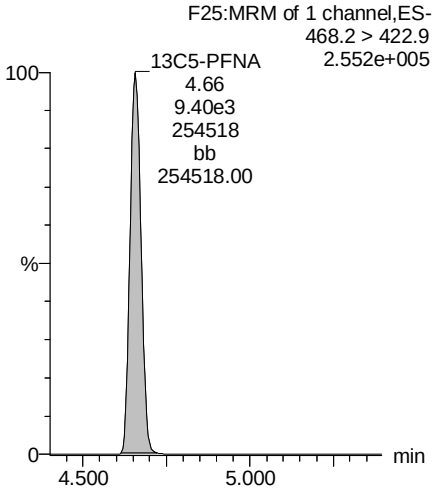




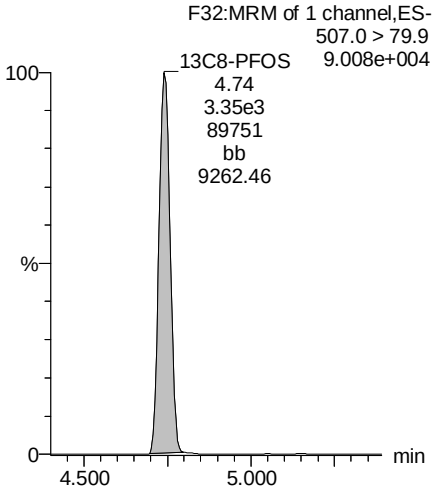
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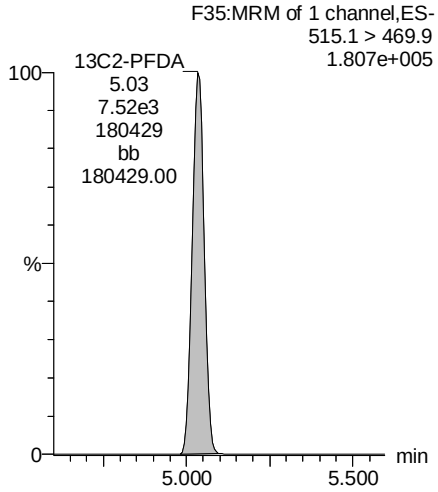
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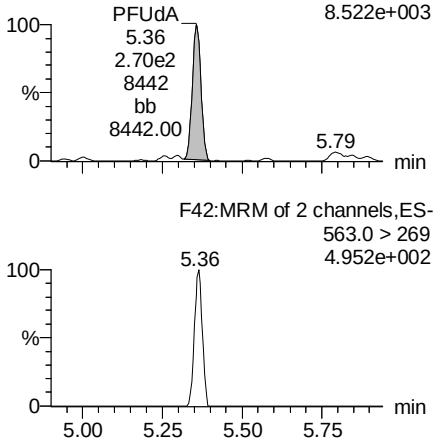
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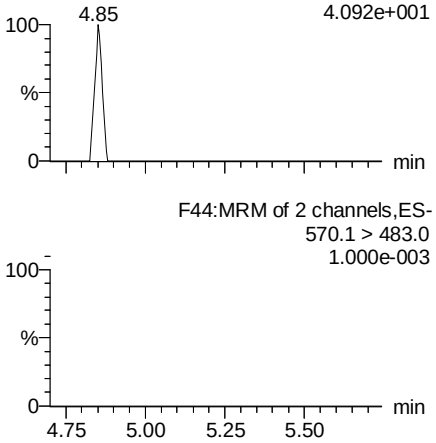
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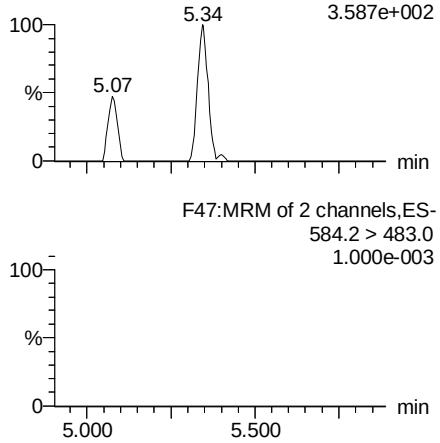
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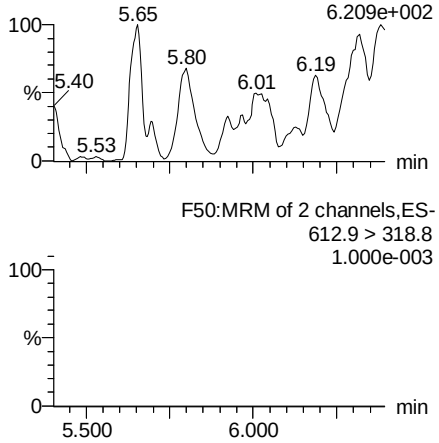
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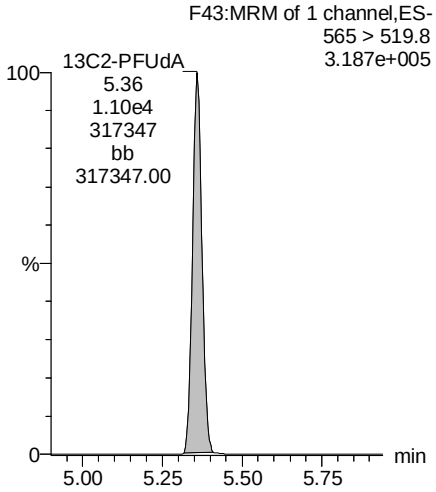
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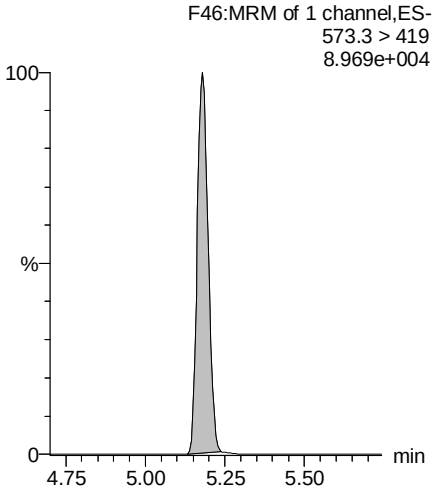
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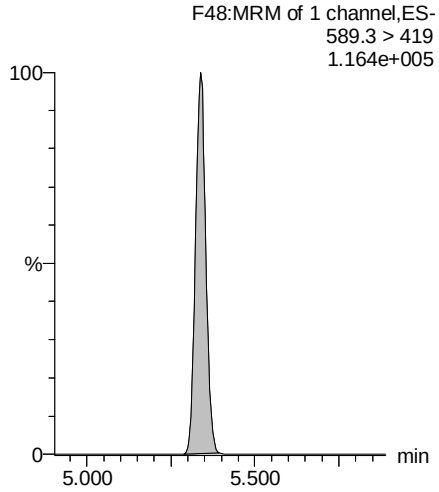
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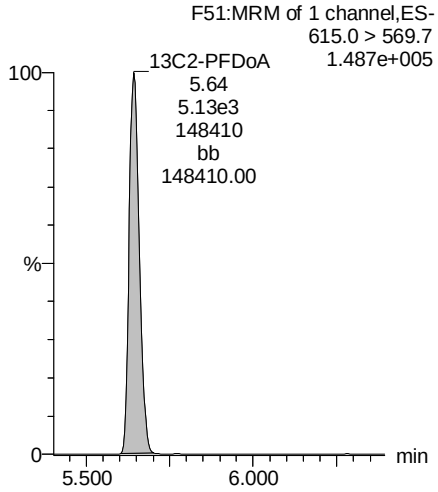
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d5-N-EtFOSAA



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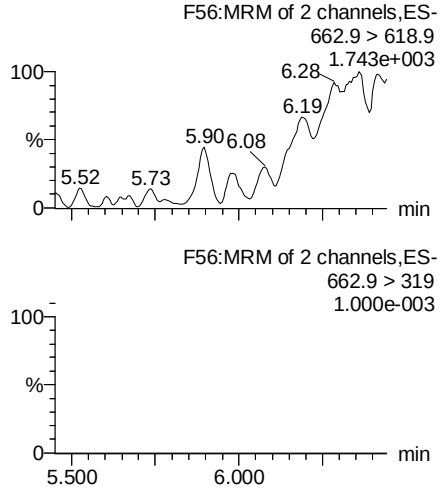
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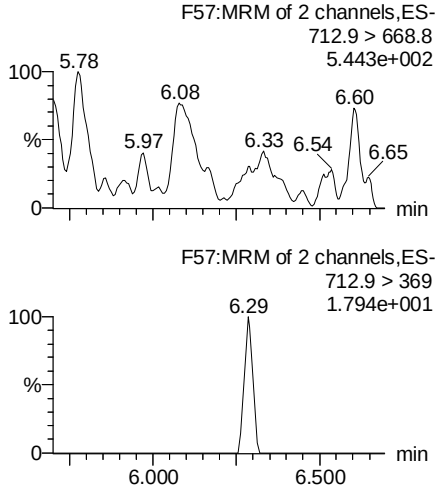
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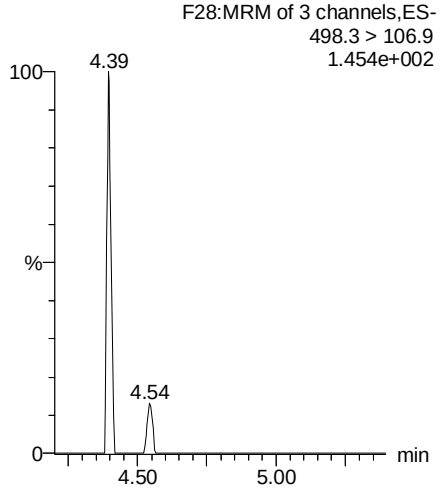
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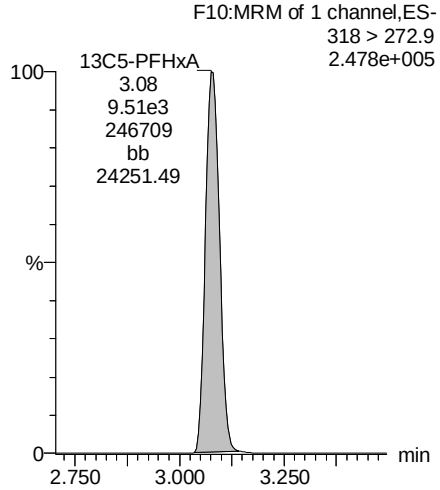
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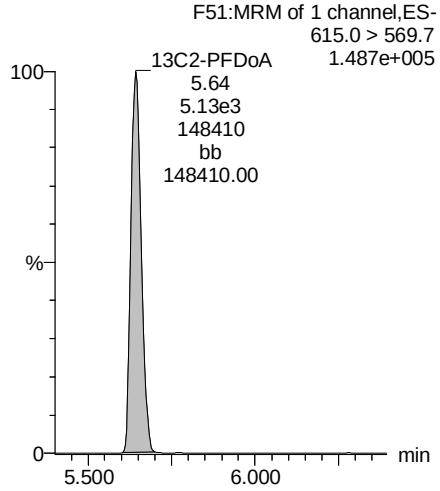
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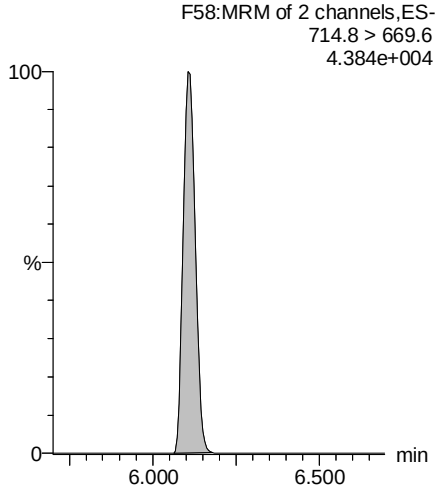
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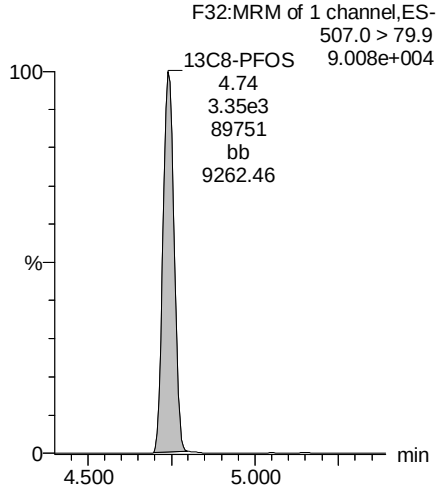
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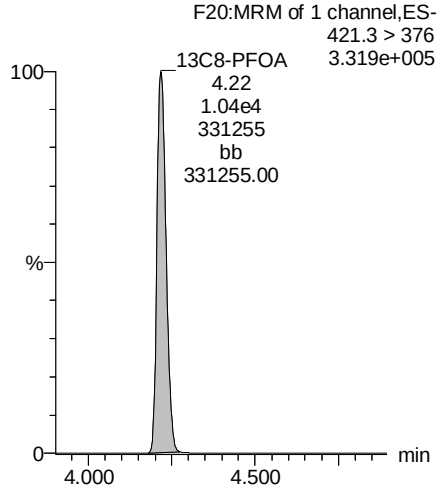
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13C8-PFOS



13C8-PFOA



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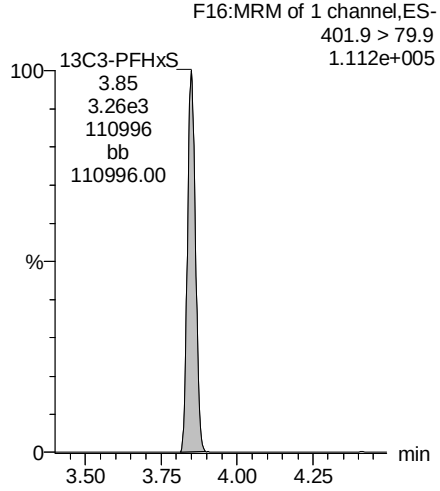
Rev'd: MM 1/12/18

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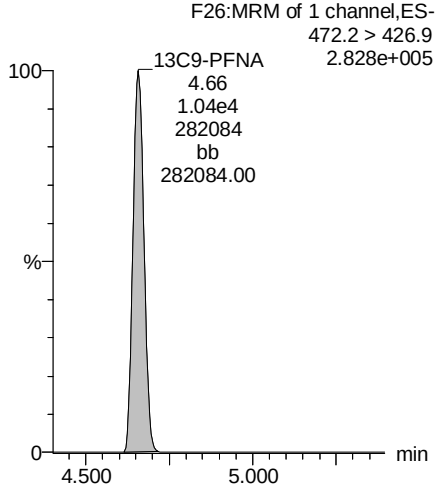
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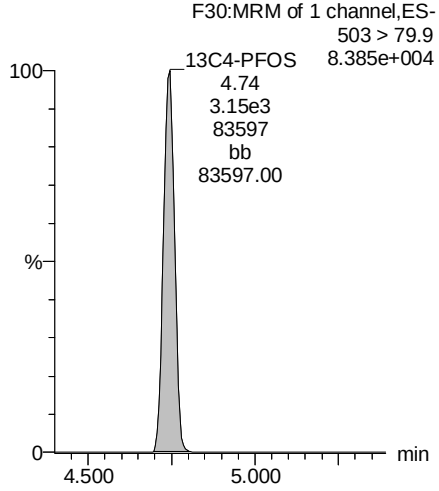
13C3-PFHxS



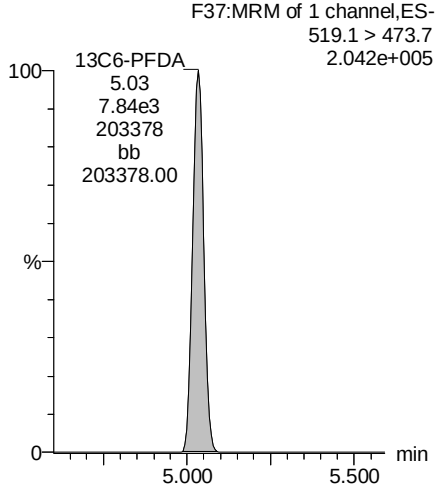
13C9-PFNA



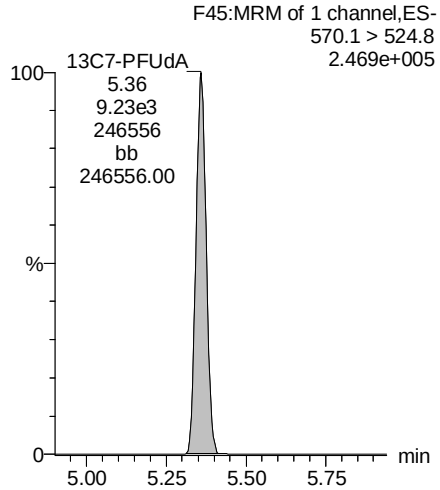
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Vista Analytical Laboratory

Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_16.qld

Last Altered: Thursday, January 11, 2018 15:29:42 Pacific Standard Time
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_16, Date: 11-Jan-2018, Time: 12:10:32, ID: 1701832-02 FT-DUP04-20171201 0.25912, Description: FT-DUP04-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.13e3	0.259		2.66				
2	4	PFHxA	313.2 > 268.9	5.90e2	2.39e3	0.259		3.15	3.08	1.23	2.5032	
3	5	PFHpA	363.0 > 318.9	2.00e2	5.93e3	0.259		3.78	3.70	0.421	1.2630	
4	6	L-PFHxS	398.9 > 79.6	9.85e0	9.10e2	0.259		3.94	3.85	0.135	0.6273	
5	9	L-PFOA	413 > 368.7	6.70e2	8.61e3	0.259		4.31	4.22	0.972	2.4089	
6	12	PFNA	463.0 > 418.8	9.83e2	7.83e3	0.259		4.81	4.66	1.57	4.2729	
7	14	L-PFOS	499 > 79.9	6.39e1	2.62e3	0.259		4.89	4.75	0.305	0.8980	
8	16	PFDA	513 > 468.8	8.66e1	6.73e3	0.259		5.18	5.04	0.161	0.9537	
9	18	N-MeFOSAA	570.1 > 419		2.30e3	0.259		5.32				
10	19	N-EtFOSAA	584.2 > 419		3.01e3	0.259		5.48				
11	20	PFUdA	563.0 > 518.9	1.44e2	6.26e3	0.259		5.50	5.36	0.288	1.1080	
12	22	PFDoA	612.9 > 569.0		4.65e3	0.259		5.77				

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Vista Analytical Laboratory

Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_16.qld

Last Altered: Thursday, January 11, 2018 15:29:42 Pacific Standard Time
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Name: 180110M3_16, Date: 11-Jan-2018, Time: 12:10:32, ID: 1701832-02 FT-DUP04-20171201 0.25912, Description: FT-DUP04-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.65e3	0.259		6.00				
2	25	PFTeDA	712.9 > 668.8		1.39e3	0.259		6.22				
3	33	13C3-PFBS	302. > 98.8	1.13e3	7.48e3	0.259	0.095	2.77	2.58	1.88	76.2416	158.0
4	34	13C2-PFHxA	315 > 269.8	2.39e3	7.48e3	0.259	0.597	3.15	3.08	4.00	25.8414	133.9
5	35	13C4-PFHpA	367.2 > 321.8	5.93e3	7.48e3	0.259	0.604	3.78	3.70	9.90	63.2425	131.1
6	36	18O2-PFHxS	403.0 > 102.6	9.10e2	2.30e3	0.259	0.293	3.94	3.85	4.94	65.0066	134.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.81e3	7.40e3	0.259	0.215	4.25	4.17	3.07	54.9967	114.0
8	38	13C2-PFOA	414.9 > 369.7	8.61e3	7.40e3	0.259	0.916	4.31	4.22	14.6	61.3355	127.1
9	39	13C5-PFNA	468.2 > 422.9	7.83e3	6.88e3	0.259	0.817	4.81	4.65	14.2	67.1599	139.2
10	40	13C8-PFOSA	506.1 > 77.7	1.64e3	6.76e3	0.259	0.223	4.87	4.71	3.03	52.3741	108.6
11	41	13C8-PFOS	507.0 > 79.9	2.62e3	2.22e3	0.259	0.875	4.89	4.74	14.7	65.0196	134.8
12	42	13C2-PFDA	515.1 > 469.9	6.73e3	4.46e3	0.259	1.105	5.18	5.04	18.9	65.8876	136.6
13	43	13C2-8:2 FTS	529.1 > 508.7	9.54e2	7.48e3	0.259	0.101	5.15	5.01	1.59	60.9722	126.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.30e3	6.76e3	0.259	0.345	5.32	5.18	4.25	47.5410	98.5
15	45	d5-N-EtFOSAA	589.3 > 419	3.01e3	6.76e3	0.259	0.390	5.47	5.34	5.57	55.1029	114.2
16	46	13C2-PFUdA	565 > 519.8	6.26e3	6.76e3	0.259	0.958	5.49	5.36	11.6	46.6318	96.7
17	47	13C2-PFDoA	615.0 > 569.7	4.65e3	6.76e3	0.259	0.599	5.77	5.64	8.61	55.4416	114.9
18	49	13C2-PFTeDA	714.8 > 669.6	1.39e3	6.76e3	0.259	0.282	6.22	6.11	2.57	35.1507	72.9
19	55	13C5-PFHxA	318 > 272.9	7.48e3	7.48e3	0.259	1.000	3.15	3.08	12.5	48.2439	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.30e3	2.30e3	0.259	1.000	4.02	3.85	12.5	48.2439	100.0
21	57	13C8-PFOA	421.3 > 376	7.40e3	7.40e3	0.259	1.000	4.38	4.22	12.5	48.2439	100.0
22	58	13C9-PFNA	472.2 > 426.9	6.88e3	6.88e3	0.259	1.000	4.81	4.66	12.5	48.2439	100.0
23	59	13C4-PFOS	503 > 79.9	2.22e3	2.22e3	0.259	1.000	4.89	4.74	12.5	48.2439	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.46e3	4.46e3	0.259	1.000	5.18	5.03	12.5	48.2439	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.76e3	6.76e3	0.259	1.000	5.49	5.36	12.5	48.2439	100.0
26	62	Total PFHxS	398.9 > 79.6	9.85e0	9.10e2	0.259		4.14		0.135	0.6273	
27	63	Total PFOA	413 > 368.7	6.70e2	8.61e3	0.259		4.51		0.972	2.4089	
28	64	Total PFOS	499 > 79.9	6.39e1	2.62e3	0.259		5.02		0.305	0.8980	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.30e3	0.259		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.01e3	0.259		5.61		0.000		

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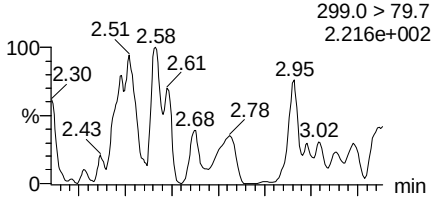
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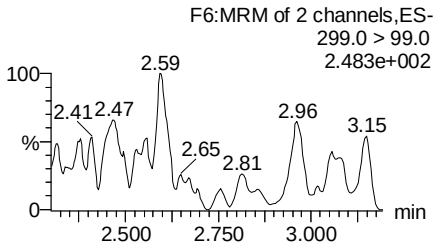
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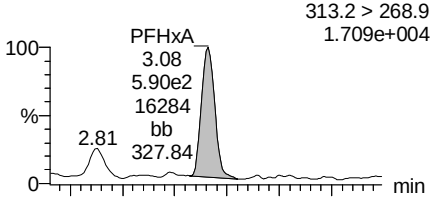
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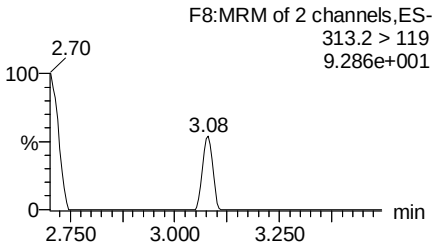
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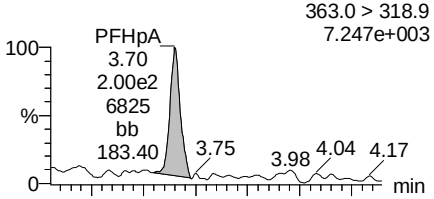


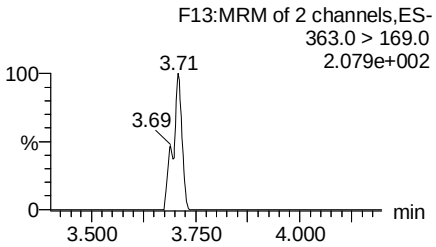
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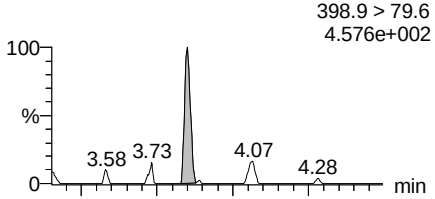


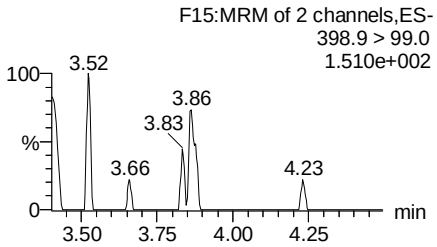
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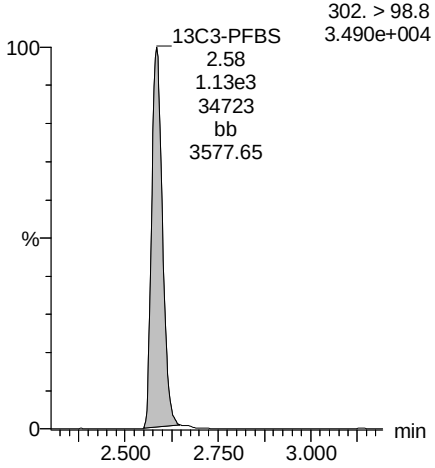


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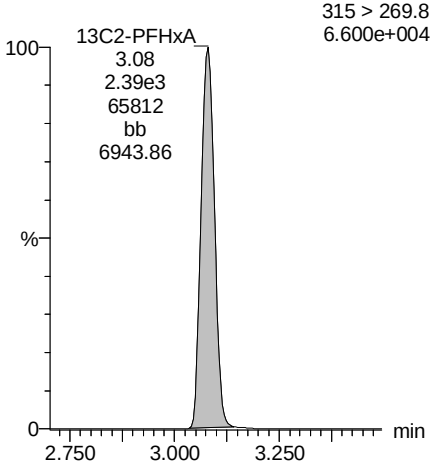




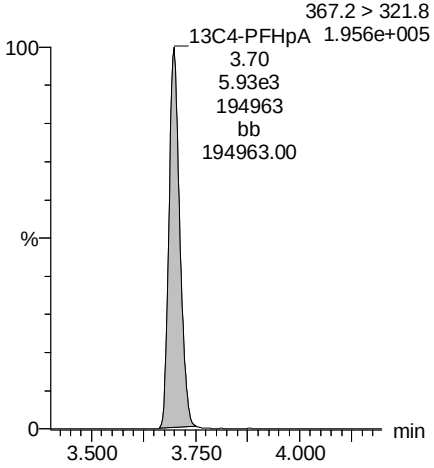
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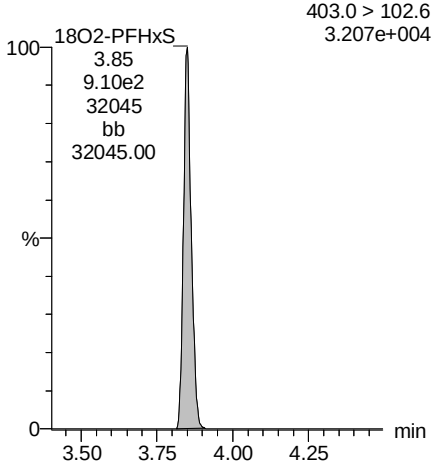
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



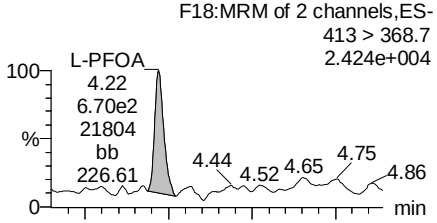
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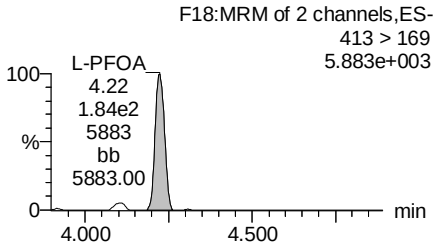
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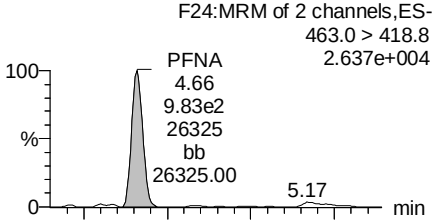
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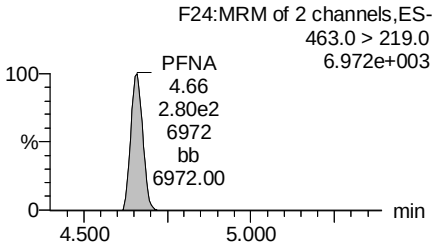
Total PFOA



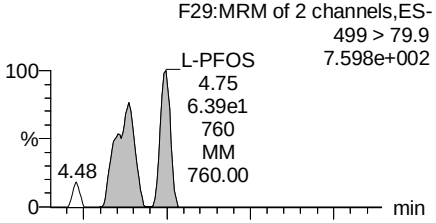


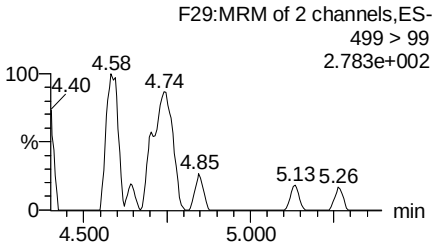
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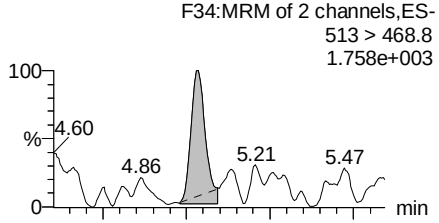


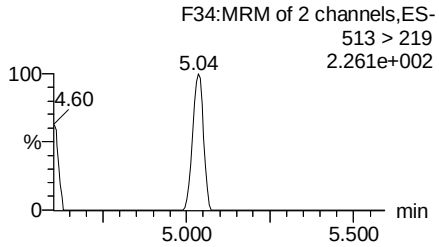
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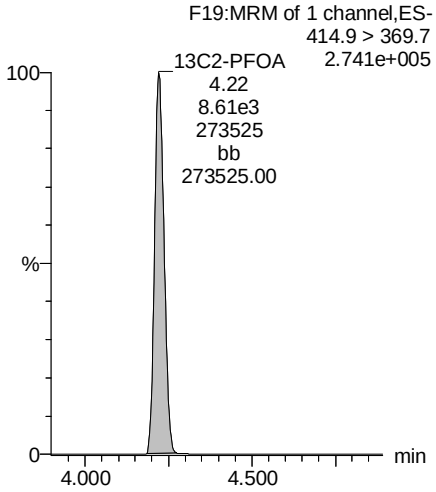


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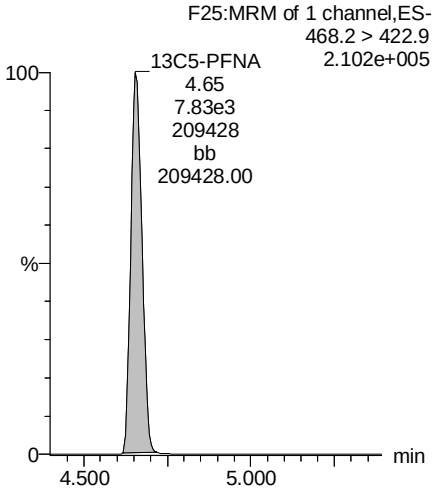




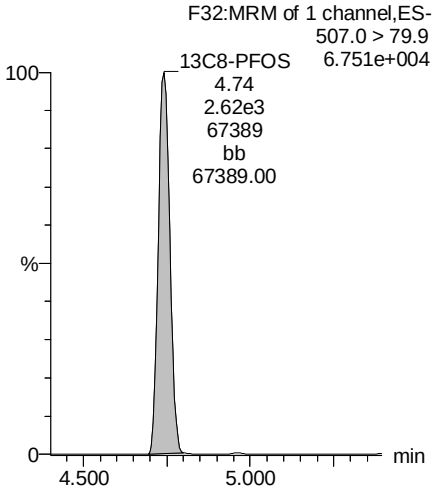
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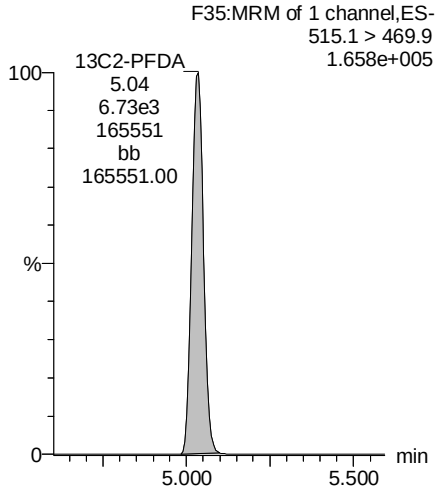
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13C8-PFOS



13C2-PFDA



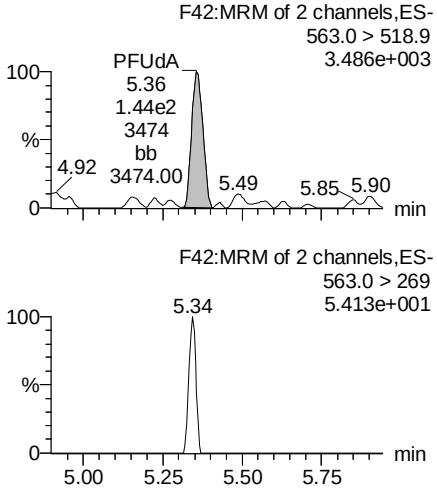
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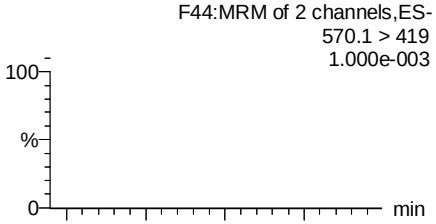
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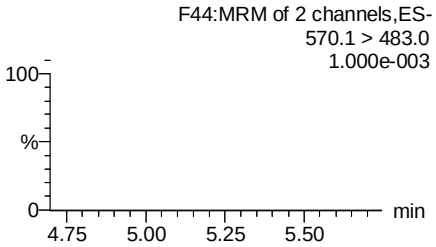
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PFUdA

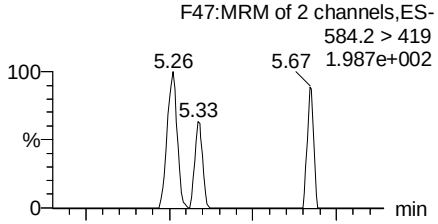


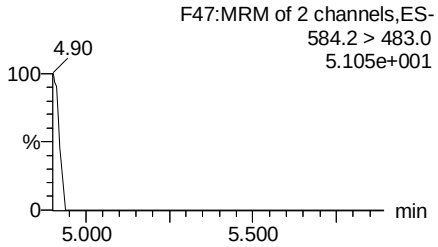
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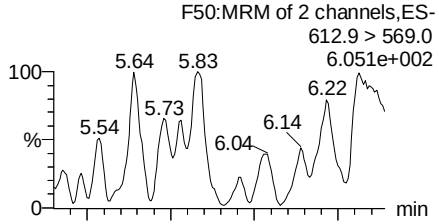


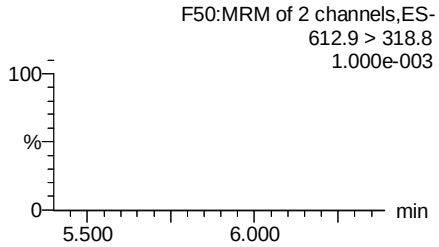
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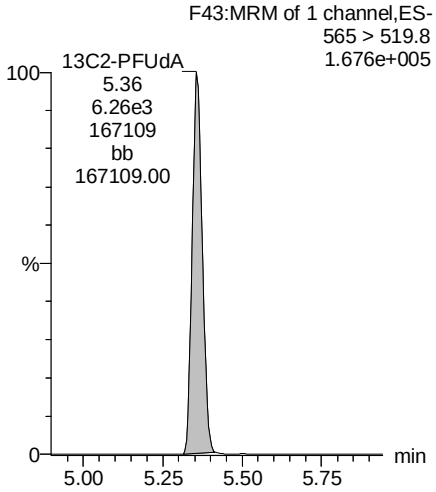


PFDoA

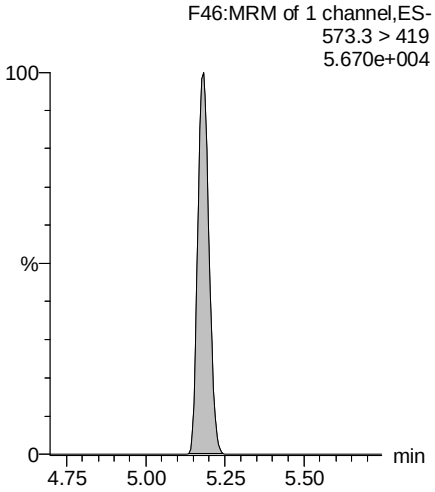




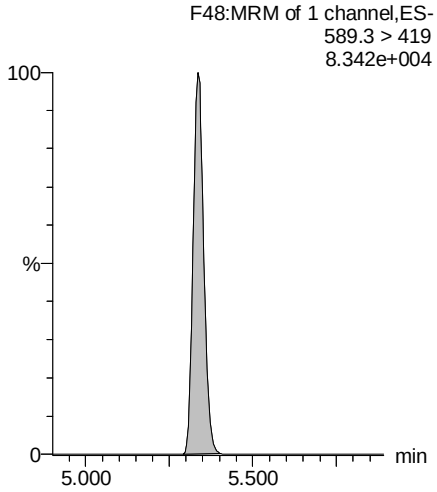
13C2-PFUdA



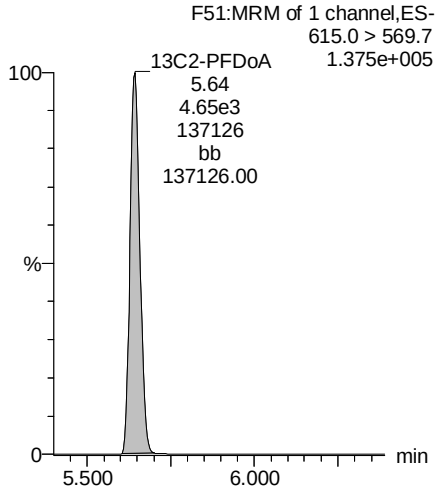
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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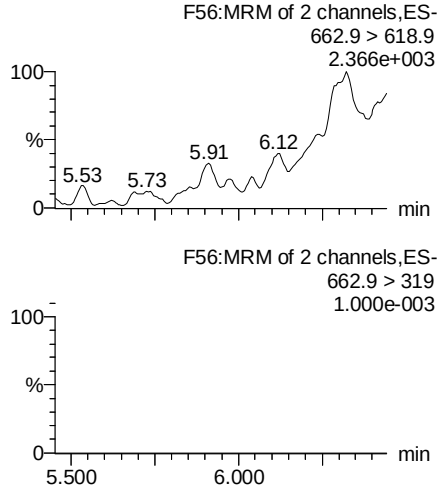
Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_16.qld

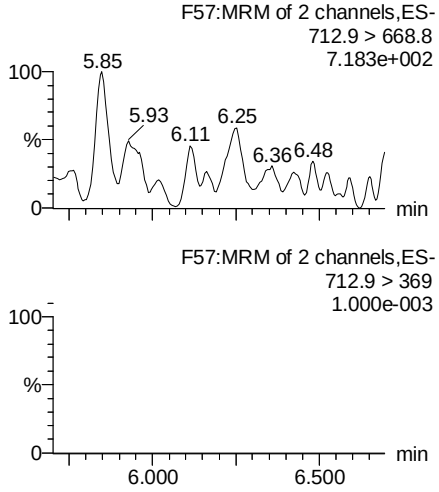
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Printed: Thursday, January 11, 2018 15:30:20 Pacific Standard Time

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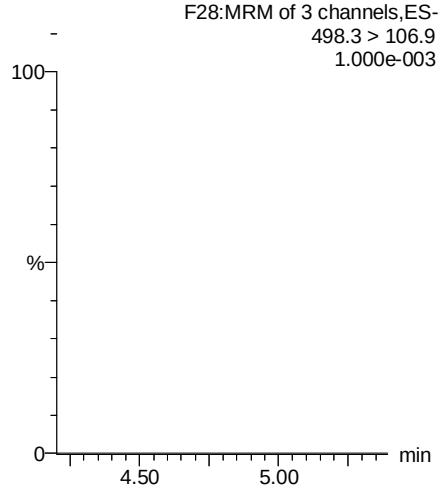
PFTrDA



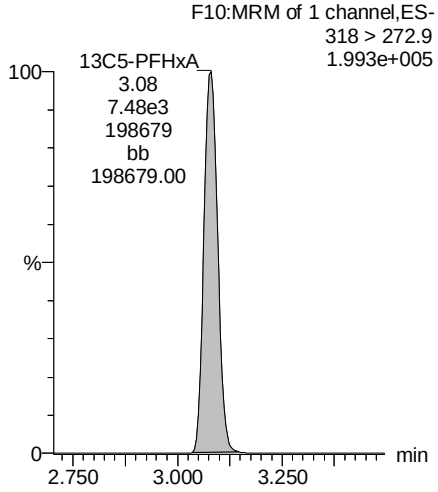
PFTeDA



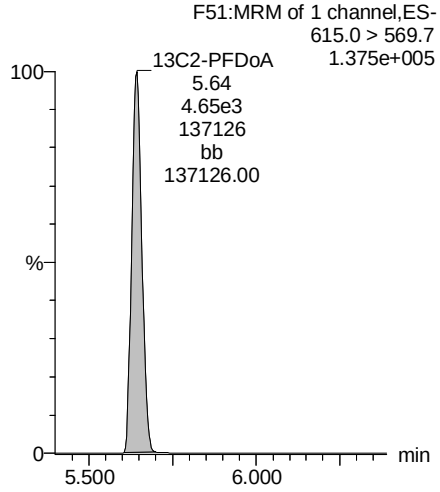
TCDA



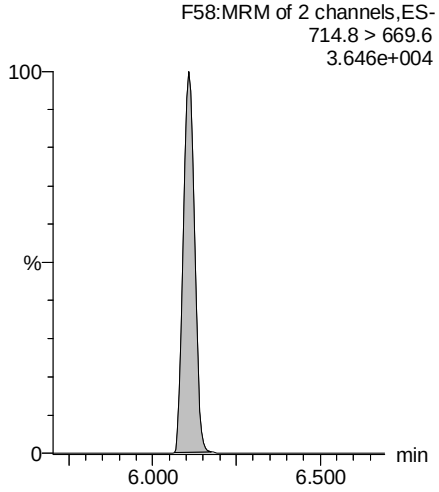
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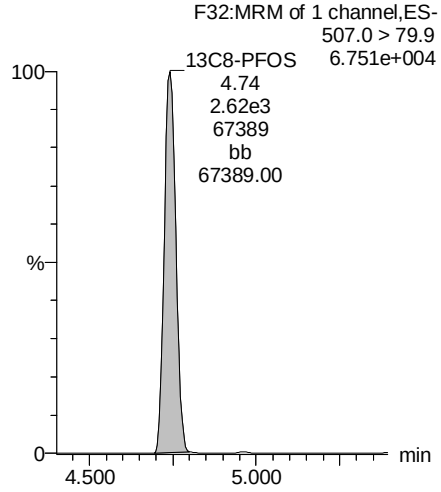
13C2-PFDoA



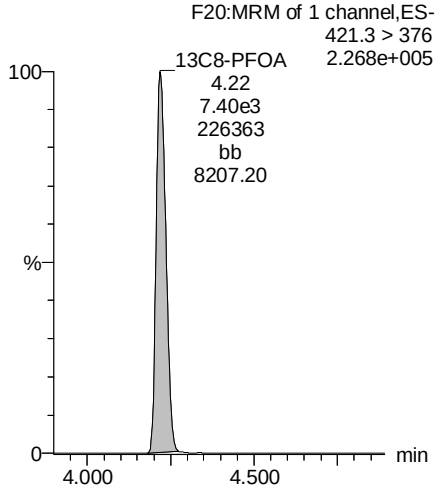
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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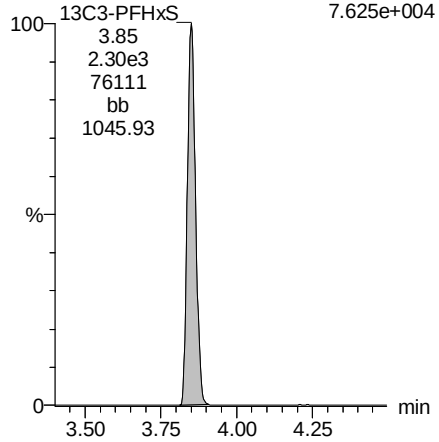
Rev'd: MM 1/12/18

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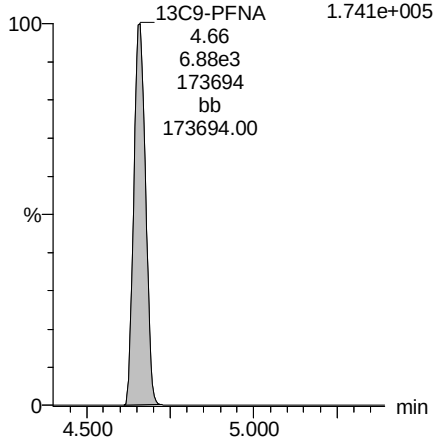
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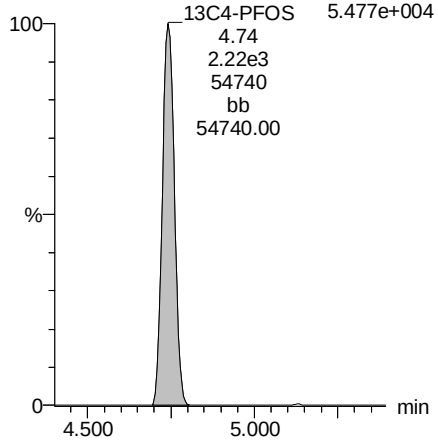
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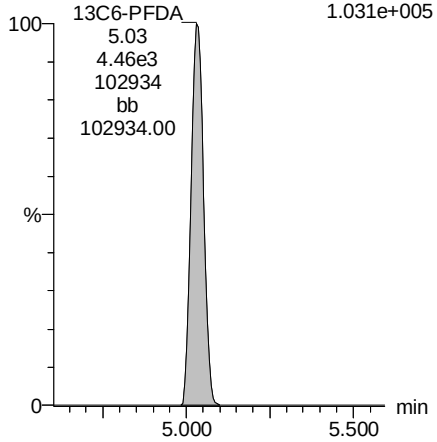
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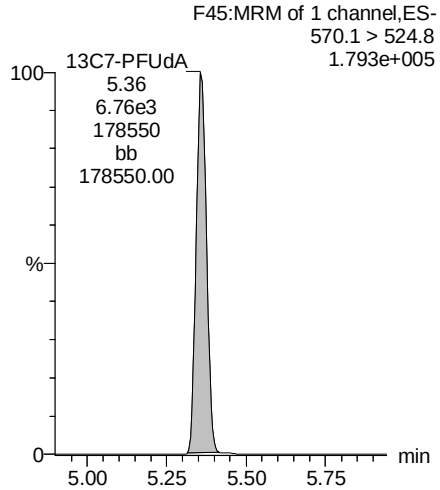
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_17.qld

Last Altered: Thursday, January 11, 2018 15:34:24 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:34:49 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:26:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_17, Date: 11-Jan-2018, Time: 12:21:42, ID: 1701832-03 FT-SW13-20171201 0.25163, Description: FT-SW13-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	2.80e1	1.04e3	0.252		2.66	2.59	0.336	0.6113	
2	4	PFHxA	313.2 > 268.9	1.40e3	2.34e3	0.252		3.15	3.08	2.99	6.1776	
3	5	PFHpA	363.0 > 318.9	1.22e3	5.91e3	0.252		3.78	3.70	2.58	6.4960	
4	6	L-PFHxS	398.9 > 79.6	5.12e2	9.09e2	0.252		3.94	3.85	7.04	13.6027	
5	9	L-PFOA	413 > 368.7	4.26e3	7.88e3	0.252		4.31	4.22	6.76	20.7492	
6	12	PFNA	463.0 > 418.8	1.31e4	6.64e3	0.252		4.81	4.66	24.6	68.6851	
7	14	L-PFOS	499 > 79.9	1.05e3	2.24e3	0.252		4.75	4.75	5.84	19.6431	
8	16	PFDA	513 > 468.8	8.65e2	5.80e3	0.252		5.18	5.04	1.87	5.1896	
9	18	N-MeFOSAA	570.1 > 419		2.42e3	0.252		5.32				
10	19	N-EtFOSAA	584.2 > 419		2.85e3	0.252		5.48				
11	20	PFUdA	563.0 > 518.9	1.75e3	7.10e3	0.252		5.50	5.36	3.08	9.4773	
12	22	PFDoA	612.9 > 569.0		3.95e3	0.252		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_17.qld

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Name: 180110M3_17, Date: 11-Jan-2018, Time: 12:21:42, ID: 1701832-03 FT-SW13-20171201 0.25163, Description: FT-SW13-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.95e3	0.252		6.00				
2	25	PFTeDA	712.9 > 668.8		2.12e3	0.252		6.22				
3	33	13C3-PFBS	302. > 98.8	1.04e3	8.13e3	0.252	0.095	2.77	2.58	1.60	66.7595	134.4
4	34	13C2-PFHxA	315 > 269.8	2.34e3	8.13e3	0.252	0.597	3.15	3.08	3.59	23.9384	120.5
5	35	13C4-PFHpA	367.2 > 321.8	5.91e3	8.13e3	0.252	0.604	3.78	3.70	9.09	59.7754	120.3
6	36	18O2-PFHxS	403.0 > 102.6	9.09e2	2.17e3	0.252	0.293	3.94	3.85	5.24	71.0904	143.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.70e3	8.68e3	0.252	0.215	4.25	4.17	2.45	45.3250	91.2
8	38	13C2-PFOA	414.9 > 369.7	7.88e3	8.68e3	0.252	0.916	4.31	4.22	11.3	49.2259	99.1
9	39	13C5-PFNA	468.2 > 422.9	6.64e3	7.55e3	0.252	0.817	4.81	4.66	11.0	53.5168	107.7
10	40	13C8-PFOSA	506.1 > 77.7	1.52e3	8.32e3	0.252	0.223	4.87	4.72	2.29	40.8313	82.2
11	41	13C8-PFOS	507.0 > 79.9	2.24e3	2.27e3	0.252	0.875	4.89	4.74	12.3	55.9101	112.5
12	42	13C2-PFDA	515.1 > 469.9	5.80e3	5.10e3	0.252	1.105	5.18	5.03	14.2	51.0467	102.7
13	43	13C2-8:2 FTS	529.1 > 508.7	1.14e3	8.13e3	0.252	0.101	5.15	5.00	1.76	69.2976	139.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.42e3	8.32e3	0.252	0.345	5.32	5.18	3.63	41.8307	84.2
15	45	d5-N-EtFOSAA	589.3 > 419	2.85e3	8.32e3	0.252	0.390	5.47	5.34	4.29	43.6559	87.9
16	46	13C2-PFUdA	565 > 519.8	7.10e3	8.32e3	0.252	0.958	5.49	5.36	10.7	44.2836	89.1
17	47	13C2-PFDoA	615.0 > 569.7	3.95e3	8.32e3	0.252	0.599	5.77	5.64	5.93	39.3569	79.2
18	49	13C2-PFTeDA	714.8 > 669.6	2.12e3	8.32e3	0.252	0.282	6.22	6.11	3.19	44.9642	90.5
19	55	13C5-PFHxA	318 > 272.9	8.13e3	8.13e3	0.252	1.000	3.15	3.08	12.5	49.6820	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.17e3	2.17e3	0.252	1.000	4.02	3.85	12.5	49.6820	100.0
21	57	13C8-PFOA	421.3 > 376	8.68e3	8.68e3	0.252	1.000	4.38	4.22	12.5	49.6820	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.55e3	7.55e3	0.252	1.000	4.81	4.66	12.5	49.6820	100.0
23	59	13C4-PFOS	503 > 79.9	2.27e3	2.27e3	0.252	1.000	4.89	4.74	12.5	49.6820	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.10e3	5.10e3	0.252	1.000	5.18	5.04	12.5	49.6820	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.32e3	8.32e3	0.252	1.000	5.49	5.36	12.5	49.6820	100.0
26	62	Total PFHxS	398.9 > 79.6	5.12e2	9.09e2	0.252		4.14		7.04	13.6027	
27	63	Total PFOA	413 > 368.7	4.74e3	7.88e3	0.252		4.51		7.52	22.5643	
28	64	Total PFOS	499 > 79.9	1.05e3	2.24e3	0.252		4.75		5.84	19.6431	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.42e3	0.252		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.85e3	0.252		5.61		0.000		

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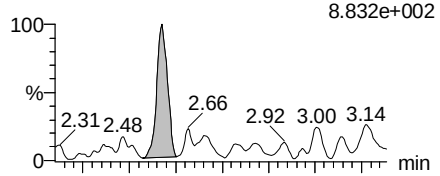
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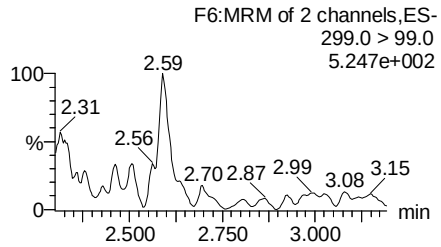
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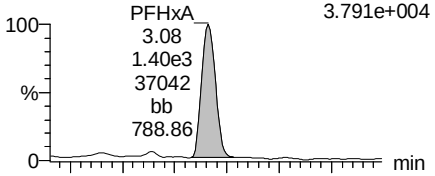
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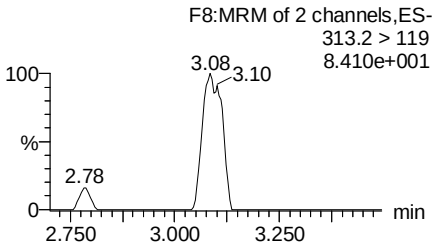
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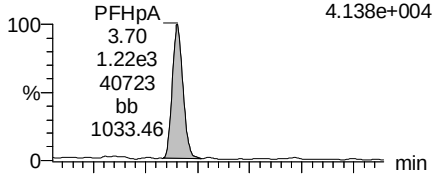


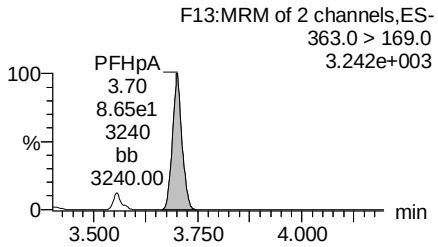
PFHxA



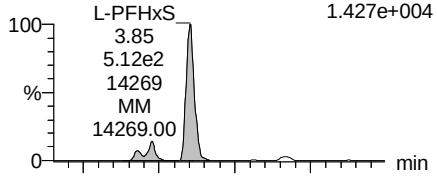


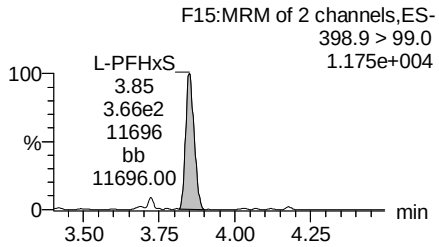
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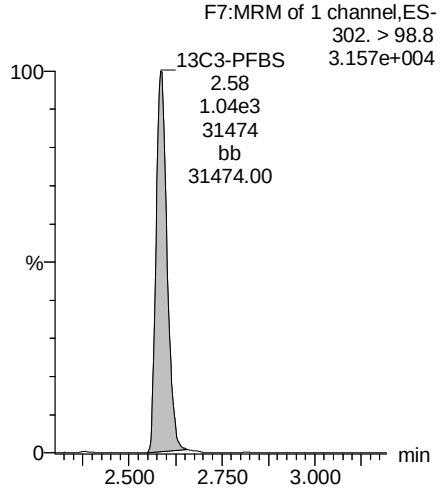


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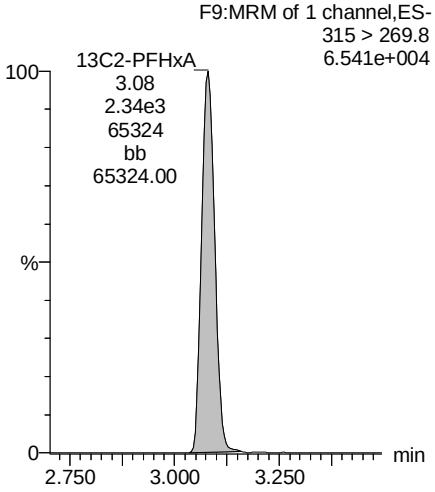




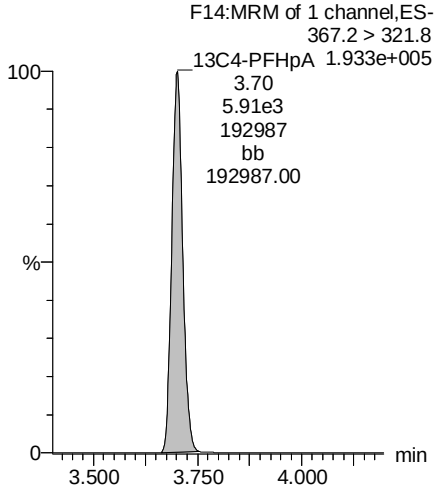
13C3-PFBS



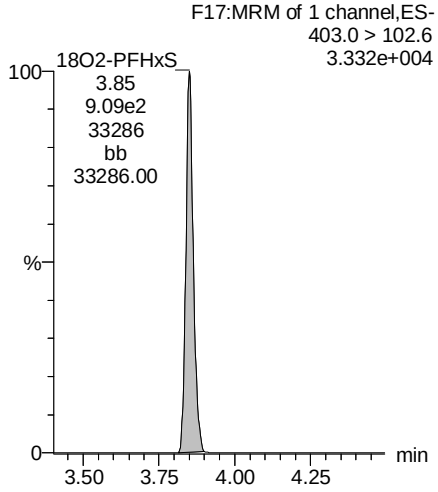
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



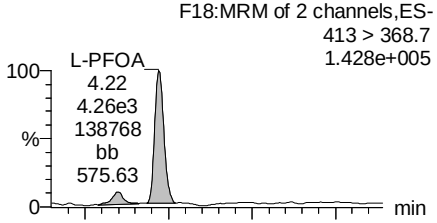
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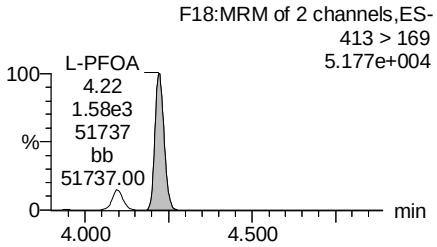
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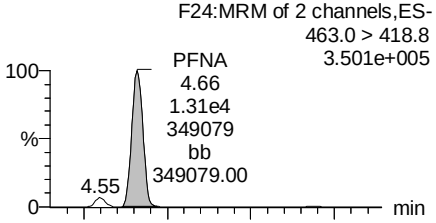
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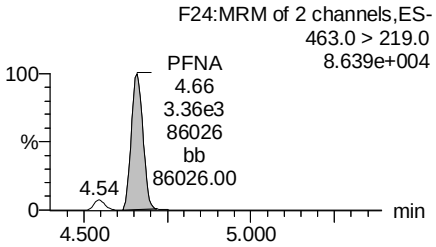
Total PFOA



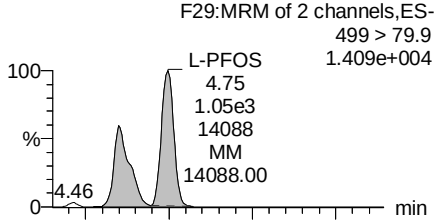


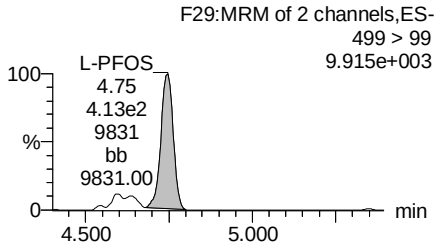
PFNA



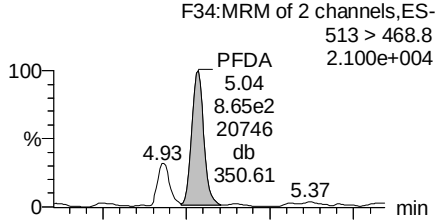


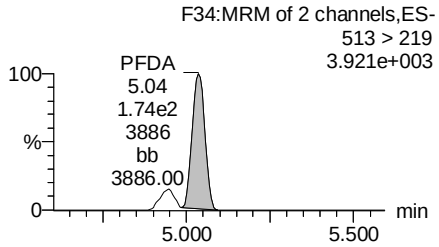
Total PFOS



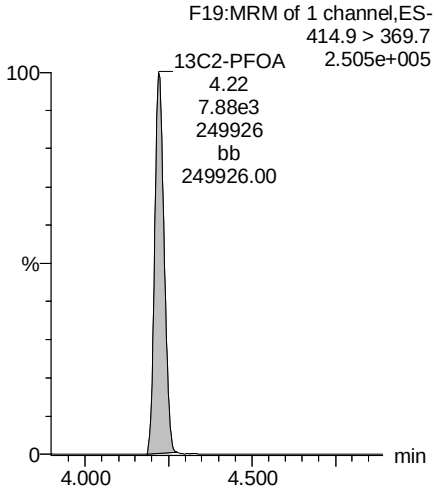


PFDA

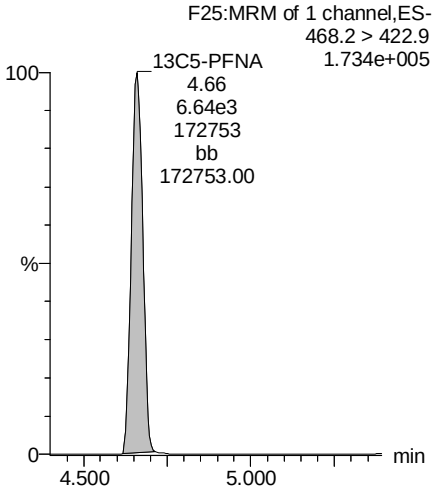




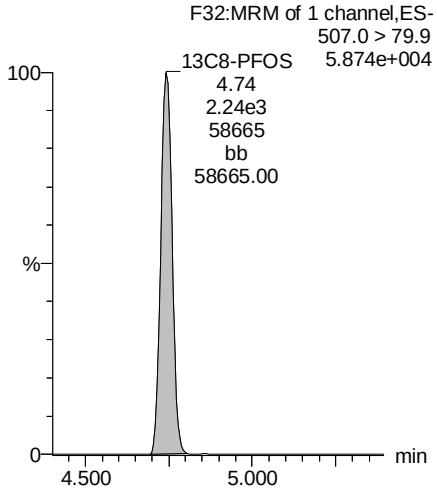
13C2-PFOA



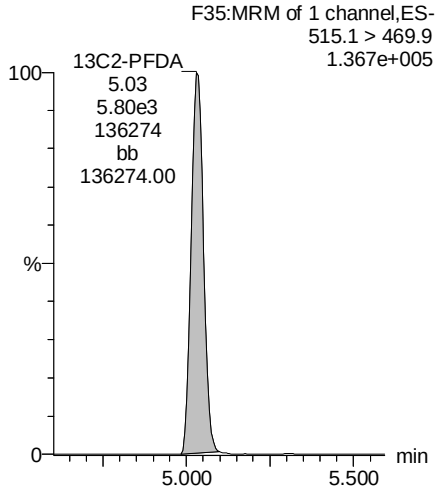
13C5-PFNA



13C8-PFOS



13C2-PFDA



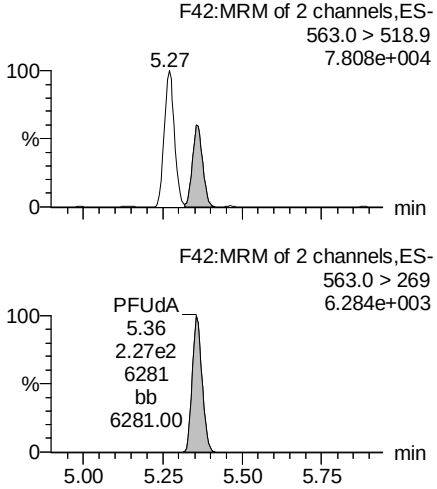
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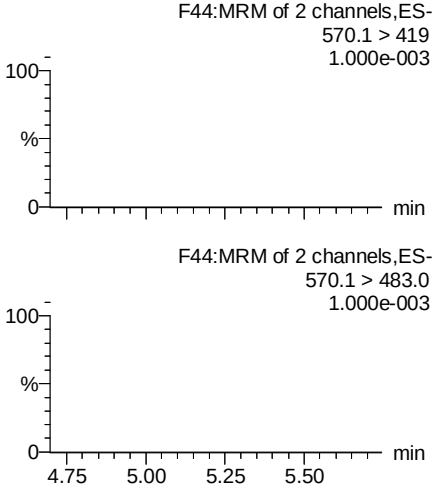
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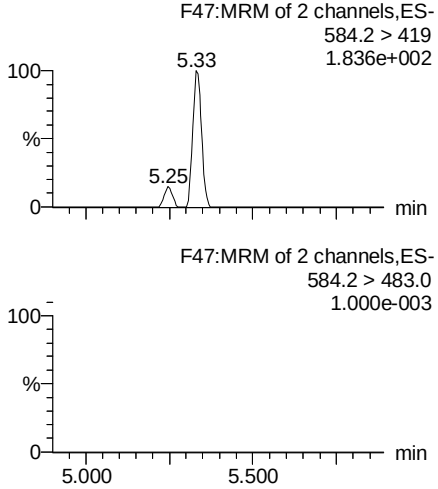
PFUdA



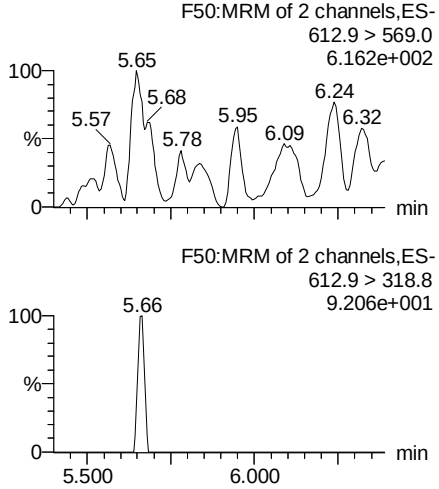
N-MeFOSAA



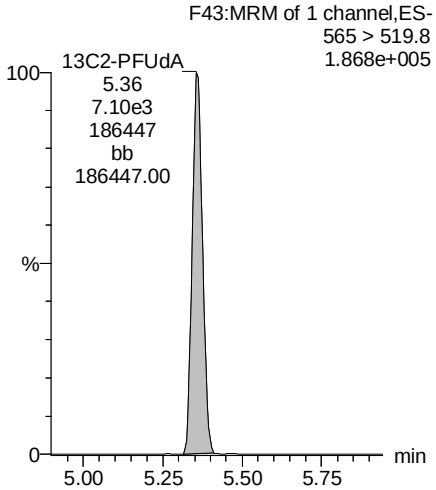
N-EtFOSAA



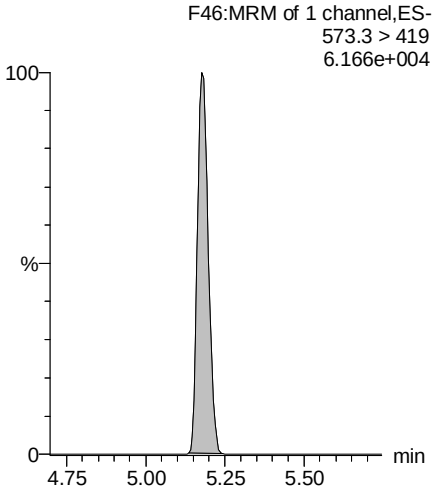
PFDoA



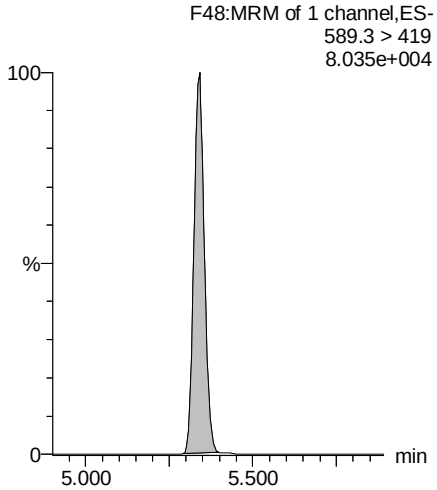
13C2-PFUdA



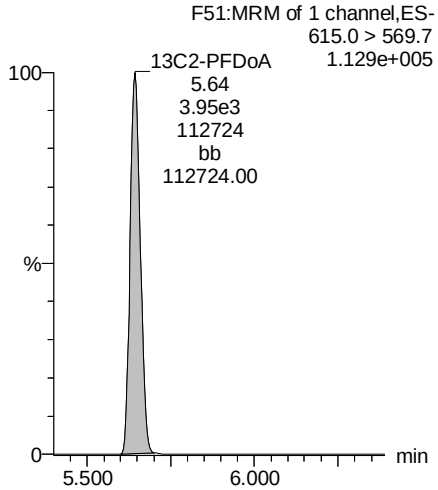
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



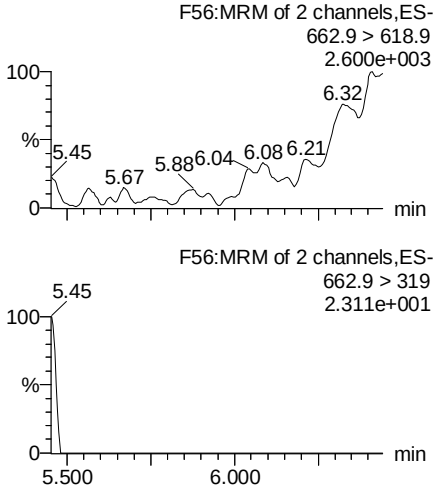
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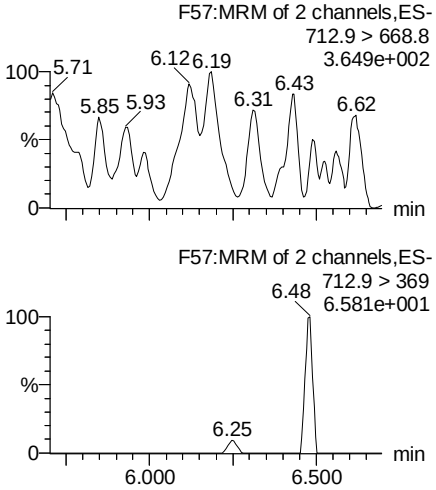
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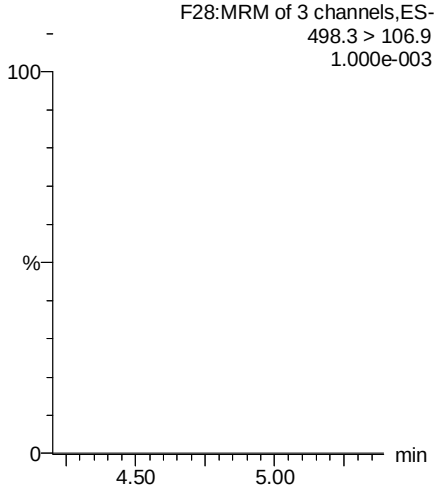
PFTrDA



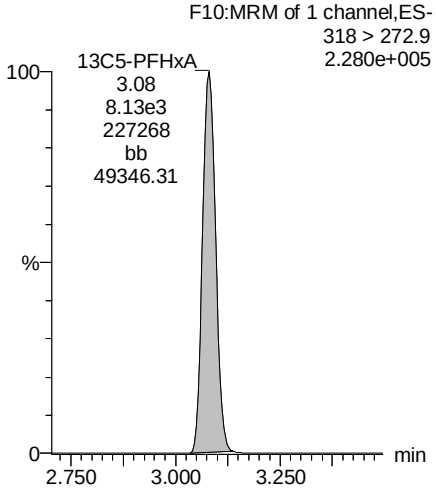
PFTeDA



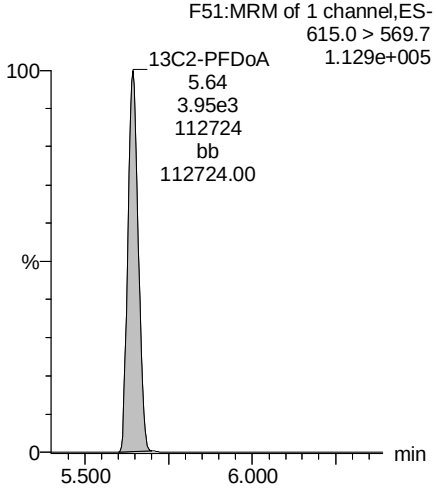
TCDA



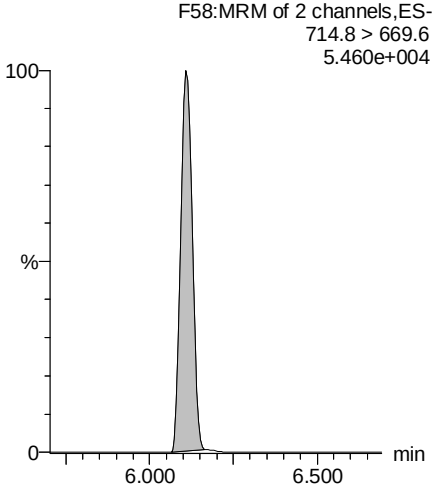
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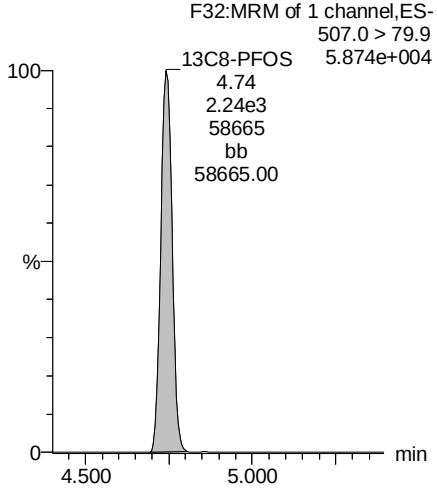
13C2-PFDoA



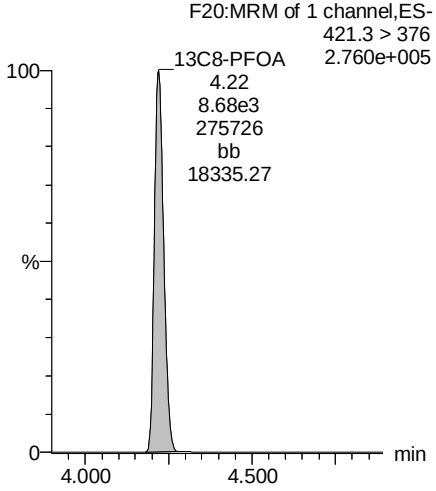
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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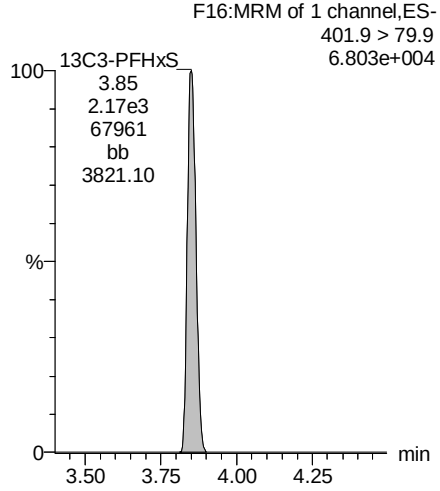
Rev'd: MM 1/12/18

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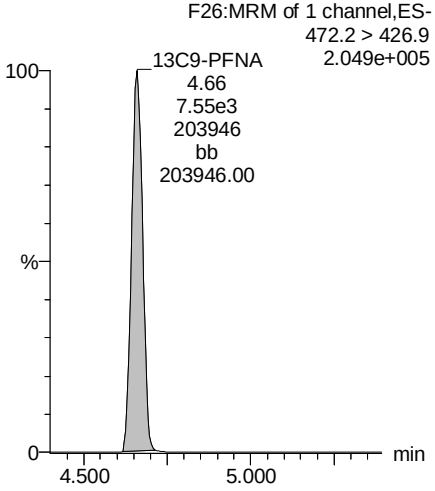
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Name: 180110M3_17, Date: 11-Jan-2018, Time: 12:21:42, ID: 1701832-03 FT-SW13-20171201 0.25163, Description: FT-SW13-20171201

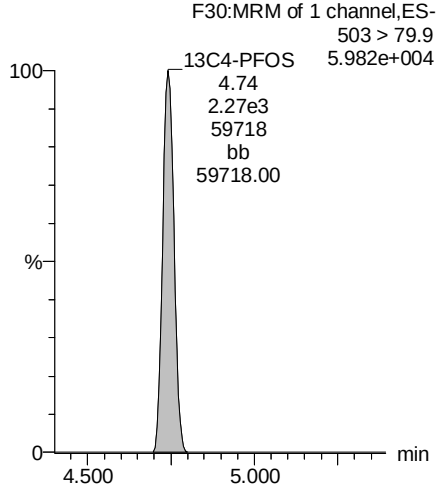
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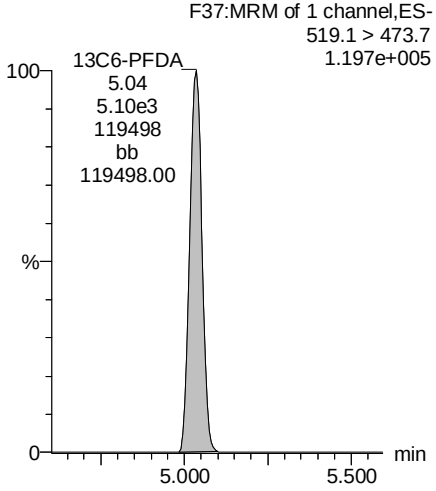
13C9-PFNA



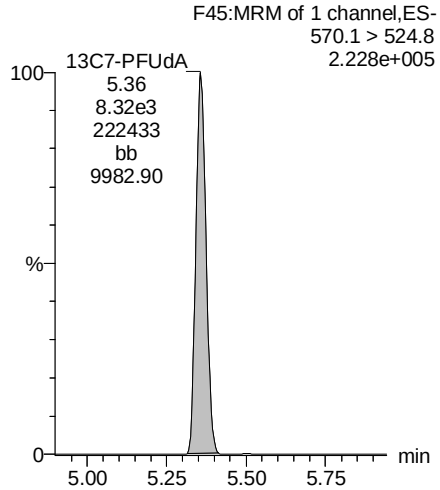
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_18.qld

Last Altered: Thursday, January 11, 2018 15:53:09 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:53:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_18, Date: 11-Jan-2018, Time: 12:32:54, ID: 1701832-04 FT-SW12-20171201 0.25479, Description: FT-SW12-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.03e3	0.255		2.66				
2	4	PFHxA	313.2 > 268.9	1.44e3	2.33e3	0.255		3.15	3.08	3.08	6.2952	
3	5	PFHpA	363.0 > 318.9	1.06e3	5.59e3	0.255		3.78	3.70	2.38	5.9220	
4	6	L-PFHxS	398.9 > 79.6	5.03e2	7.39e2	0.255		3.94	3.85	8.51	16.1532	
5	9	L-PFOA	413 > 368.7	3.76e3	6.90e3	0.255		4.31	4.22	6.81	20.6513	
6	12	PFNA	463.0 > 418.8	1.46e4	7.50e3	0.255		4.81	4.65	24.3	66.9838	
7	14	L-PFOS	499 > 79.9	1.59e3	2.17e3	0.255		4.75	4.74	9.12	30.3339	
8	16	PFDA	513 > 468.8	9.82e2	5.42e3	0.255		5.18	5.03	2.26	6.0892	
9	18	N-MeFOSAA	570.1 > 419		2.39e3	0.255		5.32				
10	19	N-EtFOSAA	584.2 > 419		2.63e3	0.255		5.48				
11	20	PFUdA	563.0 > 518.9	5.08e3	6.14e3	0.255		5.50	5.36	10.4	30.8505	
12	22	PFDoA	612.9 > 569.0		3.94e3	0.255		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_18.qld

Last Altered: Thursday, January 11, 2018 15:53:09 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:53:53 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_18, Date: 11-Jan-2018, Time: 12:32:54, ID: 1701832-04 FT-SW12-20171201 0.25479, Description: FT-SW12-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.94e3	0.255		6.00				
2	25	PFTeDA	712.9 > 668.8		1.63e3	0.255		6.22				
3	33	13C3-PFBS	302. > 98.8	1.03e3	8.19e3	0.255	0.095	2.77	2.58	1.58	64.8586	132.2
4	34	13C2-PFHxA	315 > 269.8	2.33e3	8.19e3	0.255	0.597	3.15	3.08	3.56	23.4325	119.4
5	35	13C4-PFHpA	367.2 > 321.8	5.59e3	8.19e3	0.255	0.604	3.78	3.70	8.54	55.4469	113.0
6	36	18O2-PFHxS	403.0 > 102.6	7.39e2	2.23e3	0.255	0.293	3.94	3.85	4.14	55.4492	113.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.70e3	6.71e3	0.255	0.215	4.25	4.16	3.17	57.7590	117.7
8	38	13C2-PFOA	414.9 > 369.7	6.90e3	6.71e3	0.255	0.916	4.31	4.22	12.9	55.1276	112.4
9	39	13C5-PFNA	468.2 > 422.9	7.50e3	7.72e3	0.255	0.817	4.81	4.66	12.1	58.2832	118.8
10	40	13C8-PFOSA	506.1 > 77.7	1.42e3	6.97e3	0.255	0.223	4.87	4.72	2.56	44.9868	91.7
11	41	13C8-PFOS	507.0 > 79.9	2.17e3	1.96e3	0.255	0.875	4.89	4.74	13.8	62.0807	126.5
12	42	13C2-PFDA	515.1 > 469.9	5.42e3	4.17e3	0.255	1.105	5.18	5.03	16.3	57.7487	117.7
13	43	13C2-8:2 FTS	529.1 > 508.7	6.85e2	8.19e3	0.255	0.101	5.15	5.00	1.05	40.6870	82.9
14	44	d3-N-MeFOSAA	573.3 > 419	2.39e3	6.97e3	0.255	0.345	5.32	5.18	4.29	48.7764	99.4
15	45	d5-N-EtFOSAA	589.3 > 419	2.63e3	6.97e3	0.255	0.390	5.47	5.34	4.71	47.3679	96.6
16	46	13C2-PFUdA	565 > 519.8	6.14e3	6.97e3	0.255	0.958	5.49	5.36	11.0	45.1035	91.9
17	47	13C2-PFDoA	615.0 > 569.7	3.94e3	6.97e3	0.255	0.599	5.77	5.64	7.07	46.2972	94.4
18	49	13C2-PFTeDA	714.8 > 669.6	1.63e3	6.97e3	0.255	0.282	6.22	6.11	2.93	40.7549	83.1
19	55	13C5-PFHxA	318 > 272.9	8.19e3	8.19e3	0.255	1.000	3.15	3.08	12.5	49.0600	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.23e3	2.23e3	0.255	1.000	4.02	3.85	12.5	49.0600	100.0
21	57	13C8-PFOA	421.3 > 376	6.71e3	6.71e3	0.255	1.000	4.38	4.22	12.5	49.0600	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.72e3	7.72e3	0.255	1.000	4.81	4.66	12.5	49.0600	100.0
23	59	13C4-PFOS	503 > 79.9	1.96e3	1.96e3	0.255	1.000	4.89	4.74	12.5	49.0600	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.17e3	4.17e3	0.255	1.000	5.18	5.03	12.5	49.0600	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.97e3	6.97e3	0.255	1.000	5.49	5.35	12.5	49.0600	100.0
26	62	Total PFHxS	398.9 > 79.6	5.03e2	7.39e2	0.255		4.14		8.51	16.1532	
27	63	Total PFOA	413 > 368.7	4.09e3	6.90e3	0.255		4.22		7.41	21.9412	
28	64	Total PFOS	499 > 79.9	1.59e3	2.17e3	0.255		4.75		9.12	30.3339	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.39e3	0.255		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.63e3	0.255		5.61		0.000		

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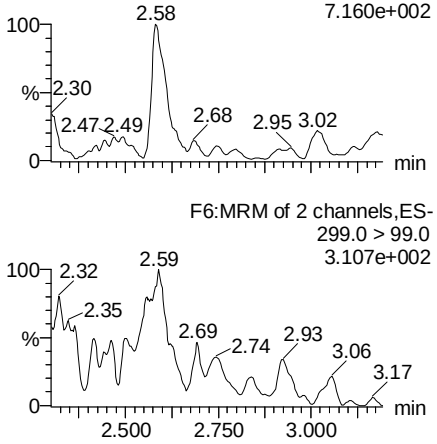
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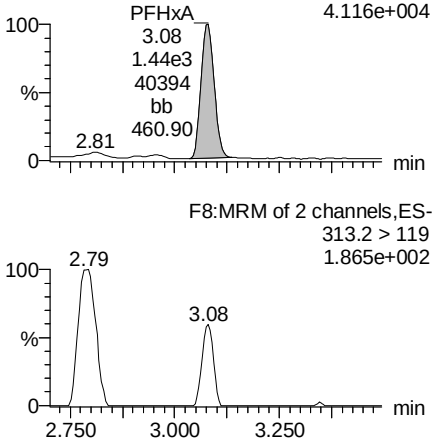
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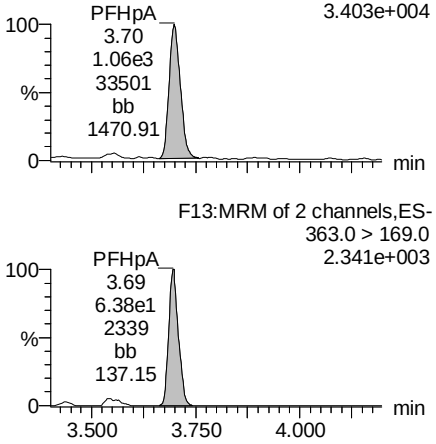
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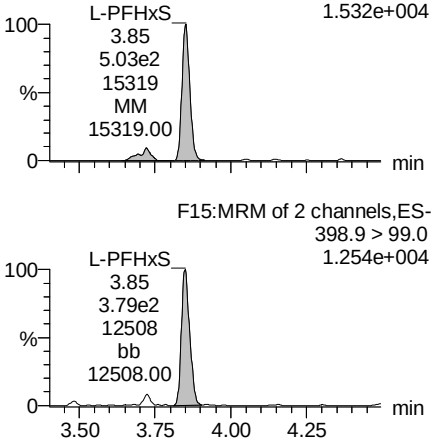
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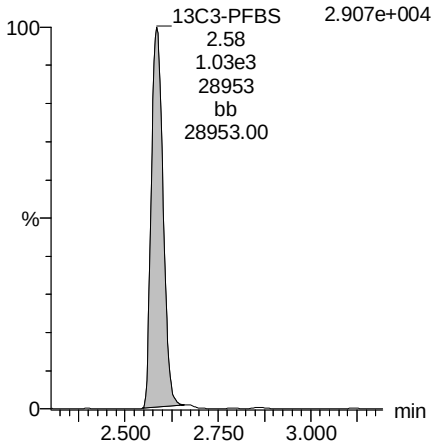
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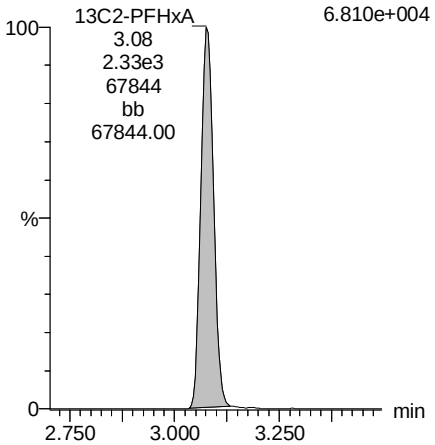
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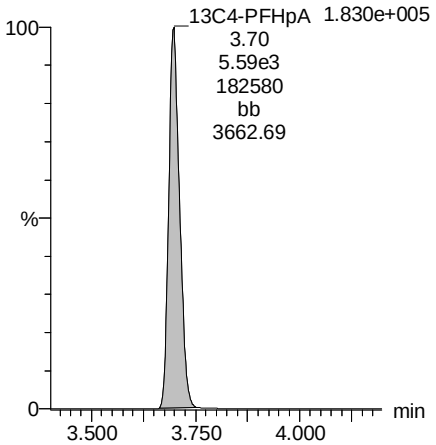
13C3-PFBS



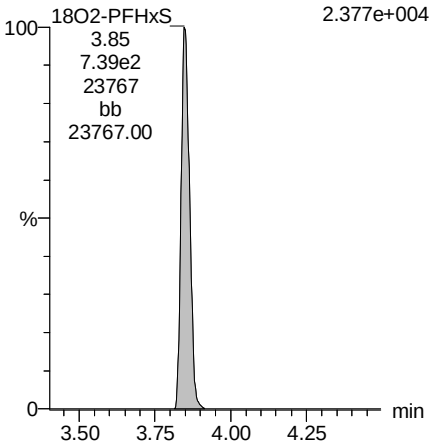
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13C4-PFHpA



18O2-PFHxS



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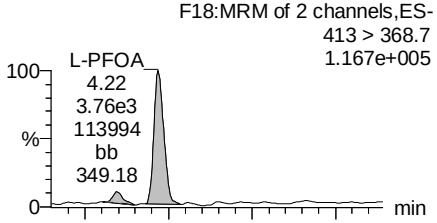
Rev'd: MM 1/12/18

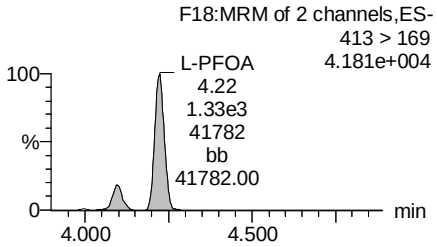
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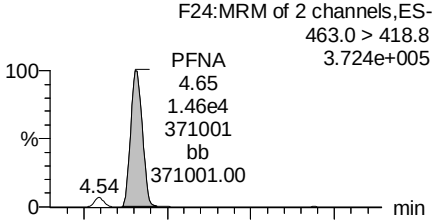
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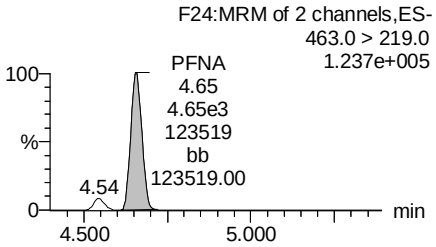
Total PFOA



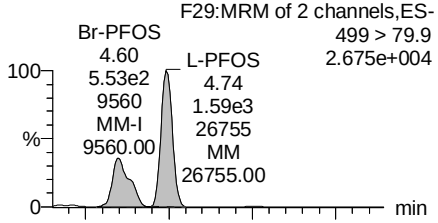


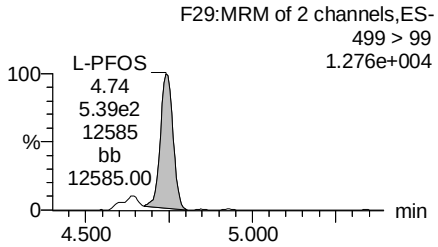
PFNA



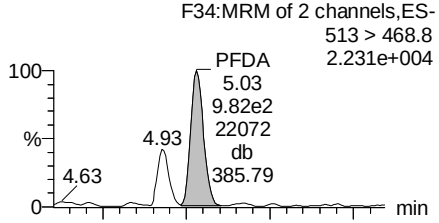


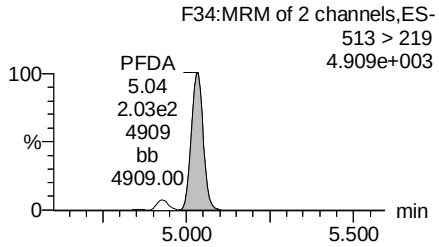
Total PFOS



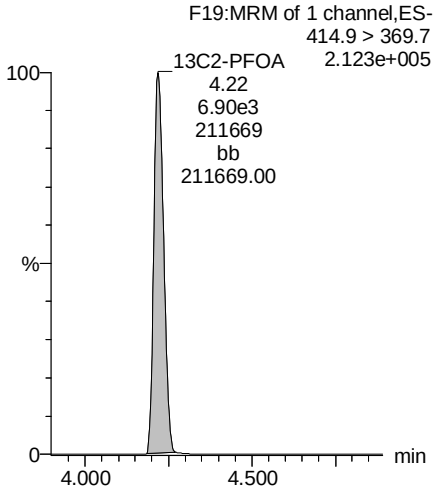


PFDA

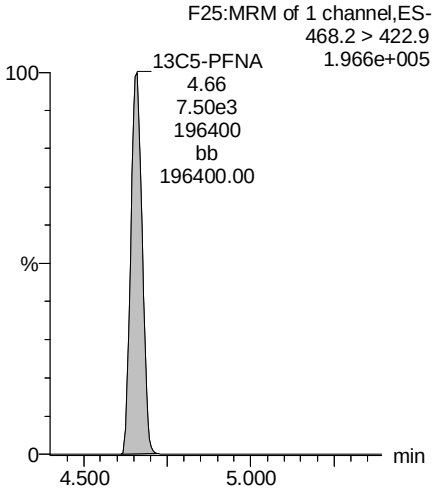




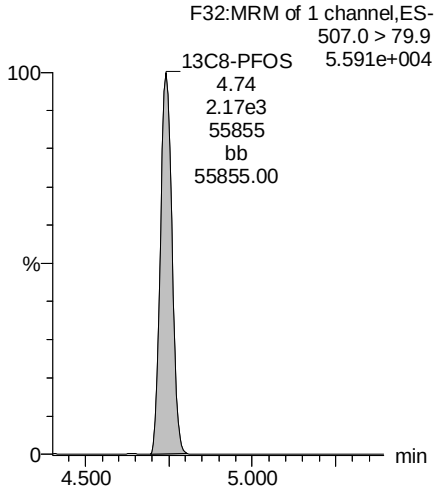
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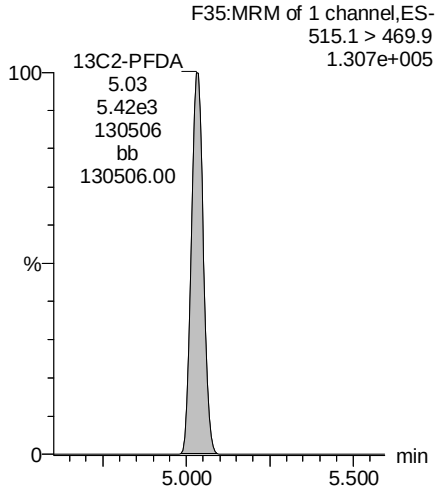
13C5-PFNA



13C8-PFOS



13C2-PFDA



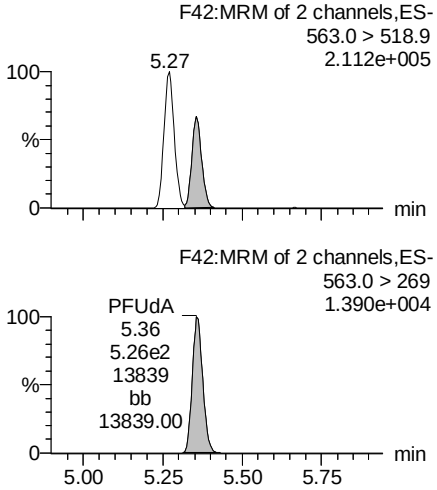
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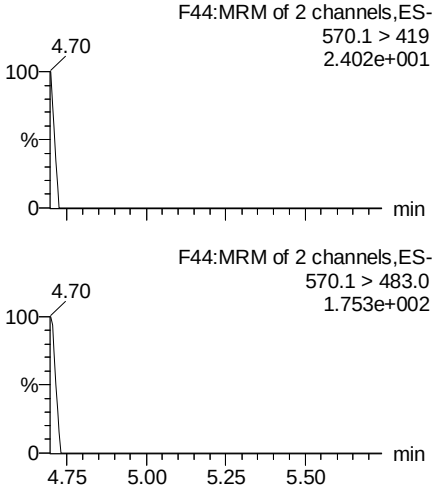
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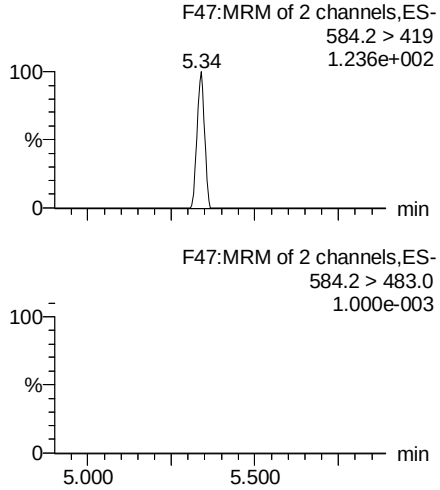
PFUdA



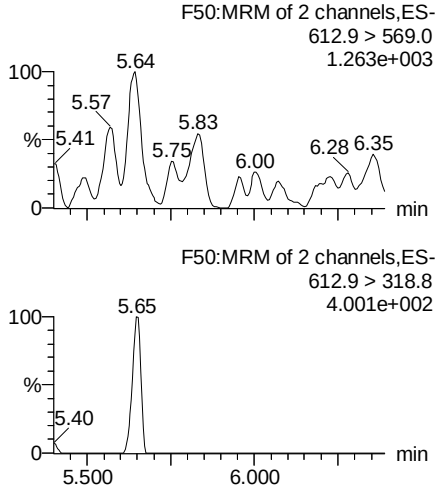
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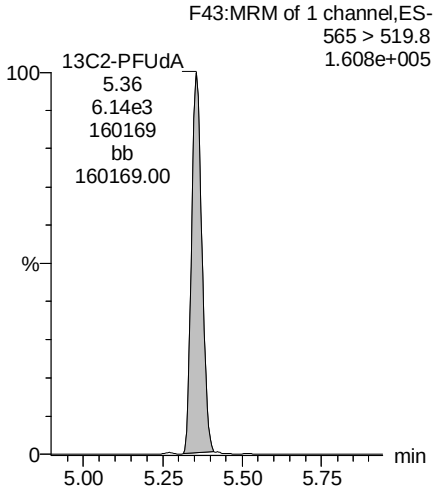
N-EtFOSAA



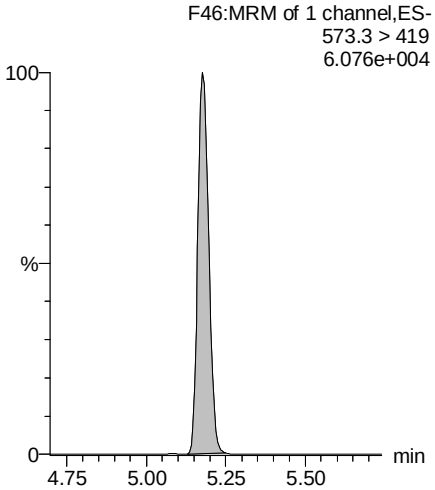
PFDoA



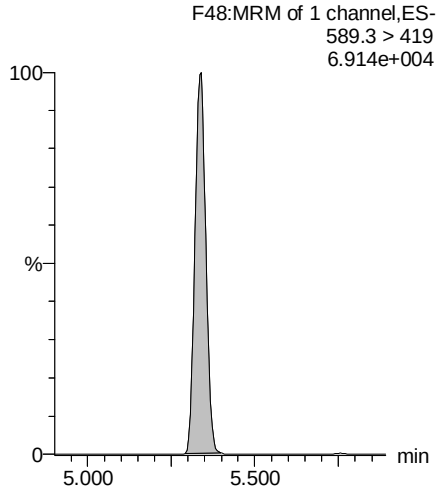
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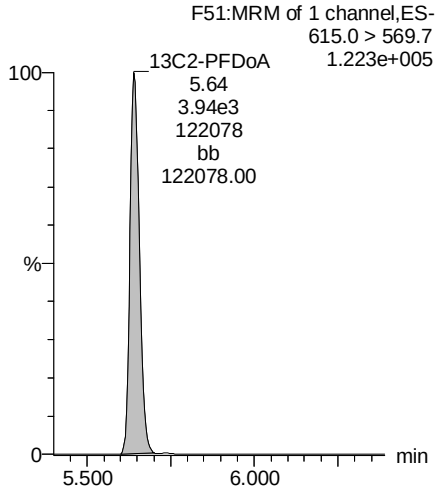
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



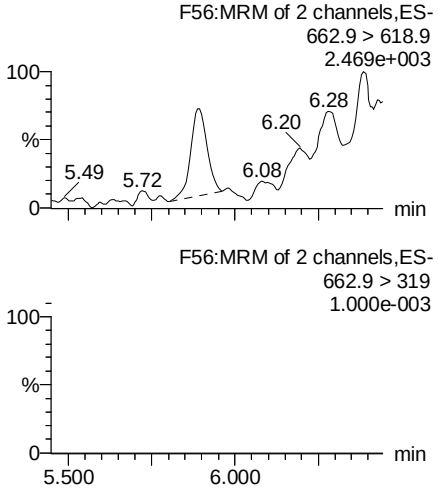
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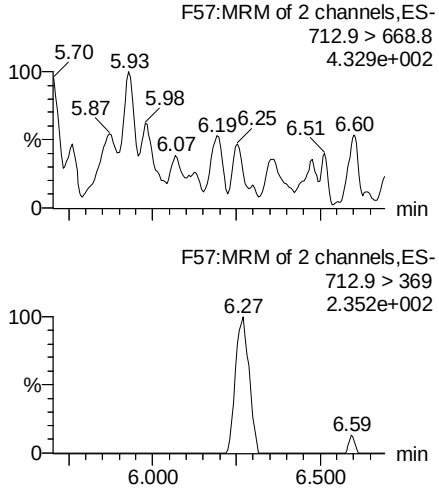
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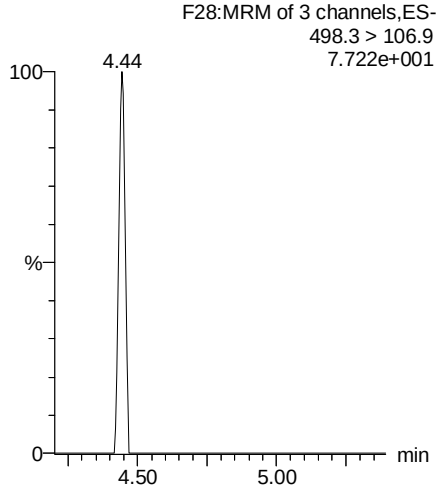
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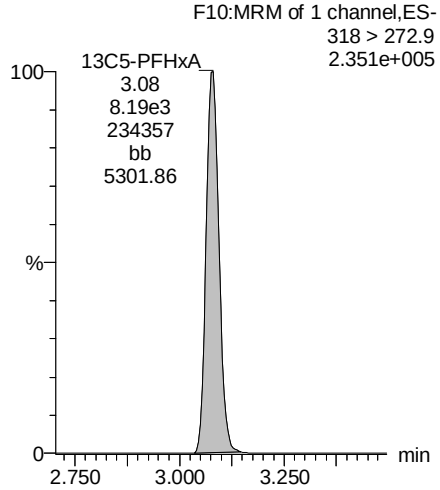
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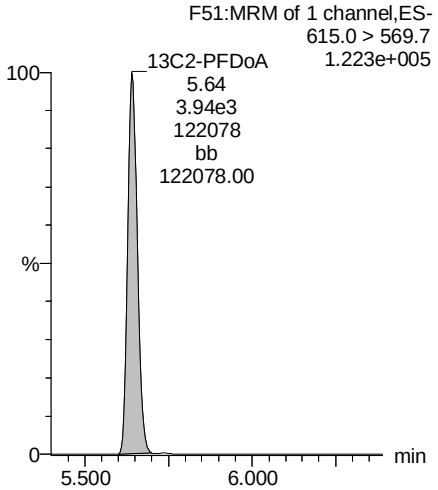
TCDA



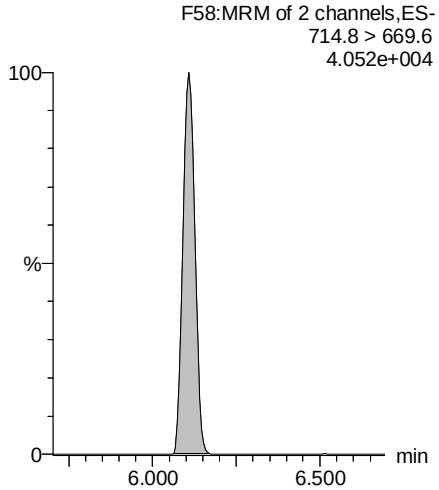
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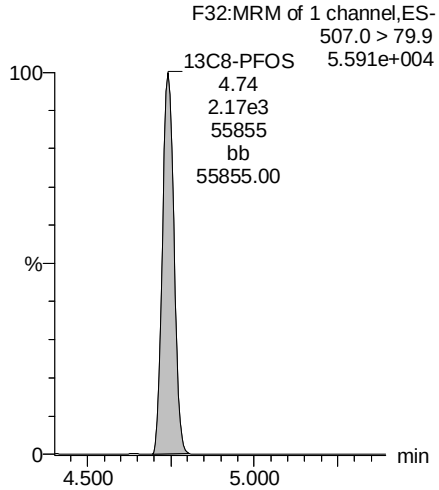
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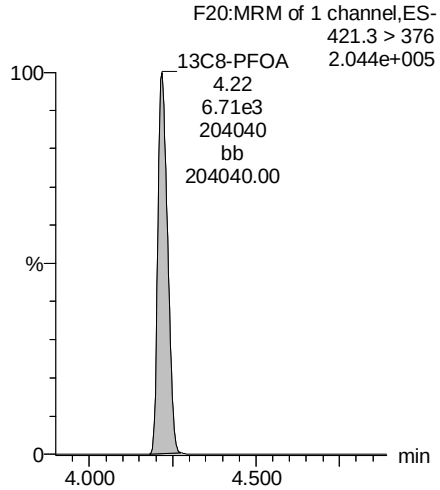
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



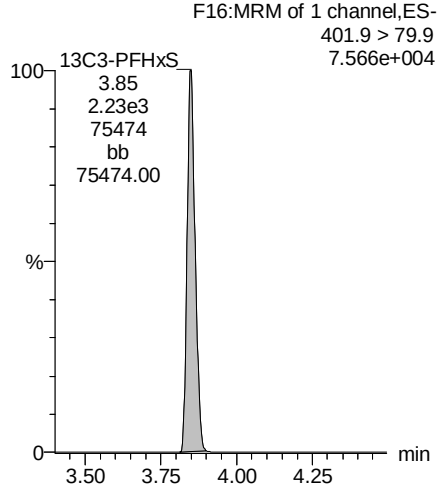
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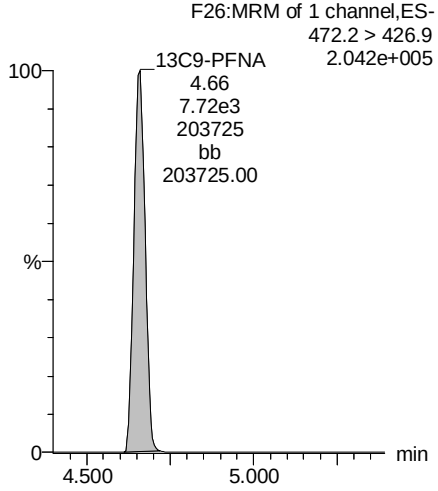
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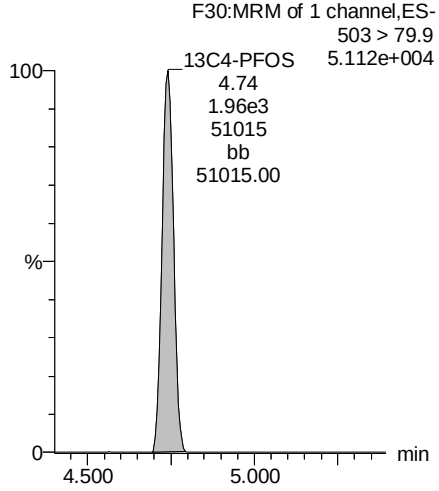
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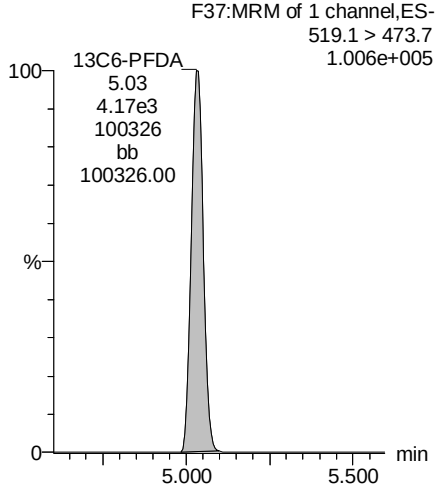
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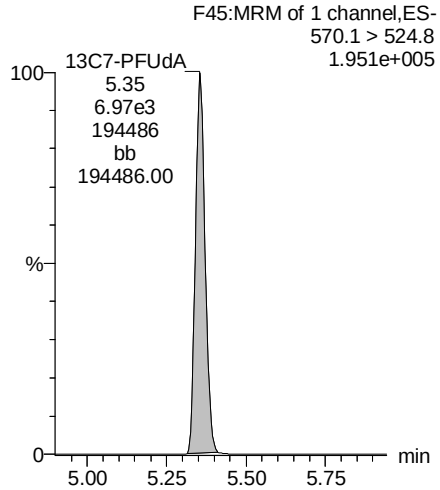
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_19.qld

Last Altered: Thursday, January 11, 2018 15:46:49 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_19, Date: 11-Jan-2018, Time: 12:44:04, ID: 1701832-05 SA-SW125-20171201 0.26063, Description: SA-SW125-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	3.45e1	1.13e3	0.261		2.66	2.59	0.381	0.6710	
2	4	PFHxA	313.2 > 268.9	2.17e3	2.34e3	0.261		3.15	3.08	4.64	9.2308	
3	5	PFHpA	363.0 > 318.9	1.66e3	6.01e3	0.261		3.78	3.70	3.45	8.2743	
4	6	L-PFHxS	398.9 > 79.6	2.70e2	8.18e2	0.261		3.94	3.85	4.12	7.8470	
5	9	L-PFOA	413 > 368.7	1.95e3	7.09e3	0.261		4.31	4.22	3.43	9.8904	
6	12	PFNA	463.0 > 418.8	3.16e4	6.29e3	0.261		4.81	4.66	62.8	167.4503	
7	14	L-PFOS	499 > 79.9	1.51e3	2.45e3	0.261		4.75	4.74	7.69	24.9995	
8	16	PFDA	513 > 468.8	5.54e2	6.21e3	0.261		5.18	5.04	1.12	3.2259	
9	18	N-MeFOSAA	570.1 > 419		2.31e3	0.261		5.32				
10	19	N-EtFOSAA	584.2 > 419		3.04e3	0.261		5.48				
11	20	PFUdA	563.0 > 518.9	2.55e3	7.64e3	0.261		5.50	5.36	4.18	12.3163	
12	22	PFDoA	612.9 > 569.0		4.12e3	0.261		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_19.qld

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Name: 180110M3_19, Date: 11-Jan-2018, Time: 12:44:04, ID: 1701832-05 SA-SW125-20171201 0.26063, Description: SA-SW125-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.12e3	0.261		6.00				
2	25	PFTeDA	712.9 > 668.8		2.34e3	0.261		6.22				
3	33	13C3-PFBS	302. > 98.8	1.13e3	7.73e3	0.261	0.095	2.77	2.58	1.83	73.7114	153.7
4	34	13C2-PFHxA	315 > 269.8	2.34e3	7.73e3	0.261	0.597	3.15	3.08	3.79	24.3445	126.9
5	35	13C4-PFHpA	367.2 > 321.8	6.01e3	7.73e3	0.261	0.604	3.78	3.70	9.73	61.7630	128.8
6	36	18O2-PFHxS	403.0 > 102.6	8.18e2	2.28e3	0.261	0.293	3.94	3.85	4.49	58.7532	122.5
7	37	13C2-6:2 FTS	429.1 > 408.9	1.92e3	8.14e3	0.261	0.215	4.25	4.16	2.96	52.7044	109.9
8	38	13C2-PFOA	414.9 > 369.7	7.09e3	8.14e3	0.261	0.916	4.31	4.22	10.9	45.5978	95.1
9	39	13C5-PFNA	468.2 > 422.9	6.29e3	7.10e3	0.261	0.817	4.81	4.66	11.1	51.9708	108.4
10	40	13C8-PFOSA	506.1 > 77.7	1.52e3	6.39e3	0.261	0.223	4.87	4.72	2.97	51.1868	106.7
11	41	13C8-PFOS	507.0 > 79.9	2.45e3	2.09e3	0.261	0.875	4.89	4.74	14.7	64.3331	134.1
12	42	13C2-PFDA	515.1 > 469.9	6.21e3	4.80e3	0.261	1.105	5.18	5.04	16.2	56.1736	117.1
13	43	13C2-8:2 FTS	529.1 > 508.7	9.02e2	7.73e3	0.261	0.101	5.15	5.01	1.46	55.4717	115.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.31e3	6.39e3	0.261	0.345	5.32	5.18	4.53	50.3327	104.9
15	45	d5-N-EtFOSAA	589.3 > 419	3.04e3	6.39e3	0.261	0.390	5.47	5.34	5.95	58.4629	121.9
16	46	13C2-PFUdA	565 > 519.8	7.64e3	6.39e3	0.261	0.958	5.49	5.36	14.9	59.8409	124.8
17	47	13C2-PFDoA	615.0 > 569.7	4.12e3	6.39e3	0.261	0.599	5.77	5.64	8.06	51.6106	107.6
18	49	13C2-PFTeDA	714.8 > 669.6	2.34e3	6.39e3	0.261	0.282	6.22	6.11	4.57	62.2496	129.8
19	55	13C5-PFHxA	318 > 272.9	7.73e3	7.73e3	0.261	1.000	3.15	3.08	12.5	47.9607	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.28e3	2.28e3	0.261	1.000	4.02	3.85	12.5	47.9607	100.0
21	57	13C8-PFOA	421.3 > 376	8.14e3	8.14e3	0.261	1.000	4.38	4.22	12.5	47.9607	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.10e3	7.10e3	0.261	1.000	4.81	4.66	12.5	47.9607	100.0
23	59	13C4-PFOS	503 > 79.9	2.09e3	2.09e3	0.261	1.000	4.89	4.74	12.5	47.9607	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.80e3	4.80e3	0.261	1.000	5.18	5.04	12.5	47.9607	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.39e3	6.39e3	0.261	1.000	5.49	5.36	12.5	47.9607	100.0
26	62	Total PFHxS	398.9 > 79.6	2.70e2	8.18e2	0.261		4.14		4.12	7.8470	
27	63	Total PFOA	413 > 368.7	1.95e3	7.09e3	0.261		4.51		3.43	9.8904	
28	64	Total PFOS	499 > 79.9	1.51e3	2.45e3	0.261		4.75		7.69	24.9995	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.31e3	0.261		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.04e3	0.261		5.61		0.000		

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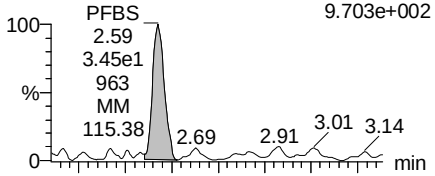
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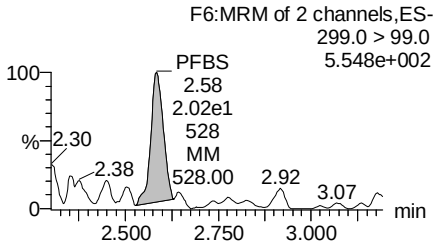
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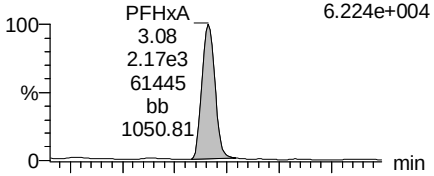
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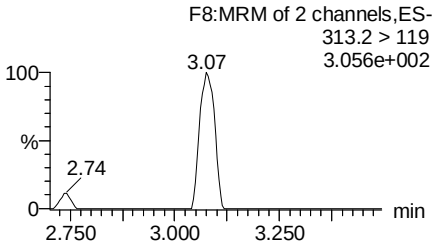
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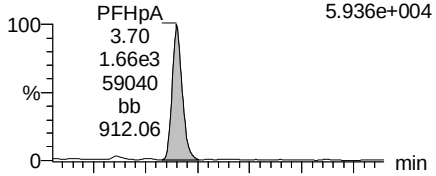


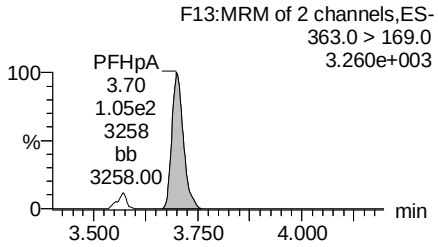
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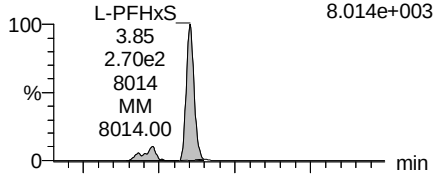


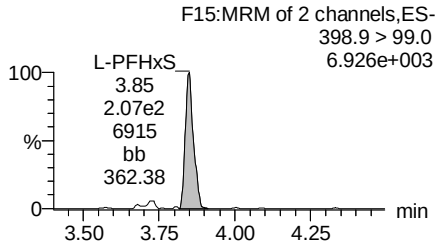
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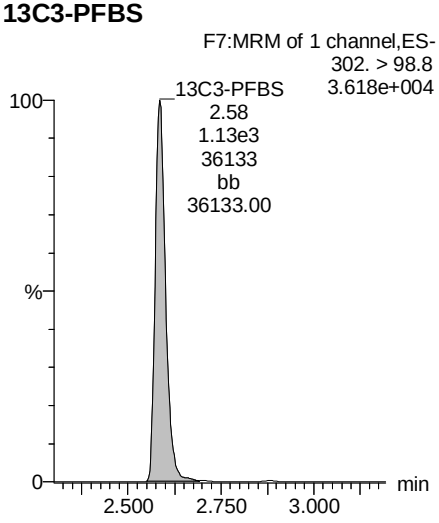


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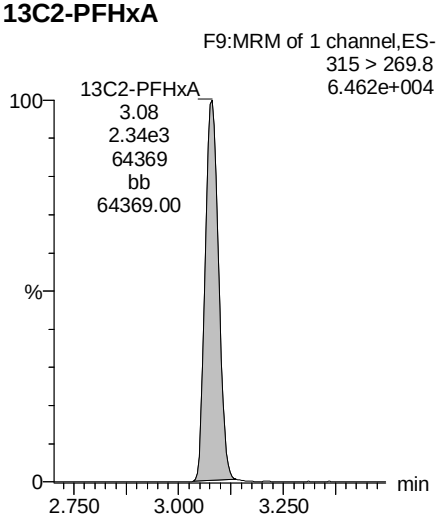




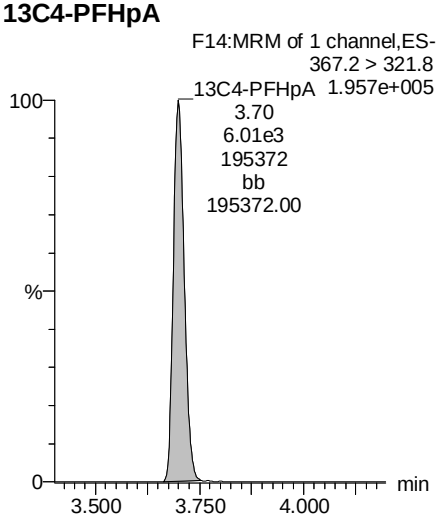
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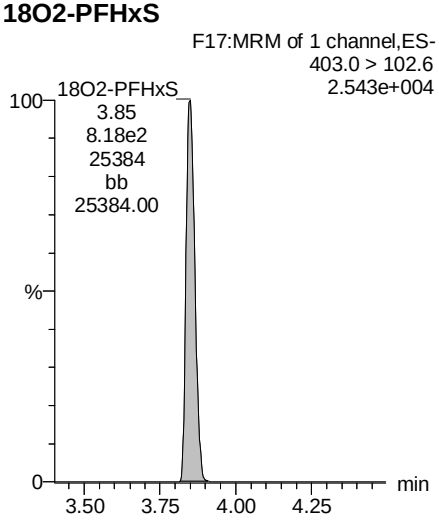
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13C4-PFHpA



18O2-PFHxS



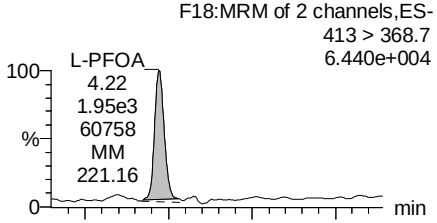
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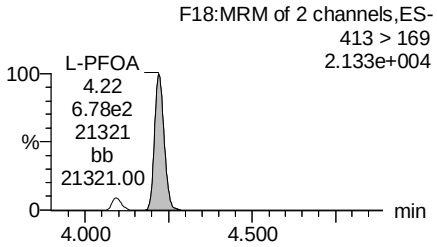
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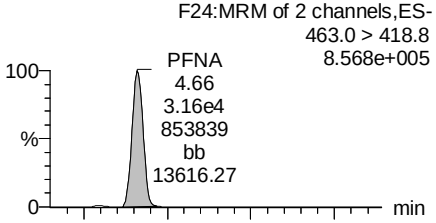
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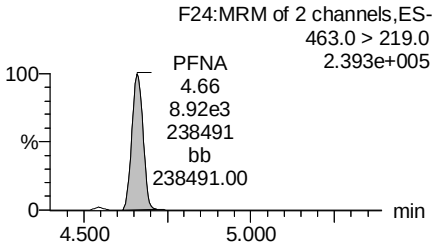
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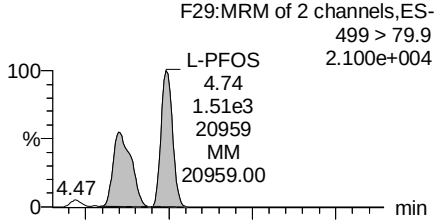


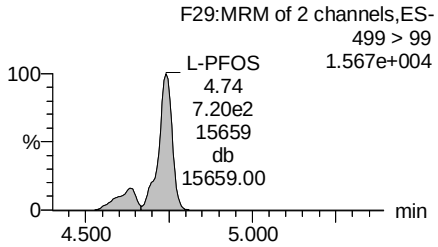
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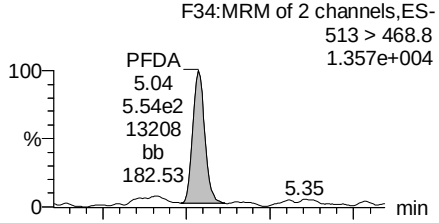


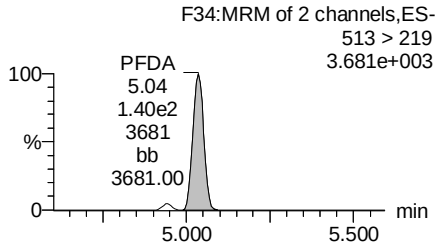
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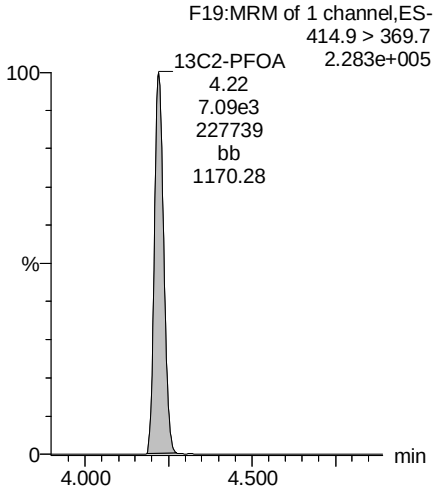


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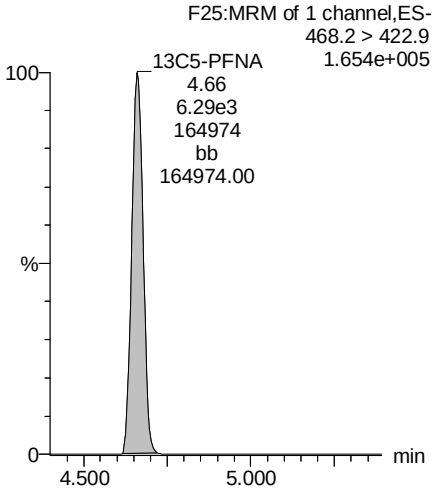




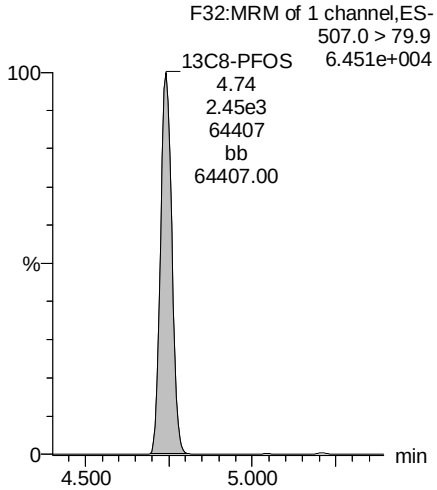
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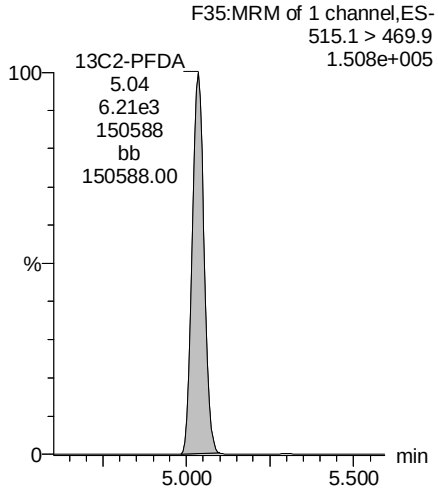
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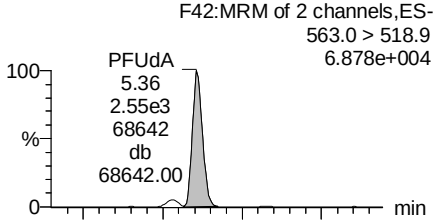
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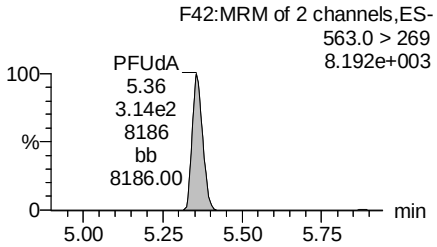
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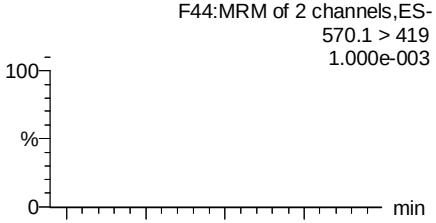
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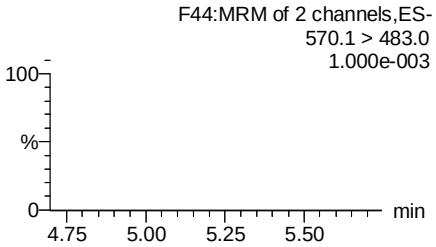
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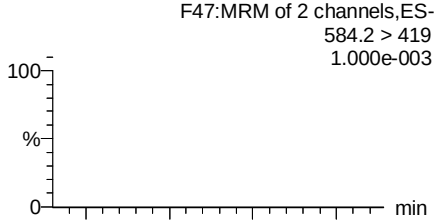


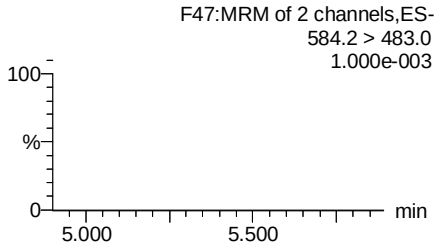
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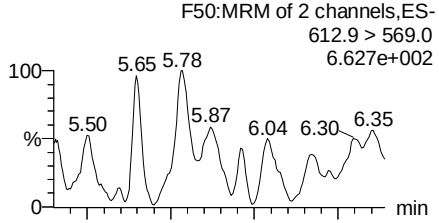


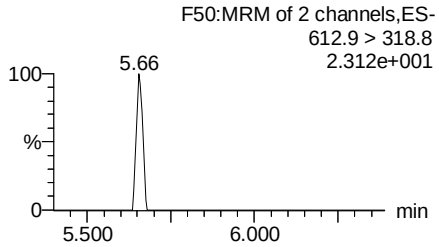
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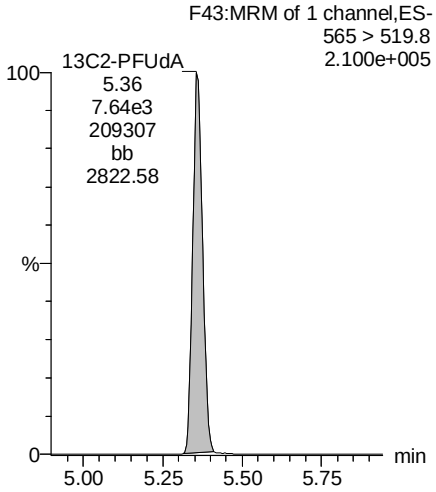


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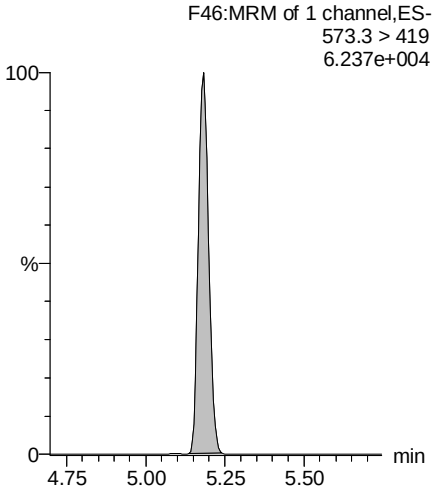




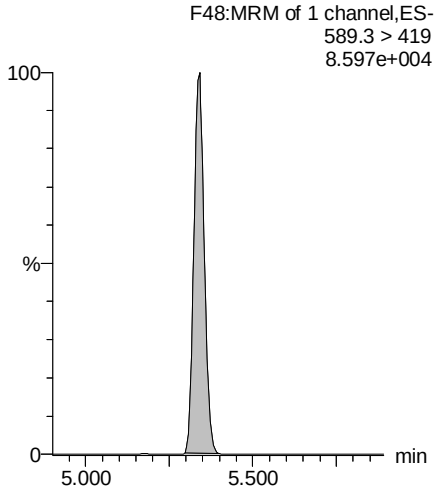
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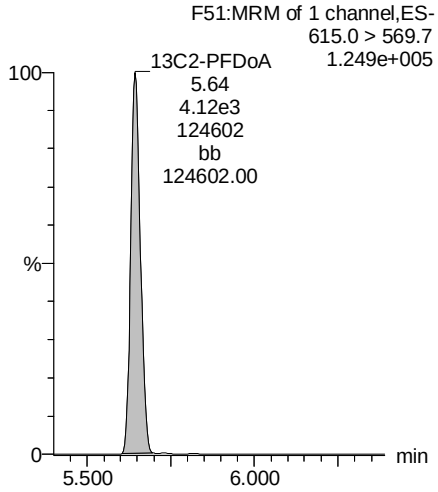
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d5-N-EtFOSAA



13C2-PFDoA



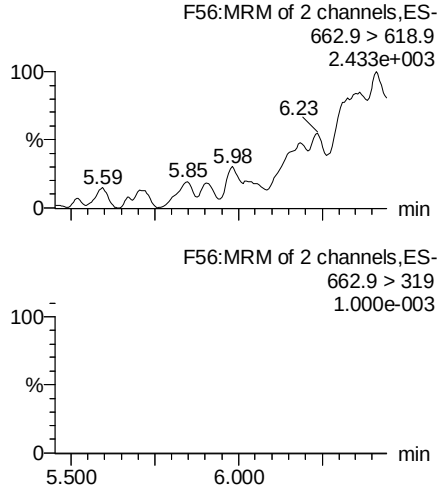
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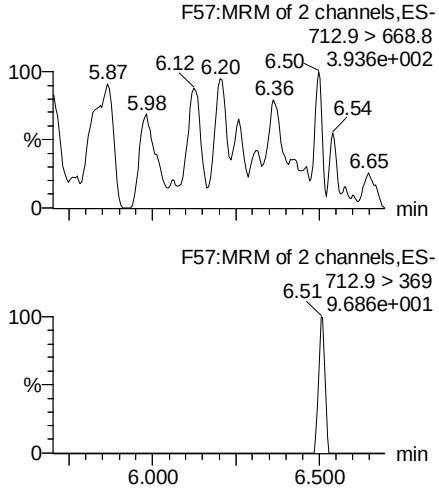
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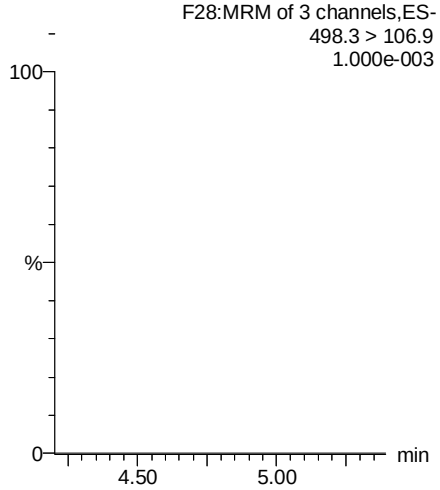
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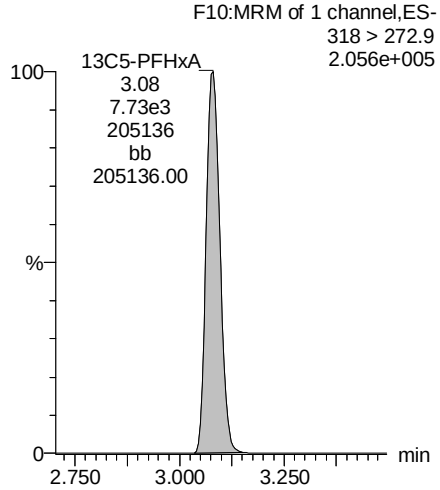
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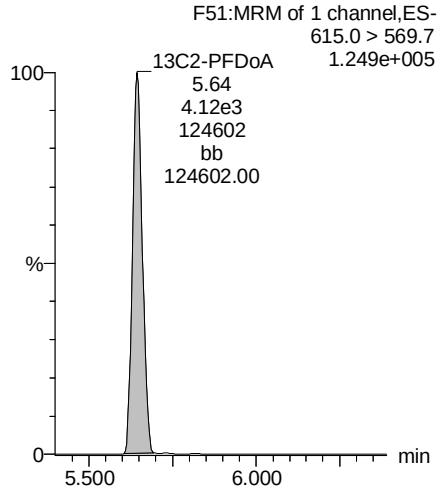
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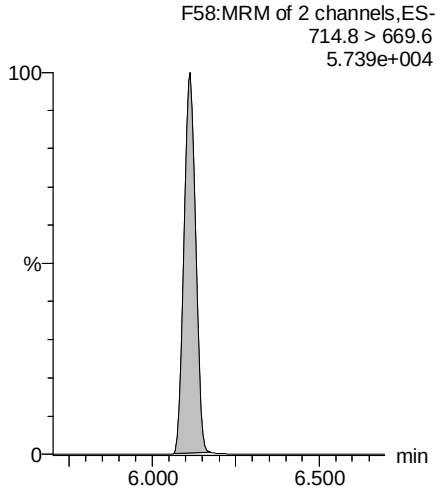
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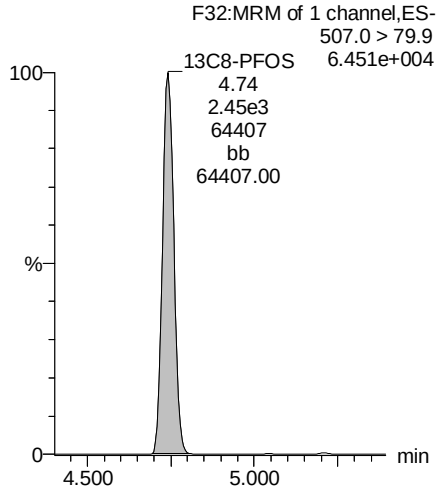
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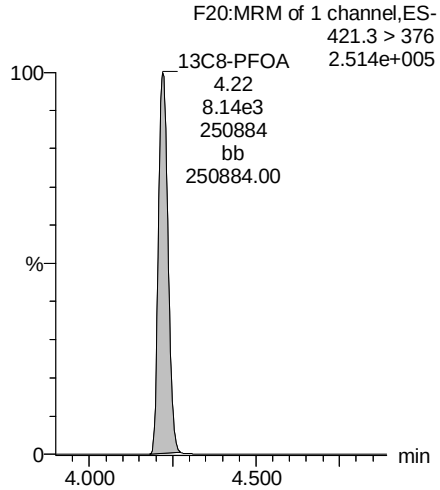
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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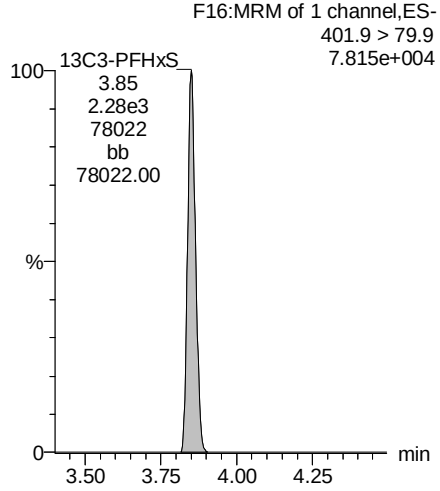
Rev'd: MM 1/12/18

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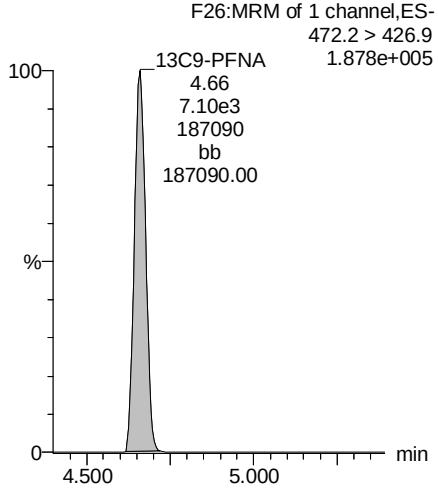
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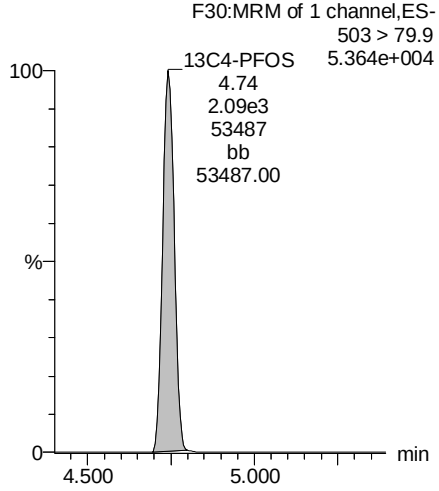
13C3-PFHxS



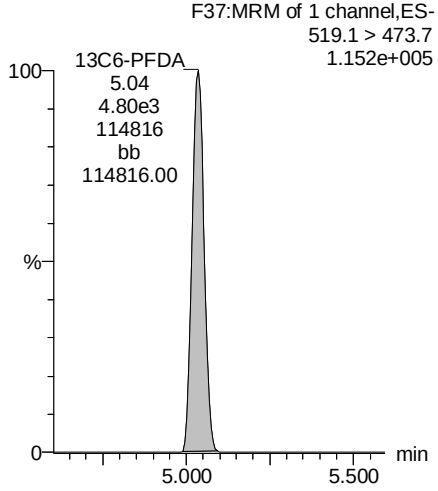
13C9-PFNA



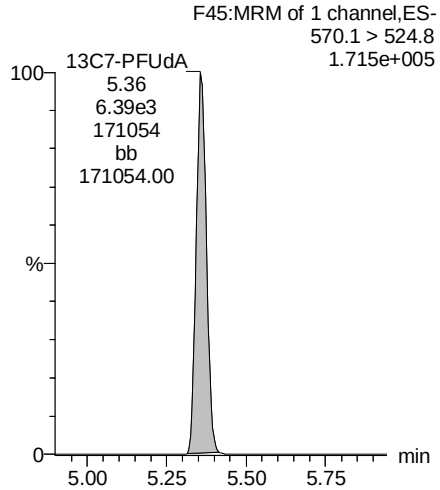
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_20.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_20, Date: 11-Jan-2018, Time: 12:55:15, ID: 1701832-06 SA-SW124-20171201 0.24606, Description: SA-SW124-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.08e3	0.246		2.66				
2	4	PFHxA	313.2 > 268.9	1.60e3	2.44e3	0.246		3.15	3.08	3.27	6.9138	
3	5	PFHpA	363.0 > 318.9	9.39e2	6.00e3	0.246		3.78	3.70	1.96	5.1017	
4	6	L-PFHxS	398.9 > 79.6	7.09e1	8.29e2	0.246		3.94	3.85	1.07	2.4527	
5	9	L-PFOA	413 > 368.7	1.90e3	8.31e3	0.246		4.31	4.22	2.86	8.6210	
6	12	PFNA	463.0 > 418.8	4.80e4	6.65e3	0.246		4.81	4.66	90.3	252.8549	
7	14	L-PFOS	499 > 79.9	2.40e2	2.29e3	0.246		4.75	4.75	1.31	4.4294	
8	16	PFDA	513 > 468.8	1.30e3	7.42e3	0.246		5.18	5.04	2.18	6.1091	
9	18	N-MeFOSAA	570.1 > 419		2.97e3	0.246		5.32				
10	19	N-EtFOSAA	584.2 > 419		3.29e3	0.246		5.48				
11	20	PFUdA	563.0 > 518.9	4.78e3	7.58e3	0.246		5.50	5.36	7.88	24.3689	
12	22	PFDoA	612.9 > 569.0		4.96e3	0.246		5.77				

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_20.qld

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Name: 180110M3_20, Date: 11-Jan-2018, Time: 12:55:15, ID: 1701832-06 SA-SW124-20171201 0.24606, Description: SA-SW124-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.96e3	0.246		6.00				
2	25	PFTeDA	712.9 > 668.8		2.48e3	0.246		6.22				
3	33	13C3-PFBS	302. > 98.8	1.08e3	8.69e3	0.246	0.095	2.77	2.58	1.56	66.3783	130.7
4	34	13C2-PFHxA	315 > 269.8	2.44e3	8.69e3	0.246	0.597	3.15	3.08	3.51	23.9191	117.7
5	35	13C4-PFHpA	367.2 > 321.8	6.00e3	8.69e3	0.246	0.604	3.78	3.70	8.63	58.0430	114.3
6	36	18O2-PFHxS	403.0 > 102.6	8.29e2	2.30e3	0.246	0.293	3.94	3.85	4.50	62.3913	122.8
7	37	13C2-6:2 FTS	429.1 > 408.9	1.97e3	7.07e3	0.246	0.215	4.25	4.17	3.48	65.7767	129.5
8	38	13C2-PFOA	414.9 > 369.7	8.31e3	7.07e3	0.246	0.916	4.31	4.22	14.7	65.1943	128.3
9	39	13C5-PFNA	468.2 > 422.9	6.65e3	7.53e3	0.246	0.817	4.81	4.66	11.0	54.8795	108.0
10	40	13C8-PFOSA	506.1 > 77.7	1.78e3	7.68e3	0.246	0.223	4.87	4.71	2.91	52.9847	104.3
11	41	13C8-PFOS	507.0 > 79.9	2.29e3	1.82e3	0.246	0.875	4.89	4.74	15.7	73.1132	143.9
12	42	13C2-PFDA	515.1 > 469.9	7.42e3	5.61e3	0.246	1.105	5.18	5.04	16.5	60.8073	119.7
13	43	13C2-8:2 FTS	529.1 > 508.7	8.64e2	8.69e3	0.246	0.101	5.15	5.01	1.24	50.0727	98.6
14	44	d3-N-MeFOSAA	573.3 > 419	2.97e3	7.68e3	0.246	0.345	5.32	5.18	4.84	56.9589	112.1
15	45	d5-N-EtFOSAA	589.3 > 419	3.29e3	7.68e3	0.246	0.390	5.47	5.34	5.36	55.8257	109.9
16	46	13C2-PFUdA	565 > 519.8	7.58e3	7.68e3	0.246	0.958	5.49	5.36	12.3	52.3593	103.1
17	47	13C2-PFDoA	615.0 > 569.7	4.96e3	7.68e3	0.246	0.599	5.77	5.64	8.08	54.8255	107.9
18	49	13C2-PFTeDA	714.8 > 669.6	2.48e3	7.68e3	0.246	0.282	6.22	6.11	4.05	58.3677	114.9
19	55	13C5-PFHxA	318 > 272.9	8.69e3	8.69e3	0.246	1.000	3.15	3.08	12.5	50.8006	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.30e3	2.30e3	0.246	1.000	4.02	3.85	12.5	50.8006	100.0
21	57	13C8-PFOA	421.3 > 376	7.07e3	7.07e3	0.246	1.000	4.38	4.22	12.5	50.8006	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.53e3	7.53e3	0.246	1.000	4.81	4.66	12.5	50.8006	100.0
23	59	13C4-PFOS	503 > 79.9	1.82e3	1.82e3	0.246	1.000	4.89	4.75	12.5	50.8006	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.61e3	5.61e3	0.246	1.000	5.18	5.04	12.5	50.8006	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.68e3	7.68e3	0.246	1.000	5.49	5.36	12.5	50.8006	100.0
26	62	Total PFHxS	398.9 > 79.6	7.09e1	8.29e2	0.246		4.14		1.07	2.4527	
27	63	Total PFOA	413 > 368.7	1.90e3	8.31e3	0.246		4.51		2.86	8.6210	
28	64	Total PFOS	499 > 79.9	2.40e2	2.29e3	0.246		4.75		1.31	4.4294	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.97e3	0.246		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.29e3	0.246		5.61		0.000		

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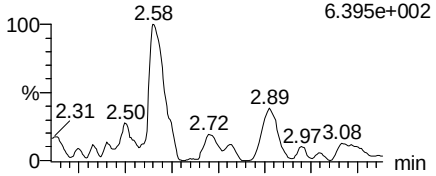
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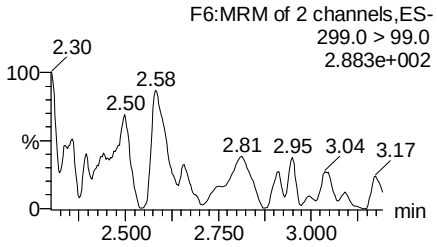
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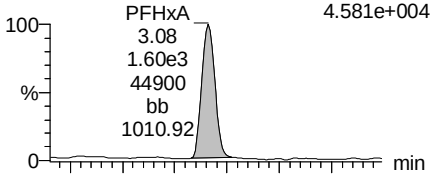
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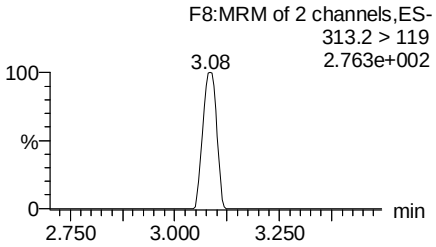
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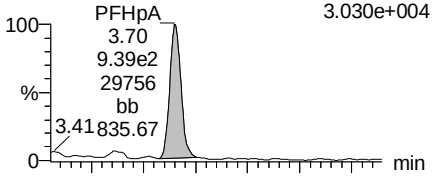


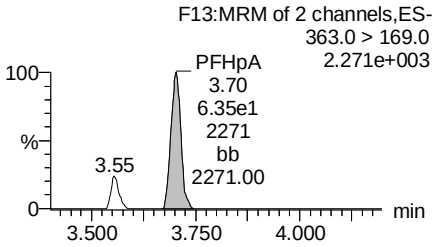
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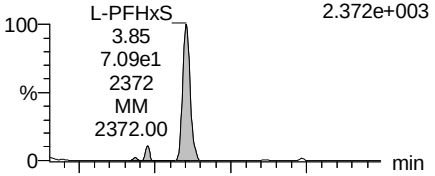


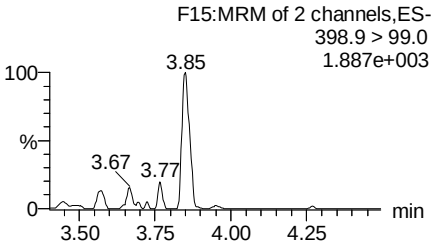
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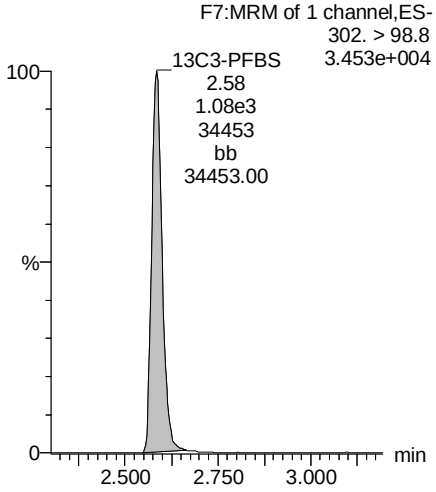


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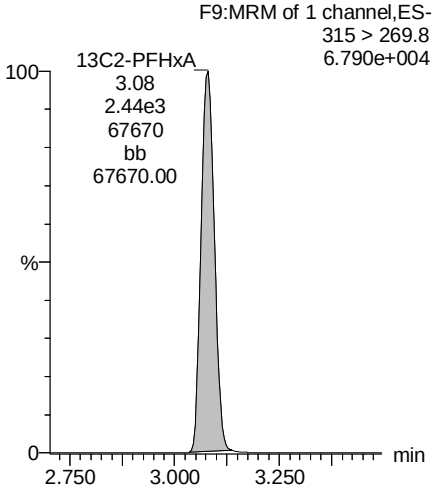




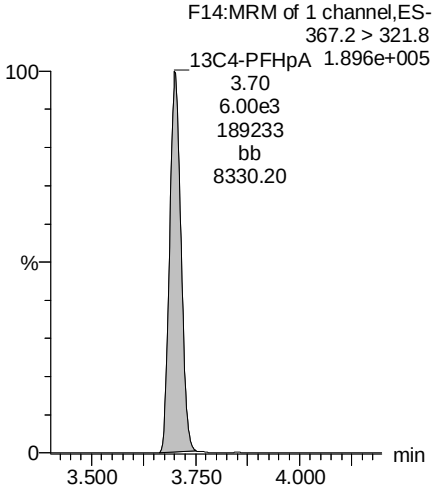
13C3-PFBS



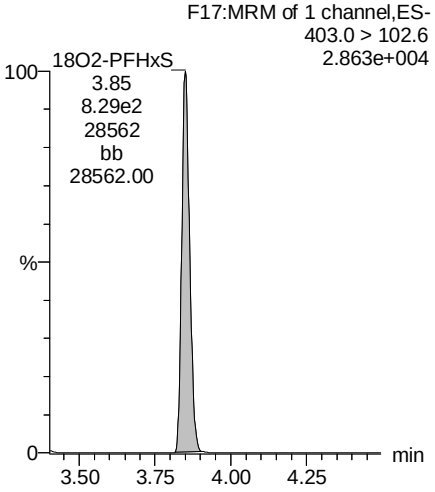
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13C4-PFHpA



18O2-PFHxS



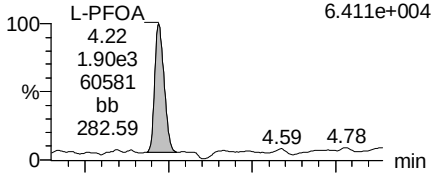
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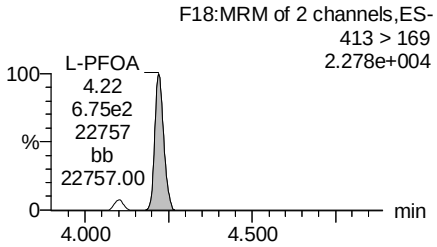
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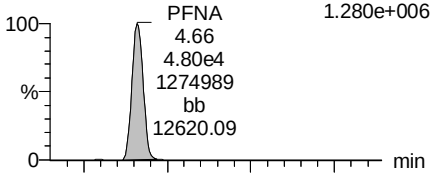
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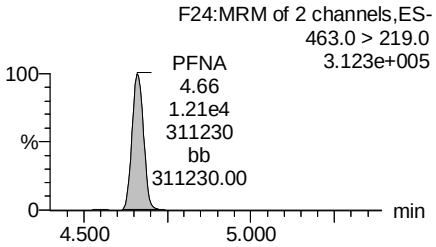
Total PFOA



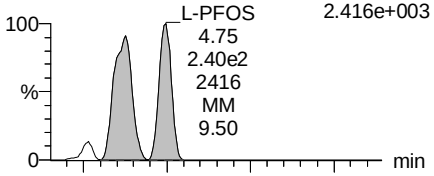


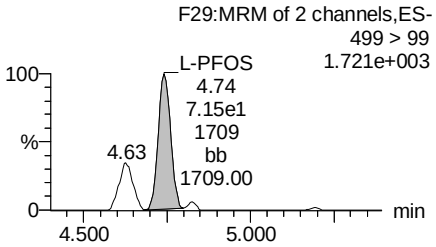
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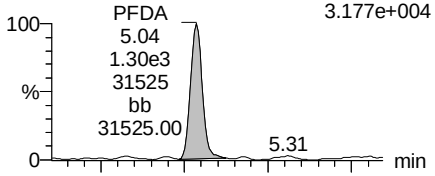


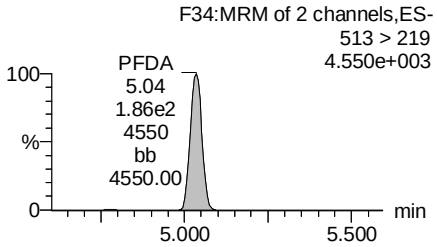
Total PFOS



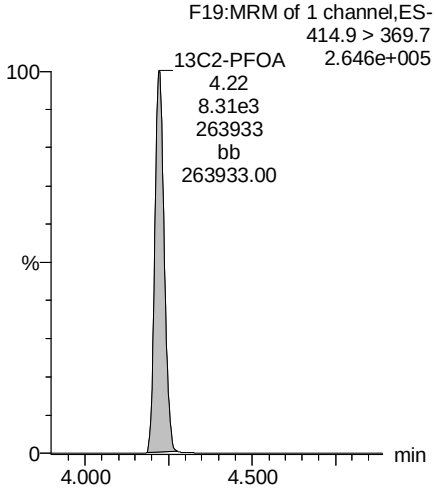


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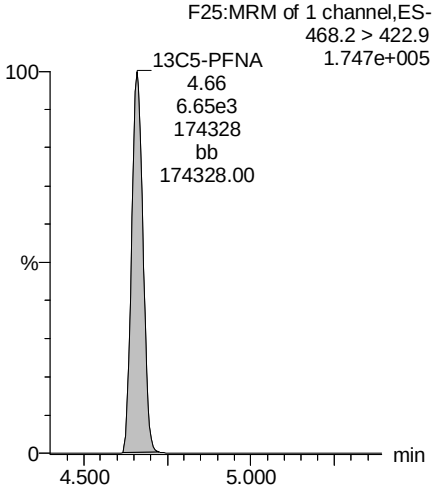




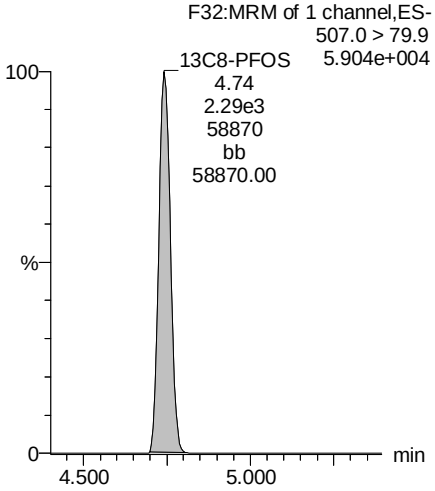
13C2-PFOA



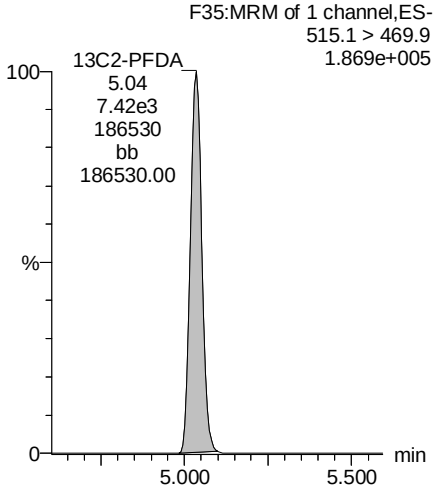
13C5-PFNA



13C8-PFOS



13C2-PFDA



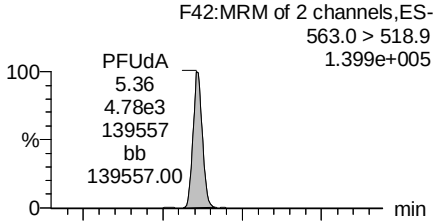
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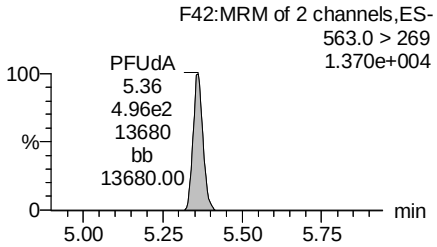
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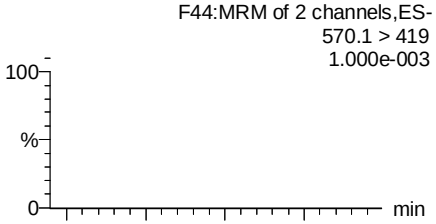
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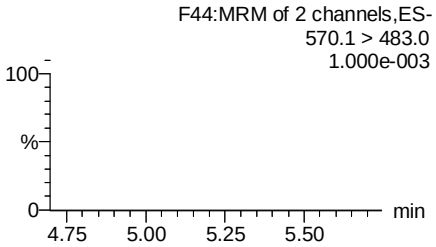
PFUdA



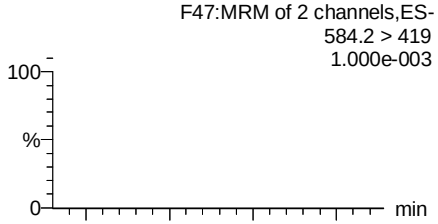


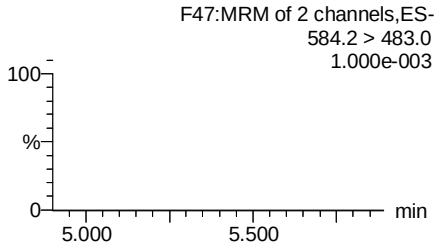
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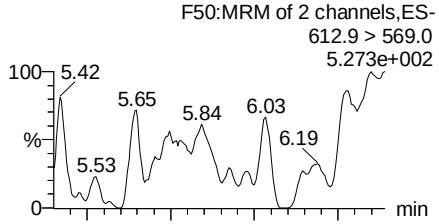


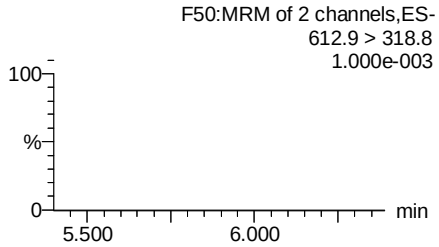
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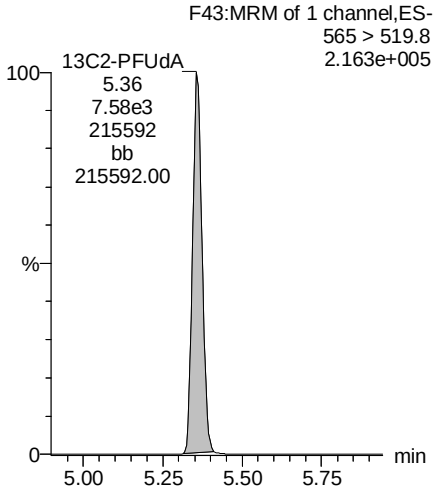


PFDoA

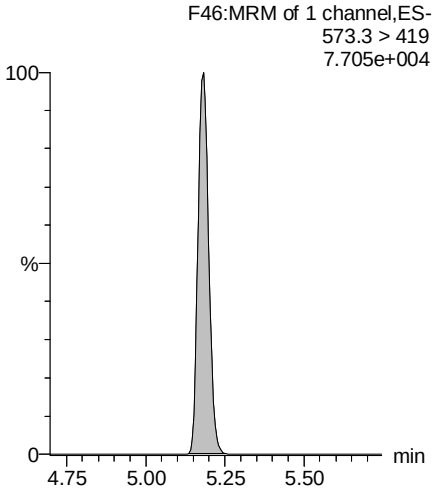




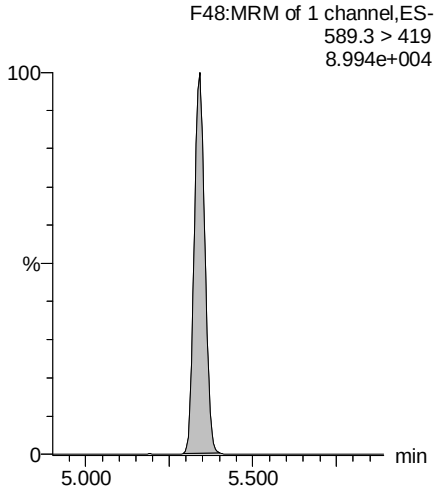
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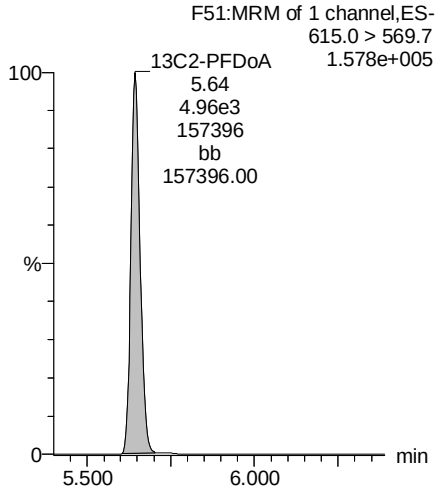
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d5-N-EtFOSAA



13C2-PFDoA



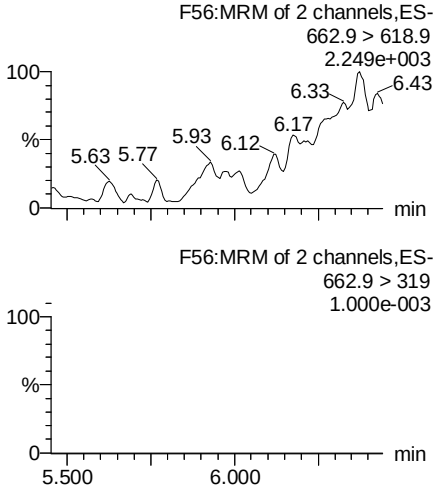
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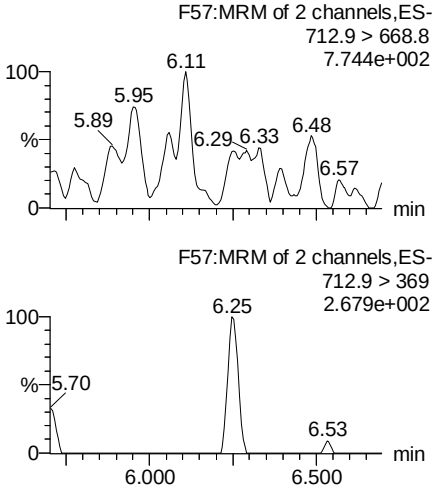
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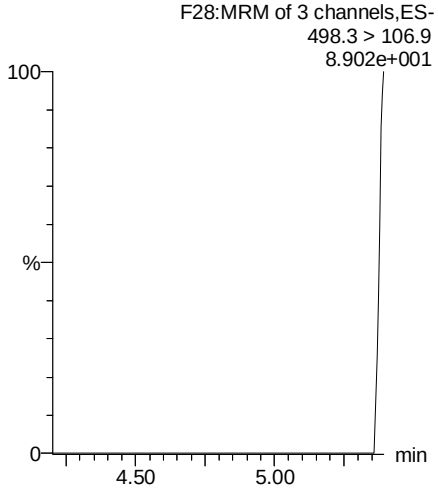
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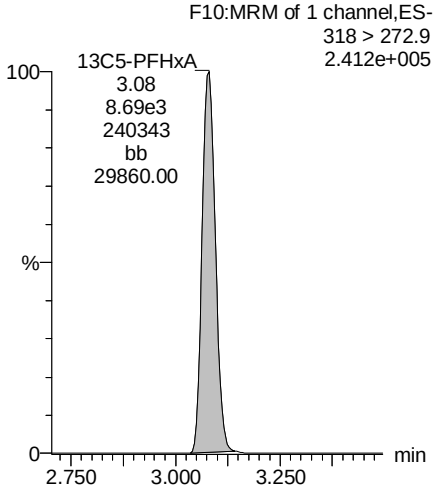
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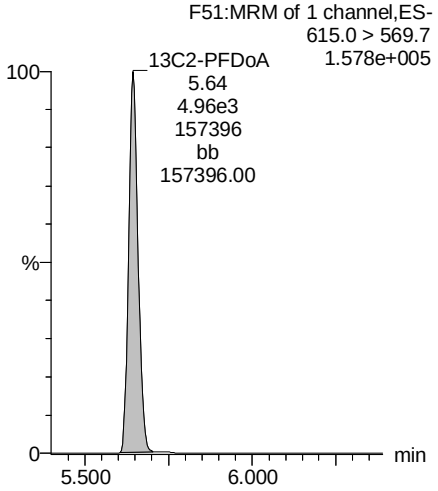
TCDA



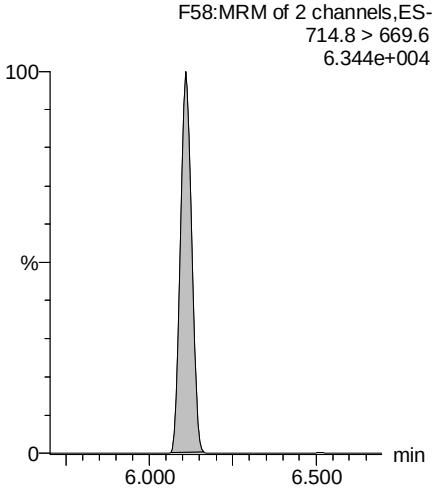
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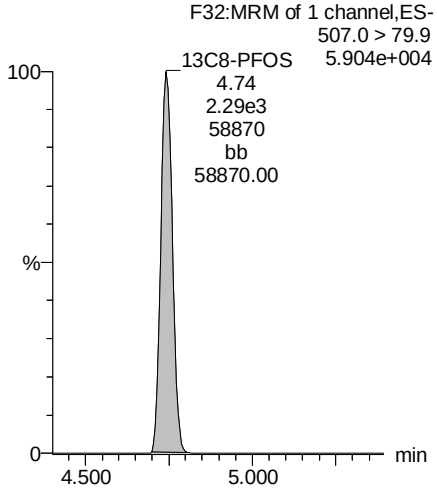
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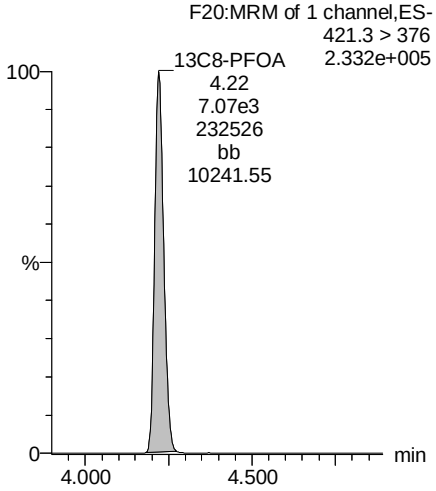
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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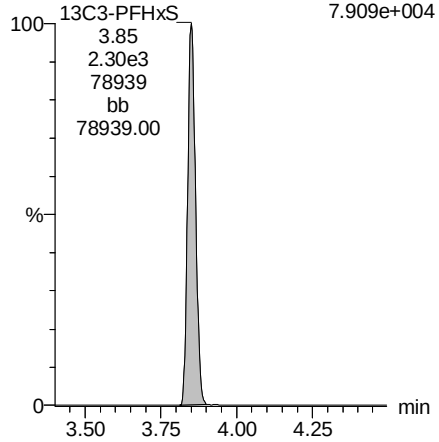
Rev'd: MM 1/12/18

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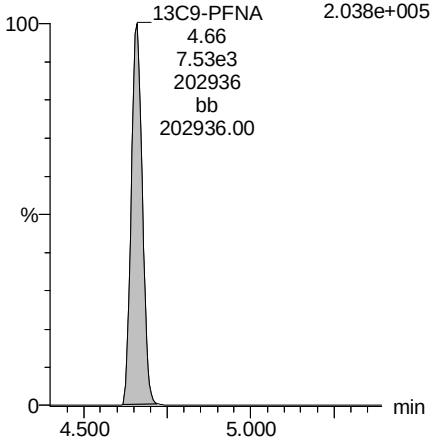
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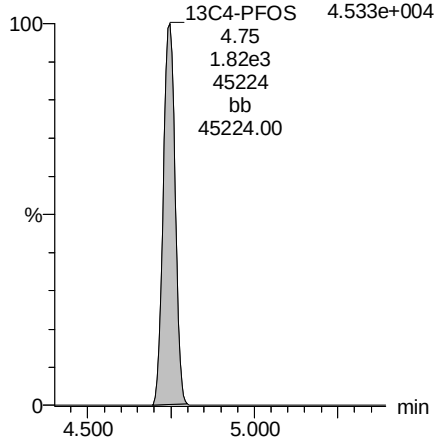
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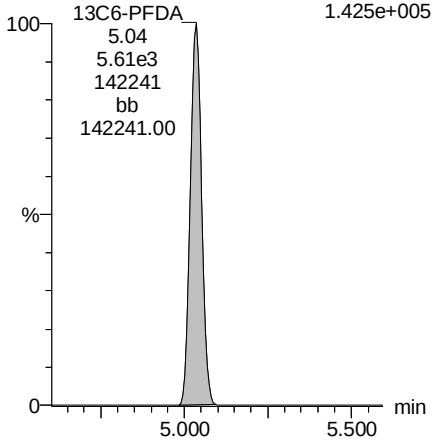
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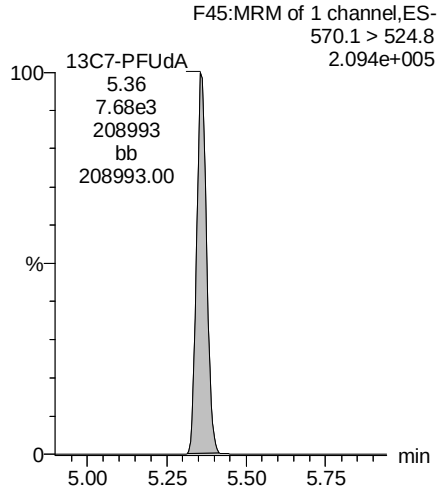
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13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_21.qld

Last Altered: Thursday, January 11, 2018 15:34:44 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:35:20 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_21, Date: 11-Jan-2018, Time: 13:06:26, ID: 1701832-07 SA-PZ124-20171201 0.22152, Description: SA-PZ124-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	5.61e1	1.29e3	0.222		2.66	2.59	0.544	1.1363	
2	4	PFHxA	313.2 > 268.9	4.55e3	2.85e3	0.222		3.15	3.08	7.97	18.6246	
3	5	PFHpA	363.0 > 318.9	6.00e3	6.43e3	0.222		3.78	3.70	11.7	32.1535	
4	6	L-PFHxS	398.9 > 79.6	4.41e2	8.25e2	0.222		3.94	3.85	6.68	14.6732	
5	9	L-PFOA	413 > 368.7	1.38e4	9.02e3	0.222		4.31	4.22	19.1	67.8741	
6	12	PFNA	463.0 > 418.8	5.21e5	7.68e3	0.222		4.81	4.66	847	2191.9729	
7	14	L-PFOS	499 > 79.9	4.04e2	2.41e3	0.222		4.75	4.74	2.09	7.9245	
8	16	PFDA	513 > 468.8	8.29e3	7.09e3	0.222		5.18	5.04	14.6	40.6423	
9	18	N-MeFOSAA	570.1 > 419		2.95e3	0.222		5.32				
10	19	N-EtFOSAA	584.2 > 419		3.21e3	0.222		5.48				
11	20	PFUdA	563.0 > 518.9	2.50e4	8.79e3	0.222		5.50	5.36	35.5	121.4822	
12	22	PFDoA	612.9 > 569.0		3.59e3	0.222		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_21.qld

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	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.59e3	0.222		6.00				
2	25	PFTeDA	712.9 > 668.8		1.70e3	0.222		6.22				
3	33	13C3-PFBS	302. > 98.8	1.29e3	8.86e3	0.222	0.095	2.77	2.59	1.82	86.1722	152.7
4	34	13C2-PFHxA	315 > 269.8	2.85e3	8.86e3	0.222	0.597	3.15	3.08	4.02	30.4366	134.8
5	35	13C4-PFHpA	367.2 > 321.8	6.43e3	8.86e3	0.222	0.604	3.78	3.70	9.07	67.7573	120.1
6	36	18O2-PFHxS	403.0 > 102.6	8.25e2	2.35e3	0.222	0.293	3.94	3.85	4.39	67.6022	119.8
7	37	13C2-6:2 FTS	429.1 > 408.9	2.08e3	8.94e3	0.222	0.215	4.25	4.16	2.91	61.0900	108.3
8	38	13C2-PFOA	414.9 > 369.7	9.02e3	8.94e3	0.222	0.916	4.31	4.22	12.6	62.1375	110.1
9	39	13C5-PFNA	468.2 > 422.9	7.68e3	7.14e3	0.222	0.817	4.81	4.66	13.5	74.3037	131.7
10	40	13C8-PFOSA	506.1 > 77.7	1.84e3	8.31e3	0.222	0.223	4.87	4.72	2.77	56.0855	99.4
11	41	13C8-PFOS	507.0 > 79.9	2.41e3	2.27e3	0.222	0.875	4.89	4.74	13.3	68.6644	121.7
12	42	13C2-PFDA	515.1 > 469.9	7.09e3	4.99e3	0.222	1.105	5.18	5.04	17.8	72.5355	128.5
13	43	13C2-8:2 FTS	529.1 > 508.7	8.36e2	8.86e3	0.222	0.101	5.15	5.00	1.18	52.7805	93.5
14	44	d3-N-MeFOSAA	573.3 > 419	2.95e3	8.31e3	0.222	0.345	5.32	5.18	4.43	57.9696	102.7
15	45	d5-N-EtFOSAA	589.3 > 419	3.21e3	8.31e3	0.222	0.390	5.47	5.34	4.83	55.8083	98.9
16	46	13C2-PFUdA	565 > 519.8	8.79e3	8.31e3	0.222	0.958	5.49	5.36	13.2	62.2799	110.4
17	47	13C2-PFDoA	615.0 > 569.7	3.59e3	8.31e3	0.222	0.599	5.77	5.64	5.40	40.7001	72.1
18	49	13C2-PFTeDA	714.8 > 669.6	1.70e3	8.31e3	0.222	0.282	6.22	6.11	2.55	40.9320	72.5
19	55	13C5-PFHxA	318 > 272.9	8.86e3	8.86e3	0.222	1.000	3.15	3.08	12.5	56.4334	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.35e3	2.35e3	0.222	1.000	4.02	3.85	12.5	56.4334	100.0
21	57	13C8-PFOA	421.3 > 376	8.94e3	8.94e3	0.222	1.000	4.38	4.22	12.5	56.4334	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.14e3	7.14e3	0.222	1.000	4.81	4.66	12.5	56.4334	100.0
23	59	13C4-PFOS	503 > 79.9	2.27e3	2.27e3	0.222	1.000	4.89	4.74	12.5	56.4334	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.99e3	4.99e3	0.222	1.000	5.18	5.04	12.5	56.4334	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.31e3	8.31e3	0.222	1.000	5.49	5.36	12.5	56.4334	100.0
26	62	Total PFHxS	398.9 > 79.6	4.41e2	8.25e2	0.222		4.14		6.68	14.6732	
27	63	Total PFOA	413 > 368.7	1.38e4	9.02e3	0.222		4.51		19.1	67.8741	
28	64	Total PFOS	499 > 79.9	4.04e2	2.41e3	0.222		4.75		2.09	7.9245	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.95e3	0.222		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.21e3	0.222		5.61		0.000		

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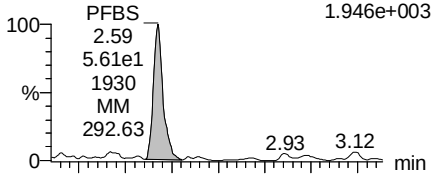
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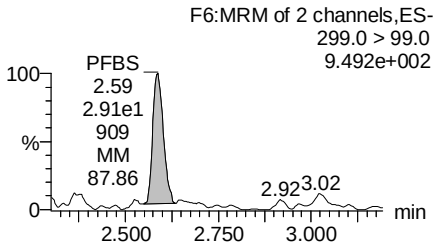
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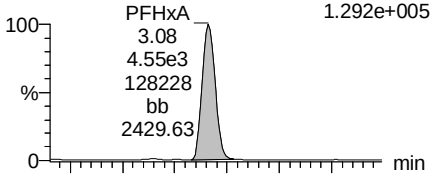
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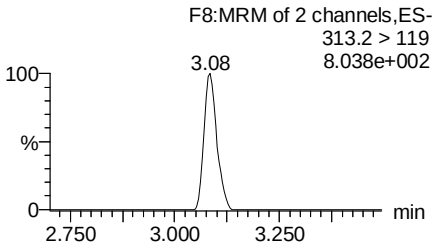
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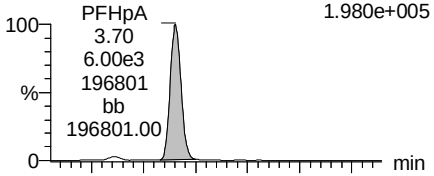


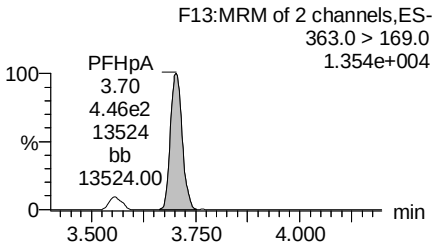
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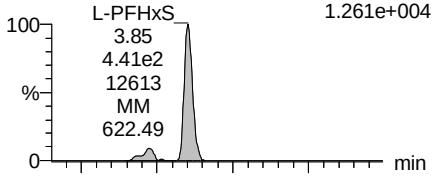


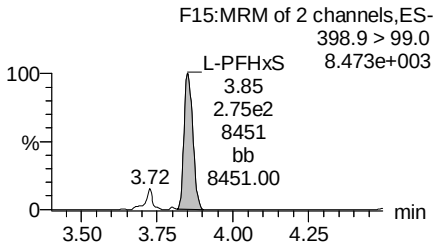
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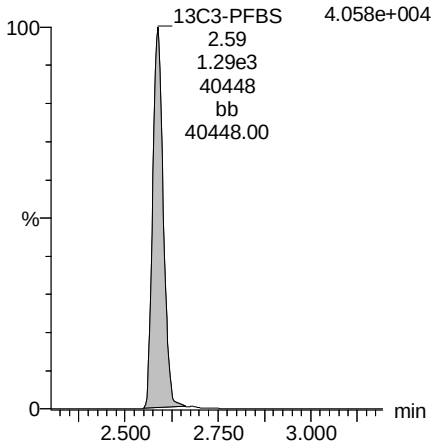


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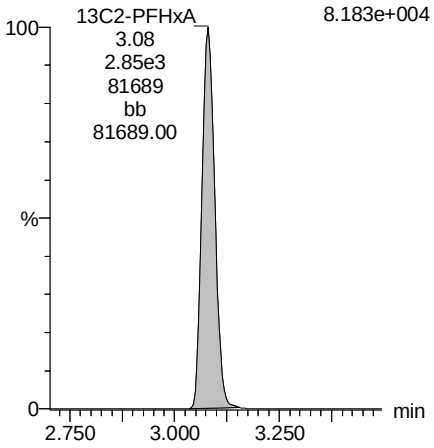




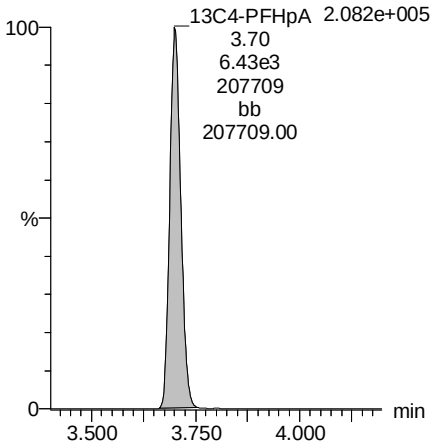
13C3-PFBS



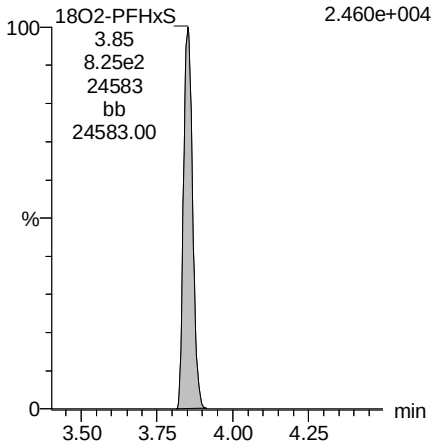
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13C4-PFHpA



18O2-PFHxS



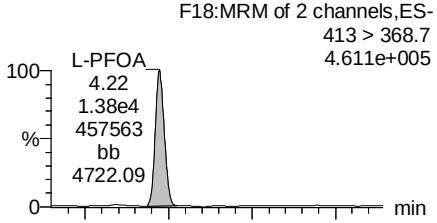
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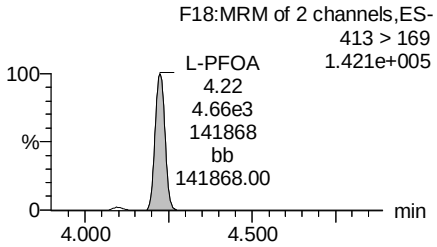
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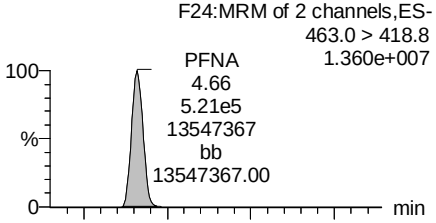
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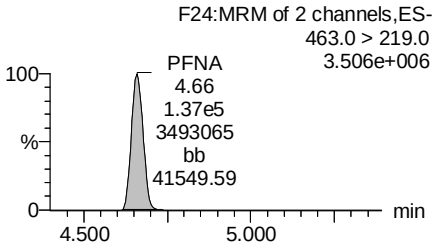
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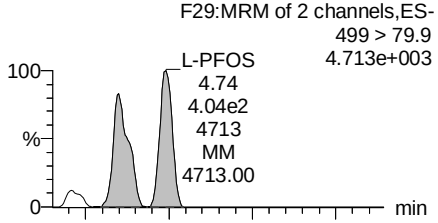


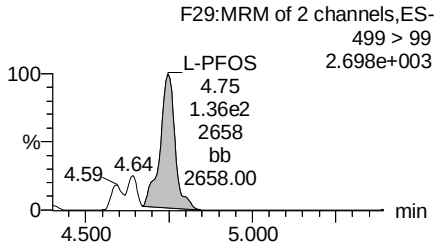
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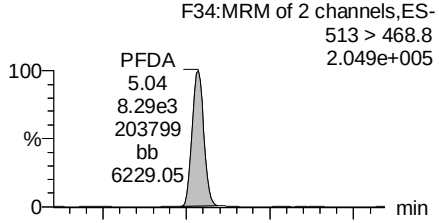


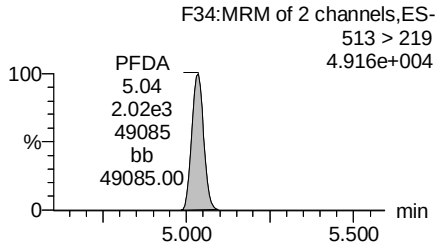
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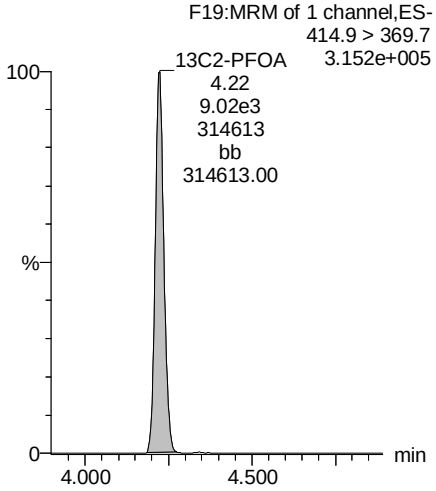


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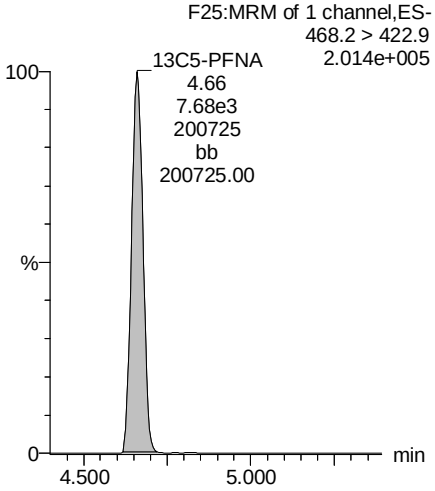




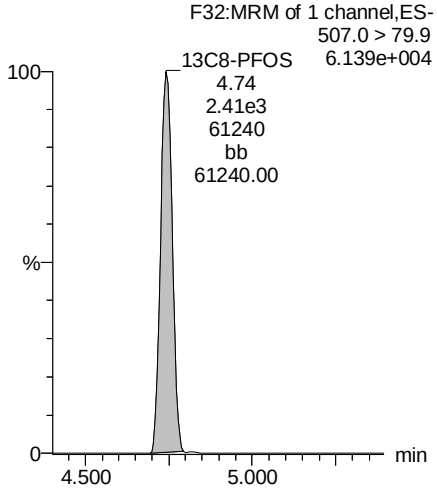
13C2-PFOA



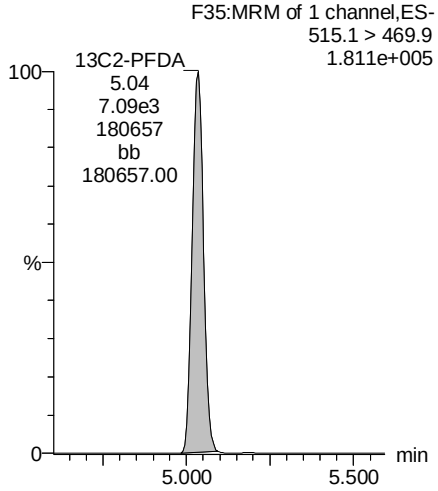
13C5-PFNA



13C8-PFOS



13C2-PFDA



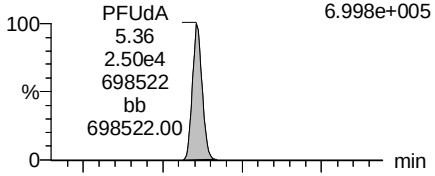
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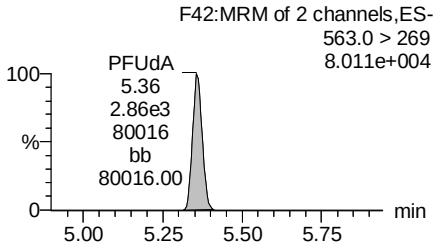
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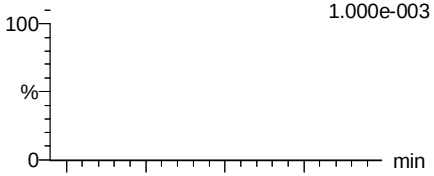
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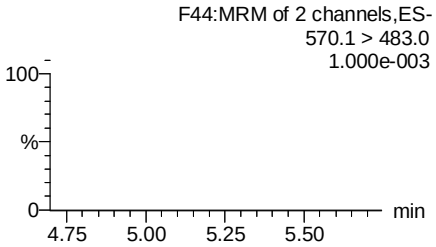
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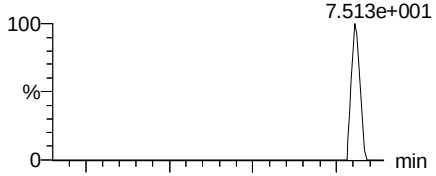


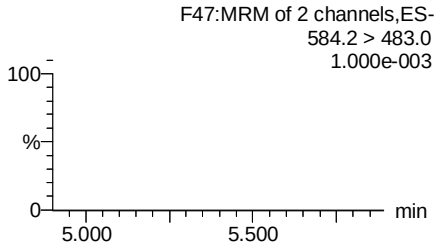
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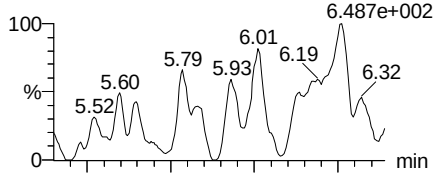


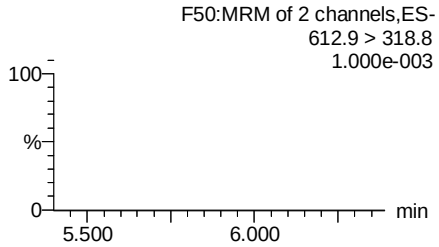
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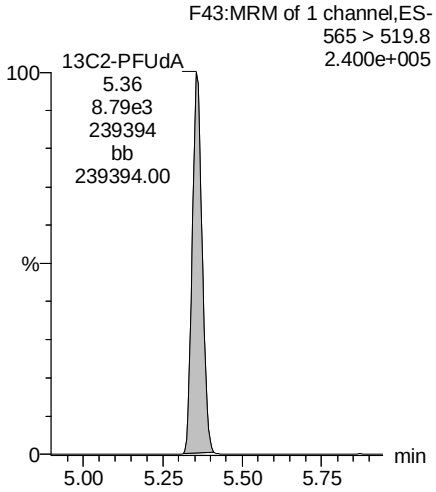


PFDoA

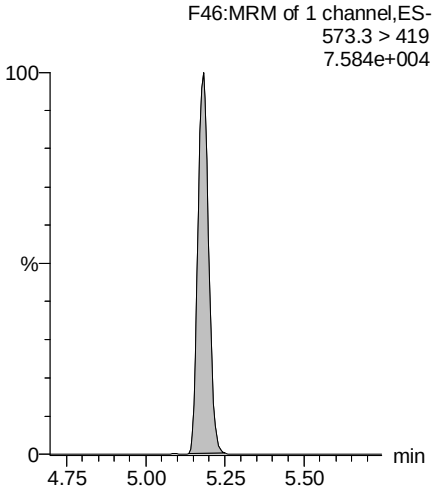




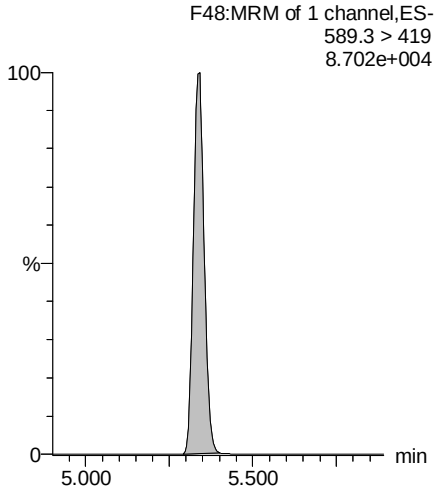
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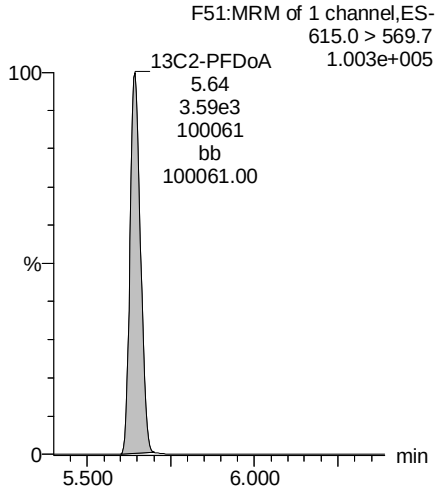
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



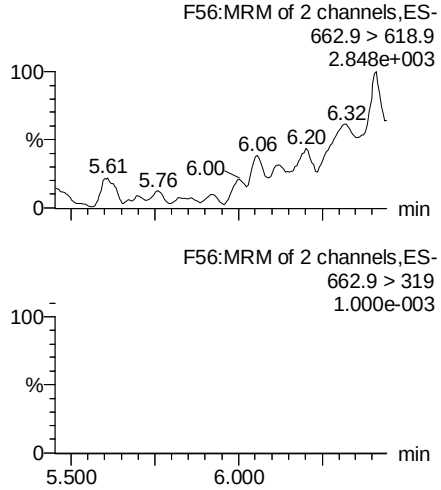
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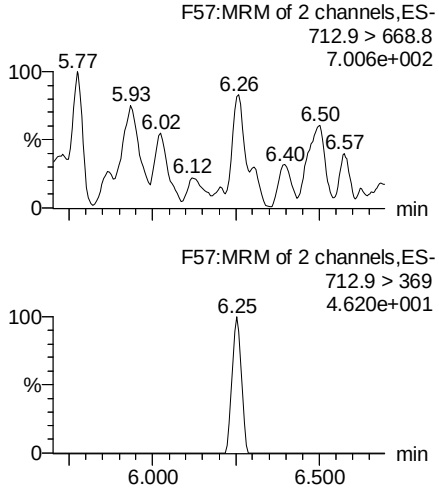
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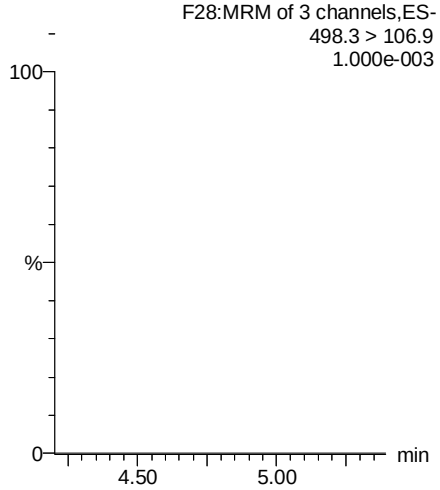
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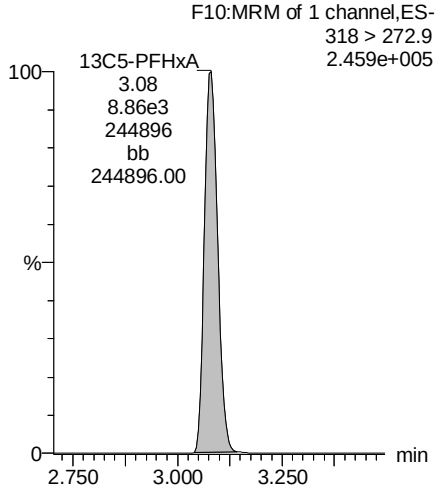
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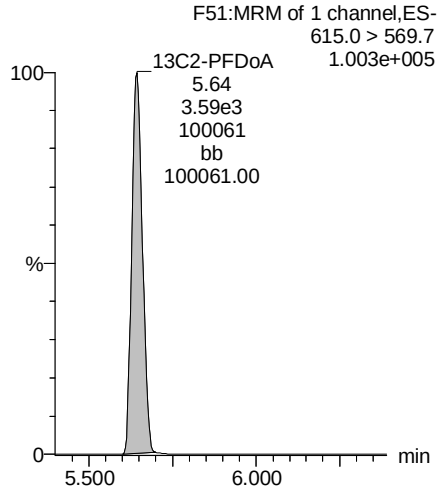
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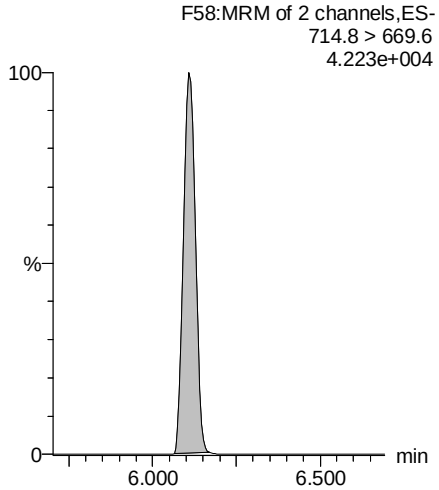
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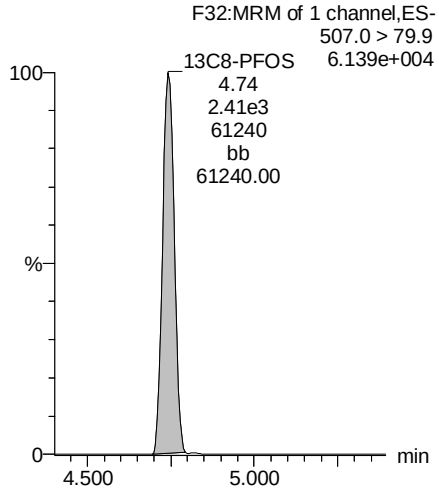
13C2-PFDoA



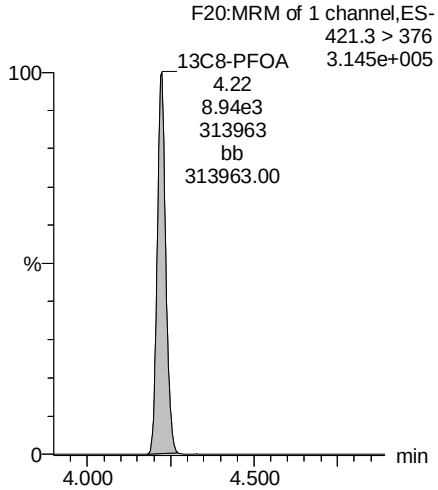
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



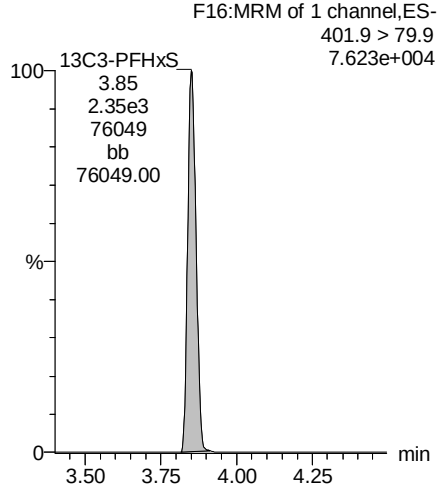
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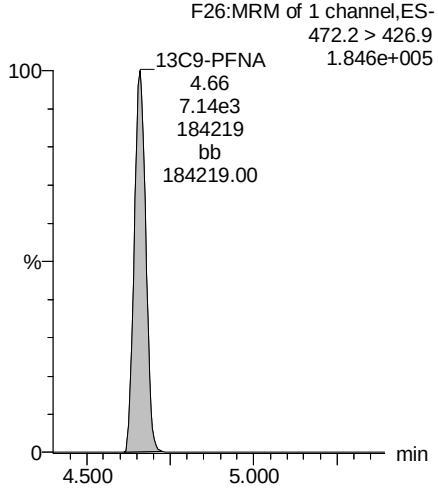
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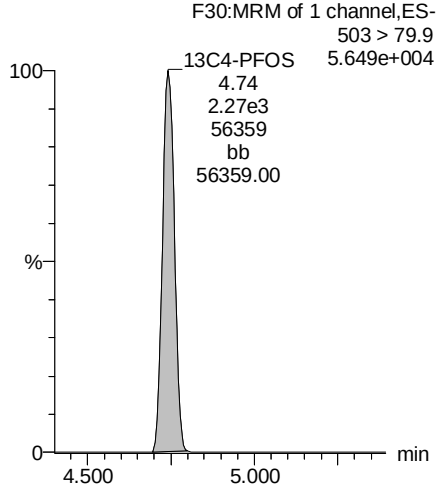
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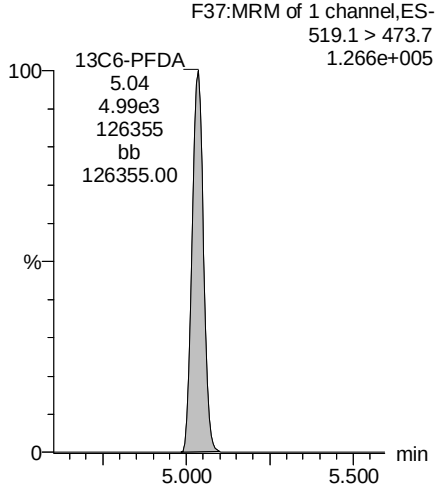
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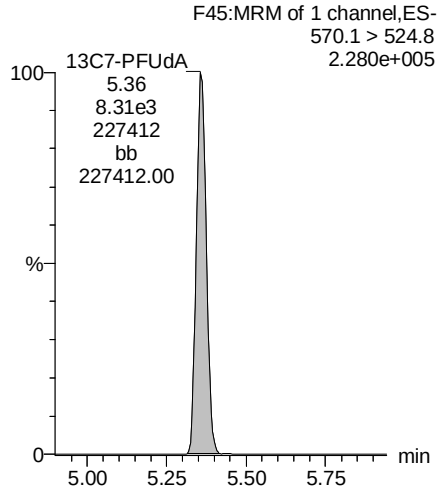
13C4-PFOS



13C6-PFDA



13C7-PFUdA



AC 1/11/2018

Vista Analytical Laboratory

Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M1\180112M1-3.qld

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Printed: Friday, January 12, 2018 09:24:57 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

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	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	12	PFNA	463.0 > 418.8	2.20e4	3.27e2	0.2215		4.81	4.65	843	2180	
2	39	13C5-PFNA	468.2 > 422.9	3.27e2	2.90e2	0.2215	0.817	4.81	4.65	14.1	77.7	137.6
3	58	13C9-PFNA	472.2 > 426.9	2.90e2	2.90e2	0.2215	1.000	4.81	4.65	12.5	56.4	100.0

ANP 1/12/2018

Vista Analytical Laboratory

Rev'd: MM 1/12/18

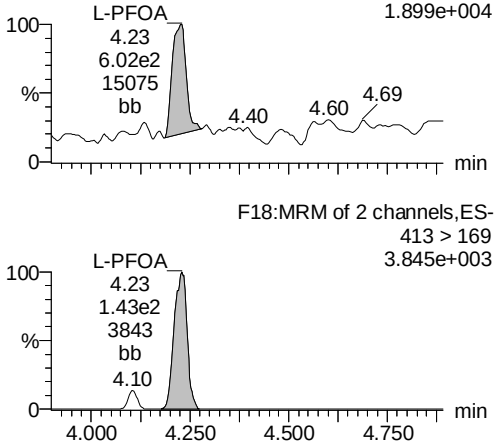
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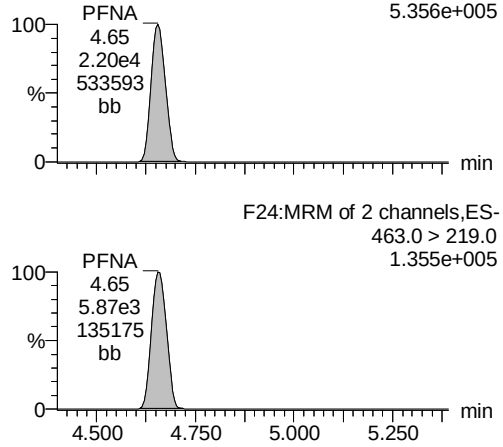
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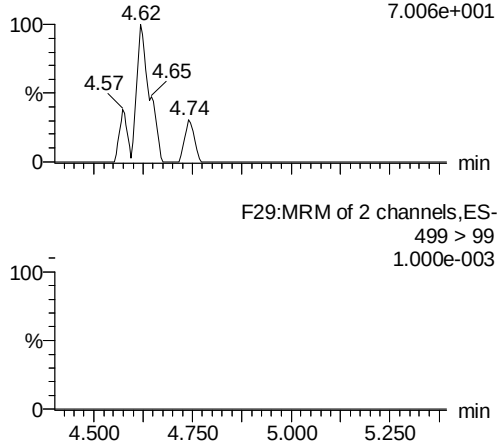
Total PFOA



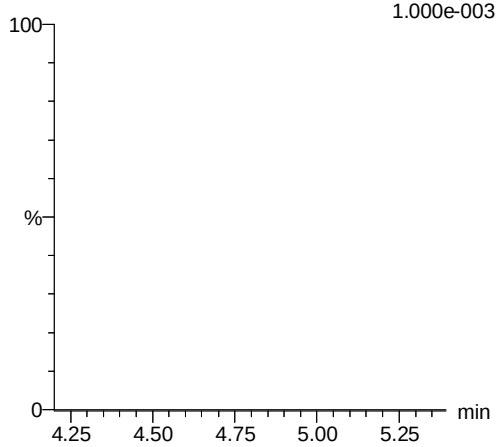
PFNA



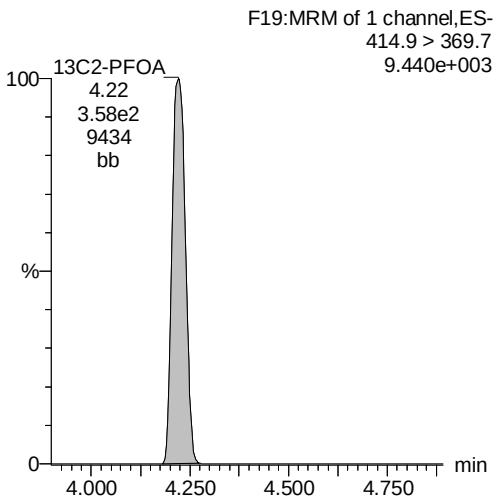
Total PFOS



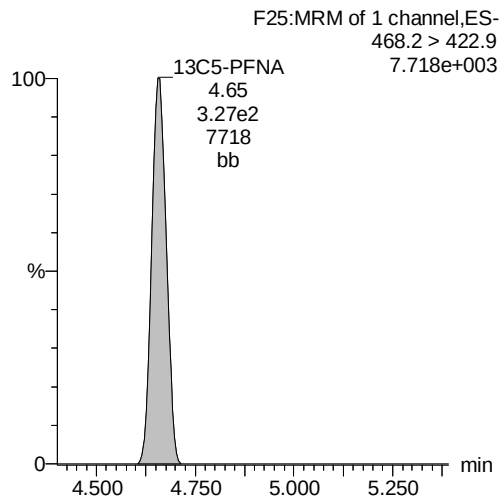
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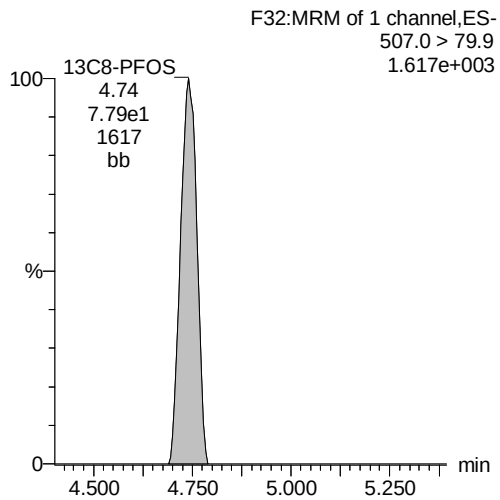
13C2-PFOA



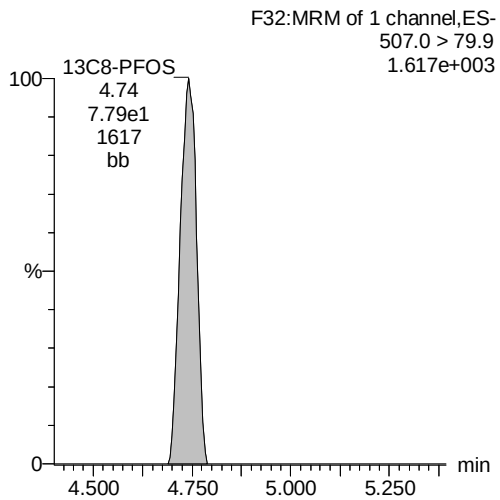
13C5-PFNA



13C8-PFOS



13C8-PFOS



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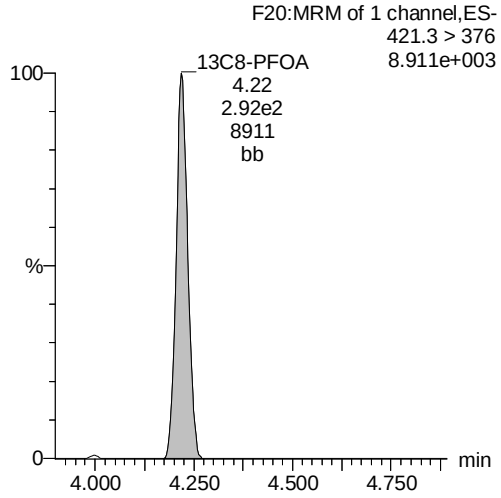
Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M1\180112M1-3.qld

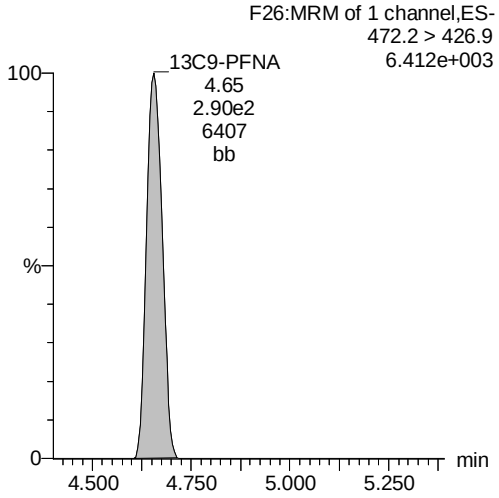
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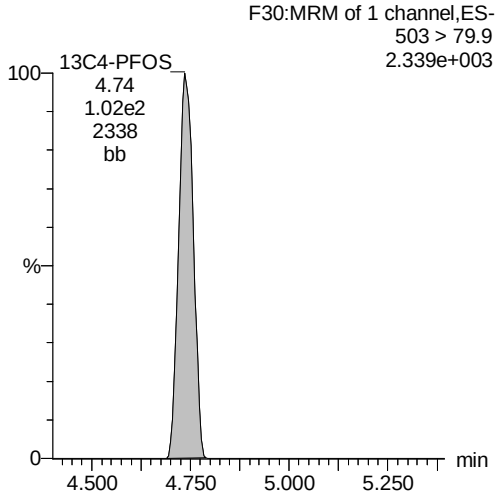
13C8-PFOA



13C9-PFNA



13C4-PFOS



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_22.qld

Last Altered: Thursday, January 11, 2018 15:31:34 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:32:11 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	6.61e1	1.38e3	0.237		2.66	2.58	0.601	1.1746	
2	4	PFHxA	313.2 > 268.9	5.48e3	2.87e3	0.237		3.15	3.08	9.55	20.8100	
3	5	PFHpA	363.0 > 318.9	7.68e3	6.74e3	0.237		3.78	3.70	14.2	36.5859	
4	6	L-PFHxS	398.9 > 79.6	4.72e2	9.08e2	0.237		3.94	3.85	6.50	13.3351	
5	9	L-PFOA	413 > 368.7	1.59e4	9.57e3	0.237		4.31	4.22	20.8	68.8722	
6	12	PFNA	463.0 > 418.8	6.00e5	6.93e3	0.237		4.81	4.66	1080	2504.7647	E
7	14	L-PFOS	499 > 79.9	5.32e2	2.77e3	0.237		4.75	4.74	2.40	8.4888	
8	16	PFDA	513 > 468.8	8.88e3	6.34e3	0.237		5.18	5.04	17.5	45.0595	
9	18	N-MeFOSAA	570.1 > 419		2.82e3	0.237		5.32				
10	19	N-EtFOSAA	584.2 > 419		3.03e3	0.237		5.48				
11	20	PFUdA	563.0 > 518.9	2.51e4	8.95e3	0.237		5.50	5.36	35.1	112.0025	
12	22	PFDoA	612.9 > 569.0		6.05e3	0.237		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_22.qld

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Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.05e3	0.237		6.00				
2	25	PFTeDA	712.9 > 668.8		1.50e3	0.237		6.22				
3	33	13C3-PFBS	302. > 98.8	1.38e3	9.63e3	0.237	0.095	2.77	2.58	1.79	78.9076	149.8
4	34	13C2-PFHxA	315 > 269.8	2.87e3	9.63e3	0.237	0.597	3.15	3.08	3.73	26.3089	124.9
5	35	13C4-PFHpA	367.2 > 321.8	6.74e3	9.63e3	0.237	0.604	3.78	3.70	8.75	60.9890	115.8
6	36	18O2-PFHxS	403.0 > 102.6	9.08e2	2.23e3	0.237	0.293	3.94	3.85	5.09	73.2004	139.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.28e3	8.86e3	0.237	0.215	4.25	4.16	3.21	62.8742	119.4
8	38	13C2-PFOA	414.9 > 369.7	9.57e3	8.86e3	0.237	0.916	4.31	4.22	13.5	62.1402	118.0
9	39	13C5-PFNA	468.2 > 422.9	6.93e3	6.75e3	0.237	0.817	4.81	4.66	12.8	66.1982	125.7
10	40	13C8-PFOSA	506.1 > 77.7	1.60e3	8.51e3	0.237	0.223	4.87	4.71	2.36	44.5183	84.5
11	41	13C8-PFOS	507.0 > 79.9	2.77e3	2.86e3	0.237	0.875	4.89	4.74	12.1	58.3781	110.8
12	42	13C2-PFDA	515.1 > 469.9	6.34e3	5.39e3	0.237	1.105	5.18	5.04	14.7	56.0114	106.3
13	43	13C2-8:2 FTS	529.1 > 508.7	1.03e3	9.63e3	0.237	0.101	5.15	5.00	1.33	55.6629	105.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.82e3	8.51e3	0.237	0.345	5.32	5.18	4.14	50.5946	96.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.03e3	8.51e3	0.237	0.390	5.47	5.34	4.46	48.1021	91.3
16	46	13C2-PFUdA	565 > 519.8	8.95e3	8.51e3	0.237	0.958	5.49	5.36	13.1	57.8156	109.8
17	47	13C2-PFDoA	615.0 > 569.7	6.05e3	8.51e3	0.237	0.599	5.77	5.64	8.88	62.4766	118.6
18	49	13C2-PFTeDA	714.8 > 669.6	1.50e3	8.51e3	0.237	0.282	6.22	6.11	2.21	33.0467	62.7
19	55	13C5-PFHxA	318 > 272.9	9.63e3	9.63e3	0.237	1.000	3.15	3.08	12.5	52.6759	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.23e3	2.23e3	0.237	1.000	4.02	3.85	12.5	52.6759	100.0
21	57	13C8-PFOA	421.3 > 376	8.86e3	8.86e3	0.237	1.000	4.38	4.22	12.5	52.6759	100.0
22	58	13C9-PFNA	472.2 > 426.9	6.75e3	6.75e3	0.237	1.000	4.81	4.66	12.5	52.6759	100.0
23	59	13C4-PFOS	503 > 79.9	2.86e3	2.86e3	0.237	1.000	4.89	4.74	12.5	52.6759	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.39e3	5.39e3	0.237	1.000	5.18	5.03	12.5	52.6759	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.51e3	8.51e3	0.237	1.000	5.49	5.36	12.5	52.6759	100.0
26	62	Total PFHxS	398.9 > 79.6	4.72e2	9.08e2	0.237		4.14		6.50	13.3351	
27	63	Total PFOA	413 > 368.7	1.59e4	9.57e3	0.237		4.51		20.8	68.8722	
28	64	Total PFOS	499 > 79.9	5.32e2	2.77e3	0.237		4.75		2.40	8.4888	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.82e3	0.237		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.03e3	0.237		5.61		0.000		

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Rev'd: MM 1/12/18

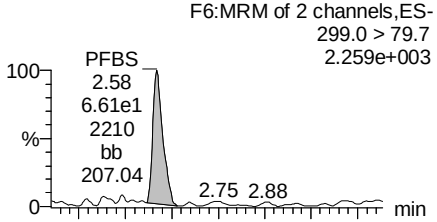
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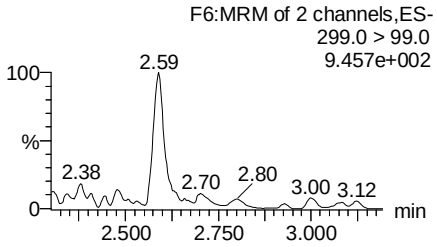
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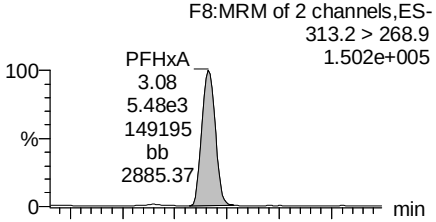
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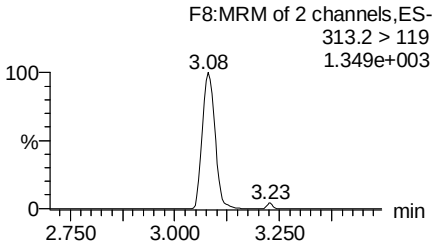
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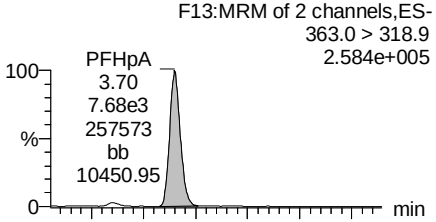


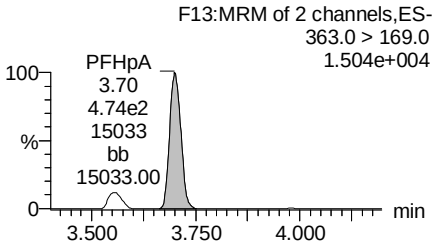
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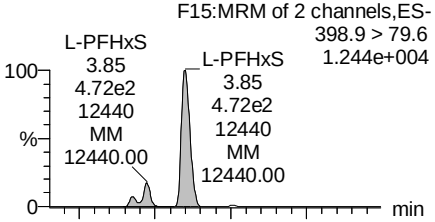


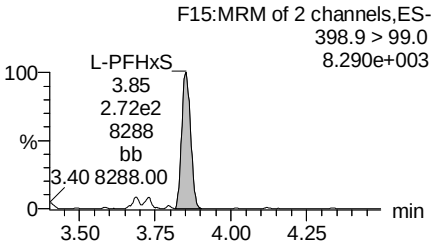
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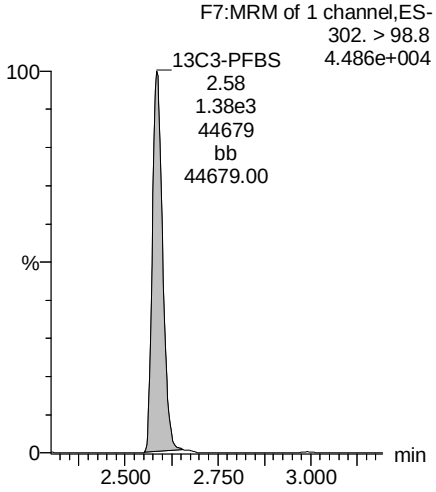


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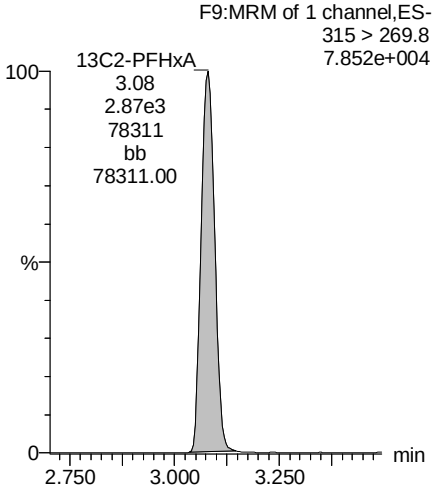




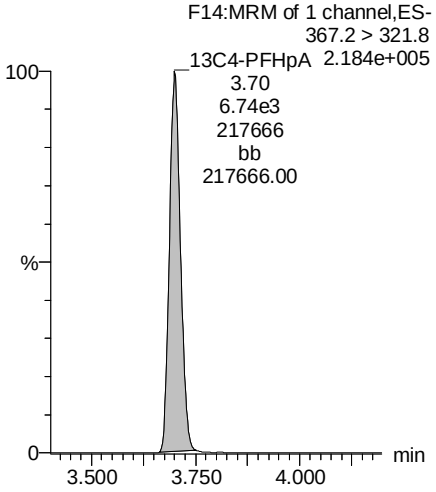
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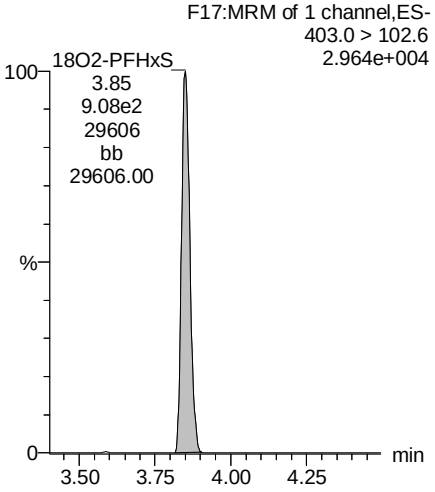
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13C4-PFHpA



18O2-PFHxS



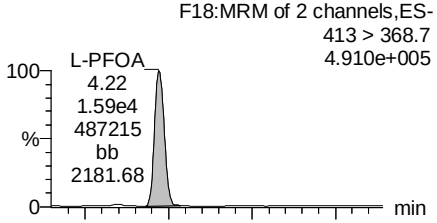
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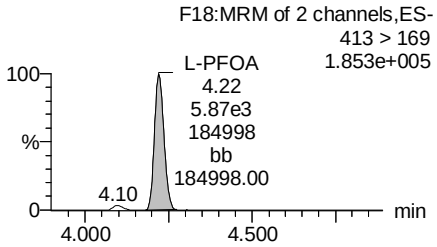
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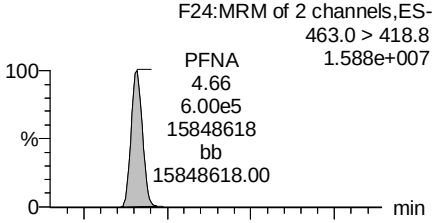
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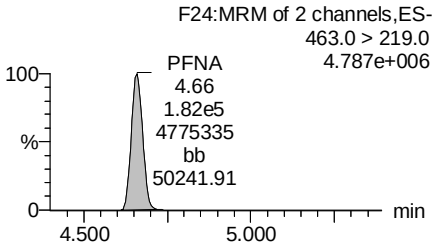
Total PFOA



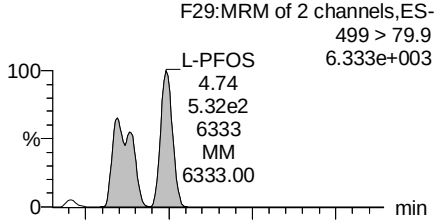


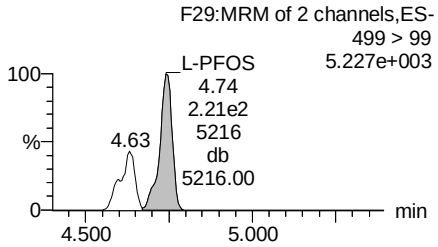
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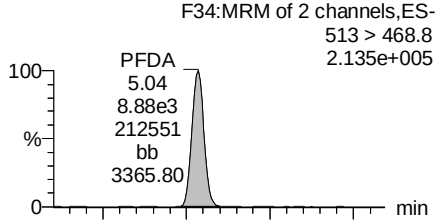


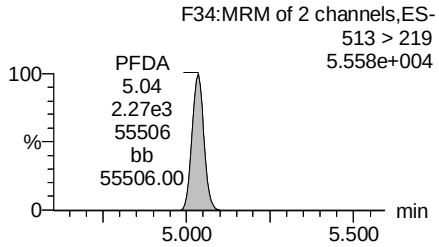
Total PFOS



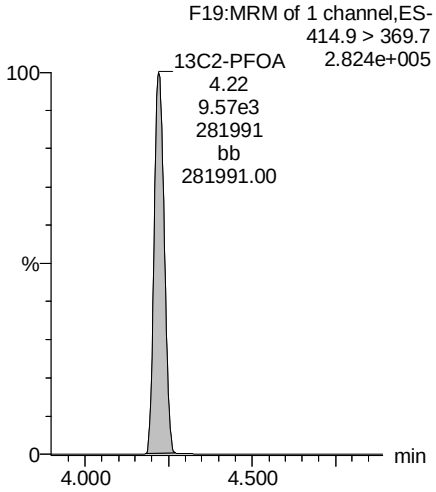


PFDA

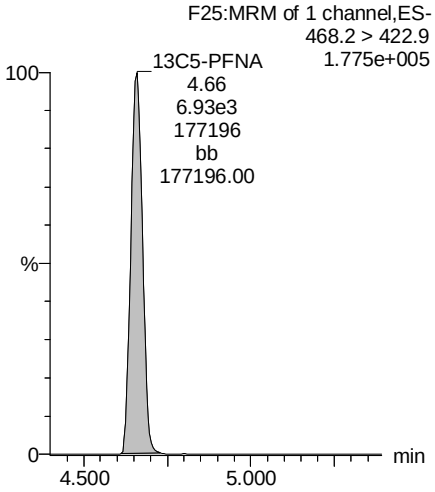




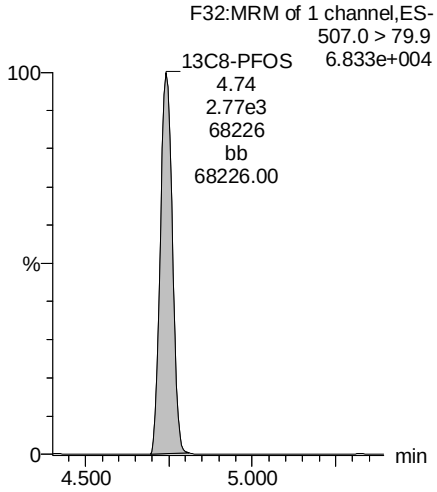
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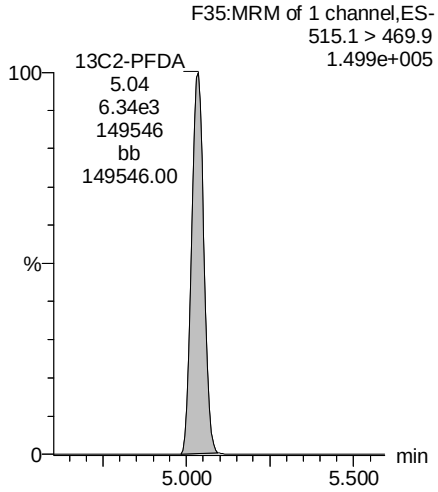
13C5-PFNA



13C8-PFOS



13C2-PFDA



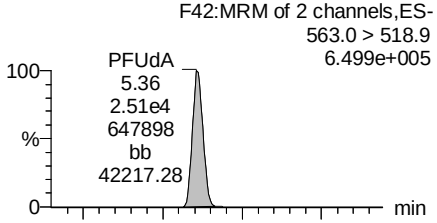
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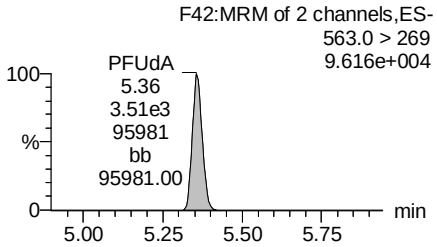
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Printed: Thursday, January 11, 2018 15:33:07 Pacific Standard Time

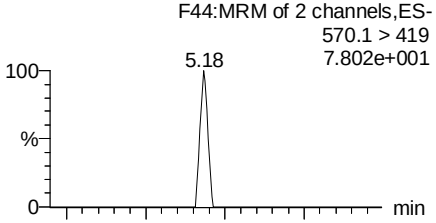
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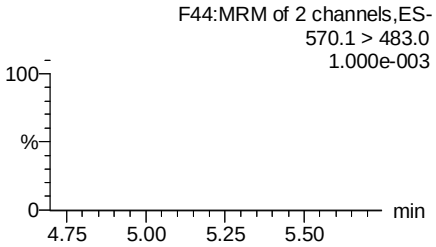
PFUdA



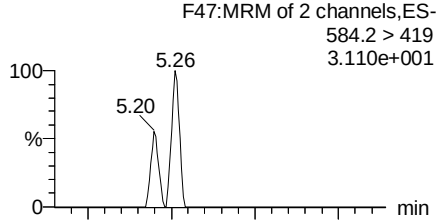


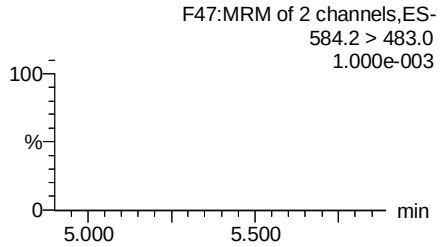
N-MeFOSAA



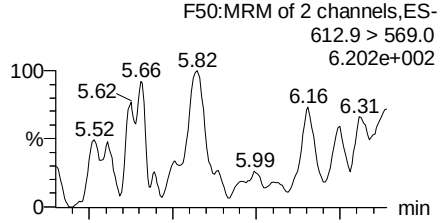


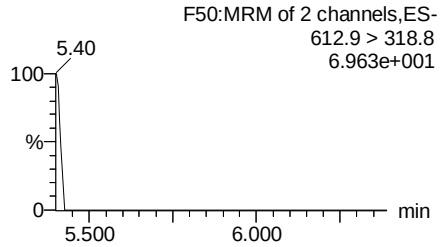
N-EtFOSAA



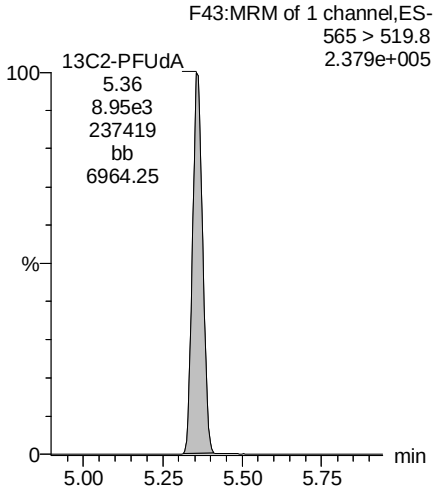


PFDoA

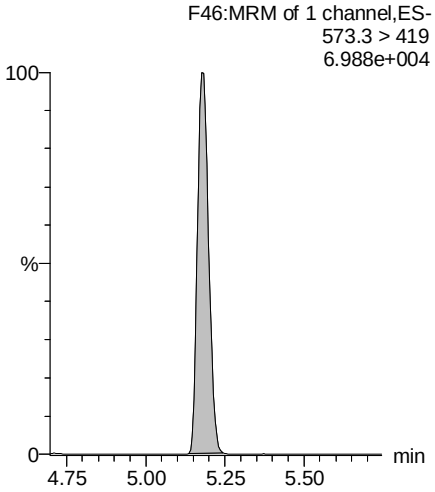




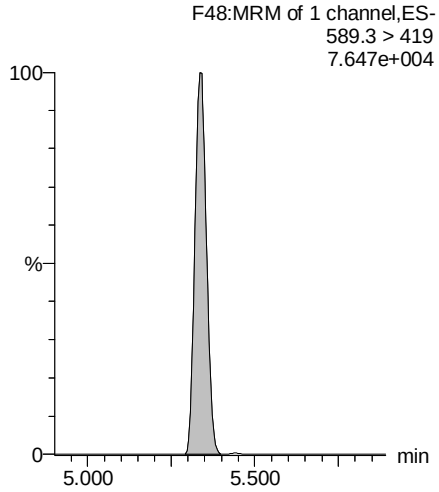
13C2-PFUdA



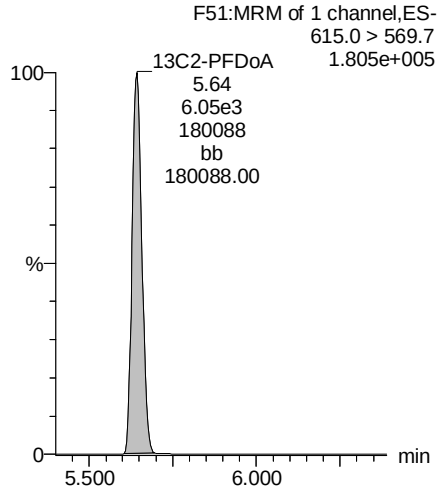
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



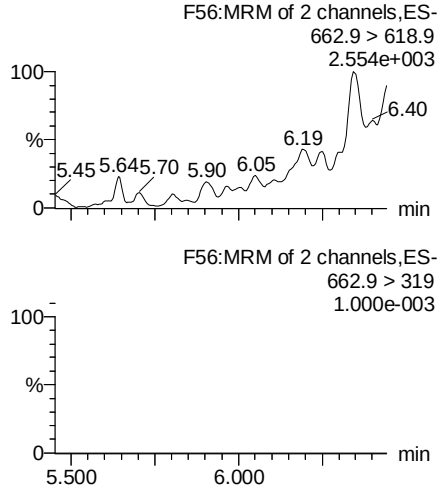
AC 1/11/2018

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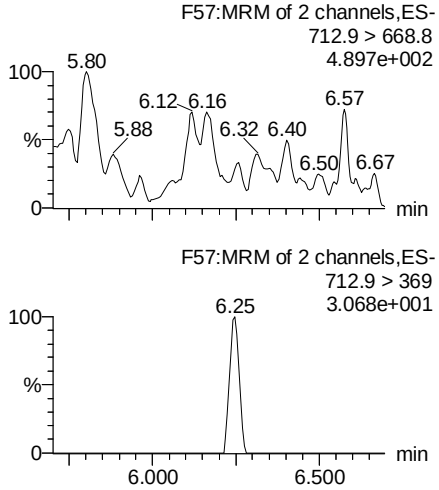
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Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

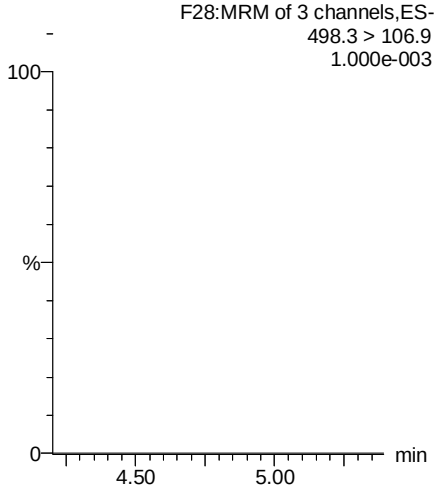
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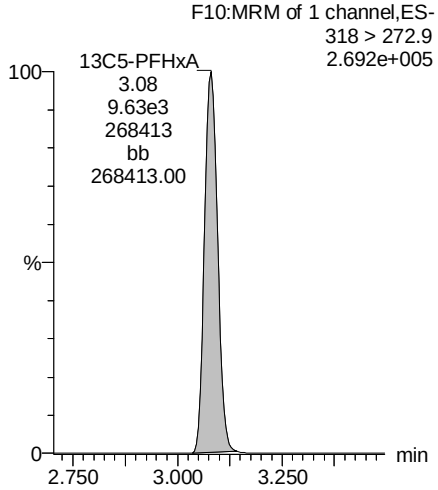
PFTeDA



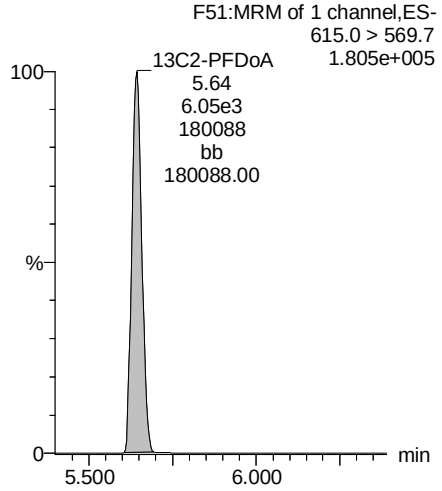
TCDA



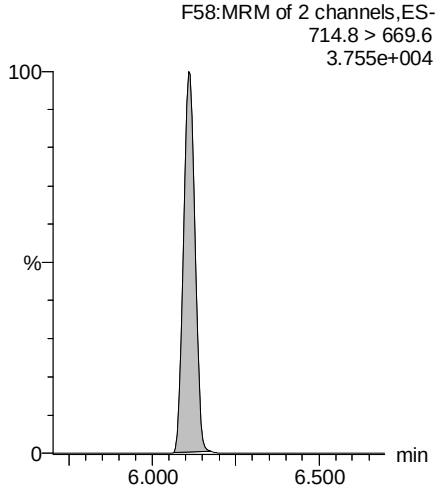
13C5-PFHxA



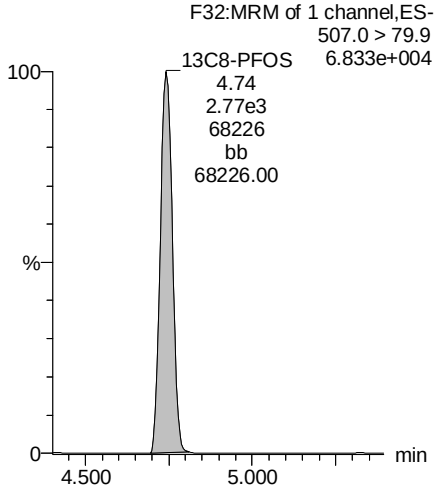
13C2-PFDoA



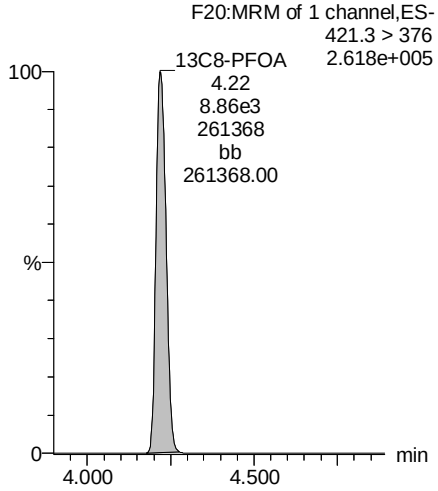
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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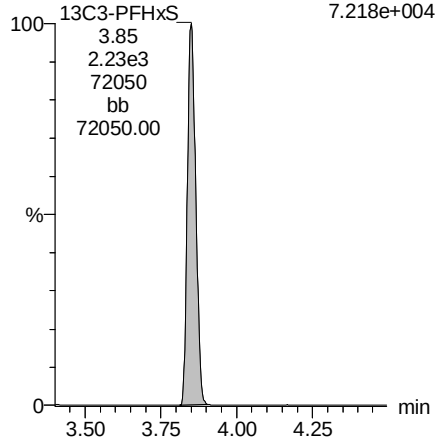
Rev'd: MM 1/12/18

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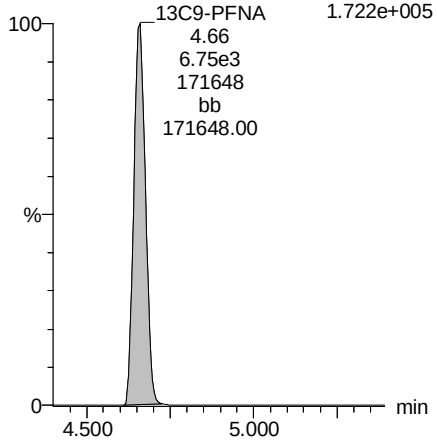
Last Altered: Thursday, January 11, 2018 15:31:34 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:33:07 Pacific Standard Time

Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

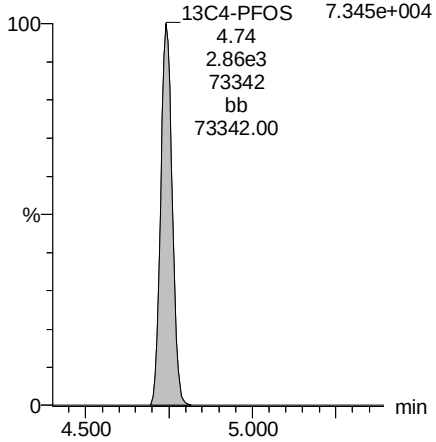
13C3-PFHxS



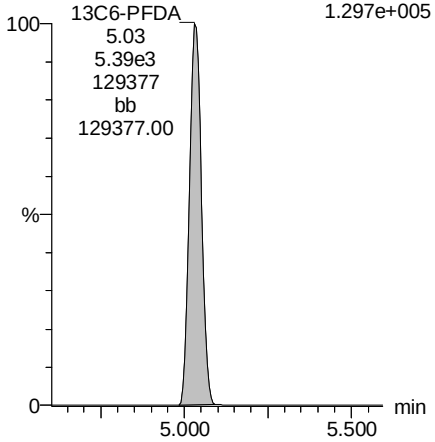
13C9-PFNA



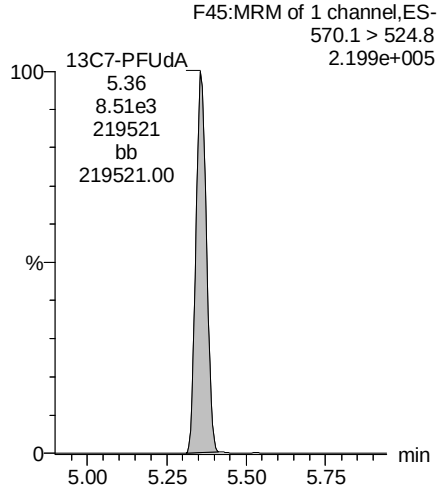
13C4-PFOS



13C6-PFDA



13C7-PFUdA



AC 1/11/2018

Vista Analytical Laboratory

Rev': MM 1/15/18

Dataset: U:\Q4.PRO\results\180112M1\180112M1-4.qld

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Printed: Friday, January 12, 2018 09:34:16 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M1_4, Date: 12-Jan-2018, Time: 09:22:10, ID: 1701832-08@10X SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	12	PFNA	463.0 > 418.8	1.63e4	1.50e2	0.2373		4.81	4.66	1360	3010	
2	39	13C5-PFNA	468.2 > 422.9	1.50e2	1.93e2	0.2373	0.817	4.81	4.66	9.69	50.0	94.9
3	58	13C9-PFNA	472.2 > 426.9	1.93e2	1.93e2	0.2373	1.000	4.81	4.66	12.5	52.7	100.0

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Rev': MM 1/15/18

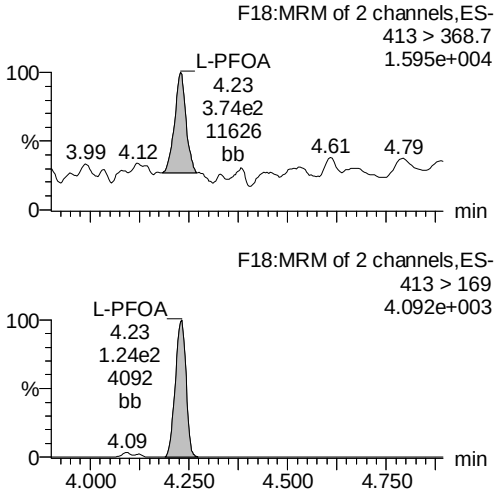
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Printed: Friday, January 12, 2018 09:34:16 Pacific Standard Time

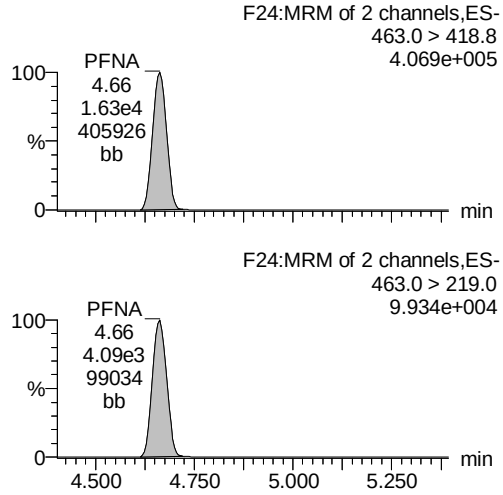
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Name: 180112M1_4, Date: 12-Jan-2018, Time: 09:22:10, ID: 1701832-08@10X SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

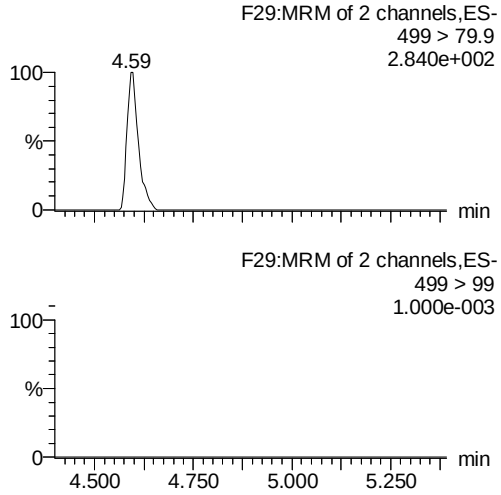
Total PFOA



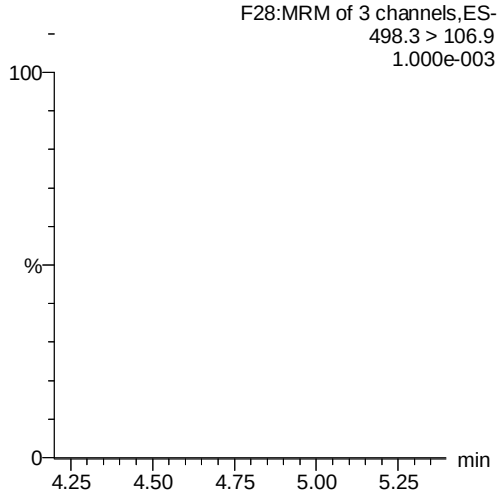
PFNA



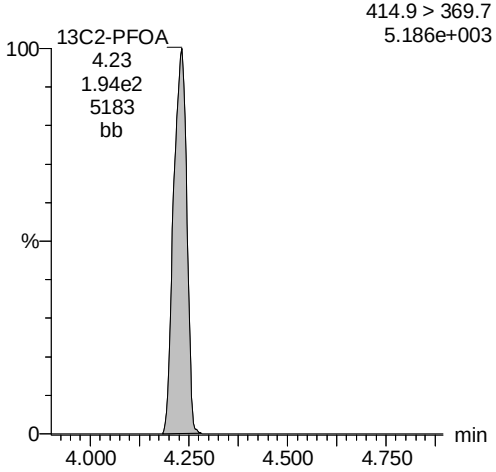
Total PFOS



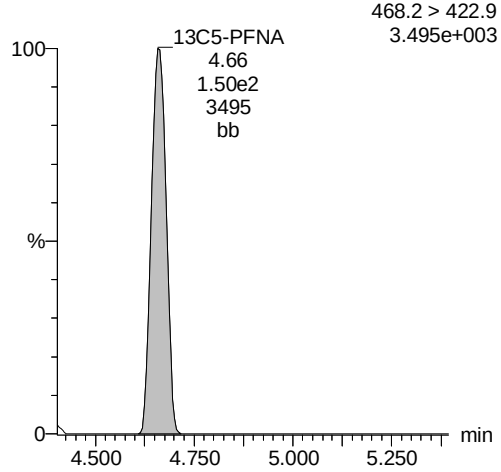
TCDA



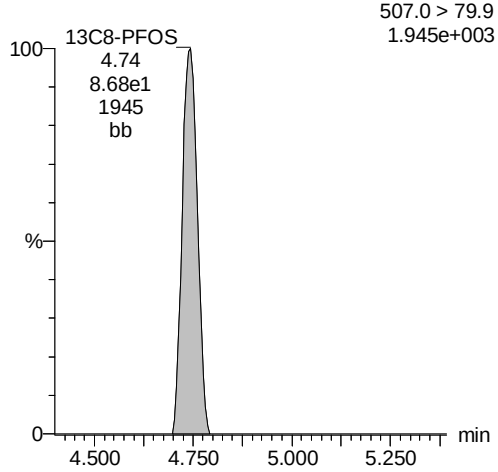
13C2-PFOA



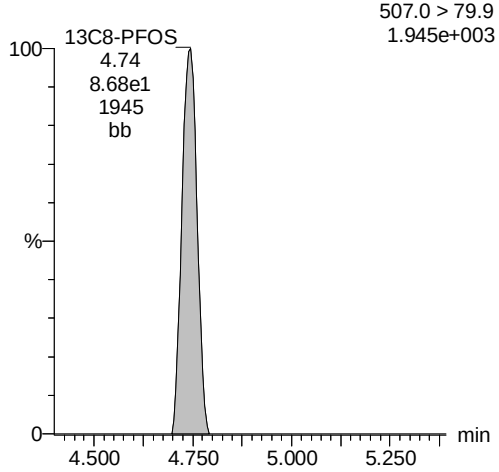
13C5-PFNA



13C8-PFOS



13C8-PFOS



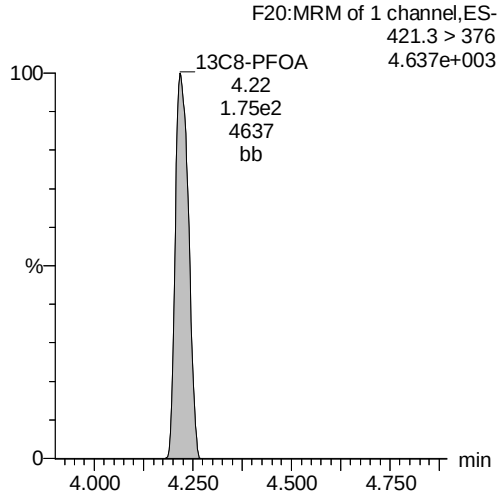
ANP 1/12/2018

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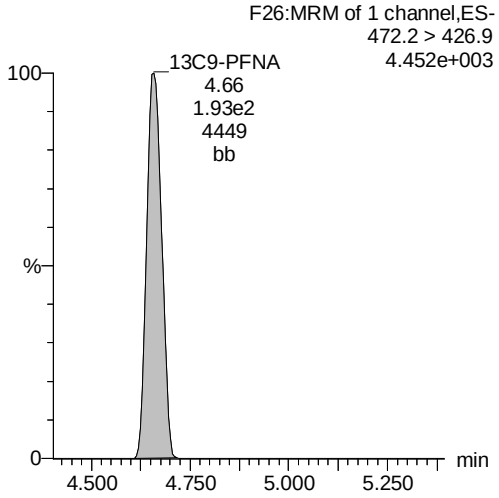
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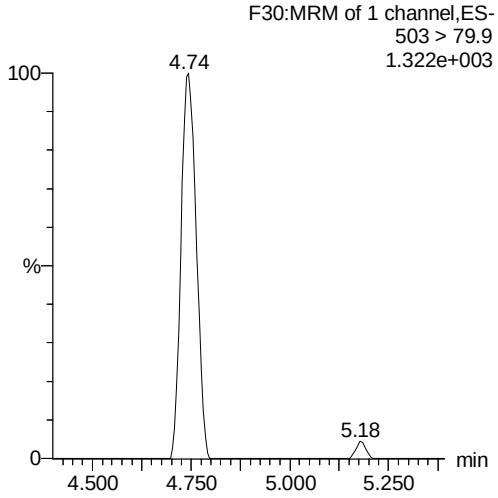
13C8-PFOA



13C9-PFNA



13C4-PFOS



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_23.qld

Last Altered: Thursday, January 11, 2018 15:38:16 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:38:50 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_23, Date: 11-Jan-2018, Time: 13:28:47, ID: 1701832-09 SA-PZ147-20171201 0.25163, Description: SA-PZ147-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.14e3	0.252		2.66				
2	4	PFHxA	313.2 > 268.9		2.67e3	0.252		3.15				
3	5	PFHpA	363.0 > 318.9	6.64e1	6.37e3	0.252		3.78	3.70	0.130	0.6024	
4	6	L-PFHxS	398.9 > 79.6	1.60e0	8.60e2	0.252		3.94	3.84	0.0232	0.4356	
5	9	L-PFOA	413 > 368.7	2.81e2	8.67e3	0.252		4.31	4.22	0.405	0.6907	
6	12	PFNA	463.0 > 418.8	1.21e4	9.43e3	0.252		4.81	4.66	16.0	44.9366	
7	14	L-PFOS	499 > 79.9		2.37e3	0.252		4.75				
8	16	PFDA	513 > 468.8	1.20e2	7.82e3	0.252		5.18	5.04	0.191	1.0576	
9	18	N-MeFOSAA	570.1 > 419		2.47e3	0.252		5.32				
10	19	N-EtFOSAA	584.2 > 419		2.81e3	0.252		5.48				
11	20	PFUdA	563.0 > 518.9	1.07e3	8.02e3	0.252		5.50	5.36	1.66	5.2431	
12	22	PFDoA	612.9 > 569.0		4.76e3	0.252		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_23.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_23, Date: 11-Jan-2018, Time: 13:28:47, ID: 1701832-09 SA-PZ147-20171201 0.25163, Description: SA-PZ147-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.76e3	0.252		6.00				
2	25	PFTeDA	712.9 > 668.8		1.68e3	0.252		6.22				
3	33	13C3-PFBS	302. > 98.8	1.14e3	7.73e3	0.252	0.095	2.77	2.58	1.85	76.9712	154.9
4	34	13C2-PFHxA	315 > 269.8	2.67e3	7.73e3	0.252	0.597	3.15	3.08	4.32	28.7535	144.7
5	35	13C4-PFHpA	367.2 > 321.8	6.37e3	7.73e3	0.252	0.604	3.78	3.70	10.3	67.7475	136.4
6	36	18O2-PFHxS	403.0 > 102.6	8.60e2	2.32e3	0.252	0.293	3.94	3.85	4.64	62.9749	126.8
7	37	13C2-6:2 FTS	429.1 > 408.9	1.84e3	7.25e3	0.252	0.215	4.25	4.17	3.17	58.6370	118.0
8	38	13C2-PFOA	414.9 > 369.7	8.67e3	7.25e3	0.252	0.916	4.31	4.22	14.9	64.8781	130.6
9	39	13C5-PFNA	468.2 > 422.9	9.43e3	8.96e3	0.252	0.817	4.81	4.66	13.2	63.9787	128.8
10	40	13C8-PFOSA	506.1 > 77.7	1.59e3	7.39e3	0.252	0.223	4.87	4.72	2.70	48.0475	96.7
11	41	13C8-PFOS	507.0 > 79.9	2.37e3	2.23e3	0.252	0.875	4.89	4.74	13.3	60.4023	121.6
12	42	13C2-PFDA	515.1 > 469.9	7.82e3	4.94e3	0.252	1.105	5.18	5.04	19.8	71.1290	143.2
13	43	13C2-8:2 FTS	529.1 > 508.7	9.39e2	7.73e3	0.252	0.101	5.15	5.01	1.52	59.8325	120.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.47e3	7.39e3	0.252	0.345	5.32	5.18	4.18	48.1369	96.9
15	45	d5-N-EtFOSAA	589.3 > 419	2.81e3	7.39e3	0.252	0.390	5.47	5.34	4.75	48.3702	97.4
16	46	13C2-PFUdA	565 > 519.8	8.02e3	7.39e3	0.252	0.958	5.49	5.36	13.6	56.2680	113.3
17	47	13C2-PFDoA	615.0 > 569.7	4.76e3	7.39e3	0.252	0.599	5.77	5.64	8.04	53.3564	107.4
18	49	13C2-PFTeDA	714.8 > 669.6	1.68e3	7.39e3	0.252	0.282	6.22	6.11	2.84	40.0804	80.7
19	55	13C5-PFHxA	318 > 272.9	7.73e3	7.73e3	0.252	1.000	3.15	3.08	12.5	49.6820	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.32e3	2.32e3	0.252	1.000	4.02	3.85	12.5	49.6820	100.0
21	57	13C8-PFOA	421.3 > 376	7.25e3	7.25e3	0.252	1.000	4.38	4.22	12.5	49.6820	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.96e3	8.96e3	0.252	1.000	4.81	4.66	12.5	49.6820	100.0
23	59	13C4-PFOS	503 > 79.9	2.23e3	2.23e3	0.252	1.000	4.89	4.75	12.5	49.6820	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.94e3	4.94e3	0.252	1.000	5.18	5.04	12.5	49.6820	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.39e3	7.39e3	0.252	1.000	5.49	5.36	12.5	49.6820	100.0
26	62	Total PFHxS	398.9 > 79.6	1.60e0	8.60e2	0.252		4.14		0.0232	0.4356	
27	63	Total PFOA	413 > 368.7	2.81e2	8.67e3	0.252		4.51		0.405	0.6907	
28	64	Total PFOS	499 > 79.9	0.00e0	2.37e3	0.252		4.75		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.47e3	0.252		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.81e3	0.252		5.61		0.000		

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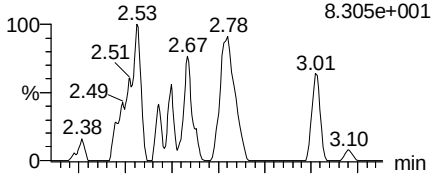
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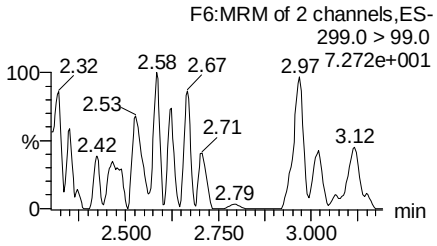
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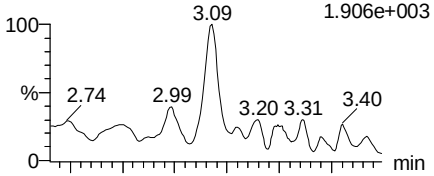
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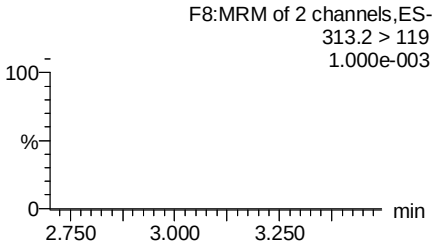
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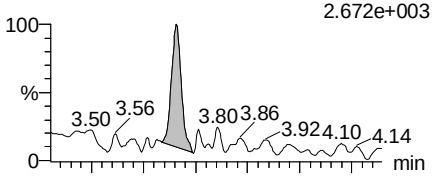


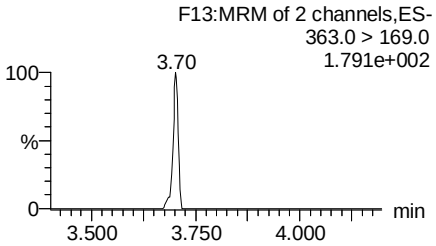
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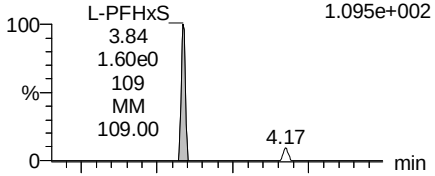


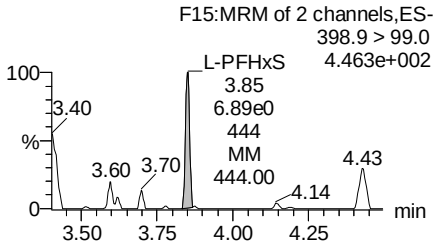
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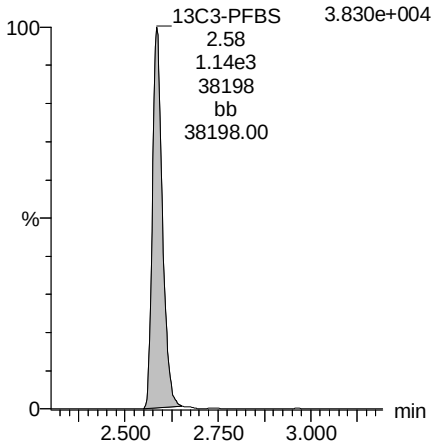


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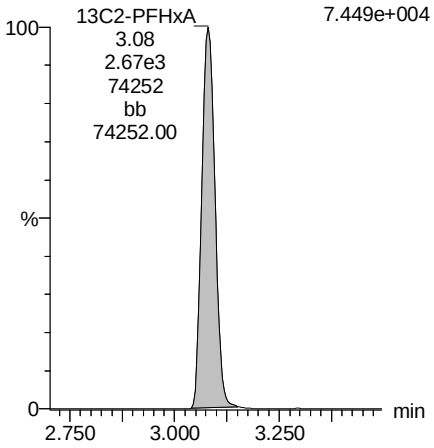




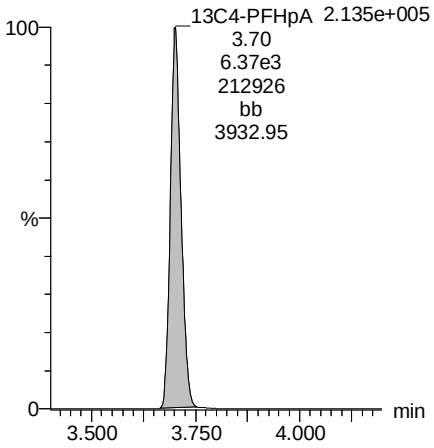
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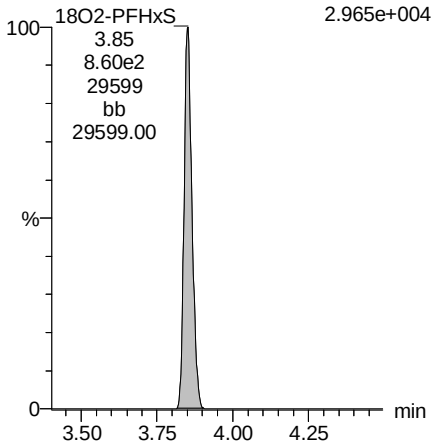
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13C4-PFHpA



18O2-PFHxS



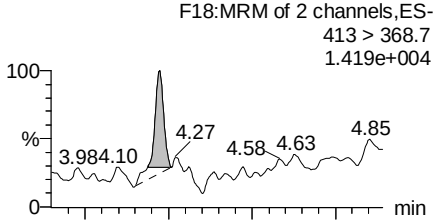
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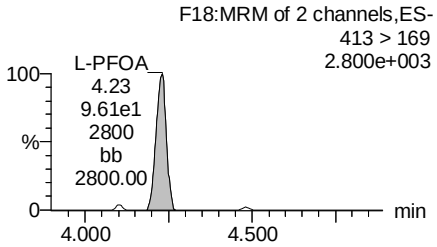
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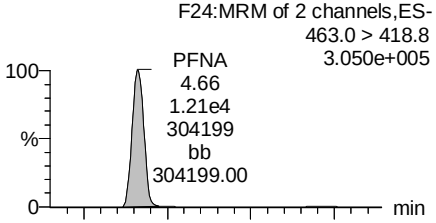
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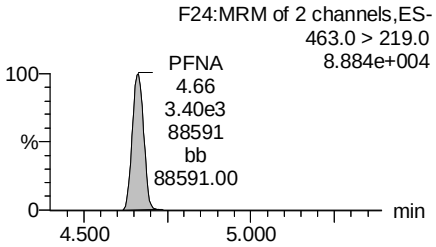
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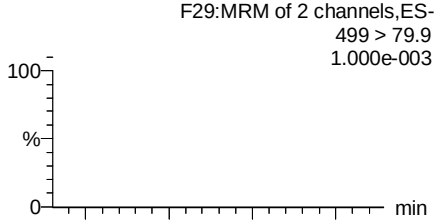


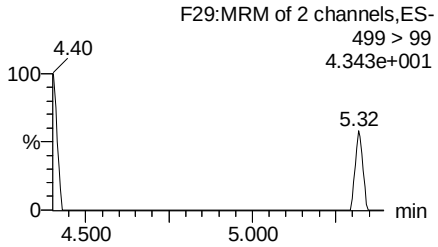
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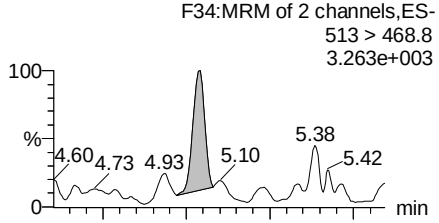


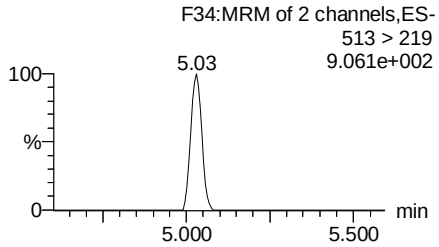
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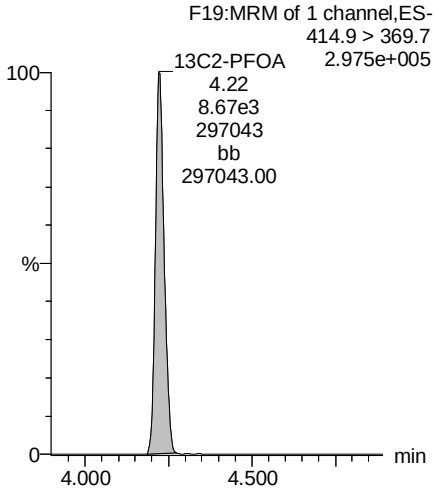


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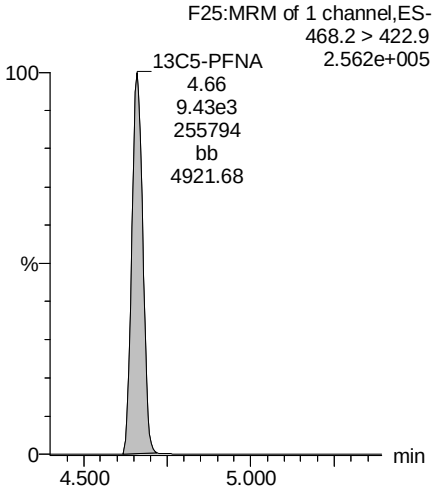




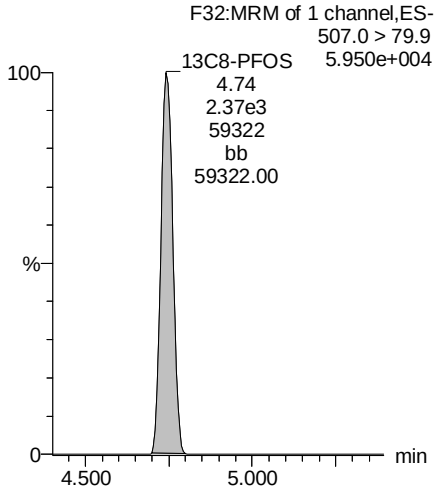
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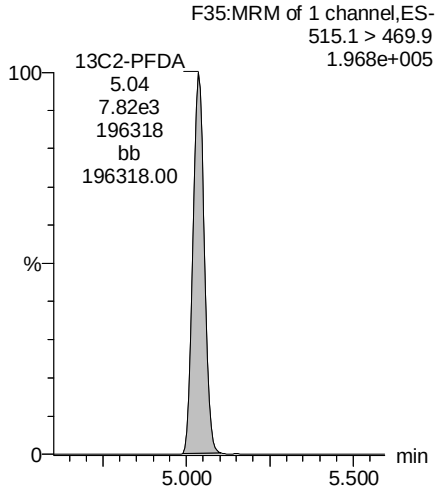
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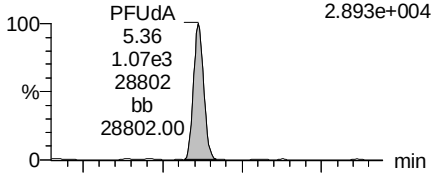
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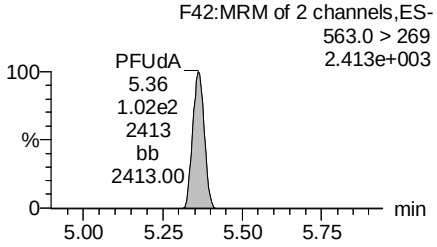
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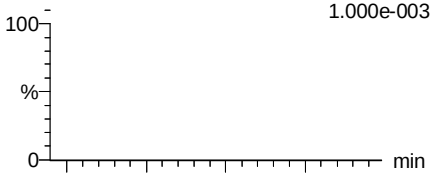
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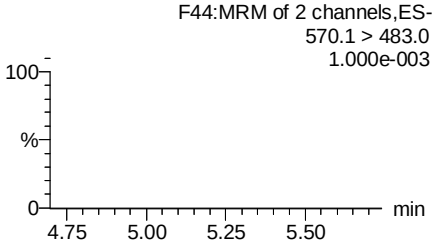
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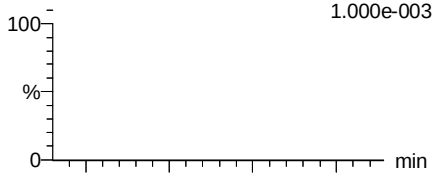


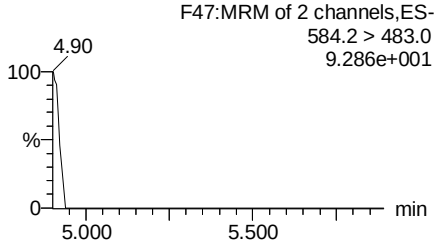
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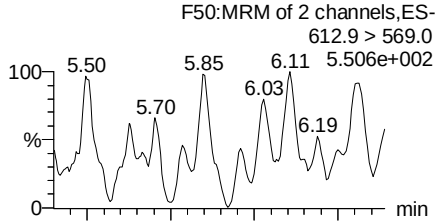


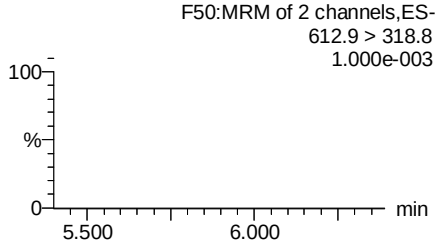
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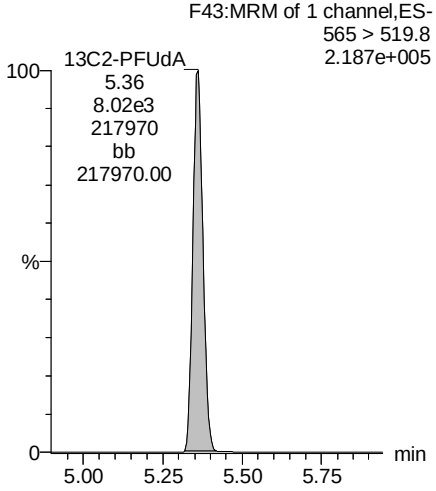


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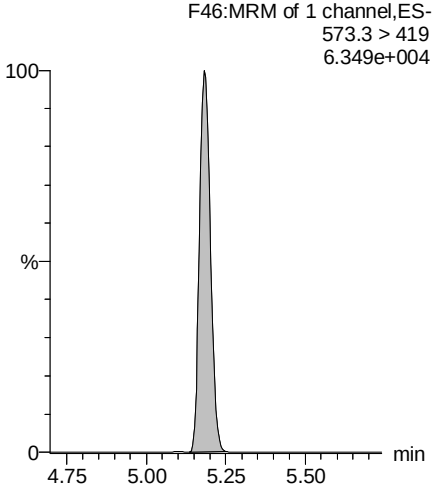




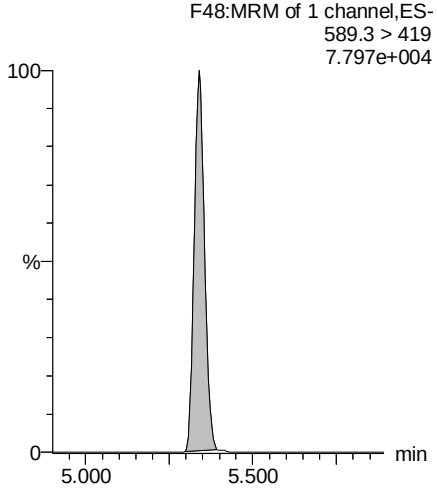
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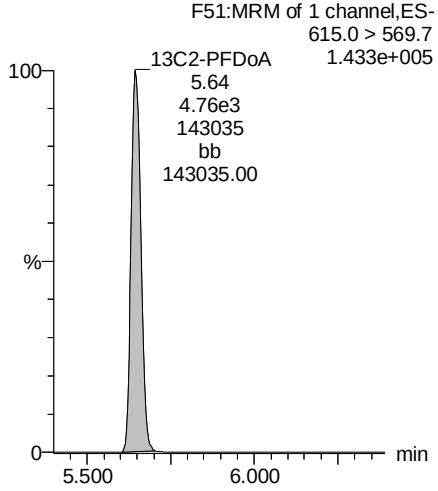
d3-N-MeFOSAA



d5-N-EtFOSAA



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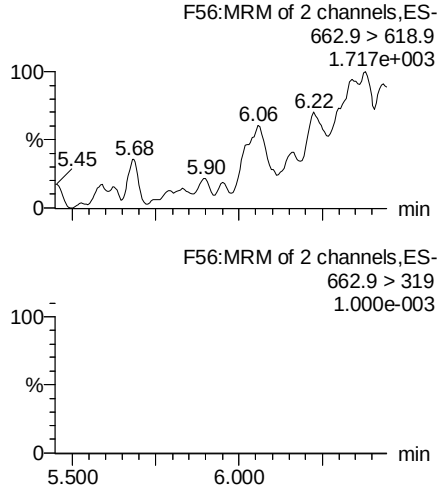
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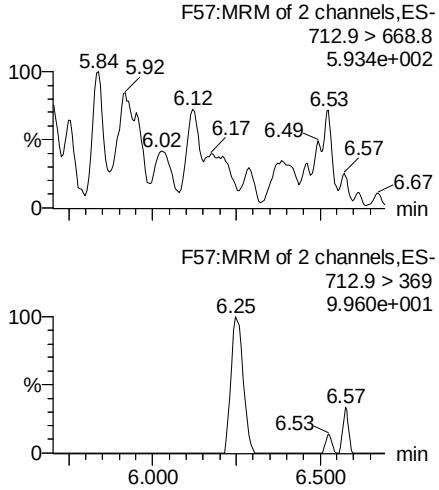
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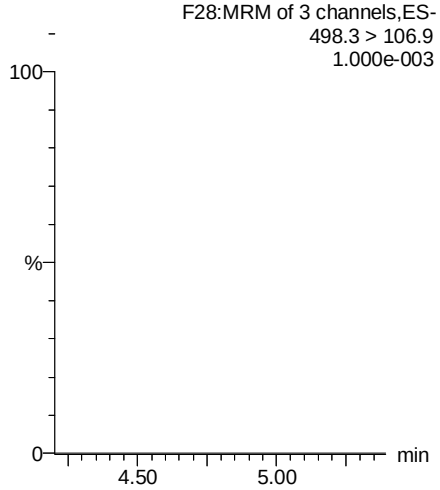
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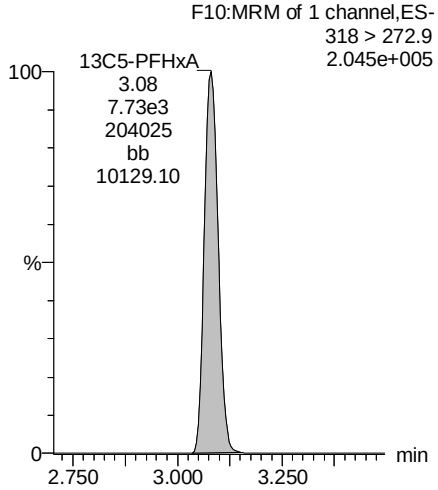
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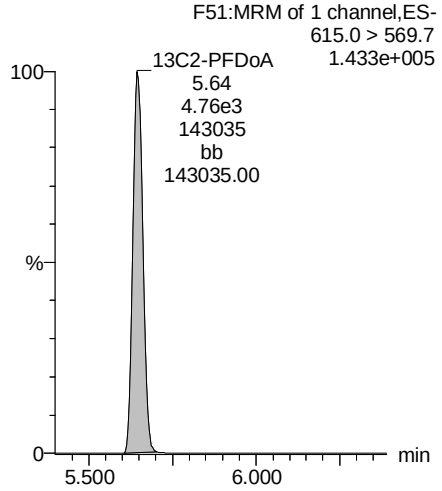
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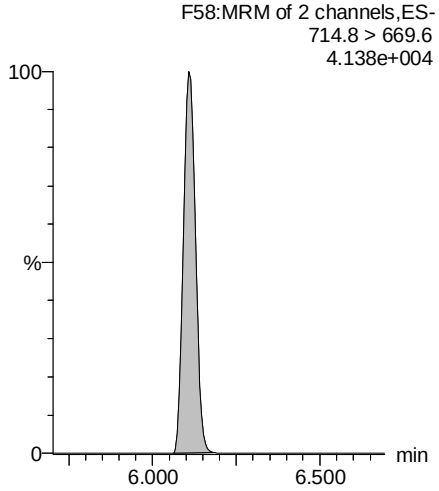
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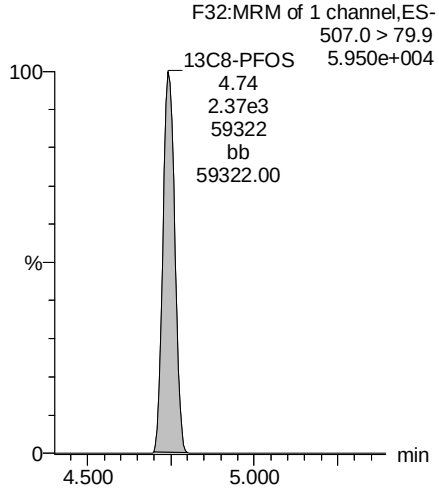
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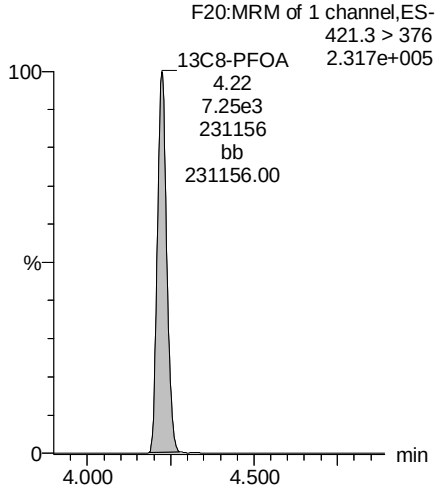
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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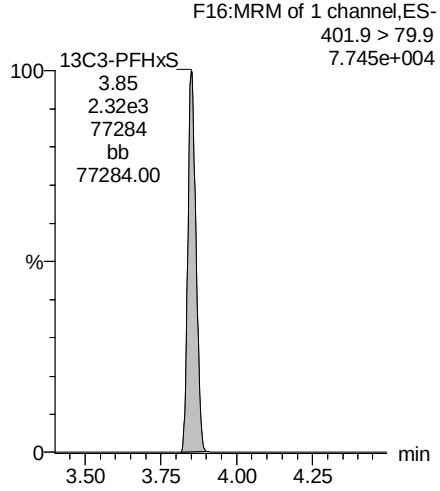
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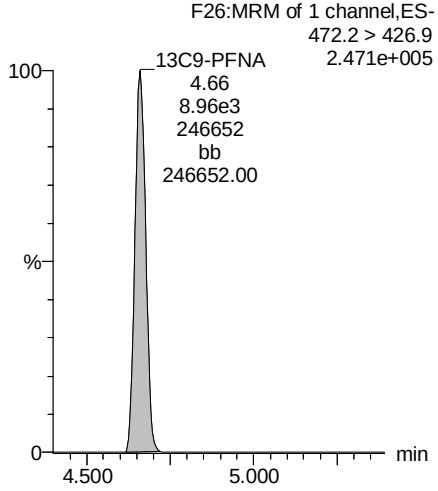
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Name: 180110M3_23, Date: 11-Jan-2018, Time: 13:28:47, ID: 1701832-09 SA-PZ147-20171201 0.25163, Description: SA-PZ147-20171201

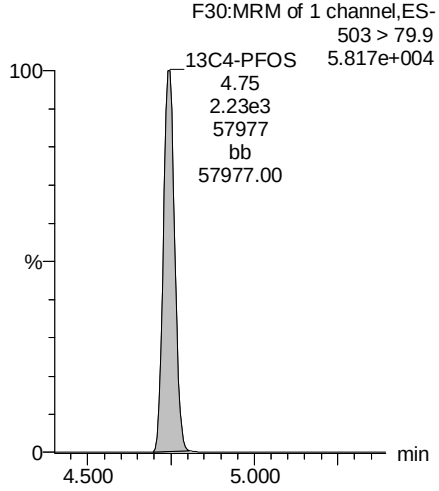
13C3-PFHxS



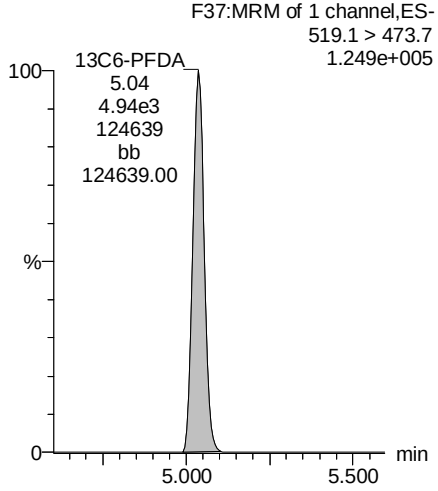
13C9-PFNA



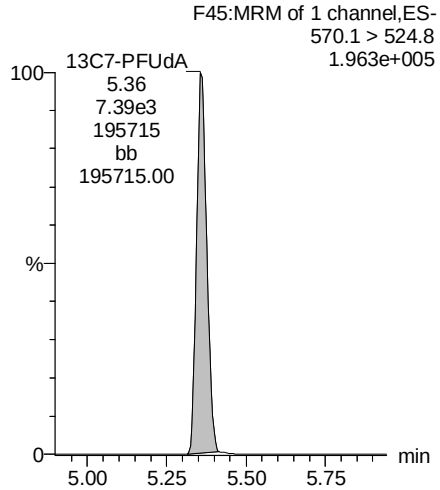
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_24.qld

Last Altered: Thursday, January 11, 2018 15:40:42 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:41:05 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_24, Date: 11-Jan-2018, Time: 13:39:58, ID: 1701832-10 SA-SW201-20171201 0.24837, Description: SA-SW201-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.24e3	0.248		2.66				
2	4	PFHxA	313.2 > 268.9	6.73e2	2.48e3	0.248		3.15	3.08	1.36	2.8707	
3	5	PFHpA	363.0 > 318.9	5.77e2	6.65e3	0.248		3.78	3.70	1.09	2.9348	
4	6	L-PFHxS	398.9 > 79.6	1.00e2	9.24e2	0.248		3.94	3.85	1.35	2.9702	
5	9	L-PFOA	413 > 368.7	1.10e3	7.74e3	0.248		4.31	4.23	1.78	5.0828	
6	12	PFNA	463.0 > 418.8	5.08e3	7.09e3	0.248		4.81	4.66	8.96	25.5086	
7	14	L-PFOS	499 > 79.9	6.36e1	2.58e3	0.248		4.75	4.60	0.308	0.9490	
8	16	PFDA	513 > 468.8	8.22e1	5.08e3	0.248		5.18	5.05	0.202	1.0986	
9	18	N-MeFOSAA	570.1 > 419		2.58e3	0.248		5.32				
10	19	N-EtFOSAA	584.2 > 419		2.88e3	0.248		5.48				
11	20	PFUdA	563.0 > 518.9	1.66e2	6.92e3	0.248		5.50	5.36	0.300	1.1936	
12	22	PFDoA	612.9 > 569.0		4.93e3	0.248		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_24.qld

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Name: 180110M3_24, Date: 11-Jan-2018, Time: 13:39:58, ID: 1701832-10 SA-SW201-20171201 0.24837, Description: SA-SW201-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.93e3	0.248		6.00				
2	25	PFTeDA	712.9 > 668.8		2.80e3	0.248		6.22				
3	33	13C3-PFBS	302. > 98.8	1.24e3	8.20e3	0.248	0.095	2.77	2.59	1.89	79.7724	158.5
4	34	13C2-PFHxA	315 > 269.8	2.48e3	8.20e3	0.248	0.597	3.15	3.08	3.78	25.4831	126.6
5	35	13C4-PFHpA	367.2 > 321.8	6.65e3	8.20e3	0.248	0.604	3.78	3.70	10.1	67.4982	134.1
6	36	18O2-PFHxS	403.0 > 102.6	9.24e2	2.41e3	0.248	0.293	3.94	3.85	4.80	65.9085	131.0
7	37	13C2-6:2 FTS	429.1 > 408.9	1.76e3	7.27e3	0.248	0.215	4.25	4.16	3.03	56.6815	112.6
8	38	13C2-PFOA	414.9 > 369.7	7.74e3	7.27e3	0.248	0.916	4.31	4.22	13.3	58.4818	116.2
9	39	13C5-PFNA	468.2 > 422.9	7.09e3	8.67e3	0.248	0.817	4.81	4.66	10.2	50.3161	100.0
10	40	13C8-PFOSA	506.1 > 77.7	1.36e3	7.51e3	0.248	0.223	4.87	4.72	2.26	40.7747	81.0
11	41	13C8-PFOS	507.0 > 79.9	2.58e3	2.52e3	0.248	0.875	4.89	4.74	12.8	58.8638	117.0
12	42	13C2-PFDA	515.1 > 469.9	5.08e3	5.06e3	0.248	1.105	5.18	5.04	12.6	45.7300	90.9
13	43	13C2-8:2 FTS	529.1 > 508.7	7.56e2	8.20e3	0.248	0.101	5.15	5.01	1.15	46.0005	91.4
14	44	d3-N-MeFOSAA	573.3 > 419	2.58e3	7.51e3	0.248	0.345	5.32	5.18	4.30	50.1542	99.7
15	45	d5-N-EtFOSAA	589.3 > 419	2.88e3	7.51e3	0.248	0.390	5.47	5.34	4.80	49.5109	98.4
16	46	13C2-PFUdA	565 > 519.8	6.92e3	7.51e3	0.248	0.958	5.49	5.36	11.5	48.4227	96.2
17	47	13C2-PFDoA	615.0 > 569.7	4.93e3	7.51e3	0.248	0.599	5.77	5.64	8.21	55.1417	109.6
18	49	13C2-PFTeDA	714.8 > 669.6	2.80e3	7.51e3	0.248	0.282	6.22	6.11	4.66	66.6559	132.5
19	55	13C5-PFHxA	318 > 272.9	8.20e3	8.20e3	0.248	1.000	3.15	3.08	12.5	50.3221	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.41e3	2.41e3	0.248	1.000	4.02	3.85	12.5	50.3221	100.0
21	57	13C8-PFOA	421.3 > 376	7.27e3	7.27e3	0.248	1.000	4.38	4.23	12.5	50.3221	100.0
22	58	13C9-PFNA	472.2 > 426.9	8.67e3	8.67e3	0.248	1.000	4.81	4.66	12.5	50.3221	100.0
23	59	13C4-PFOS	503 > 79.9	2.52e3	2.52e3	0.248	1.000	4.89	4.74	12.5	50.3221	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.06e3	5.06e3	0.248	1.000	5.18	5.04	12.5	50.3221	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.51e3	7.51e3	0.248	1.000	5.49	5.36	12.5	50.3221	100.0
26	62	Total PFHxS	398.9 > 79.6	1.00e2	9.24e2	0.248		4.14		1.35	2.9702	
27	63	Total PFOA	413 > 368.7	1.10e3	7.74e3	0.248		4.51		1.78	5.0828	
28	64	Total PFOS	499 > 79.9	6.36e1	2.58e3	0.248		4.75		0.308	0.9490	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.58e3	0.248		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.88e3	0.248		5.61		0.000		

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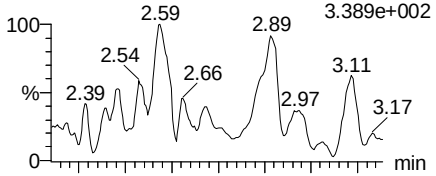
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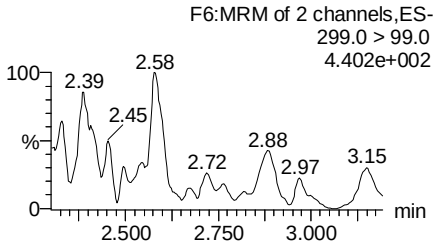
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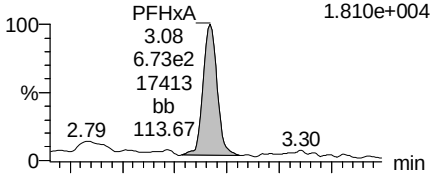
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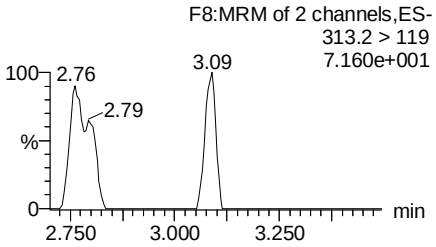
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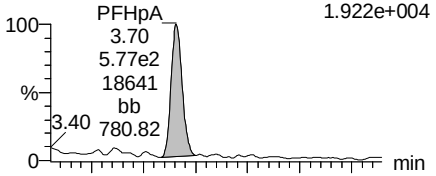


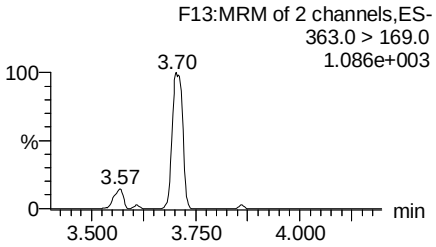
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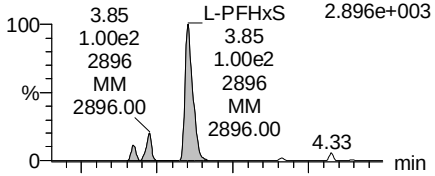


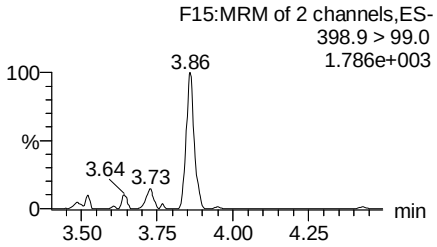
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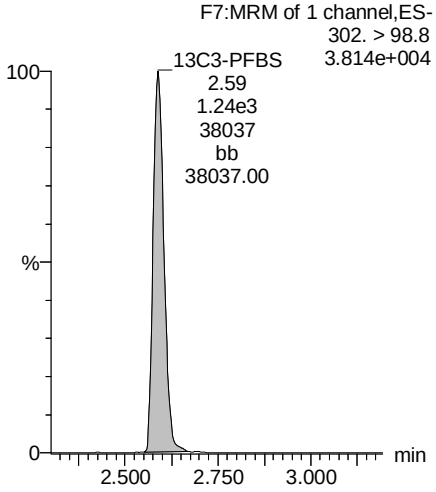


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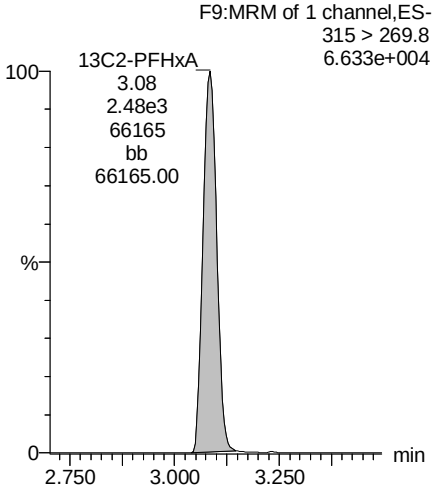




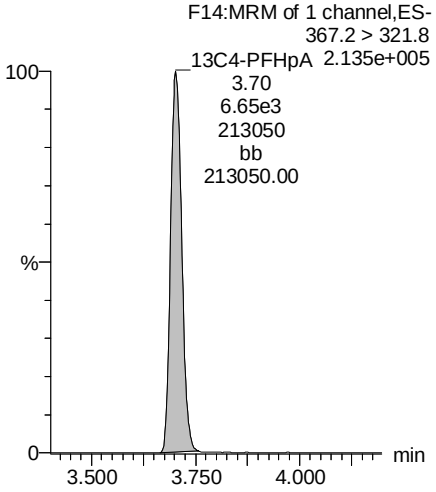
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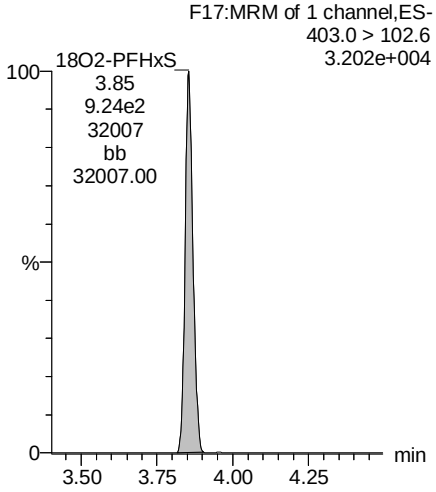
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13C4-PFHpA



18O2-PFHxS



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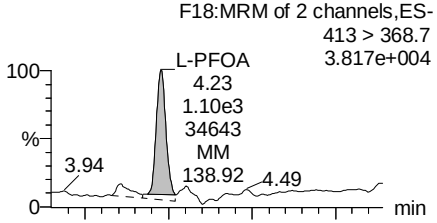
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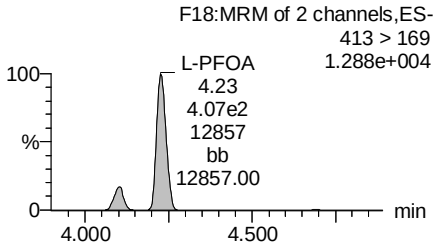
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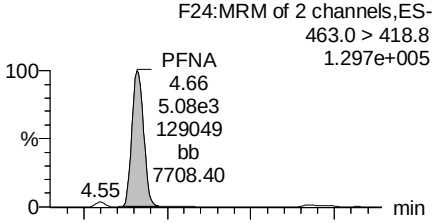
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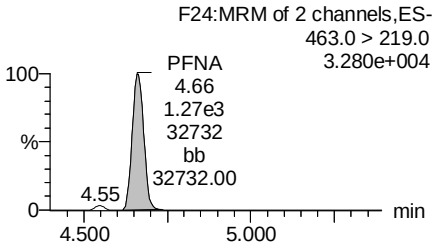
Total PFOA



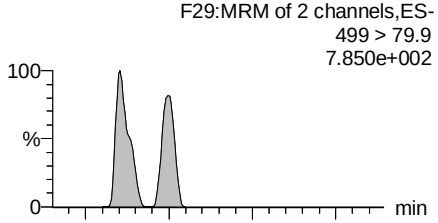


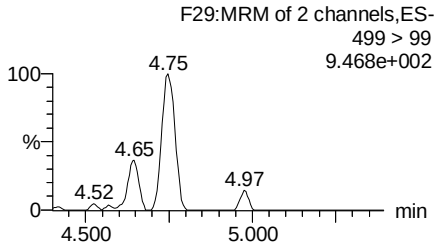
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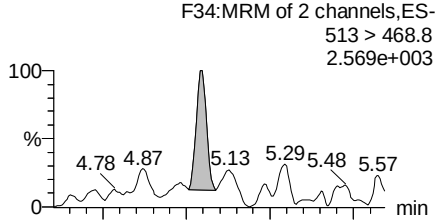


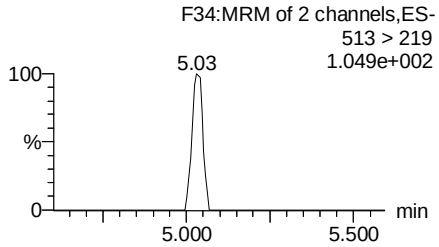
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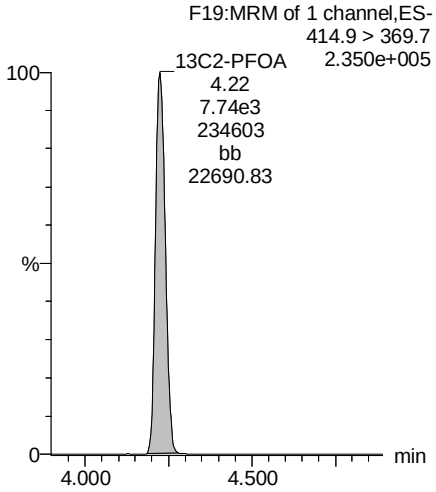


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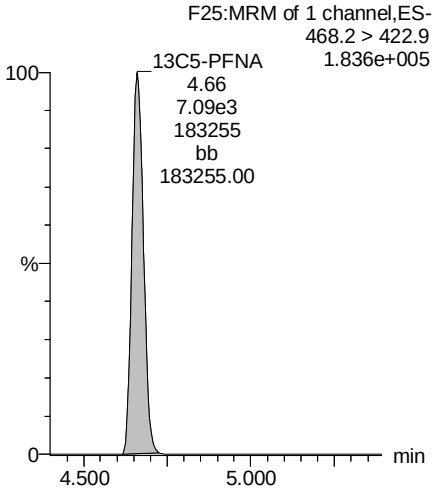




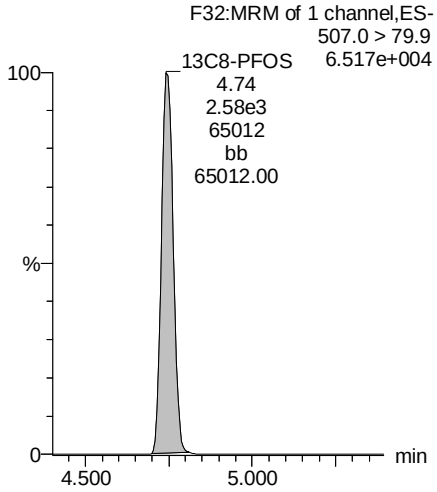
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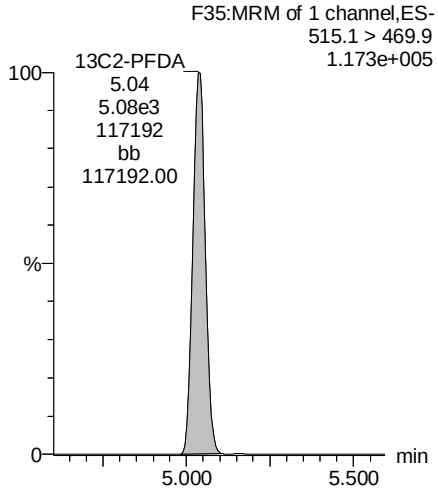
13C5-PFNA



13C8-PFOS



13C2-PFDA



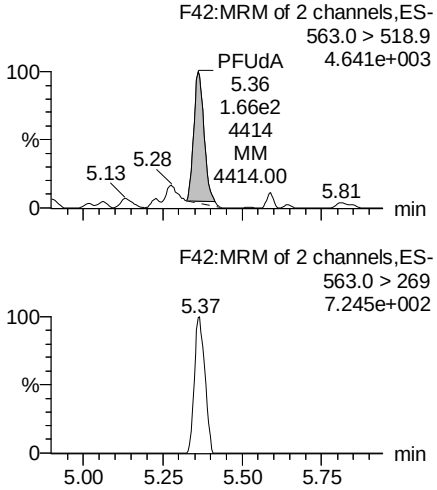
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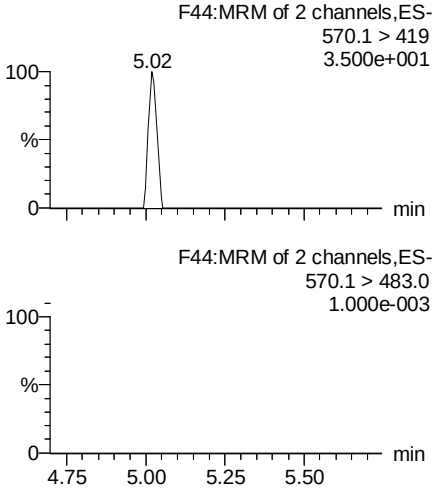
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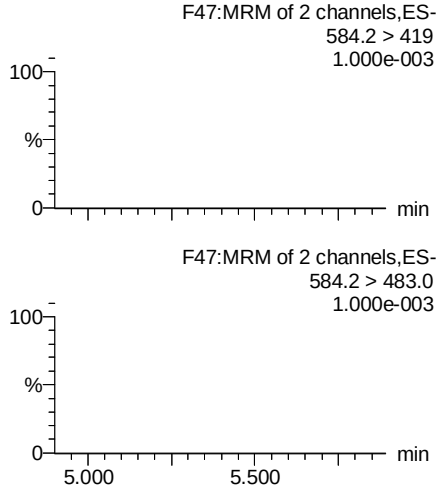
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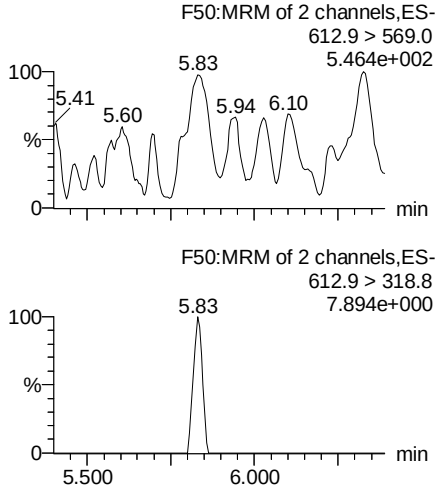
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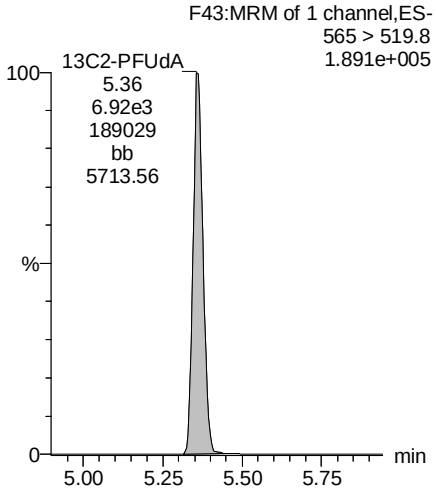
N-EtFOSAA



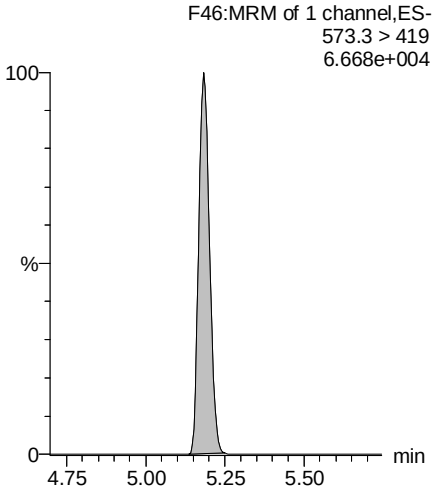
PFDoA



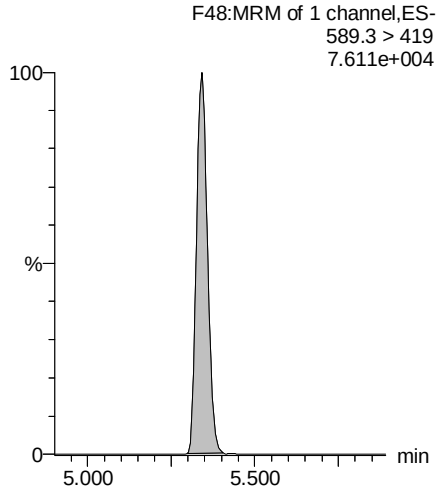
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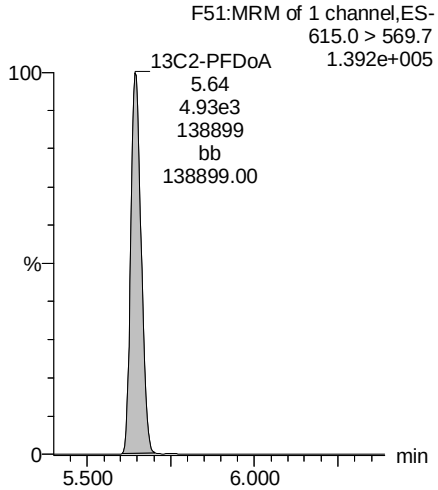
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



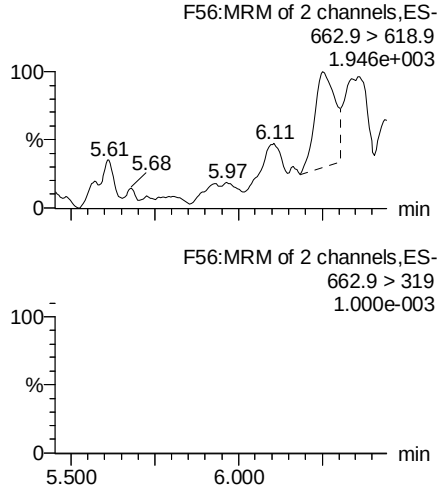
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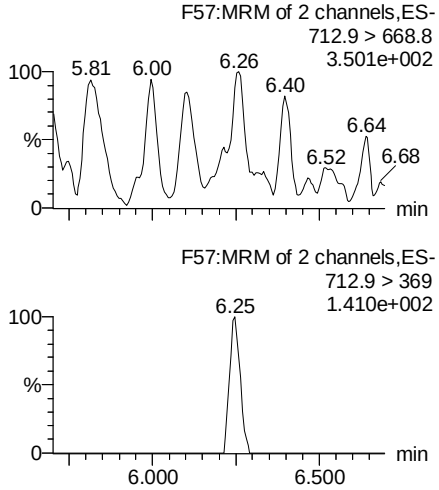
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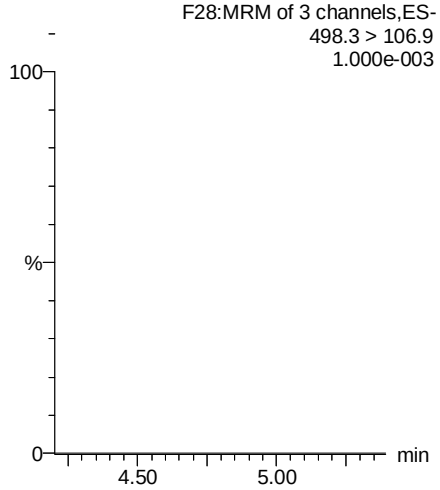
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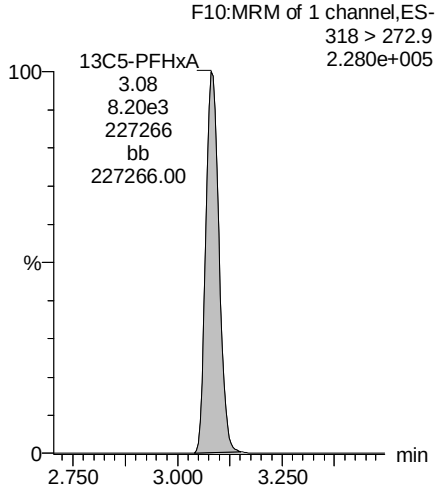
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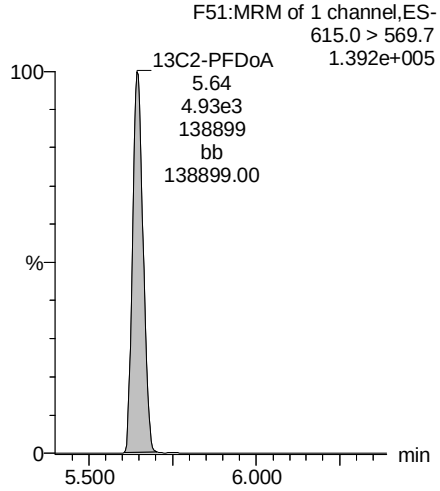
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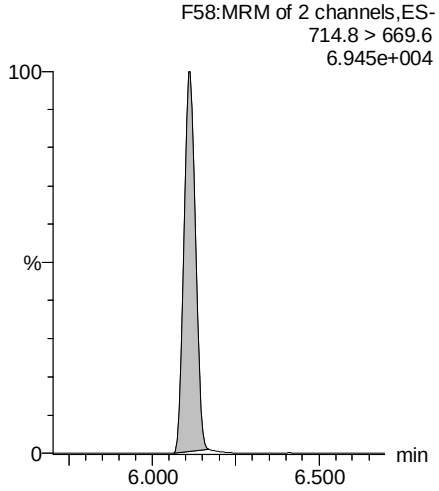
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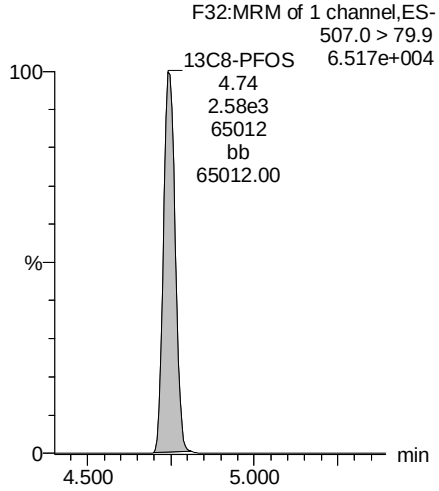
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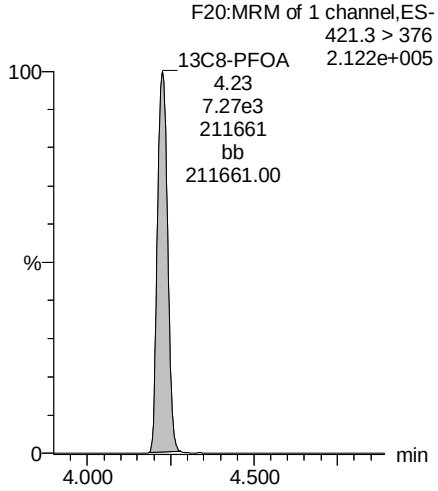
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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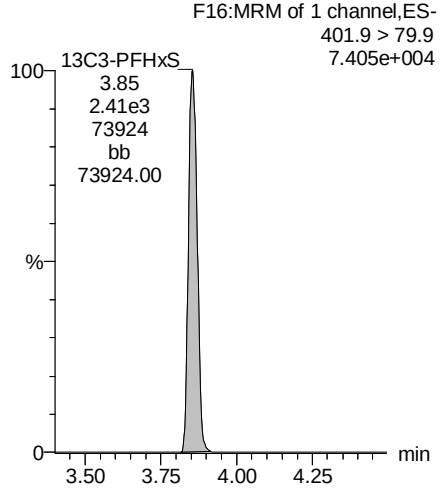
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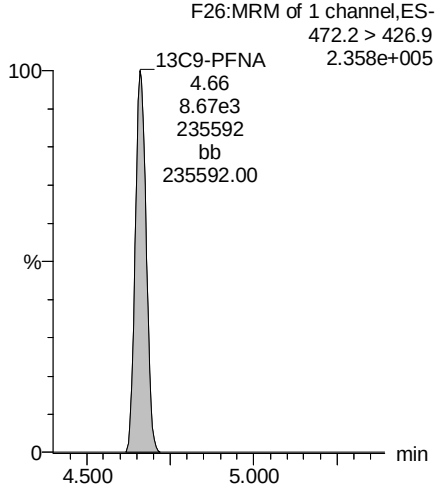
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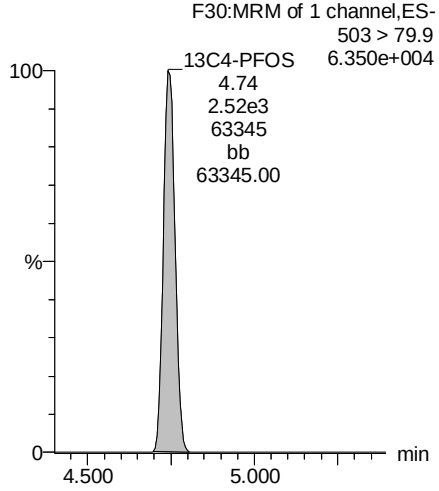
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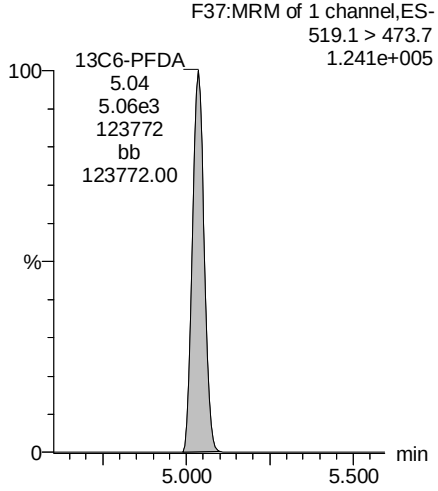
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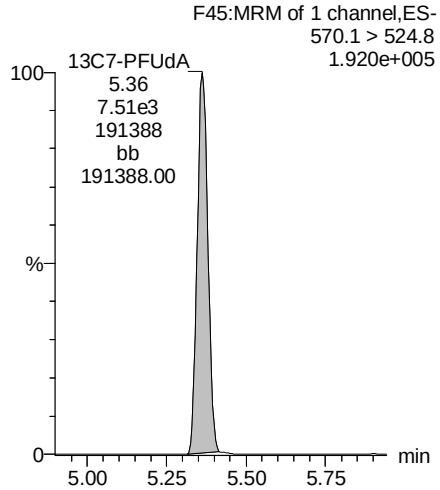
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_13, Date: 11-Jan-2018, Time: 11:37:00, ID: B7L0088-MS1 Matrix Spike 0.25868, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.58e3	1.04e3	0.259		2.66	2.60	19.1	34.5956	
2	4	PFHxA	313.2 > 268.9	8.17e3	2.11e3	0.259		3.15	3.09	19.4	38.6508	
3	5	PFHpA	363.0 > 318.9	6.37e3	5.69e3	0.259		3.78	3.71	14.0	32.9713	
4	6	L-PFHxS	398.9 > 79.6	1.06e3	6.65e2	0.259		3.94	3.86	19.8	36.5993	
5	9	L-PFOA	413 > 368.7	7.39e3	7.56e3	0.259		4.31	4.23	12.2	36.9340	
6	12	PFNA	463.0 > 418.8	1.26e4	5.77e3	0.259		4.81	4.66	27.2	73.8905	
7	14	L-PFOS	499 > 79.9	2.03e3	1.96e3	0.259		4.89	4.74	13.0	42.6548	
8	16	PFDA	513 > 468.8	6.56e3	5.49e3	0.259		5.18	5.03	14.9	35.4935	
9	18	N-MeFOSAA	570.1 > 419	2.77e3	2.62e3	0.259		5.32	5.18	13.2	25.6853	
10	19	N-EtFOSAA	584.2 > 419	2.47e3	3.12e3	0.259		5.48	5.34	9.89	25.2390	
11	20	PFUdA	563.0 > 518.9	6.28e3	6.41e3	0.259		5.50	5.35	12.2	35.8415	
12	22	PFDoA	612.9 > 569.0	6.30e3	3.09e3	0.259		5.77	5.63	25.5	46.2940	

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_13.qld

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Name: 180110M3_13, Date: 11-Jan-2018, Time: 11:37:00, ID: B7L0088-MS1 Matrix Spike 0.25868, Description: Matrix Spike

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	7.79e3	3.09e3	0.259		6.00	5.88	31.5	50.9321	
2	25	PFTeDA	712.9 > 668.8	3.67e3	1.87e3	0.259		6.22	6.10	24.6	32.2615	
3	33	13C3-PFBS	302. > 98.8	1.04e3	7.17e3	0.259	0.095	2.77	2.60	1.81	73.4765	152.1
4	34	13C2-PFHxA	315 > 269.8	2.11e3	7.17e3	0.259	0.597	3.15	3.09	3.68	23.8538	123.4
5	35	13C4-PFHpA	367.2 > 321.8	5.69e3	7.17e3	0.259	0.604	3.78	3.71	9.93	63.5239	131.5
6	36	18O2-PFHxS	403.0 > 102.6	6.65e2	1.92e3	0.259	0.293	3.94	3.86	4.32	56.9239	117.8
7	37	13C2-6:2 FTS	429.1 > 408.9	1.38e3	7.84e3	0.259	0.215	4.25	4.17	2.21	39.6590	82.1
8	38	13C2-PFOA	414.9 > 369.7	7.56e3	7.84e3	0.259	0.916	4.31	4.23	12.1	50.9063	105.3
9	39	13C5-PFNA	468.2 > 422.9	5.77e3	7.06e3	0.259	0.817	4.81	4.66	10.2	48.3110	100.0
10	40	13C8-PFOSA	506.1 > 77.7	1.24e3	7.49e3	0.259	0.223	4.87	4.72	2.07	35.8171	74.1
11	41	13C8-PFOS	507.0 > 79.9	1.96e3	1.81e3	0.259	0.875	4.89	4.74	13.5	59.6400	123.4
12	42	13C2-PFDA	515.1 > 469.9	5.49e3	4.47e3	0.259	1.105	5.18	5.03	15.4	53.7703	111.3
13	43	13C2-8:2 FTS	529.1 > 508.7	7.72e2	7.17e3	0.259	0.101	5.15	5.00	1.35	51.5920	106.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.62e3	7.49e3	0.259	0.345	5.32	5.18	4.37	48.9972	101.4
15	45	d5-N-EtFOSAA	589.3 > 419	3.12e3	7.49e3	0.259	0.390	5.47	5.33	5.22	51.6419	106.9
16	46	13C2-PFUdA	565 > 519.8	6.41e3	7.49e3	0.259	0.958	5.49	5.35	10.7	43.2252	89.5
17	47	13C2-PFDoA	615.0 > 569.7	3.09e3	7.49e3	0.259	0.599	5.77	5.64	5.16	33.2798	68.9
18	49	13C2-PFTeDA	714.8 > 669.6	1.87e3	7.49e3	0.259	0.282	6.22	6.10	3.12	42.8443	88.7
19	55	13C5-PFHxA	318 > 272.9	7.17e3	7.17e3	0.259	1.000	3.15	3.09	12.5	48.3223	100.0
20	56	13C3-PFHxS	401.9 > 79.9	1.92e3	1.92e3	0.259	1.000	4.02	3.86	12.5	48.3223	100.0
21	57	13C8-PFOA	421.3 > 376	7.84e3	7.84e3	0.259	1.000	4.38	4.23	12.5	48.3223	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.06e3	7.06e3	0.259	1.000	4.81	4.66	12.5	48.3223	100.0
23	59	13C4-PFOS	503 > 79.9	1.81e3	1.81e3	0.259	1.000	4.89	4.74	12.5	48.3223	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.47e3	4.47e3	0.259	1.000	5.18	5.03	12.5	48.3223	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.49e3	7.49e3	0.259	1.000	5.49	5.35	12.5	48.3223	100.0
26	62	Total PFHxS	398.9 > 79.6	1.06e3	6.65e2	0.259		4.14		19.8	36.5993	
27	63	Total PFOA	413 > 368.7	7.39e3	7.56e3	0.259		4.51		12.2	36.9340	
28	64	Total PFOS	499 > 79.9	2.03e3	1.96e3	0.259		5.02		13.0	42.6548	
29	65	Total N-MeFOSAA	570.1 > 419	2.77e3	2.62e3	0.259		5.45		13.2	25.6853	
30	66	Total N-EtFOSAA	584.2 > 419	2.47e3	3.12e3	0.259		5.61		9.89	25.2390	

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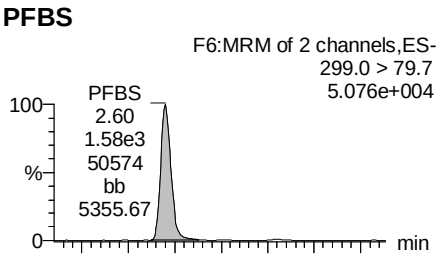
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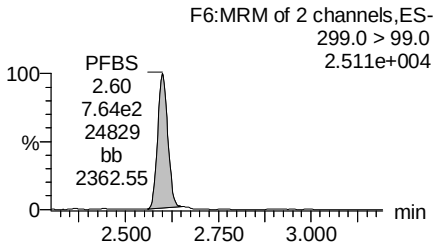
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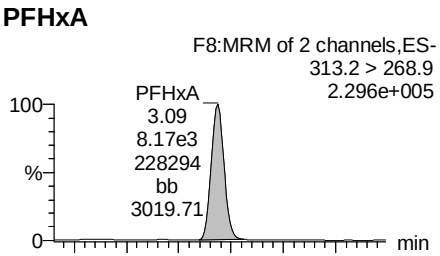
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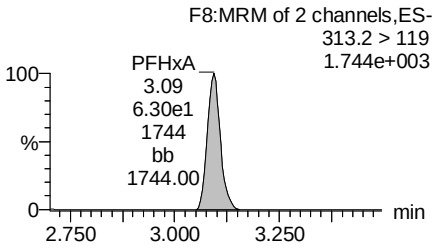
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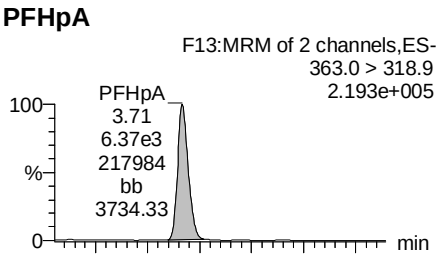


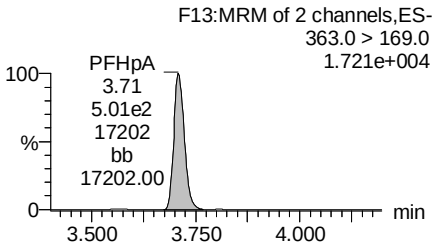
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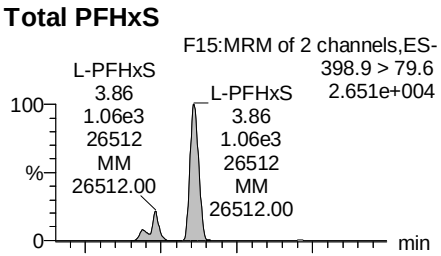


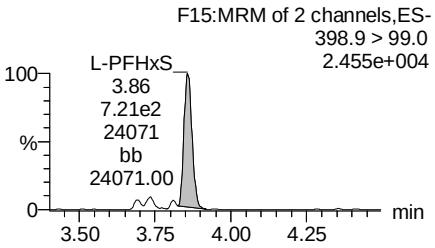
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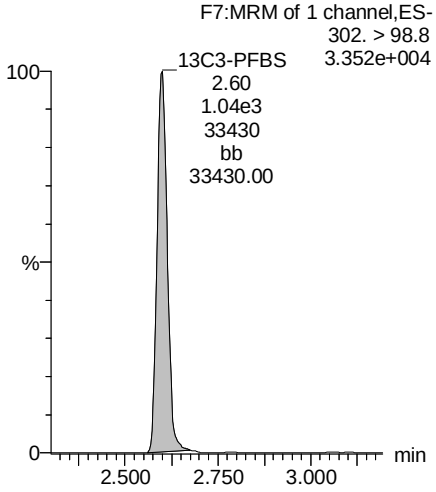


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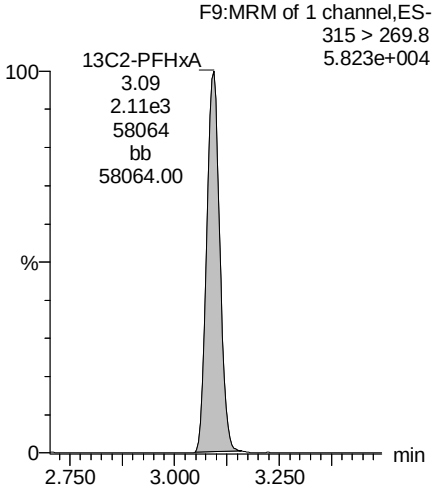




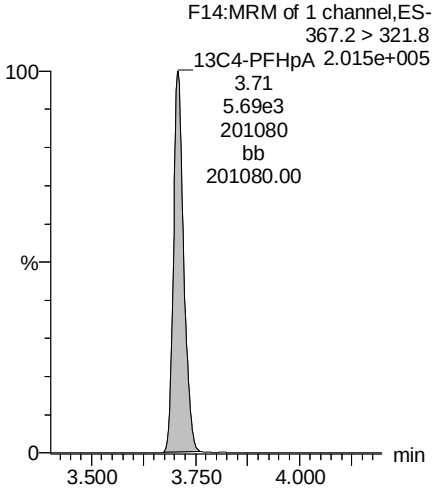
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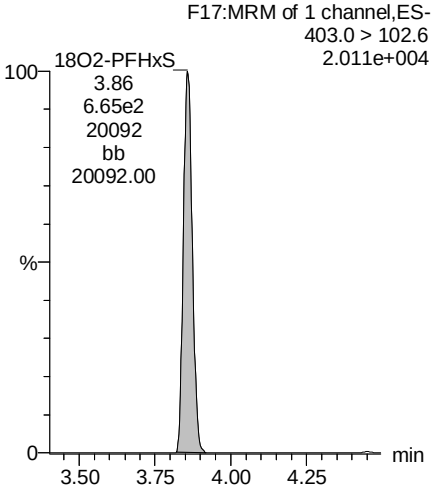
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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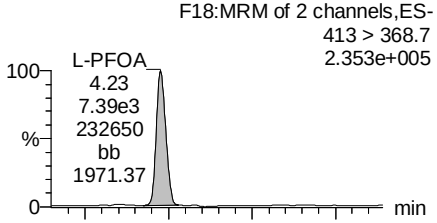
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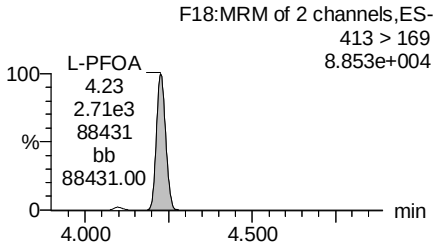
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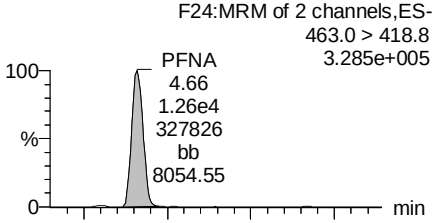
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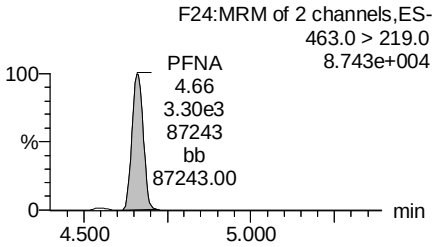
Total PFOA



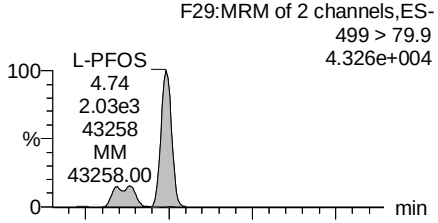


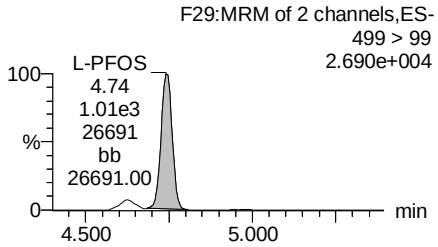
PFNA



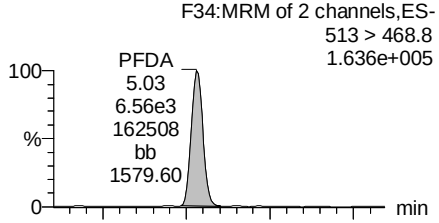


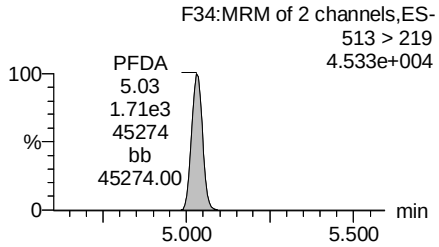
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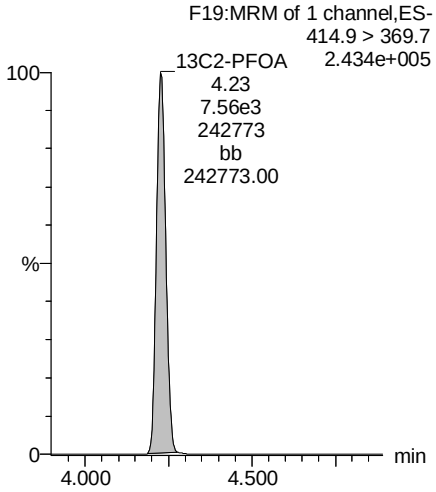


PFDA

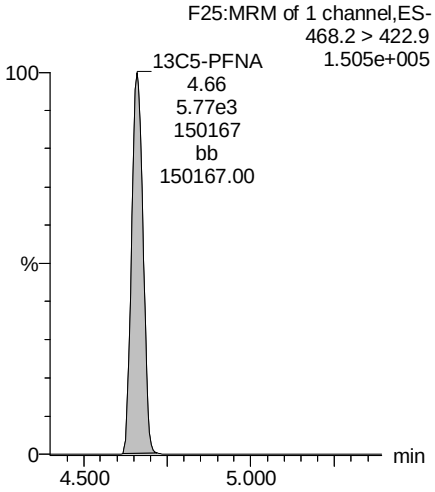




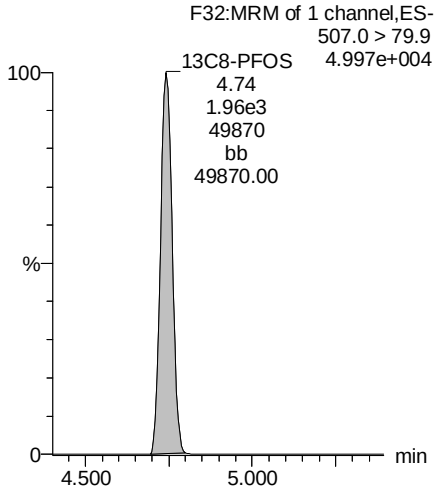
13C2-PFOA



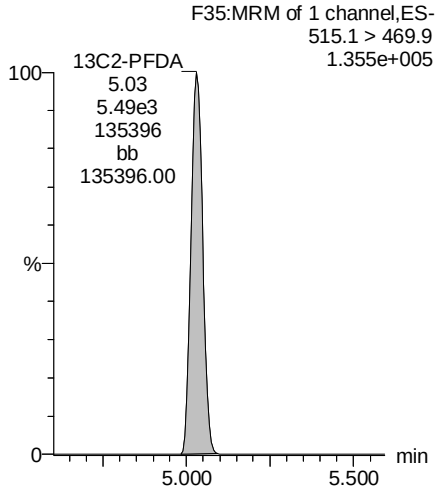
13C5-PFNA



13C8-PFOS



13C2-PFDA



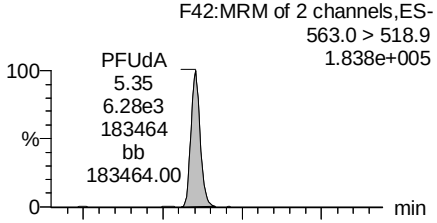
ANP 1/11/2018

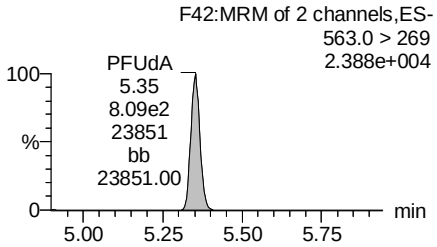
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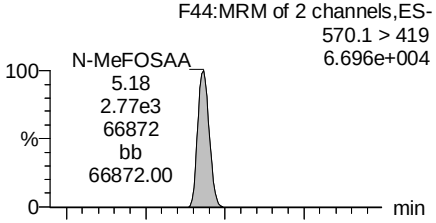
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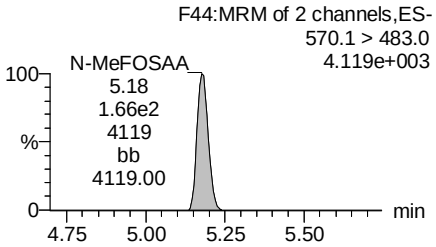
PFUdA



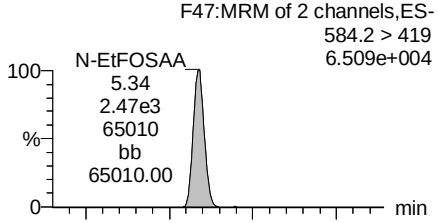


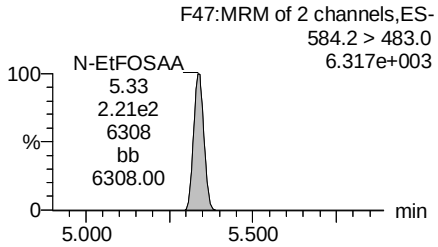
N-MeFOSAA



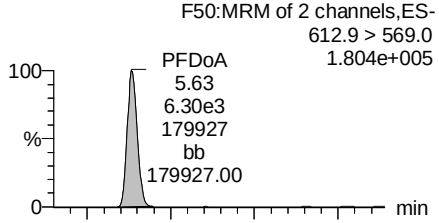


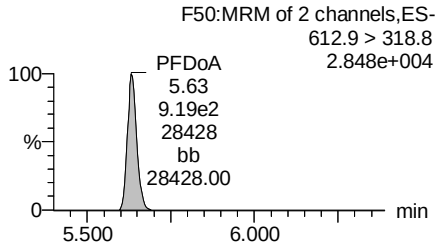
N-EtFOSAA



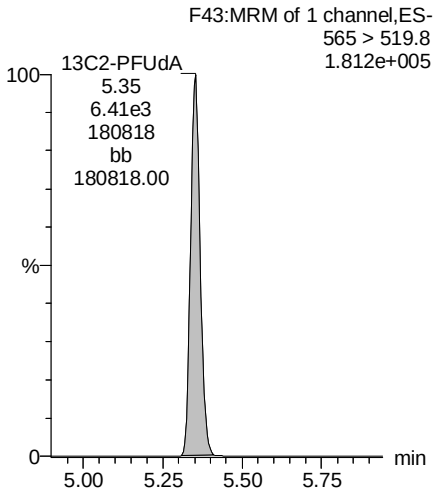


PFDoA

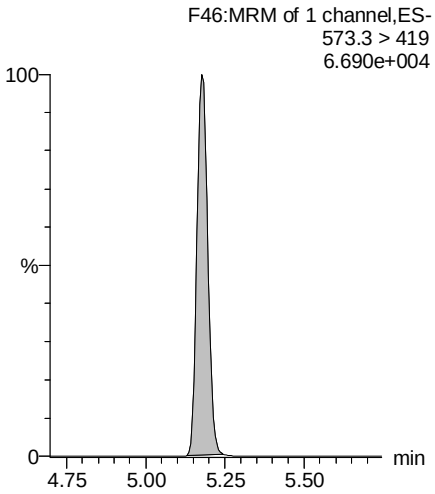




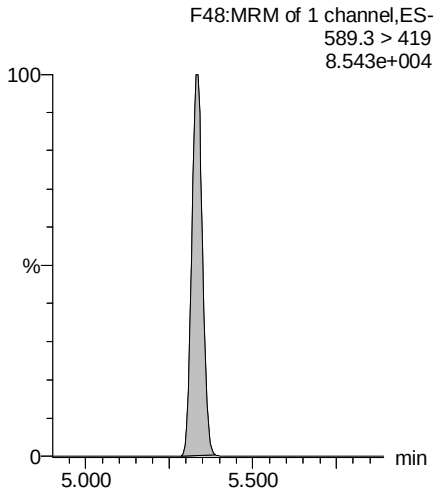
13C2-PFUdA



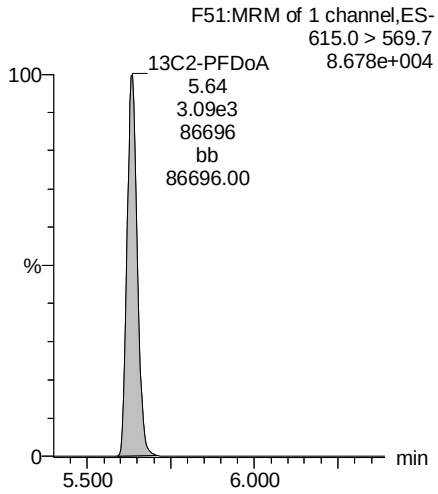
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



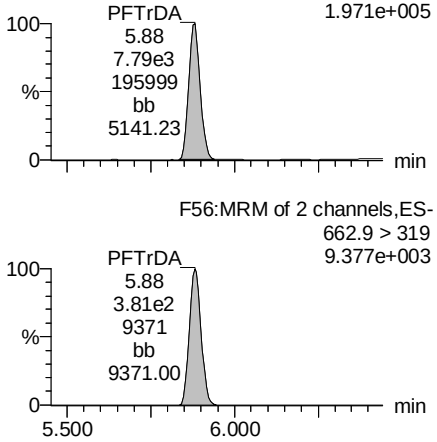
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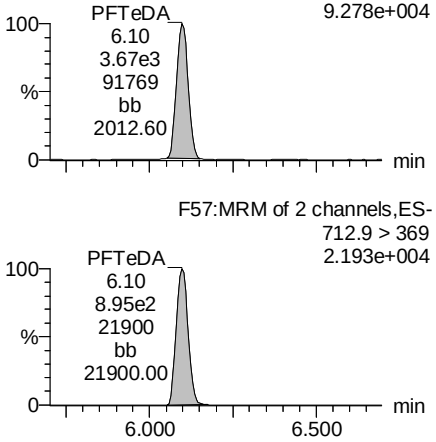
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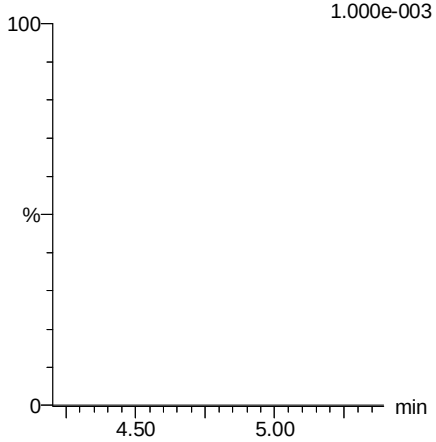
PFTrDA



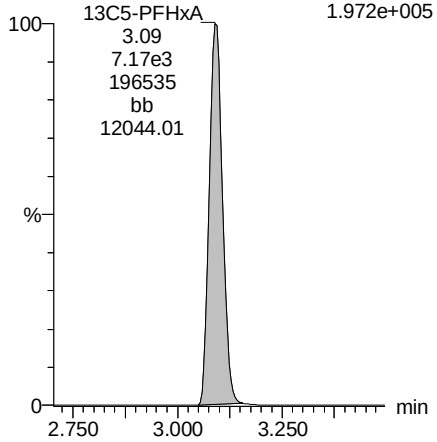
PFTeDA



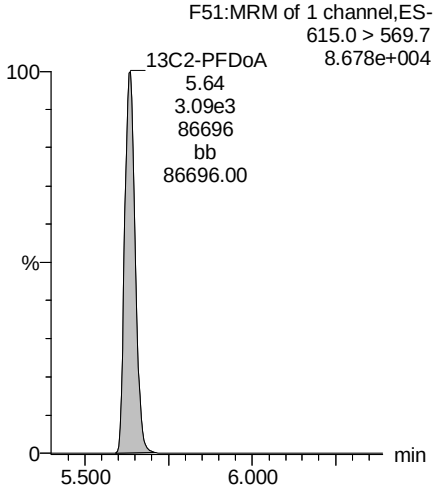
TCDA



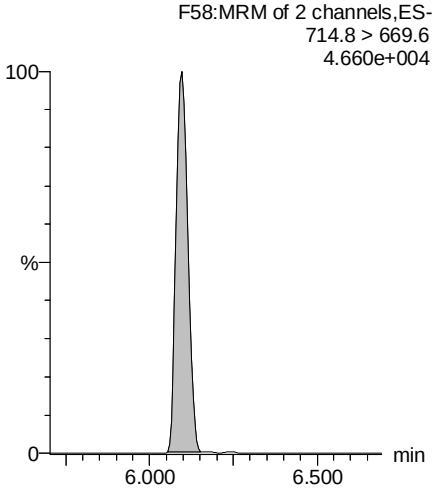
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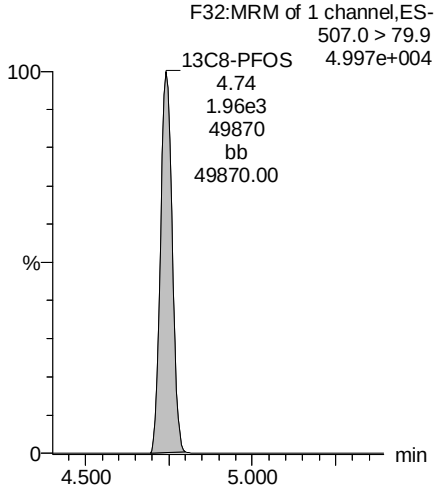
13C2-PFDoA



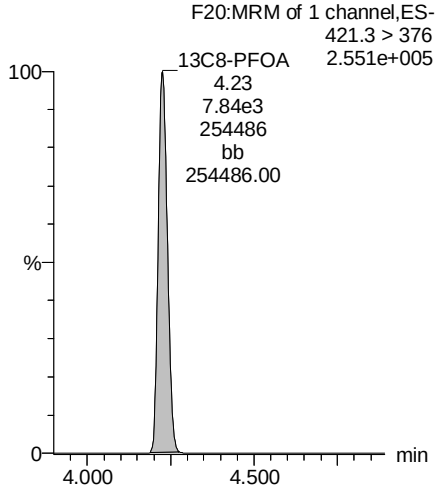
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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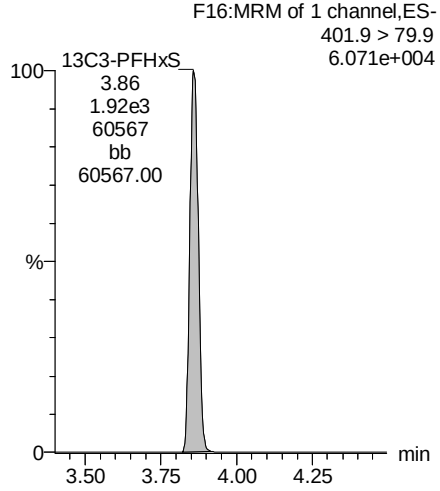
Rev'd: MM 1/12/18

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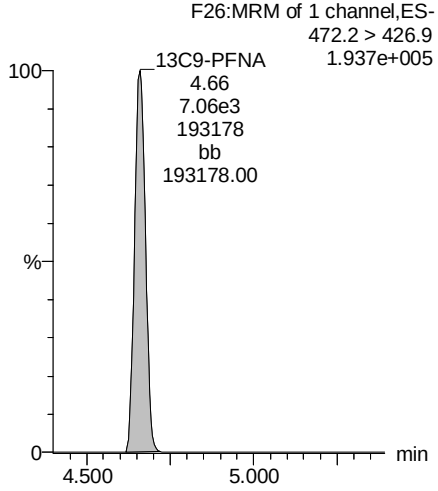
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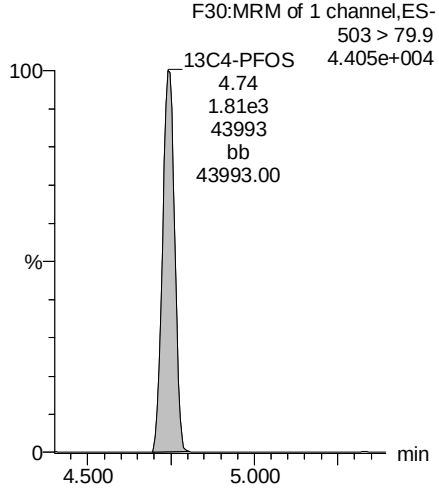
13C3-PFHxS



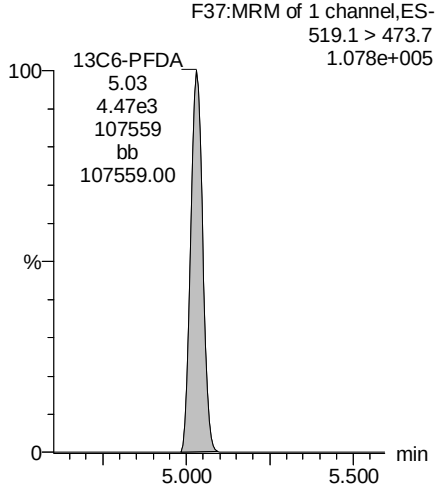
13C9-PFNA



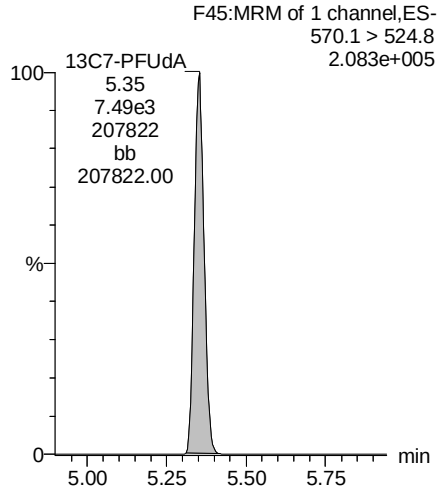
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_14.qld

Last Altered: Thursday, January 11, 2018 14:57:32 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:58:05 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_14, Date: 11-Jan-2018, Time: 11:48:11, ID: B7L0088-MSD1 Matrix Spike Dup 0.2594, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	1.62e3	1.07e3	0.259		2.66	2.59	19.0	34.4890	
2	4	PFHxA	313.2 > 268.9	9.60e3	2.53e3	0.259		3.15	3.08	19.0	37.7763	
3	5	PFHpA	363.0 > 318.9	6.82e3	6.53e3	0.259		3.78	3.70	13.0	30.6931	
4	6	L-PFHxS	398.9 > 79.6	1.42e3	7.36e2	0.259		3.94	3.85	24.1	44.3221	
5	9	L-PFOA	413 > 368.7	8.29e3	8.47e3	0.259		4.31	4.22	12.2	36.8499	
6	12	PFNA	463.0 > 418.8	2.06e4	7.76e3	0.259		4.81	4.65	33.2	89.6843	
7	14	L-PFOS	499 > 79.9	1.96e3	2.51e3	0.259		4.89	4.74	9.76	31.9192	
8	16	PFDA	513 > 468.8	7.24e3	6.67e3	0.259		5.18	5.03	13.6	32.2861	
9	18	N-MeFOSAA	570.1 > 419	3.14e3	2.84e3	0.259		5.32	5.19	13.8	26.7852	
10	19	N-EtFOSAA	584.2 > 419	3.04e3	3.13e3	0.259		5.48	5.34	12.1	30.6595	
11	20	PFUdA	563.0 > 518.9	9.02e3	6.68e3	0.259		5.50	5.36	16.9	49.2469	
12	22	PFDoA	612.9 > 569.0	8.51e3	4.60e3	0.259		5.77	5.64	23.1	41.8484	

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_14.qld

Last Altered: Thursday, January 11, 2018 14:57:32 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:58:12 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_14, Date: 11-Jan-2018, Time: 11:48:11, ID: B7L0088-MSD1 Matrix Spike Dup 0.2594, Description: Matrix Spike Dup

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9	8.01e3	4.60e3	0.259		6.00	5.89	21.8	35.0611	
2	25	PFTeDA	712.9 > 668.8	4.28e3	2.42e3	0.259		6.22	6.11	22.1	28.9813	
3	33	13C3-PFBS	302. > 98.8	1.07e3	8.69e3	0.259	0.095	2.77	2.59	1.53	61.9742	128.6
4	34	13C2-PFHxA	315 > 269.8	2.53e3	8.69e3	0.259	0.597	3.15	3.08	3.64	23.5062	122.0
5	35	13C4-PFHpA	367.2 > 321.8	6.53e3	8.69e3	0.259	0.604	3.78	3.70	9.39	59.9093	124.3
6	36	18O2-PFHxS	403.0 > 102.6	7.36e2	2.31e3	0.259	0.293	3.94	3.85	3.98	52.3598	108.7
7	37	13C2-6:2 FTS	429.1 > 408.9	1.88e3	8.13e3	0.259	0.215	4.25	4.16	2.89	51.7085	107.3
8	38	13C2-PFOA	414.9 > 369.7	8.47e3	8.13e3	0.259	0.916	4.31	4.22	13.0	54.8769	113.9
9	39	13C5-PFNA	468.2 > 422.9	7.76e3	7.62e3	0.259	0.817	4.81	4.66	12.7	60.0973	124.7
10	40	13C8-PFOSA	506.1 > 77.7	1.47e3	7.21e3	0.259	0.223	4.87	4.71	2.54	43.9672	91.2
11	41	13C8-PFOS	507.0 > 79.9	2.51e3	2.41e3	0.259	0.875	4.89	4.74	13.0	57.4963	119.3
12	42	13C2-PFDA	515.1 > 469.9	6.67e3	4.93e3	0.259	1.105	5.18	5.04	16.9	58.9979	122.4
13	43	13C2-8:2 FTS	529.1 > 508.7	1.07e3	8.69e3	0.259	0.101	5.15	5.00	1.54	58.8098	122.0
14	44	d3-N-MeFOSAA	573.3 > 419	2.84e3	7.21e3	0.259	0.345	5.32	5.18	4.92	54.9318	114.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.13e3	7.21e3	0.259	0.390	5.47	5.34	5.42	53.5550	111.1
16	46	13C2-PFUdA	565 > 519.8	6.68e3	7.21e3	0.259	0.958	5.49	5.36	11.6	46.5830	96.7
17	47	13C2-PFDoA	615.0 > 569.7	4.60e3	7.21e3	0.259	0.599	5.77	5.64	7.98	51.3296	106.5
18	49	13C2-PFTeDA	714.8 > 669.6	2.42e3	7.21e3	0.259	0.282	6.22	6.11	4.20	57.4447	119.2
19	55	13C5-PFHxA	318 > 272.9	8.69e3	8.69e3	0.259	1.000	3.15	3.08	12.5	48.1881	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.31e3	2.31e3	0.259	1.000	4.02	3.85	12.5	48.1881	100.0
21	57	13C8-PFOA	421.3 > 376	8.13e3	8.13e3	0.259	1.000	4.38	4.22	12.5	48.1881	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.62e3	7.62e3	0.259	1.000	4.81	4.66	12.5	48.1881	100.0
23	59	13C4-PFOS	503 > 79.9	2.41e3	2.41e3	0.259	1.000	4.89	4.74	12.5	48.1881	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.93e3	4.93e3	0.259	1.000	5.18	5.03	12.5	48.1881	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.21e3	7.21e3	0.259	1.000	5.49	5.36	12.5	48.1881	100.0
26	62	Total PFHxS	398.9 > 79.6	1.42e3	7.36e2	0.259		4.14		24.1	44.3221	
27	63	Total PFOA	413 > 368.7	8.29e3	8.47e3	0.259		4.51		12.2	36.8499	
28	64	Total PFOS	499 > 79.9	1.96e3	2.51e3	0.259		5.02		9.76	31.9192	
29	65	Total N-MeFOSAA	570.1 > 419	3.14e3	2.84e3	0.259		5.45		13.8	26.7852	
30	66	Total N-EtFOSAA	584.2 > 419	3.04e3	3.13e3	0.259		5.61		12.1	30.6595	

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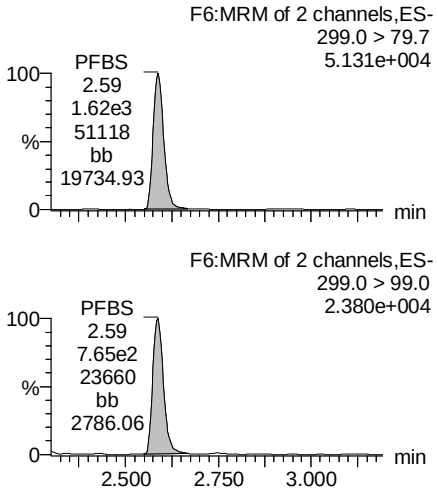
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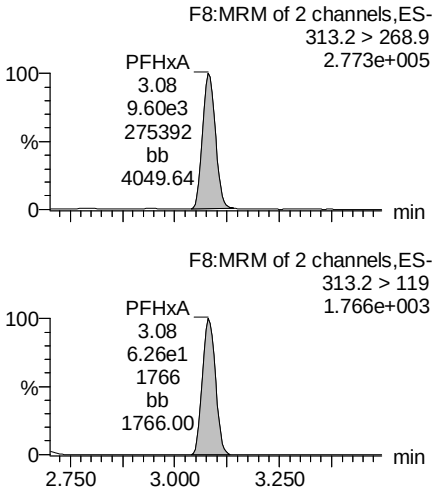
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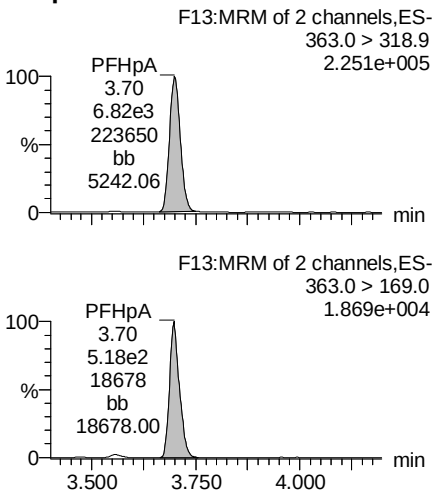
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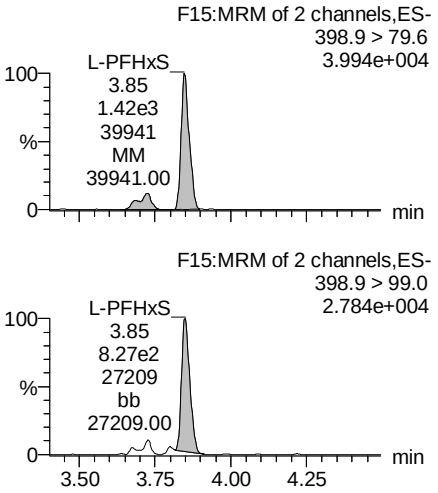
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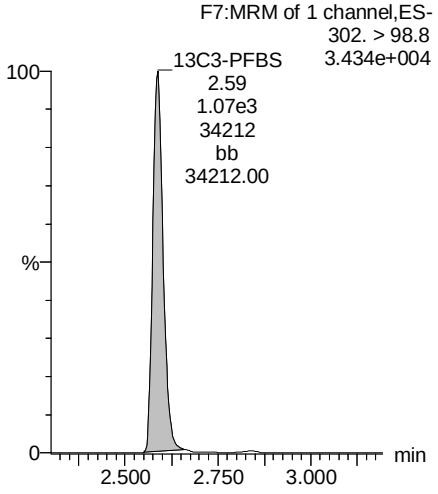
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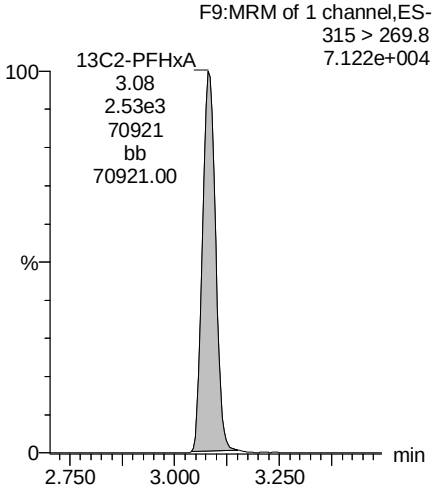
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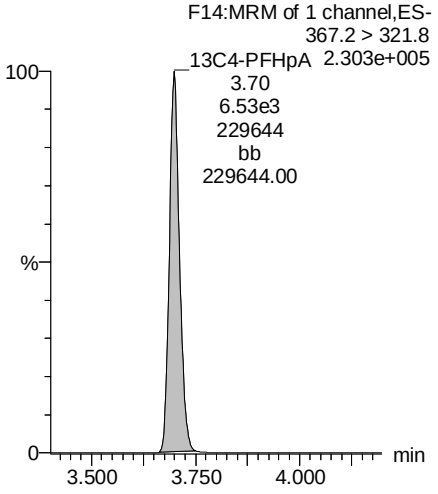
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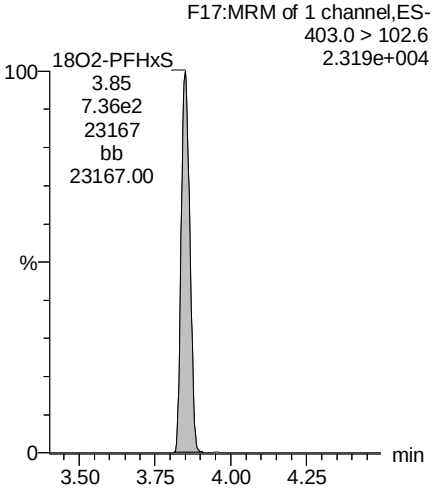
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13C4-PFHpA



18O2-PFHxS



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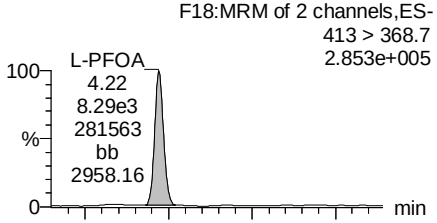
Rev'd: MM 1/12/18

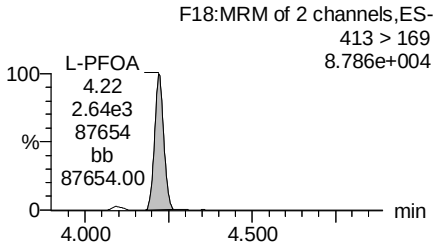
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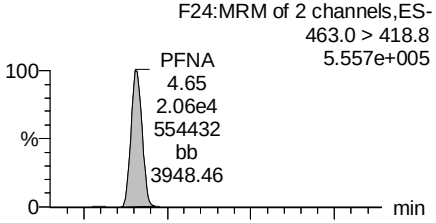
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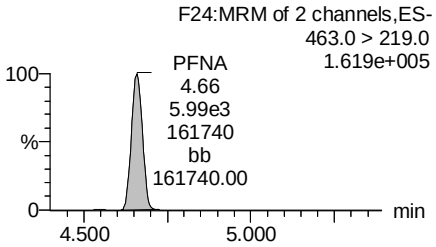
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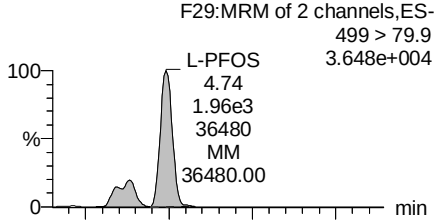


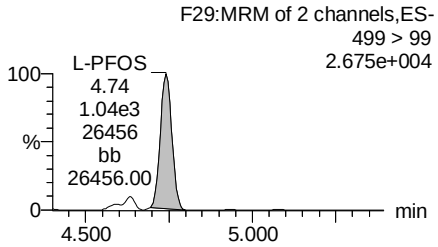
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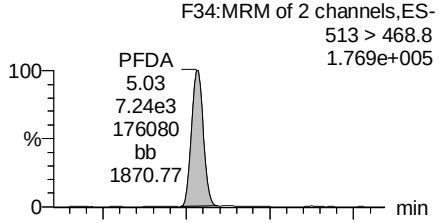


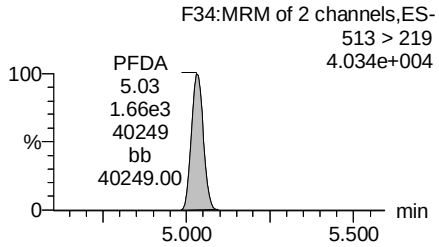
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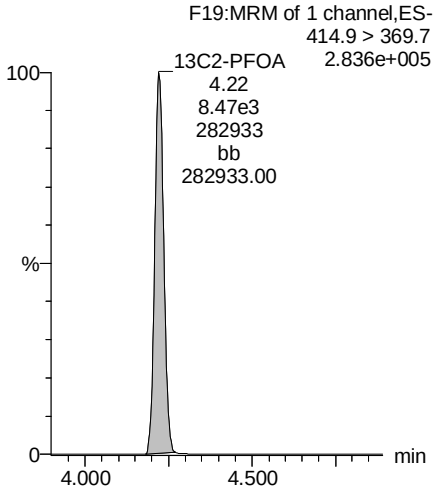


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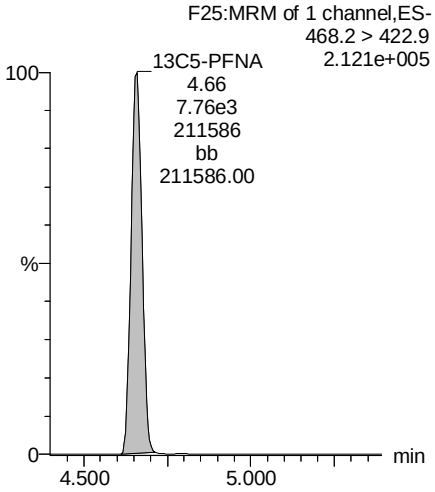




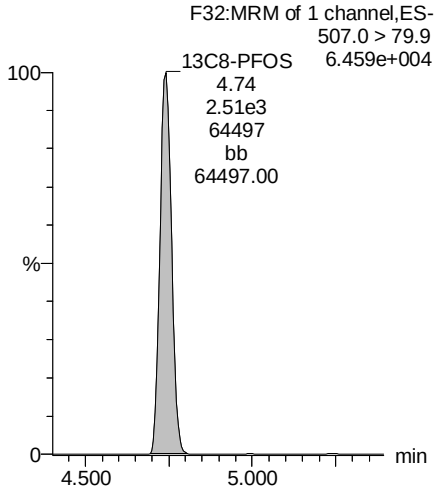
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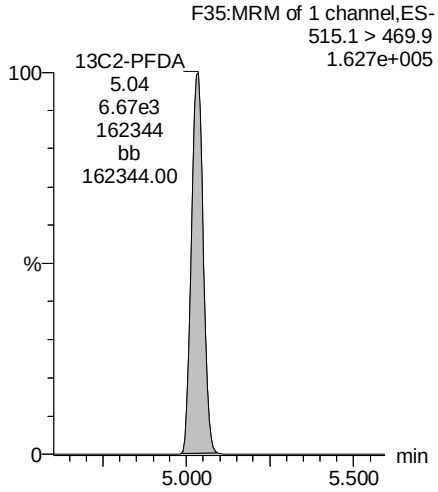
13C5-PFNA



13C8-PFOS



13C2-PFDA



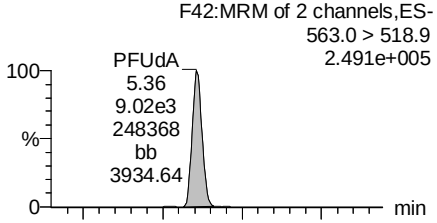
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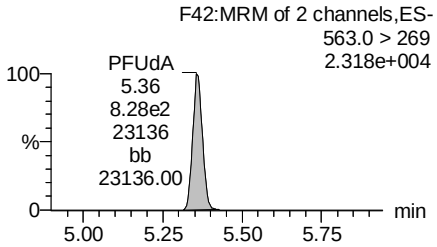
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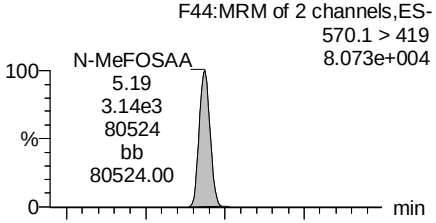
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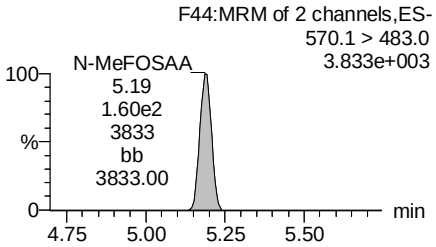
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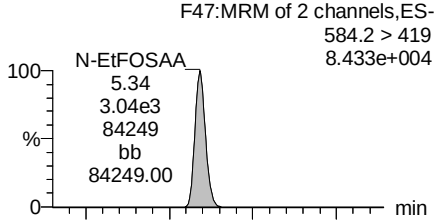


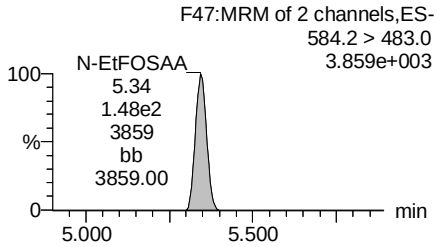
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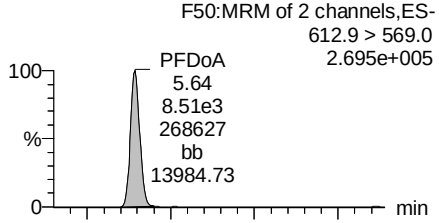


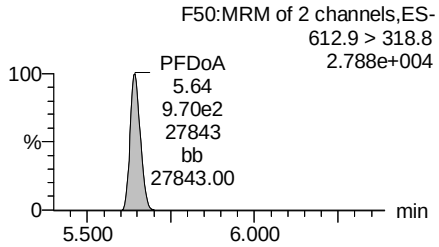
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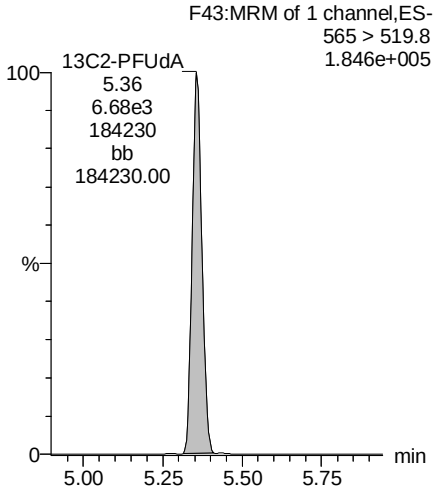


PFDoA

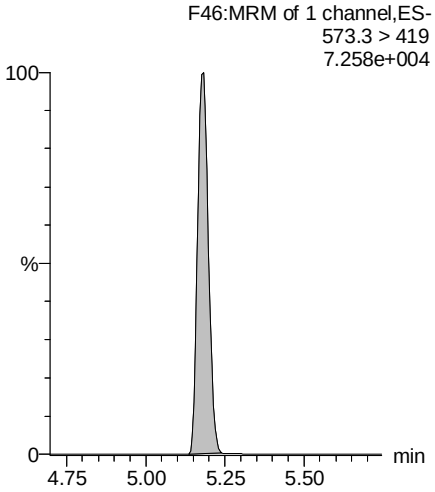




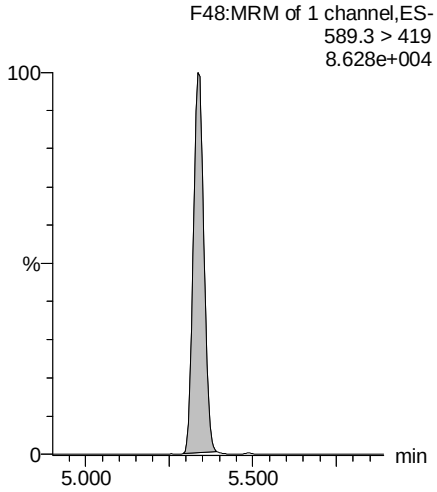
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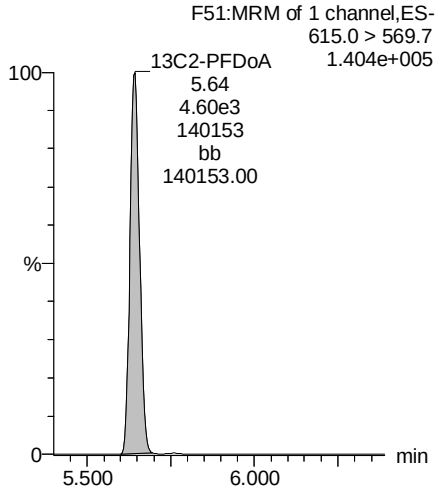
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d5-N-EtFOSAA



13C2-PFDoA



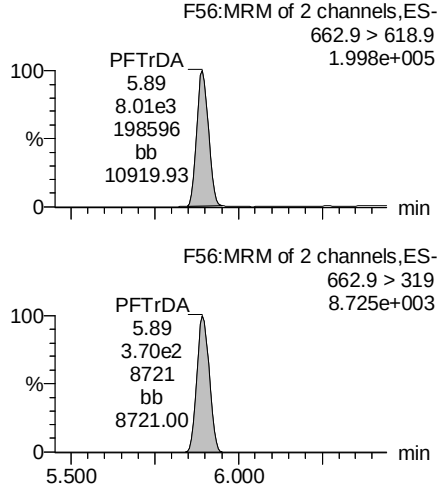
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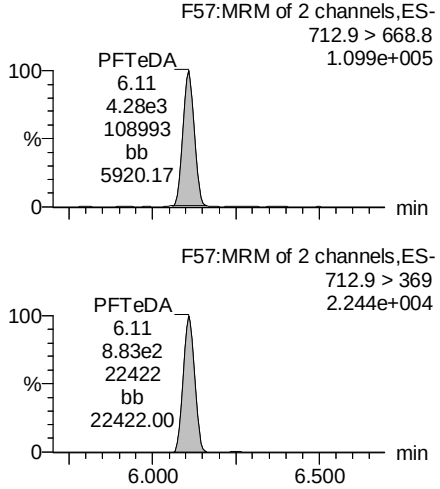
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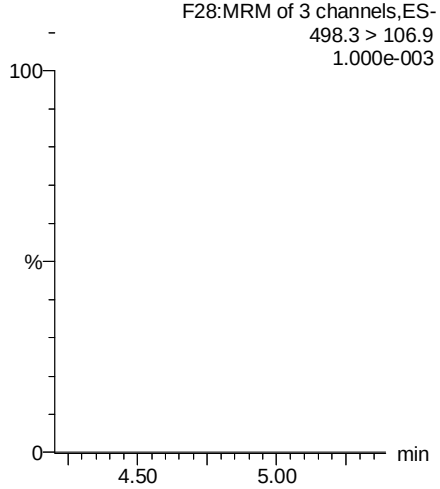
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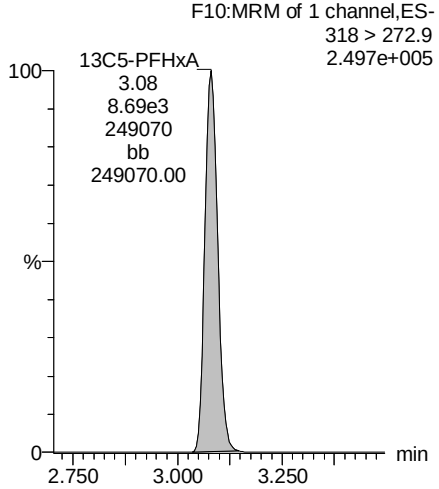
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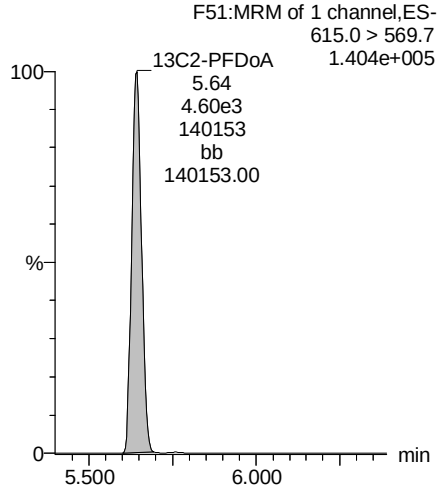
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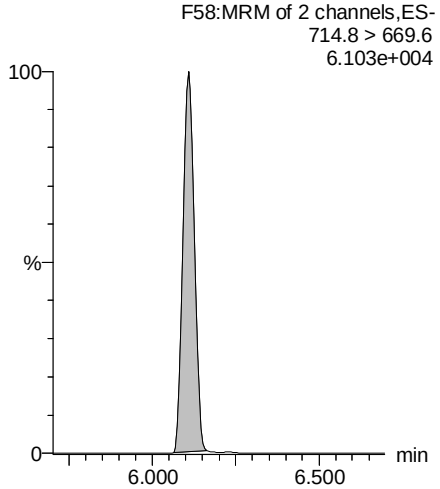
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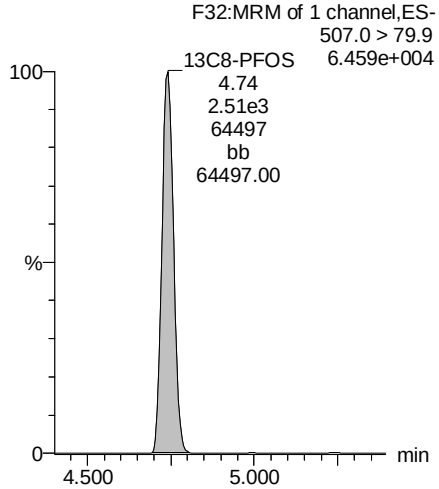
13C2-PFDoA



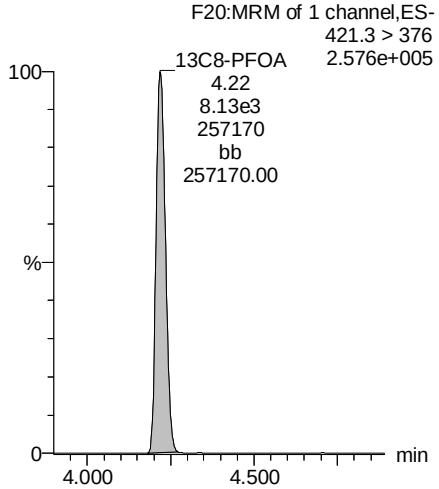
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



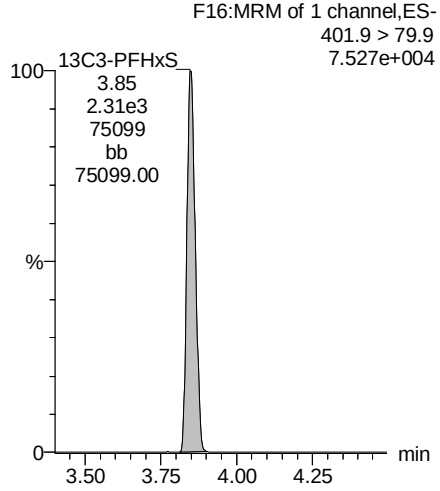
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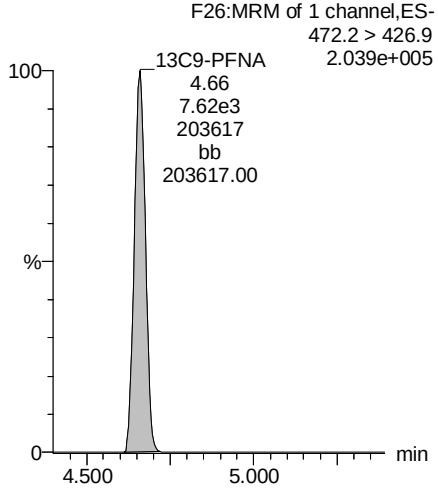
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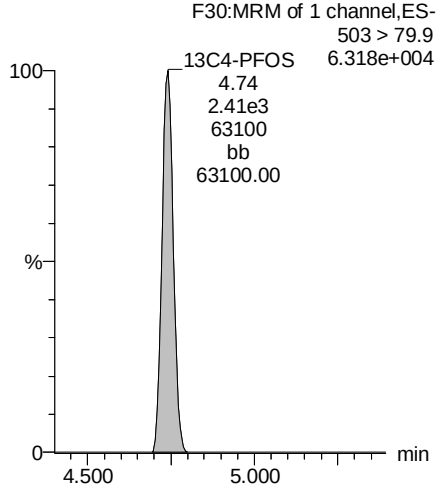
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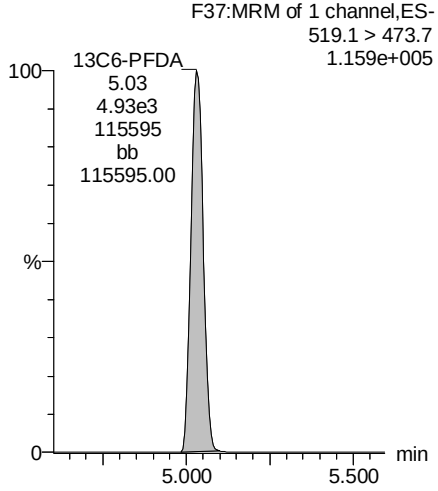
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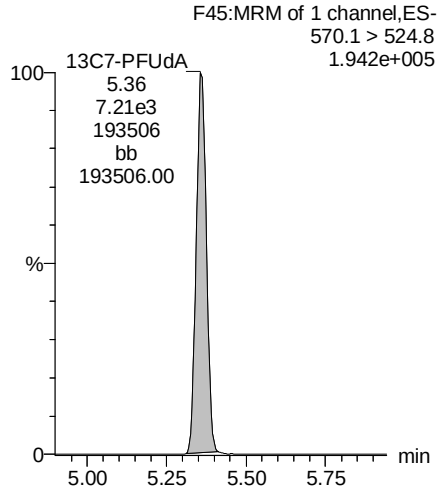
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\180110M3\180110M3_28.qld

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Printed: Thursday, January 11, 2018 15:58:30 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_28, Date: 11-Jan-2018, Time: 14:24:43, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

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1	3	PFBS	299.0 > 79.7		9.30e2	0.260		2.66				
2	4	PFHxA	313.2 > 268.9	4.31e2	2.35e3	0.260		3.15	3.08	0.915	1.8631	
3	5	PFHpA	363.0 > 318.9	3.12e2	5.38e3	0.260		3.78	3.70	0.725	1.9638	
4	6	L-PFHxS	398.9 > 79.6	8.98e1	8.83e2	0.260		3.94	3.85	1.27	2.6863	
5	9	L-PFOA	413 > 368.7	9.38e2	6.69e3	0.260		4.31	4.22	1.75	4.7797	
6	12	PFNA	463.0 > 418.8	1.16e3	7.65e3	0.260		4.81	4.66	1.90	5.1450	
7	14	L-PFOS	499 > 79.9	7.18e1	2.40e3	0.260		4.75	4.74	0.373	1.1183	
8	16	PFDA	513 > 468.8		6.05e3	0.260		5.18				
9	18	N-MeFOSAA	570.1 > 419		2.46e3	0.260		5.32				
10	19	N-EtFOSAA	584.2 > 419		2.68e3	0.260		5.48				
11	20	PFUdA	563.0 > 518.9	8.76e1	7.63e3	0.260		5.50	5.36	0.144	0.6875	
12	22	PFDoA	612.9 > 569.0		3.74e3	0.260		5.77				

See RI

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Rev'd: MM 1/15/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_28.qld

Last Altered: Thursday, January 11, 2018 15:57:53 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:59:06 Pacific Standard Time

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Name: 180110M3_28, Date: 11-Jan-2018, Time: 14:24:43, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.74e3	0.260		6.00				
2	25	PFTeDA	712.9 > 668.8		2.51e3	0.260		6.22				
3	33	13C3-PFBS	302. > 98.8	9.30e2	6.94e3	0.260	0.095	2.77	2.58	1.68	67.5511	140.7
4	34	13C2-PFHxA	315 > 269.8	2.35e3	6.94e3	0.260	0.597	3.15	3.08	4.24	27.3143	142.2
5	35	13C4-PFHpA	367.2 > 321.8	5.38e3	6.94e3	0.260	0.604	3.78	3.70	9.70	61.6684	128.4
6	36	18O2-PFHxS	403.0 > 102.6	8.83e2	2.06e3	0.260	0.293	3.94	3.85	5.35	70.1640	146.1
7	37	13C2-6:2 FTS	429.1 > 408.9	1.68e3	6.48e3	0.260	0.215	4.25	4.16	3.25	57.9669	120.7
8	38	13C2-PFOA	414.9 > 369.7	6.69e3	6.48e3	0.260	0.916	4.31	4.22	12.9	54.1014	112.7
9	39	13C5-PFNA	468.2 > 422.9	7.65e3	7.49e3	0.260	0.817	4.81	4.66	12.8	59.9693	124.9
10	40	13C8-PFOSA	506.1 > 77.7	1.39e3	6.20e3	0.260	0.223	4.87	4.72	2.79	48.1562	100.3
11	41	13C8-PFOS	507.0 > 79.9	2.40e3	1.88e3	0.260	0.875	4.89	4.74	16.0	70.1588	146.1
12	42	13C2-PFDA	515.1 > 469.9	6.05e3	5.05e3	0.260	1.105	5.18	5.04	15.0	52.0957	108.5
13	43	13C2-8:2 FTS	529.1 > 508.7	9.50e2	6.94e3	0.260	0.101	5.15	5.00	1.71	65.2236	135.8
14	44	d3-N-MeFOSAA	573.3 > 419	2.46e3	6.20e3	0.260	0.345	5.32	5.18	4.97	55.3028	115.2
15	45	d5-N-EtFOSAA	589.3 > 419	2.68e3	6.20e3	0.260	0.390	5.47	5.34	5.40	53.1615	110.7
16	46	13C2-PFUdA	565 > 519.8	7.63e3	6.20e3	0.260	0.958	5.49	5.36	15.4	61.6926	128.5
17	47	13C2-PFDoA	615.0 > 569.7	3.74e3	6.20e3	0.260	0.599	5.77	5.64	7.54	48.3194	100.6
18	49	13C2-PFTeDA	714.8 > 669.6	2.51e3	6.20e3	0.260	0.282	6.22	6.11	5.07	69.1063	143.9
19	55	13C5-PFHxA	318 > 272.9	6.94e3	6.94e3	0.260	1.000	3.15	3.08	12.5	48.0215	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.06e3	2.06e3	0.260	1.000	4.02	3.85	12.5	48.0215	100.0
21	57	13C8-PFOA	421.3 > 376	6.48e3	6.48e3	0.260	1.000	4.38	4.22	12.5	48.0215	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.49e3	7.49e3	0.260	1.000	4.81	4.66	12.5	48.0215	100.0
23	59	13C4-PFOS	503 > 79.9	1.88e3	1.88e3	0.260	1.000	4.89	4.74	12.5	48.0215	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.05e3	5.05e3	0.260	1.000	5.18	5.04	12.5	48.0215	100.0
25	61	13C7-PFUdA	570.1 > 524.8	6.20e3	6.20e3	0.260	1.000	5.49	5.36	12.5	48.0215	100.0
26	62	Total PFHxS	398.9 > 79.6	8.98e1	8.83e2	0.260		4.14		1.27	2.6863	
27	63	Total PFOA	413 > 368.7	9.38e2	6.69e3	0.260		4.51		1.75	4.7797	
28	64	Total PFOS	499 > 79.9	7.18e1	2.40e3	0.260		4.75		0.373	1.1183	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.46e3	0.260		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.68e3	0.260		5.61		0.000		

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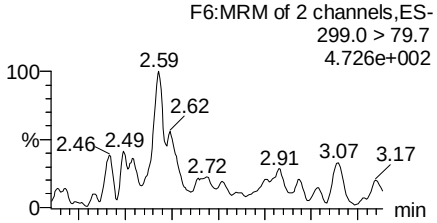
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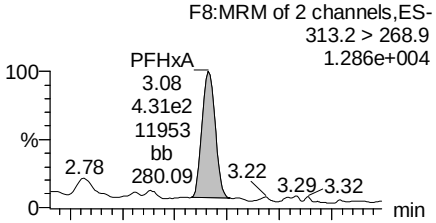
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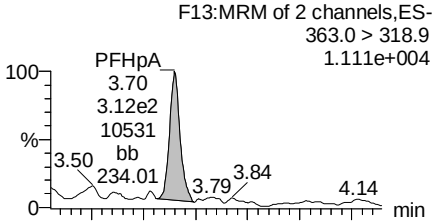
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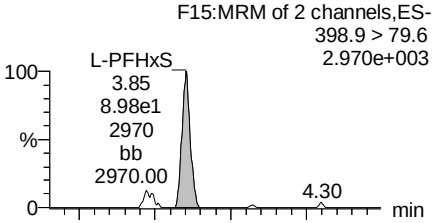
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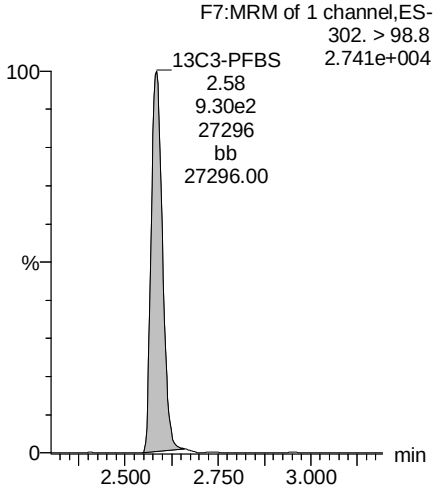
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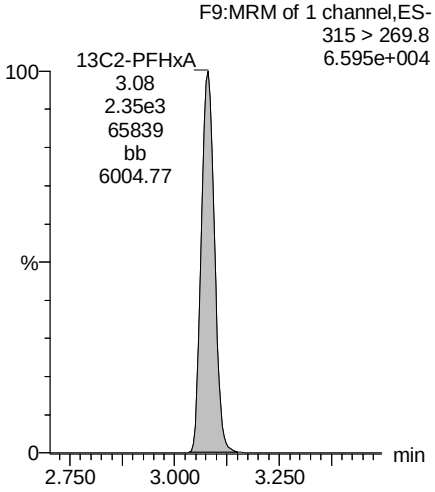
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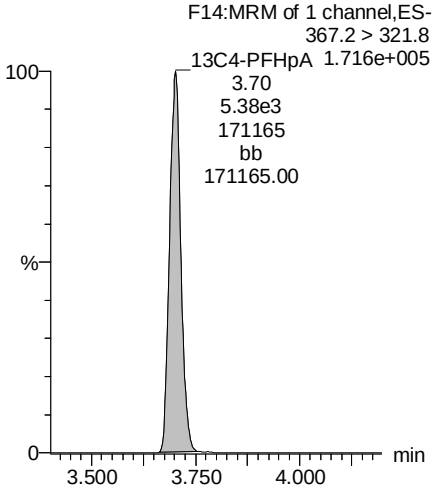
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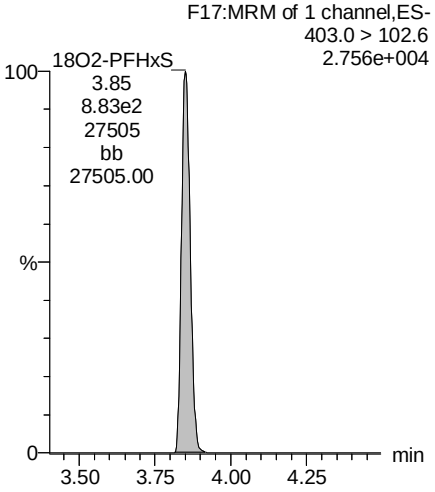
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18O2-PFHxS



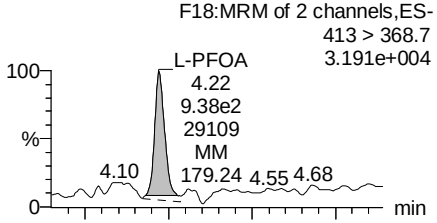
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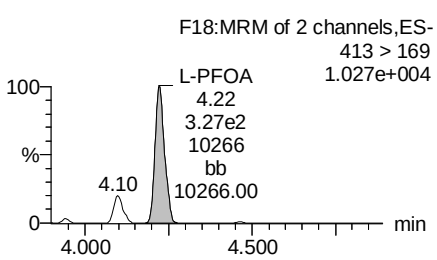
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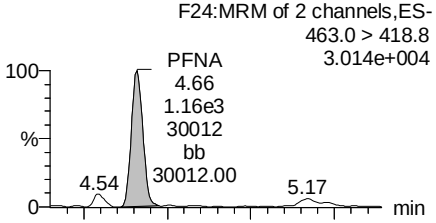
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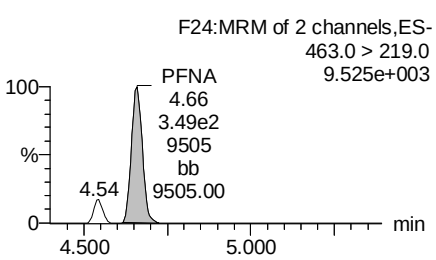
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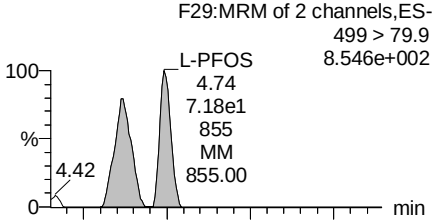


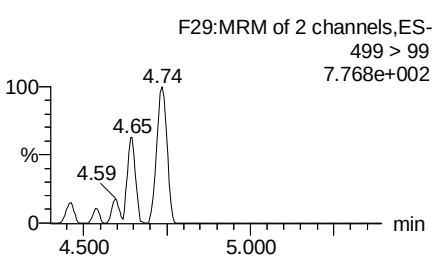
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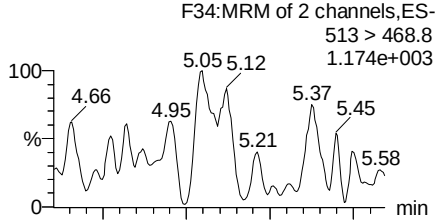


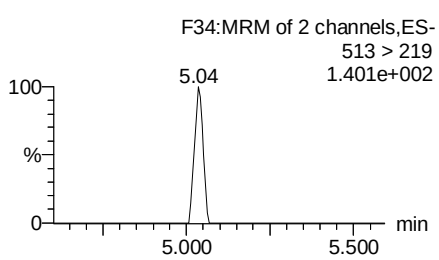
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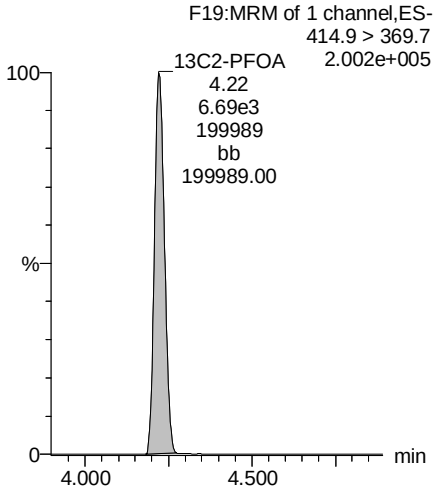


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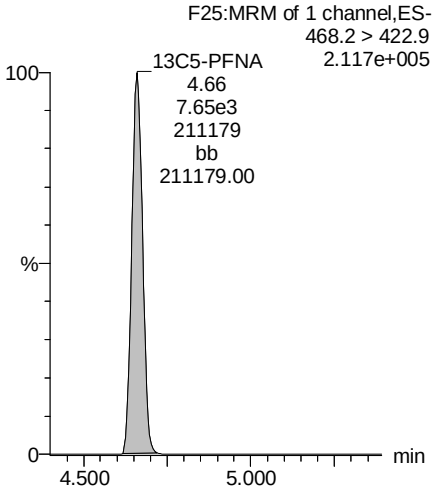




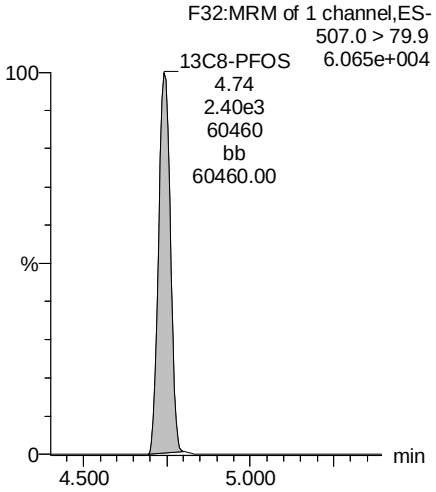
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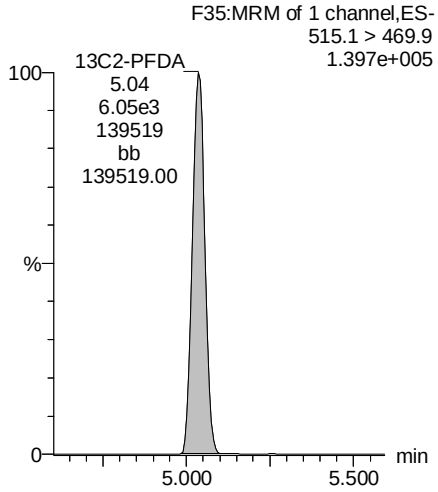
13C5-PFNA



13C8-PFOS



13C2-PFDA



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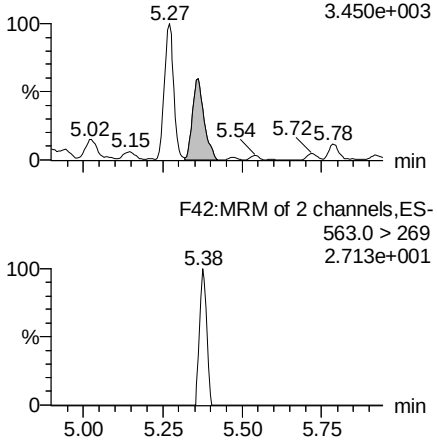
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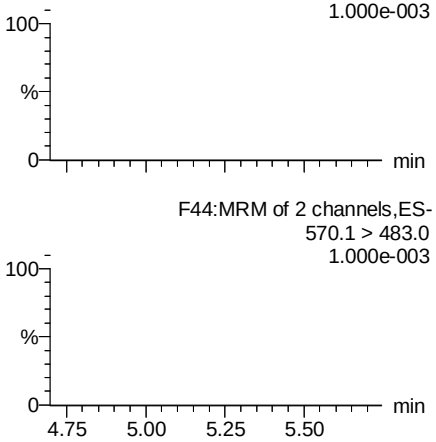
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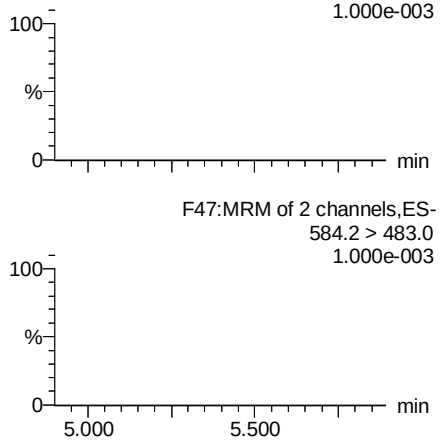
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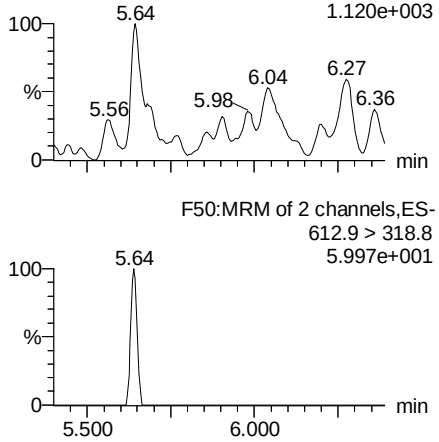
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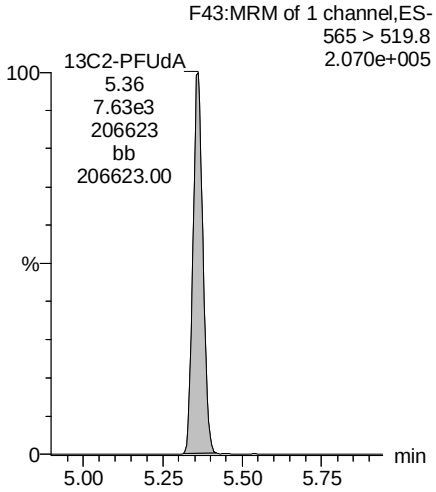
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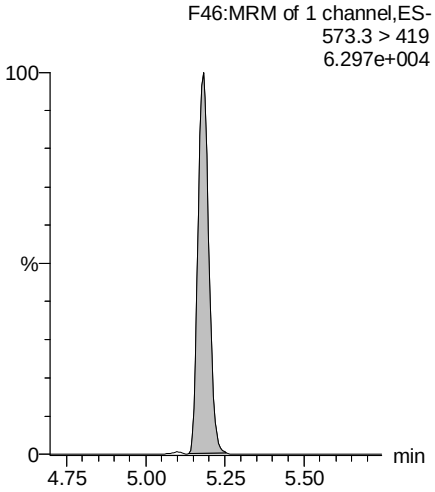
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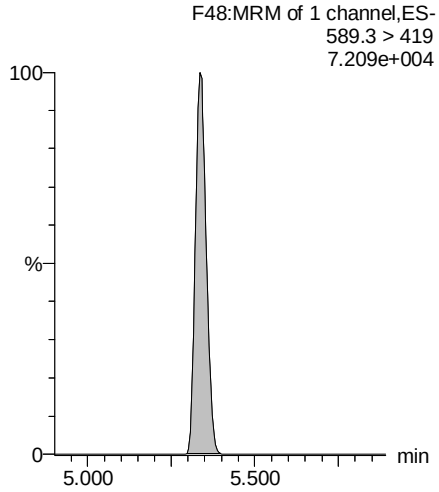
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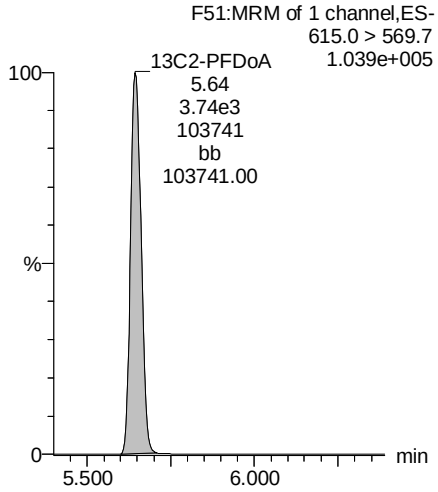
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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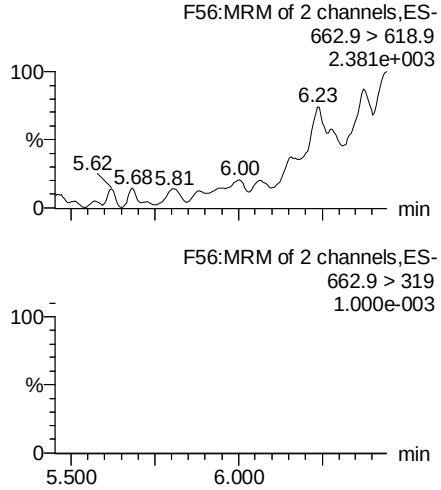
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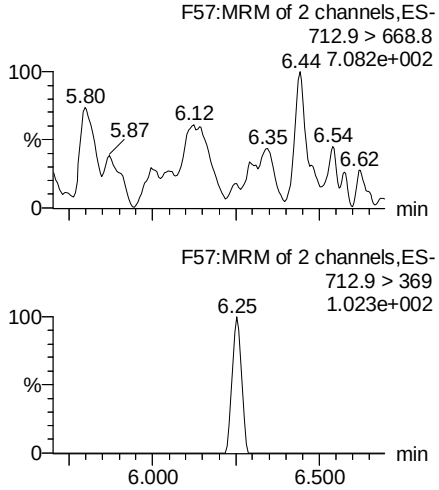
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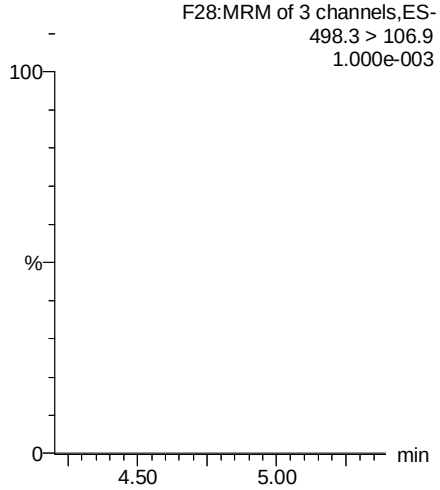
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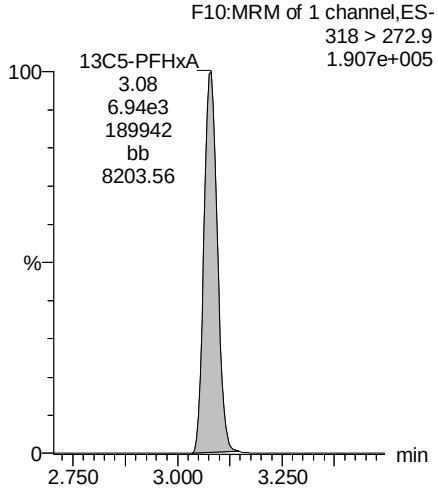
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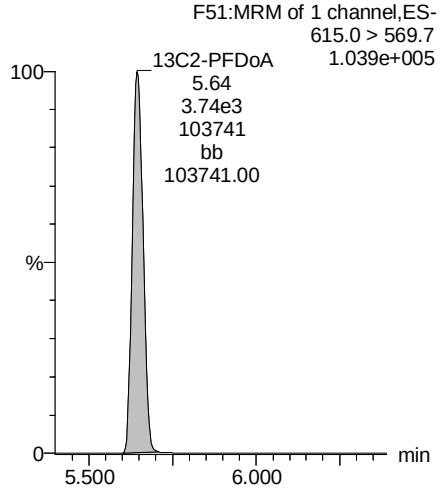
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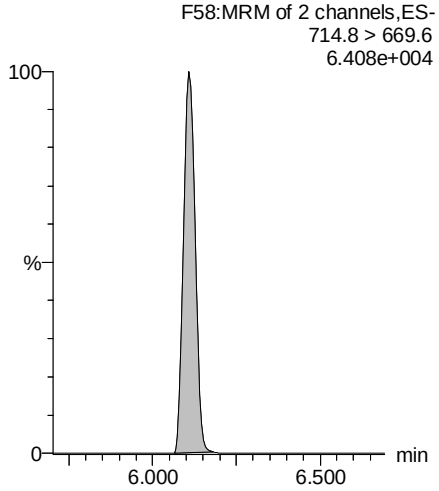
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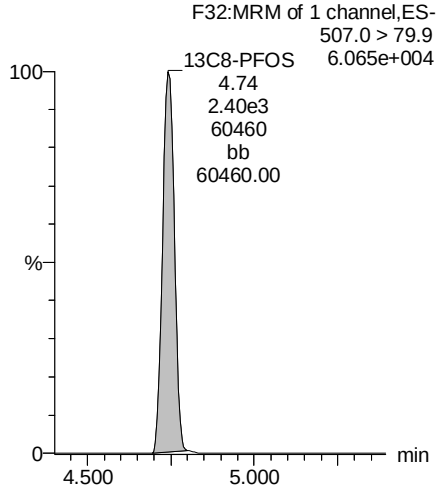
13C2-PFDoA



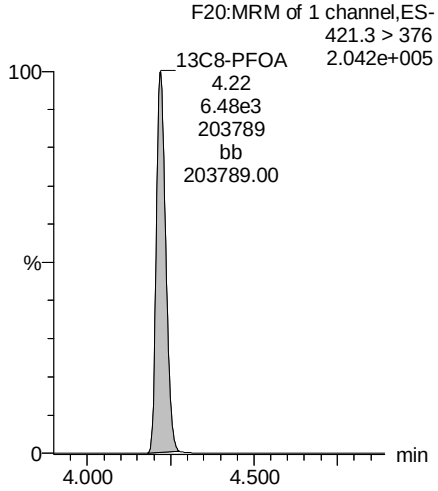
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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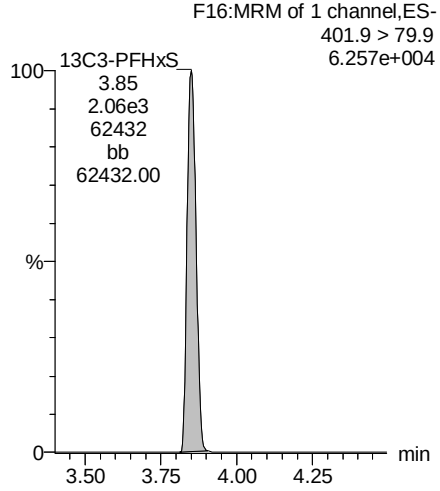
Rev'd: MM 1/15/18

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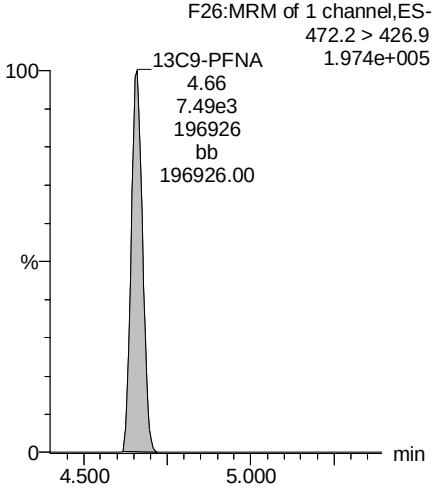
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Name: 180110M3_28, Date: 11-Jan-2018, Time: 14:24:43, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

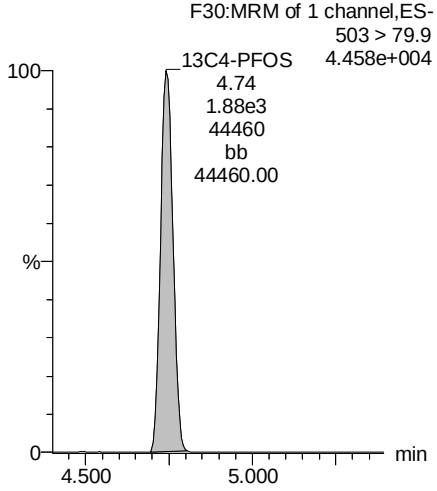
13C3-PFHxS



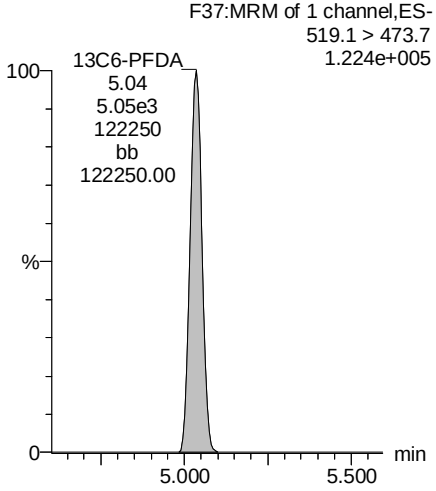
13C9-PFNA



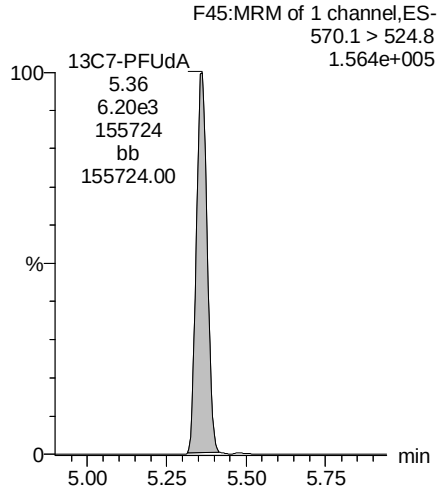
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M2\180112M2-3.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_3, Date: 12-Jan-2018, Time: 11:11:50, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.38e3	0.260		2.66				
2	4	PFHxA	313.2 > 268.9	6.51e2	3.42e3	0.260		3.15	3.07	0.950	1.9321	
3	5	PFHpA	363.0 > 318.9	4.13e2	8.43e3	0.260		3.78	3.70	0.612	1.7021	
4	6	L-PFHxS	398.9 > 79.6	1.55e2	1.21e3	0.260		3.94	3.84	1.59	3.2667	
5	9	L-PFOA	413 > 368.7	1.51e3	1.24e4	0.260		4.31	4.21	1.52	4.0722	
6	12	PFNA	463.0 > 418.8	1.60e3	9.91e3	0.260		4.81	4.65	2.02	5.4718	
7	14	L-PFOS	499 > 79.9	4.06e1	2.89e3	0.260		4.75	4.74	0.176	0.4727	
8	16	PFDA	513 > 468.8	1.24e2	7.25e3	0.260		5.18	5.02	0.214	1.0765	
9	18	N-MeFOSAA	570.1 > 419		4.03e3	0.260		5.32				
10	19	N-EtFOSAA	584.2 > 419		4.25e3	0.260		5.48				
11	20	PFUdA	563.0 > 518.9	1.65e2	1.13e4	0.260		5.50	5.35	0.183	0.8010	
12	22	PFDoA	612.9 > 569.0		7.24e3	0.260		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M2\180112M2-3.qld

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Name: 180112M2_3, Date: 12-Jan-2018, Time: 11:11:50, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		7.24e3	0.260		6.00				
2	25	PFTeDA	712.9 > 668.8		3.91e3	0.260		6.22				
3	33	13C3-PFBS	302. > 98.8	1.38e3	1.06e4	0.260	0.095	2.77	2.58	1.62	65.2850	135.9
4	34	13C2-PFHxA	315 > 269.8	3.42e3	1.06e4	0.260	0.597	3.15	3.08	4.03	25.9719	135.2
5	35	13C4-PFHpA	367.2 > 321.8	8.43e3	1.06e4	0.260	0.604	3.78	3.69	9.93	63.1444	131.5
6	36	18O2-PFHxS	403.0 > 102.6	1.21e3	3.10e3	0.260	0.293	3.94	3.84	4.89	64.1035	133.5
7	37	13C2-6:2 FTS	429.1 > 408.9	2.95e3	1.01e4	0.260	0.215	4.25	4.16	3.65	65.1792	135.7
8	38	13C2-PFOA	414.9 > 369.7	1.24e4	1.01e4	0.260	0.916	4.31	4.22	15.3	64.3905	134.1
9	39	13C5-PFNA	468.2 > 422.9	9.91e3	1.11e4	0.260	0.817	4.81	4.65	11.2	52.6700	109.7
10	40	13C8-PFOSA	506.1 > 77.7	2.48e3	1.17e4	0.260	0.223	4.87	4.71	2.64	45.4412	94.6
11	41	13C8-PFOS	507.0 > 79.9	2.89e3	2.80e3	0.260	0.875	4.89	4.73	12.9	56.5937	117.9
12	42	13C2-PFDA	515.1 > 469.9	7.25e3	6.89e3	0.260	1.105	5.18	5.02	13.1	45.6927	95.2
13	43	13C2-8:2 FTS	529.1 > 508.7	1.49e3	1.06e4	0.260	0.101	5.15	5.00	1.76	67.0338	139.6
14	44	d3-N-MeFOSAA	573.3 > 419	4.03e3	1.17e4	0.260	0.345	5.32	5.17	4.29	47.7324	99.4
15	45	d5-N-EtFOSAA	589.3 > 419	4.25e3	1.17e4	0.260	0.390	5.47	5.33	4.52	44.4931	92.7
16	46	13C2-PFUdA	565 > 519.8	1.13e4	1.17e4	0.260	0.958	5.49	5.35	12.0	48.2671	100.5
17	47	13C2-PFDoA	615.0 > 569.7	7.24e3	1.17e4	0.260	0.599	5.77	5.64	7.70	49.3687	102.8
18	49	13C2-PFTeDA	714.8 > 669.6	3.91e3	1.17e4	0.260	0.282	6.22	6.10	4.16	56.6770	118.0
19	55	13C5-PFHxA	318 > 272.9	1.06e4	1.06e4	0.260	1.000	3.15	3.08	12.5	48.0215	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.10e3	3.10e3	0.260	1.000	4.02	3.84	12.5	48.0215	100.0
21	57	13C8-PFOA	421.3 > 376	1.01e4	1.01e4	0.260	1.000	4.38	4.22	12.5	48.0215	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.11e4	1.11e4	0.260	1.000	4.81	4.65	12.5	48.0215	100.0
23	59	13C4-PFOS	503 > 79.9	2.80e3	2.80e3	0.260	1.000	4.89	4.73	12.5	48.0215	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.89e3	6.89e3	0.260	1.000	5.18	5.02	12.5	48.0215	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.17e4	1.17e4	0.260	1.000	5.49	5.35	12.5	48.0215	100.0
26	62	Total PFHxS	398.9 > 79.6	1.55e2	1.21e3	0.260		4.14		1.59	3.2667	
27	63	Total PFOA	413 > 368.7	1.51e3	1.24e4	0.260		4.51		1.52	4.0722	
28	64	Total PFOS	499 > 79.9	4.06e1	2.89e3	0.260		4.75		0.176	0.4727	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.03e3	0.260		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.25e3	0.260		5.61		0.000		

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Rev'd: MM 1/12/18

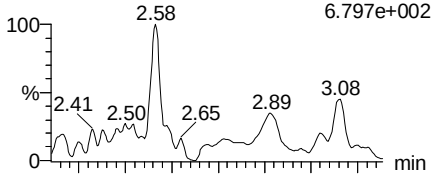
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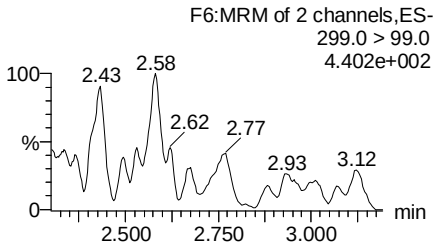
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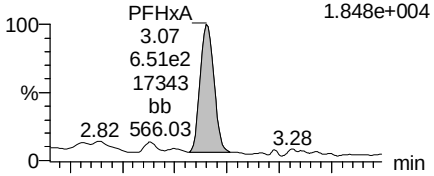
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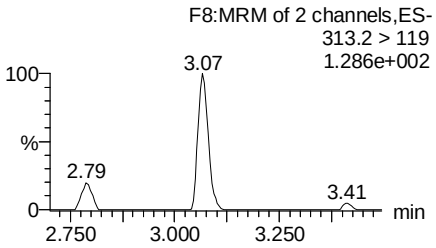
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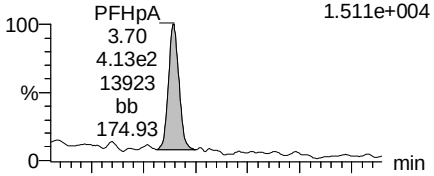


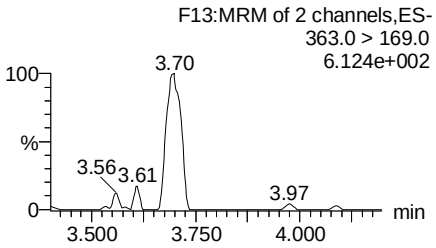
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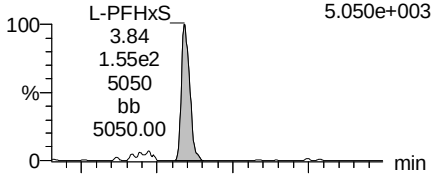


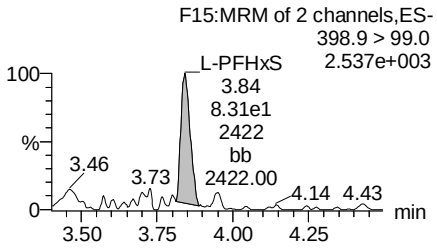
PFHpA



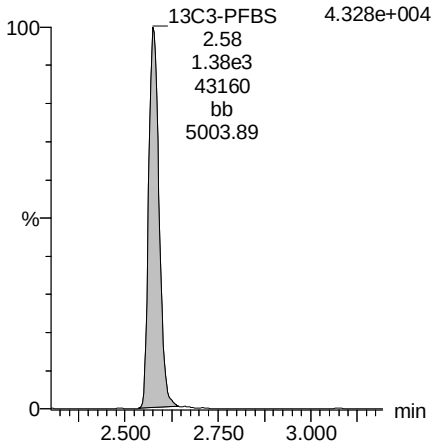


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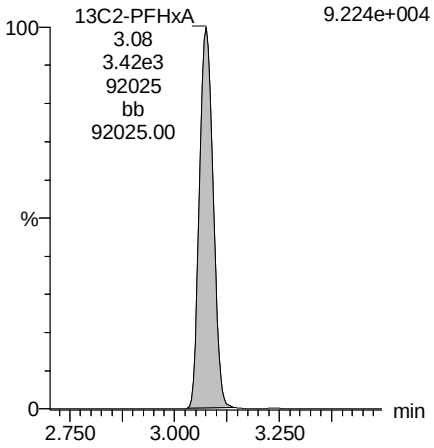




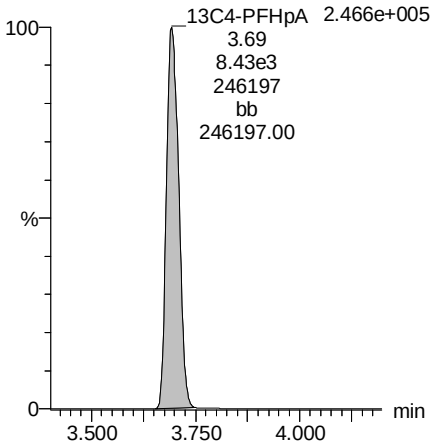
13C3-PFBS



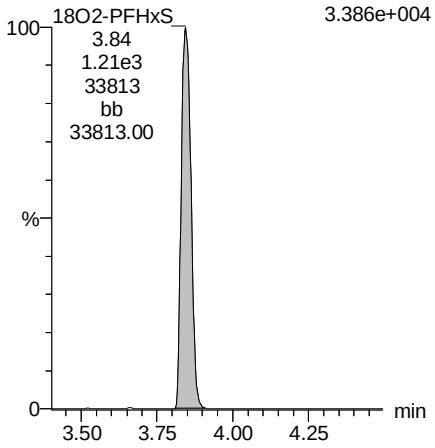
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



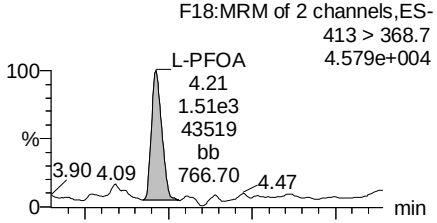
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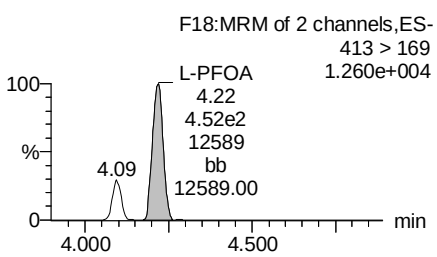
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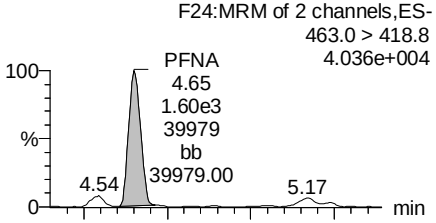
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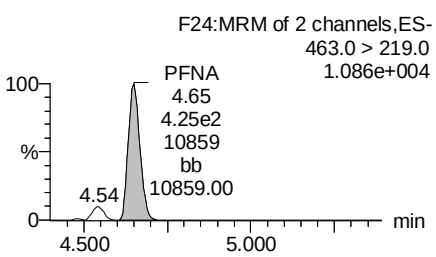
Total PFOA



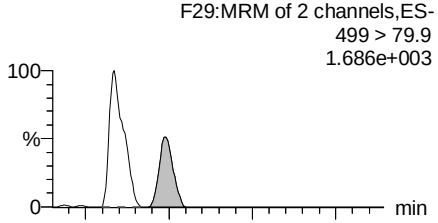


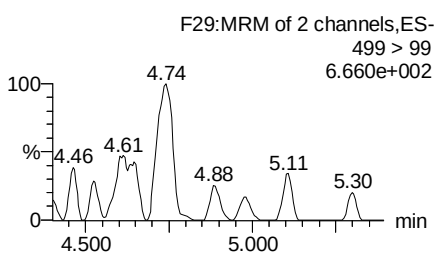
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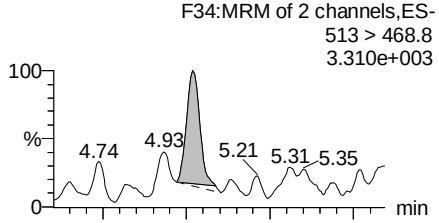


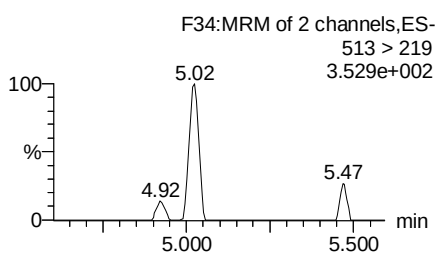
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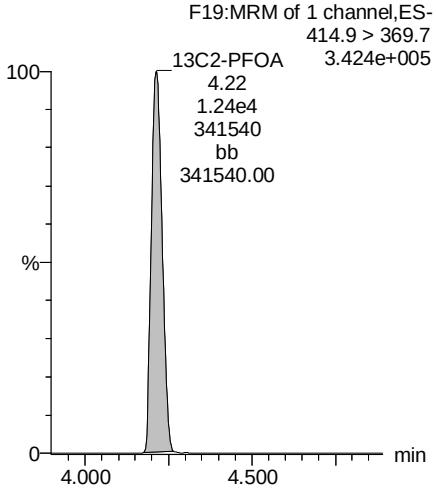


PFDA

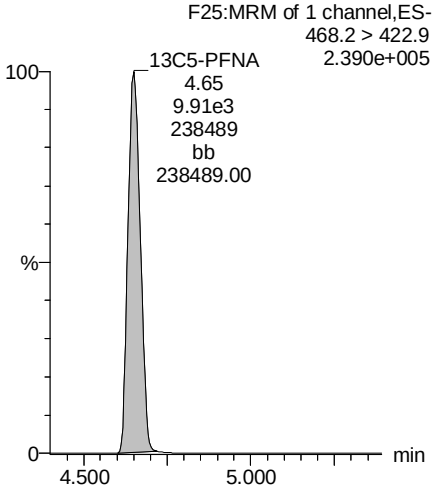




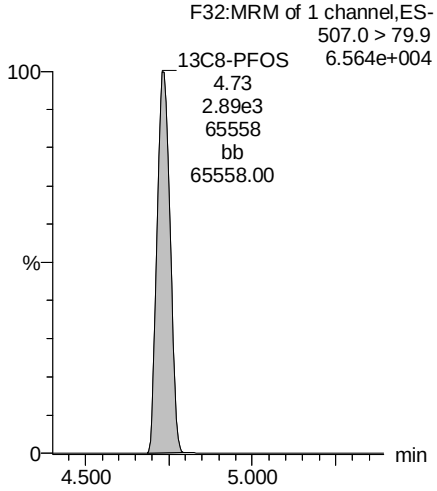
13C2-PFOA



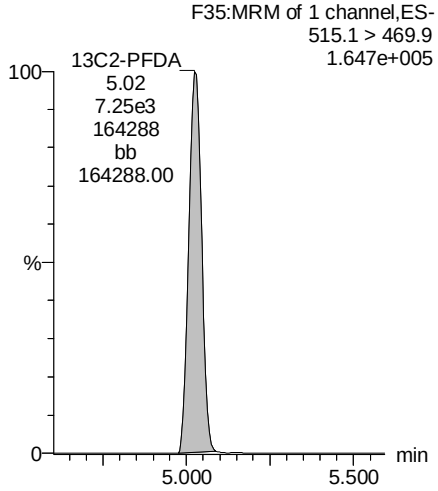
13C5-PFNA



13C8-PFOS



13C2-PFDA



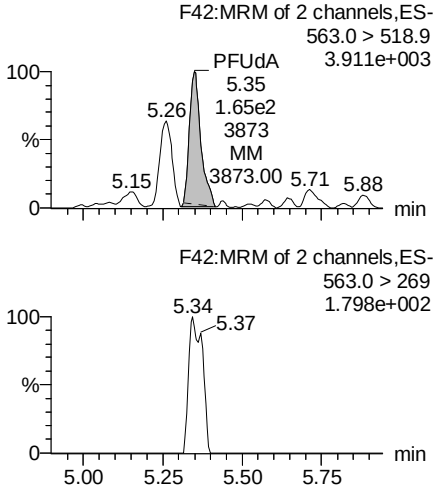
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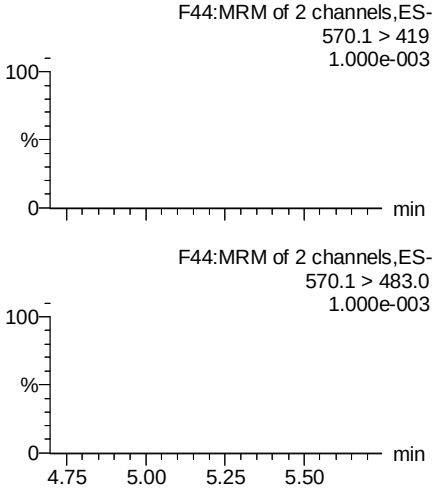
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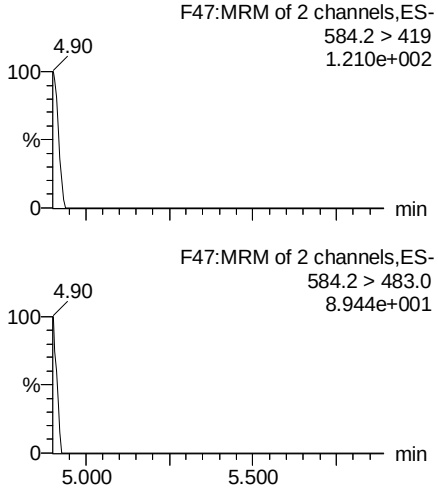
PFUdA



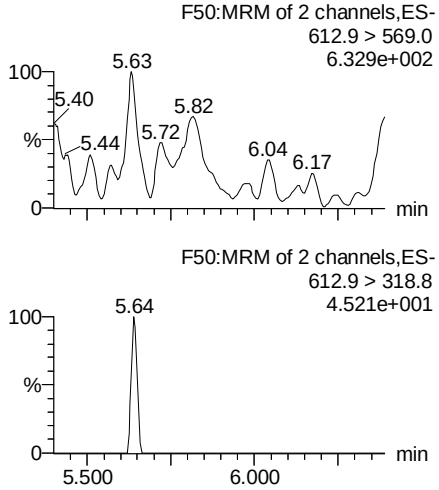
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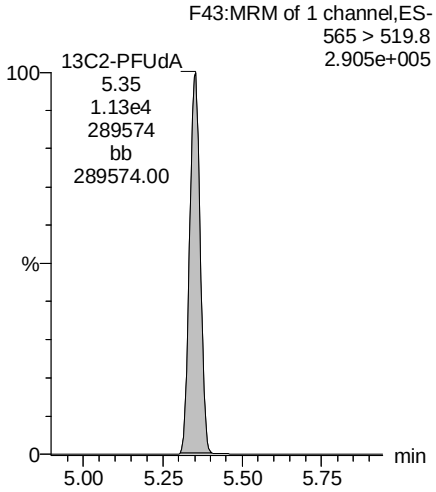
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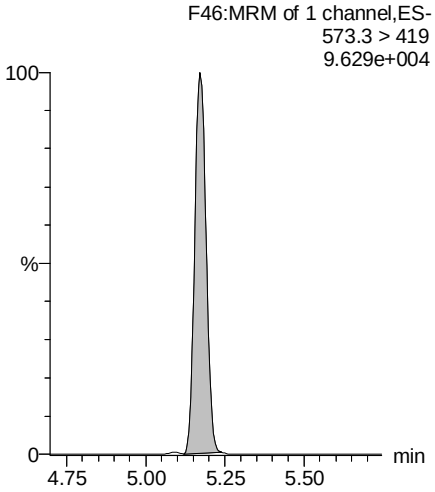
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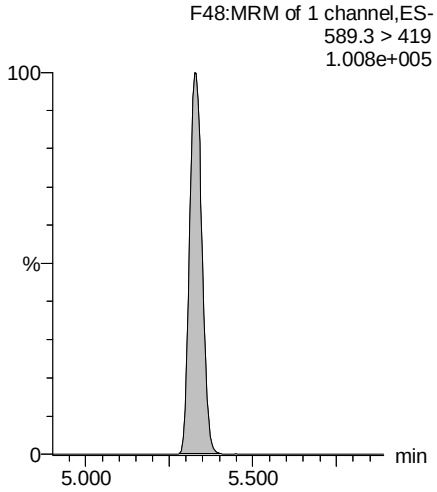
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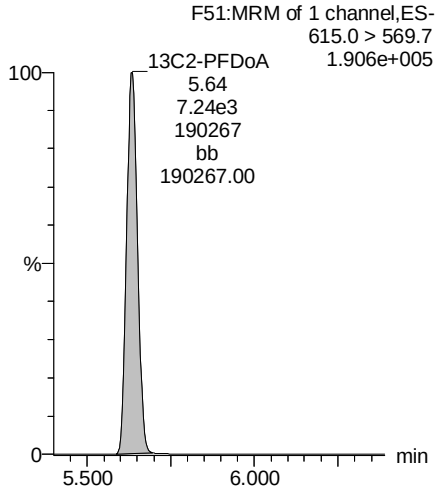
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d5-N-EtFOSAA



13C2-PFDoA



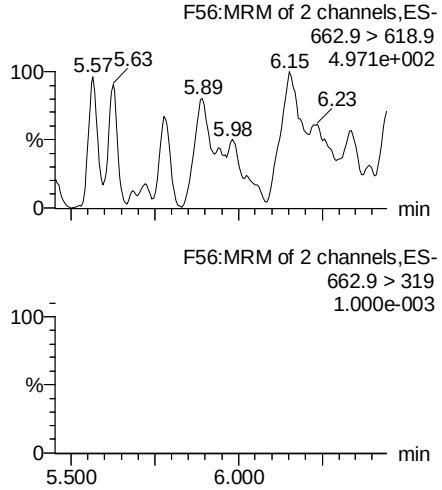
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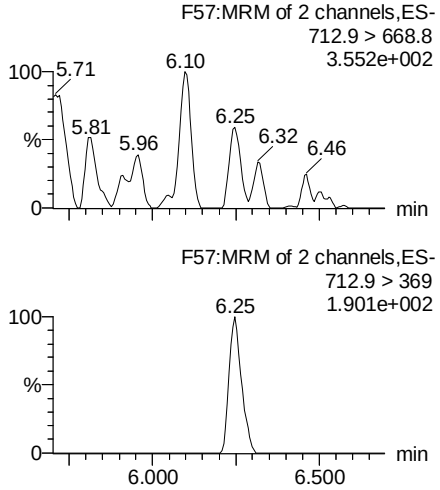
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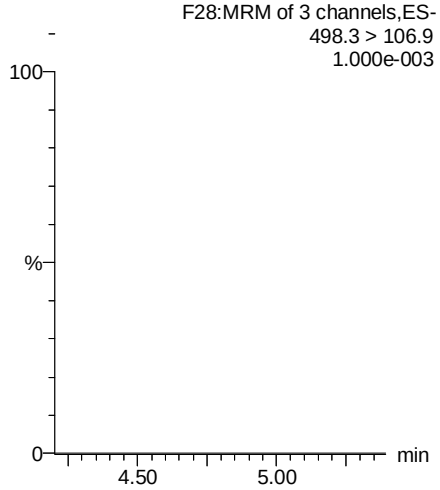
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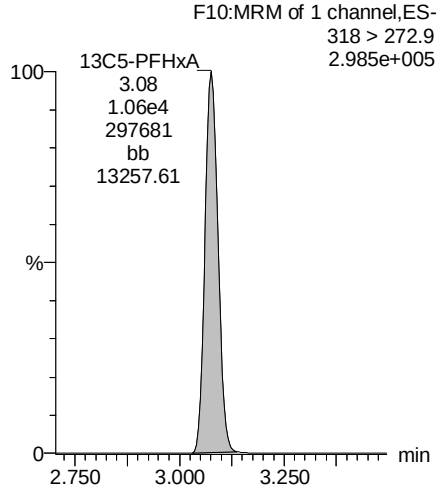
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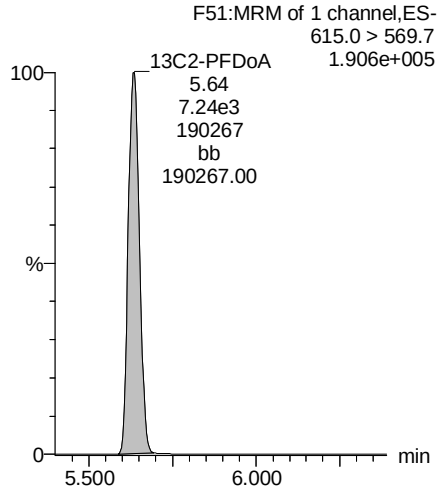
TCDA



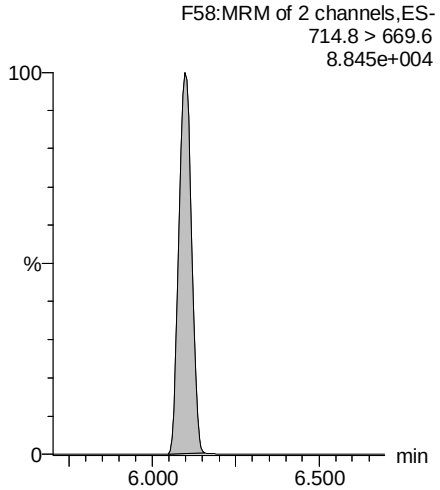
13C5-PFHxA



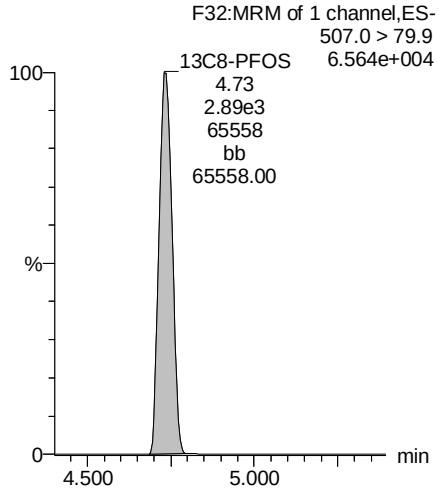
13C2-PFDoA



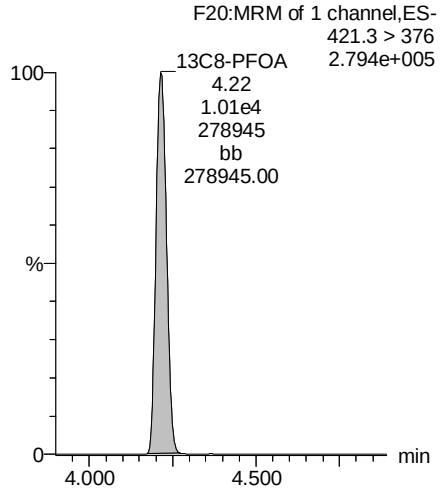
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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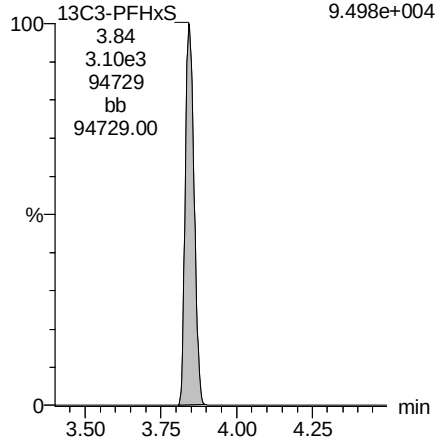
Rev'd: MM 1/12/18

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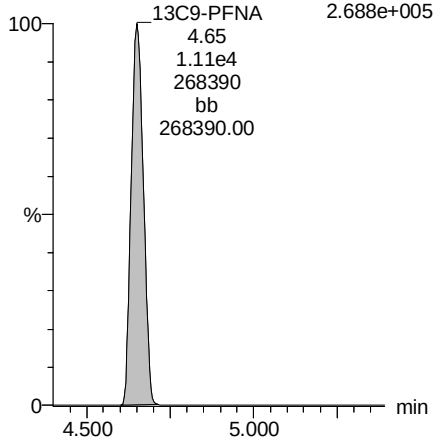
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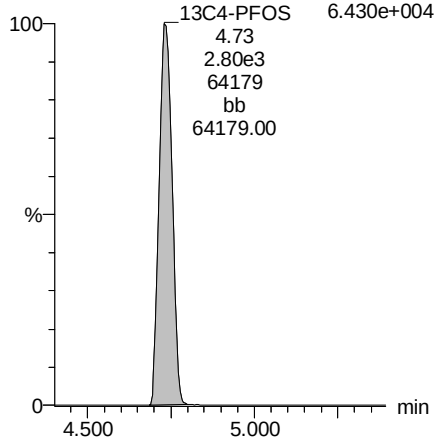
13C3-PFHxS



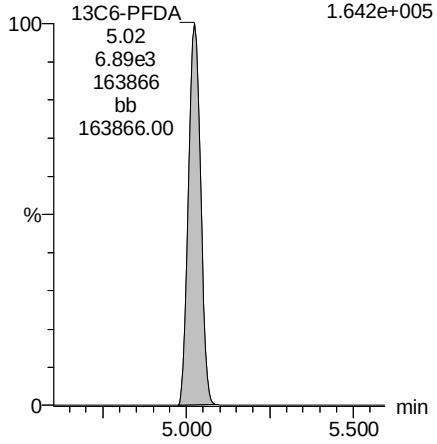
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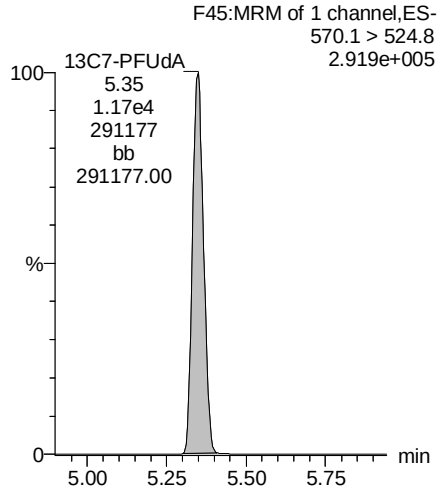
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/15/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_29.qld

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Printed: Thursday, January 11, 2018 16:03:55 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_29, Date: 11-Jan-2018, Time: 14:35:52, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	3	PFBS	299.0 > 79.7		1.10e3	0.258		2.66					
2	4	PFHxA	313.2 > 268.9	1.93e3	2.60e3	0.258		3.15	3.08	3.72	7.4826		
3	5	PFHpA	363.0 > 318.9	1.62e3	6.39e3	0.258		3.78	3.70	3.17	7.6963		
4	6	L-PFHxS	398.9 > 79.6	2.50e2	8.74e2	0.258		3.94	3.85	3.58	6.9231		
5	9	L-PFOA	413 > 368.7	1.93e3	8.12e3	0.258		4.31	4.22	2.97	8.5430		
6	12	PFNA	463.0 > 418.8	4.03e4	7.12e3	0.258		4.81	4.66	70.7	189.5749		
7	14	L-PFOS	499 > 79.9	1.90e3	2.63e3	0.258		4.75	4.74	9.03	29.6369		
8	16	PFDA	513 > 468.8	9.28e2	5.82e3	0.258		5.18	5.04	1.99	5.3546		
9	18	N-MeFOSAA	570.1 > 419		2.45e3	0.258		5.32					See RI
10	19	N-EtFOSAA	584.2 > 419		2.79e3	0.258		5.48					
11	20	PFUdA	563.0 > 518.9	5.89e3	7.24e3	0.258		5.50	5.36	10.2	29.9023		
12	22	PFDoA	612.9 > 569.0		4.32e3	0.258		5.77					

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Rev'd: MM 1/15/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_29.qld

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Name: 180110M3_29, Date: 11-Jan-2018, Time: 14:35:52, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		4.32e3	0.258		6.00				
2	25	PFTeDA	712.9 > 668.8		2.46e3	0.258		6.22				
3	33	13C3-PFBS	302. > 98.8	1.10e3	8.33e3	0.258	0.095	2.77	2.59	1.65	66.8749	138.2
4	34	13C2-PFHxA	315 > 269.8	2.60e3	8.33e3	0.258	0.597	3.15	3.08	3.90	25.2692	130.6
5	35	13C4-PFHpA	367.2 > 321.8	6.39e3	8.33e3	0.258	0.604	3.78	3.70	9.58	61.3558	126.8
6	36	18O2-PFHxS	403.0 > 102.6	8.74e2	2.41e3	0.258	0.293	3.94	3.85	4.54	59.8959	123.8
7	37	13C2-6:2 FTS	429.1 > 408.9	2.02e3	7.88e3	0.258	0.215	4.25	4.17	3.20	57.6063	119.1
8	38	13C2-PFOA	414.9 > 369.7	8.12e3	7.88e3	0.258	0.916	4.31	4.22	12.9	54.4109	112.5
9	39	13C5-PFNA	468.2 > 422.9	7.12e3	7.81e3	0.258	0.817	4.81	4.66	11.4	53.9470	111.5
10	40	13C8-PFOSA	506.1 > 77.7	1.81e3	7.47e3	0.258	0.223	4.87	4.72	3.02	52.4078	108.3
11	41	13C8-PFOS	507.0 > 79.9	2.63e3	2.26e3	0.258	0.875	4.89	4.74	14.6	64.4311	133.2
12	42	13C2-PFDA	515.1 > 469.9	5.82e3	4.70e3	0.258	1.105	5.18	5.04	15.5	54.2329	112.1
13	43	13C2-8:2 FTS	529.1 > 508.7	9.22e2	8.33e3	0.258	0.101	5.15	5.00	1.38	53.0575	109.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.45e3	7.47e3	0.258	0.345	5.32	5.18	4.10	45.9718	95.0
15	45	d5-N-EtFOSAA	589.3 > 419	2.79e3	7.47e3	0.258	0.390	5.47	5.34	4.66	46.1850	95.5
16	46	13C2-PFUdA	565 > 519.8	7.24e3	7.47e3	0.258	0.958	5.49	5.36	12.1	48.8998	101.1
17	47	13C2-PFDoA	615.0 > 569.7	4.32e3	7.47e3	0.258	0.599	5.77	5.64	7.23	46.6714	96.5
18	49	13C2-PFTeDA	714.8 > 669.6	2.46e3	7.47e3	0.258	0.282	6.22	6.11	4.11	56.4832	116.8
19	55	13C5-PFHxA	318 > 272.9	8.33e3	8.33e3	0.258	1.000	3.15	3.08	12.5	48.3746	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.41e3	2.41e3	0.258	1.000	4.02	3.85	12.5	48.3746	100.0
21	57	13C8-PFOA	421.3 > 376	7.88e3	7.88e3	0.258	1.000	4.38	4.22	12.5	48.3746	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.81e3	7.81e3	0.258	1.000	4.81	4.66	12.5	48.3746	100.0
23	59	13C4-PFOS	503 > 79.9	2.26e3	2.26e3	0.258	1.000	4.89	4.75	12.5	48.3746	100.0
24	60	13C6-PFDA	519.1 > 473.7	4.70e3	4.70e3	0.258	1.000	5.18	5.04	12.5	48.3746	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.47e3	7.47e3	0.258	1.000	5.49	5.36	12.5	48.3746	100.0
26	62	Total PFHxS	398.9 > 79.6	2.50e2	8.74e2	0.258		4.14		3.58	6.9231	
27	63	Total PFOA	413 > 368.7	1.93e3	8.12e3	0.258		4.51		2.97	8.5430	
28	64	Total PFOS	499 > 79.9	1.90e3	2.63e3	0.258		4.75		9.03	29.6369	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.45e3	0.258		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.79e3	0.258		5.61		0.000		

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Rev'd: MM 1/15/18

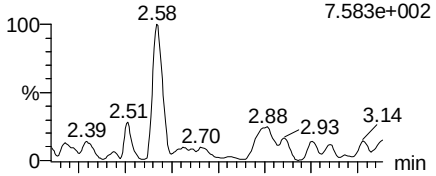
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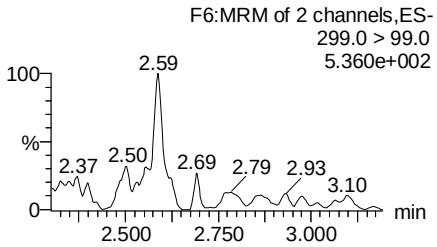
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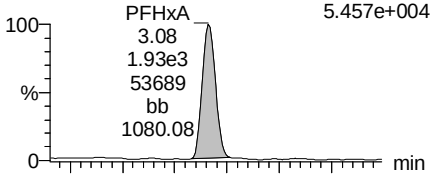
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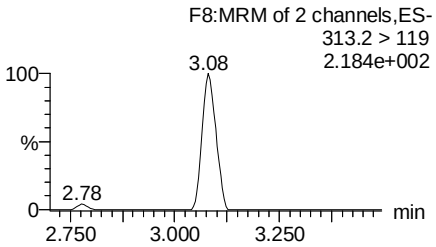
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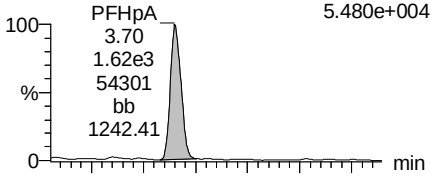


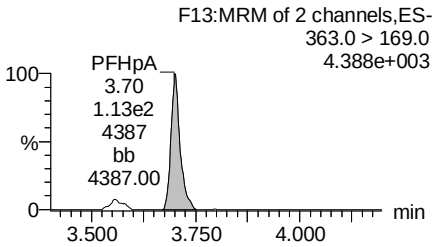
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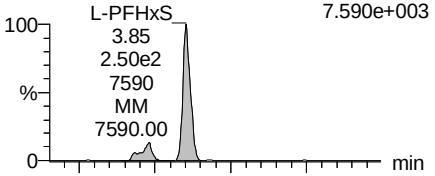


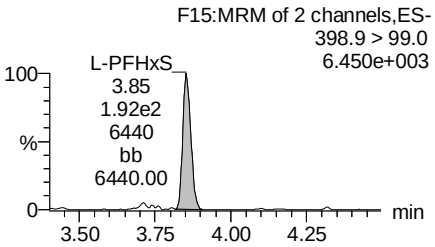
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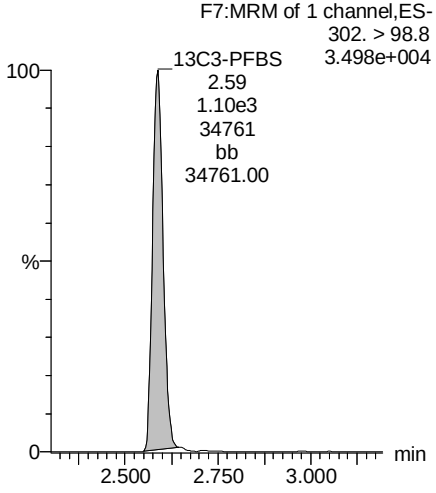


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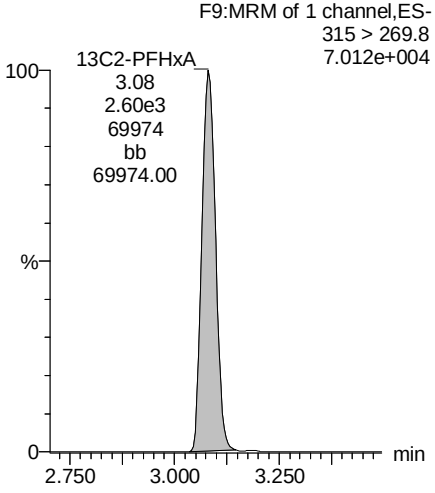




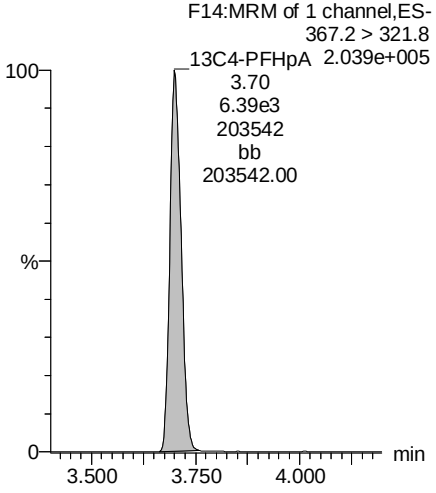
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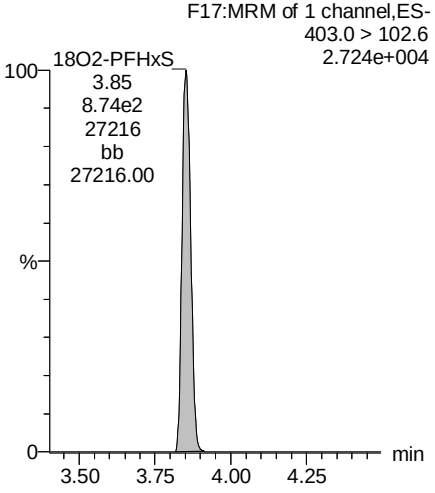
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



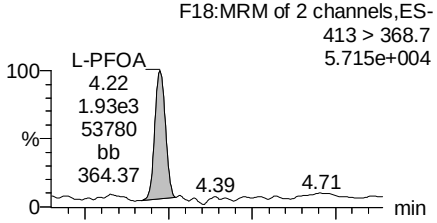
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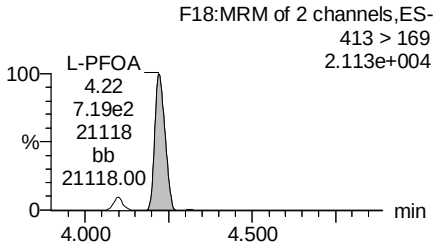
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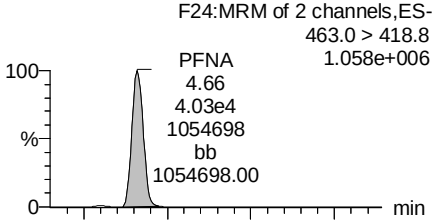
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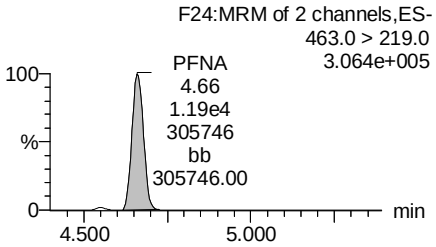
Total PFOA



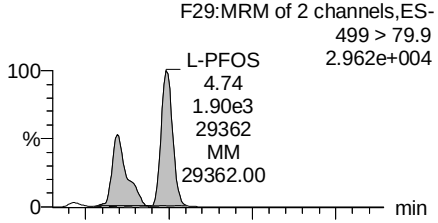


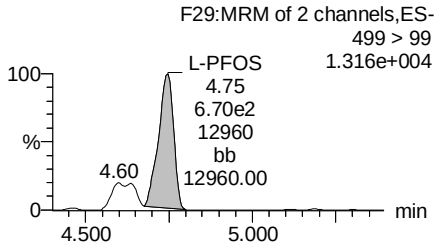
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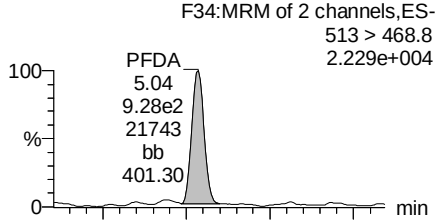


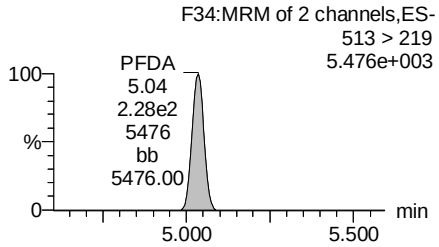
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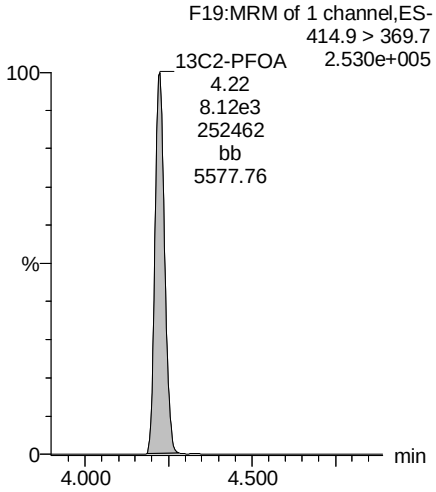


PFDA

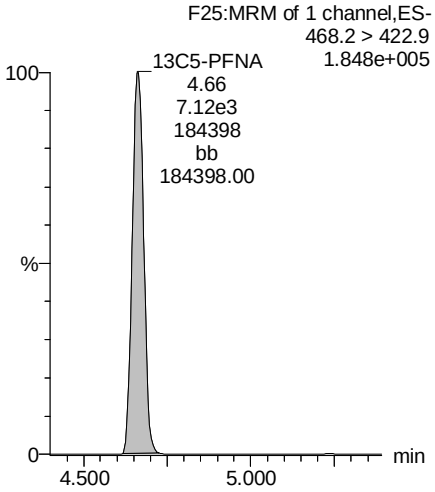




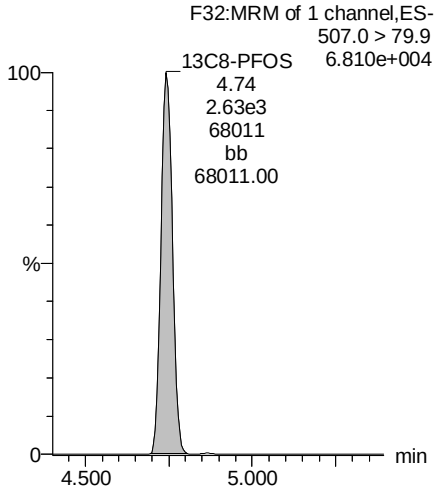
13C2-PFOA



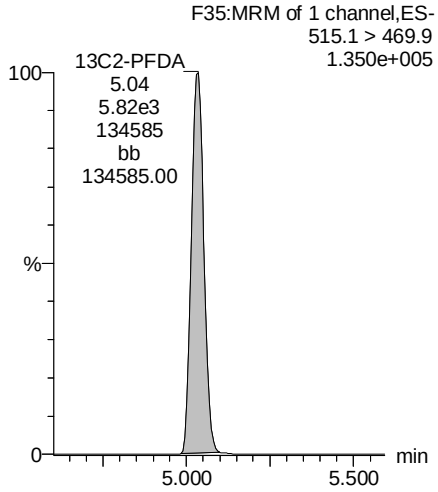
13C5-PFNA



13C8-PFOS



13C2-PFDA



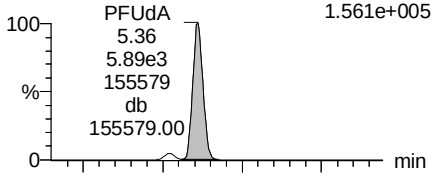
AC 1/11/2018

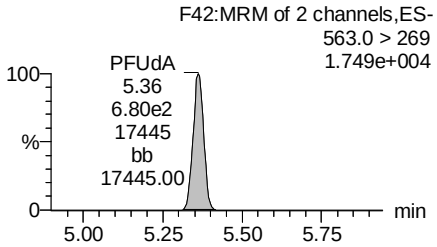
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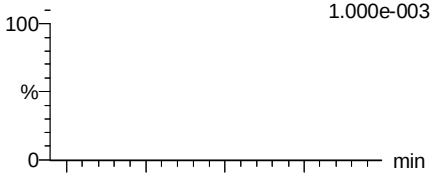
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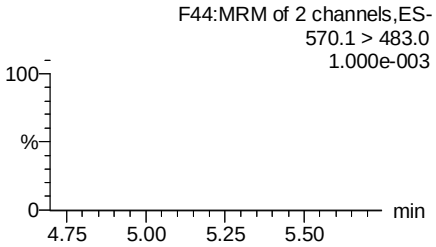
PFUdA



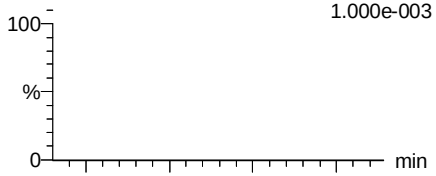


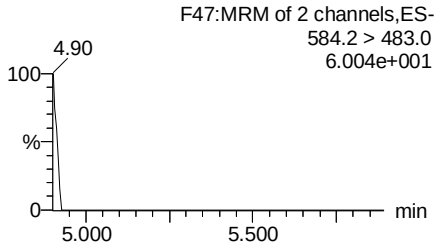
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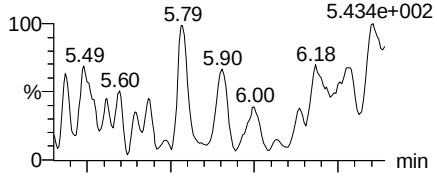


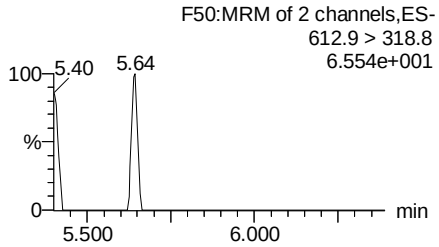
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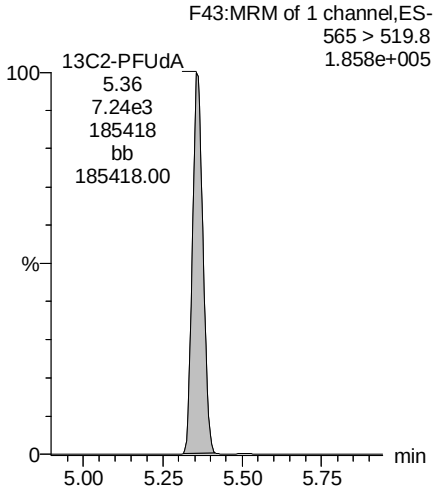


PFDoA

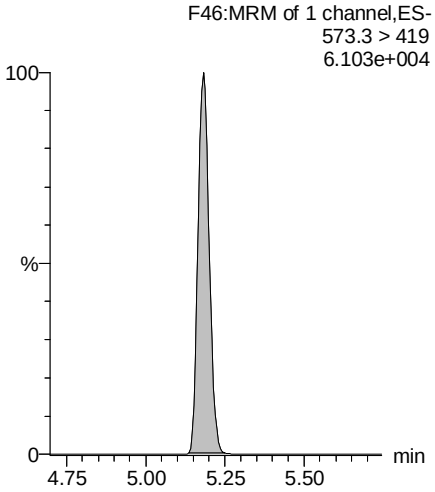




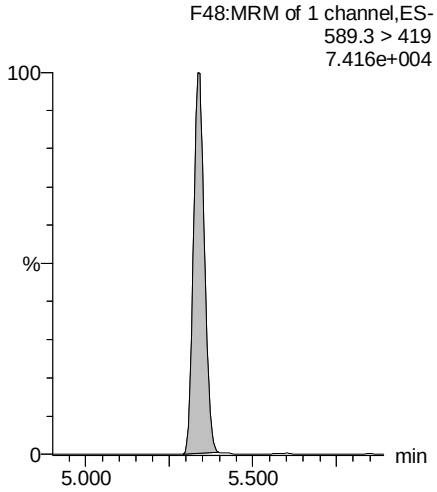
13C2-PFUdA



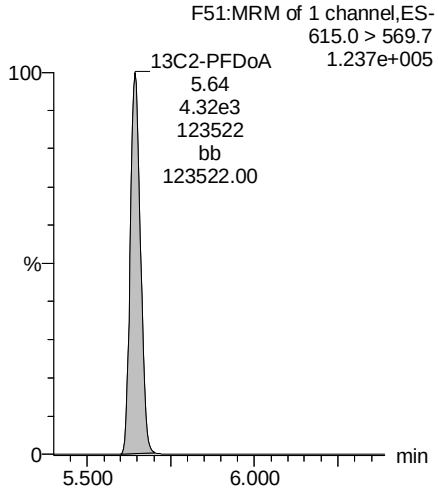
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



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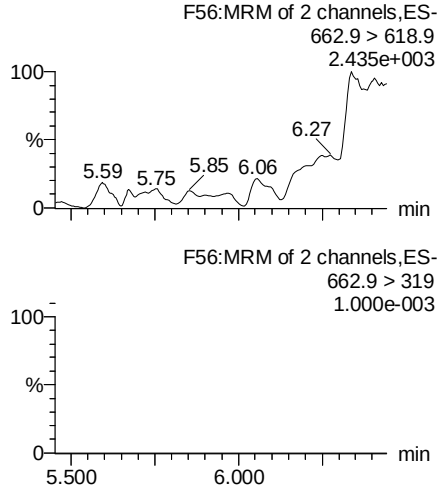
Rev'd: MM 1/15/18

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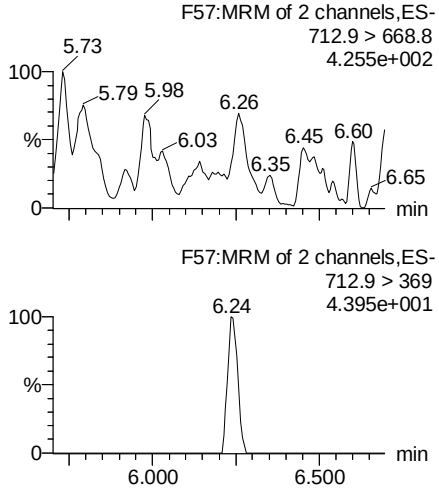
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Name: 180110M3_29, Date: 11-Jan-2018, Time: 14:35:52, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

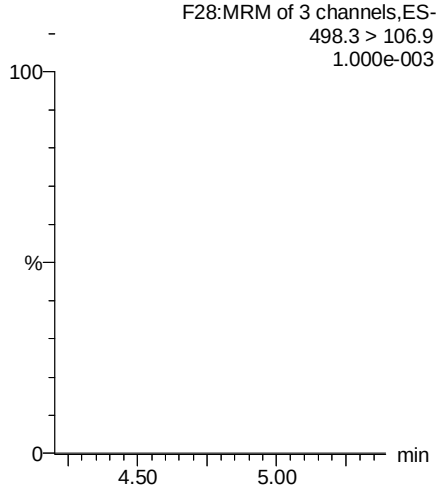
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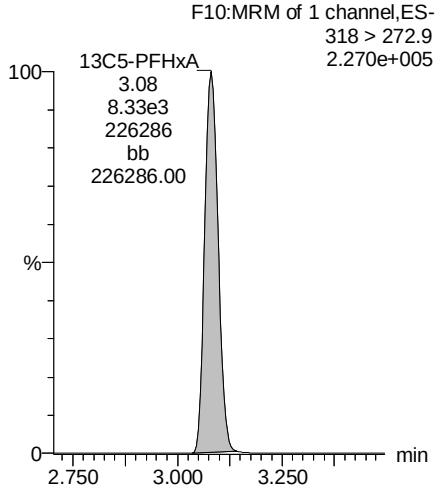
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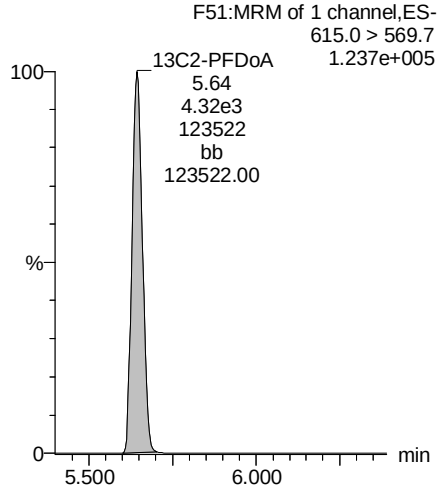
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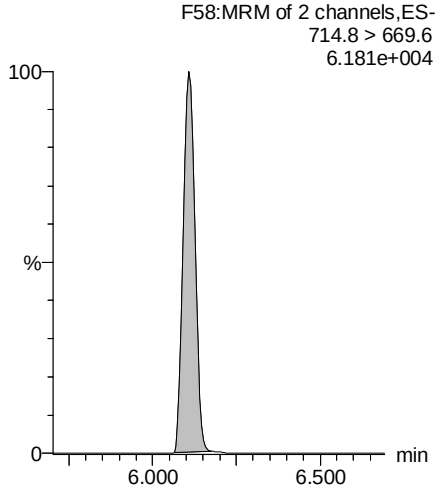
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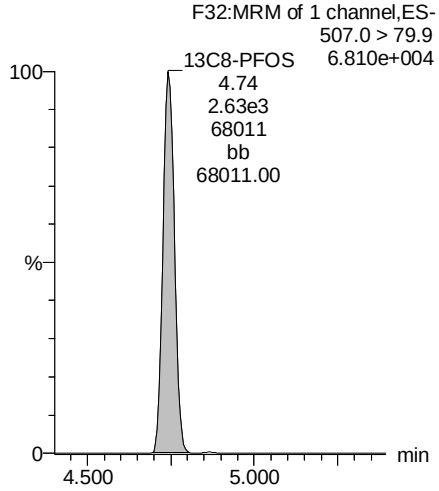
13C2-PFDoA



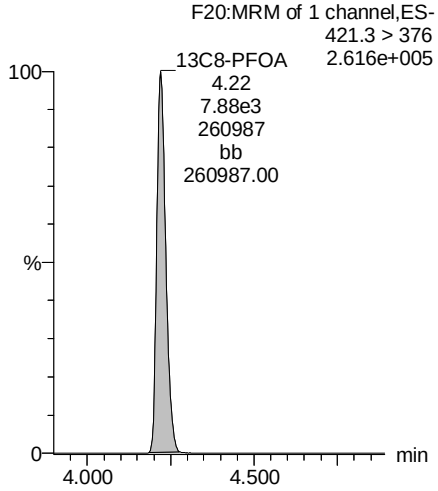
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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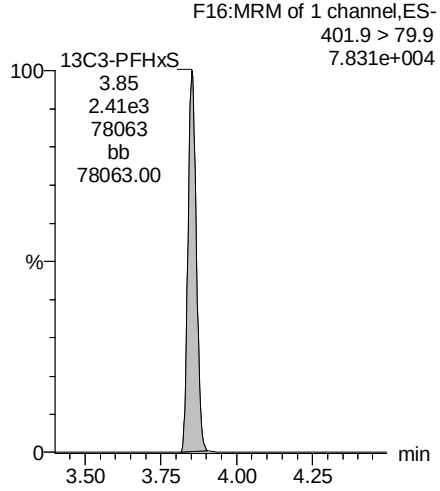
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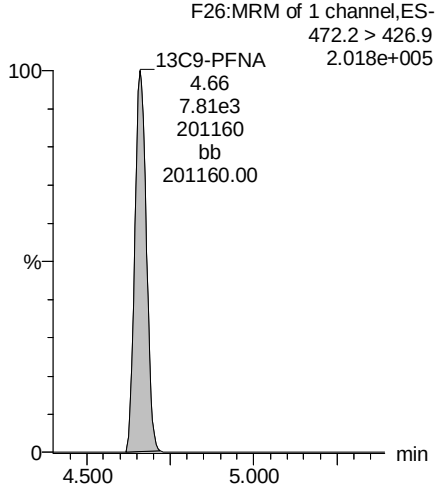
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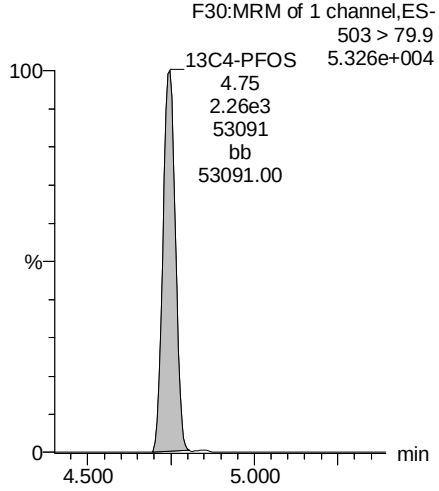
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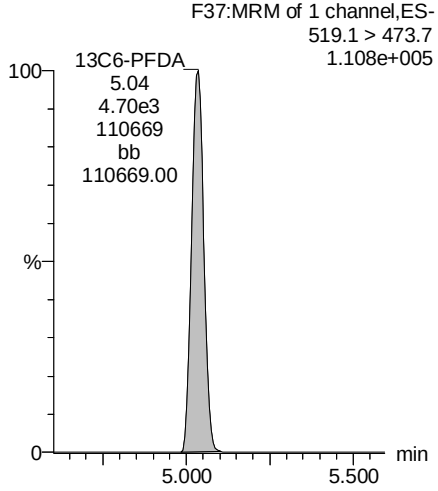
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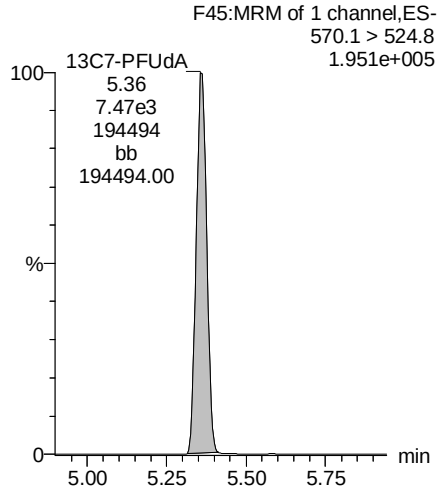
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M2\180112M2-4.qld

Last Altered: Friday, January 12, 2018 14:24:02 Pacific Standard Time
Printed: Friday, January 12, 2018 14:24:45 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_4, Date: 12-Jan-2018, Time: 11:23:09, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	4.55e1	1.70e3	0.258		2.66	2.60	0.335	0.5928	
2	4	PFHxA	313.2 > 268.9	2.95e3	3.46e3	0.258		3.15	3.08	4.26	8.5623	
3	5	PFHpA	363.0 > 318.9	1.98e3	9.10e3	0.258		3.78	3.70	2.72	6.6552	
4	6	L-PFHxS	398.9 > 79.6	3.88e2	1.25e3	0.258		3.94	3.85	3.90	7.5015	
5	9	L-PFOA	413 > 368.7	3.11e3	1.24e4	0.258		4.31	4.23	3.13	9.0383	
6	12	PFNA	463.0 > 418.8	6.51e4	1.09e4	0.258		4.81	4.66	74.6	199.8614	
7	14	L-PFOS	499 > 79.9	2.89e3	3.25e3	0.258		4.75	4.74	11.1	36.5369	
8	16	PFDA	513 > 468.8	1.46e3	8.41e3	0.258		5.18	5.03	2.17	5.7812	
9	18	N-MeFOSAA	570.1 > 419		4.37e3	0.258		5.32				
10	19	N-EtFOSAA	584.2 > 419		4.54e3	0.258		5.48				
11	20	PFUdA	563.0 > 518.9	9.15e3	1.06e4	0.258		5.50	5.35	10.8	31.8301	
12	22	PFDoA	612.9 > 569.0		5.49e3	0.258		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M2\180112M2-4.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_4, Date: 12-Jan-2018, Time: 11:23:09, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		5.49e3	0.258		6.00				
2	25	PFTeDA	712.9 > 668.8		3.32e3	0.258		6.22				
3	33	13C3-PFBS	302. > 98.8	1.70e3	1.23e4	0.258	0.095	2.77	2.59	1.72	69.8510	144.4
4	34	13C2-PFHxA	315 > 269.8	3.46e3	1.23e4	0.258	0.597	3.15	3.08	3.51	22.7385	117.5
5	35	13C4-PFHpA	367.2 > 321.8	9.10e3	1.23e4	0.258	0.604	3.78	3.70	9.22	59.0340	122.0
6	36	18O2-PFHxS	403.0 > 102.6	1.25e3	3.16e3	0.258	0.293	3.94	3.85	4.93	65.0923	134.6
7	37	13C2-6:2 FTS	429.1 > 408.9	2.45e3	1.15e4	0.258	0.215	4.25	4.17	2.66	47.8980	99.0
8	38	13C2-PFOA	414.9 > 369.7	1.24e4	1.15e4	0.258	0.916	4.31	4.22	13.5	57.2373	118.3
9	39	13C5-PFNA	468.2 > 422.9	1.09e4	1.24e4	0.258	0.817	4.81	4.66	11.0	51.8601	107.2
10	40	13C8-PFOSA	506.1 > 77.7	2.44e3	1.01e4	0.258	0.223	4.87	4.71	3.01	52.2533	108.0
11	41	13C8-PFOS	507.0 > 79.9	3.25e3	3.50e3	0.258	0.875	4.89	4.74	11.6	51.2959	106.0
12	42	13C2-PFDA	515.1 > 469.9	8.41e3	6.44e3	0.258	1.105	5.18	5.03	16.3	57.1399	118.1
13	43	13C2-8:2 FTS	529.1 > 508.7	1.24e3	1.23e4	0.258	0.101	5.15	5.00	1.26	48.3187	99.9
14	44	d3-N-MeFOSAA	573.3 > 419	4.37e3	1.01e4	0.258	0.345	5.32	5.18	5.40	60.5531	125.2
15	45	d5-N-EtFOSAA	589.3 > 419	4.54e3	1.01e4	0.258	0.390	5.47	5.34	5.60	55.5368	114.8
16	46	13C2-PFUdA	565 > 519.8	1.06e4	1.01e4	0.258	0.958	5.49	5.35	13.0	52.6500	108.8
17	47	13C2-PFDoA	615.0 > 569.7	5.49e3	1.01e4	0.258	0.599	5.77	5.64	6.78	43.8070	90.6
18	49	13C2-PFTeDA	714.8 > 669.6	3.32e3	1.01e4	0.258	0.282	6.22	6.10	4.10	56.3761	116.5
19	55	13C5-PFHxA	318 > 272.9	1.23e4	1.23e4	0.258	1.000	3.15	3.08	12.5	48.3746	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.16e3	3.16e3	0.258	1.000	4.02	3.85	12.5	48.3746	100.0
21	57	13C8-PFOA	421.3 > 376	1.15e4	1.15e4	0.258	1.000	4.38	4.22	12.5	48.3746	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.24e4	1.24e4	0.258	1.000	4.81	4.65	12.5	48.3746	100.0
23	59	13C4-PFOS	503 > 79.9	3.50e3	3.50e3	0.258	1.000	4.89	4.74	12.5	48.3746	100.0
24	60	13C6-PFDA	519.1 > 473.7	6.44e3	6.44e3	0.258	1.000	5.18	5.03	12.5	48.3746	100.0
25	61	13C7-PFUdA	570.1 > 524.8	1.01e4	1.01e4	0.258	1.000	5.49	5.35	12.5	48.3746	100.0
26	62	Total PFHxS	398.9 > 79.6	3.88e2	1.25e3	0.258		4.14		3.90	7.5015	
27	63	Total PFOA	413 > 368.7	3.11e3	1.24e4	0.258		4.51		3.13	9.0383	
28	64	Total PFOS	499 > 79.9	2.89e3	3.25e3	0.258		4.75		11.1	36.5369	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.37e3	0.258		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.54e3	0.258		5.61		0.000		

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Rev'd: MM 1/12/18

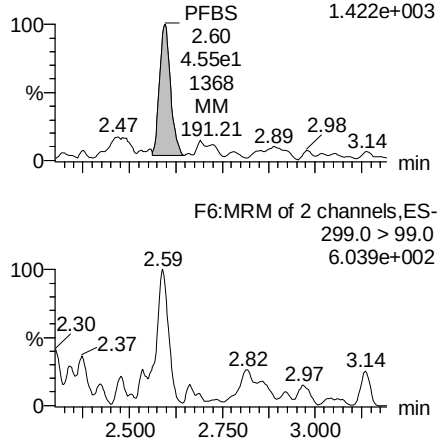
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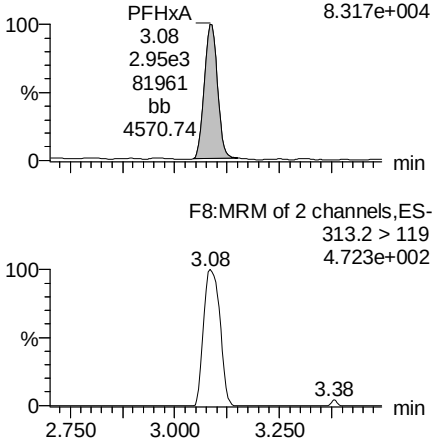
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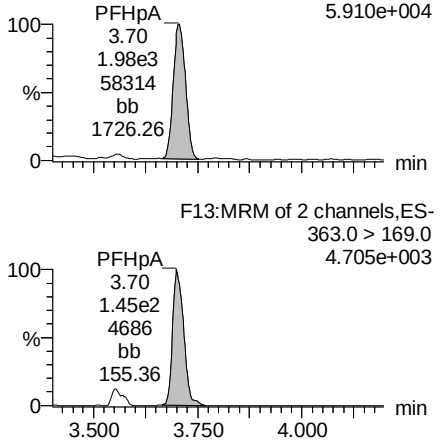
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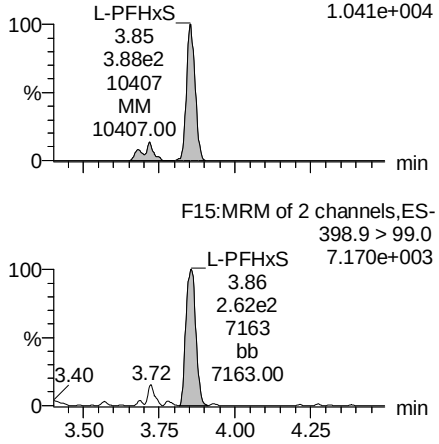
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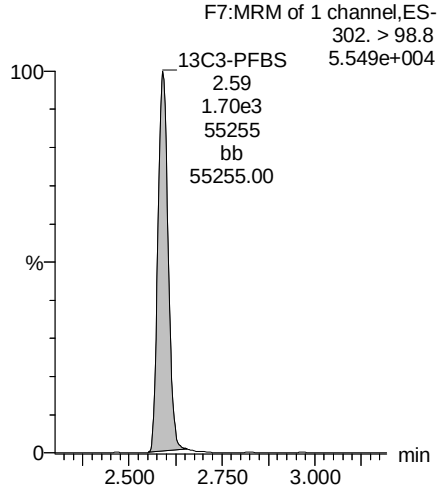
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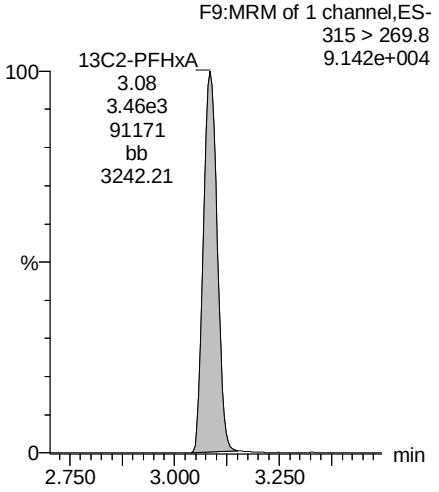
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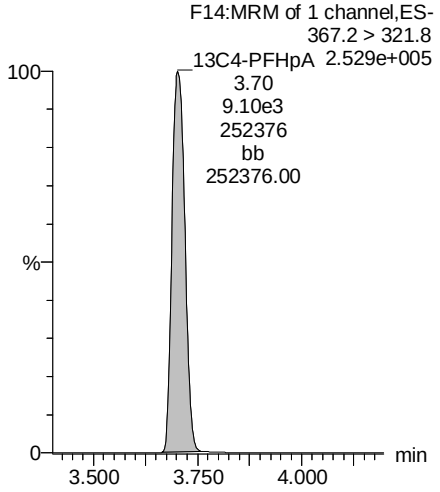
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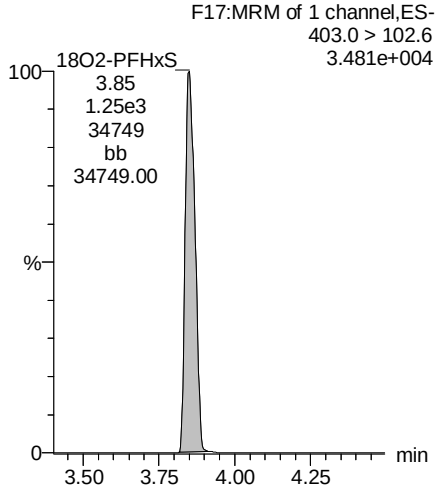
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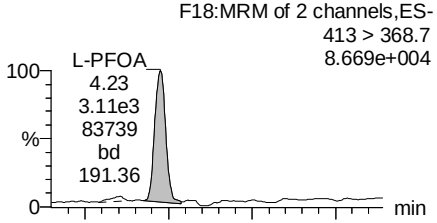
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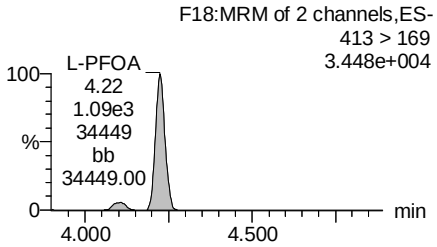
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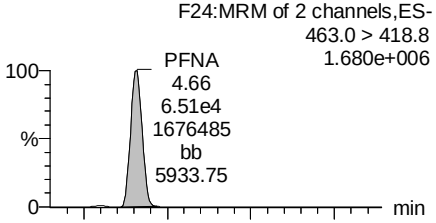
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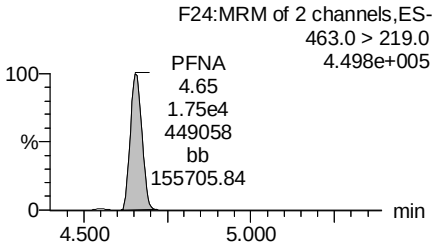
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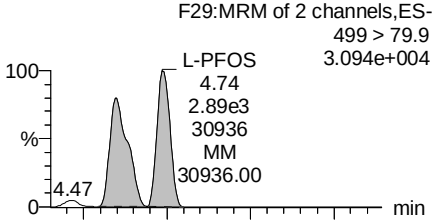


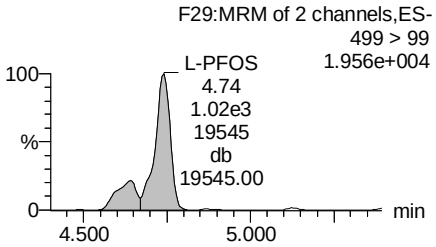
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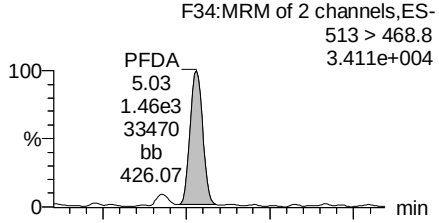


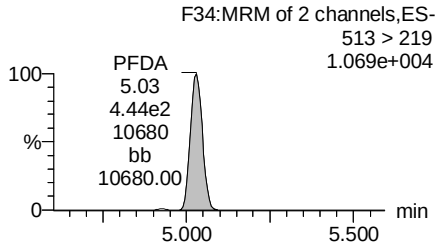
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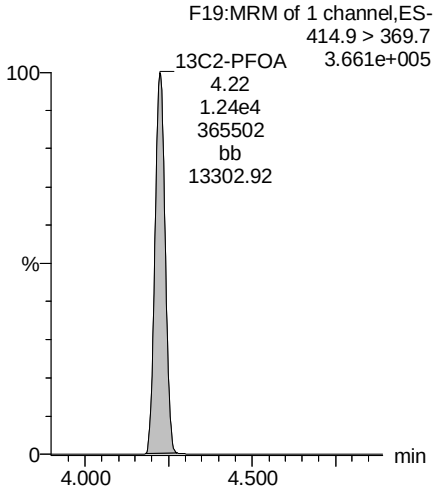


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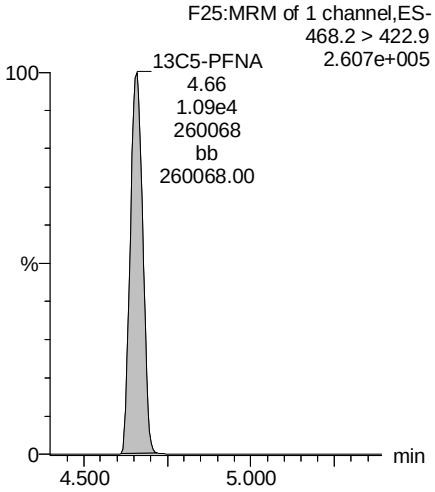




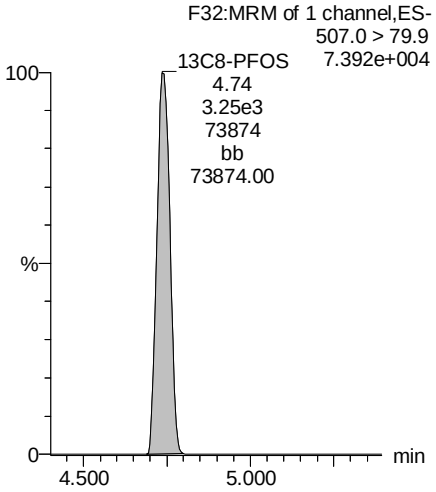
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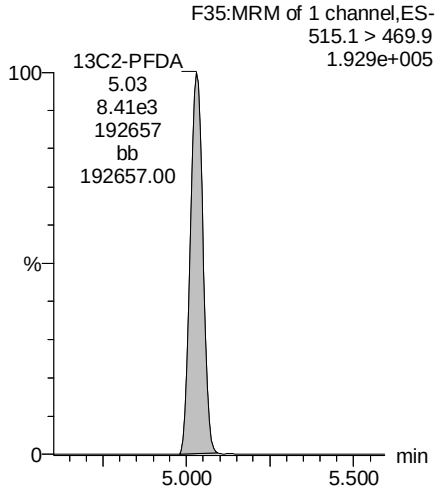
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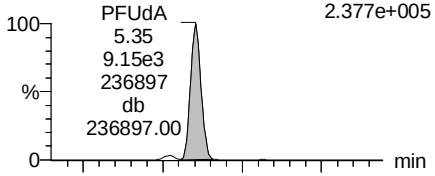
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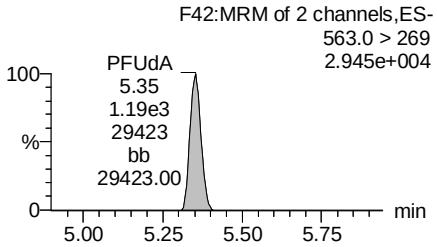
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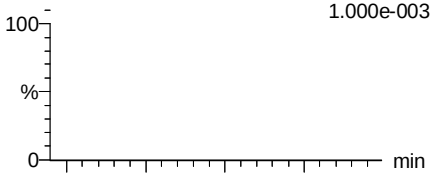
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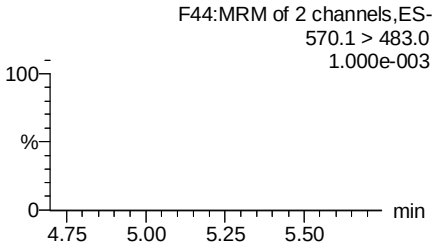
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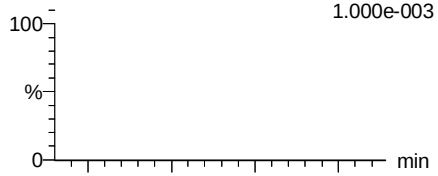


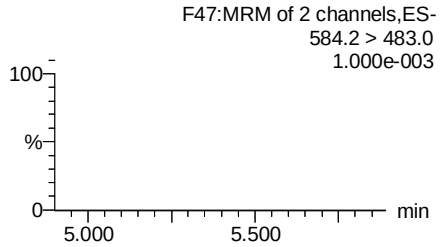
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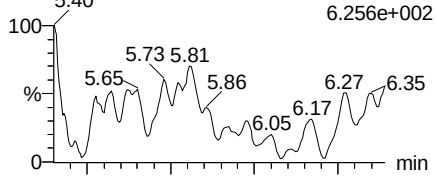


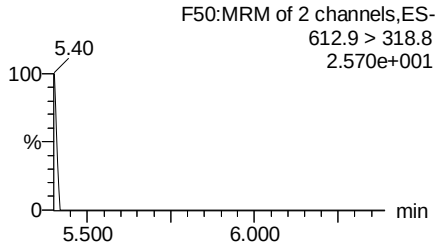
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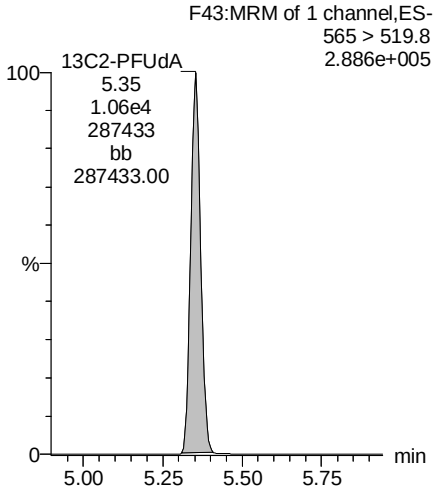


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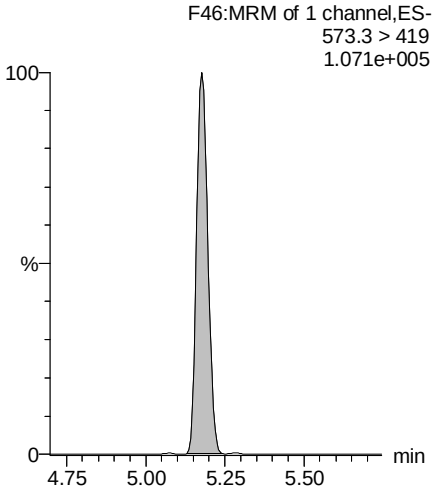




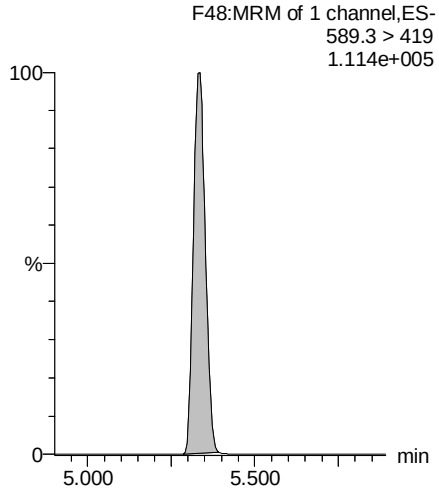
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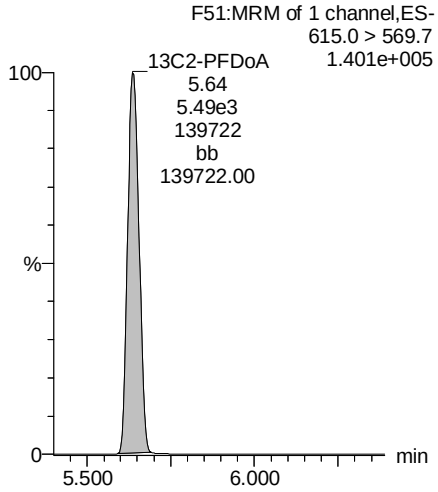
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13C2-PFDoA



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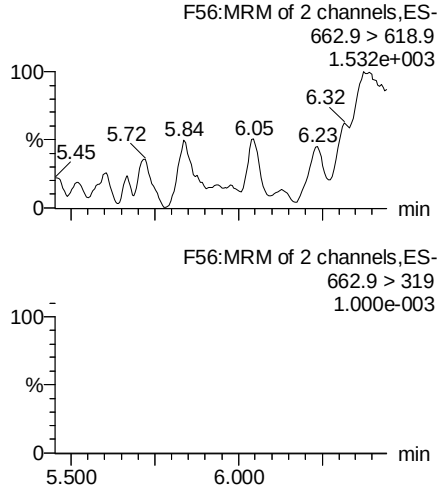
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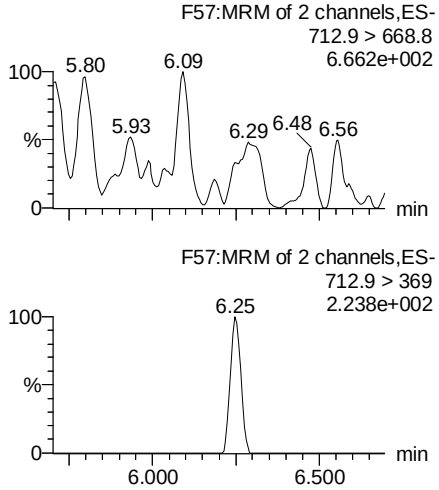
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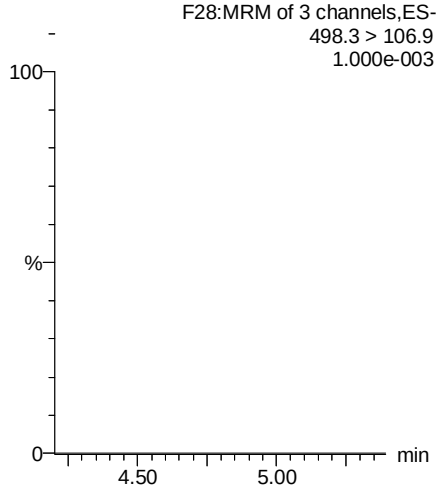
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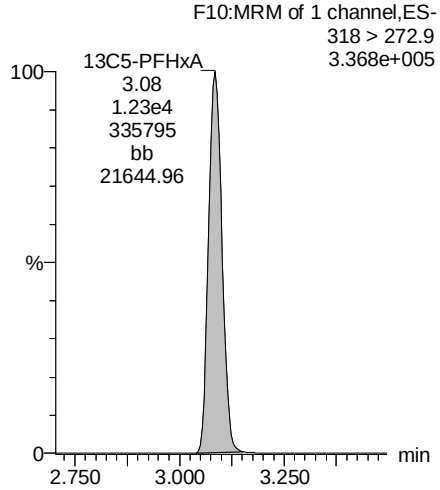
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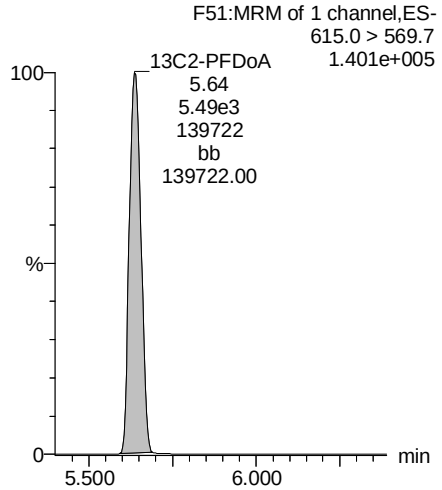
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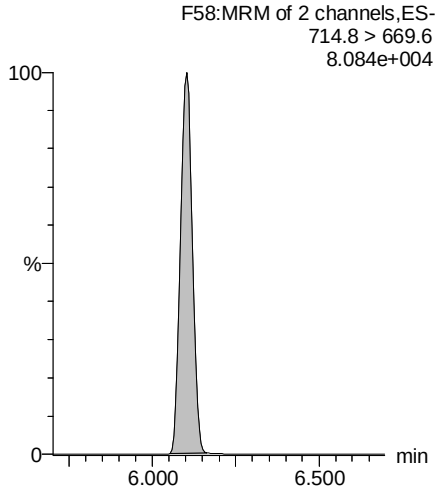
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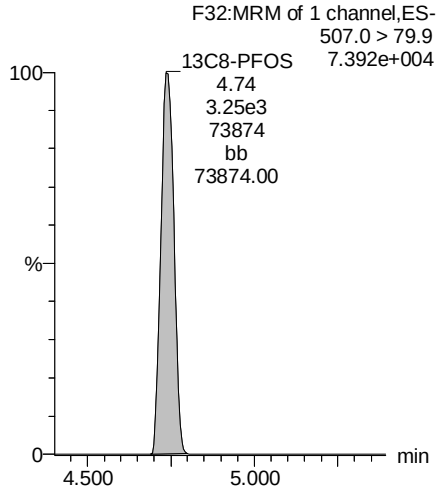
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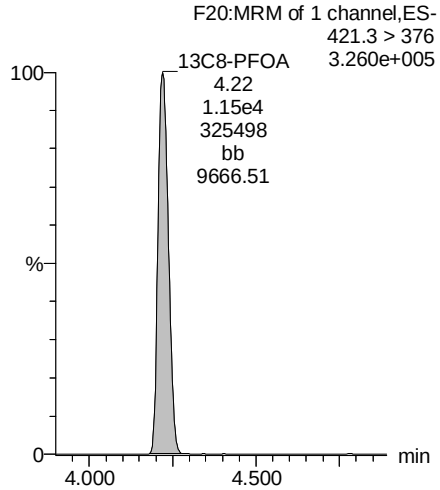
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13C8-PFOS



13C8-PFOA



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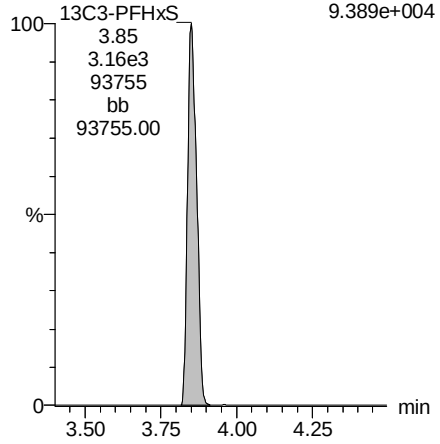
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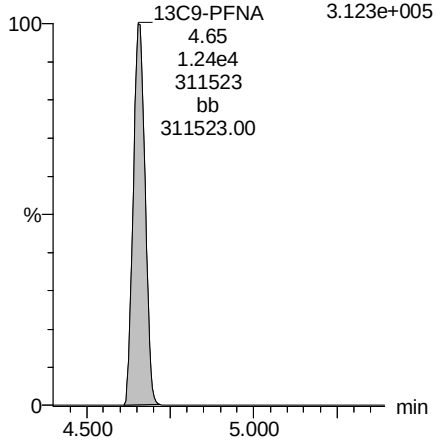
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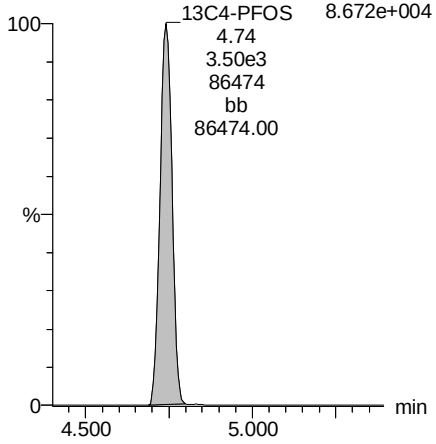
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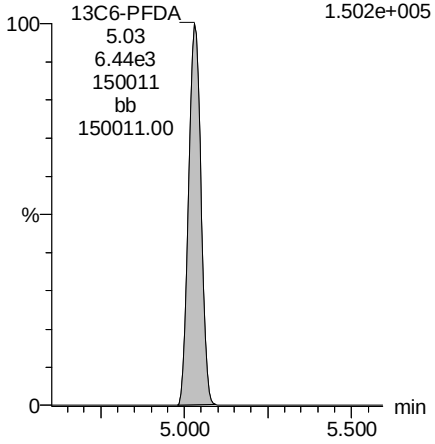
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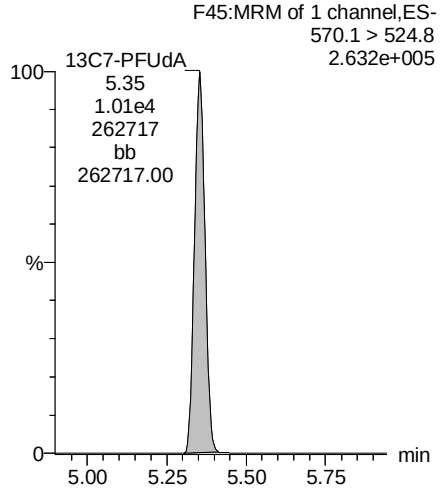
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13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/16/18

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1	3	PFBS	299.0 > 79.7		1.70e3	0.259		2.66					
2	4	PFHxA	313.2 > 268.9		3.69e3	0.259		3.15					
3	5	PFHpA	363.0 > 318.9		7.69e3	0.259		3.78					
4	6	L-PFHxS	398.9 > 79.6		9.32e2	0.259		3.94					
5	9	L-PFOA	413 > 368.7	1.54e2	7.84e3	0.259		4.31	4.22	0.245	0.1831		
6	12	PFNA	463.0 > 418.8		7.90e3	0.259		4.81					
7	14	L-PFOS	499 > 79.9		2.19e3	0.259		4.75					
8	16	PFDA	513 > 468.8		6.21e3	0.259		5.18					
9	18	N-MeFOSAA	570.1 > 419		2.59e3	0.259		5.32					
10	19	N-EtFOSAA	584.2 > 419		2.87e3	0.259		5.48					See RI
11	20	PFUdA	563.0 > 518.9		7.27e3	0.259		5.50					
12	22	PFDoA	612.9 > 569.0		3.65e3	0.259		5.77					

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Vista Analytical Laboratory

Rev'd: MM 1/16/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_30.qld

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Name: 180110M3_30, Date: 11-Jan-2018, Time: 14:47:02, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		3.65e3	0.259		6.00				
2	25	PFTeDA	712.9 > 668.8		2.18e3	0.259		6.22				
3	33	13C3-PFBS	302. > 98.8	1.70e3	1.10e4	0.259	0.095	2.77	2.59	1.94	78.4276	162.8
4	34	13C2-PFHxA	315 > 269.8	3.69e3	1.10e4	0.259	0.597	3.15	3.08	4.21	27.1678	140.9
5	35	13C4-PFHpA	367.2 > 321.8	7.69e3	1.10e4	0.259	0.604	3.78	3.70	8.78	56.0075	116.2
6	36	18O2-PFHxS	403.0 > 102.6	9.32e2	2.63e3	0.259	0.293	3.94	3.85	4.42	58.1753	120.7
7	37	13C2-6:2 FTS	429.1 > 408.9	2.00e3	8.14e3	0.259	0.215	4.25	4.17	3.07	55.0710	114.3
8	38	13C2-PFOA	414.9 > 369.7	7.84e3	8.14e3	0.259	0.916	4.31	4.22	12.0	50.6495	105.1
9	39	13C5-PFNA	468.2 > 422.9	7.90e3	7.32e3	0.259	0.817	4.81	4.66	13.5	63.5414	131.9
10	40	13C8-PFOSA	506.1 > 77.7	1.38e3	7.14e3	0.259	0.223	4.87	4.72	2.41	41.6539	86.4
11	41	13C8-PFOS	507.0 > 79.9	2.19e3	1.83e3	0.259	0.875	4.89	4.74	14.9	65.6890	136.3
12	42	13C2-PFDA	515.1 > 469.9	6.21e3	5.05e3	0.259	1.105	5.18	5.04	15.4	53.6692	111.4
13	43	13C2-8:2 FTS	529.1 > 508.7	7.53e2	1.10e4	0.259	0.101	5.15	5.00	0.860	32.8632	68.2
14	44	d3-N-MeFOSAA	573.3 > 419	2.59e3	7.14e3	0.259	0.345	5.32	5.18	4.54	50.6604	105.1
15	45	d5-N-EtFOSAA	589.3 > 419	2.87e3	7.14e3	0.259	0.390	5.47	5.34	5.01	49.5101	102.7
16	46	13C2-PFUdA	565 > 519.8	7.27e3	7.14e3	0.259	0.958	5.49	5.36	12.7	51.1684	106.2
17	47	13C2-PFDoA	615.0 > 569.7	3.65e3	7.14e3	0.259	0.599	5.77	5.64	6.39	41.0927	85.3
18	49	13C2-PFTeDA	714.8 > 669.6	2.18e3	7.14e3	0.259	0.282	6.22	6.11	3.81	52.1120	108.1
19	55	13C5-PFHxA	318 > 272.9	1.10e4	1.10e4	0.259	1.000	3.15	3.08	12.5	48.1881	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.63e3	2.63e3	0.259	1.000	4.02	3.85	12.5	48.1881	100.0
21	57	13C8-PFOA	421.3 > 376	8.14e3	8.14e3	0.259	1.000	4.38	4.22	12.5	48.1881	100.0
22	58	13C9-PFNA	472.2 > 426.9	7.32e3	7.32e3	0.259	1.000	4.81	4.66	12.5	48.1881	100.0
23	59	13C4-PFOS	503 > 79.9	1.83e3	1.83e3	0.259	1.000	4.89	4.74	12.5	48.1881	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.05e3	5.05e3	0.259	1.000	5.18	5.04	12.5	48.1881	100.0
25	61	13C7-PFUdA	570.1 > 524.8	7.14e3	7.14e3	0.259	1.000	5.49	5.36	12.5	48.1881	100.0
26	62	Total PFHxS	398.9 > 79.6	0.00e0	9.32e2	0.259		4.14		0.000		
27	63	Total PFOA	413 > 368.7	1.54e2	7.84e3	0.259		4.51		0.245	0.1831	
28	64	Total PFOS	499 > 79.9	0.00e0	2.19e3	0.259		4.75		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.59e3	0.259		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	2.87e3	0.259		5.61		0.000		

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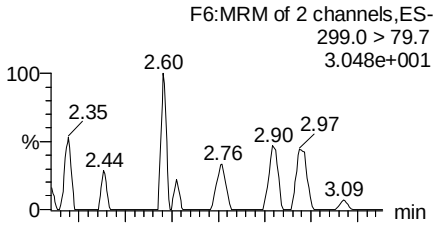
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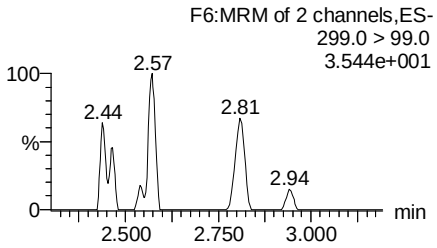
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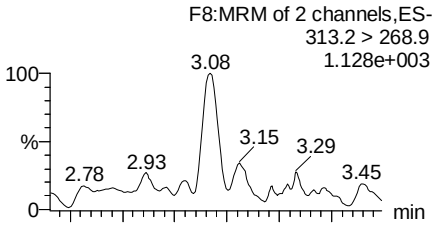
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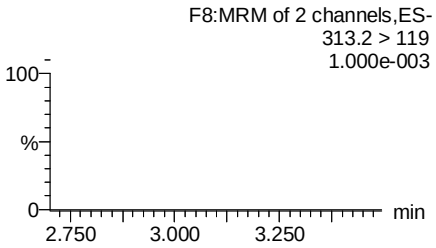
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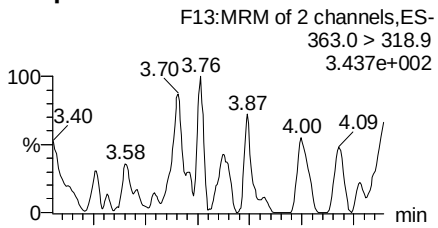


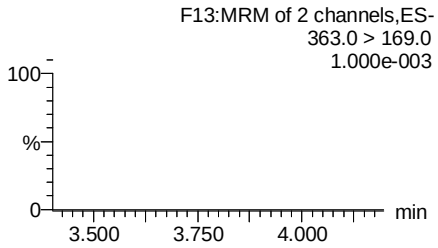
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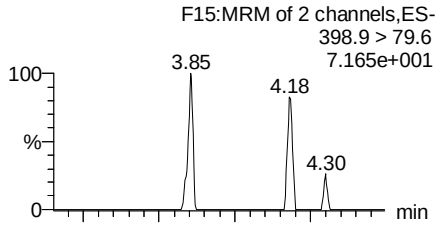


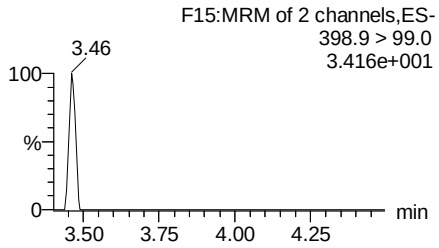
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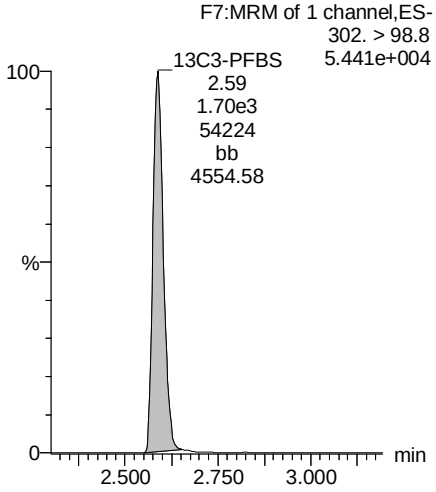


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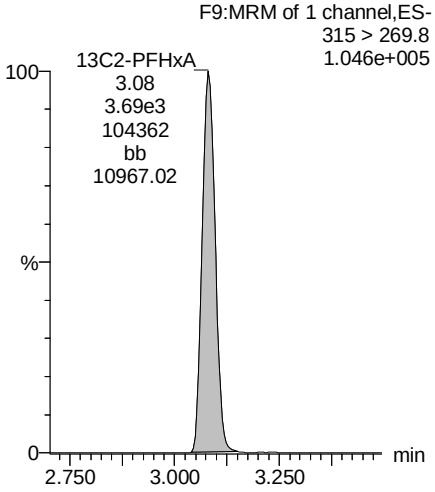




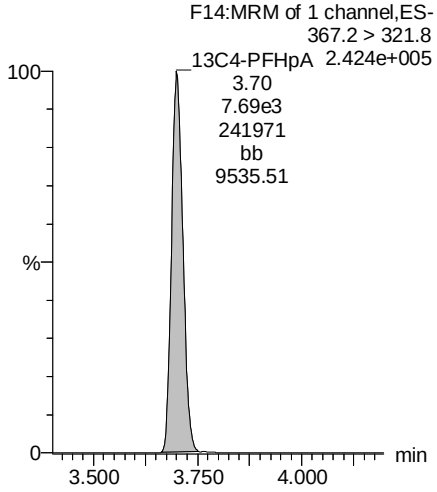
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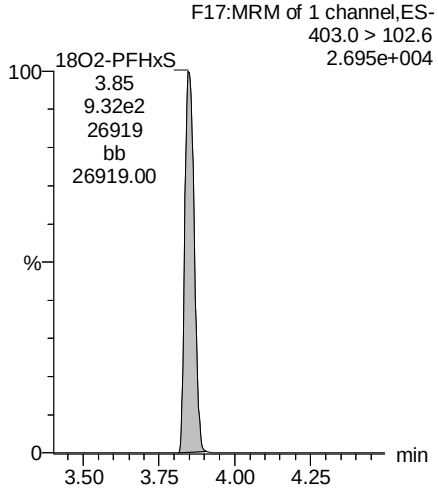
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



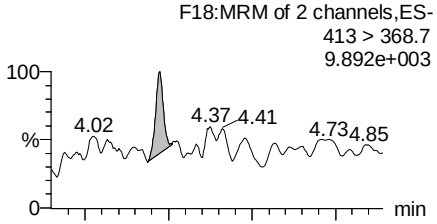
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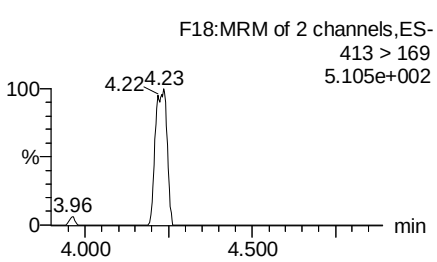
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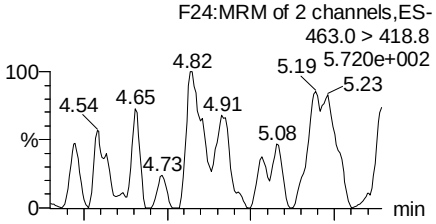
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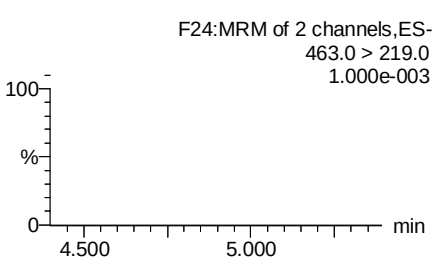
Total PFOA



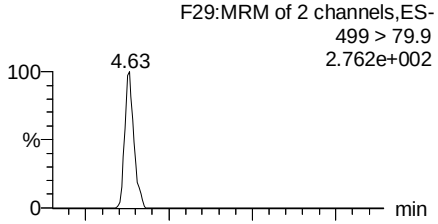


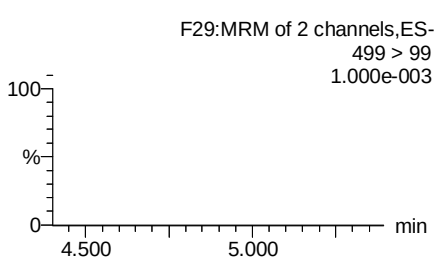
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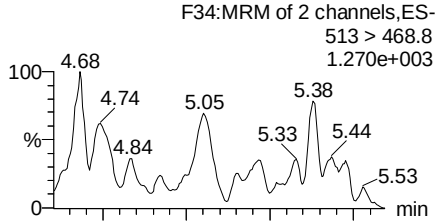


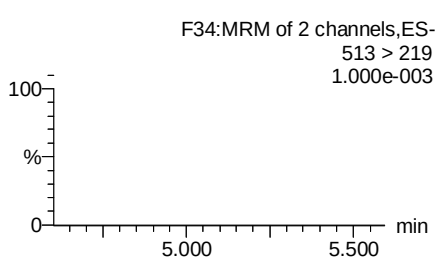
Total PFOS



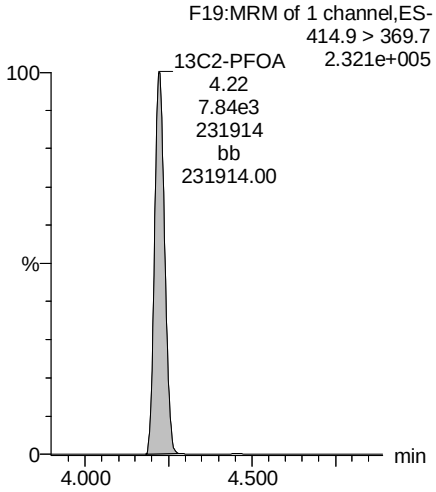


PFDA

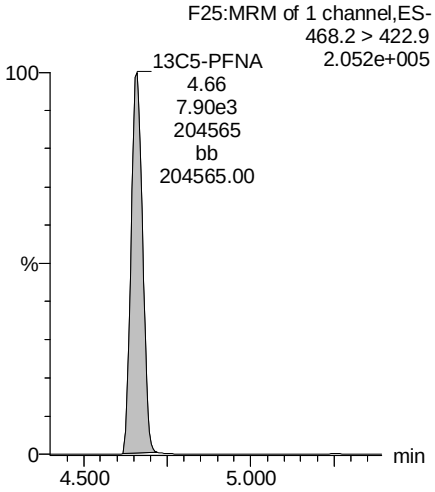




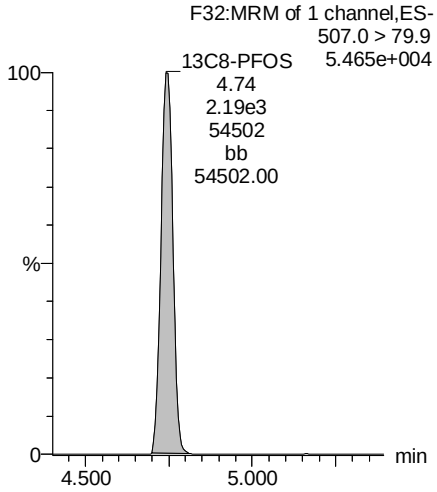
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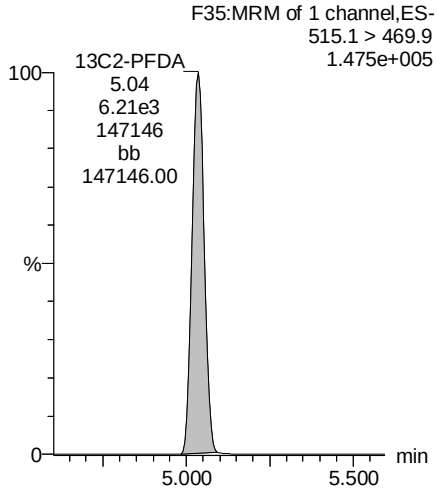
13C5-PFNA



13C8-PFOS



13C2-PFDA



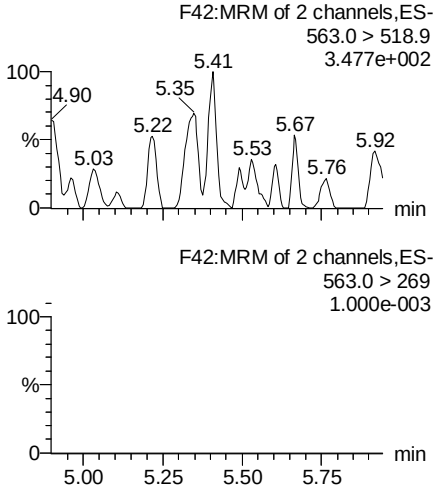
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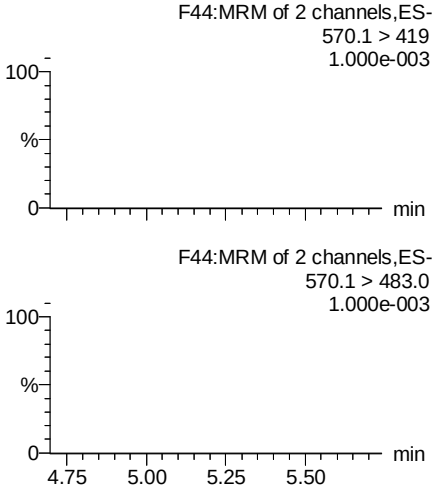
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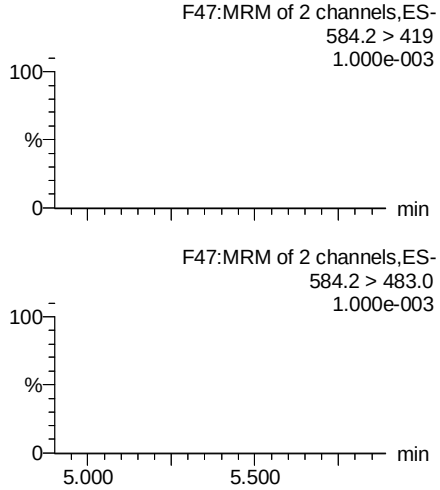
PFUdA



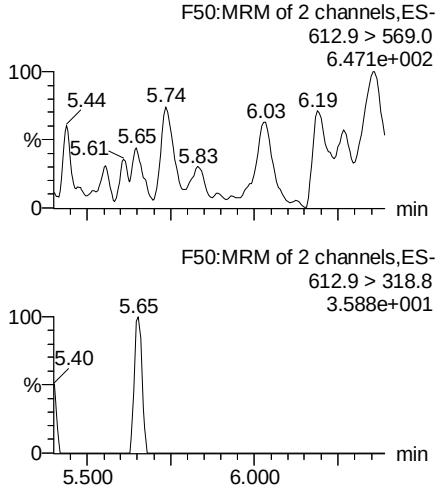
N-MeFOSAA



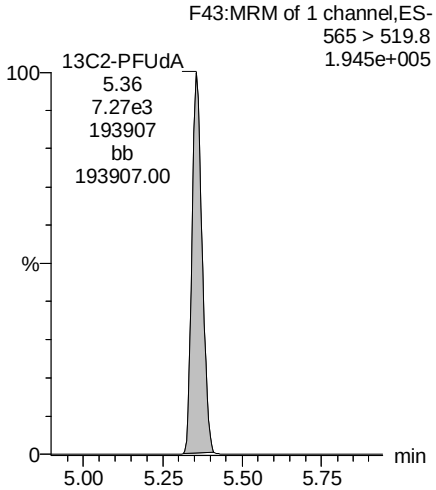
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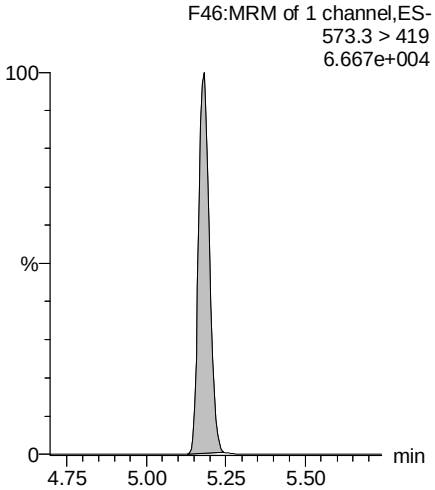
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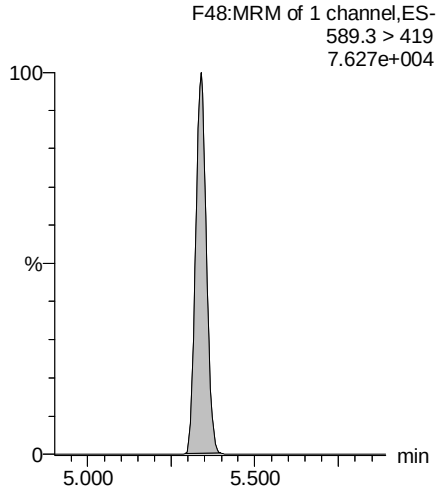
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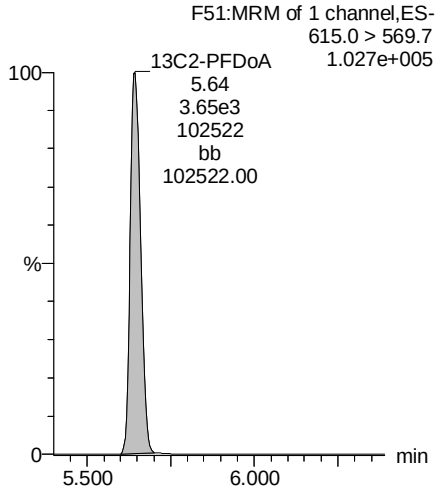
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



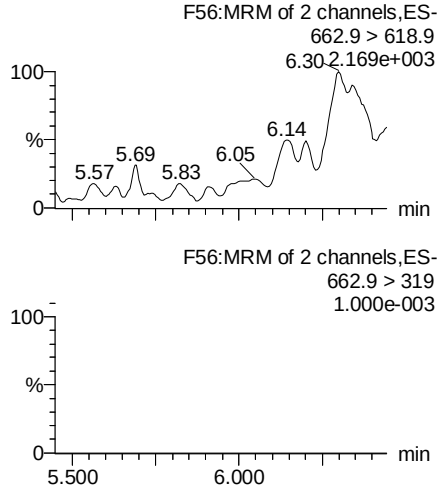
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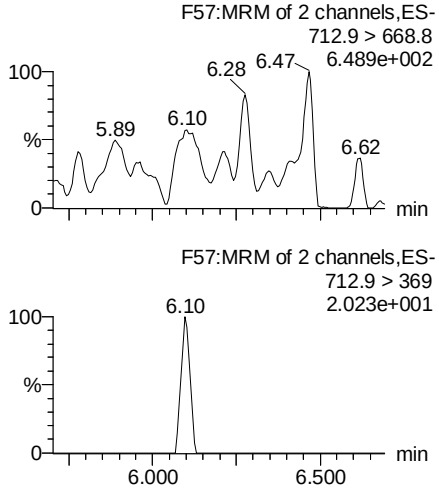
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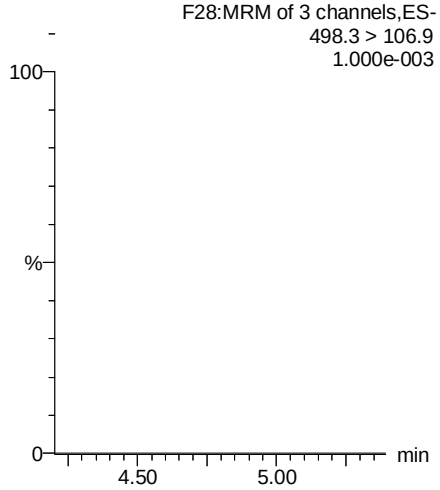
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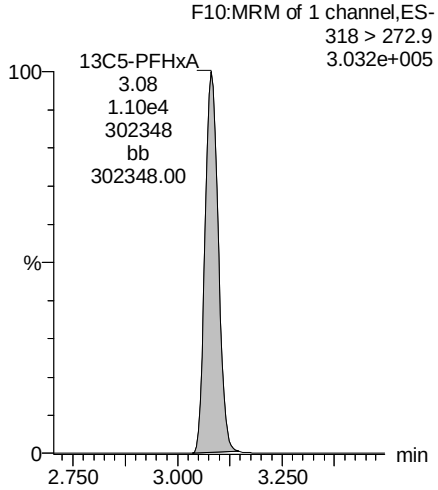
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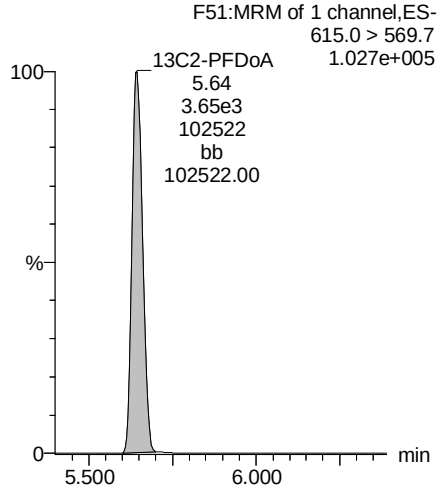
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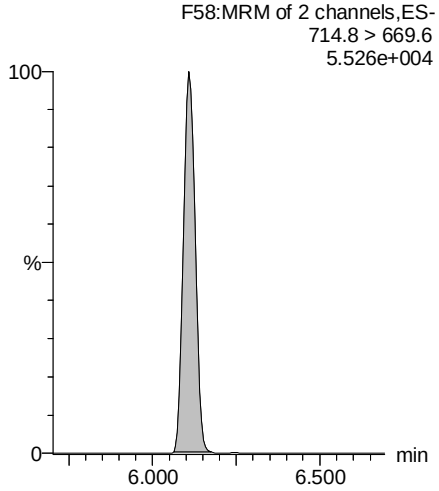
13C5-PFHxA



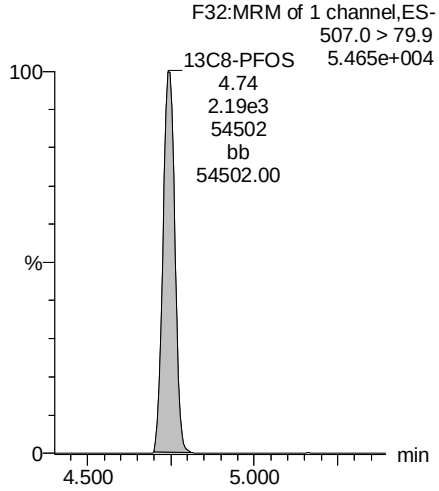
13C2-PFDoA



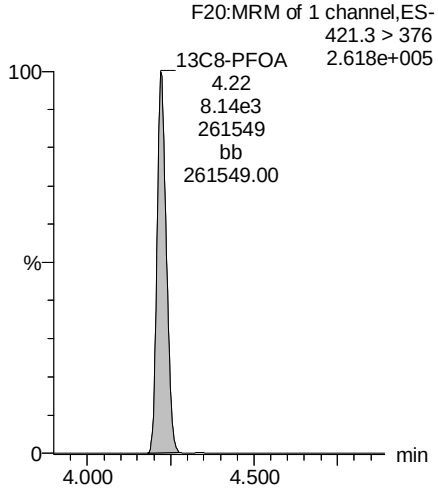
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



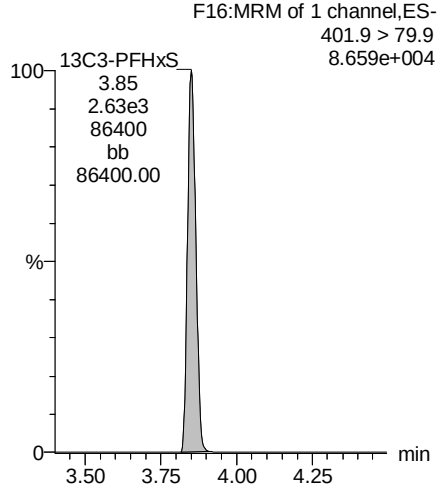
AC 1/11/2018

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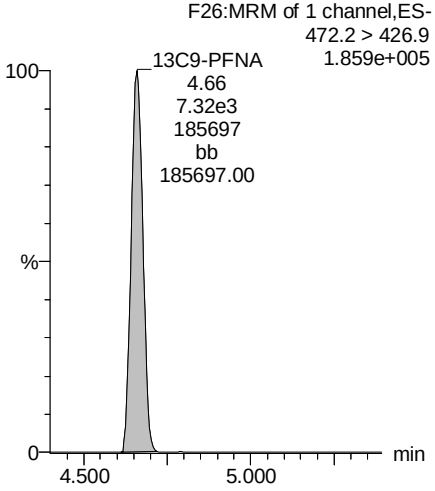
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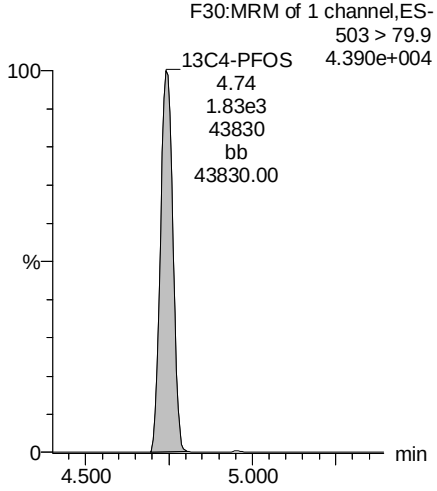
13C3-PFHxS



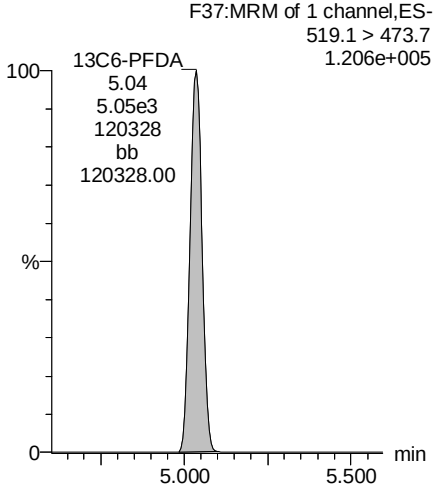
13C9-PFNA



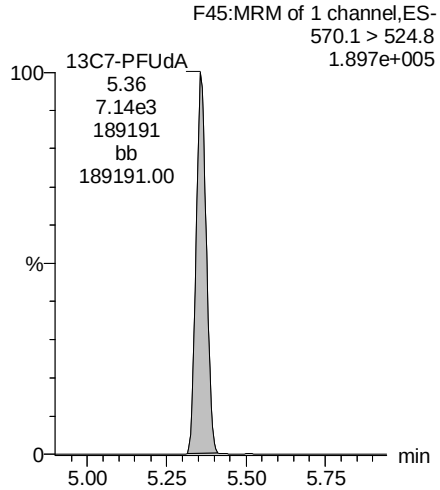
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M2\180112M2-5.qld

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_5, Date: 12-Jan-2018, Time: 11:34:29, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7		1.82e3	0.259		2.66				
2	4	PFHxA	313.2 > 268.9		3.88e3	0.259		3.15				
3	5	PFHpA	363.0 > 318.9		9.97e3	0.259		3.78				
4	6	L-PFHxS	398.9 > 79.6	9.37e0	1.38e3	0.259		3.94	3.85	0.0849	0.5346	
5	9	L-PFOA	413 > 368.7		1.34e4	0.259		4.31				
6	12	PFNA	463.0 > 418.8		1.15e4	0.259		4.81				
7	14	L-PFOS	499 > 79.9		4.12e3	0.259		4.75				
8	16	PFDA	513 > 468.8		8.93e3	0.259		5.18				
9	18	N-MeFOSAA	570.1 > 419		4.19e3	0.259		5.32				
10	19	N-EtFOSAA	584.2 > 419		4.70e3	0.259		5.48				
11	20	PFUdA	563.0 > 518.9		9.99e3	0.259		5.50				
12	22	PFDoA	612.9 > 569.0		6.49e3	0.259		5.77				

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Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180112M2\180112M2-5.qld

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Name: 180112M2_5, Date: 12-Jan-2018, Time: 11:34:29, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.49e3	0.259		6.00				
2	25	PFTeDA	712.9 > 668.8		3.46e3	0.259		6.22				
3	33	13C3-PFBS	302. > 98.8	1.82e3	1.15e4	0.259	0.095	2.77	2.59	1.97	79.6756	165.3
4	34	13C2-PFHxA	315 > 269.8	3.88e3	1.15e4	0.259	0.597	3.15	3.09	4.21	27.2211	141.2
5	35	13C4-PFHpA	367.2 > 321.8	9.97e3	1.15e4	0.259	0.604	3.78	3.70	10.8	69.0643	143.3
6	36	18O2-PFHxS	403.0 > 102.6	1.38e3	3.35e3	0.259	0.293	3.94	3.85	5.14	67.6600	140.4
7	37	13C2-6:2 FTS	429.1 > 408.9	2.98e3	1.23e4	0.259	0.215	4.25	4.16	3.02	54.0846	112.2
8	38	13C2-PFOA	414.9 > 369.7	1.34e4	1.23e4	0.259	0.916	4.31	4.23	13.6	57.3712	119.1
9	39	13C5-PFNA	468.2 > 422.9	1.15e4	1.15e4	0.259	0.817	4.81	4.66	12.5	58.9315	122.3
10	40	13C8-PFOSA	506.1 > 77.7	1.96e3	9.94e3	0.259	0.223	4.87	4.72	2.47	42.6780	88.6
11	41	13C8-PFOS	507.0 > 79.9	4.12e3	3.07e3	0.259	0.875	4.89	4.74	16.8	74.1159	153.8
12	42	13C2-PFDA	515.1 > 469.9	8.93e3	8.68e3	0.259	1.105	5.18	5.03	12.9	44.8307	93.0
13	43	13C2-8:2 FTS	529.1 > 508.7	1.37e3	1.15e4	0.259	0.101	5.15	5.00	1.48	56.6526	117.6
14	44	d3-N-MeFOSAA	573.3 > 419	4.19e3	9.94e3	0.259	0.345	5.32	5.18	5.26	58.8095	122.0
15	45	d5-N-EtFOSAA	589.3 > 419	4.70e3	9.94e3	0.259	0.390	5.47	5.34	5.92	58.4311	121.3
16	46	13C2-PFUdA	565 > 519.8	9.99e3	9.94e3	0.259	0.958	5.49	5.36	12.6	50.5457	104.9
17	47	13C2-PFDoA	615.0 > 569.7	6.49e3	9.94e3	0.259	0.599	5.77	5.64	8.17	52.5647	109.1
18	49	13C2-PFTeDA	714.8 > 669.6	3.46e3	9.94e3	0.259	0.282	6.22	6.10	4.35	59.5699	123.6
19	55	13C5-PFHxA	318 > 272.9	1.15e4	1.15e4	0.259	1.000	3.15	3.09	12.5	48.1881	100.0
20	56	13C3-PFHxS	401.9 > 79.9	3.35e3	3.35e3	0.259	1.000	4.02	3.85	12.5	48.1881	100.0
21	57	13C8-PFOA	421.3 > 376	1.23e4	1.23e4	0.259	1.000	4.38	4.23	12.5	48.1881	100.0
22	58	13C9-PFNA	472.2 > 426.9	1.15e4	1.15e4	0.259	1.000	4.81	4.66	12.5	48.1881	100.0
23	59	13C4-PFOS	503 > 79.9	3.07e3	3.07e3	0.259	1.000	4.89	4.74	12.5	48.1881	100.0
24	60	13C6-PFDA	519.1 > 473.7	8.68e3	8.68e3	0.259	1.000	5.18	5.03	12.5	48.1881	100.0
25	61	13C7-PFUdA	570.1 > 524.8	9.94e3	9.94e3	0.259	1.000	5.49	5.36	12.5	48.1881	100.0
26	62	Total PFHxS	398.9 > 79.6	9.37e0	1.38e3	0.259		4.14		0.0849	0.5346	
27	63	Total PFOA	413 > 368.7	0.00e0	1.34e4	0.259		4.51		0.000		
28	64	Total PFOS	499 > 79.9	0.00e0	4.12e3	0.259		4.75		0.000		
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	4.19e3	0.259		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	4.70e3	0.259		5.61		0.000		

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Rev'd: MM 1/12/18

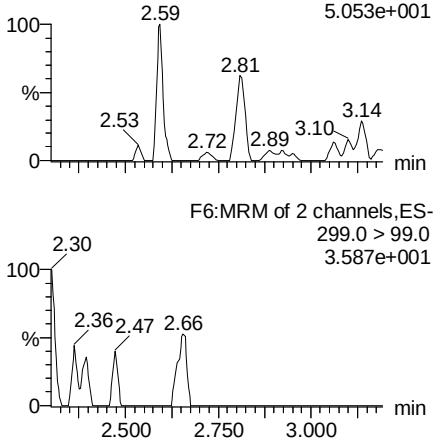
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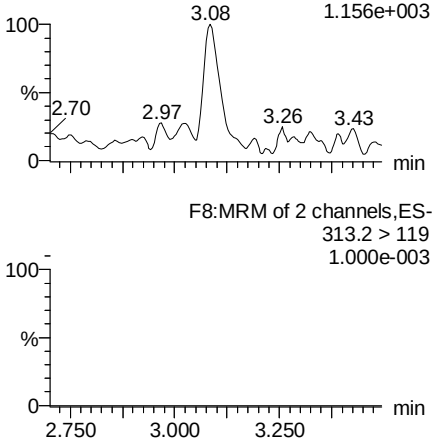
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Name: 180112M2_5, Date: 12-Jan-2018, Time: 11:34:29, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

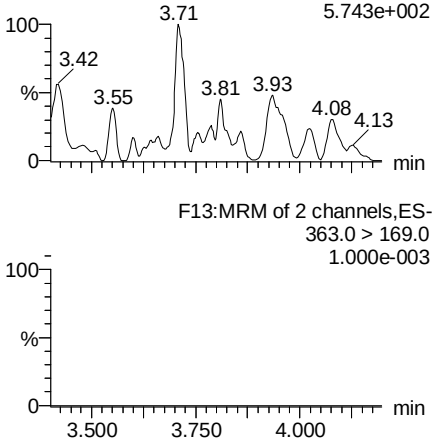
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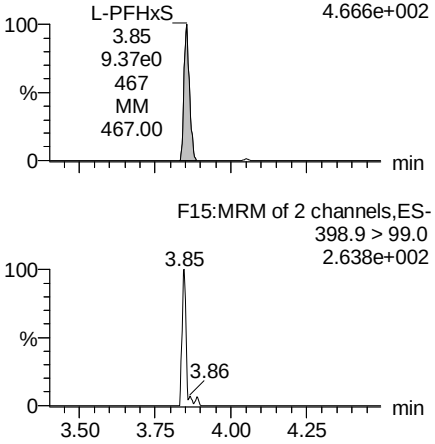
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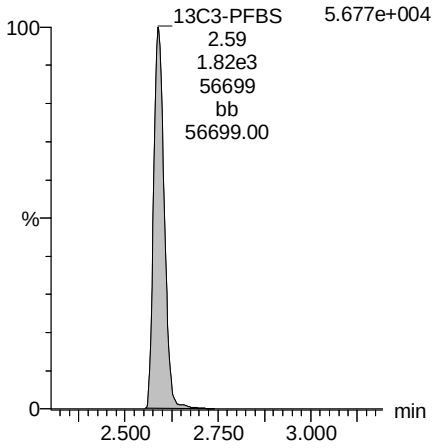
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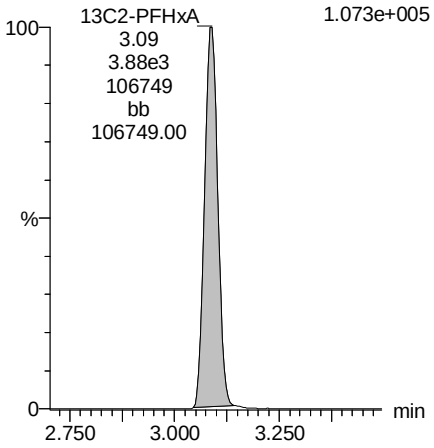
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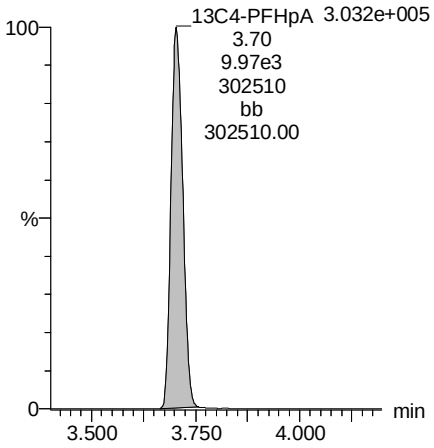
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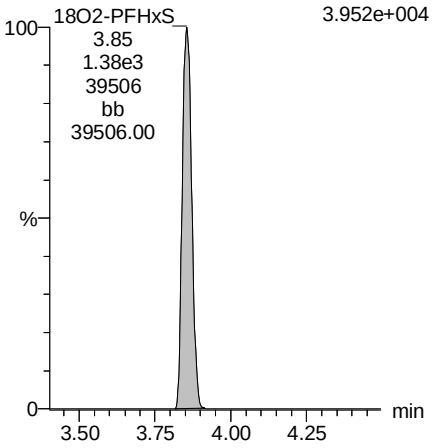
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13C4-PFHpA



18O2-PFHxS



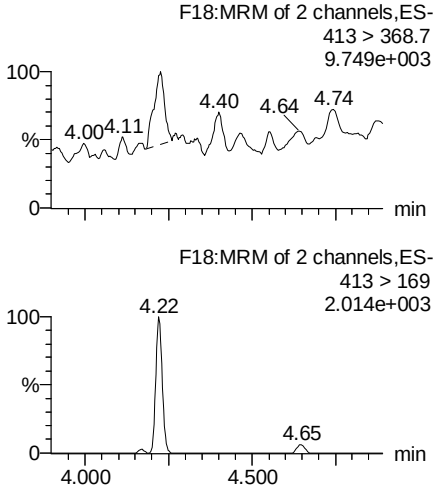
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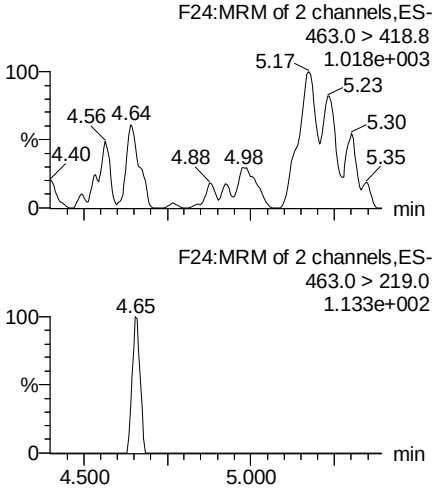
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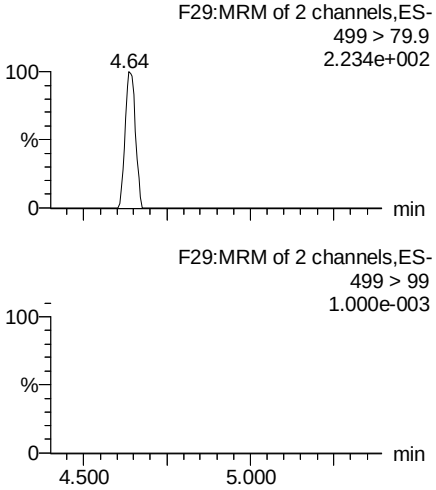
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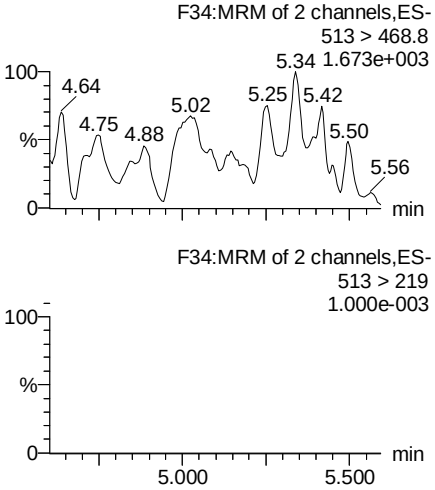
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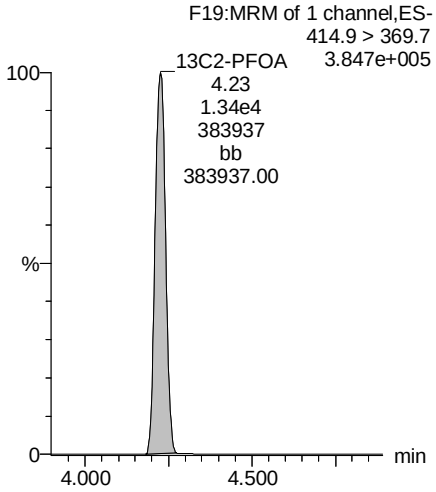
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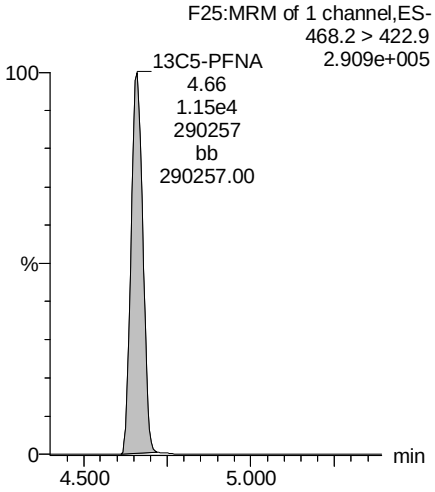
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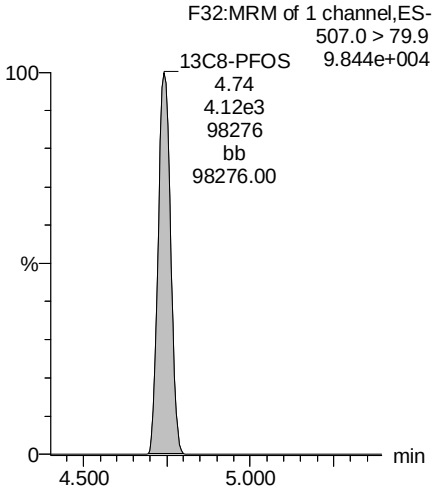
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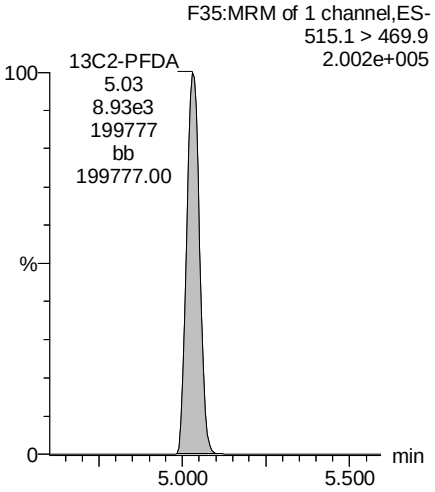
13C5-PFNA



13C8-PFOS



13C2-PFDA



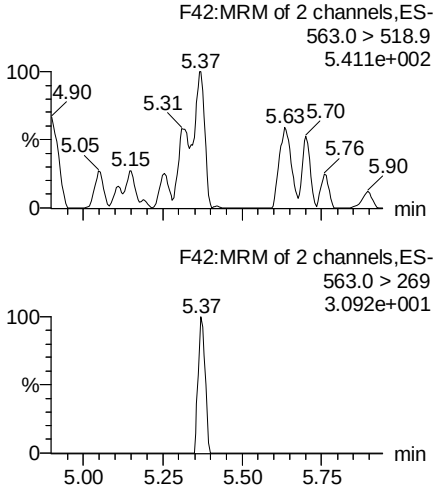
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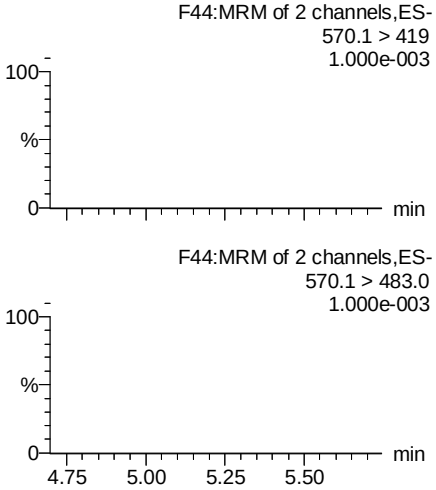
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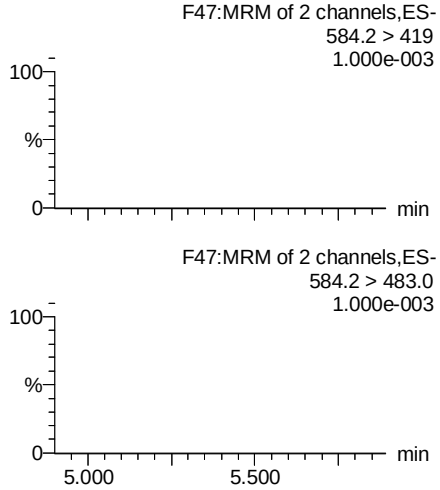
PFUdA



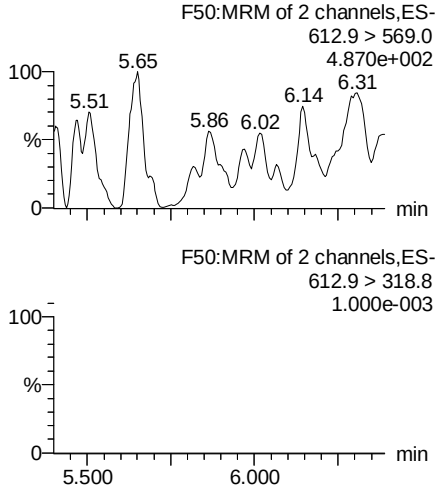
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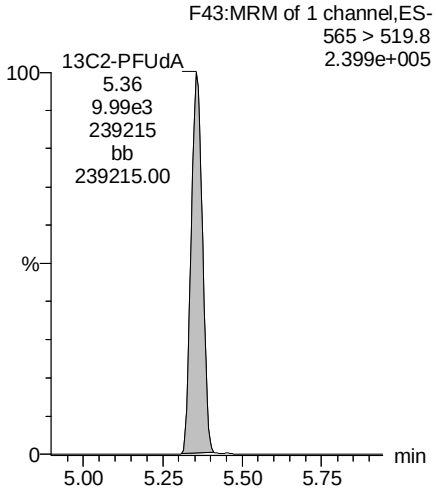
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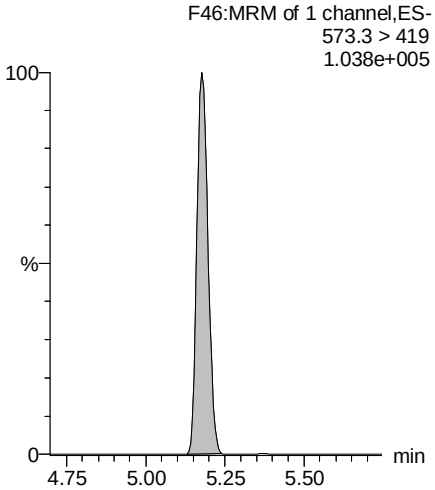
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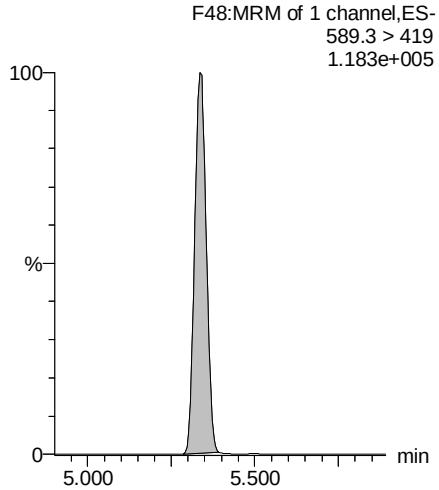
13C2-PFUdA



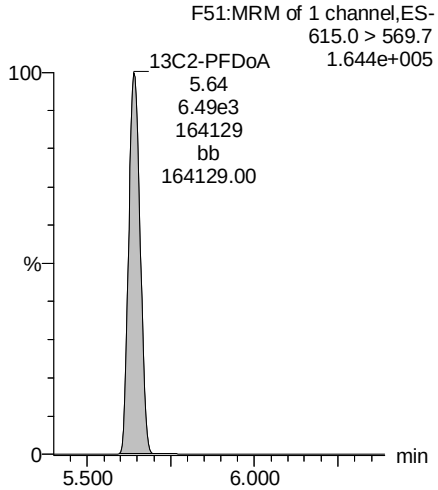
d3-N-MeFOSAA



d5-N-EtFOSAA



13C2-PFDoA



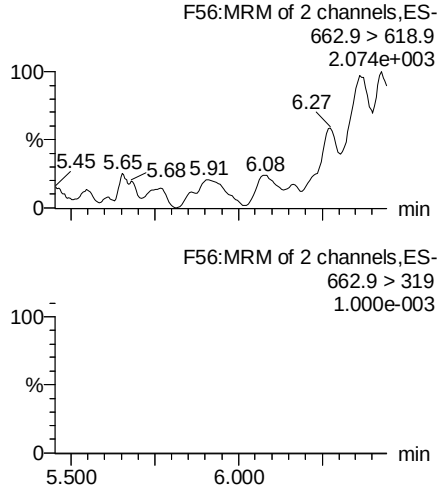
ANP 1/12/2018

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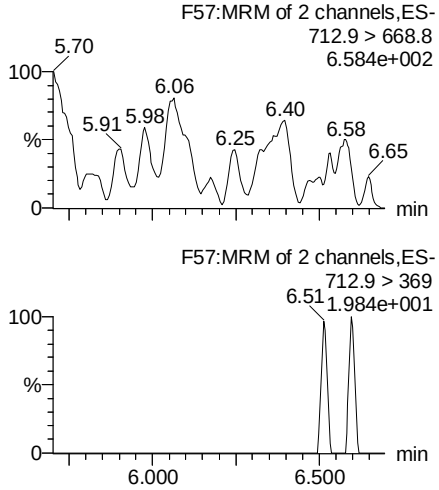
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Name: 180112M2_5, Date: 12-Jan-2018, Time: 11:34:29, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

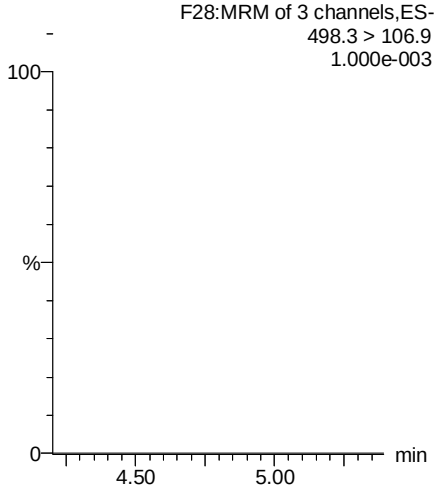
PFTrDA



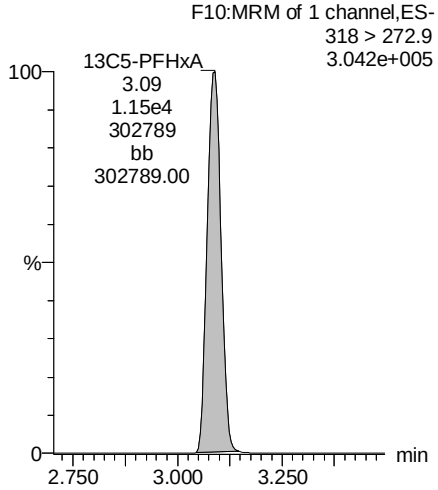
PFTeDA



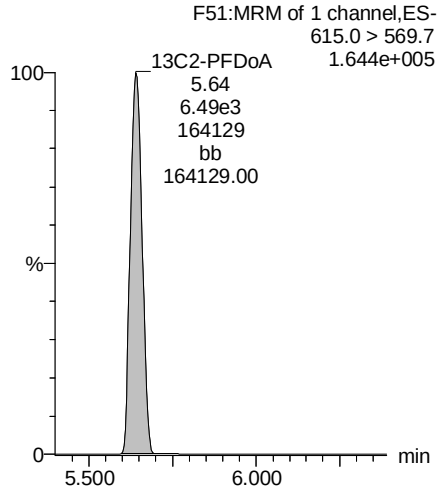
TCDA



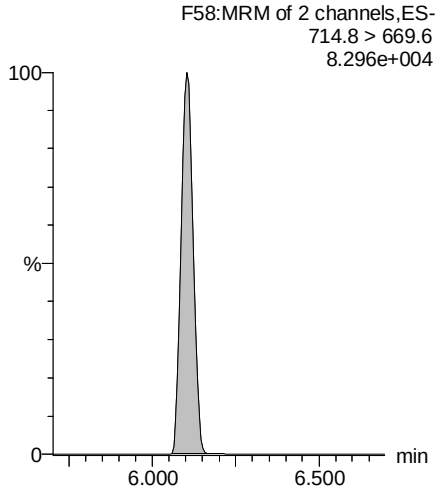
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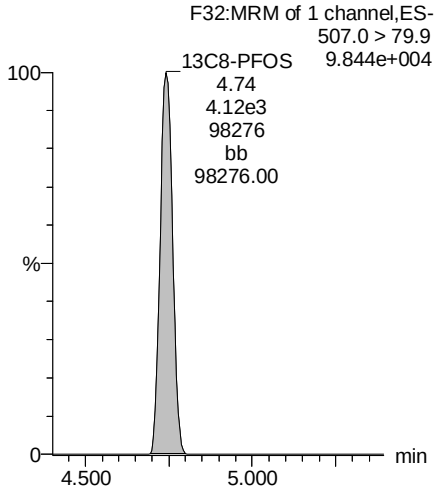
13C2-PFDoA



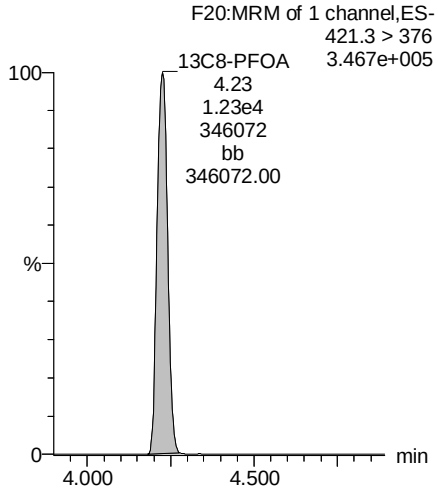
13C2-PFTeDA



13C8-PFOS



13C8-PFOA



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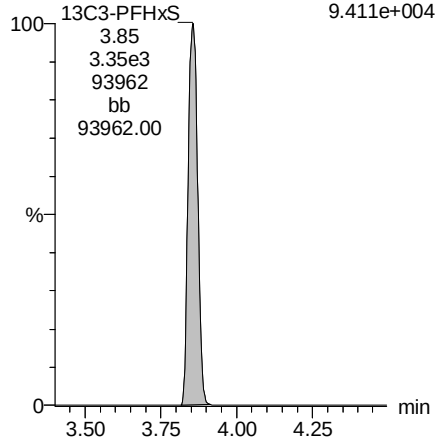
Rev'd: MM 1/12/18

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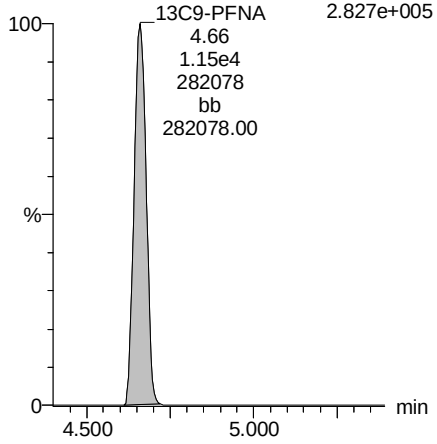
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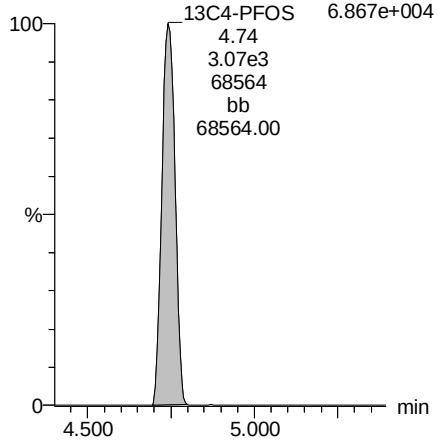
13C3-PFHxS



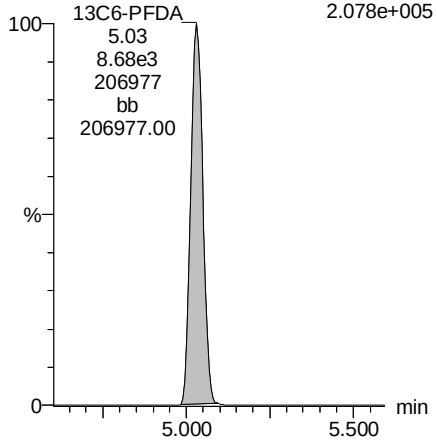
13C9-PFNA



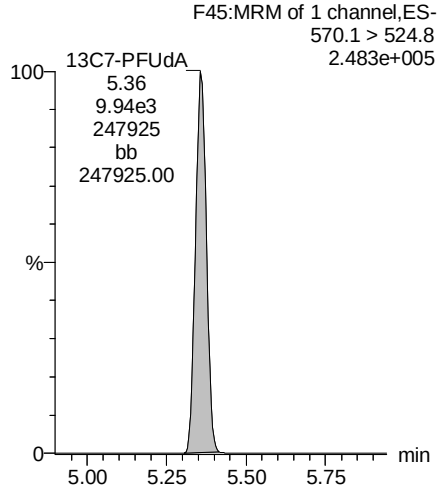
13C4-PFOS



13C6-PFDA



13C7-PFUdA



ANP 1/12/2018

INJECTION INTERNAL STANDARD (IIS) AREAS,

INSTRUMENT BLANKS (IB)

AND

CONTINUTING CALIBRATION VERIFICATIONS CCV)

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Dataset: Untitled

Last Altered: Tuesday, January 02, 2018 15:10:02 Pacific Standard Time
Printed: Tuesday, January 02, 2018 15:11:31 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-29-17.mdb 30 Dec 2017 10:03:31
Calibration: 02 Jan 2018 15:10:02

Name: 171230M3_7, Date: 30-Dec-2017, Time: 23:51:35, ID: ST171230M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171230M3-6 PFC CS3 17L2611	1.37e4	100.0	NO
2	2	13C5-PFHxA	ST171230M3-6 PFC CS3 17L2611	1.78e4	100.0	NO
3	3	13C3-PFHxS	ST171230M3-6 PFC CS3 17L2611	4.35e3	100.0	NO
4	4	13C8-PFOA	ST171230M3-6 PFC CS3 17L2611	1.59e4	100.0	NO
5	5	13C9-PFNA	ST171230M3-6 PFC CS3 17L2611	1.88e4	100.0	NO
6	6	13C4-PFOS	ST171230M3-6 PFC CS3 17L2611	4.21e3	100.0	NO
7	7	13C6-PFDA	ST171230M3-6 PFC CS3 17L2611	1.52e4	100.0	NO
8	8	13C7-PFUdA	ST171230M3-6 PFC CS3 17L2611	2.04e4	100.0	NO

Name: 171230M3_16, Date: 31-Dec-2017, Time: 01:32:12, ID: 1701839-01 STWRT-GW-MW113 0.11527, Description: STWRT-GW-MW113

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701839-01 STWRT-GW-MW113 0.11...	7.43e3	54.2	NO
2	2	13C5-PFHxA	1701839-01 STWRT-GW-MW113 0.11...	7.79e3	43.7	YES
3	3	13C3-PFHxS	1701839-01 STWRT-GW-MW113 0.11...	1.95e3	44.8	YES
4	4	13C8-PFOA	1701839-01 STWRT-GW-MW113 0.11...	8.01e3	50.4	NO
5	5	13C9-PFNA	1701839-01 STWRT-GW-MW113 0.11...	7.79e3	41.4	YES
6	6	13C4-PFOS	1701839-01 STWRT-GW-MW113 0.11...	1.81e3	43.0	YES
7	7	13C6-PFDA	1701839-01 STWRT-GW-MW113 0.11...	5.26e3	34.7	YES
8	8	13C7-PFUdA	1701839-01 STWRT-GW-MW113 0.11...	8.21e3	40.4	YES

Name: 171230M3_17, Date: 31-Dec-2017, Time: 01:43:23, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171230M3_18, Date: 31-Dec-2017, Time: 01:54:33, ID: 1701839-01@10X STWRT-GW-MW113 0.11527, Description: STWRT-GW-MW113

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701839-01@10X STWRT-GW-MW11...	5.92e2	4.3	YES
2	2	13C5-PFHxA	1701839-01@10X STWRT-GW-MW11...	6.78e2	3.8	YES
3	3	13C3-PFHxS	1701839-01@10X STWRT-GW-MW11...	1.56e2	3.6	YES
4	4	13C8-PFOA	1701839-01@10X STWRT-GW-MW11...	5.71e2	3.6	YES
5	5	13C9-PFNA	1701839-01@10X STWRT-GW-MW11...	5.57e2	3.0	YES
6	6	13C4-PFOS	1701839-01@10X STWRT-GW-MW11...	1.16e2	2.8	YES
7	7	13C6-PFDA	1701839-01@10X STWRT-GW-MW11...	2.83e2	1.9	YES

Dataset: Untitled

Last Altered: Tuesday, January 02, 2018 15:10:02 Pacific Standard Time
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Name: 171230M3_18, Date: 31-Dec-2017, Time: 01:54:33, ID: 1701839-01@10X STWRT-GW-MW113 0.11527, Description: STWRT-GW-MW113

	#	Name	ID	Area	%Rec	Area Out
8	8	13C7-PFUdA	1701839-01@10X STWRT-GW-MW11...	1.98e2	1.0	YES

Name: 171230M3_19, Date: 31-Dec-2017, Time: 02:05:45, ID: 1701839-12 STWRT-LW-MW02 0.11638, Description: STWRT-LW-MW02

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701839-12 STWRT-LW-MW02 0.11638	5.75e3	41.9	YES
2	2	13C5-PFHxA	1701839-12 STWRT-LW-MW02 0.11638	7.07e3	39.6	YES
3	3	13C3-PFHxS	1701839-12 STWRT-LW-MW02 0.11638	1.68e3	38.6	YES
4	4	13C8-PFOA	1701839-12 STWRT-LW-MW02 0.11638	6.68e3	42.1	YES
5	5	13C9-PFNA	1701839-12 STWRT-LW-MW02 0.11638	6.71e3	35.6	YES
6	6	13C4-PFOS	1701839-12 STWRT-LW-MW02 0.11638	1.58e3	37.4	YES
7	7	13C6-PFDA	1701839-12 STWRT-LW-MW02 0.11638	4.81e3	31.8	YES
8	8	13C7-PFUdA	1701839-12 STWRT-LW-MW02 0.11638	3.98e3	19.6	YES

Name: 171230M3_20, Date: 31-Dec-2017, Time: 02:16:55, ID: B7L0088-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0088-BS1 OPR 0.125	1.13e4	82.4	NO
2	2	13C5-PFHxA	B7L0088-BS1 OPR 0.125	1.35e4	75.8	NO
3	3	13C3-PFHxS	B7L0088-BS1 OPR 0.125	3.72e3	85.4	NO
4	4	13C8-PFOA	B7L0088-BS1 OPR 0.125	1.27e4	80.1	NO
5	5	13C9-PFNA	B7L0088-BS1 OPR 0.125	1.24e4	65.7	NO
6	6	13C4-PFOS	B7L0088-BS1 OPR 0.125	3.59e3	85.3	NO
7	7	13C6-PFDA	B7L0088-BS1 OPR 0.125	1.23e4	81.2	NO
8	8	13C7-PFUdA	B7L0088-BS1 OPR 0.125	1.42e4	69.9	NO

Name: 171230M3_21, Date: 31-Dec-2017, Time: 02:28:06, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Dataset: Untitled

Last Altered: Tuesday, January 02, 2018 15:10:02 Pacific Standard Time
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Name: 171230M3_22, Date: 31-Dec-2017, Time: 02:39:17, ID: B7L0088-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0088-BLK1 Method Blank 0.125	1.24e4	90.2	NO
2	2	13C5-PFHxA	B7L0088-BLK1 Method Blank 0.125	1.52e4	85.3	NO
3	3	13C3-PFHxS	B7L0088-BLK1 Method Blank 0.125	3.48e3	79.9	NO
4	4	13C8-PFOA	B7L0088-BLK1 Method Blank 0.125	1.22e4	76.9	NO
5	5	13C9-PFNA	B7L0088-BLK1 Method Blank 0.125	1.27e4	67.5	NO
6	6	13C4-PFOS	B7L0088-BLK1 Method Blank 0.125	4.01e3	95.1	NO
7	7	13C6-PFDA	B7L0088-BLK1 Method Blank 0.125	1.17e4	77.2	NO
8	8	13C7-PFUdA	B7L0088-BLK1 Method Blank 0.125	1.67e4	82.1	NO

Name: 171230M3_23, Date: 31-Dec-2017, Time: 02:50:27, ID: 1701841-06 OF-FB-120117 0.11813, Description: OF-FB-120117

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-06 OF-FB-120117 0.11813	1.10e4	80.0	NO
2	2	13C5-PFHxA	1701841-06 OF-FB-120117 0.11813	1.37e4	76.9	NO
3	3	13C3-PFHxS	1701841-06 OF-FB-120117 0.11813	3.77e3	86.6	NO
4	4	13C8-PFOA	1701841-06 OF-FB-120117 0.11813	1.28e4	80.8	NO
5	5	13C9-PFNA	1701841-06 OF-FB-120117 0.11813	1.35e4	71.5	NO
6	6	13C4-PFOS	1701841-06 OF-FB-120117 0.11813	3.43e3	81.6	NO
7	7	13C6-PFDA	1701841-06 OF-FB-120117 0.11813	1.17e4	77.0	NO
8	8	13C7-PFUdA	1701841-06 OF-FB-120117 0.11813	1.22e4	59.7	NO

Name: 171230M3_24, Date: 31-Dec-2017, Time: 03:01:38, ID: 1701841-07 OF-EB-120117 0.12048, Description: OF-EB-120117

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701841-07 OF-EB-120117 0.12048	1.05e4	76.2	NO
2	2	13C5-PFHxA	1701841-07 OF-EB-120117 0.12048	1.22e4	68.5	NO
3	3	13C3-PFHxS	1701841-07 OF-EB-120117 0.12048	3.35e3	76.9	NO
4	4	13C8-PFOA	1701841-07 OF-EB-120117 0.12048	1.30e4	81.5	NO
5	5	13C9-PFNA	1701841-07 OF-EB-120117 0.12048	1.32e4	70.1	NO
6	6	13C4-PFOS	1701841-07 OF-EB-120117 0.12048	2.74e3	65.0	NO
7	7	13C6-PFDA	1701841-07 OF-EB-120117 0.12048	1.17e4	77.0	NO
8	8	13C7-PFUdA	1701841-07 OF-EB-120117 0.12048	1.36e4	66.9	NO

Name: 171230M3_25, Date: 31-Dec-2017, Time: 03:12:49, ID: B7L0102-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0102-BS1 OPR 0.125	7.13e3	51.9	NO
2	2	13C5-PFHxA	B7L0102-BS1 OPR 0.125	7.56e3	42.4	YES
3	3	13C3-PFHxS	B7L0102-BS1 OPR 0.125	2.38e3	54.7	NO
4	4	13C8-PFOA	B7L0102-BS1 OPR 0.125	8.05e3	50.7	NO
5	5	13C9-PFNA	B7L0102-BS1 OPR 0.125	8.42e3	44.7	YES
6	6	13C4-PFOS	B7L0102-BS1 OPR 0.125	2.14e3	50.9	NO
7	7	13C6-PFDA	B7L0102-BS1 OPR 0.125	7.60e3	50.2	NO
8	8	13C7-PFUdA	B7L0102-BS1 OPR 0.125	1.00e4	49.3	YES

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Name: 171230M3_26, Date: 31-Dec-2017, Time: 03:23:59, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171230M3_27, Date: 31-Dec-2017, Time: 03:35:10, ID: B7L0102-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0102-BLK1 Method Blank 0.125	7.33e3	53.4	NO
2	2	13C5-PFHxA	B7L0102-BLK1 Method Blank 0.125	1.04e4	58.5	NO
3	3	13C3-PFHxS	B7L0102-BLK1 Method Blank 0.125	2.60e3	59.8	NO
4	4	13C8-PFOA	B7L0102-BLK1 Method Blank 0.125	7.49e3	47.1	YES
5	5	13C9-PFNA	B7L0102-BLK1 Method Blank 0.125	9.47e3	50.3	NO
6	6	13C4-PFOS	B7L0102-BLK1 Method Blank 0.125	2.06e3	48.9	YES
7	7	13C6-PFDA	B7L0102-BLK1 Method Blank 0.125	9.42e3	62.2	NO
8	8	13C7-PFUdA	B7L0102-BLK1 Method Blank 0.125	1.08e4	53.1	NO

Name: 171230M3_28, Date: 31-Dec-2017, Time: 03:46:21, ID: B7L0102-MS1 Matrix Spike 0.11637, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0102-MS1 Matrix Spike 0.11637	8.35e3	60.8	NO
2	2	13C5-PFHxA	B7L0102-MS1 Matrix Spike 0.11637	9.80e3	54.9	NO
3	3	13C3-PFHxS	B7L0102-MS1 Matrix Spike 0.11637	2.74e3	63.1	NO
4	4	13C8-PFOA	B7L0102-MS1 Matrix Spike 0.11637	9.30e3	58.5	NO
5	5	13C9-PFNA	B7L0102-MS1 Matrix Spike 0.11637	9.49e3	50.4	NO
6	6	13C4-PFOS	B7L0102-MS1 Matrix Spike 0.11637	2.51e3	59.7	NO
7	7	13C6-PFDA	B7L0102-MS1 Matrix Spike 0.11637	9.21e3	60.8	NO
8	8	13C7-PFUdA	B7L0102-MS1 Matrix Spike 0.11637	1.34e4	65.7	NO

Name: 171230M3_29, Date: 31-Dec-2017, Time: 03:57:31, ID: B7L0102-MSD1 Matrix Spike Dup 0.11403, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0102-MSD1 Matrix Spike Dup 0.114...	7.42e3	54.0	NO
2	2	13C5-PFHxA	B7L0102-MSD1 Matrix Spike Dup 0.114...	8.58e3	48.1	YES
3	3	13C3-PFHxS	B7L0102-MSD1 Matrix Spike Dup 0.114...	2.27e3	52.3	NO
4	4	13C8-PFOA	B7L0102-MSD1 Matrix Spike Dup 0.114...	8.53e3	53.7	NO
5	5	13C9-PFNA	B7L0102-MSD1 Matrix Spike Dup 0.114...	1.06e4	56.3	NO
6	6	13C4-PFOS	B7L0102-MSD1 Matrix Spike Dup 0.114...	2.36e3	55.9	NO
7	7	13C6-PFDA	B7L0102-MSD1 Matrix Spike Dup 0.114...	7.75e3	51.1	NO
8	8	13C7-PFUdA	B7L0102-MSD1 Matrix Spike Dup 0.114...	8.53e3	41.9	YES

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Name: 171230M3_30, Date: 31-Dec-2017, Time: 04:08:42, ID: 1701854-01 REEPDW022FRB 0.11378, Description: REEPDW022FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-01 REEPDW022FRB 0.11378	8.17e3	59.5	NO
2	2	13C5-PFHxA	1701854-01 REEPDW022FRB 0.11378	1.05e4	58.6	NO
3	3	13C3-PFHxS	1701854-01 REEPDW022FRB 0.11378	2.45e3	56.3	NO
4	4	13C8-PFOA	1701854-01 REEPDW022FRB 0.11378	1.01e4	63.9	NO
5	5	13C9-PFNA	1701854-01 REEPDW022FRB 0.11378	9.64e3	51.2	NO
6	6	13C4-PFOS	1701854-01 REEPDW022FRB 0.11378	2.86e3	68.0	NO
7	7	13C6-PFDA	1701854-01 REEPDW022FRB 0.11378	9.87e3	65.1	NO
8	8	13C7-PFUdA	1701854-01 REEPDW022FRB 0.11378	1.42e4	69.7	NO

Name: 171230M3_31, Date: 31-Dec-2017, Time: 04:19:58, ID: 1701854-02 REEPDW023FRB 0.11625, Description: REEPDW023FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-02 REEPDW023FRB 0.11625	8.12e3	59.2	NO
2	2	13C5-PFHxA	1701854-02 REEPDW023FRB 0.11625	9.34e3	52.3	NO
3	3	13C3-PFHxS	1701854-02 REEPDW023FRB 0.11625	2.54e3	58.3	NO
4	4	13C8-PFOA	1701854-02 REEPDW023FRB 0.11625	9.59e3	60.3	NO
5	5	13C9-PFNA	1701854-02 REEPDW023FRB 0.11625	9.51e3	50.5	NO
6	6	13C4-PFOS	1701854-02 REEPDW023FRB 0.11625	2.47e3	58.6	NO
7	7	13C6-PFDA	1701854-02 REEPDW023FRB 0.11625	1.05e4	69.4	NO
8	8	13C7-PFUdA	1701854-02 REEPDW023FRB 0.11625	1.08e4	52.8	NO

Name: 171230M3_32, Date: 31-Dec-2017, Time: 04:31:14, ID: 1701854-03 REEPDW024FRB 0.11458, Description: REEPDW024FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-03 REEPDW024FRB 0.11458	6.93e3	50.5	NO
2	2	13C5-PFHxA	1701854-03 REEPDW024FRB 0.11458	8.16e3	45.7	YES
3	3	13C3-PFHxS	1701854-03 REEPDW024FRB 0.11458	2.19e3	50.3	NO
4	4	13C8-PFOA	1701854-03 REEPDW024FRB 0.11458	8.52e3	53.6	NO
5	5	13C9-PFNA	1701854-03 REEPDW024FRB 0.11458	9.24e3	49.1	YES
6	6	13C4-PFOS	1701854-03 REEPDW024FRB 0.11458	2.28e3	54.1	NO
7	7	13C6-PFDA	1701854-03 REEPDW024FRB 0.11458	8.46e3	55.8	NO
8	8	13C7-PFUdA	1701854-03 REEPDW024FRB 0.11458	1.03e4	50.5	NO

Name: 171230M3_33, Date: 31-Dec-2017, Time: 04:42:34, ID: 1701854-04 REEPDW025FRB 0.11479, Description: REEPDW025FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-04 REEPDW025FRB 0.11479	9.00e3	65.6	NO
2	2	13C5-PFHxA	1701854-04 REEPDW025FRB 0.11479	1.03e4	57.9	NO
3	3	13C3-PFHxS	1701854-04 REEPDW025FRB 0.11479	3.02e3	69.3	NO
4	4	13C8-PFOA	1701854-04 REEPDW025FRB 0.11479	1.08e4	67.8	NO
5	5	13C9-PFNA	1701854-04 REEPDW025FRB 0.11479	1.23e4	65.2	NO
6	6	13C4-PFOS	1701854-04 REEPDW025FRB 0.11479	2.53e3	60.0	NO
7	7	13C6-PFDA	1701854-04 REEPDW025FRB 0.11479	9.11e3	60.1	NO
8	8	13C7-PFUdA	1701854-04 REEPDW025FRB 0.11479	1.31e4	64.2	NO

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Name: 171230M3_34, Date: 31-Dec-2017, Time: 04:53:49, ID: 1701854-05 REEPDW026FRB 0.11666, Description: REEPDW026FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-05 REEPDW026FRB 0.11666	6.96e3	50.7	NO
2	2	13C5-PFHxA	1701854-05 REEPDW026FRB 0.11666	8.55e3	47.9	YES
3	3	13C3-PFHxS	1701854-05 REEPDW026FRB 0.11666	1.96e3	45.1	YES
4	4	13C8-PFOA	1701854-05 REEPDW026FRB 0.11666	7.82e3	49.2	YES
5	5	13C9-PFNA	1701854-05 REEPDW026FRB 0.11666	8.76e3	46.5	YES
6	6	13C4-PFOS	1701854-05 REEPDW026FRB 0.11666	2.04e3	48.4	YES
7	7	13C6-PFDA	1701854-05 REEPDW026FRB 0.11666	5.50e3	36.3	YES
8	8	13C7-PFUdA	1701854-05 REEPDW026FRB 0.11666	8.96e3	44.0	YES

Name: 171230M3_35, Date: 31-Dec-2017, Time: 05:05:00, ID: 1701854-06 REEPDW027FRB 0.11523, Description: REEPDW027FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-06 REEPDW027FRB 0.11523	8.04e3	58.6	NO
2	2	13C5-PFHxA	1701854-06 REEPDW027FRB 0.11523	1.01e4	56.6	NO
3	3	13C3-PFHxS	1701854-06 REEPDW027FRB 0.11523	2.55e3	58.7	NO
4	4	13C8-PFOA	1701854-06 REEPDW027FRB 0.11523	1.01e4	63.3	NO
5	5	13C9-PFNA	1701854-06 REEPDW027FRB 0.11523	1.10e4	58.2	NO
6	6	13C4-PFOS	1701854-06 REEPDW027FRB 0.11523	2.46e3	58.4	NO
7	7	13C6-PFDA	1701854-06 REEPDW027FRB 0.11523	8.16e3	53.9	NO
8	8	13C7-PFUdA	1701854-06 REEPDW027FRB 0.11523	1.21e4	59.3	NO

Name: 171230M3_36, Date: 31-Dec-2017, Time: 05:16:11, ID: 1701854-07 REEPDW028FRB 0.1187, Description: REEPDW028FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-07 REEPDW028FRB 0.1187	8.82e3	64.3	NO
2	2	13C5-PFHxA	1701854-07 REEPDW028FRB 0.1187	1.09e4	60.9	NO
3	3	13C3-PFHxS	1701854-07 REEPDW028FRB 0.1187	2.74e3	63.0	NO
4	4	13C8-PFOA	1701854-07 REEPDW028FRB 0.1187	9.70e3	61.1	NO
5	5	13C9-PFNA	1701854-07 REEPDW028FRB 0.1187	8.63e3	45.8	YES
6	6	13C4-PFOS	1701854-07 REEPDW028FRB 0.1187	2.80e3	66.6	NO
7	7	13C6-PFDA	1701854-07 REEPDW028FRB 0.1187	9.60e3	63.4	NO
8	8	13C7-PFUdA	1701854-07 REEPDW028FRB 0.1187	1.19e4	58.2	NO

Name: 171230M3_37, Date: 31-Dec-2017, Time: 05:27:21, ID: 1701854-08 REEPDW029FRB 0.11357, Description: REEPDW029FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-08 REEPDW029FRB 0.11357	9.05e3	65.9	NO
2	2	13C5-PFHxA	1701854-08 REEPDW029FRB 0.11357	1.10e4	61.8	NO
3	3	13C3-PFHxS	1701854-08 REEPDW029FRB 0.11357	3.28e3	75.4	NO
4	4	13C8-PFOA	1701854-08 REEPDW029FRB 0.11357	1.13e4	70.9	NO
5	5	13C9-PFNA	1701854-08 REEPDW029FRB 0.11357	1.14e4	60.8	NO
6	6	13C4-PFOS	1701854-08 REEPDW029FRB 0.11357	3.16e3	75.2	NO
7	7	13C6-PFDA	1701854-08 REEPDW029FRB 0.11357	1.10e4	72.6	NO
8	8	13C7-PFUdA	1701854-08 REEPDW029FRB 0.11357	1.18e4	57.9	NO

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Name: 171230M3_38, Date: 31-Dec-2017, Time: 05:38:32, ID: 1701854-09 REEPDW030FRB 0.1153, Description: REEPDW030FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-09 REEPDW030FRB 0.1153	9.46e3	68.9	NO
2	2	13C5-PFHxA	1701854-09 REEPDW030FRB 0.1153	1.11e4	62.1	NO
3	3	13C3-PFHxS	1701854-09 REEPDW030FRB 0.1153	3.04e3	69.9	NO
4	4	13C8-PFOA	1701854-09 REEPDW030FRB 0.1153	1.06e4	66.8	NO
5	5	13C9-PFNA	1701854-09 REEPDW030FRB 0.1153	9.45e3	50.2	NO
6	6	13C4-PFOS	1701854-09 REEPDW030FRB 0.1153	2.83e3	67.3	NO
7	7	13C6-PFDA	1701854-09 REEPDW030FRB 0.1153	9.90e3	65.4	NO
8	8	13C7-PFUdA	1701854-09 REEPDW030FRB 0.1153	1.34e4	65.7	NO

Name: 171230M3_39, Date: 31-Dec-2017, Time: 05:49:43, ID: 1701854-10 REEPDW031FRB 0.11475, Description: REEPDW031FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-10 REEPDW031FRB 0.11475	9.30e3	67.8	NO
2	2	13C5-PFHxA	1701854-10 REEPDW031FRB 0.11475	1.09e4	61.2	NO
3	3	13C3-PFHxS	1701854-10 REEPDW031FRB 0.11475	2.98e3	68.4	NO
4	4	13C8-PFOA	1701854-10 REEPDW031FRB 0.11475	9.22e3	58.0	NO
5	5	13C9-PFNA	1701854-10 REEPDW031FRB 0.11475	1.07e4	57.1	NO
6	6	13C4-PFOS	1701854-10 REEPDW031FRB 0.11475	2.72e3	64.7	NO
7	7	13C6-PFDA	1701854-10 REEPDW031FRB 0.11475	1.04e4	68.9	NO
8	8	13C7-PFUdA	1701854-10 REEPDW031FRB 0.11475	1.24e4	60.9	NO

Name: 171230M3_40, Date: 31-Dec-2017, Time: 06:00:53, ID: 1701854-11 REEPDW032FRB 0.11352, Description: REEPDW032FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-11 REEPDW032FRB 0.11352	8.67e3	63.2	NO
2	2	13C5-PFHxA	1701854-11 REEPDW032FRB 0.11352	1.13e4	63.4	NO
3	3	13C3-PFHxS	1701854-11 REEPDW032FRB 0.11352	2.67e3	61.4	NO
4	4	13C8-PFOA	1701854-11 REEPDW032FRB 0.11352	1.09e4	68.3	NO
5	5	13C9-PFNA	1701854-11 REEPDW032FRB 0.11352	1.09e4	58.0	NO
6	6	13C4-PFOS	1701854-11 REEPDW032FRB 0.11352	2.83e3	67.2	NO
7	7	13C6-PFDA	1701854-11 REEPDW032FRB 0.11352	1.10e4	72.4	NO
8	8	13C7-PFUdA	1701854-11 REEPDW032FRB 0.11352	1.14e4	56.1	NO

Name: 171230M3_41, Date: 31-Dec-2017, Time: 06:12:04, ID: 1701854-12 REEPDW033FRB 0.11723, Description: REEPDW033FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-12 REEPDW033FRB 0.11723	8.20e3	59.8	NO
2	2	13C5-PFHxA	1701854-12 REEPDW033FRB 0.11723	1.01e4	56.6	NO
3	3	13C3-PFHxS	1701854-12 REEPDW033FRB 0.11723	2.72e3	62.6	NO
4	4	13C8-PFOA	1701854-12 REEPDW033FRB 0.11723	8.75e3	55.1	NO
5	5	13C9-PFNA	1701854-12 REEPDW033FRB 0.11723	8.96e3	47.6	YES
6	6	13C4-PFOS	1701854-12 REEPDW033FRB 0.11723	2.40e3	57.1	NO
7	7	13C6-PFDA	1701854-12 REEPDW033FRB 0.11723	9.11e3	60.1	NO
8	8	13C7-PFUdA	1701854-12 REEPDW033FRB 0.11723	1.15e4	56.4	NO

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Name: 171230M3_42, Date: 31-Dec-2017, Time: 06:23:15, ID: 1701854-13 REEPDW034FRB 0.11335, Description: REEPDW034FRB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701854-13 REEPDW034FRB 0.11335	8.90e3	64.9	NO
2	2	13C5-PFHxA	1701854-13 REEPDW034FRB 0.11335	1.03e4	57.7	NO
3	3	13C3-PFHxS	1701854-13 REEPDW034FRB 0.11335	2.75e3	63.2	NO
4	4	13C8-PFOA	1701854-13 REEPDW034FRB 0.11335	1.08e4	68.0	NO
5	5	13C9-PFNA	1701854-13 REEPDW034FRB 0.11335	1.11e4	58.8	NO
6	6	13C4-PFOS	1701854-13 REEPDW034FRB 0.11335	2.60e3	61.8	NO
7	7	13C6-PFDA	1701854-13 REEPDW034FRB 0.11335	9.93e3	65.5	NO
8	8	13C7-PFUdA	1701854-13 REEPDW034FRB 0.11335	1.34e4	65.9	NO

Name: 171230M3_43, Date: 31-Dec-2017, Time: 06:34:25, ID: 1701938-01 REEPDW040 0.11998, Description: REEPDW040

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701938-01 REEPDW040 0.11998	8.54e3	62.3	NO
2	2	13C5-PFHxA	1701938-01 REEPDW040 0.11998	9.46e3	53.0	NO
3	3	13C3-PFHxS	1701938-01 REEPDW040 0.11998	3.00e3	69.0	NO
4	4	13C8-PFOA	1701938-01 REEPDW040 0.11998	8.77e3	55.2	NO
5	5	13C9-PFNA	1701938-01 REEPDW040 0.11998	9.24e3	49.1	YES
6	6	13C4-PFOS	1701938-01 REEPDW040 0.11998	2.65e3	62.9	NO
7	7	13C6-PFDA	1701938-01 REEPDW040 0.11998	9.18e3	60.6	NO
8	8	13C7-PFUdA	1701938-01 REEPDW040 0.11998	1.15e4	56.4	NO

Name: 171230M3_44, Date: 31-Dec-2017, Time: 06:45:36, ID: 1701938-02 REEPDW503 0.11997, Description: REEPDW503

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701938-02 REEPDW503 0.11997	7.08e3	51.6	NO
2	2	13C5-PFHxA	1701938-02 REEPDW503 0.11997	8.76e3	49.1	YES
3	3	13C3-PFHxS	1701938-02 REEPDW503 0.11997	2.40e3	55.2	NO
4	4	13C8-PFOA	1701938-02 REEPDW503 0.11997	8.67e3	54.5	NO
5	5	13C9-PFNA	1701938-02 REEPDW503 0.11997	9.55e3	50.7	NO
6	6	13C4-PFOS	1701938-02 REEPDW503 0.11997	2.47e3	58.6	NO
7	7	13C6-PFDA	1701938-02 REEPDW503 0.11997	8.65e3	57.1	NO
8	8	13C7-PFUdA	1701938-02 REEPDW503 0.11997	8.75e3	43.0	YES

Name: 171230M3_45, Date: 31-Dec-2017, Time: 06:56:48, ID: 1701938-03 REEPDW041 0.1211, Description: REEPDW041

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701938-03 REEPDW041 0.1211	8.31e3	60.5	NO
2	2	13C5-PFHxA	1701938-03 REEPDW041 0.1211	9.78e3	54.8	NO
3	3	13C3-PFHxS	1701938-03 REEPDW041 0.1211	2.92e3	67.1	NO
4	4	13C8-PFOA	1701938-03 REEPDW041 0.1211	9.91e3	62.4	NO
5	5	13C9-PFNA	1701938-03 REEPDW041 0.1211	1.03e4	54.8	NO
6	6	13C4-PFOS	1701938-03 REEPDW041 0.1211	3.00e3	71.3	NO
7	7	13C6-PFDA	1701938-03 REEPDW041 0.1211	7.20e3	47.5	YES
8	8	13C7-PFUdA	1701938-03 REEPDW041 0.1211	1.27e4	62.3	NO

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Name: 171230M3_46, Date: 31-Dec-2017, Time: 07:08:00, ID: 1701938-04 REEPDW042 0.11808, Description: REEPDW042

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701938-04 REEPDW042 0.11808	8.20e3	59.8	NO
2	2	13C5-PFHxA	1701938-04 REEPDW042 0.11808	1.02e4	57.4	NO
3	3	13C3-PFHxS	1701938-04 REEPDW042 0.11808	2.77e3	63.7	NO
4	4	13C8-PFOA	1701938-04 REEPDW042 0.11808	9.39e3	59.1	NO
5	5	13C9-PFNA	1701938-04 REEPDW042 0.11808	1.01e4	53.9	NO
6	6	13C4-PFOS	1701938-04 REEPDW042 0.11808	2.83e3	67.2	NO
7	7	13C6-PFDA	1701938-04 REEPDW042 0.11808	9.75e3	64.4	NO
8	8	13C7-PFUdA	1701938-04 REEPDW042 0.11808	9.36e3	46.0	YES

Name: 171230M3_47, Date: 31-Dec-2017, Time: 07:19:11, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171230M3_48, Date: 31-Dec-2017, Time: 07:30:22, ID: ST171230M3-11 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171230M3-11 PFC CS0 17L2608	1.55e4	113.3	NO
2	2	13C5-PFHxA	ST171230M3-11 PFC CS0 17L2608	1.67e4	93.6	NO
3	3	13C3-PFHxS	ST171230M3-11 PFC CS0 17L2608	4.32e3	99.3	NO
4	4	13C8-PFOA	ST171230M3-11 PFC CS0 17L2608	1.50e4	94.7	NO
5	5	13C9-PFNA	ST171230M3-11 PFC CS0 17L2608	1.71e4	91.0	NO
6	6	13C4-PFOS	ST171230M3-11 PFC CS0 17L2608	4.81e3	114.1	NO
7	7	13C6-PFDA	ST171230M3-11 PFC CS0 17L2608	1.89e4	124.7	NO
8	8	13C7-PFUdA	ST171230M3-11 PFC CS0 17L2608	2.26e4	111.1	NO

Name: 171230M3_49, Date: 31-Dec-2017, Time: 07:41:32, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA	1.09e1	0.1	NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 171230M3_50, Date: 31-Dec-2017, Time: 07:52:43, ID: B7L0153-BS1 OPR 1, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0153-BS1 OPR 1	1.03e4	75.3	NO
2	2	13C5-PFHxA	B7L0153-BS1 OPR 1	1.20e4	67.4	NO
3	3	13C3-PFHxS	B7L0153-BS1 OPR 1	3.32e3	76.3	NO
4	4	13C8-PFOA	B7L0153-BS1 OPR 1	1.02e4	64.2	NO
5	5	13C9-PFNA	B7L0153-BS1 OPR 1	1.02e4	54.4	NO
6	6	13C4-PFOS	B7L0153-BS1 OPR 1	2.28e3	54.0	NO
7	7	13C6-PFDA	B7L0153-BS1 OPR 1	6.60e3	43.6	YES
8	8	13C7-PFUdA	B7L0153-BS1 OPR 1	6.64e3	32.6	YES

Name: 171230M3_51, Date: 31-Dec-2017, Time: 08:03:54, ID: B7L0153-BLK1 Method Blank 1, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0153-BLK1 Method Blank 1	1.08e4	78.4	NO
2	2	13C5-PFHxA	B7L0153-BLK1 Method Blank 1	1.34e4	75.1	NO
3	3	13C3-PFHxS	B7L0153-BLK1 Method Blank 1	3.60e3	82.7	NO
4	4	13C8-PFOA	B7L0153-BLK1 Method Blank 1	1.25e4	78.9	NO
5	5	13C9-PFNA	B7L0153-BLK1 Method Blank 1	1.23e4	65.3	NO
6	6	13C4-PFOS	B7L0153-BLK1 Method Blank 1	2.21e3	52.5	NO
7	7	13C6-PFDA	B7L0153-BLK1 Method Blank 1	8.08e3	53.3	NO
8	8	13C7-PFUdA	B7L0153-BLK1 Method Blank 1	8.27e3	40.7	YES

Name: 171230M3_52, Date: 31-Dec-2017, Time: 08:15:04, ID: B7L0153-MS1 Matrix Spike 1, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0153-MS1 Matrix Spike 1	1.07e4	78.2	NO
2	2	13C5-PFHxA	B7L0153-MS1 Matrix Spike 1	1.32e4	74.2	NO
3	3	13C3-PFHxS	B7L0153-MS1 Matrix Spike 1	3.35e3	77.0	NO
4	4	13C8-PFOA	B7L0153-MS1 Matrix Spike 1	1.26e4	79.1	NO
5	5	13C9-PFNA	B7L0153-MS1 Matrix Spike 1	1.34e4	71.0	NO
6	6	13C4-PFOS	B7L0153-MS1 Matrix Spike 1	3.16e3	75.0	NO
7	7	13C6-PFDA	B7L0153-MS1 Matrix Spike 1	1.17e4	77.0	NO
8	8	13C7-PFUdA	B7L0153-MS1 Matrix Spike 1	1.06e4	52.1	NO

Name: 171230M3_53, Date: 31-Dec-2017, Time: 08:26:15, ID: B7L0153-MSD1 Matrix Spike Dup 1, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0153-MSD1 Matrix Spike Dup 1	9.83e3	71.6	NO
2	2	13C5-PFHxA	B7L0153-MSD1 Matrix Spike Dup 1	1.17e4	65.8	NO
3	3	13C3-PFHxS	B7L0153-MSD1 Matrix Spike Dup 1	2.90e3	66.8	NO
4	4	13C8-PFOA	B7L0153-MSD1 Matrix Spike Dup 1	1.04e4	65.4	NO
5	5	13C9-PFNA	B7L0153-MSD1 Matrix Spike Dup 1	8.09e3	43.0	YES
6	6	13C4-PFOS	B7L0153-MSD1 Matrix Spike Dup 1	1.48e3	35.1	YES
7	7	13C6-PFDA	B7L0153-MSD1 Matrix Spike Dup 1	5.07e3	33.5	YES
8	8	13C7-PFUdA	B7L0153-MSD1 Matrix Spike Dup 1	3.06e3	15.0	YES

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Name: 171230M3_54, Date: 31-Dec-2017, Time: 08:37:26, ID: 1701837-01 MARTN-03-SB01-2-4 1, Description: MARTN-03-SB01-2-4

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-01 MARTN-03-SB01-2-4 1	1.10e4	79.9	NO
2	2	13C5-PFHxA	1701837-01 MARTN-03-SB01-2-4 1	1.26e4	70.6	NO
3	3	13C3-PFHxS	1701837-01 MARTN-03-SB01-2-4 1	3.29e3	75.7	NO
4	4	13C8-PFOA	1701837-01 MARTN-03-SB01-2-4 1	1.25e4	78.6	NO
5	5	13C9-PFNA	1701837-01 MARTN-03-SB01-2-4 1	1.36e4	72.0	NO
6	6	13C4-PFOS	1701837-01 MARTN-03-SB01-2-4 1	2.99e3	71.1	NO
7	7	13C6-PFDA	1701837-01 MARTN-03-SB01-2-4 1	1.24e4	81.5	NO
8	8	13C7-PFUdA	1701837-01 MARTN-03-SB01-2-4 1	1.08e4	53.0	NO

Name: 171230M3_55, Date: 31-Dec-2017, Time: 08:48:36, ID: 1701837-02 MARTN-03-SB01-5-7 1, Description: MARTN-03-SB01-5-7

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-02 MARTN-03-SB01-5-7 1	1.05e4	76.8	NO
2	2	13C5-PFHxA	1701837-02 MARTN-03-SB01-5-7 1	1.34e4	75.0	NO
3	3	13C3-PFHxS	1701837-02 MARTN-03-SB01-5-7 1	3.17e3	72.8	NO
4	4	13C8-PFOA	1701837-02 MARTN-03-SB01-5-7 1	1.32e4	83.0	NO
5	5	13C9-PFNA	1701837-02 MARTN-03-SB01-5-7 1	1.15e4	61.0	NO
6	6	13C4-PFOS	1701837-02 MARTN-03-SB01-5-7 1	2.30e3	54.7	NO
7	7	13C6-PFDA	1701837-02 MARTN-03-SB01-5-7 1	7.66e3	50.6	NO
8	8	13C7-PFUdA	1701837-02 MARTN-03-SB01-5-7 1	4.41e3	21.6	YES

Name: 171230M3_56, Date: 31-Dec-2017, Time: 08:59:47, ID: 1701837-03 MARTN-03-SB02-1-3 1, Description: MARTN-03-SB02-1-3

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-03 MARTN-03-SB02-1-3 1	1.00e4	73.2	NO
2	2	13C5-PFHxA	1701837-03 MARTN-03-SB02-1-3 1	1.18e4	66.1	NO
3	3	13C3-PFHxS	1701837-03 MARTN-03-SB02-1-3 1	3.55e3	81.6	NO
4	4	13C8-PFOA	1701837-03 MARTN-03-SB02-1-3 1	1.10e4	69.4	NO
5	5	13C9-PFNA	1701837-03 MARTN-03-SB02-1-3 1	1.22e4	64.8	NO
6	6	13C4-PFOS	1701837-03 MARTN-03-SB02-1-3 1	2.64e3	62.6	NO
7	7	13C6-PFDA	1701837-03 MARTN-03-SB02-1-3 1	8.12e3	53.6	NO
8	8	13C7-PFUdA	1701837-03 MARTN-03-SB02-1-3 1	6.03e3	29.6	YES

Name: 171230M3_57, Date: 31-Dec-2017, Time: 09:10:58, ID: 1701837-04 MARTN-03-SB02-4-6 1, Description: MARTN-03-SB02-4-6

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-04 MARTN-03-SB02-4-6 1	1.08e4	78.8	NO
2	2	13C5-PFHxA	1701837-04 MARTN-03-SB02-4-6 1	1.26e4	70.6	NO
3	3	13C3-PFHxS	1701837-04 MARTN-03-SB02-4-6 1	3.51e3	80.7	NO
4	4	13C8-PFOA	1701837-04 MARTN-03-SB02-4-6 1	1.21e4	76.3	NO
5	5	13C9-PFNA	1701837-04 MARTN-03-SB02-4-6 1	1.19e4	63.2	NO
6	6	13C4-PFOS	1701837-04 MARTN-03-SB02-4-6 1	2.01e3	47.7	YES
7	7	13C6-PFDA	1701837-04 MARTN-03-SB02-4-6 1	6.75e3	44.6	YES
8	8	13C7-PFUdA	1701837-04 MARTN-03-SB02-4-6 1	3.29e3	16.1	YES

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Name: 171230M3_58, Date: 31-Dec-2017, Time: 09:22:08, ID: 1701837-05 MARTN-03-SB03-0-2 1, Description: MARTN-03-SB03-0-2

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-05 MARTN-03-SB03-0-2 1	1.04e4	75.5	NO
2	2	13C5-PFHxA	1701837-05 MARTN-03-SB03-0-2 1	1.31e4	73.4	NO
3	3	13C3-PFHxS	1701837-05 MARTN-03-SB03-0-2 1	3.52e3	80.9	NO
4	4	13C8-PFOA	1701837-05 MARTN-03-SB03-0-2 1	1.27e4	79.8	NO
5	5	13C9-PFNA	1701837-05 MARTN-03-SB03-0-2 1	1.20e4	63.7	NO
6	6	13C4-PFOS	1701837-05 MARTN-03-SB03-0-2 1	3.24e3	76.9	NO
7	7	13C6-PFDA	1701837-05 MARTN-03-SB03-0-2 1	1.07e4	70.6	NO
8	8	13C7-PFUdA	1701837-05 MARTN-03-SB03-0-2 1	9.15e3	45.0	YES

Name: 171230M3_59, Date: 31-Dec-2017, Time: 09:33:20, ID: 1701837-06 MARTN-03-SB03-6-8 1, Description: MARTN-03-SB03-6-8

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-06 MARTN-03-SB03-6-8 1	1.01e4	73.9	NO
2	2	13C5-PFHxA	1701837-06 MARTN-03-SB03-6-8 1	1.15e4	64.5	NO
3	3	13C3-PFHxS	1701837-06 MARTN-03-SB03-6-8 1	3.11e3	71.5	NO
4	4	13C8-PFOA	1701837-06 MARTN-03-SB03-6-8 1	1.24e4	78.2	NO
5	5	13C9-PFNA	1701837-06 MARTN-03-SB03-6-8 1	1.17e4	62.4	NO
6	6	13C4-PFOS	1701837-06 MARTN-03-SB03-6-8 1	2.75e3	65.3	NO
7	7	13C6-PFDA	1701837-06 MARTN-03-SB03-6-8 1	9.27e3	61.2	NO
8	8	13C7-PFUdA	1701837-06 MARTN-03-SB03-6-8 1	1.12e4	55.0	NO

Name: 171230M3_60, Date: 31-Dec-2017, Time: 09:44:30, ID: 1701837-07 MARTN-06-SB03-2-4 1, Description: MARTN-06-SB03-2-4

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-07 MARTN-06-SB03-2-4 1	1.01e4	73.6	NO
2	2	13C5-PFHxA	1701837-07 MARTN-06-SB03-2-4 1	1.39e4	78.2	NO
3	3	13C3-PFHxS	1701837-07 MARTN-06-SB03-2-4 1	3.24e3	74.4	NO
4	4	13C8-PFOA	1701837-07 MARTN-06-SB03-2-4 1	1.21e4	76.4	NO
5	5	13C9-PFNA	1701837-07 MARTN-06-SB03-2-4 1	1.14e4	60.6	NO
6	6	13C4-PFOS	1701837-07 MARTN-06-SB03-2-4 1	3.13e3	74.4	NO
7	7	13C6-PFDA	1701837-07 MARTN-06-SB03-2-4 1	8.91e3	58.8	NO
8	8	13C7-PFUdA	1701837-07 MARTN-06-SB03-2-4 1	6.93e3	34.0	YES

Name: 171230M3_61, Date: 31-Dec-2017, Time: 09:55:41, ID: 1701837-08 MARTN-06-SB03-6-8 1, Description: MARTN-06-SB03-6-8

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-08 MARTN-06-SB03-6-8 1	1.02e4	74.3	NO
2	2	13C5-PFHxA	1701837-08 MARTN-06-SB03-6-8 1	1.28e4	71.8	NO
3	3	13C3-PFHxS	1701837-08 MARTN-06-SB03-6-8 1	3.23e3	74.2	NO
4	4	13C8-PFOA	1701837-08 MARTN-06-SB03-6-8 1	1.10e4	69.5	NO
5	5	13C9-PFNA	1701837-08 MARTN-06-SB03-6-8 1	1.17e4	62.2	NO
6	6	13C4-PFOS	1701837-08 MARTN-06-SB03-6-8 1	2.19e3	52.1	NO
7	7	13C6-PFDA	1701837-08 MARTN-06-SB03-6-8 1	8.01e3	52.9	NO
8	8	13C7-PFUdA	1701837-08 MARTN-06-SB03-6-8 1	6.32e3	31.0	YES

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Name: 171230M3_62, Date: 31-Dec-2017, Time: 10:06:51, ID: 1701837-09 MARTN-06-SB04-0-2 1, Description: MARTN-06-SB04-0-2

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-09 MARTN-06-SB04-0-2 1	1.03e4	74.9	NO
2	2	13C5-PFHxA	1701837-09 MARTN-06-SB04-0-2 1	1.29e4	72.1	NO
3	3	13C3-PFHxS	1701837-09 MARTN-06-SB04-0-2 1	3.40e3	78.3	NO
4	4	13C8-PFOA	1701837-09 MARTN-06-SB04-0-2 1	1.15e4	72.2	NO
5	5	13C9-PFNA	1701837-09 MARTN-06-SB04-0-2 1	1.22e4	64.6	NO
6	6	13C4-PFOS	1701837-09 MARTN-06-SB04-0-2 1	2.81e3	66.6	NO
7	7	13C6-PFDA	1701837-09 MARTN-06-SB04-0-2 1	9.13e3	60.2	NO
8	8	13C7-PFUdA	1701837-09 MARTN-06-SB04-0-2 1	9.10e3	44.7	YES

Name: 171230M3_63, Date: 31-Dec-2017, Time: 10:18:02, ID: 1701837-10 MARTN-08-SB04-10-12 1, Description: MARTN-08-SB04-10-12

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-10 MARTN-08-SB04-10-12 1	1.11e4	80.6	NO
2	2	13C5-PFHxA	1701837-10 MARTN-08-SB04-10-12 1	1.30e4	72.9	NO
3	3	13C3-PFHxS	1701837-10 MARTN-08-SB04-10-12 1	3.44e3	79.1	NO
4	4	13C8-PFOA	1701837-10 MARTN-08-SB04-10-12 1	1.12e4	70.4	NO
5	5	13C9-PFNA	1701837-10 MARTN-08-SB04-10-12 1	1.27e4	67.3	NO
6	6	13C4-PFOS	1701837-10 MARTN-08-SB04-10-12 1	3.05e3	72.4	NO
7	7	13C6-PFDA	1701837-10 MARTN-08-SB04-10-12 1	9.72e3	64.1	NO
8	8	13C7-PFUdA	1701837-10 MARTN-08-SB04-10-12 1	7.49e3	36.8	YES

Name: 171230M3_64, Date: 31-Dec-2017, Time: 10:29:13, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	1.38e1	0.1	NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA	6.08e0	0.0	NO
5	5	13C9-PFNA	IPA	6.90e0	0.0	NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171230M3_65, Date: 31-Dec-2017, Time: 10:40:23, ID: ST171230M3-12 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171230M3-12 PFC CS3 17L2611	1.63e4	118.9	NO
2	2	13C5-PFHxA	ST171230M3-12 PFC CS3 17L2611	1.96e4	110.0	NO
3	3	13C3-PFHxS	ST171230M3-12 PFC CS3 17L2611	5.18e3	119.0	NO
4	4	13C8-PFOA	ST171230M3-12 PFC CS3 17L2611	1.57e4	99.0	NO
5	5	13C9-PFNA	ST171230M3-12 PFC CS3 17L2611	1.84e4	97.9	NO
6	6	13C4-PFOS	ST171230M3-12 PFC CS3 17L2611	4.95e3	117.7	NO
7	7	13C6-PFDA	ST171230M3-12 PFC CS3 17L2611	1.80e4	118.5	NO
8	8	13C7-PFUdA	ST171230M3-12 PFC CS3 17L2611	1.79e4	87.9	NO

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Name: 171230M3_66, Date: 31-Dec-2017, Time: 10:51:34, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA	5.42e0	0.0	NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171230M3_67, Date: 31-Dec-2017, Time: 11:02:45, ID: 1701837-11 MARTN-08-SB04-2-4 1, Description: MARTN-08-SB04-2-4

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701837-11 MARTN-08-SB04-2-4 1	1.15e4	83.8	NO
2	2	13C5-PFHxA	1701837-11 MARTN-08-SB04-2-4 1	1.39e4	78.2	NO
3	3	13C3-PFHxS	1701837-11 MARTN-08-SB04-2-4 1	3.32e3	76.3	NO
4	4	13C8-PFOA	1701837-11 MARTN-08-SB04-2-4 1	1.28e4	80.5	NO
5	5	13C9-PFNA	1701837-11 MARTN-08-SB04-2-4 1	1.26e4	66.9	NO
6	6	13C4-PFOS	1701837-11 MARTN-08-SB04-2-4 1	2.77e3	65.8	NO
7	7	13C6-PFDA	1701837-11 MARTN-08-SB04-2-4 1	8.50e3	56.1	NO
8	8	13C7-PFUdA	1701837-11 MARTN-08-SB04-2-4 1	9.29e3	45.6	YES

Name: 171230M3_68, Date: 31-Dec-2017, Time: 11:13:56, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 171230M3_69, Date: 31-Dec-2017, Time: 11:25:06, ID: ST171230M3-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST171230M3-13 PFC CS3 17L2611	1.63e4	118.9	NO
2	2	13C5-PFHxA	ST171230M3-13 PFC CS3 17L2611	2.09e4	117.4	NO
3	3	13C3-PFHxS	ST171230M3-13 PFC CS3 17L2611	5.13e3	117.9	NO
4	4	13C8-PFOA	ST171230M3-13 PFC CS3 17L2611	1.81e4	113.9	NO
5	5	13C9-PFNA	ST171230M3-13 PFC CS3 17L2611	1.82e4	96.5	NO
6	6	13C4-PFOS	ST171230M3-13 PFC CS3 17L2611	4.64e3	110.3	NO
7	7	13C6-PFDA	ST171230M3-13 PFC CS3 17L2611	1.65e4	108.8	NO
8	8	13C7-PFUdA	ST171230M3-13 PFC CS3 17L2611	1.71e4	84.2	NO

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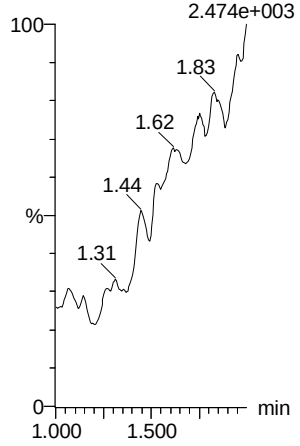
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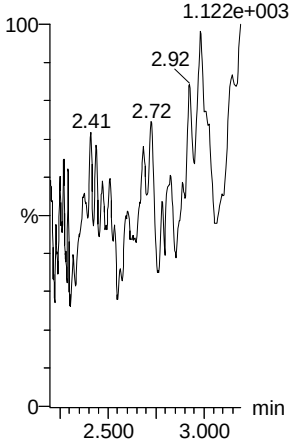
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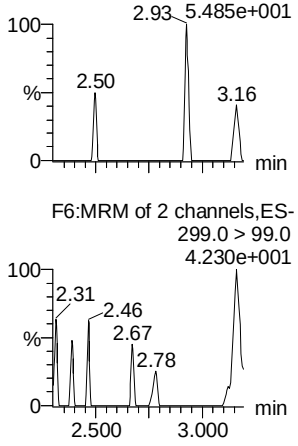
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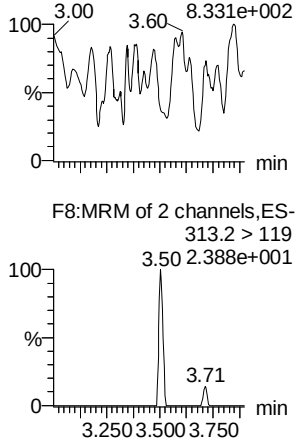
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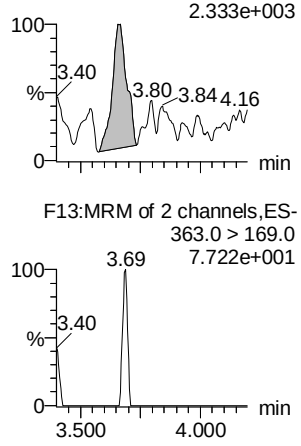
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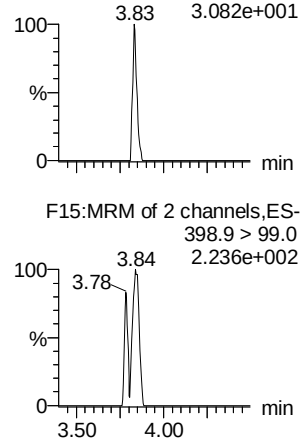
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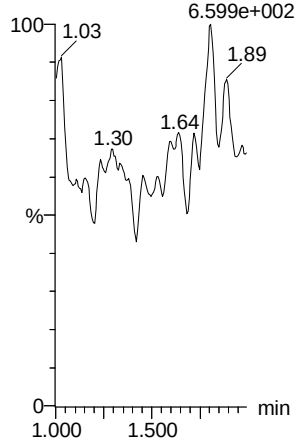
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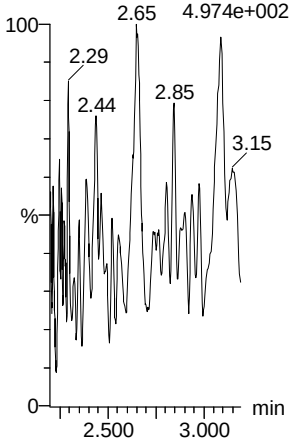
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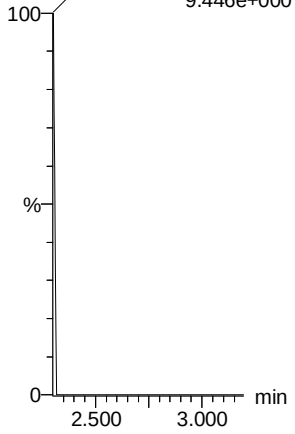
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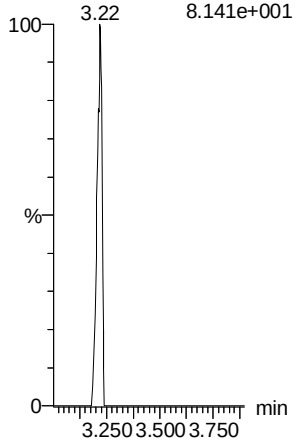
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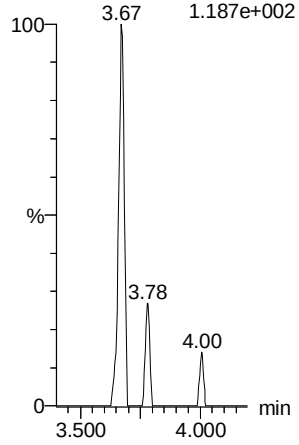
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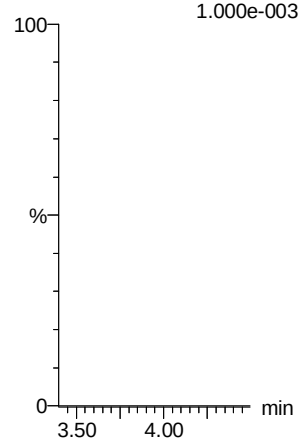
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13C4-PFHpA



18O2-PFHxS



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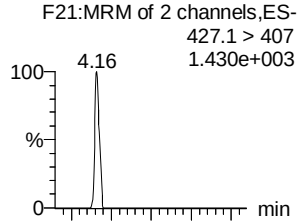
Vista Analytical Laboratory

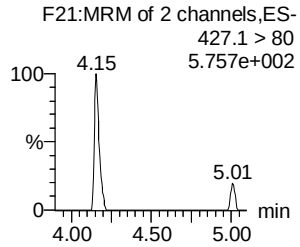
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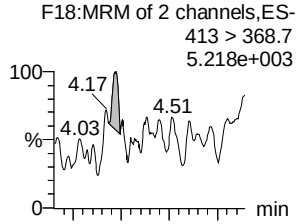
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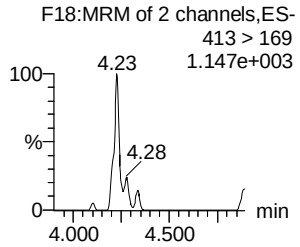
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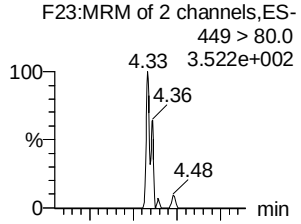


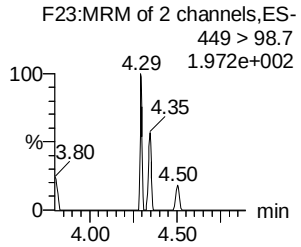
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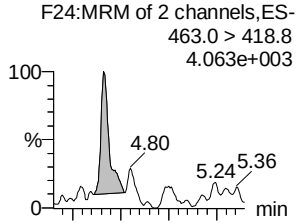


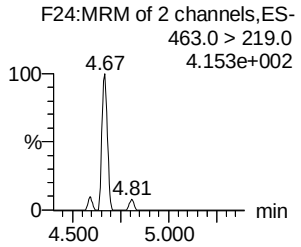
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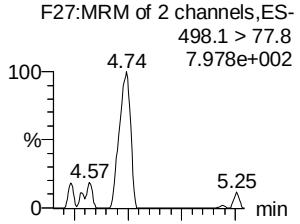


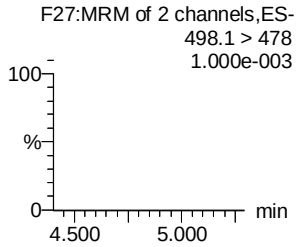
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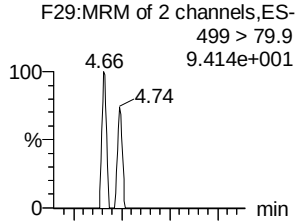


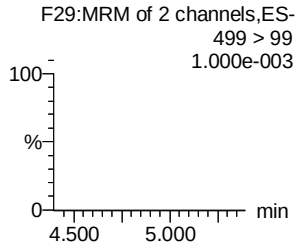
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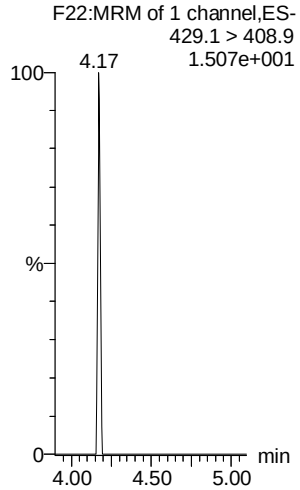


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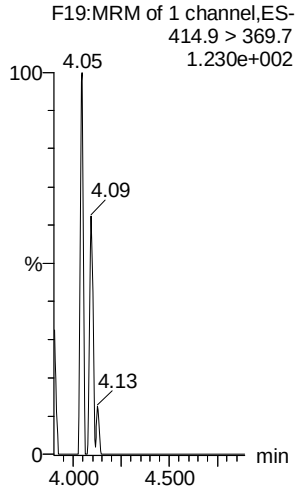




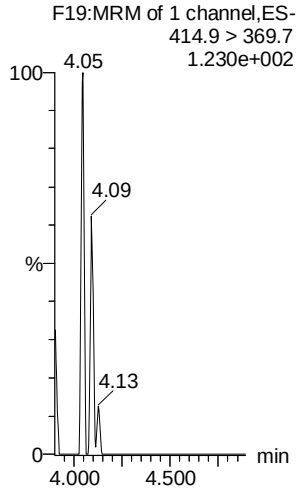
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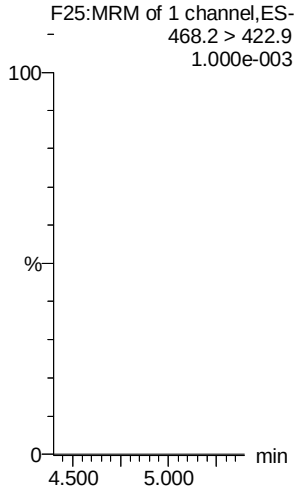
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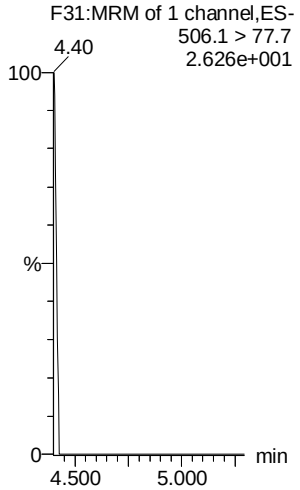
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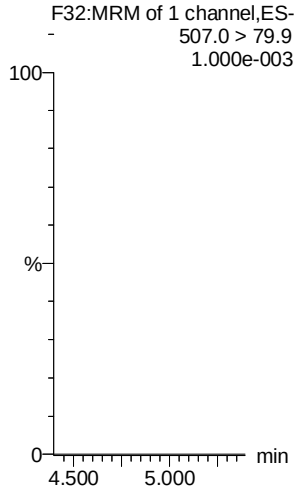
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13C8-PFOSA



13C8-PFOS



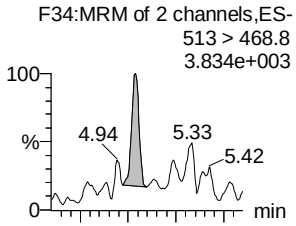
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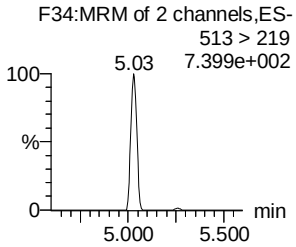
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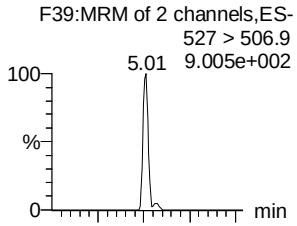
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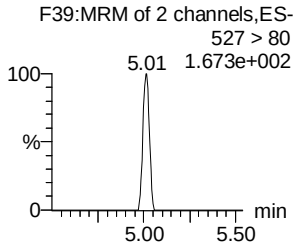
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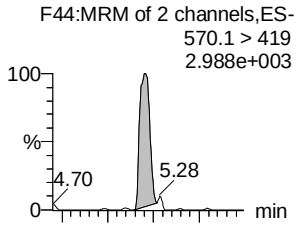


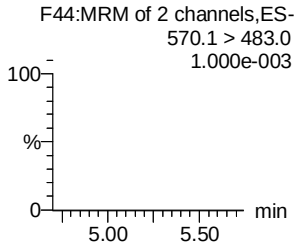
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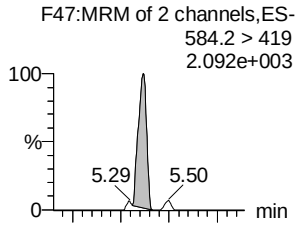


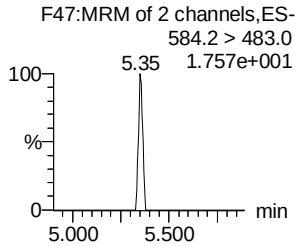
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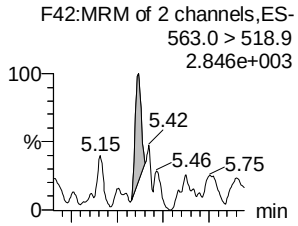


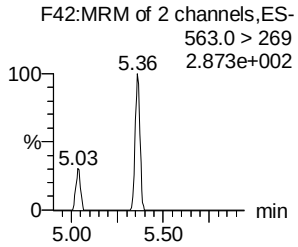
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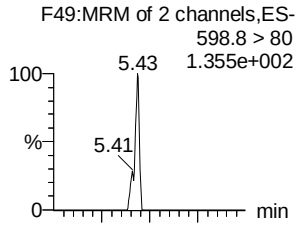


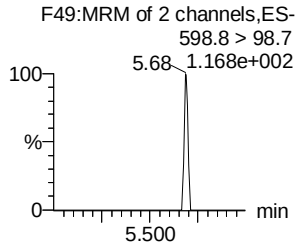
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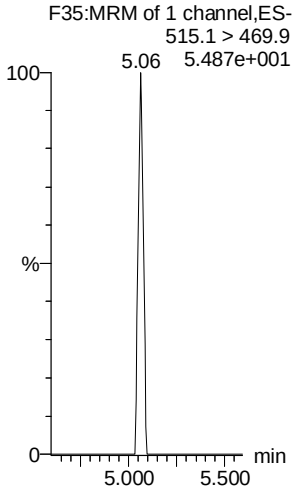


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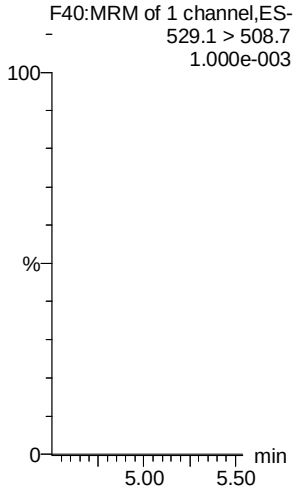




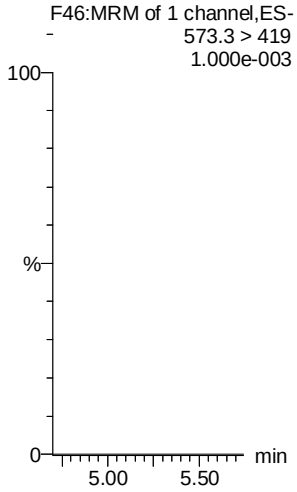
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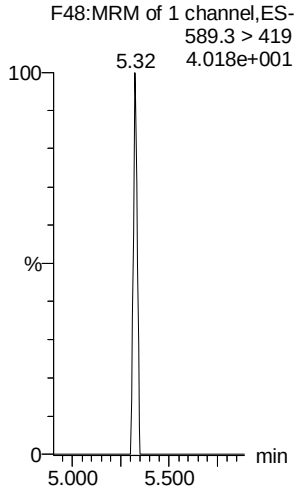
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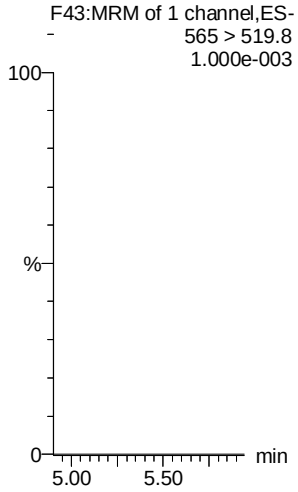
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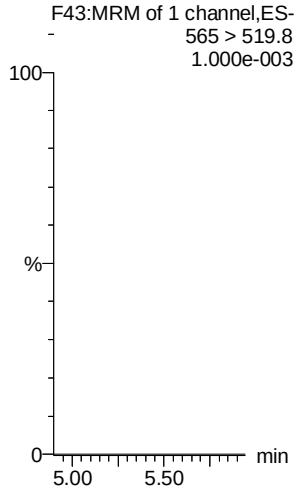
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13C2-PFUdA



13C2-PFUdA



AC 12/31/17

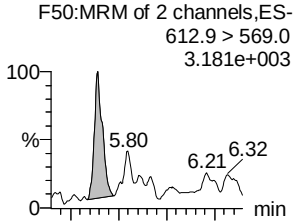
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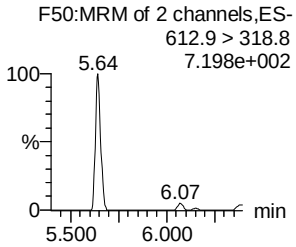
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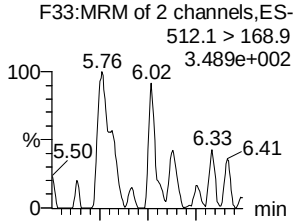
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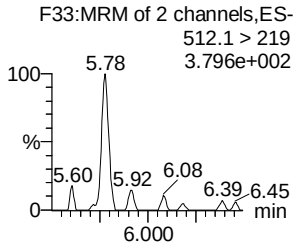
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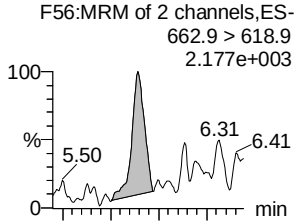


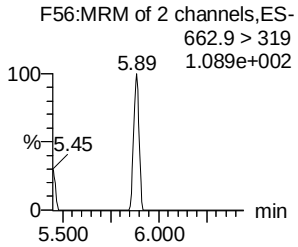
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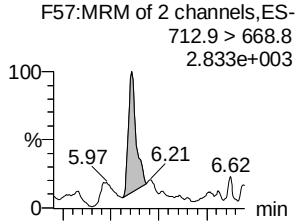


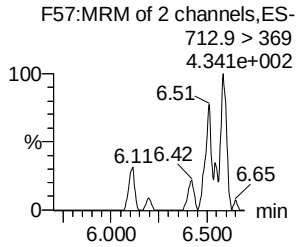
PFTrDA



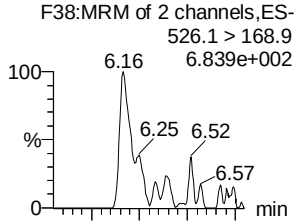


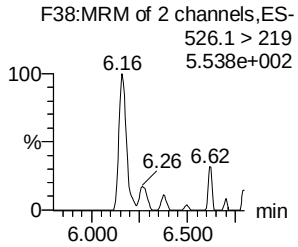
PFTeDA



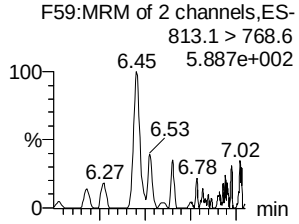


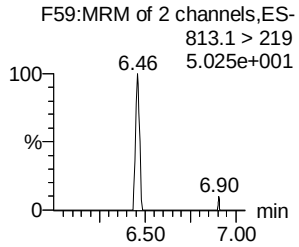
N-EtFOSA



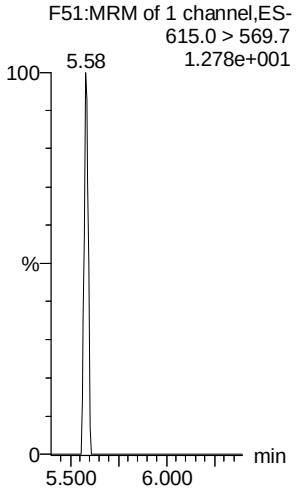


PFHxDA

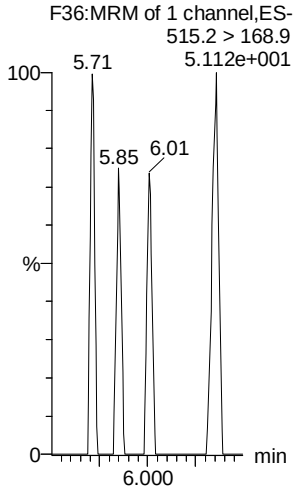




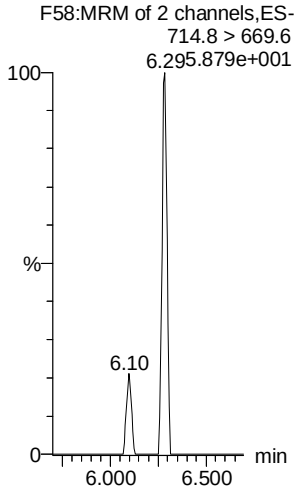
13C2-PFDoA



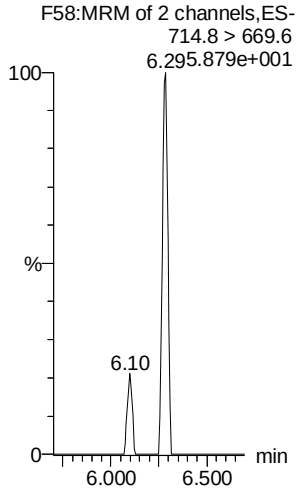
d3-N-MeFOSA



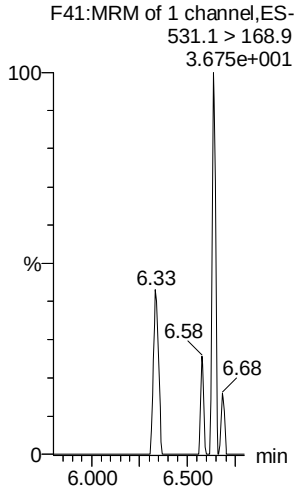
13C2-PFTeDA



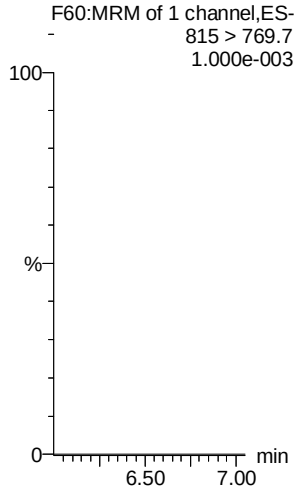
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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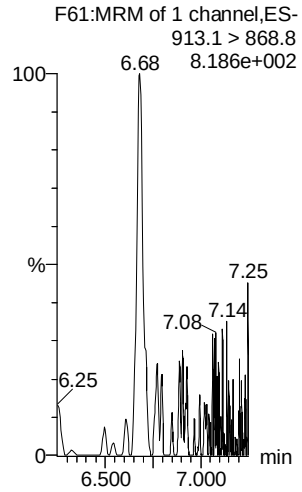
Vista Analytical Laboratory

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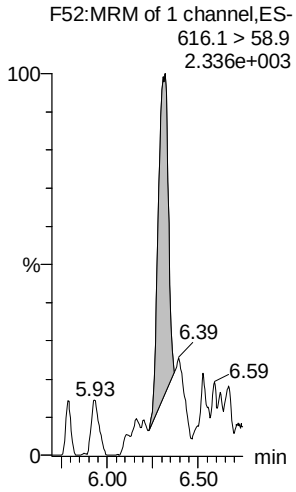
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Name: 171230M3_12, Date: 31-Dec-2017, Time: 00:47:29, ID: IPA, Description: IPA

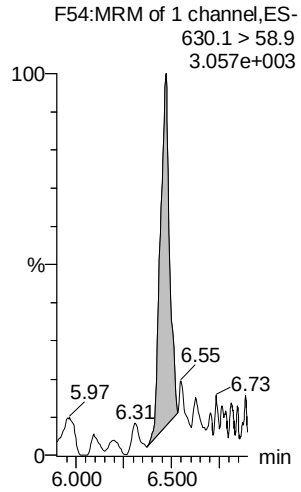
PFODA



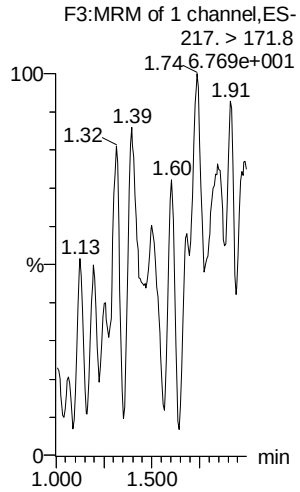
N-MeFOSE



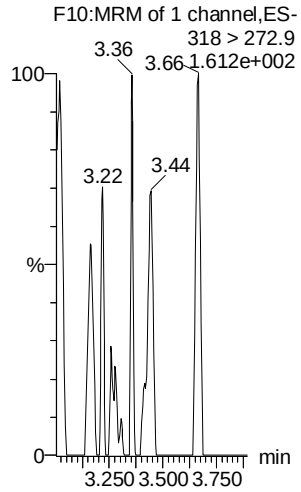
N-EtFOSE



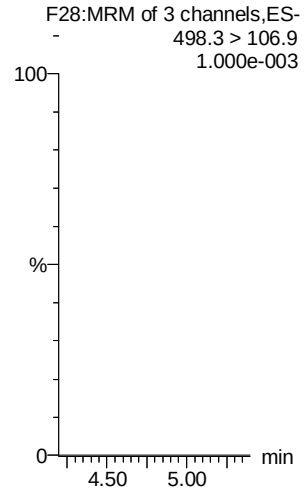
13C4-PFBA



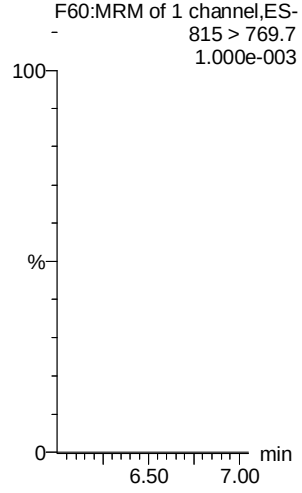
13C5-PFHxA



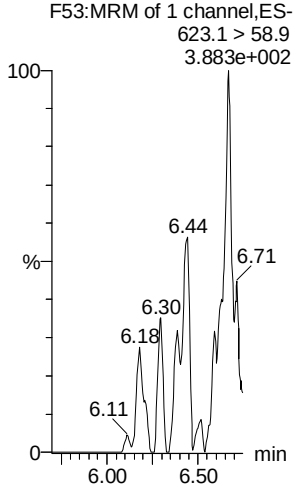
TCDA



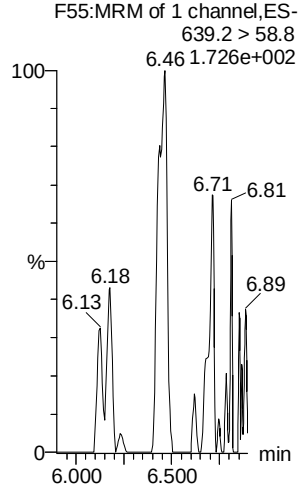
13C2-PFHxDA



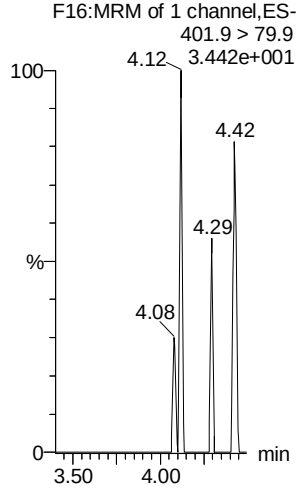
d7-N-MeFOSE



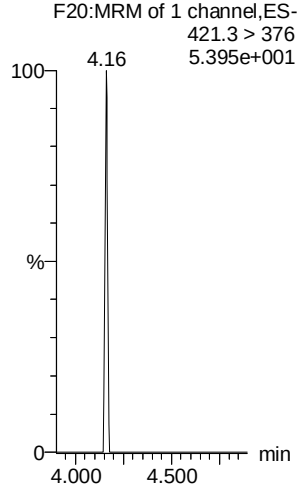
d9-N-EtFOSE



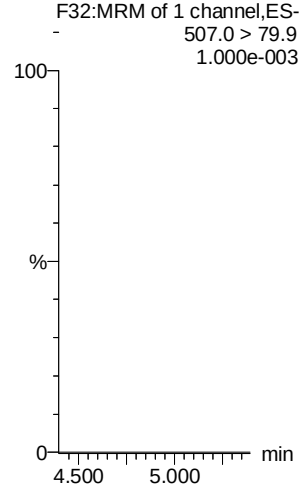
13C3-PFHxS



13C8-PFOA



13C8-PFOS



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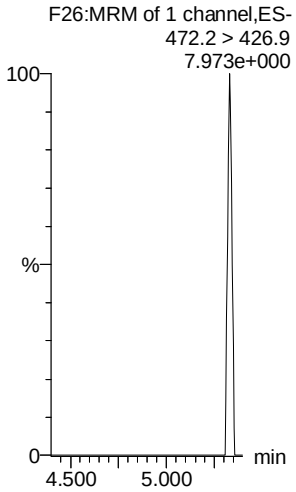
Vista Analytical Laboratory

Dataset: Untitled

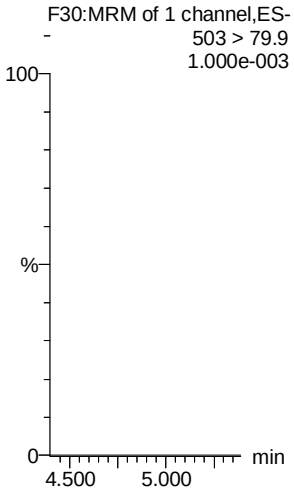
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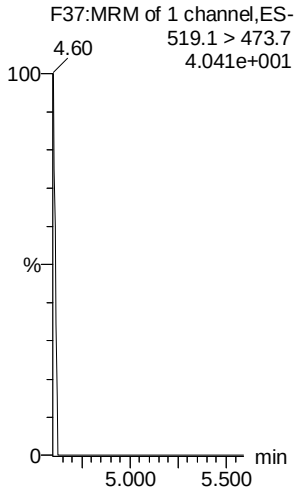
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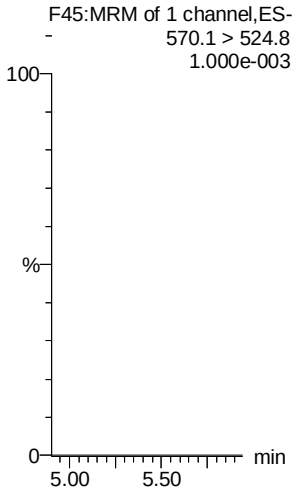
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\171230M3\171230M3-48.qld

Last Altered: Sunday, December 31, 2017 12:52:34 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:53:25 Pacific Standard Time

AC 12/31/17
JA. 12/31/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_48, Date: 31-Dec-2017, Time: 07:30:22, ID: ST171230M3-11 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.23e3	1.22e4	1.0000		1.47	1.41	1.26	0.928	92.8
2	2	PFPeA	263.1 > 218.9	1.33e3	1.54e4	1.0000		2.35	2.37	1.08	0.901	90.1
3	3	PFBS	299.0 > 79.7	3.23e2	1.89e3	1.0000		2.70	2.64	2.14	1.047	104.7
4	4	PFHxA	313.2 > 268.9	1.57e3	4.45e3	1.0000		3.12	3.13	1.76	0.930	93.0
5	5	PFHpA	363.0 > 318.9	1.16e3	1.19e4	1.0000		3.75	3.75	1.22	0.843	84.3
6	6	L-PFHxS	398.9 > 79.6	1.86e2	1.45e3	1.0000		3.85	3.89	1.61	0.831	83.1
7	8	6:2 FTS	427.1 > 407	3.90e2	1.67e4	1.0000		4.20	4.21	0.291	0.974	97.4
8	9	L-PFOA	413 > 368.7	1.69e3	1.67e4	1.0000		4.25	4.26	1.26	0.842	84.2
9	11	PFHpS	449 > 80.0	3.28e2	1.67e4	1.0000		4.35	4.37	0.245	0.935	93.5
10	12	PFNA	463.0 > 418.8	1.63e3	1.56e4	1.0000		4.70	4.69	1.31	1.042	104.2
11	13	PFOSA	498.1 > 77.8	2.89e2	3.45e3	1.0000		4.81	4.75	1.05	0.834	83.4
12	14	L-PFOS	499 > 79.9	2.55e2	3.86e3	1.0000		4.75	4.77	0.825	0.724	72.4
13	16	PFDA	513 > 468.8	1.83e3	1.56e4	1.0000		5.05	5.06	1.46	1.050	105.0
14	17	8:2 FTS	527 > 506.9	2.89e2	1.56e4	1.0000		5.02	5.03	0.232	0.700	70.0
15	18	N-MeFOSAA	570.1 > 419	6.67e2	6.61e3	1.0000		5.20	5.21	1.26	0.843	84.3
16	19	N-EtFOSAA	584.2 > 419	7.48e2	7.70e3	1.0000		5.42	5.37	1.21	0.959	95.9
17	20	PFUdA	563.0 > 518.9	1.66e3	2.08e4	1.0000		5.35	5.38	1.00	0.796	79.6
18	21	PFDS	598.8 > 80	4.20e2	2.08e4	1.0000		5.50	5.43	0.253	0.855	85.5
19	22	PFDoA	612.9 > 569.0	1.58e3	1.40e4	1.0000		5.70	5.66	1.41	0.974	97.4
20	23	N-MeFOSA	512.1 > 168.9	6.96e2	1.97e4	1.0000		5.77	5.81	5.30	4.795	95.9
21	24	PFTrDA	662.9 > 618.9	1.51e3	1.40e4	1.0000		5.95	5.90	1.35	0.947	94.7
22	25	PFTeDA	712.9 > 668.8	1.14e3	4.72e3	1.0000		6.16	6.12	3.03	1.125	112.5
23	26	N-EtFOSA	526.1 > 168.9	8.51e2	2.78e4	1.0000		6.15	6.19	4.59	4.677	93.5
24	27	PFHxDA	813.1 > 768.6	6.07e2	3.73e3	1.0000		6.48	6.45	0.813	1.048	104.8
25	28	PFODA	913.1 > 868.8	8.27e2	3.73e3	1.0000		6.70	6.68	1.11	0.987	98.7
26	29	N-MeFOSE	616.1 > 58.9	7.61e2	2.07e4	1.0000		6.30	6.32	5.52	5.589	111.8
27	30	N-EtFOSE	630.1 > 58.9	9.54e2	2.28e4	1.0000		6.42	6.47	6.29	4.985	99.7
28	31	13C3-PFBA	216.1 > 171.8	1.22e4	1.55e4	1.0000	0.780	1.47	1.41	9.84	12.616	100.9
29	32	13C3-PFPeA	266. > 221.8	1.54e4	1.67e4	1.0000	0.771	2.44	2.37	11.5	14.964	119.7
30	33	13C3-PFBS	302. > 98.8	1.89e3	1.67e4	1.0000	0.103	2.70	2.64	1.41	13.705	109.6
31	34	13C2-PFHxA	315 > 269.8	4.45e3	1.67e4	1.0000	0.619	3.20	3.13	3.33	5.384	107.7

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Dataset: U:\Q4.PRO\results\171230M3\171230M3-48.qld

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Printed: Sunday, December 31, 2017 12:53:25 Pacific Standard Time

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	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.19e4	1.67e4	1.0000	0.634	3.80	3.75	8.93	14.087	112.7
33	36	18O2-PFHxS	403.0 > 102.6	1.45e3	4.32e3	1.0000	0.320	3.95	3.89	4.18	13.087	104.7
34	37	13C2-6:2 FTS	429.1 > 408.9	3.63e3	1.50e4	1.0000	0.244	4.26	4.21	3.02	12.371	99.0
35	38	13C2-PFOA	414.9 > 369.7	1.67e4	1.50e4	1.0000	1.046	4.32	4.26	13.9	13.295	106.4
36	39	13C5-PFNA	468.2 > 422.9	1.56e4	1.71e4	1.0000	0.838	4.75	4.69	11.4	13.583	108.7
37	40	13C8-PFOSA	506.1 > 77.7	3.45e3	2.26e4	1.0000	0.162	4.81	4.76	1.91	11.755	94.0
38	41	13C8-PFOS	507.0 > 79.9	3.86e3	4.81e3	1.0000	0.863	4.83	4.77	10.0	11.636	93.1
39	42	13C2-PFDA	515.1 > 469.9	1.56e4	1.89e4	1.0000	0.828	5.11	5.06	10.3	12.454	99.6
40	43	13C2-8:2 FTS	529.1 > 508.7	2.10e3	1.67e4	1.0000	0.139	5.09	5.03	1.57	11.279	90.2
41	44	d3-N-MeFOSAA	573.3 > 419	6.61e3	2.26e4	1.0000	0.306	5.26	5.21	3.65	11.934	95.5
42	45	d5-N-EtFOSAA	589.3 > 419	7.70e3	2.26e4	1.0000	0.346	5.42	5.36	4.26	12.303	98.4
43	46	13C2-PFUdA	565 > 519.8	2.08e4	2.26e4	1.0000	0.842	5.43	5.38	11.5	13.636	109.1
44	47	13C2-PFDoA	615.0 > 569.7	1.40e4	2.26e4	1.0000	0.714	5.70	5.66	7.72	10.819	86.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.97e4	2.26e4	1.0000	0.078	5.80	5.83	10.9	139.884	93.3
46	49	13C2-PFTeDA	714.8 > 669.6	4.72e3	2.26e4	1.0000	0.236	6.16	6.12	2.61	11.043	88.3
47	50	d5-N-ETFOSA	531.1 > 168.9	2.78e4	2.26e4	1.0000	0.113	6.16	6.20	15.4	135.673	90.4
48	51	13C2-PFHxDA	815 > 769.7	3.73e3	2.26e4	1.0000	0.481	6.48	6.45	2.06	4.284	85.7
49	52	d7-N-MeFOSE	623.1 > 58.9	2.07e4	2.26e4	1.0000	0.090	6.30	6.31	11.4	127.122	84.7
50	53	d9-N-EtFOSE	639.2 > 58.8	2.28e4	2.26e4	1.0000	0.093	6.42	6.46	12.6	135.928	90.6
51	54	13C4-PFBA	217. > 171.8	1.55e4	1.55e4	1.0000	1.000	1.47	1.41	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.67e4	1.67e4	1.0000	1.000	3.20	3.13	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.32e3	4.32e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.50e4	1.50e4	1.0000	1.000	4.32	4.26	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.71e4	1.71e4	1.0000	1.000	4.75	4.69	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	4.81e3	4.81e3	1.0000	1.000	4.83	4.77	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.89e4	1.89e4	1.0000	1.000	5.11	5.06	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	2.26e4	2.26e4	1.0000	1.000	5.43	5.38	12.5	12.500	100.0

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Dataset: Untitled

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Printed: Sunday, December 31, 2017 13:04:43 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Compound name: PFBA

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1	171230M3_1	IPA	30-Dec-17	22:44:34
2	171230M3_2	ST171230M3-1 PFC CS-2 17L2606	30-Dec-17	22:55:42
3	171230M3_3	ST171230M3-2 PFC CS-1 17L2607	30-Dec-17	23:06:53
4	171230M3_4	ST171230M3-3 PFC CS0 17L2608	30-Dec-17	23:18:04
5	171230M3_5	ST171230M3-4 PFC CS1 17L2609	30-Dec-17	23:29:14
6	171230M3_6	ST171230M3-5 PFC CS2 17L2610	30-Dec-17	23:40:25
7	171230M3_7	ST171230M3-6 PFC CS3 17L2611	30-Dec-17	23:51:35
8	171230M3_8	ST171230M3-7 PFC CS4 17L2612	31-Dec-17	00:02:47
9	171230M3_9	ST171230M3-8 PFC CS5 17L2613	31-Dec-17	00:13:57
10	171230M3_10	ST171230M3-9 PFC CS6 17L2710	31-Dec-17	00:25:08
11	171230M3_11	ST171230M3-10 PFC CS7 17L1804	31-Dec-17	00:36:19
12	171230M3_12	IPA	31-Dec-17	00:47:29
13	171230M3_13	ICV171230M3-1 PFC ICV 17L1201	31-Dec-17	00:58:40
14	171230M3_14	ICV171230M3-2 PFC ICV 17L1201	31-Dec-17	01:09:51
15	171230M3_15	IPA	31-Dec-17	01:21:01
16	171230M3_16	1701839-01 STWRT-GW-MW113 0.11527	31-Dec-17	01:32:12
17	171230M3_17	IPA	31-Dec-17	01:43:23
18	171230M3_18	1701839-01@10X STWRT-GW-MW113 0.115...	31-Dec-17	01:54:33
19	171230M3_19	1701839-12 STWRT-LW-MW02 0.11638	31-Dec-17	02:05:45
20	171230M3_20	B7L0088-BS1 OPR 0.125	31-Dec-17	02:16:55
21	171230M3_21	IPA	31-Dec-17	02:28:06
22	171230M3_22	B7L0088-BLK1 Method Blank 0.125	31-Dec-17	02:39:17
23	171230M3_23	1701841-06 OF-FB-120117 0.11813	31-Dec-17	02:50:27
24	171230M3_24	1701841-07 OF-EB-120117 0.12048	31-Dec-17	03:01:38
25	171230M3_25	B7L0102-BS1 OPR 0.125	31-Dec-17	03:12:49
26	171230M3_26	IPA	31-Dec-17	03:23:59
27	171230M3_27	B7L0102-BLK1 Method Blank 0.125	31-Dec-17	03:35:10
28	171230M3_28	B7L0102-MS1 Matrix Spike 0.11637	31-Dec-17	03:46:21
29	171230M3_29	B7L0102-MSD1 Matrix Spike Dup 0.11403	31-Dec-17	03:57:31
30	171230M3_30	1701854-01 REEPDW022FRB 0.11378	31-Dec-17	04:08:42
31	171230M3_31	1701854-02 REEPDW023FRB 0.11625	31-Dec-17	04:19:58

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Sunday, December 31, 2017 13:00:59 Pacific Standard Time
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Compound name: PFBA

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33	171230M3_33	1701854-04 REEPDW025FRB 0.11479	31-Dec-17	04:42:34
34	171230M3_34	1701854-05 REEPDW026FRB 0.11666	31-Dec-17	04:53:49
35	171230M3_35	1701854-06 REEPDW027FRB 0.11523	31-Dec-17	05:05:00
36	171230M3_36	1701854-07 REEPDW028FRB 0.1187	31-Dec-17	05:16:11
37	171230M3_37	1701854-08 REEPDW029FRB 0.11357	31-Dec-17	05:27:21
38	171230M3_38	1701854-09 REEPDW030FRB 0.1153	31-Dec-17	05:38:32
39	171230M3_39	1701854-10 REEPDW031FRB 0.11475	31-Dec-17	05:49:43
40	171230M3_40	1701854-11 REEPDW032FRB 0.11352	31-Dec-17	06:00:53
41	171230M3_41	1701854-12 REEPDW033FRB 0.11723	31-Dec-17	06:12:04
42	171230M3_42	1701854-13 REEPDW034FRB 0.11335	31-Dec-17	06:23:15
43	171230M3_43	1701938-01 REEPDW040 0.11998	31-Dec-17	06:34:25
44	171230M3_44	1701938-02 REEPDW503 0.11997	31-Dec-17	06:45:36
45	171230M3_45	1701938-03 REEPDW041 0.1211	31-Dec-17	06:56:48
46	171230M3_46	1701938-04 REEPDW042 0.11808	31-Dec-17	07:08:00
47	171230M3_47	IPA	31-Dec-17	07:19:11
48	171230M3_48	ST171230M3-11 PFC CS0 17L2608	31-Dec-17	07:30:22
49	171230M3_49	IPA	31-Dec-17	07:41:32
50	171230M3_50	B7L0153-BS1 OPR 1	31-Dec-17	07:52:43
51	171230M3_51	B7L0153-BLK1 Method Blank 1	31-Dec-17	08:03:54
52	171230M3_52	B7L0153-MS1 Matrix Spike 1	31-Dec-17	08:15:04
53	171230M3_53	B7L0153-MSD1 Matrix Spike Dup 1	31-Dec-17	08:26:15
54	171230M3_54	1701837-01 MARTN-03-SB01-2-4 1	31-Dec-17	08:37:26
55	171230M3_55	1701837-02 MARTN-03-SB01-5-7 1	31-Dec-17	08:48:36
56	171230M3_56	1701837-03 MARTN-03-SB02-1-3 1	31-Dec-17	08:59:47
57	171230M3_57	1701837-04 MARTN-03-SB02-4-6 1	31-Dec-17	09:10:58
58	171230M3_58	1701837-05 MARTN-03-SB03-0-2 1	31-Dec-17	09:22:08
59	171230M3_59	1701837-06 MARTN-03-SB03-6-8 1	31-Dec-17	09:33:20
60	171230M3_60	1701837-07 MARTN-06-SB03-2-4 1	31-Dec-17	09:44:30
61	171230M3_61	1701837-08 MARTN-06-SB03-6-8 1	31-Dec-17	09:55:41
62	171230M3_62	1701837-09 MARTN-06-SB04-0-2 1	31-Dec-17	10:06:51
63	171230M3_63	1701837-10 MARTN-08-SB04-10-12 1	31-Dec-17	10:18:02
64	171230M3_64	IPA	31-Dec-17	10:29:13
65	171230M3_65	ST171230M3-12 PFC CS3 17L2611	31-Dec-17	10:40:23

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Compound name: PFBA

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68	171230M3_68	IPA	31-Dec-17	11:13:56
69	171230M3_69	ST171230M3-13 PFC CS3 17L2611	31-Dec-17	11:25:06
70	171230M3_70	IPA	31-Dec-17	11:36:17

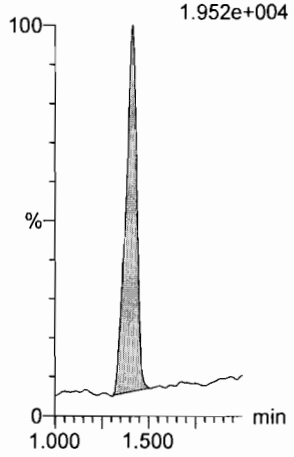
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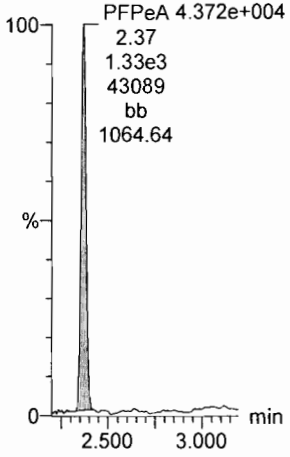
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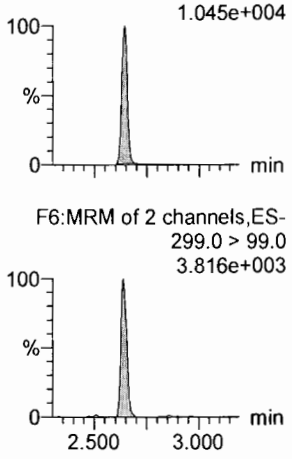
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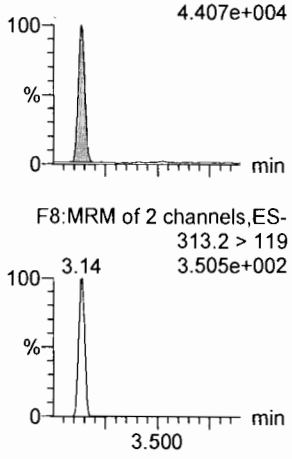
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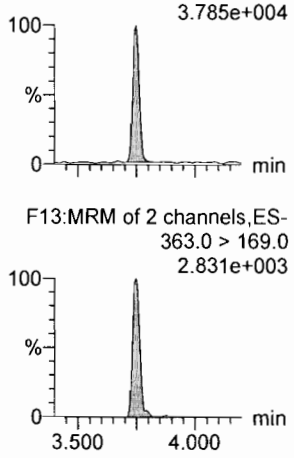
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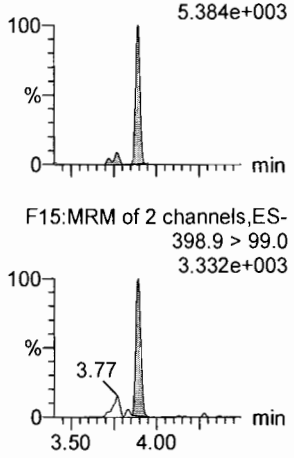
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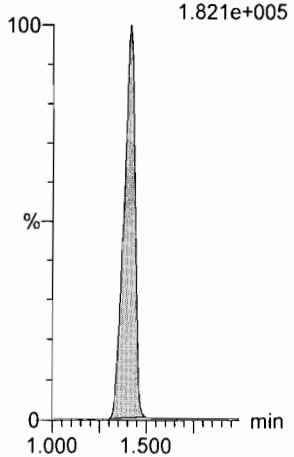
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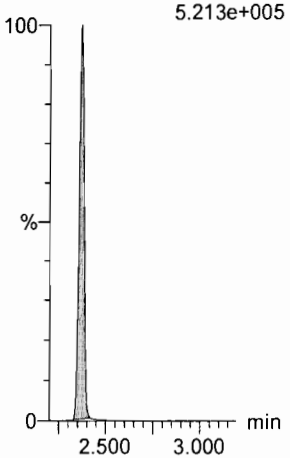
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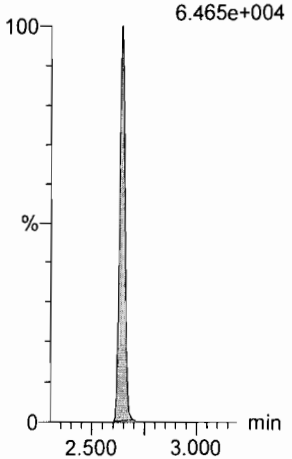
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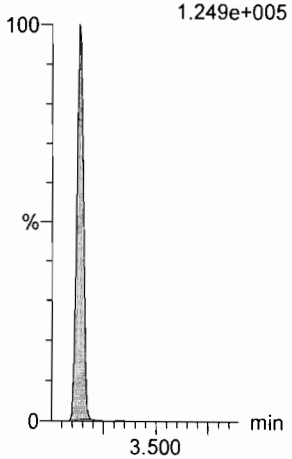
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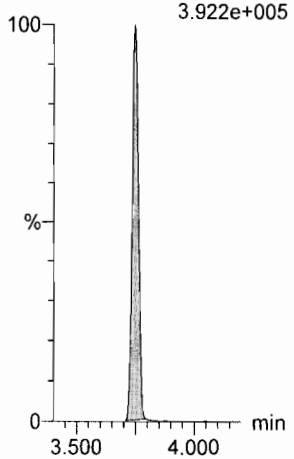
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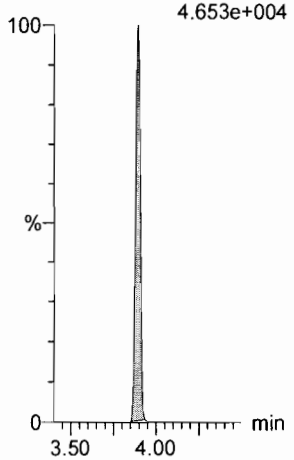
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13C4-PFHpA



18O2-PFHxS

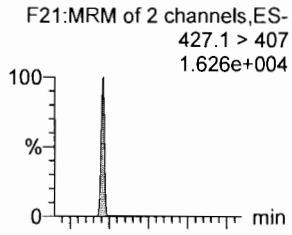


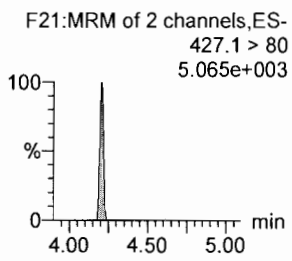
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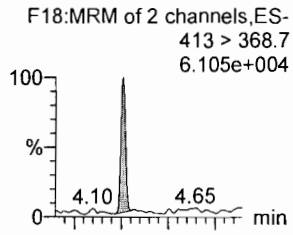
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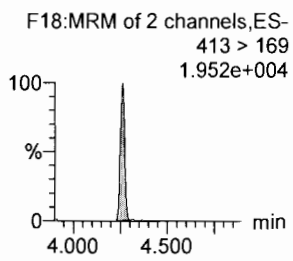
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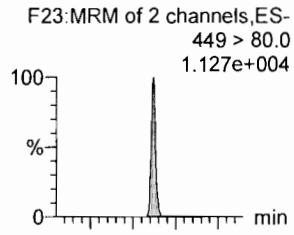


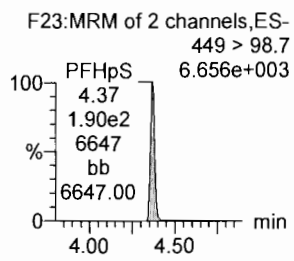
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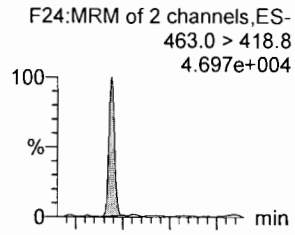


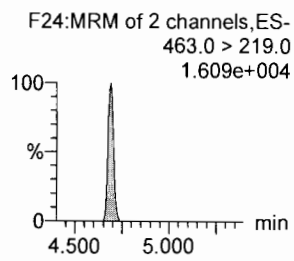
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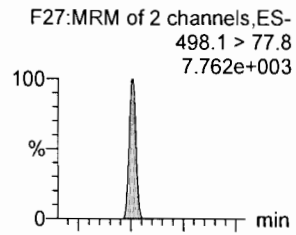


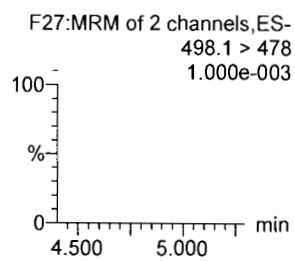
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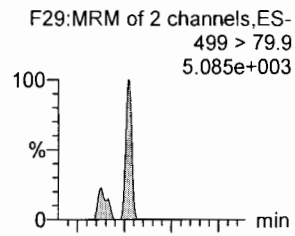


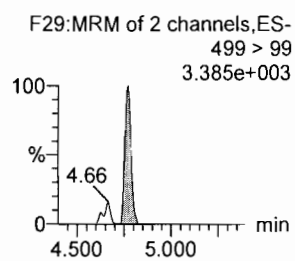
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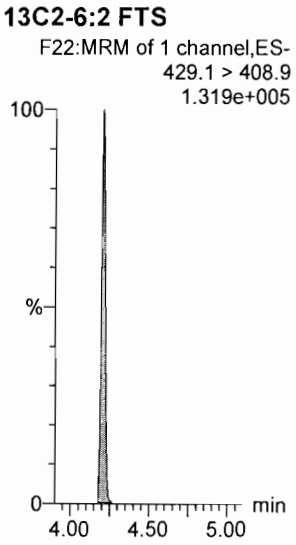


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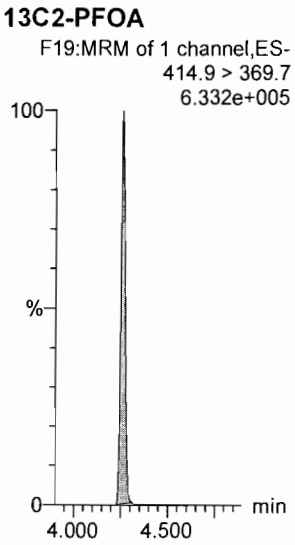




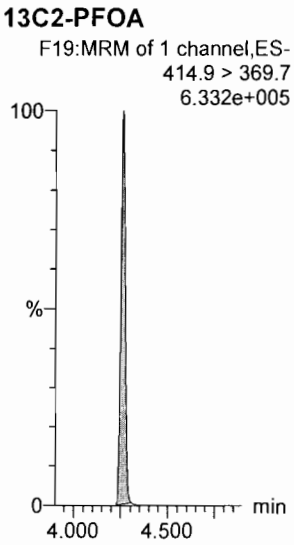
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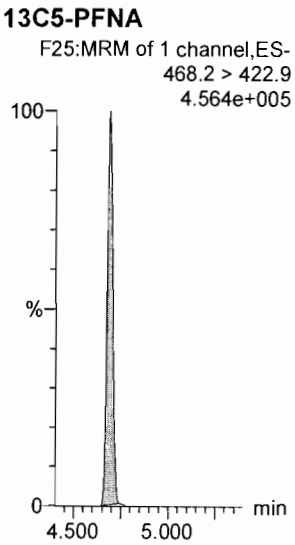
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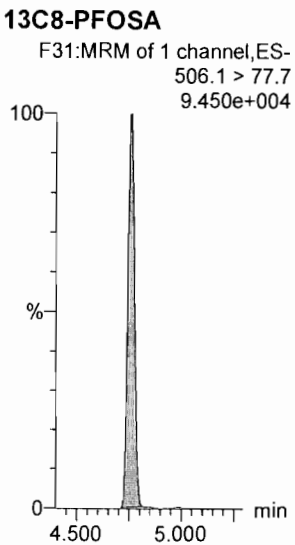
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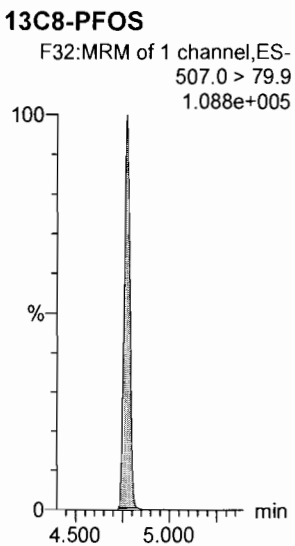
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13C8-PFOSA



13C8-PFOS

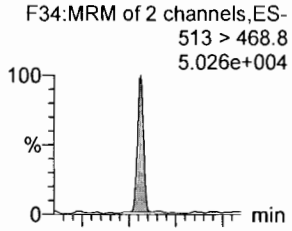


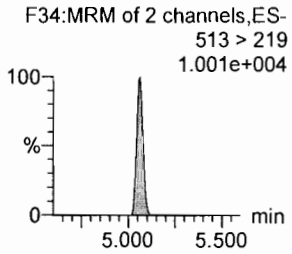
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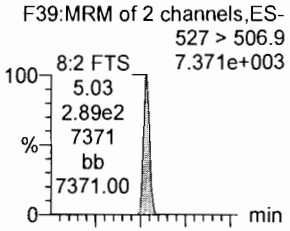
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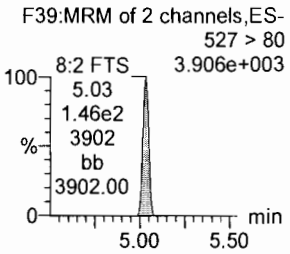
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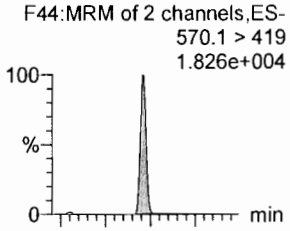


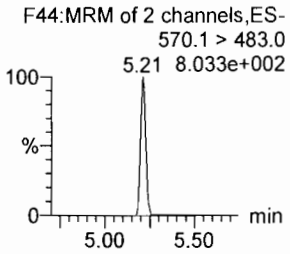
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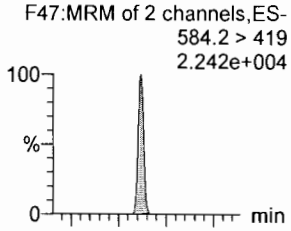


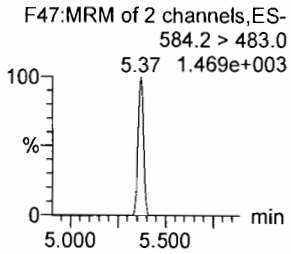
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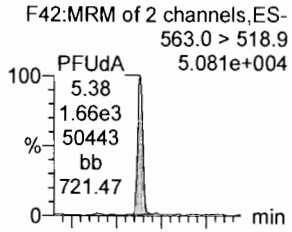


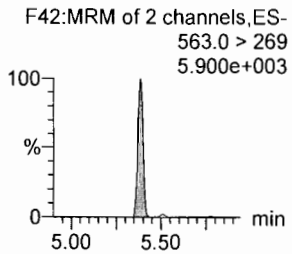
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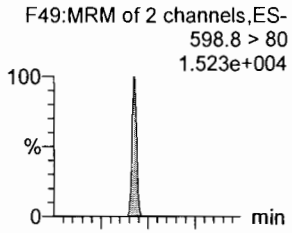


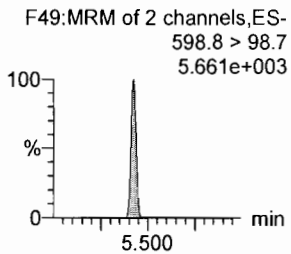
PFUdA



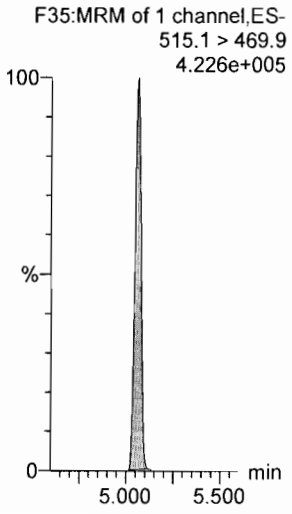


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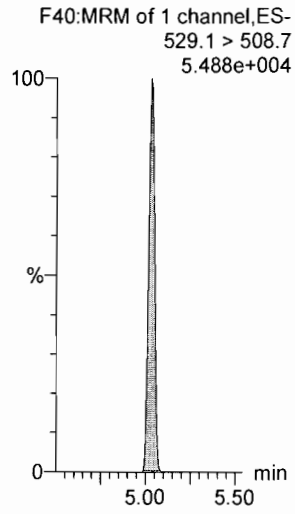




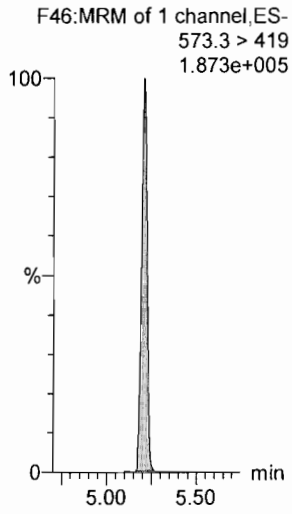
13C2-PFDA



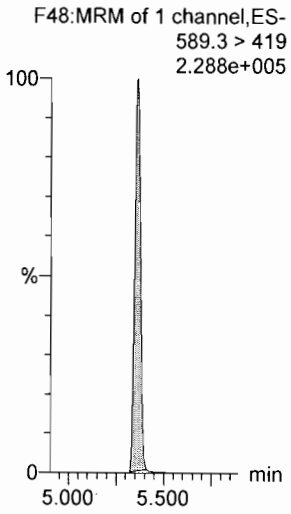
13C2-8:2 FTS



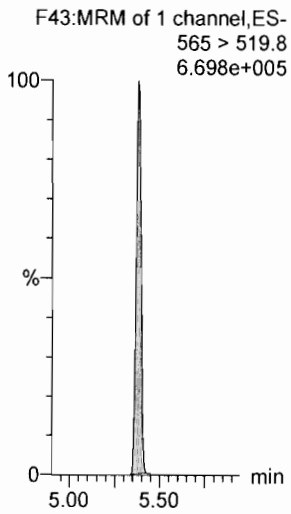
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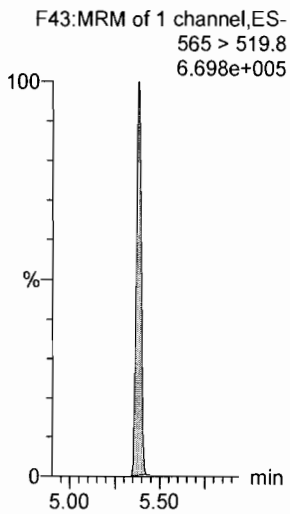
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

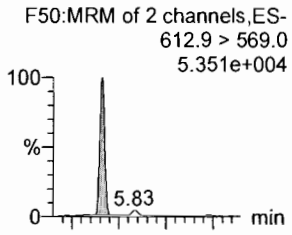


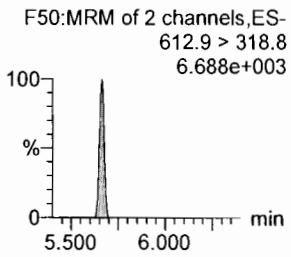
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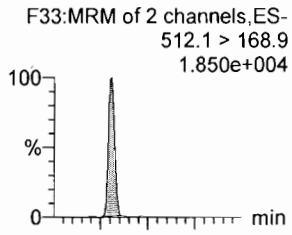
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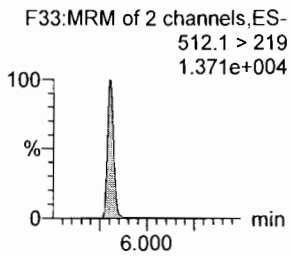
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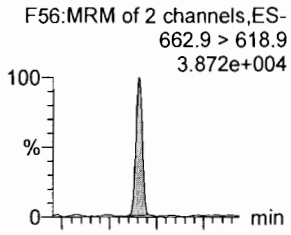


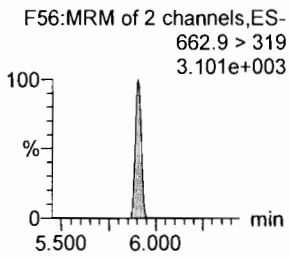
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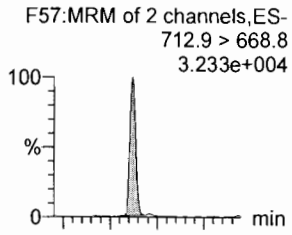


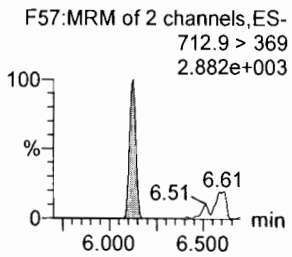
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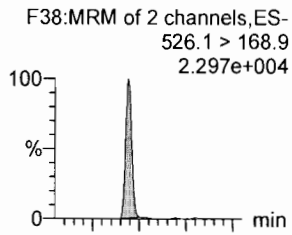


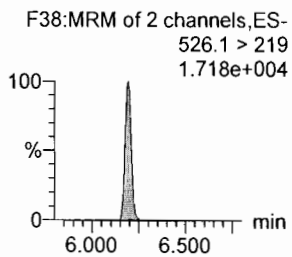
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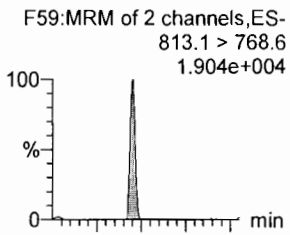


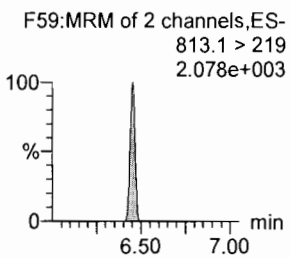
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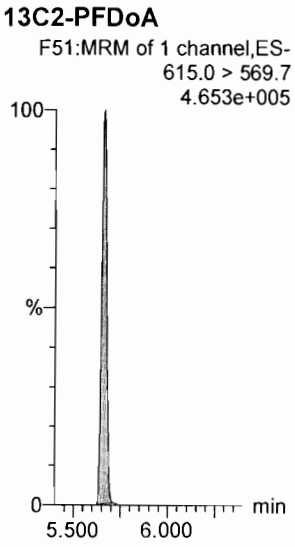


PFHxDA

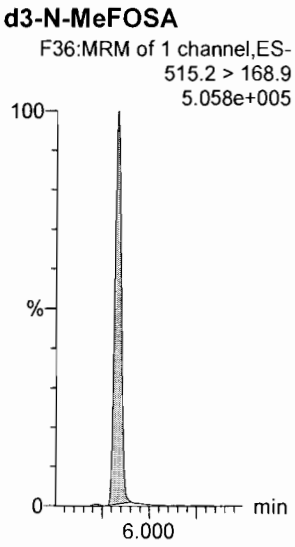




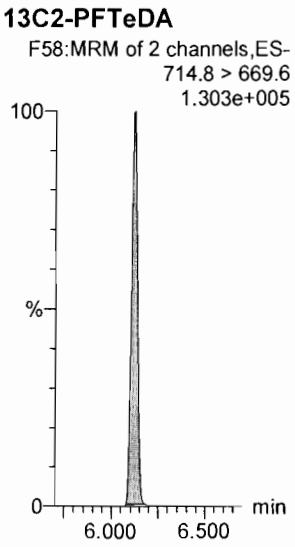
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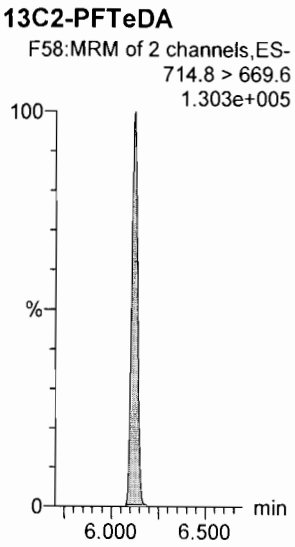
d3-N-MeFOSA



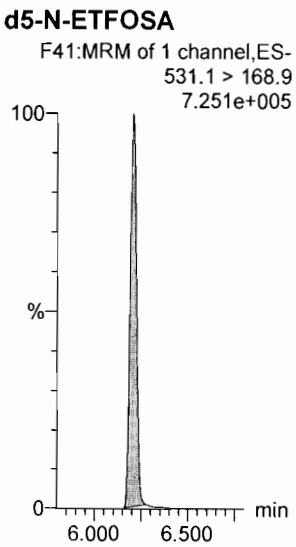
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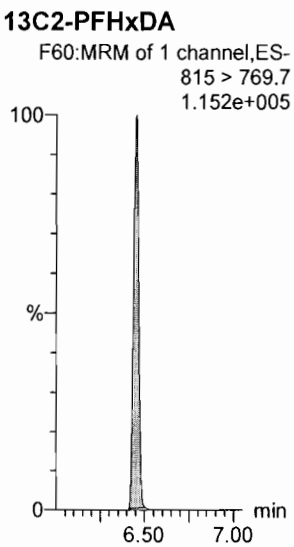
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

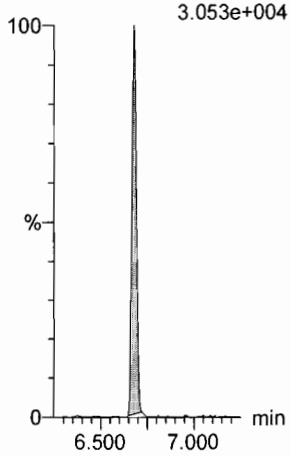


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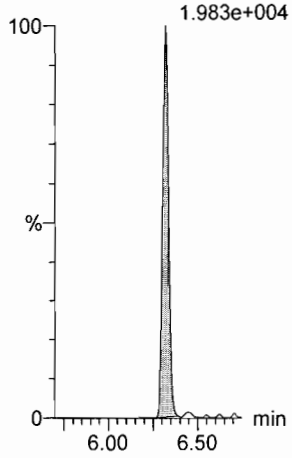
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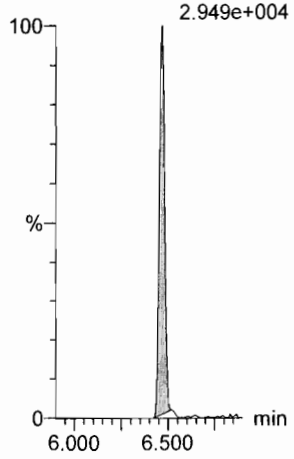
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.053e+004



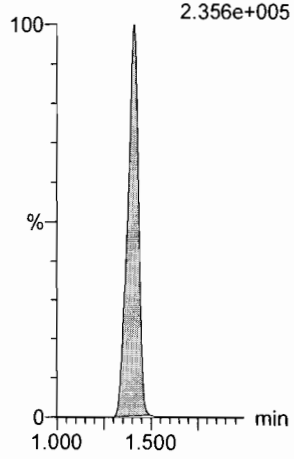
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F52:MRM of 1 channel,ES-
616.1 > 58.9
1.983e+004



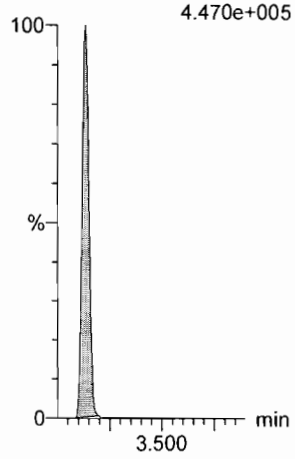
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.949e+004



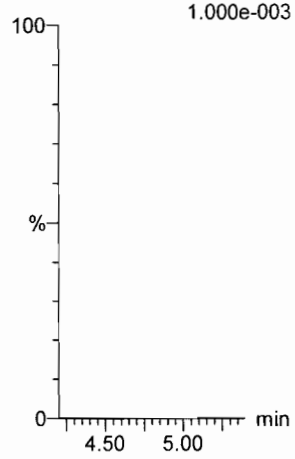
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.356e+005



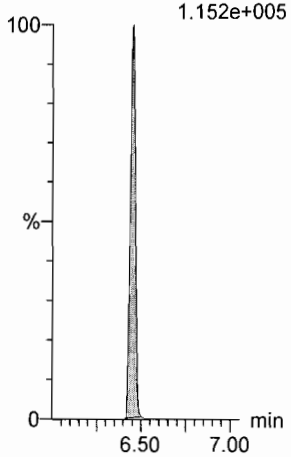
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.470e+005



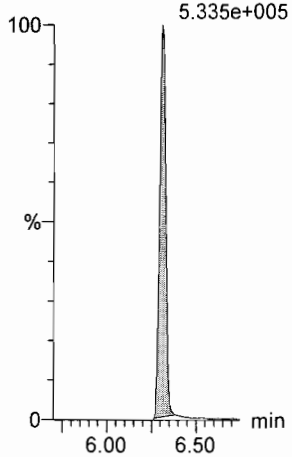
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



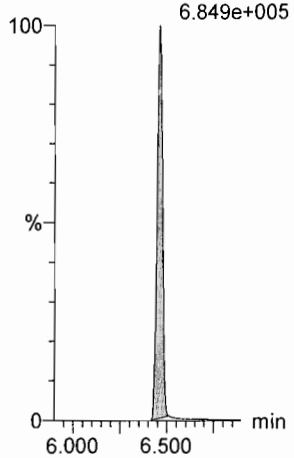
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.152e+005



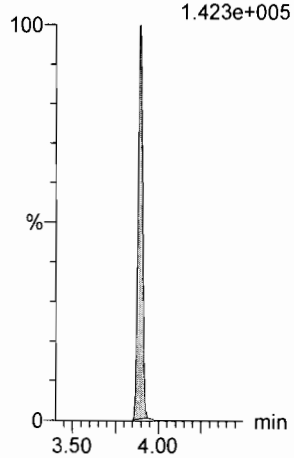
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.335e+005



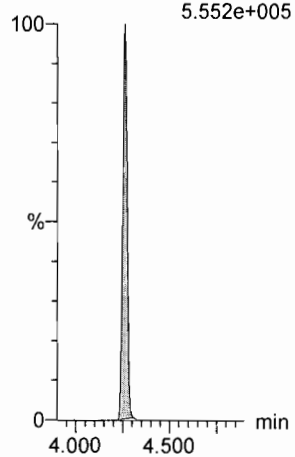
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.849e+005



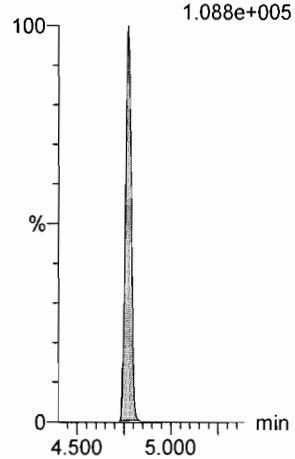
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.423e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.552e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.088e+005



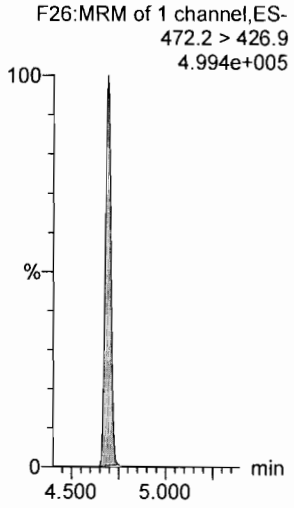
Vista Analytical Laboratory

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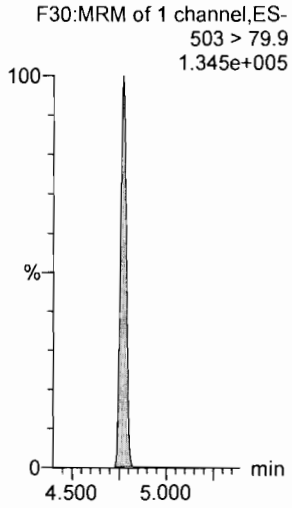
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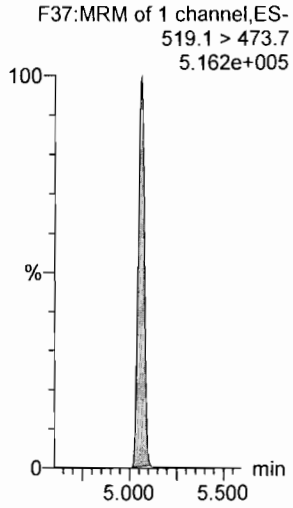
13C9-PFNA



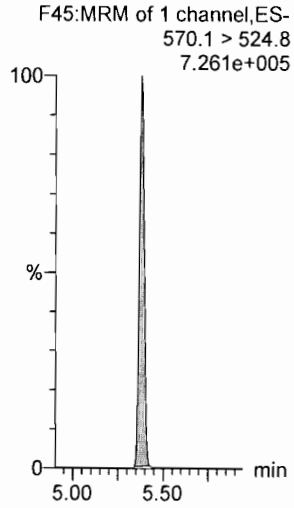
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-6 PFC CS3 17L2611	1.03e4	100.0	NO
2	2	13C5-PFHxA	ST180110M3-6 PFC CS3 17L2611	1.23e4	100.0	NO
3	3	13C3-PFHxS	ST180110M3-6 PFC CS3 17L2611	2.95e3	100.0	NO
4	4	13C8-PFOA	ST180110M3-6 PFC CS3 17L2611	1.22e4	100.0	NO
5	5	13C9-PFNA	ST180110M3-6 PFC CS3 17L2611	1.15e4	100.0	NO
6	6	13C4-PFOS	ST180110M3-6 PFC CS3 17L2611	2.81e3	100.0	NO
7	7	13C6-PFDA	ST180110M3-6 PFC CS3 17L2611	6.87e3	100.0	NO
8	8	13C7-PFUdA	ST180110M3-6 PFC CS3 17L2611	1.01e4	100.0	NO

Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-7 PFC CS4 17L2612	1.09e4	105.5	NO
2	2	13C5-PFHxA	ST180110M3-7 PFC CS4 17L2612	1.30e4	105.7	NO
3	3	13C3-PFHxS	ST180110M3-7 PFC CS4 17L2612	3.13e3	106.2	NO
4	4	13C8-PFOA	ST180110M3-7 PFC CS4 17L2612	1.16e4	95.2	NO
5	5	13C9-PFNA	ST180110M3-7 PFC CS4 17L2612	1.19e4	103.1	NO
6	6	13C4-PFOS	ST180110M3-7 PFC CS4 17L2612	3.53e3	125.5	NO
7	7	13C6-PFDA	ST180110M3-7 PFC CS4 17L2612	7.85e3	114.2	NO
8	8	13C7-PFUdA	ST180110M3-7 PFC CS4 17L2612	1.05e4	103.3	NO

Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-8 PFC CS5 17L2613	1.03e4	99.3	NO
2	2	13C5-PFHxA	ST180110M3-8 PFC CS5 17L2613	1.16e4	94.3	NO
3	3	13C3-PFHxS	ST180110M3-8 PFC CS5 17L2613	3.22e3	109.4	NO
4	4	13C8-PFOA	ST180110M3-8 PFC CS5 17L2613	9.69e3	79.6	NO
5	5	13C9-PFNA	ST180110M3-8 PFC CS5 17L2613	1.16e4	100.7	NO
6	6	13C4-PFOS	ST180110M3-8 PFC CS5 17L2613	3.15e3	112.0	NO
7	7	13C6-PFDA	ST180110M3-8 PFC CS5 17L2613	8.15e3	118.5	NO
8	8	13C7-PFUdA	ST180110M3-8 PFC CS5 17L2613	1.02e4	100.3	NO

Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-9 PFC CS6 17L2710	1.41e4	136.2	NO
2	2	13C5-PFHxA	ST180110M3-9 PFC CS6 17L2710	1.62e4	132.3	NO
3	3	13C3-PFHxS	ST180110M3-9 PFC CS6 17L2710	3.52e3	119.4	NO
4	4	13C8-PFOA	ST180110M3-9 PFC CS6 17L2710	1.40e4	115.2	NO
5	5	13C9-PFNA	ST180110M3-9 PFC CS6 17L2710	1.44e4	125.4	NO
6	6	13C4-PFOS	ST180110M3-9 PFC CS6 17L2710	3.62e3	128.8	NO
7	7	13C6-PFDA	ST180110M3-9 PFC CS6 17L2710	9.78e3	142.3	NO
8	8	13C7-PFUdA	ST180110M3-9 PFC CS6 17L2710	1.17e4	115.7	NO

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Name: 180110M3_11, Date: 11-Jan-2018, Time: 11:14:39, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ICV180110M3-1 PFC ICV 17L1201	9.86e3	95.4	NO
2	2	13C5-PFHxA	ICV180110M3-1 PFC ICV 17L1201	1.10e4	89.8	NO
3	3	13C3-PFHxS	ICV180110M3-1 PFC ICV 17L1201	2.90e3	98.5	NO
4	4	13C8-PFOA	ICV180110M3-1 PFC ICV 17L1201	1.06e4	87.5	NO
5	5	13C9-PFNA	ICV180110M3-1 PFC ICV 17L1201	9.76e3	84.9	NO
6	6	13C4-PFOS	ICV180110M3-1 PFC ICV 17L1201	2.83e3	100.7	NO
7	7	13C6-PFDA	ICV180110M3-1 PFC ICV 17L1201	7.32e3	106.5	NO
8	8	13C7-PFUdA	ICV180110M3-1 PFC ICV 17L1201	9.91e3	97.7	NO

Name: 180110M3_13, Date: 11-Jan-2018, Time: 11:37:00, ID: B7L0088-MS1 Matrix Spike 0.25868, Description: Matrix Spike

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0088-MS1 Matrix Spike 0.25868	6.21e3	60.0	NO
2	2	13C5-PFHxA	B7L0088-MS1 Matrix Spike 0.25868	7.17e3	58.4	NO
3	3	13C3-PFHxS	B7L0088-MS1 Matrix Spike 0.25868	1.92e3	65.3	NO
4	4	13C8-PFOA	B7L0088-MS1 Matrix Spike 0.25868	7.84e3	64.4	NO
5	5	13C9-PFNA	B7L0088-MS1 Matrix Spike 0.25868	7.06e3	61.4	NO
6	6	13C4-PFOS	B7L0088-MS1 Matrix Spike 0.25868	1.81e3	64.4	NO
7	7	13C6-PFDA	B7L0088-MS1 Matrix Spike 0.25868	4.47e3	65.0	NO
8	8	13C7-PFUdA	B7L0088-MS1 Matrix Spike 0.25868	7.49e3	73.8	NO

Name: 180110M3_14, Date: 11-Jan-2018, Time: 11:48:11, ID: B7L0088-MSD1 Matrix Spike Dup 0.2594, Description: Matrix Spike Dup

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0088-MSD1 Matrix Spike Dup 0.2594	6.78e3	65.6	NO
2	2	13C5-PFHxA	B7L0088-MSD1 Matrix Spike Dup 0.2594	8.69e3	70.8	NO
3	3	13C3-PFHxS	B7L0088-MSD1 Matrix Spike Dup 0.2594	2.31e3	78.4	NO
4	4	13C8-PFOA	B7L0088-MSD1 Matrix Spike Dup 0.2594	8.13e3	66.7	NO
5	5	13C9-PFNA	B7L0088-MSD1 Matrix Spike Dup 0.2594	7.62e3	66.2	NO
6	6	13C4-PFOS	B7L0088-MSD1 Matrix Spike Dup 0.2594	2.41e3	85.7	NO
7	7	13C6-PFDA	B7L0088-MSD1 Matrix Spike Dup 0.2594	4.93e3	71.7	NO
8	8	13C7-PFUdA	B7L0088-MSD1 Matrix Spike Dup 0.2594	7.21e3	71.1	NO

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Name: 180110M3_15, Date: 11-Jan-2018, Time: 11:59:21, ID: 1701832-01 FT-SW10-20171201 0.24901, Description: FT-SW10-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-01 FT-SW10-20171201 0.24901	8.79e3	85.0	NO
2	2	13C5-PFHxA	1701832-01 FT-SW10-20171201 0.24901	9.51e3	77.4	NO
3	3	13C3-PFHxS	1701832-01 FT-SW10-20171201 0.24901	3.26e3	110.7	NO
4	4	13C8-PFOA	1701832-01 FT-SW10-20171201 0.24901	1.04e4	85.3	NO
5	5	13C9-PFNA	1701832-01 FT-SW10-20171201 0.24901	1.04e4	90.4	NO
6	6	13C4-PFOS	1701832-01 FT-SW10-20171201 0.24901	3.15e3	111.9	NO
7	7	13C6-PFDA	1701832-01 FT-SW10-20171201 0.24901	7.84e3	114.1	NO
8	8	13C7-PFUdA	1701832-01 FT-SW10-20171201 0.24901	9.23e3	91.0	NO

Name: 180110M3_16, Date: 11-Jan-2018, Time: 12:10:32, ID: 1701832-02 FT-DUP04-20171201 0.25912, Description: FT-DUP04-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-02 FT-DUP04-20171201 0.25...	6.56e3	63.5	NO
2	2	13C5-PFHxA	1701832-02 FT-DUP04-20171201 0.25...	7.48e3	60.9	NO
3	3	13C3-PFHxS	1701832-02 FT-DUP04-20171201 0.25...	2.30e3	78.2	NO
4	4	13C8-PFOA	1701832-02 FT-DUP04-20171201 0.25...	7.40e3	60.7	NO
5	5	13C9-PFNA	1701832-02 FT-DUP04-20171201 0.25...	6.88e3	59.8	NO
6	6	13C4-PFOS	1701832-02 FT-DUP04-20171201 0.25...	2.22e3	79.1	NO
7	7	13C6-PFDA	1701832-02 FT-DUP04-20171201 0.25...	4.46e3	64.8	NO
8	8	13C7-PFUdA	1701832-02 FT-DUP04-20171201 0.25...	6.76e3	66.6	NO

Name: 180110M3_17, Date: 11-Jan-2018, Time: 12:21:42, ID: 1701832-03 FT-SW13-20171201 0.25163, Description: FT-SW13-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-03 FT-SW13-20171201 0.25163	6.60e3	63.8	NO
2	2	13C5-PFHxA	1701832-03 FT-SW13-20171201 0.25163	8.13e3	66.2	NO
3	3	13C3-PFHxS	1701832-03 FT-SW13-20171201 0.25163	2.17e3	73.6	NO
4	4	13C8-PFOA	1701832-03 FT-SW13-20171201 0.25163	8.68e3	71.3	NO
5	5	13C9-PFNA	1701832-03 FT-SW13-20171201 0.25163	7.55e3	65.6	NO
6	6	13C4-PFOS	1701832-03 FT-SW13-20171201 0.25163	2.27e3	80.9	NO
7	7	13C6-PFDA	1701832-03 FT-SW13-20171201 0.25163	5.10e3	74.3	NO
8	8	13C7-PFUdA	1701832-03 FT-SW13-20171201 0.25163	8.32e3	82.0	NO

Name: 180110M3_18, Date: 11-Jan-2018, Time: 12:32:54, ID: 1701832-04 FT-SW12-20171201 0.25479, Description: FT-SW12-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-04 FT-SW12-20171201 0.25479	6.21e3	60.1	NO
2	2	13C5-PFHxA	1701832-04 FT-SW12-20171201 0.25479	8.19e3	66.7	NO
3	3	13C3-PFHxS	1701832-04 FT-SW12-20171201 0.25479	2.23e3	75.7	NO
4	4	13C8-PFOA	1701832-04 FT-SW12-20171201 0.25479	6.71e3	55.1	NO
5	5	13C9-PFNA	1701832-04 FT-SW12-20171201 0.25479	7.72e3	67.1	NO
6	6	13C4-PFOS	1701832-04 FT-SW12-20171201 0.25479	1.96e3	69.9	NO
7	7	13C6-PFDA	1701832-04 FT-SW12-20171201 0.25479	4.17e3	60.6	NO
8	8	13C7-PFUdA	1701832-04 FT-SW12-20171201 0.25479	6.97e3	68.7	NO

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Name: 180110M3_19, Date: 11-Jan-2018, Time: 12:44:04, ID: 1701832-05 SA-SW125-20171201 0.26063, Description: SA-SW125-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-05 SA-SW125-20171201 0.26...	6.72e3	65.0	NO
2	2	13C5-PFHxA	1701832-05 SA-SW125-20171201 0.26...	7.73e3	62.9	NO
3	3	13C3-PFHxS	1701832-05 SA-SW125-20171201 0.26...	2.28e3	77.4	NO
4	4	13C8-PFOA	1701832-05 SA-SW125-20171201 0.26...	8.14e3	66.8	NO
5	5	13C9-PFNA	1701832-05 SA-SW125-20171201 0.26...	7.10e3	61.7	NO
6	6	13C4-PFOS	1701832-05 SA-SW125-20171201 0.26...	2.09e3	74.2	NO
7	7	13C6-PFDA	1701832-05 SA-SW125-20171201 0.26...	4.80e3	69.8	NO
8	8	13C7-PFUdA	1701832-05 SA-SW125-20171201 0.26...	6.39e3	63.0	NO

Name: 180110M3_20, Date: 11-Jan-2018, Time: 12:55:15, ID: 1701832-06 SA-SW124-20171201 0.24606, Description: SA-SW124-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-06 SA-SW124-20171201 0.24...	6.79e3	65.6	NO
2	2	13C5-PFHxA	1701832-06 SA-SW124-20171201 0.24...	8.69e3	70.7	NO
3	3	13C3-PFHxS	1701832-06 SA-SW124-20171201 0.24...	2.30e3	78.2	NO
4	4	13C8-PFOA	1701832-06 SA-SW124-20171201 0.24...	7.07e3	58.1	NO
5	5	13C9-PFNA	1701832-06 SA-SW124-20171201 0.24...	7.53e3	65.4	NO
6	6	13C4-PFOS	1701832-06 SA-SW124-20171201 0.24...	1.82e3	64.7	NO
7	7	13C6-PFDA	1701832-06 SA-SW124-20171201 0.24...	5.61e3	81.6	NO
8	8	13C7-PFUdA	1701832-06 SA-SW124-20171201 0.24...	7.68e3	75.7	NO

Name: 180110M3_21, Date: 11-Jan-2018, Time: 13:06:26, ID: 1701832-07 SA-PZ124-20171201 0.22152, Description: SA-PZ124-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-07 SA-PZ124-20171201 0.221...	7.22e3	69.8	NO
2	2	13C5-PFHxA	1701832-07 SA-PZ124-20171201 0.221...	8.86e3	72.1	NO
3	3	13C3-PFHxS	1701832-07 SA-PZ124-20171201 0.221...	2.35e3	79.7	NO
4	4	13C8-PFOA	1701832-07 SA-PZ124-20171201 0.221...	8.94e3	73.4	NO
5	5	13C9-PFNA	1701832-07 SA-PZ124-20171201 0.221...	7.14e3	62.1	NO
6	6	13C4-PFOS	1701832-07 SA-PZ124-20171201 0.221...	2.27e3	80.7	NO
7	7	13C6-PFDA	1701832-07 SA-PZ124-20171201 0.221...	4.99e3	72.6	NO
8	8	13C7-PFUdA	1701832-07 SA-PZ124-20171201 0.221...	8.31e3	82.0	NO

Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-08 SA-DUP05-20171201 0.23...	7.66e3	74.1	NO
2	2	13C5-PFHxA	1701832-08 SA-DUP05-20171201 0.23...	9.63e3	78.4	NO
3	3	13C3-PFHxS	1701832-08 SA-DUP05-20171201 0.23...	2.23e3	75.7	NO
4	4	13C8-PFOA	1701832-08 SA-DUP05-20171201 0.23...	8.86e3	72.7	NO
5	5	13C9-PFNA	1701832-08 SA-DUP05-20171201 0.23...	6.75e3	58.7	NO
6	6	13C4-PFOS	1701832-08 SA-DUP05-20171201 0.23...	2.86e3	101.6	NO
7	7	13C6-PFDA	1701832-08 SA-DUP05-20171201 0.23...	5.39e3	78.5	NO
8	8	13C7-PFUdA	1701832-08 SA-DUP05-20171201 0.23...	8.51e3	83.9	NO

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Name: 180110M3_23, Date: 11-Jan-2018, Time: 13:28:47, ID: 1701832-09 SA-PZ147-20171201 0.25163, Description: SA-PZ147-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-09 SA-PZ147-20171201 0.251...	6.79e3	65.7	NO
2	2	13C5-PFHxA	1701832-09 SA-PZ147-20171201 0.251...	7.73e3	62.9	NO
3	3	13C3-PFHxS	1701832-09 SA-PZ147-20171201 0.251...	2.32e3	78.6	NO
4	4	13C8-PFOA	1701832-09 SA-PZ147-20171201 0.251...	7.25e3	59.5	NO
5	5	13C9-PFNA	1701832-09 SA-PZ147-20171201 0.251...	8.96e3	77.9	NO
6	6	13C4-PFOS	1701832-09 SA-PZ147-20171201 0.251...	2.23e3	79.4	NO
7	7	13C6-PFDA	1701832-09 SA-PZ147-20171201 0.251...	4.94e3	71.9	NO
8	8	13C7-PFUdA	1701832-09 SA-PZ147-20171201 0.251...	7.39e3	72.8	NO

Name: 180110M3_24, Date: 11-Jan-2018, Time: 13:39:58, ID: 1701832-10 SA-SW201-20171201 0.24837, Description: SA-SW201-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-10 SA-SW201-20171201 0.24...	8.08e3	78.2	NO
2	2	13C5-PFHxA	1701832-10 SA-SW201-20171201 0.24...	8.20e3	66.8	NO
3	3	13C3-PFHxS	1701832-10 SA-SW201-20171201 0.24...	2.41e3	81.7	NO
4	4	13C8-PFOA	1701832-10 SA-SW201-20171201 0.24...	7.27e3	59.7	NO
5	5	13C9-PFNA	1701832-10 SA-SW201-20171201 0.24...	8.67e3	75.4	NO
6	6	13C4-PFOS	1701832-10 SA-SW201-20171201 0.24...	2.52e3	89.6	NO
7	7	13C6-PFDA	1701832-10 SA-SW201-20171201 0.24...	5.06e3	73.6	NO
8	8	13C7-PFUdA	1701832-10 SA-SW201-20171201 0.24...	7.51e3	74.0	NO

Name: 180110M3_25, Date: 11-Jan-2018, Time: 13:51:09, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-10 PFC CS3 17L2611	1.16e4	112.2	NO
2	2	13C5-PFHxA	ST180110M3-10 PFC CS3 17L2611	1.45e4	117.8	NO
3	3	13C3-PFHxS	ST180110M3-10 PFC CS3 17L2611	3.34e3	113.5	NO
4	4	13C8-PFOA	ST180110M3-10 PFC CS3 17L2611	1.33e4	109.3	NO
5	5	13C9-PFNA	ST180110M3-10 PFC CS3 17L2611	1.23e4	106.7	NO
6	6	13C4-PFOS	ST180110M3-10 PFC CS3 17L2611	2.77e3	98.4	NO
7	7	13C6-PFDA	ST180110M3-10 PFC CS3 17L2611	9.08e3	132.0	NO
8	8	13C7-PFUdA	ST180110M3-10 PFC CS3 17L2611	1.16e4	114.5	NO

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Name: 180110M3_27, Date: 11-Jan-2018, Time: 14:13:30, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_28, Date: 11-Jan-2018, Time: 14:24:43, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-11 SW-DP01-20171201 0.260...	6.39e3	61.7	NO
2	2	13C5-PFHxA	1701832-11 SW-DP01-20171201 0.260...	6.94e3	56.5	NO
3	3	13C3-PFHxS	1701832-11 SW-DP01-20171201 0.260...	2.06e3	69.9	NO
4	4	13C8-PFOA	1701832-11 SW-DP01-20171201 0.260...	6.48e3	53.3	NO
5	5	13C9-PFNA	1701832-11 SW-DP01-20171201 0.260...	7.49e3	65.1	NO
6	6	13C4-PFOS	1701832-11 SW-DP01-20171201 0.260...	1.88e3	66.9	NO
7	7	13C6-PFDA	1701832-11 SW-DP01-20171201 0.260...	5.05e3	73.4	NO
8	8	13C7-PFUdA	1701832-11 SW-DP01-20171201 0.260...	6.20e3	61.1	NO

Name: 180110M3_29, Date: 11-Jan-2018, Time: 14:35:52, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-12 SA-SW204-20171201 0.25...	6.49e3	62.8	NO
2	2	13C5-PFHxA	1701832-12 SA-SW204-20171201 0.25...	8.33e3	67.8	NO
3	3	13C3-PFHxS	1701832-12 SA-SW204-20171201 0.25...	2.41e3	81.7	NO
4	4	13C8-PFOA	1701832-12 SA-SW204-20171201 0.25...	7.88e3	64.7	NO
5	5	13C9-PFNA	1701832-12 SA-SW204-20171201 0.25...	7.81e3	67.9	NO
6	6	13C4-PFOS	1701832-12 SA-SW204-20171201 0.25...	2.26e3	80.3	NO
7	7	13C6-PFDA	1701832-12 SA-SW204-20171201 0.25...	4.70e3	68.4	NO
8	8	13C7-PFUdA	1701832-12 SA-SW204-20171201 0.25...	7.47e3	73.7	NO

Name: 180110M3_30, Date: 11-Jan-2018, Time: 14:47:02, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-13 SA-SW204-FRB-20171201...	1.04e4	100.6	NO
2	2	13C5-PFHxA	1701832-13 SA-SW204-FRB-20171201...	1.10e4	89.2	NO
3	3	13C3-PFHxS	1701832-13 SA-SW204-FRB-20171201...	2.63e3	89.4	NO
4	4	13C8-PFOA	1701832-13 SA-SW204-FRB-20171201...	8.12e3	66.7	NO
5	5	13C9-PFNA	1701832-13 SA-SW204-FRB-20171201...	7.32e3	63.7	NO
6	6	13C4-PFOS	1701832-13 SA-SW204-FRB-20171201...	1.83e3	65.3	NO
7	7	13C6-PFDA	1701832-13 SA-SW204-FRB-20171201...	5.05e3	73.4	NO
8	8	13C7-PFUdA	1701832-13 SA-SW204-FRB-20171201...	7.14e3	70.4	NO

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Name: 180110M3_31, Date: 11-Jan-2018, Time: 14:58:13, ID: B7L0114-BS1 OPR 0.125, Description: OPR

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0114-BS1 OPR 0.125	6.04e3	58.4	NO
2	2	13C5-PFHxA	B7L0114-BS1 OPR 0.125	7.59e3	61.8	NO
3	3	13C3-PFHxS	B7L0114-BS1 OPR 0.125	1.82e3	61.9	NO
4	4	13C8-PFOA	B7L0114-BS1 OPR 0.125	8.24e3	67.7	NO
5	5	13C9-PFNA	B7L0114-BS1 OPR 0.125	7.18e3	62.4	NO
6	6	13C4-PFOS	B7L0114-BS1 OPR 0.125	1.68e3	59.7	NO
7	7	13C6-PFDA	B7L0114-BS1 OPR 0.125	3.77e3	54.9	NO
8	8	13C7-PFUdA	B7L0114-BS1 OPR 0.125	7.13e3	70.3	NO

Name: 180110M3_32, Date: 11-Jan-2018, Time: 15:09:23, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_33, Date: 11-Jan-2018, Time: 15:20:34, ID: B7L0114-BLK1 Method Blank 0.125, Description: Method Blank

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	B7L0114-BLK1 Method Blank 0.125	6.27e3	60.6	NO
2	2	13C5-PFHxA	B7L0114-BLK1 Method Blank 0.125	7.69e3	62.6	NO
3	3	13C3-PFHxS	B7L0114-BLK1 Method Blank 0.125	2.47e3	84.0	NO
4	4	13C8-PFOA	B7L0114-BLK1 Method Blank 0.125	7.87e3	64.7	NO
5	5	13C9-PFNA	B7L0114-BLK1 Method Blank 0.125	6.98e3	60.7	NO
6	6	13C4-PFOS	B7L0114-BLK1 Method Blank 0.125	1.89e3	67.3	NO
7	7	13C6-PFDA	B7L0114-BLK1 Method Blank 0.125	4.97e3	72.3	NO
8	8	13C7-PFUdA	B7L0114-BLK1 Method Blank 0.125	7.55e3	74.4	NO

Name: 180110M3_34, Date: 11-Jan-2018, Time: 15:31:45, ID: 1701896-01 FB1712041315JM 0.26557, Description: FB1712041315JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-01 FB1712041315JM 0.26557	6.18e3	59.8	NO
2	2	13C5-PFHxA	1701896-01 FB1712041315JM 0.26557	7.92e3	64.5	NO
3	3	13C3-PFHxS	1701896-01 FB1712041315JM 0.26557	2.31e3	78.2	NO
4	4	13C8-PFOA	1701896-01 FB1712041315JM 0.26557	7.81e3	64.2	NO
5	5	13C9-PFNA	1701896-01 FB1712041315JM 0.26557	7.59e3	66.0	NO
6	6	13C4-PFOS	1701896-01 FB1712041315JM 0.26557	2.10e3	74.5	NO
7	7	13C6-PFDA	1701896-01 FB1712041315JM 0.26557	5.74e3	83.5	NO
8	8	13C7-PFUdA	1701896-01 FB1712041315JM 0.26557	6.54e3	64.4	NO

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Name: 180110M3_35, Date: 11-Jan-2018, Time: 15:42:56, ID: 1701896-02 WT1712041320JM 0.27098, Description: WT1712041320JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-02 WT1712041320JM 0.27098	6.94e3	67.1	NO
2	2	13C5-PFHxA	1701896-02 WT1712041320JM 0.27098	7.73e3	62.9	NO
3	3	13C3-PFHxS	1701896-02 WT1712041320JM 0.27098	2.32e3	78.7	NO
4	4	13C8-PFOA	1701896-02 WT1712041320JM 0.27098	7.31e3	60.0	NO
5	5	13C9-PFNA	1701896-02 WT1712041320JM 0.27098	7.06e3	61.4	NO
6	6	13C4-PFOS	1701896-02 WT1712041320JM 0.27098	2.11e3	75.2	NO
7	7	13C6-PFDA	1701896-02 WT1712041320JM 0.27098	4.93e3	71.8	NO
8	8	13C7-PFUdA	1701896-02 WT1712041320JM 0.27098	6.24e3	61.5	NO

Name: 180110M3_36, Date: 11-Jan-2018, Time: 15:54:06, ID: 1701896-03 WR1712041330JM 0.26836, Description: WR1712041330JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-03 WR1712041330JM 0.26836	6.15e3	59.5	NO
2	2	13C5-PFHxA	1701896-03 WR1712041330JM 0.26836	7.73e3	63.0	NO
3	3	13C3-PFHxS	1701896-03 WR1712041330JM 0.26836	2.04e3	69.3	NO
4	4	13C8-PFOA	1701896-03 WR1712041330JM 0.26836	7.02e3	57.7	NO
5	5	13C9-PFNA	1701896-03 WR1712041330JM 0.26836	7.67e3	66.7	NO
6	6	13C4-PFOS	1701896-03 WR1712041330JM 0.26836	1.70e3	60.3	NO
7	7	13C6-PFDA	1701896-03 WR1712041330JM 0.26836	3.92e3	57.0	NO
8	8	13C7-PFUdA	1701896-03 WR1712041330JM 0.26836	6.57e3	64.8	NO

Name: 180110M3_37, Date: 11-Jan-2018, Time: 16:05:17, ID: 1701896-04 WT1712041435JM 0.26471, Description: WT1712041435JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-04 WT1712041435JM 0.26471	8.05e3	77.9	NO
2	2	13C5-PFHxA	1701896-04 WT1712041435JM 0.26471	9.07e3	73.9	NO
3	3	13C3-PFHxS	1701896-04 WT1712041435JM 0.26471	2.38e3	81.0	NO
4	4	13C8-PFOA	1701896-04 WT1712041435JM 0.26471	8.77e3	72.0	NO
5	5	13C9-PFNA	1701896-04 WT1712041435JM 0.26471	8.48e3	73.7	NO
6	6	13C4-PFOS	1701896-04 WT1712041435JM 0.26471	2.25e3	79.9	NO
7	7	13C6-PFDA	1701896-04 WT1712041435JM 0.26471	5.21e3	75.8	NO
8	8	13C7-PFUdA	1701896-04 WT1712041435JM 0.26471	8.01e3	79.0	NO

Name: 180110M3_38, Date: 11-Jan-2018, Time: 16:16:28, ID: 1701896-05 WR1712041445JM 0.2652, Description: WR1712041445JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-05 WR1712041445JM 0.2652	7.54e3	72.9	NO
2	2	13C5-PFHxA	1701896-05 WR1712041445JM 0.2652	9.22e3	75.0	NO
3	3	13C3-PFHxS	1701896-05 WR1712041445JM 0.2652	2.29e3	77.6	NO
4	4	13C8-PFOA	1701896-05 WR1712041445JM 0.2652	8.04e3	66.0	NO
5	5	13C9-PFNA	1701896-05 WR1712041445JM 0.2652	8.92e3	77.5	NO
6	6	13C4-PFOS	1701896-05 WR1712041445JM 0.2652	2.26e3	80.5	NO
7	7	13C6-PFDA	1701896-05 WR1712041445JM 0.2652	6.24e3	90.8	NO
8	8	13C7-PFUdA	1701896-05 WR1712041445JM 0.2652	7.41e3	73.0	NO

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Name: 180110M3_39, Date: 11-Jan-2018, Time: 16:27:39, ID: 1701896-06 WT1712041505JM 0.26375, Description: WT1712041505JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-06 WT1712041505JM 0.26375	7.01e3	67.8	NO
2	2	13C5-PFHxA	1701896-06 WT1712041505JM 0.26375	8.91e3	72.6	NO
3	3	13C3-PFHxS	1701896-06 WT1712041505JM 0.26375	2.71e3	92.0	NO
4	4	13C8-PFOA	1701896-06 WT1712041505JM 0.26375	9.18e3	75.4	NO
5	5	13C9-PFNA	1701896-06 WT1712041505JM 0.26375	8.02e3	69.8	NO
6	6	13C4-PFOS	1701896-06 WT1712041505JM 0.26375	2.70e3	96.1	NO
7	7	13C6-PFDA	1701896-06 WT1712041505JM 0.26375	5.57e3	81.1	NO
8	8	13C7-PFUdA	1701896-06 WT1712041505JM 0.26375	7.62e3	75.1	NO

Name: 180110M3_40, Date: 11-Jan-2018, Time: 16:38:49, ID: 1701896-07 WT1712041525JM 0.26253, Description: WT1712041525JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-07 WT1712041525JM 0.26253	6.48e3	62.6	NO
2	2	13C5-PFHxA	1701896-07 WT1712041525JM 0.26253	7.93e3	64.6	NO
3	3	13C3-PFHxS	1701896-07 WT1712041525JM 0.26253	2.12e3	71.9	NO
4	4	13C8-PFOA	1701896-07 WT1712041525JM 0.26253	6.80e3	55.8	NO
5	5	13C9-PFNA	1701896-07 WT1712041525JM 0.26253	7.79e3	67.7	NO
6	6	13C4-PFOS	1701896-07 WT1712041525JM 0.26253	2.11e3	75.2	NO
7	7	13C6-PFDA	1701896-07 WT1712041525JM 0.26253	4.46e3	64.9	NO
8	8	13C7-PFUdA	1701896-07 WT1712041525JM 0.26253	6.38e3	62.9	NO

Name: 180110M3_41, Date: 11-Jan-2018, Time: 16:50:00, ID: 1701896-08 WT1712041545JM 0.25304, Description: WT1712041545JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-08 WT1712041545JM 0.25304	8.86e3	85.6	NO
2	2	13C5-PFHxA	1701896-08 WT1712041545JM 0.25304	9.77e3	79.6	NO
3	3	13C3-PFHxS	1701896-08 WT1712041545JM 0.25304	2.35e3	79.7	NO
4	4	13C8-PFOA	1701896-08 WT1712041545JM 0.25304	6.89e3	56.6	NO
5	5	13C9-PFNA	1701896-08 WT1712041545JM 0.25304	7.05e3	61.3	NO
6	6	13C4-PFOS	1701896-08 WT1712041545JM 0.25304	1.85e3	65.7	NO
7	7	13C6-PFDA	1701896-08 WT1712041545JM 0.25304	4.01e3	58.4	NO
8	8	13C7-PFUdA	1701896-08 WT1712041545JM 0.25304	5.40e3	53.3	NO

Name: 180110M3_42, Date: 11-Jan-2018, Time: 17:01:11, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 180110M3_43, Date: 11-Jan-2018, Time: 17:12:22, ID: ST180109M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180109M2-11 PFC CS3 17L2611	1.14e4	109.8	NO
2	2	13C5-PFHxA	ST180109M2-11 PFC CS3 17L2611	1.23e4	100.0	NO
3	3	13C3-PFHxS	ST180109M2-11 PFC CS3 17L2611	3.33e3	112.9	NO
4	4	13C8-PFOA	ST180109M2-11 PFC CS3 17L2611	1.26e4	103.3	NO
5	5	13C9-PFNA	ST180109M2-11 PFC CS3 17L2611	1.24e4	107.9	NO
6	6	13C4-PFOS	ST180109M2-11 PFC CS3 17L2611	3.66e3	130.1	NO
7	7	13C6-PFDA	ST180109M2-11 PFC CS3 17L2611	6.79e3	98.8	NO
8	8	13C7-PFUdA	ST180109M2-11 PFC CS3 17L2611	1.06e4	104.2	NO

Name: 180110M3_44, Date: 11-Jan-2018, Time: 17:23:32, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_45, Date: 11-Jan-2018, Time: 17:34:43, ID: 1701896-09 WT1712041600JM 0.25668, Description: WT1712041600JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-09 WT1712041600JM 0.25668	6.97e3	67.4	NO
2	2	13C5-PFHxA	1701896-09 WT1712041600JM 0.25668	8.01e3	65.2	NO
3	3	13C3-PFHxS	1701896-09 WT1712041600JM 0.25668	2.59e3	87.8	NO
4	4	13C8-PFOA	1701896-09 WT1712041600JM 0.25668	7.41e3	60.9	NO
5	5	13C9-PFNA	1701896-09 WT1712041600JM 0.25668	8.19e3	71.2	NO
6	6	13C4-PFOS	1701896-09 WT1712041600JM 0.25668	2.22e3	78.9	NO
7	7	13C6-PFDA	1701896-09 WT1712041600JM 0.25668	5.38e3	78.3	NO
8	8	13C7-PFUdA	1701896-09 WT1712041600JM 0.25668	6.72e3	66.3	NO

Name: 180110M3_46, Date: 11-Jan-2018, Time: 17:45:54, ID: 1701896-10 WT1712041625JM 0.26672, Description: WT1712041625JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-10 WT1712041625JM 0.26672	6.66e3	64.4	NO
2	2	13C5-PFHxA	1701896-10 WT1712041625JM 0.26672	8.54e3	69.5	NO
3	3	13C3-PFHxS	1701896-10 WT1712041625JM 0.26672	2.46e3	83.5	NO
4	4	13C8-PFOA	1701896-10 WT1712041625JM 0.26672	8.05e3	66.1	NO
5	5	13C9-PFNA	1701896-10 WT1712041625JM 0.26672	8.51e3	73.9	NO
6	6	13C4-PFOS	1701896-10 WT1712041625JM 0.26672	2.64e3	94.0	NO
7	7	13C6-PFDA	1701896-10 WT1712041625JM 0.26672	4.84e3	70.5	NO
8	8	13C7-PFUdA	1701896-10 WT1712041625JM 0.26672	6.96e3	68.6	NO

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Name: 180110M3_47, Date: 11-Jan-2018, Time: 17:57:04, ID: 1701896-11 WT1712041645JM 0.26526, Description: WT1712041645JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-11 WT1712041645JM 0.26526	7.47e3	72.3	NO
2	2	13C5-PFHxA	1701896-11 WT1712041645JM 0.26526	9.16e3	74.6	NO
3	3	13C3-PFHxS	1701896-11 WT1712041645JM 0.26526	2.31e3	78.4	NO
4	4	13C8-PFOA	1701896-11 WT1712041645JM 0.26526	9.25e3	76.0	NO
5	5	13C9-PFNA	1701896-11 WT1712041645JM 0.26526	8.67e3	75.4	NO
6	6	13C4-PFOS	1701896-11 WT1712041645JM 0.26526	2.24e3	79.8	NO
7	7	13C6-PFDA	1701896-11 WT1712041645JM 0.26526	4.64e3	67.5	NO
8	8	13C7-PFUdA	1701896-11 WT1712041645JM 0.26526	8.41e3	82.9	NO

Name: 180110M3_48, Date: 11-Jan-2018, Time: 18:08:18, ID: 1701896-12 WR1712050835JM 0.26075, Description: WR1712050835JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-12 WR1712050835JM 0.26075	6.53e3	63.2	NO
2	2	13C5-PFHxA	1701896-12 WR1712050835JM 0.26075	8.44e3	68.7	NO
3	3	13C3-PFHxS	1701896-12 WR1712050835JM 0.26075	2.11e3	71.8	NO
4	4	13C8-PFOA	1701896-12 WR1712050835JM 0.26075	7.52e3	61.8	NO
5	5	13C9-PFNA	1701896-12 WR1712050835JM 0.26075	7.74e3	67.3	NO
6	6	13C4-PFOS	1701896-12 WR1712050835JM 0.26075	2.33e3	82.9	NO
7	7	13C6-PFDA	1701896-12 WR1712050835JM 0.26075	4.20e3	61.1	NO
8	8	13C7-PFUdA	1701896-12 WR1712050835JM 0.26075	7.23e3	71.3	NO

Name: 180110M3_49, Date: 11-Jan-2018, Time: 18:19:34, ID: 1701896-13 WT1712050920JM 0.25985, Description: WT1712050920JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-13 WT1712050920JM 0.25985	6.99e3	67.6	NO
2	2	13C5-PFHxA	1701896-13 WT1712050920JM 0.25985	8.21e3	66.8	NO
3	3	13C3-PFHxS	1701896-13 WT1712050920JM 0.25985	2.20e3	74.8	NO
4	4	13C8-PFOA	1701896-13 WT1712050920JM 0.25985	7.59e3	62.3	NO
5	5	13C9-PFNA	1701896-13 WT1712050920JM 0.25985	8.00e3	69.5	NO
6	6	13C4-PFOS	1701896-13 WT1712050920JM 0.25985	2.21e3	78.5	NO
7	7	13C6-PFDA	1701896-13 WT1712050920JM 0.25985	4.19e3	60.9	NO
8	8	13C7-PFUdA	1701896-13 WT1712050920JM 0.25985	6.78e3	66.9	NO

Name: 180110M3_50, Date: 11-Jan-2018, Time: 18:30:45, ID: 1701896-14 FB1712050940JM 0.26706, Description: FB1712050940JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-14 FB1712050940JM 0.26706	6.14e3	59.4	NO
2	2	13C5-PFHxA	1701896-14 FB1712050940JM 0.26706	7.59e3	61.8	NO
3	3	13C3-PFHxS	1701896-14 FB1712050940JM 0.26706	2.21e3	75.2	NO
4	4	13C8-PFOA	1701896-14 FB1712050940JM 0.26706	6.99e3	57.4	NO
5	5	13C9-PFNA	1701896-14 FB1712050940JM 0.26706	7.71e3	67.0	NO
6	6	13C4-PFOS	1701896-14 FB1712050940JM 0.26706	1.98e3	70.5	NO
7	7	13C6-PFDA	1701896-14 FB1712050940JM 0.26706	4.45e3	64.8	NO
8	8	13C7-PFUdA	1701896-14 FB1712050940JM 0.26706	7.03e3	69.3	NO

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Name: 180110M3_51, Date: 11-Jan-2018, Time: 18:41:56, ID: 1701896-15 WT1712050945JM 0.26049, Description: WT1712050945JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-15 WT1712050945JM 0.26049	6.36e3	61.5	NO
2	2	13C5-PFHxA	1701896-15 WT1712050945JM 0.26049	7.79e3	63.4	NO
3	3	13C3-PFHxS	1701896-15 WT1712050945JM 0.26049	2.38e3	80.9	NO
4	4	13C8-PFOA	1701896-15 WT1712050945JM 0.26049	7.23e3	59.4	NO
5	5	13C9-PFNA	1701896-15 WT1712050945JM 0.26049	7.55e3	65.7	NO
6	6	13C4-PFOS	1701896-15 WT1712050945JM 0.26049	2.20e3	78.4	NO
7	7	13C6-PFDA	1701896-15 WT1712050945JM 0.26049	4.13e3	60.1	NO
8	8	13C7-PFUdA	1701896-15 WT1712050945JM 0.26049	6.10e3	60.1	NO

Name: 180110M3_52, Date: 11-Jan-2018, Time: 18:53:06, ID: 1701896-16 WT1712051000JM 0.26777, Description: WT1712051000JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-16 WT1712051000JM 0.26777	7.38e3	71.4	NO
2	2	13C5-PFHxA	1701896-16 WT1712051000JM 0.26777	9.36e3	76.2	NO
3	3	13C3-PFHxS	1701896-16 WT1712051000JM 0.26777	2.08e3	70.8	NO
4	4	13C8-PFOA	1701896-16 WT1712051000JM 0.26777	8.92e3	73.2	NO
5	5	13C9-PFNA	1701896-16 WT1712051000JM 0.26777	8.61e3	74.8	NO
6	6	13C4-PFOS	1701896-16 WT1712051000JM 0.26777	1.69e3	60.1	NO
7	7	13C6-PFDA	1701896-16 WT1712051000JM 0.26777	6.47e3	94.2	NO
8	8	13C7-PFUdA	1701896-16 WT1712051000JM 0.26777	6.99e3	68.9	NO

Name: 180110M3_53, Date: 11-Jan-2018, Time: 19:04:17, ID: 1701896-17 WT1712051035JM 0.26811, Description: WT1712051035JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-17 WT1712051035JM 0.26811	6.97e3	67.4	NO
2	2	13C5-PFHxA	1701896-17 WT1712051035JM 0.26811	8.31e3	67.7	NO
3	3	13C3-PFHxS	1701896-17 WT1712051035JM 0.26811	2.22e3	75.4	NO
4	4	13C8-PFOA	1701896-17 WT1712051035JM 0.26811	7.36e3	60.4	NO
5	5	13C9-PFNA	1701896-17 WT1712051035JM 0.26811	8.55e3	74.3	NO
6	6	13C4-PFOS	1701896-17 WT1712051035JM 0.26811	2.92e3	103.7	NO
7	7	13C6-PFDA	1701896-17 WT1712051035JM 0.26811	4.84e3	70.5	NO
8	8	13C7-PFUdA	1701896-17 WT1712051035JM 0.26811	6.42e3	63.3	NO

Name: 180110M3_54, Date: 11-Jan-2018, Time: 19:15:27, ID: 1701896-18 WT1712051055JM 0.26798, Description: WT1712051055JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-18 WT1712051055JM 0.26798	6.39e3	61.8	NO
2	2	13C5-PFHxA	1701896-18 WT1712051055JM 0.26798	7.27e3	59.2	NO
3	3	13C3-PFHxS	1701896-18 WT1712051055JM 0.26798	2.31e3	78.4	NO
4	4	13C8-PFOA	1701896-18 WT1712051055JM 0.26798	7.37e3	60.5	NO
5	5	13C9-PFNA	1701896-18 WT1712051055JM 0.26798	7.46e3	64.9	NO
6	6	13C4-PFOS	1701896-18 WT1712051055JM 0.26798	2.27e3	80.6	NO
7	7	13C6-PFDA	1701896-18 WT1712051055JM 0.26798	3.84e3	55.9	NO
8	8	13C7-PFUdA	1701896-18 WT1712051055JM 0.26798	5.56e3	54.8	NO

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Name: 180110M3_55, Date: 11-Jan-2018, Time: 19:26:38, ID: 1701896-19 WT1712051115JM 0.26037, Description: WT1712051115JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-19 WT1712051115JM 0.26037	6.47e3	62.6	NO
2	2	13C5-PFHxA	1701896-19 WT1712051115JM 0.26037	8.07e3	65.7	NO
3	3	13C3-PFHxS	1701896-19 WT1712051115JM 0.26037	2.20e3	74.6	NO
4	4	13C8-PFOA	1701896-19 WT1712051115JM 0.26037	7.23e3	59.3	NO
5	5	13C9-PFNA	1701896-19 WT1712051115JM 0.26037	8.24e3	71.6	NO
6	6	13C4-PFOS	1701896-19 WT1712051115JM 0.26037	2.56e3	91.0	NO
7	7	13C6-PFDA	1701896-19 WT1712051115JM 0.26037	4.33e3	62.9	NO
8	8	13C7-PFUdA	1701896-19 WT1712051115JM 0.26037	7.51e3	74.1	NO

Name: 180110M3_56, Date: 11-Jan-2018, Time: 19:37:49, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_57, Date: 11-Jan-2018, Time: 19:49:00, ID: ST180110M3-12 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-12 PFC CS3 17L2611	1.13e4	109.0	NO
2	2	13C5-PFHxA	ST180110M3-12 PFC CS3 17L2611	1.41e4	115.2	NO
3	3	13C3-PFHxS	ST180110M3-12 PFC CS3 17L2611	3.50e3	118.9	NO
4	4	13C8-PFOA	ST180110M3-12 PFC CS3 17L2611	1.17e4	96.3	NO
5	5	13C9-PFNA	ST180110M3-12 PFC CS3 17L2611	1.21e4	105.3	NO
6	6	13C4-PFOS	ST180110M3-12 PFC CS3 17L2611	3.42e3	121.7	NO
7	7	13C6-PFDA	ST180110M3-12 PFC CS3 17L2611	8.74e3	127.2	NO
8	8	13C7-PFUdA	ST180110M3-12 PFC CS3 17L2611	1.15e4	113.5	NO

Name: 180110M3_58, Date: 11-Jan-2018, Time: 20:00:10, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 180110M3_59, Date: 11-Jan-2018, Time: 20:11:21, ID: 1701852-01 IR03-MW034-C2-17D 0.26646, Description: IR03-MW034-C2-17D

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701852-01 IR03-MW034-C2-17D 0.26...	5.37e3		NO
2	2	13C5-PFHxA	1701852-01 IR03-MW034-C2-17D 0.26...	6.06e3		NO
3	3	13C3-PFHxS	1701852-01 IR03-MW034-C2-17D 0.26...	1.39e3		NO
4	4	13C8-PFOA	1701852-01 IR03-MW034-C2-17D 0.26...	5.01e3		NO
5	5	13C9-PFNA	1701852-01 IR03-MW034-C2-17D 0.26...	7.38e3		NO
6	6	13C4-PFOS	1701852-01 IR03-MW034-C2-17D 0.26...	1.61e3		NO
7	7	13C6-PFDA	1701852-01 IR03-MW034-C2-17D 0.26...	5.07e3		NO
8	8	13C7-PFUdA	1701852-01 IR03-MW034-C2-17D 0.26...	6.50e3		NO

Name: 180110M3_60, Date: 11-Jan-2018, Time: 20:22:32, ID: 1701852-02 IR03-MW018B-C1-17D 0.25583, Description: IR03-MW018B-C1-17D

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701852-02 IR03-MW018B-C1-17D 0.2...	5.72e3		NO
2	2	13C5-PFHxA	1701852-02 IR03-MW018B-C1-17D 0.2...	6.82e3		NO
3	3	13C3-PFHxS	1701852-02 IR03-MW018B-C1-17D 0.2...	1.74e3		NO
4	4	13C8-PFOA	1701852-02 IR03-MW018B-C1-17D 0.2...	6.30e3		NO
5	5	13C9-PFNA	1701852-02 IR03-MW018B-C1-17D 0.2...	5.40e3		NO
6	6	13C4-PFOS	1701852-02 IR03-MW018B-C1-17D 0.2...	1.40e3		NO
7	7	13C6-PFDA	1701852-02 IR03-MW018B-C1-17D 0.2...	3.95e3		NO
8	8	13C7-PFUdA	1701852-02 IR03-MW018B-C1-17D 0.2...	5.71e3		NO

Name: 180110M3_61, Date: 11-Jan-2018, Time: 20:33:42, ID: 1701852-03 IR03-MW018A-C2-17D 0.26605, Description: IR03-MW018A-C2-17D

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701852-03 IR03-MW018A-C2-17D 0.2...	5.96e3		NO
2	2	13C5-PFHxA	1701852-03 IR03-MW018A-C2-17D 0.2...	6.68e3		NO
3	3	13C3-PFHxS	1701852-03 IR03-MW018A-C2-17D 0.2...	1.58e3		NO
4	4	13C8-PFOA	1701852-03 IR03-MW018A-C2-17D 0.2...	6.73e3		NO
5	5	13C9-PFNA	1701852-03 IR03-MW018A-C2-17D 0.2...	7.16e3		NO
6	6	13C4-PFOS	1701852-03 IR03-MW018A-C2-17D 0.2...	1.28e3		NO
7	7	13C6-PFDA	1701852-03 IR03-MW018A-C2-17D 0.2...	3.41e3		NO
8	8	13C7-PFUdA	1701852-03 IR03-MW018A-C2-17D 0.2...	5.92e3		NO

Name: 180110M3_62, Date: 11-Jan-2018, Time: 20:44:53, ID: 1701896-20 WT1712051130JM 0.26351, Description: WT1712051130JM

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701896-20 WT1712051130JM 0.26351	6.77e3	65.5	NO
2	2	13C5-PFHxA	1701896-20 WT1712051130JM 0.26351	8.09e3	65.8	NO
3	3	13C3-PFHxS	1701896-20 WT1712051130JM 0.26351	2.15e3	73.1	NO
4	4	13C8-PFOA	1701896-20 WT1712051130JM 0.26351	7.60e3	62.4	NO
5	5	13C9-PFNA	1701896-20 WT1712051130JM 0.26351	9.11e3	79.2	NO
6	6	13C4-PFOS	1701896-20 WT1712051130JM 0.26351	2.01e3	71.4	NO
7	7	13C6-PFDA	1701896-20 WT1712051130JM 0.26351	5.89e3	85.7	NO
8	8	13C7-PFUdA	1701896-20 WT1712051130JM 0.26351	7.83e3	77.2	NO

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Name: 180110M3_63, Date: 11-Jan-2018, Time: 20:56:04, ID: 1701892-01 Soil-B109 1.21, Description: Soil-B109

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701892-01 Soil-B109 1.21	6.29e3	60.9	NO
2	2	13C5-PFHxA	1701892-01 Soil-B109 1.21	8.12e3	66.1	NO
3	3	13C3-PFHxS	1701892-01 Soil-B109 1.21	2.22e3	75.4	NO
4	4	13C8-PFOA	1701892-01 Soil-B109 1.21	7.27e3	59.7	NO
5	5	13C9-PFNA	1701892-01 Soil-B109 1.21	7.91e3	68.8	NO
6	6	13C4-PFOS	1701892-01 Soil-B109 1.21	1.97e3	70.0	NO
7	7	13C6-PFDA	1701892-01 Soil-B109 1.21	5.73e3	83.4	NO
8	8	13C7-PFUdA	1701892-01 Soil-B109 1.21	7.62e3	75.1	NO

Name: 180110M3_64, Date: 11-Jan-2018, Time: 21:07:15, ID: 1701892-02 Soil-S134 1.28, Description: Soil-S134

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701892-02 Soil-S134 1.28	5.93e3	57.3	NO
2	2	13C5-PFHxA	1701892-02 Soil-S134 1.28	7.37e3	60.0	NO
3	3	13C3-PFHxS	1701892-02 Soil-S134 1.28	1.96e3	66.7	NO
4	4	13C8-PFOA	1701892-02 Soil-S134 1.28	6.59e3	54.1	NO
5	5	13C9-PFNA	1701892-02 Soil-S134 1.28	6.00e3	52.2	NO
6	6	13C4-PFOS	1701892-02 Soil-S134 1.28	2.06e3	73.2	NO
7	7	13C6-PFDA	1701892-02 Soil-S134 1.28	4.40e3	64.0	NO
8	8	13C7-PFUdA	1701892-02 Soil-S134 1.28	6.22e3	61.3	NO

Name: 180110M3_65, Date: 11-Jan-2018, Time: 21:18:25, ID: 1701892-03 Soil-S150 1.1, Description: Soil-S150

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701892-03 Soil-S150 1.1	5.13e3	49.6	YES
2	2	13C5-PFHxA	1701892-03 Soil-S150 1.1	5.60e3	45.6	YES
3	3	13C3-PFHxS	1701892-03 Soil-S150 1.1	1.67e3	56.8	NO
4	4	13C8-PFOA	1701892-03 Soil-S150 1.1	6.51e3	53.4	NO
5	5	13C9-PFNA	1701892-03 Soil-S150 1.1	7.60e3	66.1	NO
6	6	13C4-PFOS	1701892-03 Soil-S150 1.1	1.71e3	61.0	NO
7	7	13C6-PFDA	1701892-03 Soil-S150 1.1	4.07e3	59.2	NO
8	8	13C7-PFUdA	1701892-03 Soil-S150 1.1	6.04e3	59.5	NO

Name: 180110M3_66, Date: 11-Jan-2018, Time: 21:29:36, ID: 1701892-04 Soil-B113 1.13, Description: Soil-B113

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701892-04 Soil-B113 1.13	5.93e3	57.3	NO
2	2	13C5-PFHxA	1701892-04 Soil-B113 1.13	7.26e3	59.1	NO
3	3	13C3-PFHxS	1701892-04 Soil-B113 1.13	2.00e3	67.9	NO
4	4	13C8-PFOA	1701892-04 Soil-B113 1.13	6.73e3	55.3	NO
5	5	13C9-PFNA	1701892-04 Soil-B113 1.13	7.70e3	67.0	NO
6	6	13C4-PFOS	1701892-04 Soil-B113 1.13	2.16e3	76.8	NO
7	7	13C6-PFDA	1701892-04 Soil-B113 1.13	5.21e3	75.9	NO
8	8	13C7-PFUdA	1701892-04 Soil-B113 1.13	6.47e3	63.8	NO

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Name: 180110M3_67, Date: 11-Jan-2018, Time: 21:40:47, ID: 1701905-03RE1@20X WINF1712061655JLB 0.25, Description: WINF1712061655JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701905-03RE1@20X WINF17120616...	2.25e2	2.2	YES
2	2	13C5-PFHxA	1701905-03RE1@20X WINF17120616...	2.24e2	1.8	YES
3	3	13C3-PFHxS	1701905-03RE1@20X WINF17120616...	6.95e1	2.4	YES
4	4	13C8-PFOA	1701905-03RE1@20X WINF17120616...	2.54e2	2.1	YES
5	5	13C9-PFNA	1701905-03RE1@20X WINF17120616...	2.04e2	1.8	YES
6	6	13C4-PFOS	1701905-03RE1@20X WINF17120616...	3.92e1	1.4	YES
7	7	13C6-PFDA	1701905-03RE1@20X WINF17120616...	7.16e1	1.0	YES
8	8	13C7-PFUdA	1701905-03RE1@20X WINF17120616...	1.94e2	1.9	YES

Name: 180110M3_68, Date: 11-Jan-2018, Time: 21:51:57, ID: 1701905-03RE1@10X WINF1712061655JLB 0.25, Description: WINF1712061655JLB

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701905-03RE1@10X WINF17120616...	5.44e2	5.3	YES
2	2	13C5-PFHxA	1701905-03RE1@10X WINF17120616...	7.29e2	5.9	YES
3	3	13C3-PFHxS	1701905-03RE1@10X WINF17120616...	1.43e2	4.9	YES
4	4	13C8-PFOA	1701905-03RE1@10X WINF17120616...	5.36e2	4.4	YES
5	5	13C9-PFNA	1701905-03RE1@10X WINF17120616...	6.18e2	5.4	YES
6	6	13C4-PFOS	1701905-03RE1@10X WINF17120616...	9.75e1	3.5	YES
7	7	13C6-PFDA	1701905-03RE1@10X WINF17120616...	3.86e2	5.6	YES
8	8	13C7-PFUdA	1701905-03RE1@10X WINF17120616...	5.56e2	5.5	YES

Name: 180110M3_69, Date: 11-Jan-2018, Time: 22:03:08, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_70, Date: 11-Jan-2018, Time: 22:14:18, ID: ST180110M3-13 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-13 PFC CS3 17L2611	1.17e4	113.5	NO
2	2	13C5-PFHxA	ST180110M3-13 PFC CS3 17L2611	1.30e4	105.6	NO
3	3	13C3-PFHxS	ST180110M3-13 PFC CS3 17L2611	3.53e3	119.8	NO
4	4	13C8-PFOA	ST180110M3-13 PFC CS3 17L2611	1.16e4	94.9	NO
5	5	13C9-PFNA	ST180110M3-13 PFC CS3 17L2611	1.39e4	121.2	NO
6	6	13C4-PFOS	ST180110M3-13 PFC CS3 17L2611	3.53e3	125.4	NO
7	7	13C6-PFDA	ST180110M3-13 PFC CS3 17L2611	8.72e3	126.9	NO
8	8	13C7-PFUdA	ST180110M3-13 PFC CS3 17L2611	1.03e4	101.8	NO

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_IIS.qld

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Name: 180110M3_71, Date: 11-Jan-2018, Time: 22:25:30, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_72, Date: 11-Jan-2018, Time: 22:36:43, ID: 1701898-11 SP-EQBK-01 0.11933, Description: SP-EQBK-01

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701898-11 SP-EQBK-01 0.11933	4.19e3		NO
2	2	13C5-PFHxA	1701898-11 SP-EQBK-01 0.11933	5.40e3		NO
3	3	13C3-PFHxS	1701898-11 SP-EQBK-01 0.11933	1.25e3		NO
4	4	13C8-PFOA	1701898-11 SP-EQBK-01 0.11933	5.03e3		NO
5	5	13C9-PFNA	1701898-11 SP-EQBK-01 0.11933	4.94e3		NO
6	6	13C4-PFOS	1701898-11 SP-EQBK-01 0.11933	1.57e3		NO
7	7	13C6-PFDA	1701898-11 SP-EQBK-01 0.11933	3.20e3		NO
8	8	13C7-PFUdA	1701898-11 SP-EQBK-01 0.11933	4.32e3		NO

Name: 180110M3_73, Date: 11-Jan-2018, Time: 22:47:52, ID: 1701879-01 MTBE_15025 0.24122, Description: MTBE_15025

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701879-01 MTBE_15025 0.24122	6.39e3		NO
2	2	13C5-PFHxA	1701879-01 MTBE_15025 0.24122	7.63e3		NO
3	3	13C3-PFHxS	1701879-01 MTBE_15025 0.24122	1.97e3		NO
4	4	13C8-PFOA	1701879-01 MTBE_15025 0.24122	7.25e3		NO
5	5	13C9-PFNA	1701879-01 MTBE_15025 0.24122	7.19e3		NO
6	6	13C4-PFOS	1701879-01 MTBE_15025 0.24122	1.92e3		NO
7	7	13C6-PFDA	1701879-01 MTBE_15025 0.24122	5.27e3		NO
8	8	13C7-PFUdA	1701879-01 MTBE_15025 0.24122	6.12e3		NO

Name: 180110M3_74, Date: 11-Jan-2018, Time: 22:59:02, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

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Name: 180110M3_75, Date: 11-Jan-2018, Time: 23:10:13, ID: ST180110M3-14 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-14 PFC CS3 17L2611	1.15e4	111.3	NO
2	2	13C5-PFHxA	ST180110M3-14 PFC CS3 17L2611	1.33e4	108.7	NO
3	3	13C3-PFHxS	ST180110M3-14 PFC CS3 17L2611	3.06e3	103.8	NO
4	4	13C8-PFOA	ST180110M3-14 PFC CS3 17L2611	1.31e4	107.5	NO
5	5	13C9-PFNA	ST180110M3-14 PFC CS3 17L2611	1.21e4	105.4	NO
6	6	13C4-PFOS	ST180110M3-14 PFC CS3 17L2611	3.59e3	127.6	NO
7	7	13C6-PFDA	ST180110M3-14 PFC CS3 17L2611	7.35e3	107.0	NO
8	8	13C7-PFUdA	ST180110M3-14 PFC CS3 17L2611	1.07e4	105.5	NO

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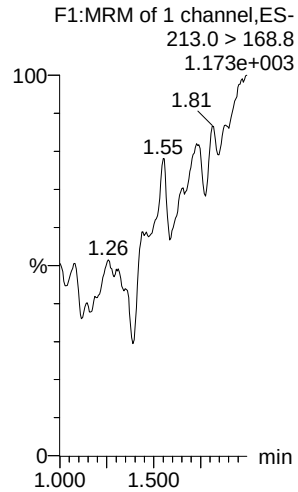
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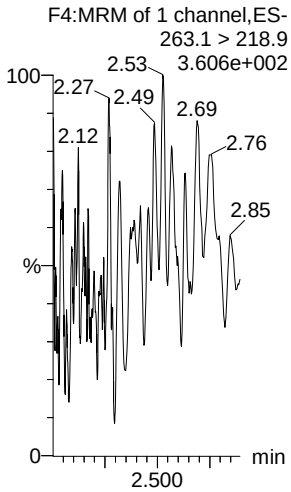
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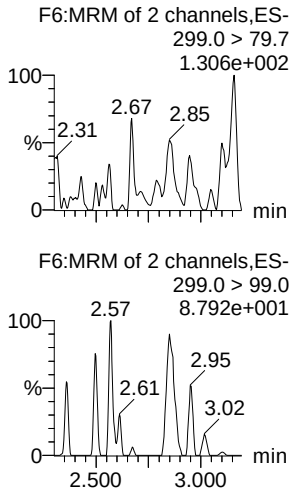
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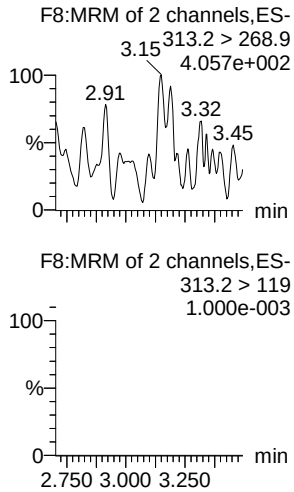
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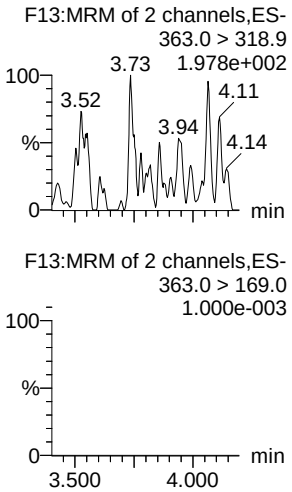
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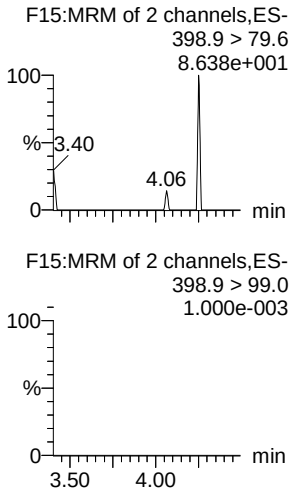
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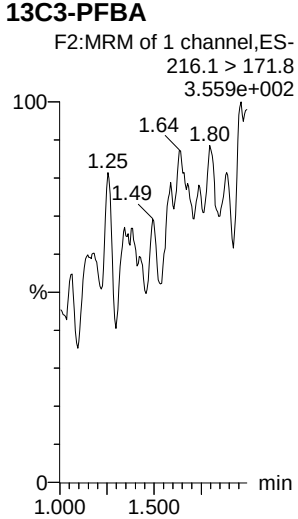
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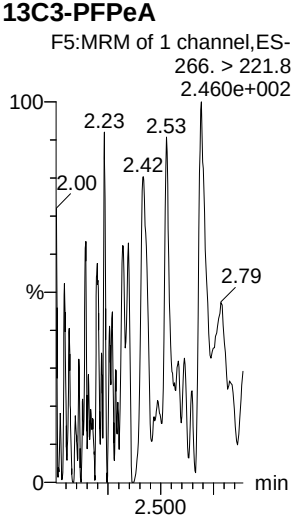
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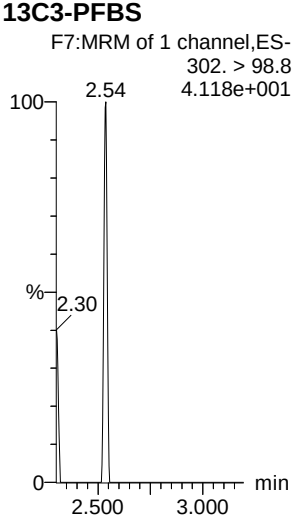
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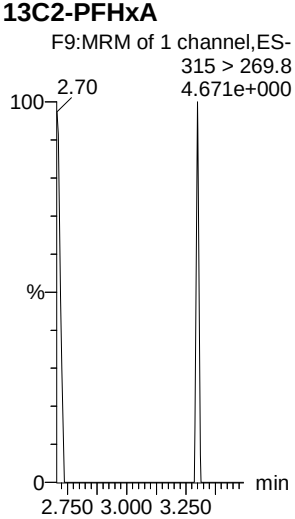
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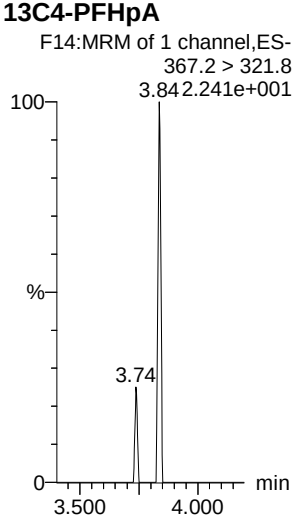
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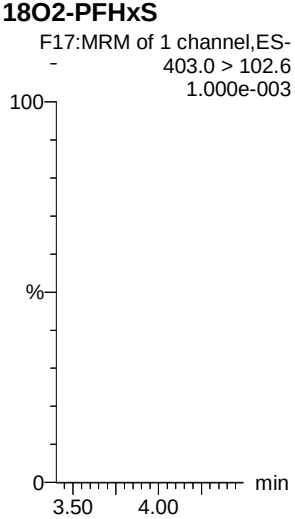
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13C4-PFHpA



18O2-PFHxS

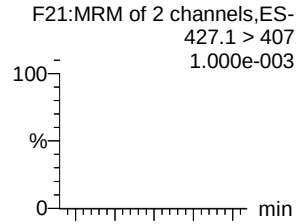


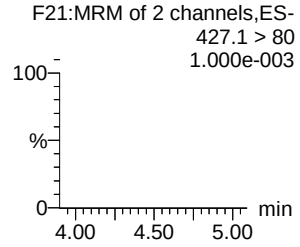
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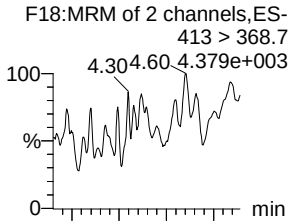
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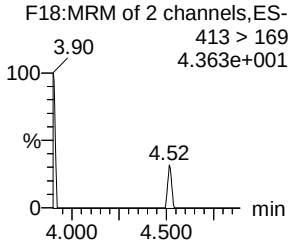
6:2 FTS



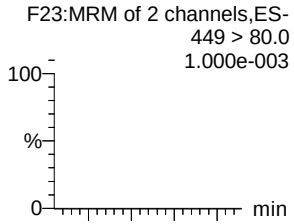


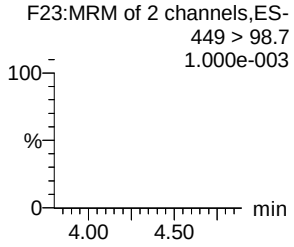
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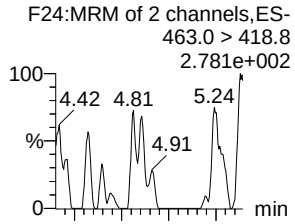


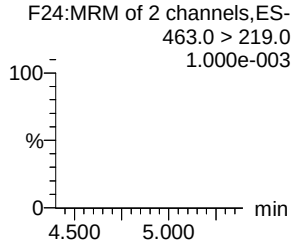
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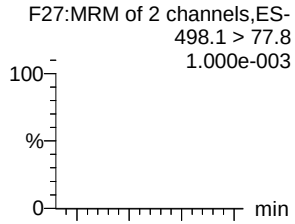


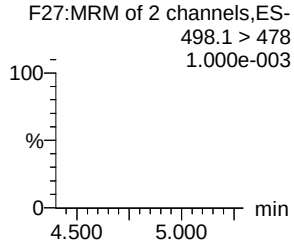
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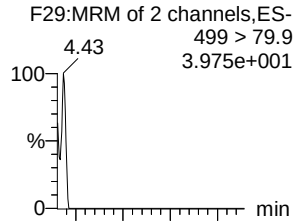


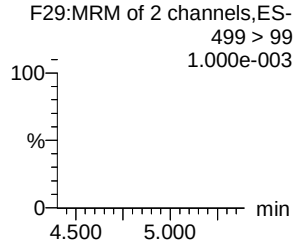
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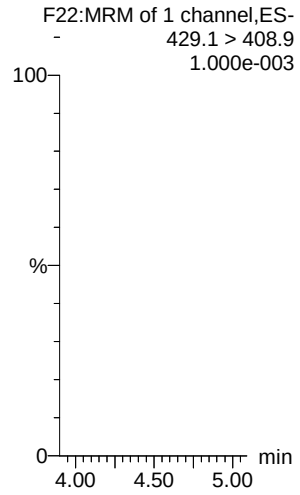


L-PFOS

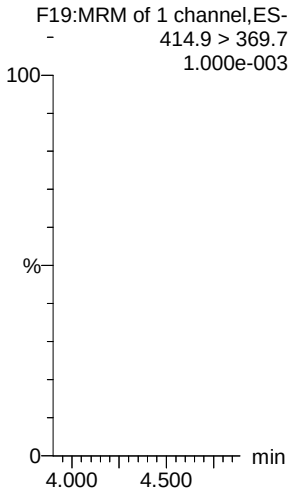




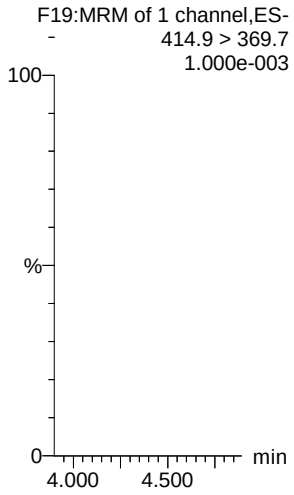
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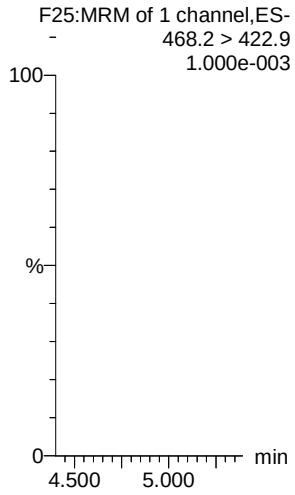
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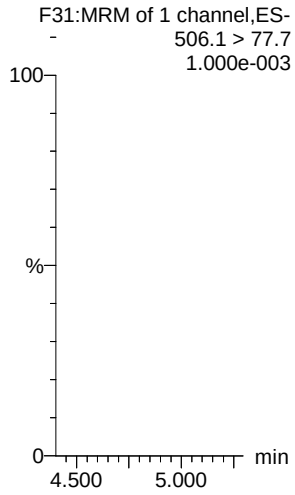
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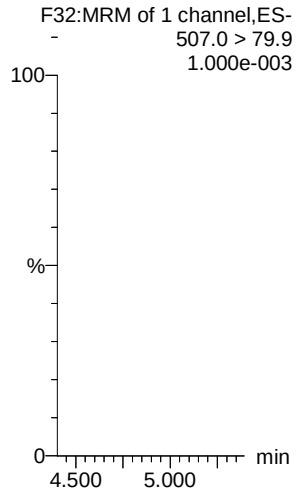
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13C8-PFOSA



13C8-PFOS

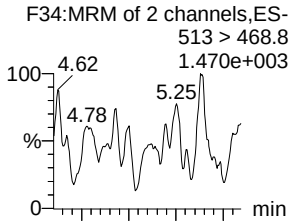


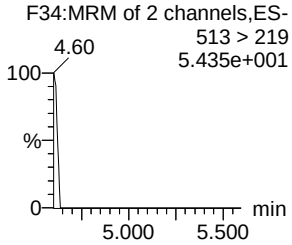
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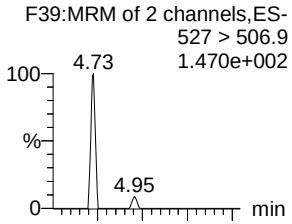
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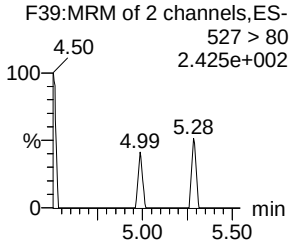
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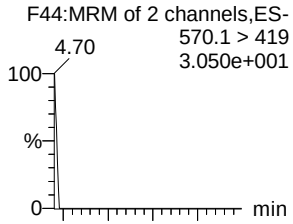


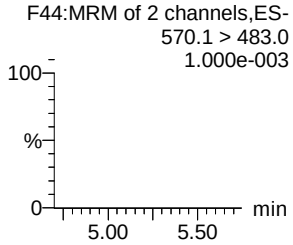
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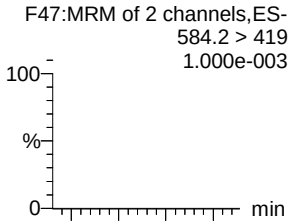


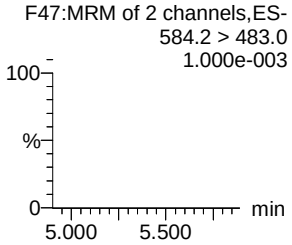
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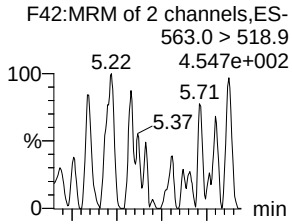


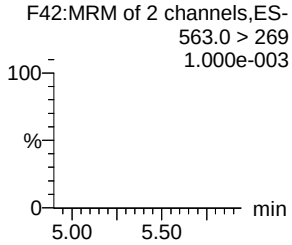
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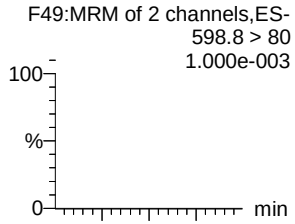


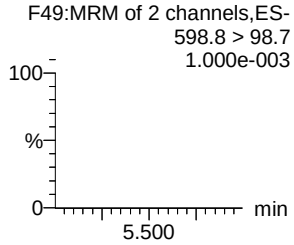
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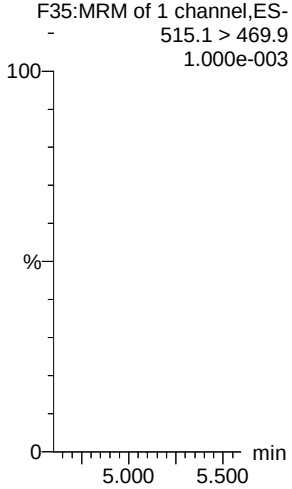


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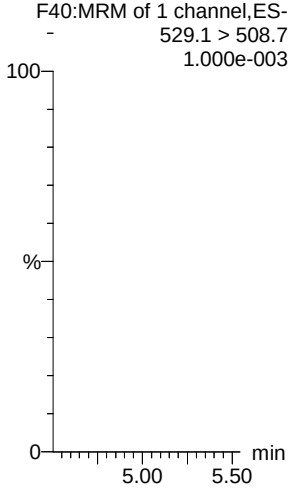




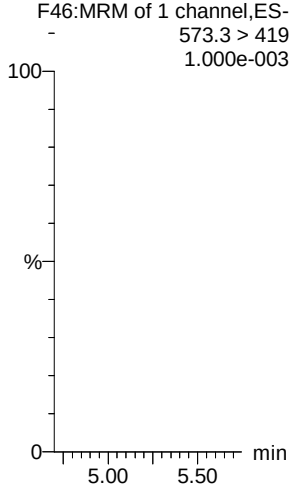
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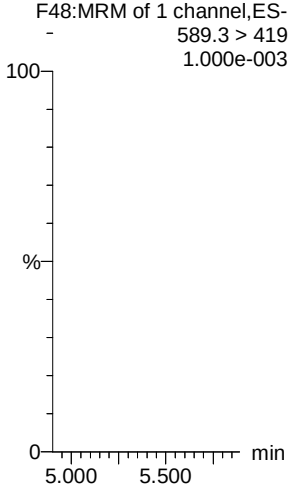
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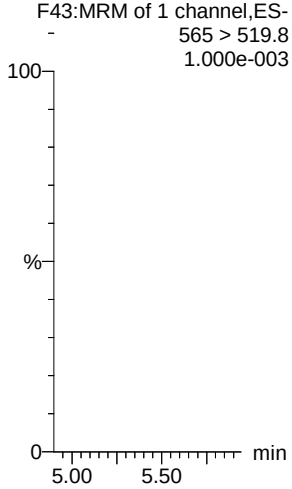
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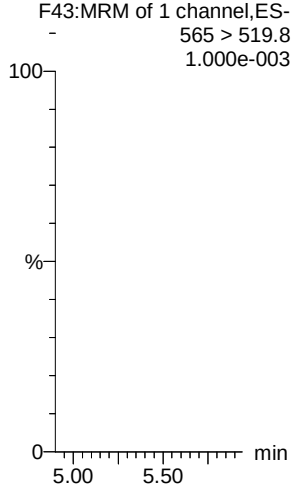
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13C2-PFUdA



13C2-PFUdA

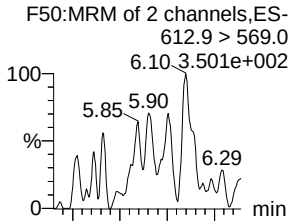


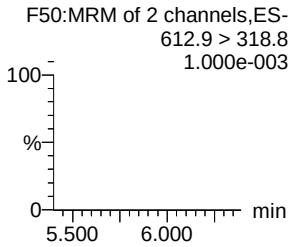
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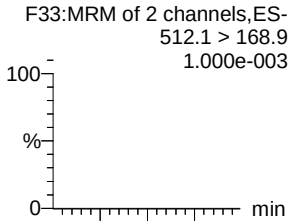
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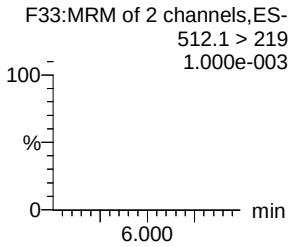
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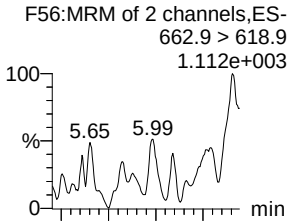


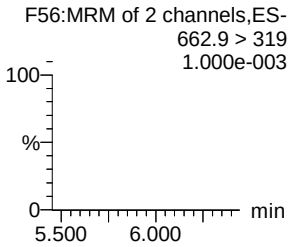
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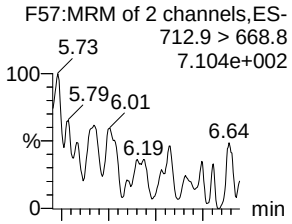


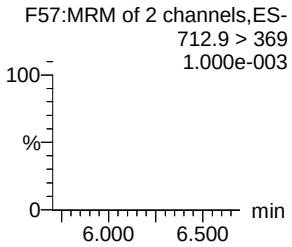
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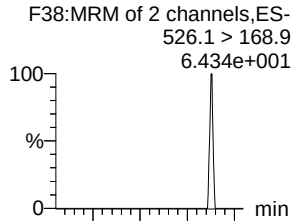


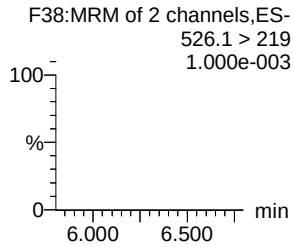
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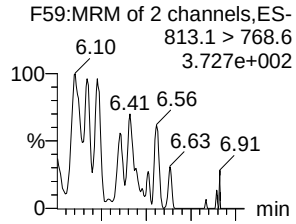


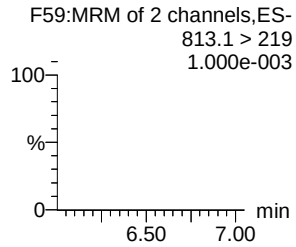
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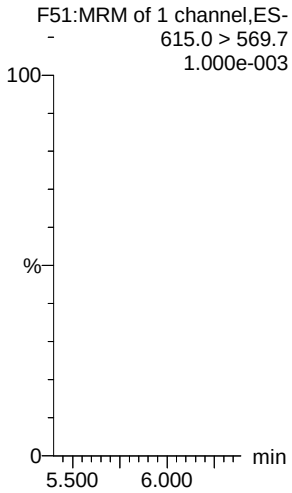


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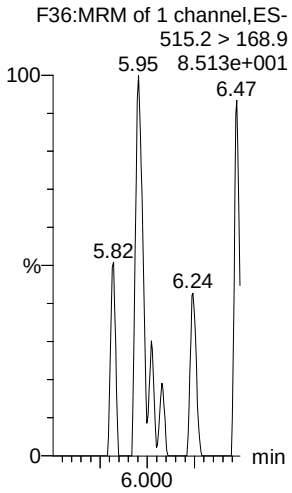




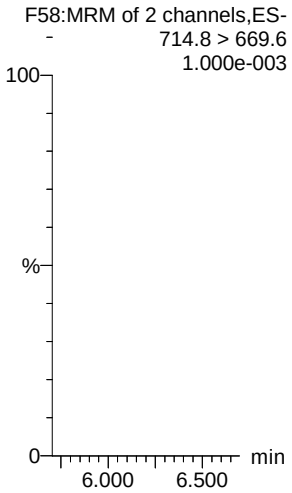
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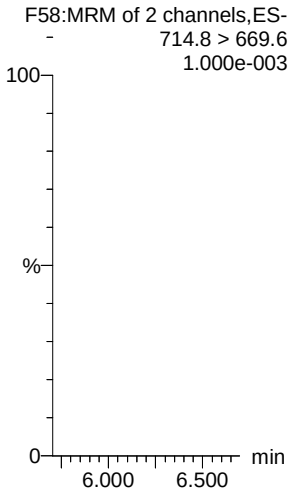
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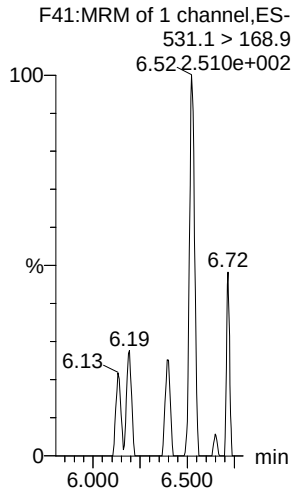
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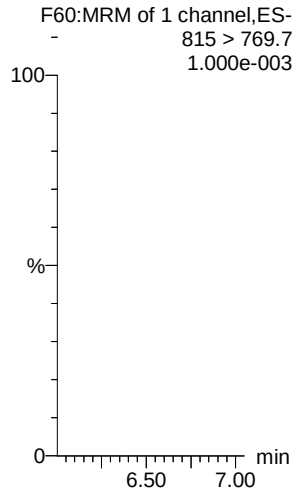
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d5-N-ETFOSA



13C2-PFHxDA



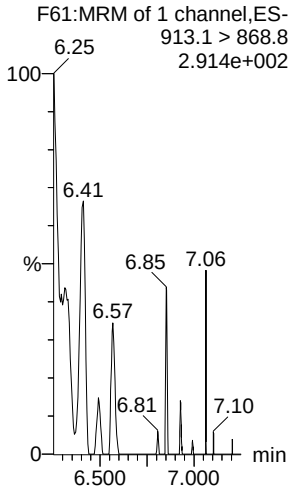
Vista Analytical Laboratory

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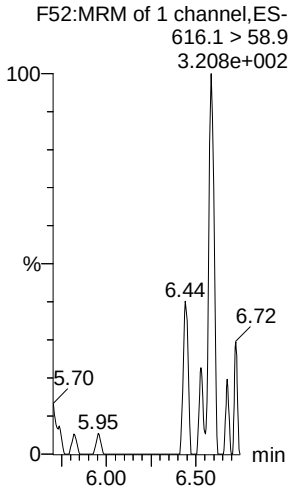
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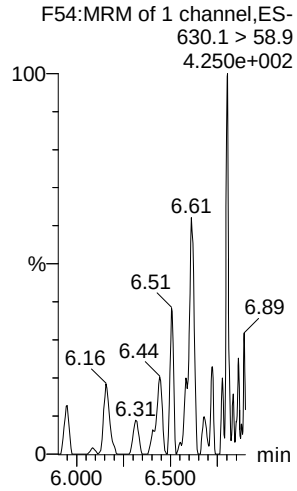
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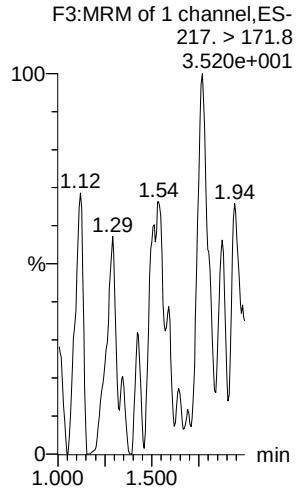
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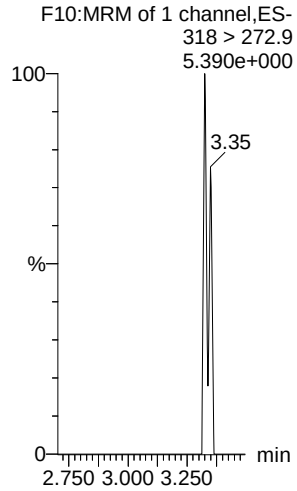
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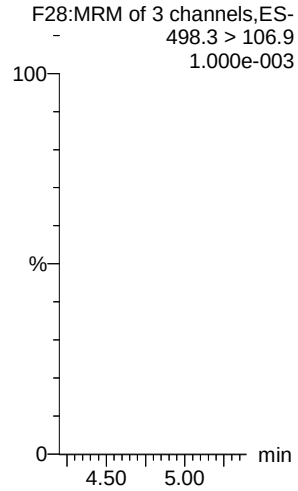
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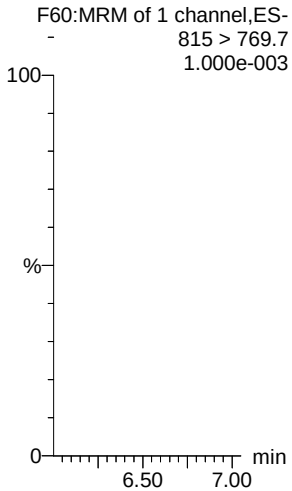
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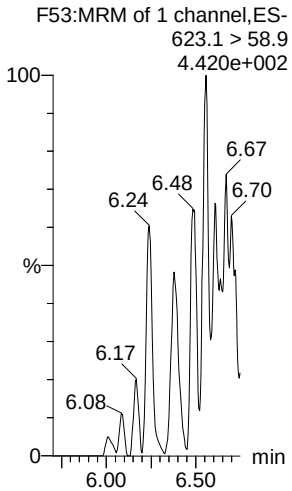
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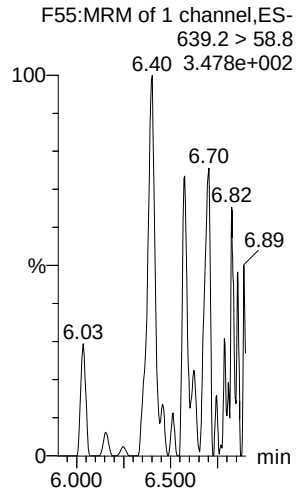
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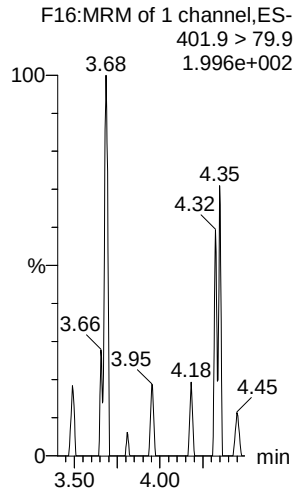
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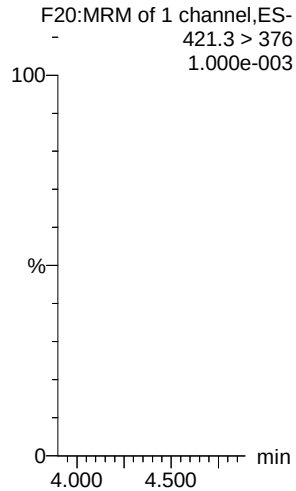
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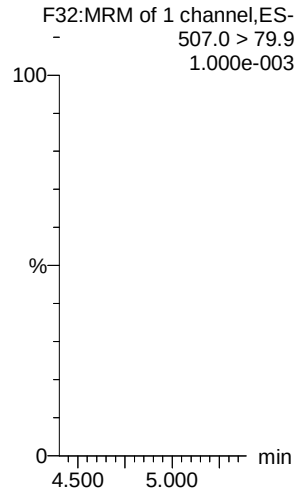
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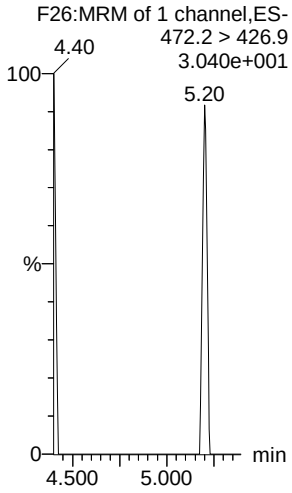


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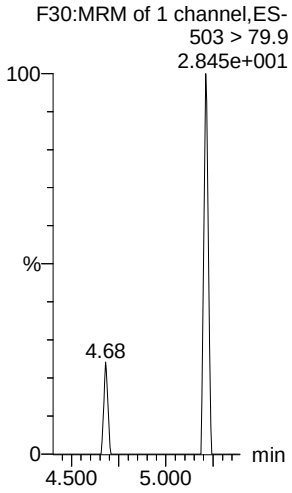
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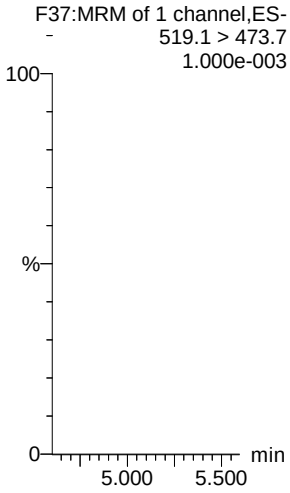
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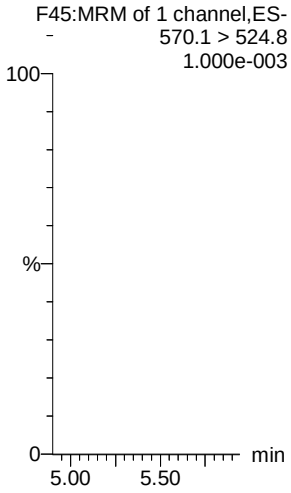
13C4-PFOS



13C6-PFDA



13C7-PFUdA



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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

CP 1/11/18

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

✓ JA 01/12/2018

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1	1	PFBA	213.0 > 168.8	9.92e3	8.73e3		1.38	1.32	14.2	9.68	96.8	NO
2	2	PFPeA	263.1 > 218.9	1.10e4	1.13e4		2.37	2.30	12.2	9.73	97.3	NO
3	3	PFBS	299.0 > 79.7	2.23e3	1.31e3		2.66	2.59	21.3	10.0	100.0	NO
4	4	PFHxA	313.2 > 268.9	1.29e4	3.30e3		3.15	3.08	19.5	10.1	100.6	NO
5	5	PFHpA	363.0 > 318.9	1.09e4	8.28e3		3.78	3.70	16.4	10.0	100.1	NO
6	6	L-PFHxS	398.9 > 79.6	1.94e3	1.01e3		3.94	3.85	24.2	11.5	115.1	NO
7	8	6:2 FTS	427.1 > 407	2.85e3	1.01e3		4.25	4.16	35.4	11.5	114.9	NO
8	9	L-PFOA	413 > 368.7	1.32e4	1.24e4		4.31	4.22	13.3	10.4	104.4	NO
9	11	PFHpS	449 > 80.0	2.83e3	1.24e4		4.42	4.33	2.85	9.69	96.9	NO
10	12	PFNA	463.0 > 418.8	1.29e4	1.01e4		4.81	4.66	15.9	11.2	112.1	NO
11	13	PFOSA	498.1 > 77.8	3.18e3	3.00e3		4.87	4.72	13.3	10.1	101.3	NO
12	14	L-PFOS	499 > 79.9	3.00e3	3.24e3		4.89	4.74	11.6	9.82	98.2	NO
13	16	PFDA	513 > 468.8	1.33e4	1.01e4		5.18	5.04	16.5	10.1	100.8	NO
14	17	8:2 FTS	527 > 506.9	2.10e3	1.01e4		5.15	5.00	2.61	8.30	83.0	NO
15	18	N-MeFOSAA	570.1 > 419	6.02e3	4.08e3		5.32	5.18	18.4	9.25	92.5	NO
16	19	N-EtFOSAA	584.2 > 419	5.07e3	4.32e3		5.48	5.34	14.7	9.59	95.9	NO
17	20	PFUdA	563.0 > 518.9	1.29e4	1.00e4		5.50	5.36	16.1	12.2	122.1	NO
18	21	PFDS	598.8 > 80	3.70e3	1.00e4		5.54	5.40	4.63	12.3	123.3	NO
19	22	PFDoA	612.9 > 569.0	1.38e4	6.48e3		5.77	5.64	26.7	12.5	125.4	NO
20	23	N-MeFOSA	512.1 > 168.9	6.57e3	1.71e4		5.80	5.71	57.7	52.3	104.6	NO
21	24	PFTrDA	662.9 > 618.9	1.38e4	6.48e3		6.00	5.89	26.7	11.1	111.4	NO
22	25	PFTeDA	712.9 > 668.8	7.21e3	2.94e3		6.22	6.11	30.7	10.4	103.9	NO
23	26	N-EtFOSA	526.1 > 168.9	9.25e3	2.51e4		6.17	6.12	55.2	54.2	108.4	NO
24	27	PFHxDA	813.1 > 768.6	4.50e3	2.03e3		6.53	6.44	11.1	11.4	113.7	NO
25	28	PFODA	913.1 > 868.8	5.56e3	2.03e3		6.74	6.67	13.7	10.7	107.1	NO
26	29	N-MeFOSE	616.1 > 58.9	1.01e4	2.62e4		6.27	6.27	58.0	50.1	100.1	NO
27	30	N-EtFOSE	630.1 > 58.9	1.18e4	2.77e4		6.43	6.43	64.2	45.9	91.9	NO
28	31	13C3-PFBA	216.1 > 171.8	8.73e3	1.16e4	0.764	1.38	1.32	9.41	12.3	98.6	NO
29	32	13C3-PFPeA	266. > 221.8	1.13e4	1.45e4	0.730	2.37	2.30	9.73	13.3	106.7	NO
30	33	13C3-PFBS	302. > 98.8	1.31e3	1.45e4	0.095	2.77	2.58	1.13	11.9	95.0	NO
31	34	13C2-PFHxA	315 > 269.8	3.30e3	1.45e4	0.597	3.15	3.08	2.85	4.78	95.5	NO

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_26.qld

Last Altered: Thursday, January 11, 2018 14:36:20 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:36:34 Pacific Standard Time

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	8.28e3	1.45e4	0.604	3.78	3.70	7.15	11.8	94.7	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.01e3	3.34e3	0.293	3.94	3.85	3.76	12.8	102.6	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.38e3	1.33e4	0.215	4.25	4.16	2.24	10.4	83.2	NO
35	38	13C2-PFOA	414.9 > 369.7	1.24e4	1.33e4	0.916	4.31	4.22	11.7	12.7	102.0	NO
36	39	13C5-PFNA	468.2 > 422.9	1.01e4	1.23e4	0.817	4.81	4.66	10.3	12.6	101.0	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.00e3	1.16e4	0.223	4.87	4.72	3.22	14.5	115.7	NO
38	41	13C8-PFOS	507.0 > 79.9	3.24e3	2.77e3	0.875	4.89	4.74	14.7	16.8	134.0	NO
39	42	13C2-PFDA	515.1 > 469.9	1.01e4	9.08e3	1.105	5.18	5.03	13.9	12.6	100.4	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.30e3	1.45e4	0.101	5.15	5.00	1.13	11.2	89.3	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.08e3	1.16e4	0.345	5.32	5.18	4.40	12.7	101.9	NO
42	45	d5-N-EtFOSAA	589.3 > 419	4.32e3	1.16e4	0.390	5.47	5.34	4.65	11.9	95.2	NO
43	46	13C2-PFUdA	565 > 519.8	1.00e4	1.16e4	0.958	5.49	5.36	10.8	11.2	89.9	NO
44	47	13C2-PFDoA	615.0 > 569.7	6.48e3	1.16e4	0.599	5.77	5.64	6.97	11.6	93.1	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.71e4	1.16e4	0.124	5.83	5.74	18.4	148	98.7	NO
46	49	13C2-PFTeDA	714.8 > 669.6	2.94e3	1.16e4	0.282	6.22	6.11	3.16	11.2	89.8	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.51e4	1.16e4	0.184	6.18	6.13	27.0	147	97.8	NO
48	51	13C2-PFHxDA	815 > 769.7	2.03e3	1.16e4	0.540	6.53	6.44	2.18	4.04	80.8	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.62e4	1.16e4	0.182	6.27	6.27	28.2	155	103.0	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.77e4	1.16e4	0.173	6.42	6.42	29.8	173	115.2	NO
51	54	13C4-PFBA	217. > 171.8	1.16e4	1.16e4	1.000	1.38	1.32	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.45e4	1.45e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	3.34e3	3.34e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.33e4	1.33e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.23e4	1.23e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	2.77e3	2.77e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	9.08e3	9.08e3	1.000	5.18	5.04	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	1.16e4	1.16e4	1.000	5.49	5.36	12.5	12.5	100.0	NO

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49
13	180110M3_13	B7L0088-MS1 Matrix Spike 0.25868	11-Jan-18	11:37:00
14	180110M3_14	B7L0088-MSD1 Matrix Spike Dup 0.2594	11-Jan-18	11:48:11
15	180110M3_15	1701832-01 FT-SW10-20171201 0.24901	11-Jan-18	11:59:21
16	180110M3_16	1701832-02 FT-DUP04-20171201 0.25912	11-Jan-18	12:10:32
17	180110M3_17	1701832-03 FT-SW13-20171201 0.25163	11-Jan-18	12:21:42
18	180110M3_18	1701832-04 FT-SW12-20171201 0.25479	11-Jan-18	12:32:54
19	180110M3_19	1701832-05 SA-SW125-20171201 0.26063	11-Jan-18	12:44:04
20	180110M3_20	1701832-06 SA-SW124-20171201 0.24606	11-Jan-18	12:55:15
21	180110M3_21	1701832-07 SA-PZ124-20171201 0.22152	11-Jan-18	13:06:26
22	180110M3_22	1701832-08 SA-DUP05-20171201 0.23726	11-Jan-18	13:17:36
23	180110M3_23	1701832-09 SA-PZ147-20171201 0.25163	11-Jan-18	13:28:47
24	180110M3_24	1701832-10 SA-SW201-20171201 0.24837	11-Jan-18	13:39:58
25	180110M3_25	IPA	11-Jan-18	13:51:09
26	180110M3_26	ST180110M3-10 PFC CS3 17L2611	11-Jan-18	14:02:19
27	180110M3_27	IPA	11-Jan-18	14:13:30
28	180110M3_28	1701832-11 SW-DP01-20171201 0.26032	11-Jan-18	14:24:43
29	180110M3_29	1701832-12 SA-SW204-20171201 0.25842	11-Jan-18	14:35:52
30	180110M3_30	1701832-13 SA-SW204-FRB-20171201 0.259...	11-Jan-18	14:47:02
31	180110M3_31	B7L0114-BS1 OPR 0.125	11-Jan-18	14:58:13

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180110M3_32	IPA	11-Jan-18	15:09:23
33	180110M3_33	B7L0114-BLK1 Method Blank 0.125	11-Jan-18	15:20:34
34	180110M3_34	1701896-01 FB1712041315JM 0.26557	11-Jan-18	15:31:45
35	180110M3_35	1701896-02 WT1712041320JM 0.27098	11-Jan-18	15:42:56
36	180110M3_36	1701896-03 WR1712041330JM 0.26836	11-Jan-18	15:54:06
37	180110M3_37	1701896-04 WT1712041435JM 0.26471	11-Jan-18	16:05:17
38	180110M3_38	1701896-05 WR1712041445JM 0.2652	11-Jan-18	16:16:28
39	180110M3_39	1701896-06 WT1712041505JM 0.26375	11-Jan-18	16:27:39
40	180110M3_40	1701896-07 WT1712041525JM 0.26253	11-Jan-18	16:38:49
41	180110M3_41	1701896-08 WT1712041545JM 0.25304	11-Jan-18	16:50:00
42	180110M3_42	IPA 10	11-Jan-18	17:01:11
43	180110M3_43	ST180110M2-11 PFC CS3 17L2611	11-Jan-18	17:12:22
44	180110M3_44	IPA	11-Jan-18	17:23:32
45	180110M3_45	1701896-09 WT1712041600JM 0.25668	11-Jan-18	17:34:43
46	180110M3_46	1701896-10 WT1712041625JM 0.26672	11-Jan-18	17:45:54
47	180110M3_47	1701896-11 WT1712041645JM 0.26526	11-Jan-18	17:57:04
48	180110M3_48	1701896-12 WR1712050835JM 0.26075	11-Jan-18	18:08:18
49	180110M3_49	1701896-13 WT1712050920JM 0.25985	11-Jan-18	18:19:34
50	180110M3_50	1701896-14 FB1712050940JM 0.26706	11-Jan-18	18:30:45
51	180110M3_51	1701896-15 WT1712050945JM 0.26049	11-Jan-18	18:41:56
52	180110M3_52	1701896-16 WT1712051000JM 0.26777	11-Jan-18	18:53:06
53	180110M3_53	1701896-17 WT1712051035JM 0.26811	11-Jan-18	19:04:17
54	180110M3_54	1701896-18 WT1712051055JM 0.26798	11-Jan-18	19:15:27
55	180110M3_55	1701896-19 WT1712051115JM 0.26037	11-Jan-18	19:26:38
56	180110M3_56	IPA	11-Jan-18	19:37:49
57	180110M3_57	ST180110M3-12 PFC CS3 17L2611	11-Jan-18	19:49:00
58	180110M3_58	IPA	11-Jan-18	20:00:10
59	180110M3_59	1701852-01 IR03-MW034-C2-17D 0.26646	11-Jan-18	20:11:21
60	180110M3_60	1701852-02 IR03-MW018B-C1-17D 0.25583	11-Jan-18	20:22:32
61	180110M3_61	1701852-03 IR03-MW018A-C2-17D 0.26605	11-Jan-18	20:33:42
62	180110M3_62	1701896-20 WT1712051130JM 0.26351	11-Jan-18	20:44:53
63	180110M3_63	1701892-01 Soil-B109 1.21	11-Jan-18	20:56:04
64	180110M3_64	1701892-02 Soil-S134 1.28	11-Jan-18	21:07:15
65	180110M3_65	1701892-03 Soil-S150 1.1	11-Jan-18	21:18:25

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	180110M3_66	1701892-04 Soil-B113 1.13	11-Jan-18	21:29:36
67	180110M3_67	1701905-03RE1@20X WINF1712061655JLB ...	11-Jan-18	21:40:47
68	180110M3_68	1701905-03RE1@10X WINF1712061655JLB ...	11-Jan-18	21:51:57
69	180110M3_69	IPA	11-Jan-18	22:03:08
70	180110M3_70	ST180110M3-13 PFC CS3 17L2611	11-Jan-18	22:14:18
71	180110M3_71	IPA	11-Jan-18	22:25:30
72	180110M3_72	1701898-11 SP-EQBK-01 0.11933	11-Jan-18	22:36:43
73	180110M3_73	1701879-01 MTBE_15025 0.24122	11-Jan-18	22:47:52
74	180110M3_74	IPA	11-Jan-18	22:59:02
75	180110M3_75	ST180110M3-14 PFC CS3 17L2611	11-Jan-18	23:10:13

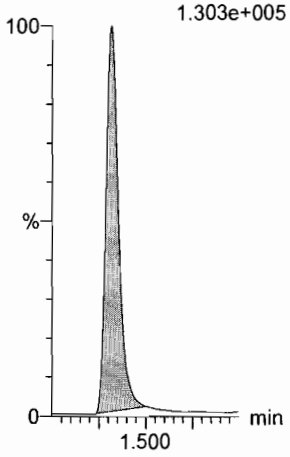
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Last Altered: Thursday, January 11, 2018 14:36:20 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:36:34 Pacific Standard Time

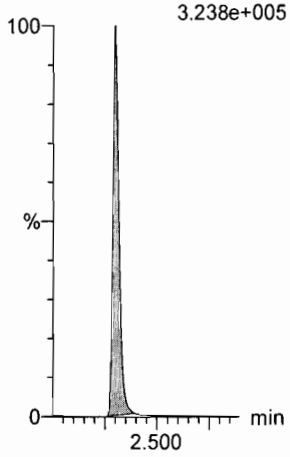
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

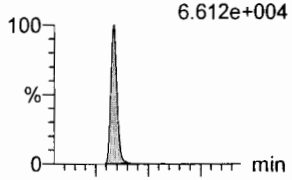
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.303e+005



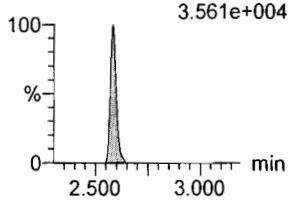
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
3.238e+005



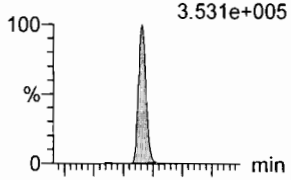
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
6.612e+004



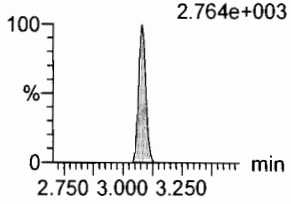
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.561e+004



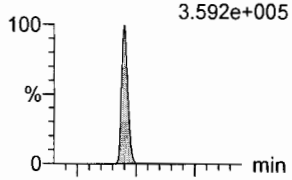
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.531e+005



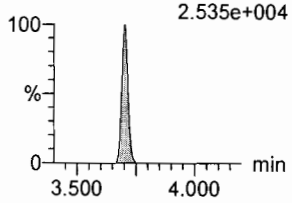
F8:MRM of 2 channels,ES-
313.2 > 119
2.764e+003



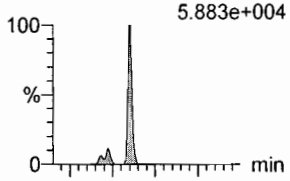
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.592e+005



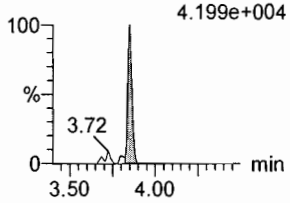
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.535e+004



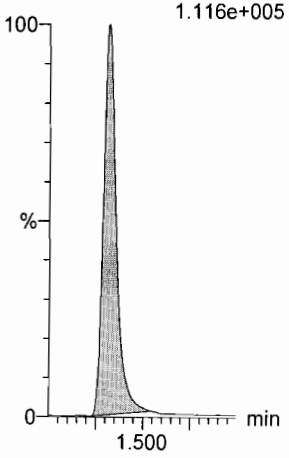
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
5.883e+004



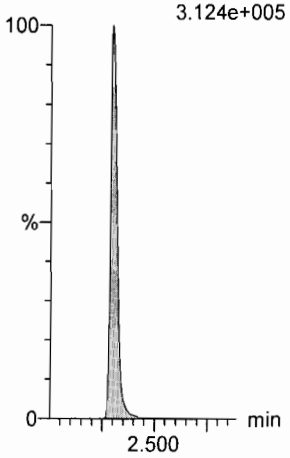
F15:MRM of 2 channels,ES-
398.9 > 99.0
4.199e+004



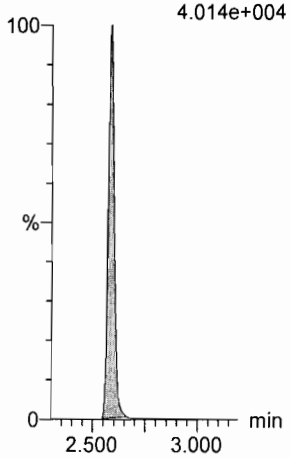
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.116e+005



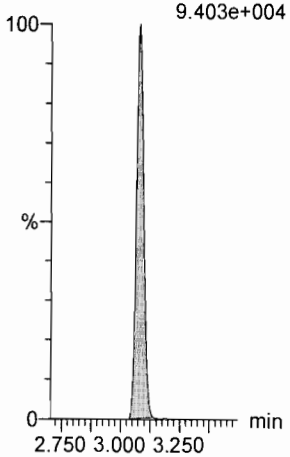
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.124e+005



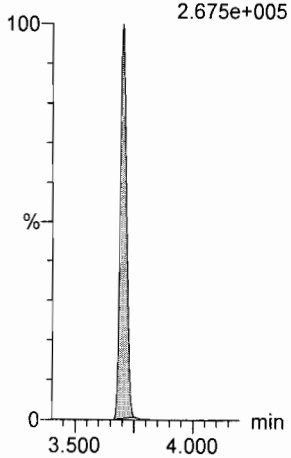
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.014e+004



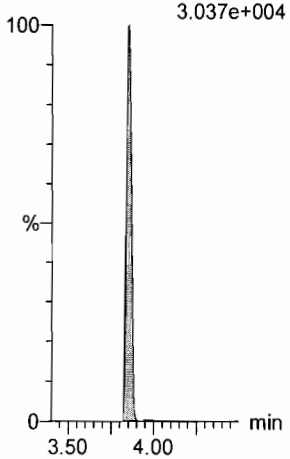
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
9.403e+004



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.675e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.037e+004

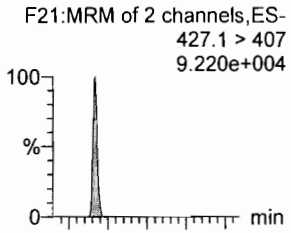


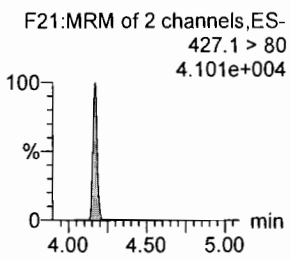
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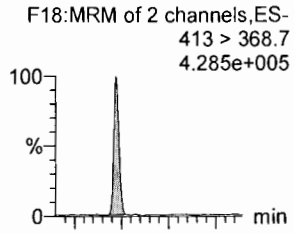
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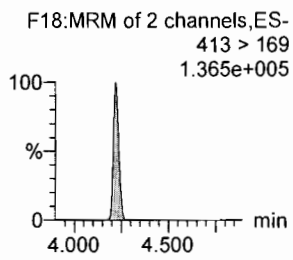
6:2 FTS



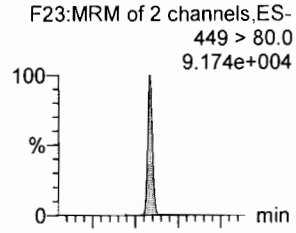


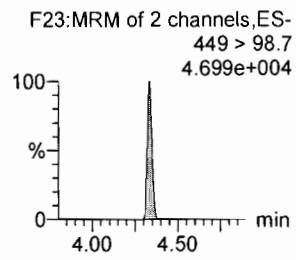
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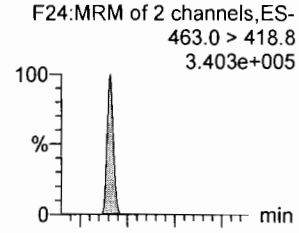


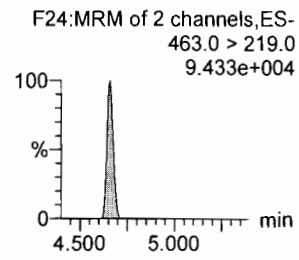
PFHpS



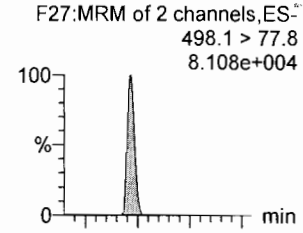


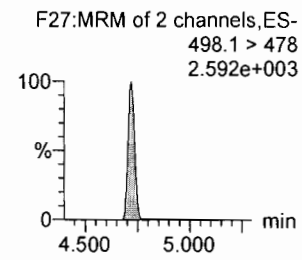
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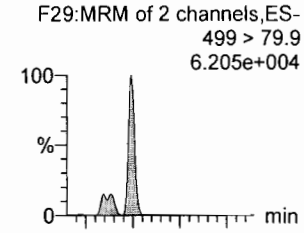


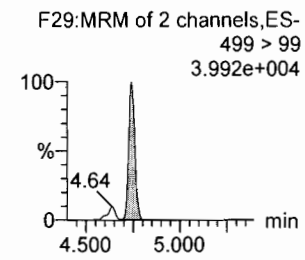
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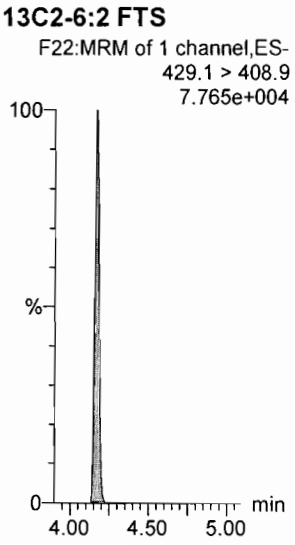


L-PFOS

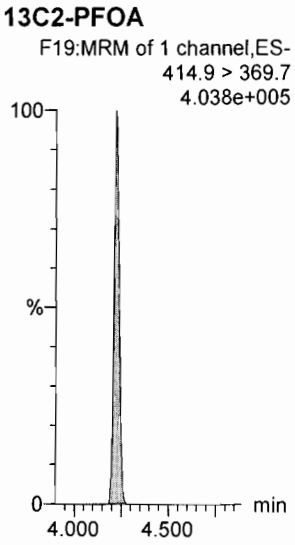




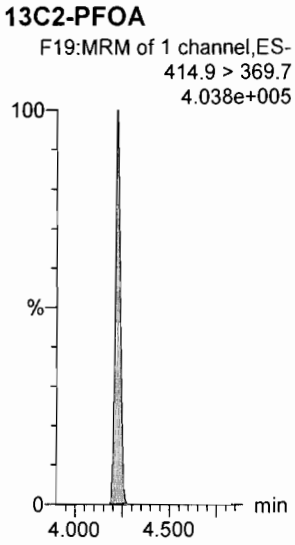
13C2-6:2 FTS



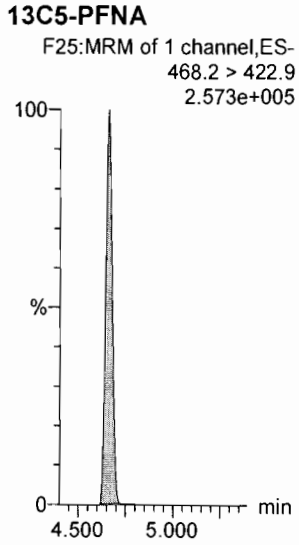
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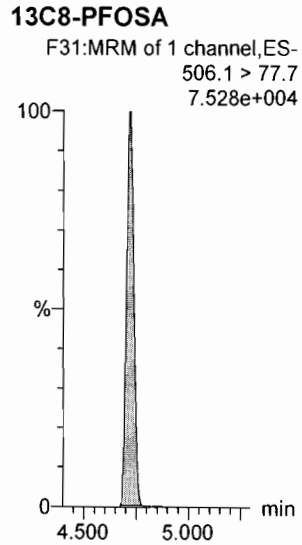
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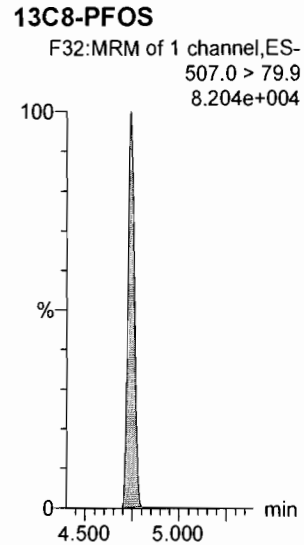
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13C8-PFOSA



13C8-PFOS



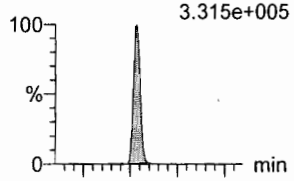
Vista Analytical Laboratory

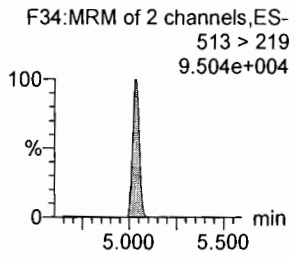
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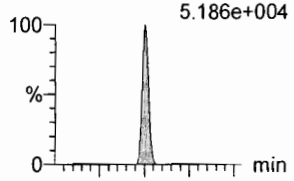
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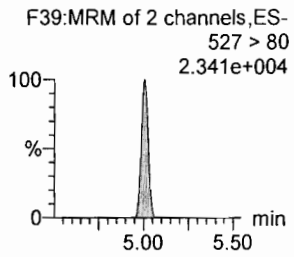
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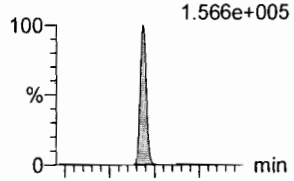


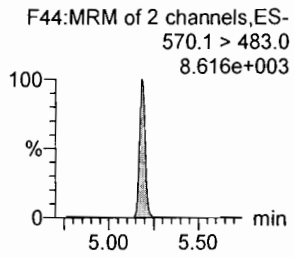
8:2 FTS



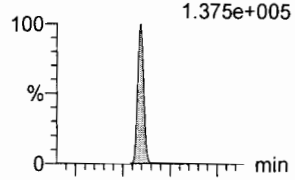


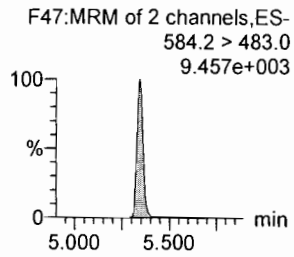
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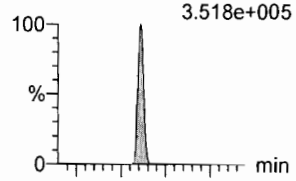


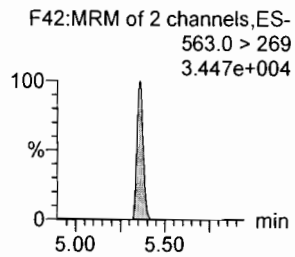
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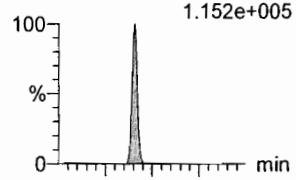


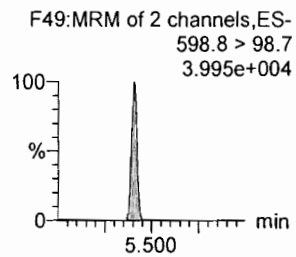
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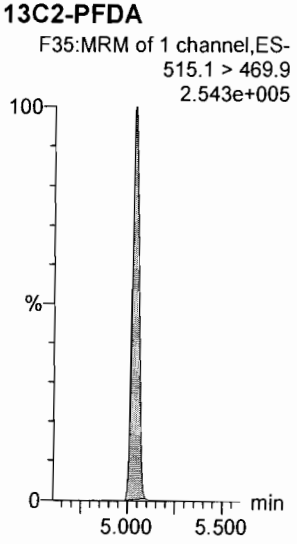


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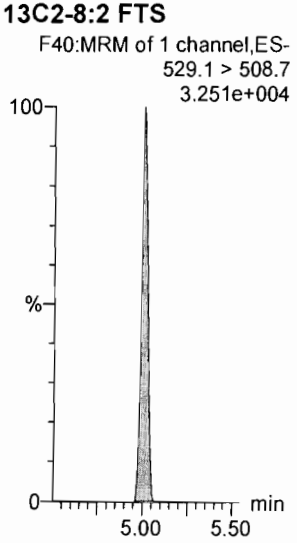




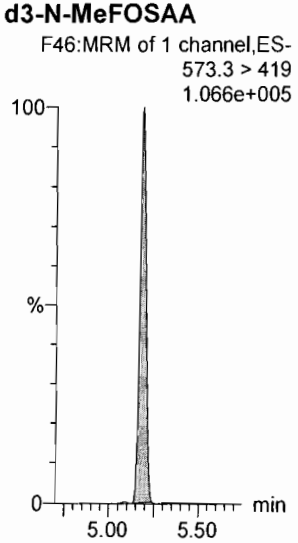
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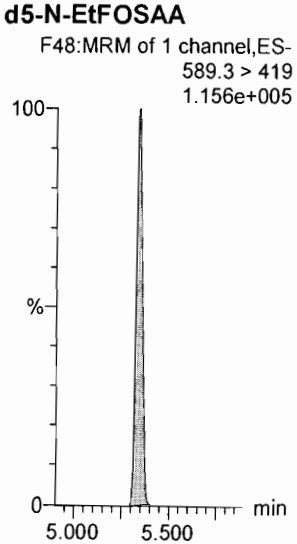
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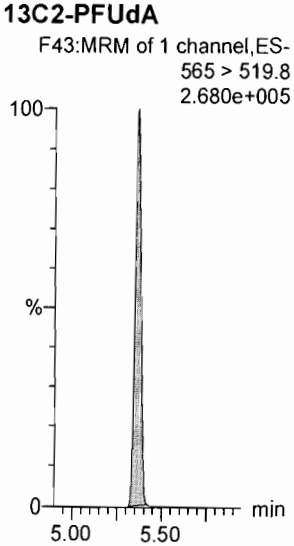
d3-N-MeFOSAA



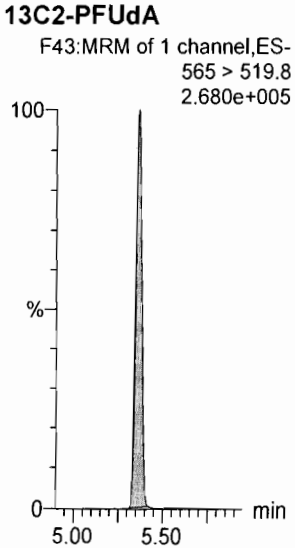
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13C2-PFUdA



13C2-PFUdA

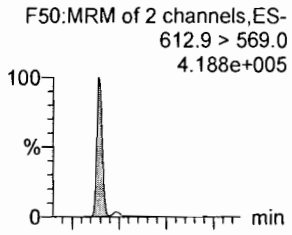


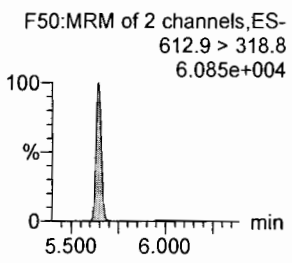
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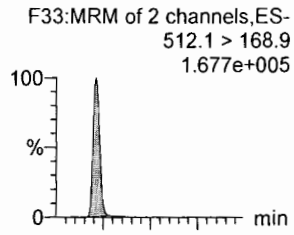
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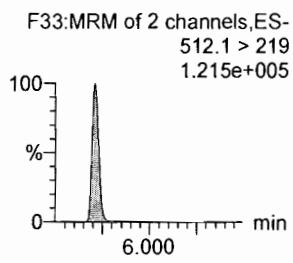
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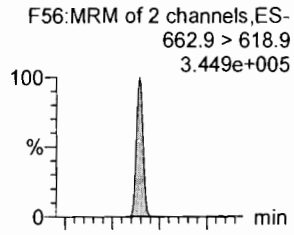


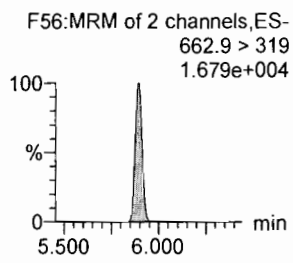
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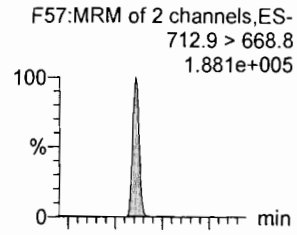


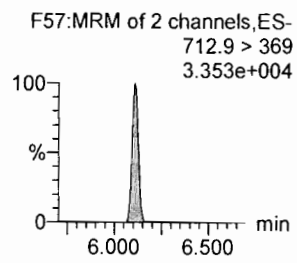
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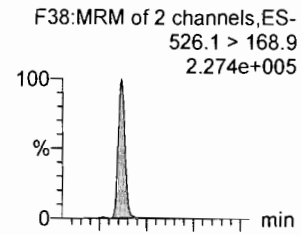


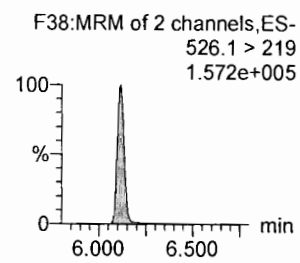
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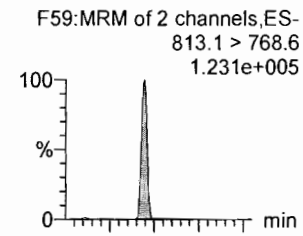


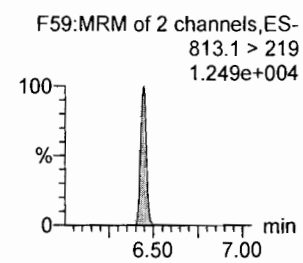
N-EtFOSA



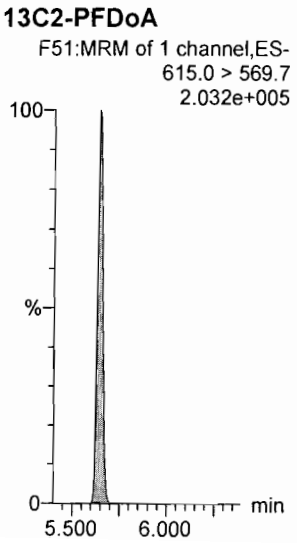


PFHxDA

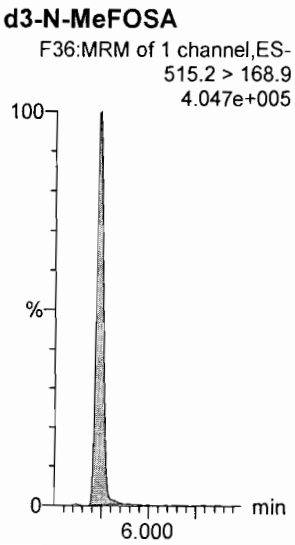




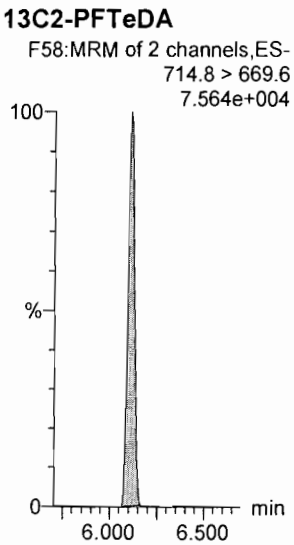
13C2-PFDoA



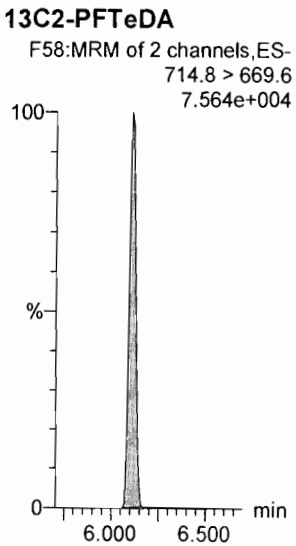
d3-N-MeFOSA



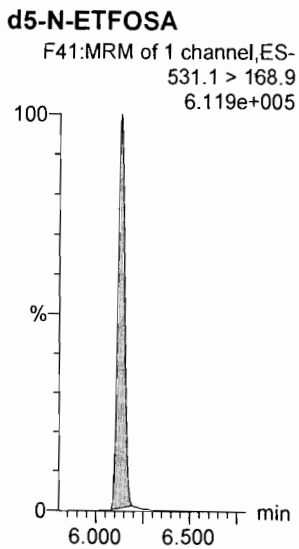
13C2-PFTeDA



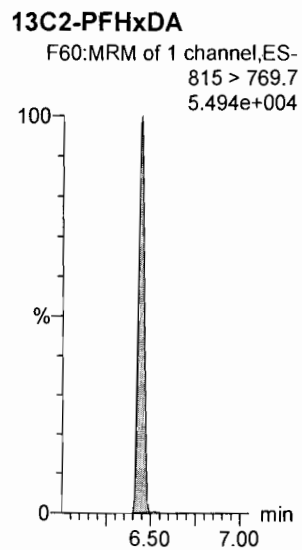
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

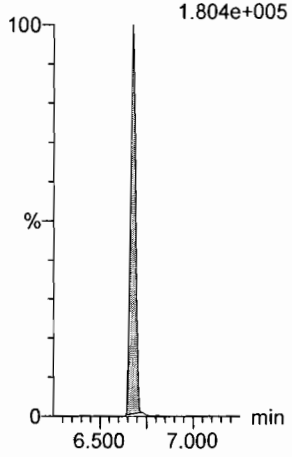


Dataset: U:\Q4.PRO\results\180110M3\180110M3_26.qld

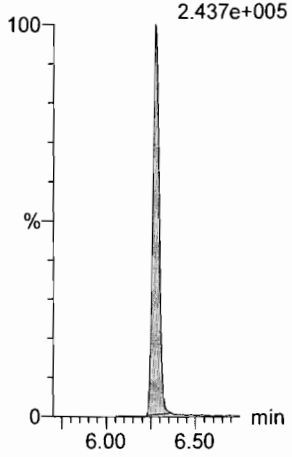
Last Altered: Thursday, January 11, 2018 14:36:20 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:36:34 Pacific Standard Time

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

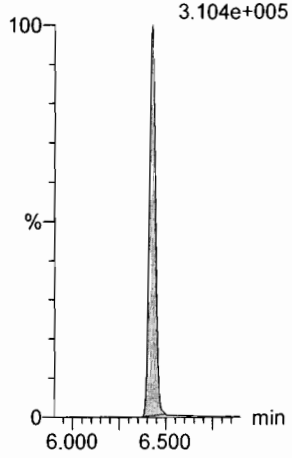
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.804e+005



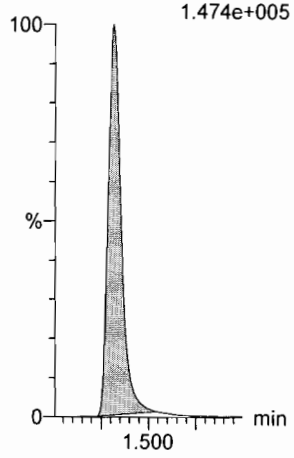
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.437e+005



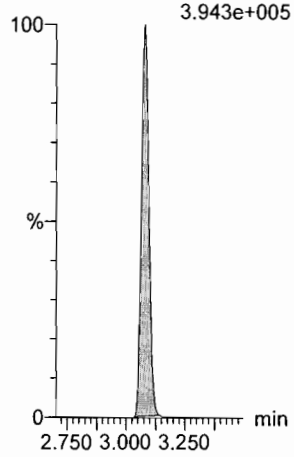
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.104e+005



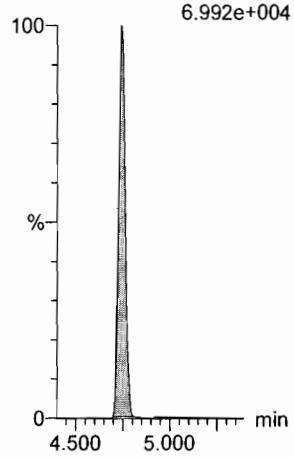
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.474e+005



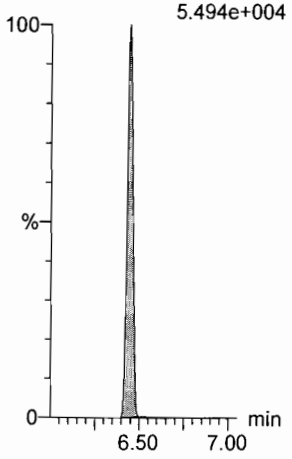
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.943e+005



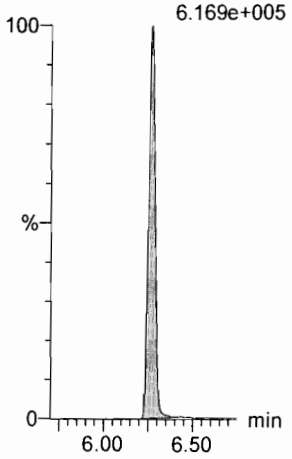
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.992e+004



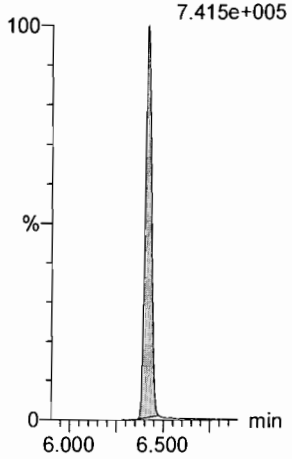
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.494e+004



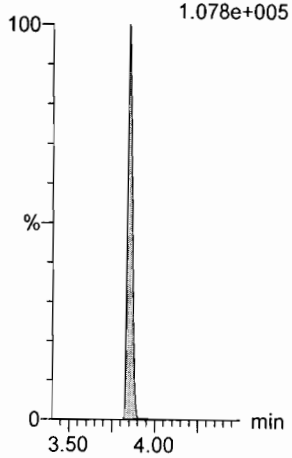
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.169e+005



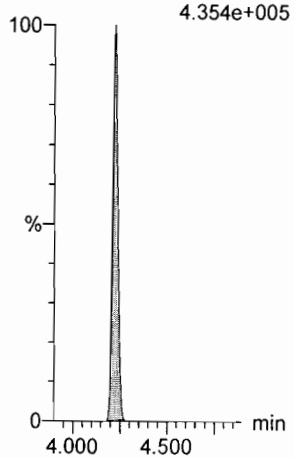
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.415e+005



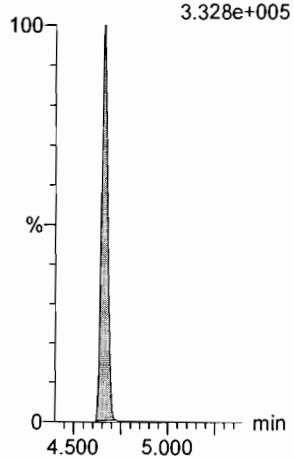
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.078e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.354e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.328e+005



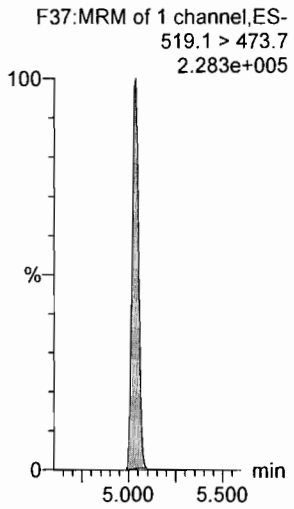
Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180110M3\180110M3_26.qld

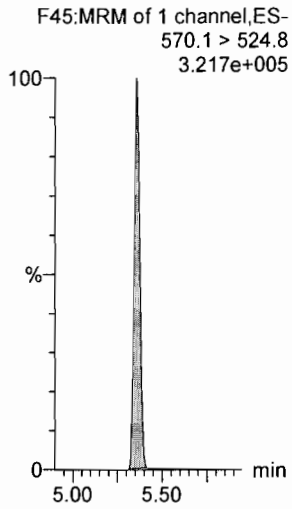
Last Altered: Thursday, January 11, 2018 14:36:20 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:36:34 Pacific Standard Time

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA



Dataset: U:\Q4.PRO\results\180110M3\180110M3_43.qld

Last Altered: Friday, January 12, 2018 09:51:38 Pacific Standard Time
Printed: Friday, January 12, 2018 09:52:14 Pacific Standard Time

(A) EtFOSAA <70%

(B) PFDoA >130%

AC 1/12/18

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_43, Date: 11-Jan-2018, Time: 17:12:22, ID: ST180109M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

10/3

VJA 01/12/2018

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.56e3	8.40e3	1.0000		1.38	1.32	14.2	9.692	96.9
2	2	PFPeA	263.1 > 218.9	9.54e3	9.86e3	1.0000		2.37	2.30	12.1	9.626	96.3
3	3	PFBS	299.0 > 79.7	2.39e3	1.35e3	1.0000		2.66	2.59	22.1	10.393	103.9
4	4	PFHxA	313.2 > 268.9	1.16e4	2.97e3	1.0000		3.15	3.08	19.4	10.040	100.4
5	5	PFHpA	363.0 > 318.9	9.36e3	7.81e3	1.0000		3.78	3.70	15.0	9.125	91.3
6	6	L-PFHxS	398.9 > 79.6	1.65e3	1.00e3	1.0000		3.94	3.85	20.5	9.785	97.9
7	8	6:2 FTS	427.1 > 407	2.42e3	1.00e3	1.0000		4.25	4.16	30.1	9.838	98.4
8	9	L-PFOA	413 > 368.7	1.10e4	1.06e4	1.0000		4.31	4.22	13.0	10.139	101.4
9	11	PFHpS	449 > 80.0	2.80e3	1.06e4	1.0000		4.42	4.33	3.30	11.171	111.7
10	12	PFNA	463.0 > 418.8	1.14e4	1.04e4	1.0000		4.81	4.66	13.7	9.702	97.0
11	13	PFOSA	498.1 > 77.8	3.19e3	2.76e3	1.0000		4.87	4.72	14.4	10.991	109.9
12	14	L-PFOS	499 > 79.9	3.13e3	3.06e3	1.0000		4.75	4.74	12.8	10.849	108.5
13	16	PFDA	513 > 468.8	1.09e4	8.80e3	1.0000		5.18	5.04	15.5	9.505	95.1
14	17	8:2 FTS	527 > 506.9	2.32e3	8.80e3	1.0000		5.15	5.00	3.30	10.401	104.0
15	18	N-MeFOSAA	570.1 > 419	5.59e3	3.71e3	1.0000		5.32	5.19	18.9	9.465	94.7
16	19	N-EtFOSAA	584.2 > 419	3.93e3	4.72e3	1.0000		5.48	5.34	10.4	6.851	(A) 68.5
17	20	PFUdA	563.0 > 518.9	1.23e4	8.99e3	1.0000		5.50	5.36	17.1	12.920	129.2
18	21	PFDS	598.8 > 80	2.99e3	8.99e3	1.0000		5.54	5.40	4.15	11.099	111.0
19	22	PFDoA	612.9 > 569.0	1.03e4	4.29e3	1.0000		5.77	5.64	30.0	14.101	(B) 141.0
20	23	N-MeFOSA	512.1 > 168.9	6.23e3	1.65e4	1.0000		5.80	5.71	56.6	51.320	102.6
21	24	PFTrDA	662.9 > 618.9	1.05e4	4.29e3	1.0000		6.00	5.89	30.7	12.815	128.2
22	25	PFTeDA	712.9 > 668.8	5.53e3	2.63e3	1.0000		6.22	6.11	26.3	8.934	89.3
23	26	N-EtFOSA	526.1 > 168.9	8.84e3	2.53e4	1.0000		6.17	6.12	52.5	51.506	103.0
24	27	PFHxDA	813.1 > 768.6	4.45e3	2.16e3	1.0000		6.53	6.44	10.3	10.540	105.4
25	28	PFODA	913.1 > 868.8	4.69e3	2.16e3	1.0000		6.74	6.67	10.9	8.491	84.9
26	29	N-MeFOSE	616.1 > 58.9	1.02e4	2.48e4	1.0000		6.27	6.27	61.5	53.073	106.1
27	30	N-EtFOSE	630.1 > 58.9	1.09e4	2.54e4	1.0000		6.43	6.43	64.3	46.043	92.1
28	31	13C3-PFBA	216.1 > 171.8	8.40e3	1.11e4	1.0000	0.764	1.38	1.31	9.44	12.365	98.9
29	32	13C3-PFPeA	266. > 221.8	9.86e3	1.23e4	1.0000	0.730	2.37	2.30	10.0	13.745	110.0
30	33	13C3-PFBS	302. > 98.8	1.35e3	1.23e4	1.0000	0.095	2.77	2.58	1.37	14.394	115.2
31	34	13C2-PFHxA	315 > 269.8	2.97e3	1.23e4	1.0000	0.597	3.15	3.08	3.02	5.068	101.4

70-130

50-150

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_43.qld

Last Altered: Friday, January 12, 2018 09:51:38 Pacific Standard Time
Printed: Friday, January 12, 2018 09:52:14 Pacific Standard Time

Name: 180110M3_43, Date: 11-Jan-2018, Time: 17:12:22, ID: ST180109M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	7.81e3	1.23e4	1.0000	0.604	3.78	3.70	7.95	13.151	105.2
33	36	18O2-PFHxS	403.0 > 102.6	1.00e3	3.33e3	1.0000	0.293	3.94	3.85	3.77	12.870	103.0
34	37	13C2-6:2 FTS	429.1 > 408.9	2.30e3	1.26e4	1.0000	0.215	4.25	4.17	2.29	10.637	85.1
35	38	13C2-PFOA	414.9 > 369.7	1.06e4	1.26e4	1.0000	0.916	4.31	4.22	10.5	11.508	92.1
36	39	13C5-PFNA	468.2 > 422.9	1.04e4	1.24e4	1.0000	0.817	4.81	4.66	10.5	12.794	102.4
37	40	13C8-PFOSA	506.1 > 77.7	2.76e3	1.06e4	1.0000	0.223	4.87	4.72	3.27	14.670	117.4
38	41	13C8-PFOS	507.0 > 79.9	3.06e3	3.66e3	1.0000	0.875	4.89	4.74	10.5	11.949	95.6
39	42	13C2-PFDA	515.1 > 469.9	8.80e3	6.79e3	1.0000	1.105	5.18	5.04	16.2	14.649	117.2
40	43	13C2-8:2 FTS	529.1 > 508.7	1.11e3	1.23e4	1.0000	0.101	5.15	5.01	1.13	11.218	89.7
41	44	d3-N-MeFOSAA	573.3 > 419	3.71e3	1.06e4	1.0000	0.345	5.32	5.18	4.39	12.712	101.7
42	45	d5-N-EtFOSAA	589.3 > 419	4.72e3	1.06e4	1.0000	0.390	5.47	5.34	5.59	14.309	114.5
43	46	13C2-PFUdA	565 > 519.8	8.99e3	1.06e4	1.0000	0.958	5.49	5.36	10.6	11.104	88.8
44	47	13C2-PFDoA	615.0 > 569.7	4.29e3	1.06e4	1.0000	0.599	5.77	5.64	5.07	8.469	67.8
45	48	d3-N-MeFOSA	515.2 > 168.9	1.65e4	1.06e4	1.0000	0.124	5.83	5.74	19.5	157.329	104.9
46	49	13C2-PFTeDA	714.8 > 669.6	2.63e3	1.06e4	1.0000	0.282	6.22	6.11	3.11	11.030	88.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.53e4	1.06e4	1.0000	0.184	6.18	6.13	29.9	162.106	108.1
48	51	13C2-PFHxDA	815 > 769.7	2.16e3	1.06e4	1.0000	0.540	6.53	6.44	2.55	4.723	94.5
49	52	d7-N-MeFOSE	623.1 > 58.9	2.48e4	1.06e4	1.0000	0.182	6.27	6.26	29.3	161.027	107.4
50	53	d9-N-EtFOSE	639.2 > 58.8	2.54e4	1.06e4	1.0000	0.173	6.42	6.42	30.1	174.187	116.1
51	54	13C4-PFBA	217. > 171.8	1.11e4	1.11e4	1.0000	1.000	1.38	1.32	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.23e4	1.23e4	1.0000	1.000	3.15	3.08	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.33e3	3.33e3	1.0000	1.000	4.02	3.85	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.26e4	1.26e4	1.0000	1.000	4.38	4.22	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.24e4	1.24e4	1.0000	1.000	4.81	4.65	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.66e3	3.66e3	1.0000	1.000	4.89	4.74	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	6.79e3	6.79e3	1.0000	1.000	5.18	5.04	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.06e4	1.06e4	1.0000	1.000	5.49	5.36	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

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2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49
13	180110M3_13	B7L0088-MS1 Matrix Spike 0.25868	11-Jan-18	11:37:00
14	180110M3_14	B7L0088-MSD1 Matrix Spike Dup 0.2594	11-Jan-18	11:48:11
15	180110M3_15	1701832-01 FT-SW10-20171201 0.24901	11-Jan-18	11:59:21
16	180110M3_16	1701832-02 FT-DUP04-20171201 0.25912	11-Jan-18	12:10:32
17	180110M3_17	1701832-03 FT-SW13-20171201 0.25163	11-Jan-18	12:21:42
18	180110M3_18	1701832-04 FT-SW12-20171201 0.25479	11-Jan-18	12:32:54
19	180110M3_19	1701832-05 SA-SW125-20171201 0.26063	11-Jan-18	12:44:04
20	180110M3_20	1701832-06 SA-SW124-20171201 0.24606	11-Jan-18	12:55:15
21	180110M3_21	1701832-07 SA-PZ124-20171201 0.22152	11-Jan-18	13:06:26
22	180110M3_22	1701832-08 SA-DUP05-20171201 0.23726	11-Jan-18	13:17:36
23	180110M3_23	1701832-09 SA-PZ147-20171201 0.25163	11-Jan-18	13:28:47
24	180110M3_24	1701832-10 SA-SW201-20171201 0.24837	11-Jan-18	13:39:58
25	180110M3_25	IPA	11-Jan-18	13:51:09
26	180110M3_26	ST180110M3-10 PFC CS3 17L2611	11-Jan-18	14:02:19
27	180110M3_27	IPA	11-Jan-18	14:13:30
28	180110M3_28	1701832-11 SW-DP01-20171201 0.26032	11-Jan-18	14:24:43
29	180110M3_29	1701832-12 SA-SW204-20171201 0.25842	11-Jan-18	14:35:52
30	180110M3_30	1701832-13 SA-SW204-FRB-20171201 0.259...	11-Jan-18	14:47:02
31	180110M3_31	B7L0114-BS1 OPR 0.125	11-Jan-18	14:58:13

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Compound name: PFBA

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32	180110M3_32	IPA	11-Jan-18	15:09:23
33	180110M3_33	B7L0114-BLK1 Method Blank 0.125	11-Jan-18	15:20:34
34	180110M3_34	1701896-01 FB1712041315JM 0.26557	11-Jan-18	15:31:45
35	180110M3_35	1701896-02 WT1712041320JM 0.27098	11-Jan-18	15:42:56
36	180110M3_36	1701896-03 WR1712041330JM 0.26836	11-Jan-18	15:54:06
37	180110M3_37	1701896-04 WT1712041435JM 0.26471	11-Jan-18	16:05:17
38	180110M3_38	1701896-05 WR1712041445JM 0.2652	11-Jan-18	16:16:28
39	180110M3_39	1701896-06 WT1712041505JM 0.26375	11-Jan-18	16:27:39
40	180110M3_40	1701896-07 WT1712041525JM 0.26253	11-Jan-18	16:38:49
41	180110M3_41	1701896-08 WT1712041545JM 0.25304	11-Jan-18	16:50:00
42	180110M3_42	IPA 10	11-Jan-18	17:01:11
43	180110M3_43	ST180109M2-11 PFC CS3 17L2611	11-Jan-18	17:12:22
44	180110M3_44	IPA	11-Jan-18	17:23:32
45	180110M3_45	1701896-09 WT1712041600JM 0.25668	11-Jan-18	17:34:43
46	180110M3_46	1701896-10 WT1712041625JM 0.26672	11-Jan-18	17:45:54
47	180110M3_47	1701896-11 WT1712041645JM 0.26526	11-Jan-18	17:57:04
48	180110M3_48	1701896-12 WR1712050835JM 0.26075	11-Jan-18	18:08:18
49	180110M3_49	1701896-13 WT1712050920JM 0.25985	11-Jan-18	18:19:34
50	180110M3_50	1701896-14 FB1712050940JM 0.26706	11-Jan-18	18:30:45
51	180110M3_51	1701896-15 WT1712050945JM 0.26049	11-Jan-18	18:41:56
52	180110M3_52	1701896-16 WT1712051000JM 0.26777	11-Jan-18	18:53:06
53	180110M3_53	1701896-17 WT1712051035JM 0.26811	11-Jan-18	19:04:17
54	180110M3_54	1701896-18 WT1712051055JM 0.26798	11-Jan-18	19:15:27
55	180110M3_55	1701896-19 WT1712051115JM 0.26037	11-Jan-18	19:26:38
56	180110M3_56	IPA	11-Jan-18	19:37:49
57	180110M3_57	ST180110M3-12 PFC CS3 17L2611	11-Jan-18	19:49:00
58	180110M3_58	IPA	11-Jan-18	20:00:10
59	180110M3_59	1701852-01 IR03-MW034-C2-17D 0.26646	11-Jan-18	20:11:21
60	180110M3_60	1701852-02 IR03-MW018B-C1-17D 0.25583	11-Jan-18	20:22:32
61	180110M3_61	1701852-03 IR03-MW018A-C2-17D 0.26605	11-Jan-18	20:33:42
62	180110M3_62	1701896-20 WT1712051130JM 0.26351	11-Jan-18	20:44:53
63	180110M3_63	1701892-01 Soil-B109 1.21	11-Jan-18	20:56:04
64	180110M3_64	1701892-02 Soil-S134 1.28	11-Jan-18	21:07:15
65	180110M3_65	1701892-03 Soil-S150 1.1	11-Jan-18	21:18:25

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Compound name: PFBA

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67	180110M3_67	1701905-03RE1@20X WINF1712061655JLB ...	11-Jan-18	21:40:47
68	180110M3_68	1701905-03RE1@10X WINF1712061655JLB ...	11-Jan-18	21:51:57
69	180110M3_69	IPA	11-Jan-18	22:03:08
70	180110M3_70	ST180110M3-13 PFC CS3 17L2611	11-Jan-18	22:14:18
71	180110M3_71	IPA	11-Jan-18	22:25:30
72	180110M3_72	1701898-11 SP-EQBK-01 0.11933	11-Jan-18	22:36:43
73	180110M3_73	1701879-01 MTBE_15025 0.24122	11-Jan-18	22:47:52
74	180110M3_74	IPA	11-Jan-18	22:59:02
75	180110M3_75	ST180110M3-14 PFC CS3 17L2611	11-Jan-18	23:10:13

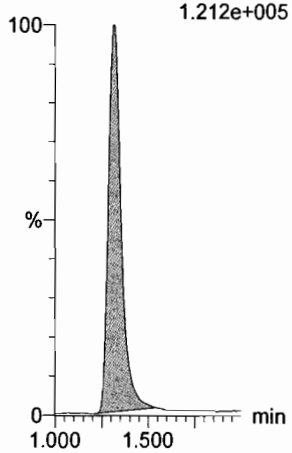
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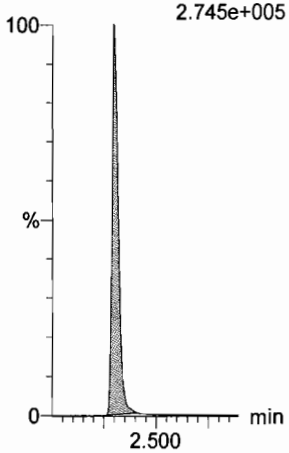
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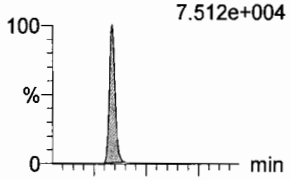
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.212e+005



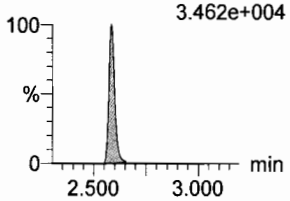
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F4:MRM of 1 channel,ES-
263.1 > 218.9
2.745e+005



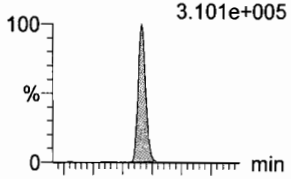
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
7.512e+004



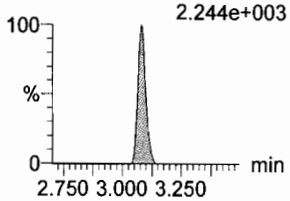
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.462e+004



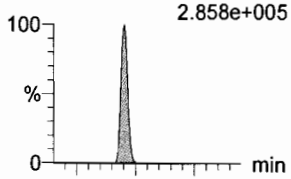
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.101e+005



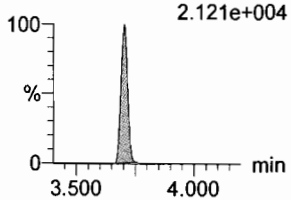
F8:MRM of 2 channels,ES-
313.2 > 119
2.244e+003



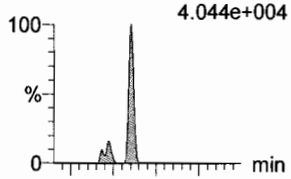
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
2.858e+005



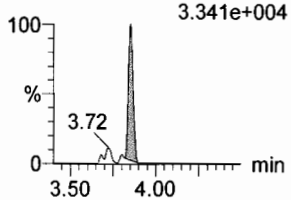
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.121e+004



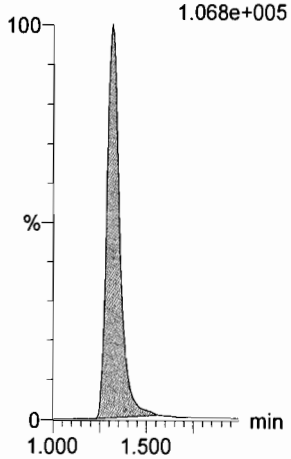
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
4.044e+004



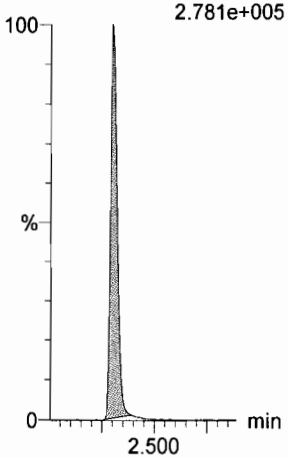
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.341e+004



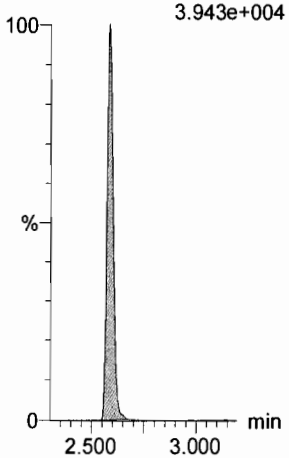
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.068e+005



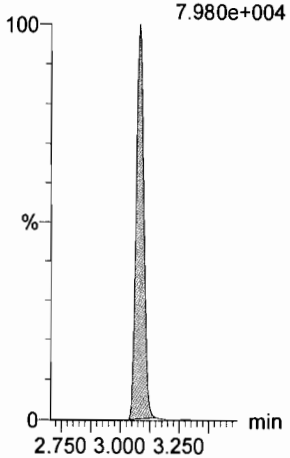
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.781e+005



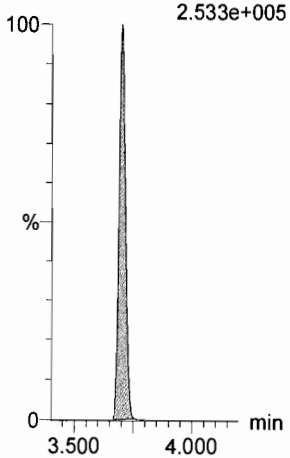
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.943e+004



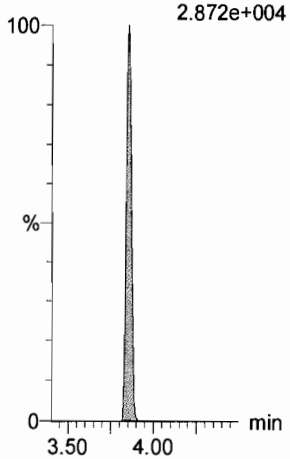
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
7.980e+004



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.533e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
2.872e+004

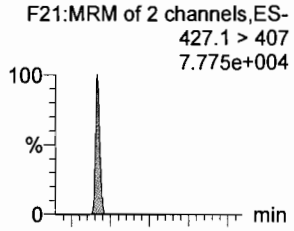


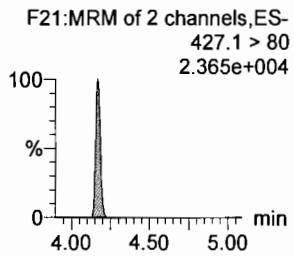
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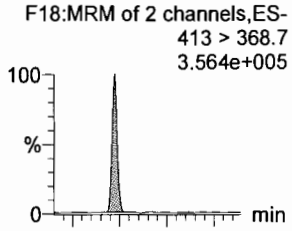
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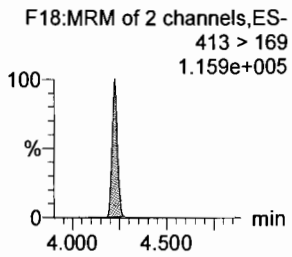
6:2 FTS



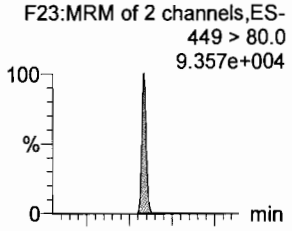


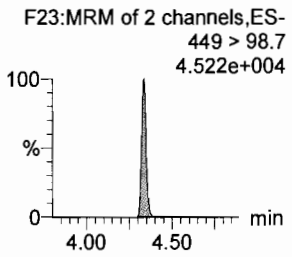
L-PFOA



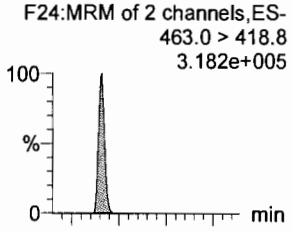


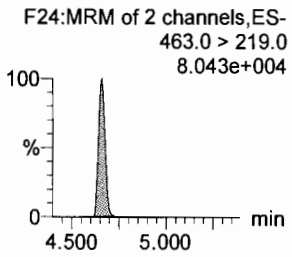
PFHpS



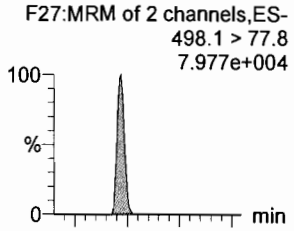


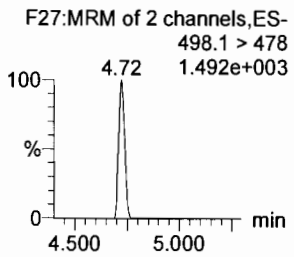
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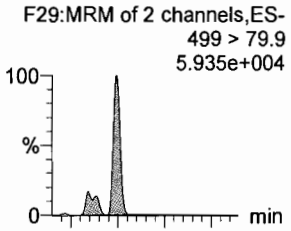


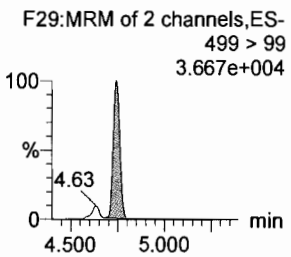
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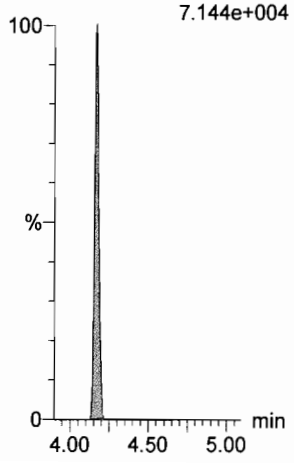


L-PFOS

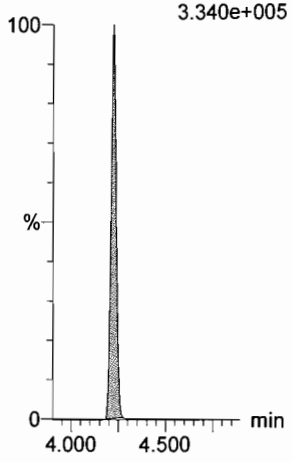




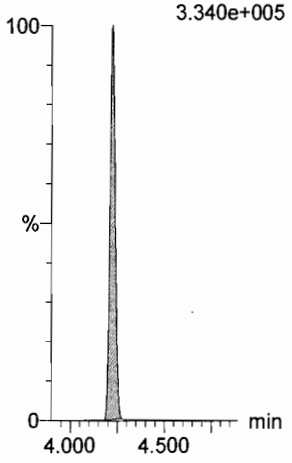
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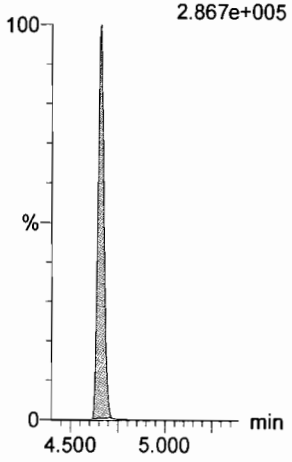
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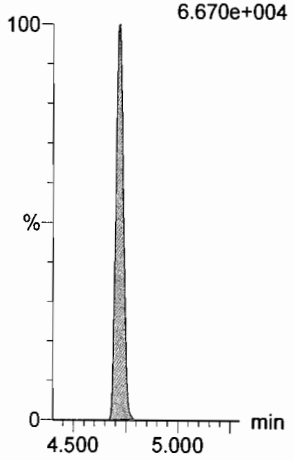
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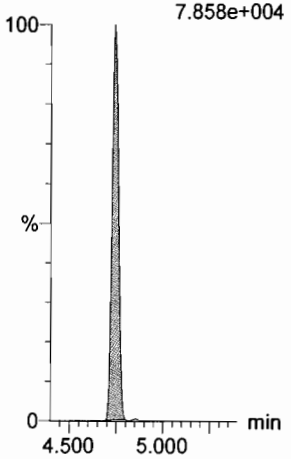
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13C8-PFOSA



13C8-PFOS

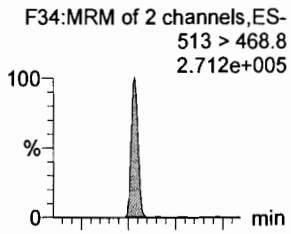


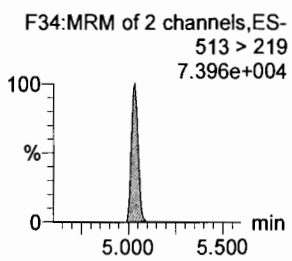
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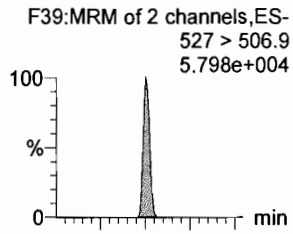
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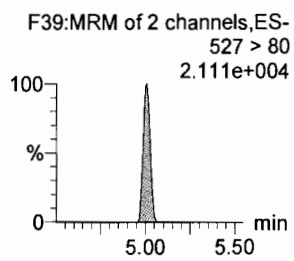
PFDA



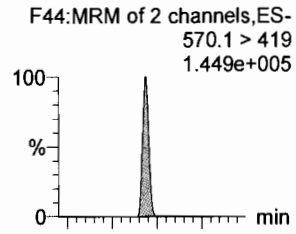


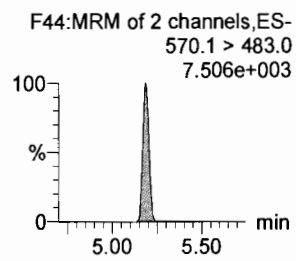
8:2 FTS



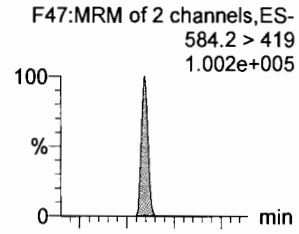


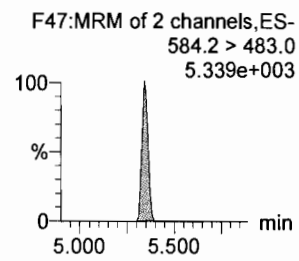
N-MeFOSAA



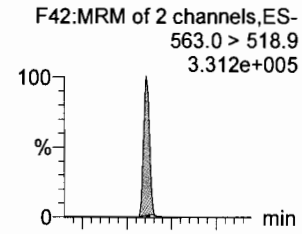


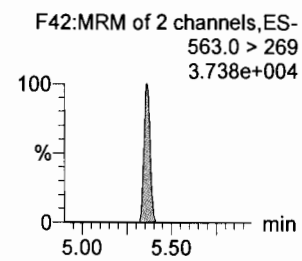
N-EtFOSAA



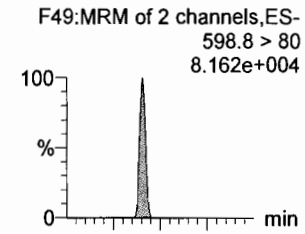


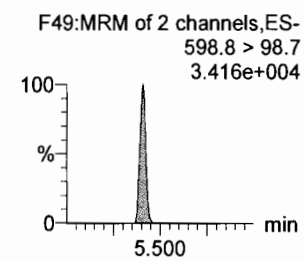
PFUdA



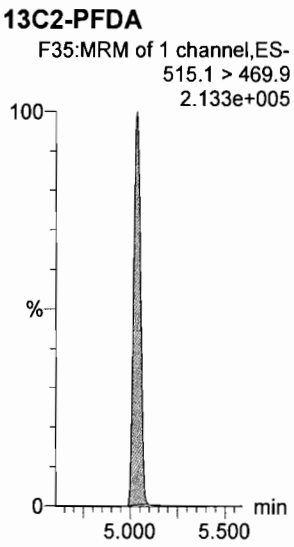


PFDS

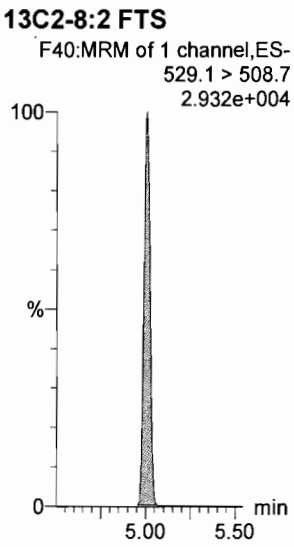




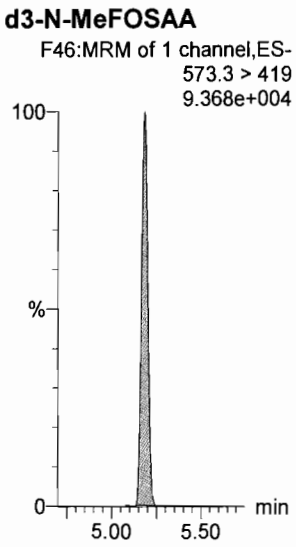
13C2-PFDA



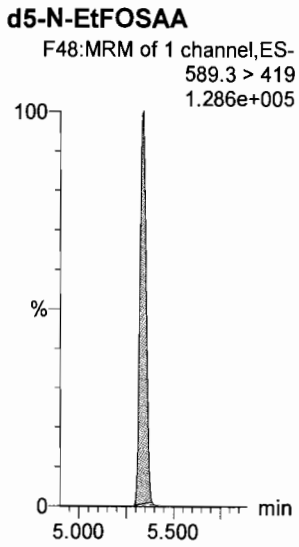
13C2-8:2 FTS



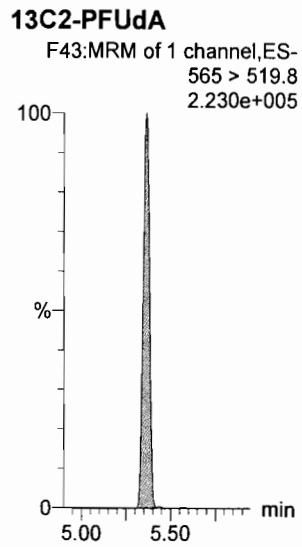
d3-N-MeFOSAA



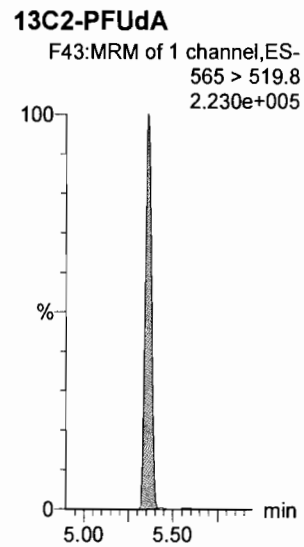
d5-N-EtFOSAA



13C2-PFUdA



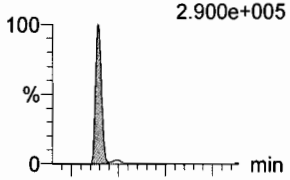
13C2-PFUdA

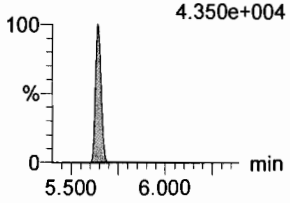


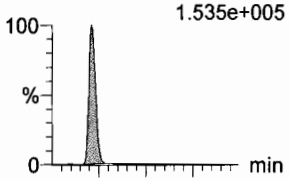
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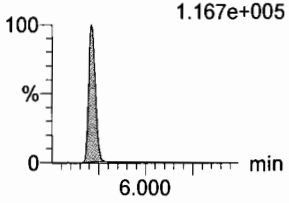
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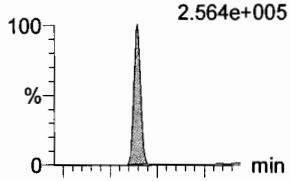
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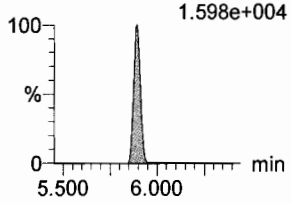
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.900e+005


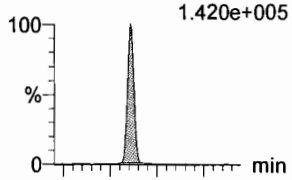
F50:MRM of 2 channels,ES-
612.9 > 318.8
4.350e+004


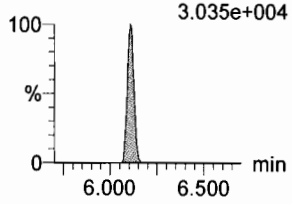
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.535e+005


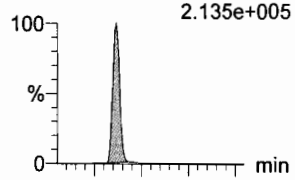
F33:MRM of 2 channels,ES-
512.1 > 219
1.167e+005


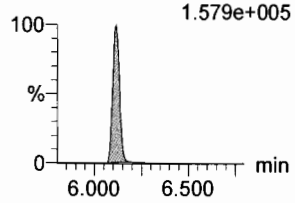
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.564e+005


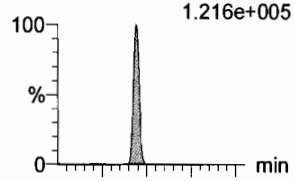
F56:MRM of 2 channels,ES-
662.9 > 319
1.598e+004


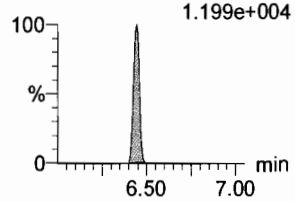
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.420e+005


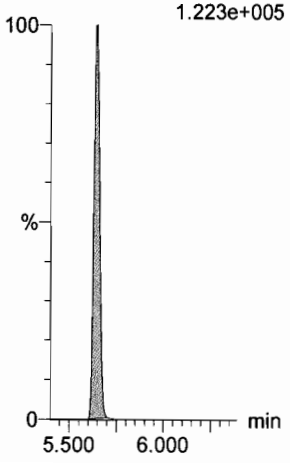
F57:MRM of 2 channels,ES-
712.9 > 369
3.035e+004


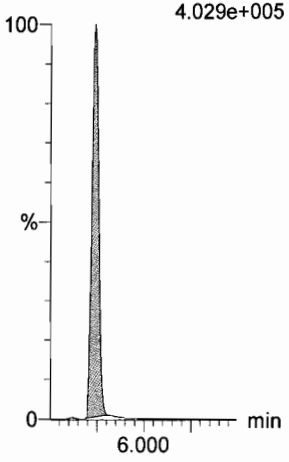
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.135e+005


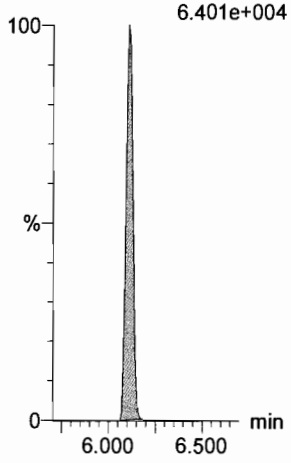
F38:MRM of 2 channels,ES-
526.1 > 219
1.579e+005


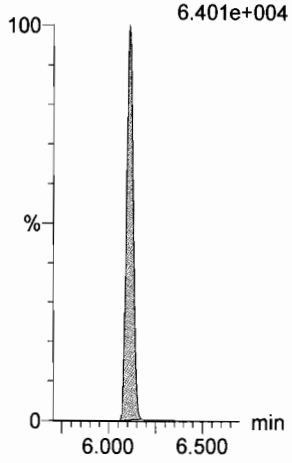
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.216e+005


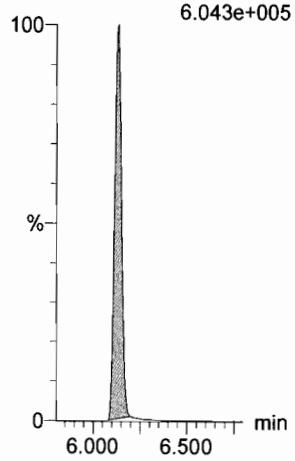
F59:MRM of 2 channels,ES-
813.1 > 219
1.199e+004


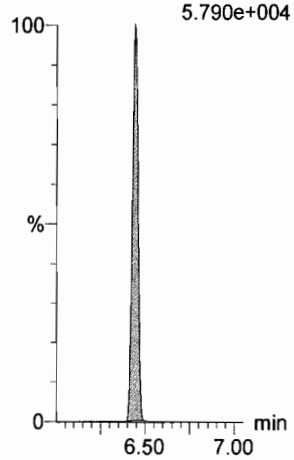
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.223e+005


d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.029e+005


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.401e+004


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.401e+004


d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.043e+005


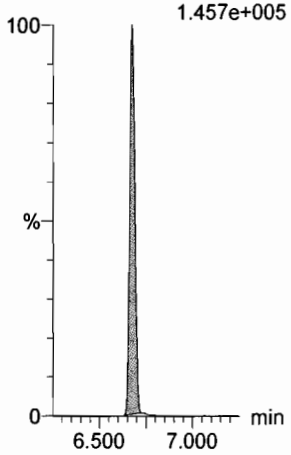
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.790e+004


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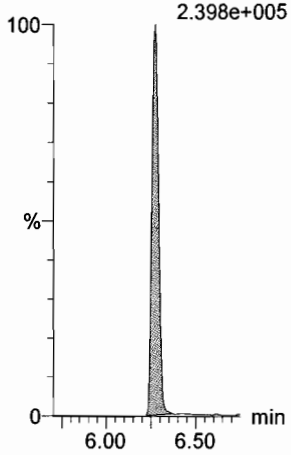
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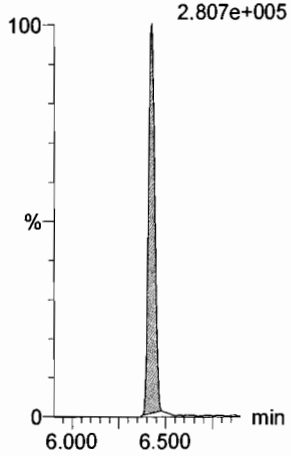
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.457e+005



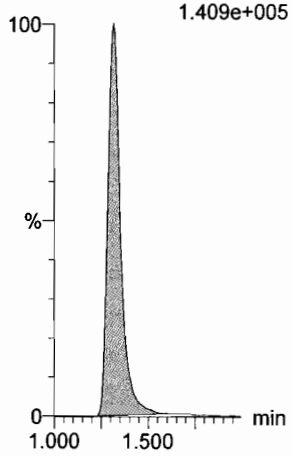
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.398e+005



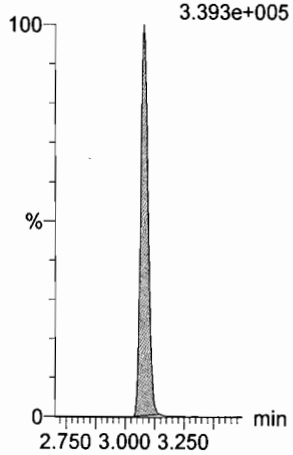
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.807e+005



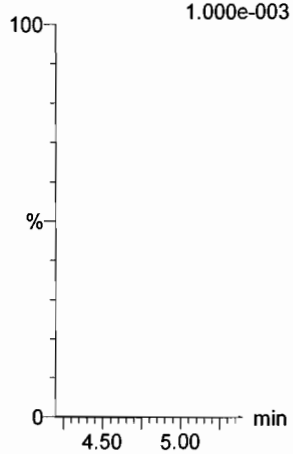
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.409e+005



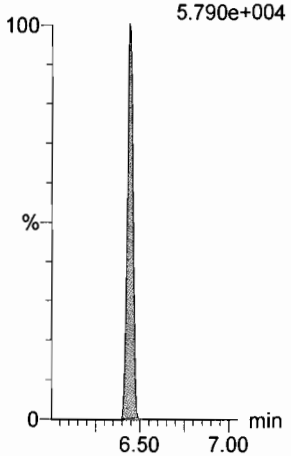
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.393e+005



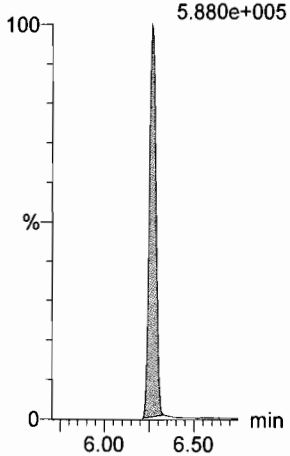
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.000e-003



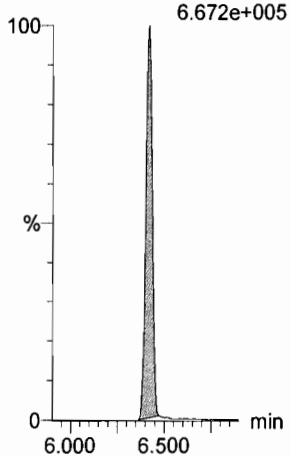
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.790e+004



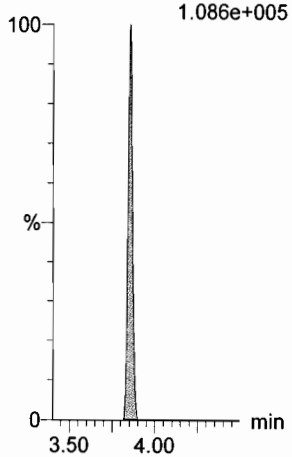
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.880e+005



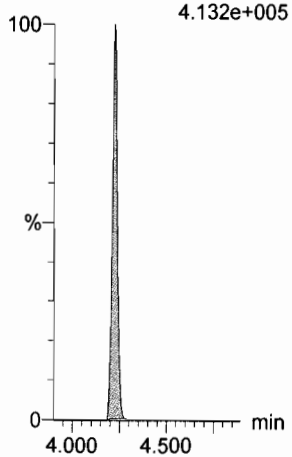
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.672e+005



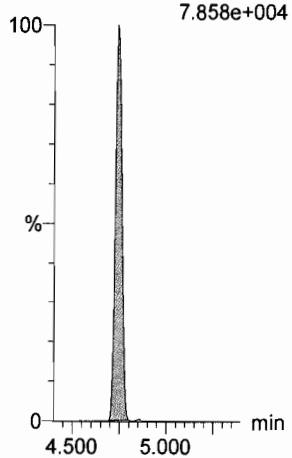
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.086e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.132e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
7.858e+004

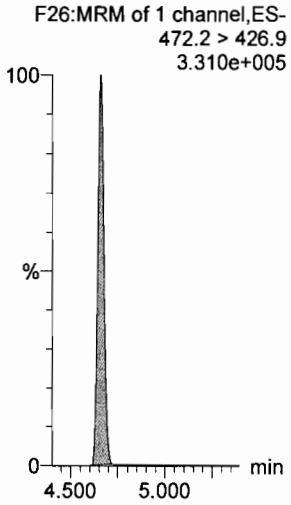


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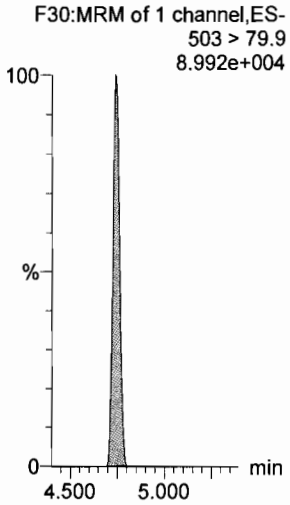
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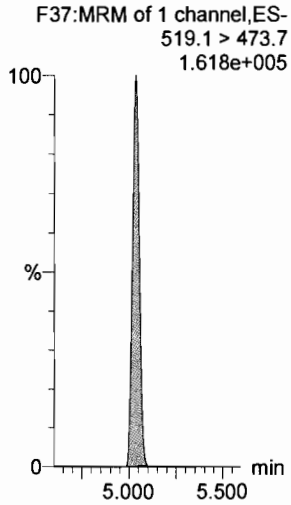
13C9-PFNA



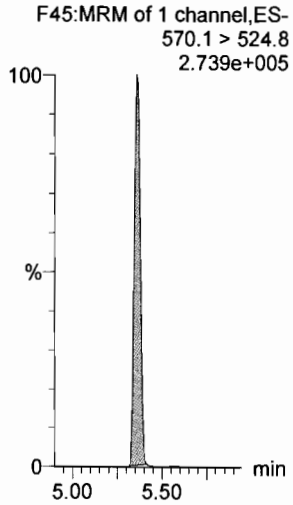
13C4-PFOS



13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

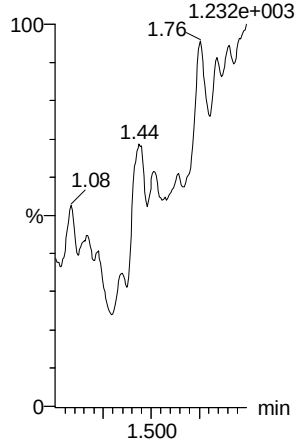
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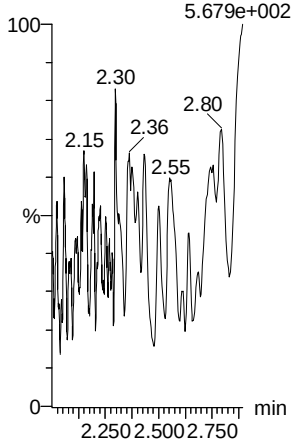
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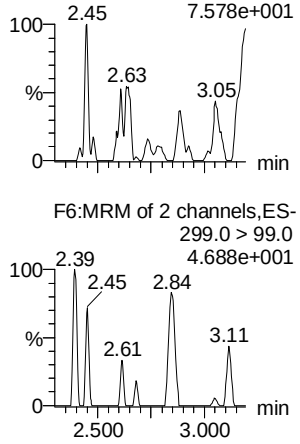
PFBA



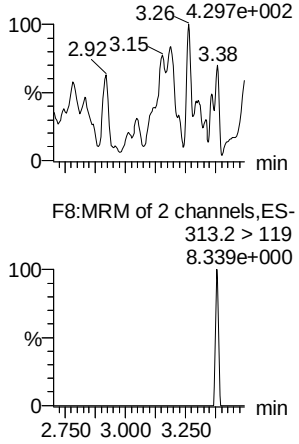
PFPeA



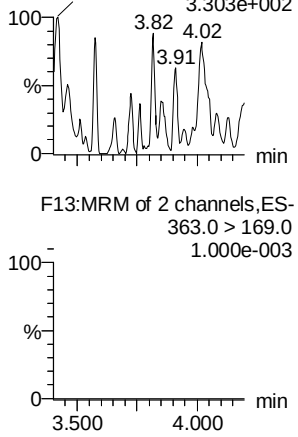
PFBS



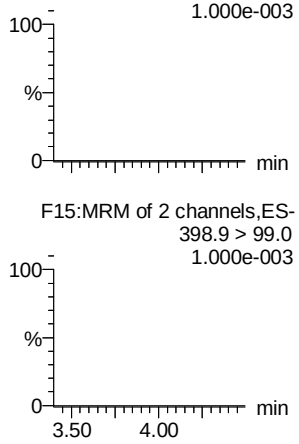
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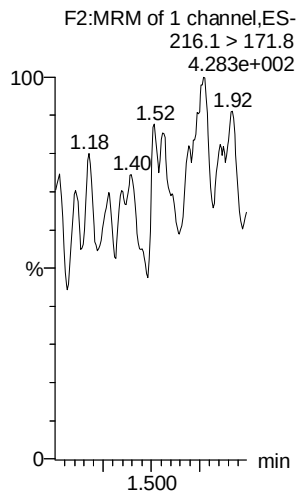
PFHpA



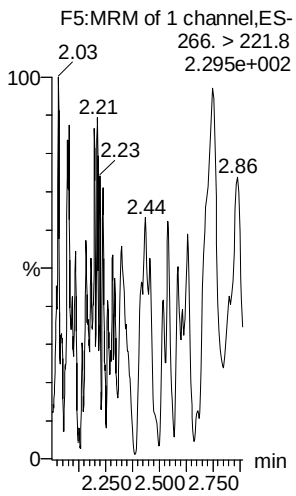
L-PFHxS



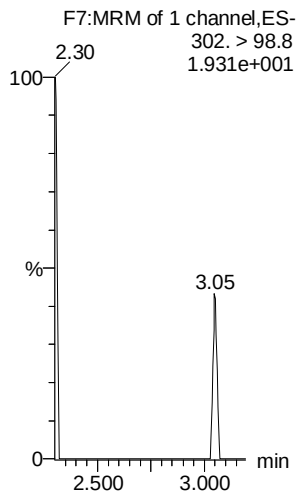
13C3-PFBA



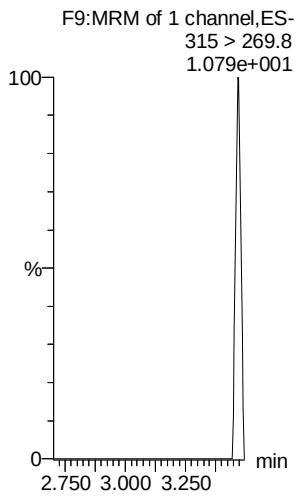
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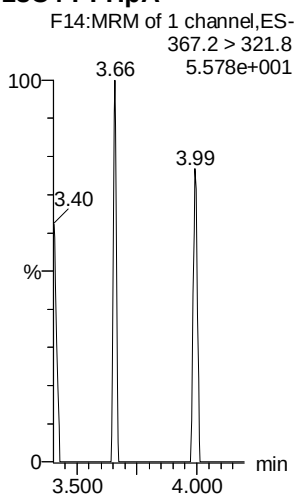
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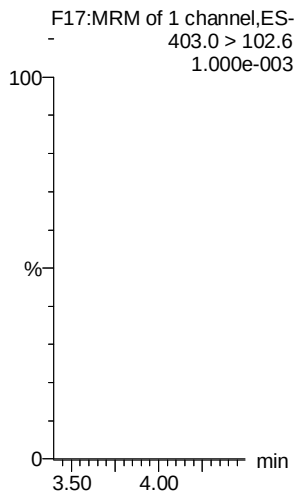
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



ANP 1/12/2018

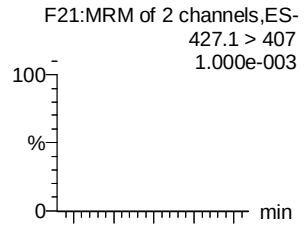
Vista Analytical Laboratory

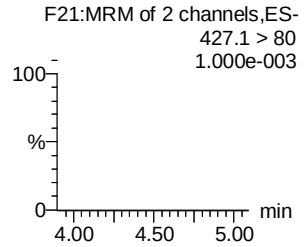
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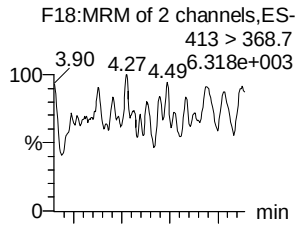
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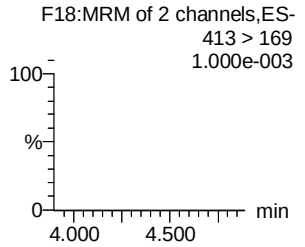
6:2 FTS



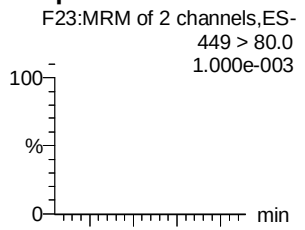


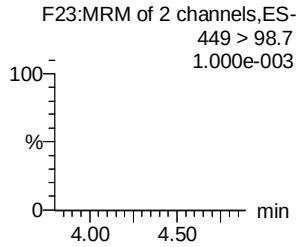
L-PFOA



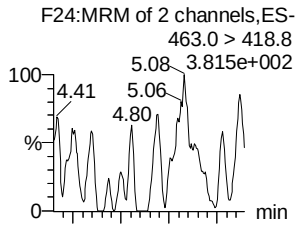


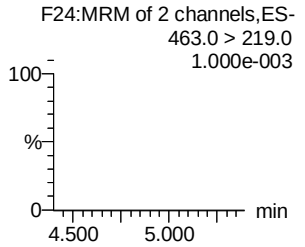
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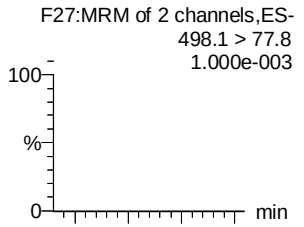


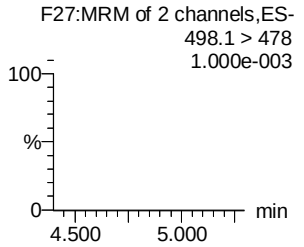
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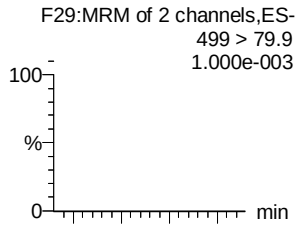


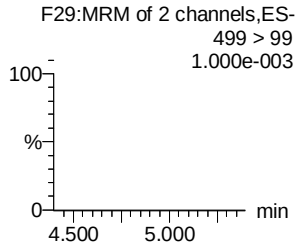
PFOSA



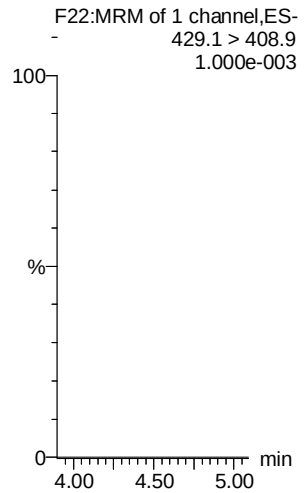


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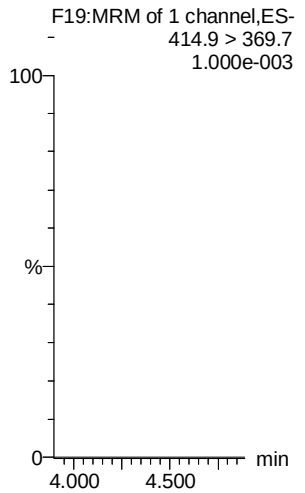




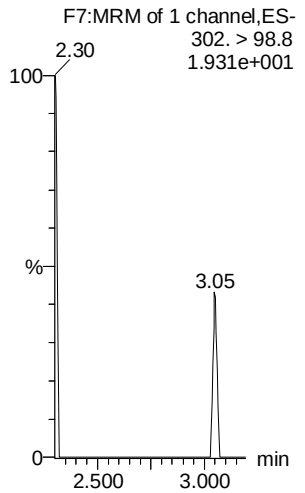
13C2-6:2 FTS



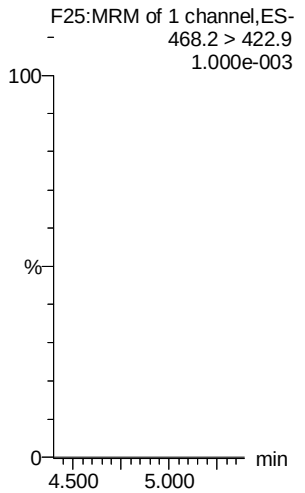
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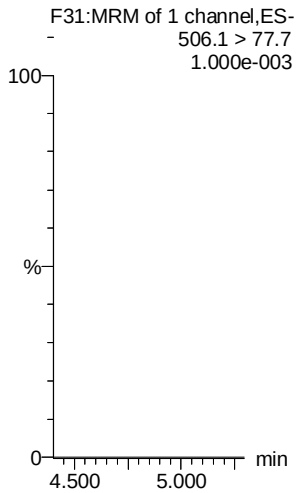
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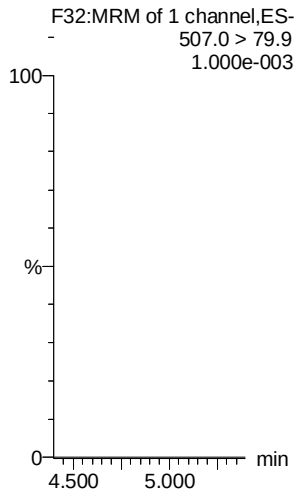
13C5-PFNA



13C8-PFOSA



13C8-PFOS



ANP 1/12/2018

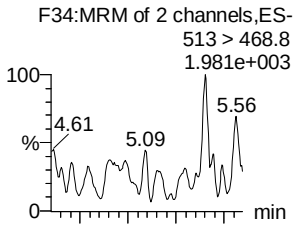
Vista Analytical Laboratory

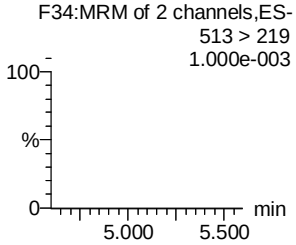
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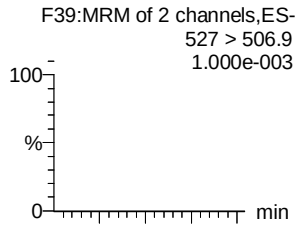
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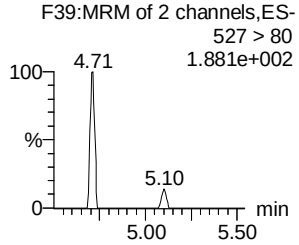
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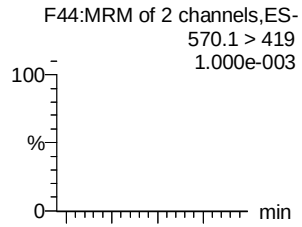


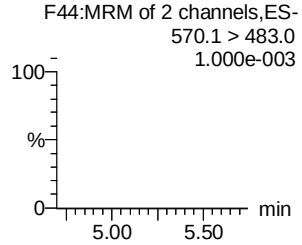
8:2 FTS



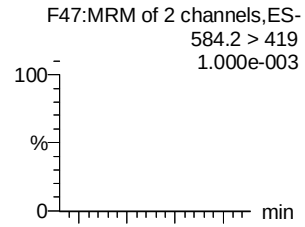


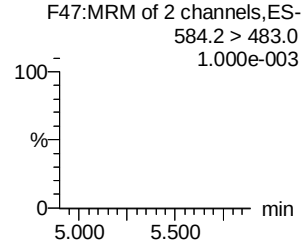
N-MeFOSAA



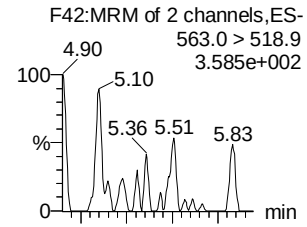


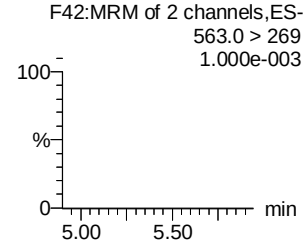
N-EtFOSAA



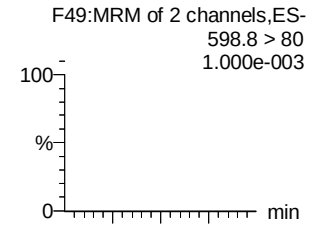


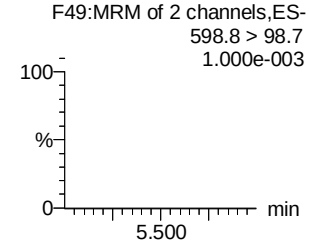
PFUdA



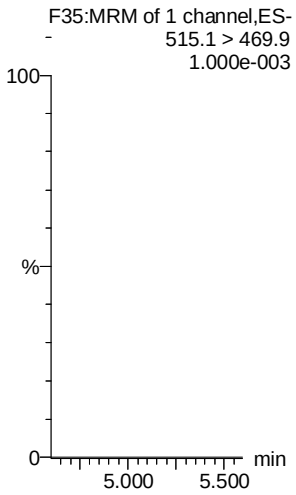


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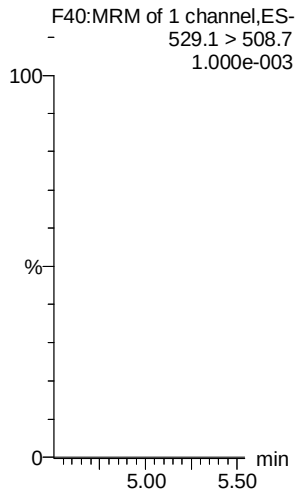




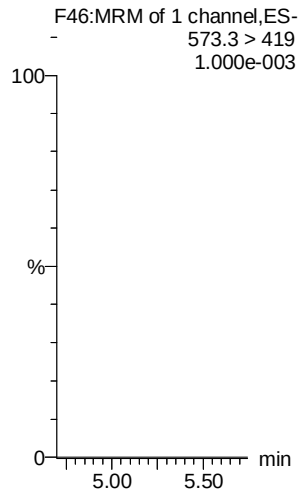
13C2-PFDA



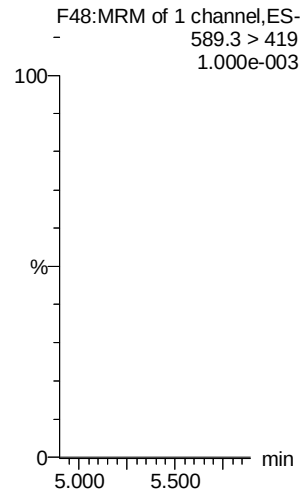
13C2-8:2 FTS



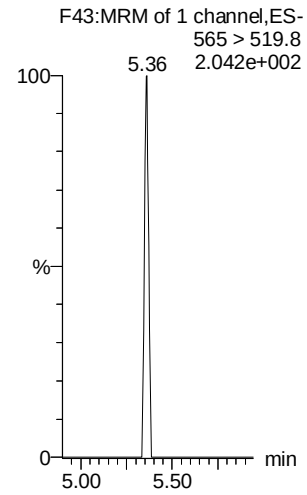
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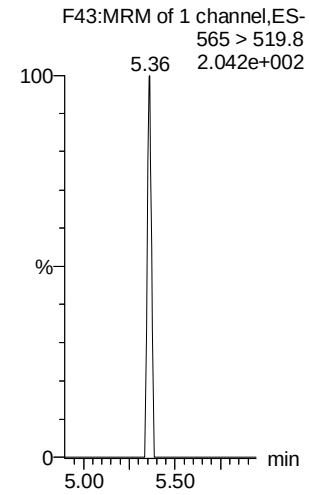
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13C2-PFUdA



13C2-PFUdA



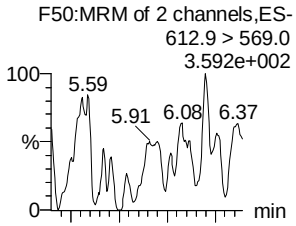
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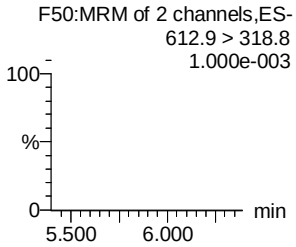
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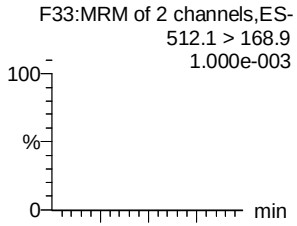
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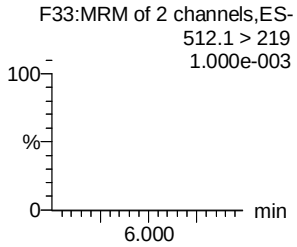
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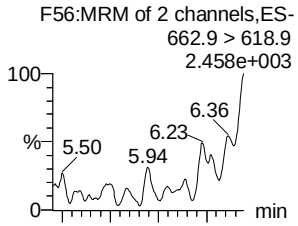


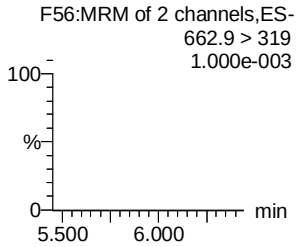
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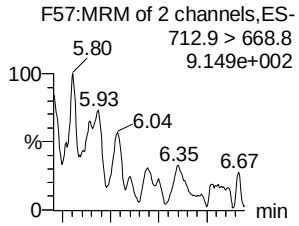


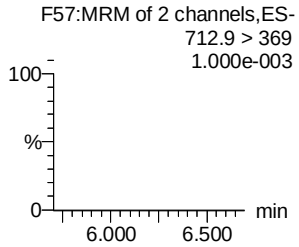
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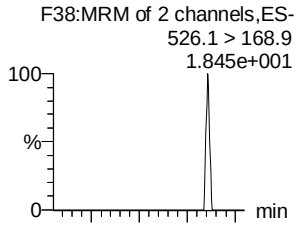


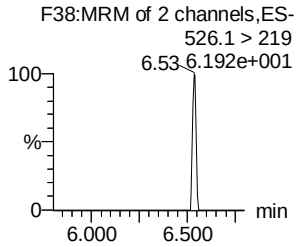
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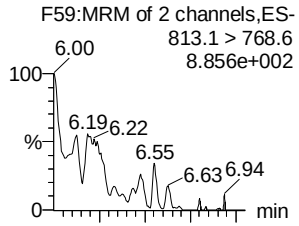


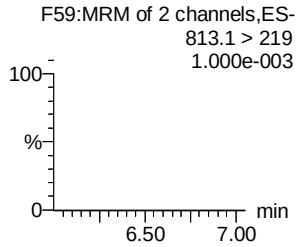
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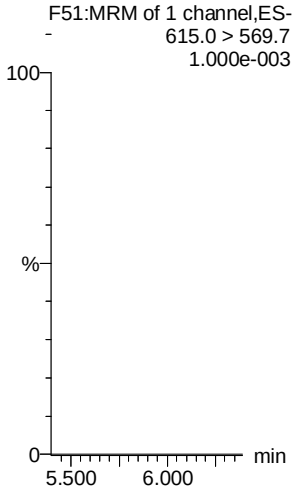


PFHxDA

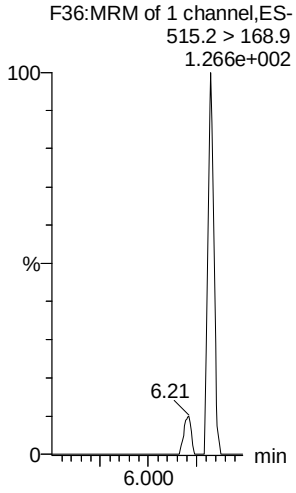




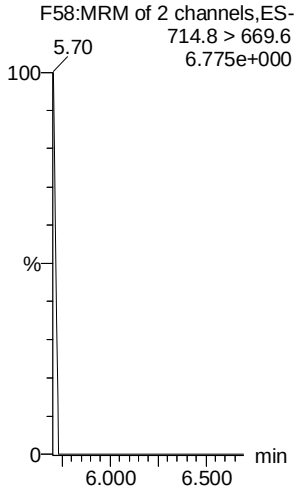
13C2-PFDoA



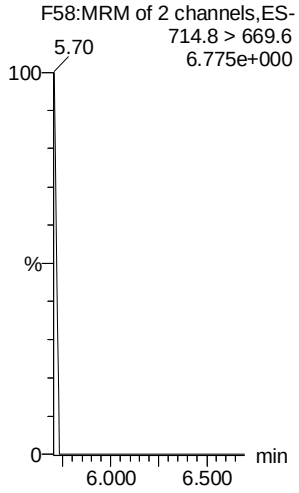
d3-N-MeFOSA



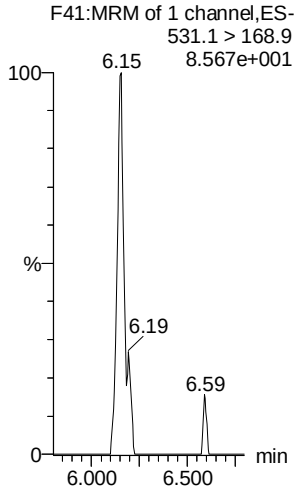
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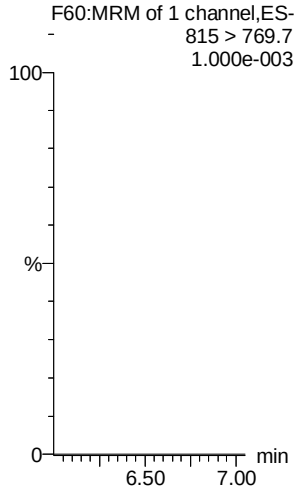
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d5-N-ETFOSA



13C2-PFHxDA



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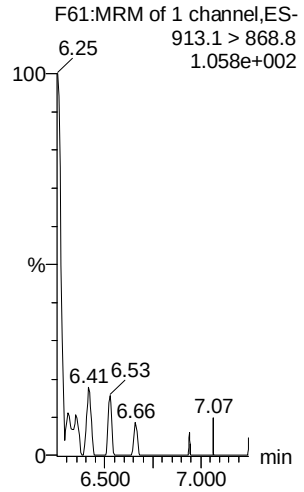
Vista Analytical Laboratory

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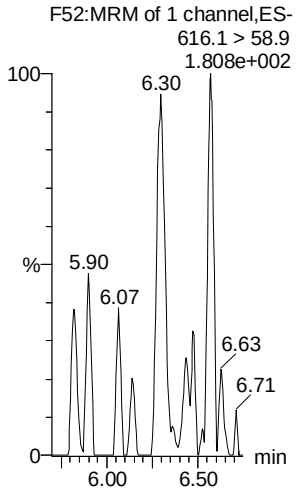
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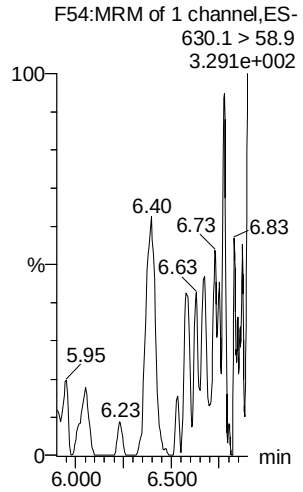
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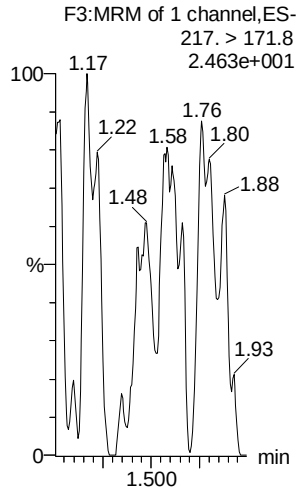
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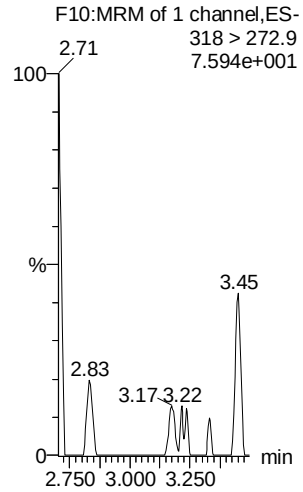
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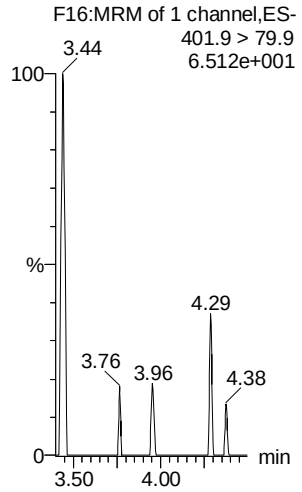
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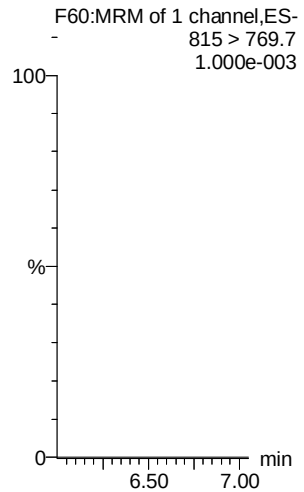
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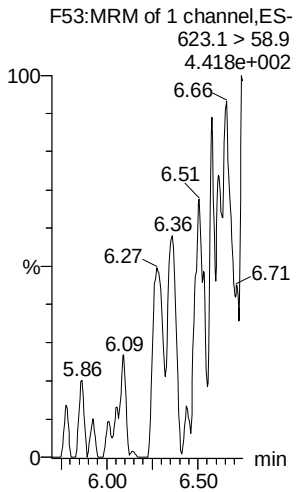
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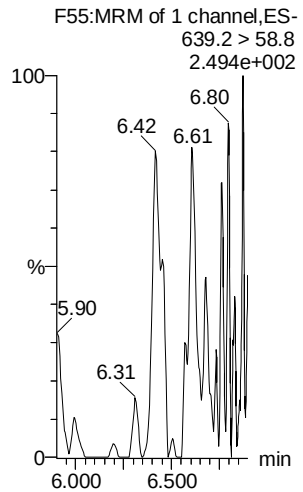
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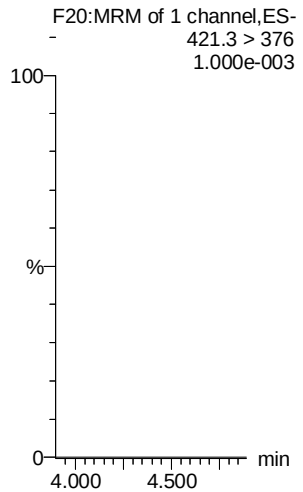
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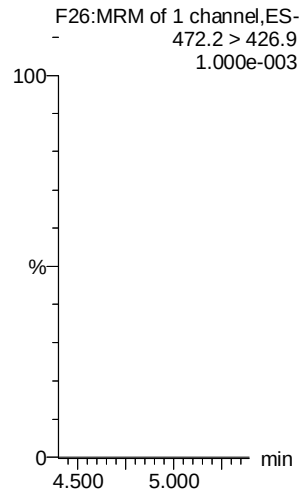
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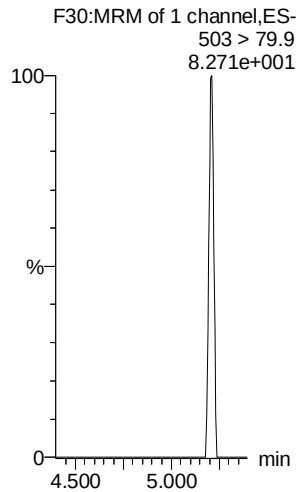
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13C9-PFNA



13C4-PFOS



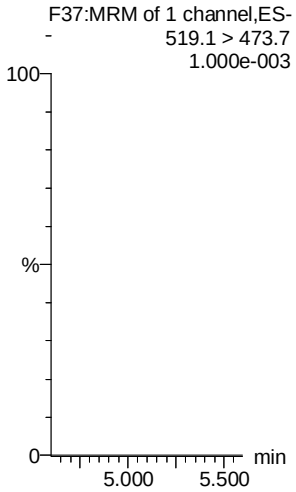
ANP 1/12/2018

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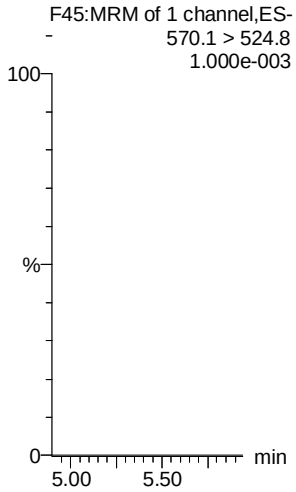
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13C6-PFDA



13C7-PFUdA



ANP 1/12/2018

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Dataset: U:\Q4.PRO\results\180112M1\180112M1-1.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

CP 1/12/18

Name: 180112M1_1, Date: 12-Jan-2018, Time: 08:42:48, ID: ST180112M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out	
1	12	PFNA	463.0 > 418.8	1.16e3	1.09e4		4.81	4.66	1.33	0.937	93.7	NO	70-130
2	39	13C5-PFNA	468.2 > 422.9	1.09e4	1.29e4	0.817	4.81	4.66	10.6	12.9	103.4	NO	50-150
3	58	13C9-PFNA	472.2 > 426.9	1.29e4	1.29e4	1.000	4.81	4.66	12.5	12.5	100.0	NO	

JA 01/12/2018

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 09:42:57 Pacific Standard Time
Printed: Friday, January 12, 2018 09:43:51 Pacific Standard Time

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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M1_1	ST180112M1-1 PFC CS0 17L2608	12-Jan-18	08:42:48
2	180112M1_2	IPA	12-Jan-18	08:53:59
3	180112M1_3	1701832-07@10X SA-PZ124-20171201 0.221...	12-Jan-18	09:10:20
4	180112M1_4	1701832-08@10X SA-DUP05-20171201 0.23...	12-Jan-18	09:22:10
5	180112M1_5	ST180112M1-2 PFC CS3 17L2611	12-Jan-18	09:34:03

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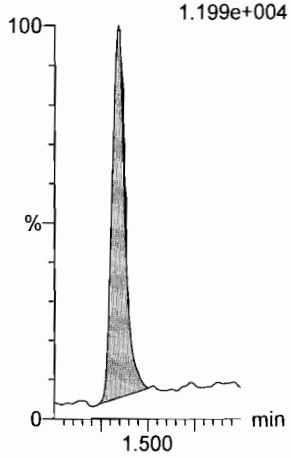
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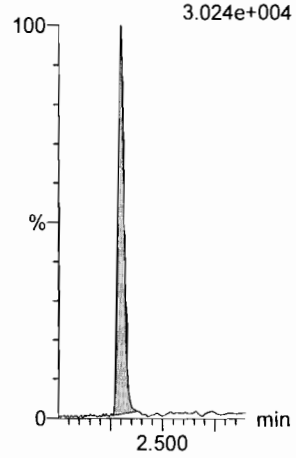
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M1_1, Date: 12-Jan-2018, Time: 08:42:48, ID: ST180112M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

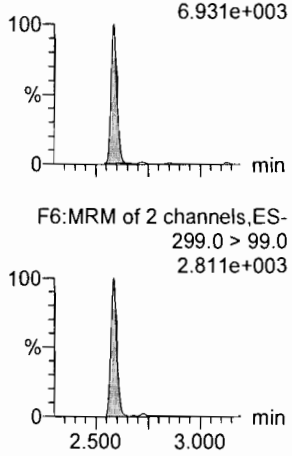
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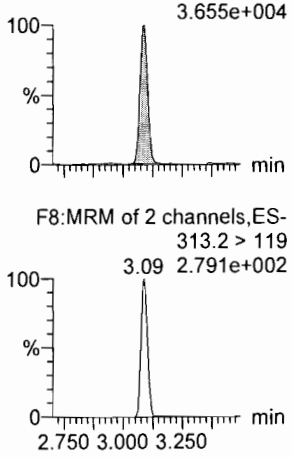
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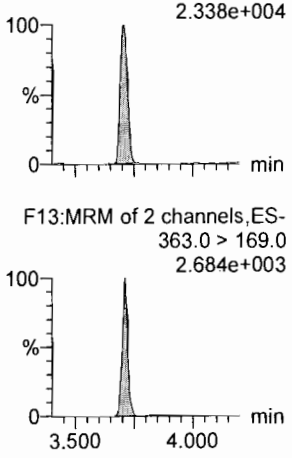
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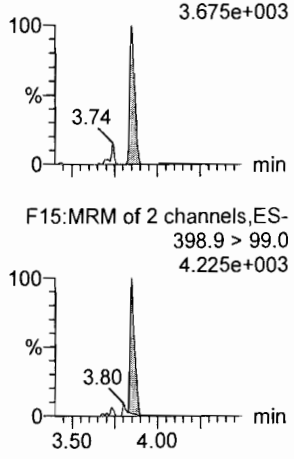
PFHxA



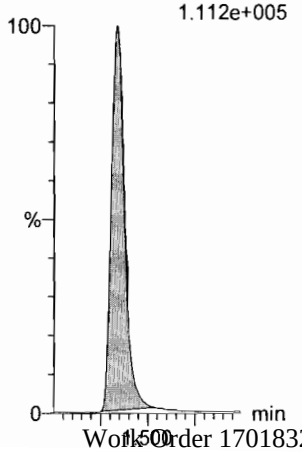
PFHpA



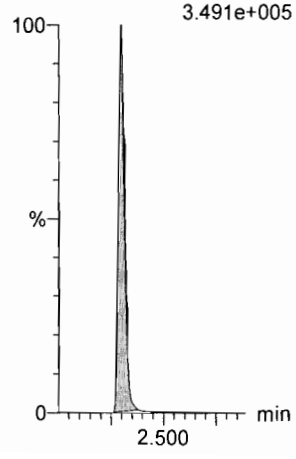
L-PFHxS



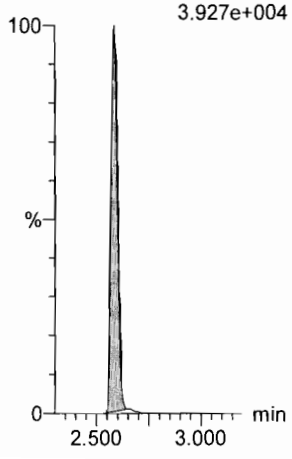
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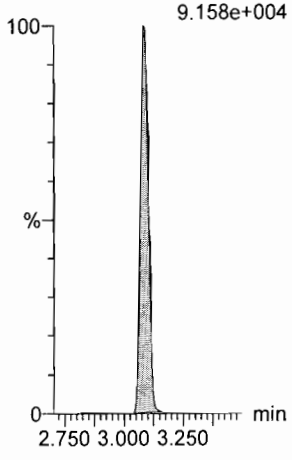
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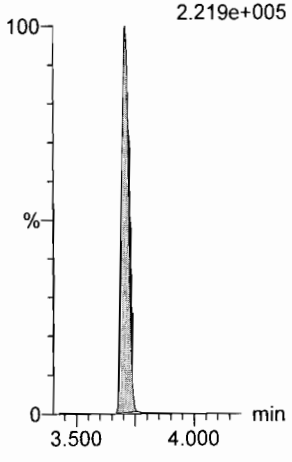
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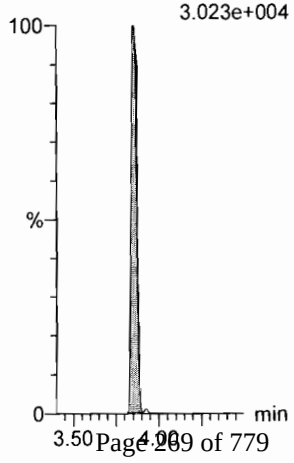
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



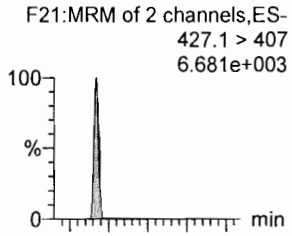
Vista Analytical Laboratory

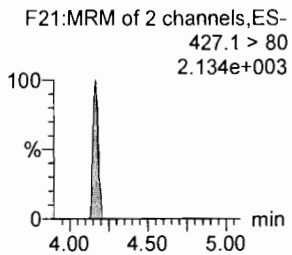
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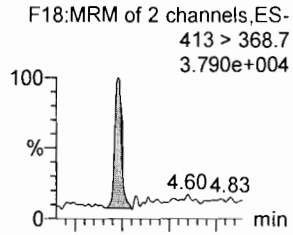
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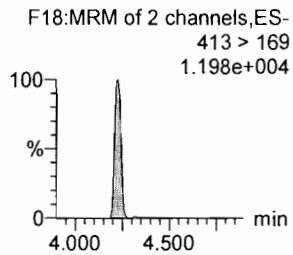
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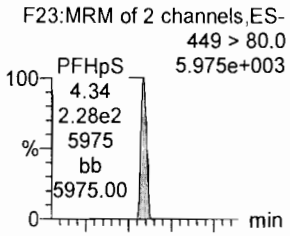


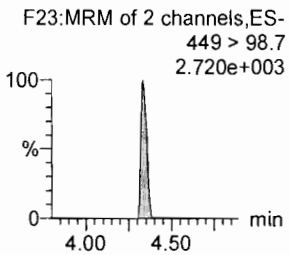
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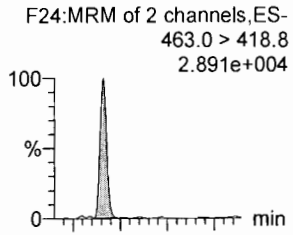


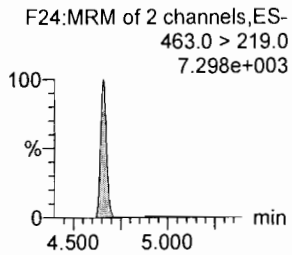
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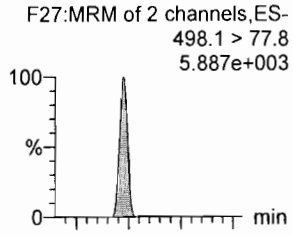


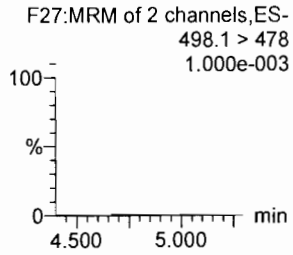
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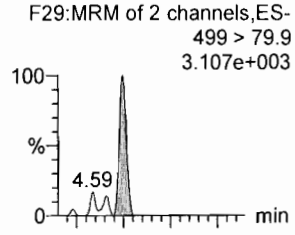


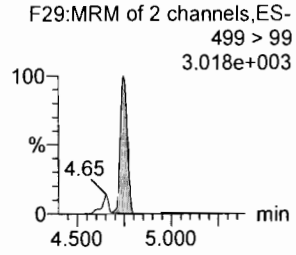
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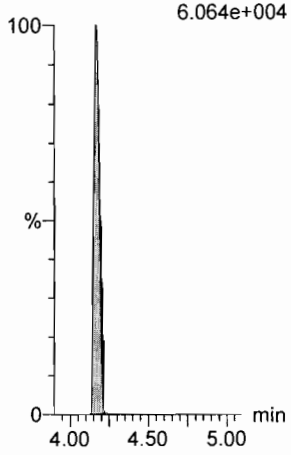


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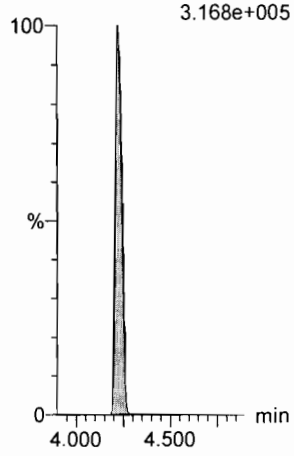




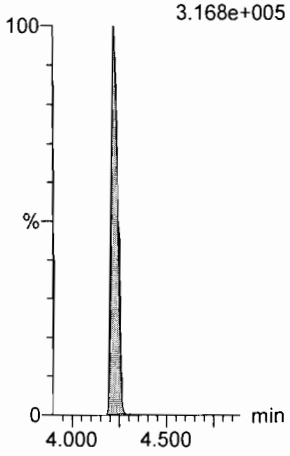
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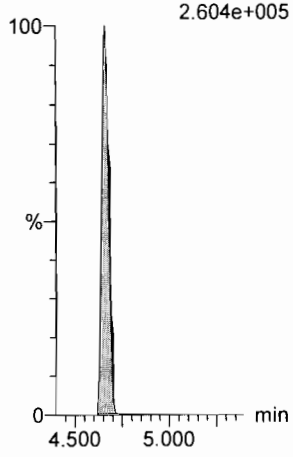
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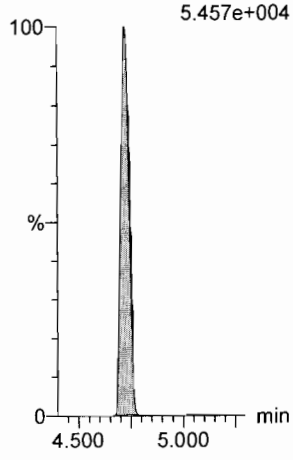
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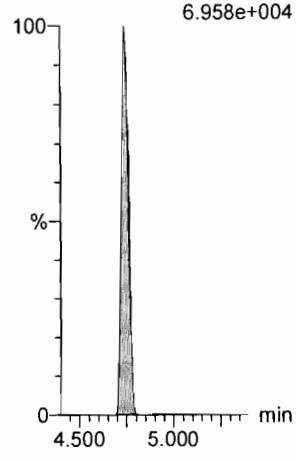
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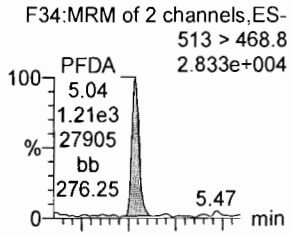


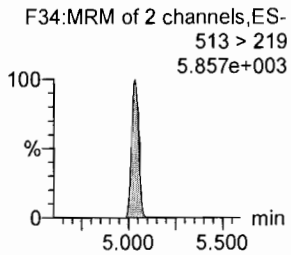
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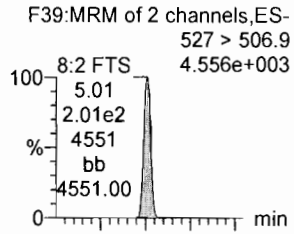
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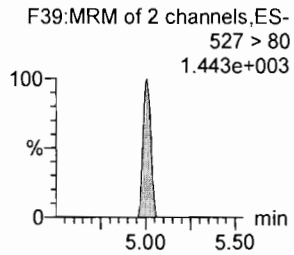
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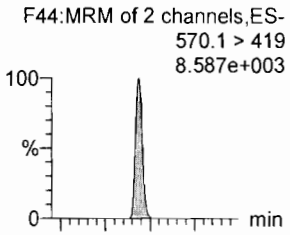


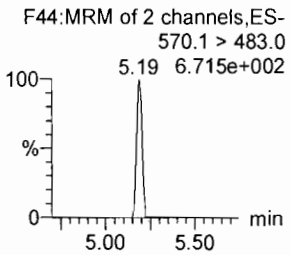
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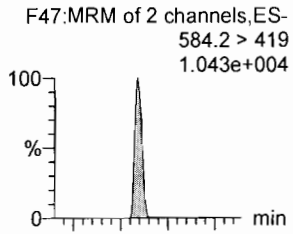


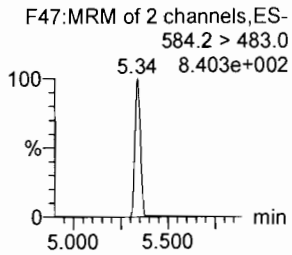
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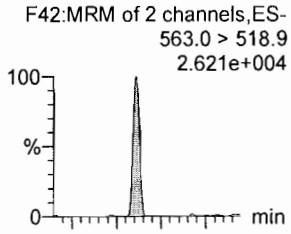


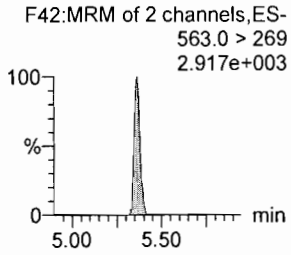
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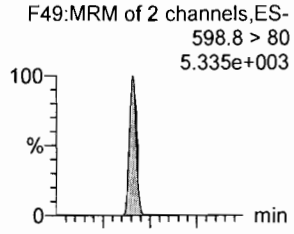


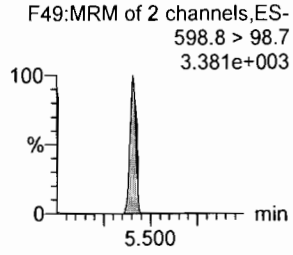
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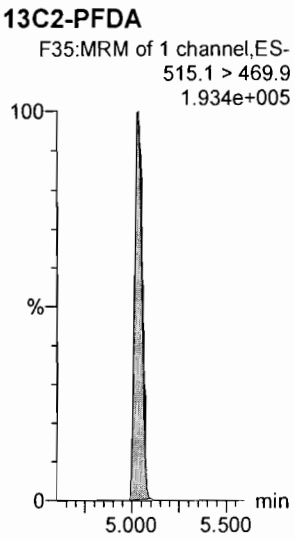


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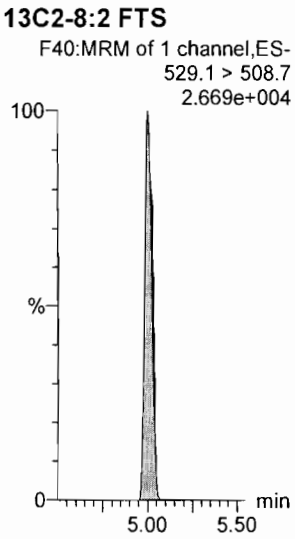




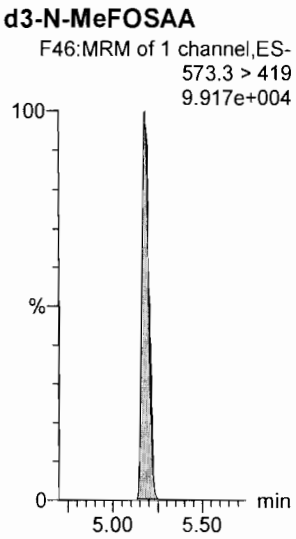
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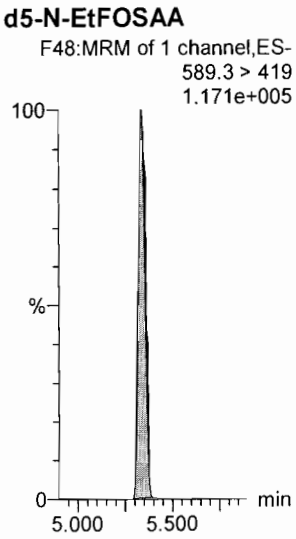
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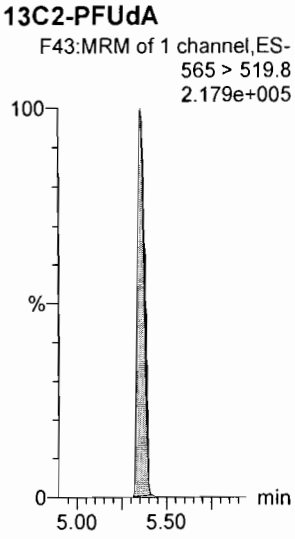
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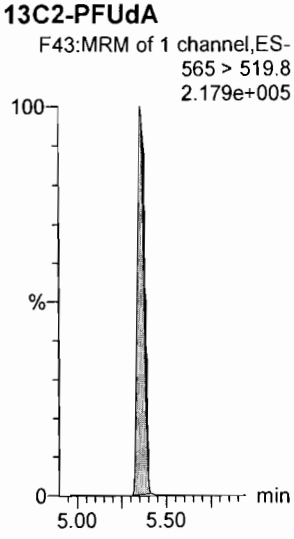
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13C2-PFUdA



13C2-PFUdA

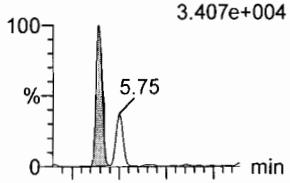


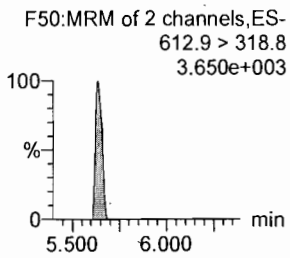
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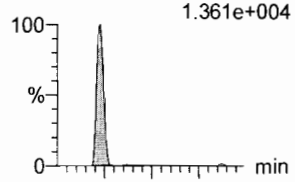
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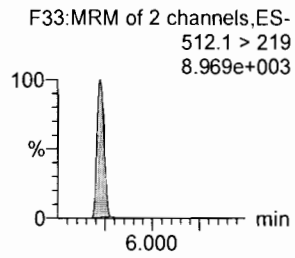
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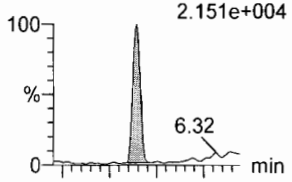


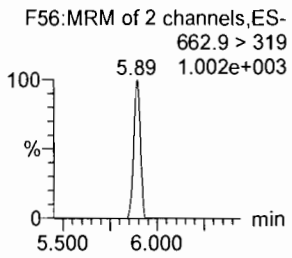
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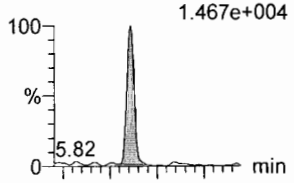


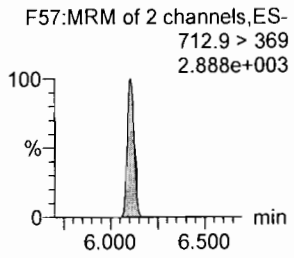
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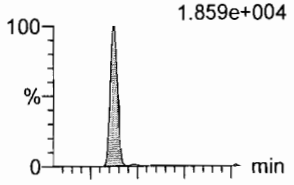


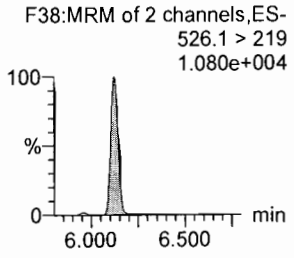
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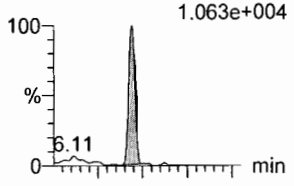


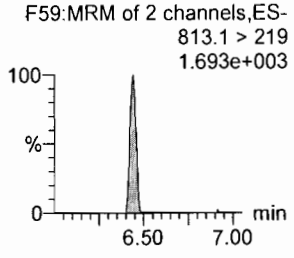
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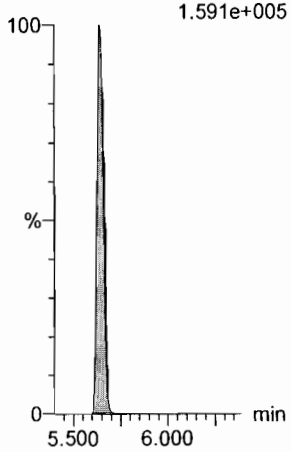


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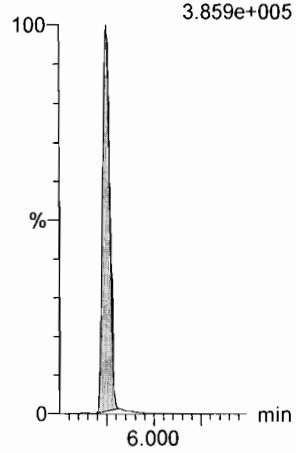




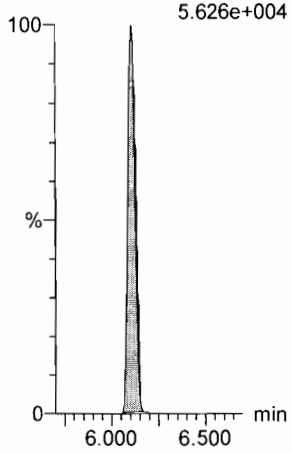
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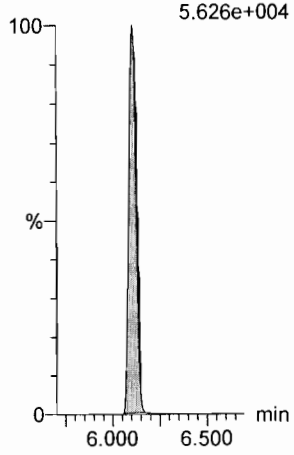
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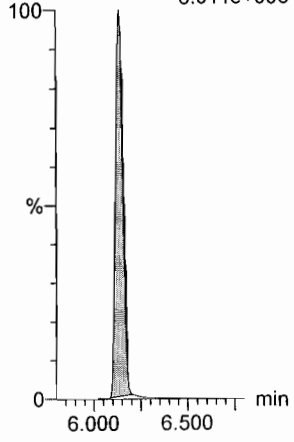
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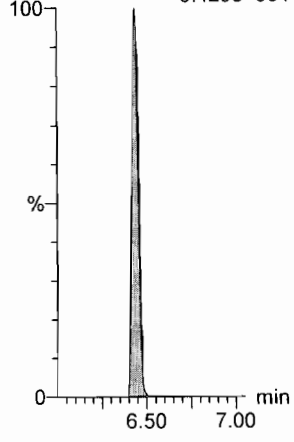
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d5-N-ETFOSA



13C2-PFHxDA

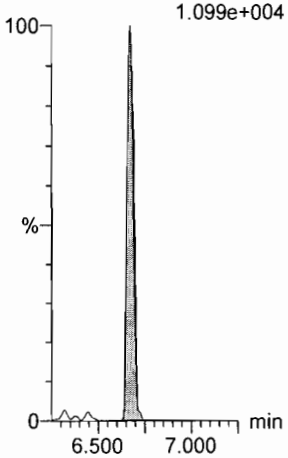


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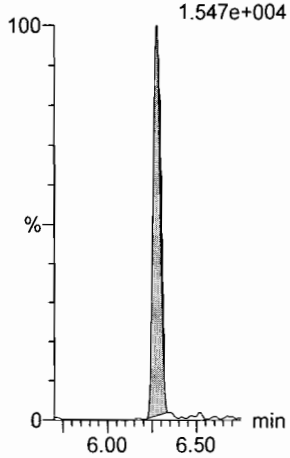
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Printed: Friday, January 12, 2018 09:11:21 Pacific Standard Time

Name: 180112M1_1, Date: 12-Jan-2018, Time: 08:42:48, ID: ST180112M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

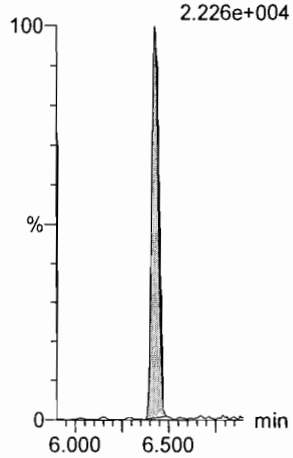
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.099e+004



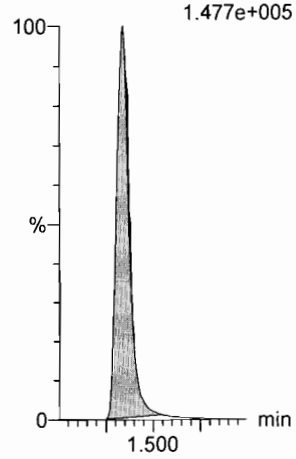
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.547e+004



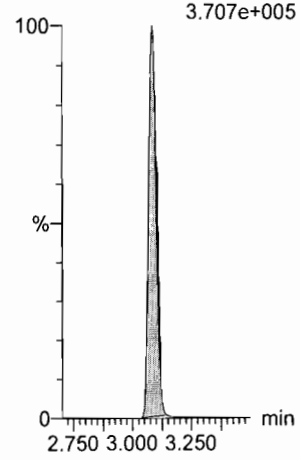
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.226e+004



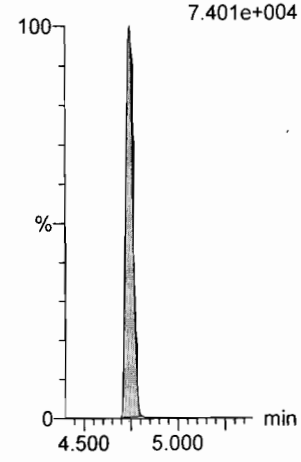
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.477e+005



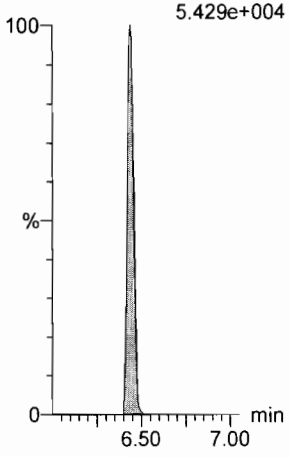
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.707e+005



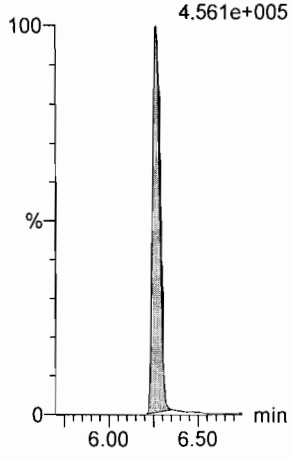
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.401e+004



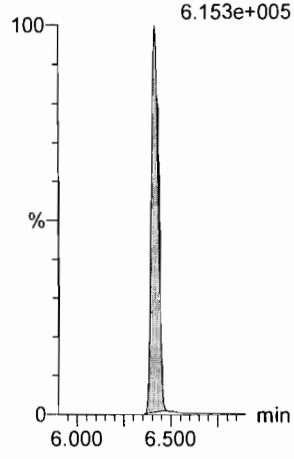
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.429e+004



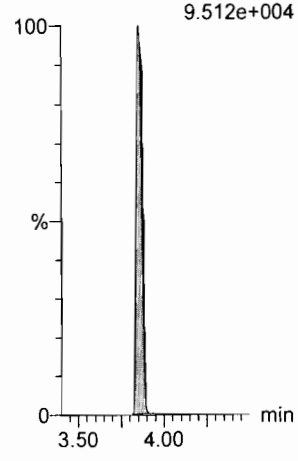
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.561e+005



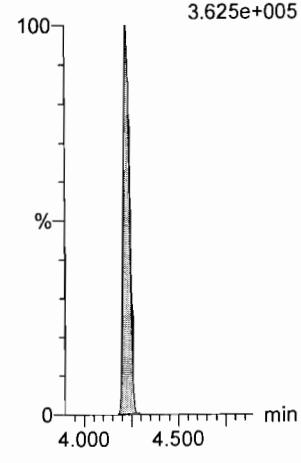
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.153e+005



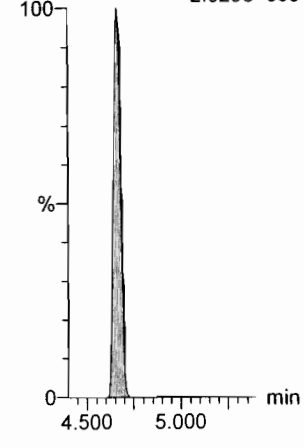
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.512e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.625e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.929e+005

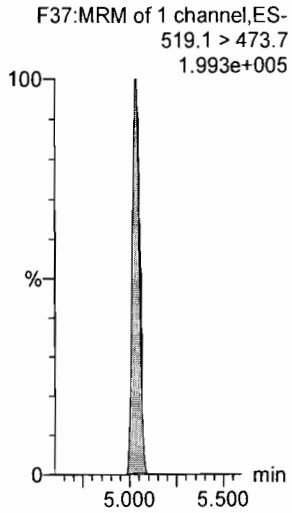


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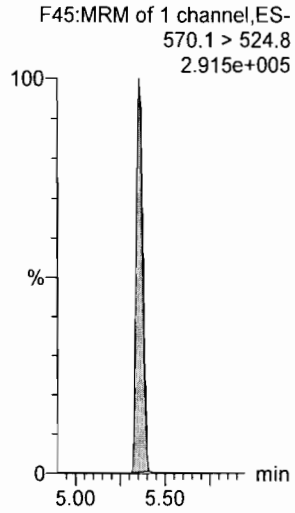
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Printed: Friday, January 12, 2018 09:11:21 Pacific Standard Time

Name: 180112M1_1, Date: 12-Jan-2018, Time: 08:42:48, ID: ST180112M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M1\180112M1-5.qld

Last Altered: Friday, January 12, 2018 09:41:27 Pacific Standard Time
Printed: Friday, January 12, 2018 09:41:59 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/12/18

Name: 180112M1_5, Date: 12-Jan-2018, Time: 09:34:03, ID: ST180112M1-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	12	PFNA	463.0 > 418.8	1.83e4	1.45e4	1.0000		4.81	4.66	15.8	11.1	111.3	70-130
2	39	13C5-PFNA	468.2 > 422.9	1.45e4	1.97e4	1.0000	0.817	4.81	4.66	9.18	11.2	89.9	50-150
3	58	13C9-PFNA	472.2 > 426.9	1.97e4	1.97e4	1.0000	1.000	4.81	4.66	12.5	12.5	100.0	

VJA. 01/12/2018

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 12, 2018 09:42:57 Pacific Standard Time
Printed: Friday, January 12, 2018 09:43:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M1_1	ST180112M1-1 PFC CS0 17L2608	12-Jan-18	08:42:48
2	180112M1_2	IPA	12-Jan-18	08:53:59
3	180112M1_3	1701832-07@10X SA-PZ124-20171201 0.221...	12-Jan-18	09:10:20
4	180112M1_4	1701832-08@10X SA-DUP05-20171201 0.23...	12-Jan-18	09:22:10
5	180112M1_5	ST180112M1-2 PFC CS3 17L2611	12-Jan-18	09:34:03

Vista Analytical Laboratory

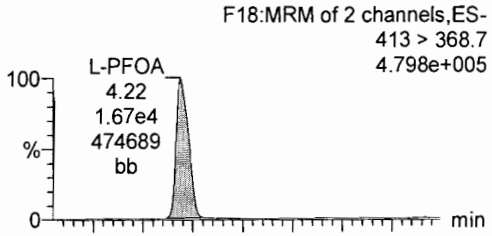
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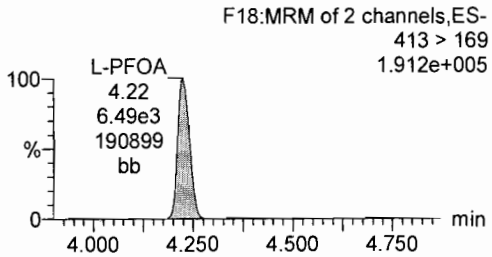
Last Altered: Friday, January 12, 2018 09:41:27 Pacific Standard Time
Printed: Friday, January 12, 2018 09:41:59 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

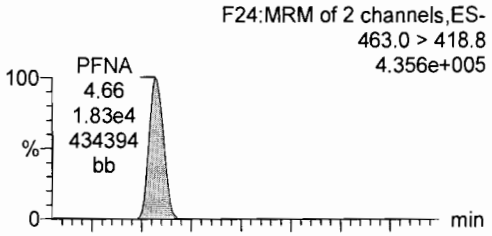
Name: 180112M1_5, Date: 12-Jan-2018, Time: 09:34:03, ID: ST180112M1-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

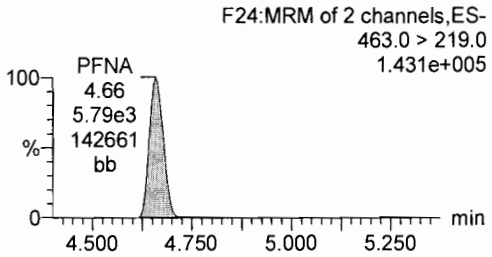
Total PFOA



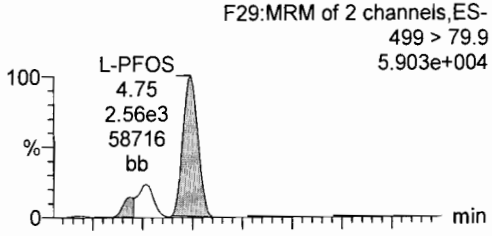


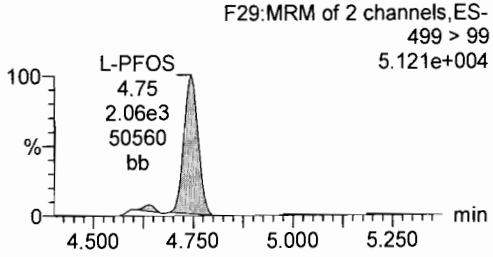
PFNA



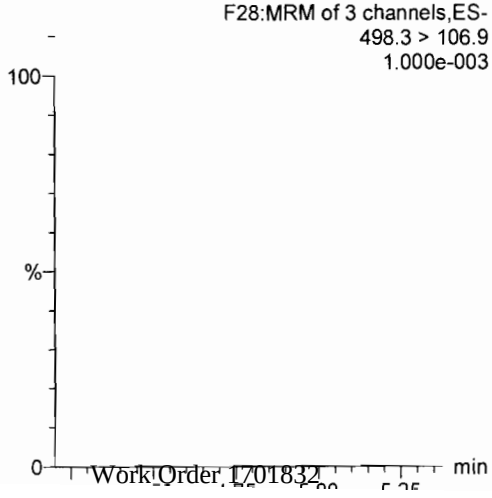


Total PFOS

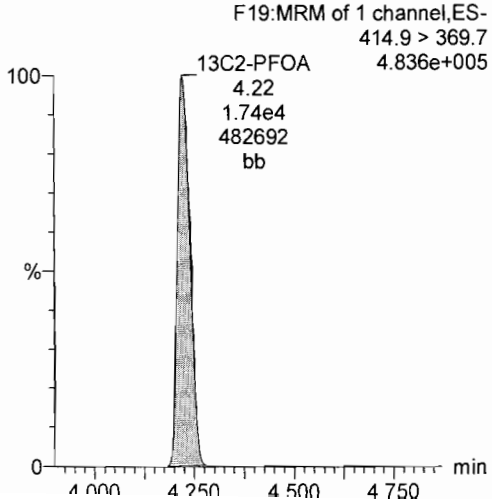




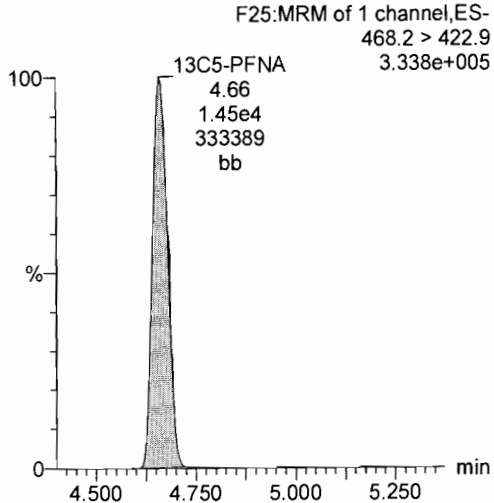
TCDA



13C2-PFOA



13C5-PFNA

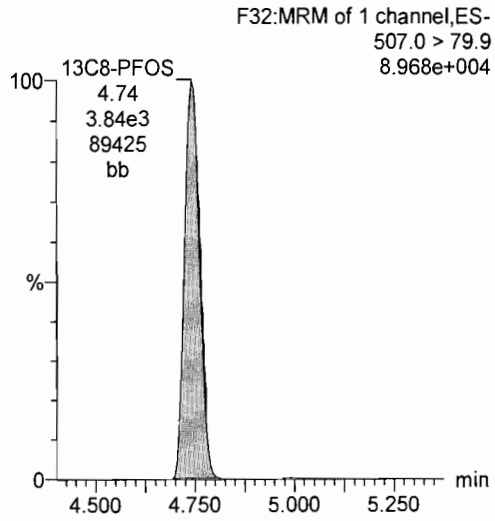


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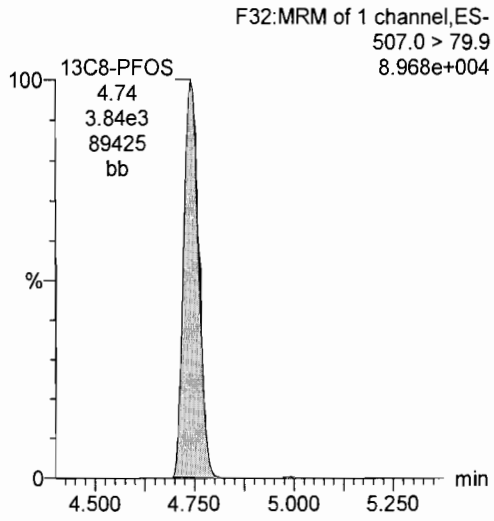
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Printed: Friday, January 12, 2018 09:41:59 Pacific Standard Time

Name: 180112M1_5, Date: 12-Jan-2018, Time: 09:34:03, ID: ST180112M1-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C8-PFOS



13C8-PFOS

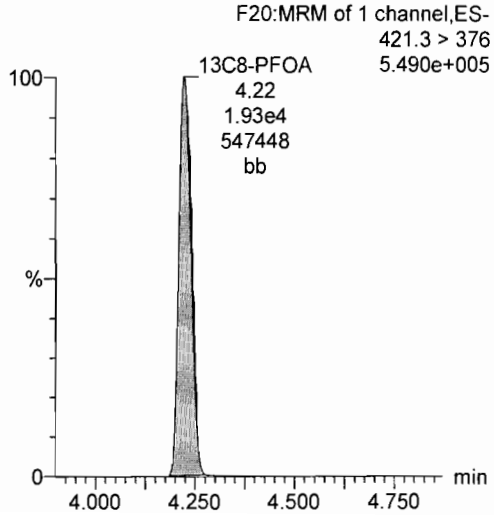


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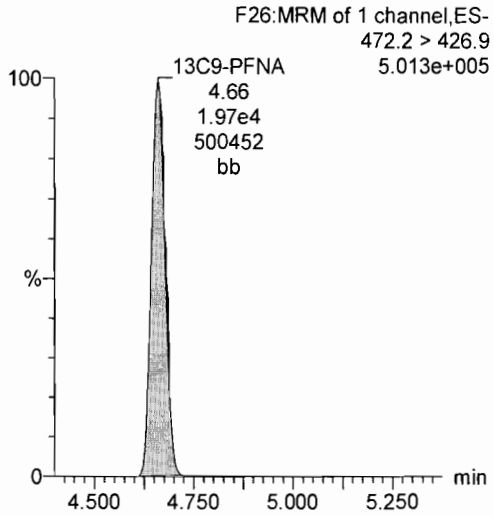
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Printed: Friday, January 12, 2018 09:41:59 Pacific Standard Time

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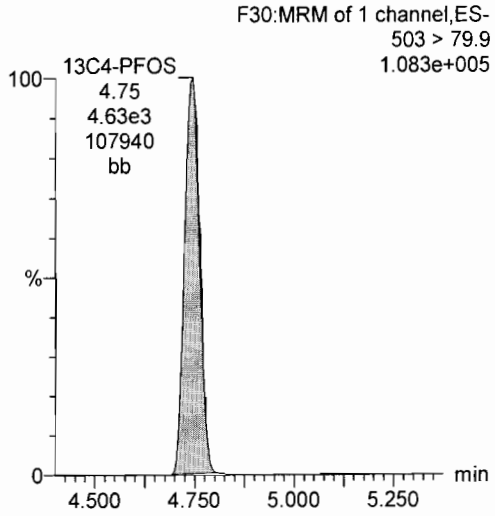
13C8-PFOA



13C9-PFNA



13C4-PFOS



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M2\180112M2-IIS.qld

Last Altered: Friday, January 12, 2018 14:35:16 Pacific Standard Time
Printed: Friday, January 12, 2018 15:40:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-29-17.mdb 30 Dec 2017 10:03:31
Calibration: 12 Jan 2018 14:35:16

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180112M2-1 PFC CS0 17L2608	1.42e4	100.0	NO
2	2	13C5-PFHxA	ST180112M2-1 PFC CS0 17L2608	1.65e4	100.0	NO
3	3	13C3-PFHxS	ST180112M2-1 PFC CS0 17L2608	4.38e3	100.0	NO
4	4	13C8-PFOA	ST180112M2-1 PFC CS0 17L2608	1.62e4	100.0	NO
5	5	13C9-PFNA	ST180112M2-1 PFC CS0 17L2608	1.70e4	100.0	NO
6	6	13C4-PFOS	ST180112M2-1 PFC CS0 17L2608	3.88e3	100.0	NO
7	7	13C6-PFDA	ST180112M2-1 PFC CS0 17L2608	1.05e4	100.0	NO
8	8	13C7-PFUdA	ST180112M2-1 PFC CS0 17L2608	1.75e4	100.0	NO

Name: 180112M2_2, Date: 12-Jan-2018, Time: 10:24:41, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180112M2_3, Date: 12-Jan-2018, Time: 11:11:50, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-11 SW-DP01-20171201 0.260...	8.65e3	60.8	NO
2	2	13C5-PFHxA	1701832-11 SW-DP01-20171201 0.260...	1.06e4	64.1	NO
3	3	13C3-PFHxS	1701832-11 SW-DP01-20171201 0.260...	3.10e3	70.7	NO
4	4	13C8-PFOA	1701832-11 SW-DP01-20171201 0.260...	1.01e4	62.6	NO
5	5	13C9-PFNA	1701832-11 SW-DP01-20171201 0.260...	1.11e4	65.1	NO
6	6	13C4-PFOS	1701832-11 SW-DP01-20171201 0.260...	2.80e3	72.1	NO
7	7	13C6-PFDA	1701832-11 SW-DP01-20171201 0.260...	6.89e3	65.5	NO
8	8	13C7-PFUdA	1701832-11 SW-DP01-20171201 0.260...	1.17e4	67.2	NO

Name: 180112M2_4, Date: 12-Jan-2018, Time: 11:23:09, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-12 SA-SW204-20171201 0.25...	1.01e4	70.7	NO
2	2	13C5-PFHxA	1701832-12 SA-SW204-20171201 0.25...	1.23e4	74.6	NO
3	3	13C3-PFHxS	1701832-12 SA-SW204-20171201 0.25...	3.16e3	72.1	NO
4	4	13C8-PFOA	1701832-12 SA-SW204-20171201 0.25...	1.15e4	71.0	NO
5	5	13C9-PFNA	1701832-12 SA-SW204-20171201 0.25...	1.24e4	73.2	NO
6	6	13C4-PFOS	1701832-12 SA-SW204-20171201 0.25...	3.50e3	90.1	NO
7	7	13C6-PFDA	1701832-12 SA-SW204-20171201 0.25...	6.44e3	61.3	NO

ANP 1/12/2018

Dataset: U:\Q4.PRO\results\180112M2\180112M2-IIS.qld

Last Altered: Friday, January 12, 2018 14:35:16 Pacific Standard Time
Printed: Friday, January 12, 2018 15:40:27 Pacific Standard Time

Name: 180112M2_4, Date: 12-Jan-2018, Time: 11:23:09, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	ID	Area	%Rec	Area Out
8	8	13C7-PFUdA	1701832-12 SA-SW204-20171201 0.25...	1.01e4	57.9	NO

Name: 180112M2_5, Date: 12-Jan-2018, Time: 11:34:29, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-13 SA-SW204-FRB-20171201...	1.08e4	75.9	NO
2	2	13C5-PFHxA	1701832-13 SA-SW204-FRB-20171201...	1.15e4	69.6	NO
3	3	13C3-PFHxS	1701832-13 SA-SW204-FRB-20171201...	3.35e3	76.5	NO
4	4	13C8-PFOA	1701832-13 SA-SW204-FRB-20171201...	1.23e4	76.3	NO
5	5	13C9-PFNA	1701832-13 SA-SW204-FRB-20171201...	1.15e4	67.7	NO
6	6	13C4-PFOS	1701832-13 SA-SW204-FRB-20171201...	3.07e3	79.0	NO
7	7	13C6-PFDA	1701832-13 SA-SW204-FRB-20171201...	8.68e3	82.6	NO
8	8	13C7-PFUdA	1701832-13 SA-SW204-FRB-20171201...	9.94e3	56.8	NO

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180112M2-2 PFC CS3 17L2611	1.85e4	130.2	NO
2	2	13C5-PFHxA	ST180112M2-2 PFC CS3 17L2611	2.18e4	131.8	NO
3	3	13C3-PFHxS	ST180112M2-2 PFC CS3 17L2611	5.47e3	124.7	NO
4	4	13C8-PFOA	ST180112M2-2 PFC CS3 17L2611	1.86e4	114.9	NO
5	5	13C9-PFNA	ST180112M2-2 PFC CS3 17L2611	1.81e4	106.6	NO
6	6	13C4-PFOS	ST180112M2-2 PFC CS3 17L2611	5.32e3	136.9	NO
7	7	13C6-PFDA	ST180112M2-2 PFC CS3 17L2611	1.42e4	135.4	NO
8	8	13C7-PFUdA	ST180112M2-2 PFC CS3 17L2611	2.14e4	122.4	NO

ANP 1/12/2018

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Dataset: U:\Q4.PRO\results\180112M2\180112M2-1.qld

Last Altered: Friday, January 12, 2018 11:22:41 Pacific Standard Time
Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/12/18

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

✓ JA 01/12/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	1.06e3	1.06e4		1.38	1.33	1.25	0.881	88.1	NO
2	2	PFPeA	263.1 > 218.9	1.18e3	1.31e4		2.37	2.29	1.12	0.934	93.4	NO
3	3	PFBS	299.0 > 79.7	2.92e2	1.61e3		2.66	2.58	2.26	1.06	106.3	NO
4	4	PFHxA	313.2 > 268.9	1.46e3	3.98e3		3.15	3.07	1.83	0.957	95.7	NO
5	5	PFHpA	363.0 > 318.9	1.21e3	1.01e4		3.78	3.70	1.50	0.982	98.2	NO
6	6	L-PFHxS	398.9 > 79.6	1.76e2	1.34e3		3.94	3.84	1.64	0.872	87.2	NO
7	8	6:2 FTS	427.1 > 407	3.26e2	1.34e3		4.25	4.16	3.04	1.06	106.4	NO
8	9	L-PFOA	413 > 368.7	1.64e3	1.44e4		4.31	4.22	1.43	0.985	98.5	NO
9	11	PFHpS	449 > 80.0	3.47e2	1.44e4		4.42	4.33	0.302	1.13	112.6	NO
10	12	PFNA	463.0 > 418.8	1.40e3	1.32e4		4.81	4.65	1.33	0.939	93.9	NO
11	13	PFOSA	498.1 > 77.8	3.74e2	3.91e3		4.87	4.71	1.20	0.888	88.8	NO
12	14	L-PFOS	499 > 79.9	2.88e2	3.65e3		4.75	4.74	0.988	0.814	81.4	NO
13	16	PFDA	513 > 468.8	1.18e3	1.14e4		5.18	5.02	1.30	0.956	95.6	NO
14	17	8:2 FTS	527 > 506.9	2.63e2	1.14e4		5.15	5.00	0.289	1.04	103.5	NO
15	18	N-MeFOSAA	570.1 > 419	6.79e2	4.76e3		5.32	5.18	1.78	1.02	102.5	NO
16	19	N-EtFOSAA	584.2 > 419	5.17e2	5.96e3		5.48	5.33	1.08	0.939	93.9	NO
17	20	PFUdA	563.0 > 518.9	1.21e3	1.43e4		5.50	5.35	1.06	0.867	86.7	NO
18	21	PFDS	598.8 > 80	3.55e2	1.43e4		5.54	5.40	0.310	0.855	85.5	NO
19	22	PFDoA	612.9 > 569.0	1.74e3	9.26e3		5.77	5.63	2.34	1.05	104.5	NO
20	23	N-MeFOSA	512.1 > 168.9	7.51e2	2.25e4		5.80	5.72	5.01	4.68	93.7	NO
21	24	PFTrDA	662.9 > 618.9	1.86e3	9.26e3		6.00	5.88	2.51	1.05	105.0	NO
22	25	PFTeDA	712.9 > 668.8	1.03e3	5.16e3		6.22	6.10	2.50	0.904	90.4	NO
23	26	N-EtFOSA	526.1 > 168.9	9.12e2	3.07e4		6.17	6.12	4.46	4.55	91.0	NO
24	27	PFHxDA	813.1 > 768.6	5.61e2	2.70e3		6.53	6.43	1.04	0.986	98.6	NO
25	28	PFODA	913.1 > 868.8	5.29e2	2.70e3		6.74	6.67	0.978	0.897	89.7	NO
26	29	N-MeFOSE	616.1 > 58.9	8.77e2	2.54e4		6.27	6.27	5.17	5.05	100.9	NO
27	30	N-EtFOSE	630.1 > 58.9	1.11e3	2.63e4		6.43	6.42	6.35	4.68	93.6	NO
28	31	13C3-PFBA	216.1 > 171.8	1.06e4	1.42e4	0.764	1.38	1.33	9.35	12.2	98.0	NO
29	32	13C3-PFPeA	266. > 221.8	1.31e4	1.65e4	0.730	2.37	2.29	9.94	13.6	108.9	NO
30	33	13C3-PFBS	302. > 98.8	1.61e3	1.65e4	0.095	2.77	2.58	1.22	12.8	102.2	NO
31	34	13C2-PFHxA	315 > 269.8	3.98e3	1.65e4	0.597	3.15	3.08	3.01	5.04	100.8	NO

70-130

50-150

Dataset: U:\Q4.PRO\results\180112M2\180112M2-1.qld

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Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	1.01e4	1.65e4	0.604	3.78	3.69	7.60	12.6	100.7	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.34e3	4.38e3	0.293	3.94	3.84	3.82	13.0	104.3	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.80e3	1.62e4	0.215	4.25	4.16	2.16	10.1	80.4	NO
35	38	13C2-PFOA	414.9 > 369.7	1.44e4	1.62e4	0.916	4.31	4.22	11.1	12.1	97.0	NO
36	39	13C5-PFNA	468.2 > 422.9	1.32e4	1.70e4	0.817	4.81	4.65	9.69	11.9	94.9	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.91e3	1.75e4	0.223	4.87	4.71	2.79	12.5	100.3	NO
38	41	13C8-PFOS	507.0 > 79.9	3.65e3	3.88e3	0.875	4.89	4.74	11.7	13.4	107.4	NO
39	42	13C2-PFDA	515.1 > 469.9	1.14e4	1.05e4	1.105	5.18	5.02	13.5	12.2	97.9	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.88e3	1.65e4	0.101	5.15	4.99	1.42	14.1	112.8	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.76e3	1.75e4	0.345	5.32	5.17	3.40	9.86	78.8	NO
42	45	d5-N-EtFOSAA	589.3 > 419	5.96e3	1.75e4	0.390	5.47	5.33	4.26	10.9	87.3	NO
43	46	13C2-PFUdA	565 > 519.8	1.43e4	1.75e4	0.958	5.49	5.35	10.2	10.7	85.5	NO
44	47	13C2-PFDoA	615.0 > 569.7	9.26e3	1.75e4	0.599	5.77	5.63	6.62	11.0	88.4	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	2.25e4	1.75e4	0.124	5.83	5.74	16.1	129	86.3	NO
46	49	13C2-PFTeDA	714.8 > 669.6	5.16e3	1.75e4	0.282	6.22	6.10	3.69	13.1	104.7	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	3.07e4	1.75e4	0.184	6.18	6.13	21.9	119	79.3	NO
48	51	13C2-PFHxDA	815 > 769.7	2.70e3	1.75e4	0.540	6.53	6.43	1.93	3.58	71.6	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.54e4	1.75e4	0.182	6.27	6.26	18.2	99.7	66.5	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.63e4	1.75e4	0.173	6.42	6.41	18.8	109	72.7	NO
51	54	13C4-PFBA	217. > 171.8	1.42e4	1.42e4	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.65e4	1.65e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	4.38e3	4.38e3	1.000	4.02	3.84	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.62e4	1.62e4	1.000	4.38	4.21	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.70e4	1.70e4	1.000	4.81	4.65	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	3.88e3	3.88e3	1.000	4.89	4.73	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	1.05e4	1.05e4	1.000	5.18	5.02	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	1.75e4	1.75e4	1.000	5.49	5.35	12.5	12.5	100.0	NO

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 15:42:35 Pacific Standard Time
Printed: Friday, January 12, 2018 15:47:55 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 12 Jan 2018 15:42:35

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M2_1	ST180112M2-1 PFC CS0 17L2608	12-Jan-18	10:13:28
2	180112M2_2	IPA	12-Jan-18	10:24:41
3	180112M2_3	1701832-11 SW-DP01-20171201 0.26032	12-Jan-18	11:11:50
4	180112M2_4	1701832-12 SA-SW204-20171201 0.25842	12-Jan-18	11:23:09
5	180112M2_5	1701832-13 SA-SW204-FRB-20171201 0.259...	12-Jan-18	11:34:29
6	180112M2_6	ST180112M2-2 PFC CS3 17L2611	12-Jan-18	11:46:03

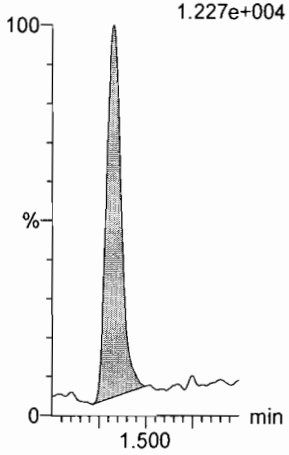
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Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

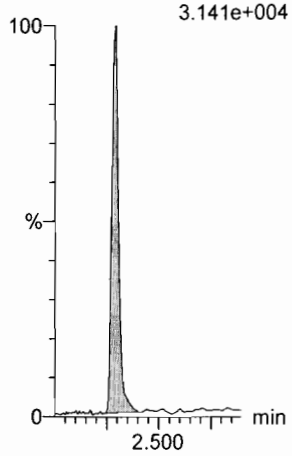
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

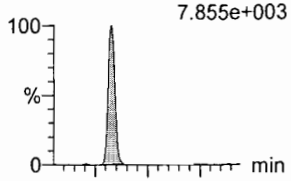
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.227e+004



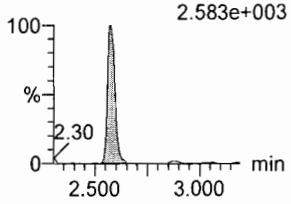
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
3.141e+004



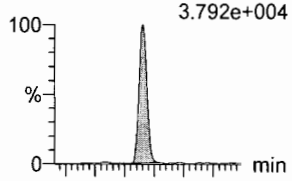
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
7.855e+003



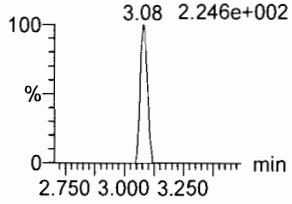
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.583e+003



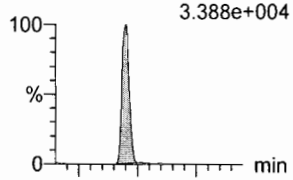
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.792e+004



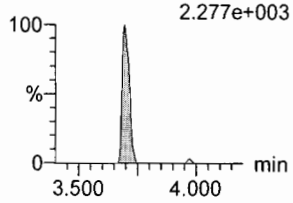
F8:MRM of 2 channels,ES-
313.2 > 119
3.08 2.246e+002



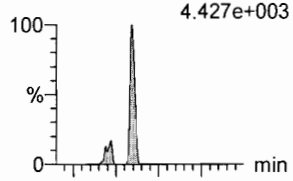
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.388e+004



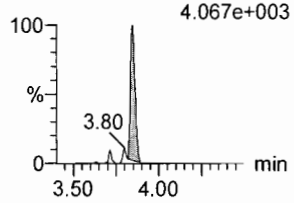
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.277e+003



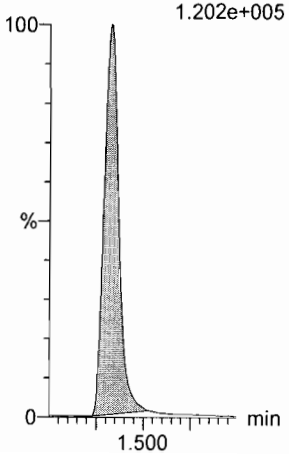
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
4.427e+003



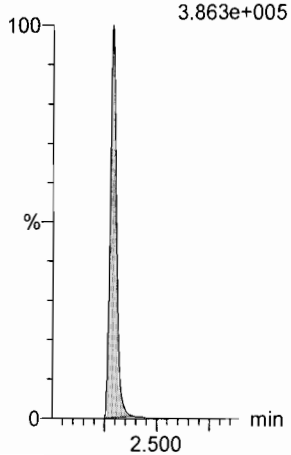
F15:MRM of 2 channels,ES-
398.9 > 99.0
4.067e+003



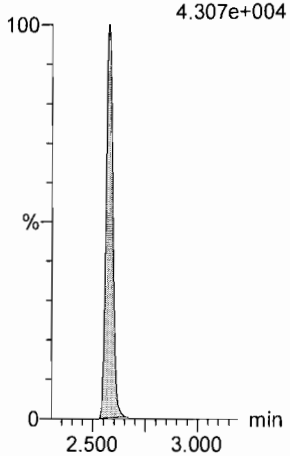
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.202e+005



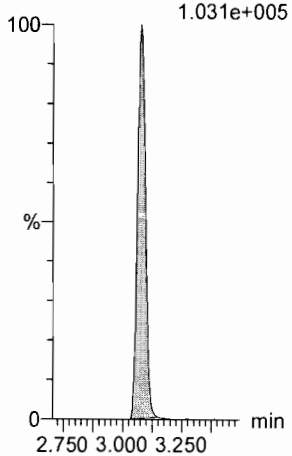
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.863e+005



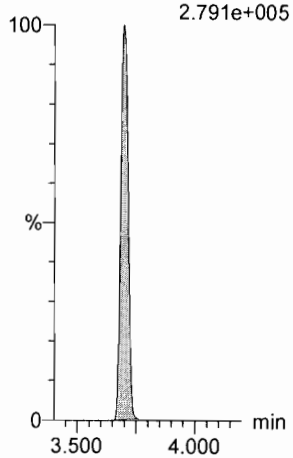
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.307e+004



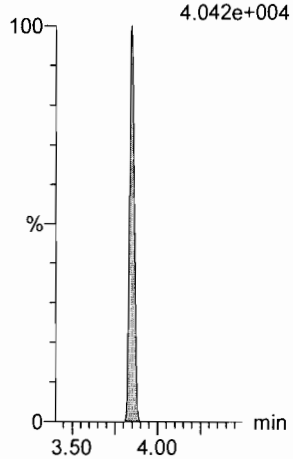
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.031e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.791e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.042e+004

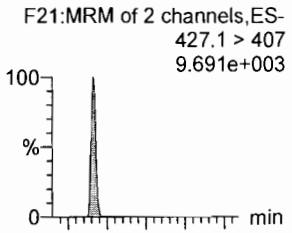


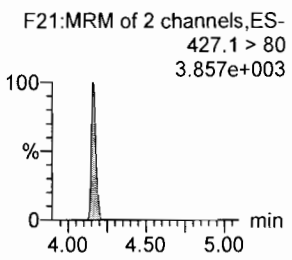
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Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

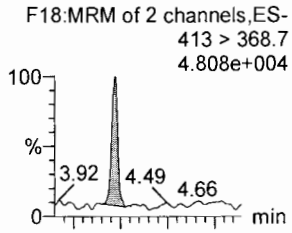
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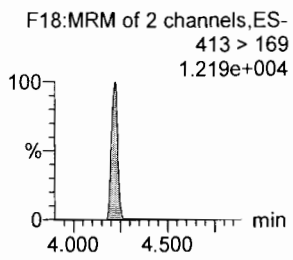
6:2 FTS



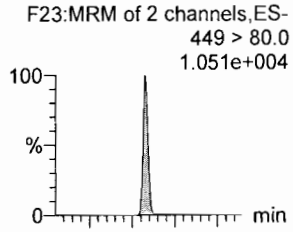


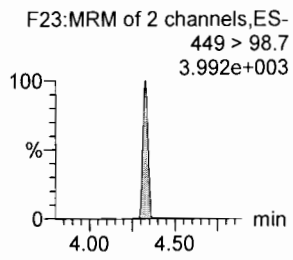
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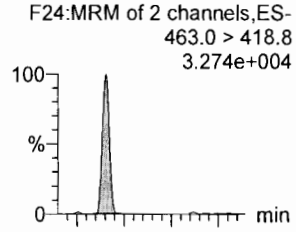


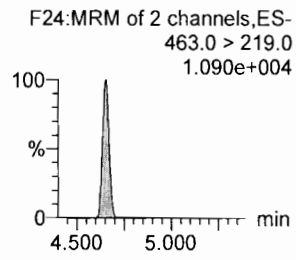
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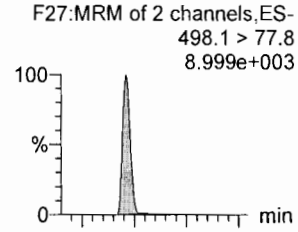


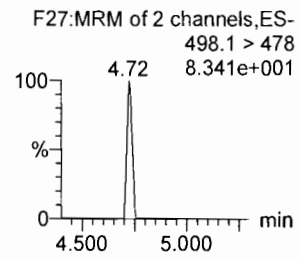
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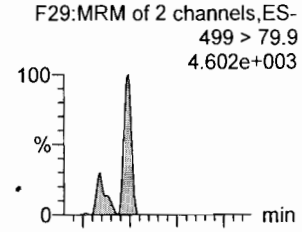


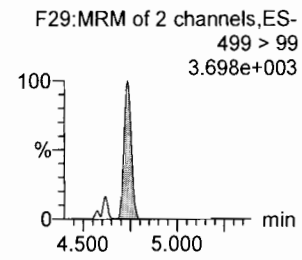
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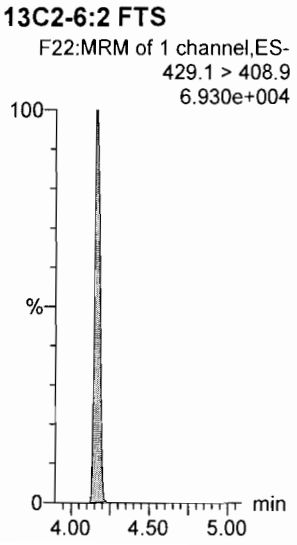


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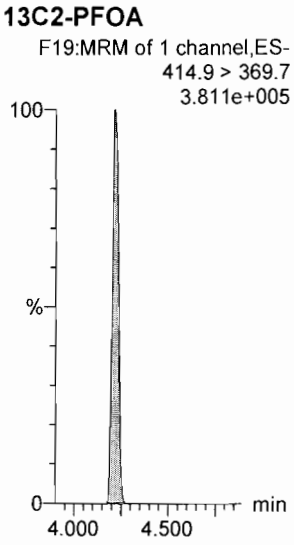




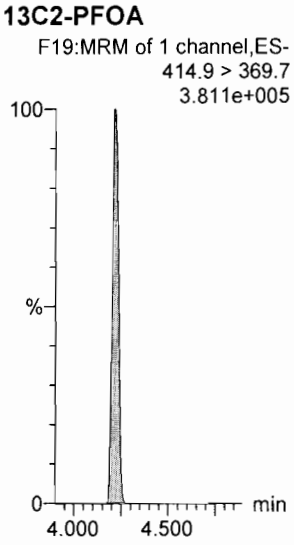
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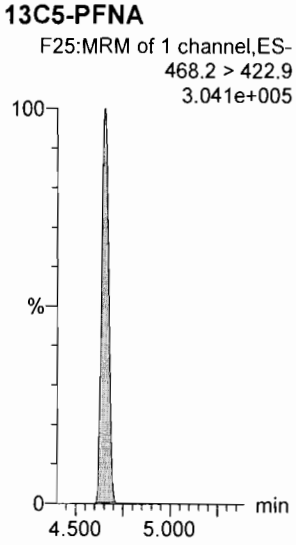
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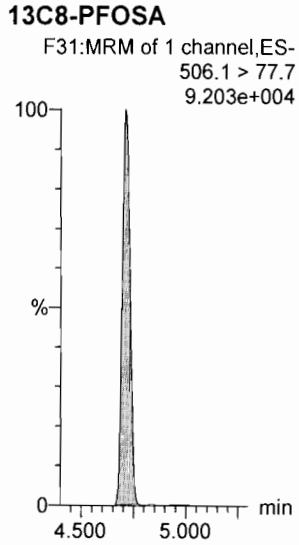
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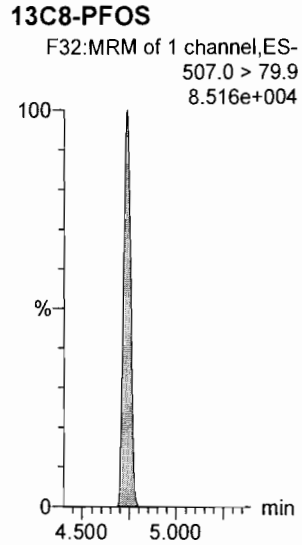
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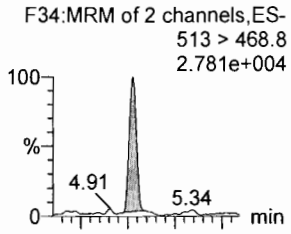


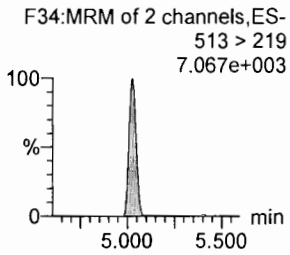
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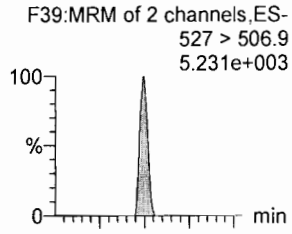
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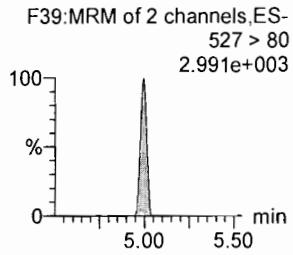
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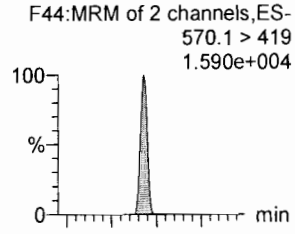


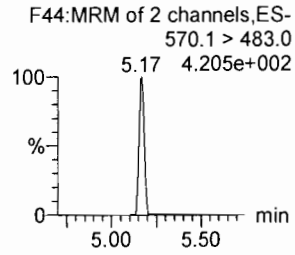
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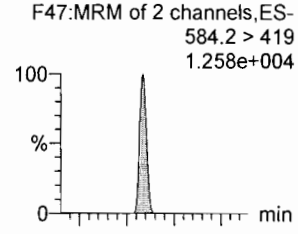


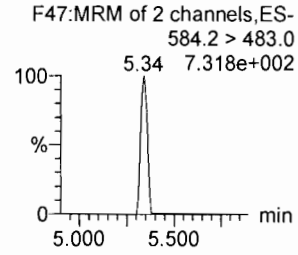
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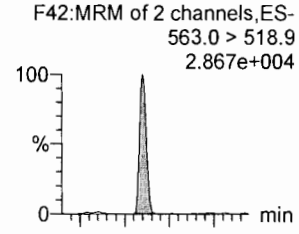


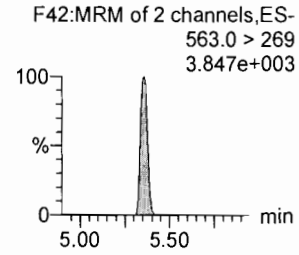
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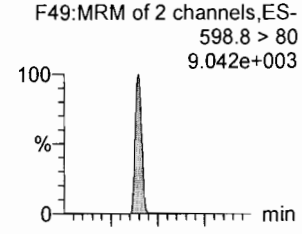


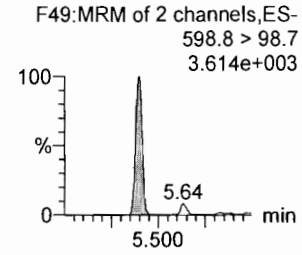
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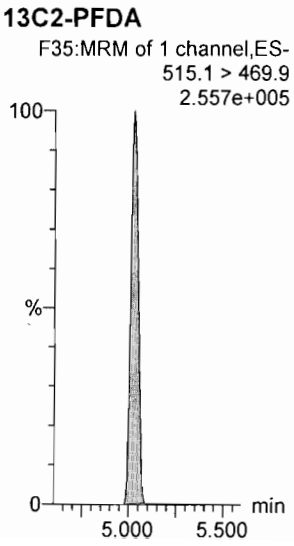


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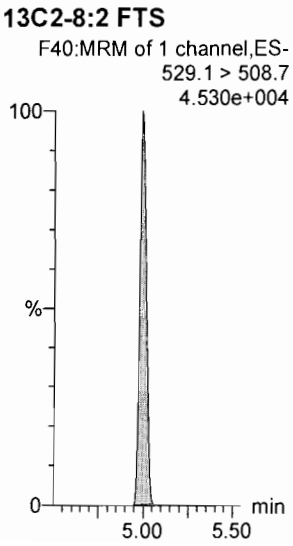




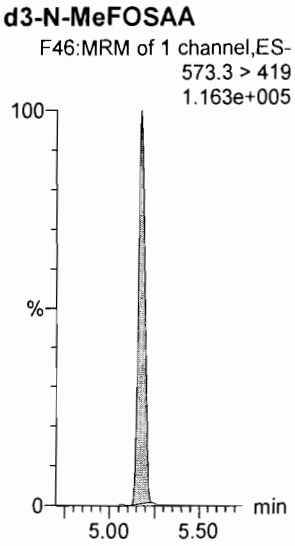
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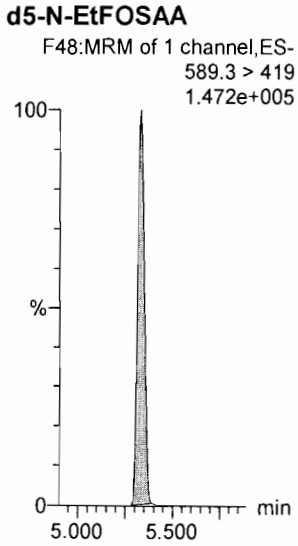
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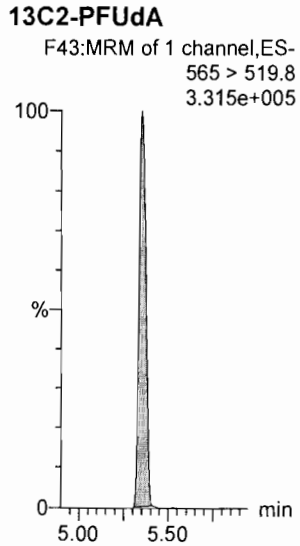
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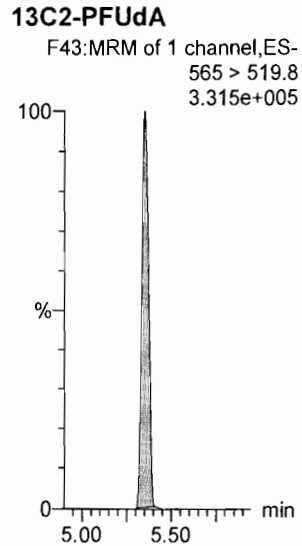
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13C2-PFUdA



13C2-PFUdA

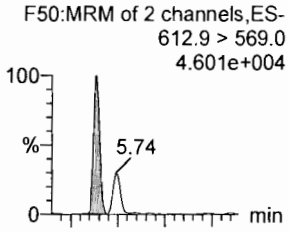


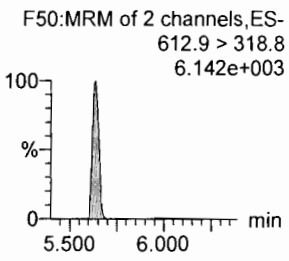
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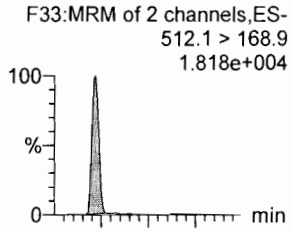
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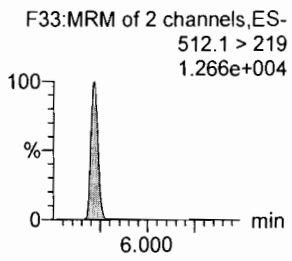
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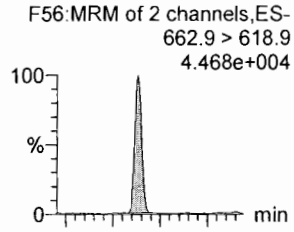


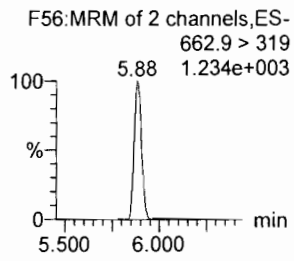
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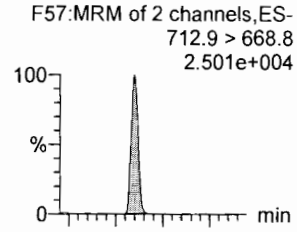


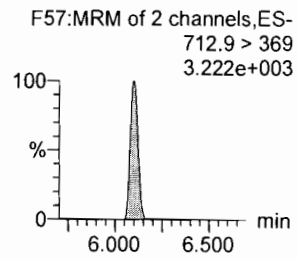
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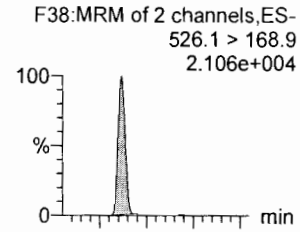


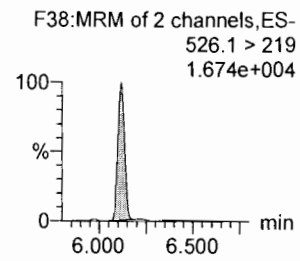
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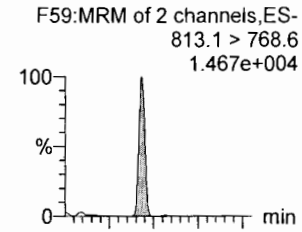


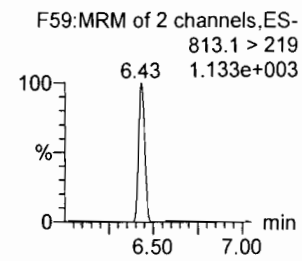
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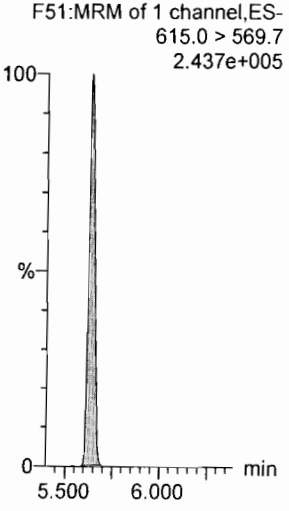


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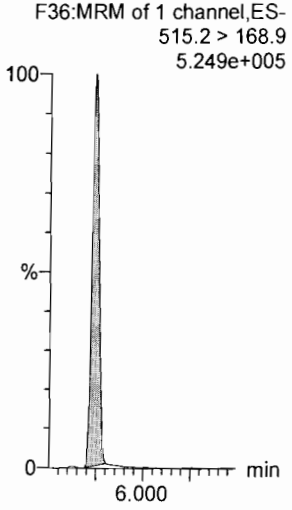




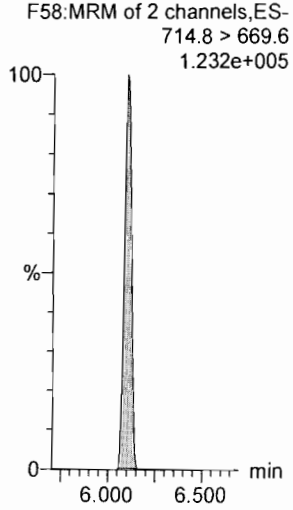
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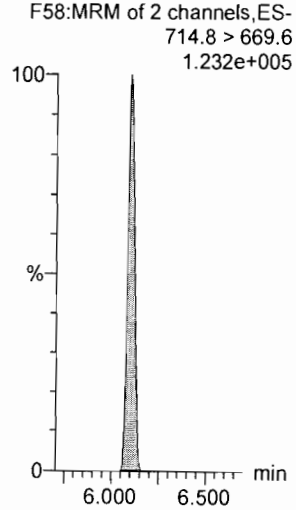
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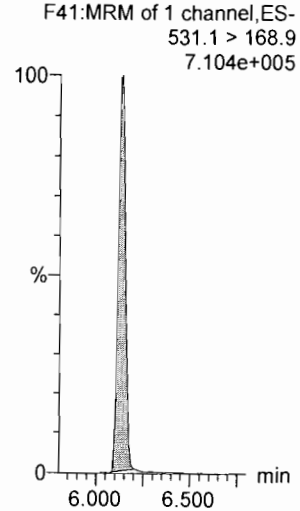
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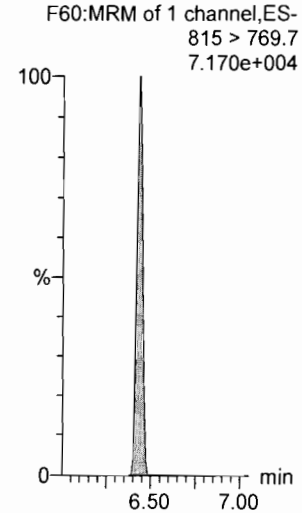
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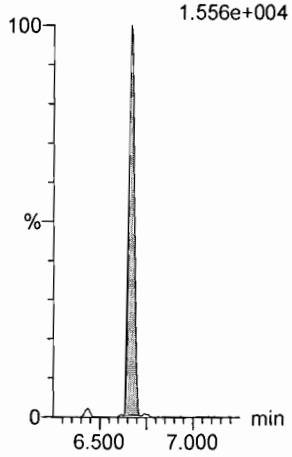


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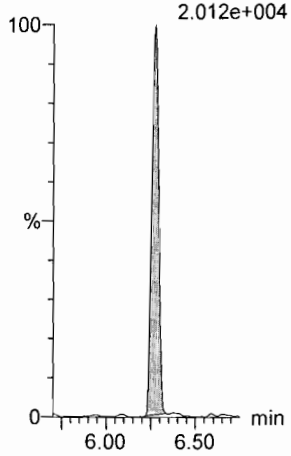
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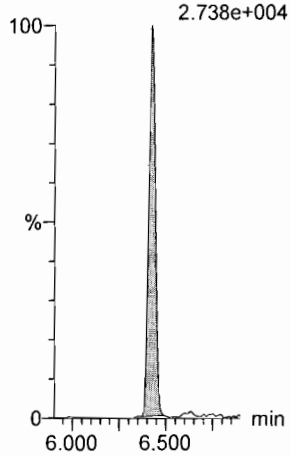
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913.1 > 868.8
1.556e+004



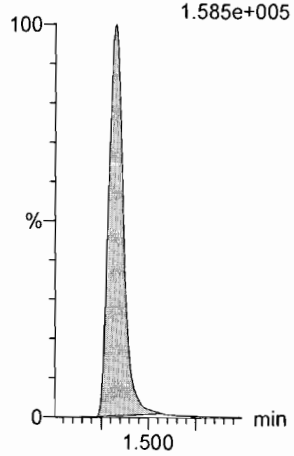
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.012e+004



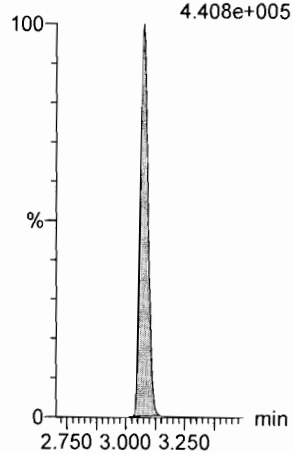
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.738e+004



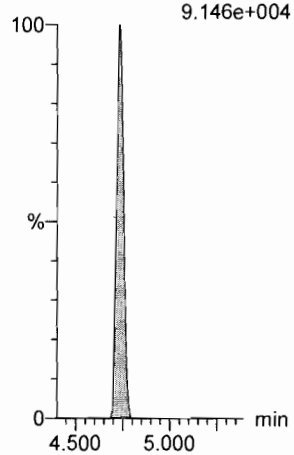
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.585e+005



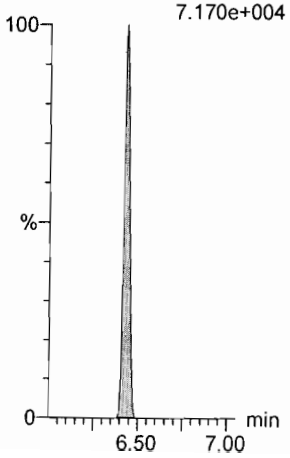
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.408e+005



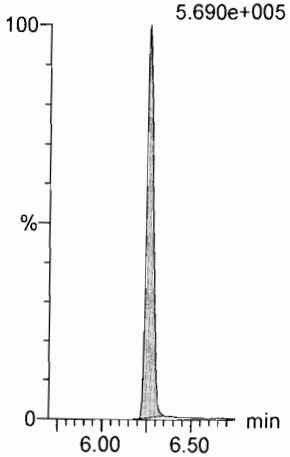
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.146e+004



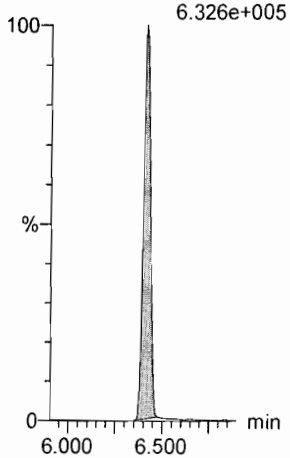
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.170e+004



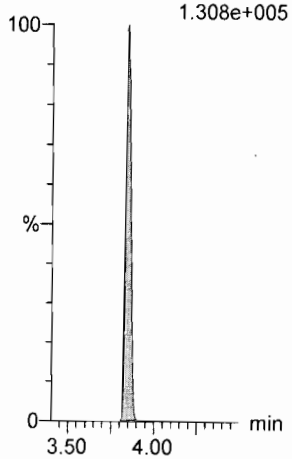
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.690e+005



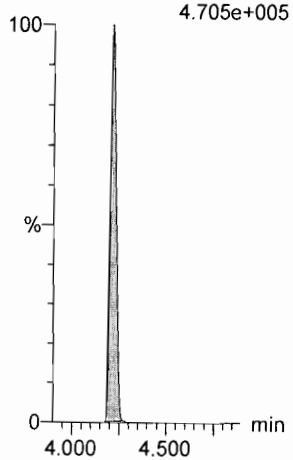
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.326e+005



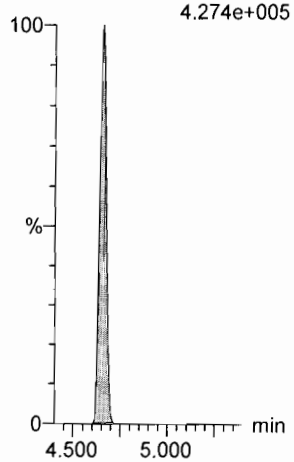
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.308e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.705e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.274e+005



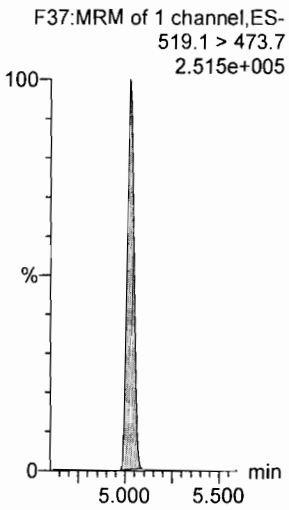
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Dataset: U:\Q4.PRO\results\180112M2\180112M2-1.qld

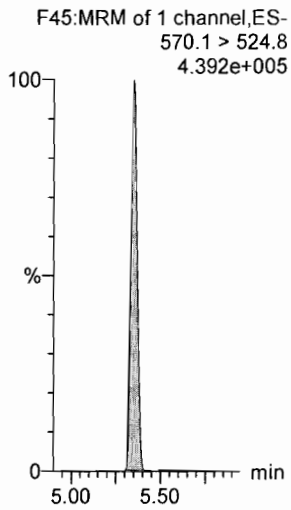
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Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\180112M2\180112M2-6.qld

Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

(A) DoA > 130%

1/12/18

JA 01/12/2018

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	1.60e4	1.39e4		1.38	1.33	14.4	9.82	98.2	NO
2	2	PFPeA	263.1 > 218.9	1.63e4	1.56e4		2.37	2.30	13.1	10.4	104.0	NO
3	3	PFBS	299.0 > 79.7	3.65e3	2.19e3		2.66	2.59	20.8	9.77	97.7	NO
4	4	PFHxA	313.2 > 268.9	2.13e4	5.15e3		3.15	3.09	20.7	10.7	107.0	NO
5	5	PFHpA	363.0 > 318.9	1.70e4	1.34e4		3.78	3.70	15.9	9.70	97.0	NO
6	6	L-PFHxS	398.9 > 79.6	2.89e3	1.79e3		3.94	3.85	20.2	9.64	96.4	NO
7	8	6:2 FTS	427.1 > 407	3.61e3	1.79e3		4.25	4.17	25.2	8.31	83.1	NO
8	9	L-PFOA	413 > 368.7	1.90e4	1.79e4		4.31	4.23	13.2	10.3	103.5	NO
9	11	PFHpS	449 > 80.0	4.50e3	1.79e4		4.42	4.33	3.14	10.6	106.3	NO
10	12	PFNA	463.0 > 418.8	1.87e4	1.52e4		4.81	4.66	15.3	10.8	108.2	NO
11	13	PFOSA	498.1 > 77.8	4.65e3	3.70e3		4.87	4.72	15.7	12.0	119.7	NO
12	14	L-PFOS	499 > 79.9	4.32e3	4.92e3		4.75	4.74	11.0	9.31	93.1	NO
13	16	PFDA	513 > 468.8	1.90e4	1.44e4		5.18	5.03	16.5	10.1	100.8	NO
14	17	8:2 FTS	527 > 506.9	3.35e3	1.44e4		5.15	5.00	2.91	9.21	92.1	NO
15	18	N-MeFOSAA	570.1 > 419	9.55e3	5.74e3		5.32	5.19	20.8	10.4	104.4	NO
16	19	N-EtFOSAA	584.2 > 419	8.24e3	7.87e3		5.48	5.34	13.1	8.56	85.6	NO
17	20	PFUdA	563.0 > 518.9	2.01e4	1.75e4		5.50	5.36	14.4	10.9	108.8	NO
18	21	PFDS	598.8 > 80	5.30e3	1.75e4		5.54	5.40	3.79	10.1	101.5	NO
19	22	PFDoA	612.9 > 569.0	1.95e4	8.55e3		5.77	5.64	28.4	13.3	(A) 133.5	YES
20	23	N-MeFOSA	512.1 > 168.9	9.65e3	2.55e4		5.80	5.73	56.8	51.5	103.0	NO
21	24	PFTrDA	662.9 > 618.9	1.96e4	8.55e3		6.00	5.89	28.6	12.0	119.6	NO
22	25	PFTeDA	712.9 > 668.8	9.00e3	3.43e3		6.22	6.11	32.8	11.1	111.0	NO
23	26	N-EtFOSA	526.1 > 168.9	1.33e4	3.94e4		6.17	6.13	50.6	49.7	99.4	NO
24	27	PFHxDA	813.1 > 768.6	6.67e3	3.05e3		6.53	6.44	10.9	11.2	111.7	NO
25	28	PFODA	913.1 > 868.8	8.46e3	3.05e3		6.74	6.67	13.8	10.8	108.2	NO
26	29	N-MeFOSE	616.1 > 58.9	1.47e4	3.60e4		6.27	6.27	61.5	53.1	106.1	NO
27	30	N-EtFOSE	630.1 > 58.9	1.54e4	3.61e4		6.43	6.43	64.2	45.9	91.9	NO
28	31	13C3-PFBA	216.1 > 171.8	1.39e4	1.85e4	0.764	1.38	1.33	9.39	12.3	98.4	NO
29	32	13C3-PFPeA	266. > 221.8	1.56e4	2.18e4	0.730	2.37	2.31	8.93	12.2	97.8	NO
30	33	13C3-PFBS	302. > 98.8	2.19e3	2.18e4	0.095	2.77	2.59	1.26	13.2	105.3	NO
31	34	13C2-PFHxA	315 > 269.8	5.15e3	2.18e4	0.597	3.15	3.09	2.95	4.95	99.0	NO

70-130

50-150

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Dataset: U:\Q4.PRO\results\180112M2\180112M2-6.qld

Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	1.34e4	2.18e4	0.604	3.78	3.70	7.66	12.7	101.4	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.79e3	5.47e3	0.293	3.94	3.85	4.09	13.9	111.6	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	4.45e3	1.86e4	0.215	4.25	4.17	2.99	13.9	111.2	NO
35	38	13C2-PFOA	414.9 > 369.7	1.79e4	1.86e4	0.916	4.31	4.22	12.0	13.1	105.2	NO
36	39	13C5-PFNA	468.2 > 422.9	1.52e4	1.81e4	0.817	4.81	4.66	10.5	12.9	102.8	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.70e3	2.14e4	0.223	4.87	4.72	2.16	9.70	77.6	NO
38	41	13C8-PFOS	507.0 > 79.9	4.92e3	5.32e3	0.875	4.89	4.74	11.6	13.2	105.7	NO
39	42	13C2-PFDA	515.1 > 469.9	1.44e4	1.42e4	1.105	5.18	5.03	12.7	11.4	91.6	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.91e3	2.18e4	0.101	5.15	5.00	1.10	10.9	86.9	NO
41	44	d3-N-MeFOSAA	573.3 > 419	5.74e3	2.14e4	0.345	5.32	5.18	3.35	9.71	77.7	NO
42	45	d5-N-EtFOSAA	589.3 > 419	7.87e3	2.14e4	0.390	5.47	5.34	4.60	11.8	94.2	NO
43	46	13C2-PFUdA	565 > 519.8	1.75e4	2.14e4	0.958	5.49	5.36	10.2	10.7	85.3	NO
44	47	13C2-PFDoA	615.0 > 569.7	8.55e3	2.14e4	0.599	5.77	5.64	5.00	8.34	66.7	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	2.55e4	2.14e4	0.124	5.83	5.75	14.9	120	79.9	NO
46	49	13C2-PFTeDA	714.8 > 669.6	3.43e3	2.14e4	0.282	6.22	6.11	2.00	7.11	56.9	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	3.94e4	2.14e4	0.184	6.18	6.14	23.0	125	83.2	NO
48	51	13C2-PFHxDA	815 > 769.7	3.05e3	2.14e4	0.540	6.53	6.44	1.78	3.31	66.1	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	3.60e4	2.14e4	0.182	6.27	6.27	21.0	115	76.8	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	3.61e4	2.14e4	0.173	6.42	6.41	21.1	122	81.4	NO
51	54	13C4-PFBA	217. > 171.8	1.85e4	1.85e4	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	2.18e4	2.18e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	5.47e3	5.47e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.86e4	1.86e4	1.000	4.38	4.23	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.81e4	1.81e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	5.32e3	5.32e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	1.42e4	1.42e4	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	2.14e4	2.14e4	1.000	5.49	5.36	12.5	12.5	100.0	NO

50-150

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 15:42:35 Pacific Standard Time
Printed: Friday, January 12, 2018 15:47:55 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 12 Jan 2018 15:42:35

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M2_1	ST180112M2-1 PFC CS0 17L2608	12-Jan-18	10:13:28
2	180112M2_2	IPA	12-Jan-18	10:24:41
3	180112M2_3	1701832-11 SW-DP01-20171201 0.26032	12-Jan-18	11:11:50
4	180112M2_4	1701832-12 SA-SW204-20171201 0.25842	12-Jan-18	11:23:09
5	180112M2_5	1701832-13 SA-SW204-FRB-20171201 0.259...	12-Jan-18	11:34:29
6	180112M2_6	ST180112M2-2 PFC CS3 17L2611	12-Jan-18	11:46:03

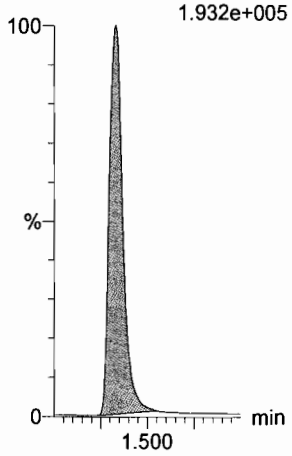
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Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

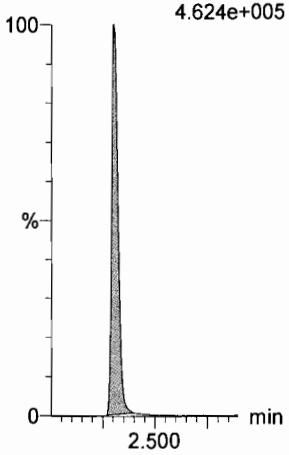
Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

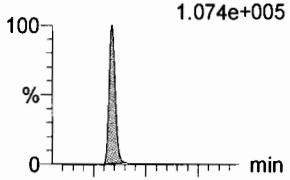
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.932e+005



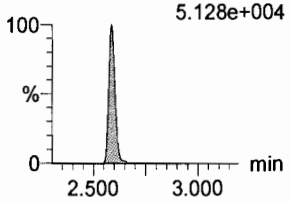
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
4.624e+005



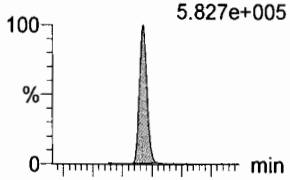
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
1.074e+005



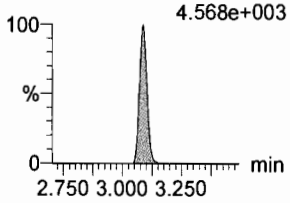
F6:MRM of 2 channels,ES-
299.0 > 99.0
5.128e+004



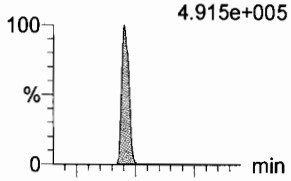
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
5.827e+005



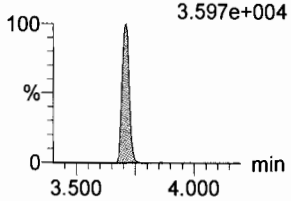
F8:MRM of 2 channels,ES-
313.2 > 119
4.568e+003



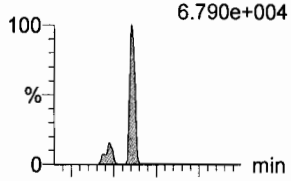
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
4.915e+005



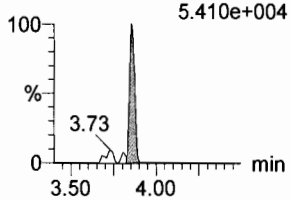
F13:MRM of 2 channels,ES-
363.0 > 169.0
3.597e+004



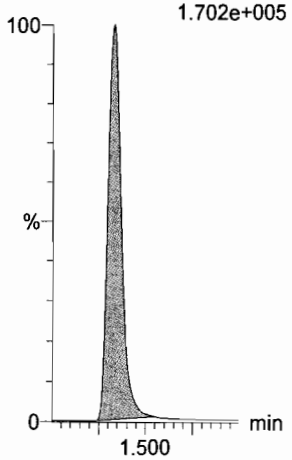
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
6.790e+004



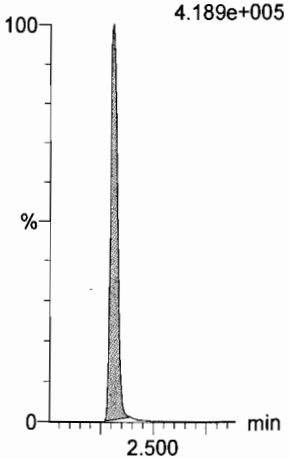
F15:MRM of 2 channels,ES-
398.9 > 99.0
5.410e+004



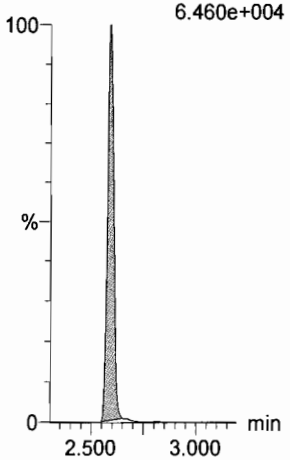
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.702e+005



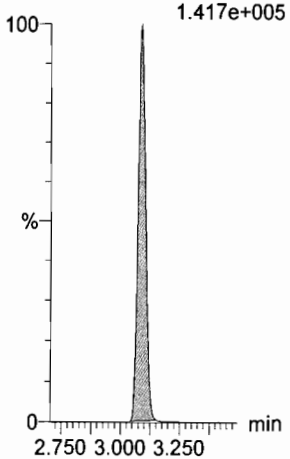
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
4.189e+005



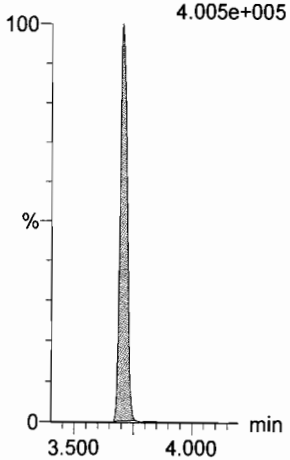
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
6.460e+004



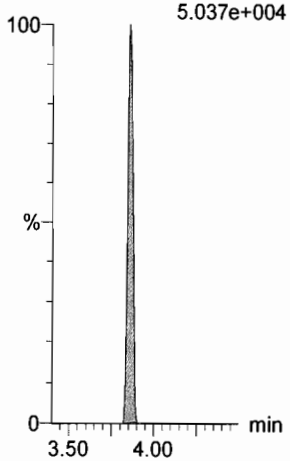
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.417e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
4.005e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
5.037e+004



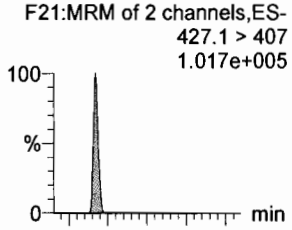
Vista Analytical Laboratory

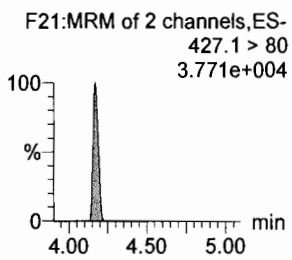
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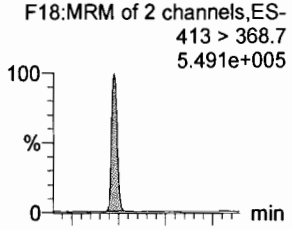
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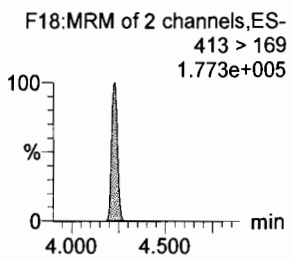
6:2 FTS



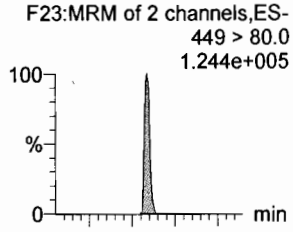


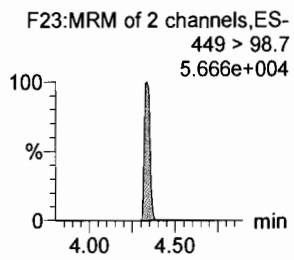
L-PFOA



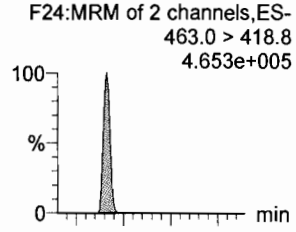


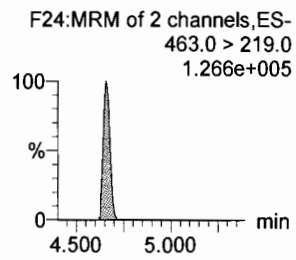
PFHpS



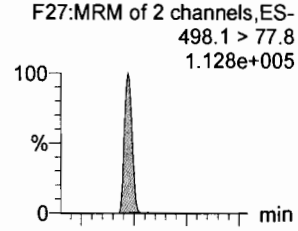


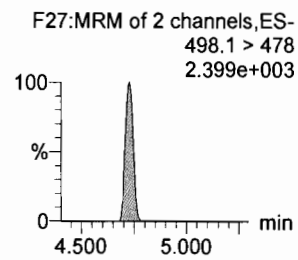
PFNA



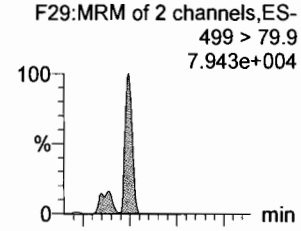


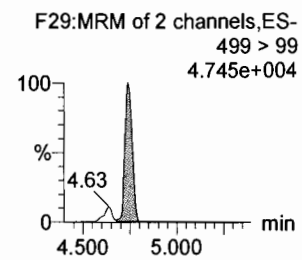
PFOSA



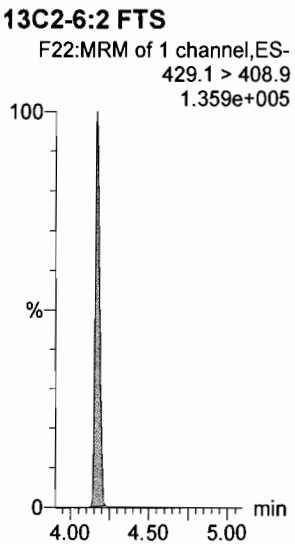


L-PFOS

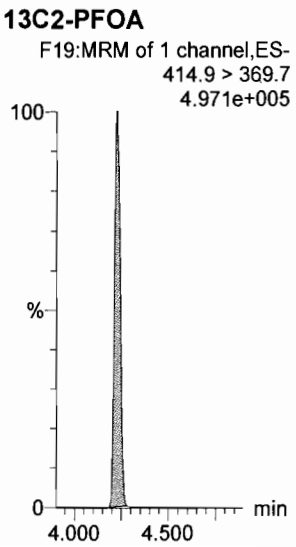




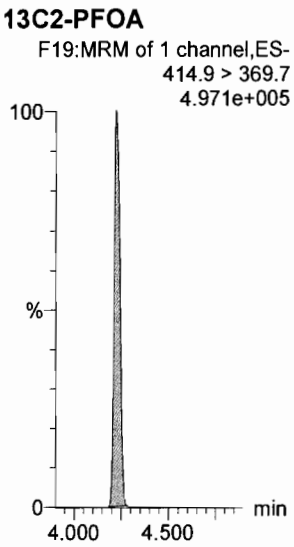
13C2-6:2 FTS



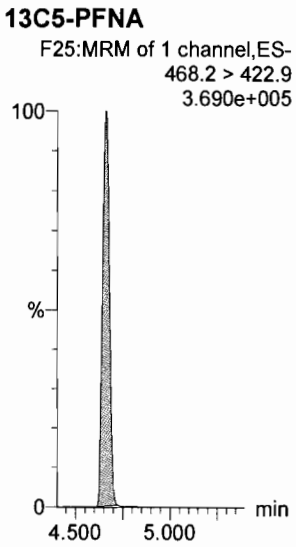
13C2-PFOA



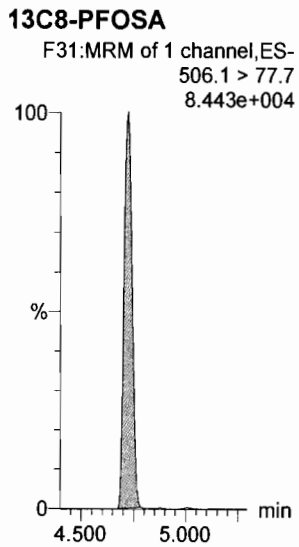
13C2-PFOA



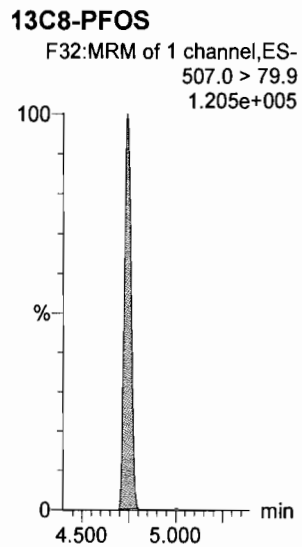
13C5-PFNA



13C8-PFOSA



13C8-PFOS

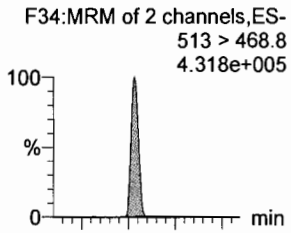


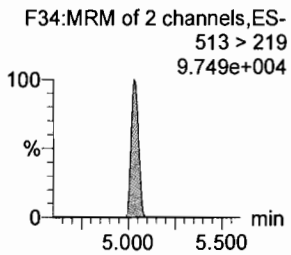
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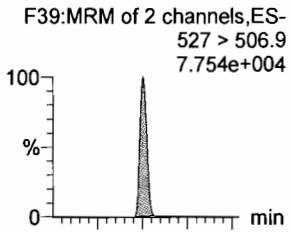
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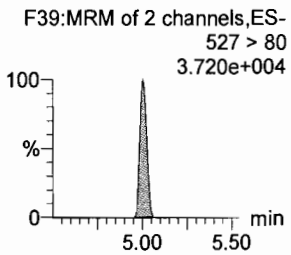
PFDA



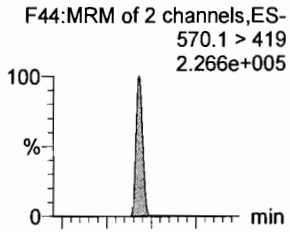


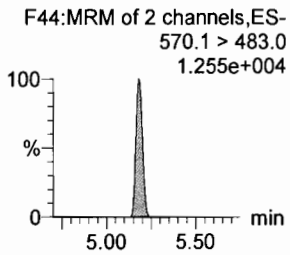
8:2 FTS



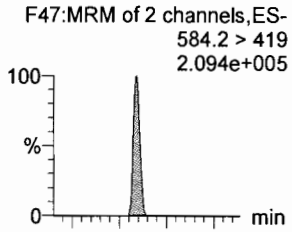


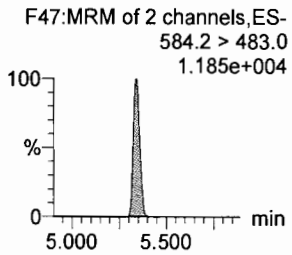
N-MeFOSAA



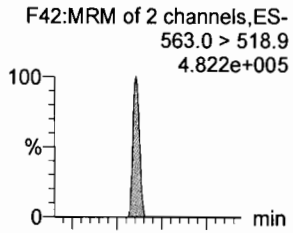


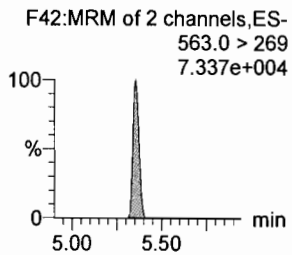
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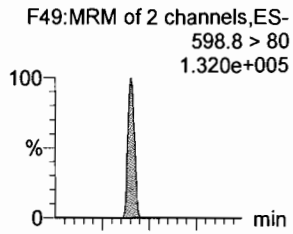


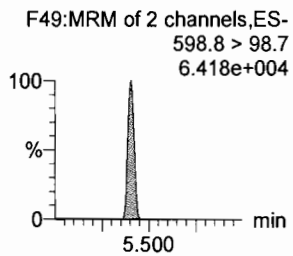
PFUdA



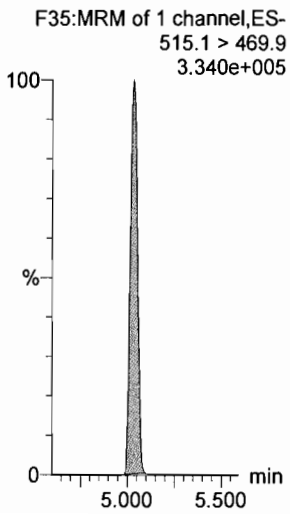


PFDS

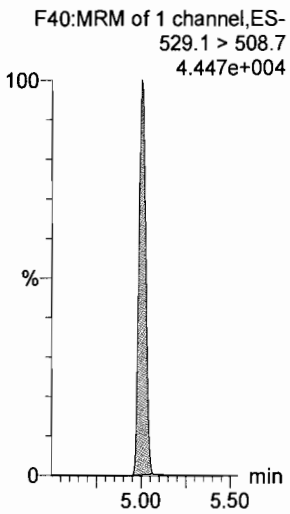




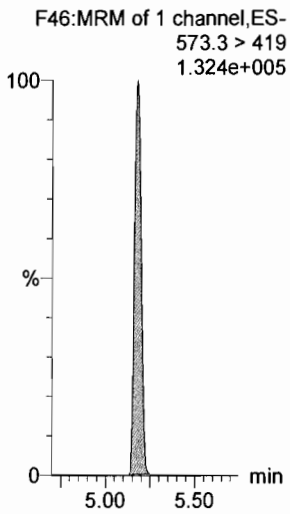
13C2-PFDA



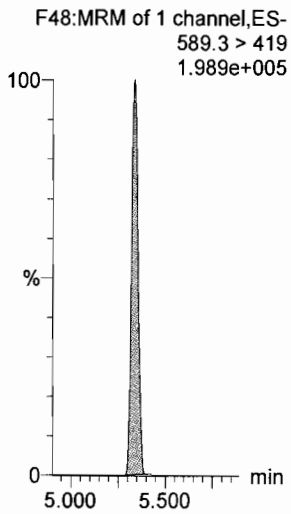
13C2-8:2 FTS



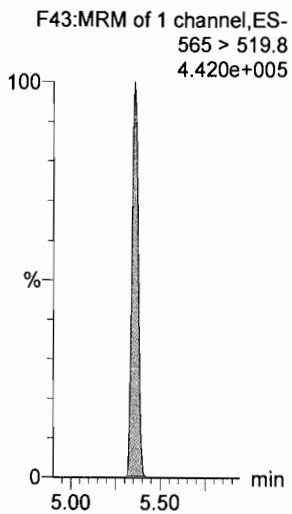
d3-N-MeFOSAA



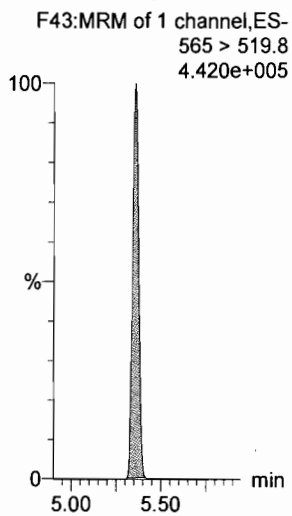
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

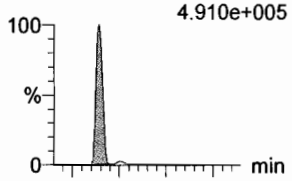


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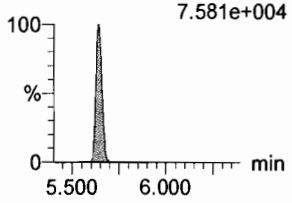
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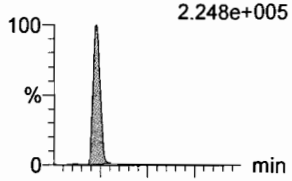
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
4.910e+005



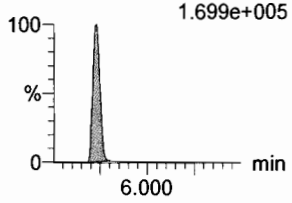
F50:MRM of 2 channels,ES-
612.9 > 318.8
7.581e+004



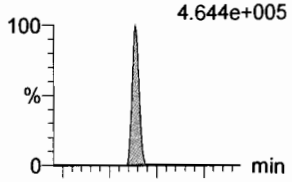
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
2.248e+005



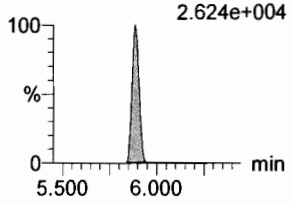
F33:MRM of 2 channels,ES-
512.1 > 219
1.699e+005



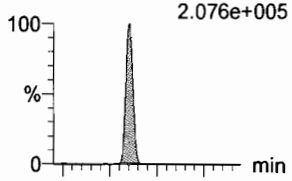
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.644e+005



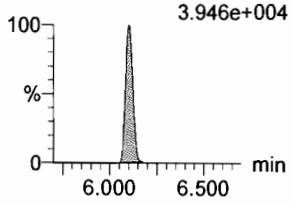
F56:MRM of 2 channels,ES-
662.9 > 319
2.624e+004



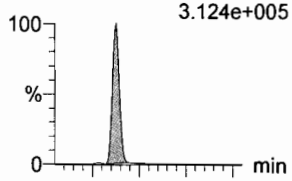
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F57:MRM of 2 channels,ES-
712.9 > 668.8
2.076e+005



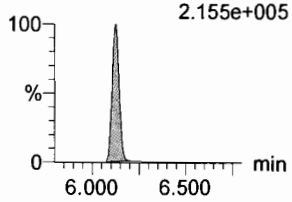
F57:MRM of 2 channels,ES-
712.9 > 369
3.946e+004



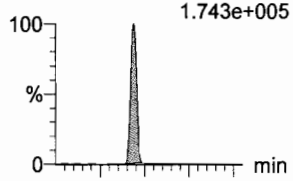
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
3.124e+005



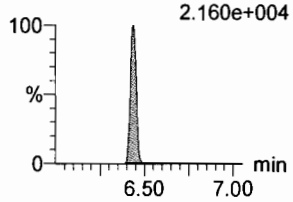
F38:MRM of 2 channels,ES-
526.1 > 219
2.155e+005



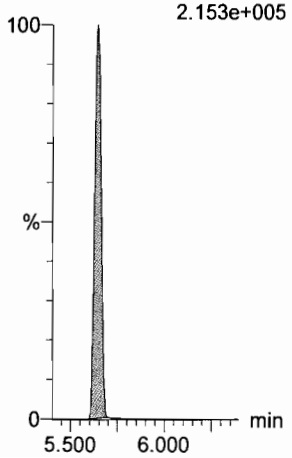
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.743e+005



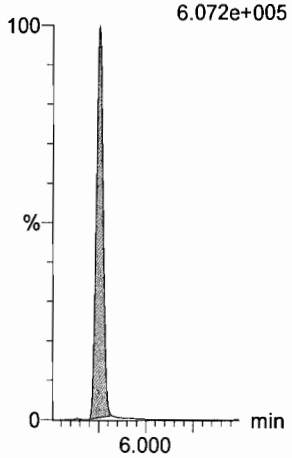
F59:MRM of 2 channels,ES-
813.1 > 219
2.160e+004



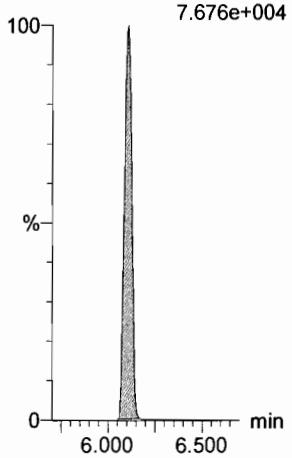
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.153e+005



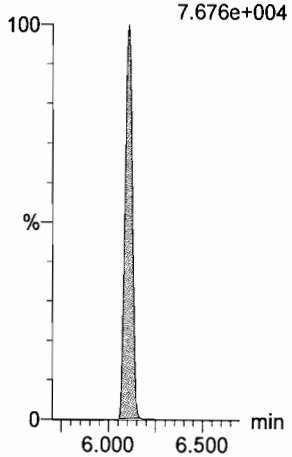
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
6.072e+005



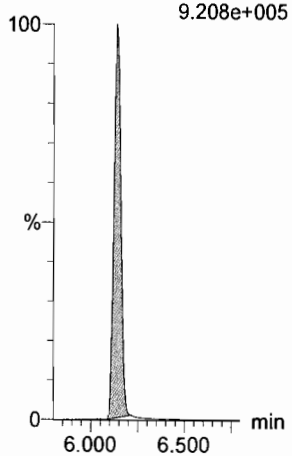
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.676e+004



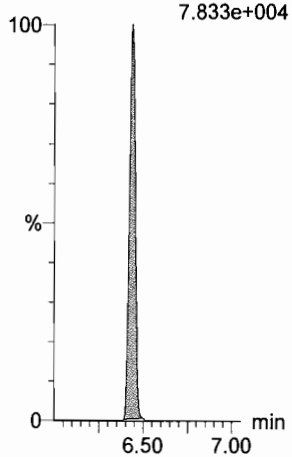
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.676e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
9.208e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.833e+004



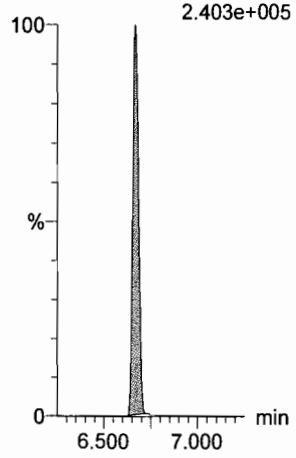
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Dataset: U:\Q4.PRO\results\180112M2\180112M2-6.qld

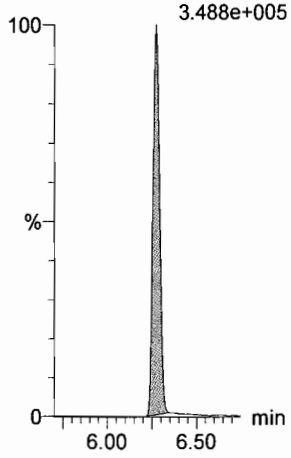
Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

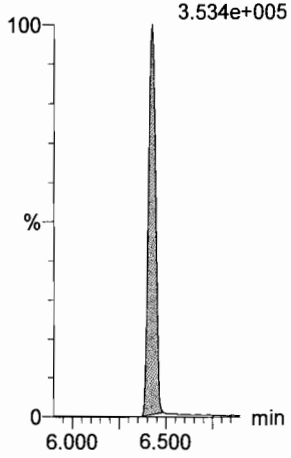
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.403e+005



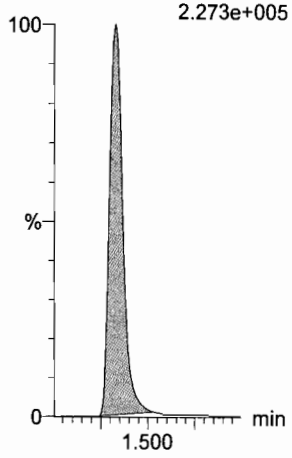
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.488e+005



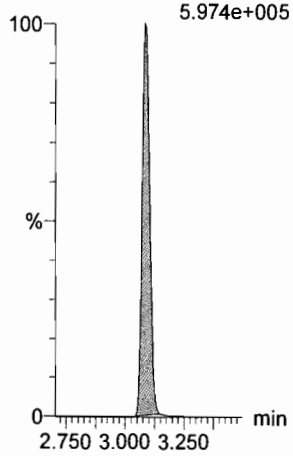
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.534e+005



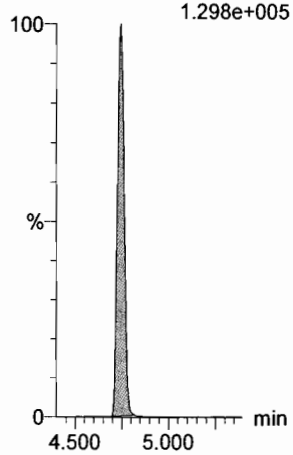
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.273e+005



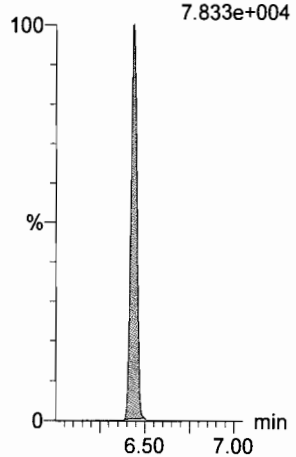
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.974e+005



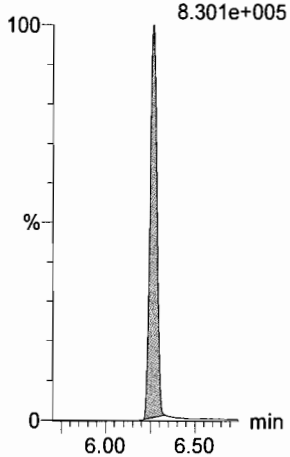
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.298e+005



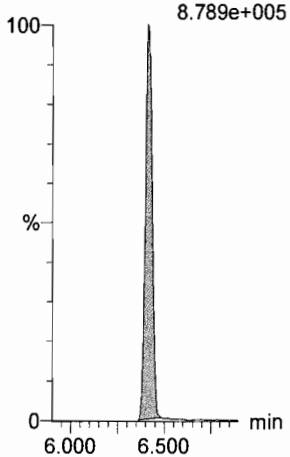
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
7.833e+004



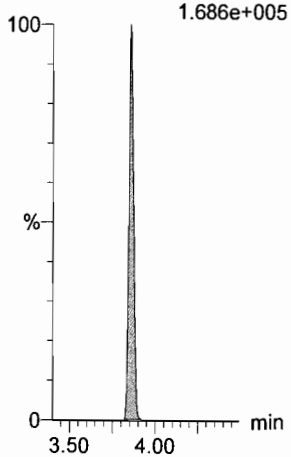
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
8.301e+005



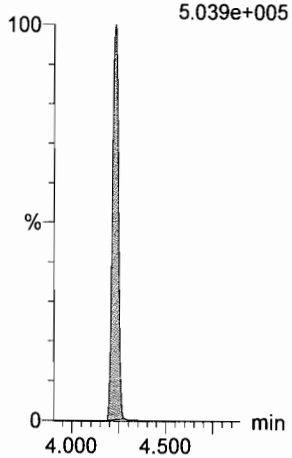
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
8.789e+005



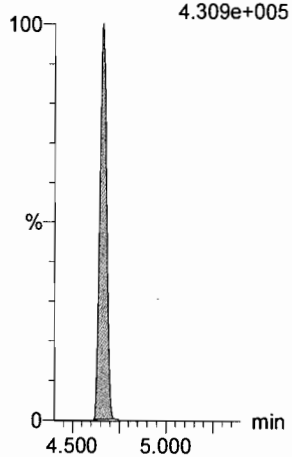
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.686e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.039e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.309e+005

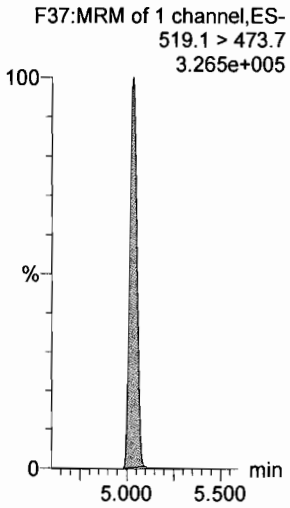


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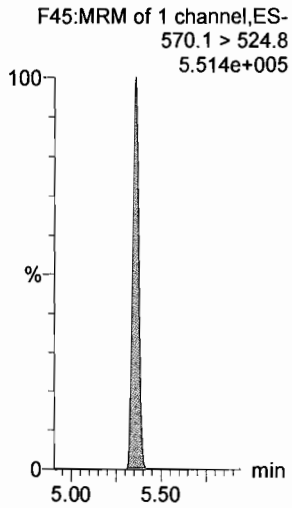
Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA



INITIAL CALIBRATION (ICAL)

INCLUDING ASSOCIATED

INITIAL CALIBRATION VERIFICATION (ICV) AND INSTRUMENT BLANK (IB)

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:46:37 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:48:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

AC 12/31/17
rjh 12/31/2017

Compound name: PFBA
Correlation coefficient: r = 0.999916, r^2 = 0.999832
Calibration curve: 1.40326 * x + -0.0463085
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171230M3_2	Standard	0.250	1.40	275.997	10590.634	0.326	0.3	6.1	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	1.40	549.379	10700.368	0.642	0.5	-1.9	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	1.40	1058.451	10778.936	1.227	0.9	-9.2	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	1.41	2291.203	11055.444	2.591	1.9	-6.0	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	1.41	5613.746	10223.187	6.864	4.9	-1.5	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	1.41	12225.308	10998.330	13.895	9.9	-0.7	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	1.41	58865.125	10544.371	69.783	49.8	-0.5	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	1.41	120380.750	10664.267	141.103	100.6	0.6	NO	1.000	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999838, r^2 = 0.999676
Calibration curve: 1.25863 * x + -0.0561556
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	2.36	313.461	12830.407	0.305	0.3	14.9	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	2.36	585.697	12739.582	0.575	0.5	0.2	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	2.36	1218.109	12601.388	1.208	1.0	0.5	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	2.37	2386.153	13559.735	2.200	1.8	-10.4	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	2.37	6043.357	12517.433	6.035	4.8	-3.2	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	2.37	13297.950	13543.172	12.274	9.8	-2.0	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	2.36	63378.121	12727.579	62.245	49.5	-1.0	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	2.36	131357.063	12918.356	127.103	101.0	1.0	NO	1.000	NO	bb

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:24:41 Pacific Standard Time

Compound name: PFBS
Correlation coefficient: r = 0.999434, r^2 = 0.998868
Calibration curve: 2.22069 * x + -0.183022
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171230M3_2	Standard	0.250	2.63	68.355	1730.699	0.494	0.3	21.9	NO	0.999	NO	bb
2	2 171230M3_3	Standard	0.500	2.64	131.600	1855.926	0.886	0.5	-3.7	NO	0.999	NO	bb
3	3 171230M3_4	Standard	1.000	2.64	273.834	1744.564	1.962	1.0	-3.4	NO	0.999	NO	bb
4	4 171230M3_5	Standard	2.000	2.64	563.062	1773.955	3.968	1.9	-6.5	NO	0.999	NO	bb
5	5 171230M3_6	Standard	5.000	2.64	1357.268	1643.731	10.322	4.7	-5.4	NO	0.999	NO	bb
6	6 171230M3_7	Standard	10.000	2.64	3114.063	1792.845	21.712	9.9	-1.4	NO	0.999	NO	bb
7	7 171230M3_8	Standard	50.000	2.64	14100.912	1656.078	106.433	48.0	-4.0	NO	0.999	NO	bb
8	8 171230M3_9	Standard	100.000	2.64	29395.707	1615.137	227.502	102.5	2.5	NO	0.999	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999700, r^2 = 0.999400
Calibration curve: 1.95668 * x + -0.0594756
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171230M3_2	Standard	0.250	3.13	404.181	4345.656	0.465	0.3	7.2	NO	0.999	NO	bb
2	2 171230M3_3	Standard	0.500	3.13	755.698	4117.409	0.918	0.5	-0.1	NO	0.999	NO	bb
3	3 171230M3_4	Standard	1.000	3.13	1558.861	4098.995	1.902	1.0	0.2	NO	0.999	NO	bb
4	4 171230M3_5	Standard	2.000	3.13	3196.715	4464.987	3.580	1.9	-7.0	NO	0.999	NO	bb
5	5 171230M3_6	Standard	5.000	3.13	7510.283	3678.770	10.208	5.2	4.9	NO	0.999	NO	bb
6	6 171230M3_7	Standard	10.000	3.13	16818.920	4631.413	18.157	9.3	-6.9	NO	0.999	NO	bb
7	7 171230M3_8	Standard	50.000	3.13	77264.398	3868.221	99.871	51.1	2.1	NO	0.999	NO	bb
8	8 171230M3_9	Standard	100.000	3.13	155495.484	3994.966	194.614	99.5	-0.5	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:24:41 Pacific Standard Time

Compound name: PFHpA
Correlation coefficient: r = 0.999344, r^2 = 0.998689
Calibration curve: 1.53884 * x + -0.0806046
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	3.74	324.098	10628.602	0.381	0.3	20.0	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	3.74	623.692	10972.185	0.711	0.5	2.8	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	3.74	1131.954	10844.437	1.305	0.9	-10.0	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	3.75	2416.023	9994.996	3.022	2.0	0.8	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	3.75	6170.000	10840.354	7.115	4.7	-6.5	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	3.75	12471.019	11361.731	13.720	9.0	-10.3	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	3.74	66771.766	10491.151	79.557	51.8	3.5	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	3.74	120224.938	9807.888	153.225	99.6	-0.4	NO	0.999	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999556, r^2 = 0.999113
Calibration curve: 2.07297 * x + -0.115432
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	3.88	47.887	1363.239	0.439	0.3	7.0	NO	0.999	NO	MM
2	2	171230M3_3	Standard	0.500	3.89	102.524	1442.194	0.889	0.5	-3.1	NO	0.999	NO	MM
3	3	171230M3_4	Standard	1.000	3.89	190.595	1307.153	1.823	0.9	-6.5	NO	0.999	NO	MM
4	4	171230M3_5	Standard	2.000	3.89	453.045	1348.822	4.199	2.1	4.1	NO	0.999	NO	MM
5	5	171230M3_6	Standard	5.000	3.89	963.724	1296.596	9.291	4.5	-9.2	NO	0.999	NO	MM
6	6	171230M3_7	Standard	10.000	3.89	2111.817	1174.549	22.475	10.9	9.0	NO	0.999	NO	MM
7	7	171230M3_8	Standard	50.000	3.89	10954.550	1341.063	102.107	49.3	-1.4	NO	0.999	NO	MM
8	8	171230M3_9	Standard	100.000	3.89	20557.797	1237.411	207.669	100.2	0.2	NO	0.999	NO	MM

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:24:41 Pacific Standard Time

Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997647
Calibration curve: -0.000403433 * x^2 + 0.31611 * x + -0.016104
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.20	83.922	15722.004	0.067	0.3	4.8	NO	0.998	NO	bb
2	2	171230M3_3	Standard	0.500	4.20	226.057	14936.890	0.189	0.6	30.0	NO	0.998	NO	bb
3	3	171230M3_4	Standard	1.000	4.20	310.754	15544.537	0.250	0.8	-15.8	NO	0.998	NO	bb
4	4	171230M3_5	Standard	2.000	4.21	664.325	16356.577	0.508	1.7	-17.0	NO	0.998	NO	bb
5	5	171230M3_6	Standard	5.000	4.21	2019.823	15570.807	1.621	5.2	4.3	NO	0.998	NO	bb
6	6	171230M3_7	Standard	10.000	4.21	3546.097	15790.786	2.807	9.0	-9.6	NO	0.998	NO	bb
7	7	171230M3_8	Standard	50.000	4.20	19513.193	15843.892	15.395	52.2	4.5	NO	0.998	NO	bb
8	8	171230M3_9	Standard	100.000	4.20	33101.109	15165.988	27.282	98.8	-1.2	NO	0.998	NO	bb

Compound name: L-PFOA
Correlation coefficient: r = 0.997521, r^2 = 0.995048
Calibration curve: 1.09349 * x + 0.337952
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.25	721.795	15722.004	0.574	0.2	-13.7	NO	0.995	NO	bb
2	2	171230M3_3	Standard	0.500	4.26	1001.076	14936.890	0.838	0.5	-8.6	NO	0.995	NO	bb
3	3	171230M3_4	Standard	1.000	4.26	1747.621	15544.537	1.405	1.0	-2.4	NO	0.995	NO	bb
4	4	171230M3_5	Standard	2.000	4.26	3141.246	16356.577	2.401	1.9	-5.7	NO	0.995	NO	bb
5	5	171230M3_6	Standard	5.000	4.26	7712.174	15570.807	6.191	5.4	7.1	NO	0.995	NO	bb
6	6	171230M3_7	Standard	10.000	4.26	17745.244	15790.786	14.047	12.5	25.4	NO	0.995	NO	bb
7	7	171230M3_8	Standard	50.000	4.26	70571.055	15843.892	55.677	50.6	1.2	NO	0.995	NO	bb
8	8	171230M3_9	Standard	100.000	4.25	128726.258	15165.988	106.098	96.7	-3.3	NO	0.995	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.997563
Calibration curve: 5.37943e-006 * x^2 + 0.266569 * x + -0.00415487
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.36	70.269	15722.004	0.056	0.2	-9.9	NO	0.998	NO	bb
2	2	171230M3_3	Standard	0.500	4.36	155.368	14936.890	0.130	0.5	0.7	NO	0.998	NO	bb
3	3	171230M3_4	Standard	1.000	4.36	327.150	15544.537	0.263	1.0	0.2	NO	0.998	NO	bb
4	4	171230M3_5	Standard	2.000	4.37	661.404	16356.577	0.505	1.9	-4.4	NO	0.998	NO	bb
5	5	171230M3_6	Standard	5.000	4.37	1702.867	15570.807	1.367	5.1	2.9	NO	0.998	NO	bb
6	6	171230M3_7	Standard	10.000	4.37	3861.786	15790.786	3.057	11.5	14.8	NO	0.998	NO	bb
7	7	171230M3_8	Standard	50.000	4.37	15984.057	15843.892	12.611	47.3	-5.4	NO	0.998	NO	bb
8	8	171230M3_9	Standard	100.000	4.36	32793.961	15165.988	27.029	101.2	1.2	NO	0.998	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998614
Calibration curve: -0.00399158 * x^2 + 1.78875 * x + -0.552669
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.69	426.963	13858.102	0.385	0.5	110.0	NO	0.999	NO	bbX
2	2	171230M3_3	Standard	0.500	4.69	717.199	15927.060	0.563	0.6	24.9	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	4.69	1335.866	14404.834	1.159	1.0	-4.1	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	4.70	2721.185	14435.547	2.356	1.6	-18.4	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	4.69	8281.717	12619.688	8.203	4.9	-1.0	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	4.69	17042.129	13060.321	16.311	9.6	-3.7	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	4.69	76975.008	11852.702	81.179	51.6	3.3	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	4.69	156877.641	14277.241	137.349	98.9	-1.1	NO	0.999	NO	bb

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Compound name: PFOSA
Coefficient of Determination: R^2 = 0.999310
Calibration curve: 0.00540399 * x^2 + 1.12028 * x + 0.108059
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.75	112.388	3183.584	0.441	0.3	18.8	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	4.75	136.044	2998.887	0.567	0.4	-18.2	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	4.75	257.200	2849.953	1.128	0.9	-9.3	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	4.76	613.524	2931.823	2.616	2.2	10.7	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	4.76	1409.433	3092.321	5.697	4.9	-2.5	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	4.76	3101.081	3253.921	11.913	10.1	0.5	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	4.75	16789.861	3014.224	69.628	50.0	-0.0	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	4.75	34168.512	2894.700	147.548	91.4	-8.6	NO	0.999	NO	bbX

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.996695
Calibration curve: -0.00134849 * x^2 + 1.2979 * x + -0.114204
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	4.76	86.461	3346.149	0.323	0.3	34.8	NO	0.997	NO	MMX
2	2	171230M3_3	Standard	0.500	4.76	165.830	3122.687	0.664	0.6	20.0	NO	0.997	NO	MM
3	3	171230M3_4	Standard	1.000	4.77	297.424	3525.735	1.054	0.9	-9.9	NO	0.997	NO	MM
4	4	171230M3_5	Standard	2.000	4.78	721.628	4035.167	2.235	1.8	-9.3	NO	0.997	NO	MM
5	5	171230M3_6	Standard	5.000	4.78	1515.002	3635.138	5.210	4.1	-17.6	NO	0.997	NO	MM
6	6	171230M3_7	Standard	10.000	4.78	3234.487	3368.915	12.001	9.4	-5.7	NO	0.997	NO	MM
7	7	171230M3_8	Standard	50.000	4.77	19653.742	3759.934	65.339	53.4	6.8	NO	0.997	NO	MM
8	8	171230M3_9	Standard	100.000	4.76	32763.500	3581.165	114.360	98.2	-1.8	NO	0.997	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997594
Calibration curve: 0.00111351 * x^2 + 1.67605 * x + -0.298586
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 171230M3_2	Standard	0.250	5.06	451.697	11396.063	0.495	0.5	89.4	NO	0.998	NO	bbX
2	2 171230M3_3	Standard	0.500	5.06	738.525	12214.988	0.756	0.6	25.8	NO	0.998	NO	bb
3	3 171230M3_4	Standard	1.000	5.06	1374.049	13065.430	1.315	1.0	-3.8	NO	0.998	NO	bb
4	4 171230M3_5	Standard	2.000	5.06	3420.243	15245.605	2.804	1.8	-7.5	NO	0.998	NO	bb
5	5 171230M3_6	Standard	5.000	5.06	6332.755	10477.484	7.555	4.7	-6.6	NO	0.998	NO	bb
6	6 171230M3_7	Standard	10.000	5.06	15665.607	13506.891	14.498	8.8	-12.2	NO	0.998	NO	bb
7	7 171230M3_8	Standard	50.000	5.06	81247.406	11127.295	91.270	52.8	5.6	NO	0.998	NO	bb
8	8 171230M3_9	Standard	100.000	5.06	152270.188	10803.009	176.190	98.8	-1.2	NO	0.998	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997475
Calibration curve: 0.000346834 * x^2 + 0.357879 * x + -0.0189768
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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 171230M3_2	Standard	0.250	5.02	56.078	11396.063	0.062	0.2	-10.1	NO	0.997	NO	MM
2	2 171230M3_3	Standard	0.500	5.03	166.183	12214.988	0.170	0.5	5.6	NO	0.997	NO	bb
3	3 171230M3_4	Standard	1.000	5.03	261.788	13065.430	0.250	0.8	-24.8	NO	0.997	NO	bb
4	4 171230M3_5	Standard	2.000	5.03	713.724	15245.605	0.585	1.7	-15.7	NO	0.997	NO	bb
5	5 171230M3_6	Standard	5.000	5.03	1779.926	10477.484	2.124	6.0	19.0	NO	0.997	NO	bb
6	6 171230M3_7	Standard	10.000	5.03	4191.860	13506.891	3.879	10.8	7.8	NO	0.997	NO	bb
7	7 171230M3_8	Standard	50.000	5.03	15996.738	11127.295	17.970	48.0	-3.9	NO	0.997	NO	bb
8	8 171230M3_9	Standard	100.000	5.03	34207.176	10803.009	39.581	100.8	0.8	NO	0.997	NO	bb

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999652
Calibration curve: 0.00378022 * x^2 + 1.56644 * x + -0.06001
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	5.21	160.754	5518.691	0.364	0.3	8.2	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	5.21	283.075	5810.836	0.609	0.4	-14.7	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	5.21	668.158	6177.302	1.352	0.9	-10.1	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	5.21	1486.781	6081.363	3.056	2.0	-1.0	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	5.21	3431.470	5138.831	8.347	5.3	6.0	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	5.21	7507.504	6165.212	15.222	9.5	-4.6	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	5.21	38983.484	5493.052	88.711	50.5	1.0	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	5.21	82192.547	5297.485	193.942	99.8	-0.2	NO	1.000	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999425
Calibration curve: -0.000739055 * x^2 + 1.32527 * x + -0.0579014
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	5.36	147.507	6870.466	0.268	0.2	-1.5	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	5.36	301.207	6798.414	0.554	0.5	-7.7	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	5.37	542.127	6614.306	1.025	0.8	-18.3	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	5.37	1288.860	6103.646	2.640	2.0	1.9	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	5.37	3119.677	5599.027	6.965	5.3	6.3	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	5.37	7402.977	6844.808	13.519	10.3	3.0	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	5.36	32858.422	6483.990	63.345	49.2	-1.6	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	5.36	61678.703	6142.020	125.526	100.4	0.4	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999814
Calibration curve: -6.41044e-005 * x^2 + 1.14422 * x + 0.0911568
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.37	389.329	12694.194	0.383	0.3	2.2	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	5.38	742.726	13733.104	0.676	0.5	2.2	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	5.38	1620.543	18060.582	1.122	0.9	-9.9	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	5.38	3123.625	16289.948	2.397	2.0	0.8	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	5.38	6331.628	13179.254	6.005	5.2	3.4	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	5.38	16312.573	17291.234	11.793	10.2	2.3	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	5.38	79564.445	17619.236	56.447	49.4	-1.2	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	5.37	157071.859	17195.029	114.184	100.3	0.3	NO	1.000	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.995645
Calibration curve: -0.00208251 * x^2 + 0.338053 * x + -0.0343255
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.43	67.322	12694.194	0.066	0.3	19.3	NO	0.996	NO	bb
2	2	171230M3_3	Standard	0.500	5.43	148.741	13733.104	0.135	0.5	0.7	NO	0.996	NO	bb
3	3	171230M3_4	Standard	1.000	5.43	360.215	18060.582	0.249	0.8	-15.7	NO	0.996	NO	bb
4	4	171230M3_5	Standard	2.000	5.43	697.250	16289.948	0.535	1.7	-14.9	NO	0.996	NO	bb
5	5	171230M3_6	Standard	5.000	5.43	1909.957	13179.254	1.812	5.7	13.1	NO	0.996	NO	bb
6	6	171230M3_7	Standard	10.000	5.43	4239.656	17291.234	3.065	9.8	-2.5	NO	0.996	NO	bb
7	7	171230M3_8	Standard	50.000	5.43	16436.338	17619.236	11.661	50.0	-0.0	NO	0.996	NO	bb
8	8	171230M3_9	Standard	100.000	5.42	39730.289	17195.029	28.882			NO	0.996	YES	bbXI

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998836
Calibration curve: 0.00218241 * x^2 + 1.50665 * x + -0.0562005
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.65	422.768	12525.502	0.422	0.3	26.9	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	5.66	638.600	13131.589	0.608	0.4	-11.9	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	5.66	1196.452	12932.541	1.156	0.8	-19.6	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	5.66	3507.546	14817.573	2.959	2.0	-0.2	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	5.66	8197.292	12853.370	7.972	5.3	5.8	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	5.67	18362.766	15211.739	15.089	9.9	-0.9	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	5.66	81592.328	12634.695	80.722	50.0	-0.0	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	5.65	160221.000	12666.770	158.112	92.6	-7.4	NO	0.999	NO	bbX

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999764, r^2 = 0.999529
Calibration curve: 1.15109 * x + -0.214856
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171230M3_2	Standard	1.250	5.80	164.023	16714.852	1.472	1.5	17.2	NO	1.000	NO	bb
2	2	171230M3_3	Standard	2.500	5.80	288.761	17982.373	2.409	2.3	-8.8	NO	1.000	NO	bb
3	3	171230M3_4	Standard	5.000	5.80	610.111	17483.596	5.234	4.7	-5.3	NO	1.000	NO	bb
4	4	171230M3_5	Standard	10.000	5.81	1139.646	18091.666	9.449	8.4	-16.0	NO	1.000	NO	bb
5	5	171230M3_6	Standard	25.000	5.81	3130.164	16698.209	28.118	24.6	-1.5	NO	1.000	NO	bb
6	6	171230M3_7	Standard	50.000	5.81	6692.014	17743.270	56.574	49.3	-1.3	NO	1.000	NO	bb
7	7	171230M3_8	Standard	250.000	5.80	33214.535	17214.338	289.420	251.6	0.6	NO	1.000	NO	bb
8	8	171230M3_9	Standard	500.000	5.80	66163.352	17205.000	576.838	501.3	0.3	NO	1.000	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998861
Calibration curve: 0.0031192 * x^2 + 1.39506 * x + 0.0280022
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.90	333.219	12525.502	0.333	0.2	-12.7	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	5.90	911.072	13131.589	0.867	0.6	20.2	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	5.90	1240.892	12932.541	1.199	0.8	-16.2	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	5.91	3508.982	14817.573	2.960	2.1	4.6	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	5.91	8239.135	12853.370	8.013	5.7	13.0	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	5.91	15675.203	15211.739	12.881	9.0	-9.7	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	5.90	79194.125	12634.695	78.350	50.5	0.9	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	5.90	172707.484	12666.770	170.434	99.9	-0.1	NO	0.999	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999178
Calibration curve: 0.0252471 * x^2 + 2.47541 * x + 0.208919
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	6.12	239.412	3563.046	0.840	0.3	1.7	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	6.12	392.611	3501.355	1.402	0.5	-4.1	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	6.12	958.802	3793.233	3.160	1.2	17.8	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	6.12	1943.328	5426.529	4.476	1.7	-15.3	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	6.12	5481.264	5365.466	12.770	4.8	-3.3	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	6.13	12733.240	5598.277	28.431	10.3	3.2	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	6.12	61944.117	4141.186	186.976	50.0	-0.0	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	6.12	88027.773	4343.655	253.323	62.5	-37.5	NO	0.999	NO	bbX

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999799
Calibration curve: -7.56946e-005 * x^2 + 1.06415 * x + -0.388028
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	1.250	6.19	180.606	25881.516	1.047	1.3	7.9	NO	1.000	NO	bb
2	2	171230M3_3	Standard	2.500	6.19	416.304	25449.146	2.454	2.7	6.8	NO	1.000	NO	bb
3	3	171230M3_4	Standard	5.000	6.19	732.302	25814.051	4.255	4.4	-12.7	NO	1.000	NO	bb
4	4	171230M3_5	Standard	10.000	6.20	1692.493	25987.154	9.769	9.6	-4.5	NO	1.000	NO	bb
5	5	171230M3_6	Standard	25.000	6.19	4311.340	24649.652	26.236	25.1	0.3	NO	1.000	NO	bb
6	6	171230M3_7	Standard	50.000	6.20	9326.233	25935.475	53.939	51.2	2.5	NO	1.000	NO	bb
7	7	171230M3_8	Standard	250.000	6.19	42485.051	24497.834	260.136	249.2	-0.3	NO	1.000	NO	bb
8	8	171230M3_9	Standard	500.000	6.19	84195.617	24616.922	513.035	500.3	0.1	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998856
Calibration curve: -0.000303396 * x^2 + 0.739048 * x + 0.0394984
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	6.45	156.303	2929.157	0.267	0.3	23.0	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	6.45	245.046	2974.677	0.412	0.5	0.8	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	6.45	530.166	3582.617	0.740	0.9	-5.2	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	6.45	1043.129	3746.107	1.392	1.8	-8.4	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	6.45	2833.612	4163.788	3.403	4.6	-8.8	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	6.45	6022.304	4259.023	7.070	9.6	-4.5	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	6.45	28397.291	3769.071	37.671	52.0	4.1	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	6.45	50317.227	3581.645	70.243	99.0	-1.0	NO	0.999	NO	bb

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:27:18

Compound name: PFODA
Coefficient of Determination: R^2 = 0.998731
Calibration curve: -0.00135252 * x^2 + 1.17153 * x + -0.0475142
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	6.68	234.692	2929.157	0.401	0.4	53.1	NO	0.999	NO	bbX
2	2	171230M3_3	Standard	0.500	6.68	313.022	2974.677	0.526	0.5	-2.0	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	6.68	756.347	3582.617	1.056	0.9	-5.7	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	6.68	1693.487	3746.107	2.260	2.0	-1.3	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	6.68	4414.905	4163.788	5.302	4.6	-8.2	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	6.68	10870.011	4259.023	12.761	11.1	10.7	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	6.68	40746.027	3769.071	54.053	48.9	-2.1	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	6.68	74519.805	3581.645	104.030	100.5	0.5	NO	0.999	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.997318, r^2 = 0.994643
Calibration curve: 1.11054 * x + -0.683826
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	1.250	6.32	241.237	19821.924	1.826	2.3	80.8	NO	0.995	NO	bbX
2	2	171230M3_3	Standard	2.500	6.32	276.199	17207.777	2.408	2.8	11.3	NO	0.995	NO	bb
3	3	171230M3_4	Standard	5.000	6.32	611.450	23994.758	3.822	4.1	-18.8	NO	0.995	NO	bb
4	4	171230M3_5	Standard	10.000	6.32	1403.020	19788.824	10.635	10.2	1.9	NO	0.995	NO	bb
5	5	171230M3_6	Standard	25.000	6.32	3746.707	22454.855	25.028	23.2	-7.4	NO	0.995	NO	bb
6	6	171230M3_7	Standard	50.000	6.32	7715.965	18313.316	63.200	57.5	15.0	NO	0.995	NO	bb
7	7	171230M3_8	Standard	250.000	6.32	41234.992	22809.943	271.165	244.8	-2.1	NO	0.995	NO	bb
8	8	171230M3_9	Standard	500.000	6.32	73799.234	17540.598	631.101	568.9	13.8	NO	0.995	NO	bbX

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999225, r^2 = 0.998452
Calibration curve: 1.394 * x + -0.662445
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	1.250	6.46	223.178	21333.172	1.569	1.6	28.1	NO	0.998	NO	bb
2	2	171230M3_3	Standard	2.500	6.47	413.054	18647.777	3.323	2.9	14.3	NO	0.998	NO	bb
3	3	171230M3_4	Standard	5.000	6.47	763.481	19787.104	5.788	4.6	-7.5	NO	0.998	NO	bb
4	4	171230M3_5	Standard	10.000	6.47	1606.824	24373.125	9.889	7.6	-24.3	NO	0.998	NO	bb
5	5	171230M3_6	Standard	25.000	6.47	3878.812	19604.211	29.678	21.8	-12.9	NO	0.998	NO	bb
6	6	171230M3_7	Standard	50.000	6.47	9787.315	21146.869	69.424	50.3	0.6	NO	0.998	NO	bd
7	7	171230M3_8	Standard	250.000	6.46	48896.859	20785.039	352.875	253.6	1.4	NO	0.998	NO	bb
8	8	171230M3_9	Standard	500.000	6.46	96401.281	20706.365	698.345	501.4	0.3	NO	0.998	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.780346
RRF SD: 0.0162245, Relative SD: 2.07915
Response type: Internal Std (Ref 54), 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	171230M3_2	Standard	12.500	1.40	10590.634	13605.824	9.730	12.5	-0.3	NO		NO	bb
2	2	171230M3_3	Standard	12.500	1.40	10700.368	13369.447	10.004	12.8	2.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	1.40	10778.936	13581.593	9.921	12.7	1.7	NO		NO	bb
4	4	171230M3_5	Standard	12.500	1.40	11055.444	14427.911	9.578	12.3	-1.8	NO		NO	bb
5	5	171230M3_6	Standard	12.500	1.41	10223.187	13476.122	9.483	12.2	-2.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	1.40	10998.330	13722.552	10.018	12.8	2.7	NO		NO	bb
7	7	171230M3_8	Standard	12.500	1.41	10544.371	13686.915	9.630	12.3	-1.3	NO		NO	bb
8	8	171230M3_9	Standard	12.500	1.40	10664.267	13784.692	9.670	12.4	-0.9	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.771374
RRF SD: 0.0442968, Relative SD: 5.74259
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	2.36	12830.407	15854.692	10.116	13.1	4.9	NO		NO	bb
2	2	171230M3_3	Standard	12.500	2.36	12739.582	15202.074	10.475	13.6	8.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	2.36	12601.388	18059.971	8.722	11.3	-9.5	NO		NO	bb
4	4	171230M3_5	Standard	12.500	2.36	13559.735	17487.736	9.692	12.6	0.5	NO		NO	bb
5	5	171230M3_6	Standard	12.500	2.37	12517.433	17166.082	9.115	11.8	-5.5	NO		NO	bb
6	6	171230M3_7	Standard	12.500	2.36	13543.172	17836.998	9.491	12.3	-1.6	NO		NO	bb
7	7	171230M3_8	Standard	12.500	2.36	12727.579	16559.475	9.607	12.5	-0.4	NO		NO	bb
8	8	171230M3_9	Standard	12.500	2.36	12918.356	16279.845	9.919	12.9	2.9	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.103096
RRF SD: 0.0086806, Relative SD: 8.41991
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	2.63	1730.699	15854.692	1.365	13.2	5.9	NO		NO	bb
2	2	171230M3_3	Standard	12.500	2.63	1855.926	15202.074	1.526	14.8	18.4	NO		NO	bb
3	3	171230M3_4	Standard	12.500	2.63	1744.564	18059.971	1.207	11.7	-6.3	NO		NO	bb
4	4	171230M3_5	Standard	12.500	2.64	1773.955	17487.736	1.268	12.3	-1.6	NO		NO	bb
5	5	171230M3_6	Standard	12.500	2.64	1643.731	17166.082	1.197	11.6	-7.1	NO		NO	bb
6	6	171230M3_7	Standard	12.500	2.64	1792.845	17836.998	1.256	12.2	-2.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	2.64	1656.078	16559.475	1.250	12.1	-3.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	2.63	1615.137	16279.845	1.240	12.0	-3.8	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.618803
RRF SD: 0.0533048, Relative SD: 8.61418
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	5.000	3.13	4345.656	15854.692	3.426	5.5	10.7	NO		NO	bb
2	2	171230M3_3	Standard	5.000	3.13	4117.409	15202.074	3.386	5.5	9.4	NO		NO	bb
3	3	171230M3_4	Standard	5.000	3.13	4098.995	18059.971	2.837	4.6	-8.3	NO		NO	bb
4	4	171230M3_5	Standard	5.000	3.13	4464.987	17487.736	3.192	5.2	3.2	NO		NO	bb
5	5	171230M3_6	Standard	5.000	3.13	3678.770	17166.082	2.679	4.3	-13.4	NO		NO	bb
6	6	171230M3_7	Standard	5.000	3.13	4631.413	17836.998	3.246	5.2	4.9	NO		NO	bb
7	7	171230M3_8	Standard	5.000	3.13	3868.221	16559.475	2.920	4.7	-5.6	NO		NO	bb
8	8	171230M3_9	Standard	5.000	3.13	3994.966	16279.845	3.067	5.0	-0.9	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.633577
RRF SD: 0.0463811, Relative SD: 7.32051
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	3.74	10628.602	15854.692	8.380	13.2	5.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.74	10972.185	15202.074	9.022	14.2	13.9	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.74	10844.437	18059.971	7.506	11.8	-5.2	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.75	9994.996	17487.736	7.144	11.3	-9.8	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.75	10840.354	17166.082	7.894	12.5	-0.3	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.75	11361.731	17836.998	7.962	12.6	0.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.74	10491.151	16559.475	7.919	12.5	-0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.74	9807.888	16279.845	7.531	11.9	-4.9	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.319596
RRF SD: 0.0248457, Relative SD: 7.77409
Response type: Internal Std (Ref 56), 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	171230M3_2	Standard	12.500	3.89	1363.239	3931.583	4.334	13.6	8.5	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.89	1442.194	4153.182	4.341	13.6	8.7	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.89	1307.153	3997.727	4.087	12.8	2.3	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.89	1348.822	4460.181	3.780	11.8	-5.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.89	1296.596	4016.015	4.036	12.6	1.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.89	1174.549	4349.945	3.375	10.6	-15.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.89	1341.063	4184.471	4.006	12.5	0.3	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.89	1237.411	3866.536	4.000	12.5	0.1	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.243997
RRF SD: 0.0363144, Relative SD: 14.8831
Response type: Internal Std (Ref 57), 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	171230M3_2	Standard	12.500	4.20	3304.589	15842.009	2.607	10.7	-14.5	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.20	3758.634	14183.630	3.312	13.6	8.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.20	3254.745	14427.698	2.820	11.6	-7.5	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.21	3379.511	15338.244	2.754	11.3	-9.7	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.21	3444.696	15165.979	2.839	11.6	-6.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.21	3389.651	15888.991	2.667	10.9	-12.6	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.20	4363.689	14827.076	3.679	15.1	20.6	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.20	4152.263	13948.476	3.721	15.3	22.0	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 1.04571
RRF SD: 0.0370953, Relative SD: 3.54737
Response type: Internal Std (Ref 57), 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	171230M3_2	Standard	12.500	4.26	15722.004	15842.009	12.405	11.9	-5.1	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.26	14936.890	14183.630	13.164	12.6	0.7	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.26	15544.537	14427.698	13.468	12.9	3.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.26	16356.577	15338.244	13.330	12.7	2.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.26	15570.807	15165.979	12.834	12.3	-1.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.26	15790.786	15888.991	12.423	11.9	-5.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.26	15843.892	14827.076	13.357	12.8	2.2	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.25	15165.988	13948.476	13.591	13.0	4.0	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.838339
RRF SD: 0.0768922, Relative SD: 9.17198
Response type: Internal Std (Ref 58), 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	171230M3_2	Standard	12.500	4.69	13858.102	16136.932	10.735	12.8	2.4	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.69	15927.060	17342.525	11.480	13.7	9.5	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.69	14404.834	15833.807	11.372	13.6	8.5	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.69	14435.547	18011.766	10.018	11.9	-4.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.69	12619.688	13990.217	11.275	13.4	7.6	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.69	13060.321	18828.510	8.671	10.3	-17.3	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.69	11852.702	15145.017	9.783	11.7	-6.6	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.69	14277.241	16995.723	10.501	12.5	0.2	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.162365
RRF SD: 0.0193163, Relative SD: 11.8969
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	4.75	3183.584	17914.830	2.221	13.7	9.4	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.75	2998.887	15156.200	2.473	15.2	21.9	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.75	2849.953	19647.309	1.813	11.2	-10.7	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.76	2931.823	21014.881	1.744	10.7	-14.1	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.76	3092.321	20442.176	1.891	11.6	-6.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.76	3253.921	20354.811	1.998	12.3	-1.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.75	3014.224	19464.414	1.936	11.9	-4.6	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.75	2894.700	16752.975	2.160	13.3	6.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.862578
RRF SD: 0.0841194, Relative SD: 9.75209
Response type: Internal Std (Ref 59), 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	171230M3_2	Standard	12.500	4.77	3346.149	4119.288	10.154	11.8	-5.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.77	3122.687	4313.366	9.049	10.5	-16.1	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.77	3525.735	4111.814	10.718	12.4	-0.6	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.77	4035.167	4255.765	11.852	13.7	9.9	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.77	3635.138	3878.207	11.717	13.6	8.7	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.77	3368.915	4210.152	10.002	11.6	-7.2	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.77	3759.934	4401.300	10.678	12.4	-1.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.77	3581.165	3703.629	12.087	14.0	12.1	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.82849
RRF SD: 0.0831009, Relative SD: 10.0304
Response type: Internal Std (Ref 60), 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	171230M3_2	Standard	12.500	5.06	11396.063	11822.749	12.049	14.5	16.3	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.06	12214.988	14686.887	10.396	12.5	0.4	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.06	13065.430	15130.091	10.794	13.0	4.2	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.06	15245.605	18457.758	10.325	12.5	-0.3	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.06	10477.484	14194.363	9.227	11.1	-10.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.06	13506.891	15150.772	11.144	13.5	7.6	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.06	11127.295	15884.021	8.757	10.6	-15.4	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.06	10803.009	13293.888	10.158	12.3	-1.9	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.139048
RRF SD: 0.0198834, Relative SD: 14.2996
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	5.03	1883.502	15854.692	1.485	10.7	-14.6	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.03	2073.621	15202.074	1.705	12.3	-1.9	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.03	2062.173	18059.971	1.427	10.3	-17.9	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.03	2397.384	17487.736	1.714	12.3	-1.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.03	2574.274	17166.082	1.875	13.5	7.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.03	2555.486	17836.998	1.791	12.9	3.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.03	2875.256	16559.475	2.170	15.6	24.9	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.03	3363.342	16279.845	2.582	18.6	48.6	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.305992
RRF SD: 0.0378043, Relative SD: 12.3547
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.20	5518.691	17914.830	3.851	12.6	0.7	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.20	5810.836	15156.200	4.792	15.7	25.3	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.21	6177.302	19647.309	3.930	12.8	2.8	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.21	6081.363	21014.881	3.617	11.8	-5.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.21	5138.831	20442.176	3.142	10.3	-17.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.21	6165.212	20354.811	3.786	12.4	-1.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.21	5493.052	19464.414	3.528	11.5	-7.8	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.20	5297.485	16752.975	3.953	12.9	3.3	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.346134
RRF SD: 0.0547503, Relative SD: 15.8176
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.36	6870.466	17914.830	4.794	13.8	10.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.36	6798.414	15156.200	5.607	16.2	29.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.36	6614.306	19647.309	4.208	12.2	-2.7	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.36	6103.646	21014.881	3.631	10.5	-16.1	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.36	5599.027	20442.176	3.424	9.9	-20.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.36	6844.808	20354.811	4.203	12.1	-2.8	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.36	6483.990	19464.414	4.164	12.0	-3.8	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.36	6142.020	16752.975	4.583	13.2	5.9	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.84186
RRF SD: 0.124966, Relative SD: 14.844
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.37	12694.194	17914.830	8.857	10.5	-15.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.38	13733.104	15156.200	11.326	13.5	7.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.38	18060.582	19647.309	11.490	13.6	9.2	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.38	16289.948	21014.881	9.690	11.5	-7.9	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.38	13179.254	20442.176	8.059	9.6	-23.4	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.38	17291.234	20354.811	10.619	12.6	0.9	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.38	17619.236	19464.414	11.315	13.4	7.5	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.37	17195.029	16752.975	12.830	15.2	21.9	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.713778
RRF SD: 0.0765285, Relative SD: 10.7216
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.65	12525.502	17914.830	8.740	12.2	-2.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.66	13131.589	15156.200	10.830	15.2	21.4	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.66	12932.541	19647.309	8.228	11.5	-7.8	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.66	14817.573	21014.881	8.814	12.3	-1.2	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.66	12853.370	20442.176	7.860	11.0	-11.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.67	15211.739	20354.811	9.342	13.1	4.7	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.66	12634.695	19464.414	8.114	11.4	-9.1	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.65	12666.770	16752.975	9.451	13.2	5.9	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0778145
RRF SD: 0.00994747, Relative SD: 12.7836
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	5.82	16714.852	17914.830	11.663	149.9	-0.1	NO		NO	bb
2	2	171230M3_3	Standard	150.000	5.82	17982.373	15156.200	14.831	190.6	27.1	NO		NO	bb
3	3	171230M3_4	Standard	150.000	5.82	17483.596	19647.309	11.123	142.9	-4.7	NO		NO	bb
4	4	171230M3_5	Standard	150.000	5.83	18091.666	21014.881	10.761	138.3	-7.8	NO		NO	bb
5	5	171230M3_6	Standard	150.000	5.83	16698.209	20442.176	10.211	131.2	-12.5	NO		NO	bb
6	6	171230M3_7	Standard	150.000	5.83	17743.270	20354.811	10.896	140.0	-6.6	NO		NO	bb
7	7	171230M3_8	Standard	150.000	5.82	17214.338	19464.414	11.055	142.1	-5.3	NO		NO	bb
8	8	171230M3_9	Standard	150.000	5.82	17205.000	16752.975	12.837	165.0	10.0	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.236342
RRF SD: 0.0317238, Relative SD: 13.4228
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	6.12	3563.046	17914.830	2.486	10.5	-15.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	6.12	3501.355	15156.200	2.888	12.2	-2.3	NO		NO	bb
3	3	171230M3_4	Standard	12.500	6.12	3793.233	19647.309	2.413	10.2	-18.3	NO		NO	bb
4	4	171230M3_5	Standard	12.500	6.12	5426.529	21014.881	3.228	13.7	9.3	NO		NO	bb
5	5	171230M3_6	Standard	12.500	6.12	5365.466	20442.176	3.281	13.9	11.1	NO		NO	bb
6	6	171230M3_7	Standard	12.500	6.13	5598.277	20354.811	3.438	14.5	16.4	NO		NO	bb
7	7	171230M3_8	Standard	12.500	6.12	4141.186	19464.414	2.659	11.3	-10.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	6.12	4343.655	16752.975	3.241	13.7	9.7	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.113357
RRF SD: 0.013354, Relative SD: 11.7805
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	6.20	25881.516	17914.830	18.059	159.3	6.2	NO		NO	bb
2	2	171230M3_3	Standard	150.000	6.20	25449.146	15156.200	20.989	185.2	23.4	NO		NO	bb
3	3	171230M3_4	Standard	150.000	6.20	25814.051	19647.309	16.423	144.9	-3.4	NO		NO	bb
4	4	171230M3_5	Standard	150.000	6.21	25987.154	21014.881	15.458	136.4	-9.1	NO		NO	bb
5	5	171230M3_6	Standard	150.000	6.21	24649.652	20442.176	15.073	133.0	-11.4	NO		NO	bb
6	6	171230M3_7	Standard	150.000	6.21	25935.475	20354.811	15.927	140.5	-6.3	NO		NO	bb
7	7	171230M3_8	Standard	150.000	6.20	24497.834	19464.414	15.732	138.8	-7.5	NO		NO	bb
8	8	171230M3_9	Standard	150.000	6.20	24616.922	16752.975	18.368	162.0	8.0	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.48148
RRF SD: 0.0424758, Relative SD: 8.82194
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	5.000	6.45	2929.157	17914.830	2.044	4.2	-15.1	NO		NO	bb
2	2	171230M3_3	Standard	5.000	6.45	2974.677	15156.200	2.453	5.1	1.9	NO		NO	bb
3	3	171230M3_4	Standard	5.000	6.45	3582.617	19647.309	2.279	4.7	-5.3	NO		NO	bb
4	4	171230M3_5	Standard	5.000	6.45	3746.107	21014.881	2.228	4.6	-7.4	NO		NO	bb
5	5	171230M3_6	Standard	5.000	6.45	4163.788	20442.176	2.546	5.3	5.8	NO		NO	bb
6	6	171230M3_7	Standard	5.000	6.45	4259.023	20354.811	2.615	5.4	8.6	NO		NO	bb
7	7	171230M3_8	Standard	5.000	6.45	3769.071	19464.414	2.420	5.0	0.5	NO		NO	bb
8	8	171230M3_9	Standard	5.000	6.45	3581.645	16752.975	2.672	5.6	11.0	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.0898104
RRF SD: 0.00919355, Relative SD: 10.2366
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	6.31	19821.924	17914.830	13.831	154.0	2.7	NO		NO	bb
2	2	171230M3_3	Standard	150.000	6.31	17207.777	15156.200	14.192	158.0	5.3	NO		NO	bb
3	3	171230M3_4	Standard	150.000	6.31	23994.758	19647.309	15.266	170.0	13.3	NO		NO	bb
4	4	171230M3_5	Standard	150.000	6.31	19788.824	21014.881	11.771	131.1	-12.6	NO		NO	bb
5	5	171230M3_6	Standard	150.000	6.31	22454.855	20442.176	13.731	152.9	1.9	NO		NO	bb
6	6	171230M3_7	Standard	150.000	6.31	18313.316	20354.811	11.246	125.2	-16.5	NO		NO	bb
7	7	171230M3_8	Standard	150.000	6.31	22809.943	19464.414	14.648	163.1	8.7	NO		NO	bb
8	8	171230M3_9	Standard	150.000	6.31	17540.598	16752.975	13.088	145.7	-2.8	NO		NO	bd

Compound name: d9-N-EtFOSE
Response Factor: 0.0926026
RRF SD: 0.00888493, Relative SD: 9.59469
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	6.46	21333.172	17914.830	14.885	160.7	7.2	NO		NO	bb
2	2	171230M3_3	Standard	150.000	6.46	18647.777	15156.200	15.380	166.1	10.7	NO		NO	bb
3	3	171230M3_4	Standard	150.000	6.46	19787.104	19647.309	12.589	135.9	-9.4	NO		NO	bb
4	4	171230M3_5	Standard	150.000	6.46	24373.125	21014.881	14.498	156.6	4.4	NO		NO	bb
5	5	171230M3_6	Standard	150.000	6.46	19604.211	20442.176	11.988	129.5	-13.7	NO		NO	bd
6	6	171230M3_7	Standard	150.000	6.46	21146.869	20354.811	12.986	140.2	-6.5	NO		NO	bb
7	7	171230M3_8	Standard	150.000	6.46	20785.039	19464.414	13.348	144.1	-3.9	NO		NO	bb
8	8	171230M3_9	Standard	150.000	6.46	20706.365	16752.975	15.450	166.8	11.2	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), 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	171230M3_2	Standard	12.500	1.40	13605.824	13605.824	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	1.40	13369.447	13369.447	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	1.40	13581.593	13581.593	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	1.40	14427.911	14427.911	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	1.41	13476.122	13476.122	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	1.40	13722.552	13722.552	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	1.40	13686.915	13686.915	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	1.40	13784.692	13784.692	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	3.12	15854.692	15854.692	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.13	15202.074	15202.074	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.13	18059.971	18059.971	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.13	17487.736	17487.736	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.13	17166.082	17166.082	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.13	17836.998	17836.998	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.13	16559.475	16559.475	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.13	16279.845	16279.845	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), 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	171230M3_2	Standard	12.500	3.89	3931.583	3931.583	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.89	4153.182	4153.182	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.89	3997.727	3997.727	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.89	4460.181	4460.181	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.89	4016.015	4016.015	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.89	4349.945	4349.945	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.89	4184.471	4184.471	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.89	3866.536	3866.536	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), 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	171230M3_2	Standard	12.500	4.26	15842.009	15842.009	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.26	14183.630	14183.630	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.26	14427.698	14427.698	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.26	15338.244	15338.244	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.26	15165.979	15165.979	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.26	15888.991	15888.991	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.26	14827.076	14827.076	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.25	13948.476	13948.476	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), 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	171230M3_2	Standard	12.500	4.69	16136.932	16136.932	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.69	17342.525	17342.525	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.69	15833.807	15833.807	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.69	18011.766	18011.766	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.69	13990.217	13990.217	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.69	18828.510	18828.510	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.69	15145.017	15145.017	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.68	16995.723	16995.723	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), 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	171230M3_2	Standard	12.500	4.76	4119.288	4119.288	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.77	4313.366	4313.366	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.77	4111.814	4111.814	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.78	4255.765	4255.765	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.77	3878.207	3878.207	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.78	4210.152	4210.152	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.77	4401.300	4401.300	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.76	3703.629	3703.629	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), 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	171230M3_2	Standard	12.500	5.06	11822.749	11822.749	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.06	14686.887	14686.887	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.06	15130.091	15130.091	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.06	18457.758	18457.758	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.06	14194.363	14194.363	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.06	15150.772	15150.772	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.06	15884.021	15884.021	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.06	13293.888	13293.888	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.37	17914.830	17914.830	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.37	15156.200	15156.200	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.38	19647.309	19647.309	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.38	21014.881	21014.881	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.38	20442.176	20442.176	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.38	20354.811	20354.811	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.38	19464.414	19464.414	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.37	16752.975	16752.975	12.500	12.5	0.0	NO		NO	bb

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:16:44

Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9998	NO	
2	2	PFPeA	0.9997	NO	
3	3	PFBS	0.9989	NO	
4	4	PFHxA	0.9994	NO	
5	5	PFHpA	0.9987	NO	
6	6	L-PFHxS	0.9991	NO	
7	8	6:2 FTS	0.9976	NO	
8	9	L-PFOA	0.9950	NO	
9	11	PFHpS	0.9976	NO	
10	12	PFNA	0.9986	NO	
11	13	PFOSA	0.9993	NO	
12	14	L-PFOS	0.9966	NO	
13	16	PFDA	0.9976	NO	
14	17	8:2 FTS	0.9975	NO	
15	18	N-MeFOSAA	0.9997	NO	
16	19	N-EtFOSAA	0.9994	NO	
17	20	PFUdA	0.9998	NO	
18	21	PFDS	0.9956	NO	
19	22	PFDoA	0.9988	NO	
20	23	N-MeFOSA	0.9995	NO	
21	24	PFTrDA	0.9989	NO	
22	25	PFTeDA	0.9992	NO	
23	26	N-EtFOSA	0.9998	NO	
24	27	PFHxDA	0.9989	NO	
25	28	PFODA	0.9985	NO	
26	29	N-MeFOSE	0.9946	NO	
27	30	N-EtFOSE	0.9985	NO	
28	31	13C3-PFBA		NO	2.079
29	32	13C3-PFPeA		NO	5.743
30	33	13C3-PFBS		NO	8.420
31	34	13C2-PFHxA		NO	8.614

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Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	7.321
33	36	18O2-PFHxS		NO	7.774
34	37	13C2-6:2 FTS		NO	14.883
35	38	13C2-PFOA		NO	3.547
36	39	13C5-PFNA		NO	9.172
37	40	13C8-PFOSA		NO	11.897
38	41	13C8-PFOS		NO	9.752
39	42	13C2-PFDA		NO	10.030
40	43	13C2-8:2 FTS		NO	14.300
41	44	d3-N-MeFOSAA		NO	12.355
42	45	d5-N-EtFOSAA		NO	15.818
43	46	13C2-PFUdA		NO	14.844
44	47	13C2-PFDoA		NO	10.722
45	48	d3-N-MeFOSA		NO	12.784
46	49	13C2-PFTeDA		NO	13.423
47	50	d5-N-ETFOSA		NO	11.780
48	51	13C2-PFHxDA		NO	8.822
49	52	d7-N-MeFOSE		NO	10.237
50	53	d9-N-EtFOSE		NO	9.595
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

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Dataset: Untitled

Last Altered: Sunday, December 31, 2017 12:32:21 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:33:45 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:27:18

(A) Not valid for all cmpds. RI.

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171230M3_1	IPA	30-Dec-17	22:44:34
2	171230M3_2	ST171230M3-1 PFC CS-2 17L2606	30-Dec-17	22:55:42
3	171230M3_3	ST171230M3-2 PFC CS-1 17L2607	30-Dec-17	23:06:53
4	171230M3_4	ST171230M3-3 PFC CS0 17L2608	30-Dec-17	23:18:04
5	171230M3_5	ST171230M3-4 PFC CS1 17L2609	30-Dec-17	23:29:14
6	171230M3_6	ST171230M3-5 PFC CS2 17L2610	30-Dec-17	23:40:25
7	171230M3_7	ST171230M3-6 PFC CS3 17L2611	30-Dec-17	23:51:35
8	171230M3_8	ST171230M3-7 PFC CS4 17L2612	31-Dec-17	00:02:47
9	171230M3_9	ST171230M3-8 PFC CS5 17L2613	31-Dec-17	00:13:57
10	171230M3_10	ST171230M3-9 PFC CS6 17L2710	31-Dec-17	00:25:08
11	171230M3_11	ST171230M3-10 PFC CS7 17L1804	31-Dec-17	00:36:19
12	171230M3_12	IPA	31-Dec-17	00:47:29
13	171230M3_13	ICV171230M3-1 PFC ICV 17L1201 (A)	31-Dec-17	00:58:40
14	171230M3_14	ICV171230M3-2 PFC ICV 17L1201	31-Dec-17	01:09:51
15	171230M3_15	IPA	31-Dec-17	01:21:01

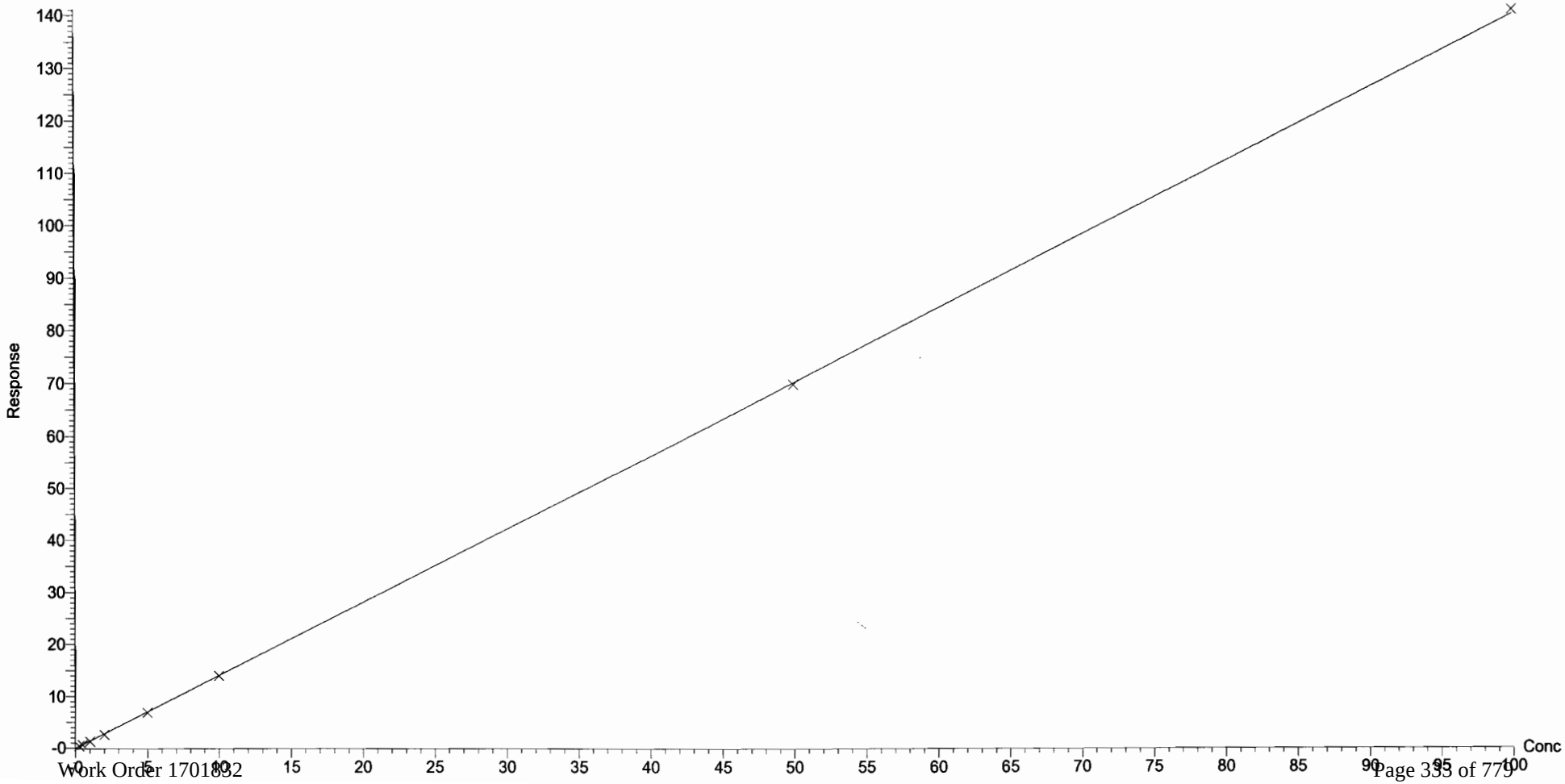
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:16:44

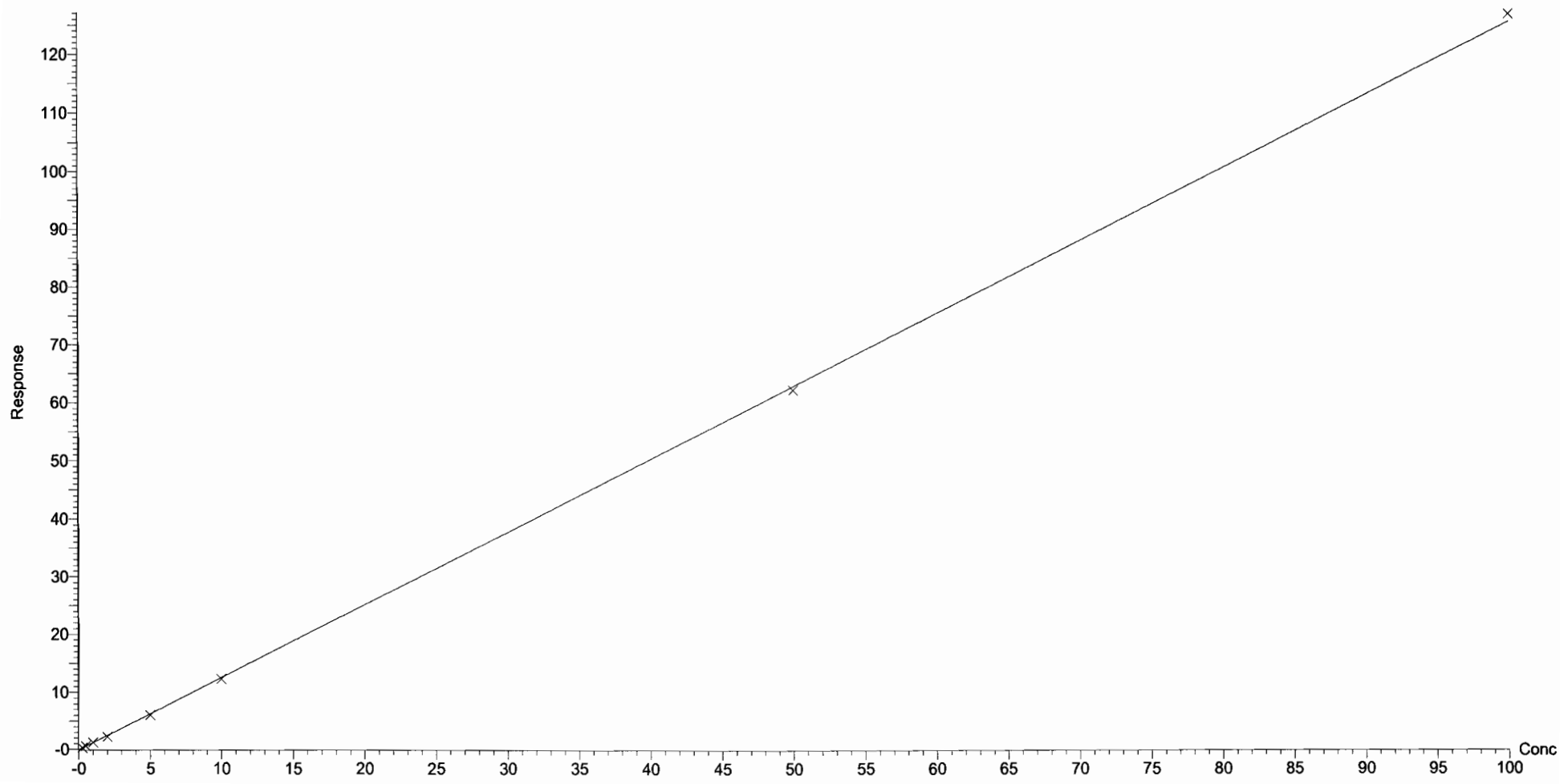
Compound name: PFBA
Correlation coefficient: r = 0.999916, r^2 = 0.999832
Calibration curve: 1.40326 * x + -0.0463085
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

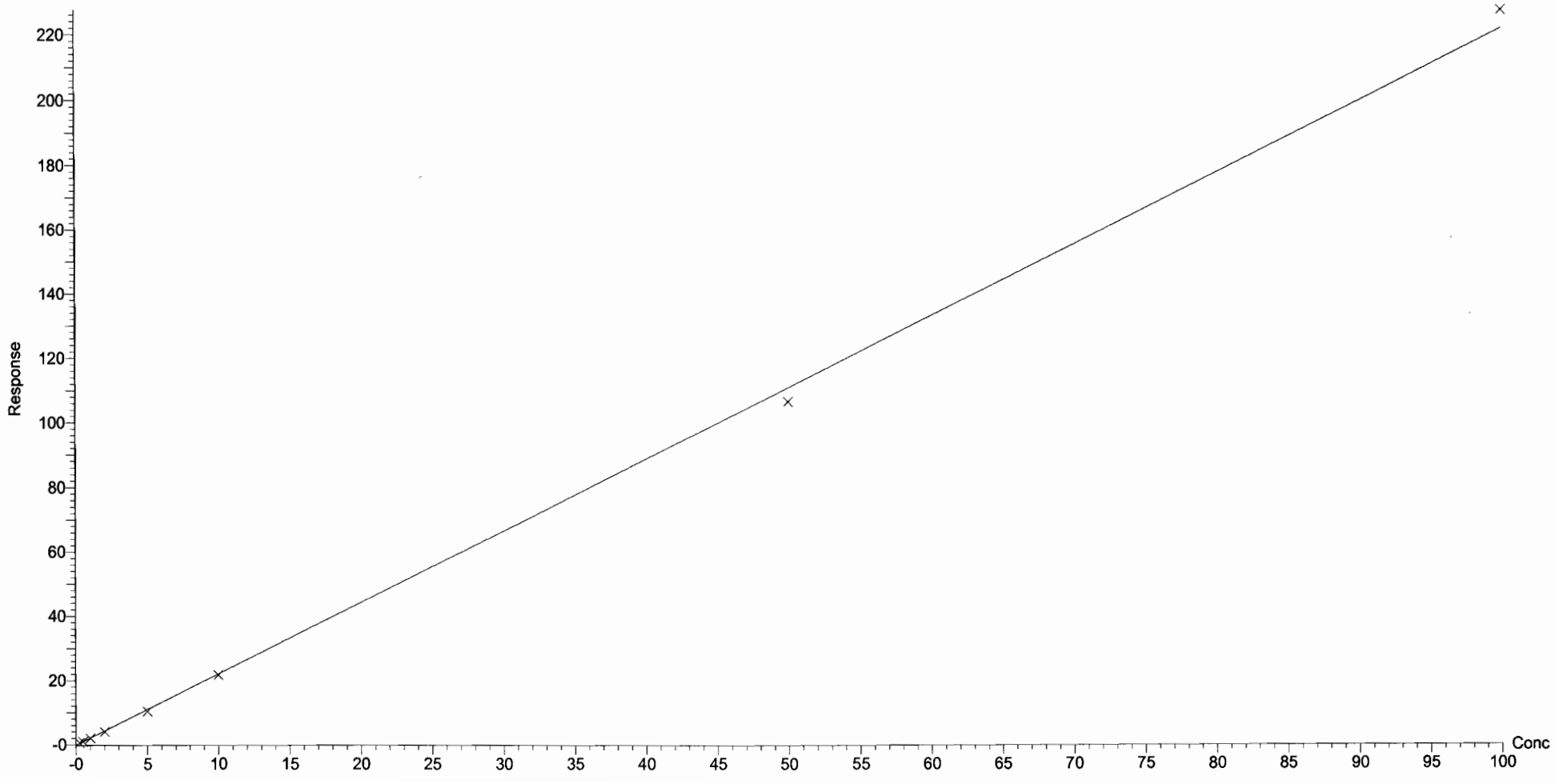
Compound name: PFPeA
Correlation coefficient: r = 0.999838, r^2 = 0.999676
Calibration curve: 1.25863 * x + -0.0561556
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

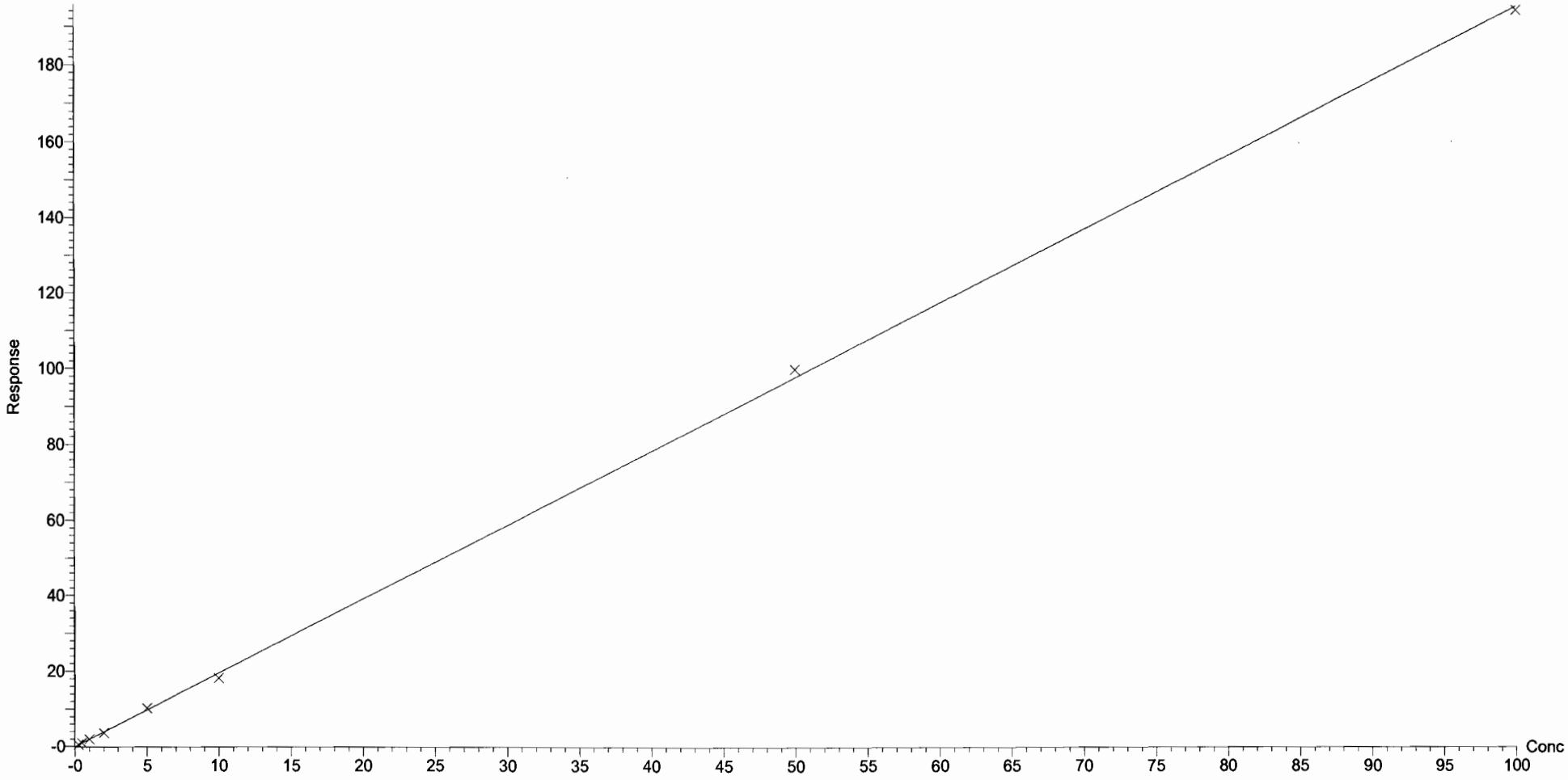
Compound name: PFBS
Correlation coefficient: r = 0.999434, r^2 = 0.998868
Calibration curve: 2.22069 * x + -0.183022
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

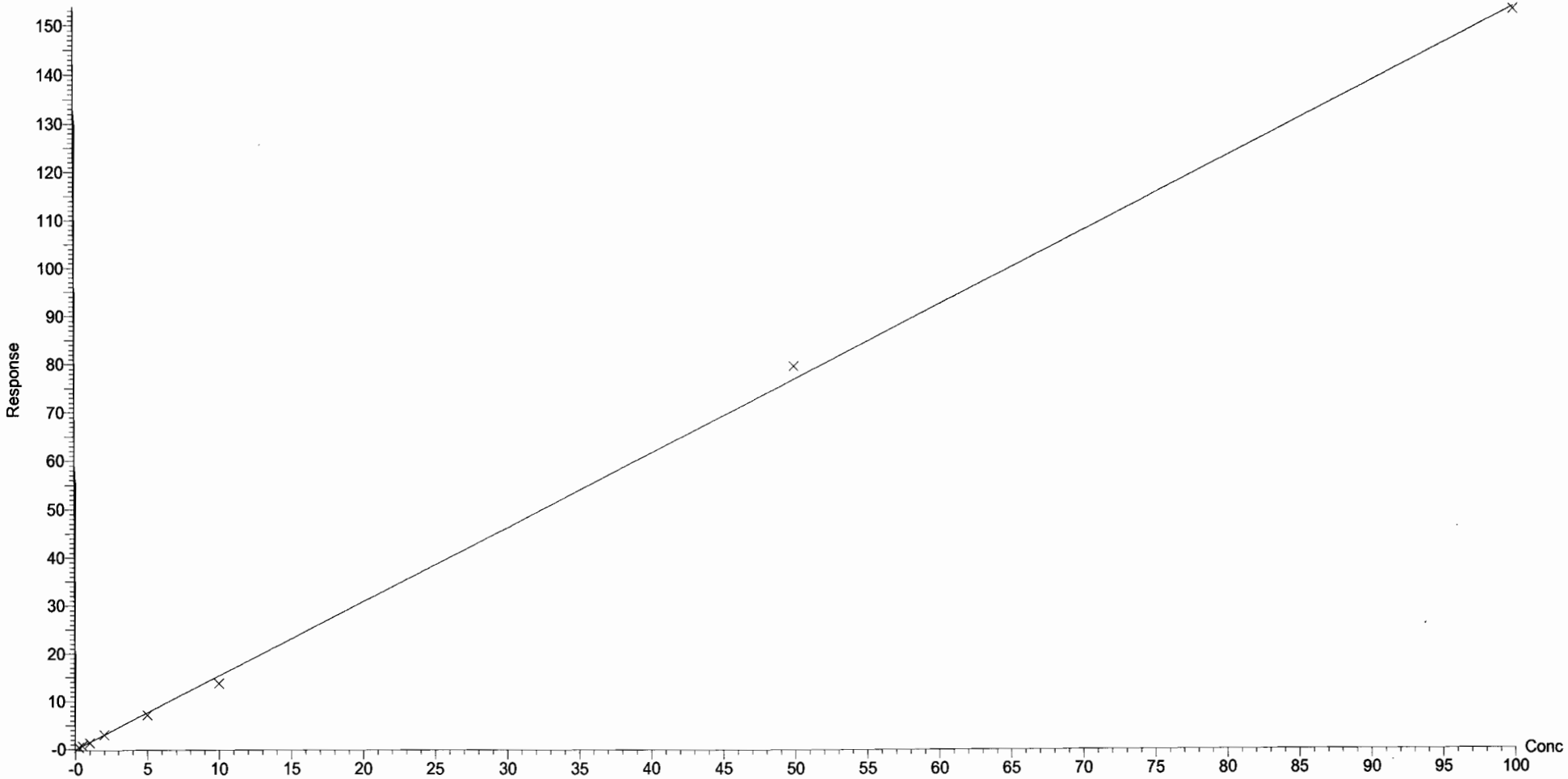
Compound name: PFHxA
Correlation coefficient: r = 0.999700, r^2 = 0.999400
Calibration curve: 1.95668 * x + -0.0594756
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

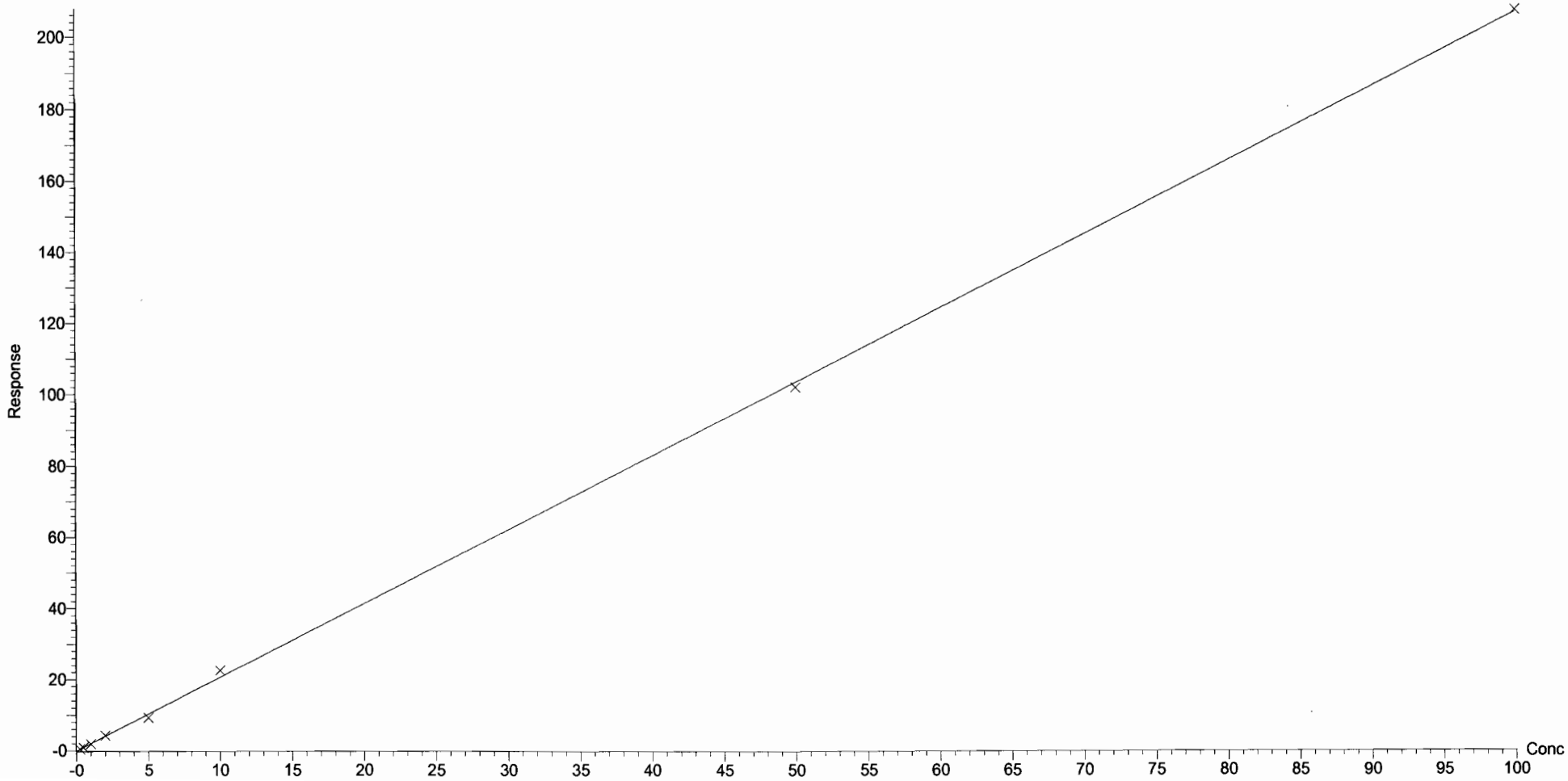
Compound name: PFHpA
Correlation coefficient: r = 0.999344, r^2 = 0.998689
Calibration curve: 1.53884 * x + -0.0806046
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

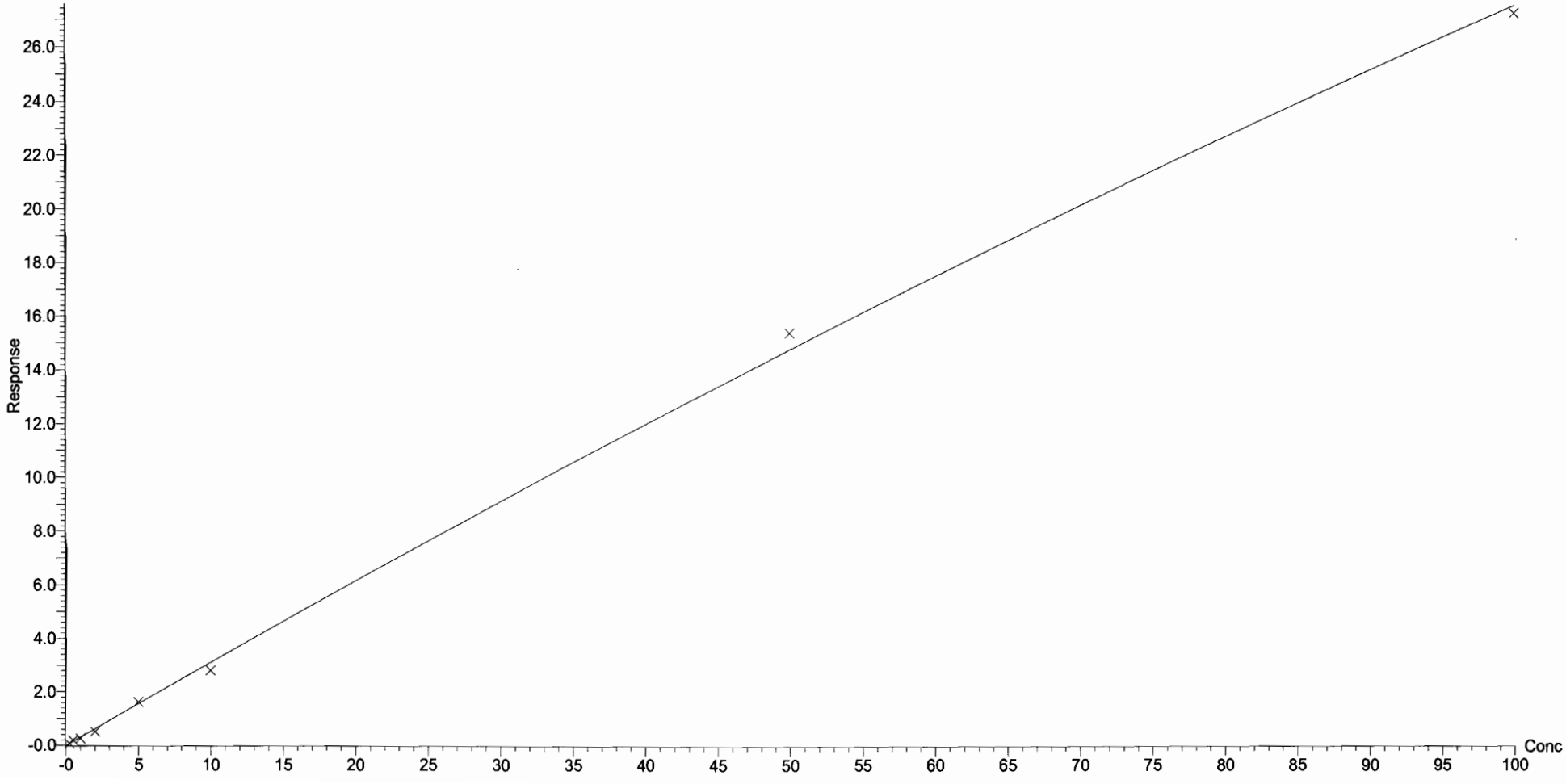
Compound name: L-PFHxS
Correlation coefficient: r = 0.999556, r^2 = 0.999113
Calibration curve: 2.07297 * x + -0.115432
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

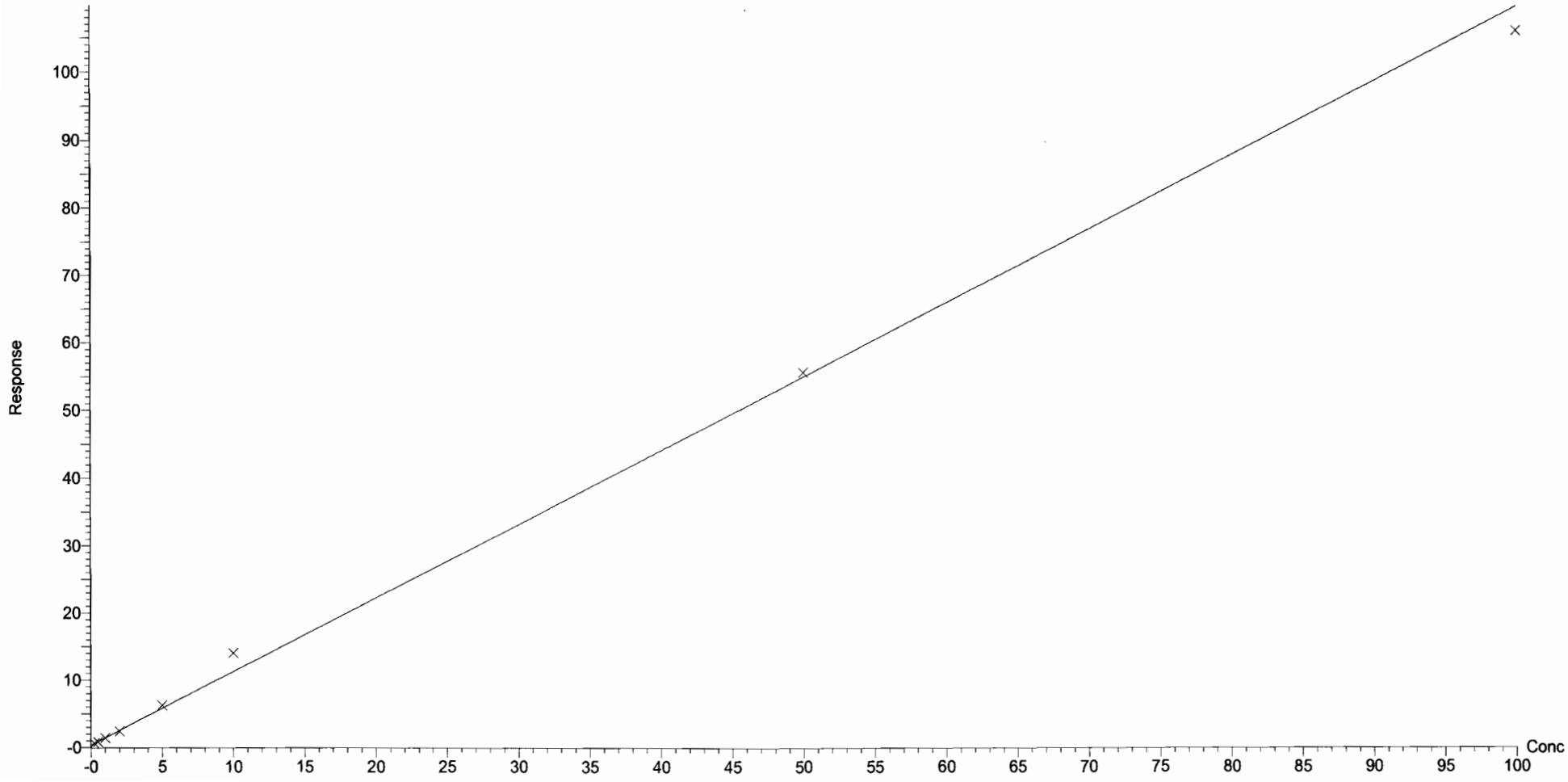
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997647
Calibration curve: -0.000403433 * x^2 + 0.31611 * x + -0.016104
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

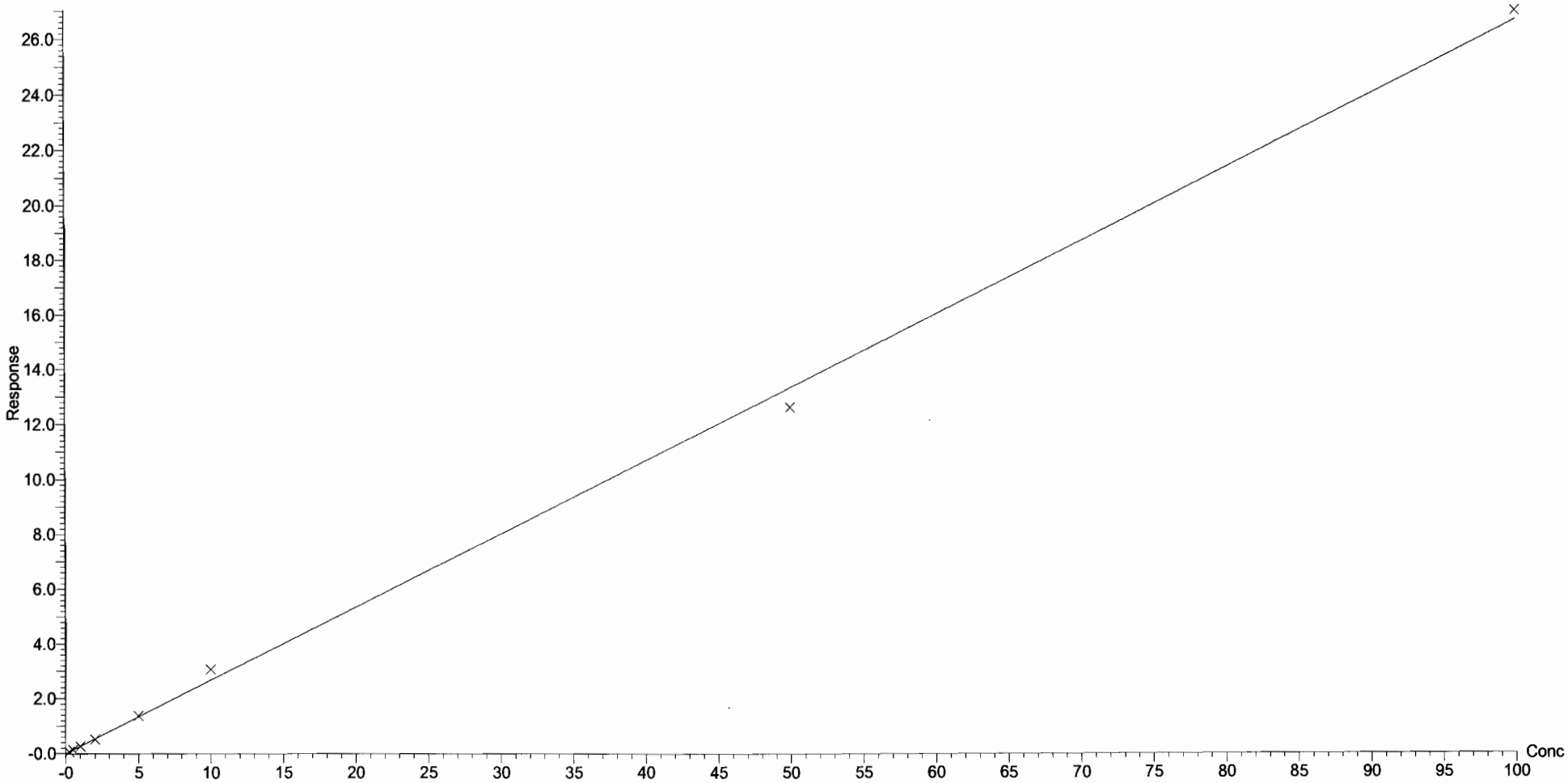
Compound name: L-PFOA
Correlation coefficient: r = 0.997521, r^2 = 0.995048
Calibration curve: 1.09349 * x + 0.337952
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

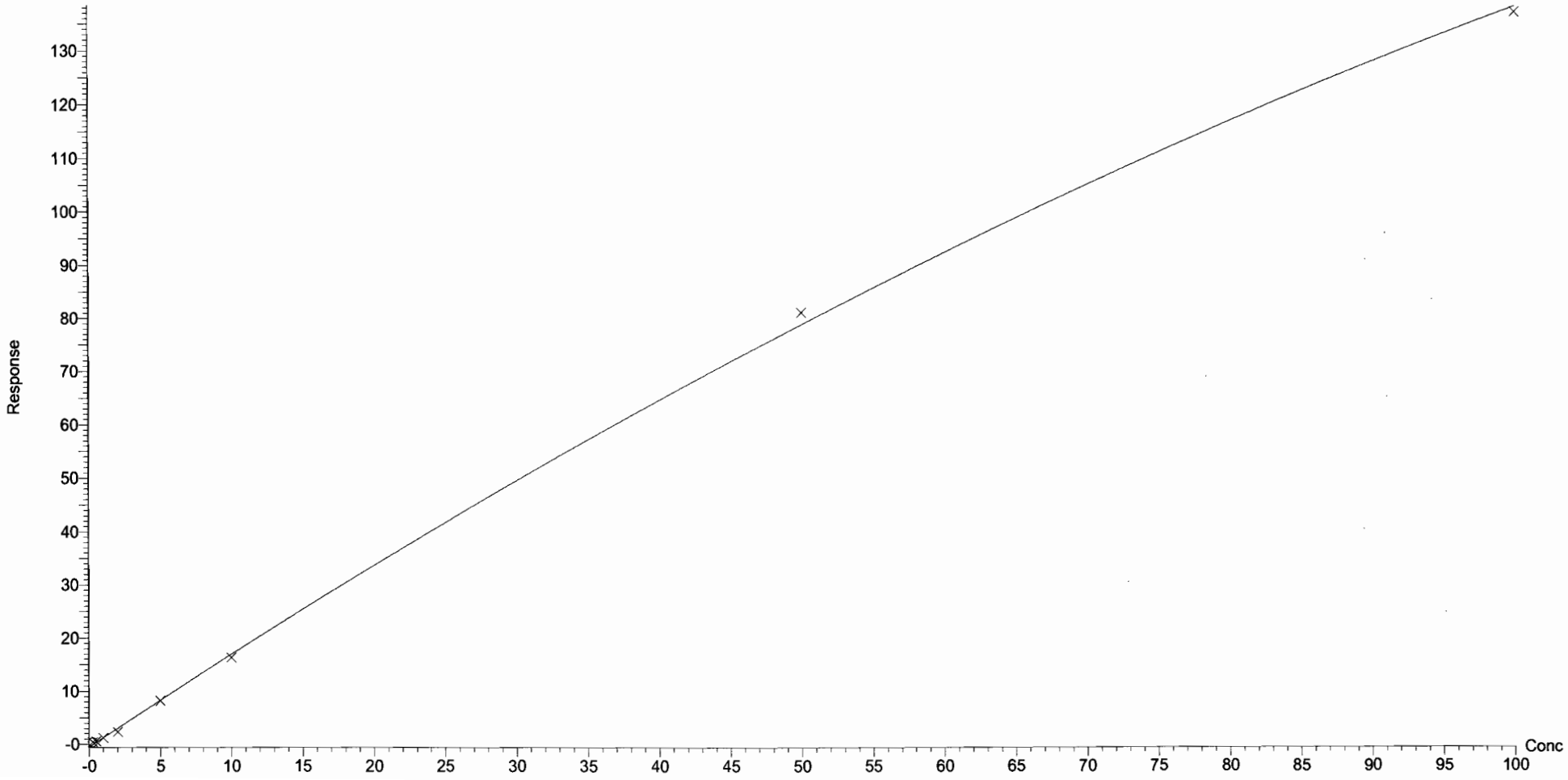
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.997563
Calibration curve: 5.37943e-006 * x^2 + 0.266569 * x + -0.00415487
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

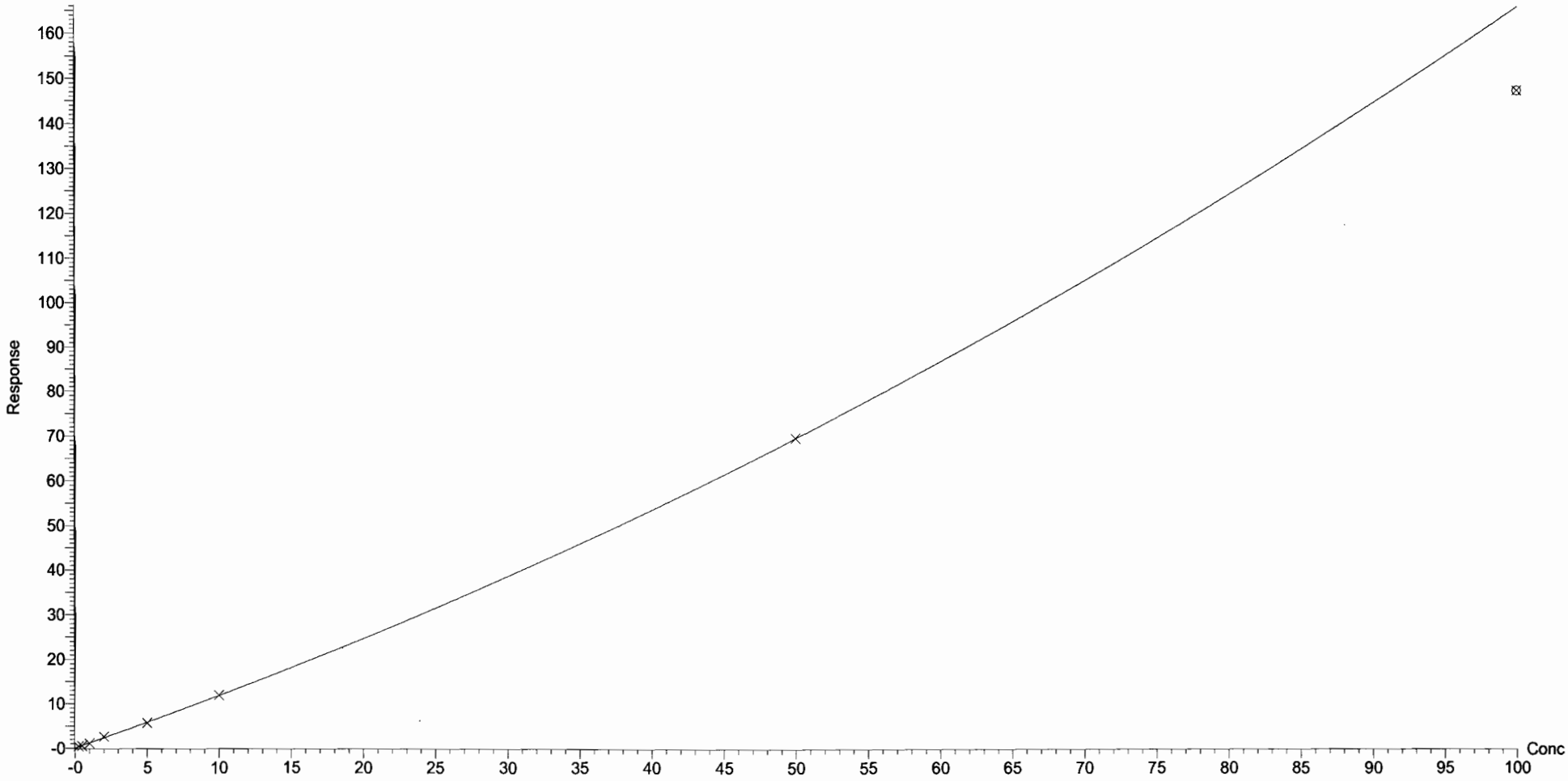
Compound name: PFNA
Coefficient of Determination: R^2 = 0.998614
Calibration curve: -0.00399158 * x^2 + 1.78875 * x + -0.552669
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: PFOSA
Coefficient of Determination: R^2 = 0.999310
Calibration curve: 0.00540399 * x^2 + 1.12028 * x + 0.108059
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



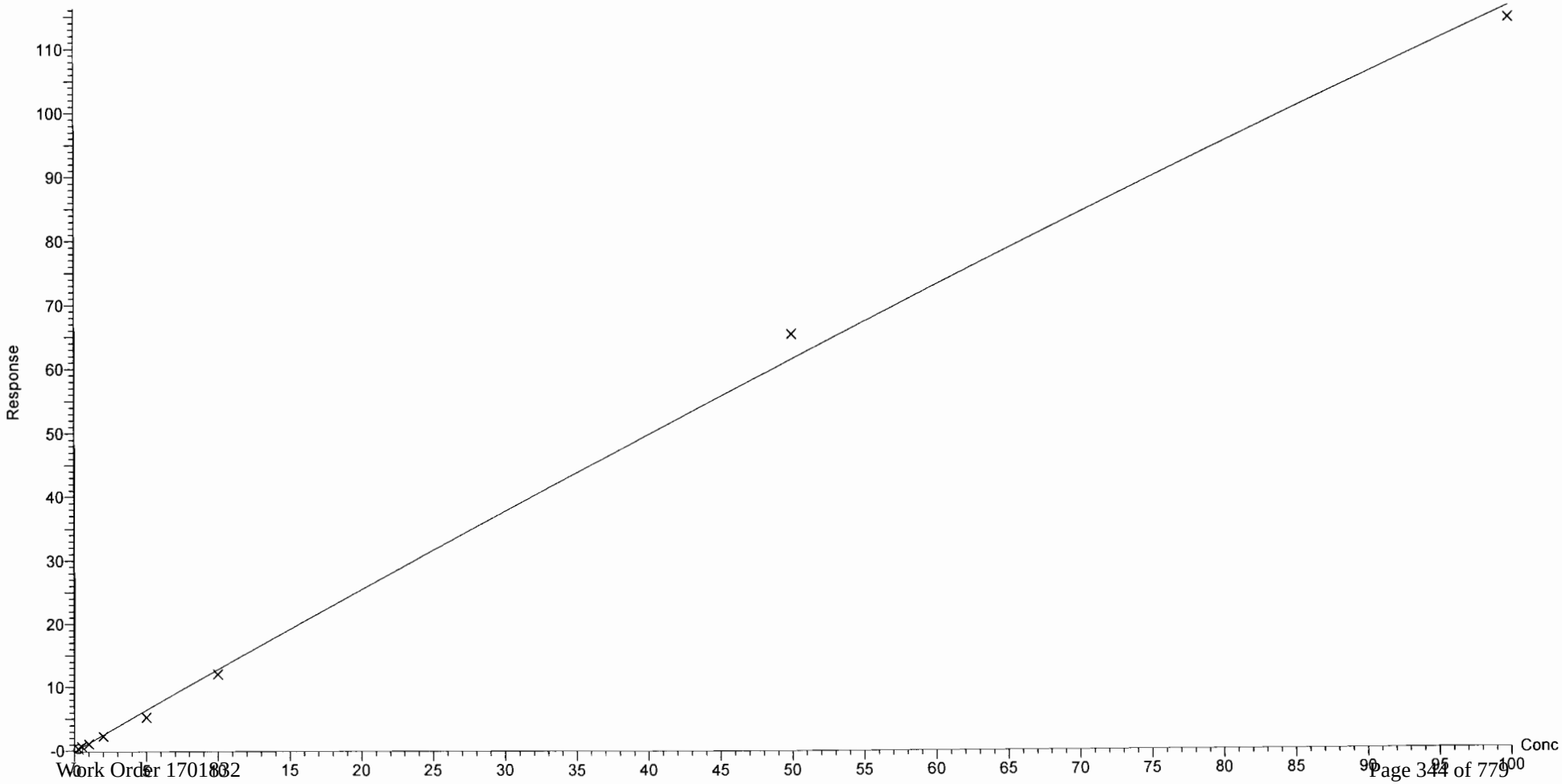
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:46:37 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:47:29 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

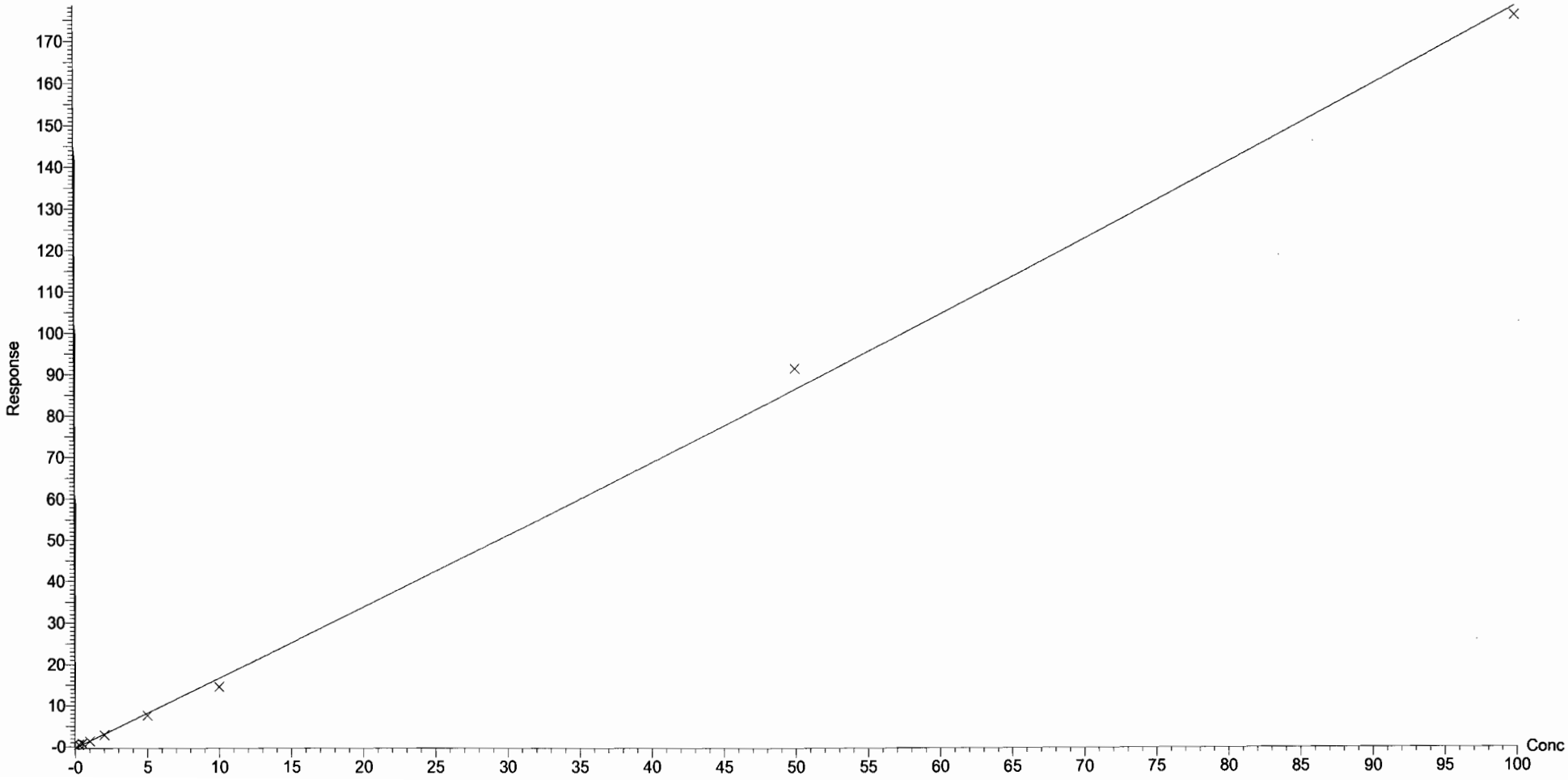
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.996695
Calibration curve: -0.00134849 * x^2 + 1.2979 * x + -0.114204
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

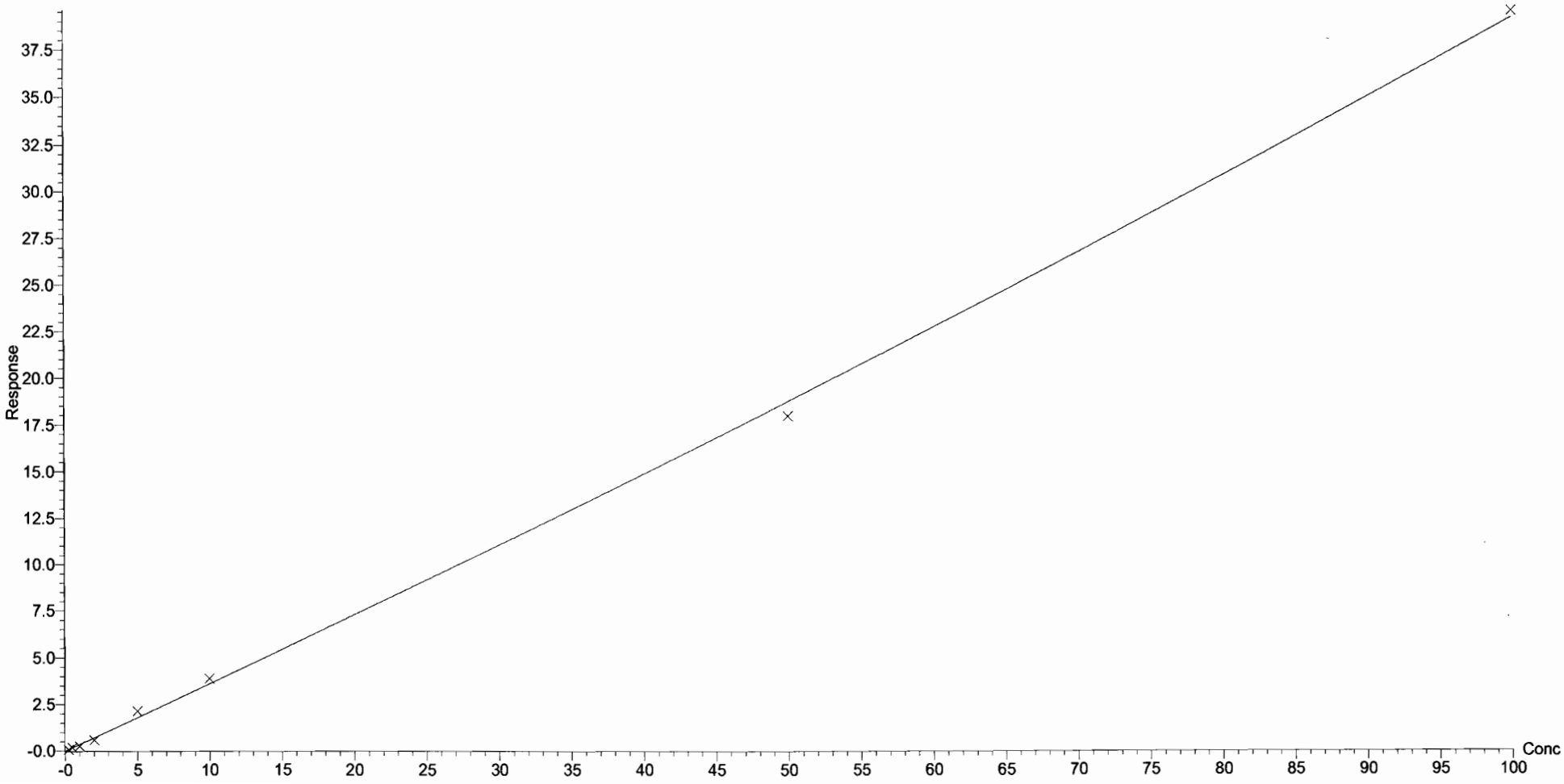
Compound name: PFDA
Coefficient of Determination: R^2 = 0.997594
Calibration curve: 0.00111351 * x^2 + 1.67605 * x + -0.298586
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997475
Calibration curve: 0.000346834 * x^2 + 0.357879 * x + -0.0189768
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

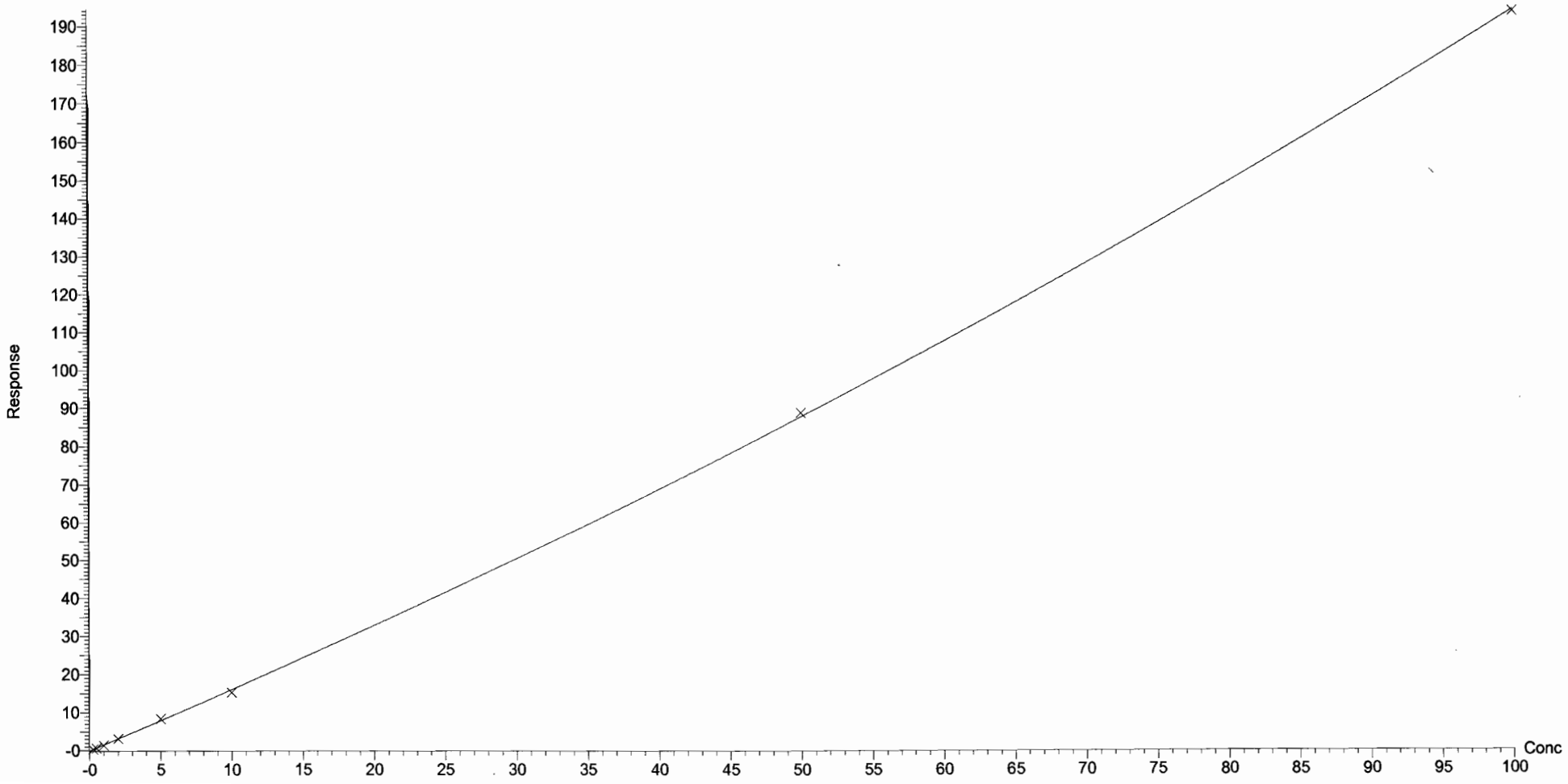


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

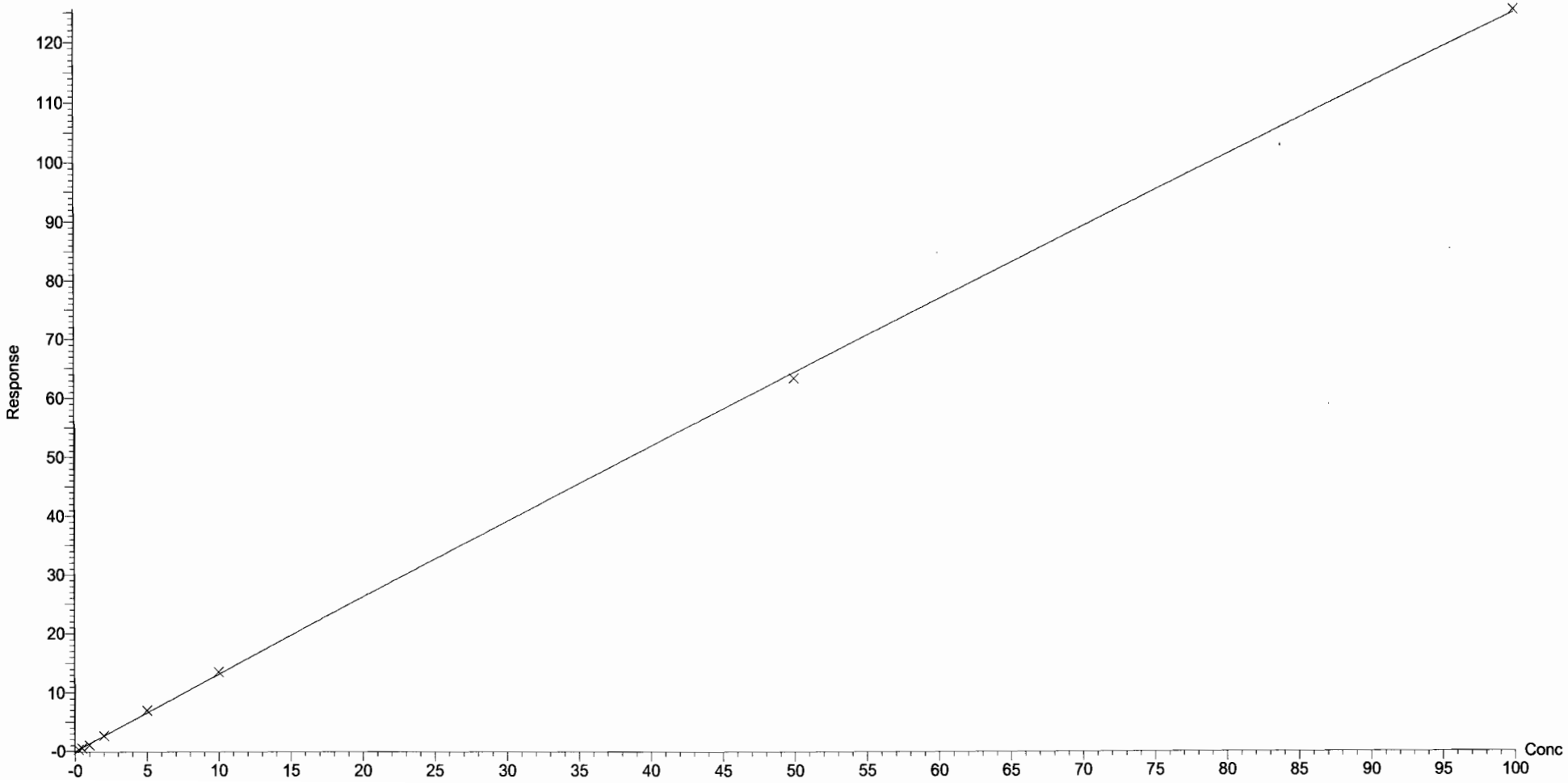
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999652
Calibration curve: 0.00378022 * x^2 + 1.56644 * x + -0.06001
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

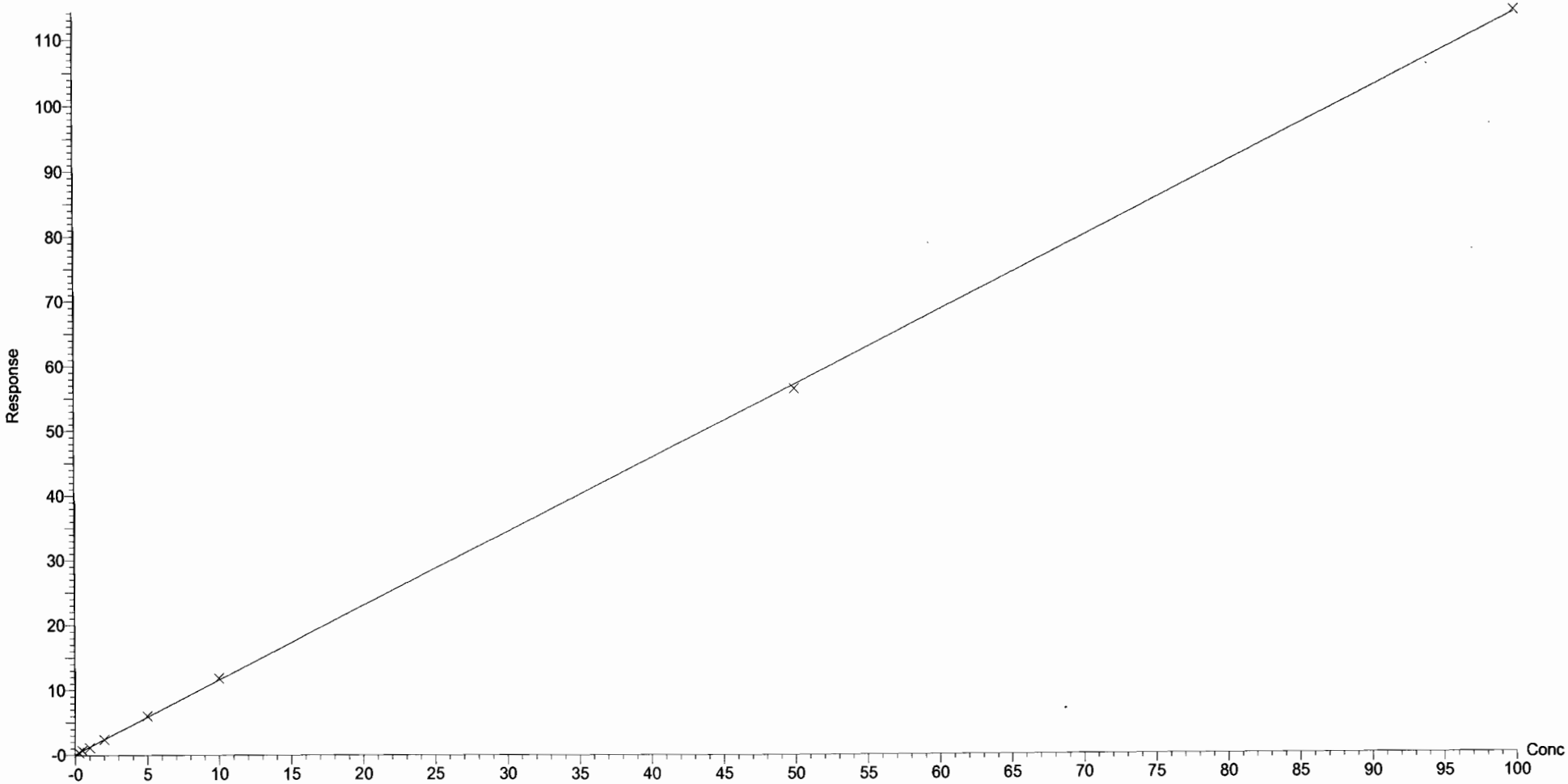
Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999425
Calibration curve: -0.000739055 * x^2 + 1.32527 * x + -0.0579014
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

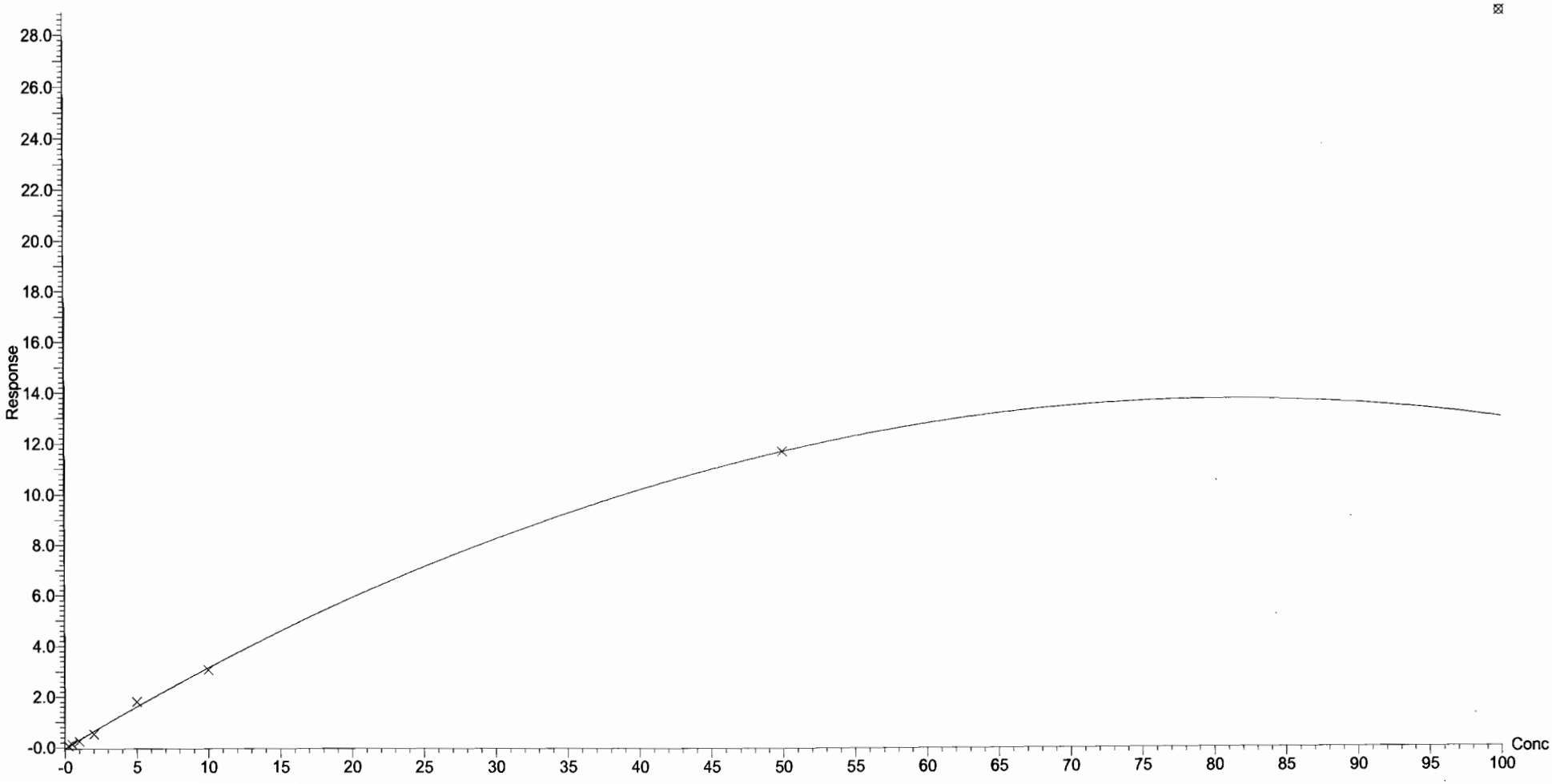
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999814
Calibration curve: -6.41044e-005 * x^2 + 1.14422 * x + 0.0911568
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: PFDS
Coefficient of Determination: R^2 = 0.995645
Calibration curve: -0.00208251 * x^2 + 0.338053 * x + -0.0343255
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

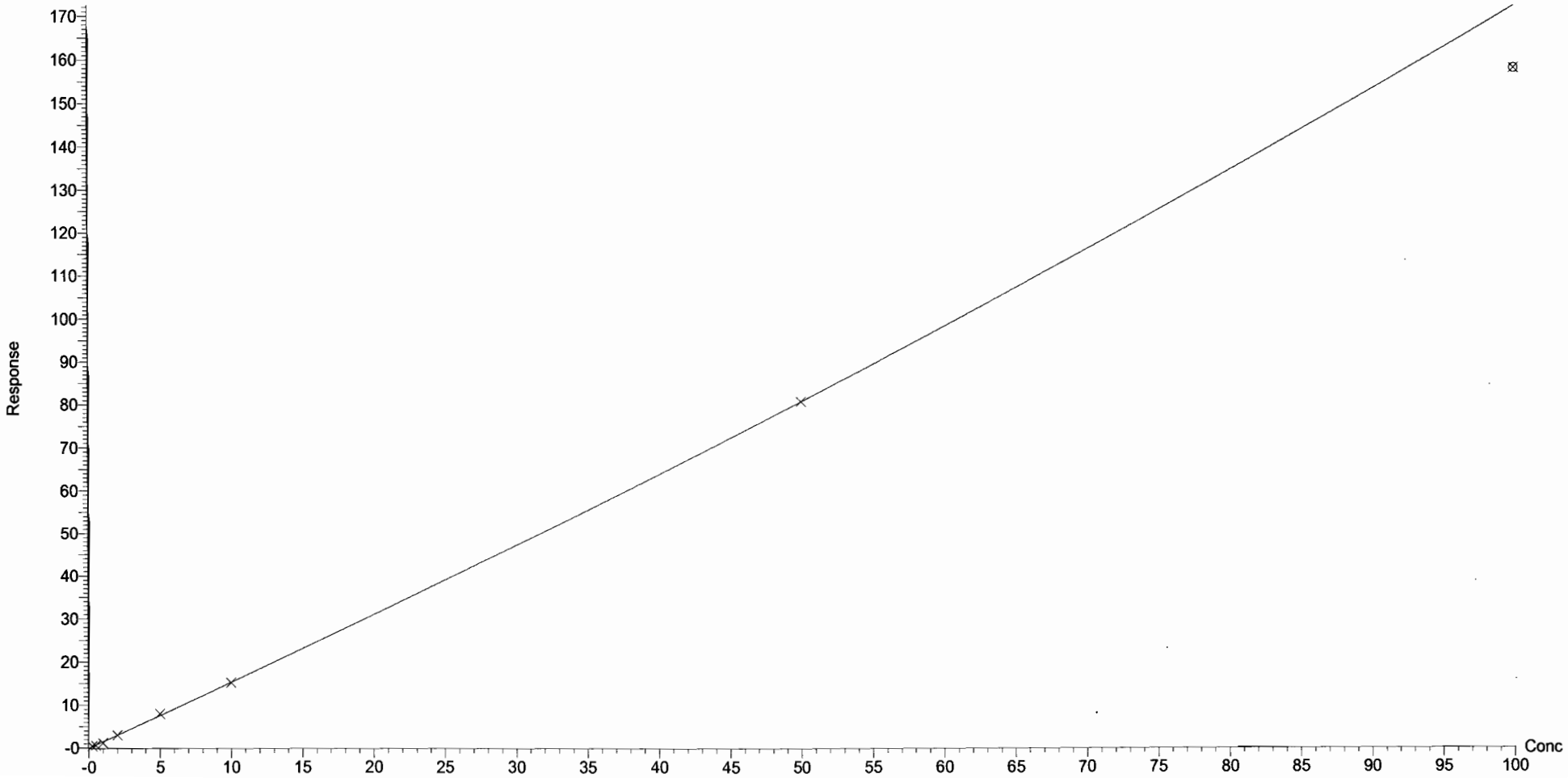


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

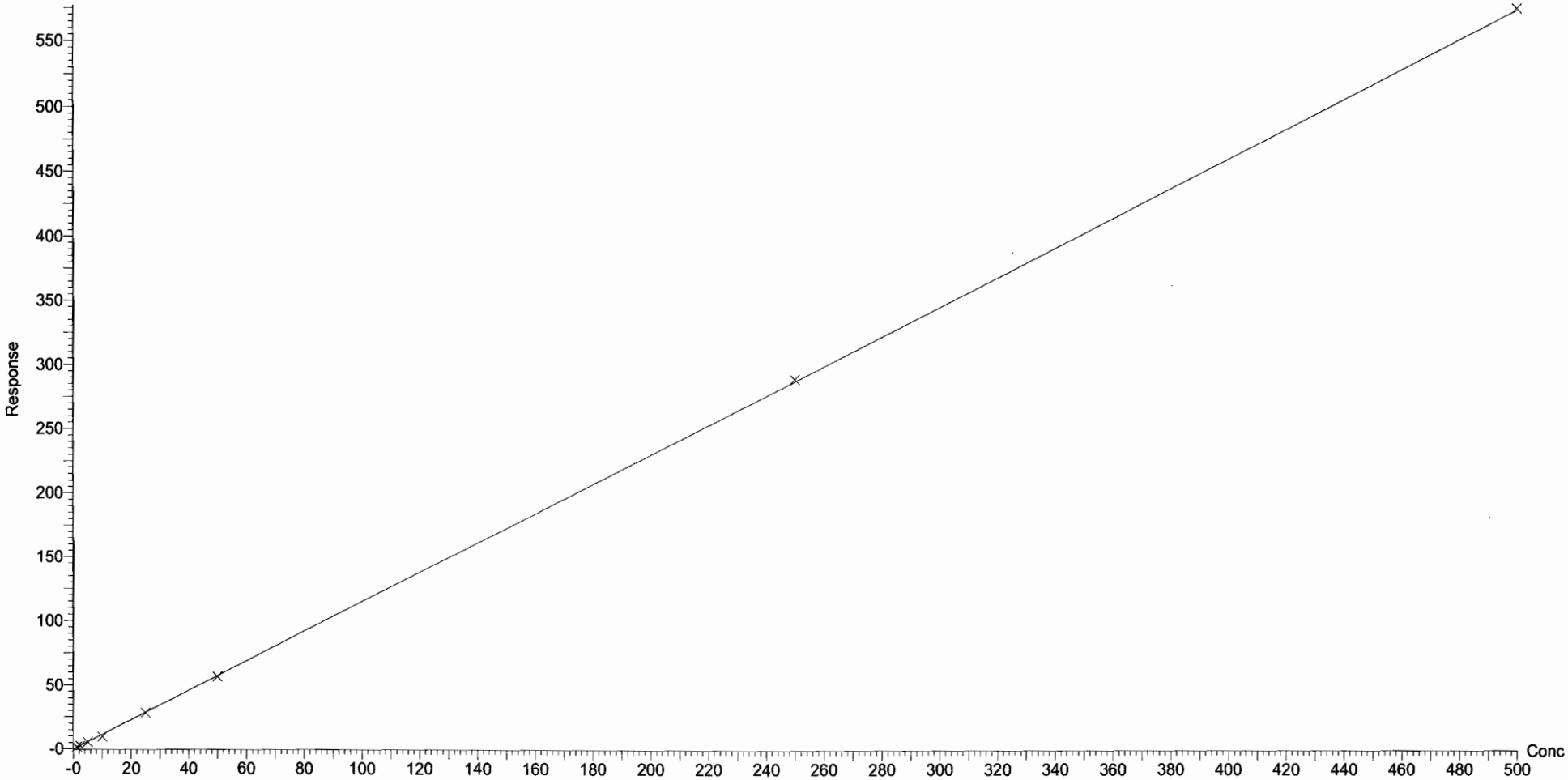
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998836
Calibration curve: 0.00218241 * x^2 + 1.50665 * x + -0.0562005
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999764, r^2 = 0.999529
Calibration curve: 1.15109 * x + -0.214856
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None

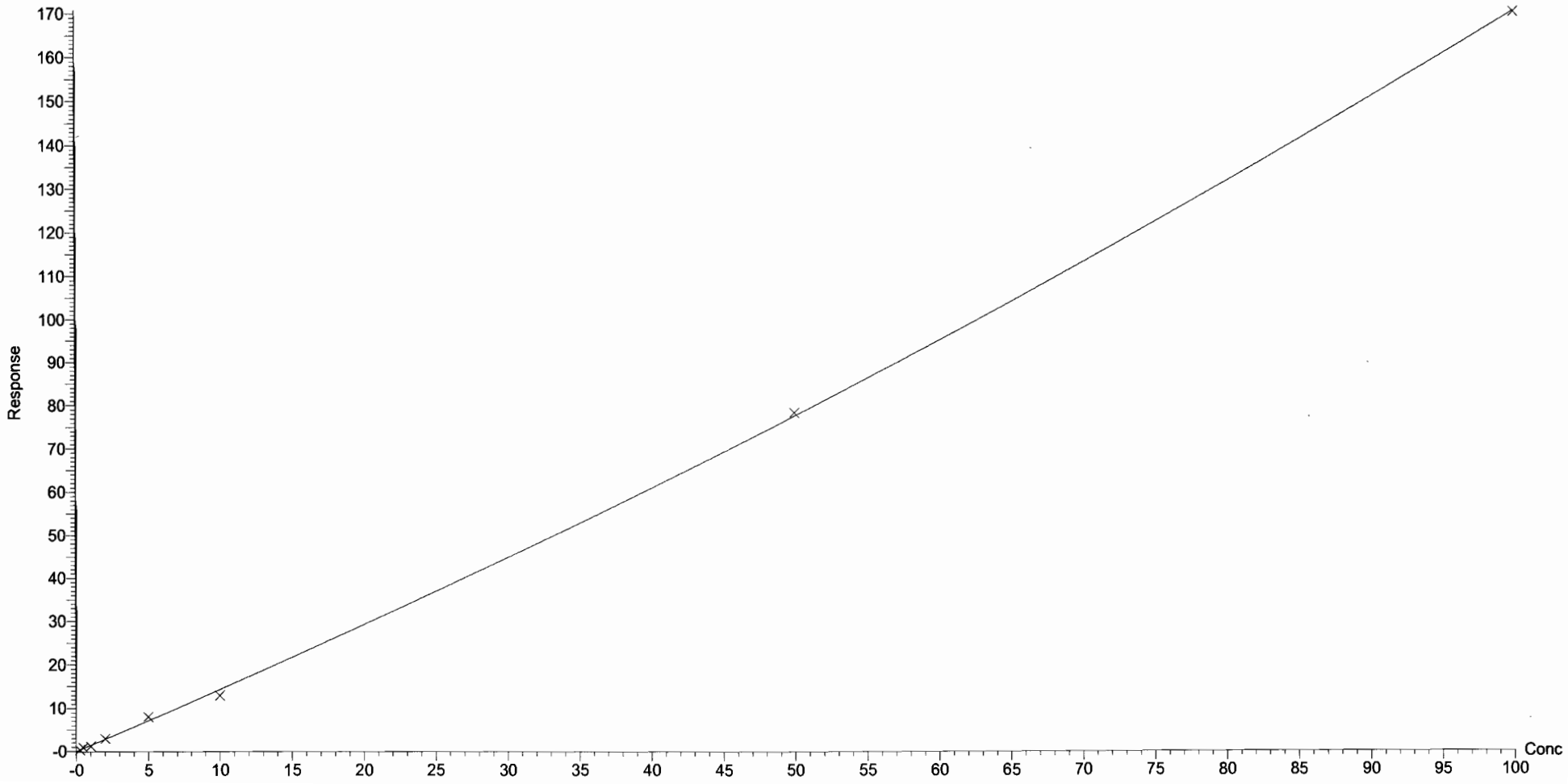


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998861
Calibration curve: 0.0031192 * x^2 + 1.39506 * x + 0.0280022
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None

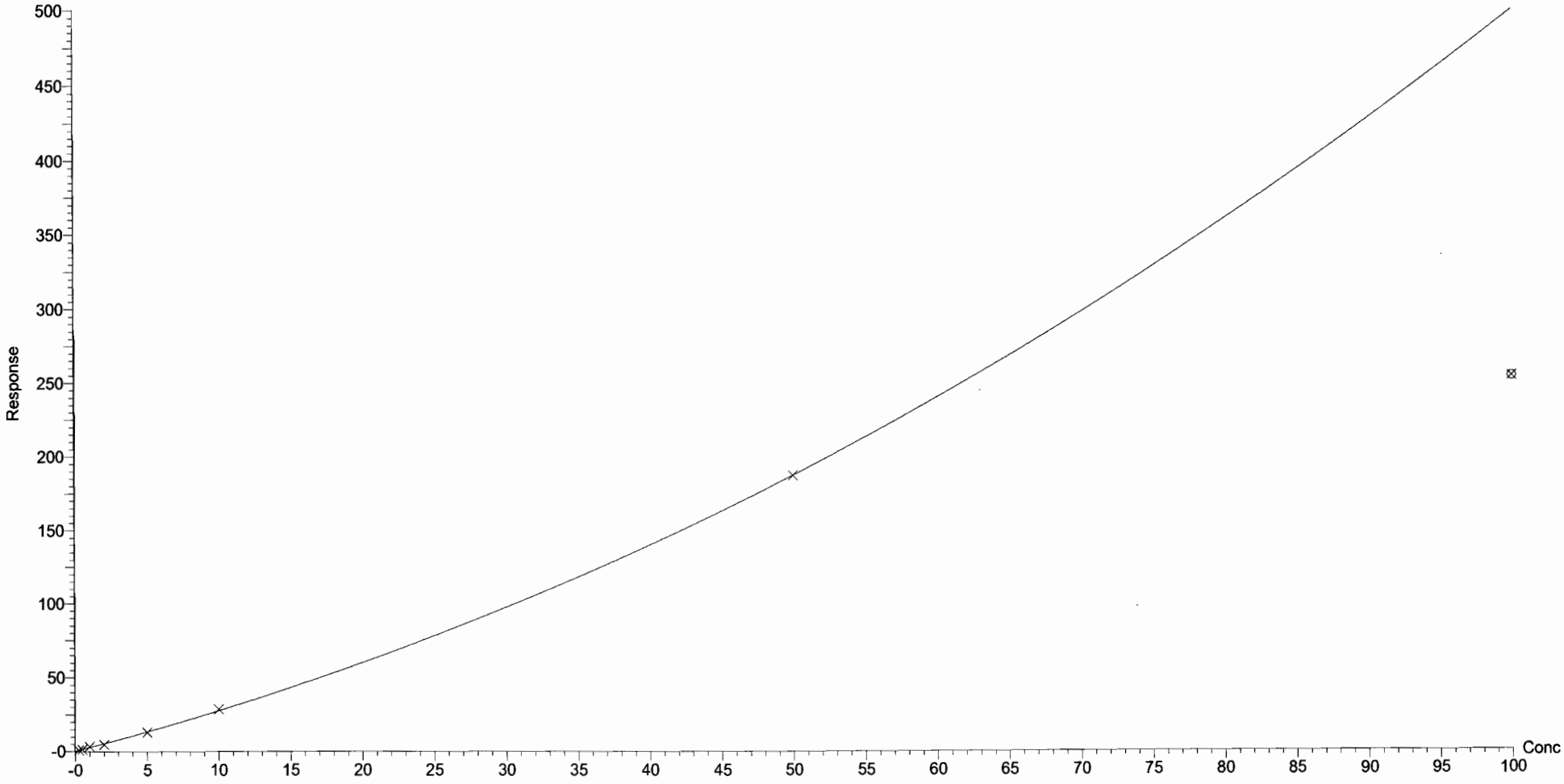


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

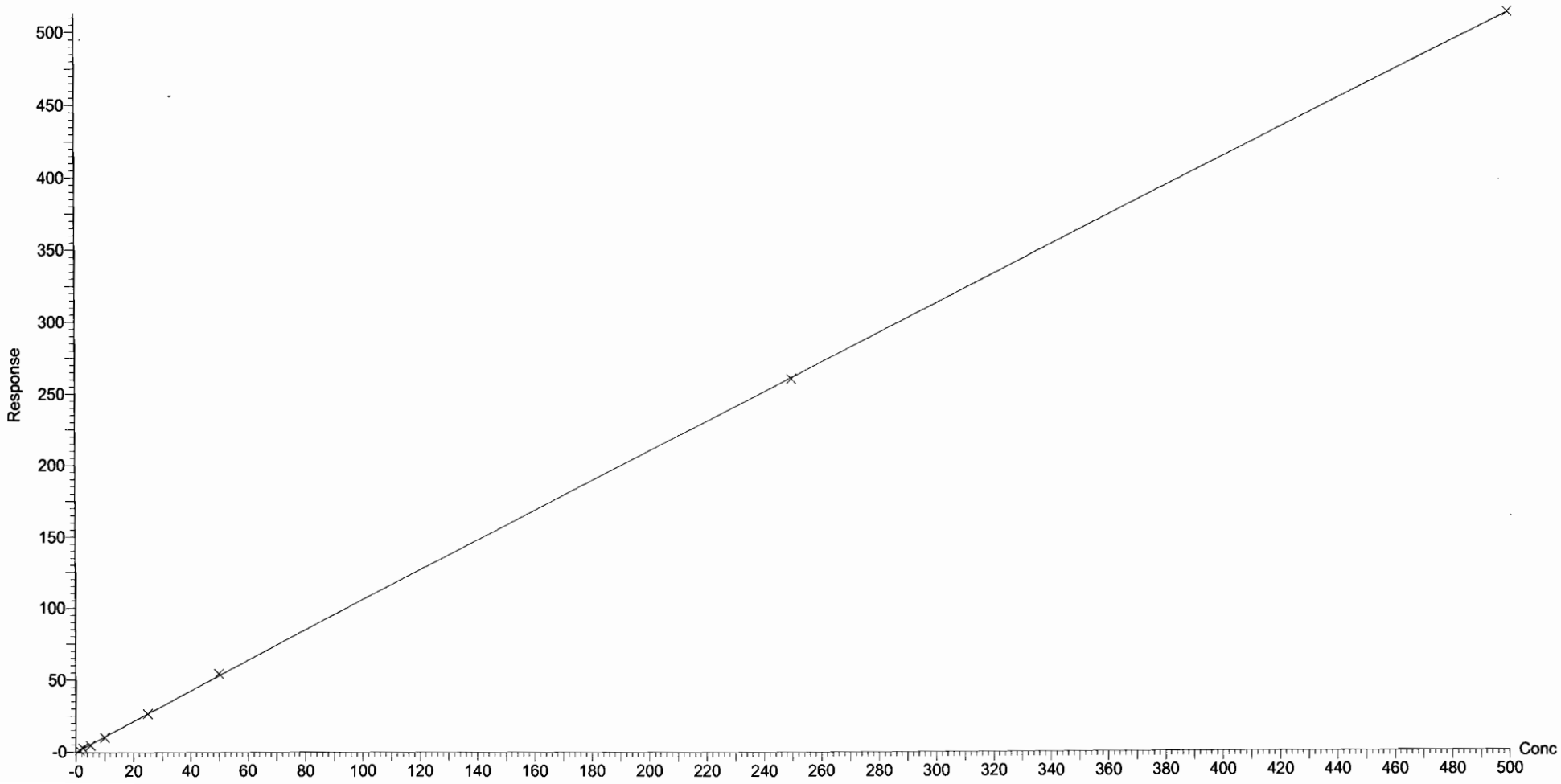
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999178
Calibration curve: 0.0252471 * x^2 + 2.47541 * x + 0.208919
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
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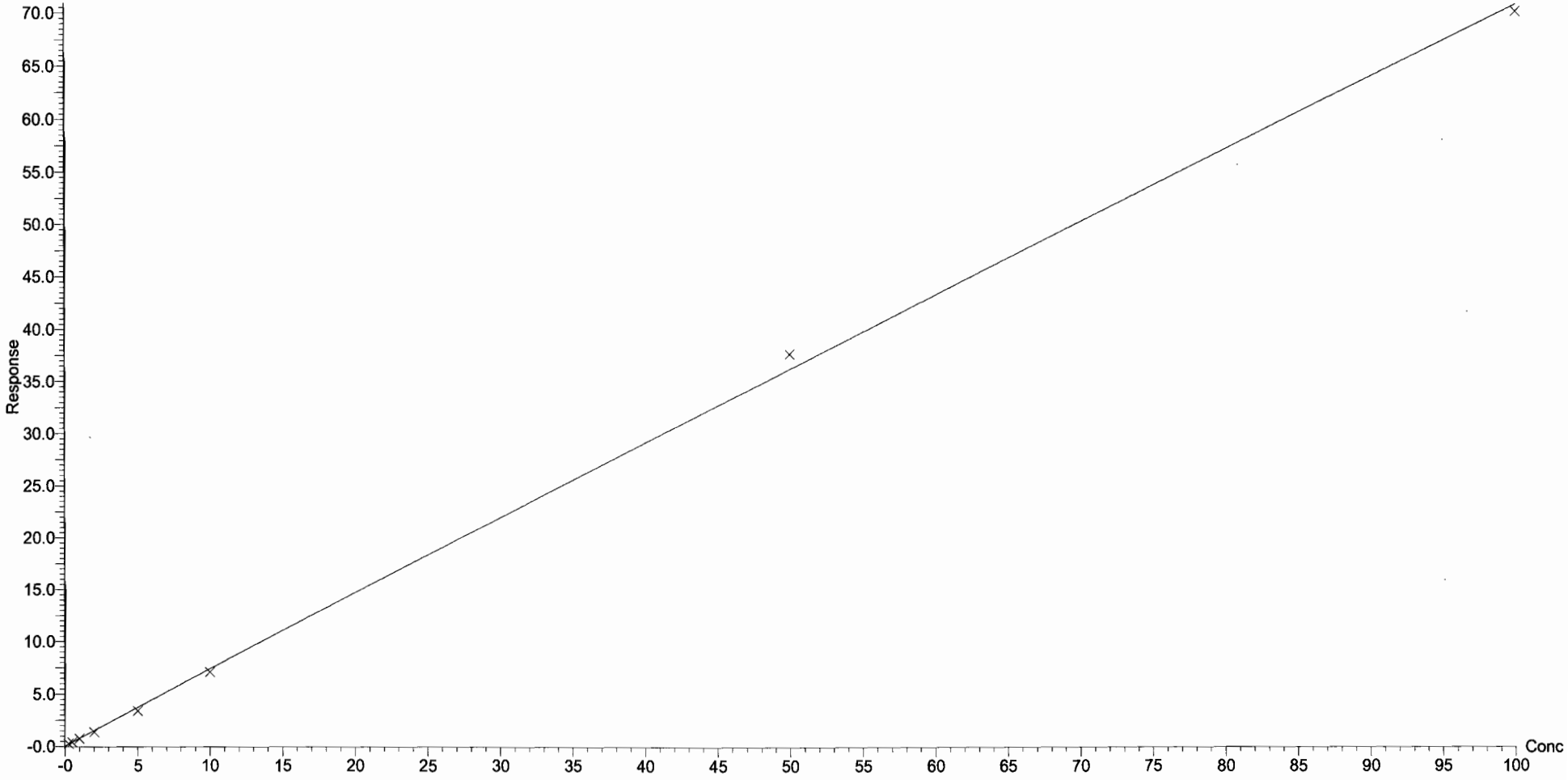
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999799
Calibration curve: -7.56946e-005 * x^2 + 1.06415 * x + -0.388028
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998856
Calibration curve: -0.000303396 * x^2 + 0.739048 * x + 0.0394984
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



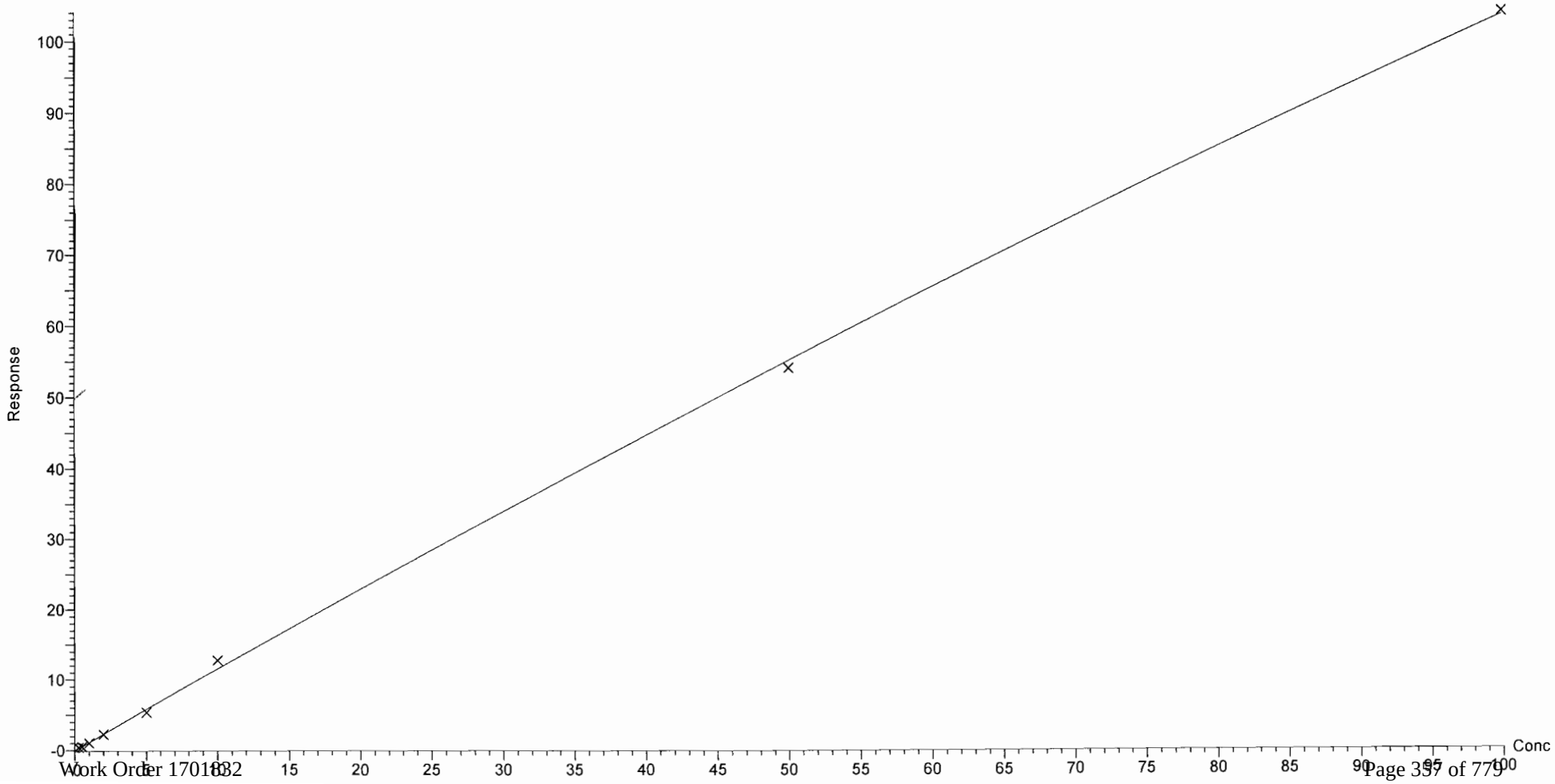
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:27:18 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:30:34 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:27:18

Compound name: PFODA
Coefficient of Determination: R^2 = 0.998731
Calibration curve: -0.00135252 * x^2 + 1.17153 * x + -0.0475142
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None

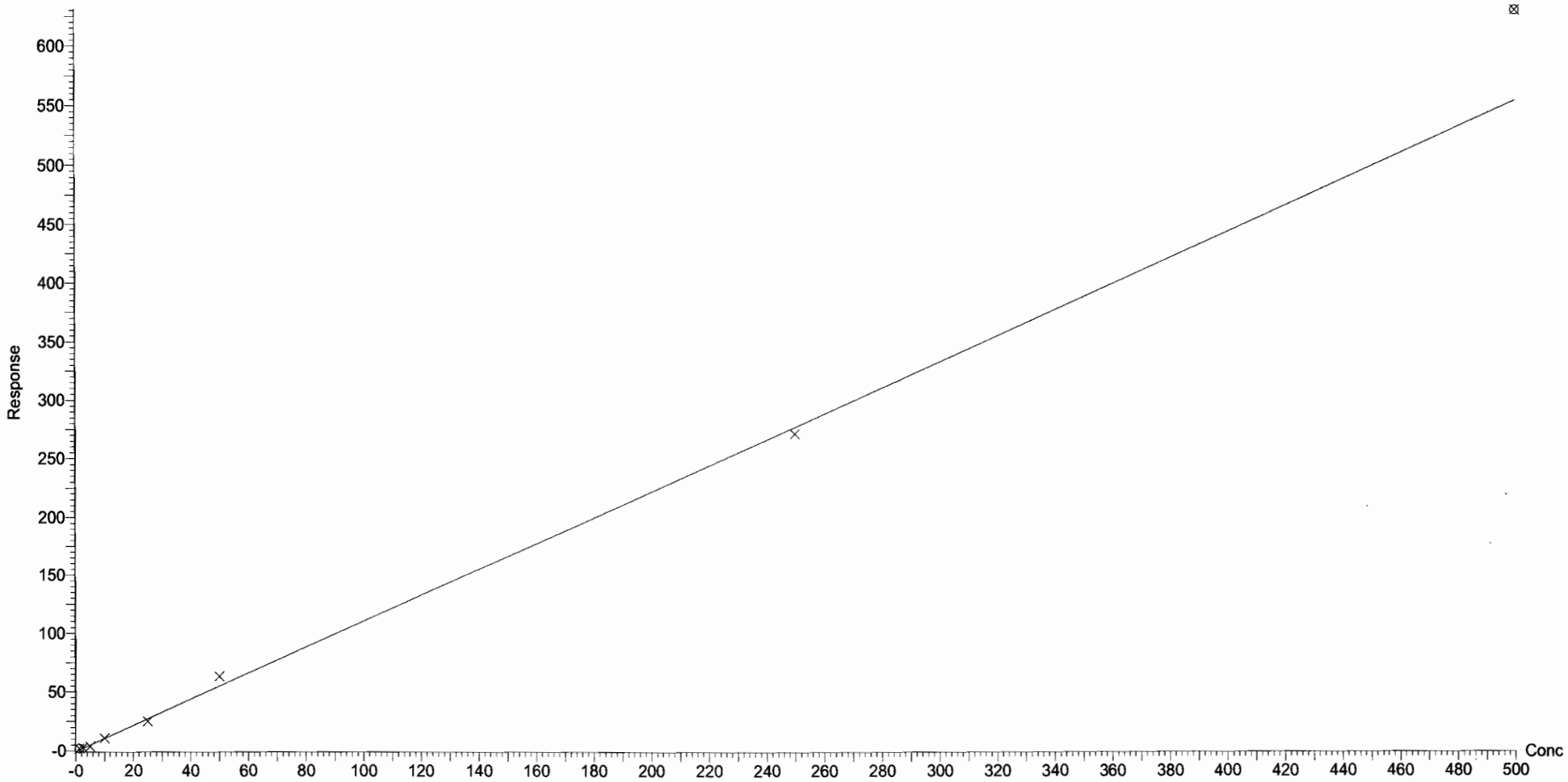


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: N-MeFOSE
Correlation coefficient: r = 0.997318, r^2 = 0.994643
Calibration curve: 1.11054 * x + -0.683826
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None

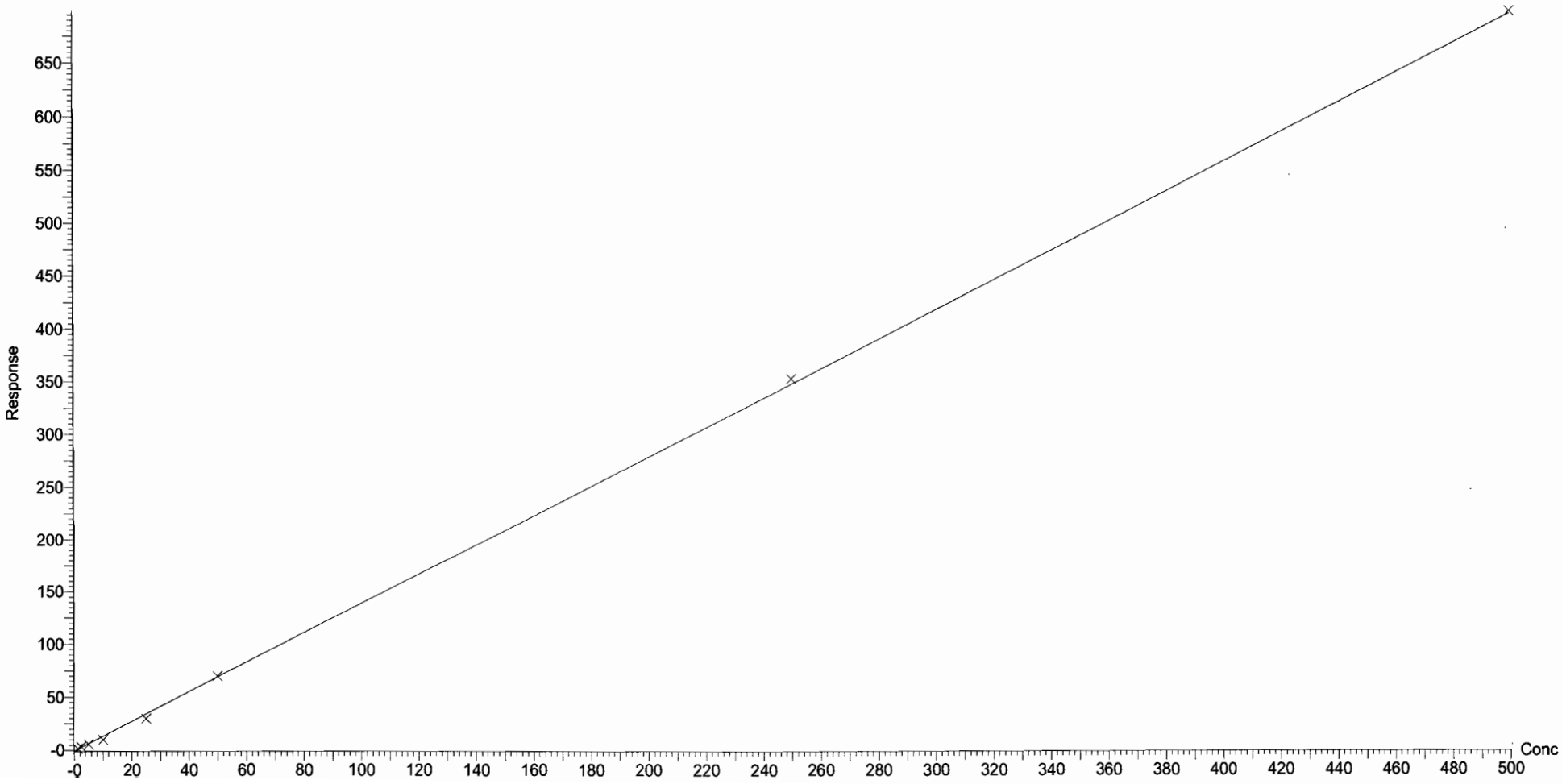


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:22:51 Pacific Standard Time

Compound name: N-EtFOSE
Correlation coefficient: r = 0.999225, r^2 = 0.998452
Calibration curve: 1.394 * x + -0.662445
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory

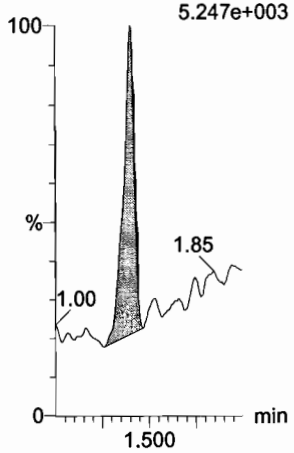
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

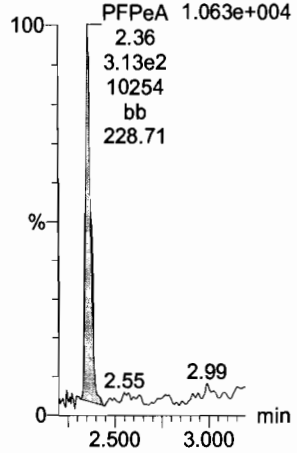
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:16:44

Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

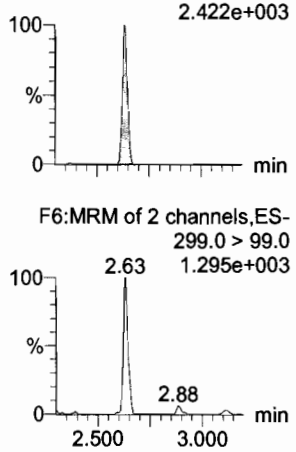
PFBA



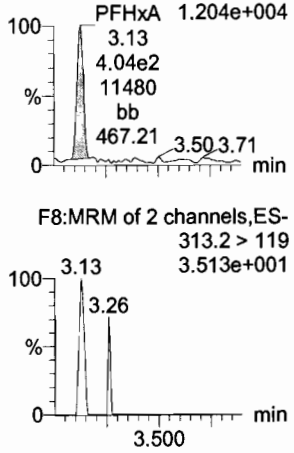
PFPeA



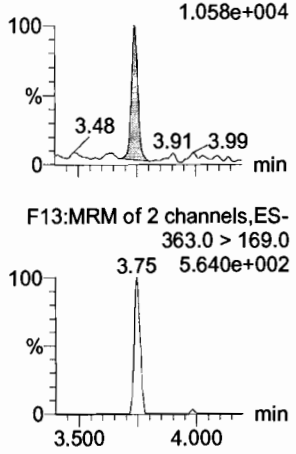
PFBS



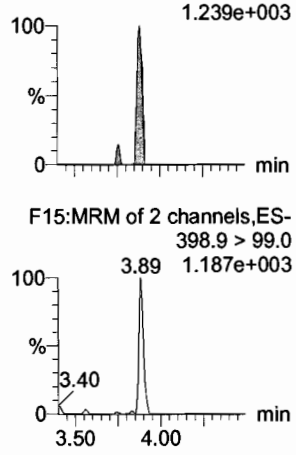
PFHxA



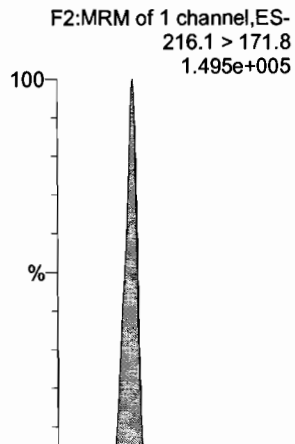
PFHpA



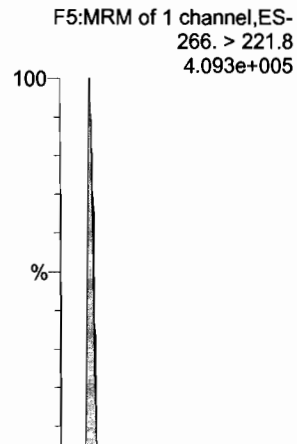
L-PFHxS



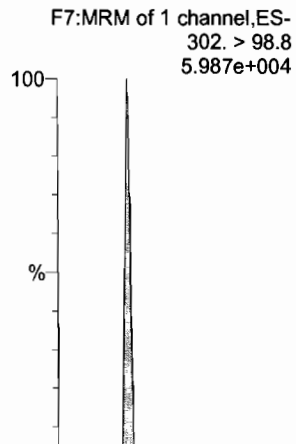
13C3-PFBA



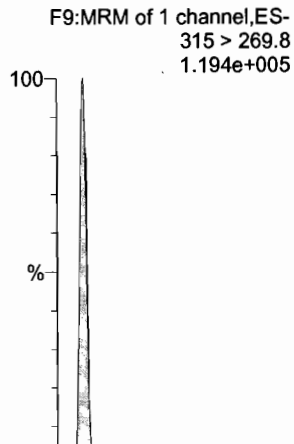
13C3-PFPeA



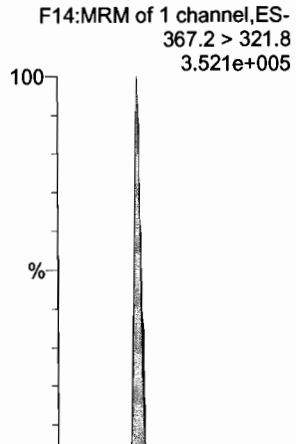
13C3-PFBS



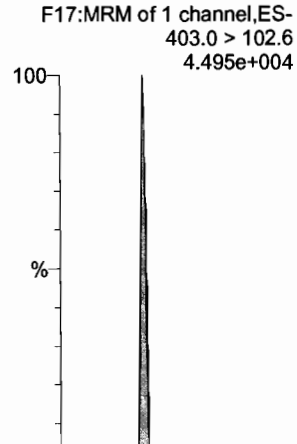
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

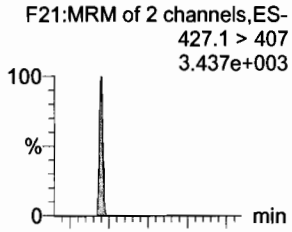


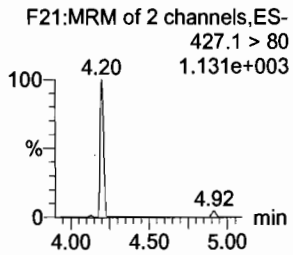
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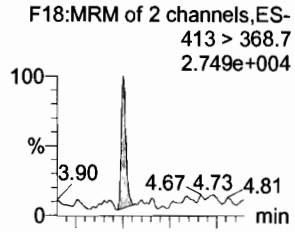
Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

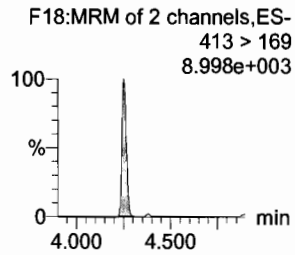
6:2 FTS



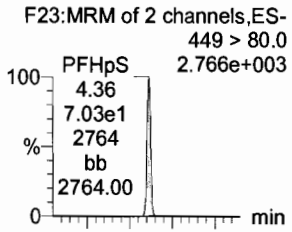


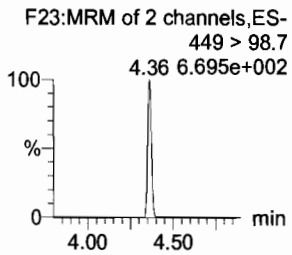
L-PFOA



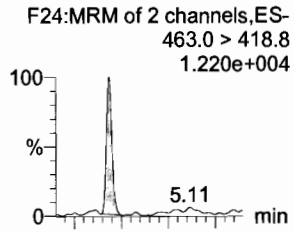


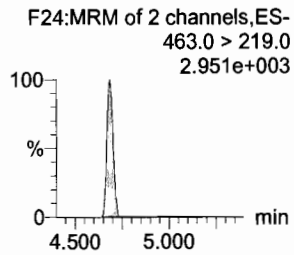
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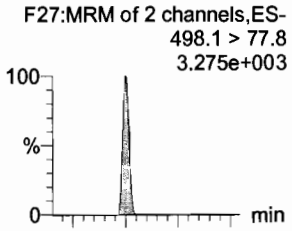


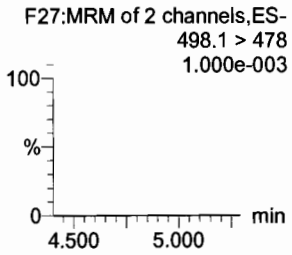
PFNA



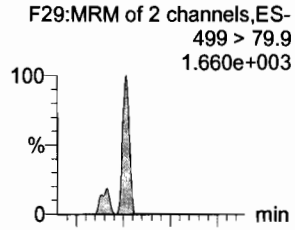


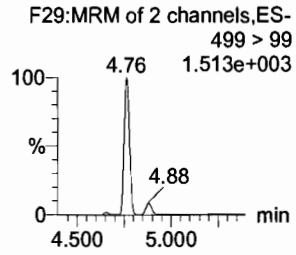
PFOSA



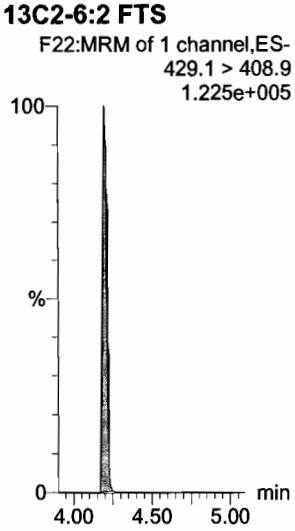


L-PFOS

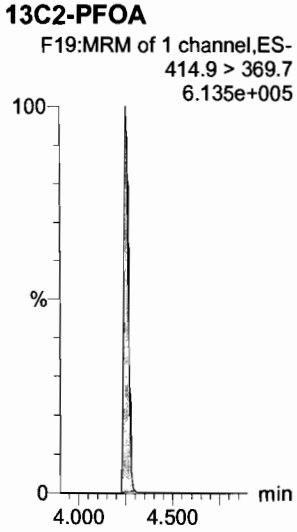




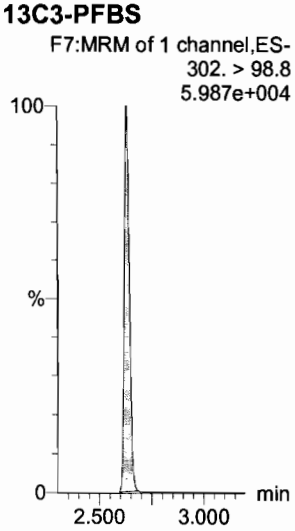
13C2-6:2 FTS



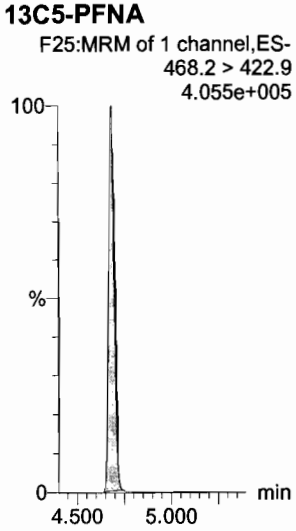
13C2-PFOA



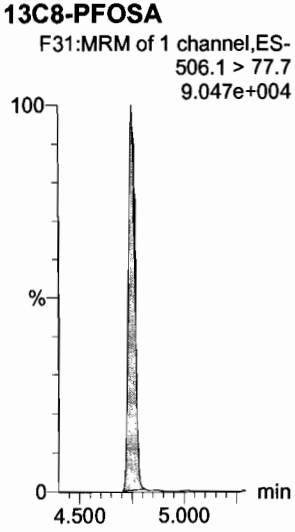
13C3-PFBS



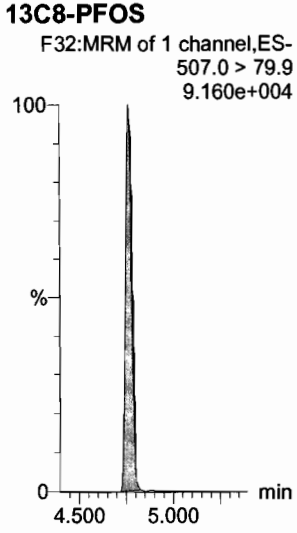
13C5-PFNA



13C8-PFOSA



13C8-PFOS

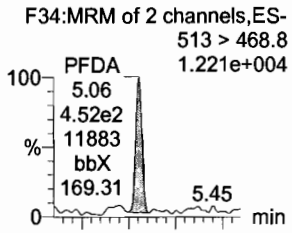


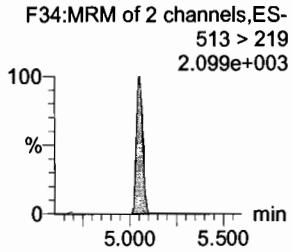
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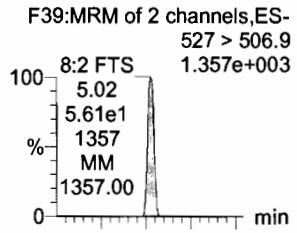
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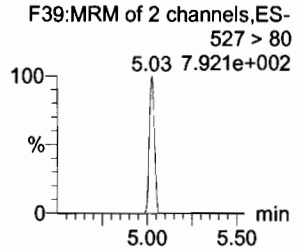
PFDA



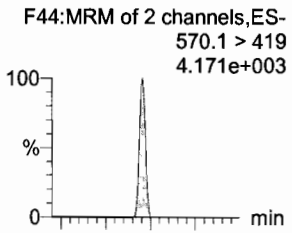


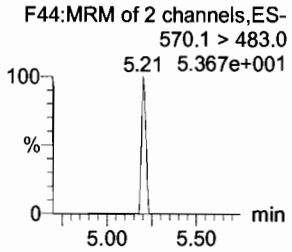
8:2 FTS



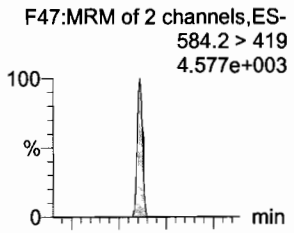


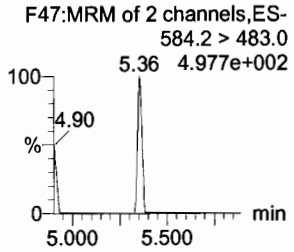
N-MeFOSAA



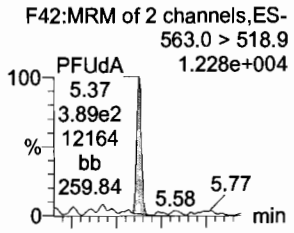


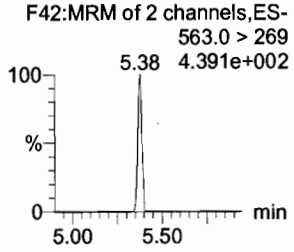
N-EtFOSAA



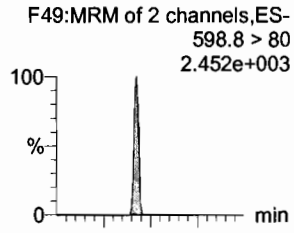


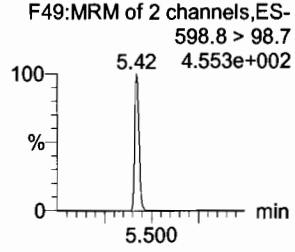
PFUdA



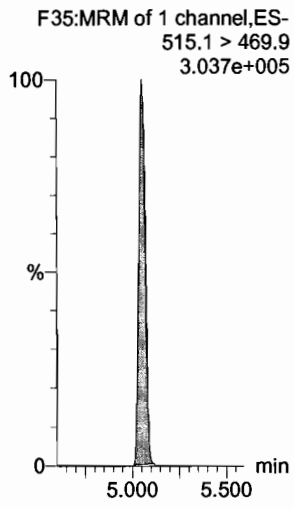


PFDS

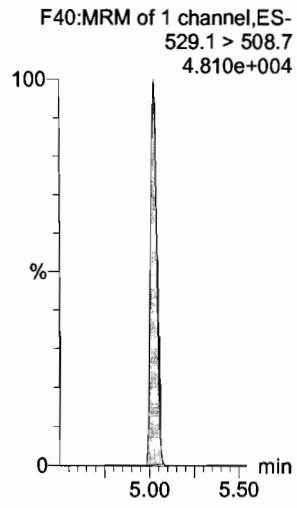




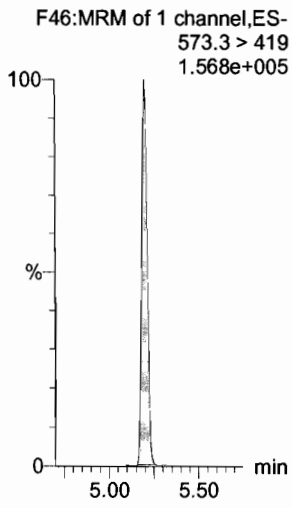
13C2-PFDA



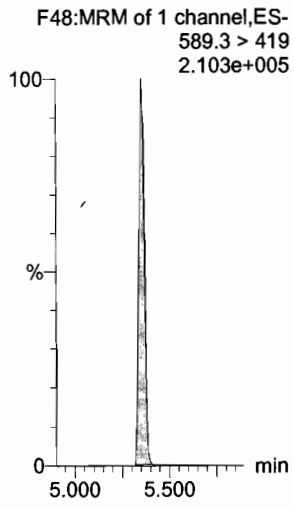
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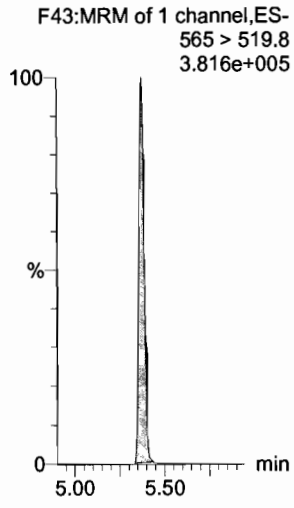
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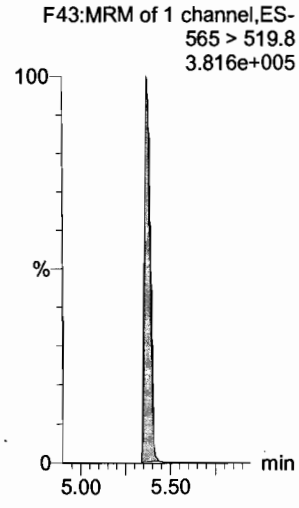
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13C2-PFUdA



13C2-PFUdA

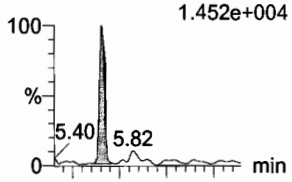


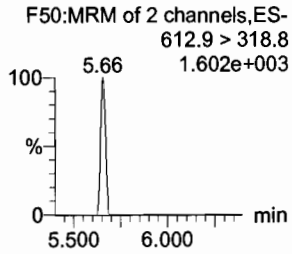
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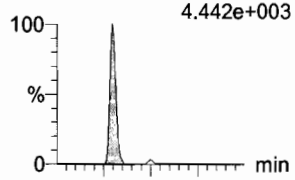
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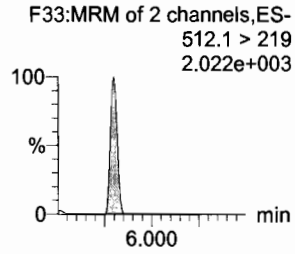
PFDoA



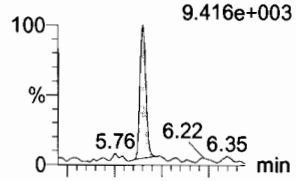


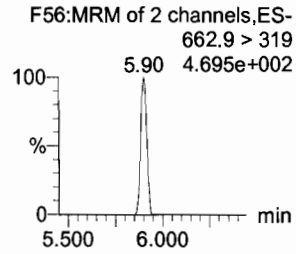
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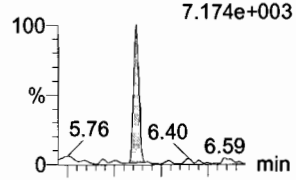


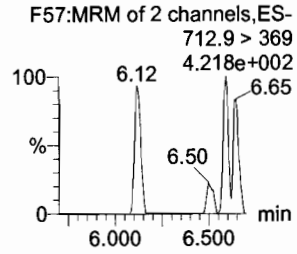
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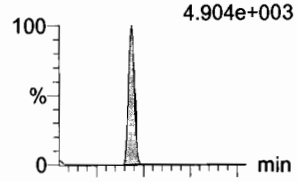


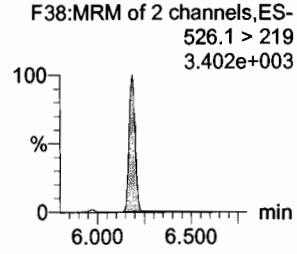
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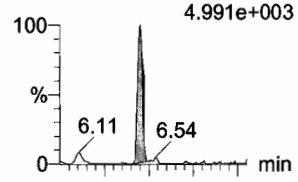


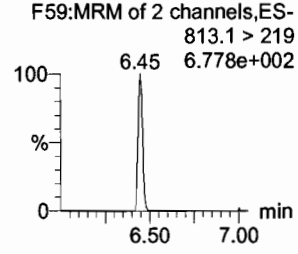
N-EtFOSA



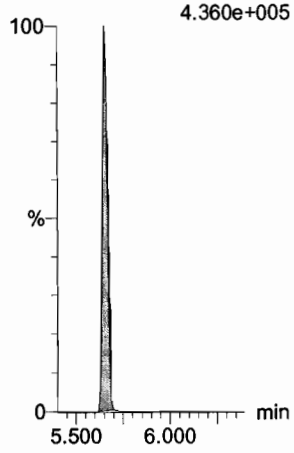


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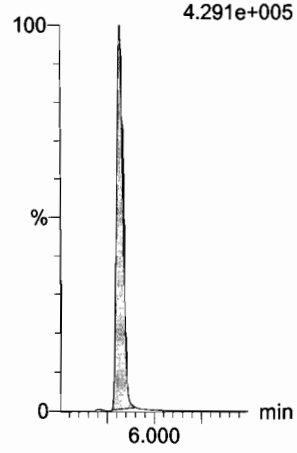




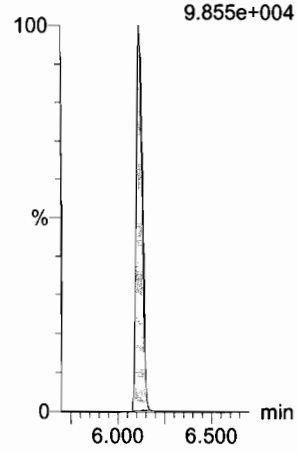
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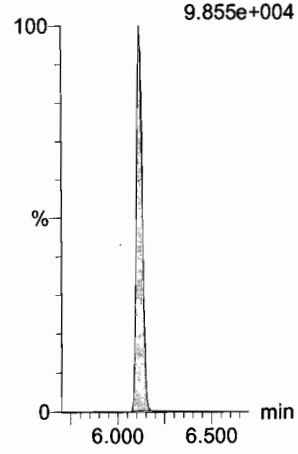
d3-N-MeFOSA



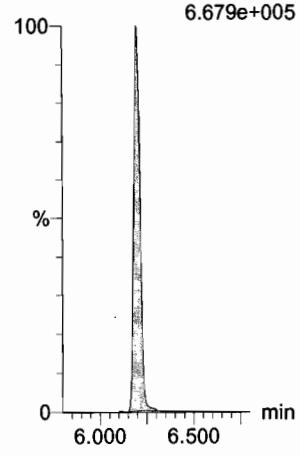
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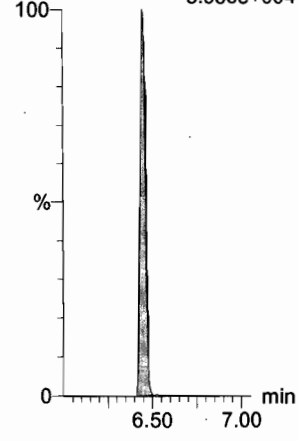
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d5-N-ETFOSA



13C2-PFHxDA

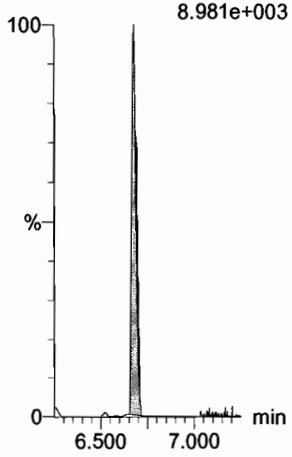


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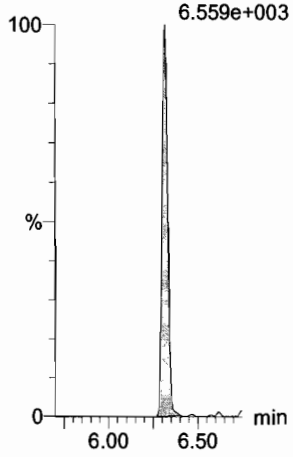
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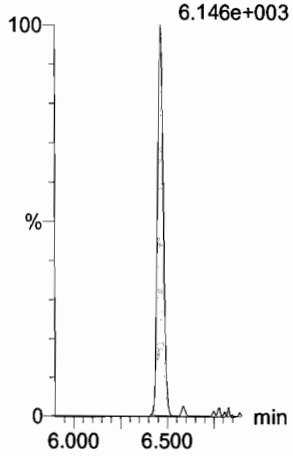
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.981e+003



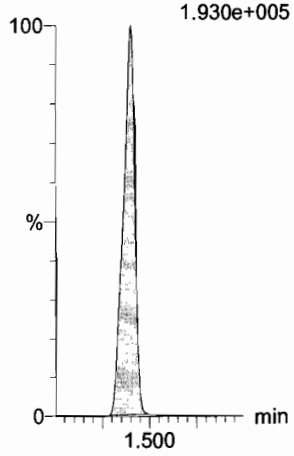
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
6.559e+003



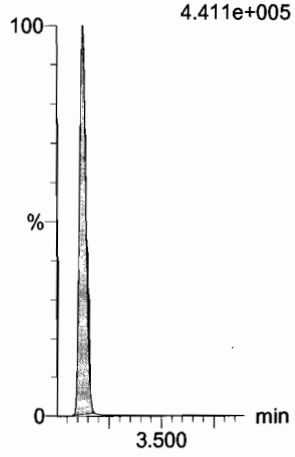
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
6.146e+003



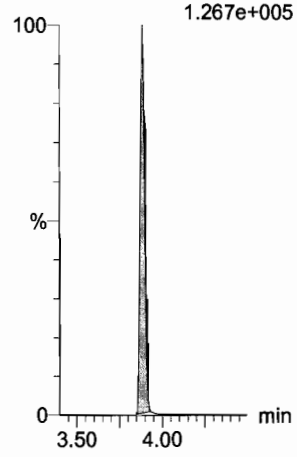
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.930e+005



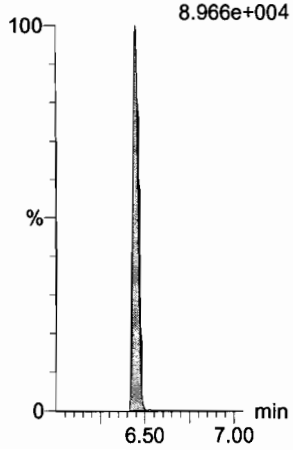
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.411e+005



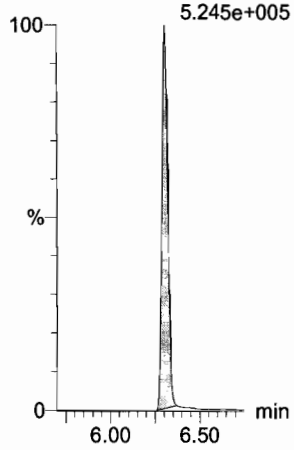
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.267e+005



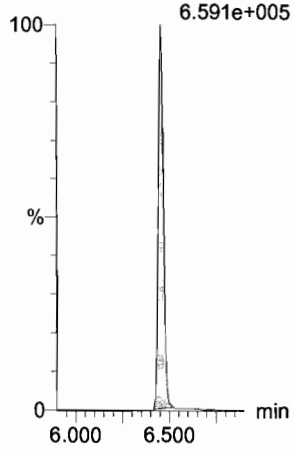
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.966e+004



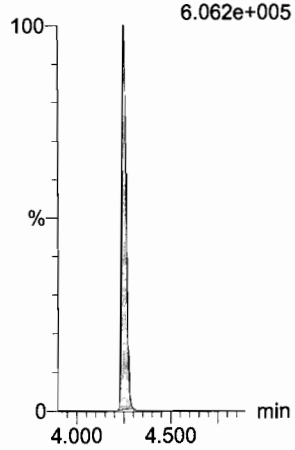
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.245e+005



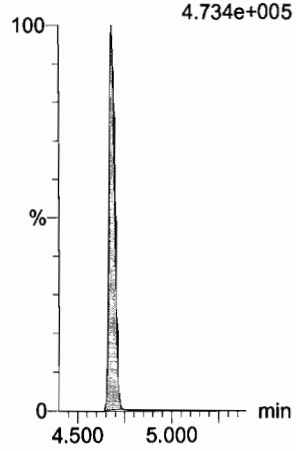
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.591e+005



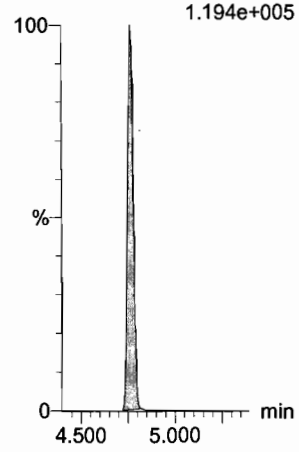
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
6.062e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.734e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.194e+005

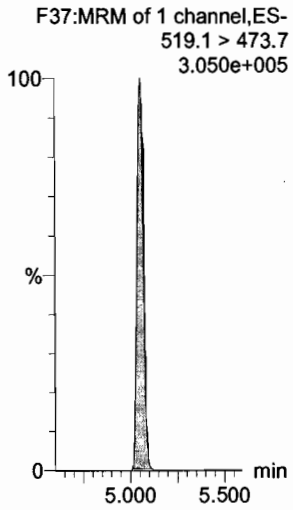


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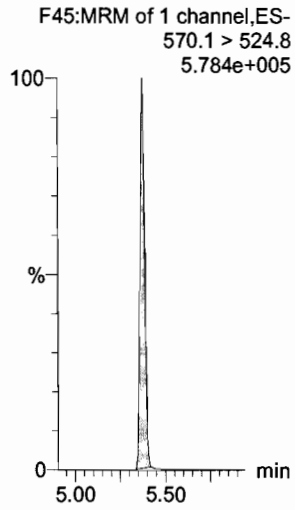
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Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

13C6-PFDA



13C7-PFUdA

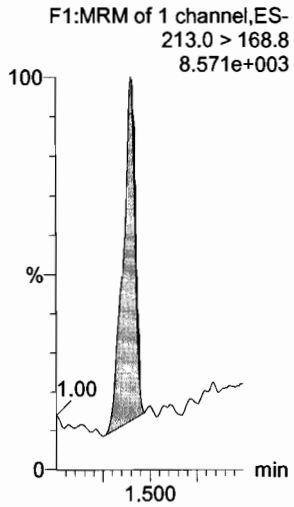


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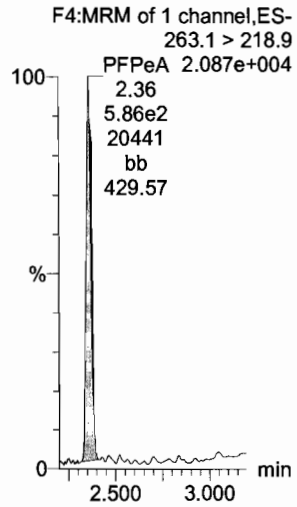
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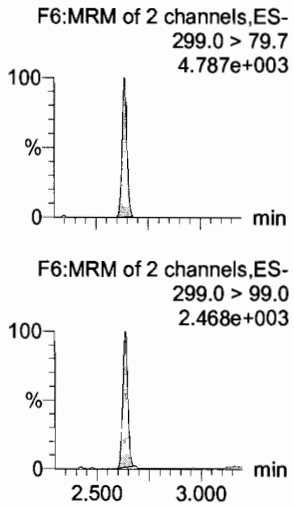
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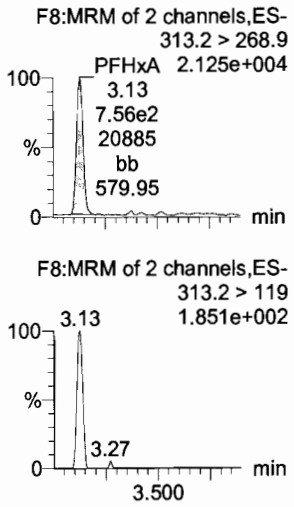
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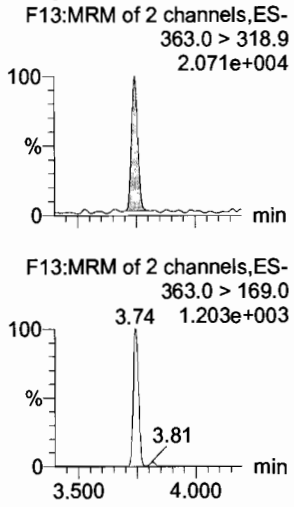
PFBS



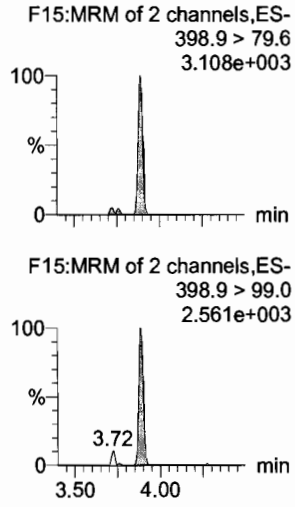
PFHxA



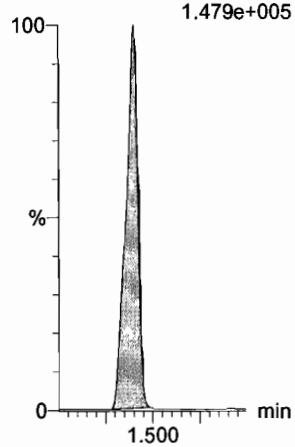
PFHpA



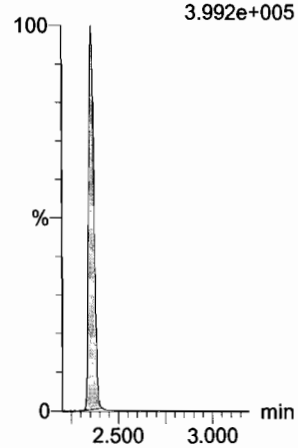
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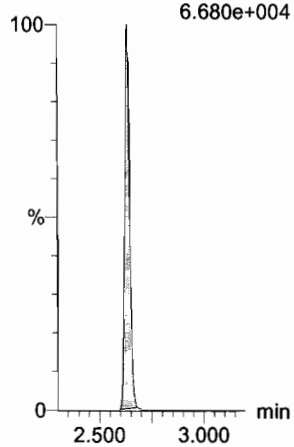
13C3-PFBA



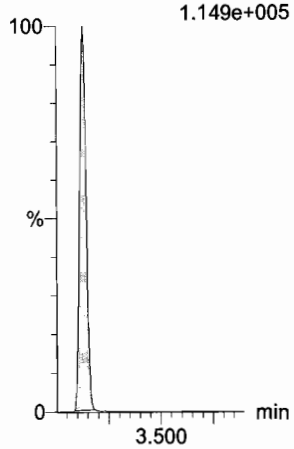
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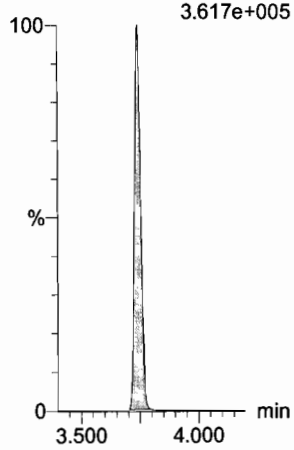
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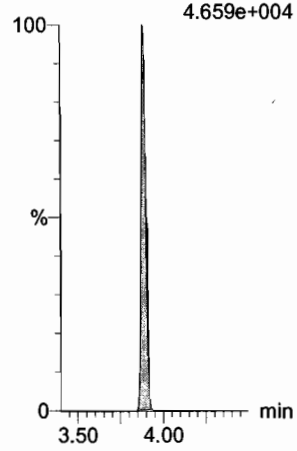
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13C4-PFHpA



18O2-PFHxS

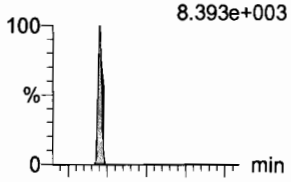


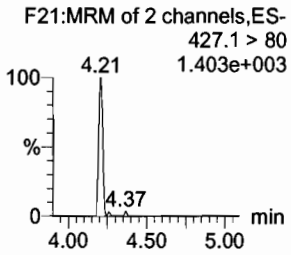
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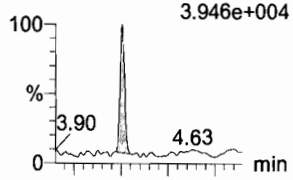
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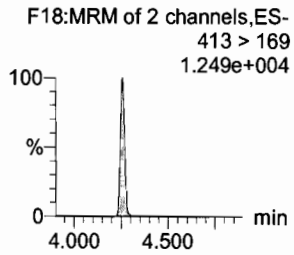
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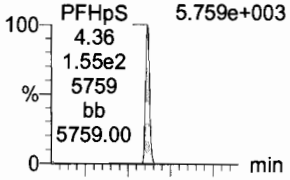


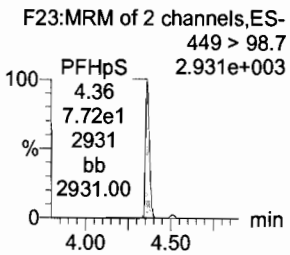
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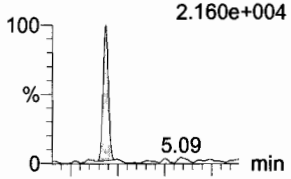


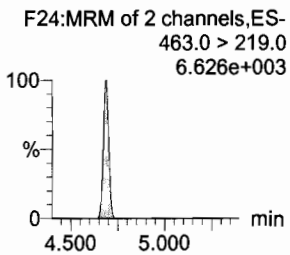
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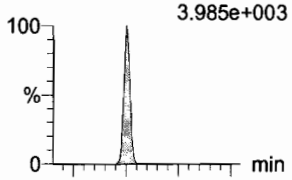


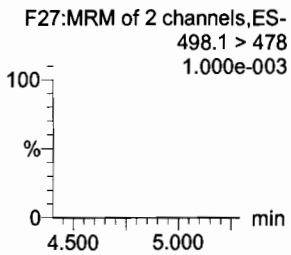
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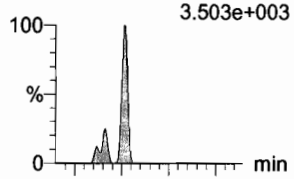


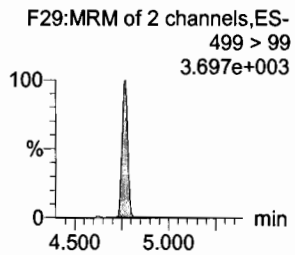
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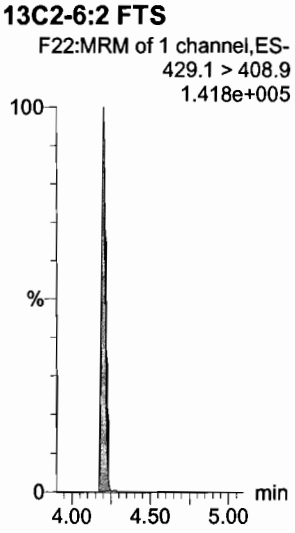


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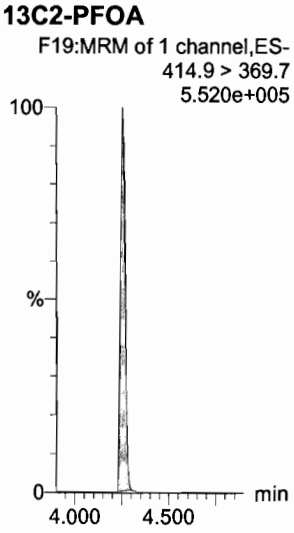




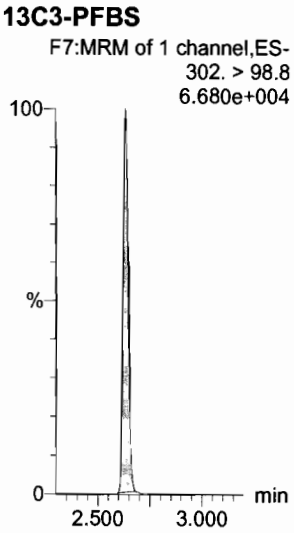
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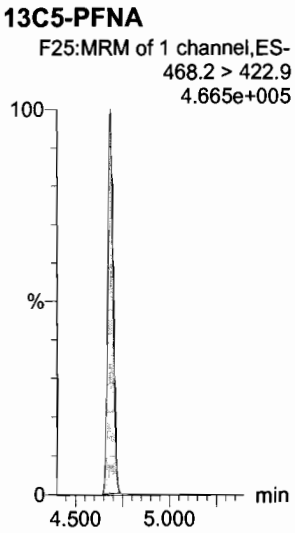
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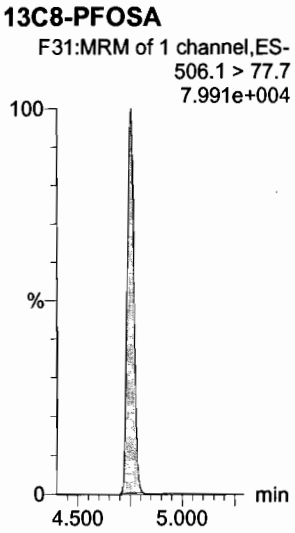
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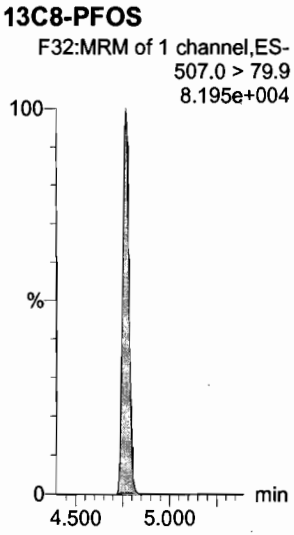
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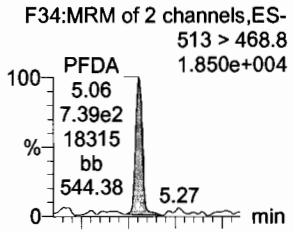


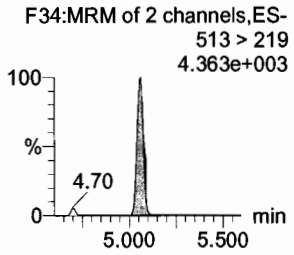
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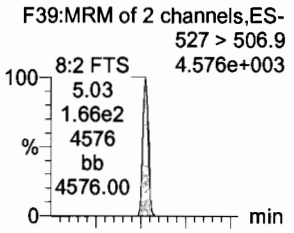
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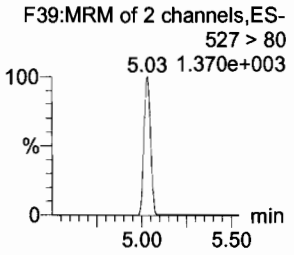
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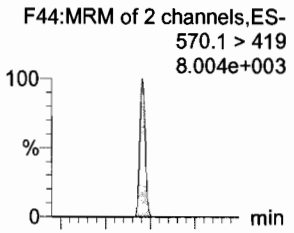


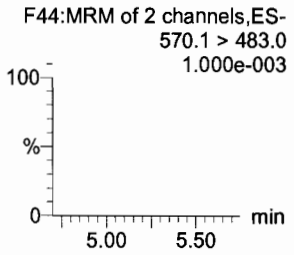
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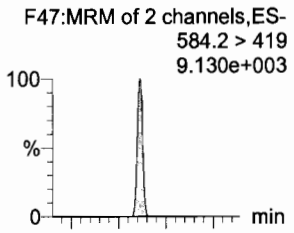


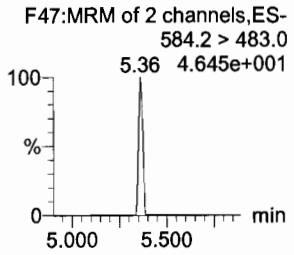
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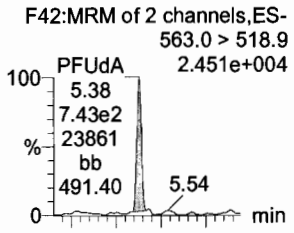


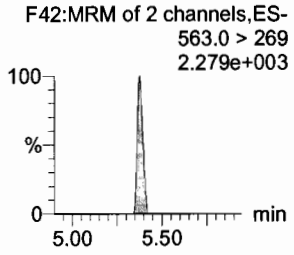
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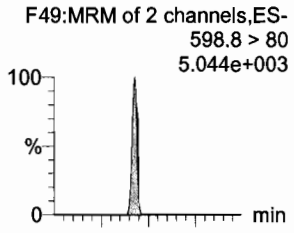


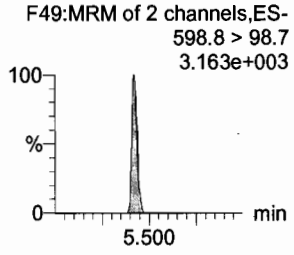
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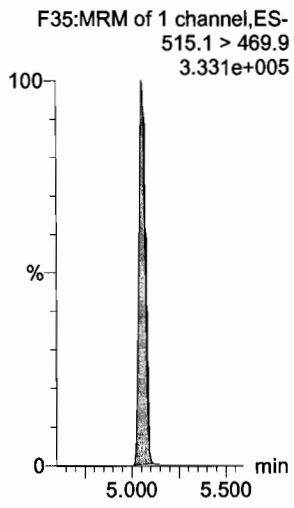


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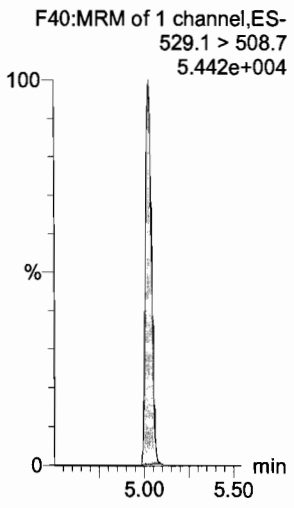




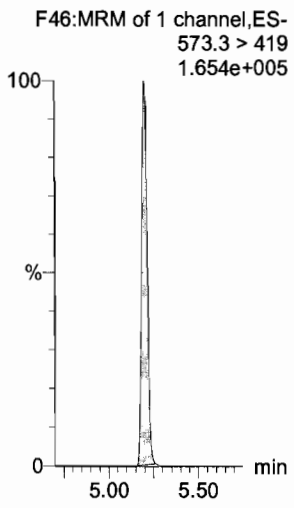
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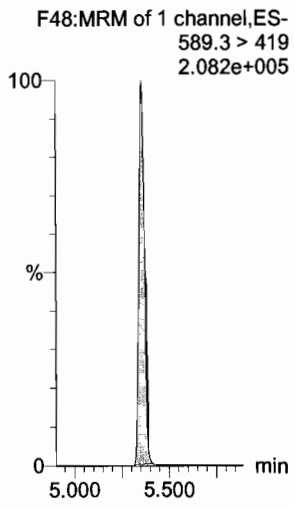
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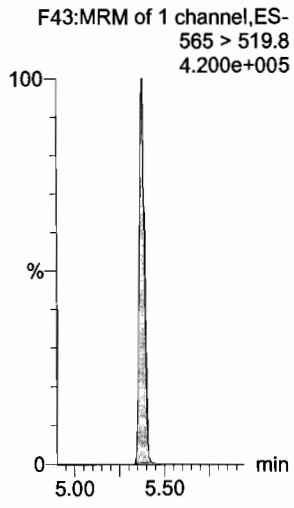
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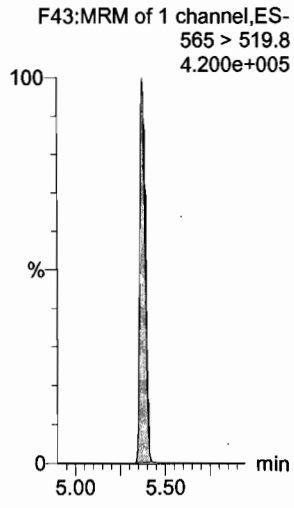
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13C2-PFUdA



13C2-PFUdA

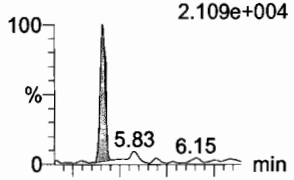


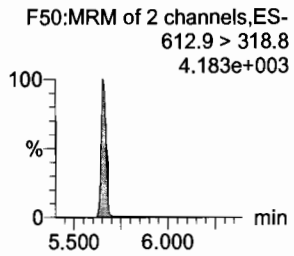
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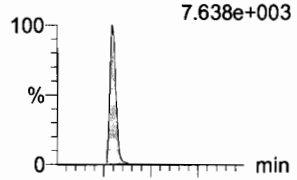
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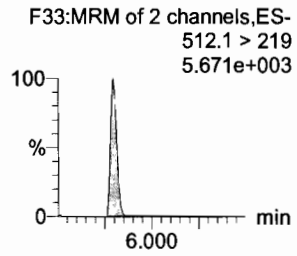
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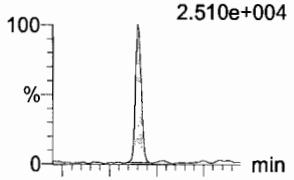


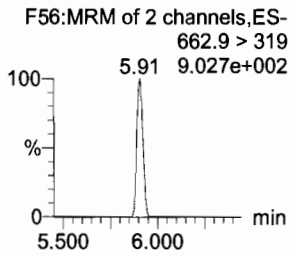
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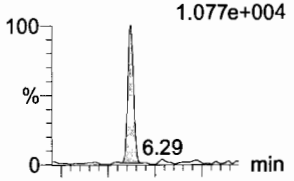


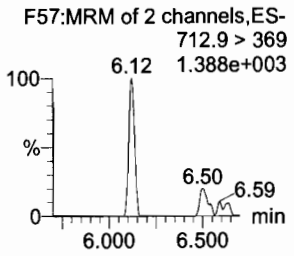
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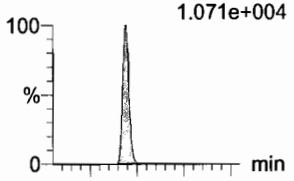


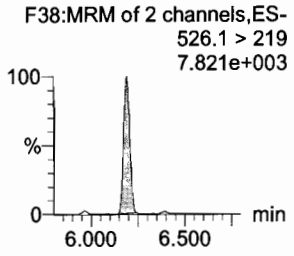
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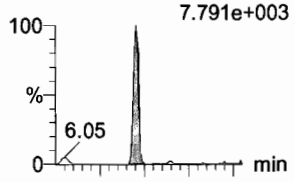


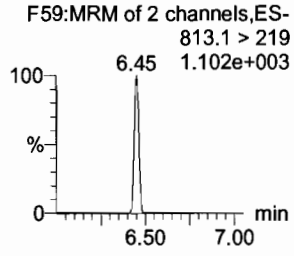
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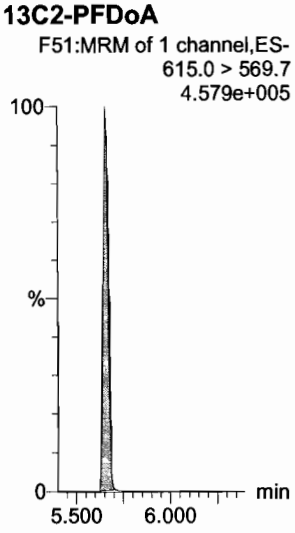


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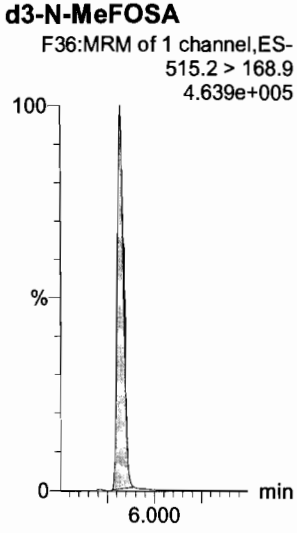




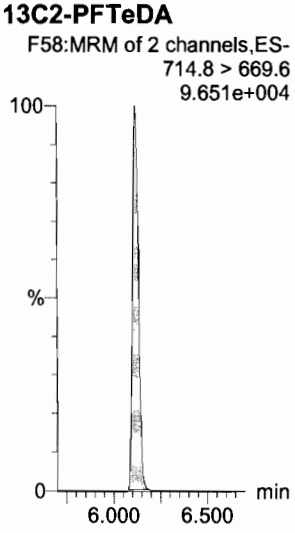
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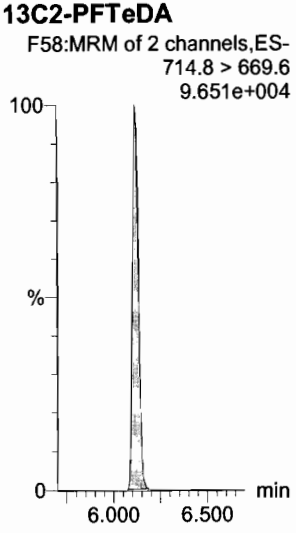
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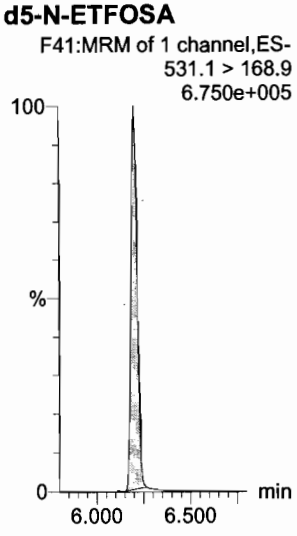
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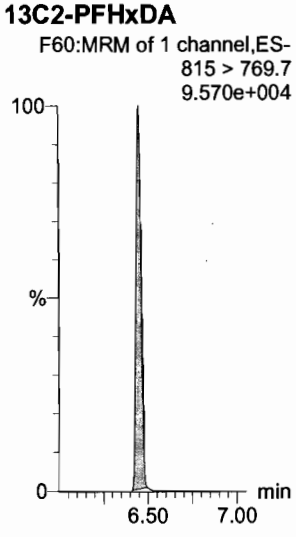
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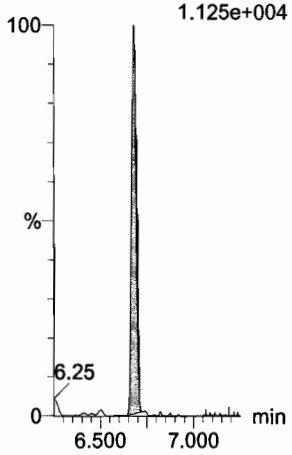


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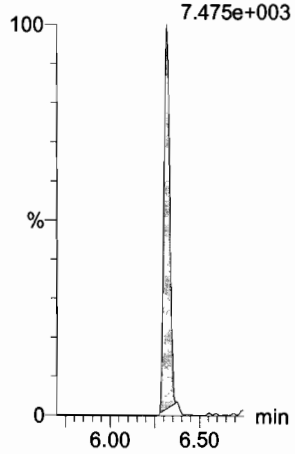
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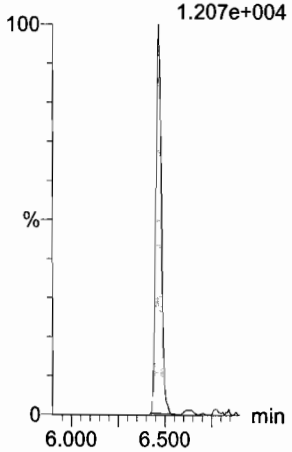
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.125e+004



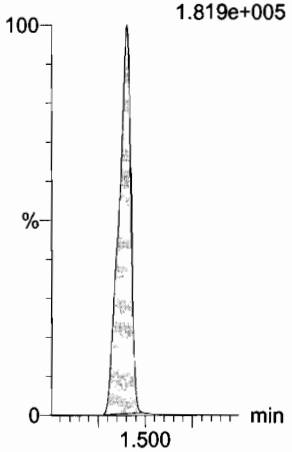
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
7.475e+003



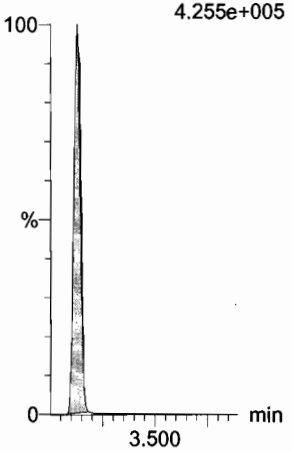
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F54:MRM of 1 channel,ES-
630.1 > 58.9
1.207e+004



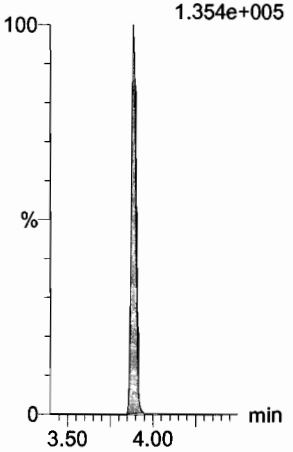
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.819e+005



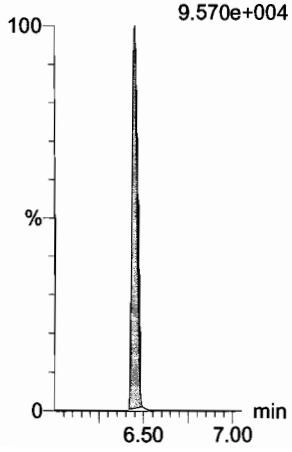
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F10:MRM of 1 channel,ES-
318 > 272.9
4.255e+005



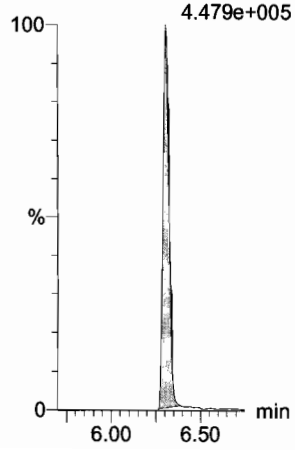
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F16:MRM of 1 channel,ES-
401.9 > 79.9
1.354e+005



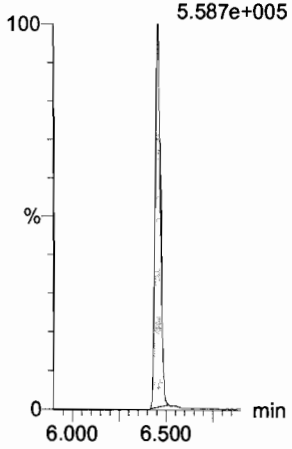
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F60:MRM of 1 channel,ES-
815 > 769.7
9.570e+004



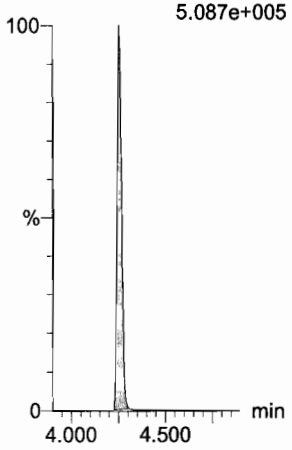
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.479e+005



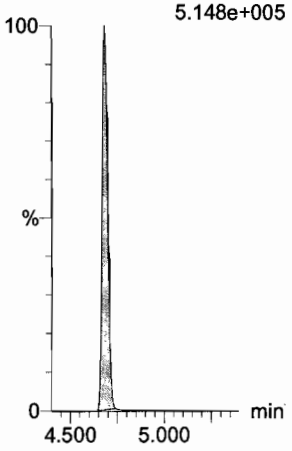
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.587e+005



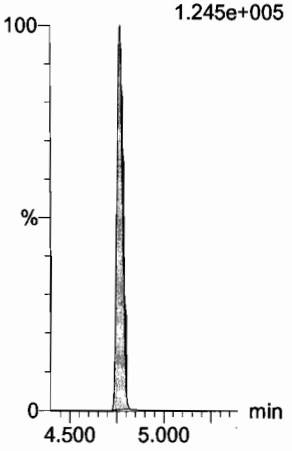
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.087e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
5.148e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.245e+005

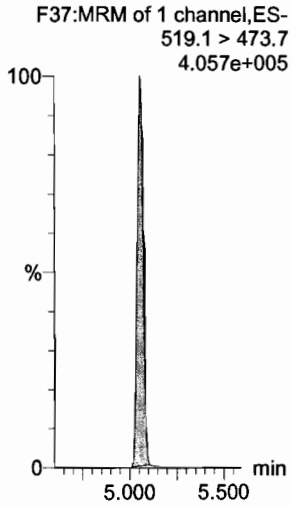


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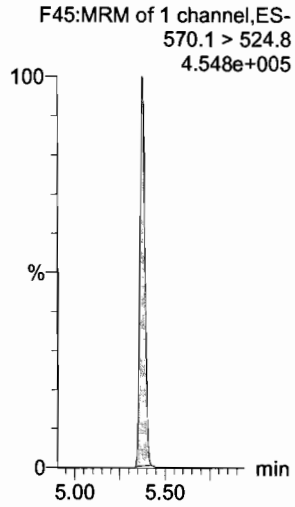
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_3, Date: 30-Dec-2017, Time: 23:06:53, ID: ST171230M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

13C6-PFDA



13C7-PFUdA

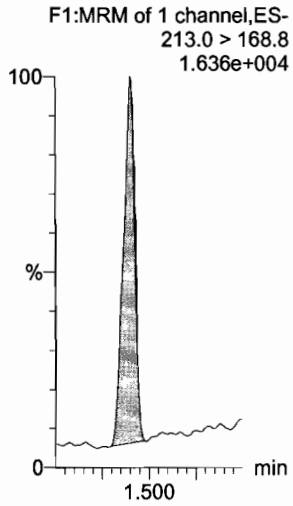


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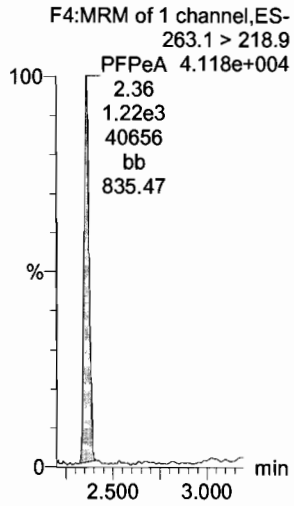
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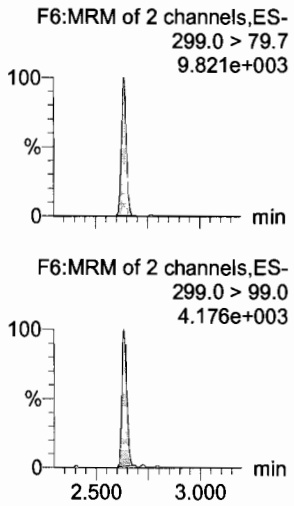
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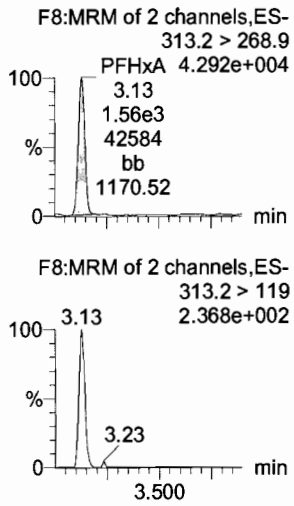
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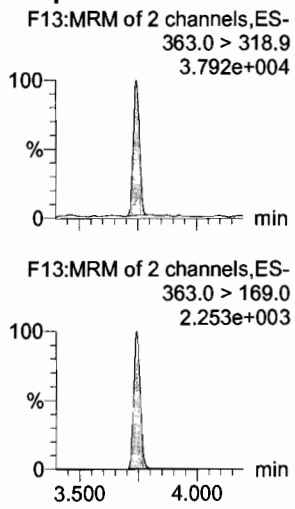
PFBS



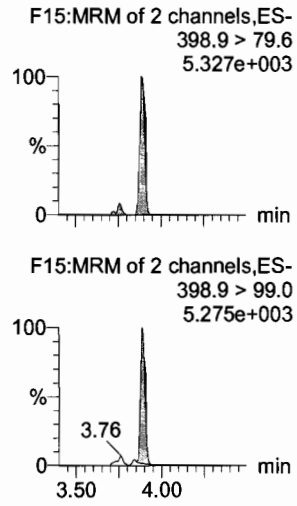
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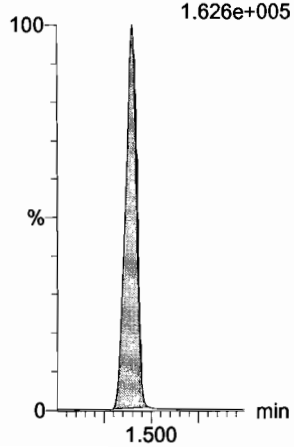
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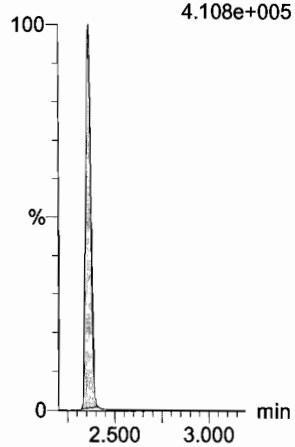
L-PFHxS



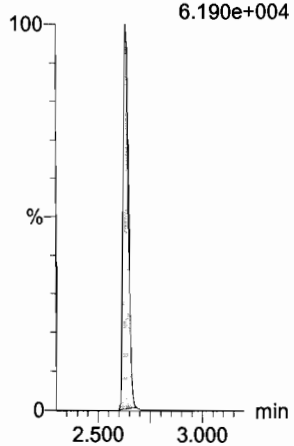
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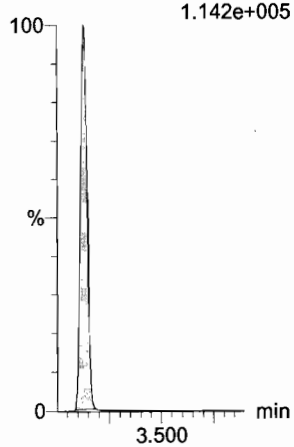
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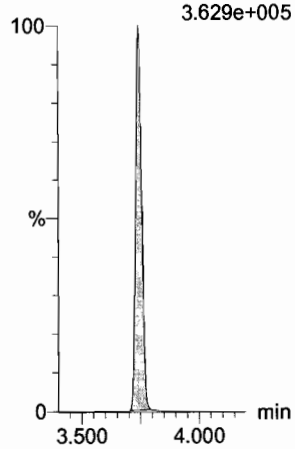
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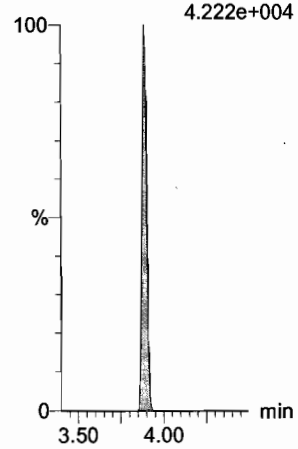
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

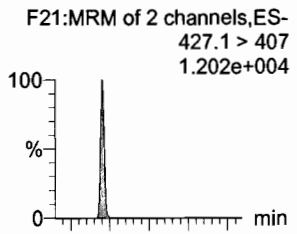


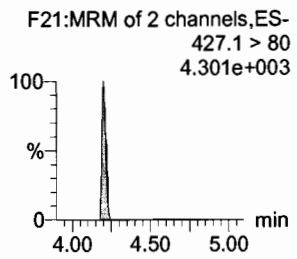
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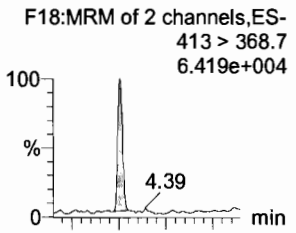
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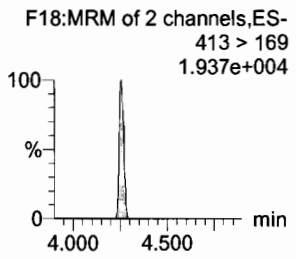
6:2 FTS



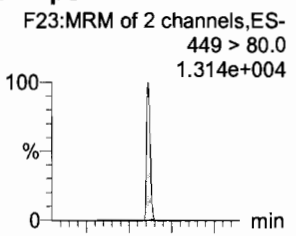


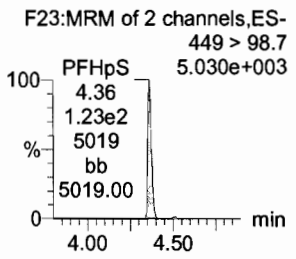
L-PFOA



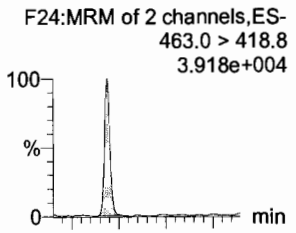


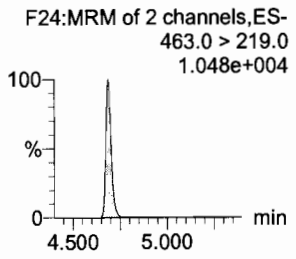
PFHpS



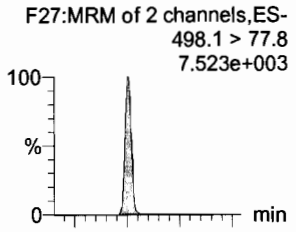


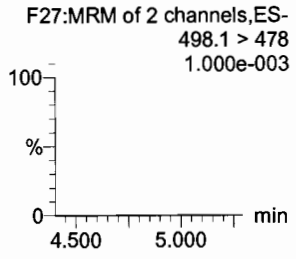
PFNA



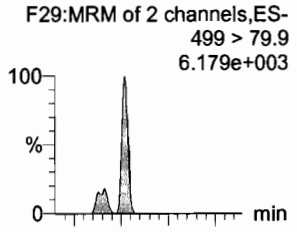


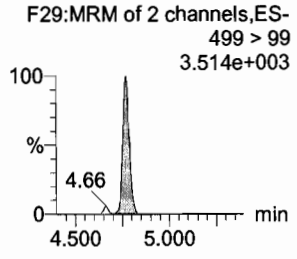
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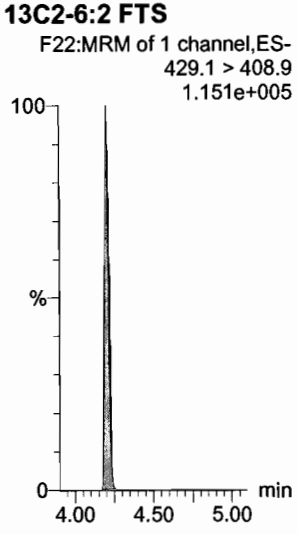


L-PFOS

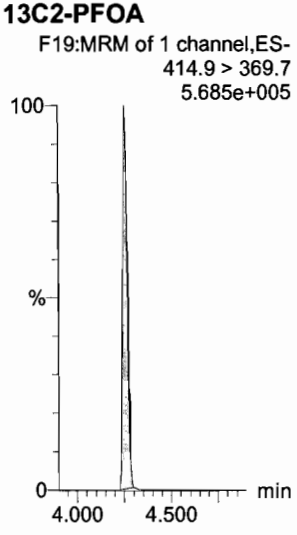




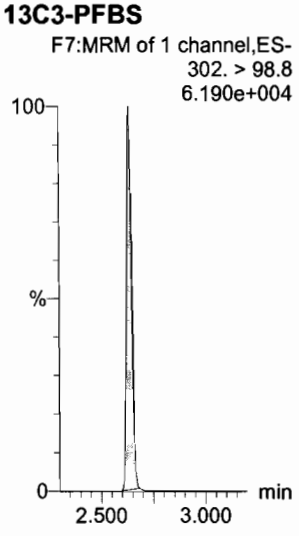
13C2-6:2 FTS



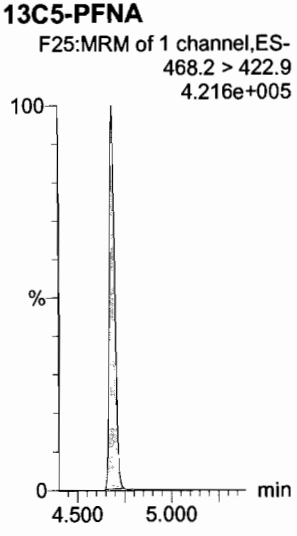
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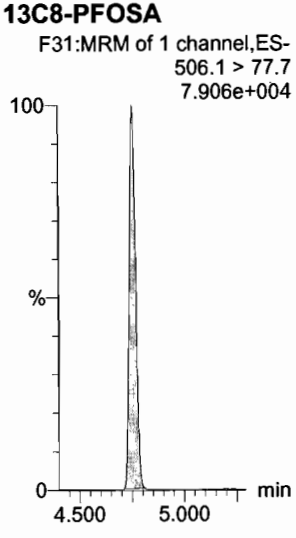
13C3-PFBS



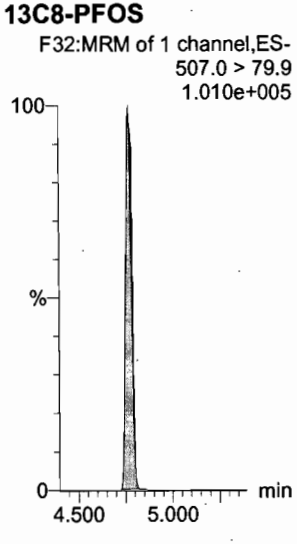
13C5-PFNA



13C8-PFOSA



13C8-PFOS

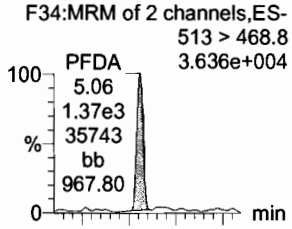


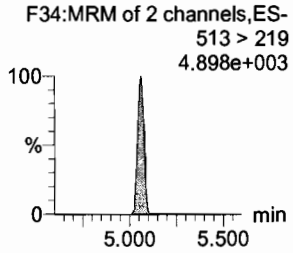
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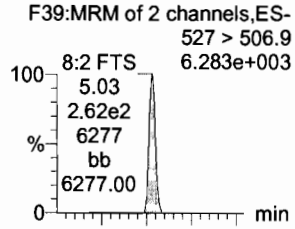
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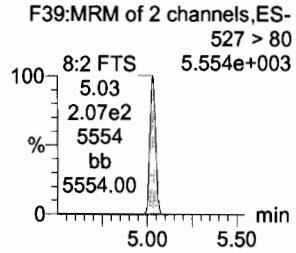
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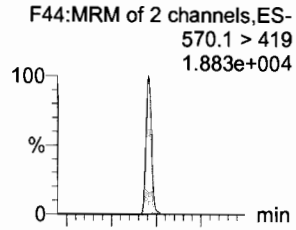


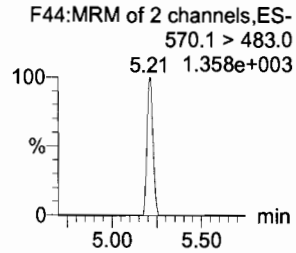
8:2 FTS



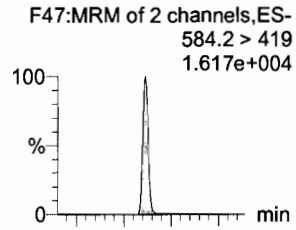


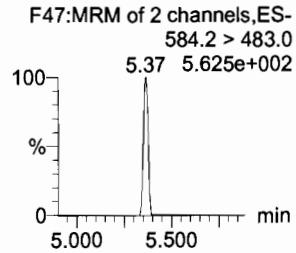
N-MeFOSAA



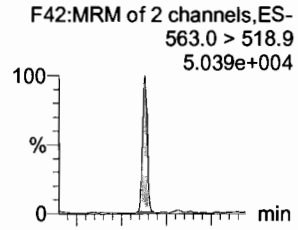


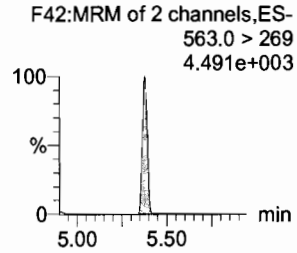
N-EtFOSAA



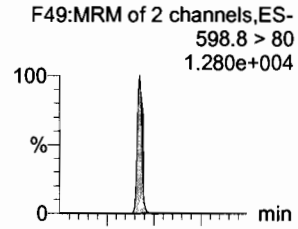


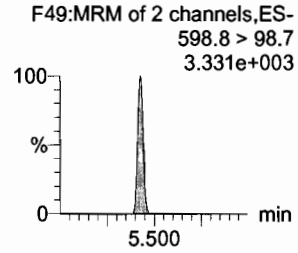
PFUdA



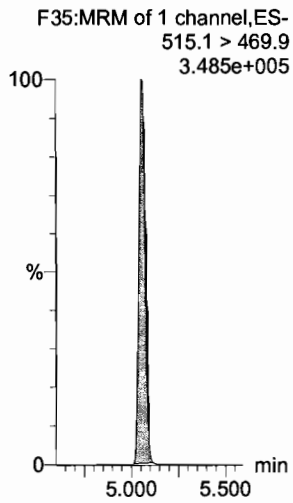


PFDS

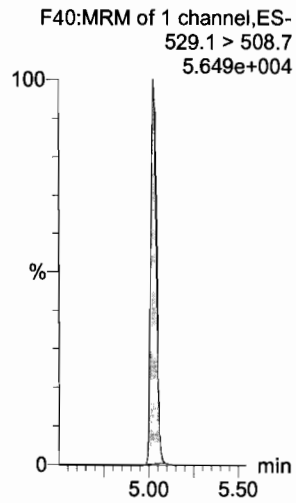




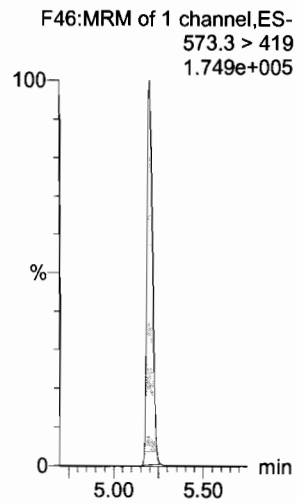
13C2-PFDA



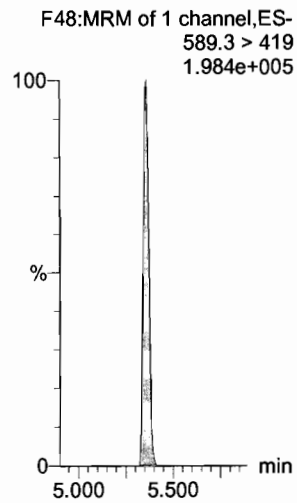
13C2-8:2 FTS



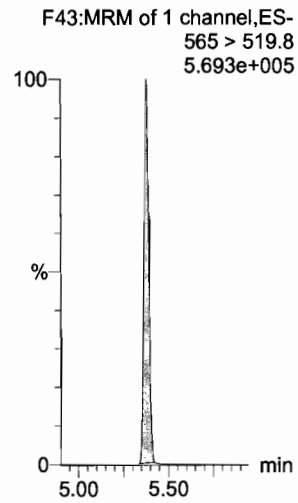
d3-N-MeFOSAA



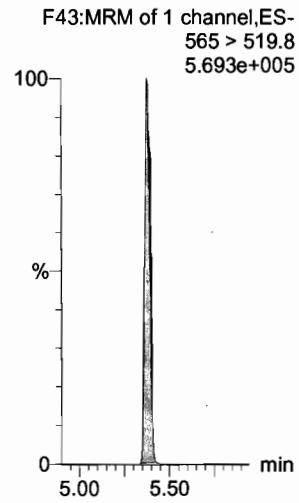
d5-N-EtFOSAA



13C2-PFUdA



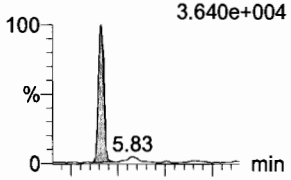
13C2-PFUdA

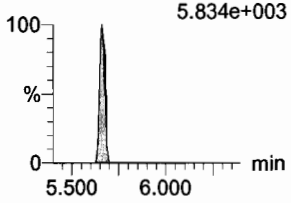


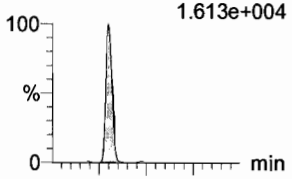
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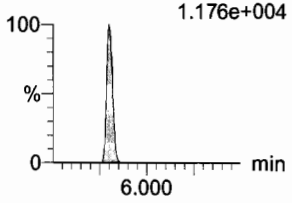
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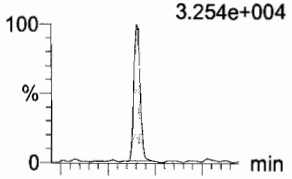
Name: 171230M3_4, Date: 30-Dec-2017, Time: 23:18:04, ID: ST171230M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

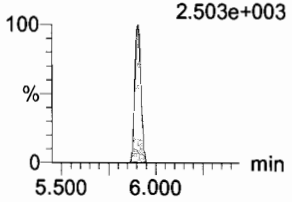
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
3.640e+004


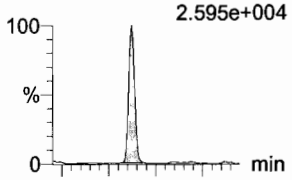
F50:MRM of 2 channels,ES-
612.9 > 318.8
5.834e+003


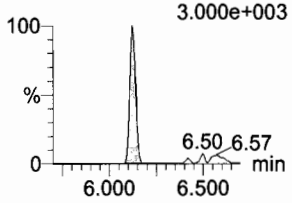
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.613e+004


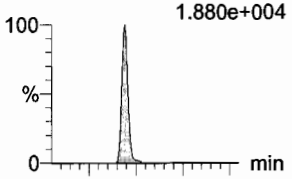
F33:MRM of 2 channels,ES-
512.1 > 219
1.176e+004


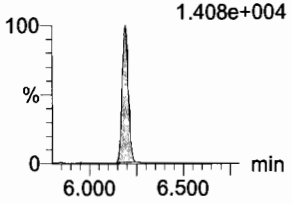
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
3.254e+004


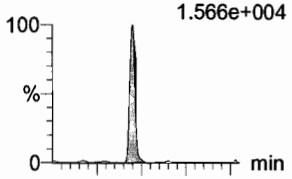
F56:MRM of 2 channels,ES-
662.9 > 319
2.503e+003


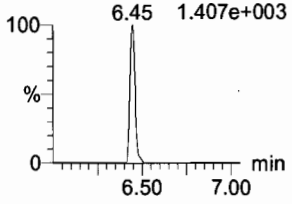
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
2.595e+004


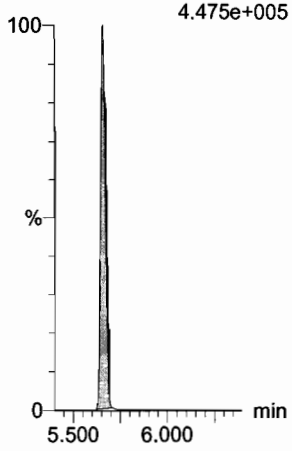
F57:MRM of 2 channels,ES-
712.9 > 369
3.000e+003


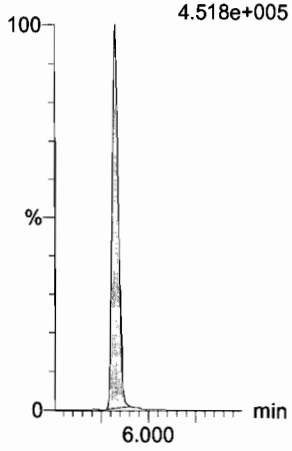
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.880e+004


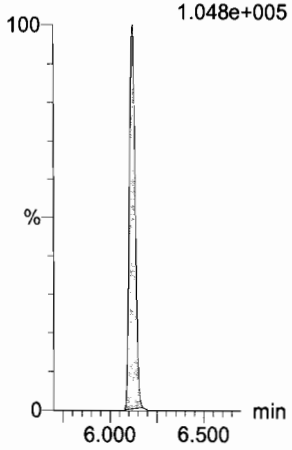
F38:MRM of 2 channels,ES-
526.1 > 219
1.408e+004


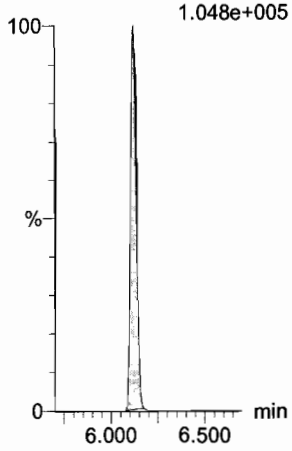
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.566e+004


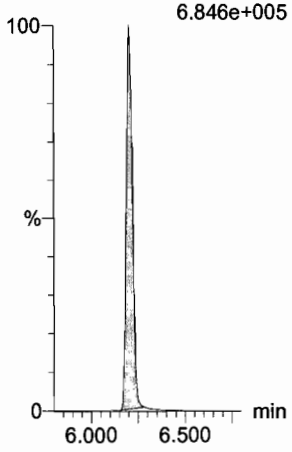
F59:MRM of 2 channels,ES-
813.1 > 219
6.45 1.407e+003


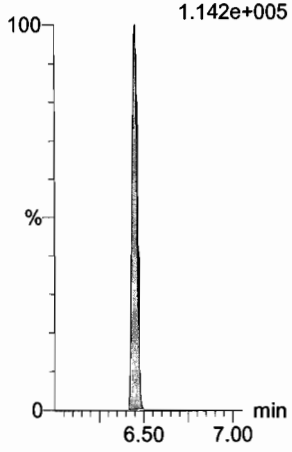
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
4.475e+005


d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.518e+005


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.048e+005


13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.048e+005


d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.846e+005


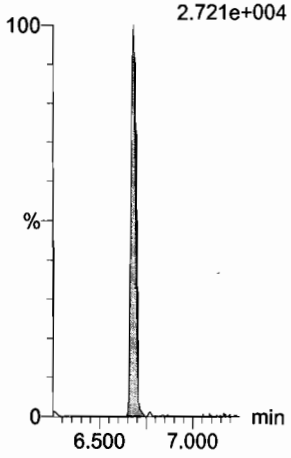
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.142e+005


Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

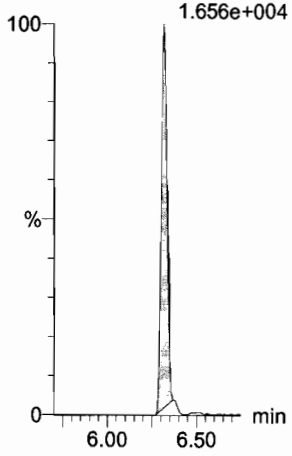
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Name: 171230M3_4, Date: 30-Dec-2017, Time: 23:18:04, ID: ST171230M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

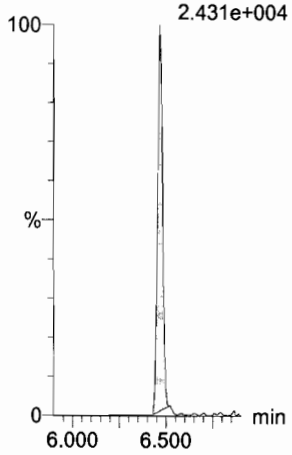
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.721e+004



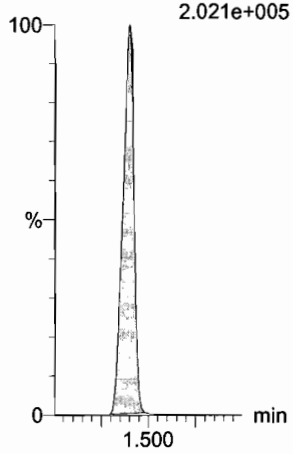
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.656e+004



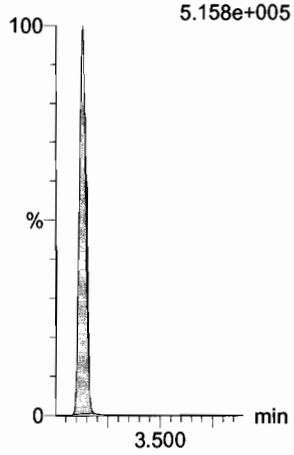
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.431e+004



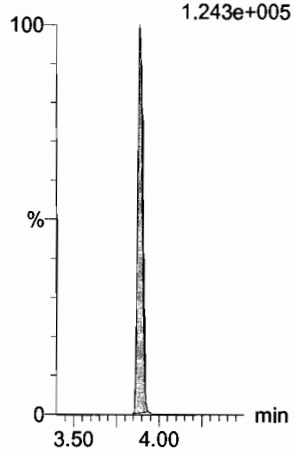
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.021e+005



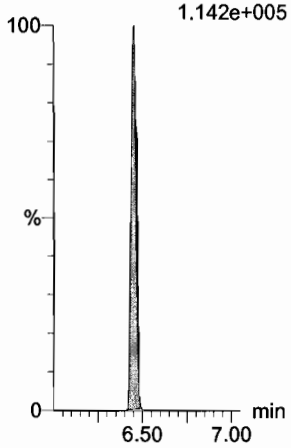
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
5.158e+005



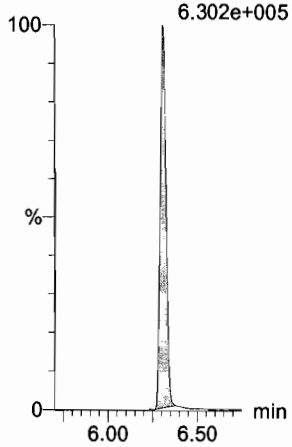
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.243e+005



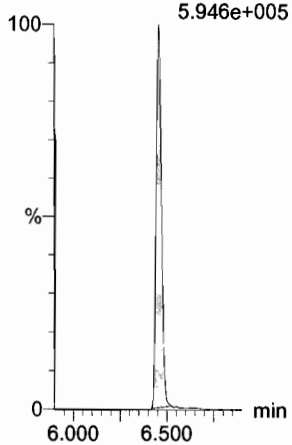
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.142e+005



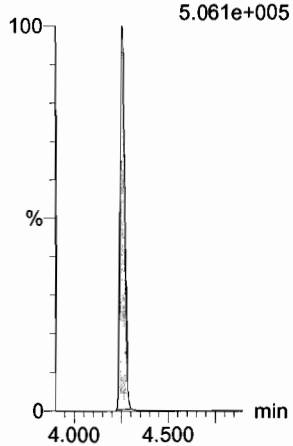
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.302e+005



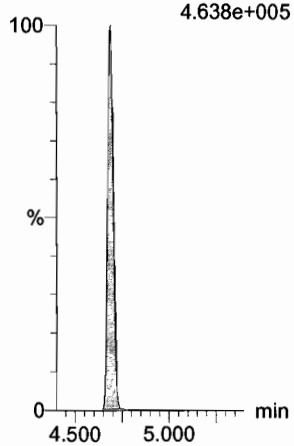
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.946e+005



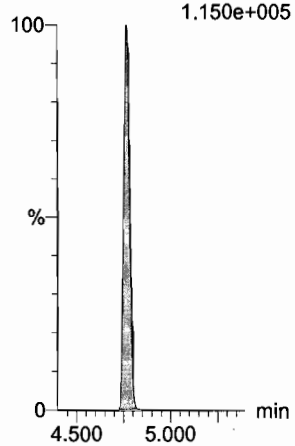
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.061e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.638e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.150e+005

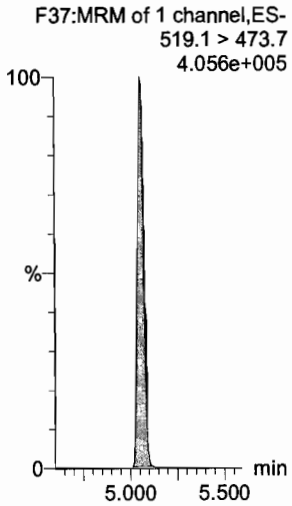


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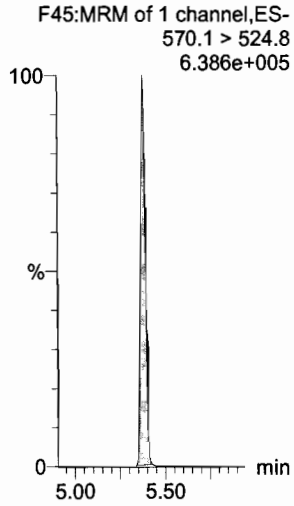
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_4, Date: 30-Dec-2017, Time: 23:18:04, ID: ST171230M3-3 PFC CS0 17L2608, Description: PFC CS0 17L2608

13C6-PFDA



13C7-PFUdA

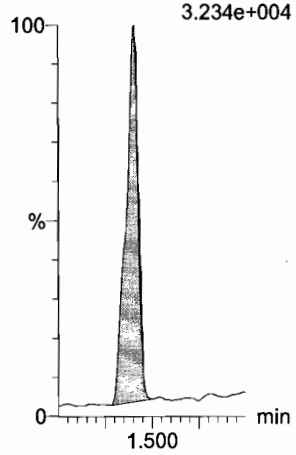


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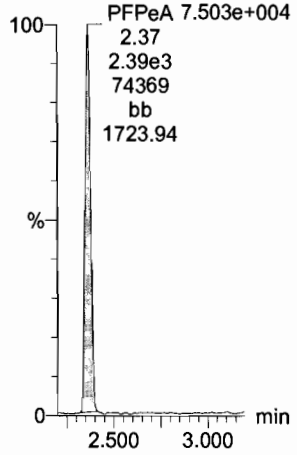
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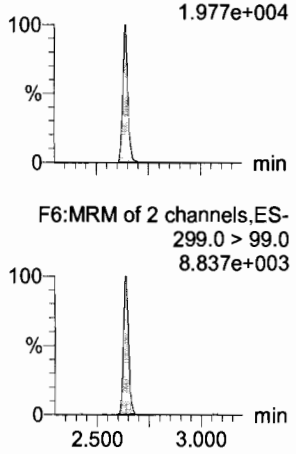
PFBA



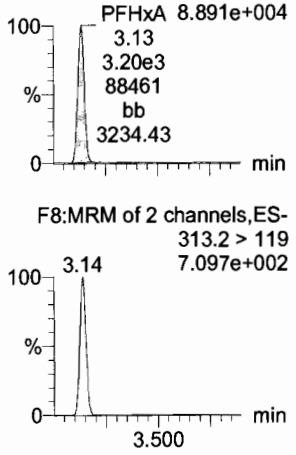
PFPeA



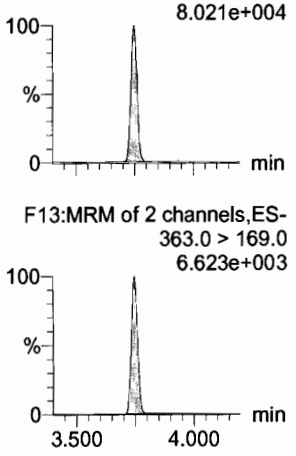
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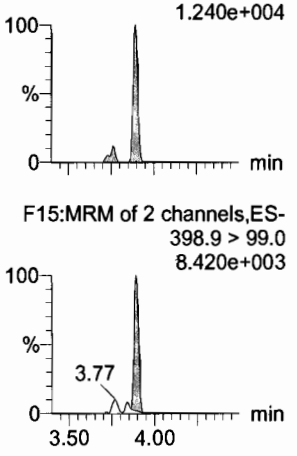
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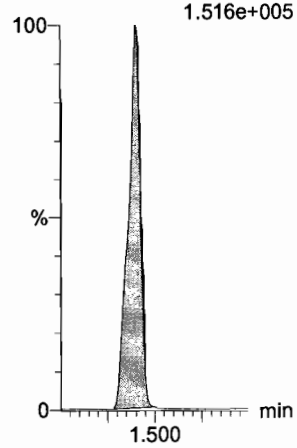
PFHpA



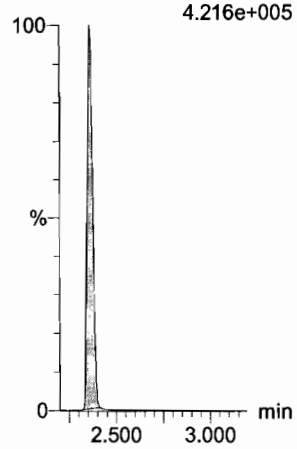
L-PFHxS



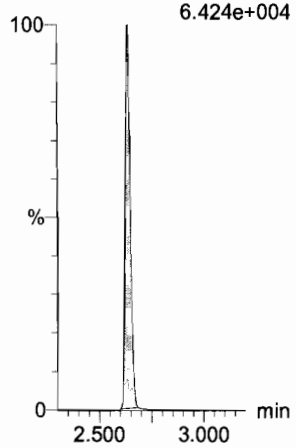
13C3-PFBA



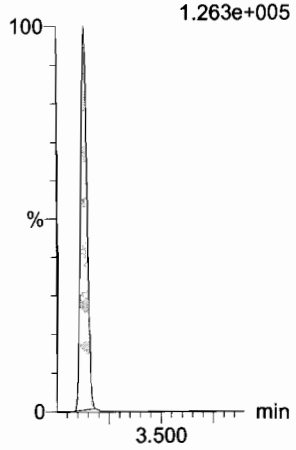
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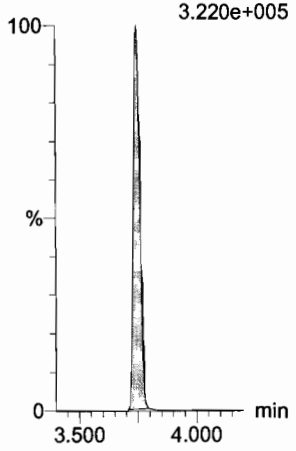
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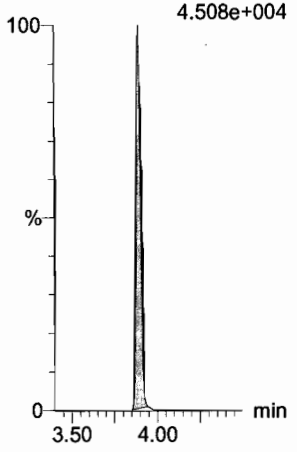
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

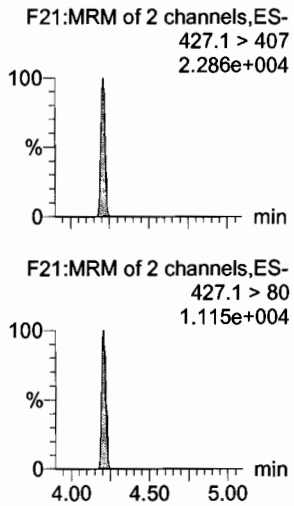


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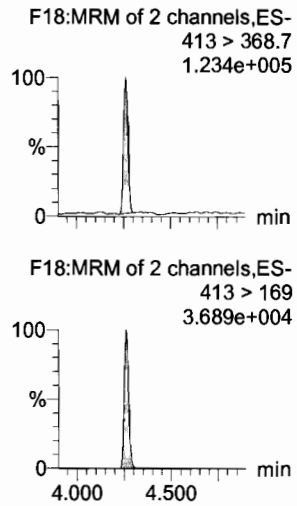
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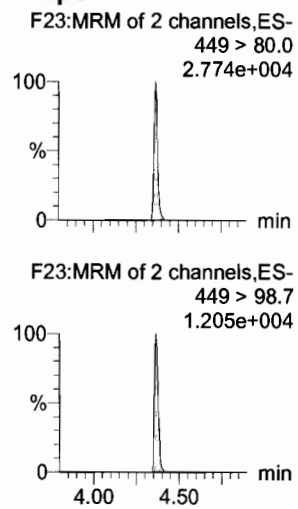
6:2 FTS



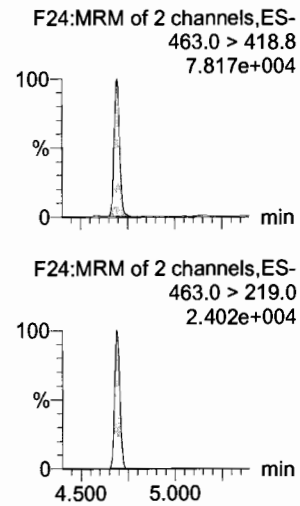
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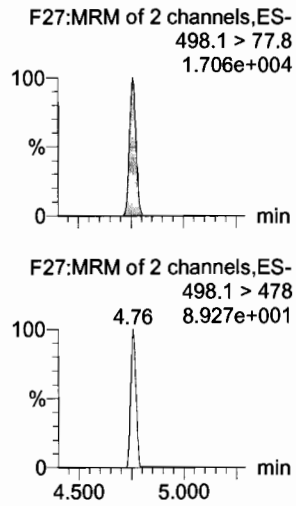
PFHpS



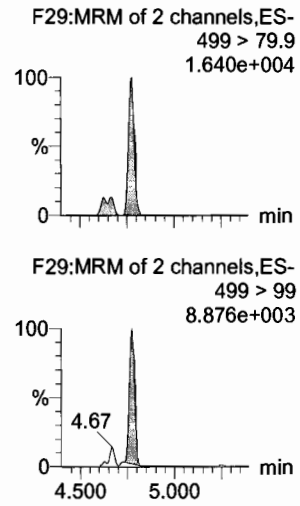
PFNA



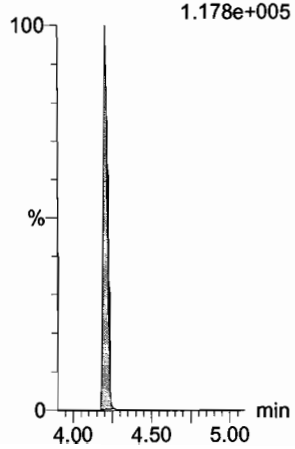
PFOSA



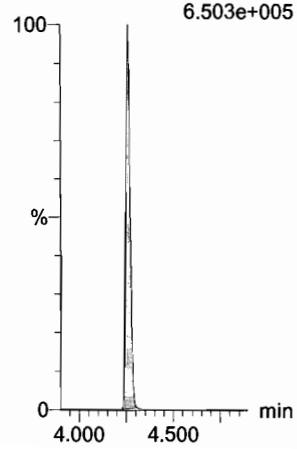
L-PFOS



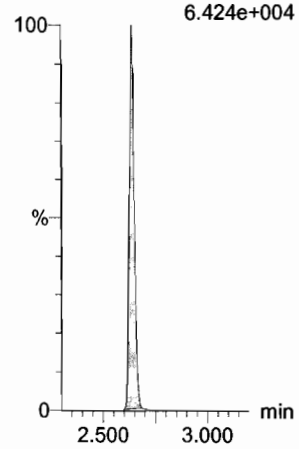
13C2-6:2 FTS



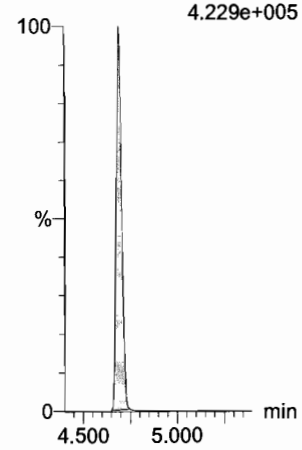
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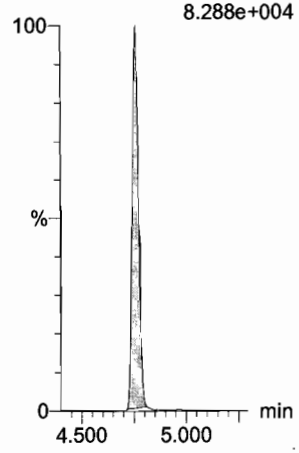
13C3-PFBS



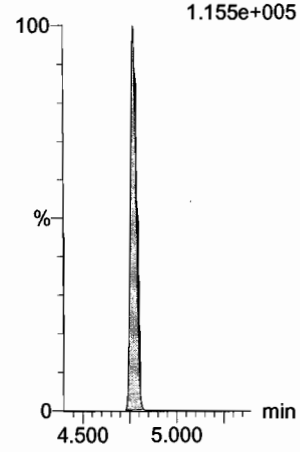
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13C8-PFOSA



13C8-PFOS

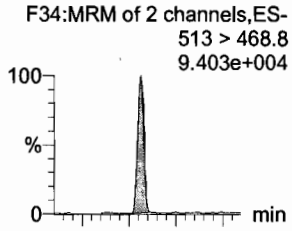


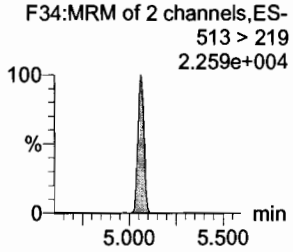
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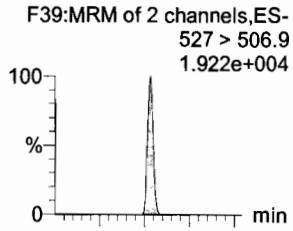
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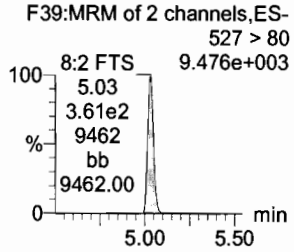
PFDA



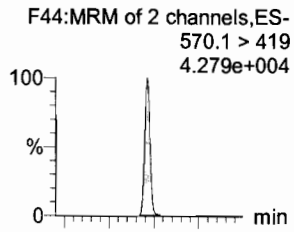


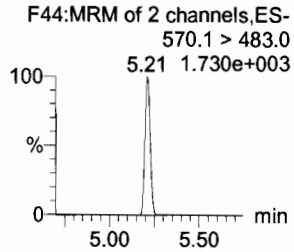
8:2 FTS



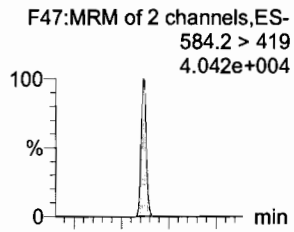


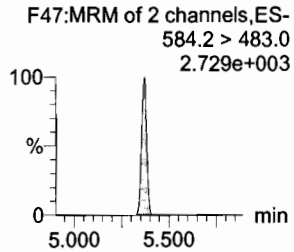
N-MeFOSAA



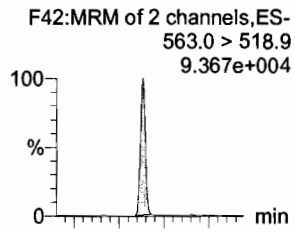


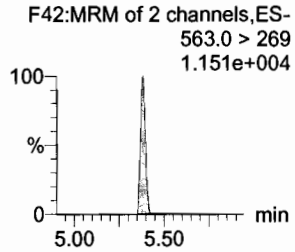
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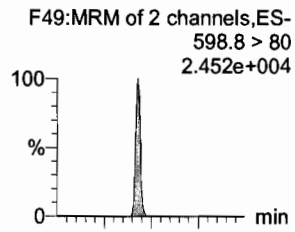


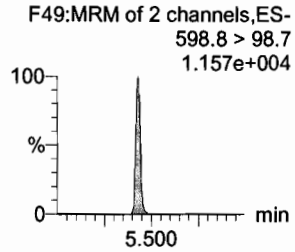
PFUdA



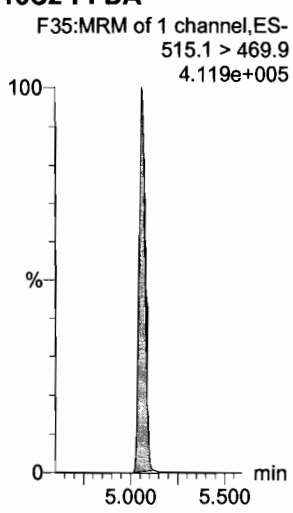


PFDS

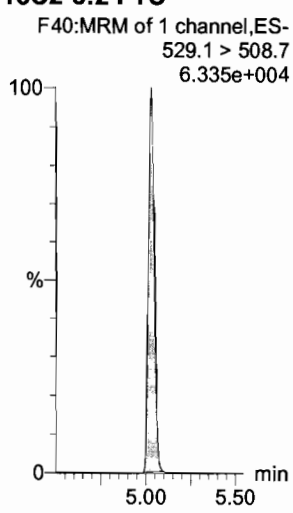




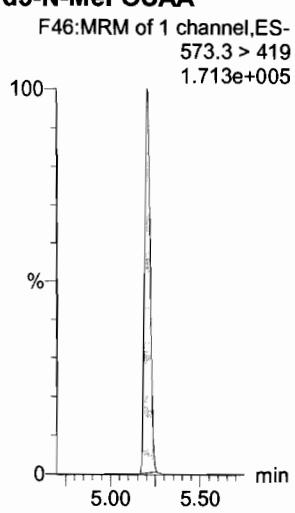
13C2-PFDA



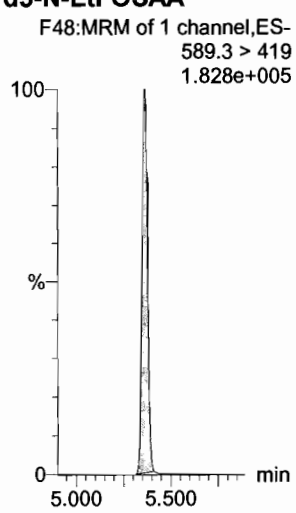
13C2-8:2 FTS



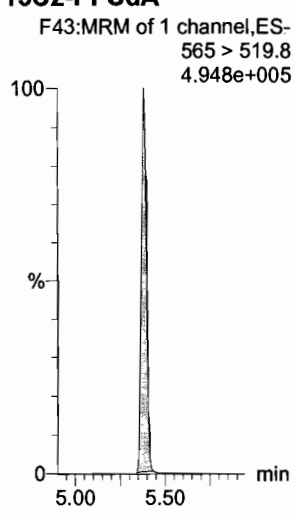
d3-N-MeFOSAA



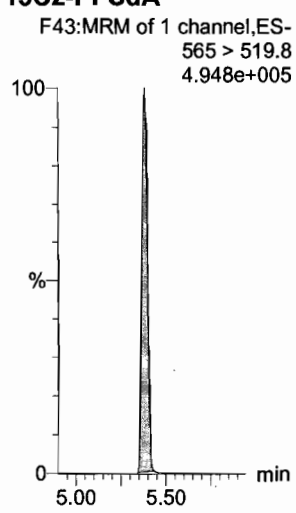
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

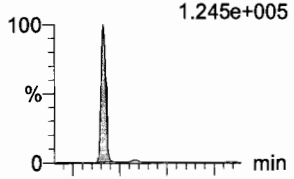


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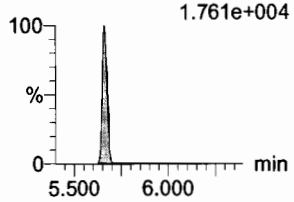
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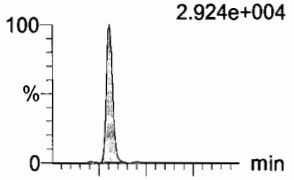
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
1.245e+005



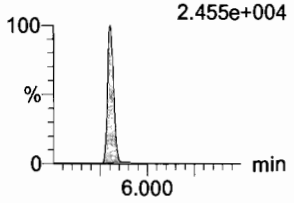
F50:MRM of 2 channels,ES-
612.9 > 318.8
1.761e+004



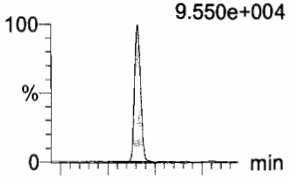
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
2.924e+004



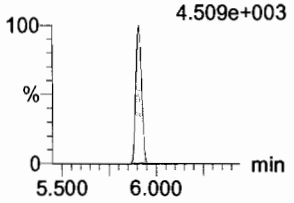
F33:MRM of 2 channels,ES-
512.1 > 219
2.455e+004



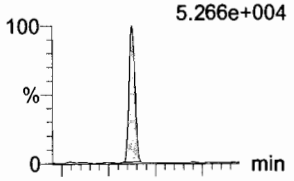
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
9.550e+004



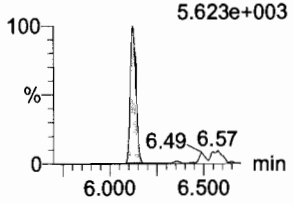
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662.9 > 319
4.509e+003



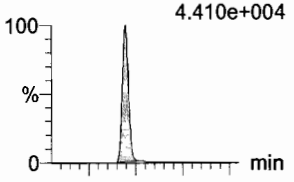
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
5.266e+004



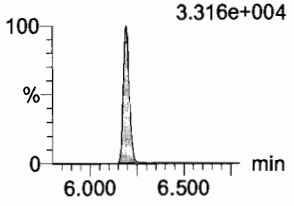
F57:MRM of 2 channels,ES-
712.9 > 369
5.623e+003



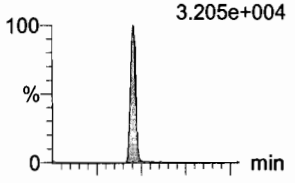
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
4.410e+004



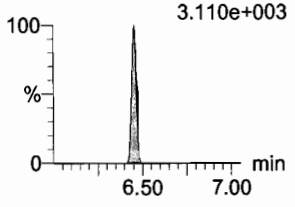
F38:MRM of 2 channels,ES-
526.1 > 219
3.316e+004



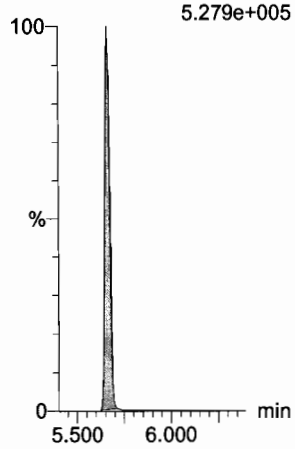
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
3.205e+004



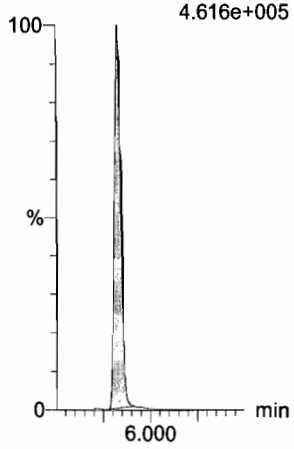
F59:MRM of 2 channels,ES-
813.1 > 219
3.110e+003



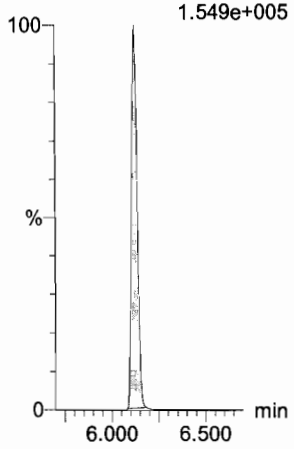
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
5.279e+005



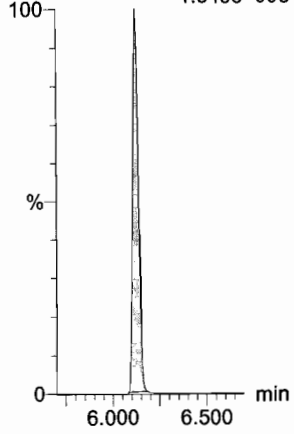
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.616e+005



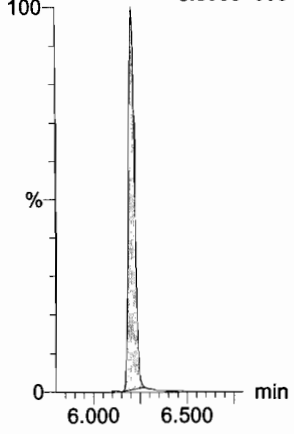
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.549e+005



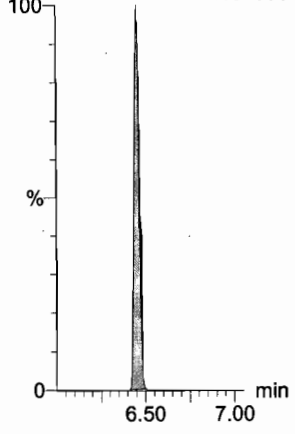
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.549e+005



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.893e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.181e+005

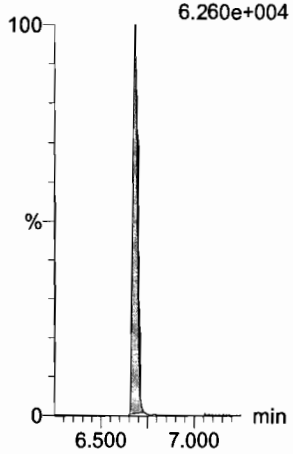


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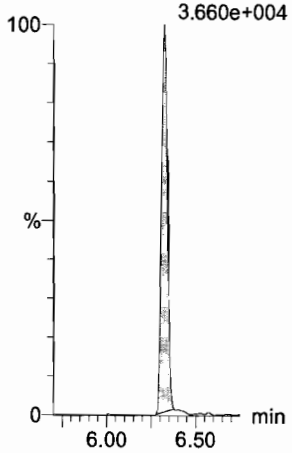
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Name: 171230M3_5, Date: 30-Dec-2017, Time: 23:29:14, ID: ST171230M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

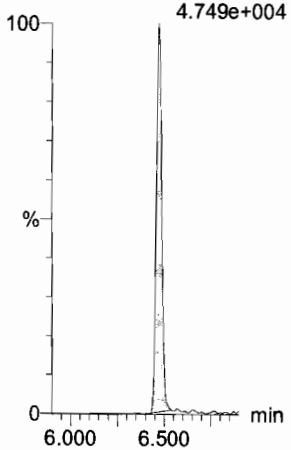
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
6.260e+004



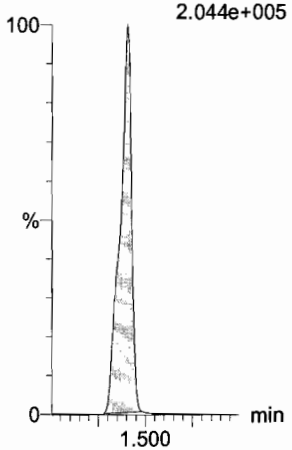
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
3.660e+004



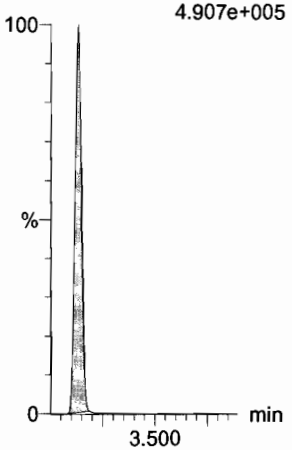
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
4.749e+004



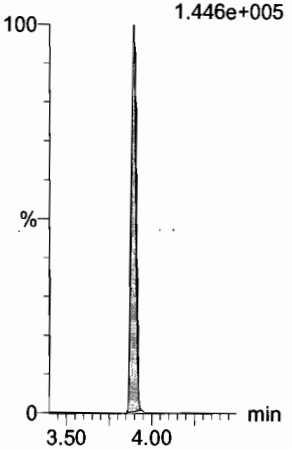
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.044e+005



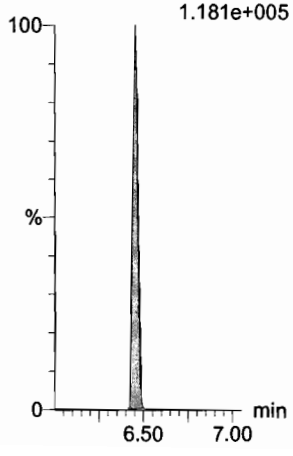
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.907e+005



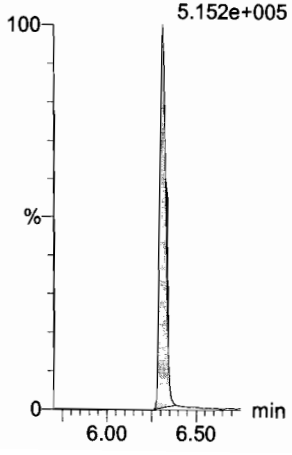
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.446e+005



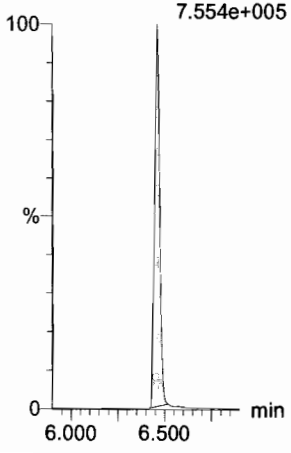
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.181e+005



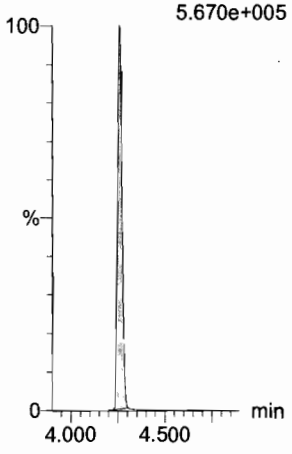
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.152e+005



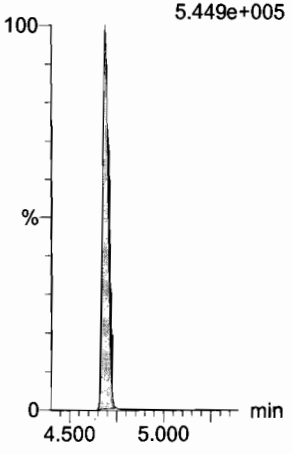
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.554e+005



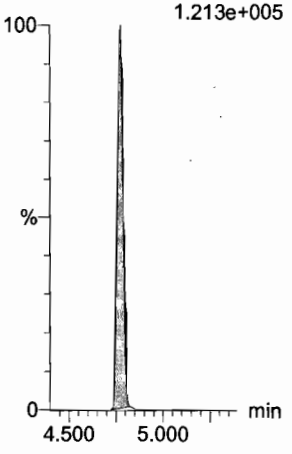
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.670e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
5.449e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.213e+005

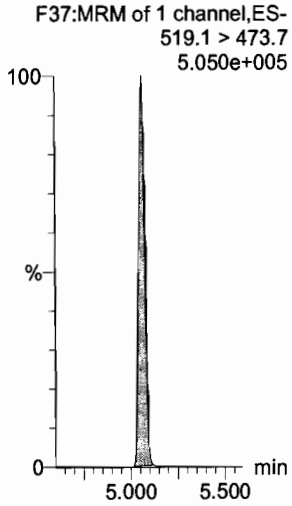


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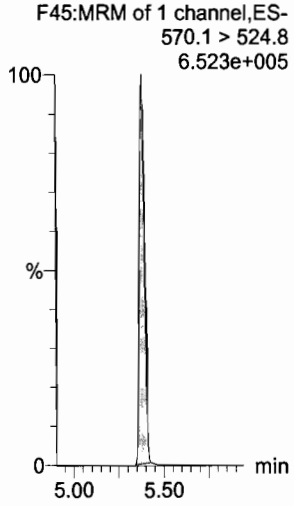
Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_5, Date: 30-Dec-2017, Time: 23:29:14, ID: ST171230M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA

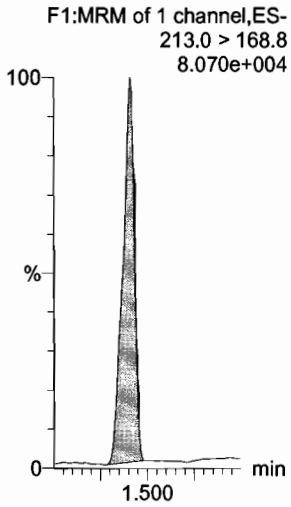


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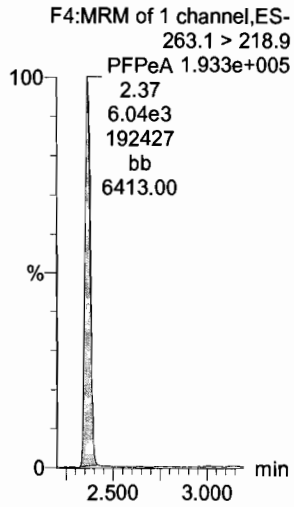
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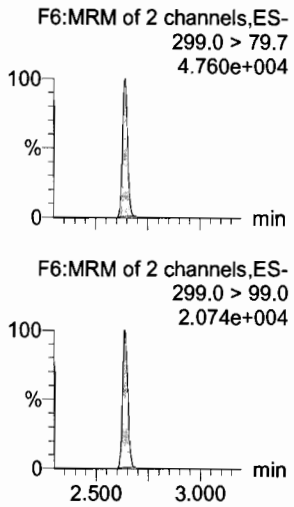
PFBA



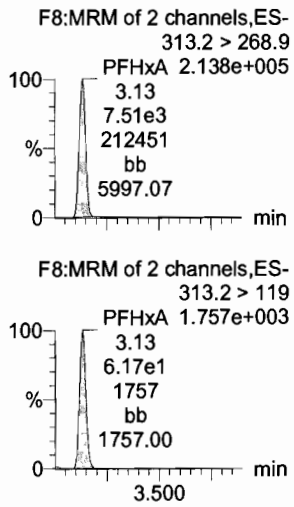
PFPeA



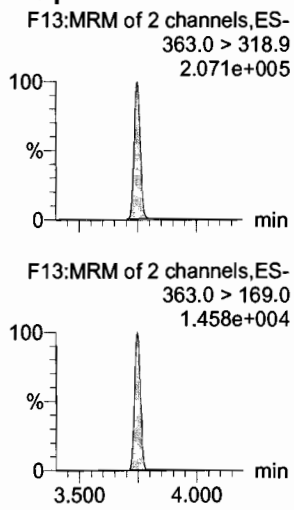
PFBS



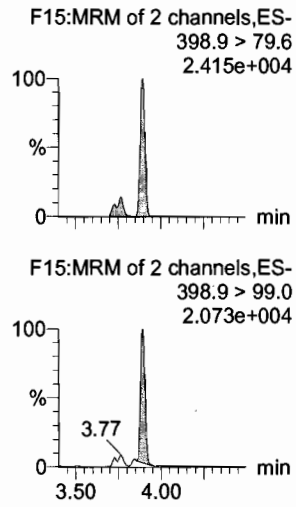
PFHxA



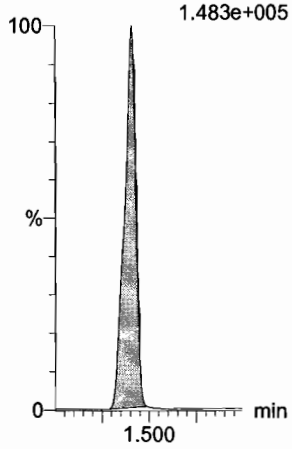
PFHpA



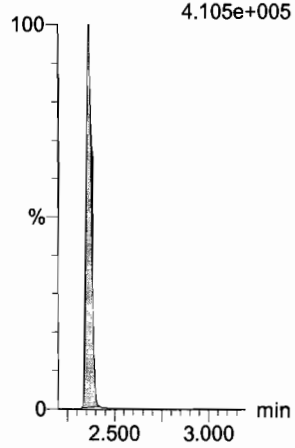
L-PFHxS



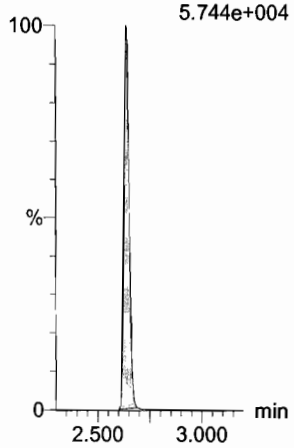
13C3-PFBA



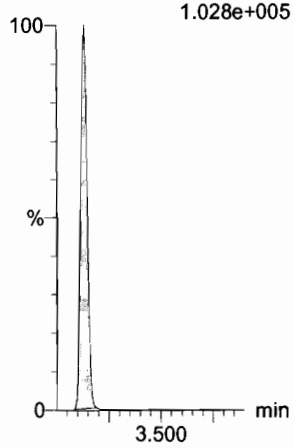
13C3-PFPeA



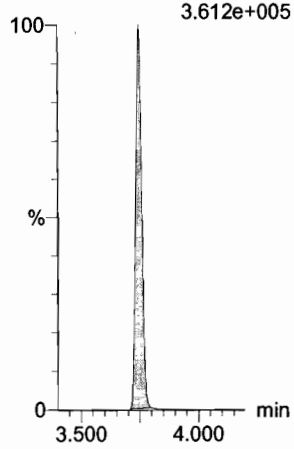
13C3-PFBS



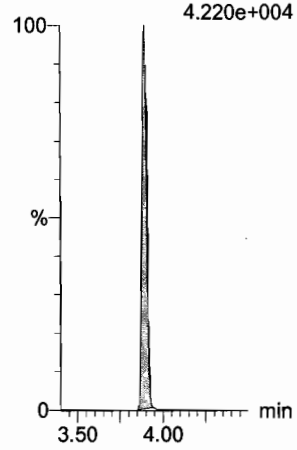
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

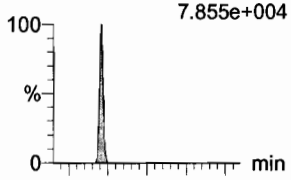


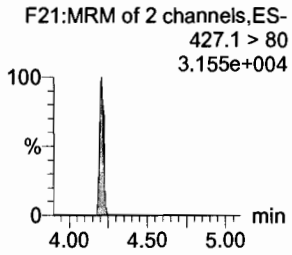
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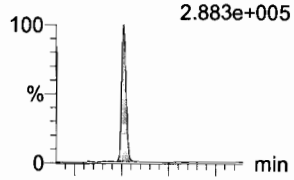
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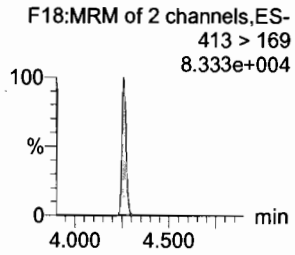
6:2 FTS



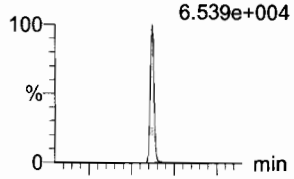


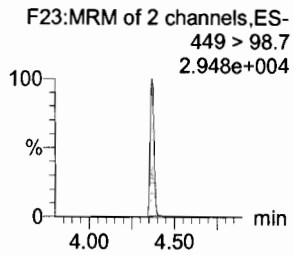
L-PFOA



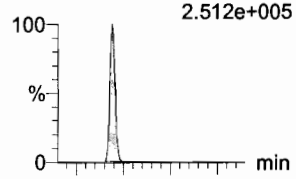


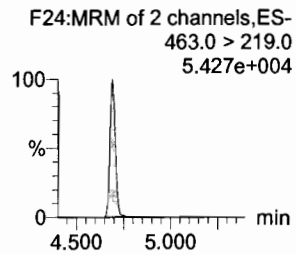
PFHpS



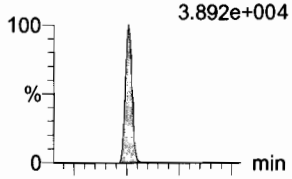


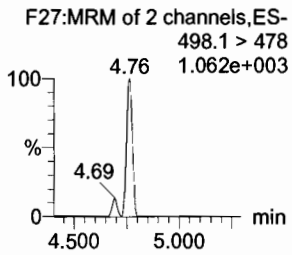
PFNA



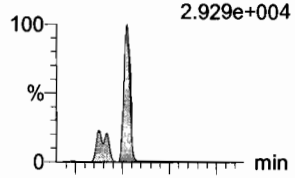


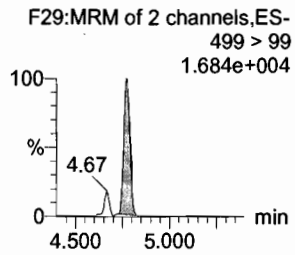
PFOSA



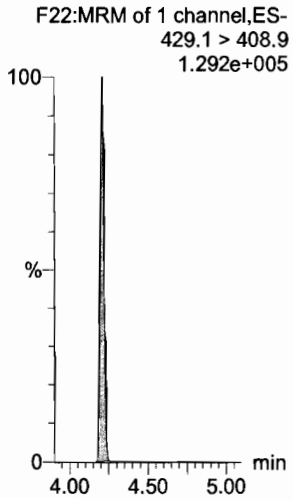


L-PFOS

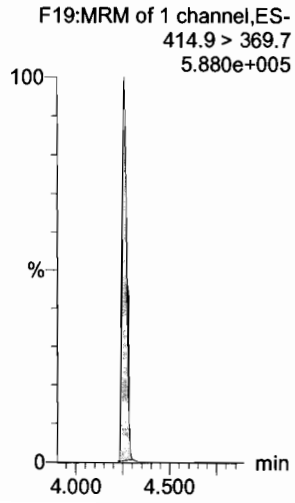




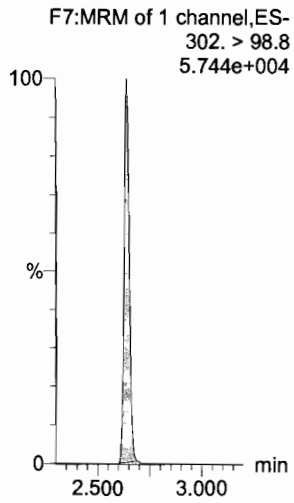
13C2-6:2 FTS



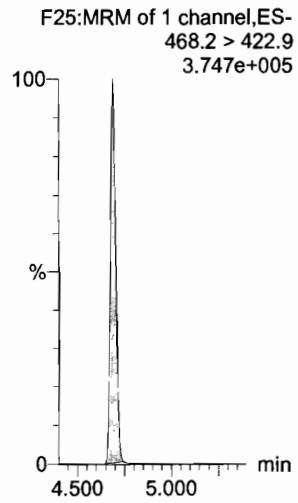
13C2-PFOA



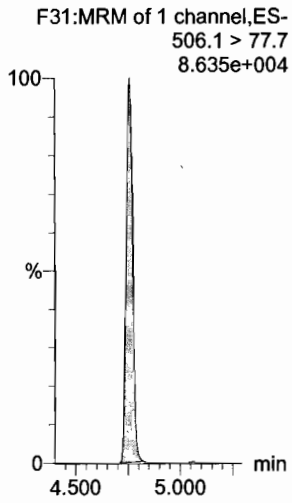
13C3-PFBS



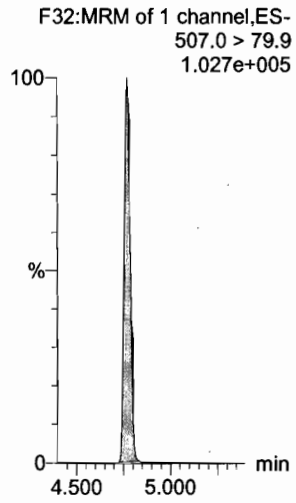
13C5-PFNA



13C8-PFOSA



13C8-PFOS

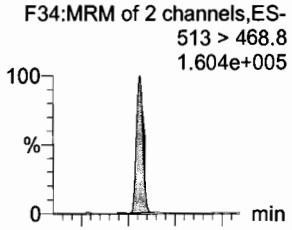


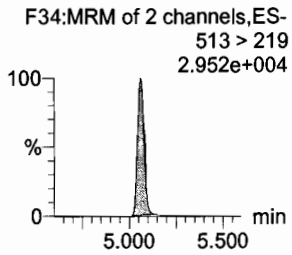
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

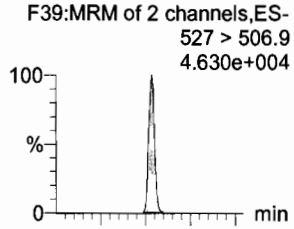
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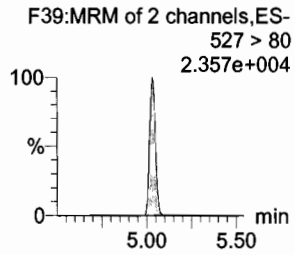
PFDA



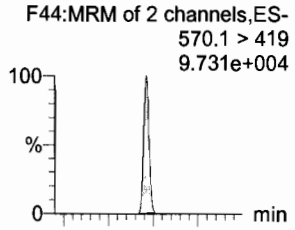


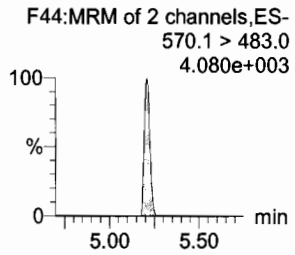
8:2 FTS



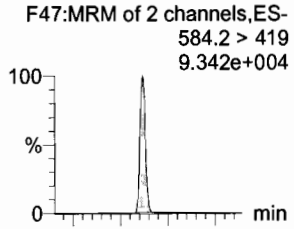


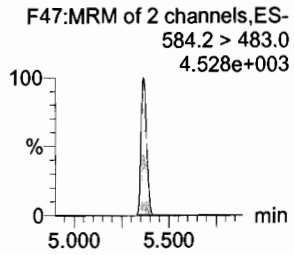
N-MeFOSAA



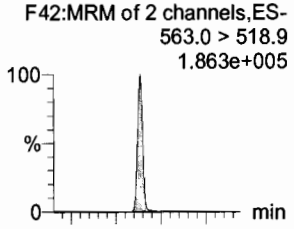


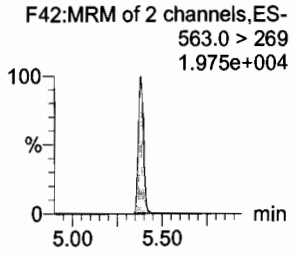
N-EtFOSAA



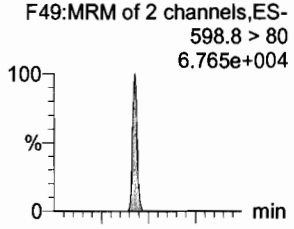


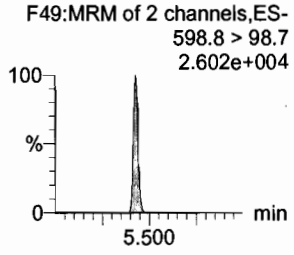
PFUdA



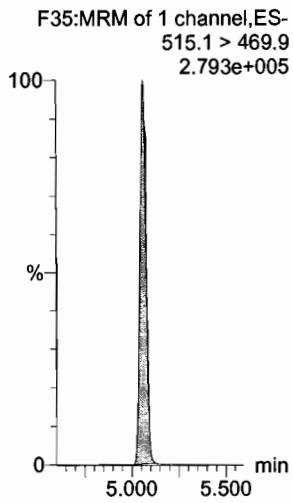


PFDS

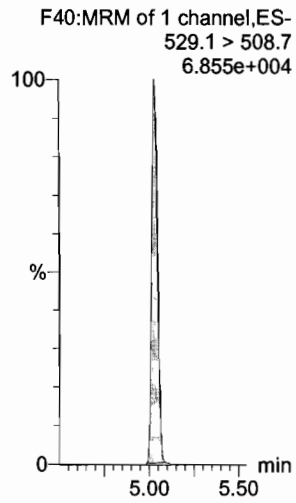




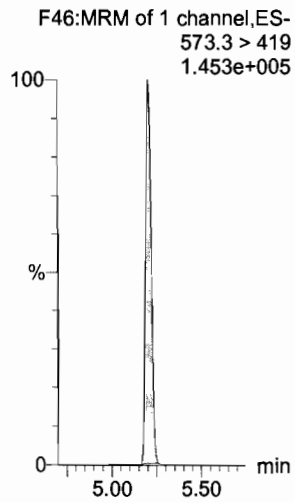
13C2-PFDA



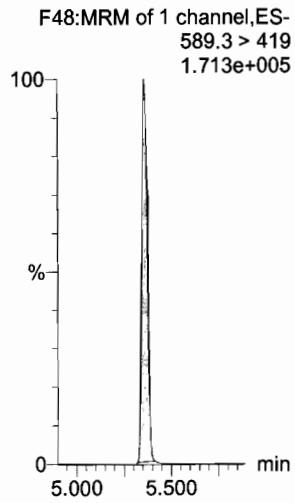
13C2-8:2 FTS



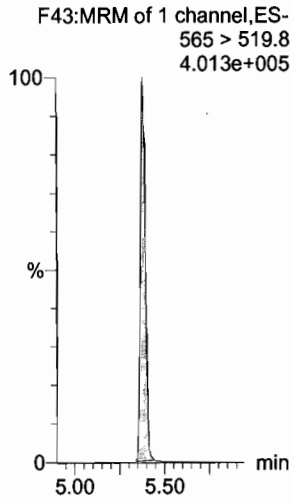
d3-N-MeFOSAA



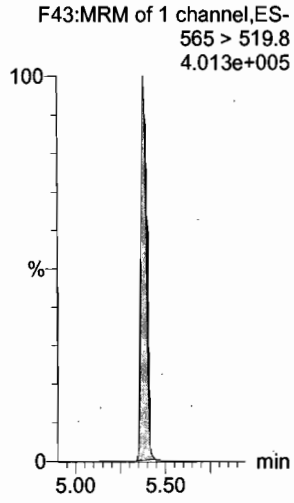
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

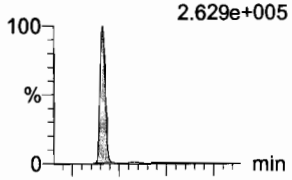


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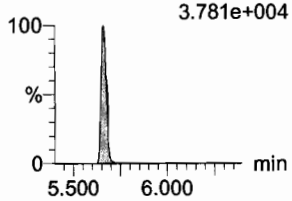
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Name: 171230M3_6, Date: 30-Dec-2017, Time: 23:40:25, ID: ST171230M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

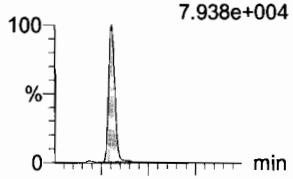
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.629e+005



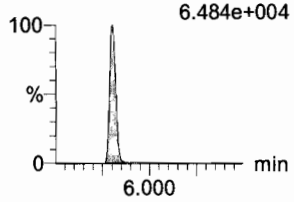
F50:MRM of 2 channels,ES-
612.9 > 318.8
3.781e+004



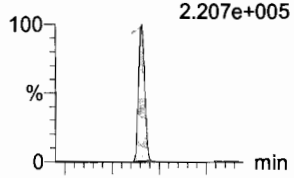
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
7.938e+004



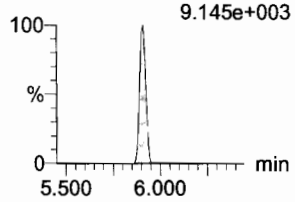
F33:MRM of 2 channels,ES-
512.1 > 219
6.484e+004



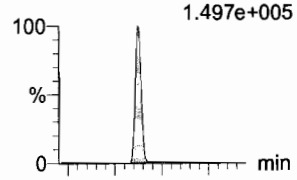
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.207e+005



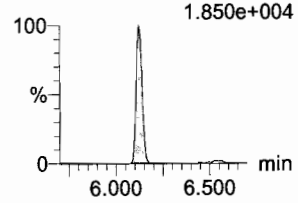
F56:MRM of 2 channels,ES-
662.9 > 319
9.145e+003



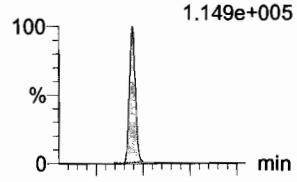
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.497e+005



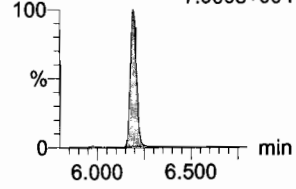
F57:MRM of 2 channels,ES-
712.9 > 369
1.850e+004



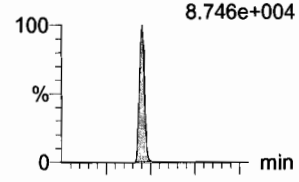
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.149e+005



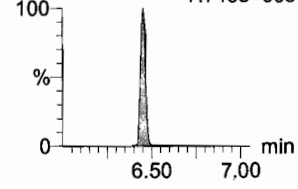
F38:MRM of 2 channels,ES-
526.1 > 219
7.900e+004



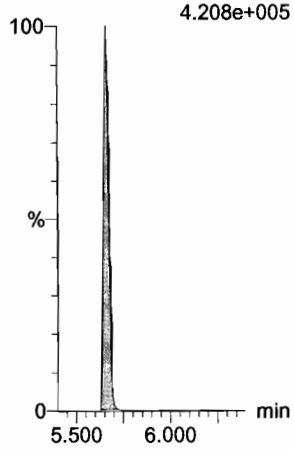
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
8.746e+004



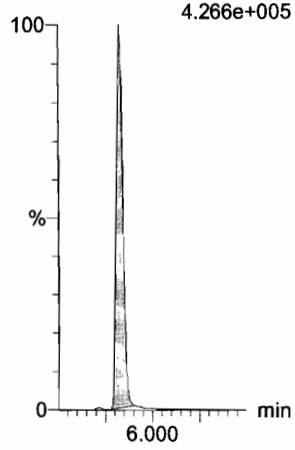
F59:MRM of 2 channels,ES-
813.1 > 219
7.746e+003



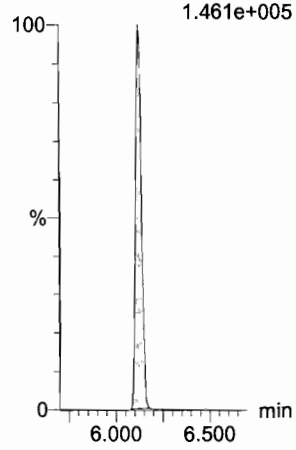
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
4.208e+005



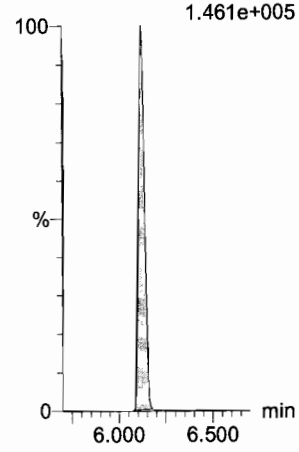
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.266e+005



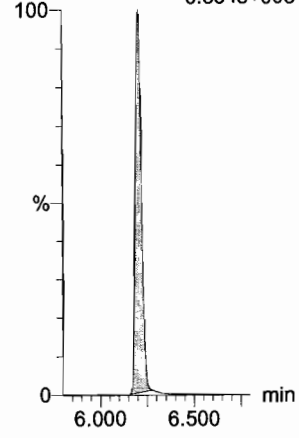
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.461e+005



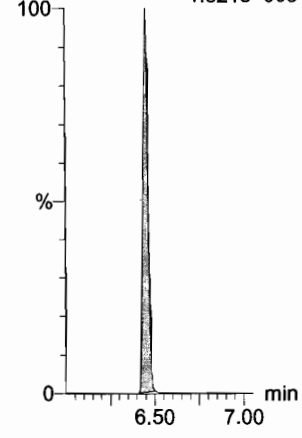
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.461e+005



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.554e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.321e+005

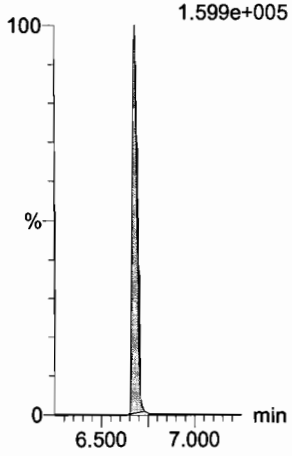


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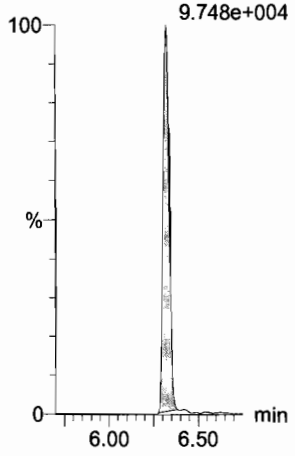
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_6, Date: 30-Dec-2017, Time: 23:40:25, ID: ST171230M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

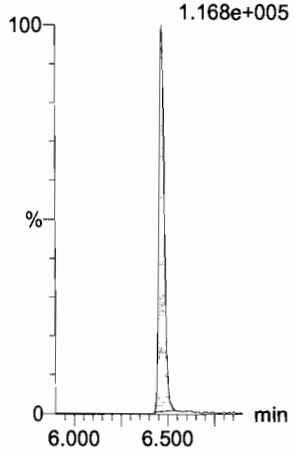
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.599e+005



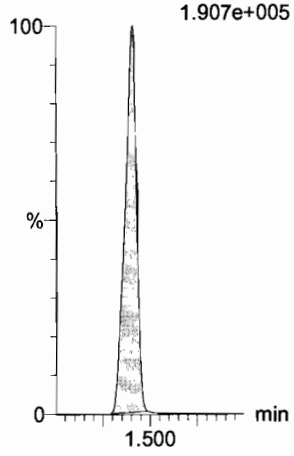
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
9.748e+004



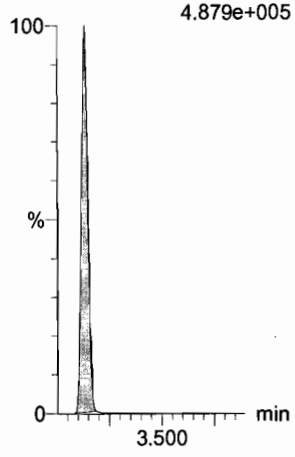
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.168e+005



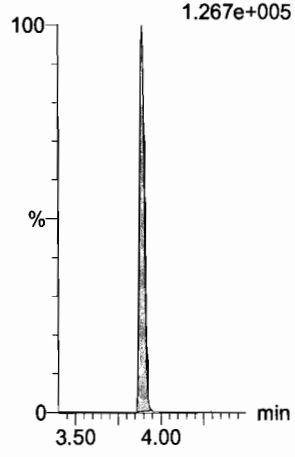
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.907e+005



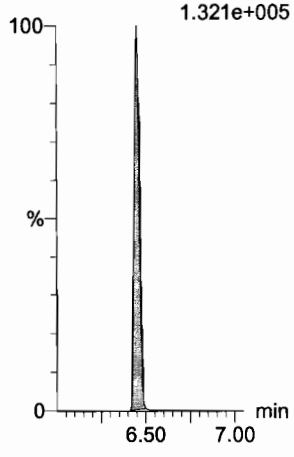
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.879e+005



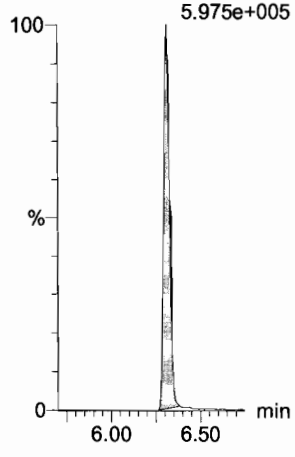
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.267e+005



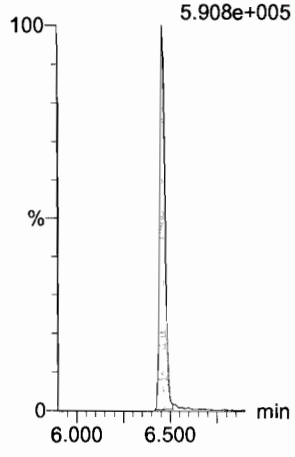
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.321e+005



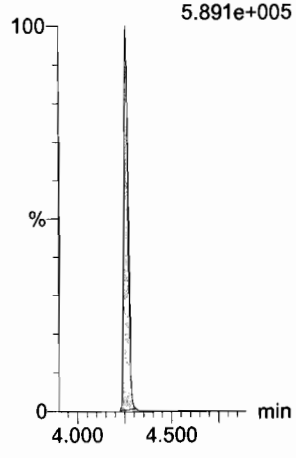
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.975e+005



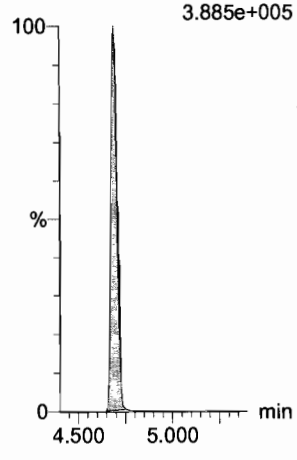
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.908e+005



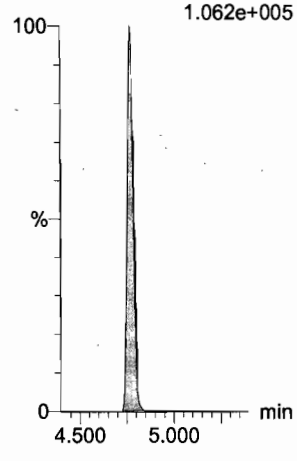
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.891e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.885e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.062e+005

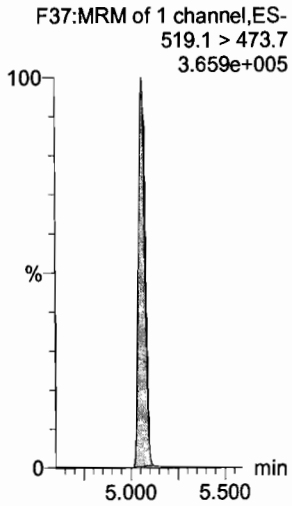


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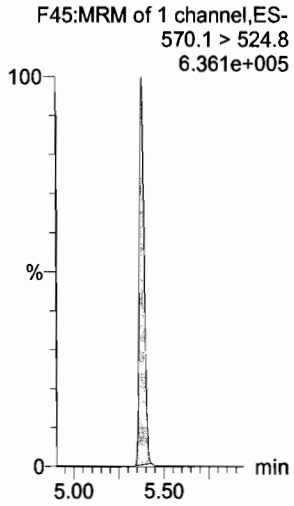
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13C6-PFDA



13C7-PFUdA

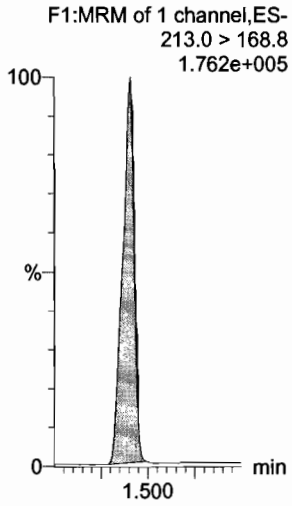


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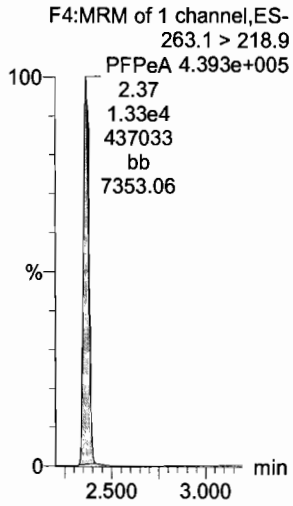
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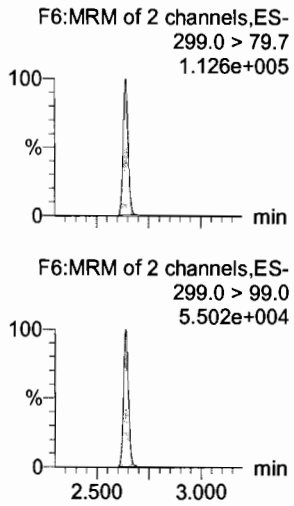
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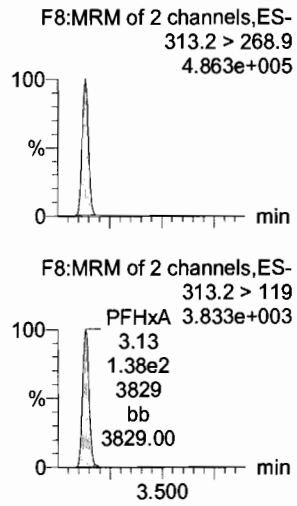
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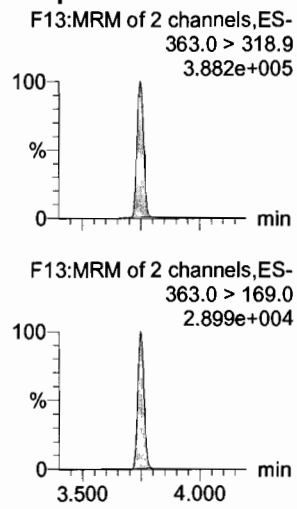
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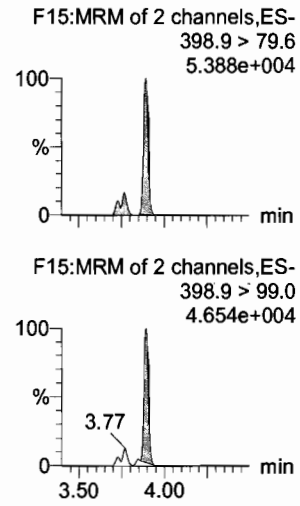
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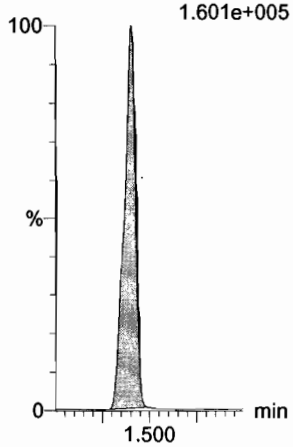
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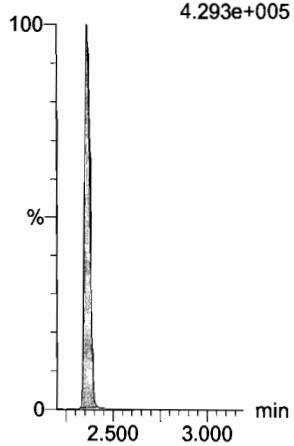
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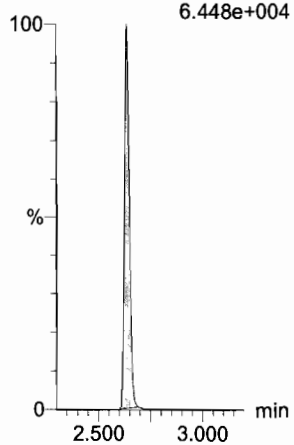
13C3-PFBA



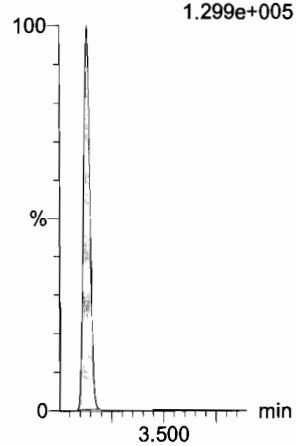
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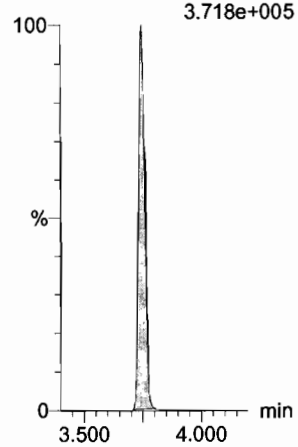
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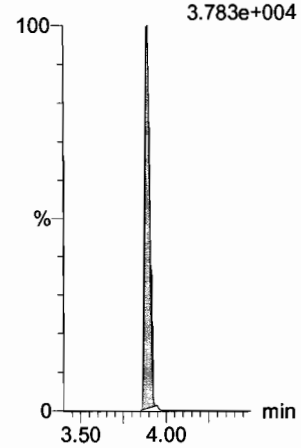
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

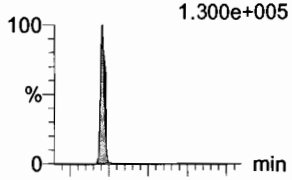


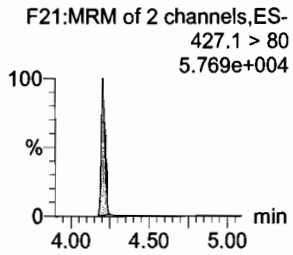
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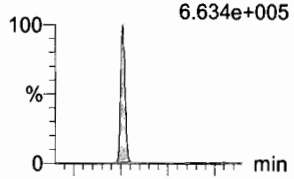
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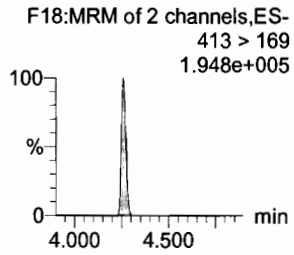
6:2 FTS



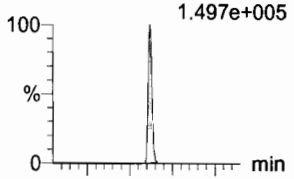


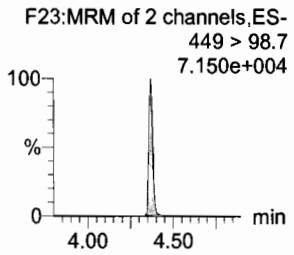
L-PFOA



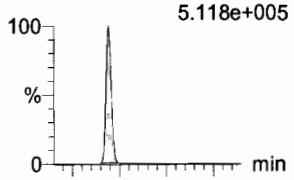


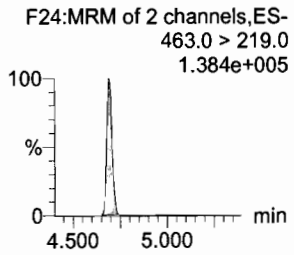
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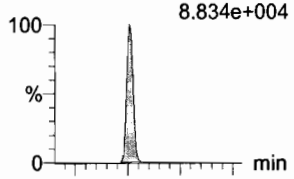


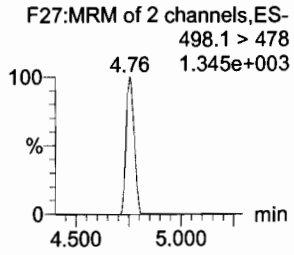
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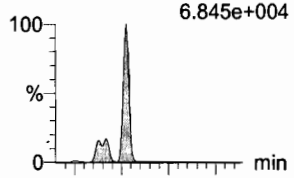


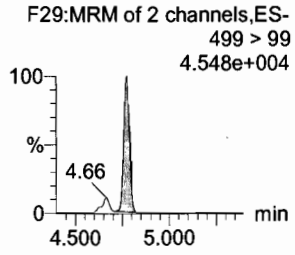
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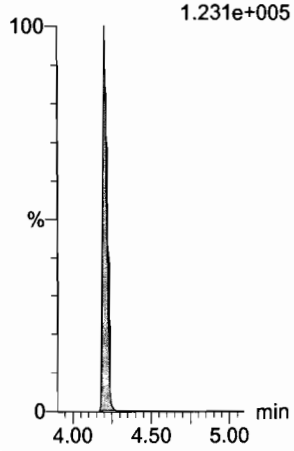


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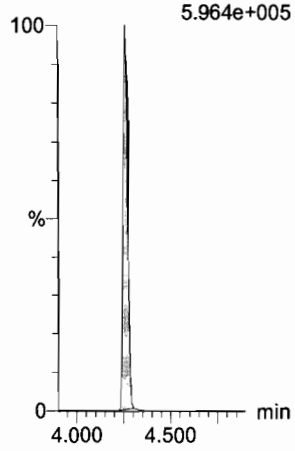




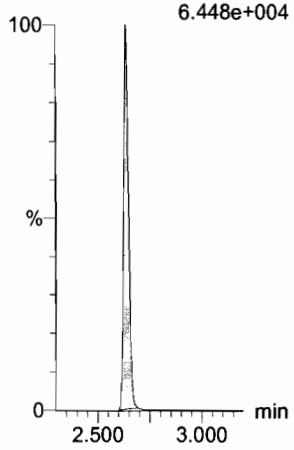
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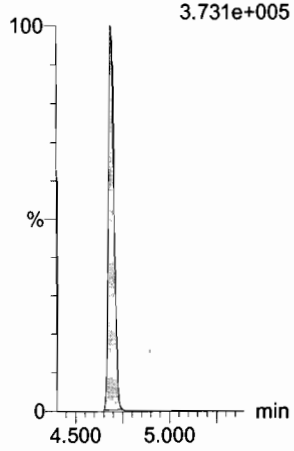
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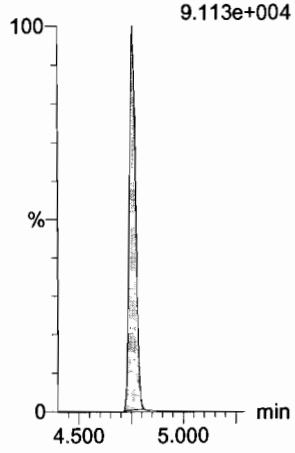
13C3-PFBS



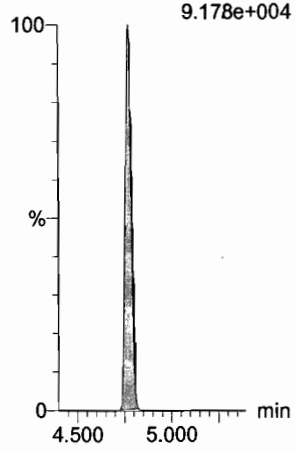
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13C8-PFOSA



13C8-PFOS

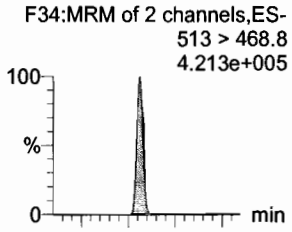


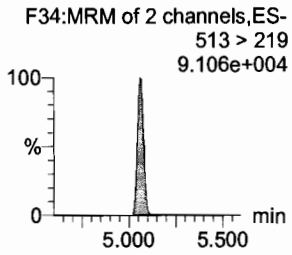
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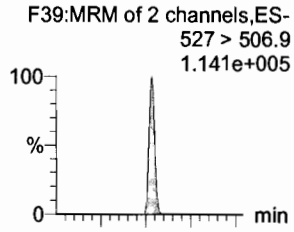
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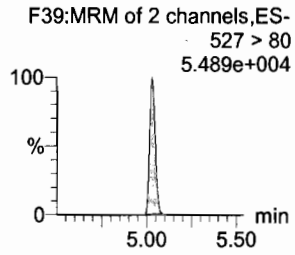
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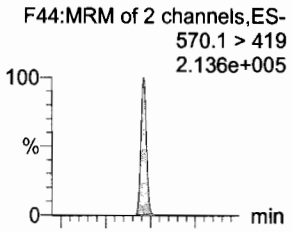


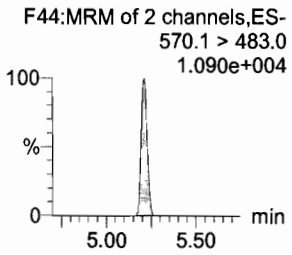
8:2 FTS



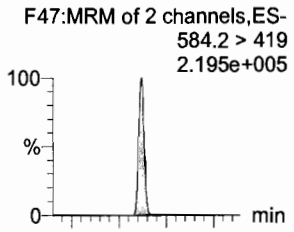


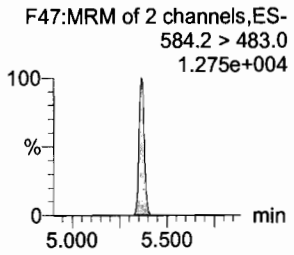
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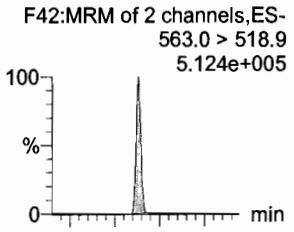


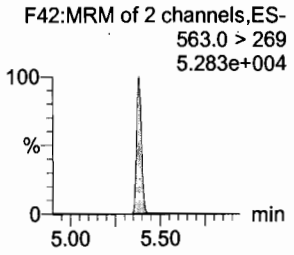
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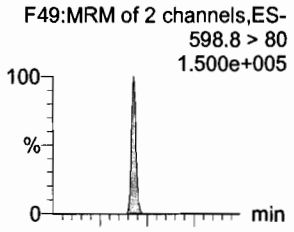


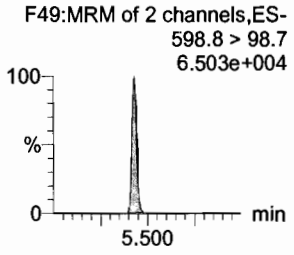
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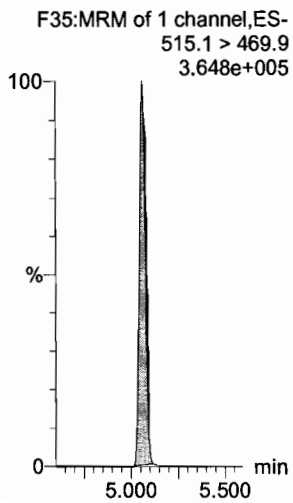


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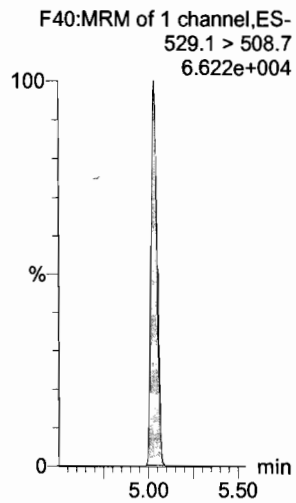




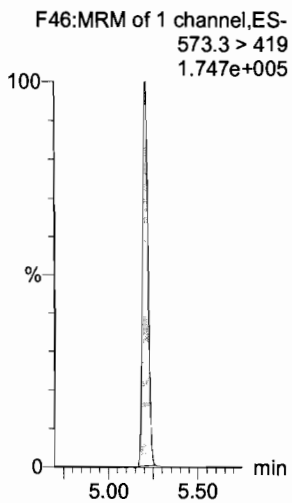
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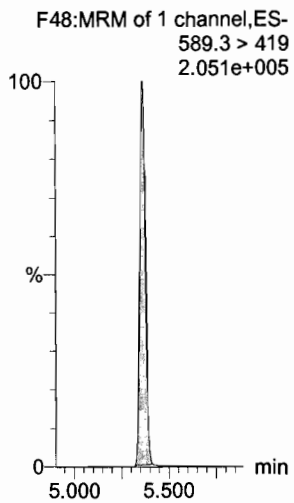
13C2-8:2 FTS



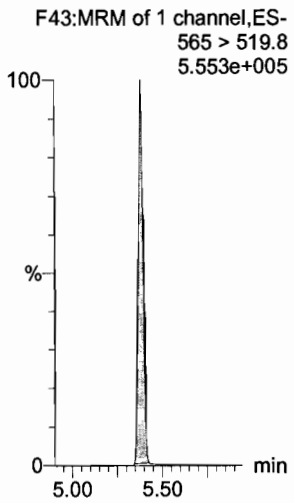
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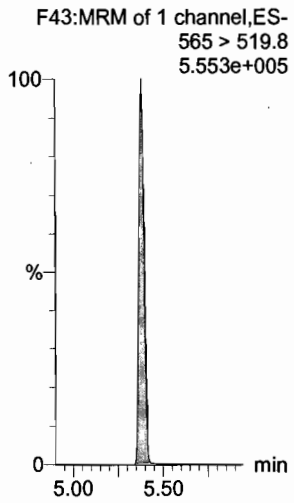
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13C2-PFUdA



13C2-PFUdA

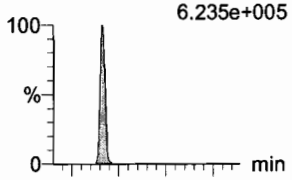


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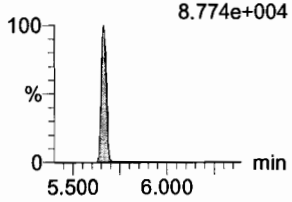
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_7, Date: 30-Dec-2017, Time: 23:51:35, ID: ST171230M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

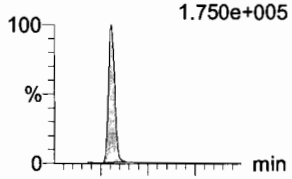
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
6.235e+005



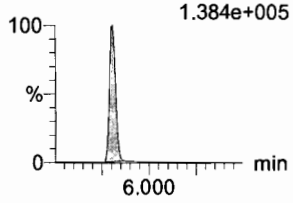
F50:MRM of 2 channels,ES-
612.9 > 318.8
8.774e+004



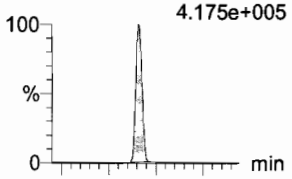
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.750e+005



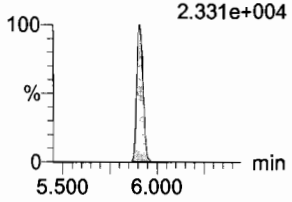
F33:MRM of 2 channels,ES-
512.1 > 219
1.384e+005



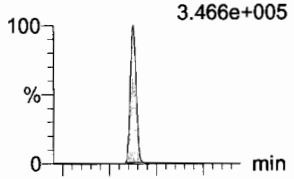
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.175e+005



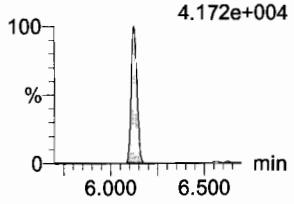
F56:MRM of 2 channels,ES-
662.9 > 319
2.331e+004



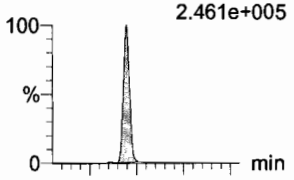
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
3.466e+005



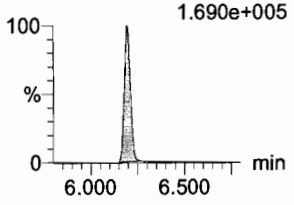
F57:MRM of 2 channels,ES-
712.9 > 369
4.172e+004



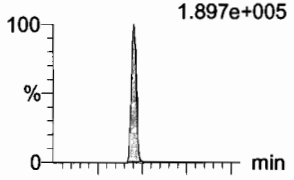
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.461e+005



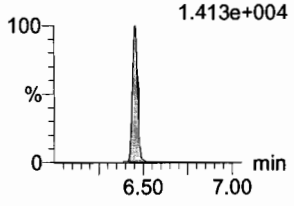
F38:MRM of 2 channels,ES-
526.1 > 219
1.690e+005



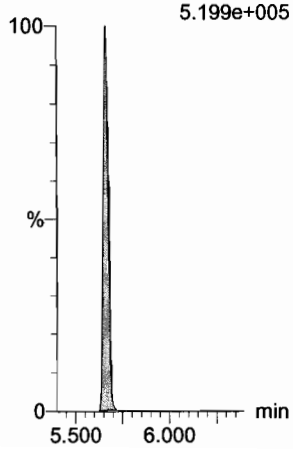
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.897e+005



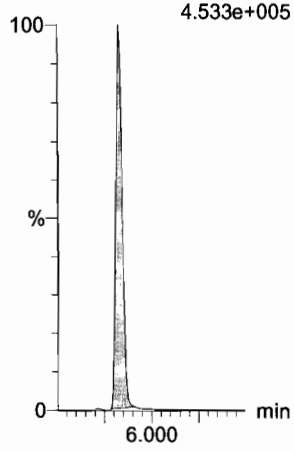
F59:MRM of 2 channels,ES-
813.1 > 219
1.413e+004



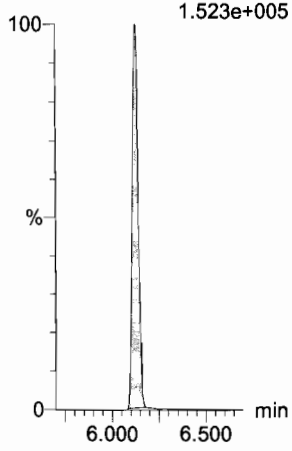
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
5.199e+005



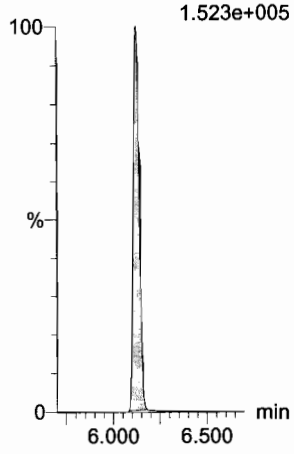
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.533e+005



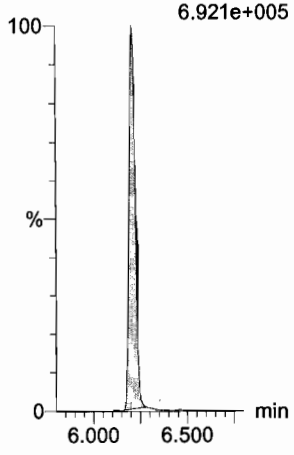
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.523e+005



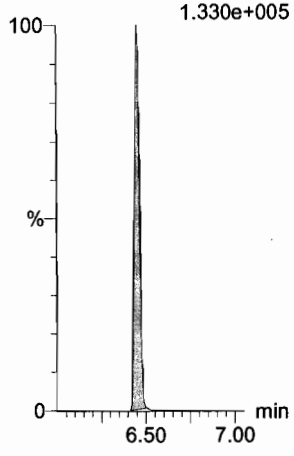
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.523e+005



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.921e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.330e+005

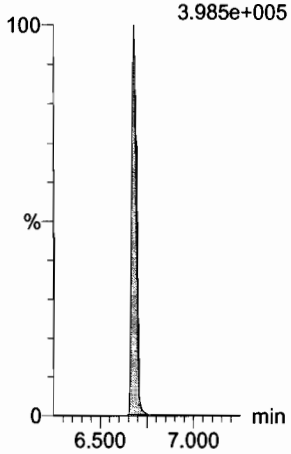


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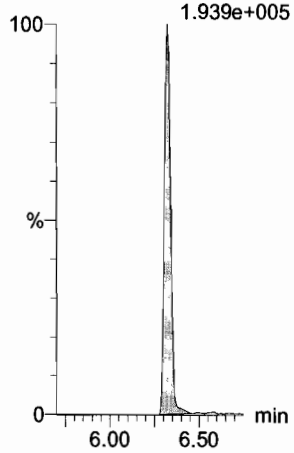
Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_7, Date: 30-Dec-2017, Time: 23:51:35, ID: ST171230M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

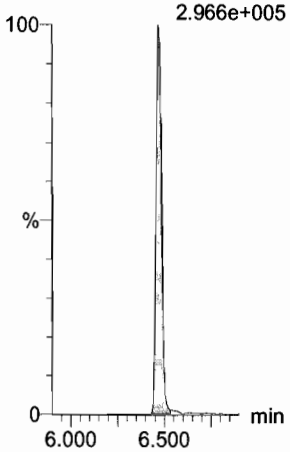
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.985e+005



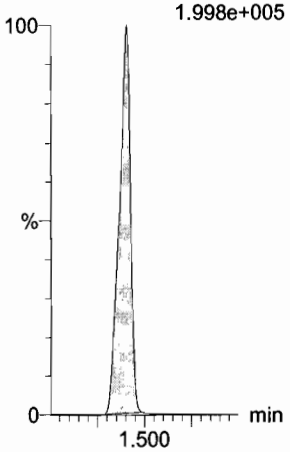
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.939e+005



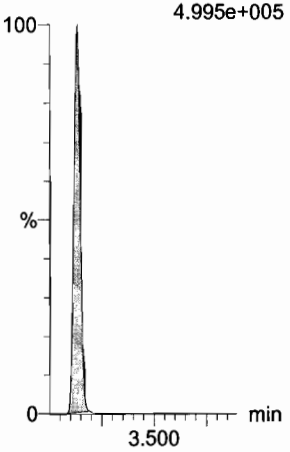
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.966e+005



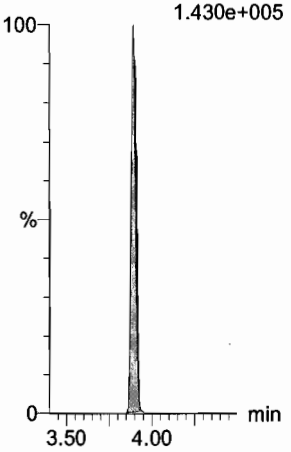
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.998e+005



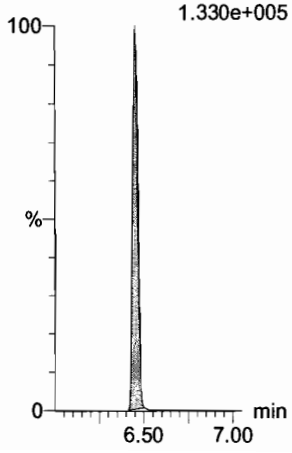
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.995e+005



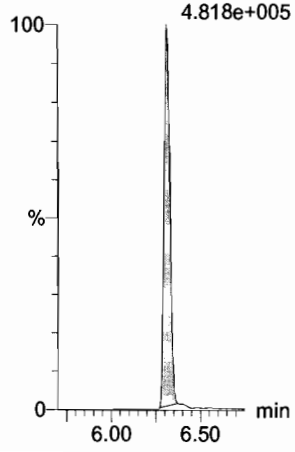
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.430e+005



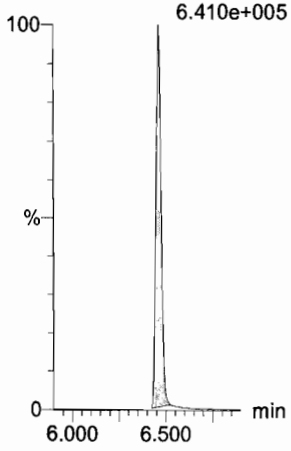
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.330e+005



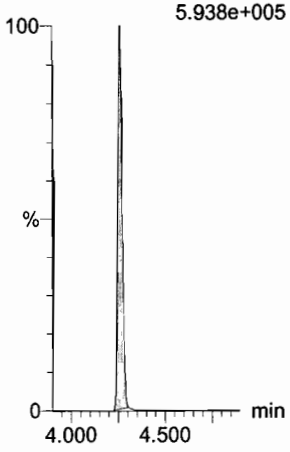
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.818e+005



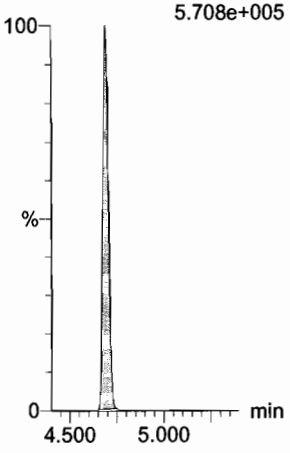
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.410e+005



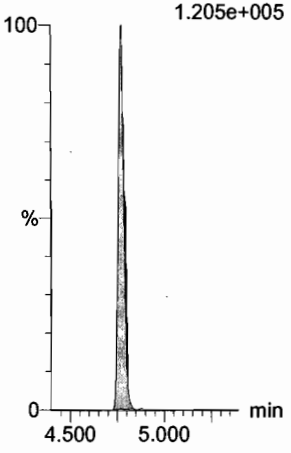
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.938e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
5.708e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.205e+005

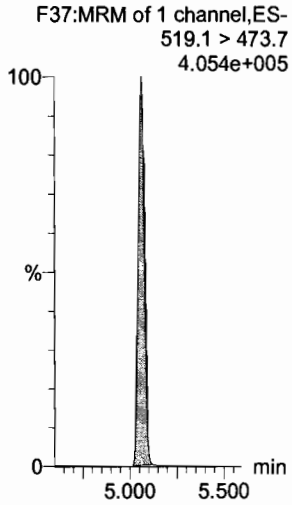


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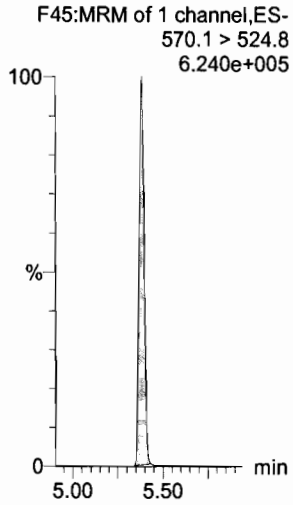
Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_7, Date: 30-Dec-2017, Time: 23:51:35, ID: ST171230M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA

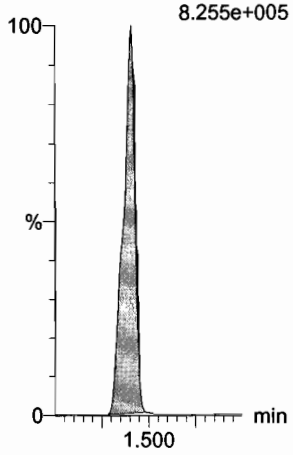


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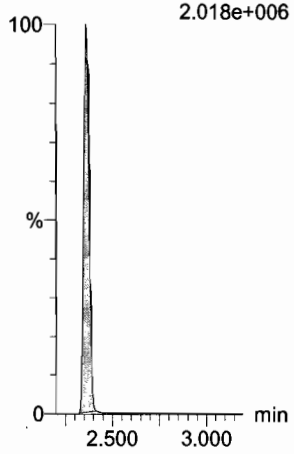
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

Name: 171230M3_8, Date: 31-Dec-2017, Time: 00:02:47, ID: ST171230M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

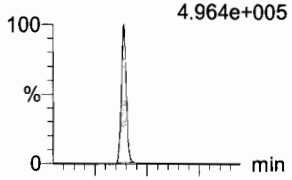
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
8.255e+005



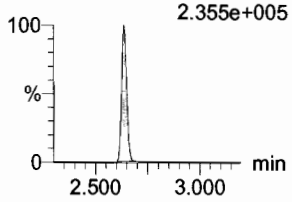
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.018e+006



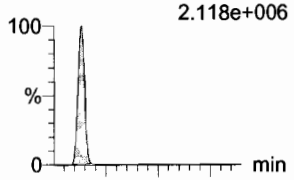
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
4.964e+005



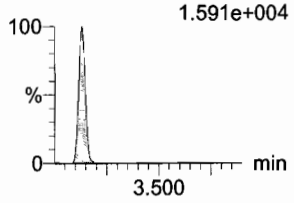
F6:MRM of 2 channels,ES-
299.0 > 99.0
2.355e+005



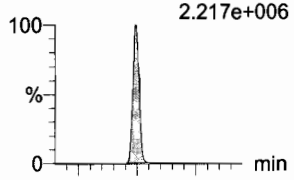
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
2.118e+006



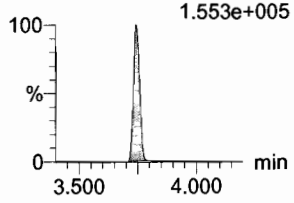
F8:MRM of 2 channels,ES-
313.2 > 119
1.591e+004



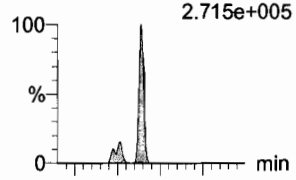
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
2.217e+006



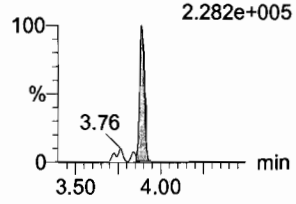
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.553e+005



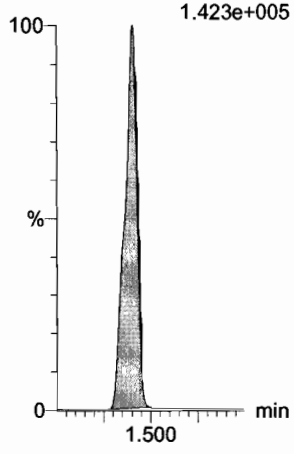
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.715e+005



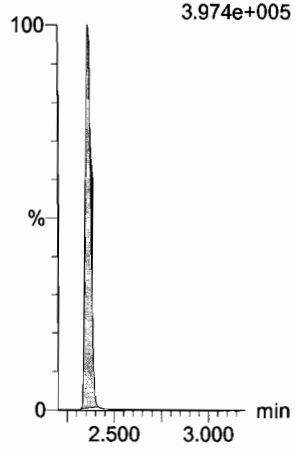
F15:MRM of 2 channels,ES-
398.9 > 99.0
2.282e+005



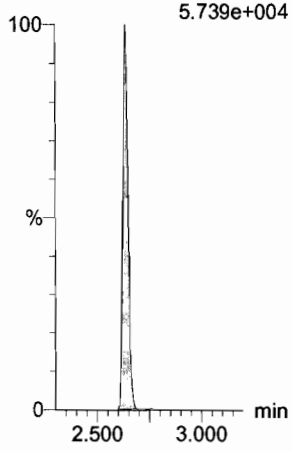
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.423e+005



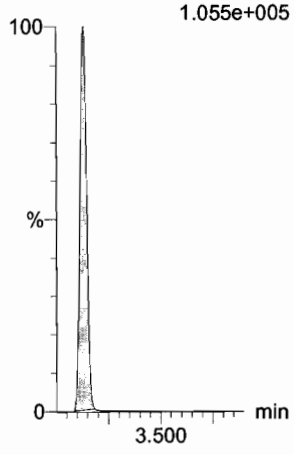
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.974e+005



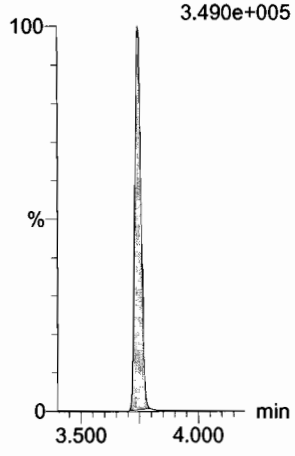
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.739e+004



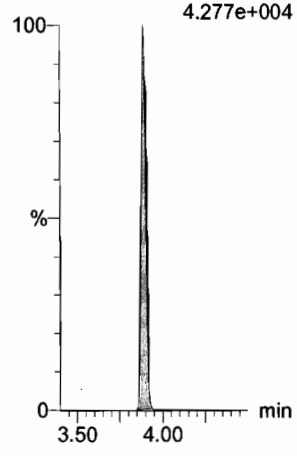
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.055e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.490e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.277e+004

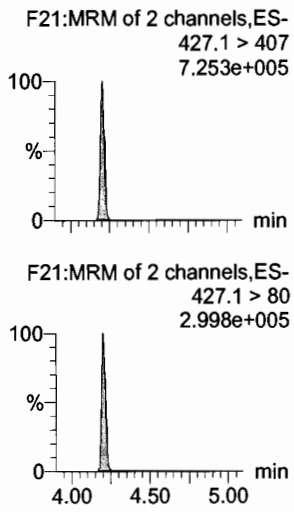


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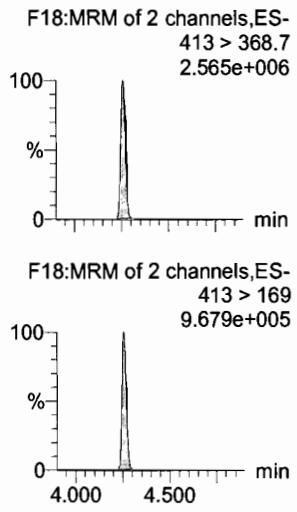
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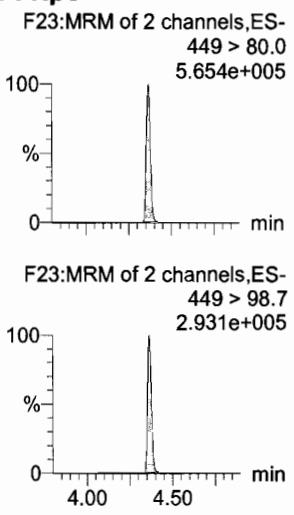
6:2 FTS



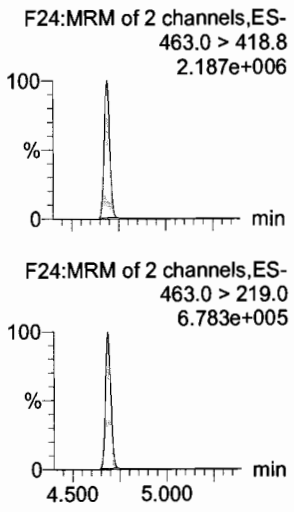
L-PFOA



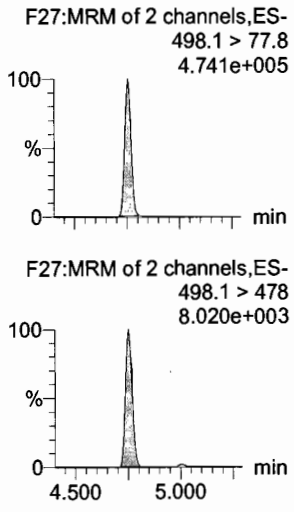
PFHpS



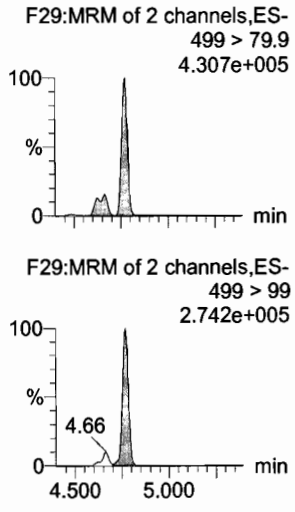
PFNA



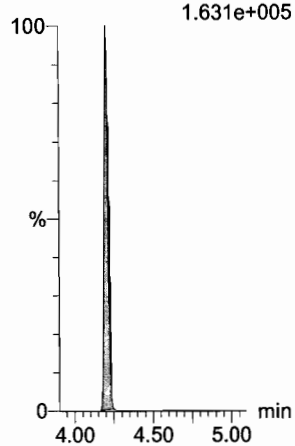
PFOSA



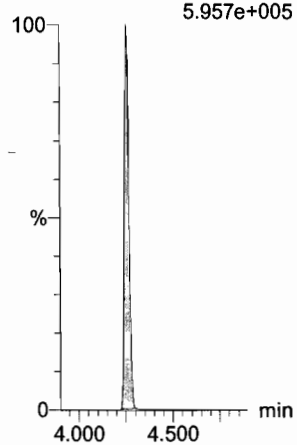
L-PFOS



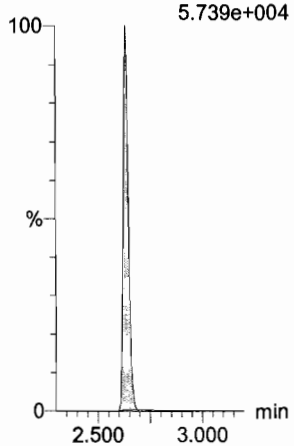
13C2-6:2 FTS



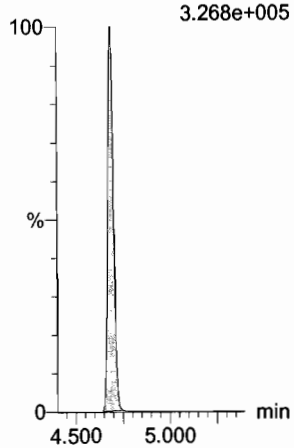
13C2-PFOA



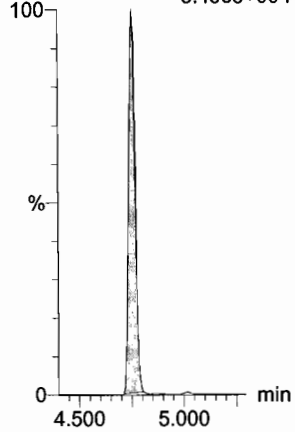
13C3-PFBS



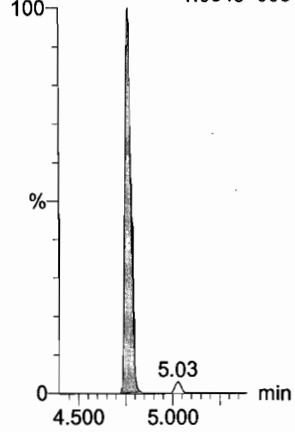
13C5-PFNA



13C8-PFOSA



13C8-PFOS

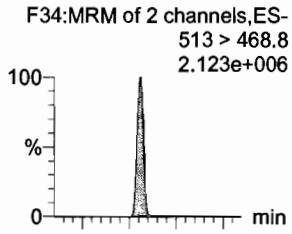


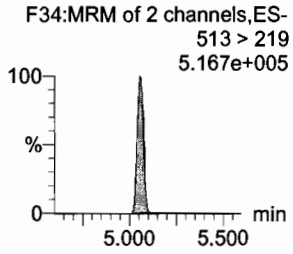
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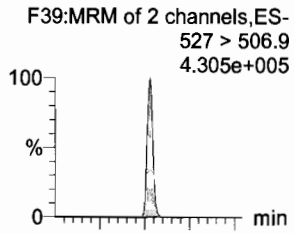
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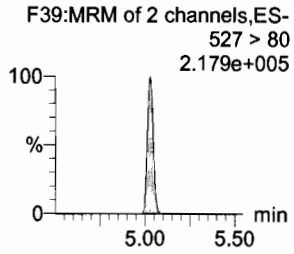
PFDA



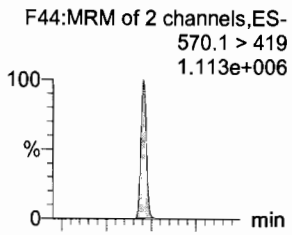


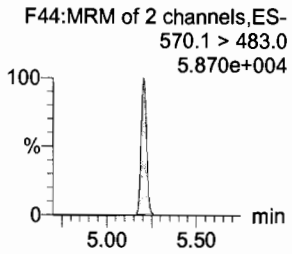
8:2 FTS



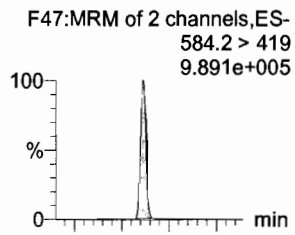


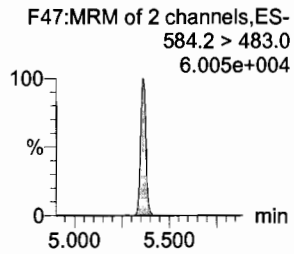
N-MeFOSAA



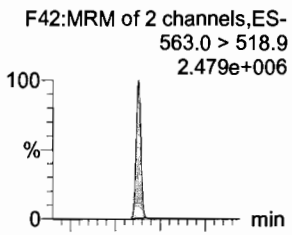


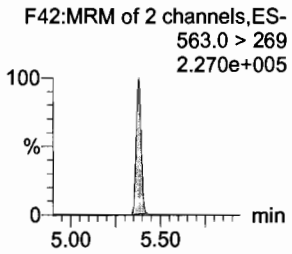
N-EtFOSAA



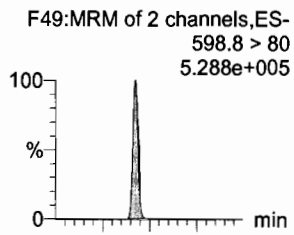


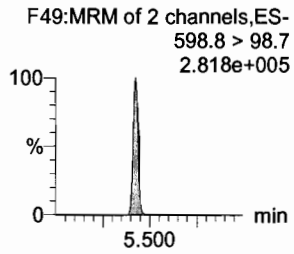
PFUdA



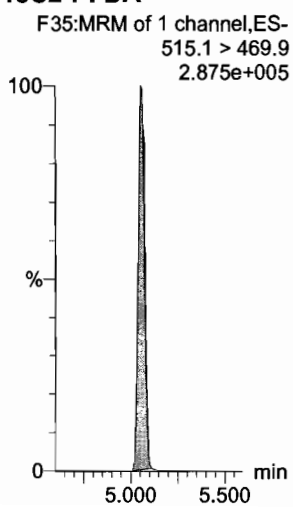


PFDS

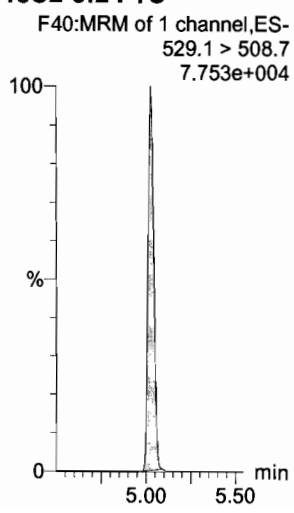




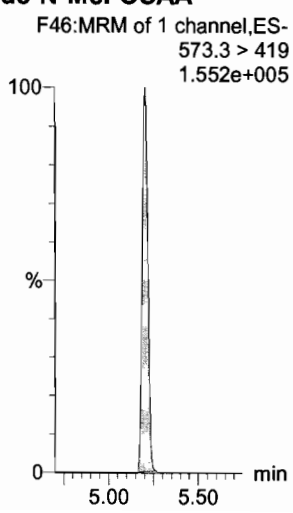
13C2-PFDA



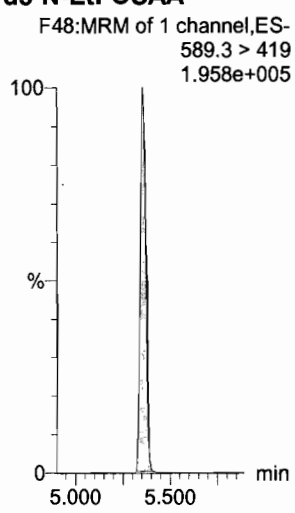
13C2-8:2 FTS



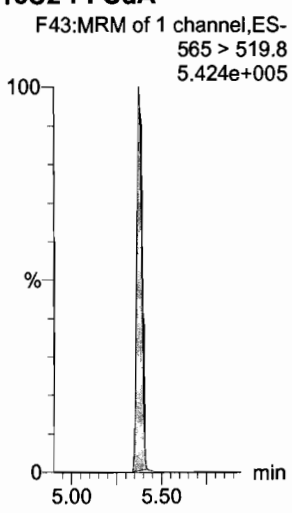
d3-N-MeFOSAA



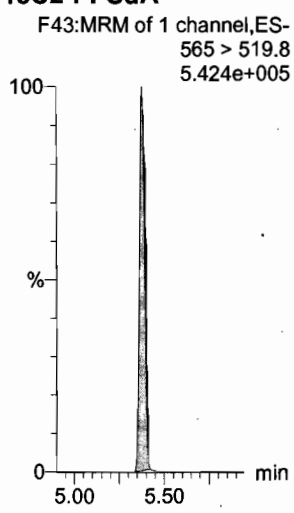
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

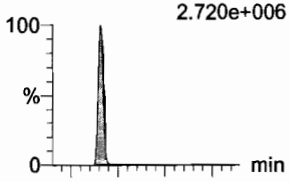


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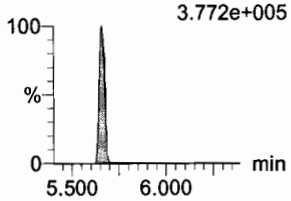
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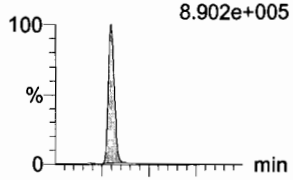
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.720e+006



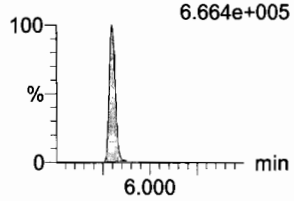
F50:MRM of 2 channels,ES-
612.9 > 318.8
3.772e+005



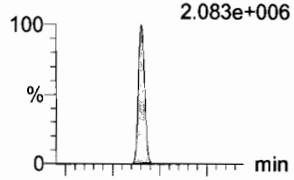
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
8.902e+005



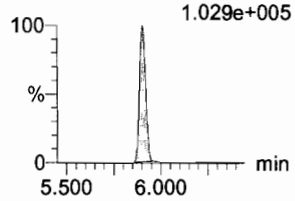
F33:MRM of 2 channels,ES-
512.1 > 219
6.664e+005



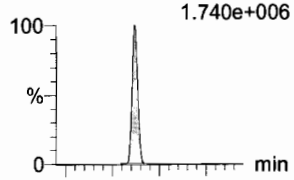
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.083e+006



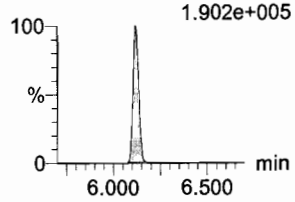
F56:MRM of 2 channels,ES-
662.9 > 319
1.029e+005



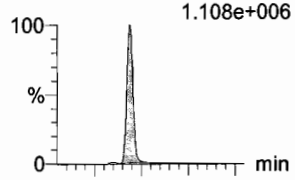
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.740e+006



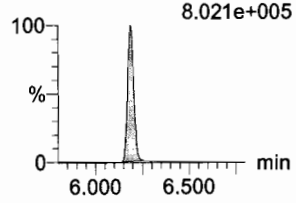
F57:MRM of 2 channels,ES-
712.9 > 369
1.902e+005



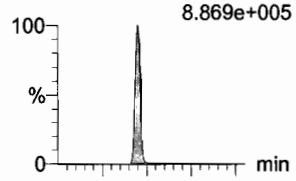
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.108e+006



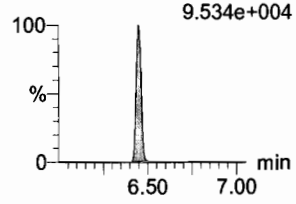
F38:MRM of 2 channels,ES-
526.1 > 219
8.021e+005



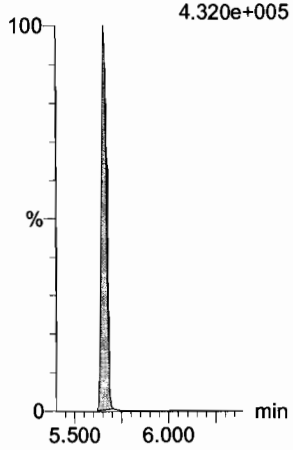
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
8.869e+005



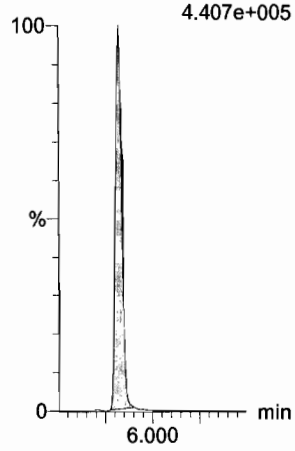
F59:MRM of 2 channels,ES-
813.1 > 219
9.534e+004



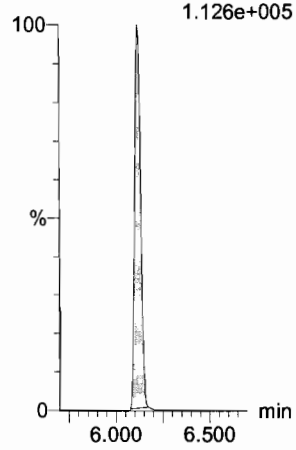
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
4.320e+005



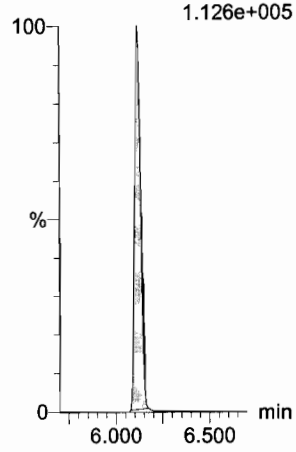
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.407e+005



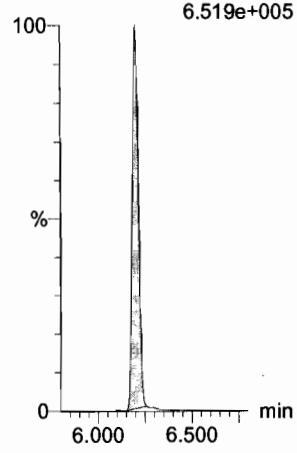
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.126e+005



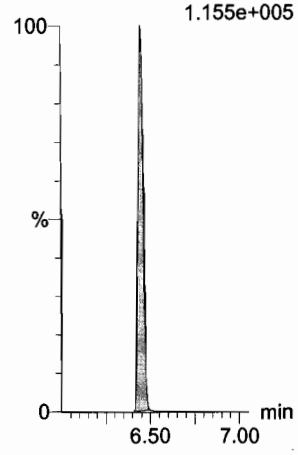
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.126e+005



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.519e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.155e+005

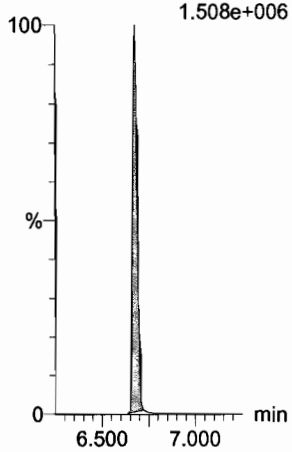


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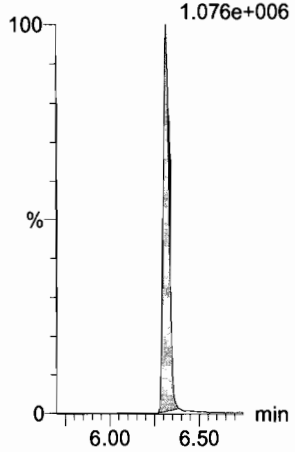
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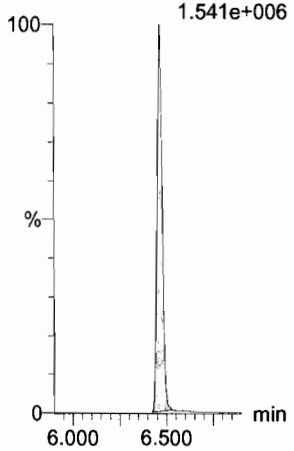
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.508e+006



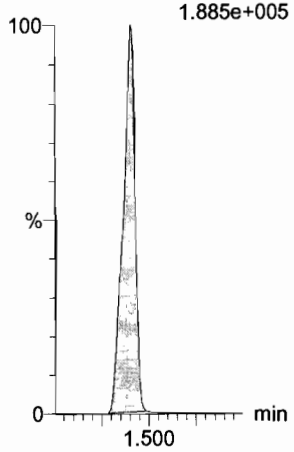
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.076e+006



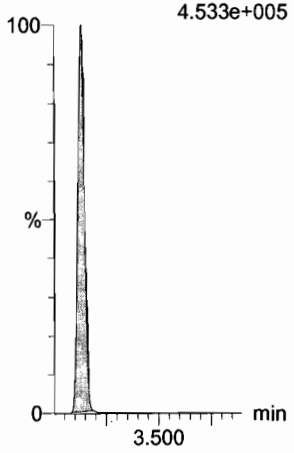
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.541e+006



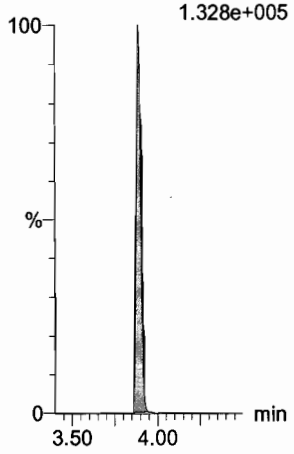
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.885e+005



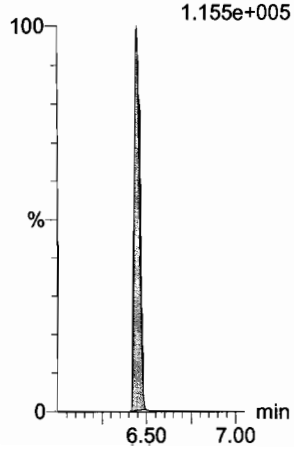
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.533e+005



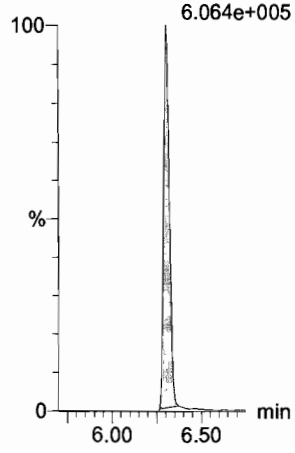
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.328e+005



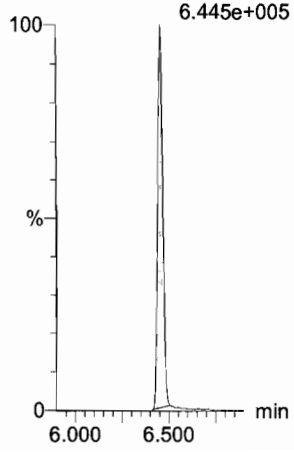
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.155e+005



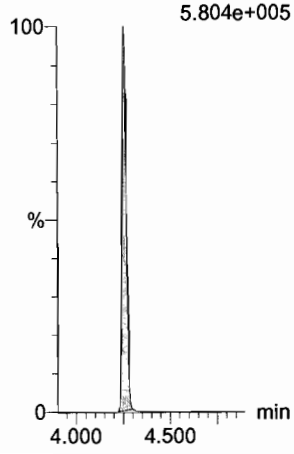
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.064e+005



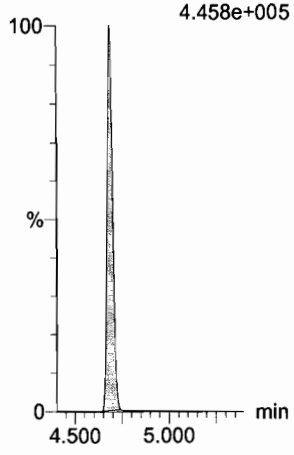
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.445e+005



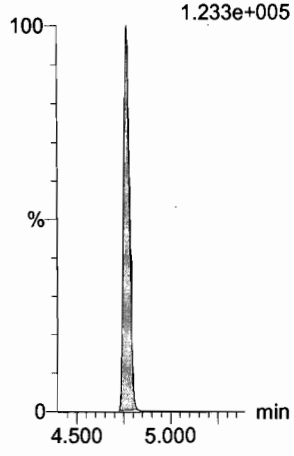
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.804e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
4.458e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.233e+005

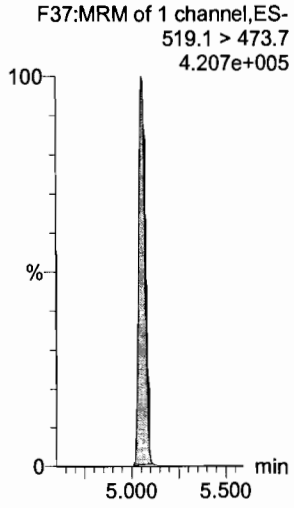


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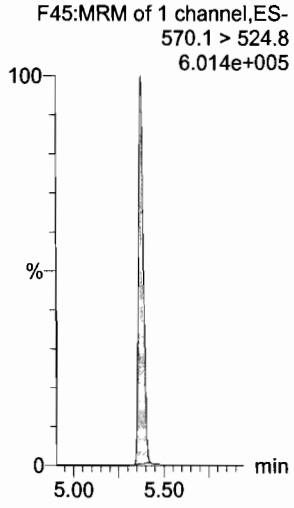
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Name: 171230M3_8, Date: 31-Dec-2017, Time: 00:02:47, ID: ST171230M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

13C6-PFDA



13C7-PFUdA

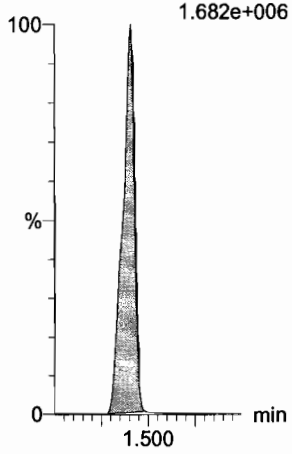


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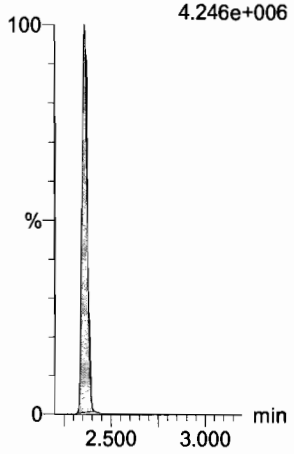
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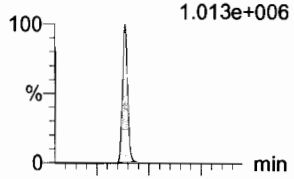
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.682e+006



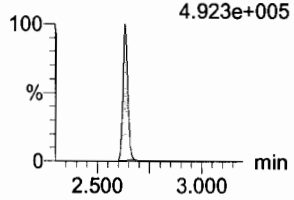
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
4.246e+006



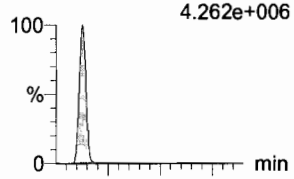
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
1.013e+006



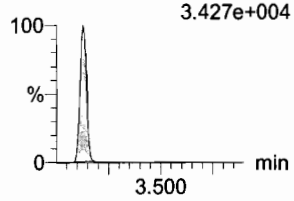
F6:MRM of 2 channels,ES-
299.0 > 99.0
4.923e+005



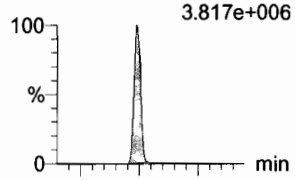
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
4.262e+006



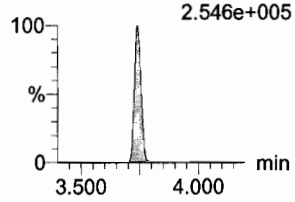
F8:MRM of 2 channels,ES-
313.2 > 119
3.427e+004



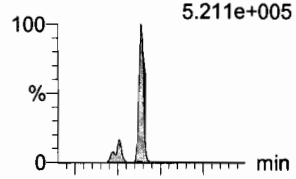
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.817e+006



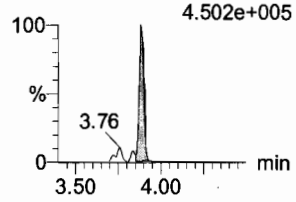
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.546e+005



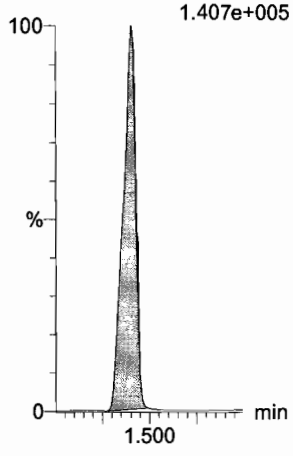
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
5.211e+005



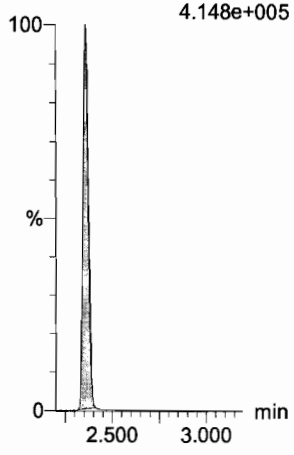
F15:MRM of 2 channels,ES-
398.9 > 99.0
4.502e+005



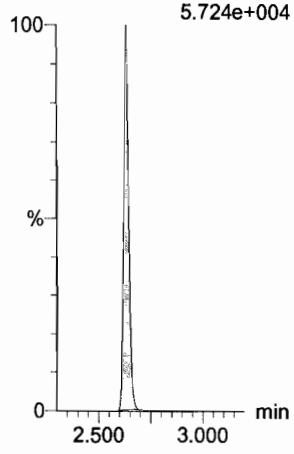
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.407e+005



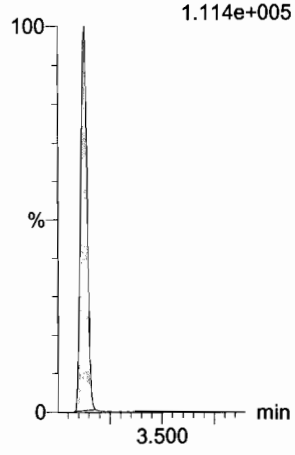
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
4.148e+005



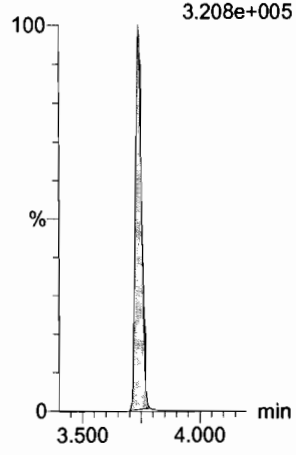
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
5.724e+004



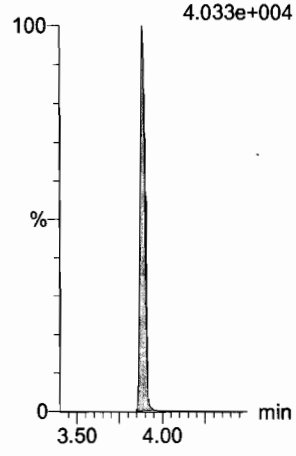
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.114e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.208e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
4.033e+004

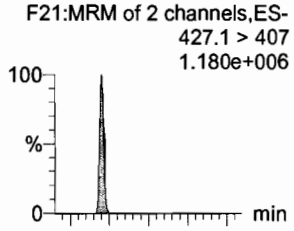


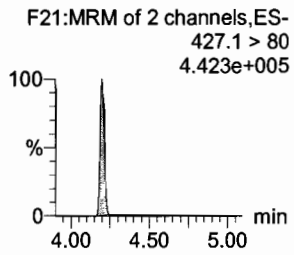
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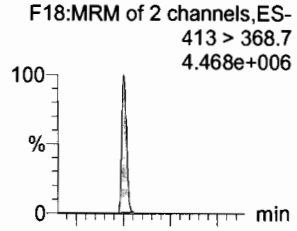
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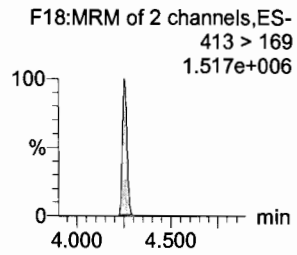
6:2 FTS



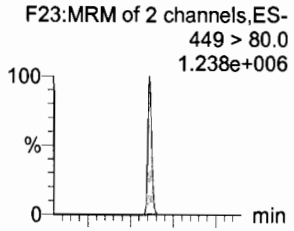


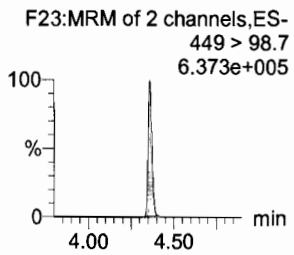
L-PFOA



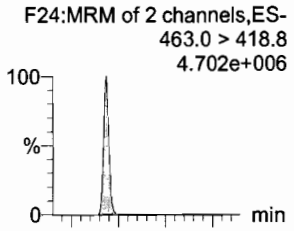


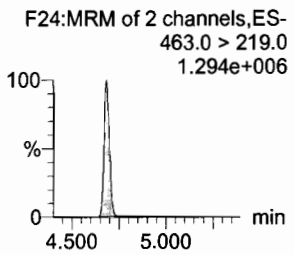
PFHpS



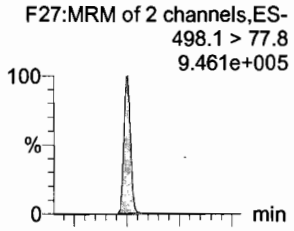


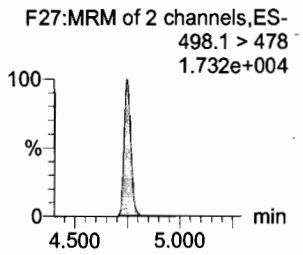
PFNA



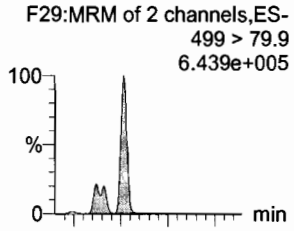


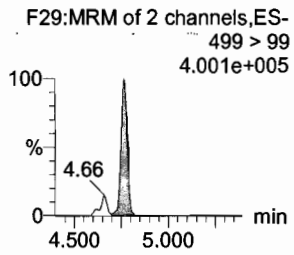
PFOSA



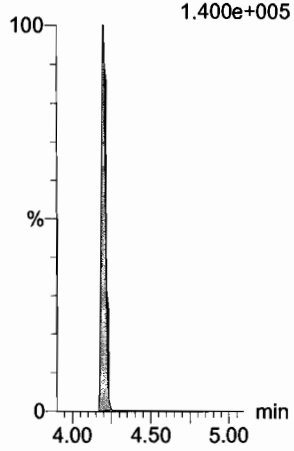


L-PFOS

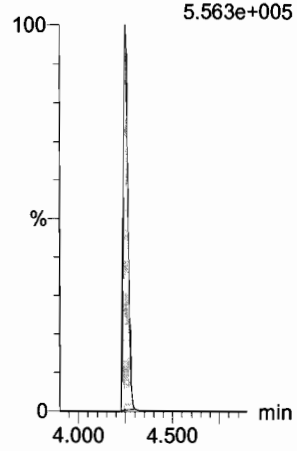




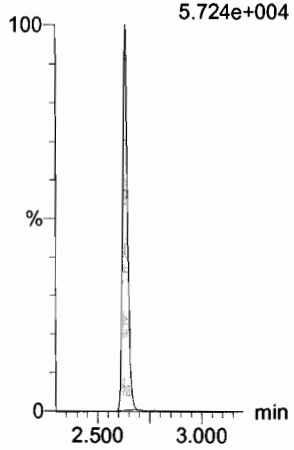
13C2-6:2 FTS



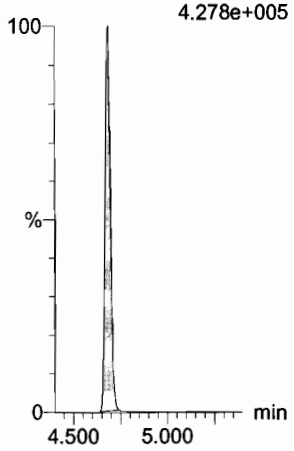
13C2-PFOA



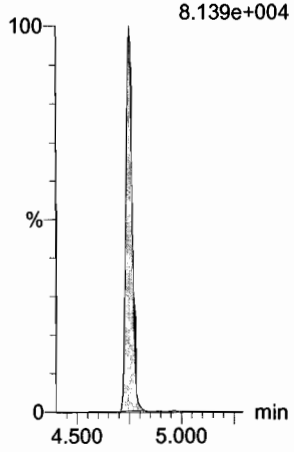
13C3-PFBS



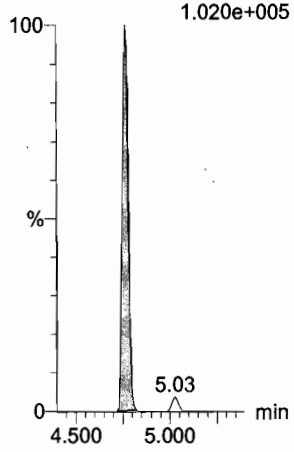
13C5-PFNA



13C8-PFOSA



13C8-PFOS

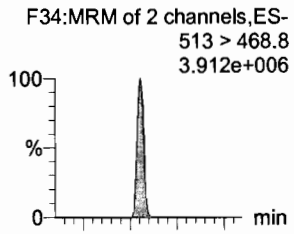


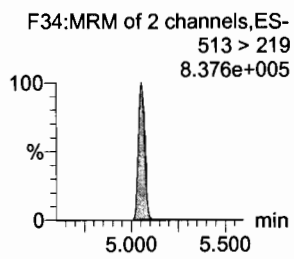
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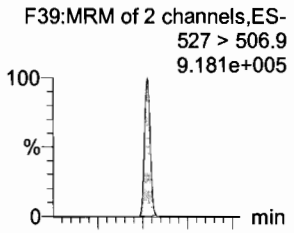
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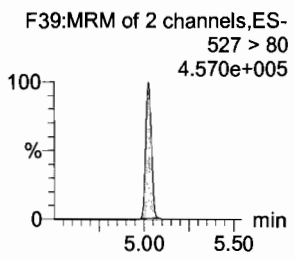
PFDA



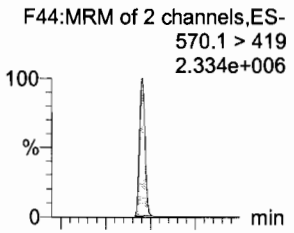


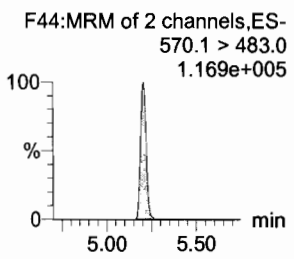
8:2 FTS



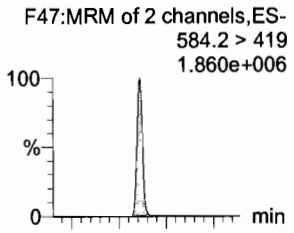


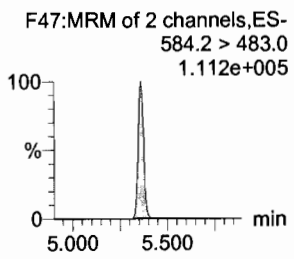
N-MeFOSAA



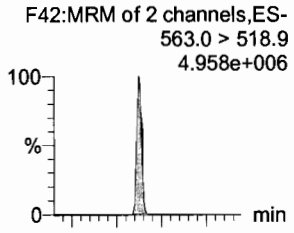


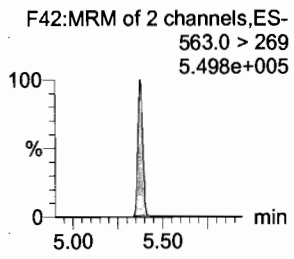
N-EtFOSAA



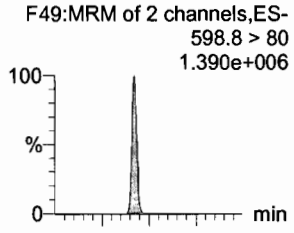


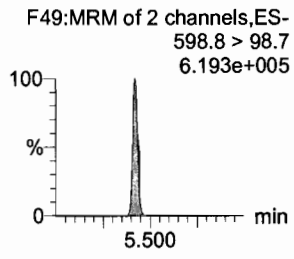
PFUdA



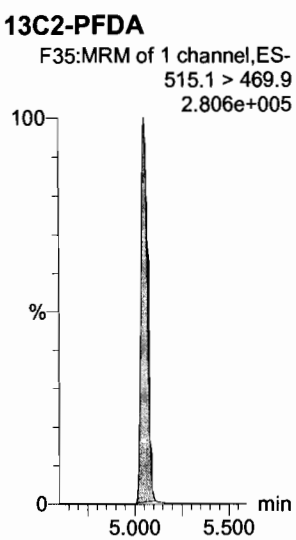


PFDS

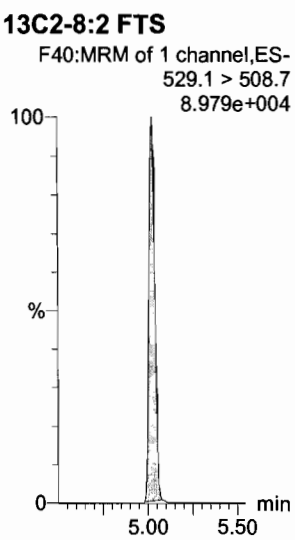




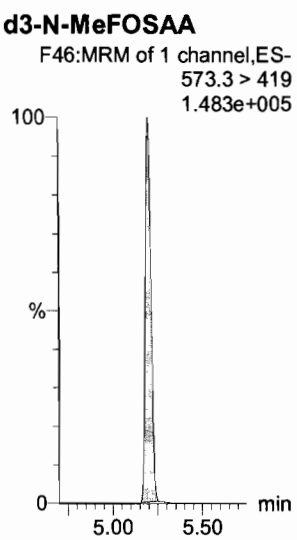
13C2-PFDA



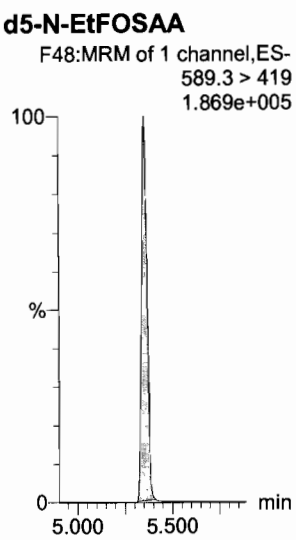
13C2-8:2 FTS



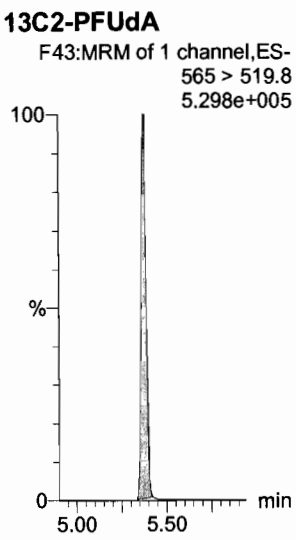
d3-N-MeFOSAA



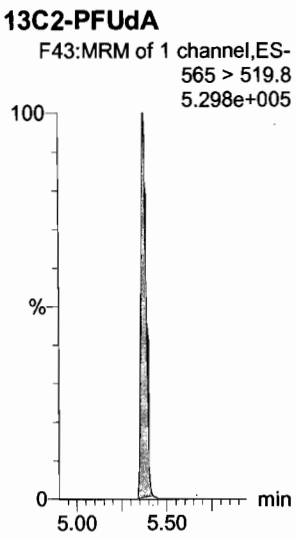
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

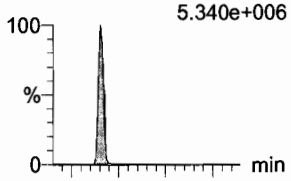


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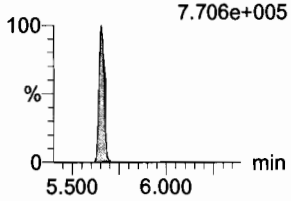
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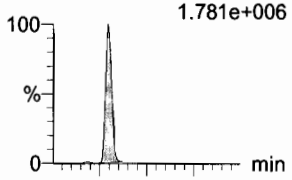
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
5.340e+006



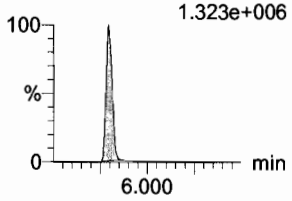
F50:MRM of 2 channels,ES-
612.9 > 318.8
7.706e+005



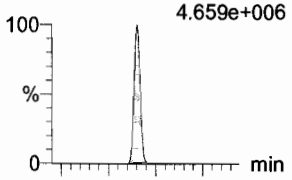
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.781e+006



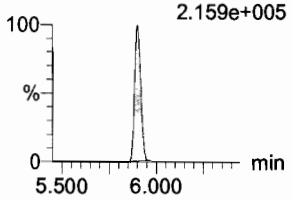
F33:MRM of 2 channels,ES-
512.1 > 219
1.323e+006



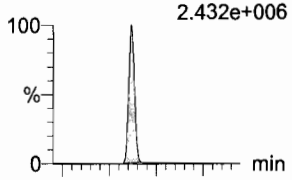
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.659e+006



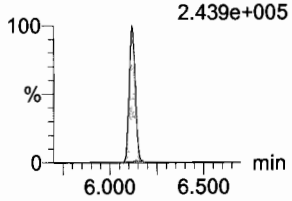
F56:MRM of 2 channels,ES-
662.9 > 319
2.159e+005



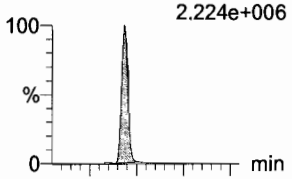
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
2.432e+006



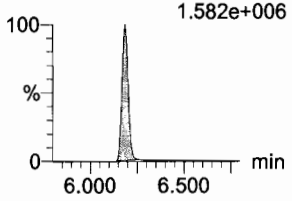
F57:MRM of 2 channels,ES-
712.9 > 369
2.439e+005



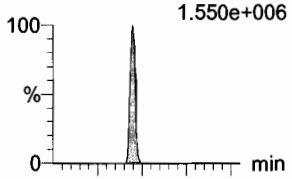
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.224e+006



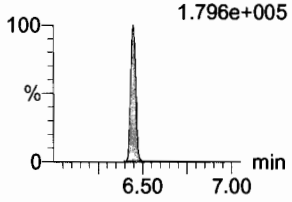
F38:MRM of 2 channels,ES-
526.1 > 219
1.582e+006



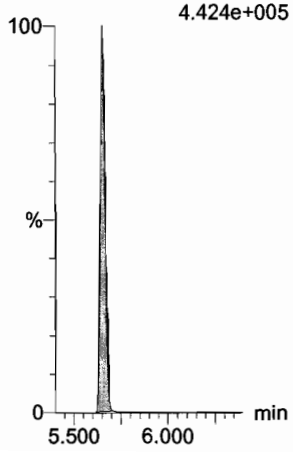
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.550e+006



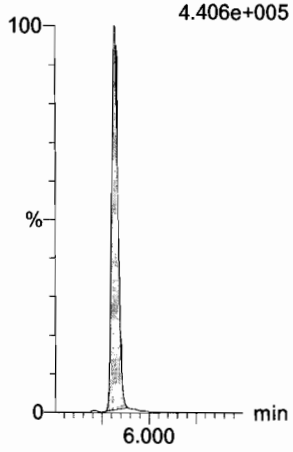
F59:MRM of 2 channels,ES-
813.1 > 219
1.796e+005



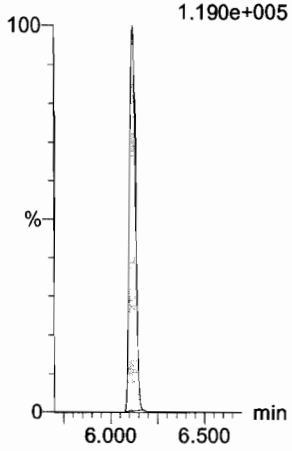
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
4.424e+005



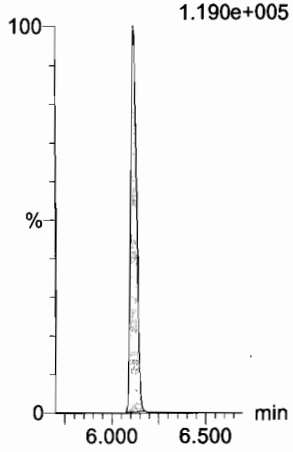
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
4.406e+005



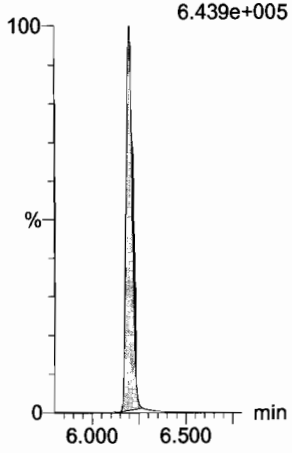
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.190e+005



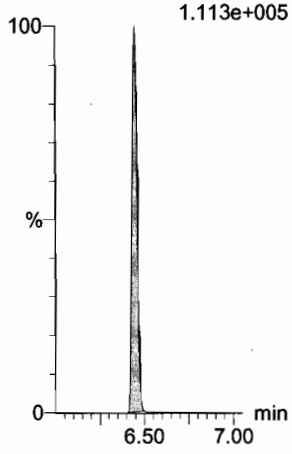
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
1.190e+005



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
6.439e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.113e+005

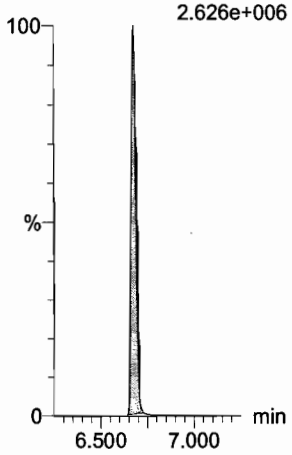


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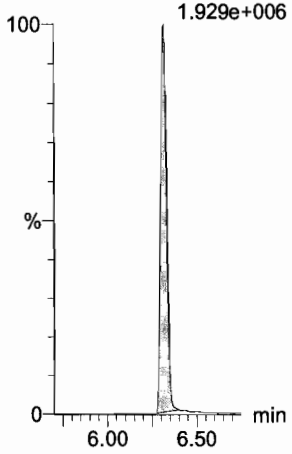
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Printed: Sunday, December 31, 2017 12:17:32 Pacific Standard Time

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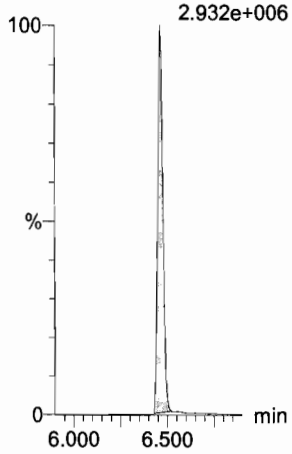
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.626e+006



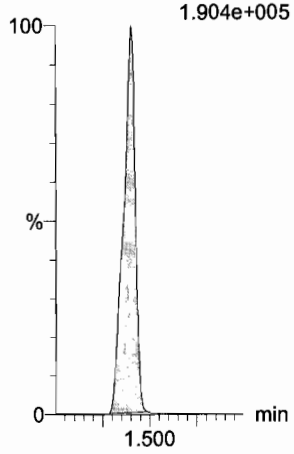
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.929e+006



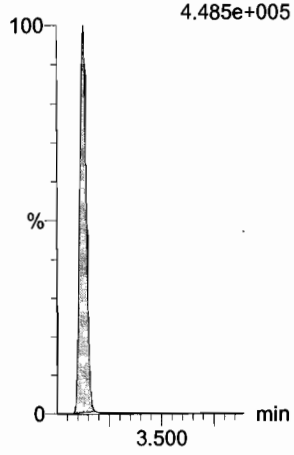
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.932e+006



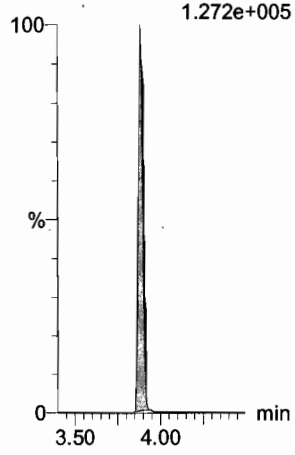
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.904e+005



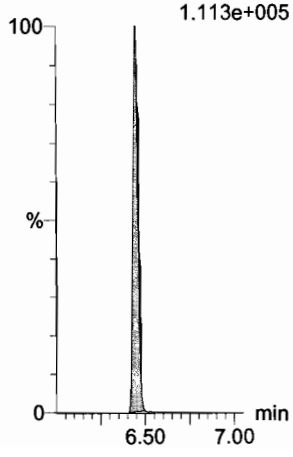
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.485e+005



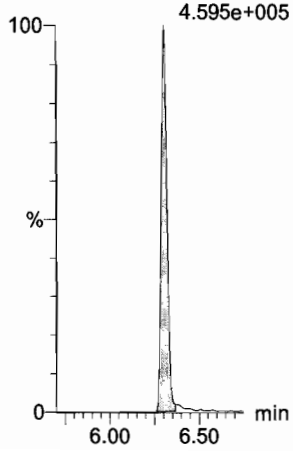
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.272e+005



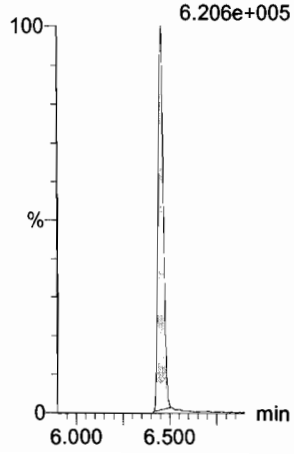
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.113e+005



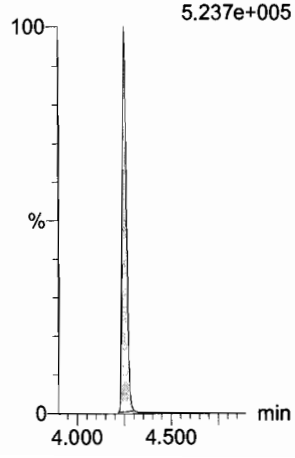
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.595e+005



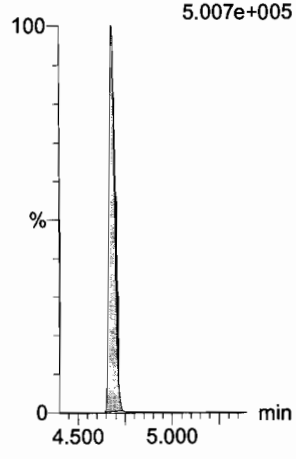
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.206e+005



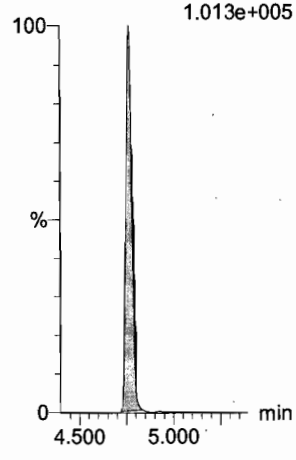
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.237e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
5.007e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
1.013e+005

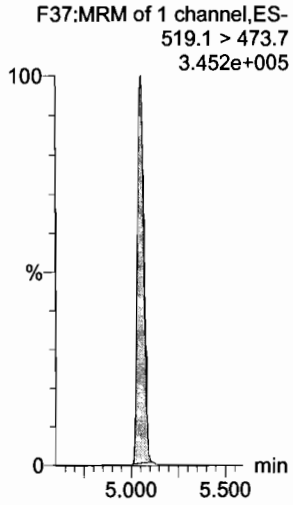


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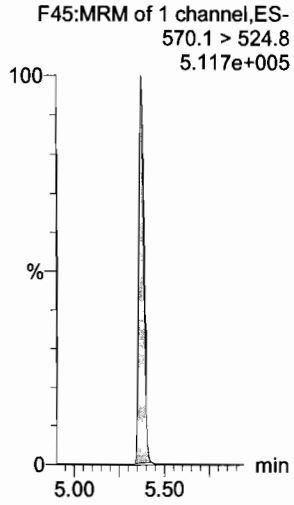
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Name: 171230M3_9, Date: 31-Dec-2017, Time: 00:13:57, ID: ST171230M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171230M3\171230M3-14.qld

Last Altered: Sunday, December 31, 2017 12:50:37 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:50:54 Pacific Standard Time

(A) NO SS available.

AC 12/31/17

VJA 12/31/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_14, Date: 31-Dec-2017, Time: 01:09:51, ID: ICV171230M3-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.12e4	1.20e4	1.0000		1.47	1.41	11.7	8.364	83.6
2	2	PFPeA	263.1 > 218.9	1.19e4	1.38e4	1.0000		2.35	2.37	10.8	8.612	86.1
3	3	PFBS	299.0 > 79.7	2.46e3	1.97e3	1.0000		2.70	2.64	15.6	7.127	71.3
4	4	PFHxA	313.2 > 268.9	1.50e4	4.50e3	1.0000		3.12	3.13	16.7	8.577	85.8
5	5	PFHpA	363.0 > 318.9	1.21e4	1.10e4	1.0000		3.75	3.75	13.8	9.012	90.1
6	6	L-PFHxS	398.9 > 79.6	1.91e3	1.51e3	1.0000		3.85	3.89	15.8	7.673	76.7
7	8	6:2 FTS	427.1 > 407	3.24e3	1.84e4	1.0000		4.20	4.21	2.20	7.071	70.7
8	9	L-PFOA	413 > 368.7	1.40e4	1.84e4	1.0000		4.25	4.26	9.47	8.353	83.5
9	11	PFHpS	449 > 80.0	3.15e3	1.84e4	1.0000		4.35	4.37	2.14	8.028	80.3
10	12	PFNA	463.0 > 418.8	1.43e4	1.47e4	1.0000		4.70	4.69	12.1	7.211	72.1
11	13	PFOSA	498.1 > 77.8	2.93e3	3.19e3	1.0000		4.81	4.76	11.5	9.691	96.9
12	14	L-PFOS	499 > 79.9	2.95e3	4.08e3	1.0000		4.75	4.77	9.04	7.104	71.0
13	16	PFDA	513 > 468.8	1.37e4	1.16e4	1.0000		5.05	5.06	14.7	8.891	88.9
14	17	8:2 FTS	527 > 506.9	3.46e3	1.16e4	1.0000		5.02	5.03	3.72	10.339	103.4
15	18	N-MeFOSAA	570.1 > 419	8.07e3	6.51e3	1.0000		5.20	5.21	15.5	9.707	97.1
16	19	N-EtFOSAA	584.2 > 419	6.32e3	6.78e3	1.0000		5.42	5.37	11.6	8.873	88.7
17	20	PFUdA	563.0 > 518.9	1.59e4	1.90e4	1.0000		5.35	5.38	10.5	9.082	90.8
18	21	PFDS	598.8 > 80	3.42e3	1.90e4	1.0000		5.50	5.43	2.25	7.060	70.6
19	22	PFDoA	612.9 > 569.0	1.51e4	1.56e4	1.0000		5.70	5.66	12.1	7.985	79.8
20	23	N-MeFOSA	512.1 > 168.9		1.82e4	1.0000		5.77				(A)
21	24	PFTrDA	662.9 > 618.9	1.95e4	1.56e4	1.0000		5.95	5.90	15.6	10.917	109.2
22	25	PFTeDA	712.9 > 668.8	1.03e4	4.37e3	1.0000		6.16	6.12	29.5	10.677	106.8
23	26	N-EtFOSA	526.1 > 168.9		2.64e4	1.0000		6.15				(A)
24	27	PFHxDA	813.1 > 768.6		4.51e3	1.0000		6.48				
25	28	PFODA	913.1 > 868.8		4.51e3	1.0000		6.70				
26	29	N-MeFOSE	616.1 > 58.9		1.99e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		2.01e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.20e4	1.35e4	1.0000	0.780	1.47	1.41	11.2	14.305	114.4
29	32	13C3-PFPeA	266. > 221.8	1.38e4	1.69e4	1.0000	0.771	2.44	2.37	10.2	13.271	106.2
30	33	13C3-PFBS	302. > 98.8	1.97e3	1.69e4	1.0000	0.103	2.70	2.64	1.46	14.137	113.1
31	34	13C2-PFHxA	315 > 269.8	4.50e3	1.69e4	1.0000	0.619	3.20	3.13	3.34	5.392	107.8

70-130

Dataset: U:\Q4.PRO\results\171230M3\171230M3-14.qld

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Name: 171230M3_14, Date: 31-Dec-2017, Time: 01:09:51, ID: ICV171230M3-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.10e4	1.69e4	1.0000	0.634	3.80	3.75	8.12	12.821	102.6
33	36	18O2-PFHxS	403.0 > 102.6	1.51e3	4.19e3	1.0000	0.320	3.95	3.89	4.51	14.099	112.8
34	37	13C2-6:2 FTS	429.1 > 408.9	3.93e3	1.43e4	1.0000	0.244	4.26	4.21	3.44	14.084	112.7
35	38	13C2-PFOA	414.9 > 369.7	1.84e4	1.43e4	1.0000	1.046	4.32	4.26	16.1	15.412	123.3
36	39	13C5-PFNA	468.2 > 422.9	1.47e4	1.73e4	1.0000	0.838	4.75	4.69	10.6	12.694	101.6
37	40	13C8-PFOSA	506.1 > 77.7	3.19e3	1.89e4	1.0000	0.162	4.81	4.75	2.11	12.997	104.0
38	41	13C8-PFOS	507.0 > 79.9	4.08e3	3.79e3	1.0000	0.863	4.83	4.77	13.5	15.621	125.0
39	42	13C2-PFDA	515.1 > 469.9	1.16e4	1.33e4	1.0000	0.828	5.11	5.06	10.9	13.203	105.6
40	43	13C2-8:2 FTS	529.1 > 508.7	2.97e3	1.69e4	1.0000	0.139	5.09	5.03	2.21	15.865	126.9
41	44	d3-N-MeFOSAA	573.3 > 419	6.51e3	1.89e4	1.0000	0.306	5.26	5.21	4.30	14.058	112.5
42	45	d5-N-EtFOSAA	589.3 > 419	6.78e3	1.89e4	1.0000	0.346	5.42	5.36	4.48	12.953	103.6
43	46	13C2-PFUdA	565 > 519.8	1.90e4	1.89e4	1.0000	0.842	5.43	5.38	12.5	14.906	119.2
44	47	13C2-PFDoA	615.0 > 569.7	1.56e4	1.89e4	1.0000	0.714	5.70	5.66	10.3	14.435	115.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.82e4	1.89e4	1.0000	0.078	5.80	5.82	12.0	154.209	102.8
46	49	13C2-PFTeDA	714.8 > 669.6	4.37e3	1.89e4	1.0000	0.236	6.16	6.12	2.89	12.224	97.8
47	50	d5-N-ETFOSA	531.1 > 168.9	2.64e4	1.89e4	1.0000	0.113	6.16	6.20	17.5	153.992	102.7
48	51	13C2-PFHxDA	815 > 769.7	4.51e3	1.89e4	1.0000	0.481	6.48	6.45	2.98	6.184	123.7
49	52	d7-N-MeFOSE	623.1 > 58.9	1.99e4	1.89e4	1.0000	0.090	6.30	6.31	13.2	146.432	97.6
50	53	d9-N-EtFOSE	639.2 > 58.8	2.01e4	1.89e4	1.0000	0.093	6.42	6.46	13.3	143.309	95.5
51	54	13C4-PFBA	217. > 171.8	1.35e4	1.35e4	1.0000	1.000	1.47	1.40	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.69e4	1.69e4	1.0000	1.000	3.20	3.13	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.19e3	4.19e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.43e4	1.43e4	1.0000	1.000	4.32	4.26	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.73e4	1.73e4	1.0000	1.000	4.75	4.69	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.79e3	3.79e3	1.0000	1.000	4.83	4.77	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.33e4	1.33e4	1.0000	1.000	5.11	5.06	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.89e4	1.89e4	1.0000	1.000	5.43	5.38	12.5	12.500	100.0

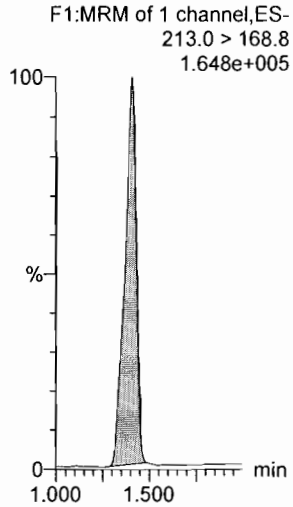
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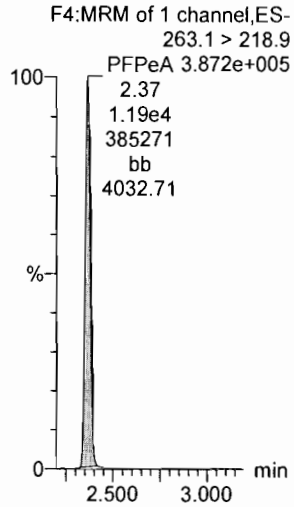
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Name: 171230M3_14, Date: 31-Dec-2017, Time: 01:09:51, ID: ICV171230M3-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

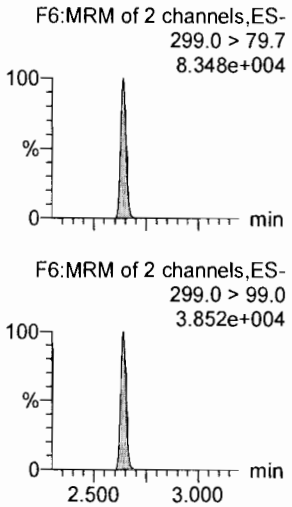
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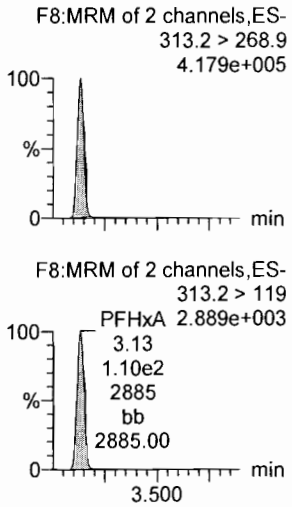
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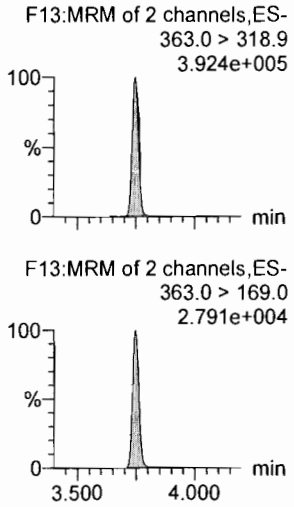
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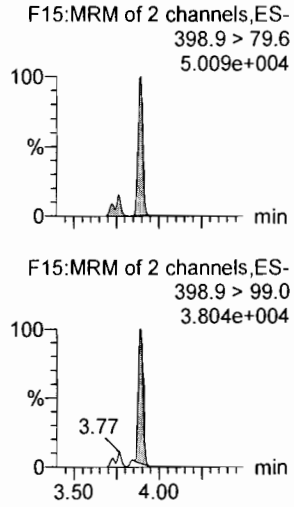
PFHxA



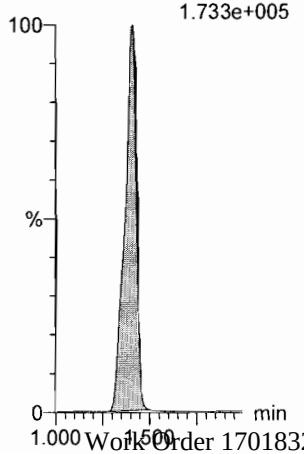
PFHpA



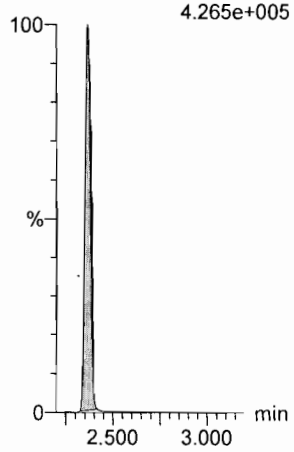
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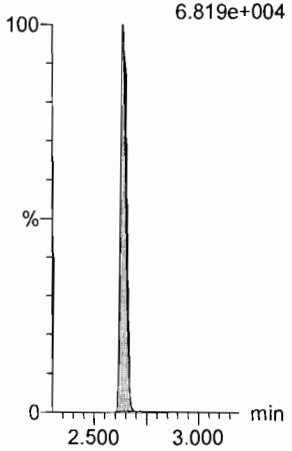
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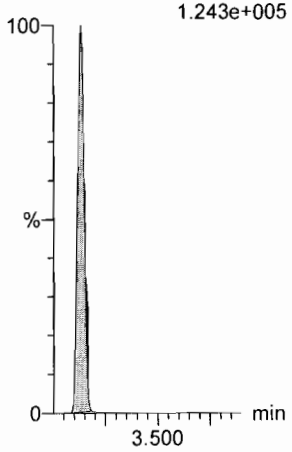
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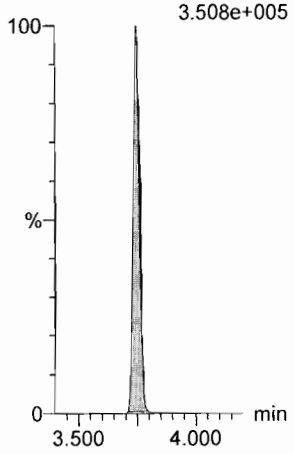
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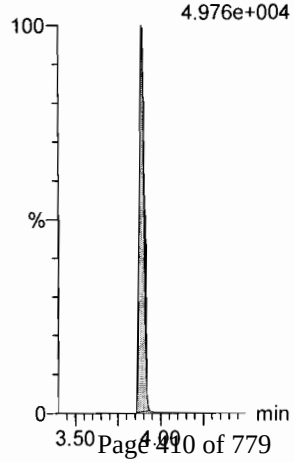
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13C4-PFHpA



18O2-PFHxS

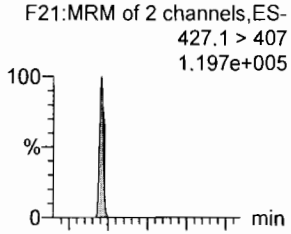


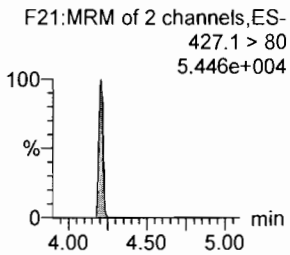
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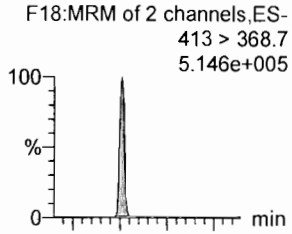
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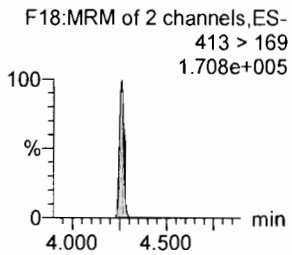
6:2 FTS



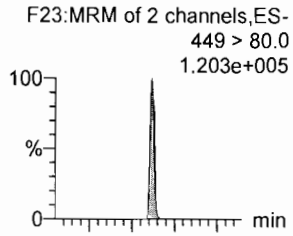


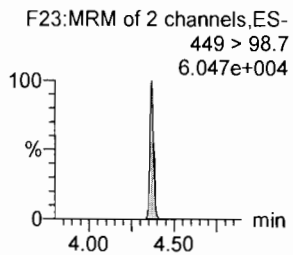
L-PFOA



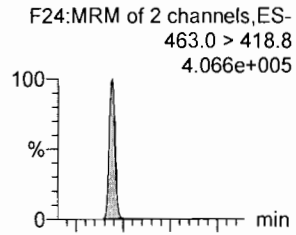


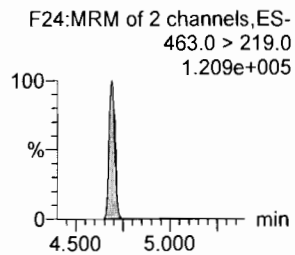
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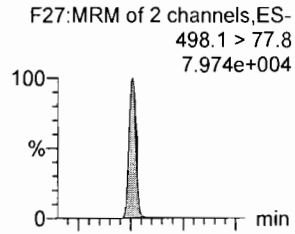


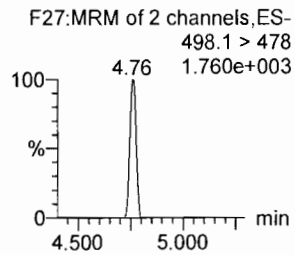
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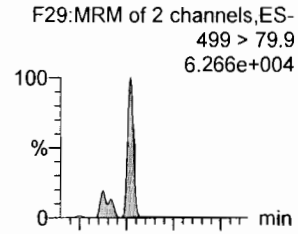


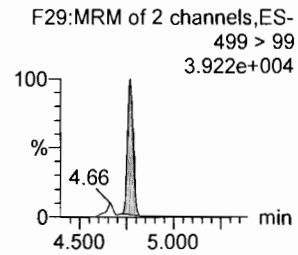
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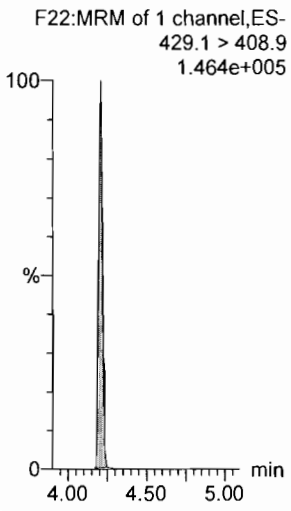


L-PFOS

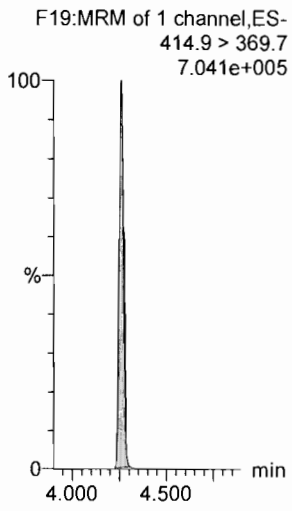




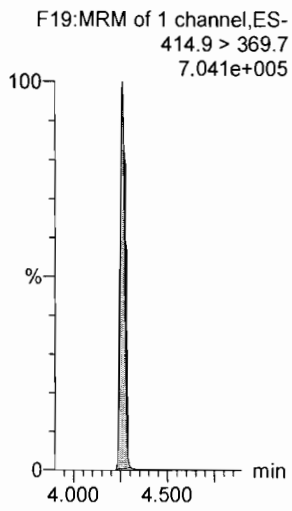
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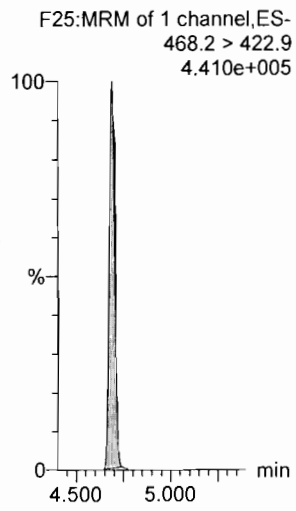
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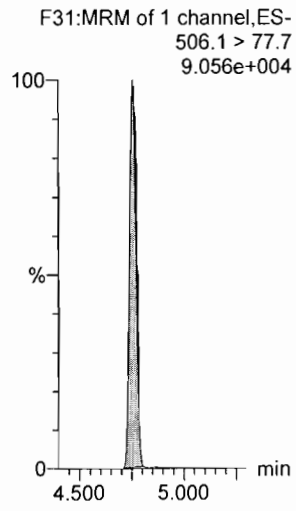
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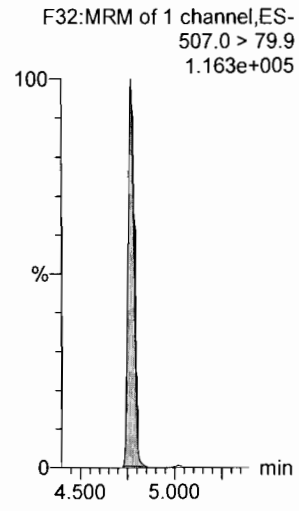
13C5-PFNA



13C8-PFOSA



13C8-PFOS

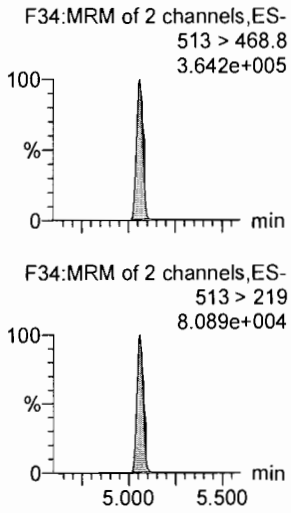


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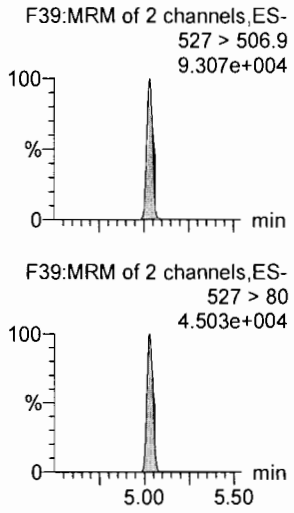
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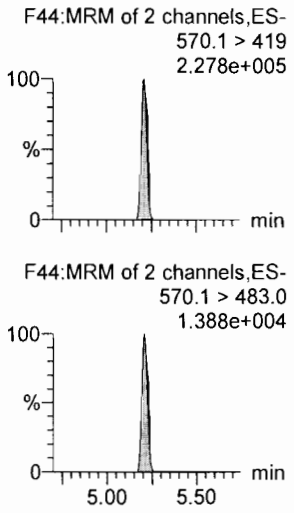
PFDA



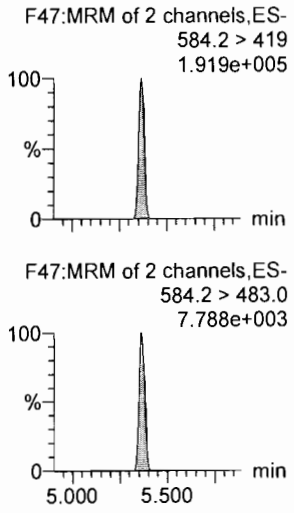
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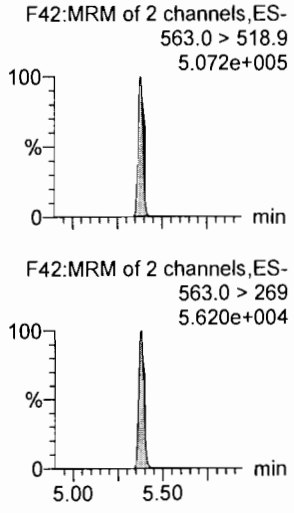
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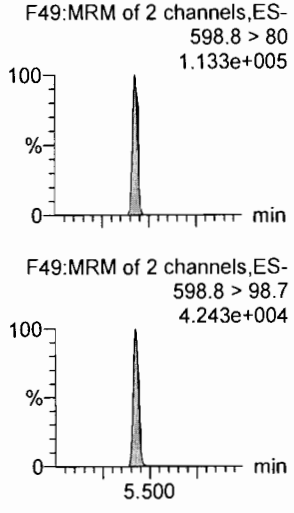
N-EtFOSAA



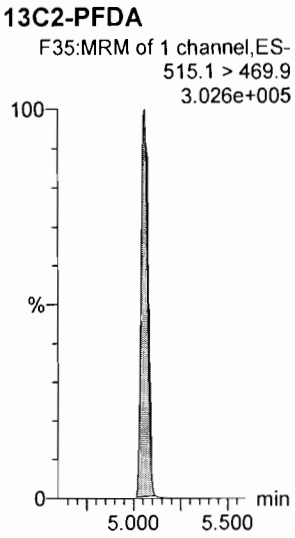
PFUdA



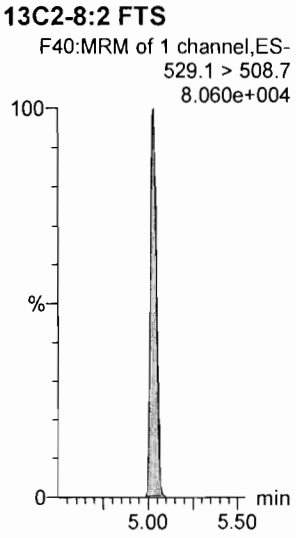
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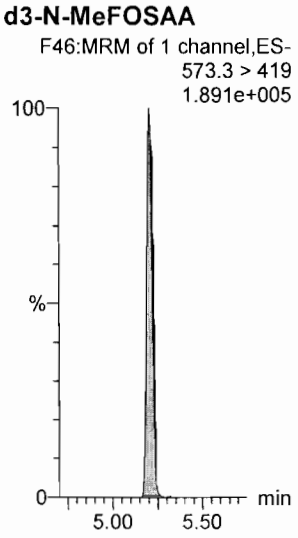
13C2-PFDA



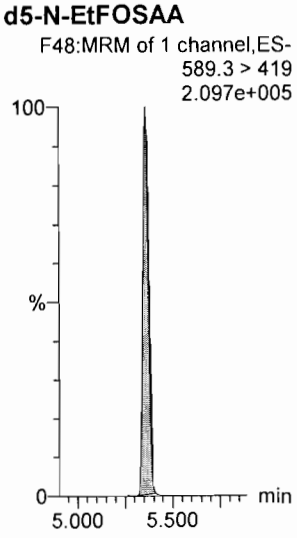
13C2-8:2 FTS



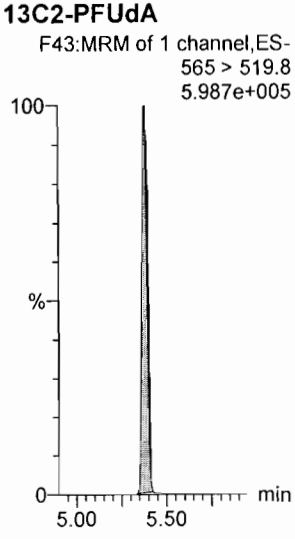
d3-N-MeFOSAA



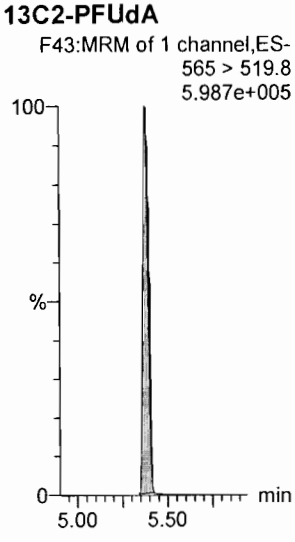
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

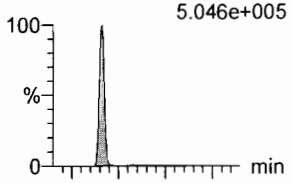


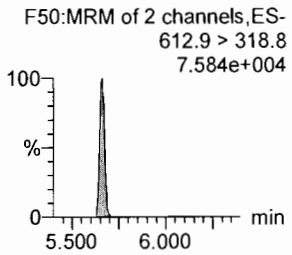
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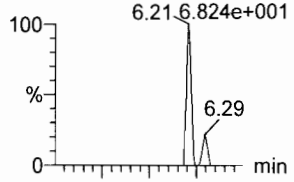
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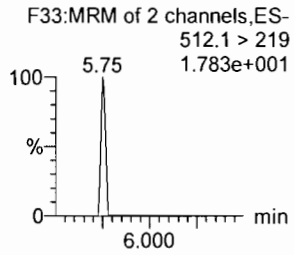
PFDoA



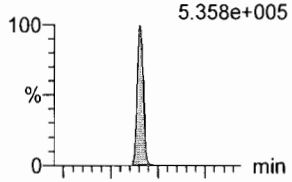


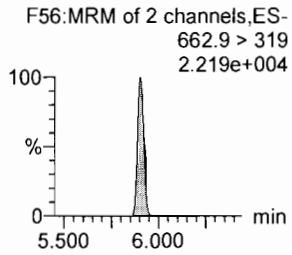
N-MeFOSA



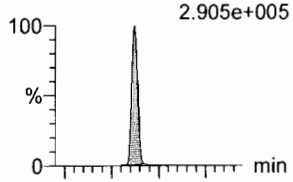


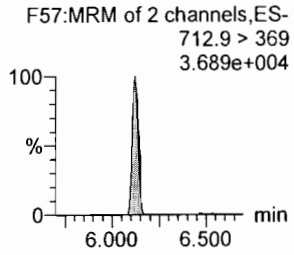
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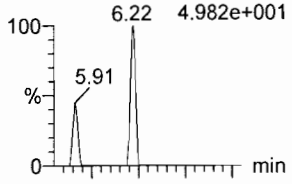


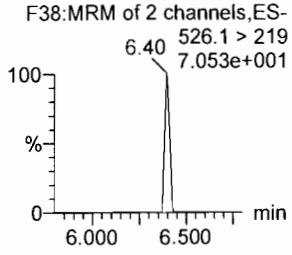
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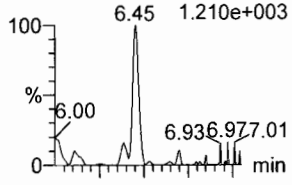


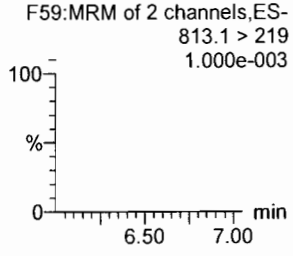
N-EtFOSA



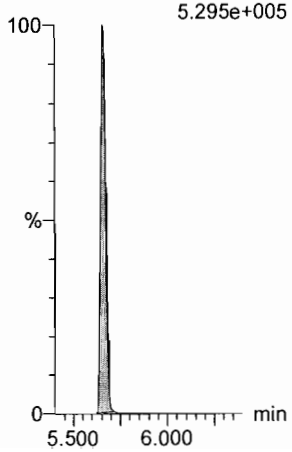


PFHxDA

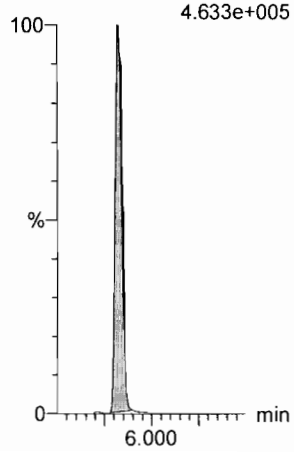




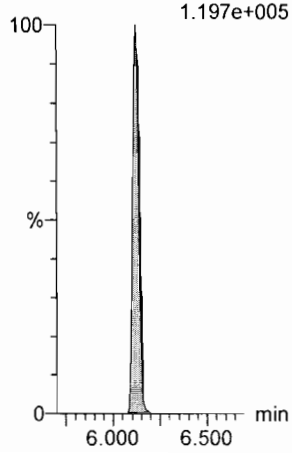
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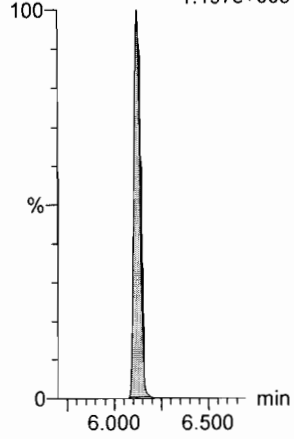
d3-N-MeFOSA



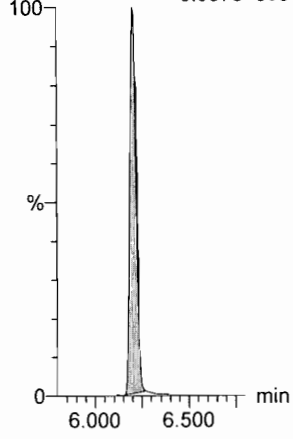
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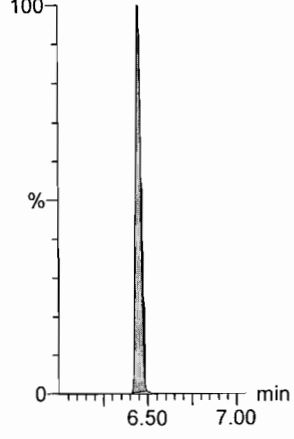
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

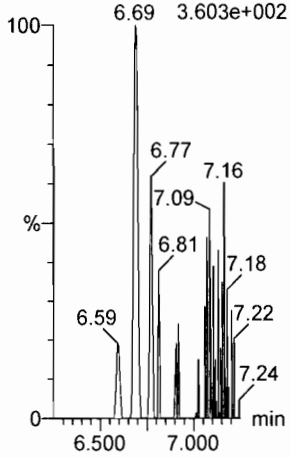


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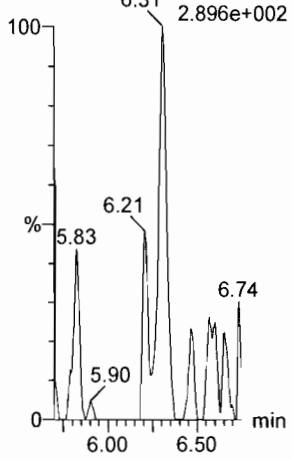
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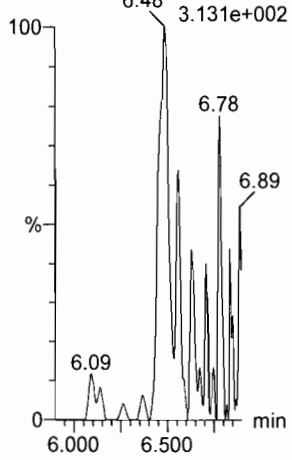
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
3.603e+002



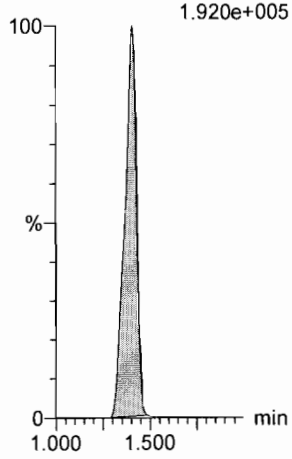
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.896e+002



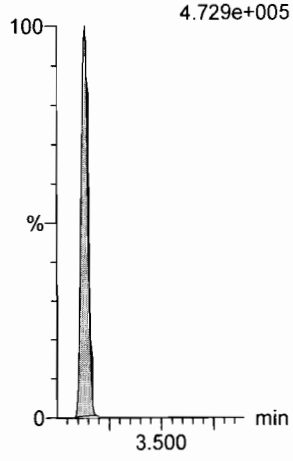
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.131e+002



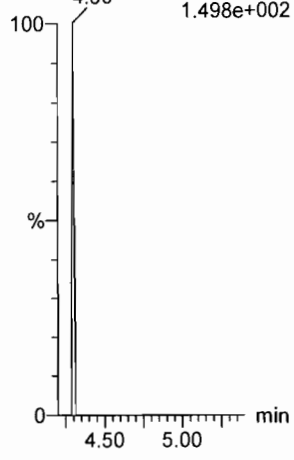
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.920e+005



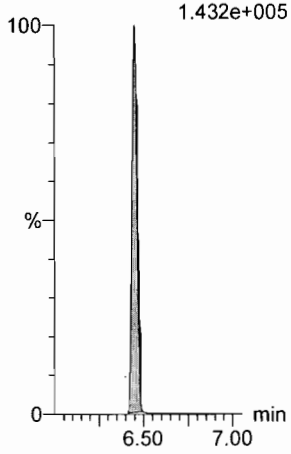
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.729e+005



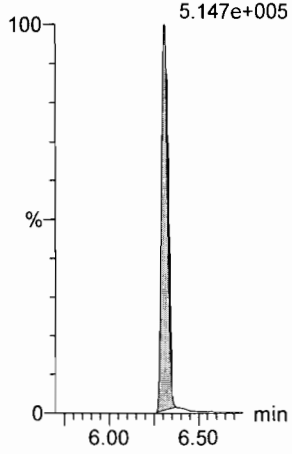
TCDA
F28:MRM of 3 channels,ES-
498.3 > 106.9
1.498e+002



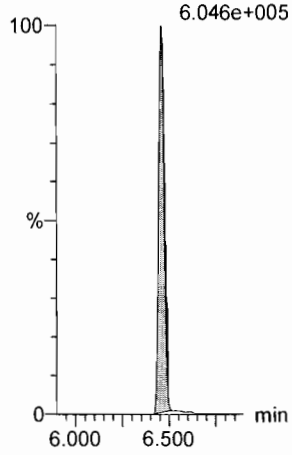
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
1.432e+005



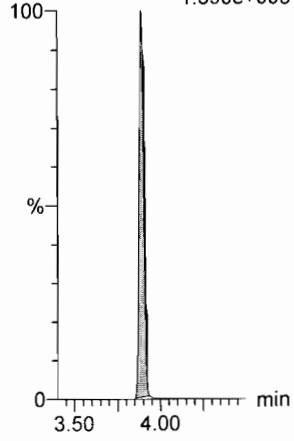
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.147e+005



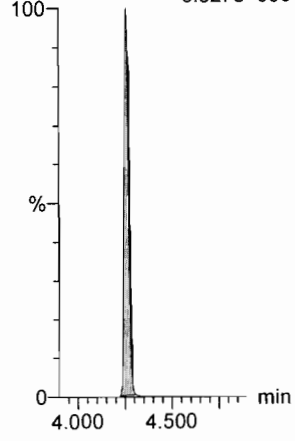
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
6.046e+005



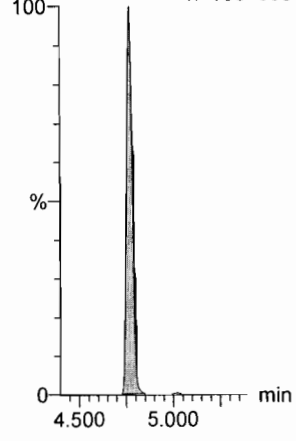
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.390e+005



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
5.327e+005



13C8-PFOS
F32:MRM of 1 channel,ES-
507.0 > 79.9
1.163e+005

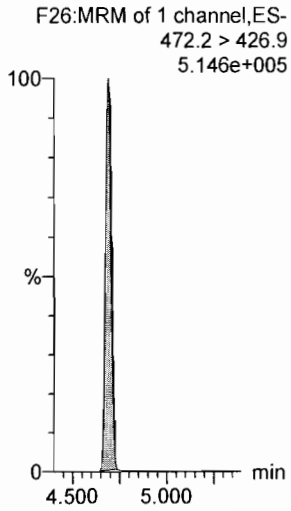


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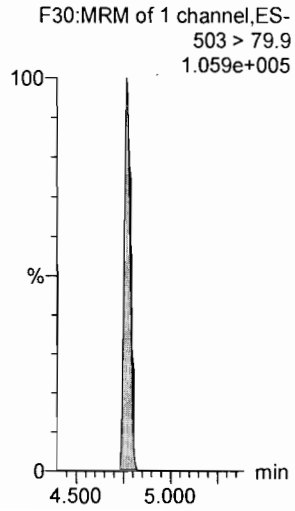
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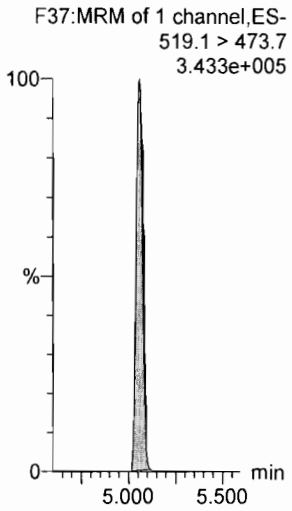
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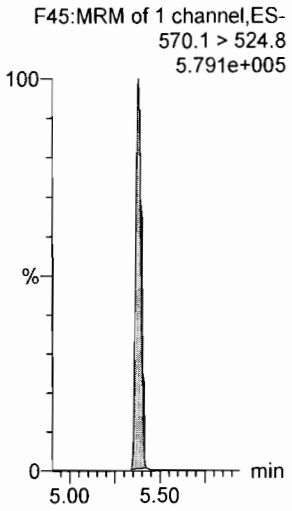
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13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

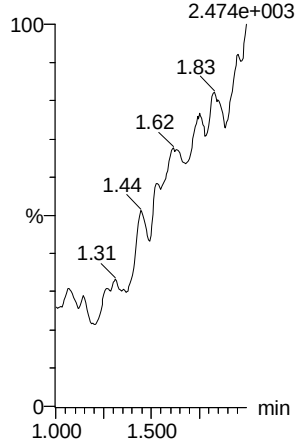
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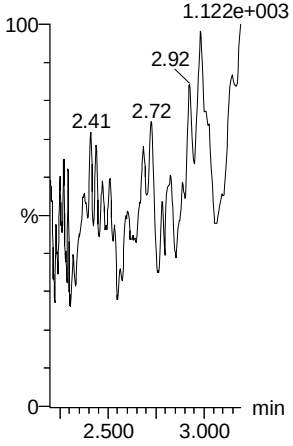
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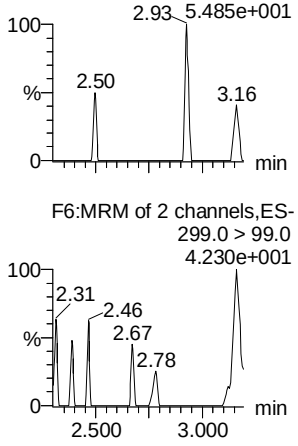
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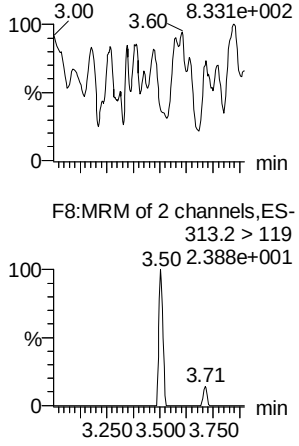
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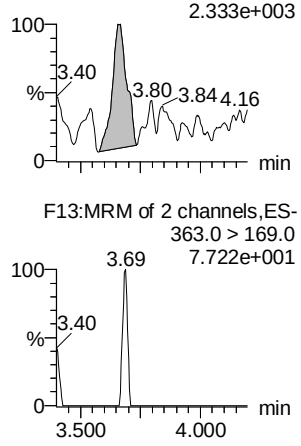
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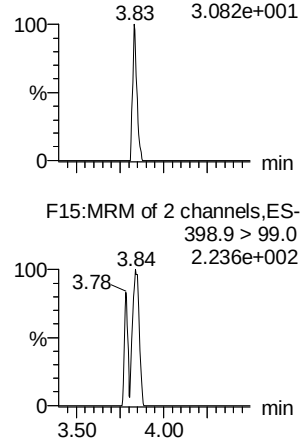
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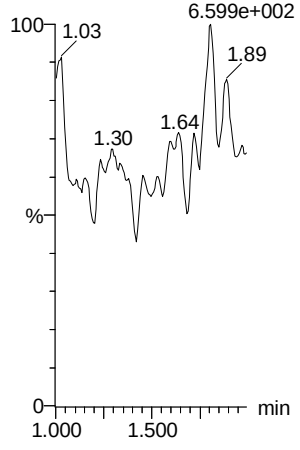
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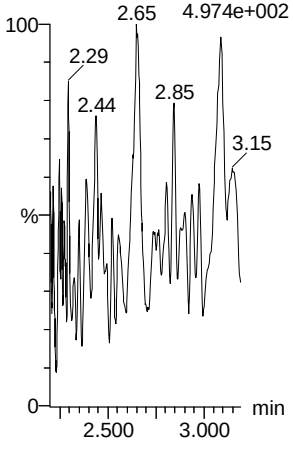
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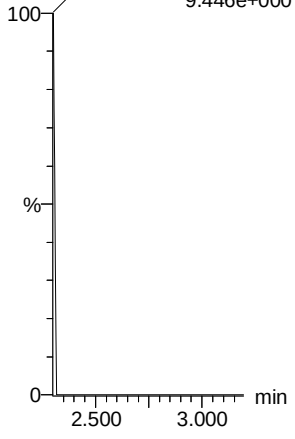
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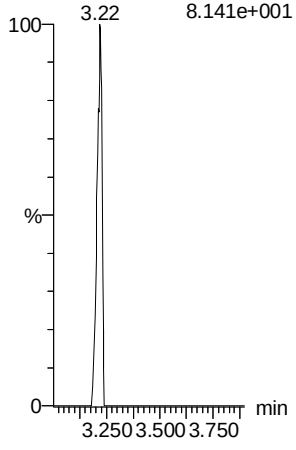
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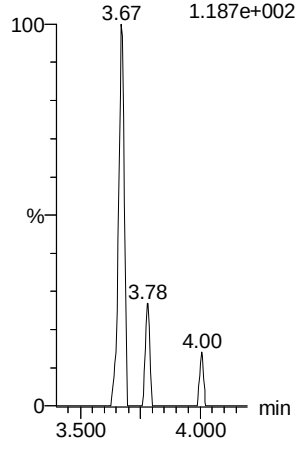
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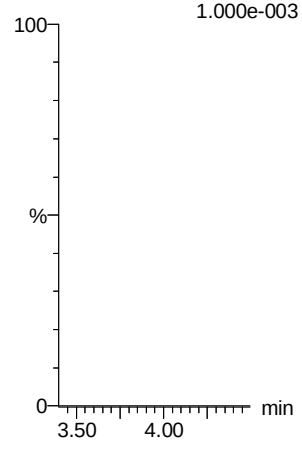
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13C4-PFHpA



18O2-PFHxS



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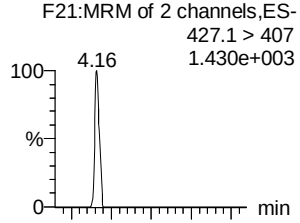
Vista Analytical Laboratory

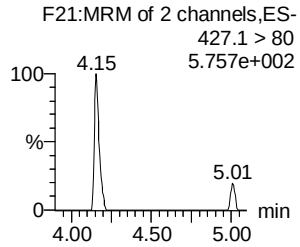
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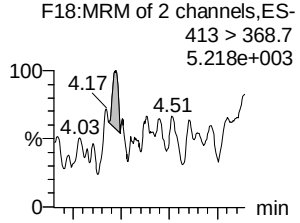
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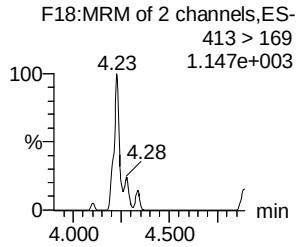
6:2 FTS



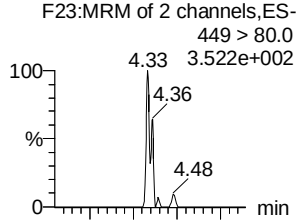


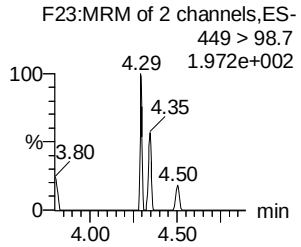
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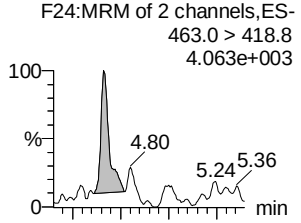


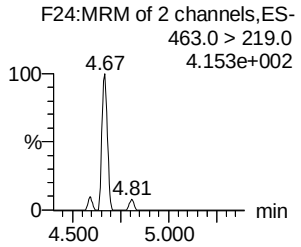
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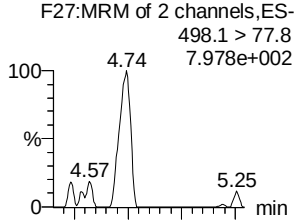


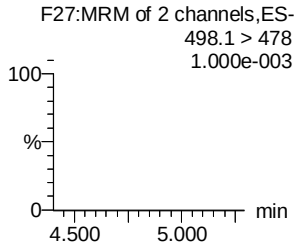
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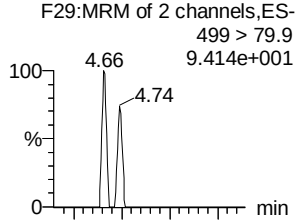


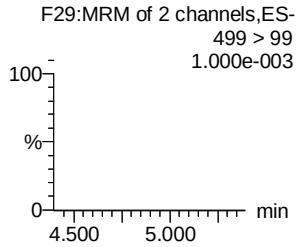
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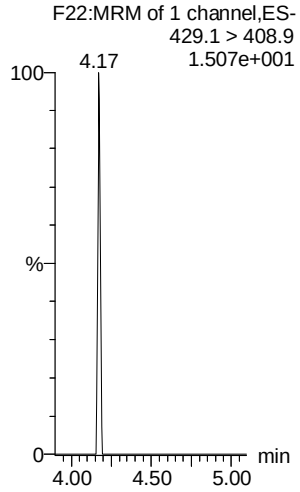


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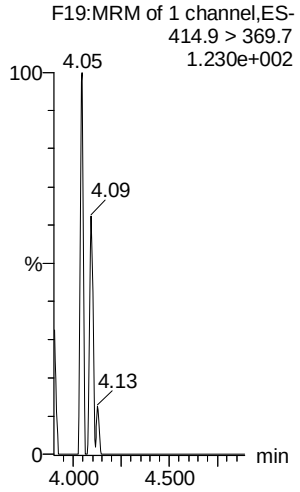




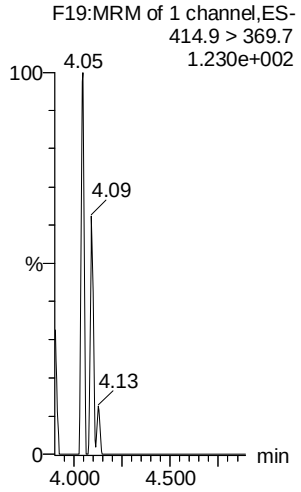
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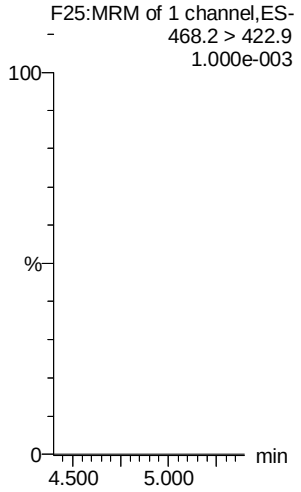
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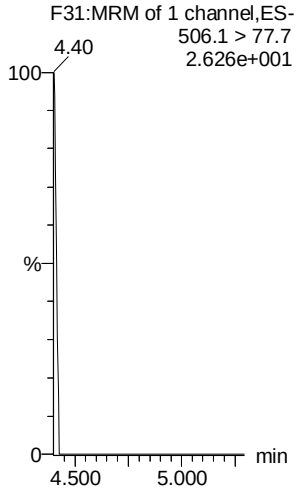
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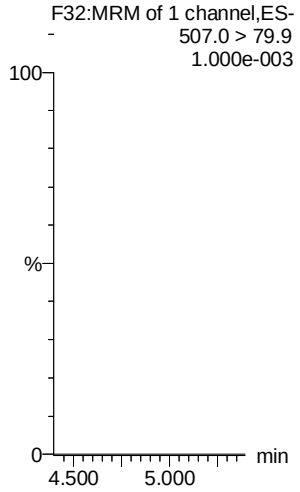
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13C8-PFOSA



13C8-PFOS



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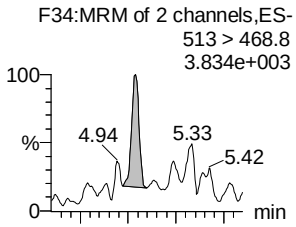
Vista Analytical Laboratory

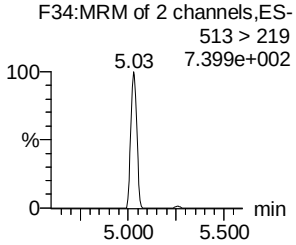
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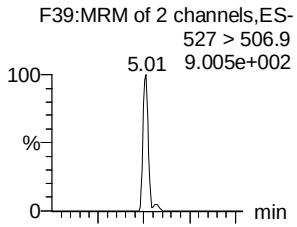
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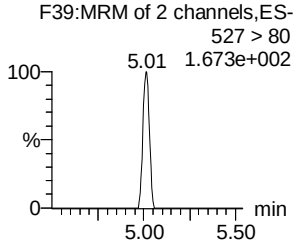
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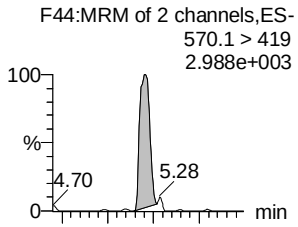


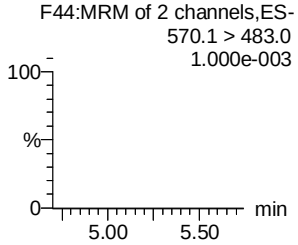
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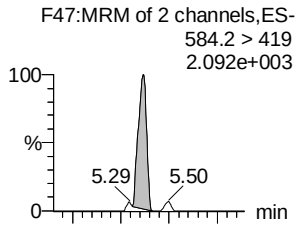


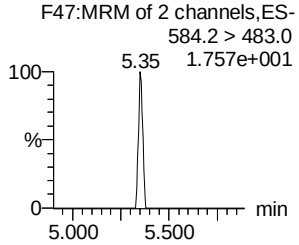
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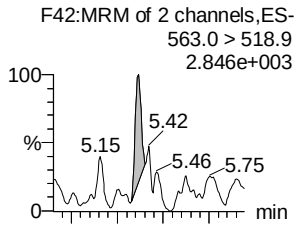


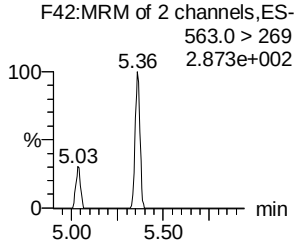
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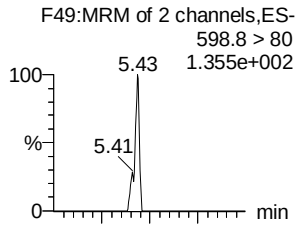


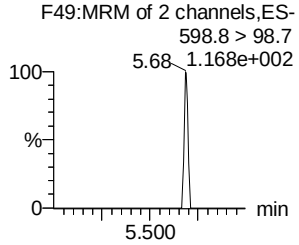
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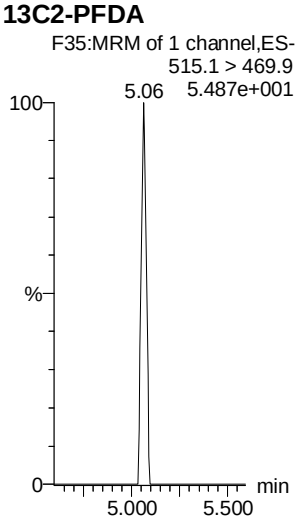


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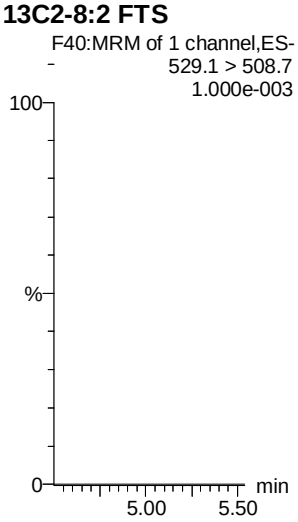




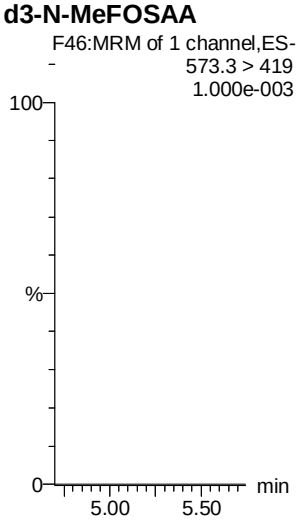
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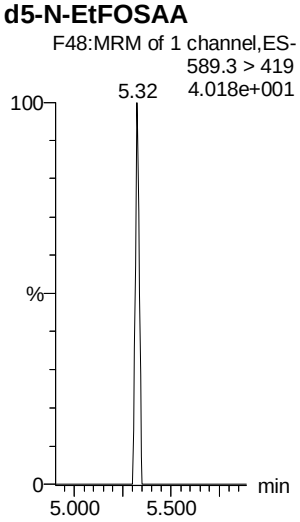
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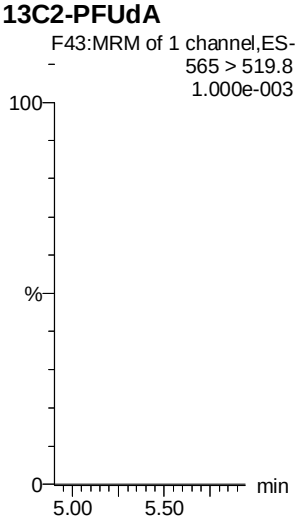
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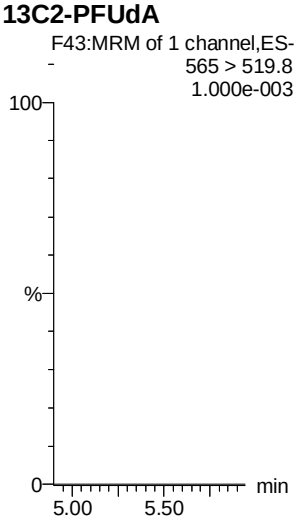
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13C2-PFUdA



13C2-PFUdA



AC 12/31/17

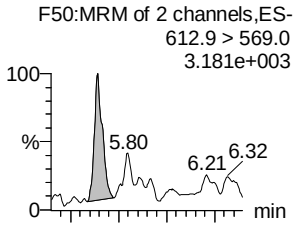
Vista Analytical Laboratory

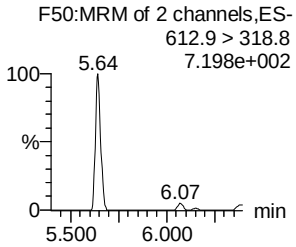
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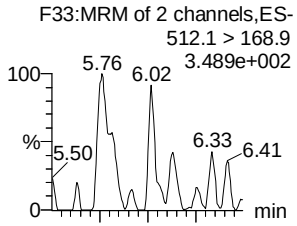
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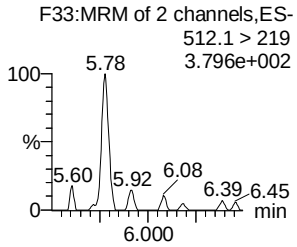
PFDoA



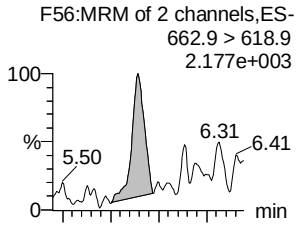


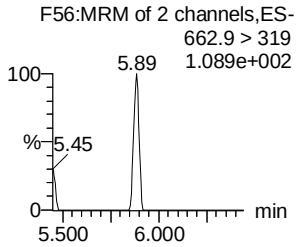
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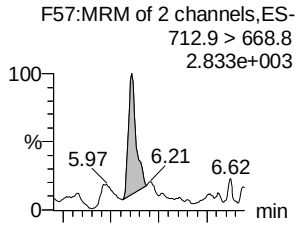


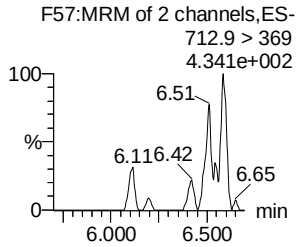
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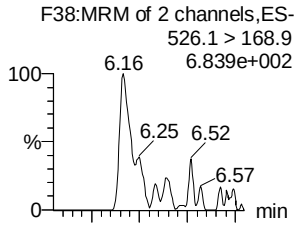


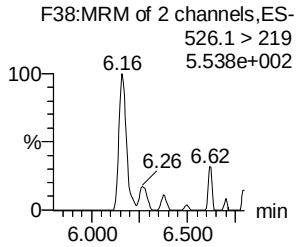
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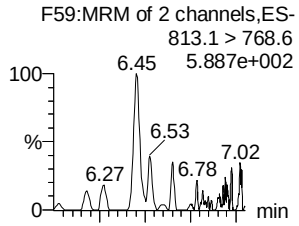


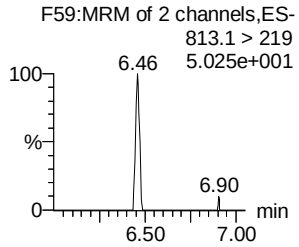
N-EtFOSA



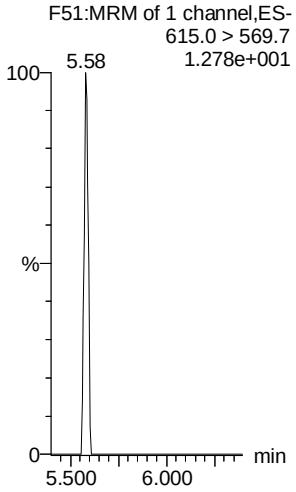


PFHxDA

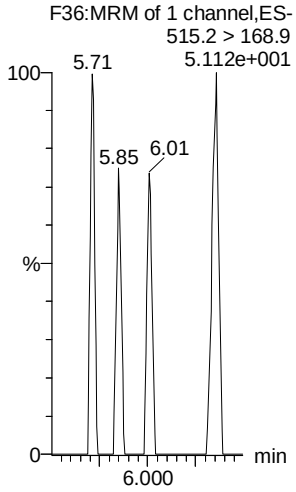




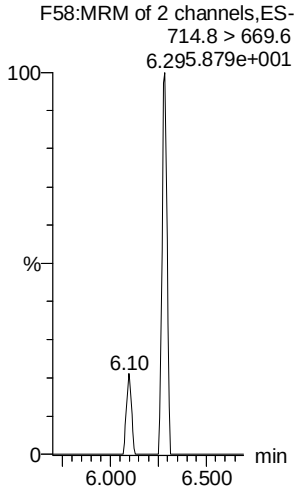
13C2-PFDoA



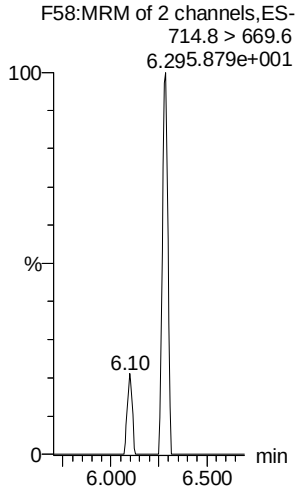
d3-N-MeFOSA



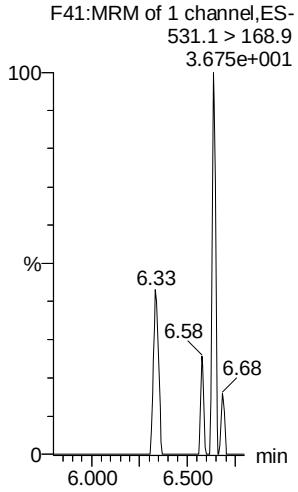
13C2-PFTeDA



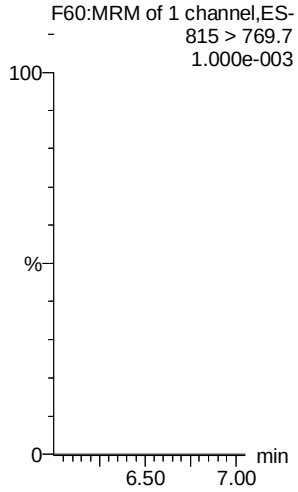
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA



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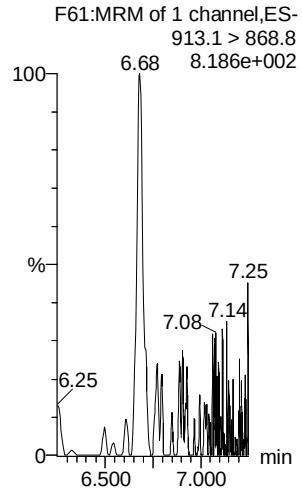
Vista Analytical Laboratory

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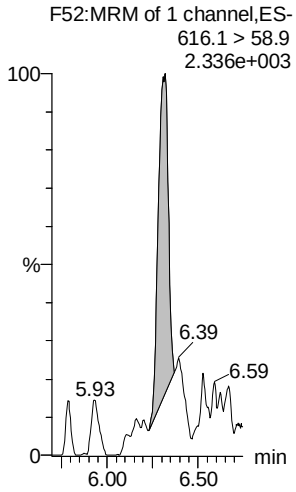
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Printed: Sunday, December 31, 2017 12:38:17 Pacific Standard Time

Name: 171230M3_12, Date: 31-Dec-2017, Time: 00:47:29, ID: IPA, Description: IPA

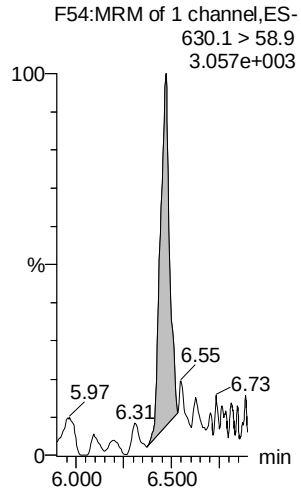
PFODA



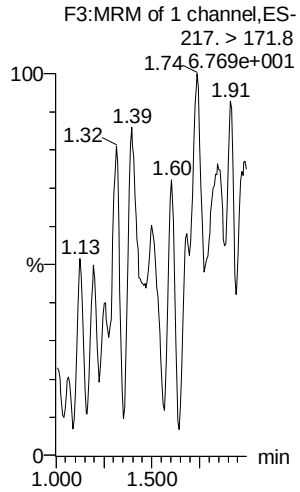
N-MeFOSE



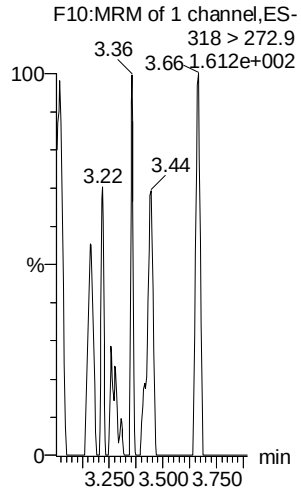
N-EtFOSE



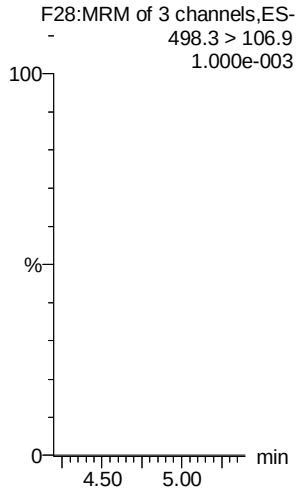
13C4-PFBA



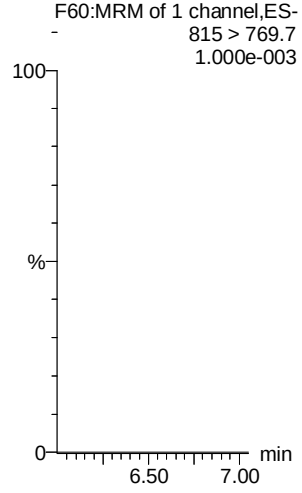
13C5-PFHxA



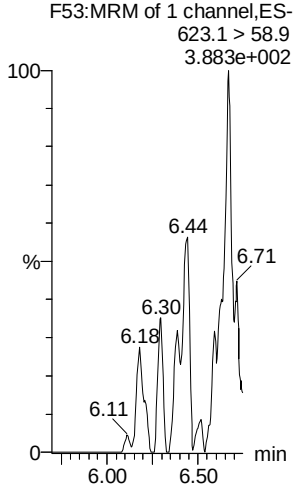
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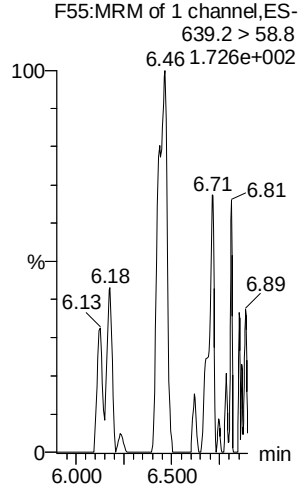
13C2-PFHxDA



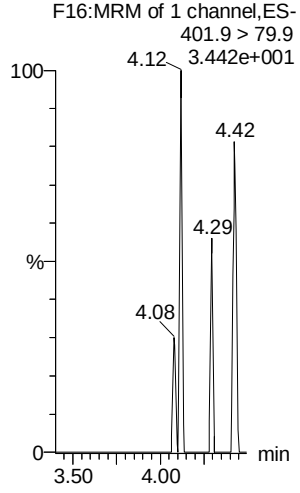
d7-N-MeFOSE



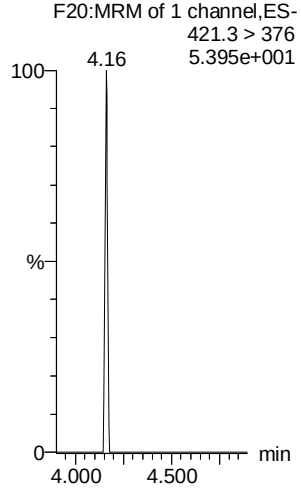
d9-N-EtFOSE



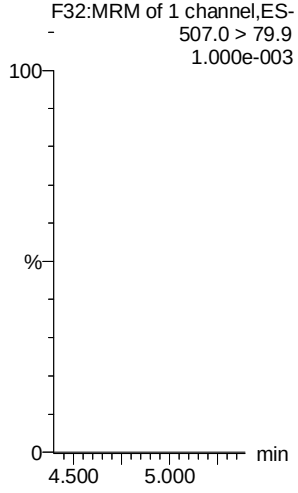
13C3-PFHxS



13C8-PFOA



13C8-PFOS



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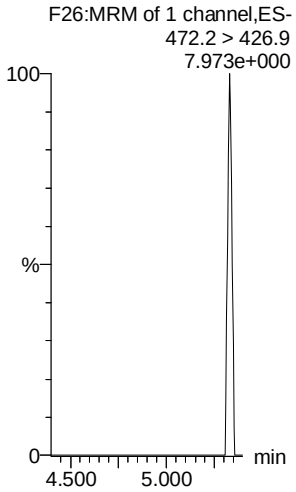
Vista Analytical Laboratory

Dataset: Untitled

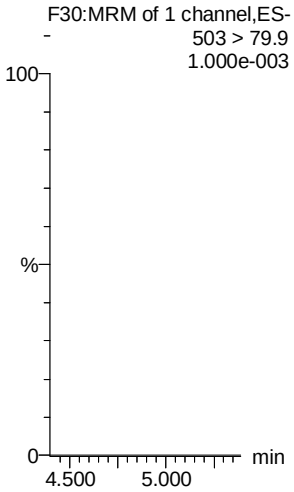
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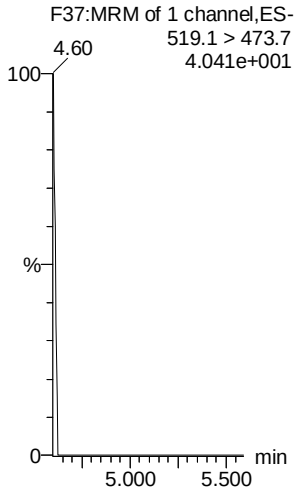
13C9-PFNA



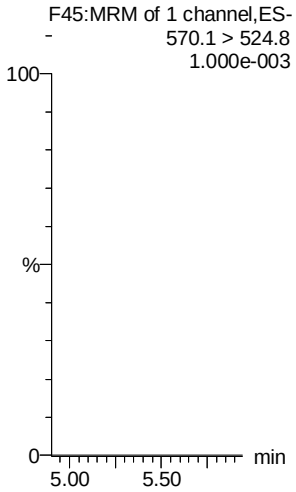
13C4-PFOS



13C6-PFDA



13C7-PFUdA



AC 12/31/17

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/11/18

VJM. 01/11/2018

Compound name: PFBA
Correlation coefficient: r = 0.999526, r^2 = 0.999051
Calibration curve: 1.47179 * x + -0.0484807
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	180110M3_2	Standard	0.250	1.34	158.015	5445.118	0.363	0.3	11.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	1.34	298.382	5531.277	0.674	0.5	-1.8	NO	0.999	NO	MM
3	3	180110M3_4	Standard	1.000	1.34	656.323	6197.237	1.324	0.9	-6.8	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	1.34	1397.959	6682.359	2.615	1.8	-9.5	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	1.33	5018.948	8645.433	7.257	5.0	-0.7	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	1.34	8762.965	7475.106	14.654	10.0	-0.1	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	1.34	47496.918	8574.918	69.238	47.1	-5.8	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	1.34	92845.438	8087.149	143.508	97.5	-2.5	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	1.34	322793.250	10724.149	376.246	255.7	2.3	NO	0.999	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999692, r^2 = 0.999384
Calibration curve: 1.26321 * x + -0.0617763
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	2.31	137.895	6191.314	0.278	0.3	7.7	NO	0.999	NO	bb
2	2	180110M3_3	Standard	0.500	2.32	294.900	6388.503	0.577	0.5	1.1	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	2.31	611.176	7240.874	1.055	0.9	-11.6	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	2.31	1403.153	7656.253	2.291	1.9	-6.9	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	2.31	5529.848	10067.521	6.866	5.5	9.7	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	2.32	9436.634	9432.145	12.506	9.9	-0.5	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	2.32	48777.508	9361.531	65.130	51.6	3.2	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	2.31	87627.469	8984.164	121.919	96.6	-3.4	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	2.32	298433.719	11738.701	317.788	251.6	0.6	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: PFBS
Coefficient of Determination: R^2 = 0.999640
Calibration curve: 0.00081362 * x^2 + 2.12043 * x + 0.00999409
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	2.59	40.093	843.391	0.594	0.3	10.2	NO	1.000	NO	MM
2	2	180110M3_3	Standard	0.500	2.60	65.625	875.797	0.937	0.4	-12.6	NO	1.000	NO	MM
3	3	180110M3_4	Standard	1.000	2.60	157.137	894.616	2.196	1.0	3.0	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	2.60	324.442	1011.215	4.011	1.9	-5.7	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	2.59	1100.859	1232.651	11.164	5.2	5.0	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	2.60	2102.512	1207.154	21.771	10.2	2.2	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	2.59	10660.588	1285.018	103.701	48.0	-4.0	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	2.59	21287.502	1183.646	224.809	102.0	2.0	NO	1.000	NO	bb
9	9	180110M3_10	Standard	250.000	2.60	69073.766	1488.746	579.966	249.6	-0.2	NO	1.000	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999048, r^2 = 0.998098
Calibration curve: 1.9385 * x + -0.0246659
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	3.09	216.357	2081.847	0.520	0.3	12.3	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	3.09	311.359	2064.240	0.754	0.4	-19.6	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	3.09	809.112	2293.726	1.764	0.9	-7.7	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	3.09	1863.764	2353.448	3.960	2.1	2.8	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	3.09	6463.479	3551.324	9.100	4.7	-5.9	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	3.09	12226.492	2750.103	22.229	11.5	14.8	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	3.09	62812.871	3223.589	97.427	50.3	0.5	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	3.09	121751.227	2973.789	204.707	105.6	5.6	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	3.09	379602.906	4029.222	471.062	243.0	-2.8	NO	0.998	NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: PFHpA
Correlation coefficient: r = 0.999839, r^2 = 0.999677
Calibration curve: 1.65421 * x + -0.120464
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	3.71	153.400	5439.776	0.352	0.3	14.4	NO	1.000	NO	bb
2	2	180110M3_3	Standard	0.500	3.71	280.672	5317.372	0.660	0.5	-5.7	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	3.71	717.935	6029.103	1.488	1.0	-2.7	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	3.71	1492.550	6373.487	2.927	1.8	-7.9	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	3.71	5516.071	8559.692	8.055	4.9	-1.2	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	3.71	9751.433	7383.596	16.509	10.1	0.5	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	3.71	51160.898	7430.805	86.062	52.1	4.2	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	3.70	97725.922	7501.529	162.843	98.5	-1.5	NO	1.000	NO	bb
9	9	180110M3_10	Standard	250.000	3.71	316358.625	9581.552	412.718	249.6	-0.2	NO	1.000	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999101, r^2 = 0.998203
Calibration curve: 2.11856 * x + -0.208942
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	3.85	19.254	607.107	0.396	0.3	14.3	NO	0.998	NO	MM
2	2	180110M3_3	Standard	0.500	3.86	48.454	587.859	1.030	0.6	17.0	NO	0.998	NO	MM
3	3	180110M3_4	Standard	1.000	3.85	74.238	721.191	1.287	0.7	-29.4	NO	0.998	NO	MM
4	4	180110M3_5	Standard	2.000	3.85	208.085	841.432	3.091	1.6	-22.1	NO	0.998	NO	MM
5	5	180110M3_6	Standard	5.000	3.86	868.133	928.808	11.683	5.6	12.3	NO	0.998	NO	MM
6	6	180110M3_7	Standard	10.000	3.86	1509.147	837.404	22.527	10.7	7.3	NO	0.998	NO	MM
7	7	180110M3_8	Standard	50.000	3.85	7829.683	881.507	111.027	52.5	5.0	NO	0.998	NO	MM
8	8	180110M3_9	Standard	100.000	3.85	15222.428	947.682	200.785	94.9	-5.1	NO	0.998	NO	MM
9	9	180110M3_10	Standard	250.000	3.86	50756.664	1189.369	533.441	251.9	0.8	NO	0.998	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995180
Calibration curve: 0.0125368 * x^2 + 2.94435 * x + -0.110501
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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 180110M3_2	Standard	0.250	4.17	27.306	607.107	0.562	0.2	-8.7	NO	0.995	NO	MM
2	2 180110M3_3	Standard	0.500	4.18	82.592	587.859	1.756	0.6	26.5	NO	0.995	NO	bb
3	3 180110M3_4	Standard	1.000	4.17	113.301	721.191	1.964	0.7	-29.8	NO	0.995	NO	bb
4	4 180110M3_5	Standard	2.000	4.17	318.644	841.432	4.734	1.6	-18.3	NO	0.995	NO	bb
5	5 180110M3_6	Standard	5.000	4.17	1331.516	928.808	17.920	6.0	19.4	NO	0.995	NO	bb
6	6 180110M3_7	Standard	10.000	4.17	1956.682	837.404	29.208	9.6	-4.3	NO	0.995	NO	bb
7	7 180110M3_8	Standard	50.000	4.17	12586.734	881.507	178.483	50.0	0.0	NO	0.995	NO	bb
8	8 180110M3_9	Standard	100.000	4.17	18243.367	947.682	240.631	64.2	-35.8	NO	0.995	NO	bbX
9	9 180110M3_10	Standard	250.000	4.17	67354.156	1189.369	707.877	147.6	-40.9	NO	0.995	NO	bbX

Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998464
Calibration curve: -9.7055e-005 * x^2 + 1.26022 * x + 0.185633
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	4.23	298.790	6843.800	0.546	0.3	14.3	NO	0.998	NO	MM
2	2 180110M3_3	Standard	0.500	4.23	519.394	7076.908	0.917	0.6	16.1	NO	0.998	NO	MM
3	3 180110M3_4	Standard	1.000	4.22	859.486	9304.335	1.155	0.8	-23.1	NO	0.998	NO	bb
4	4 180110M3_5	Standard	2.000	4.23	1848.242	8455.973	2.732	2.0	1.1	NO	0.998	NO	db
5	5 180110M3_6	Standard	5.000	4.22	5524.569	11446.934	6.033	4.6	-7.2	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	4.23	10129.542	10524.176	12.031	9.4	-5.9	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	4.22	52634.219	9660.232	68.107	54.1	8.2	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	4.22	96777.461	10039.607	120.495	96.2	-3.8	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	4.22	349181.594	14076.219	310.081	250.7	0.3	NO	0.998	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999403
Calibration curve: 0.00123665 * x^2 + 0.283611 * x + -0.0187761
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.34	40.899	6843.800	0.075	0.3	31.6	NO	0.999	NO	MMX
2	2	180110M3_3	Standard	0.500	4.33	68.354	7076.908	0.121	0.5	-1.8	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	4.33	197.523	9304.335	0.265	1.0	-0.2	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	4.33	365.727	8455.973	0.541	2.0	-2.2	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	4.33	1415.746	11446.934	1.546	5.4	7.8	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	4.34	2382.782	10524.176	2.830	9.6	-3.6	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	4.33	13342.360	9660.232	17.265	50.0	0.1	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	4.33	26513.092	10039.607	33.011	85.0	-15.0	NO	0.999	NO	bbX
9	9	180110M3_10	Standard	250.000	4.33	85610.664	14076.219	76.024	158.5	-36.6	NO	0.999	NO	bbX

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998092
Calibration curve: 0.000693223 * x^2 + 1.40868 * x + 0.0082777
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.66	214.934	6595.252	0.407	0.3	13.3	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	4.66	364.859	7834.280	0.582	0.4	-18.5	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	4.66	803.702	7113.500	1.412	1.0	-0.4	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	4.66	1676.318	7757.888	2.701	1.9	-4.5	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	4.66	5845.264	10243.467	7.133	5.0	0.9	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	4.66	10523.932	8076.588	16.288	11.5	14.9	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	4.66	56089.699	10747.179	65.238	45.3	-9.4	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	4.66	107733.680	8749.379	153.916	103.9	3.9	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	4.66	368969.406	11695.055	394.365	249.4	-0.3	NO	0.998	NO	bb

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Compound name: PFOSA
Correlation coefficient: r = 0.999329, r^2 = 0.998658
Calibration curve: 1.30775 * x + 0.0347805
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.72	50.514	1564.524	0.404	0.3	12.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	4.72	68.373	1375.187	0.621	0.4	-10.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	4.71	201.535	1766.893	1.426	1.1	6.4	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	4.72	360.366	1897.929	2.373	1.8	-10.6	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	4.72	1269.298	2478.382	6.402	4.9	-2.6	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	4.72	2319.396	2100.719	13.801	10.5	5.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	4.72	12512.175	2311.924	67.650	51.7	3.4	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	4.72	21843.365	2220.110	122.986	94.0	-6.0	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	4.72	79570.422	2993.427	332.271	254.1	1.6	NO	0.999	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.997444
Calibration curve: -3.62431e-005 * x^2 + 1.17583 * x + 0.0311451
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.74	52.733	1618.655	0.407	0.3	27.9	NO	0.997	NO	MM
2	2	180110M3_3	Standard	0.500	4.75	80.186	1941.504	0.516	0.4	-17.5	NO	0.997	NO	MM
3	3	180110M3_4	Standard	1.000	4.74	227.959	1895.721	1.503	1.3	25.2	NO	0.997	NO	MM
4	4	180110M3_5	Standard	2.000	4.74	330.437	2275.169	1.815	1.5	-24.1	NO	0.997	NO	MM
5	5	180110M3_6	Standard	5.000	4.74	1373.176	3237.610	5.302	4.5	-10.3	NO	0.997	NO	MM
6	6	180110M3_7	Standard	10.000	4.75	2325.923	2589.350	11.228	9.5	-4.7	NO	0.997	NO	MM
7	7	180110M3_8	Standard	50.000	4.74	13028.005	2649.839	61.457	52.3	4.6	NO	0.997	NO	MM
8	8	180110M3_9	Standard	100.000	4.74	24612.139	2652.518	115.985	98.9	-1.1	NO	0.997	NO	MM
9	9	180110M3_10	Standard	250.000	4.74	94234.469	2938.436	400.870	344.6	37.8	NO	0.997	NO	MMX

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999932
Calibration curve: 0.00546964 * x^2 + 1.60165 * x + -0.235203
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.03	149.694	6621.417	0.283	0.3	29.2	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	5.03	326.927	7011.031	0.583	0.5	2.0	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	5.03	882.103	7865.675	1.402	1.0	1.9	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	5.03	1805.777	7909.186	2.854	1.9	-4.2	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	5.03	5656.708	8990.281	7.865	5.0	-0.5	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	5.03	11071.540	8394.882	16.486	10.1	0.9	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	5.03	53691.906	7178.136	93.499	50.0	-0.0	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	5.03	106324.383	8067.630	164.739	80.7	-19.3	NO	1.000	NO	bbX
9	9	180110M3_10	Standard	250.000	5.03	334810.344	11784.516	355.138	147.5	-41.0	NO	1.000	NO	bbX

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997732
Calibration curve: 0.00123859 * x^2 + 0.307368 * x + -0.0309813
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.01	6.878	6621.417	0.013	0.1	-42.8	NO	0.998	NO	MMX
2	2	180110M3_3	Standard	0.500	5.00	69.176	7011.031	0.123	0.5	0.2	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	5.00	143.316	7865.675	0.228	0.8	-16.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	5.00	310.839	7909.186	0.491	1.7	-15.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.00	1255.848	8990.281	1.746	5.7	13.1	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.00	2087.793	8394.882	3.109	9.8	-1.7	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.00	10583.119	7178.136	18.429	50.0	-0.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.00	21826.646	8067.630	33.818	82.6	-17.4	NO	0.998	NO	bbX
9	9	180110M3_10	Standard	250.000	5.00	63576.629	11784.516	67.437	140.2	-43.9	NO	0.998	NO	bbX

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.991446
Calibration curve: -0.00315911 * x^2 + 2.0555 * x + -0.320574
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.18	36.415	2584.018	0.176	0.2	-3.3	NO	0.991	NO	MM
2	2	180110M3_3	Standard	0.500	5.18	80.226	2279.408	0.440	0.4	-26.0	NO	0.991	NO	bb
3	3	180110M3_4	Standard	1.000	5.18	378.250	2474.278	1.911	1.1	8.7	NO	0.991	NO	bb
4	4	180110M3_5	Standard	2.000	5.19	712.568	3010.187	2.959	1.6	-20.0	NO	0.991	NO	bb
5	5	180110M3_6	Standard	5.000	5.18	2686.279	4004.625	8.385	4.3	-14.7	NO	0.991	NO	bb
6	6	180110M3_7	Standard	10.000	5.18	4645.245	3453.088	16.816	8.4	-15.5	NO	0.991	NO	bb
7	7	180110M3_8	Standard	50.000	5.18	27682.430	3302.028	104.793	55.9	11.9	NO	0.991	NO	bb
8	8	180110M3_9	Standard	100.000	5.18	50942.434	3769.683	168.921	96.7	-3.3	NO	0.991	NO	bb
9	9	180110M3_10	Standard	250.000	5.18	168432.422	3847.682	547.188			NO	0.991	NO	bbXI

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999097
Calibration curve: -0.000915461 * x^2 + 1.58258 * x + -0.401153
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.33	66.359	3050.200	0.272	0.4	70.2	NO	0.999	NO	bbX
2	2	180110M3_3	Standard	0.500	5.34	73.558	3056.172	0.301	0.4	-11.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	5.33	220.973	3257.867	0.848	0.8	-21.0	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	5.34	631.177	3281.707	2.404	1.8	-11.3	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	5.34	2480.533	4319.860	7.178	4.8	-4.0	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.34	4016.860	3499.391	14.348	9.4	-6.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.34	20914.289	3318.419	78.781	51.6	3.1	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.33	43324.688	3635.765	148.953	100.2	0.2	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.33	130110.156	4818.760	337.509	249.5	-0.2	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997858
Calibration curve: -0.000355567 * x^2 + 1.33241 * x + -0.0949136
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.36	175.412	7775.131	0.282	0.3	13.2	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	5.35	241.658	5841.358	0.517	0.5	-8.1	NO	0.998	NO	MM
3	3	180110M3_4	Standard	1.000	5.35	652.062	6821.692	1.195	1.0	-3.2	NO	0.998	NO	MM
4	4	180110M3_5	Standard	2.000	5.35	1465.764	7907.348	2.317	1.8	-9.4	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.35	4824.436	9228.782	6.534	5.0	-0.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.35	11112.005	10040.164	13.834	10.5	4.8	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.35	54444.684	9539.813	71.339	54.4	8.8	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.35	92094.172	9474.396	121.504	93.6	-6.4	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	5.35	343973.500	13743.283	312.856	251.8	0.7	NO	0.998	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997344
Calibration curve: 0.000962848 * x^2 + 0.363602 * x + -0.00209133
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.40	48.906	7775.131	0.079	0.2	-11.3	NO	0.997	NO	MM
2	2	180110M3_3	Standard	0.500	5.41	89.190	5841.358	0.191	0.5	6.0	NO	0.997	NO	bb
3	3	180110M3_4	Standard	1.000	5.40	200.620	6821.692	0.368	1.0	1.4	NO	0.997	NO	bb
4	4	180110M3_5	Standard	2.000	5.40	442.118	7907.348	0.699	1.9	-4.1	NO	0.997	NO	bb
5	5	180110M3_6	Standard	5.000	5.40	1573.748	9228.782	2.132	5.8	15.6	NO	0.997	NO	bb
6	6	180110M3_7	Standard	10.000	5.40	2755.989	10040.164	3.431	9.2	-7.8	NO	0.997	NO	bb
7	7	180110M3_8	Standard	50.000	5.40	15734.462	9539.813	20.617	50.1	0.1	NO	0.997	NO	bb
8	8	180110M3_9	Standard	100.000	5.40	26637.205	9474.396	35.144	79.8	-20.2	NO	0.997	NO	bbX
9	9	180110M3_10	Standard	250.000	5.40	84029.797	13743.283	76.428	150.3	-39.9	NO	0.997	NO	bbX

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998683
Calibration curve: 0.00180407 * x^2 + 2.09493 * x + 0.150658
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.64	187.793	4189.487	0.560	0.2	-21.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	5.64	395.079	3969.021	1.244	0.5	4.4	NO	0.999	NO	bd
3	3	180110M3_4	Standard	1.000	5.64	711.553	4869.713	1.826	0.8	-20.1	NO	0.999	NO	bd
4	4	180110M3_5	Standard	2.000	5.64	1599.483	4575.956	4.369	2.0	0.5	NO	0.999	NO	bd
5	5	180110M3_6	Standard	5.000	5.63	7052.525	6385.208	13.806	6.5	29.6	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.64	10897.177	5791.910	23.518	11.0	10.5	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.63	62116.109	7164.268	108.378	49.5	-0.9	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.64	105146.766	5943.687	221.131	97.3	-2.7	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.63	373600.125	7304.709	639.314	250.9	0.4	NO	0.999	NO	bb

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999537, r^2 = 0.999075
Calibration curve: 1.10666 * x + -0.170034
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	180110M3_2	Standard	1.250	5.71	74.505	10743.257	1.040	1.1	-12.5	NO	0.999	NO	bb
2	2	180110M3_3	Standard	2.500	5.71	176.977	9835.262	2.699	2.6	3.7	NO	0.999	NO	bb
3	3	180110M3_4	Standard	5.000	5.71	344.751	12097.896	4.275	4.0	-19.7	NO	0.999	NO	bb
4	4	180110M3_5	Standard	10.000	5.71	911.162	12431.512	10.994	10.1	0.9	NO	0.999	NO	bb
5	5	180110M3_6	Standard	25.000	5.71	3012.821	16115.154	28.043	25.5	2.0	NO	0.999	NO	bb
6	6	180110M3_7	Standard	50.000	5.71	5797.346	14402.728	60.378	54.7	9.4	NO	0.999	NO	bb
7	7	180110M3_8	Standard	250.000	5.71	29412.832	15466.819	285.251	257.9	3.2	NO	0.999	NO	bb
8	8	180110M3_9	Standard	500.000	5.71	54924.184	14480.274	568.955	514.3	2.9	NO	0.999	NO	bb
9	9	180110M3_10	Standard	1250.000	5.71	171069.844	18952.975	1353.902	1223.6	-2.1	NO	0.999	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: 0.000122781 * x^2 + 2.39065 * x + 0.000840038
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.88	174.970	4189.487	0.522	0.2	-12.8	NO	0.999	NO	bb
2	2	180110M3_3	Standard	0.500	5.88	376.310	3969.021	1.185	0.5	-0.9	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	5.88	950.586	4869.713	2.440	1.0	2.0	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	5.89	1891.809	4575.956	5.168	2.2	8.1	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	5.88	5659.594	6385.208	11.080	4.6	-7.3	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.89	12450.600	5791.910	26.871	11.2	12.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.88	68696.688	7164.268	119.860	50.0	0.0	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.88	112410.352	5943.687	236.407	98.4	-1.6	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.88	354589.906	7304.709	606.783	250.6	0.2	NO	0.999	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999533
Calibration curve: 0.00349062 * x^2 + 2.93229 * x + -0.154941
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	6.09	124.998	1955.129	0.799	0.3	30.1	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	6.10	236.010	1829.135	1.613	0.6	20.5	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	6.10	405.845	2327.717	2.179	0.8	-20.5	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	6.09	1041.416	2174.831	5.986	2.1	4.4	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	6.10	3533.474	3158.222	13.985	4.8	-4.1	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	6.10	6573.327	2821.178	29.125	9.9	-1.3	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	6.09	36266.531	2885.126	157.127	50.6	1.2	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	6.10	68578.852	2620.882	327.079	99.8	-0.2	NO	1.000	NO	db
9	9	180110M3_10	Standard	250.000	6.10	176036.891	3871.496	568.375	162.5	-35.0	NO	1.000	NO	dbX

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999897
Calibration curve: -3.00904e-005 * x^2 + 1.02444 * x + -0.199244
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	1.250	6.10	131.383	16238.895	1.214	1.4	10.3	NO	1.000	NO	bb
2	2 180110M3_3	Standard	2.500	6.11	254.736	15620.249	2.446	2.6	3.3	NO	1.000	NO	bb
3	3 180110M3_4	Standard	5.000	6.10	520.024	17774.992	4.388	4.5	-10.4	NO	1.000	NO	bb
4	4 180110M3_5	Standard	10.000	6.10	1156.534	18942.303	9.158	9.1	-8.6	NO	1.000	NO	bb
5	5 180110M3_6	Standard	25.000	6.10	4408.425	24990.723	26.460	26.0	4.2	NO	1.000	NO	bb
6	6 180110M3_7	Standard	50.000	6.10	7411.040	21510.641	51.679	50.7	1.4	NO	1.000	NO	bb
7	7 180110M3_8	Standard	250.000	6.10	37406.688	22103.201	253.855	249.8	-0.1	NO	1.000	NO	bb
8	8 180110M3_9	Standard	500.000	6.10	71470.891	21279.357	503.804	499.3	-0.1	NO	1.000	NO	bb
9	9 180110M3_10	Standard	1250.000	6.10	207247.922	25200.256	1233.606	1250.3	0.0	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.997686
Calibration curve: -0.00114258 * x^2 + 0.984182 * x + 0.0683094
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	6.43	89.534	1428.470	0.313	0.2	-0.4	NO	0.998	NO	MM
2	2 180110M3_3	Standard	0.500	6.43	149.353	1602.730	0.466	0.4	-19.2	NO	0.998	NO	MM
3	3 180110M3_4	Standard	1.000	6.43	383.028	1624.887	1.179	1.1	13.0	NO	0.998	NO	bb
4	4 180110M3_5	Standard	2.000	6.43	604.669	1502.644	2.012	2.0	-1.0	NO	0.998	NO	bb
5	5 180110M3_6	Standard	5.000	6.43	2370.623	2226.881	5.323	5.4	7.4	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	6.43	3907.469	2045.703	9.550	9.7	-2.6	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	6.43	22137.709	2213.677	50.002	54.1	8.3	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	6.43	40541.285	2470.003	82.067	93.5	-6.5	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	6.43	106609.336	3028.907	175.986	253.1	1.3	NO	0.998	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997999
Calibration curve: -0.00347318 * x^2 + 1.33796 * x + -0.219409
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	6.66	89.732	1428.470	0.314	0.4	59.7	NO	0.998	NO	bbX
2	2	180110M3_3	Standard	0.500	6.66	134.672	1602.730	0.420	0.5	-4.3	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	6.66	288.807	1624.887	0.889	0.8	-17.0	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	6.66	713.056	1502.644	2.373	1.9	-2.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	6.66	2483.912	2226.881	5.577	4.4	-12.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	6.66	5287.183	2045.703	12.923	10.1	0.9	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	6.66	26551.906	2213.677	59.972	52.0	4.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	6.66	48357.449	2470.003	97.889	98.5	-1.5	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	6.66	71018.602	3028.907	117.235	135.3	-45.9	NO	0.998	NO	bbX

Compound name: N-MeFOSE
Correlation coefficient: r = 0.998982, r^2 = 0.997965
Calibration curve: 1.173 * x + -0.745383
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.24	132.978	18600.686	1.072	1.5	24.0	NO	0.998	NO	bb
2	2	180110M3_3	Standard	2.500	6.26	224.899	14371.076	2.347	2.6	5.5	NO	0.998	NO	bb
3	3	180110M3_4	Standard	5.000	6.25	520.318	17457.375	4.471	4.4	-11.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	10.000	6.25	1056.121	18372.555	8.623	8.0	-20.1	NO	0.998	NO	bb
5	5	180110M3_6	Standard	25.000	6.25	4167.101	23253.285	26.881	23.6	-5.8	NO	0.998	NO	bb
6	6	180110M3_7	Standard	50.000	6.25	7847.585	18111.193	64.995	56.0	12.1	NO	0.998	NO	bb
7	7	180110M3_8	Standard	250.000	6.25	44727.859	23087.781	290.594	248.4	-0.7	NO	0.998	NO	bb
8	8	180110M3_9	Standard	500.000	6.25	74536.172	20386.021	548.436	468.2	-6.4	NO	0.998	NO	bb
9	9	180110M3_10	Standard	1250.000	6.25	281086.719	28074.316	1501.836	1281.0	2.5	NO	0.998	NO	bd

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999540, r^2 = 0.999080
Calibration curve: 1.40177 * x + -0.207477
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.40	179.573	16885.416	1.595	1.3	2.9	NO	0.999	NO	bb
2	2	180110M3_3	Standard	2.500	6.41	310.656	13110.849	3.554	2.7	7.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	5.000	6.40	739.963	16446.465	6.749	5.0	-0.7	NO	0.999	NO	bb
4	4	180110M3_5	Standard	10.000	6.41	1344.736	16689.393	12.086	8.8	-12.3	NO	0.999	NO	bb
5	5	180110M3_6	Standard	25.000	6.41	5119.930	22391.037	34.299	24.6	-1.5	NO	0.999	NO	bb
6	6	180110M3_7	Standard	50.000	6.41	9741.974	19962.660	73.201	52.4	4.7	NO	0.999	NO	bb
7	7	180110M3_8	Standard	250.000	6.40	52164.645	22425.359	348.922	249.1	-0.4	NO	0.999	NO	bd
8	8	180110M3_9	Standard	500.000	6.40	98149.102	16106.103	914.086	652.2	30.4	NO	0.999	NO	bbX
9	9	180110M3_10	Standard	1250.000	6.40	346314.875	28984.094	1792.267	1278.7	2.3	NO	0.999	NO	bbX

Compound name: 13C3-PFBA
Response Factor: 0.763512
RRF SD: 0.0350184, Relative SD: 4.58648
Response type: Internal Std (Ref 54), 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	180110M3_2	Standard	12.500	1.33	5445.118	7508.845	9.065	11.9	-5.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	1.34	5531.277	7057.356	9.797	12.8	2.7	NO		NO	bd
3	3	180110M3_4	Standard	12.500	1.34	6197.237	8001.987	9.681	12.7	1.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	1.34	6682.359	8507.537	9.818	12.9	2.9	NO		NO	bb
5	5	180110M3_6	Standard	12.500	1.33	8645.433	11925.119	9.062	11.9	-5.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	1.34	7475.106	10276.120	9.093	11.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	12.500	1.33	8574.918	10906.643	9.828	12.9	3.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	1.34	8087.149	9827.420	10.286	13.5	7.8	NO		NO	bb
9	9	180110M3_10	Standard	12.500	1.34	10724.149	14467.951	9.265	12.1	-2.9	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.730064
RRF SD: 0.0283912, Relative SD: 3.88886
Response type: Internal Std (Ref 55), 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 180110M3_2	Standard	12.500	2.31	6191.314	8819.409	8.775	12.0	-3.8	NO		NO	bb
2	2 180110M3_3	Standard	12.500	2.32	6388.503	8657.168	9.224	12.6	1.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	2.31	7240.874	10153.727	8.914	12.2	-2.3	NO		NO	bb
4	4 180110M3_5	Standard	12.500	2.31	7656.253	10362.211	9.236	12.7	1.2	NO		NO	bb
5	5 180110M3_6	Standard	12.500	2.31	10067.521	14579.612	8.632	11.8	-5.4	NO		NO	bb
6	6 180110M3_7	Standard	12.500	2.32	9432.145	12281.571	9.600	13.1	5.2	NO		NO	bb
7	7 180110M3_8	Standard	12.500	2.31	9361.531	12975.809	9.018	12.4	-1.2	NO		NO	bb
8	8 180110M3_9	Standard	12.500	2.31	8984.164	11578.389	9.699	13.3	6.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	2.32	11738.701	16242.380	9.034	12.4	-1.0	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0953602
RRF SD: 0.0060334, Relative SD: 6.32696
Response type: Internal Std (Ref 55), 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 180110M3_2	Standard	12.500	2.59	843.391	8819.409	1.195	12.5	0.3	NO		NO	bb
2	2 180110M3_3	Standard	12.500	2.60	875.797	8657.168	1.265	13.3	6.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	2.59	894.616	10153.727	1.101	11.5	-7.6	NO		NO	bb
4	4 180110M3_5	Standard	12.500	2.59	1011.215	10362.211	1.220	12.8	2.3	NO		NO	bb
5	5 180110M3_6	Standard	12.500	2.59	1232.651	14579.612	1.057	11.1	-11.3	NO		NO	bb
6	6 180110M3_7	Standard	12.500	2.60	1207.154	12281.571	1.229	12.9	3.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	2.59	1285.018	12975.809	1.238	13.0	3.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	2.59	1183.646	11578.389	1.278	13.4	7.2	NO		NO	bb
9	9 180110M3_10	Standard	12.500	2.60	1488.746	16242.380	1.146	12.0	-3.9	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.596765
RRF SD: 0.0287608, Relative SD: 4.81945
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	5.000	3.08	2081.847	8819.409	2.951	4.9	-1.1	NO		NO	bb
2	2	180110M3_3	Standard	5.000	3.09	2064.240	8657.168	2.981	5.0	-0.1	NO		NO	bb
3	3	180110M3_4	Standard	5.000	3.08	2293.726	10153.727	2.824	4.7	-5.4	NO		NO	bb
4	4	180110M3_5	Standard	5.000	3.09	2353.448	10362.211	2.839	4.8	-4.9	NO		NO	bb
5	5	180110M3_6	Standard	5.000	3.09	3551.324	14579.612	3.045	5.1	2.0	NO		NO	bb
6	6	180110M3_7	Standard	5.000	3.09	2750.103	12281.571	2.799	4.7	-6.2	NO		NO	bb
7	7	180110M3_8	Standard	5.000	3.09	3223.589	12975.809	3.105	5.2	4.1	NO		NO	bb
8	8	180110M3_9	Standard	5.000	3.09	2973.789	11578.389	3.210	5.4	7.6	NO		NO	bb
9	9	180110M3_10	Standard	5.000	3.09	4029.222	16242.380	3.101	5.2	3.9	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.604292
RRF SD: 0.0220638, Relative SD: 3.65118
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	3.70	5439.776	8819.409	7.710	12.8	2.1	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.71	5317.372	8657.168	7.678	12.7	1.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.70	6029.103	10153.727	7.422	12.3	-1.7	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.71	6373.487	10362.211	7.688	12.7	1.8	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.70	8559.692	14579.612	7.339	12.1	-2.8	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.71	7383.596	12281.571	7.515	12.4	-0.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.71	7430.805	12975.809	7.158	11.8	-5.2	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.70	7501.529	11578.389	8.099	13.4	7.2	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.71	9581.552	16242.380	7.374	12.2	-2.4	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.293143
RRF SD: 0.02198, Relative SD: 7.49804
Response type: Internal Std (Ref 56), 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 180110M3_2	Standard	12.500	3.85	607.107	2278.692	3.330	11.4	-9.1	NO		NO	bb
2	2 180110M3_3	Standard	12.500	3.85	587.859	2027.751	3.624	12.4	-1.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	3.85	721.191	2588.349	3.483	11.9	-5.0	NO		NO	MM
4	4 180110M3_5	Standard	12.500	3.85	841.432	2638.712	3.986	13.6	8.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	3.86	928.808	3243.043	3.580	12.2	-2.3	NO		NO	bb
6	6 180110M3_7	Standard	12.500	3.86	837.404	2945.932	3.553	12.1	-3.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	3.85	881.507	3128.825	3.522	12.0	-3.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	3.85	947.682	3222.897	3.676	12.5	0.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	3.85	1189.369	3518.808	4.225	14.4	15.3	NO		NO	bb

Compound name: 13C2-6:2 FTS Not used
Response Factor: 0.215203
RRF SD: 0.0808496, Relative SD: 37.5689
Response type: Internal Std (Ref 57), 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 180110M3_2	Standard	12.500	4.17	1482.806	7716.699	2.402	11.2	-10.7	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.17	1155.556	8022.848	1.800	8.4	-33.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.17	1397.855	9839.251	1.776	8.3	-34.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.17	1987.587	9158.829	2.713	12.6	0.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.17	2364.256	13168.367	2.244	10.4	-16.6	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.17	2119.823	12177.514	2.176	10.1	-19.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.17	2466.705	11624.087	2.653	12.3	-1.4	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.17	2650.556	9690.272	3.419	15.9	27.1	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.17	5642.398	14028.530	5.028	23.4	86.9	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 0.915764
RRF SD: 0.0680605, Relative SD: 7.4321
Response type: Internal Std (Ref 57), 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	180110M3_2	Standard	12.500	4.22	6843.800	7716.699	11.086	12.1	-3.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.23	7076.908	8022.848	11.026	12.0	-3.7	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.22	9304.335	9839.251	11.820	12.9	3.3	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.23	8455.973	9158.829	11.541	12.6	0.8	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.22	11446.934	13168.367	10.866	11.9	-5.1	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.23	10524.176	12177.514	10.803	11.8	-5.6	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.22	9660.232	11624.087	10.388	11.3	-9.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.23	10039.607	9690.272	12.951	14.1	13.1	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.23	14076.219	14028.530	12.542	13.7	9.6	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.817427
RRF SD: 0.0843622, Relative SD: 10.3205
Response type: Internal Std (Ref 58), 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	180110M3_2	Standard	12.500	4.66	6595.252	8419.302	9.792	12.0	-4.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.66	7834.280	7958.151	12.305	15.1	20.4	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.65	7113.500	8439.292	10.536	12.9	3.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.66	7757.888	9727.010	9.970	12.2	-2.4	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.66	10243.467	13224.706	9.682	11.8	-5.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.66	8076.588	11503.174	8.776	10.7	-14.1	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.66	10747.179	11865.055	11.322	13.9	10.8	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.66	8749.379	11583.457	9.442	11.6	-7.6	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.66	11695.055	14424.272	10.135	12.4	-0.8	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.222952
RRF SD: 0.0226253, Relative SD: 10.148
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	4.72	1564.524	7146.186	2.737	12.3	-1.8	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.72	1375.187	6976.103	2.464	11.1	-11.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.72	1766.893	8730.687	2.530	11.3	-9.2	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.72	1897.929	8502.860	2.790	12.5	0.1	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.72	2478.382	9392.645	3.298	14.8	18.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.72	2100.719	10144.617	2.588	11.6	-7.1	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.72	2311.924	10475.976	2.759	12.4	-1.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.72	2220.110	10176.034	2.727	12.2	-2.1	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.71	2993.427	11733.247	3.189	14.3	14.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.874623
RRF SD: 0.125135, Relative SD: 14.3074
Response type: Internal Std (Ref 59), 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	180110M3_2	Standard	12.500	4.74	1618.655	2105.094	9.612	11.0	-12.1	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.74	1941.504	2275.136	10.667	12.2	-2.4	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.74	1895.721	2164.789	10.946	12.5	0.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.74	2275.169	1933.818	14.706	16.8	34.5	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.74	3237.610	3714.762	10.894	12.5	-0.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.74	2589.350	2811.424	11.513	13.2	5.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.74	2649.839	3528.814	9.386	10.7	-14.1	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.74	2652.518	3149.809	10.527	12.0	-3.7	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.74	2938.436	3620.976	10.144	11.6	-7.2	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.10533
RRF SD: 0.141708, Relative SD: 12.8204
Response type: Internal Std (Ref 60), 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	180110M3_2	Standard	12.500	5.03	6621.417	6709.350	12.336	11.2	-10.7	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.04	7011.031	6275.866	13.964	12.6	1.1	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	7865.675	5735.000	17.144	15.5	24.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7909.186	7379.163	13.398	12.1	-3.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8990.281	8404.810	13.371	12.1	-3.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	8394.882	6873.380	15.267	13.8	10.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7178.136	7852.201	11.427	10.3	-17.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8067.630	8147.183	12.378	11.2	-10.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	11784.516	9778.104	15.065	13.6	9.0	NO		NO	bb

Compound name: 13C2-8:2 FTS Not used
Response Factor: 0.100865
RRF SD: 0.0423355, Relative SD: 41.9722
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	5.00	644.281	8819.409	0.913	9.1	-27.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.00	889.045	8657.168	1.284	12.7	1.8	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.00	654.053	10153.727	0.805	8.0	-36.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.01	773.072	10362.211	0.933	9.2	-26.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.00	975.410	14579.612	0.836	8.3	-33.7	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.00	1012.922	12281.571	1.031	10.2	-18.2	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.00	1364.890	12975.809	1.315	13.0	4.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.00	1744.984	11578.389	1.884	18.7	49.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.00	3049.447	16242.380	2.347	23.3	86.1	NO		NO	bb

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Compound name: d3-N-MeFOSAA
Response Factor: 0.34512
RRF SD: 0.0402363, Relative SD: 11.6586
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.18	2584.018	7146.186	4.520	13.1	4.8	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.18	2279.408	6976.103	4.084	11.8	-5.3	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.18	2474.278	8730.687	3.543	10.3	-17.9	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.18	3010.187	8502.860	4.425	12.8	2.6	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.18	4004.625	9392.645	5.329	15.4	23.5	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.18	3453.088	10144.617	4.255	12.3	-1.4	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.18	3302.028	10475.976	3.940	11.4	-8.7	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.18	3769.683	10176.034	4.631	13.4	7.3	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.18	3847.682	11733.247	4.099	11.9	-5.0	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.390404
RRF SD: 0.0471008, Relative SD: 12.0646
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.33	3050.200	7146.186	5.335	13.7	9.3	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.33	3056.172	6976.103	5.476	14.0	12.2	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.33	3257.867	8730.687	4.664	11.9	-4.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.33	3281.707	8502.860	4.824	12.4	-1.1	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.33	4319.860	9392.645	5.749	14.7	17.8	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.34	3499.391	10144.617	4.312	11.0	-11.6	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.33	3318.419	10475.976	3.960	10.1	-18.9	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.33	3635.765	10176.034	4.466	11.4	-8.5	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.33	4818.760	11733.247	5.134	13.1	5.2	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.957991
RRF SD: 0.119129, Relative SD: 12.4353
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.35	7775.131	7146.186	13.600	14.2	13.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.35	5841.358	6976.103	10.467	10.9	-12.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.35	6821.692	8730.687	9.767	10.2	-18.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.36	7907.348	8502.860	11.625	12.1	-2.9	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.35	9228.782	9392.645	12.282	12.8	2.6	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.35	10040.164	10144.617	12.371	12.9	3.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.35	9539.813	10475.976	11.383	11.9	-4.9	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.35	9474.396	10176.034	11.638	12.1	-2.8	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.35	13743.283	11733.247	14.641	15.3	22.3	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.599156
RRF SD: 0.0521603, Relative SD: 8.70563
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.63	4189.487	7146.186	7.328	12.2	-2.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.64	3969.021	6976.103	7.112	11.9	-5.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.63	4869.713	8730.687	6.972	11.6	-6.9	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.64	4575.956	8502.860	6.727	11.2	-10.2	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.63	6385.208	9392.645	8.498	14.2	13.5	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.64	5791.910	10144.617	7.137	11.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.63	7164.268	10475.976	8.548	14.3	14.1	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.63	5943.687	10176.034	7.301	12.2	-2.5	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.64	7304.709	11733.247	7.782	13.0	3.9	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.124177
RRF SD: 0.00905884, Relative SD: 7.29512
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	150.000	5.73	10743.257	7146.186	18.792	151.3	0.9	NO		NO	bb
2	2	180110M3_3	Standard	150.000	5.73	9835.262	6976.103	17.623	141.9	-5.4	NO		NO	bb
3	3	180110M3_4	Standard	150.000	5.73	12097.896	8730.687	17.321	139.5	-7.0	NO		NO	bb
4	4	180110M3_5	Standard	150.000	5.73	12431.512	8502.860	18.275	147.2	-1.9	NO		NO	bb
5	5	180110M3_6	Standard	150.000	5.73	16115.154	9392.645	21.447	172.7	15.1	NO		NO	bb
6	6	180110M3_7	Standard	150.000	5.73	14402.728	10144.617	17.747	142.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	150.000	5.73	15466.819	10475.976	18.455	148.6	-0.9	NO		NO	bb
8	8	180110M3_9	Standard	150.000	5.73	14480.274	10176.034	17.787	143.2	-4.5	NO		NO	bb
9	9	180110M3_10	Standard	150.000	5.73	18952.975	11733.247	20.192	162.6	8.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.281715
RRF SD: 0.0301772, Relative SD: 10.712
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	6.10	1955.129	7146.186	3.420	12.1	-2.9	NO		NO	bb
2	2	180110M3_3	Standard	12.500	6.10	1829.135	6976.103	3.278	11.6	-6.9	NO		NO	bb
3	3	180110M3_4	Standard	12.500	6.10	2327.717	8730.687	3.333	11.8	-5.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	6.10	2174.831	8502.860	3.197	11.3	-9.2	NO		NO	bb
5	5	180110M3_6	Standard	12.500	6.10	3158.222	9392.645	4.203	14.9	19.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	6.10	2821.178	10144.617	3.476	12.3	-1.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	6.10	2885.126	10475.976	3.443	12.2	-2.2	NO		NO	bb
8	8	180110M3_9	Standard	12.500	6.10	2620.882	10176.034	3.219	11.4	-8.6	NO		NO	bb
9	9	180110M3_10	Standard	12.500	6.10	3871.496	11733.247	4.124	14.6	17.1	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.184306
RRF SD: 0.0154361, Relative SD: 8.37525
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	150.000	6.12	16238.895	7146.186	28.405	154.1	2.7	NO		NO	bb
2	2	180110M3_3	Standard	150.000	6.12	15620.249	6976.103	27.989	151.9	1.2	NO		NO	bb
3	3	180110M3_4	Standard	150.000	6.12	17774.992	8730.687	25.449	138.1	-7.9	NO		NO	bb
4	4	180110M3_5	Standard	150.000	6.12	18942.303	8502.860	27.847	151.1	0.7	NO		NO	bb
5	5	180110M3_6	Standard	150.000	6.12	24990.723	9392.645	33.258	180.5	20.3	NO		NO	bb
6	6	180110M3_7	Standard	150.000	6.12	21510.641	10144.617	26.505	143.8	-4.1	NO		NO	bb
7	7	180110M3_8	Standard	150.000	6.11	22103.201	10475.976	26.374	143.1	-4.6	NO		NO	bb
8	8	180110M3_9	Standard	150.000	6.12	21279.357	10176.034	26.139	141.8	-5.5	NO		NO	bb
9	9	180110M3_10	Standard	150.000	6.12	25200.256	11733.247	26.847	145.7	-2.9	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.539833
RRF SD: 0.0687366, Relative SD: 12.7329
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	5.000	6.43	1428.470	7146.186	2.499	4.6	-7.4	NO		NO	bb
2	2	180110M3_3	Standard	5.000	6.43	1602.730	6976.103	2.872	5.3	6.4	NO		NO	bb
3	3	180110M3_4	Standard	5.000	6.43	1624.887	8730.687	2.326	4.3	-13.8	NO		NO	bb
4	4	180110M3_5	Standard	5.000	6.43	1502.644	8502.860	2.209	4.1	-18.2	NO		NO	bb
5	5	180110M3_6	Standard	5.000	6.43	2226.881	9392.645	2.964	5.5	9.8	NO		NO	bb
6	6	180110M3_7	Standard	5.000	6.43	2045.703	10144.617	2.521	4.7	-6.6	NO		NO	bb
7	7	180110M3_8	Standard	5.000	6.43	2213.677	10475.976	2.641	4.9	-2.1	NO		NO	bb
8	8	180110M3_9	Standard	5.000	6.43	2470.003	10176.034	3.034	5.6	12.4	NO		NO	bb
9	9	180110M3_10	Standard	5.000	6.43	3028.907	11733.247	3.227	6.0	19.5	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.182261
RRF SD: 0.0217695, Relative SD: 11.9442
Response type: Internal Std (Ref 61), 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 180110M3_2	Standard	150.000	6.24	18600.686	7146.186	32.536	178.5	19.0	NO		NO	bb
2	2 180110M3_3	Standard	150.000	6.24	14371.076	6976.103	25.751	141.3	-5.8	NO		NO	bb
3	3 180110M3_4	Standard	150.000	6.24	17457.375	8730.687	24.994	137.1	-8.6	NO		NO	bb
4	4 180110M3_5	Standard	150.000	6.24	18372.555	8502.860	27.009	148.2	-1.2	NO		NO	bb
5	5 180110M3_6	Standard	150.000	6.24	23253.285	9392.645	30.946	169.8	13.2	NO		NO	bb
6	6 180110M3_7	Standard	150.000	6.24	18111.193	10144.617	22.316	122.4	-18.4	NO		NO	bb
7	7 180110M3_8	Standard	150.000	6.24	23087.781	10475.976	27.548	151.1	0.8	NO		NO	bb
8	8 180110M3_9	Standard	150.000	6.24	20386.021	10176.034	25.042	137.4	-8.4	NO		NO	bb
9	9 180110M3_10	Standard	150.000	6.24	28074.316	11733.247	29.909	164.1	9.4	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.172538
RRF SD: 0.024293, Relative SD: 14.0798
Response type: Internal Std (Ref 61), 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 180110M3_2	Standard	150.000	6.40	16885.416	7146.186	29.536	171.2	14.1	NO		NO	bb
2	2 180110M3_3	Standard	150.000	6.40	13110.849	6976.103	23.492	136.2	-9.2	NO		NO	bb
3	3 180110M3_4	Standard	150.000	6.39	16446.465	8730.687	23.547	136.5	-9.0	NO		NO	bb
4	4 180110M3_5	Standard	150.000	6.39	16689.393	8502.860	24.535	142.2	-5.2	NO		NO	bb
5	5 180110M3_6	Standard	150.000	6.40	22391.037	9392.645	29.799	172.7	15.1	NO		NO	bb
6	6 180110M3_7	Standard	150.000	6.40	19962.660	10144.617	24.598	142.6	-5.0	NO		NO	bb
7	7 180110M3_8	Standard	150.000	6.39	22425.359	10475.976	26.758	155.1	3.4	NO		NO	bb
8	8 180110M3_9	Standard	150.000	6.39	16106.103	10176.034	19.784	114.7	-23.6	NO		NO	bb
9	9 180110M3_10	Standard	150.000	6.39	28984.094	11733.247	30.878	179.0	19.3	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
Response type: Internal Std (Ref 54), 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	180110M3_2	Standard	12.500	1.33	7508.845	7508.845	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	1.34	7057.356	7057.356	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	1.33	8001.987	8001.987	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	1.33	8507.537	8507.537	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	1.33	11925.119	11925.119	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	1.34	10276.120	10276.120	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	1.33	10906.643	10906.643	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	1.34	9827.420	9827.420	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	1.34	14467.951	14467.951	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	3.08	8819.409	8819.409	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.09	8657.168	8657.168	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.08	10153.727	10153.727	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.08	10362.211	10362.211	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.08	14579.612	14579.612	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.09	12281.571	12281.571	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.09	12975.809	12975.809	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.08	11578.389	11578.389	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.09	16242.380	16242.380	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 56), 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	180110M3_2	Standard	12.500	3.85	2278.692	2278.692	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.86	2027.751	2027.751	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.85	2588.349	2588.349	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.86	2638.712	2638.712	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.85	3243.043	3243.043	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.86	2945.932	2945.932	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.85	3128.825	3128.825	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.85	3222.897	3222.897	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.85	3518.808	3518.808	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), 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	180110M3_2	Standard	12.500	4.22	7716.699	7716.699	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.22	8022.848	8022.848	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.22	9839.251	9839.251	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.22	9158.829	9158.829	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.22	13168.367	13168.367	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.23	12177.514	12177.514	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.23	11624.087	11624.087	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.22	9690.272	9690.272	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.23	14028.530	14028.530	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 8.77708e-017, Relative SD: 8.77708e-015
Response type: Internal Std (Ref 58), 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	180110M3_2	Standard	12.500	4.65	8419.302	8419.302	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.66	7958.151	7958.151	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.65	8439.292	8439.292	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.66	9727.010	9727.010	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.66	13224.706	13224.706	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.66	11503.174	11503.174	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.66	11865.055	11865.055	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.66	11583.457	11583.457	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.66	14424.272	14424.272	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 5.55112e-017, Relative SD: 5.55112e-015
Response type: Internal Std (Ref 59), 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	180110M3_2	Standard	12.500	4.74	2105.094	2105.094	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.74	2275.136	2275.136	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.74	2164.789	2164.789	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.74	1933.818	1933.818	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.74	3714.762	3714.762	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.74	2811.424	2811.424	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.74	3528.814	3528.814	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.74	3149.809	3149.809	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.74	3620.976	3620.976	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 60), 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	180110M3_2	Standard	12.500	5.03	6709.350	6709.350	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.03	6275.866	6275.866	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	5735.000	5735.000	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7379.163	7379.163	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8404.810	8404.810	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	6873.380	6873.380	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7852.201	7852.201	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8147.183	8147.183	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	9778.104	9778.104	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.35	7146.186	7146.186	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.35	6976.103	6976.103	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.35	8730.687	8730.687	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.36	8502.860	8502.860	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.35	9392.645	9392.645	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.36	10144.617	10144.617	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.35	10475.976	10475.976	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.35	10176.034	10176.034	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.35	11733.247	11733.247	12.500	12.5	0.0	NO		NO	bb

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9991	NO	
2	2	PFPeA	0.9994	NO	
3	3	PFBS	0.9996	NO	
4	4	PFHxA	0.9981	NO	
5	5	PFHpA	0.9997	NO	
6	6	L-PFHxS	0.9982	NO	
7	8	6:2 FTS	0.9952	NO	
8	9	L-PFOA	0.9985	NO	
9	11	PFHpS	0.9994	NO	
10	12	PFNA	0.9981	NO	
11	13	PFOSA	0.9987	NO	
12	14	L-PFOS	0.9974	NO	
13	16	PFDA	0.9999	NO	
14	17	8:2 FTS	0.9977	NO	
15	18	N-MeFOSAA	0.9914	NO	
16	19	N-EtFOSAA	0.9991	NO	
17	20	PFUdA	0.9979	NO	
18	21	PFDS	0.9973	NO	
19	22	PFDoA	0.9987	NO	
20	23	N-MeFOSA	0.9991	NO	
21	24	PFTrDA	0.9995	NO	
22	25	PFTeDA	0.9995	NO	
23	26	N-EtFOSA	0.9999	NO	
24	27	PFHxDA	0.9977	NO	
25	28	PFODA	0.9980	NO	
26	29	N-MeFOSE	0.9980	NO	
27	30	N-EtFOSE	0.9991	NO	
28	31	13C3-PFBA		NO	4.586
29	32	13C3-PFPeA		NO	3.889
30	33	13C3-PFBS		NO	6.327
31	34	13C2-PFHxA		NO	4.819

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD	
32	35	13C4-PFHpA		NO	3.651	
33	36	18O2-PFHxS		NO	7.498	
34	37	13C2-6:2 FTS		NO	37.569	not used
35	38	13C2-PFOA		NO	7.432	
36	39	13C5-PFNA		NO	10.320	
37	40	13C8-PFOSA		NO	10.148	
38	41	13C8-PFOS		NO	14.307	
39	42	13C2-PFDA		NO	12.820	
40	43	13C2-8:2 FTS		NO	41.972	Not used
41	44	d3-N-MeFOSAA		NO	11.659	
42	45	d5-N-EtFOSAA		NO	12.065	
43	46	13C2-PFUdA		NO	12.435	
44	47	13C2-PFDoA		NO	8.706	
45	48	d3-N-MeFOSA		NO	7.295	
46	49	13C2-PFTeDA		NO	10.712	
47	50	d5-N-ETFOSA		NO	8.375	
48	51	13C2-PFHxDA		NO	12.733	
49	52	d7-N-MeFOSE		NO	11.944	
50	53	d9-N-EtFOSE		NO	14.080	
51	54	13C4-PFBA		NO	0.000	
52	55	13C5-PFHxA		NO	0.000	
53	56	13C3-PFHxS		NO	0.000	
54	57	13C8-PFOA		NO	0.000	
55	58	13C9-PFNA		NO	0.000	
56	59	13C4-PFOS		NO	0.000	
57	60	13C6-PFDA		NO	0.000	
58	61	13C7-PFUdA		NO	0.000	

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Thursday, January 11, 2018 15:27:52 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:26:25
Calibration: 11 Jan 2018 15:27:52

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49

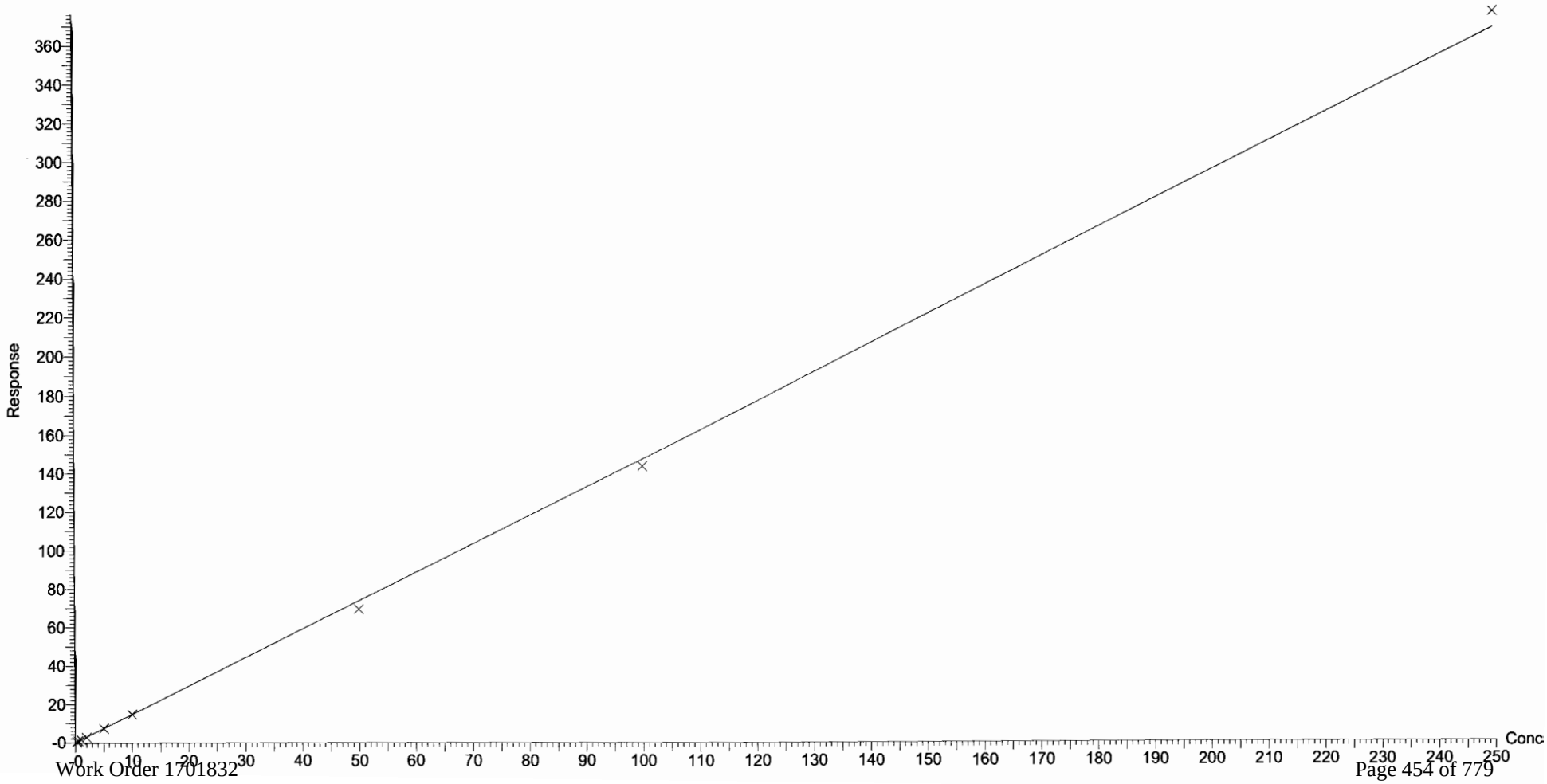
Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

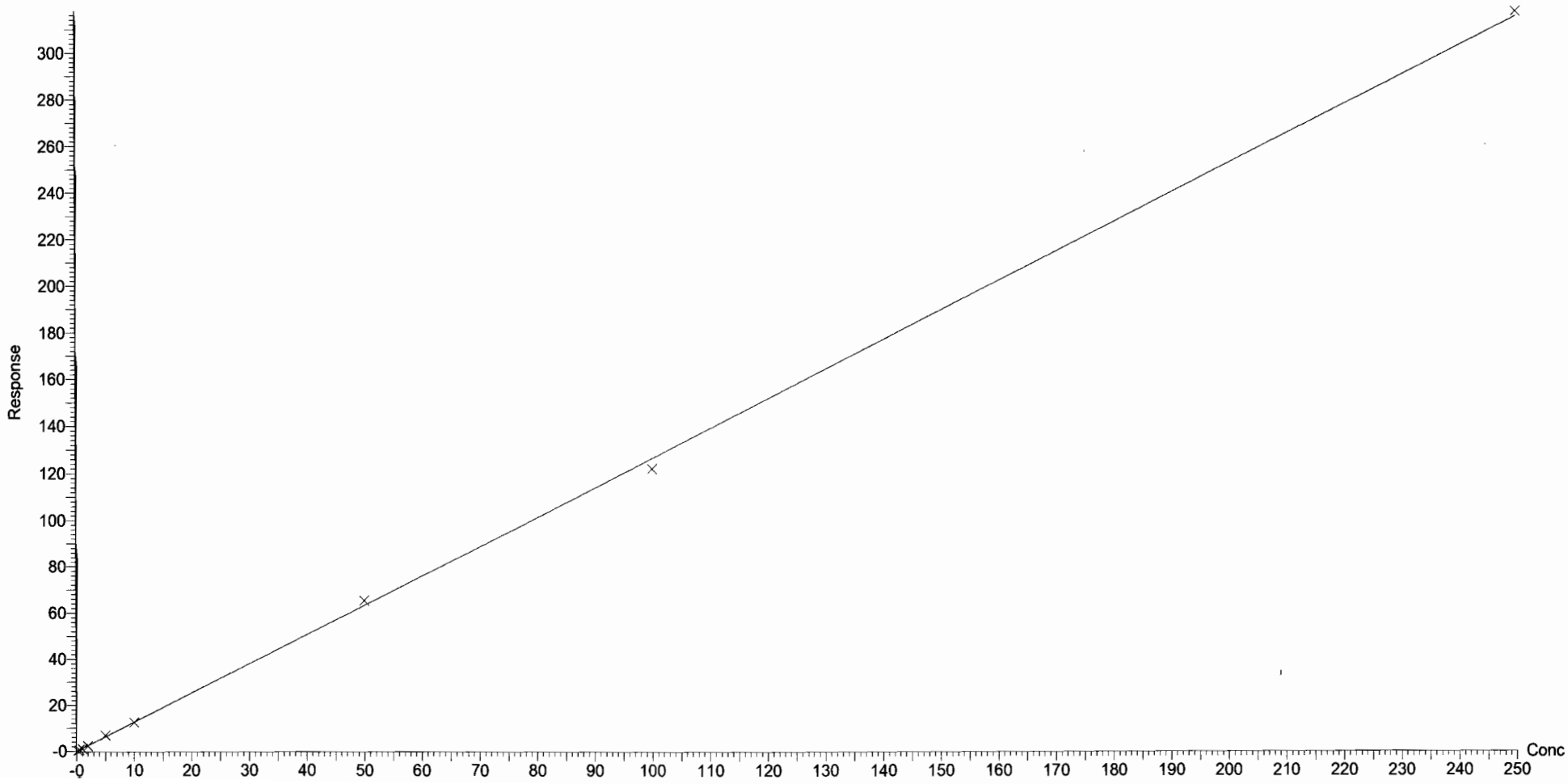
Compound name: PFBA
Correlation coefficient: r = 0.999526, r^2 = 0.999051
Calibration curve: 1.47179 * x + -0.0484807
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

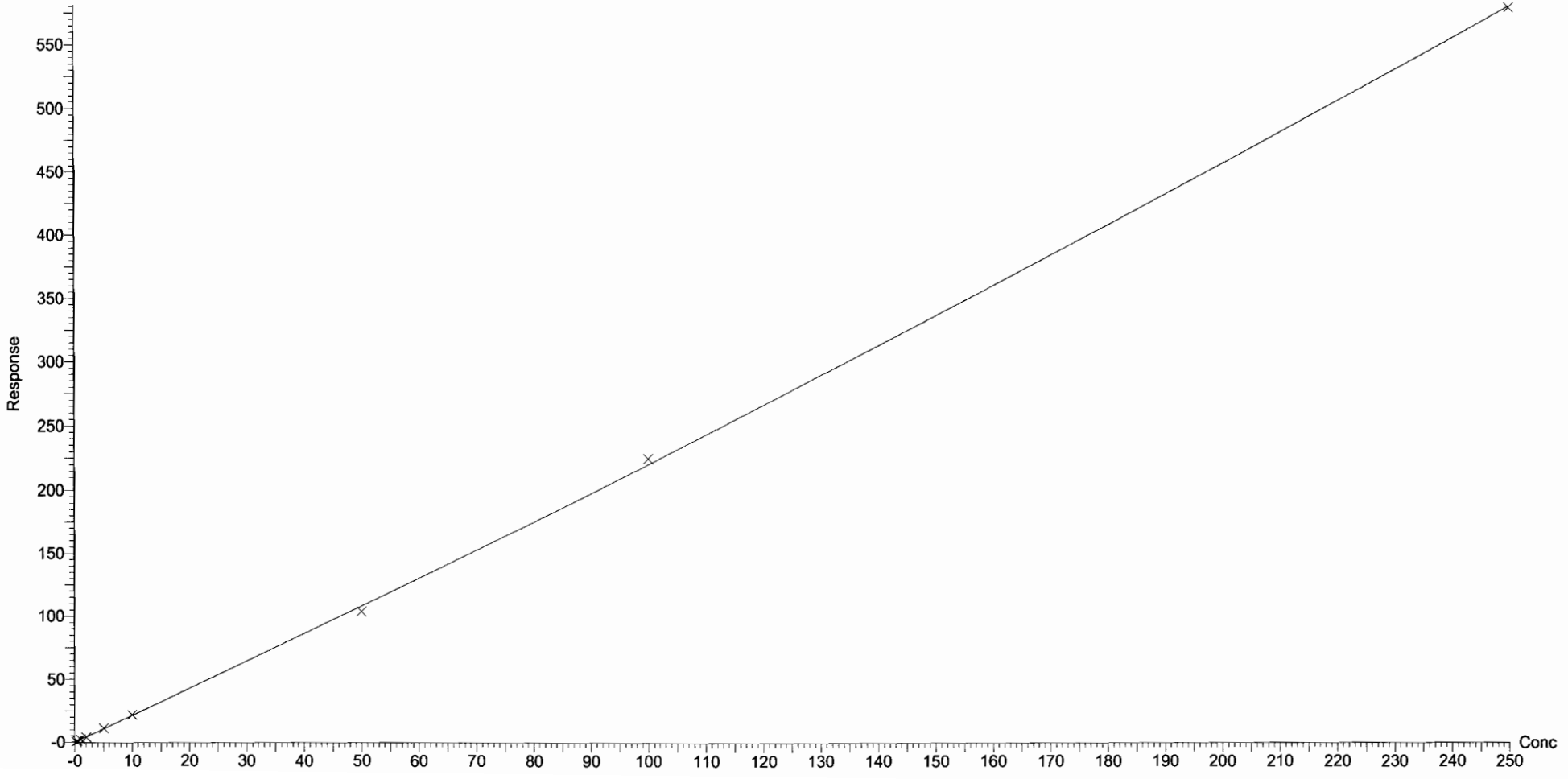
Compound name: PFPeA
Correlation coefficient: r = 0.999692, r^2 = 0.999384
Calibration curve: 1.26321 * x + -0.0617763
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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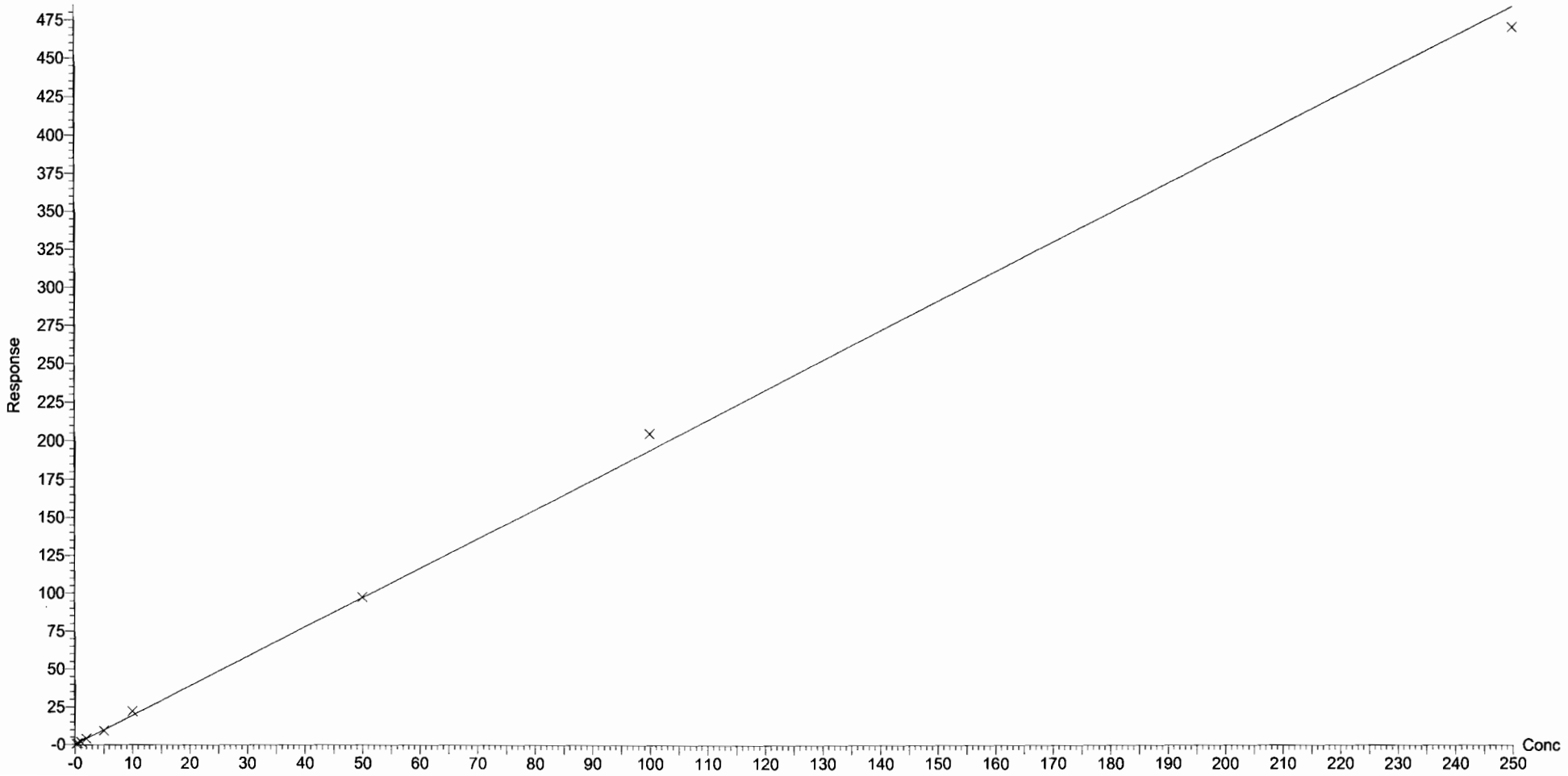
Compound name: PFBS
Coefficient of Determination: R^2 = 0.999640
Calibration curve: 0.00081362 * x^2 + 2.12043 * x + 0.00999409
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



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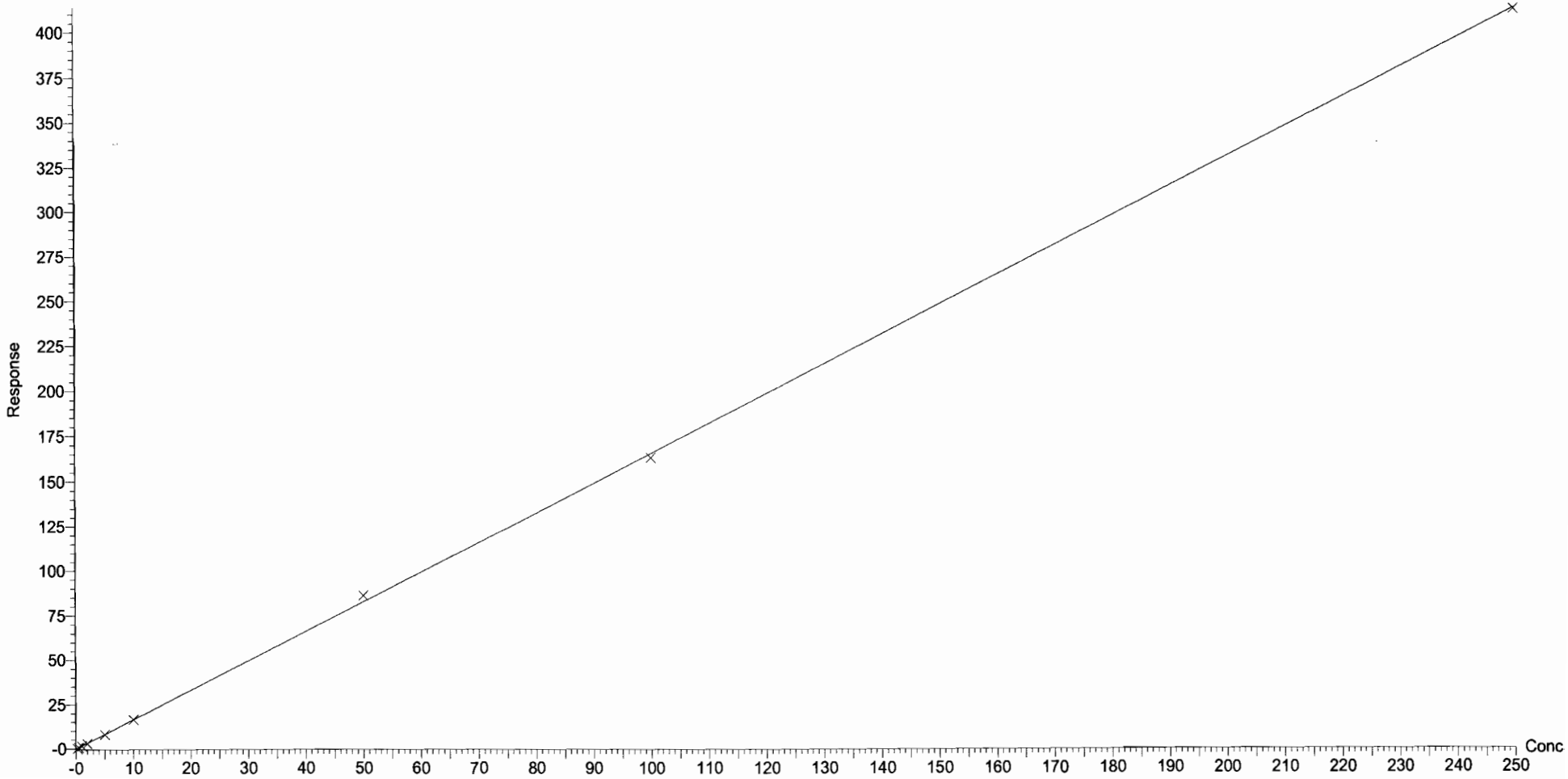
Compound name: PFHxA
Correlation coefficient: r = 0.999048, r^2 = 0.998098
Calibration curve: 1.9385 * x + -0.0246659
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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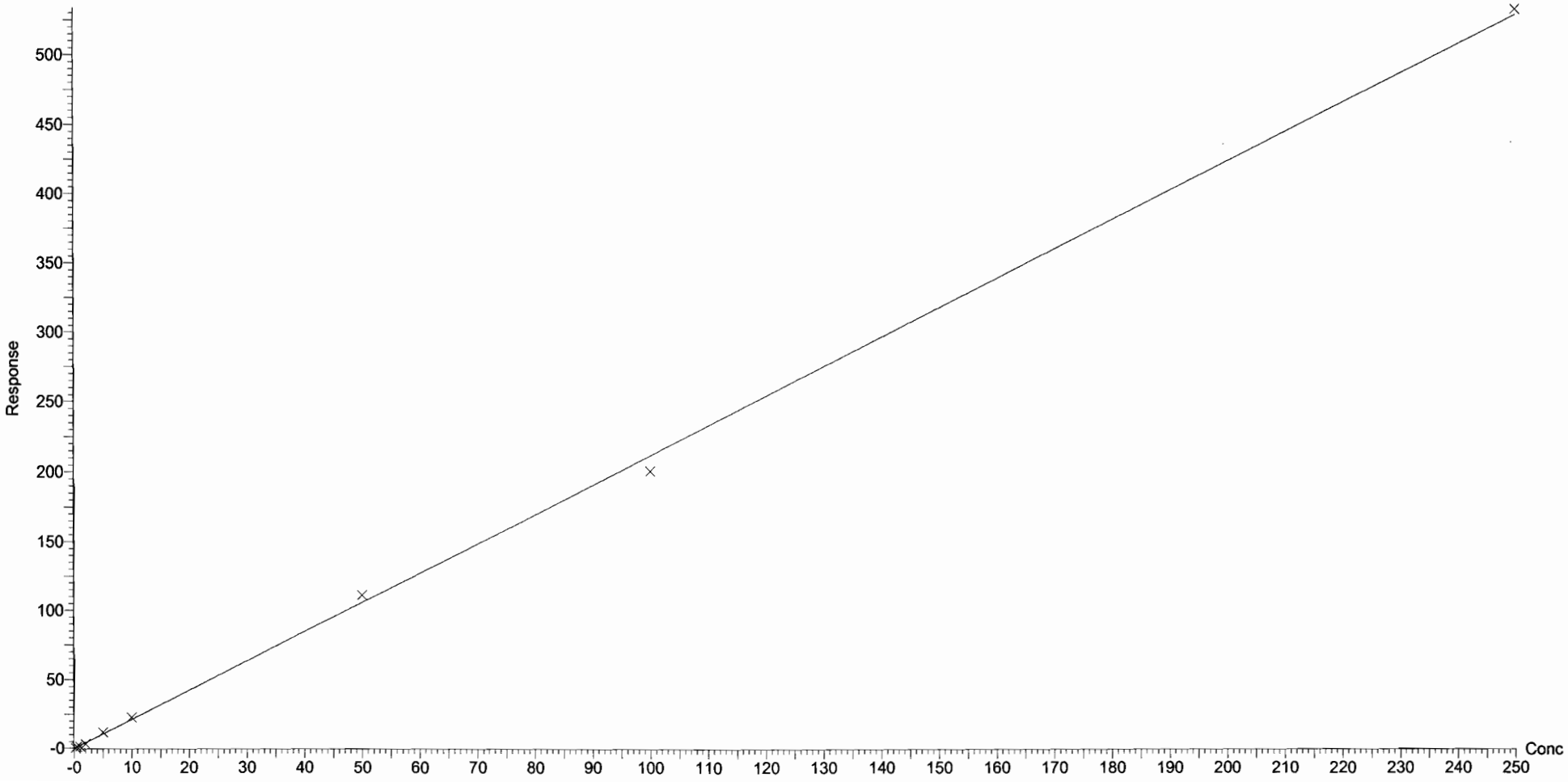
Compound name: PFHpA
Correlation coefficient: r = 0.999839, r^2 = 0.999677
Calibration curve: 1.65421 * x + -0.120464
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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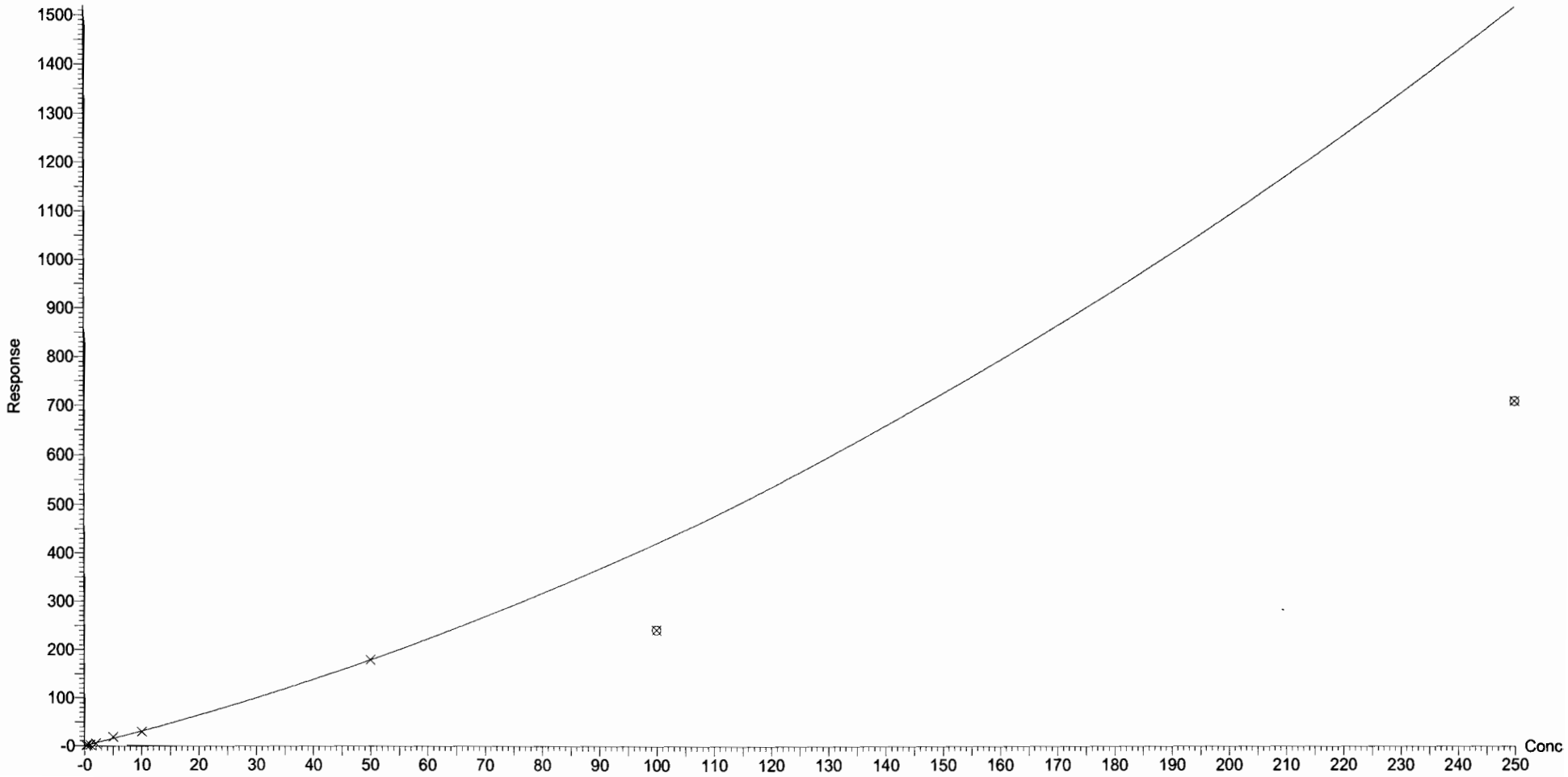
Compound name: L-PFHxS
Correlation coefficient: r = 0.999101, r^2 = 0.998203
Calibration curve: 2.11856 * x + -0.208942
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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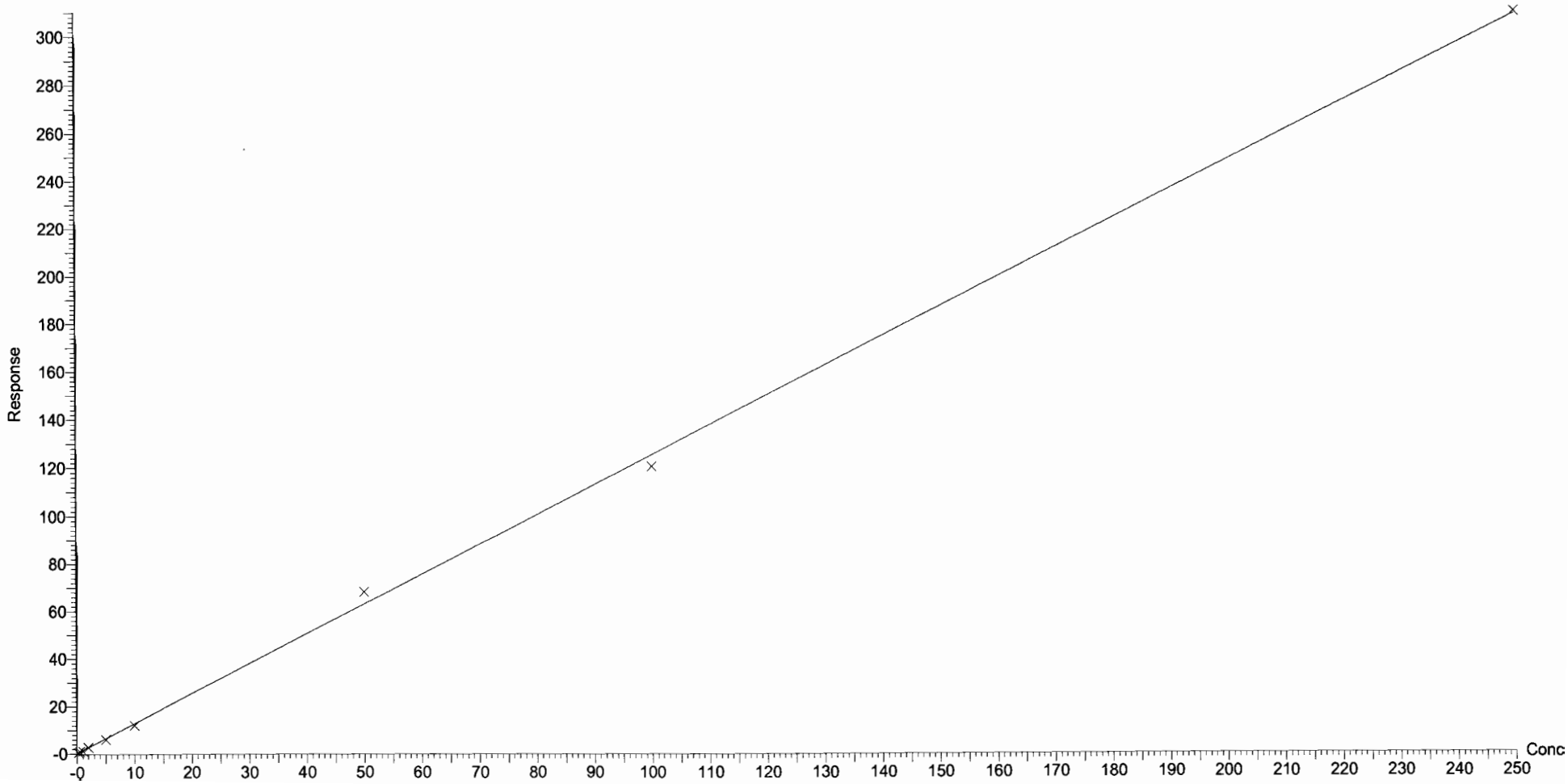
Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.995180
Calibration curve: 0.0125368 * x^2 + 2.94435 * x + -0.110501
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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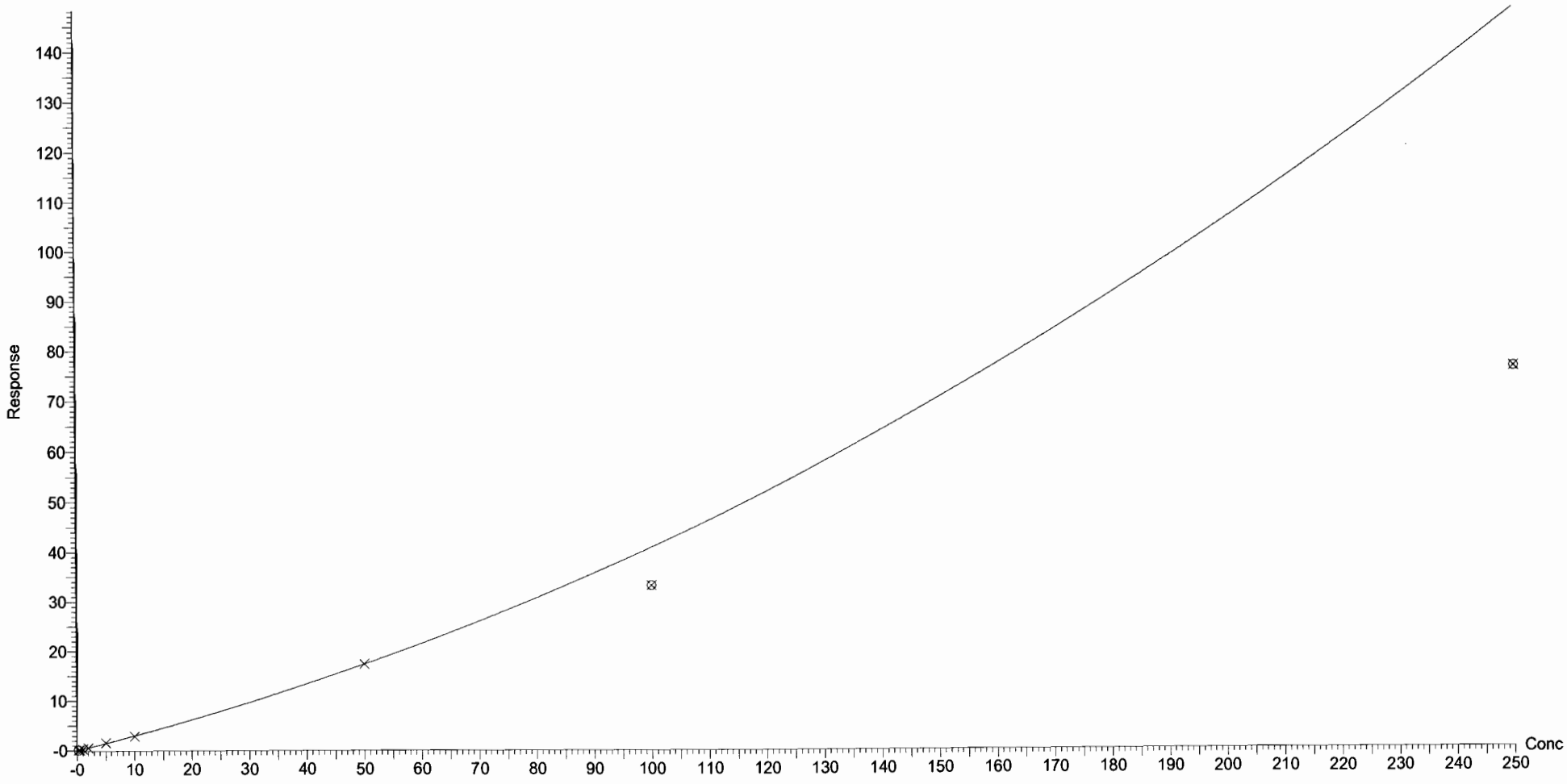
Compound name: L-PFOA
Coefficient of Determination: R^2 = 0.998464
Calibration curve: -9.7055e-005 * x^2 + 1.26022 * x + 0.185633
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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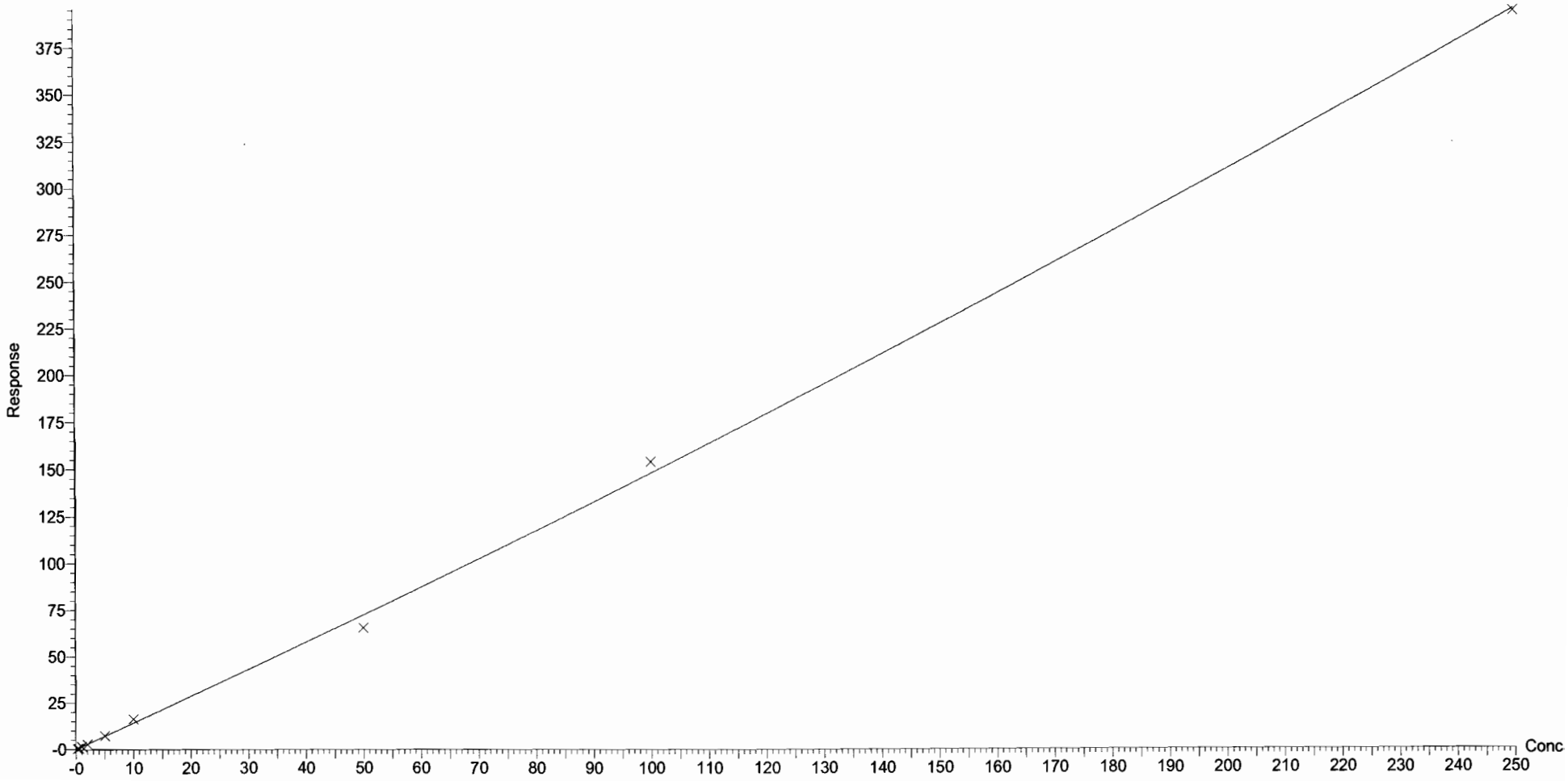
Compound name: PFHpS
Coefficient of Determination: R^2 = 0.999403
Calibration curve: 0.00123665 * x^2 + 0.283611 * x + -0.0187761
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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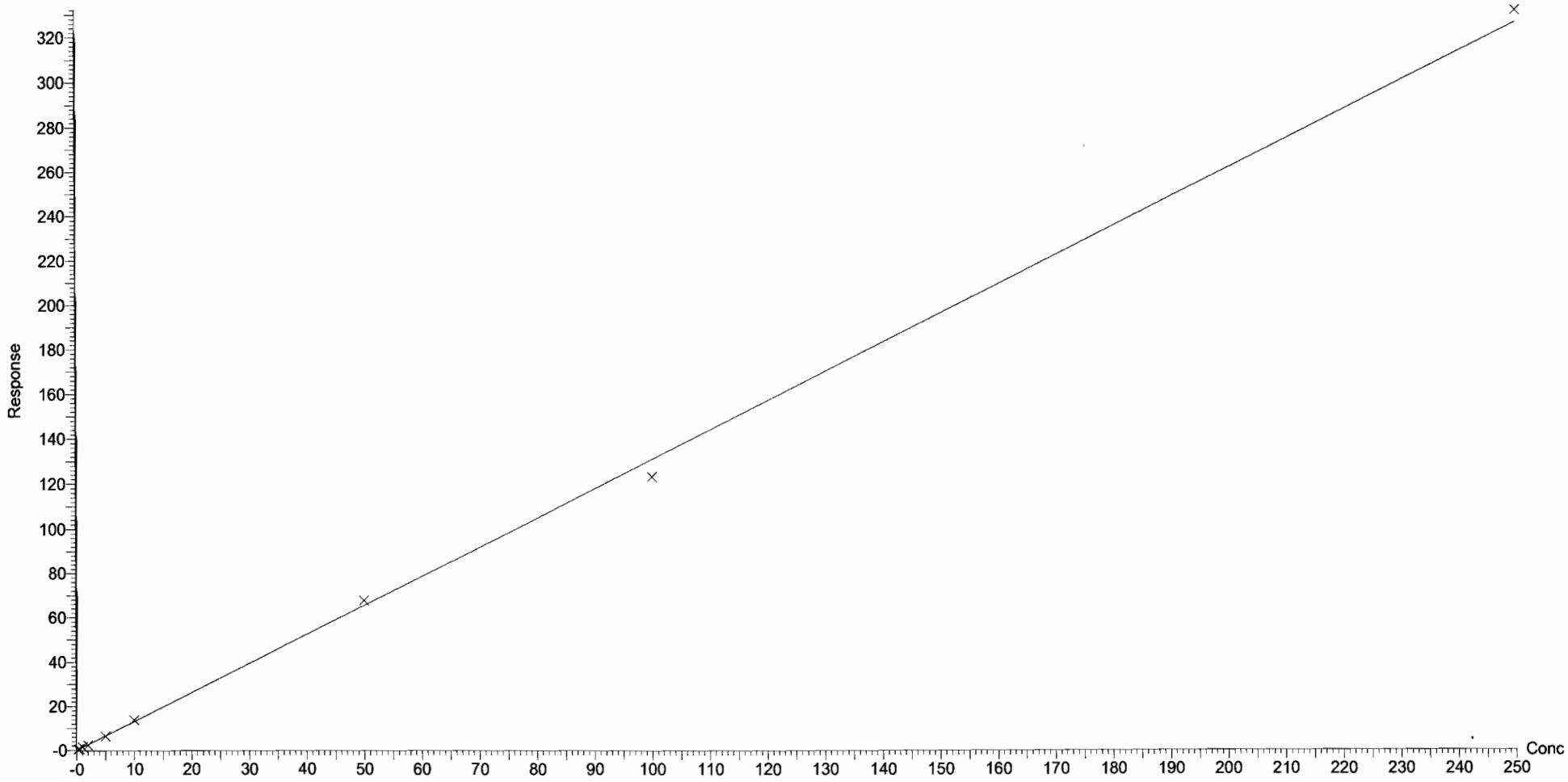
Compound name: PFNA
Coefficient of Determination: R^2 = 0.998092
Calibration curve: 0.000693223 * x^2 + 1.40868 * x + 0.0082777
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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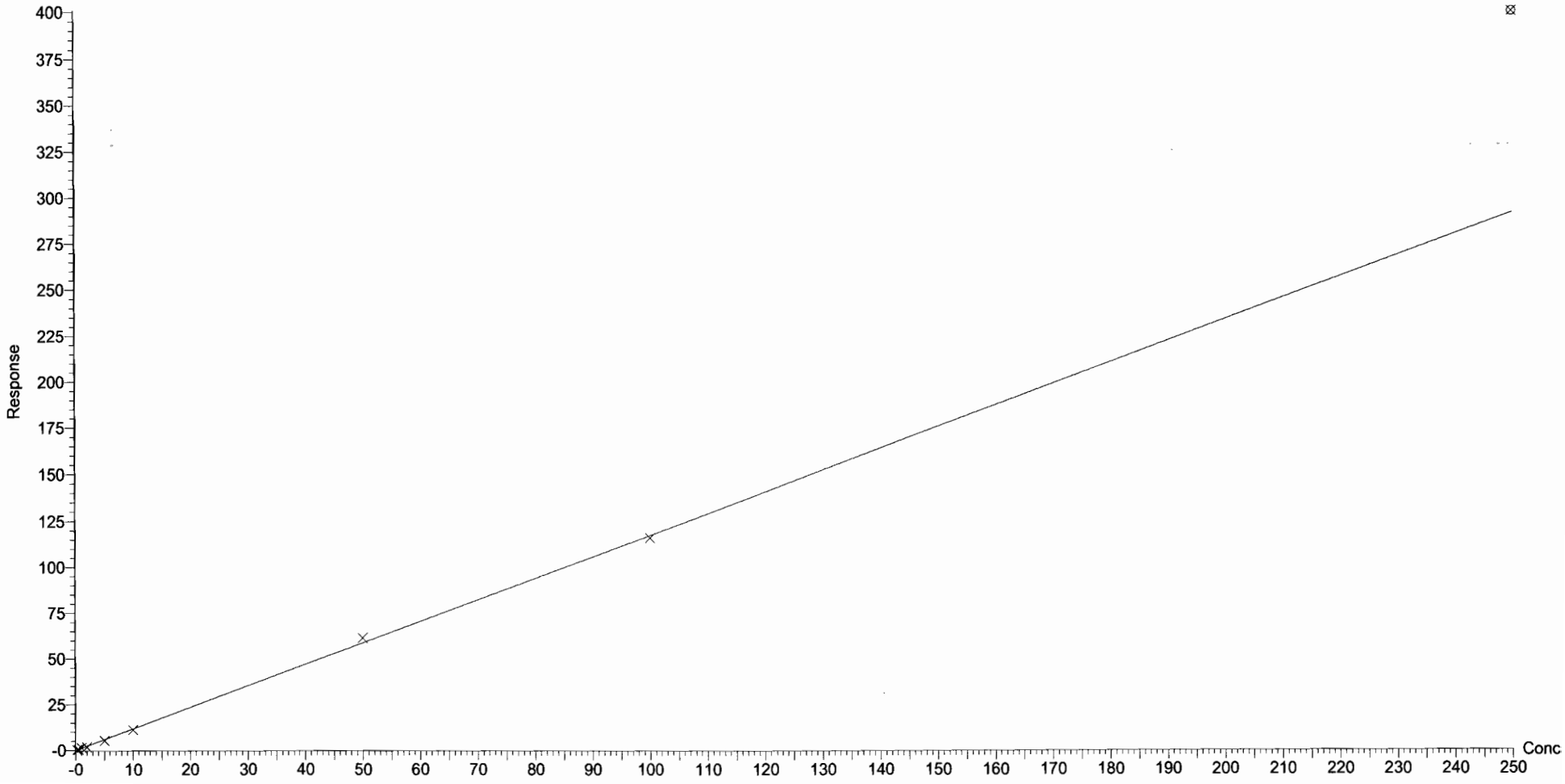
Compound name: PFOSA
Correlation coefficient: r = 0.999329, r^2 = 0.998658
Calibration curve: 1.30775 * x + 0.0347805
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

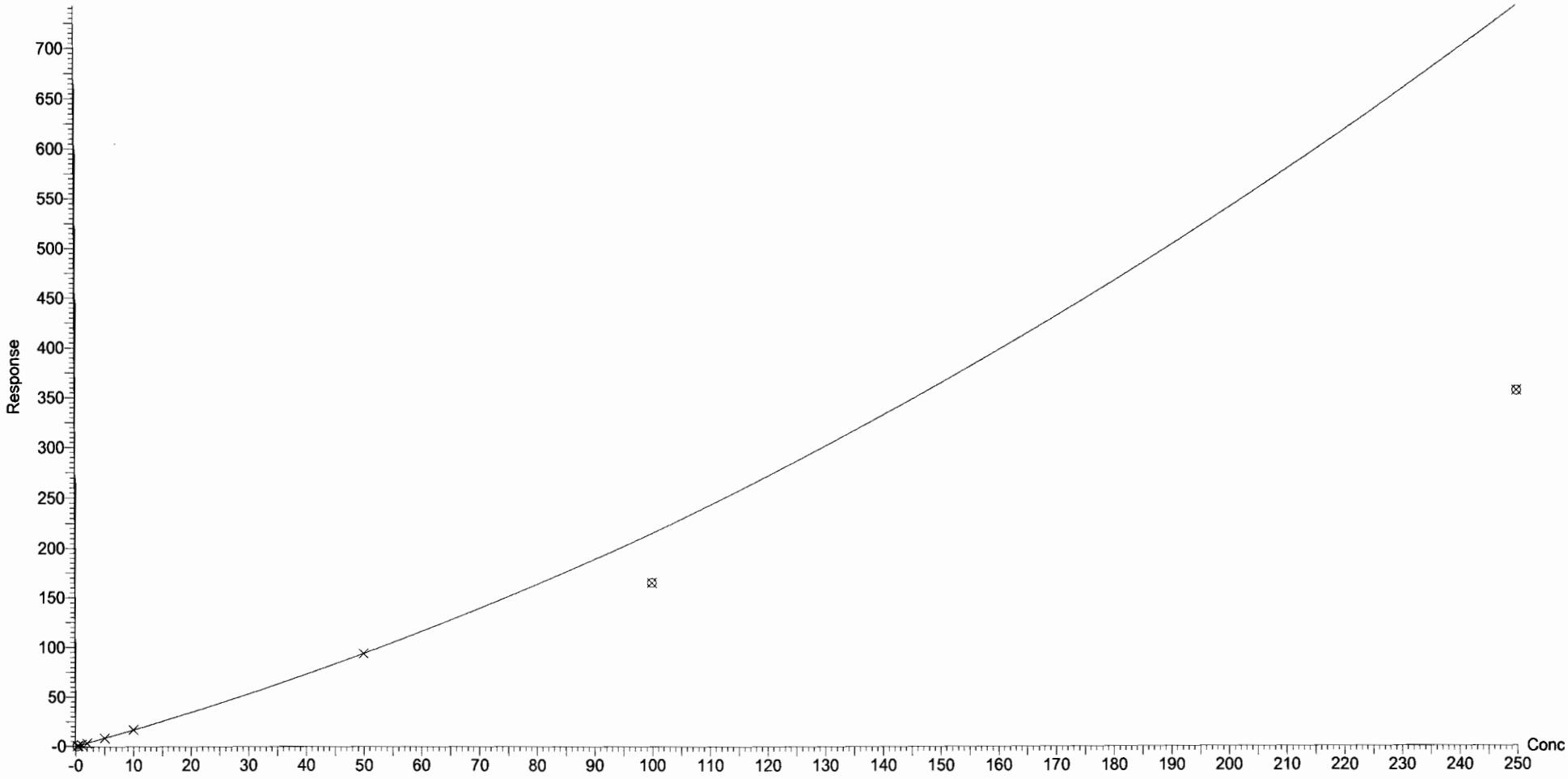
Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.997444
Calibration curve: -3.62431e-005 * x^2 + 1.17583 * x + 0.0311451
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

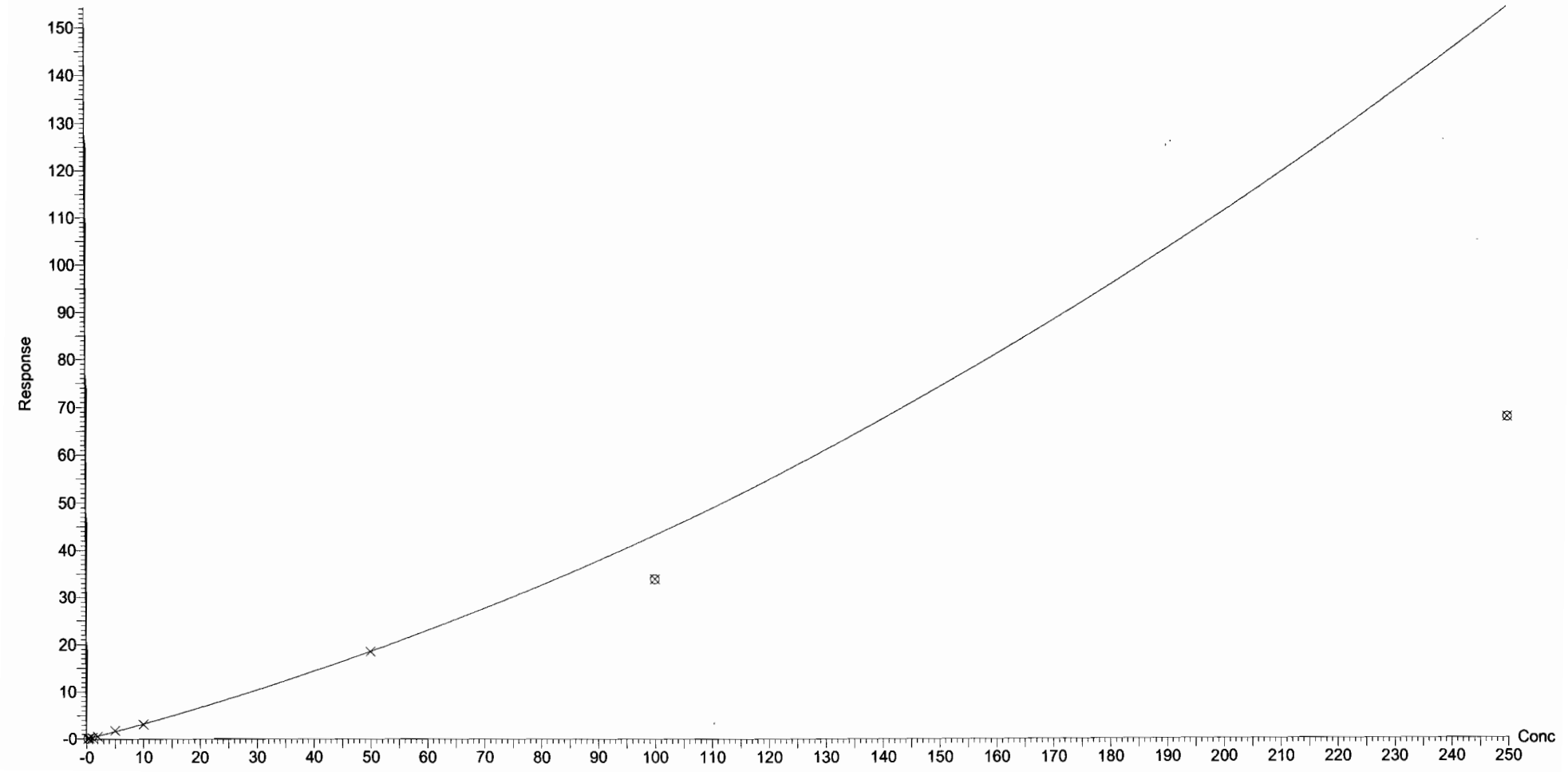
Compound name: PFDA
Coefficient of Determination: R^2 = 0.999932
Calibration curve: 0.00546964 * x^2 + 1.60165 * x + -0.235203
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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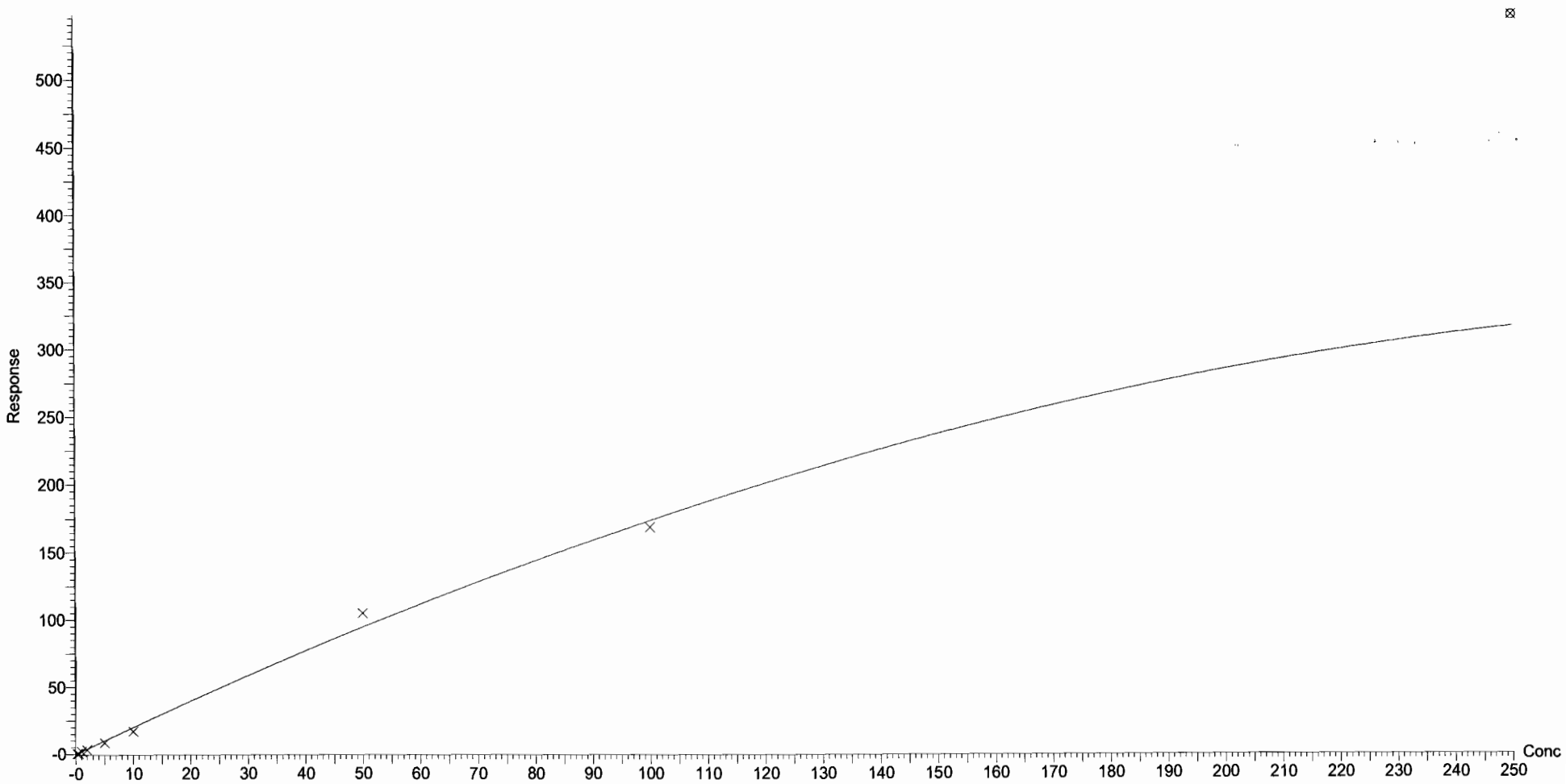
Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997732
Calibration curve: 0.00123859 * x^2 + 0.307368 * x + -0.0309813
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

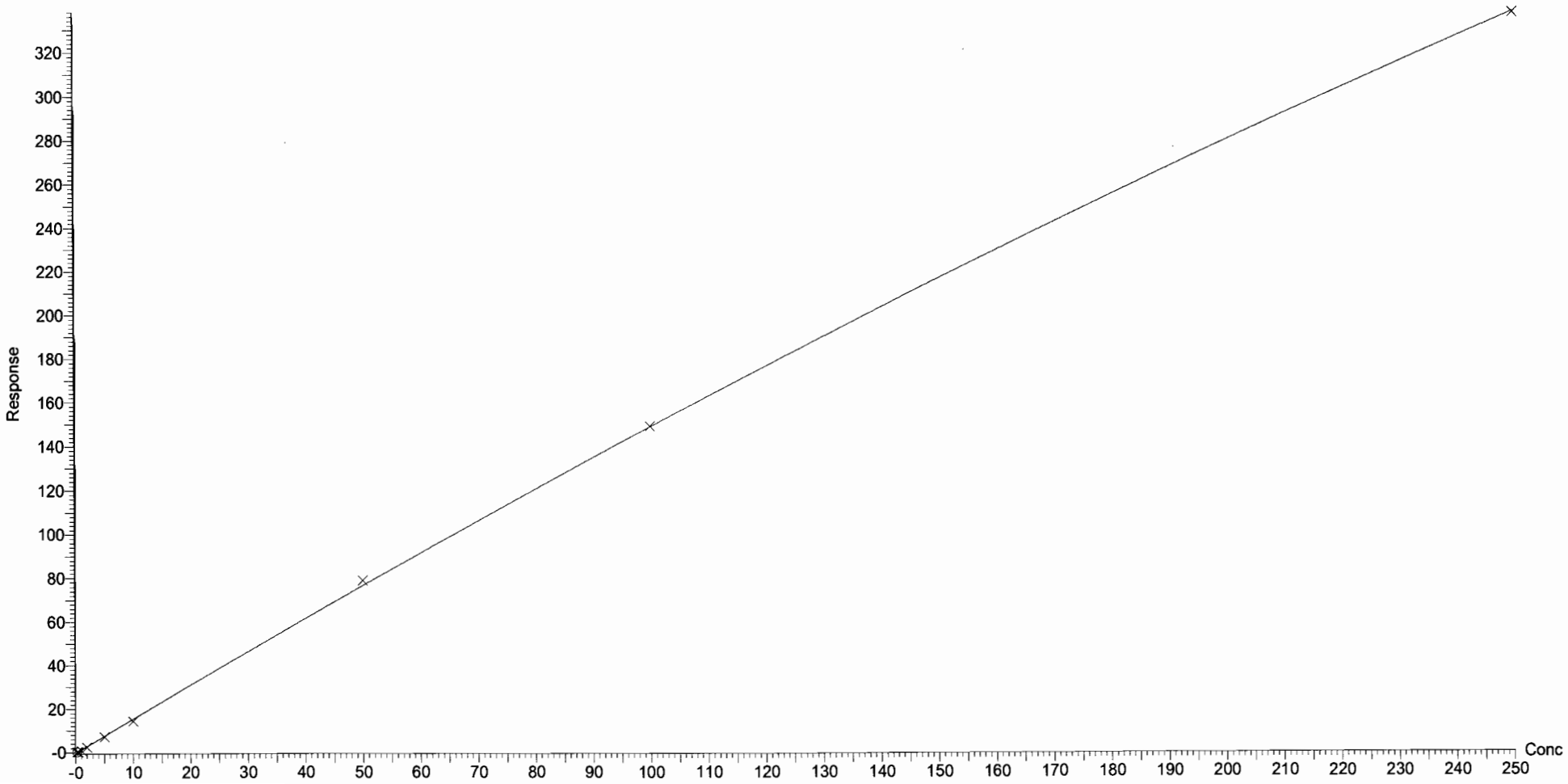
Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.991446
Calibration curve: -0.00315911 * x^2 + 2.0555 * x + -0.320574
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999097
Calibration curve: -0.000915461 * x^2 + 1.58258 * x + -0.401153
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
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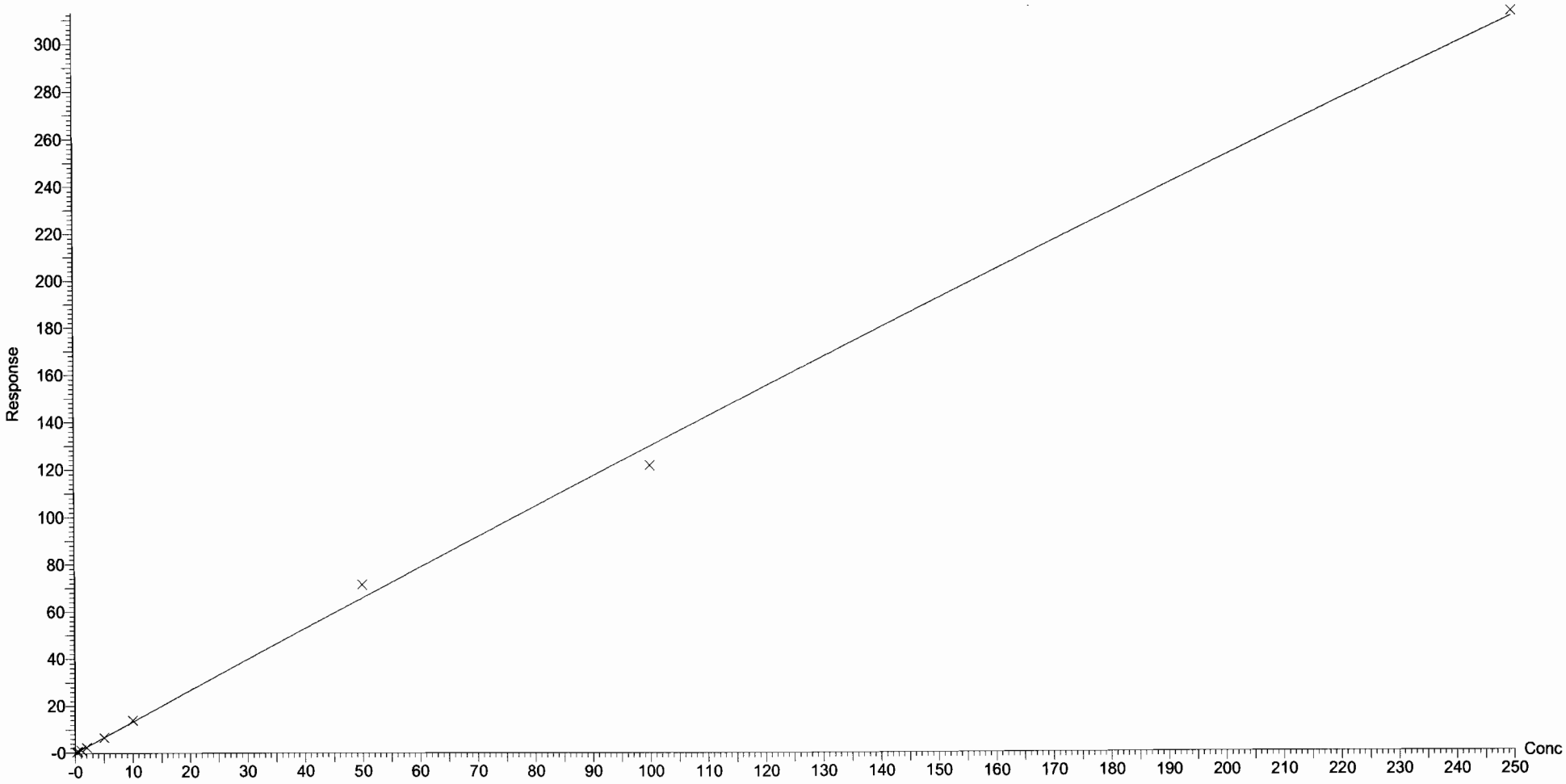


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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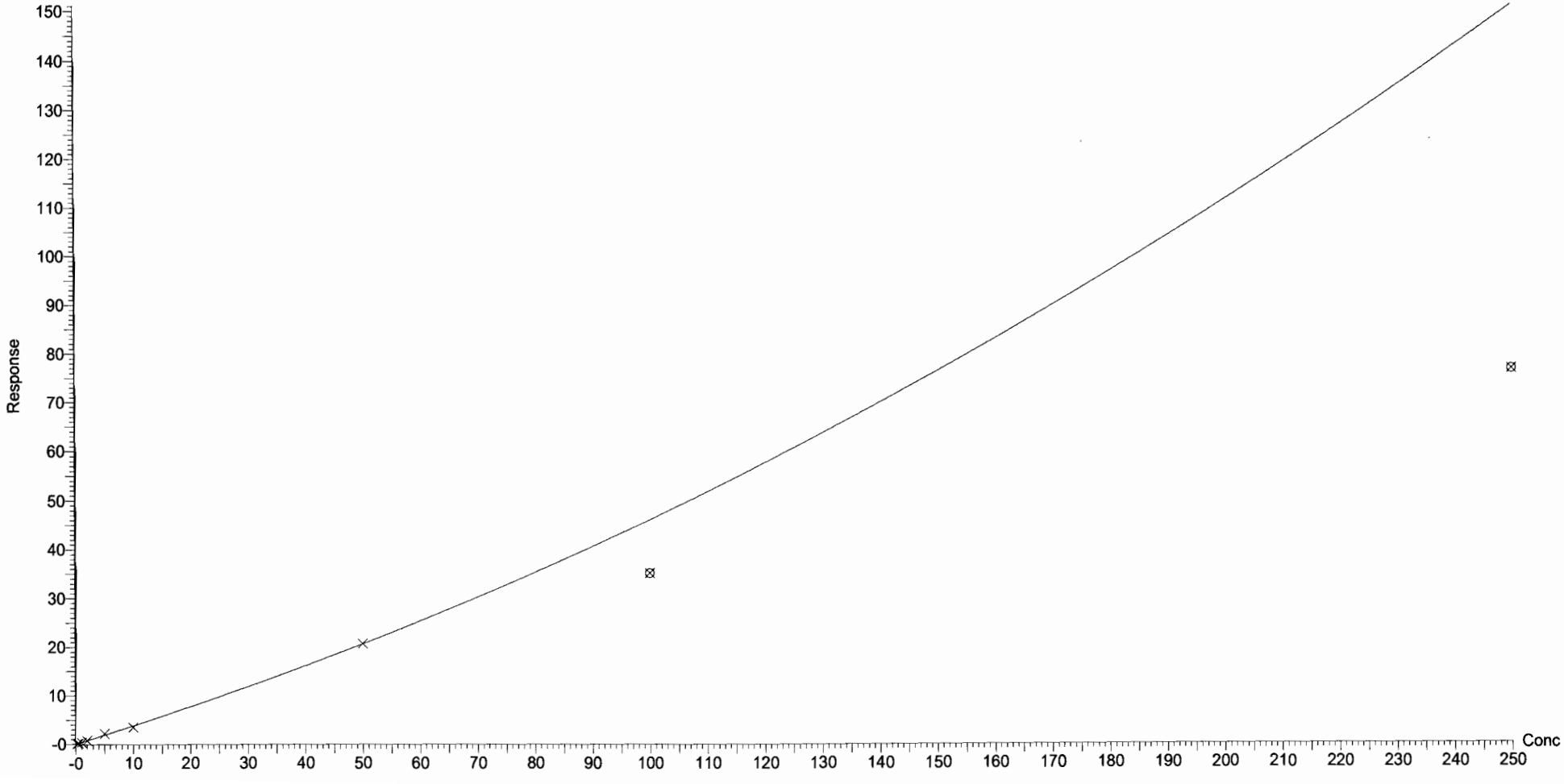
Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997858
Calibration curve: -0.000355567 * x^2 + 1.33241 * x + -0.0949136
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

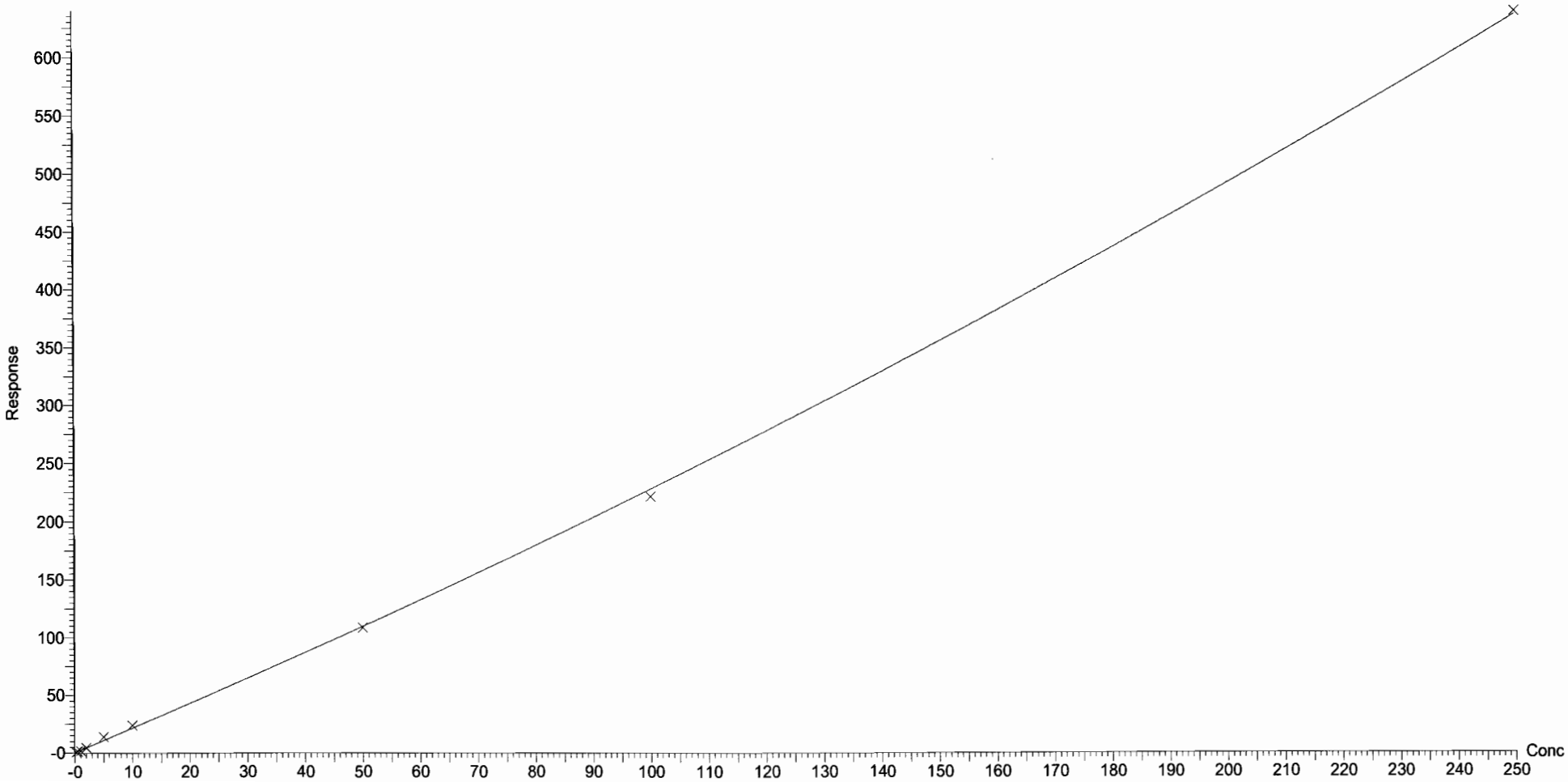
Compound name: PFDS
Coefficient of Determination: R^2 = 0.997344
Calibration curve: 0.000962848 * x^2 + 0.363602 * x + -0.00209133
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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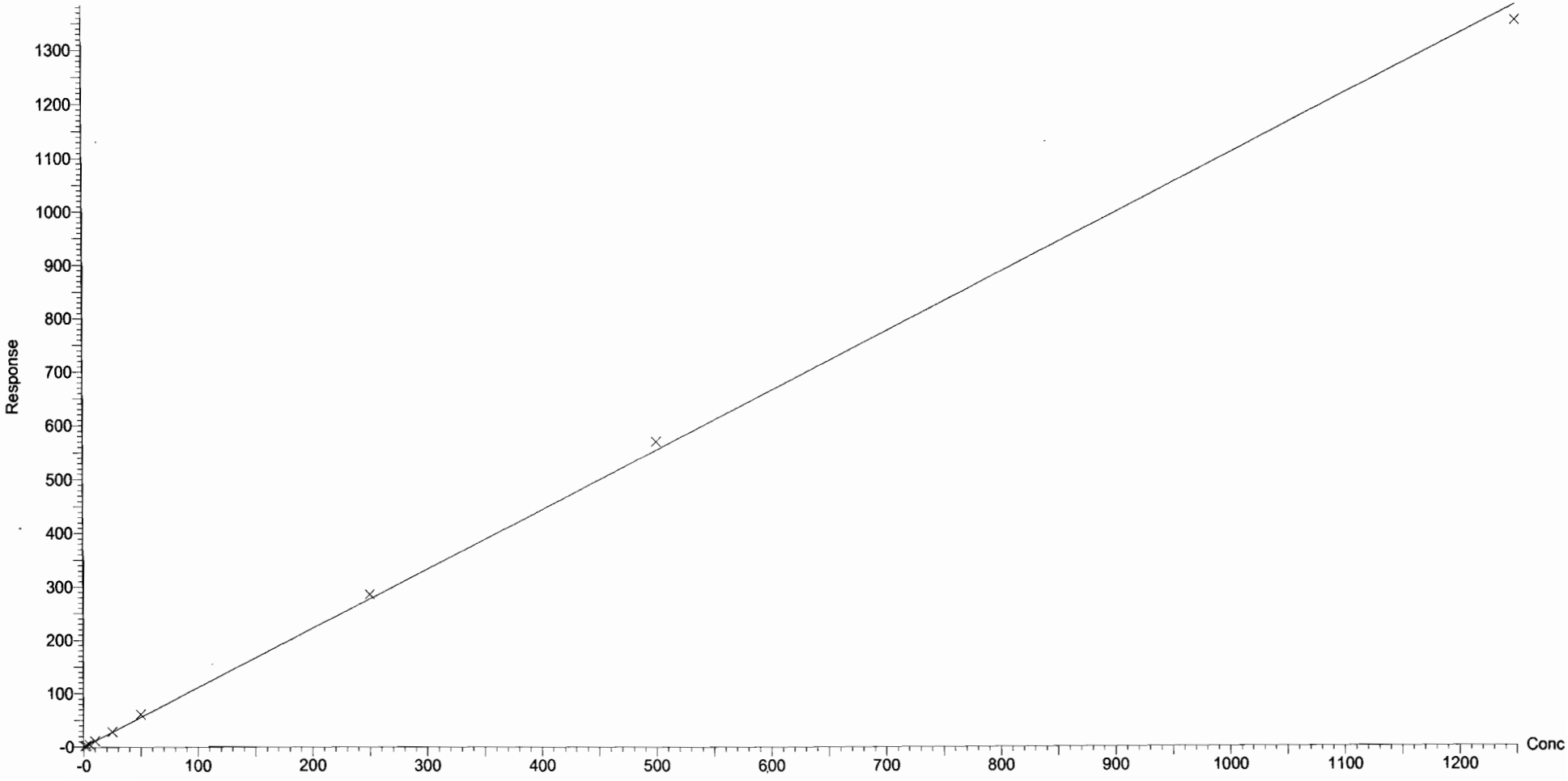
Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998683
Calibration curve: 0.00180407 * x^2 + 2.09493 * x + 0.150658
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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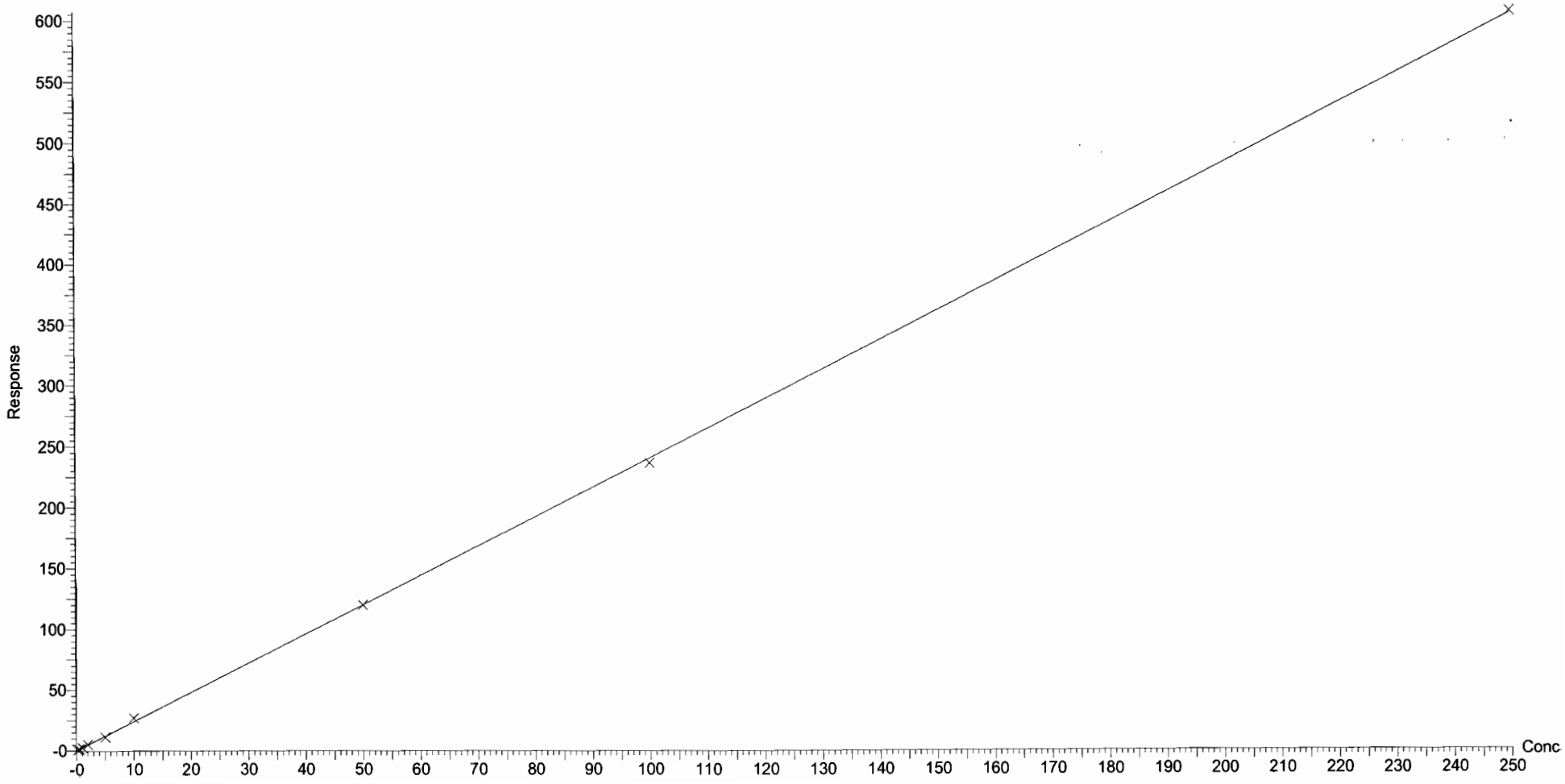
Compound name: N-MeFOSA
Correlation coefficient: r = 0.999537, r^2 = 0.999075
Calibration curve: 1.10666 * x + -0.170034
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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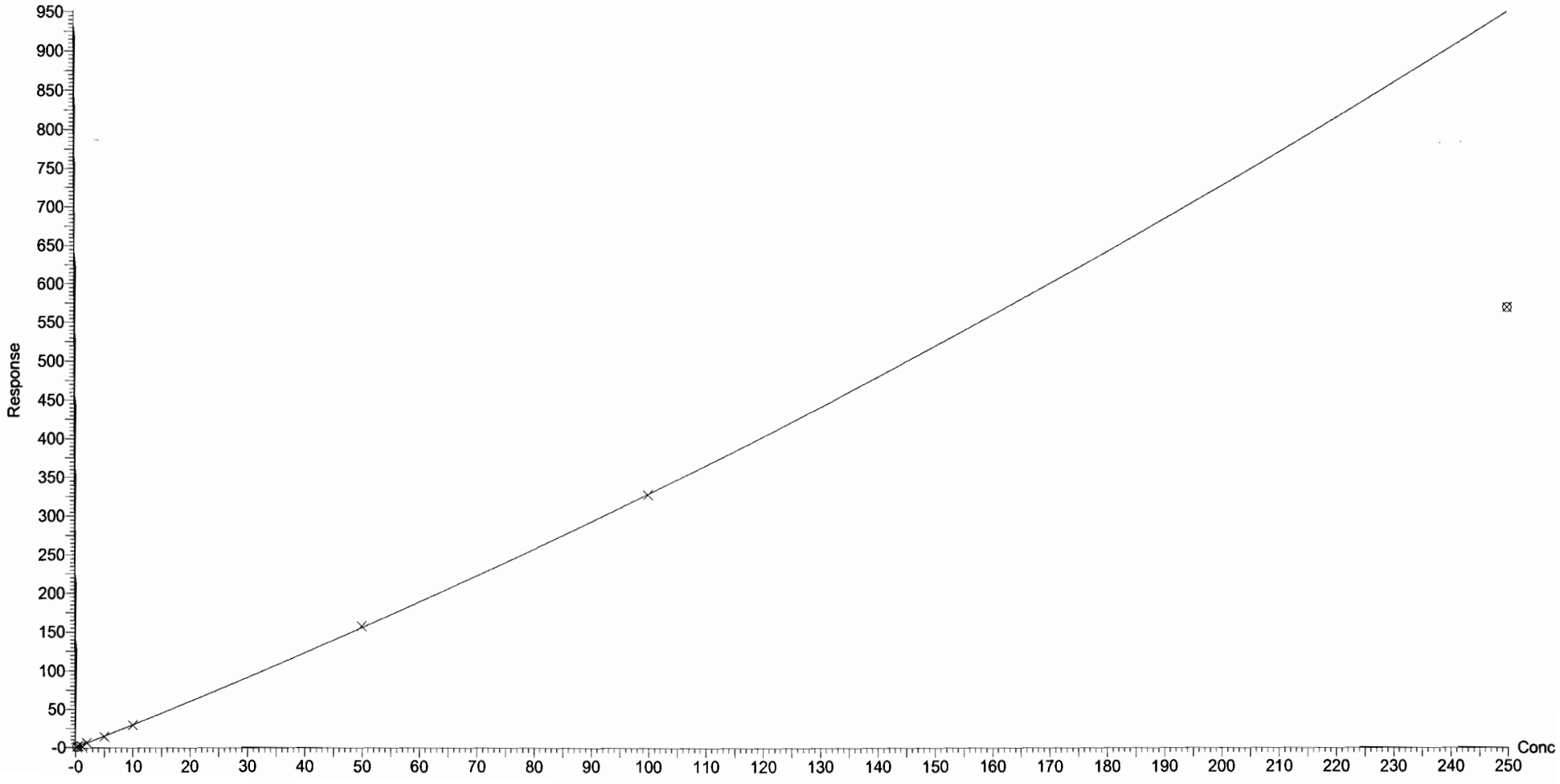
Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: 0.000122781 * x^2 + 2.39065 * x + 0.000840038
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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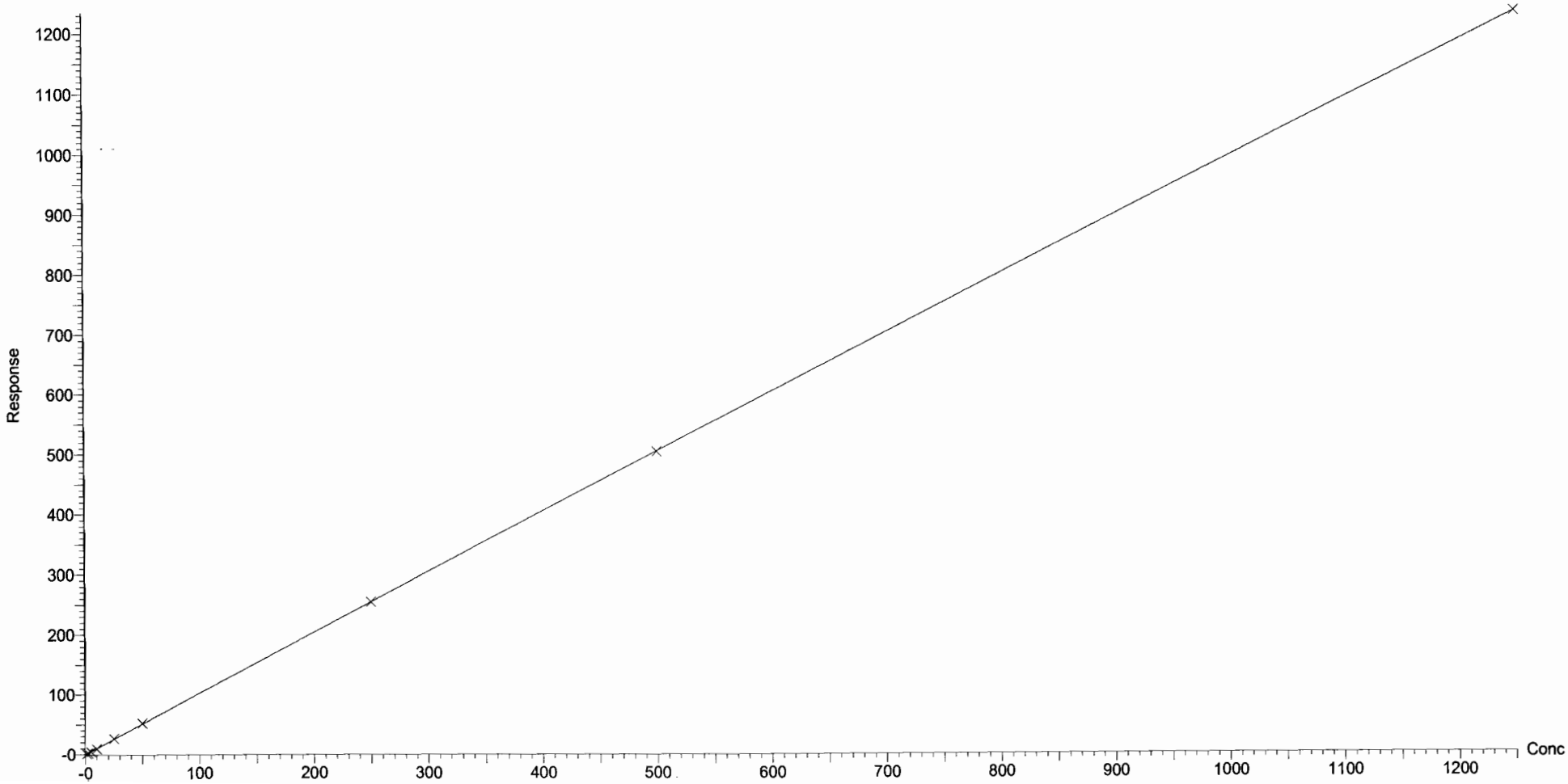
Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999533
Calibration curve: 0.00349062 * x^2 + 2.93229 * x + -0.154941
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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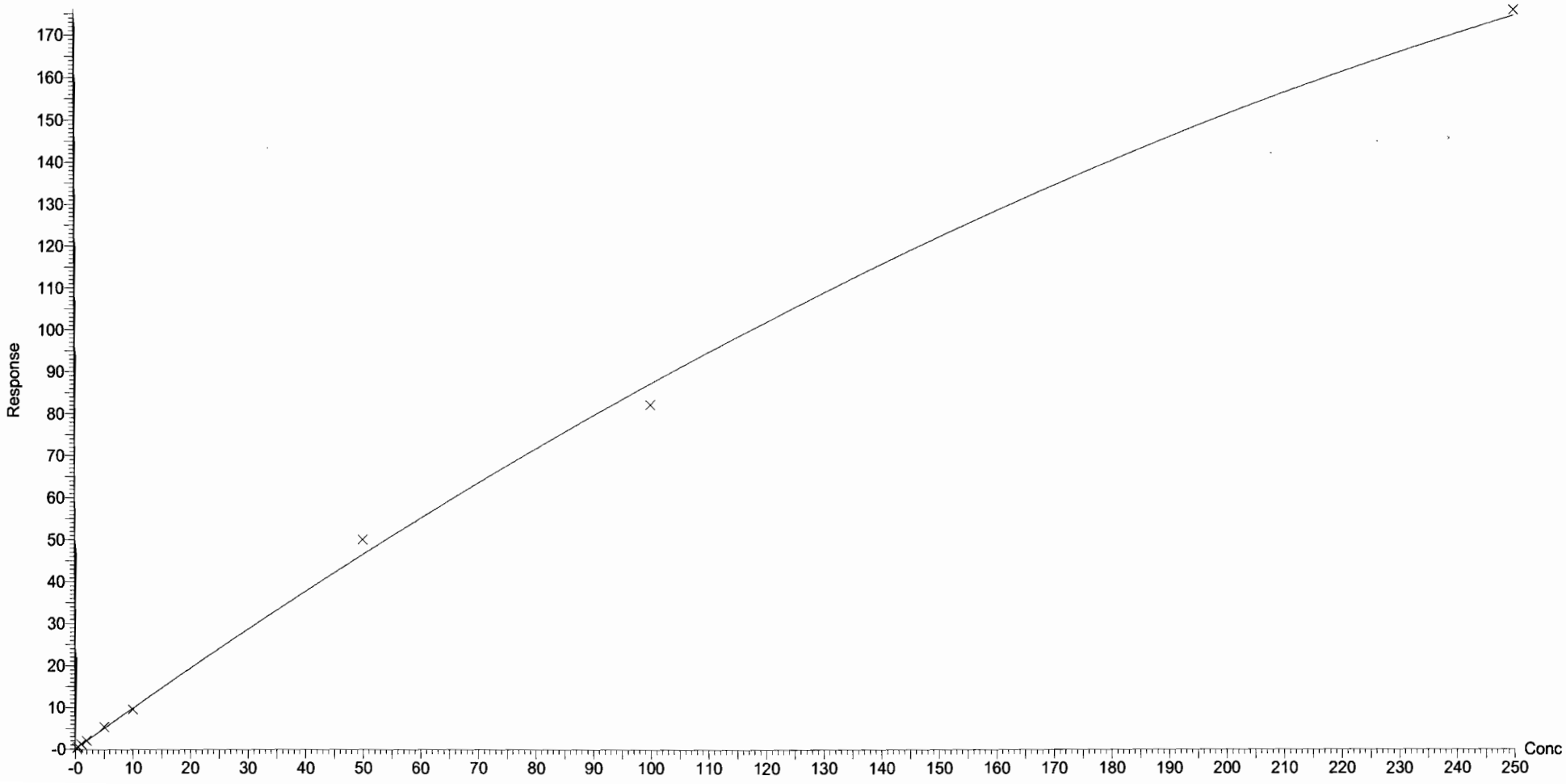
Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999897
Calibration curve: -3.00904e-005 * x^2 + 1.02444 * x + -0.199244
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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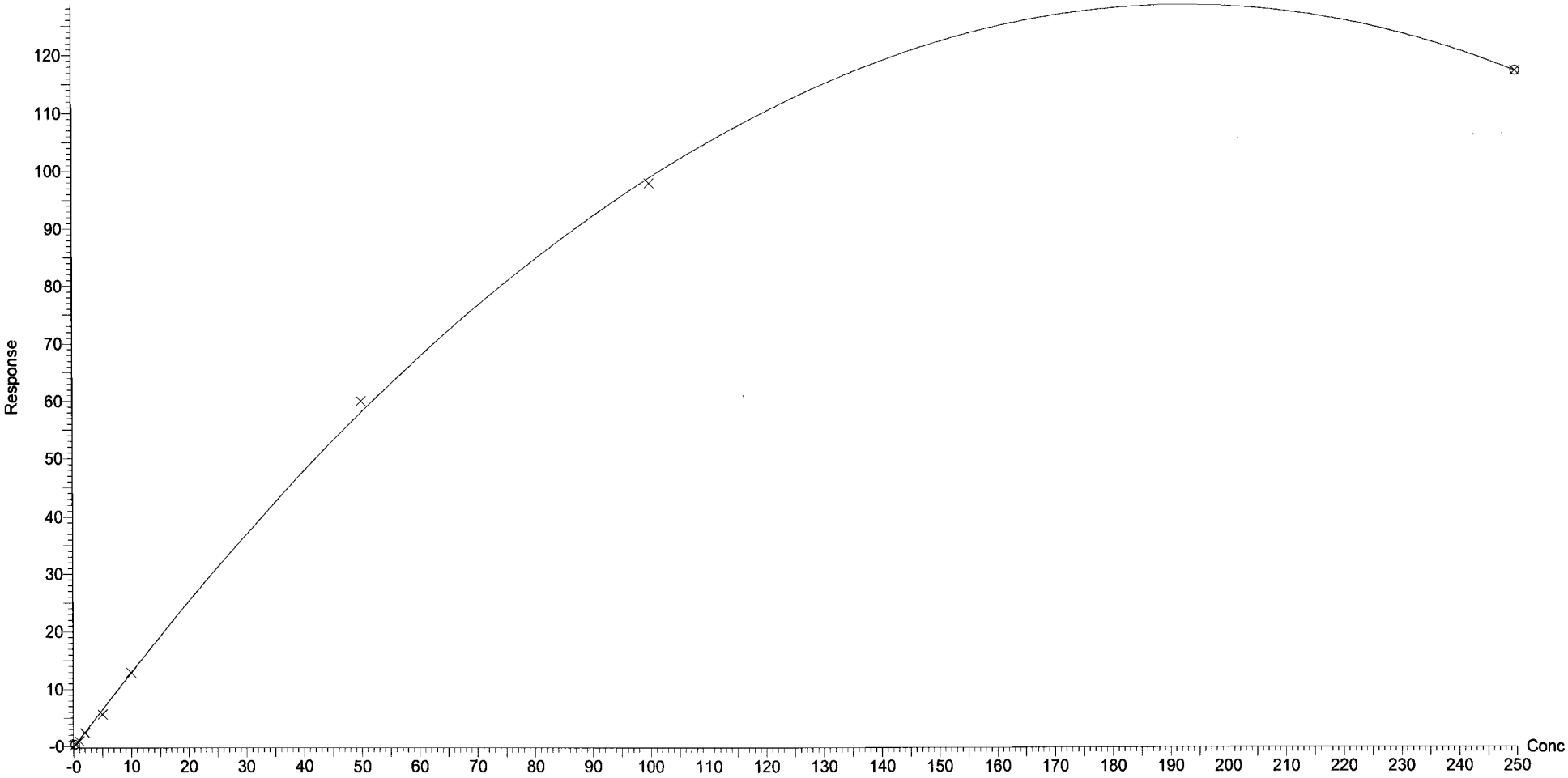
Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.997686
Calibration curve: -0.00114258 * x^2 + 0.984182 * x + 0.0683094
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997999
Calibration curve: -0.00347318 * x^2 + 1.33796 * x + -0.219409
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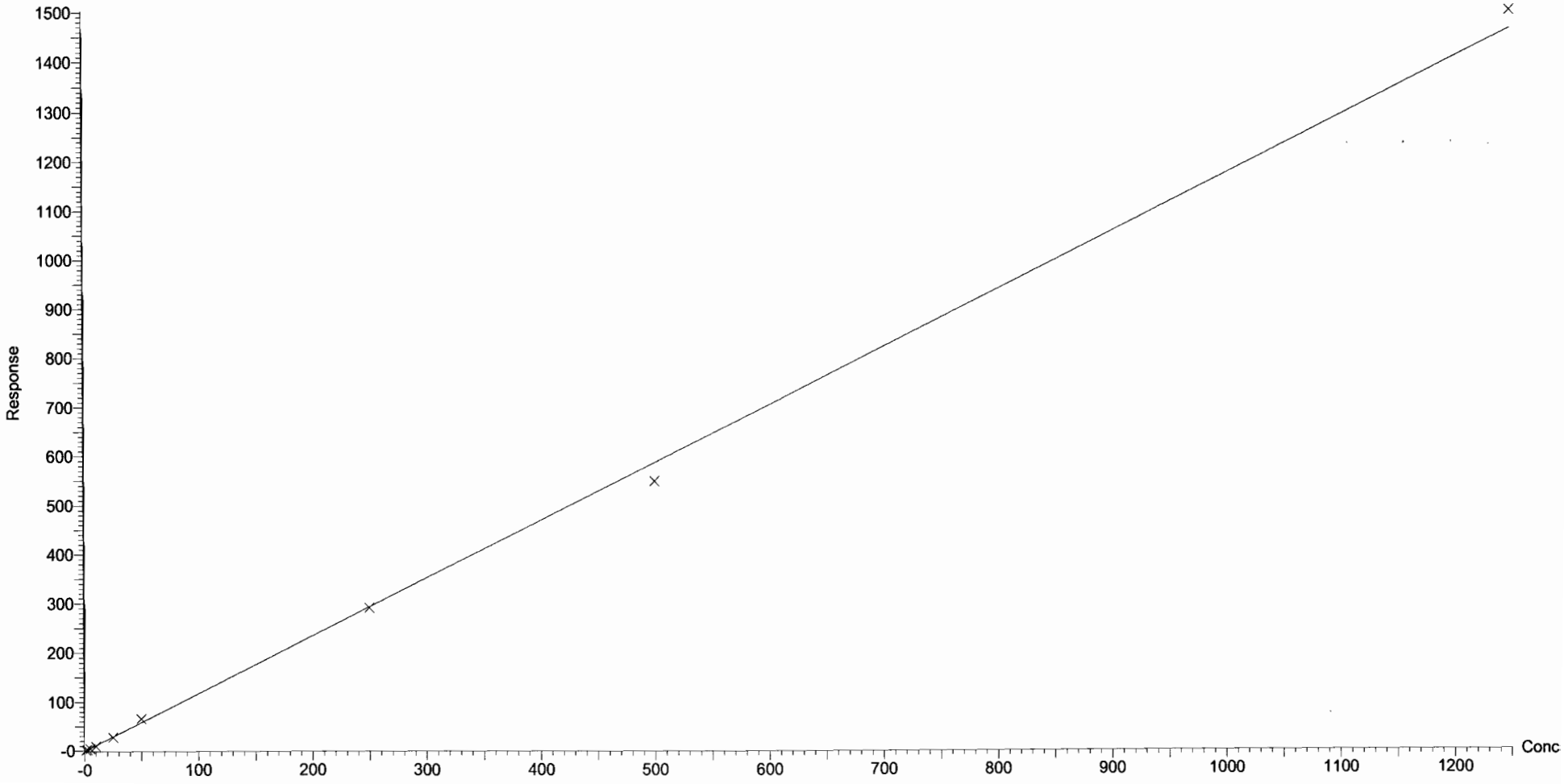


Vista Analytical Laboratory Q1

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Printed: Thursday, January 11, 2018 14:27:36 Pacific Standard Time

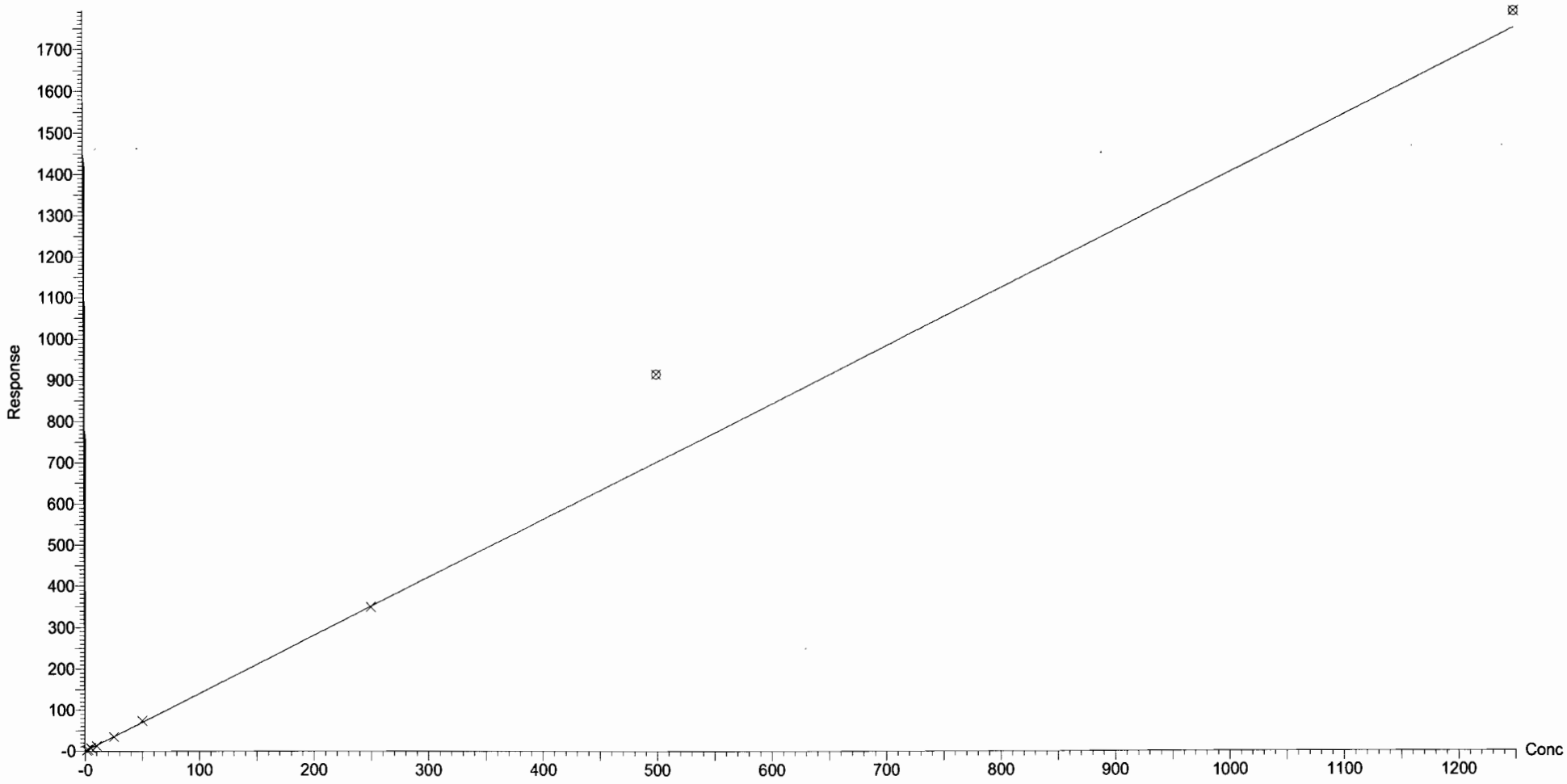
Compound name: N-MeFOSE
Correlation coefficient: r = 0.998982, r^2 = 0.997965
Calibration curve: 1.173 * x + -0.745383
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999540, r^2 = 0.999080
Calibration curve: 1.40177 * x + -0.207477
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Curve type: Linear, Origin: Exclude, Weighting: 1/x, Axis trans: None



Vista Analytical Laboratory

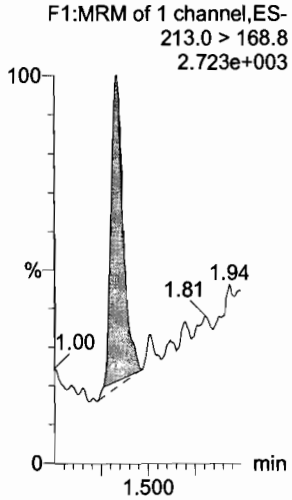
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Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

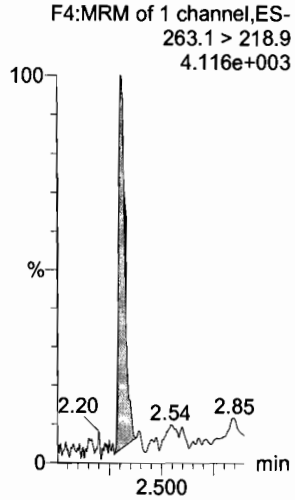
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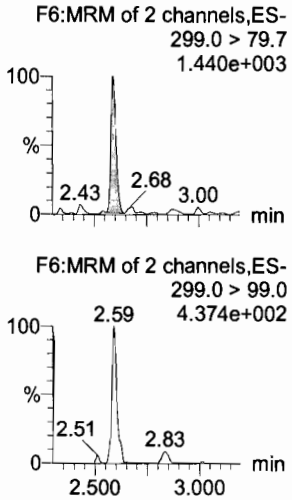
PFBA



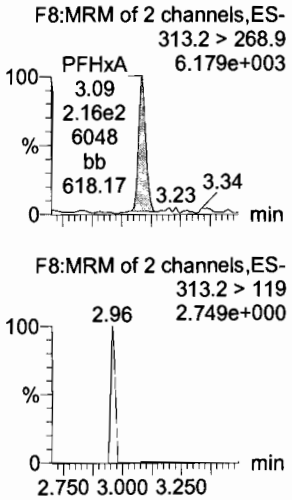
PFPeA



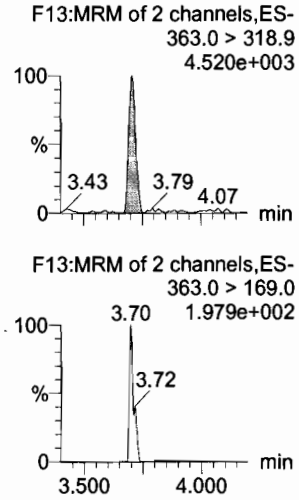
PFBS



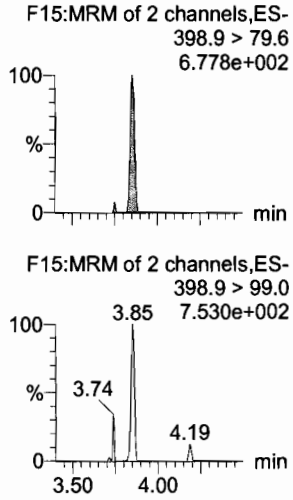
PFHxA



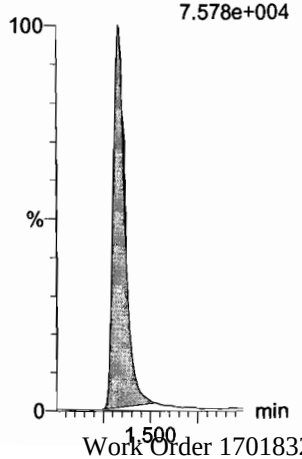
PFHpA



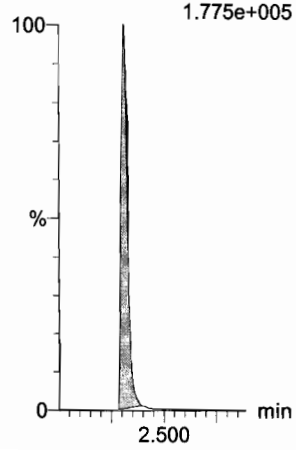
L-PFHxS



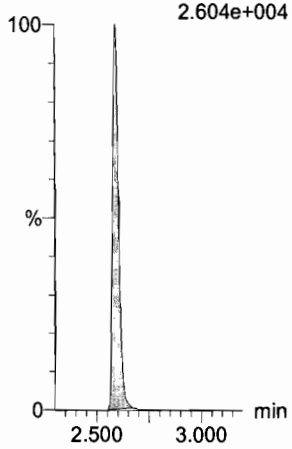
13C3-PFBA



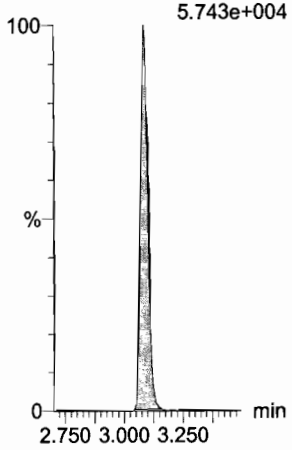
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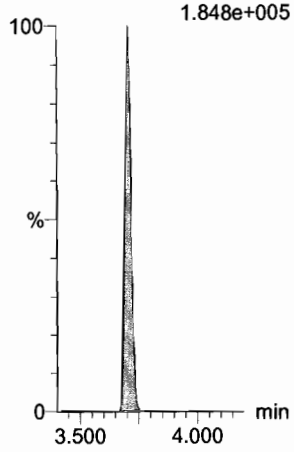
13C3-PFBS



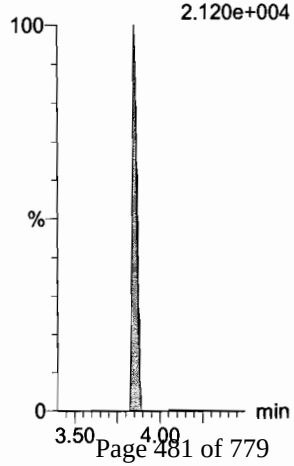
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

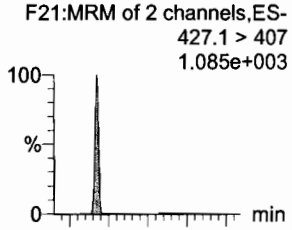


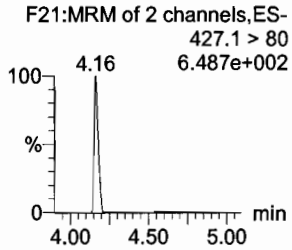
Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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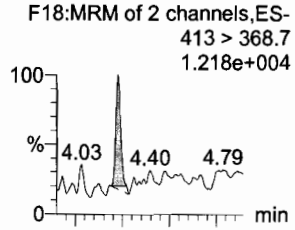
Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

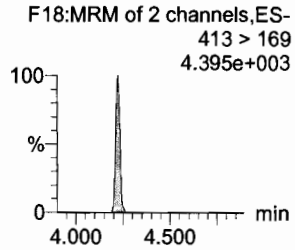
6:2 FTS



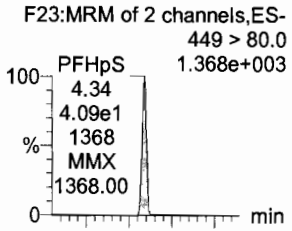


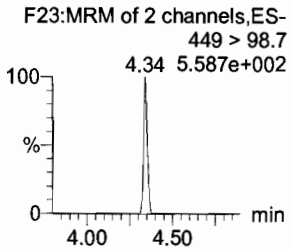
L-PFOA



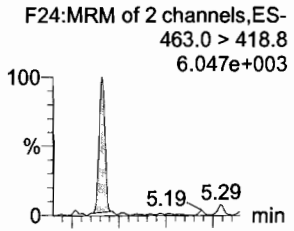


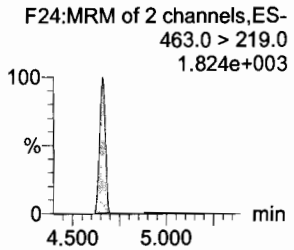
PFHpS



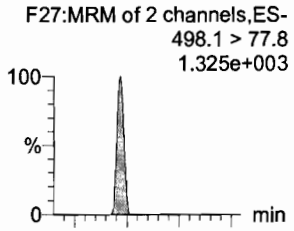


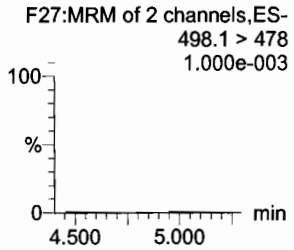
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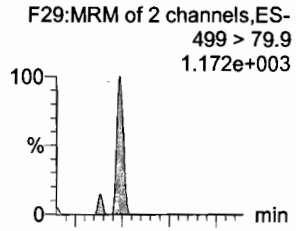


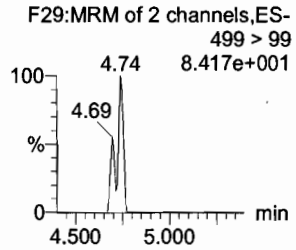
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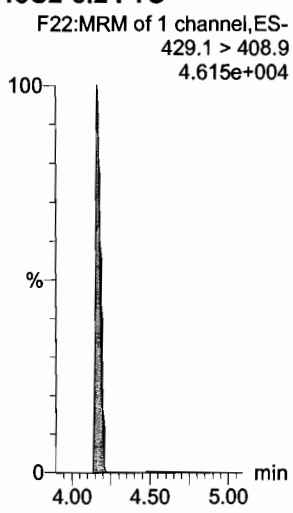


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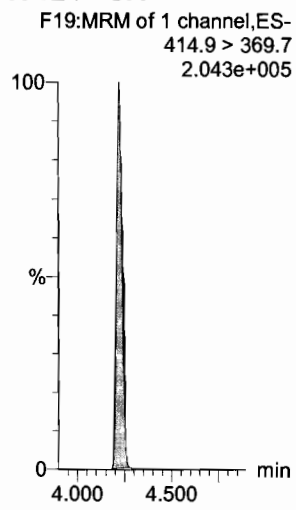




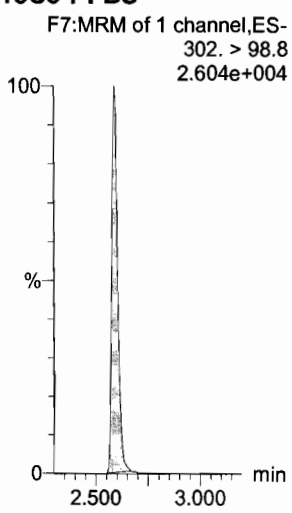
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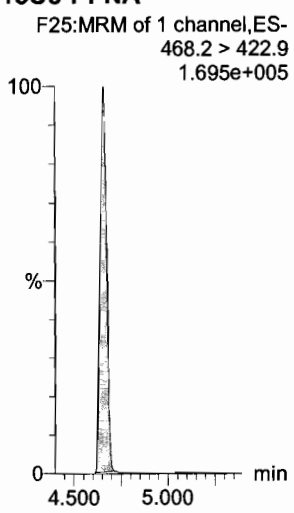
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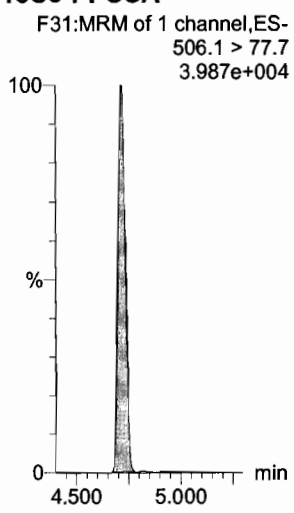
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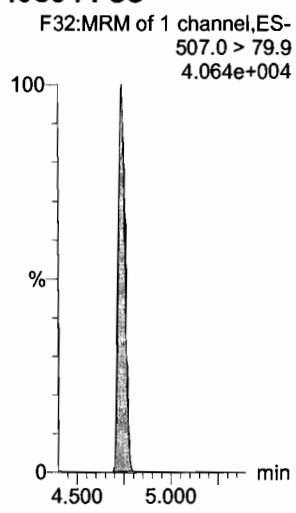
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13C8-PFOSA



13C8-PFOS

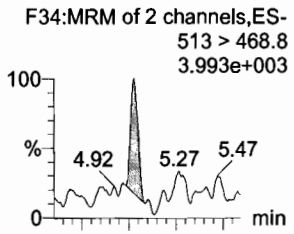


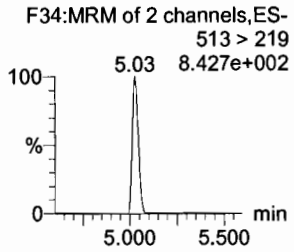
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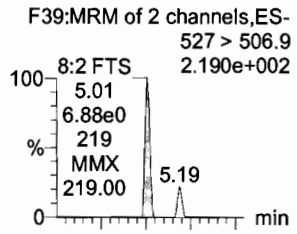
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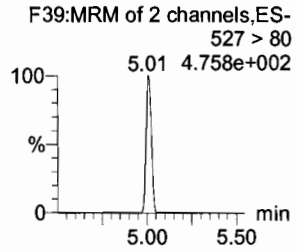
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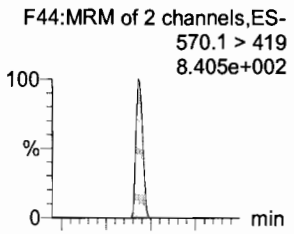


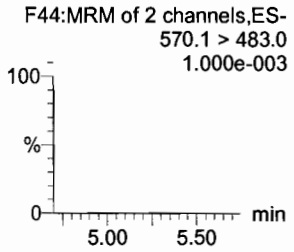
8:2 FTS



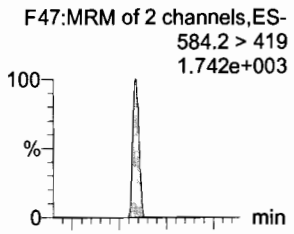


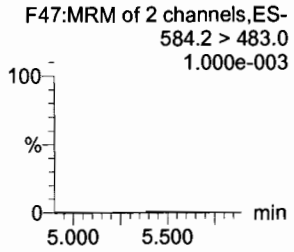
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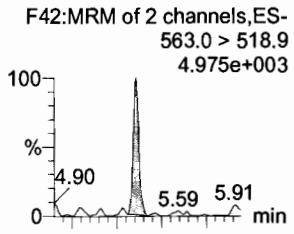


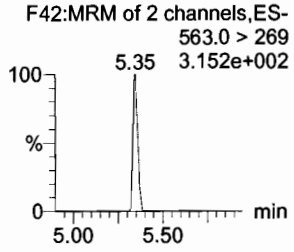
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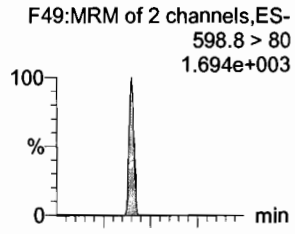


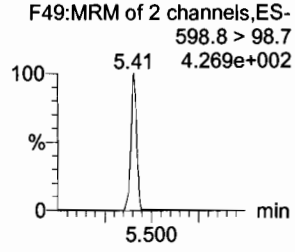
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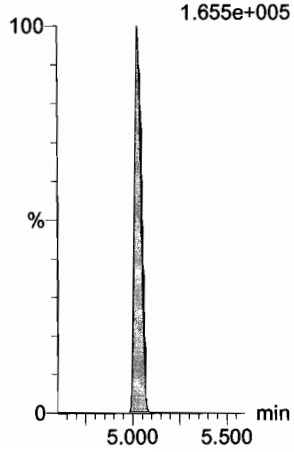


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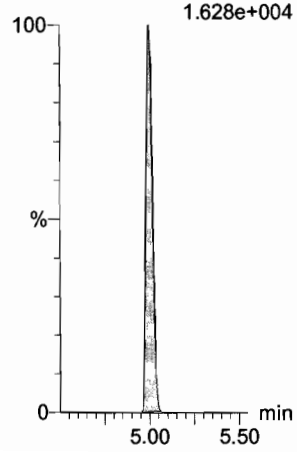




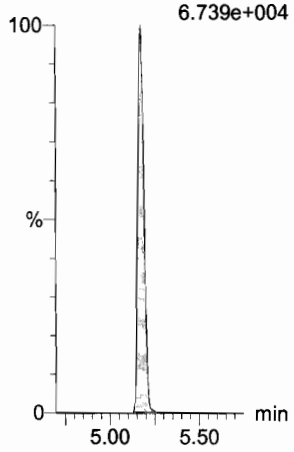
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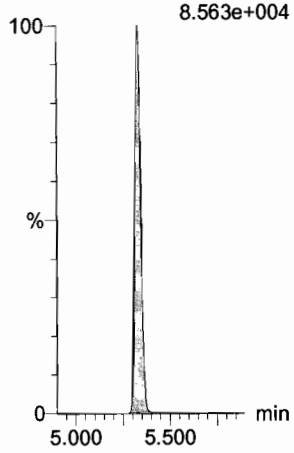
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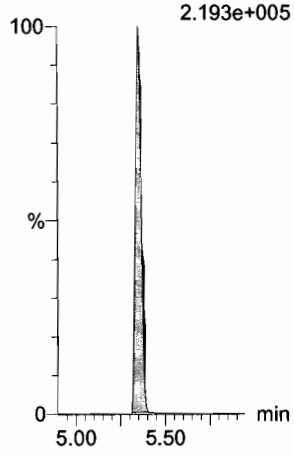
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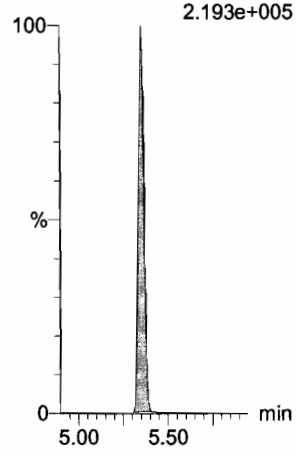
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

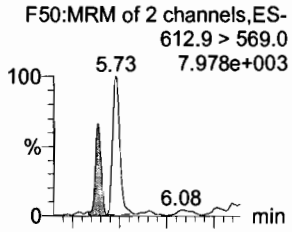


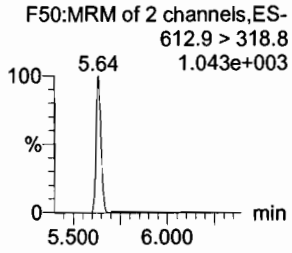
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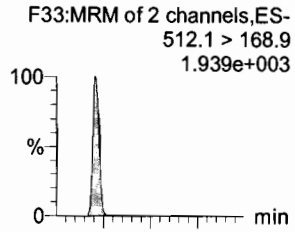
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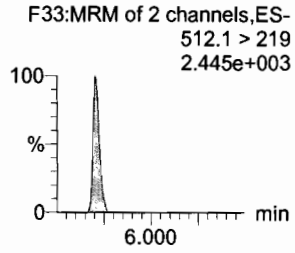
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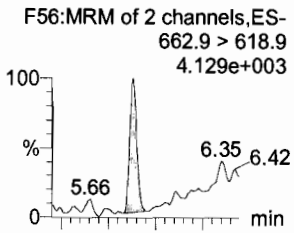


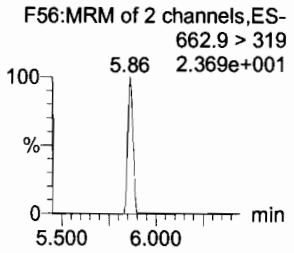
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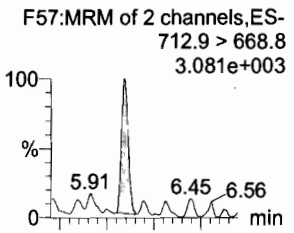


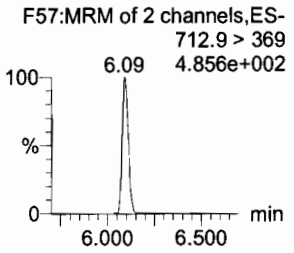
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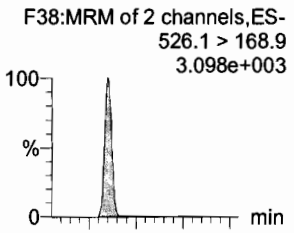


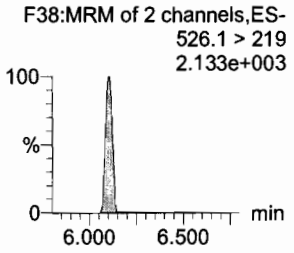
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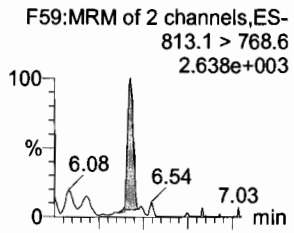


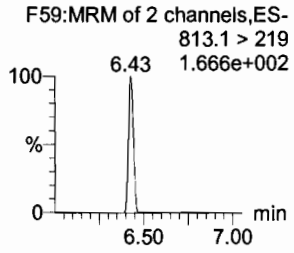
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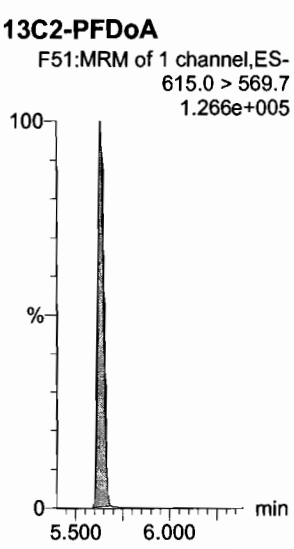


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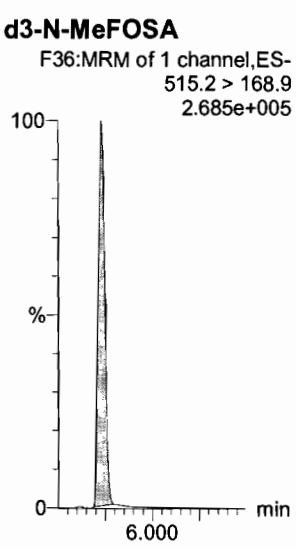




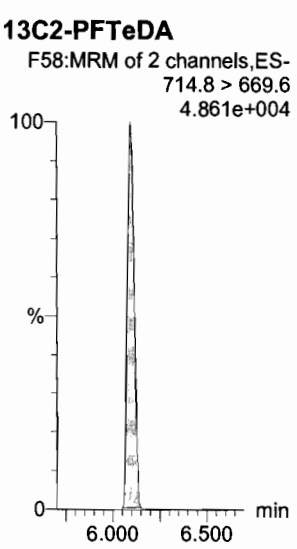
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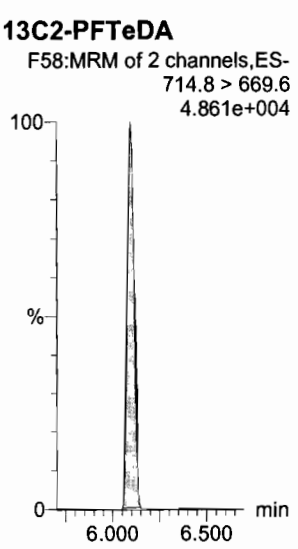
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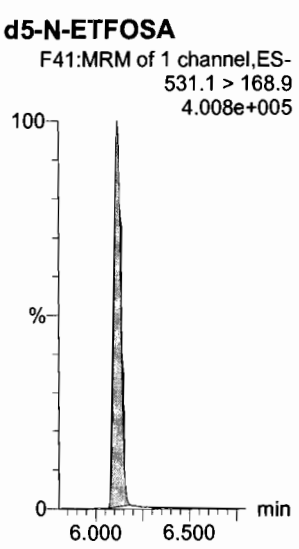
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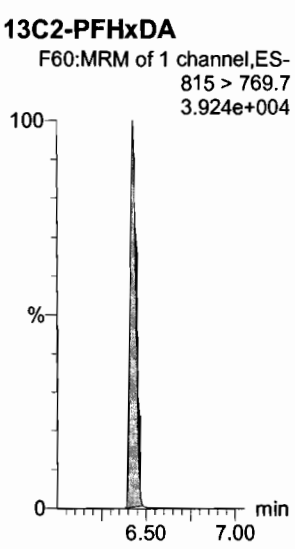
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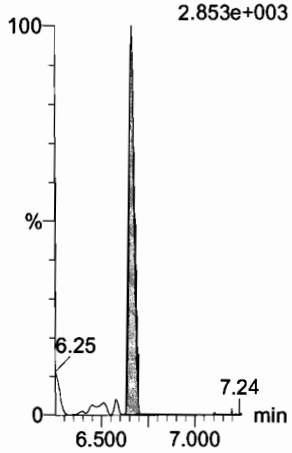


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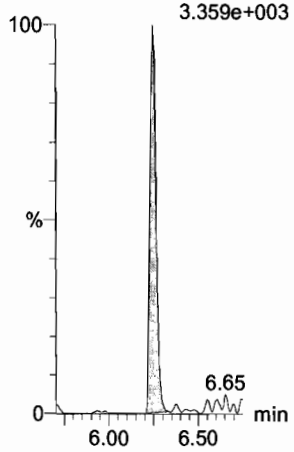
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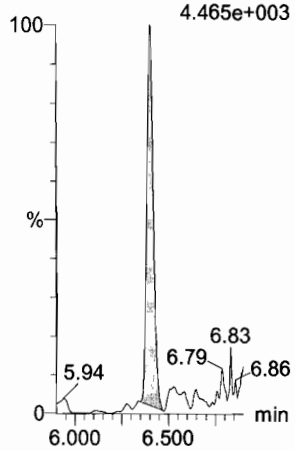
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F61:MRM of 1 channel,ES-
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2.853e+003



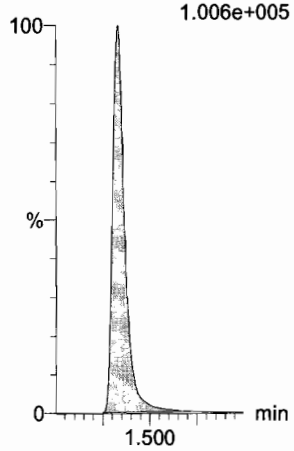
N-MeFOSE
F52:MRM of 1 channel,ES-
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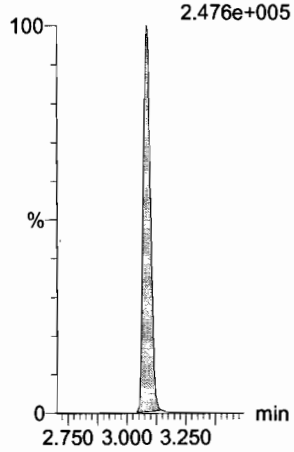
N-EtFOSE
F54:MRM of 1 channel,ES-
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4.465e+003



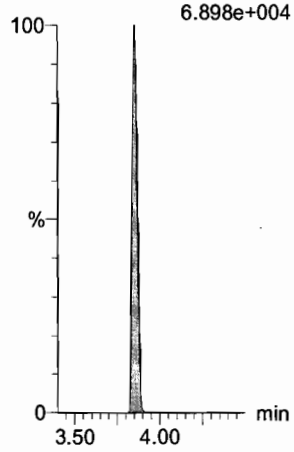
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1.006e+005



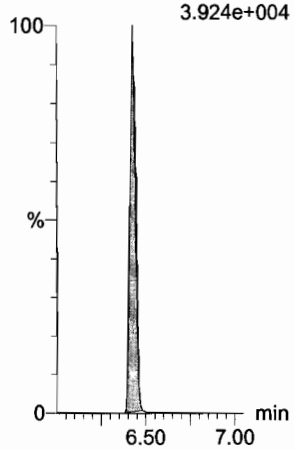
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.476e+005



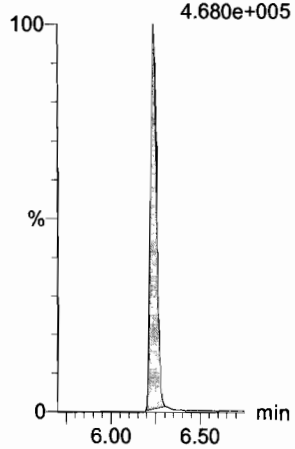
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
6.898e+004



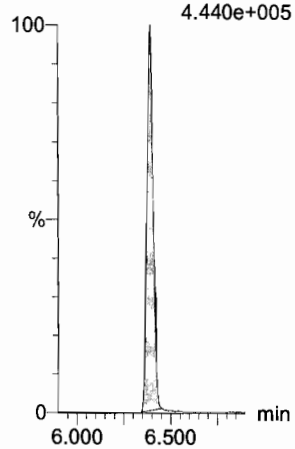
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F60:MRM of 1 channel,ES-
815 > 769.7
3.924e+004



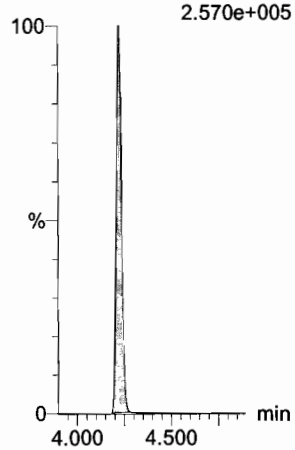
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
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4.680e+005



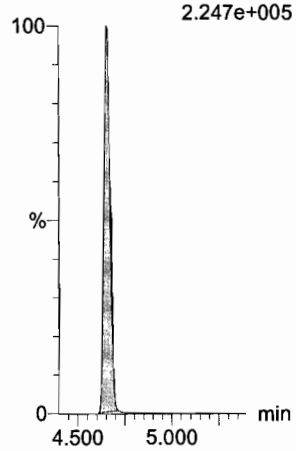
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F55:MRM of 1 channel,ES-
639.2 > 58.8
4.440e+005



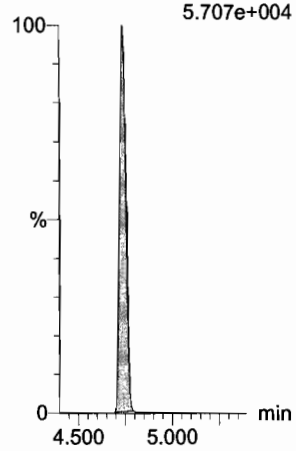
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.570e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.247e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
5.707e+004

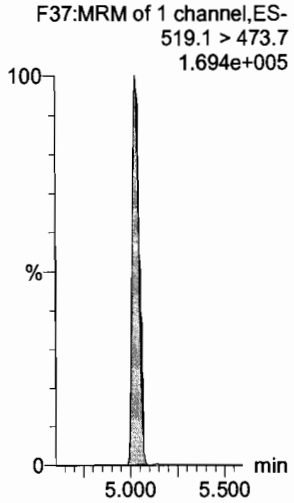


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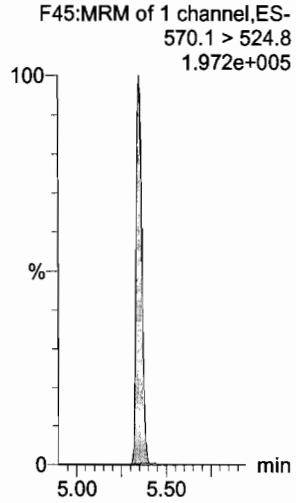
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13C6-PFDA



13C7-PFUdA

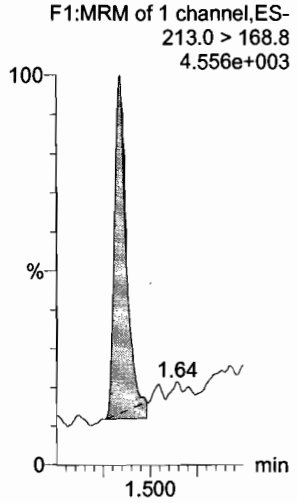


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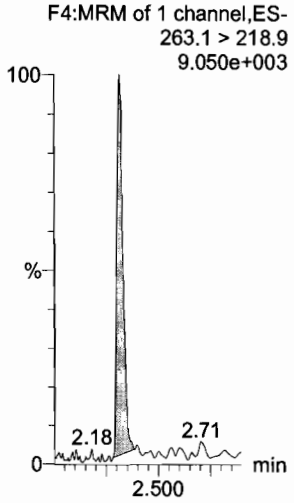
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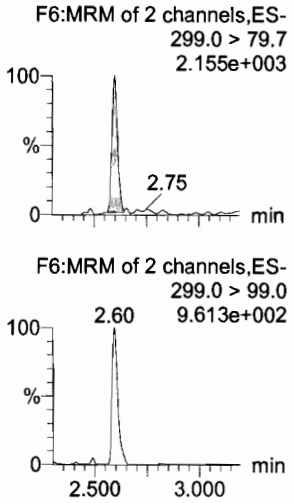
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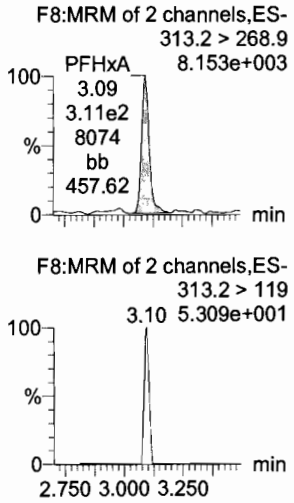
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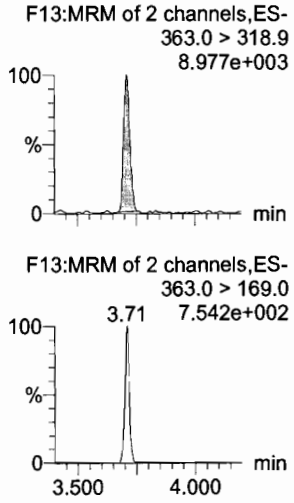
PFBS



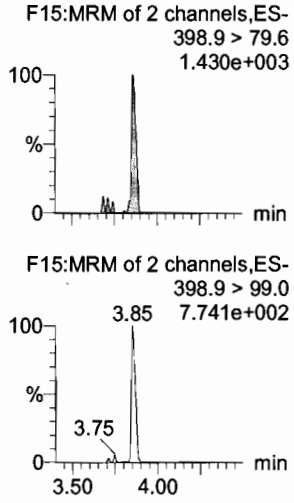
PFHxA



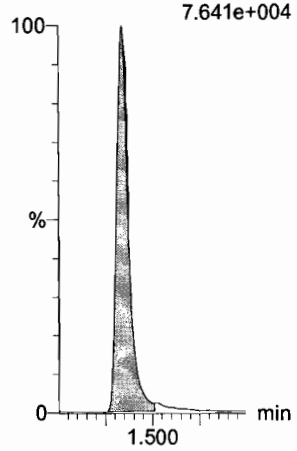
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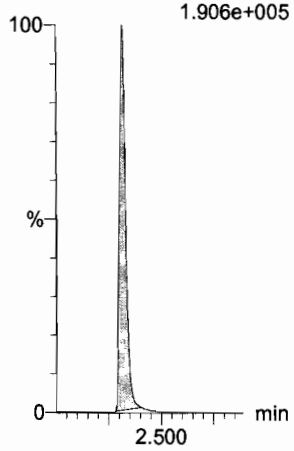
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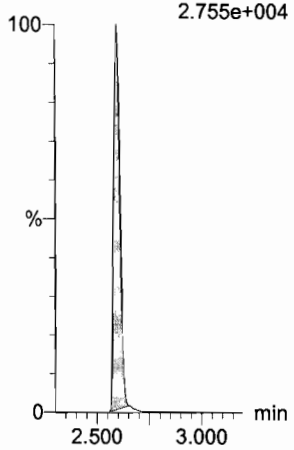
13C3-PFBA



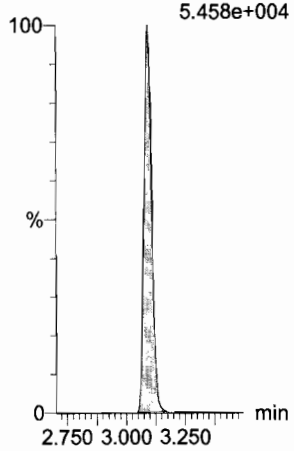
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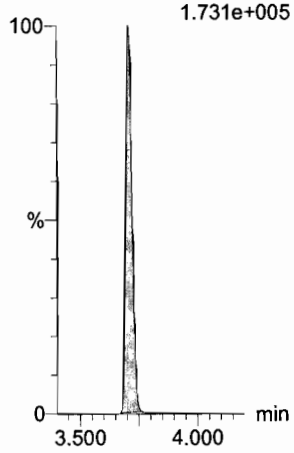
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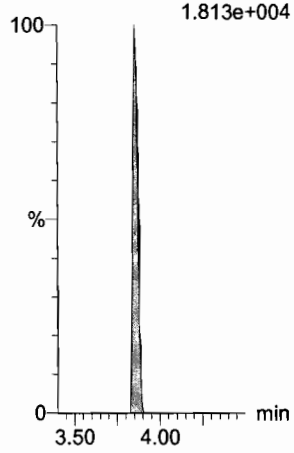
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13C4-PFHpA



18O2-PFHxS

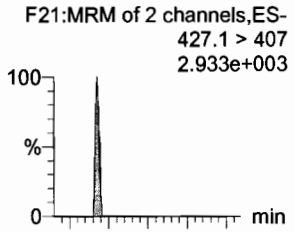


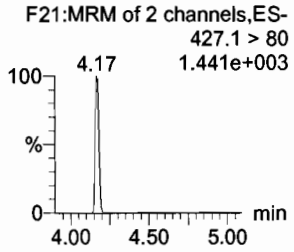
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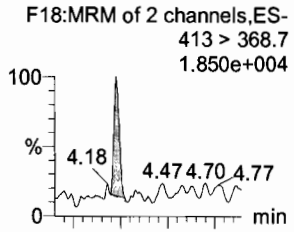
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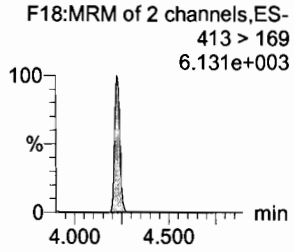
6:2 FTS



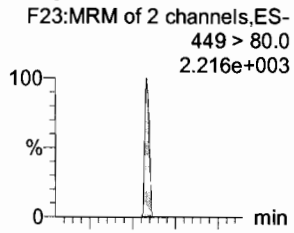


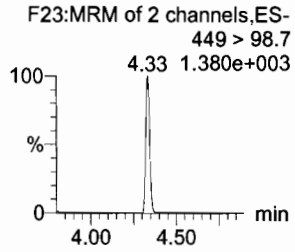
L-PFOA



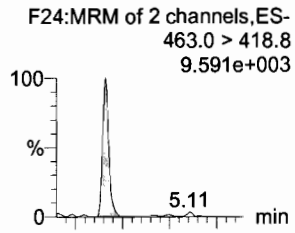


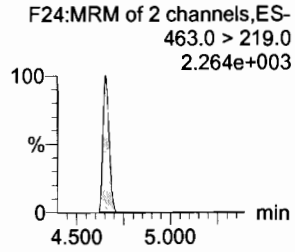
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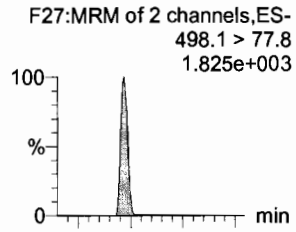


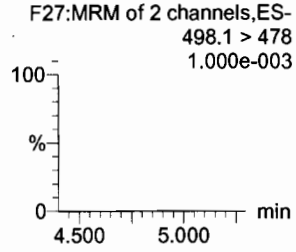
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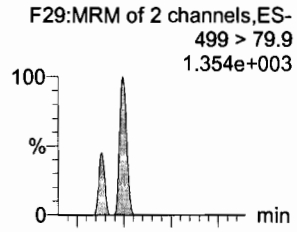


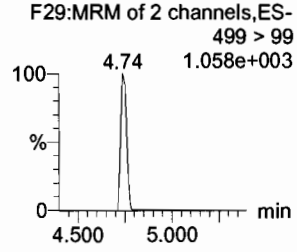
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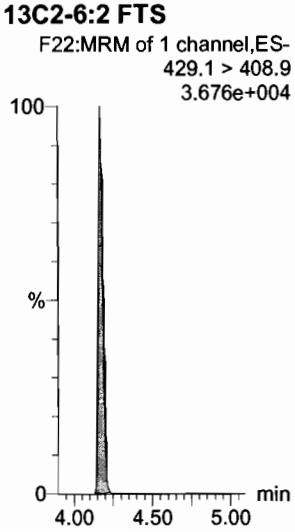


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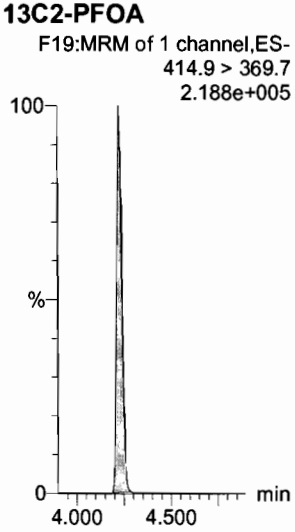




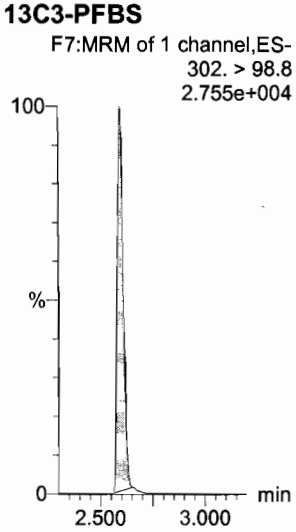
13C2-6:2 FTS



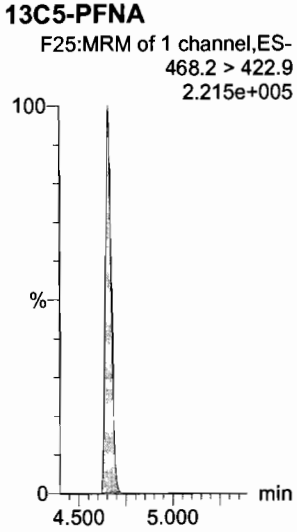
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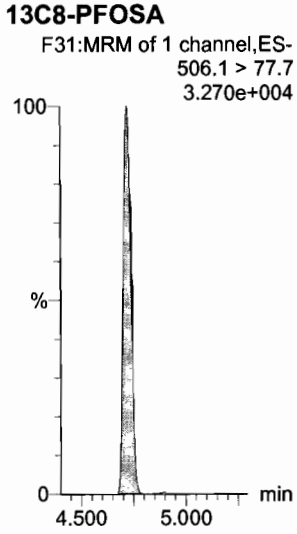
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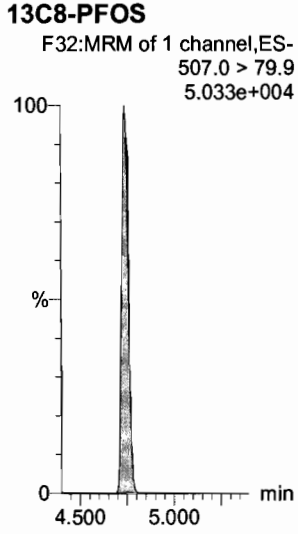
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13C8-PFOSA



13C8-PFOS

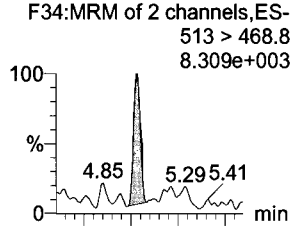


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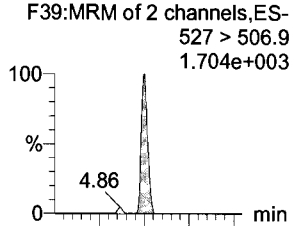
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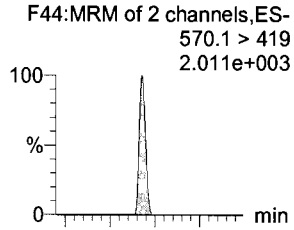
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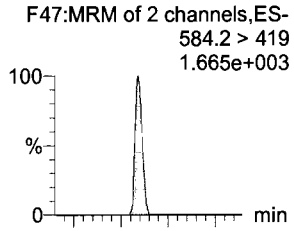
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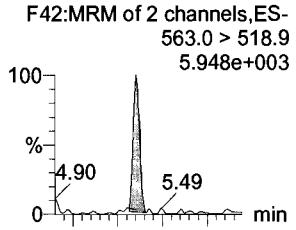
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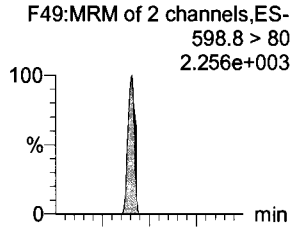
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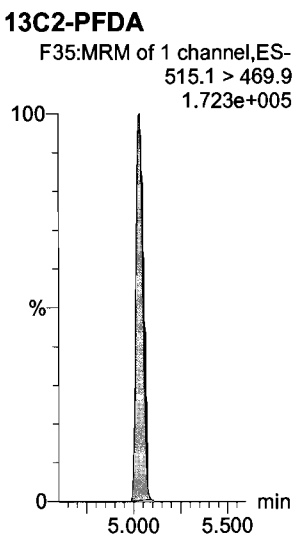
PFUdA



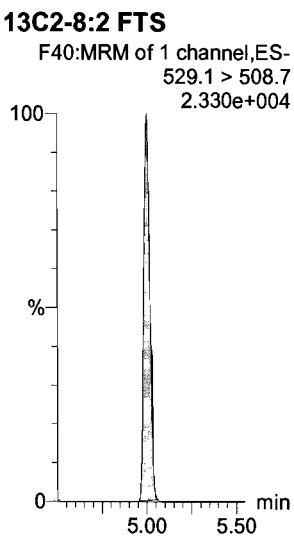
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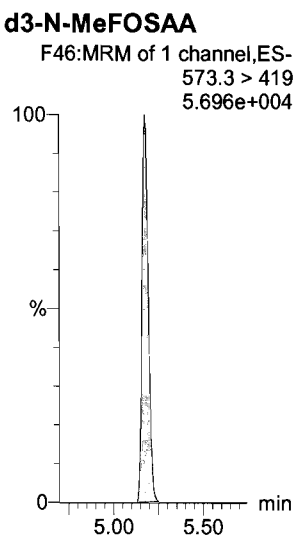
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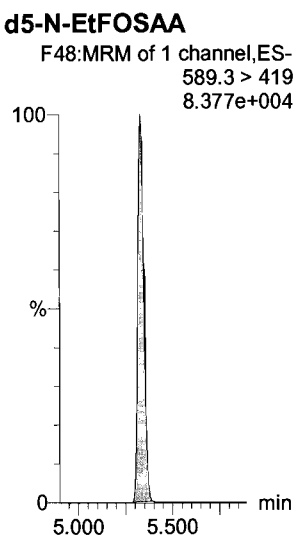
13C2-8:2 FTS



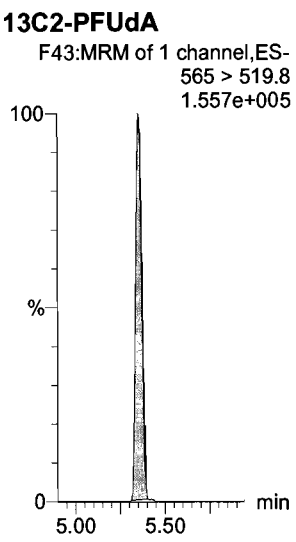
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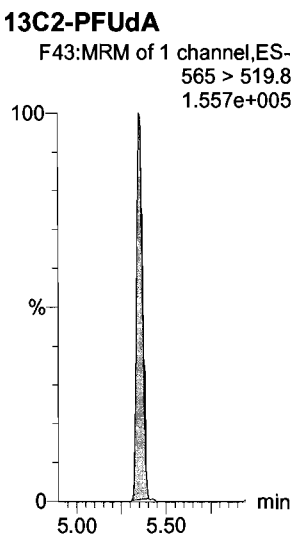
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13C2-PFUdA



13C2-PFUdA

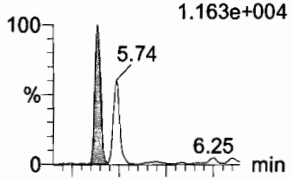


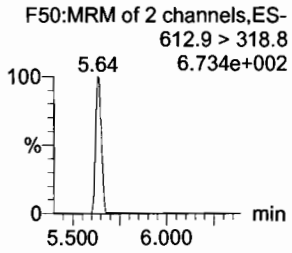
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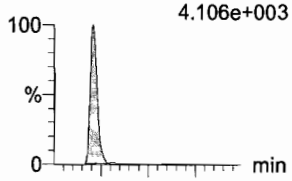
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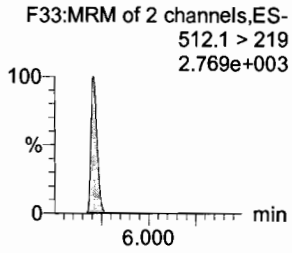
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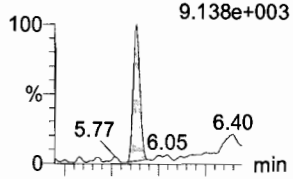


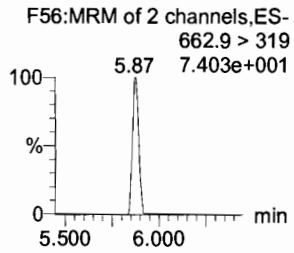
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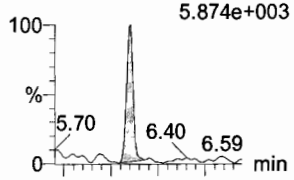


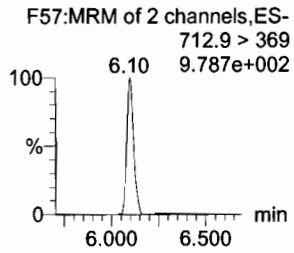
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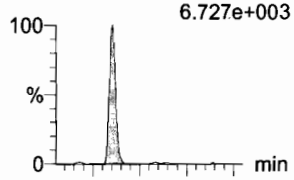


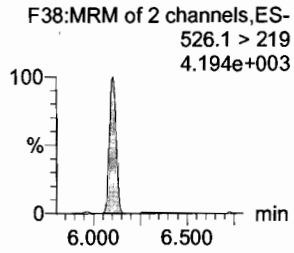
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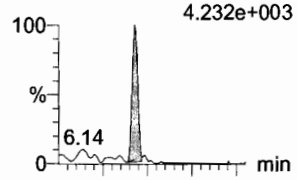


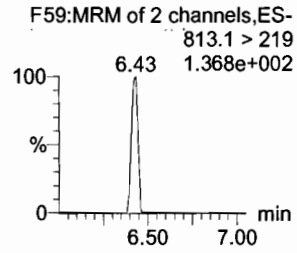
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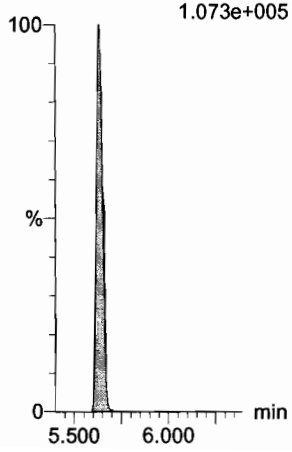


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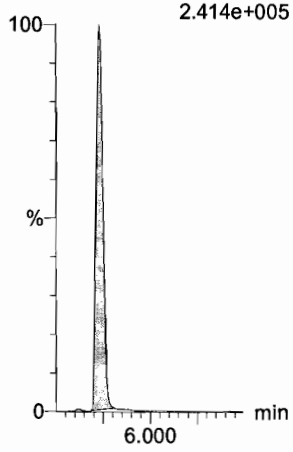




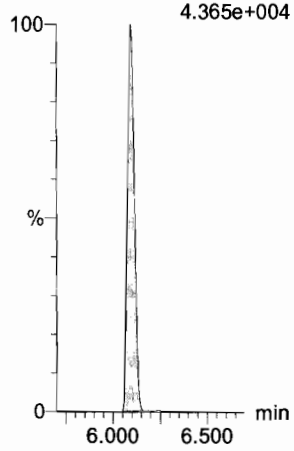
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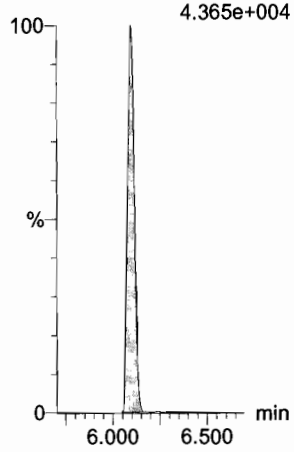
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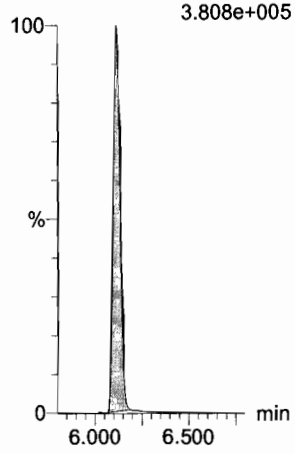
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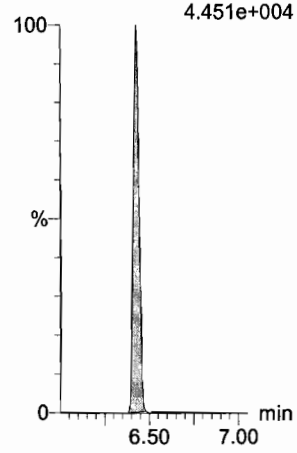
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d5-N-ETFOSA



13C2-PFHxDA

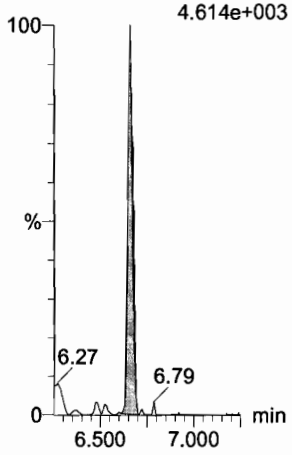


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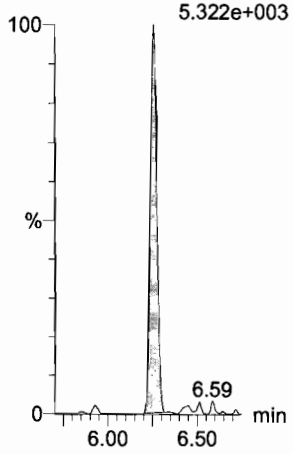
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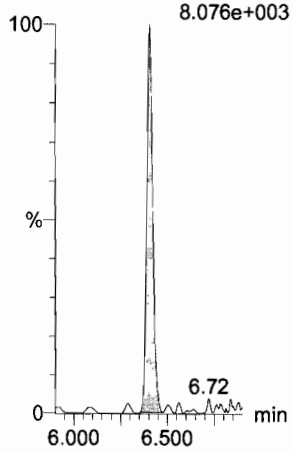
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4.614e+003



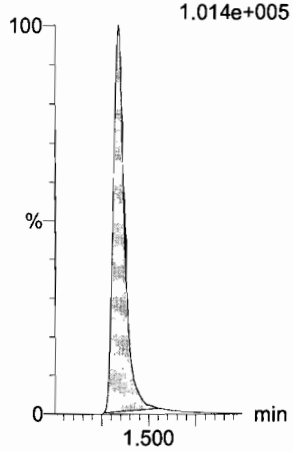
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F52:MRM of 1 channel,ES-
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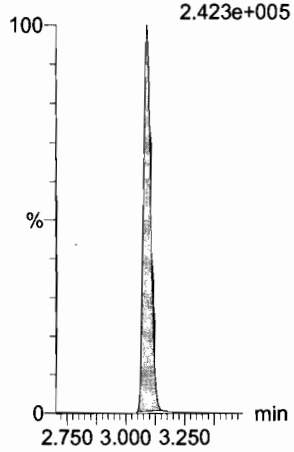
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8.076e+003



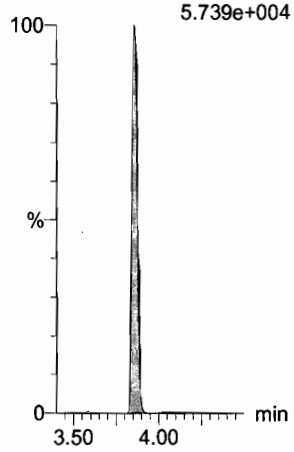
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.014e+005



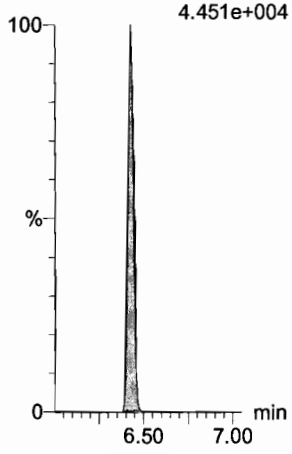
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F10:MRM of 1 channel,ES-
318 > 272.9
2.423e+005



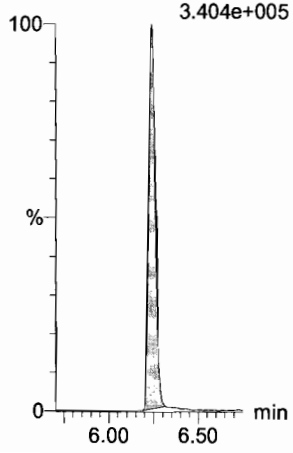
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F16:MRM of 1 channel,ES-
401.9 > 79.9
5.739e+004



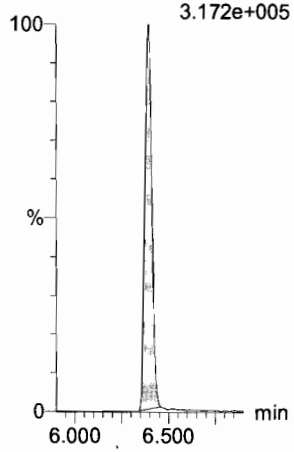
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F60:MRM of 1 channel,ES-
815 > 769.7
4.451e+004



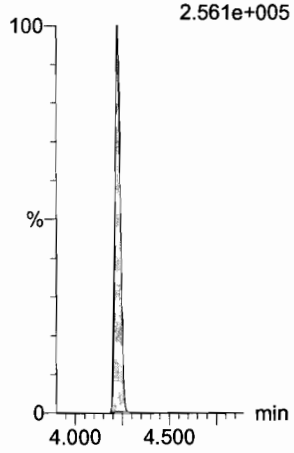
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F53:MRM of 1 channel,ES-
623.1 > 58.9
3.404e+005



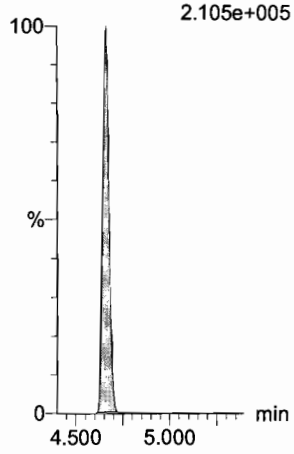
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639.2 > 58.8
3.172e+005



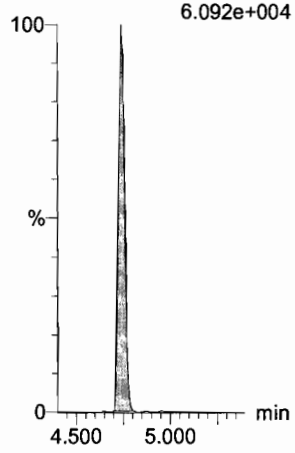
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F20:MRM of 1 channel,ES-
421.3 > 376
2.561e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.105e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.092e+004

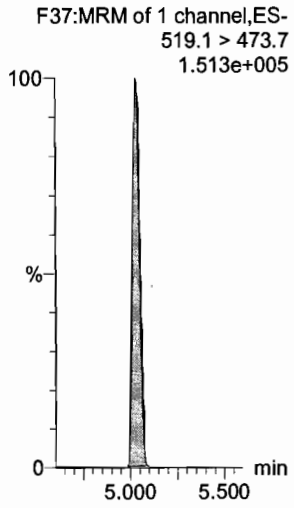


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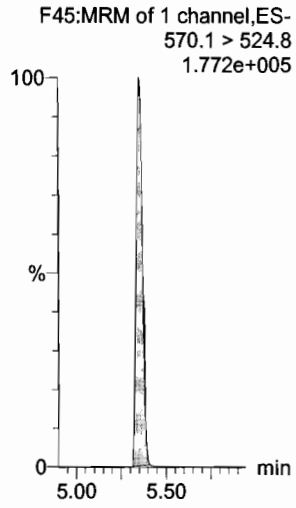
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Name: 180110M3_3, Date: 11-Jan-2018, Time: 09:45:13, ID: ST180110M3-2 PFC CS-1 17L2607, Description: PFC CS-1 17L2607

13C6-PFDA



13C7-PFUdA

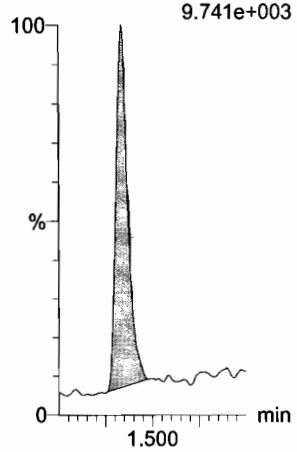


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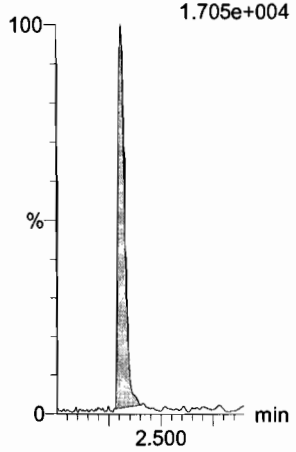
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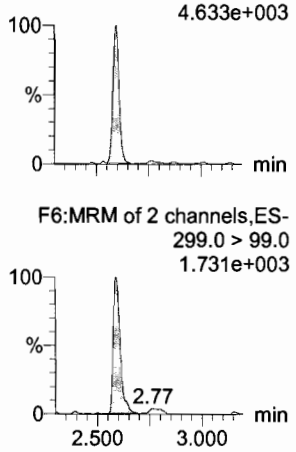
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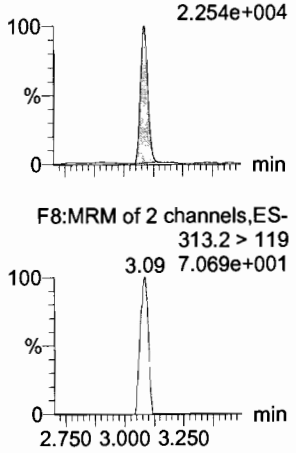
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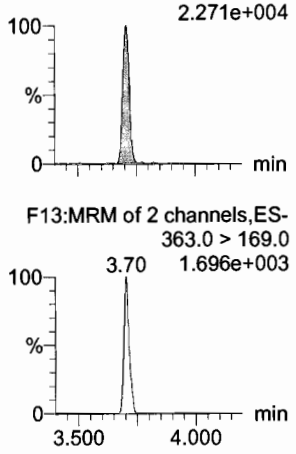
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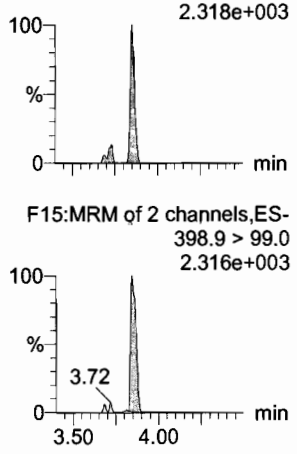
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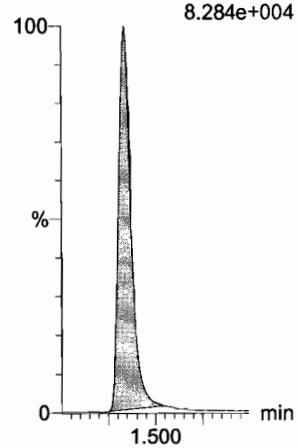
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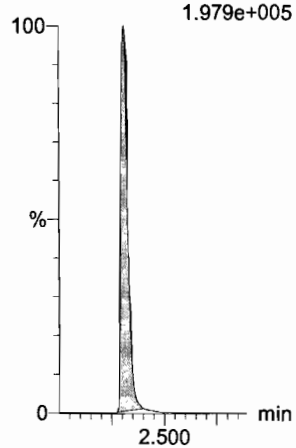
L-PFHxS



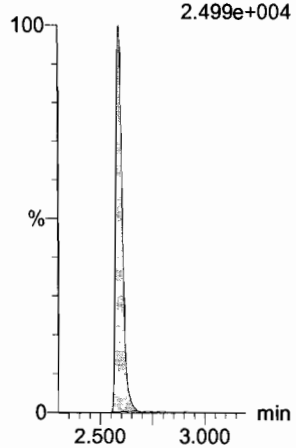
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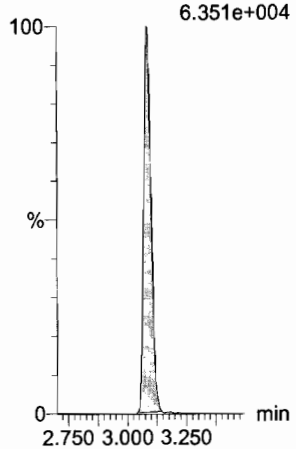
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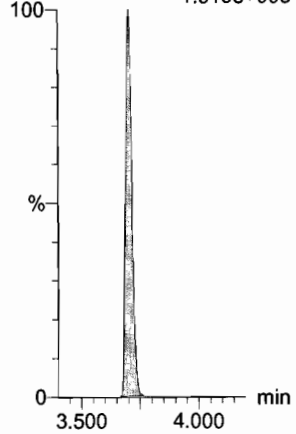
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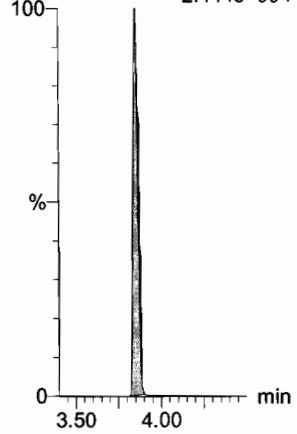
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13C4-PFHpA



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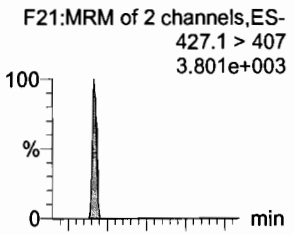


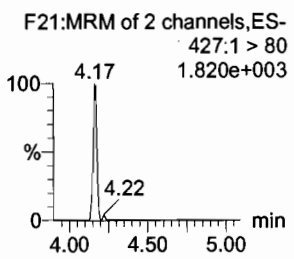
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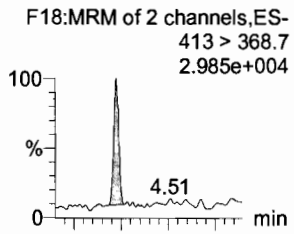
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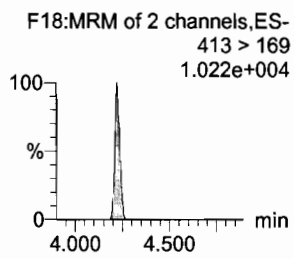
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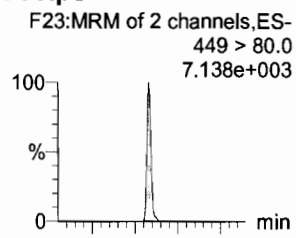


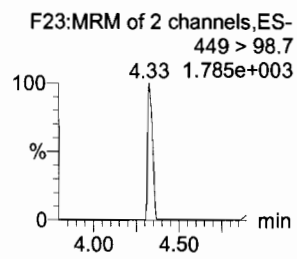
L-PFOA



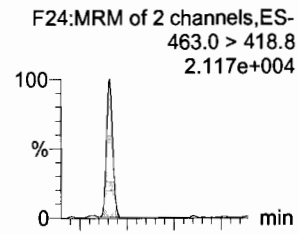


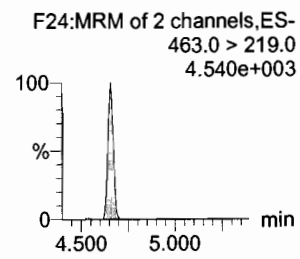
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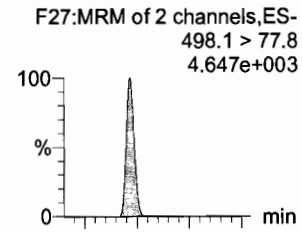


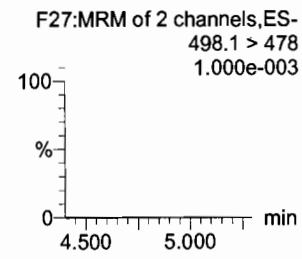
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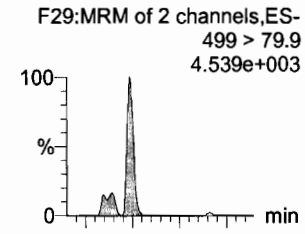


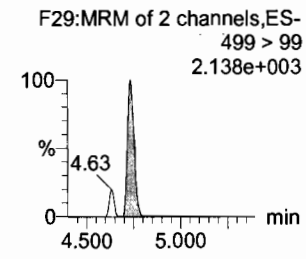
PFOSA



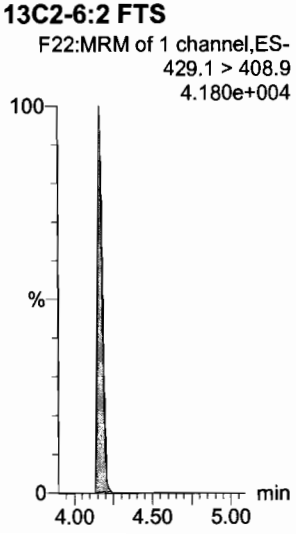


L-PFOS

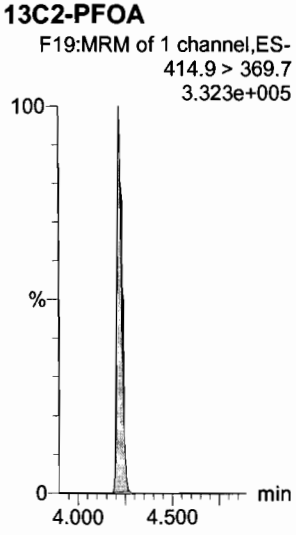




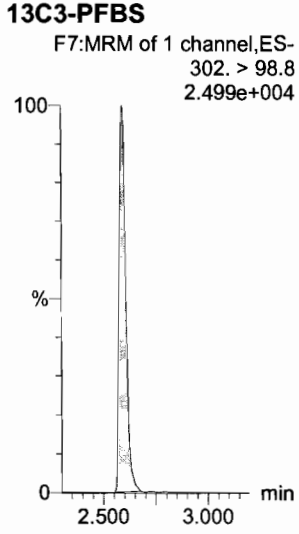
13C2-6:2 FTS



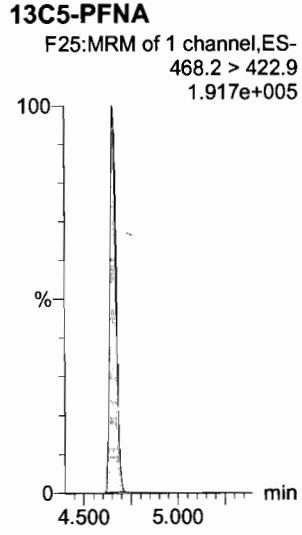
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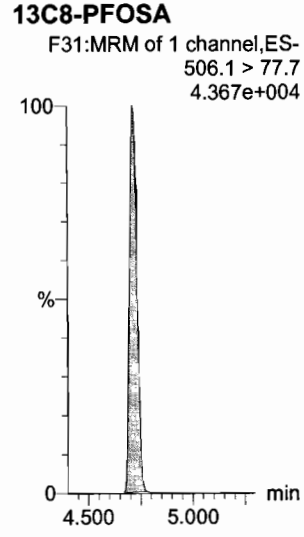
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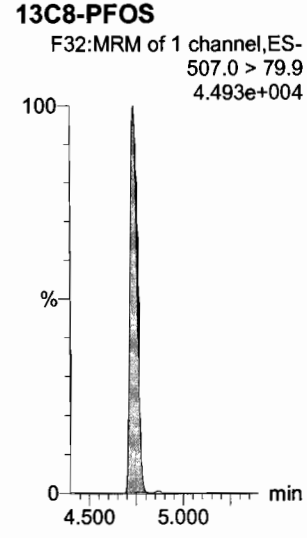
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13C8-PFOSA



13C8-PFOS

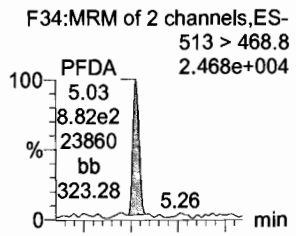


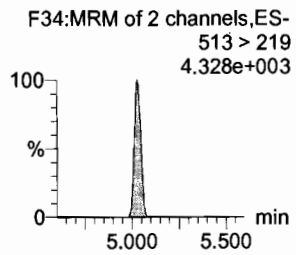
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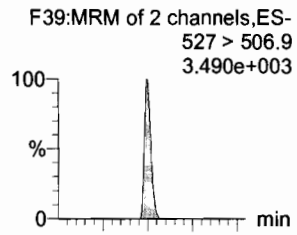
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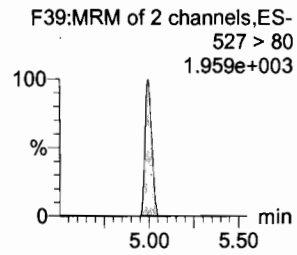
PFDA



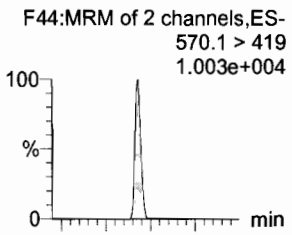


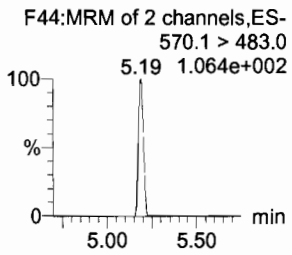
8:2 FTS



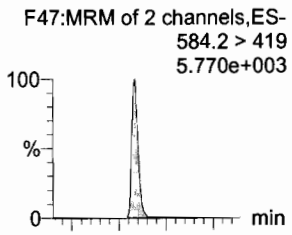


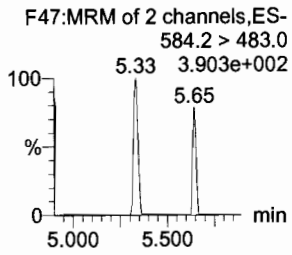
N-MeFOSAA



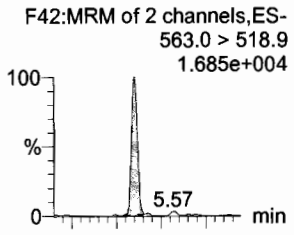


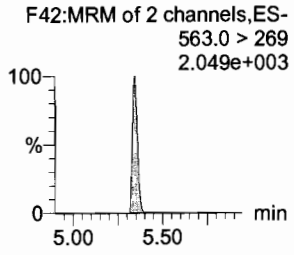
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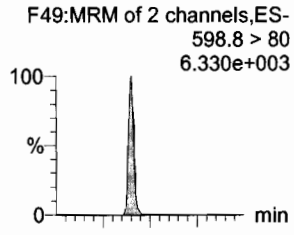


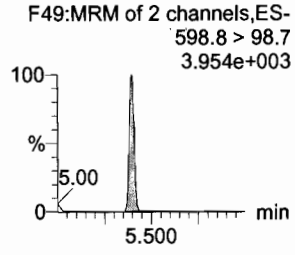
PFUdA



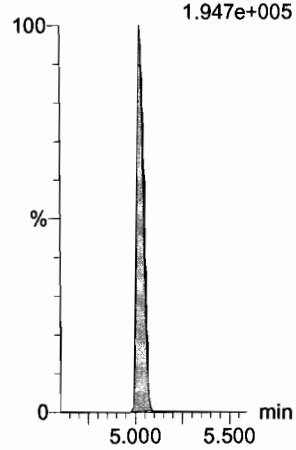


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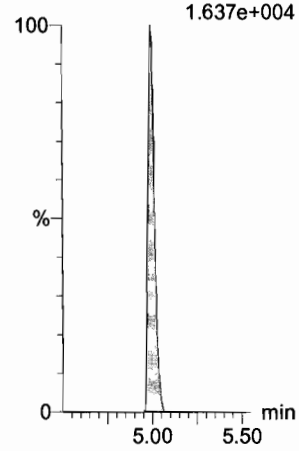




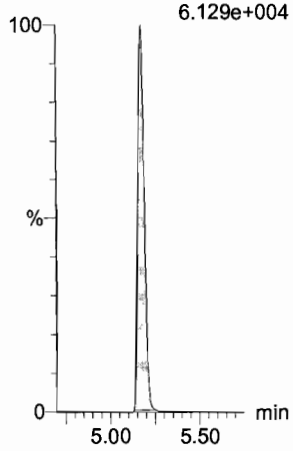
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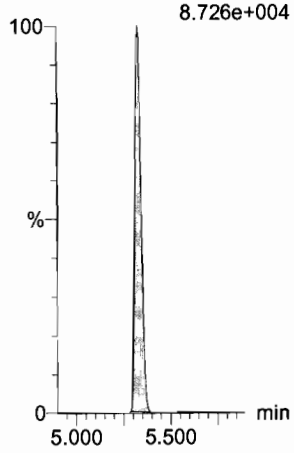
13C2-8:2 FTS



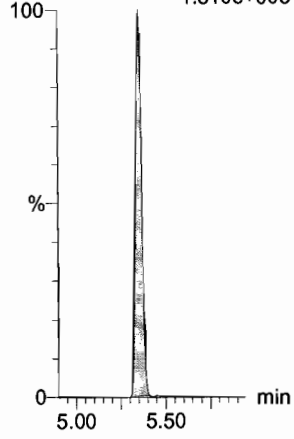
d3-N-MeFOSAA



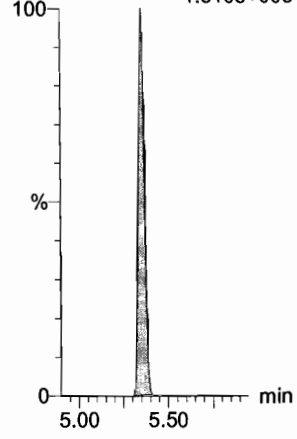
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

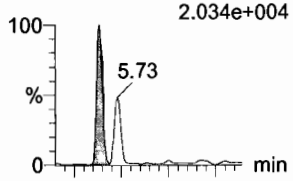


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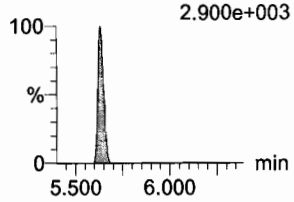
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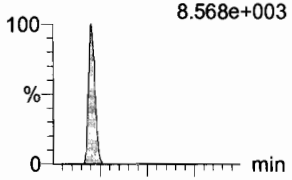
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
2.034e+004



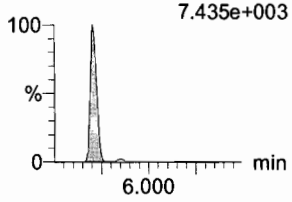
F50:MRM of 2 channels,ES-
612.9 > 318.8
2.900e+003



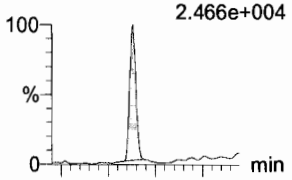
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
8.568e+003



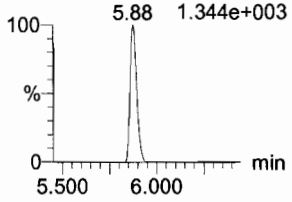
F33:MRM of 2 channels,ES-
512.1 > 219
7.435e+003



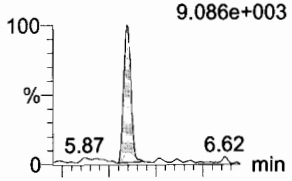
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
2.466e+004



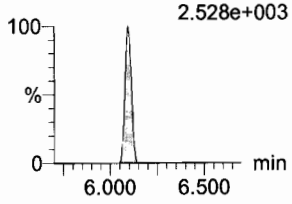
F56:MRM of 2 channels,ES-
662.9 > 319
5.88 1.344e+003



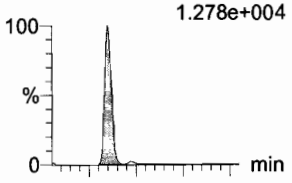
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
9.086e+003



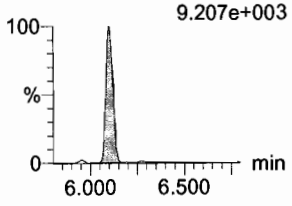
F57:MRM of 2 channels,ES-
712.9 > 369
2.528e+003



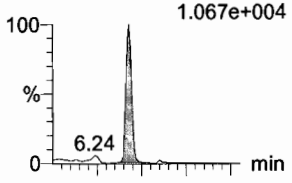
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.278e+004



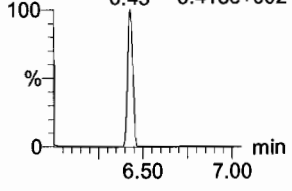
F38:MRM of 2 channels,ES-
526.1 > 219
9.207e+003



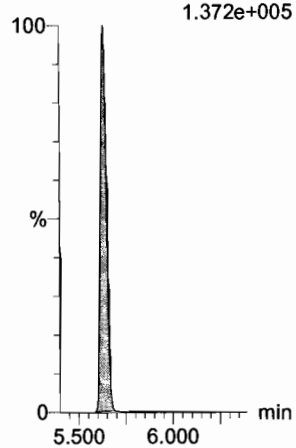
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.067e+004



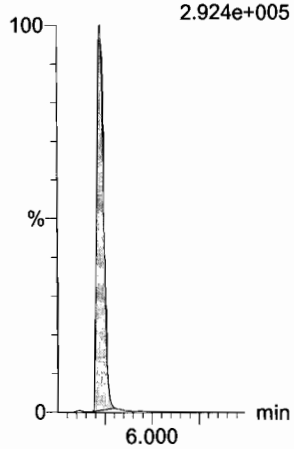
F59:MRM of 2 channels,ES-
813.1 > 219
6.43 6.418e+002



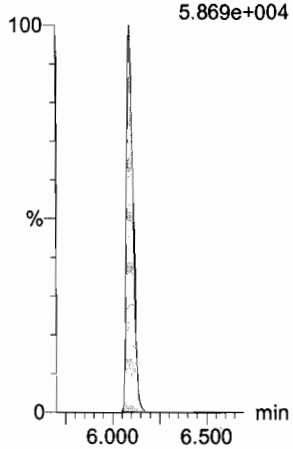
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.372e+005



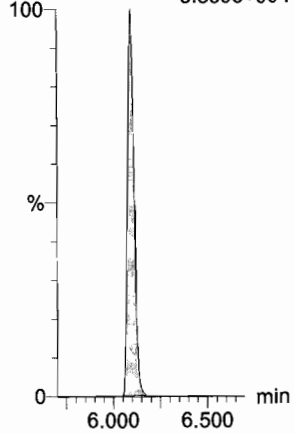
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
2.924e+005



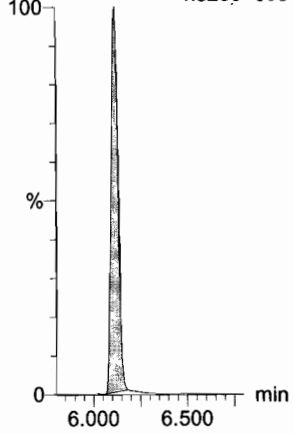
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.869e+004



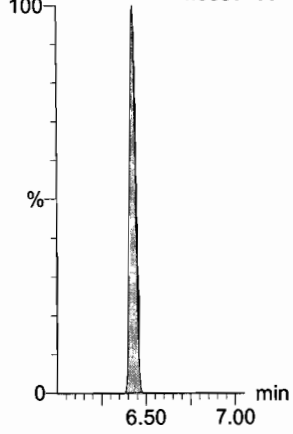
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.869e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
4.328e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.388e+004

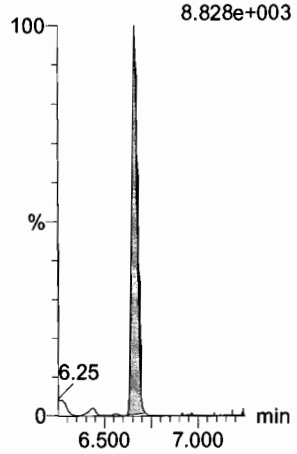


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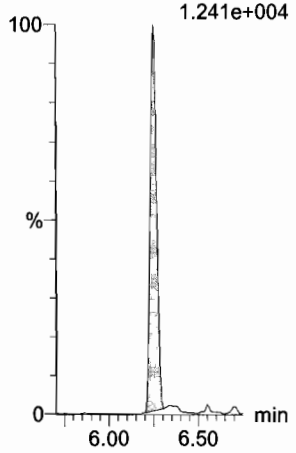
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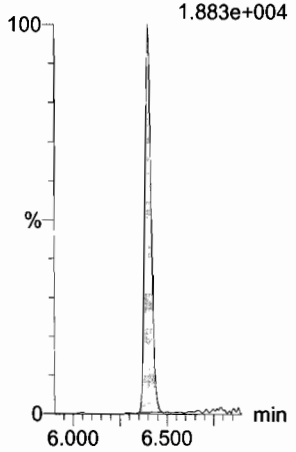
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.828e+003



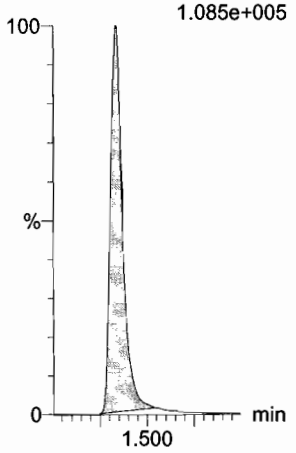
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.241e+004



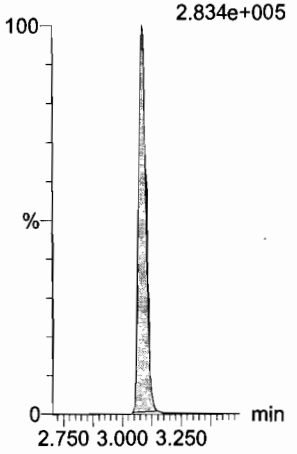
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F54:MRM of 1 channel,ES-
630.1 > 58.9
1.883e+004



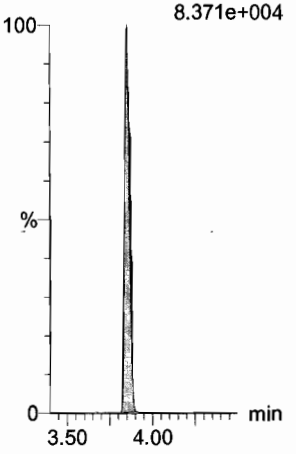
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.085e+005



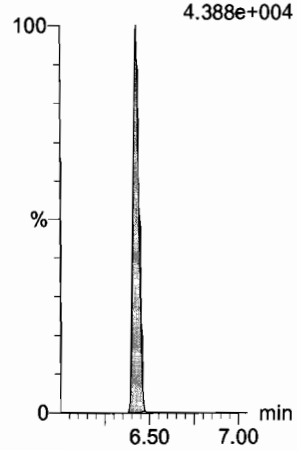
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.834e+005



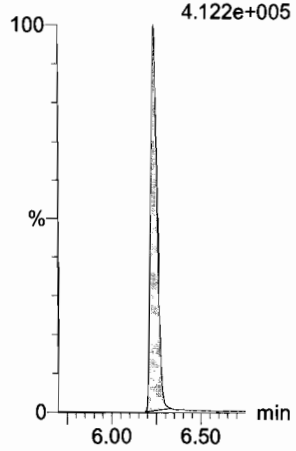
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.371e+004



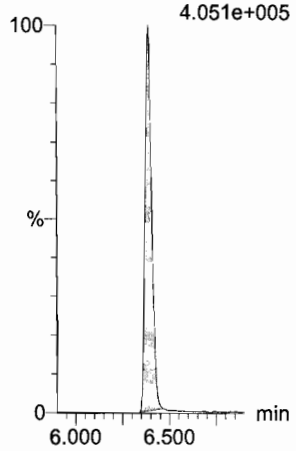
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F60:MRM of 1 channel,ES-
815 > 769.7
4.388e+004



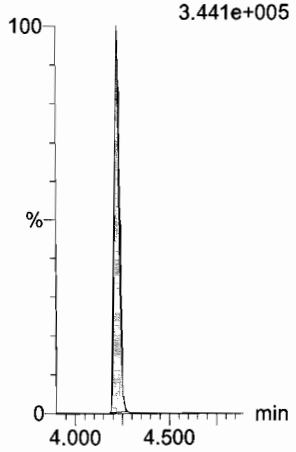
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.122e+005



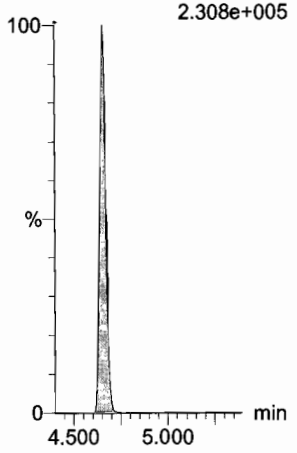
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.051e+005



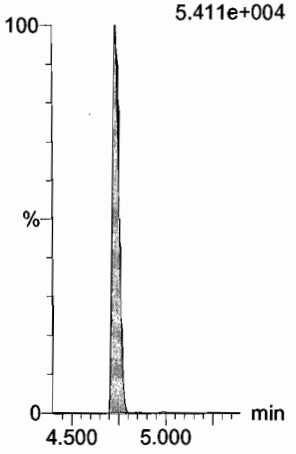
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.441e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.308e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
5.411e+004

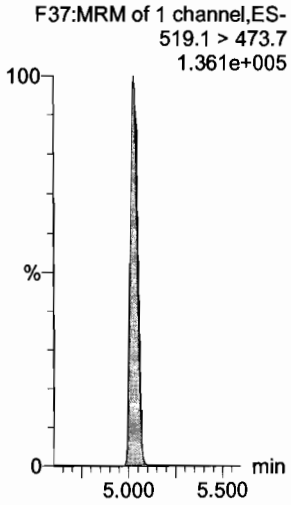


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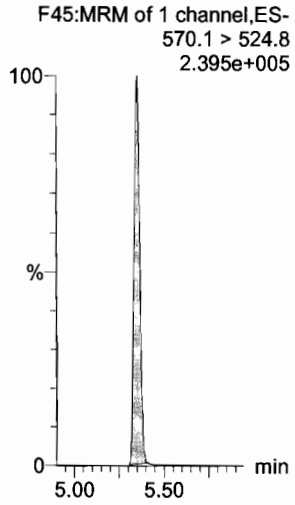
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13C6-PFDA



13C7-PFUdA

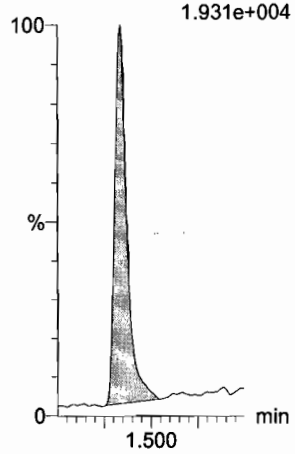


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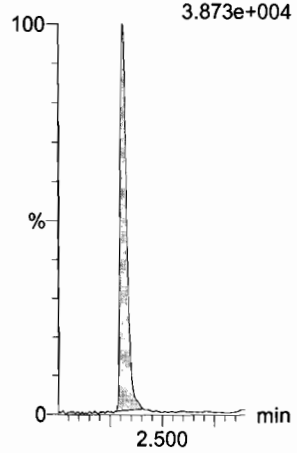
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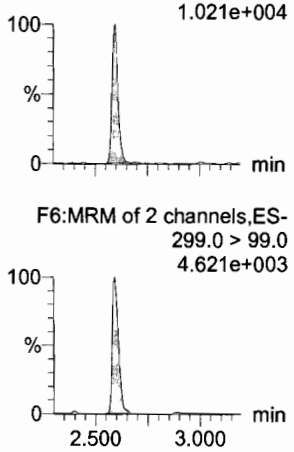
PFBA



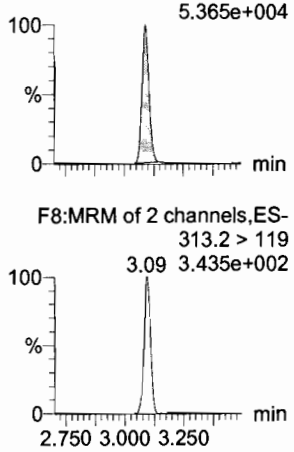
PFPeA



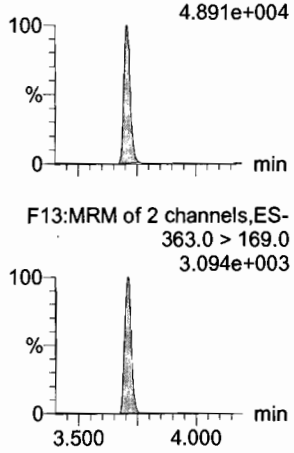
PFBS



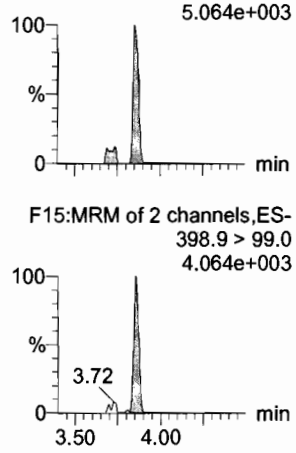
PFHxA



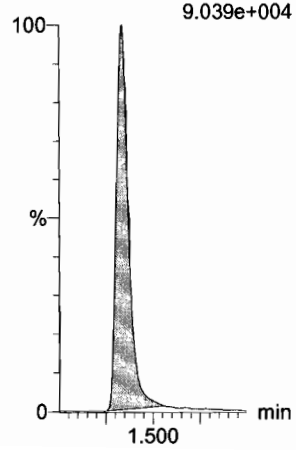
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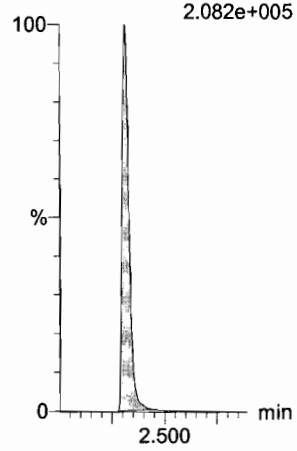
L-PFHxS



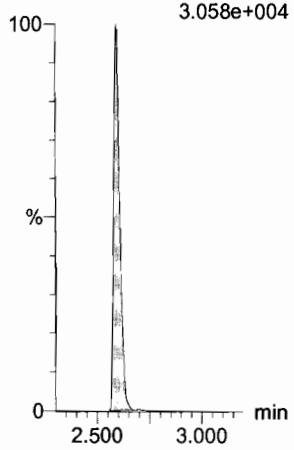
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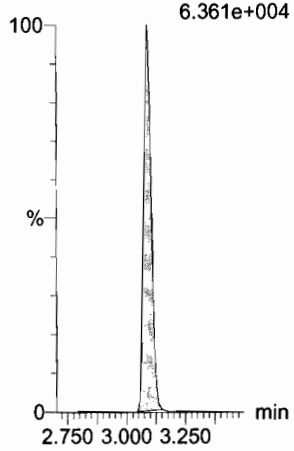
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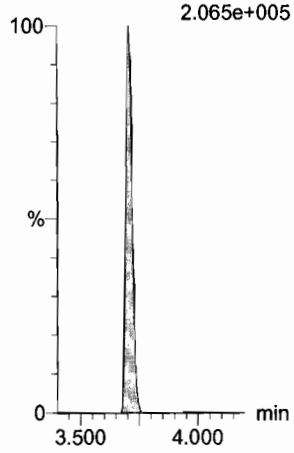
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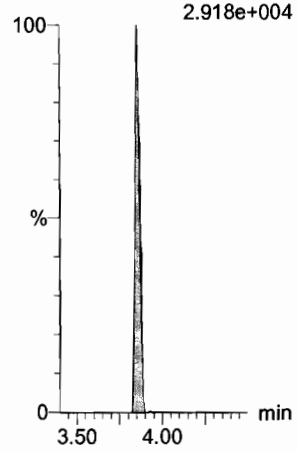
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

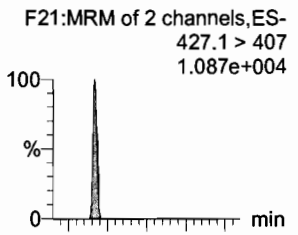


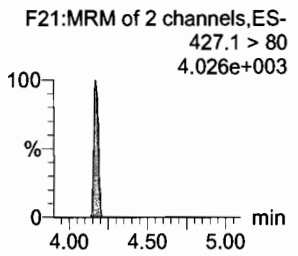
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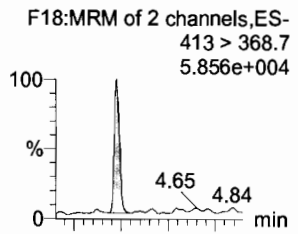
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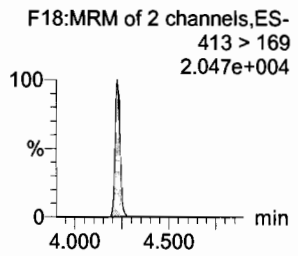
6:2 FTS



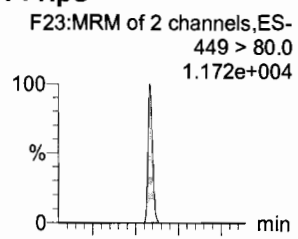


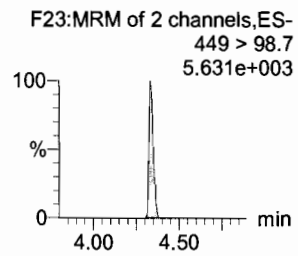
L-PFOA



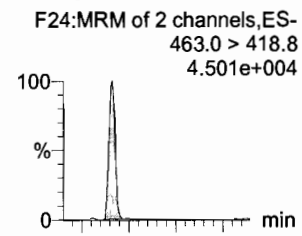


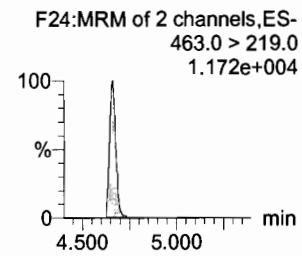
PFHpS



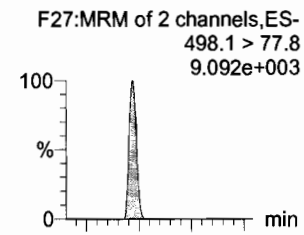


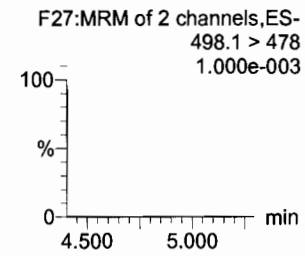
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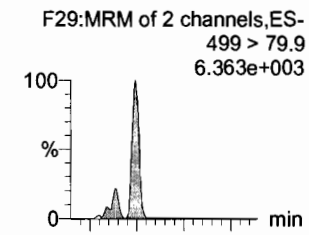


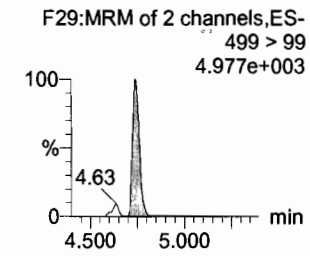
PFOSA



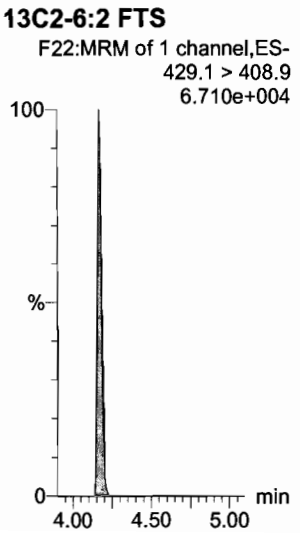


L-PFOS

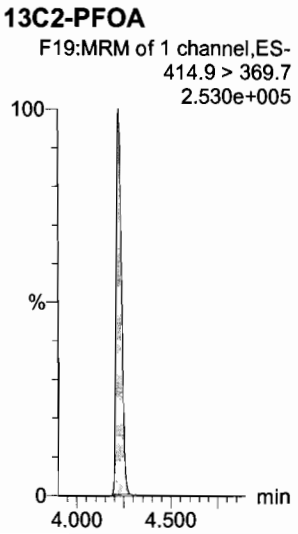




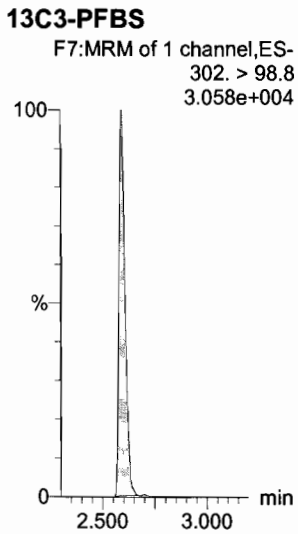
13C2-6:2 FTS



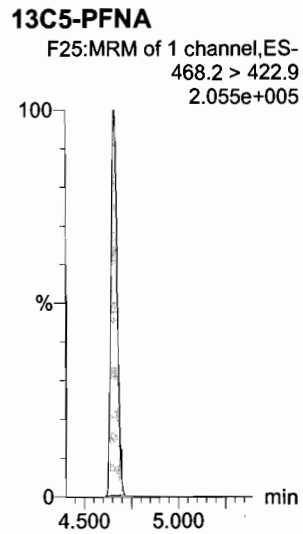
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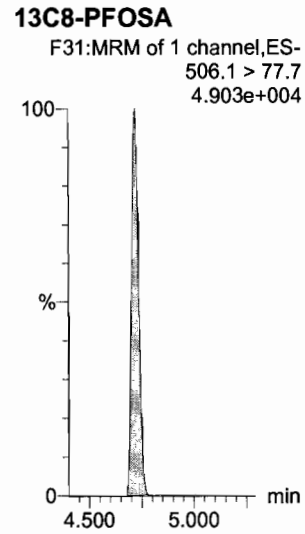
13C3-PFBS



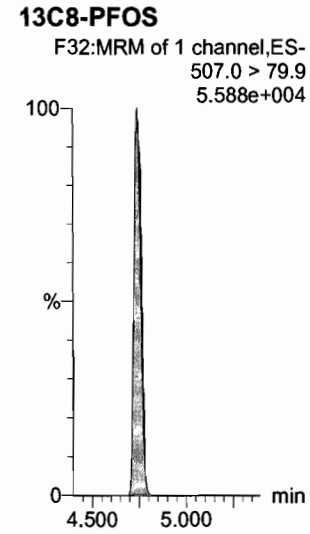
13C5-PFNA



13C8-PFOSA



13C8-PFOS

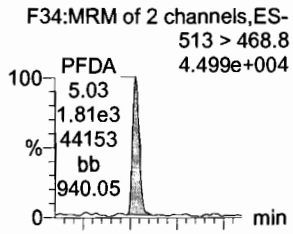


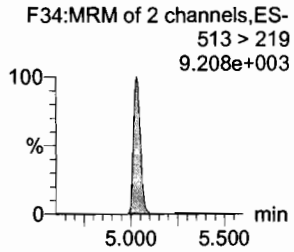
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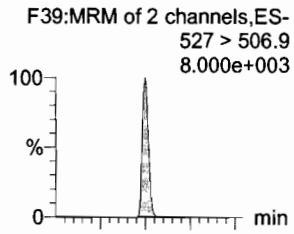
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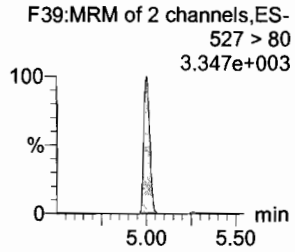
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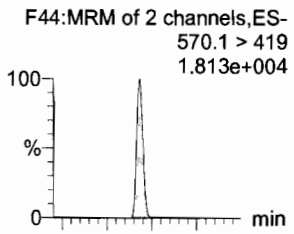


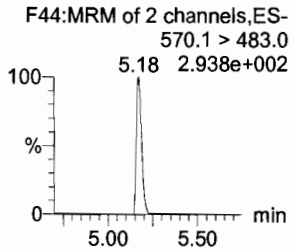
8:2 FTS



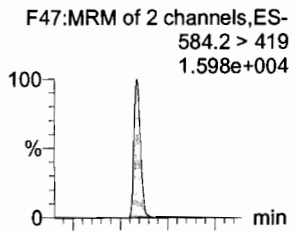


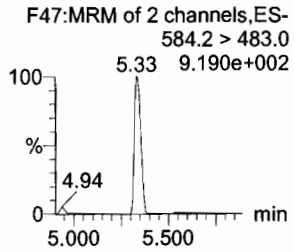
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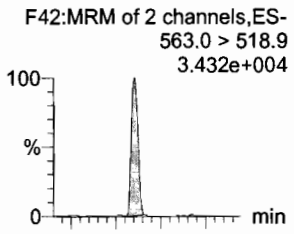


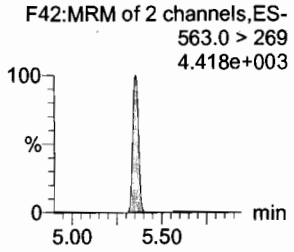
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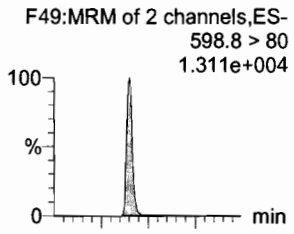


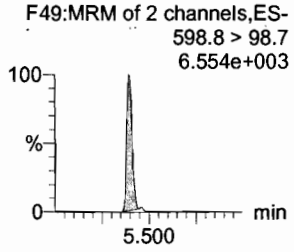
PFUdA



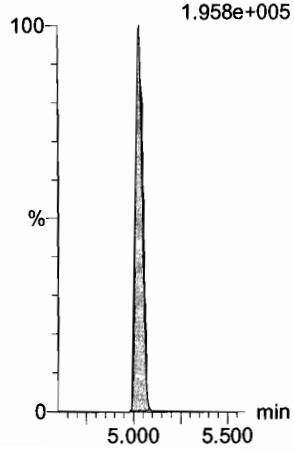


PFDS

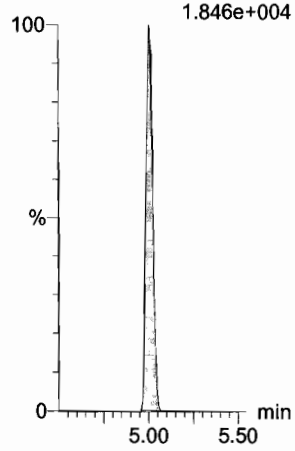




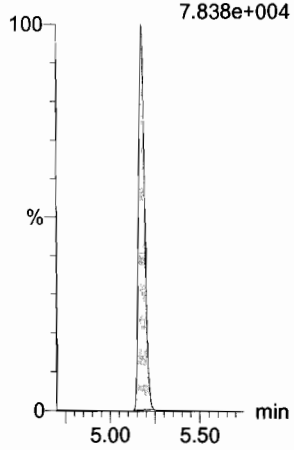
13C2-PFDA



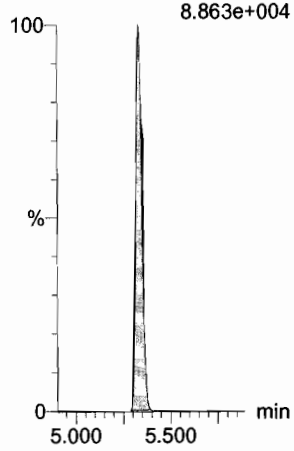
13C2-8:2 FTS



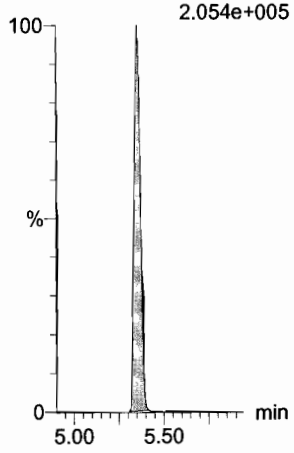
d3-N-MeFOSAA



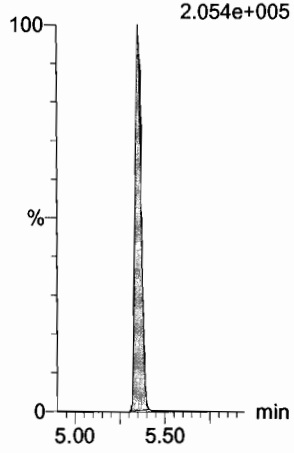
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

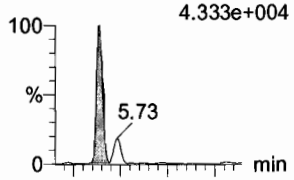


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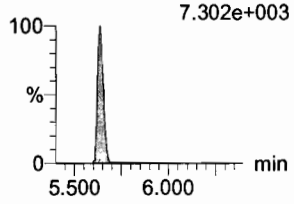
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Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

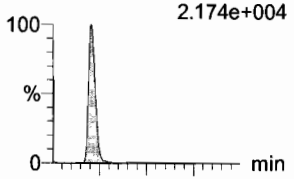
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
4.333e+004



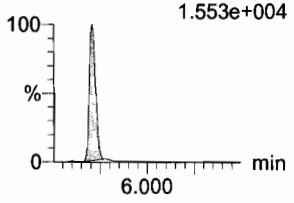
F50:MRM of 2 channels,ES-
612.9 > 318.8
7.302e+003



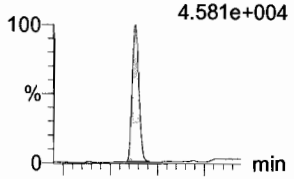
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
2.174e+004



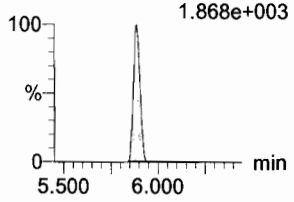
F33:MRM of 2 channels,ES-
512.1 > 219
1.553e+004



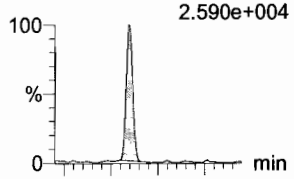
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
4.581e+004



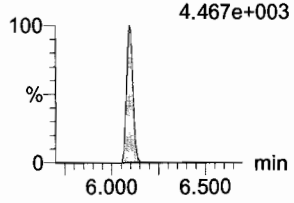
F56:MRM of 2 channels,ES-
662.9 > 319
1.868e+003



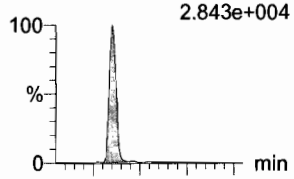
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
2.590e+004



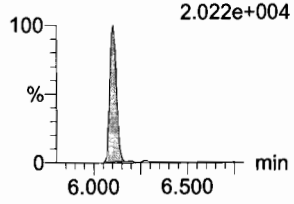
F57:MRM of 2 channels,ES-
712.9 > 369
4.467e+003



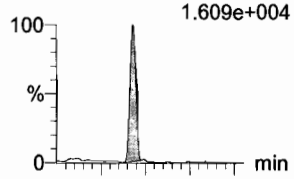
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
2.843e+004



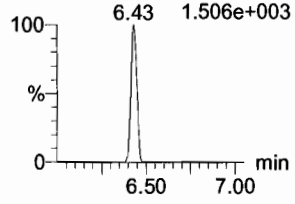
F38:MRM of 2 channels,ES-
526.1 > 219
2.022e+004



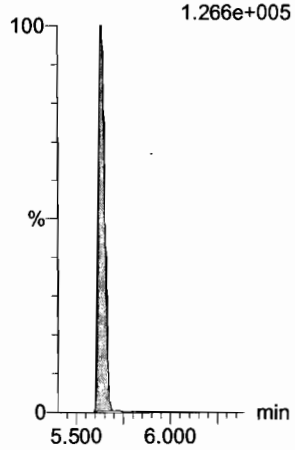
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.609e+004



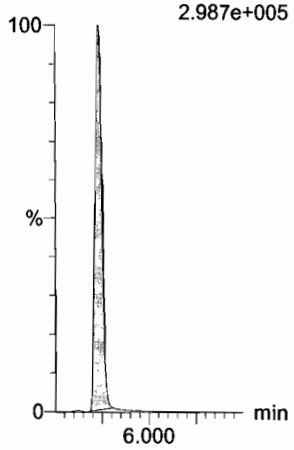
F59:MRM of 2 channels,ES-
813.1 > 219
1.506e+003



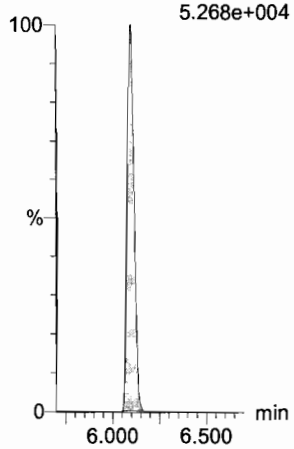
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.266e+005



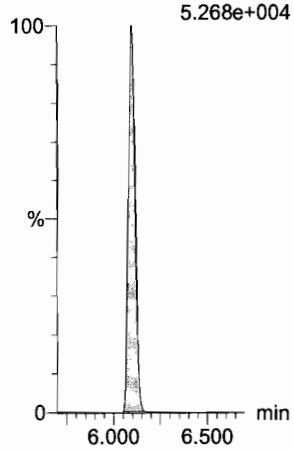
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
2.987e+005



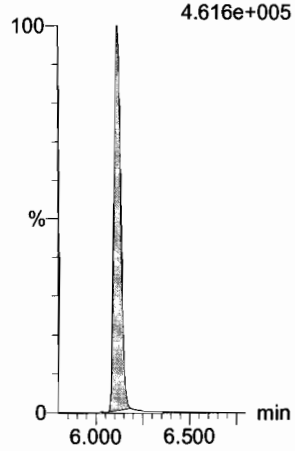
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.268e+004



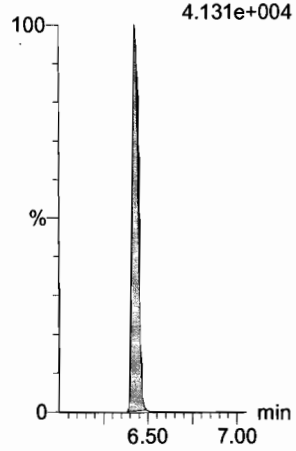
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
5.268e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
4.616e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.131e+004

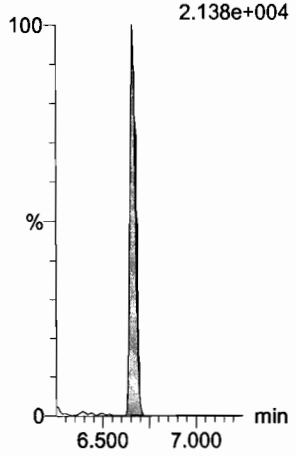


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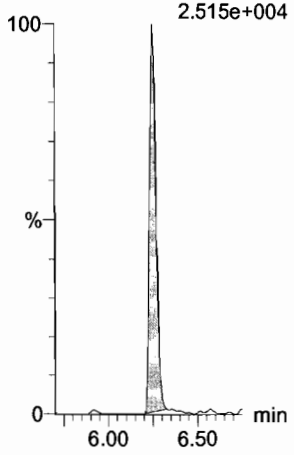
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Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

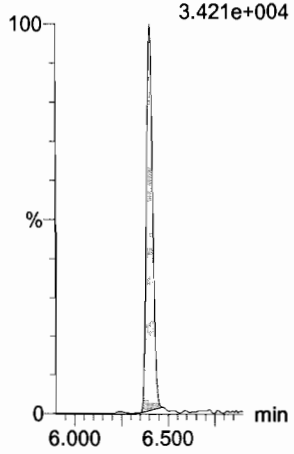
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
2.138e+004



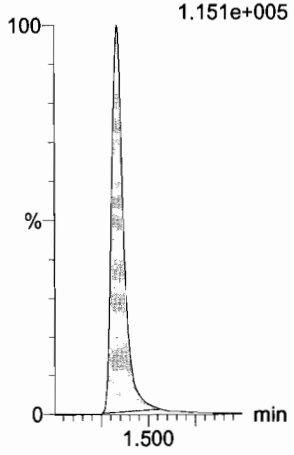
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
2.515e+004



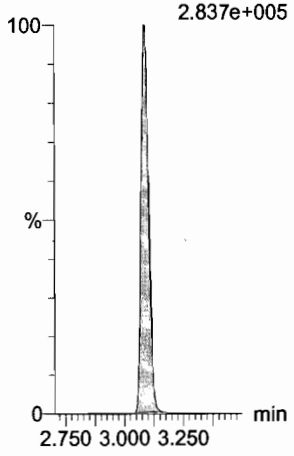
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
3.421e+004



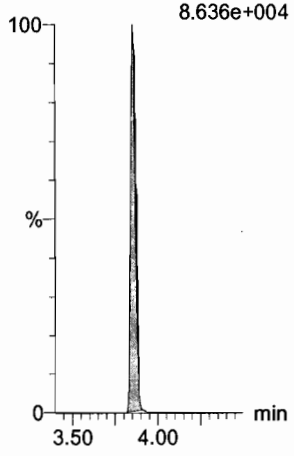
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.151e+005



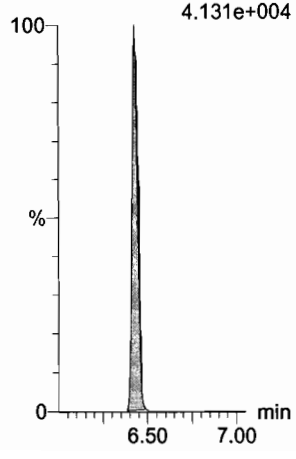
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
2.837e+005



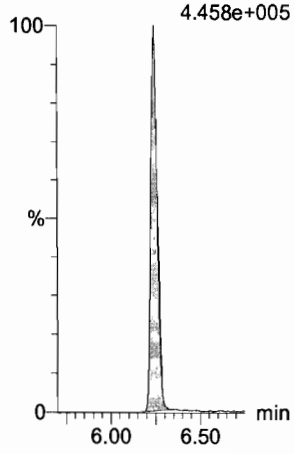
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
8.636e+004



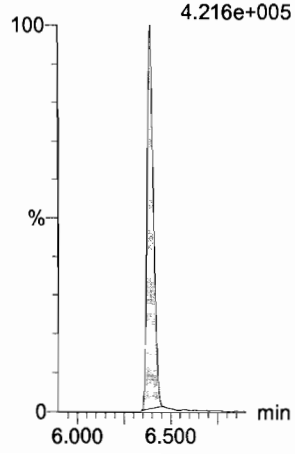
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
4.131e+004



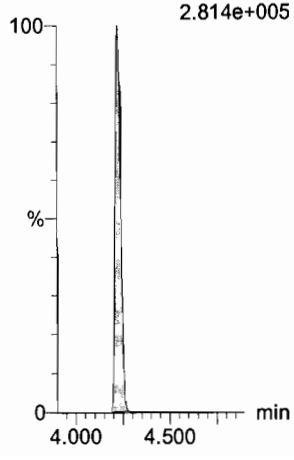
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.458e+005



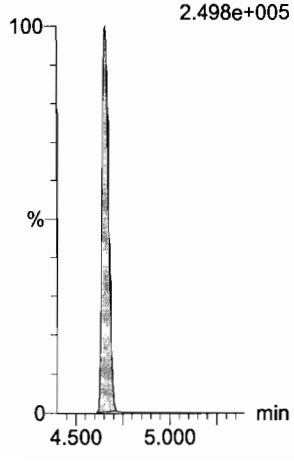
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.216e+005



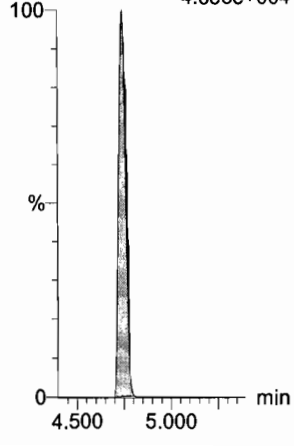
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
2.814e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.498e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
4.653e+004

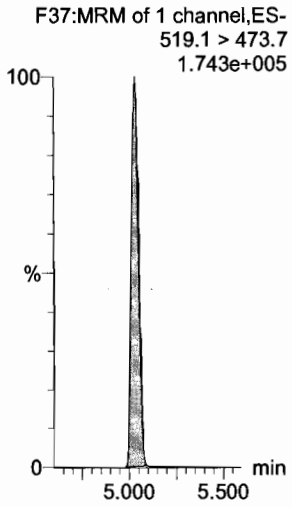


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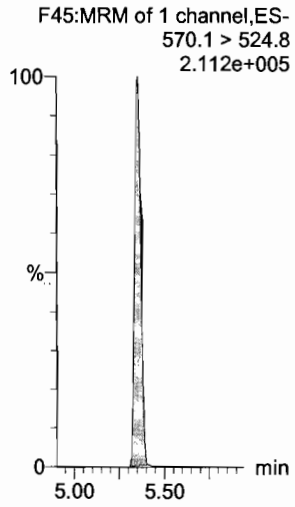
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Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_5, Date: 11-Jan-2018, Time: 10:07:34, ID: ST180110M3-4 PFC CS1 17L2609, Description: PFC CS1 17L2609

13C6-PFDA



13C7-PFUdA

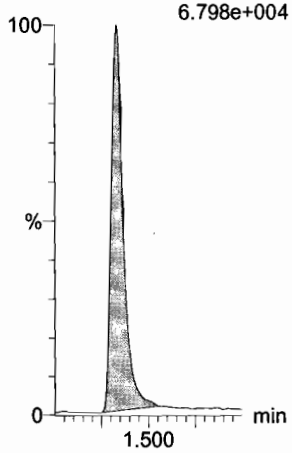


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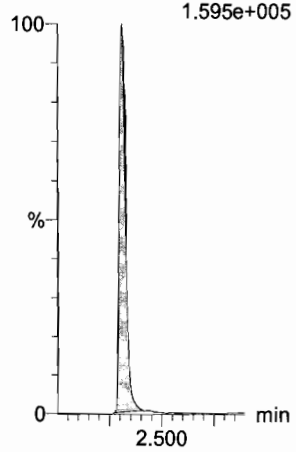
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Name: 180110M3_6, Date: 11-Jan-2018, Time: 10:18:46, ID: ST180110M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

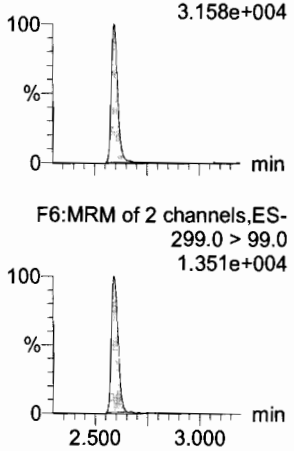
PFBA



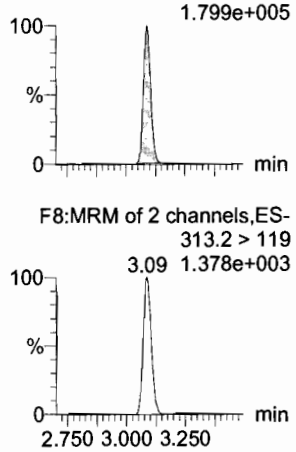
PFPeA



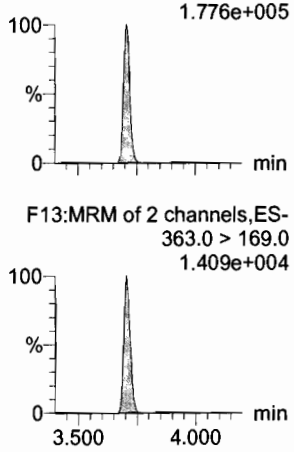
PFBS



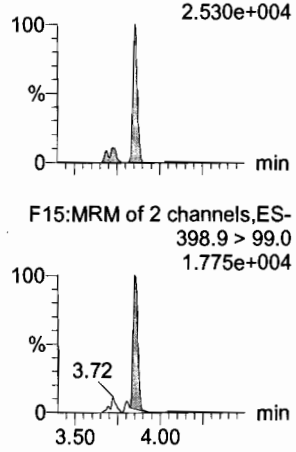
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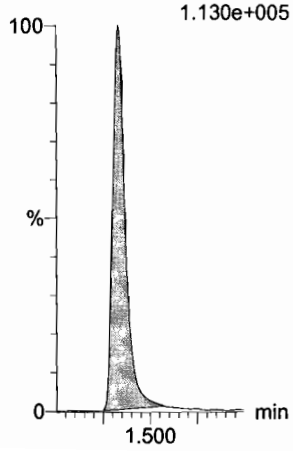
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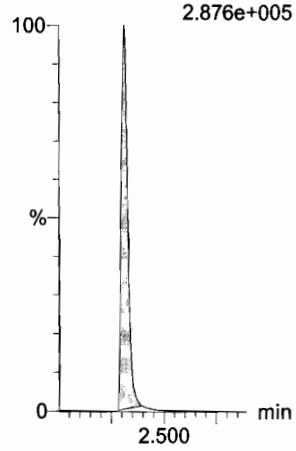
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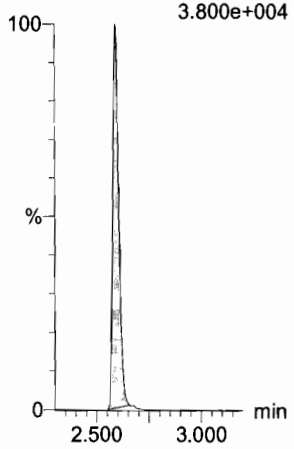
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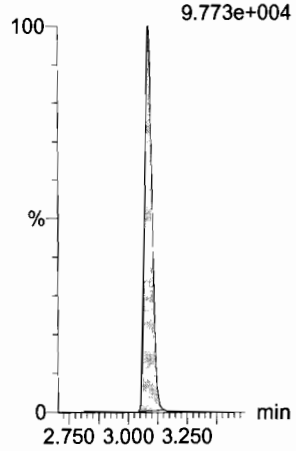
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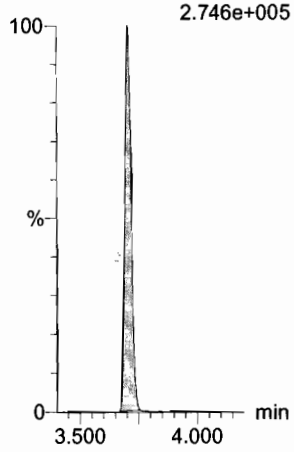
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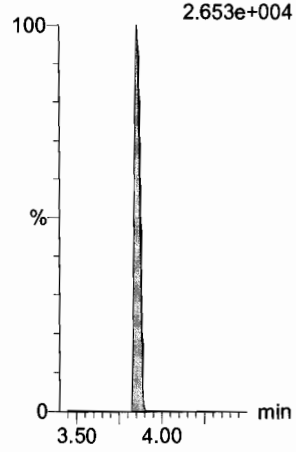
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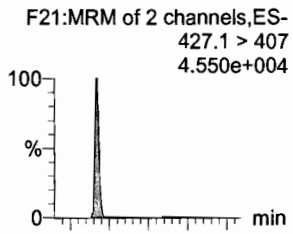


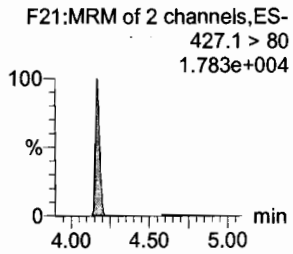
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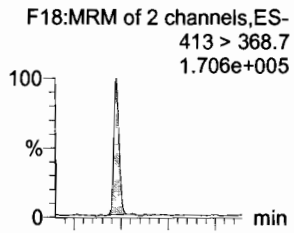
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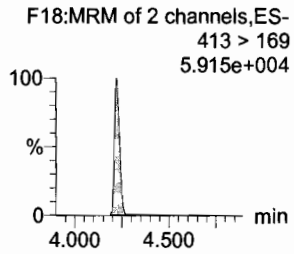
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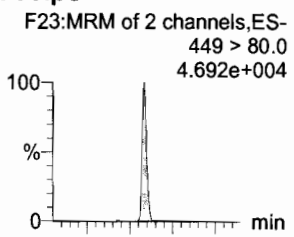


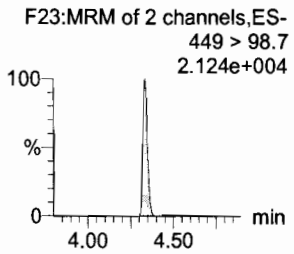
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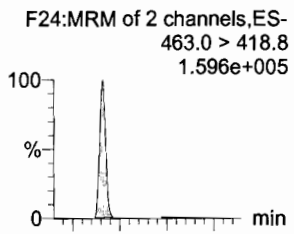


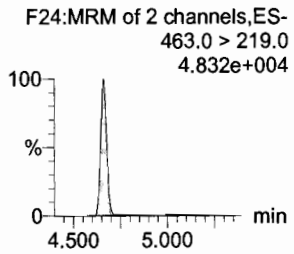
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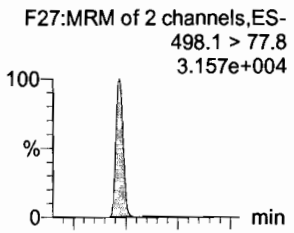


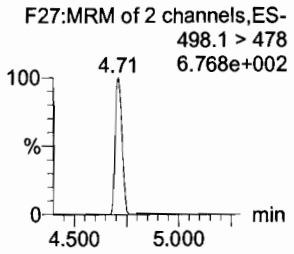
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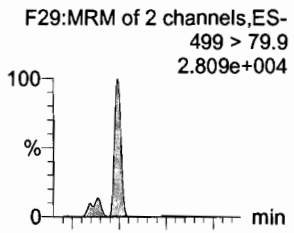


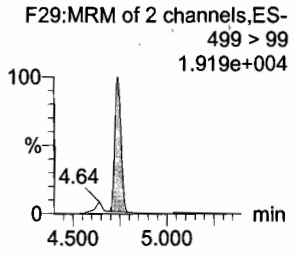
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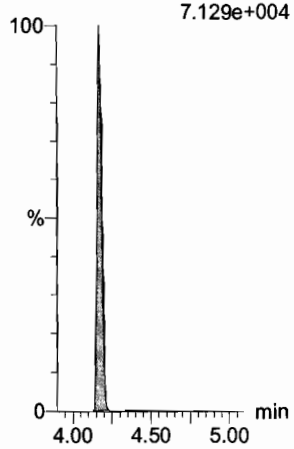


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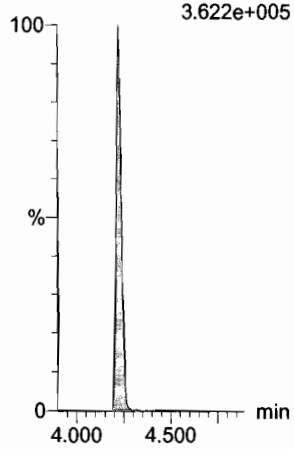




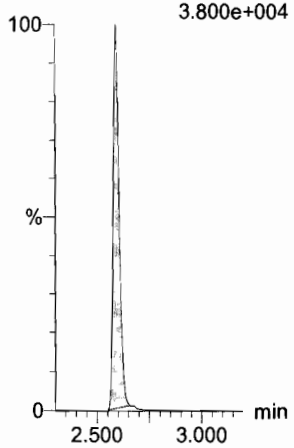
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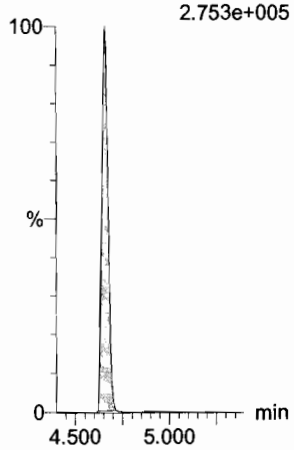
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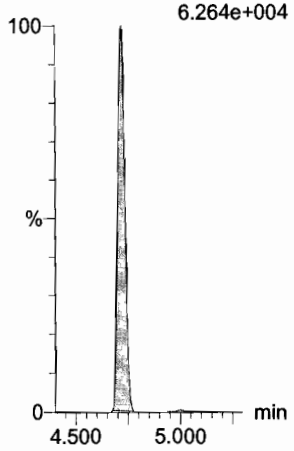
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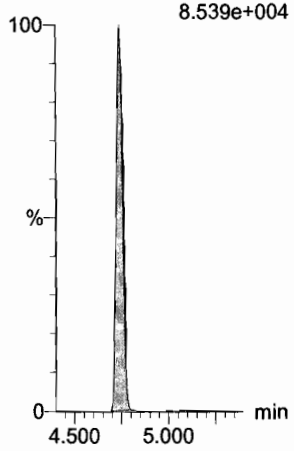
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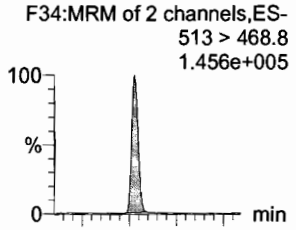


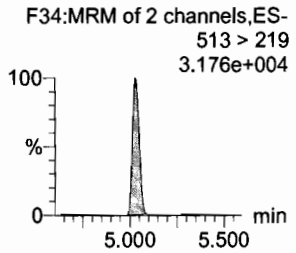
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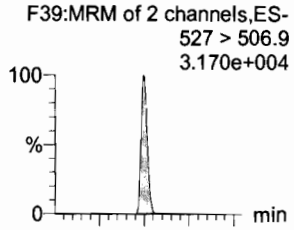
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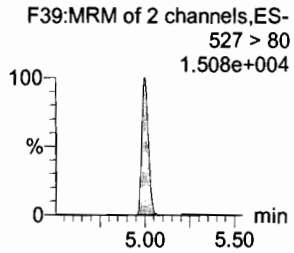
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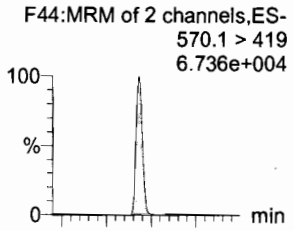


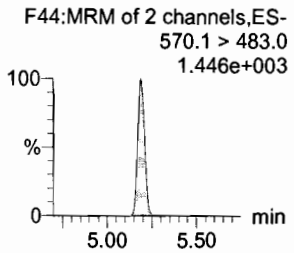
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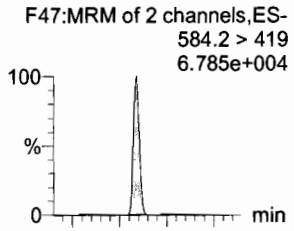


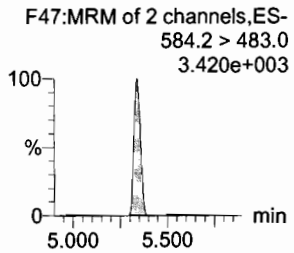
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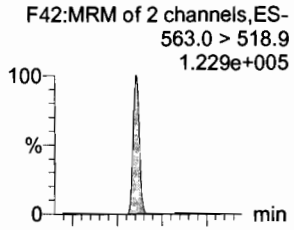


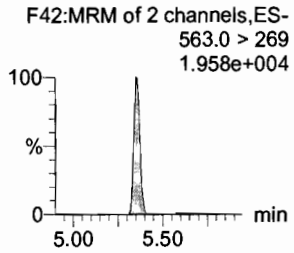
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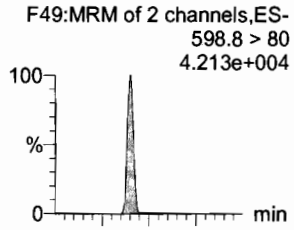


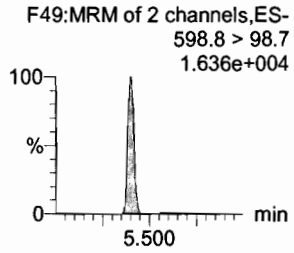
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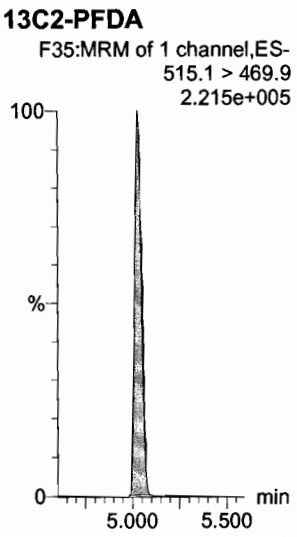


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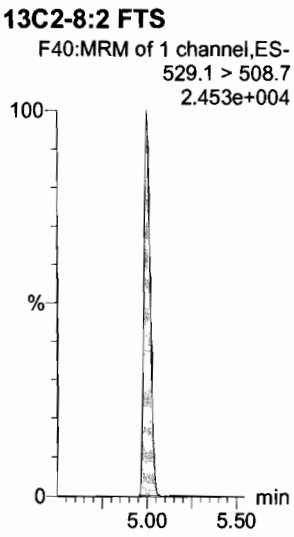




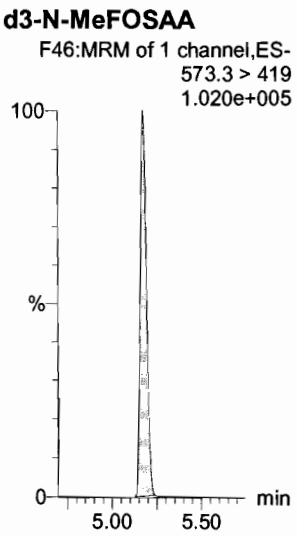
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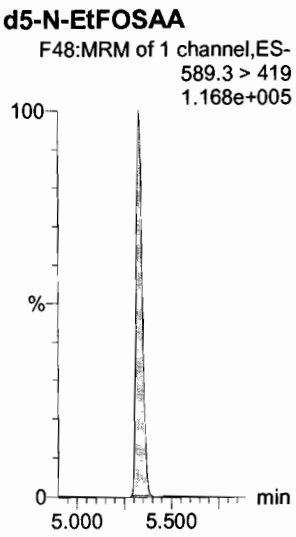
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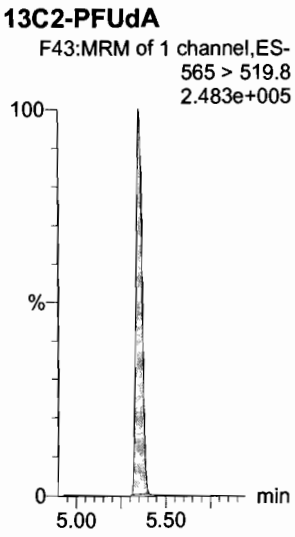
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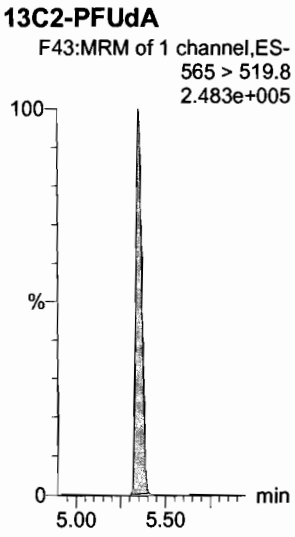
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13C2-PFUdA



13C2-PFUdA

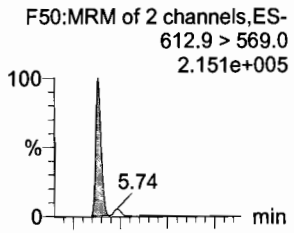


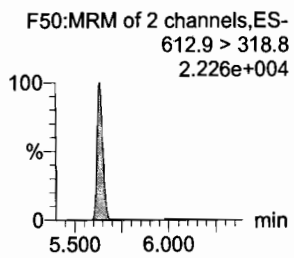
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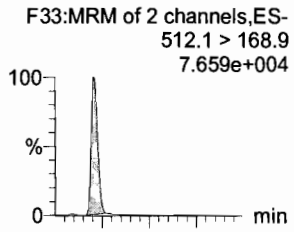
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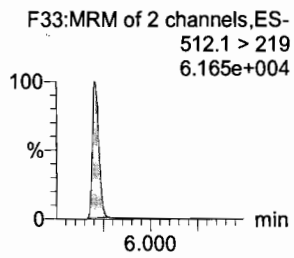
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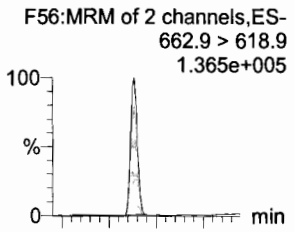


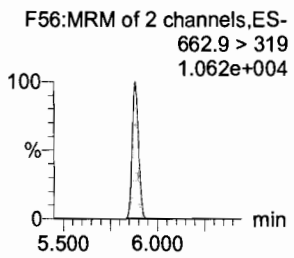
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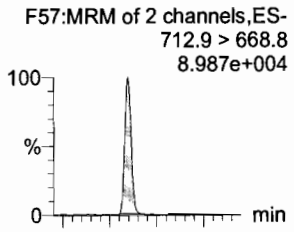


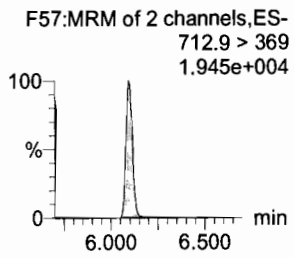
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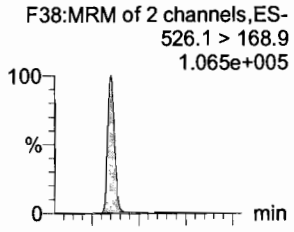


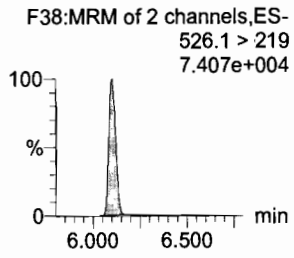
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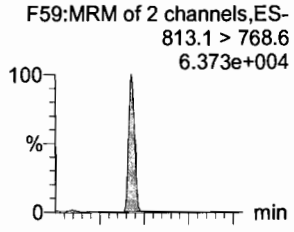


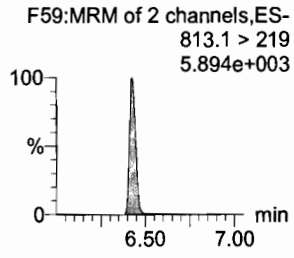
N-EtFOSA



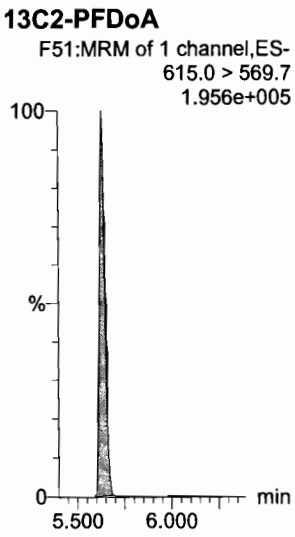


PFHxDA

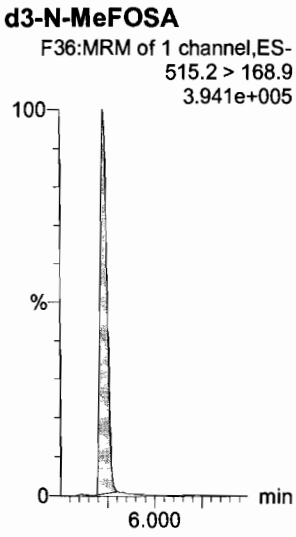




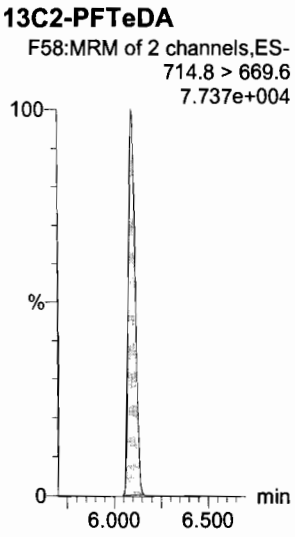
13C2-PFDoA



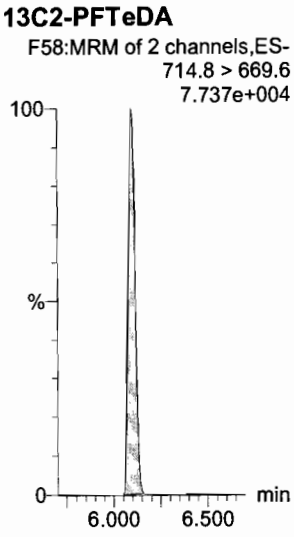
d3-N-MeFOSA



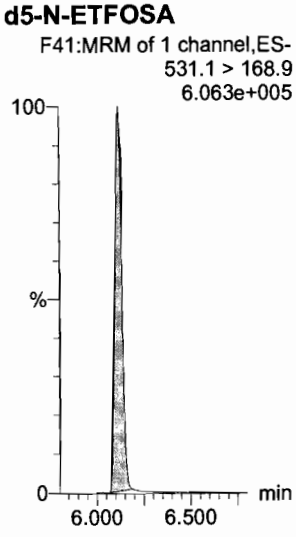
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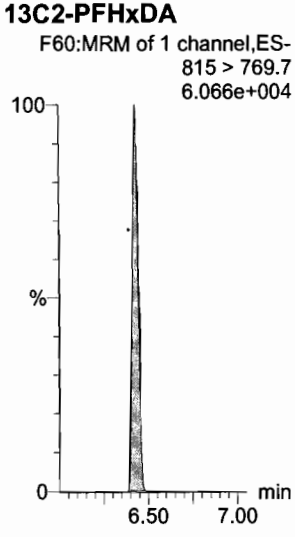
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d5-N-ETFOSA



13C2-PFHxDA

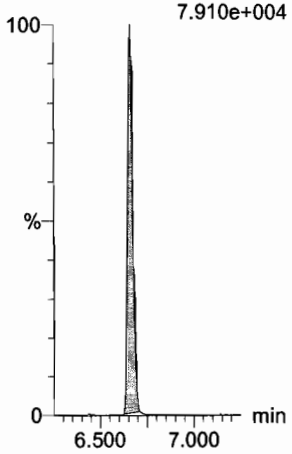


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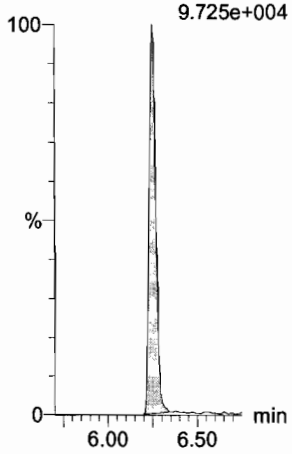
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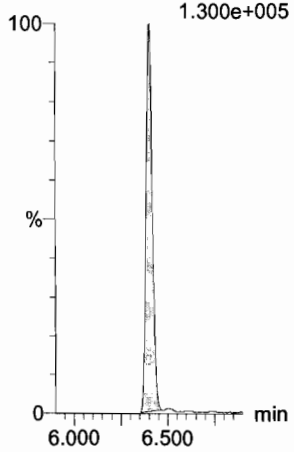
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
7.910e+004



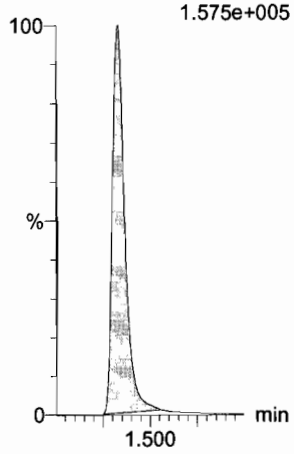
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
9.725e+004



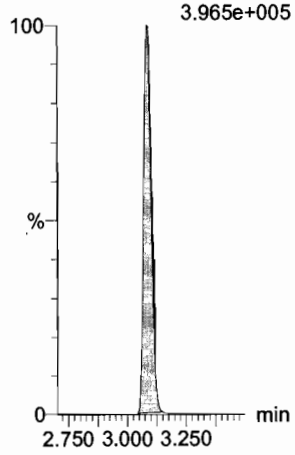
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.300e+005



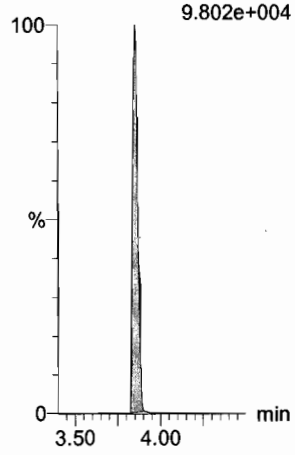
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.575e+005



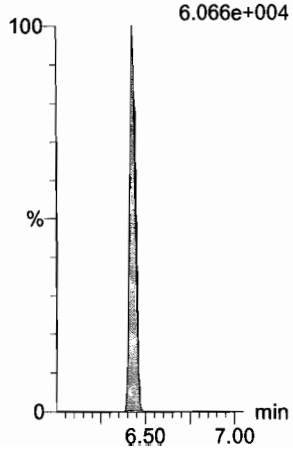
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.965e+005



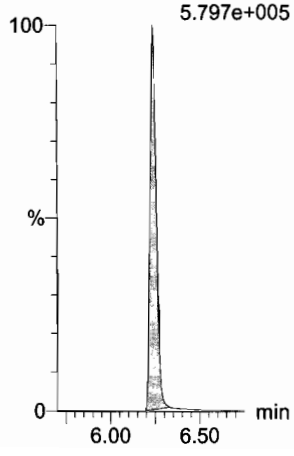
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.802e+004



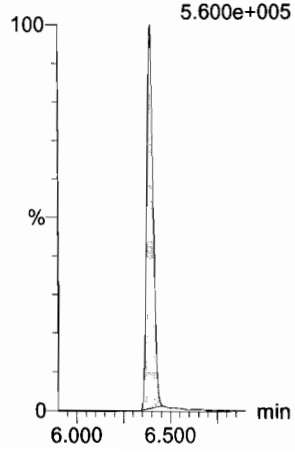
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.066e+004



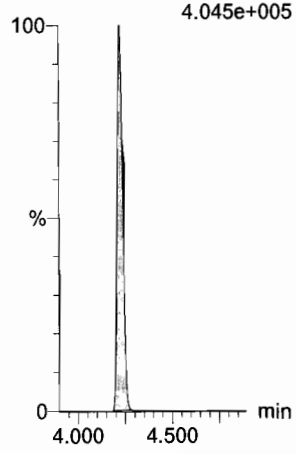
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.797e+005



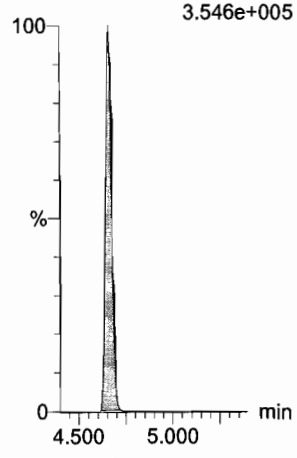
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.600e+005



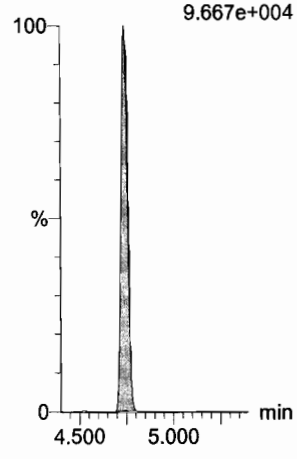
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.045e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.546e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.667e+004

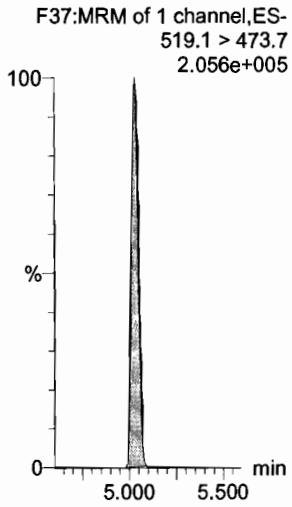


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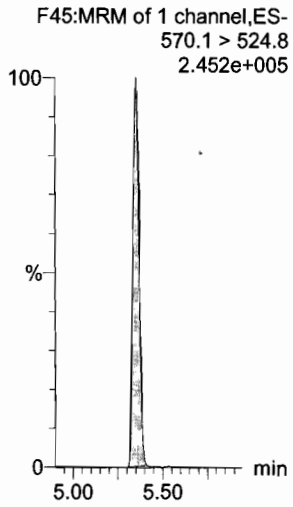
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Name: 180110M3_6, Date: 11-Jan-2018, Time: 10:18:46, ID: ST180110M3-5 PFC CS2 17L2610, Description: PFC CS2 17L2610

13C6-PFDA



13C7-PFUdA

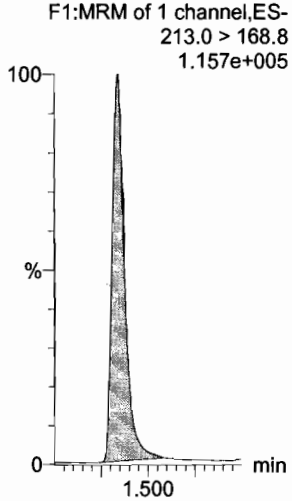


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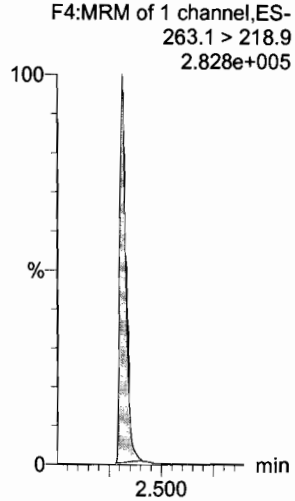
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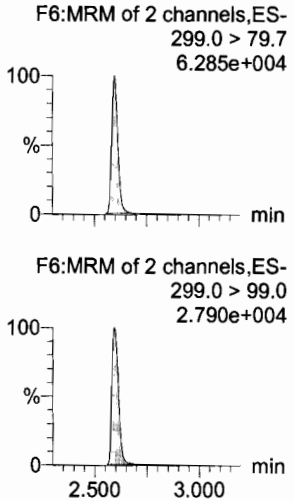
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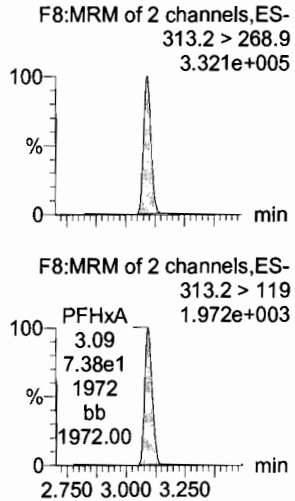
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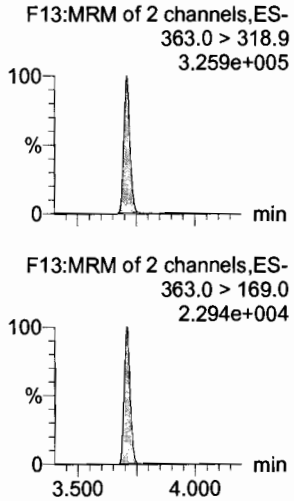
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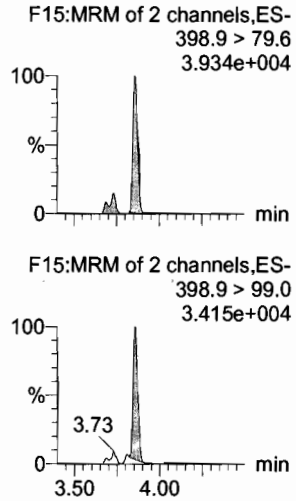
PFHxA



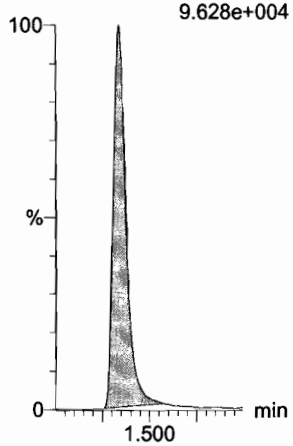
PFHpA



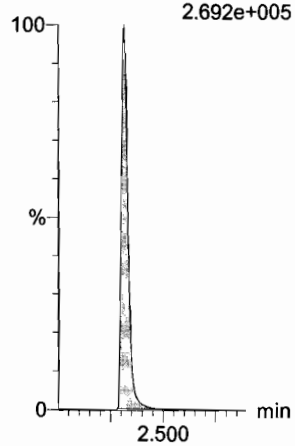
L-PFHxS



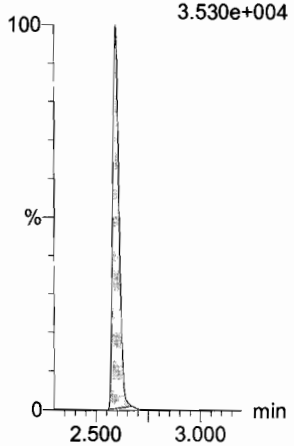
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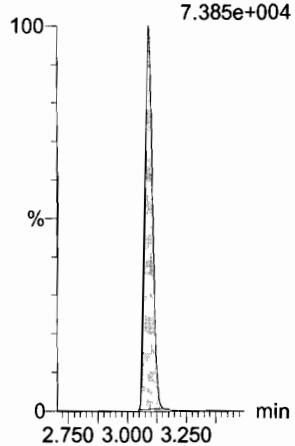
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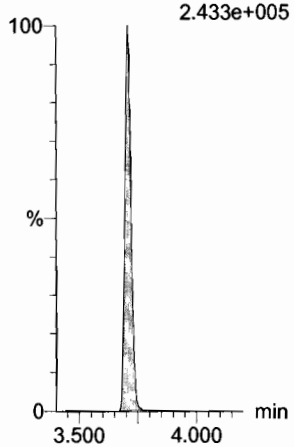
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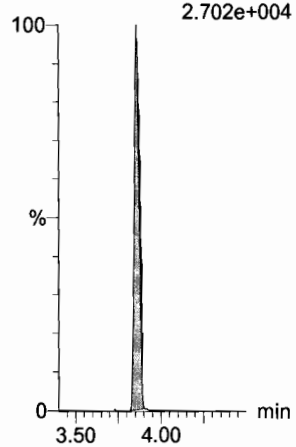
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13C4-PFHpA



18O2-PFHxS

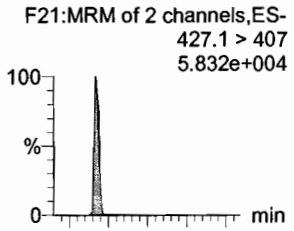


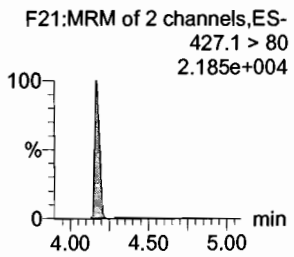
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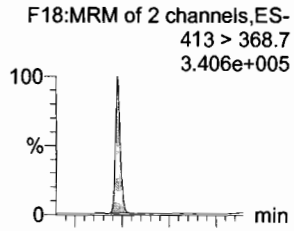
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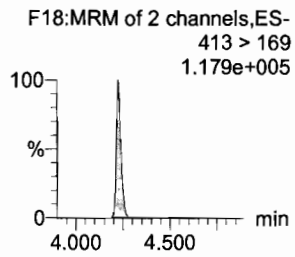
6:2 FTS



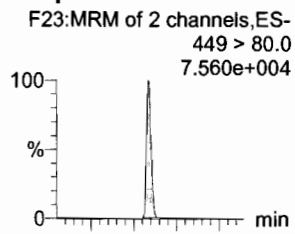


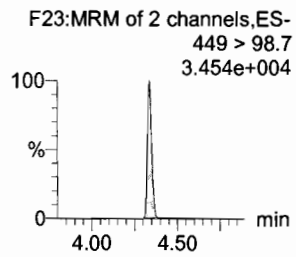
L-PFOA



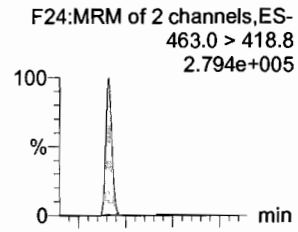


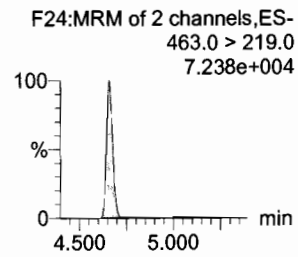
PFHpS



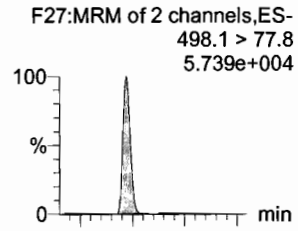


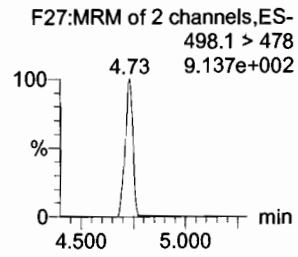
PFNA



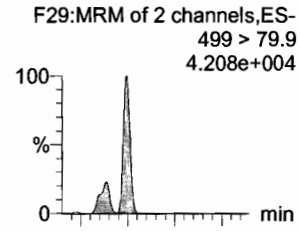


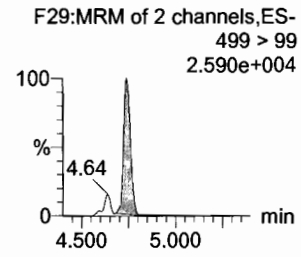
PFOSA



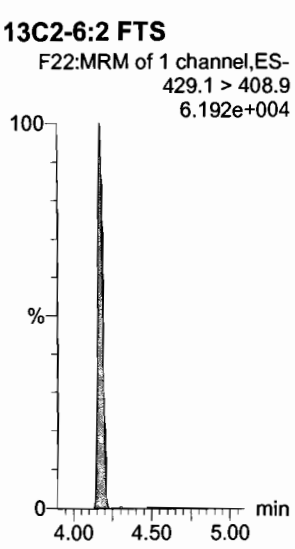


L-PFOS

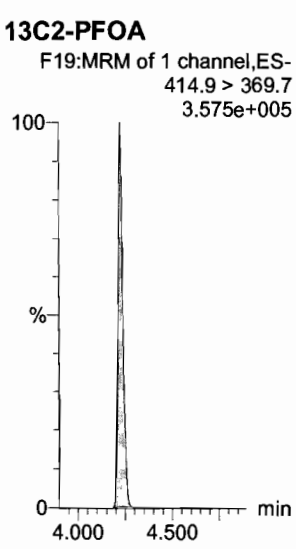




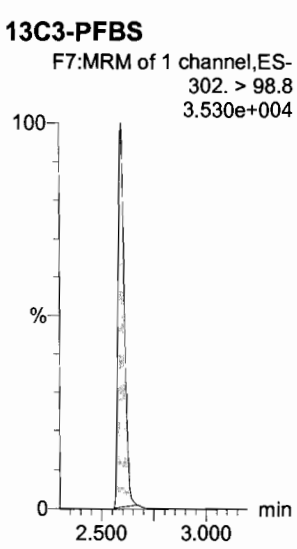
13C2-6:2 FTS



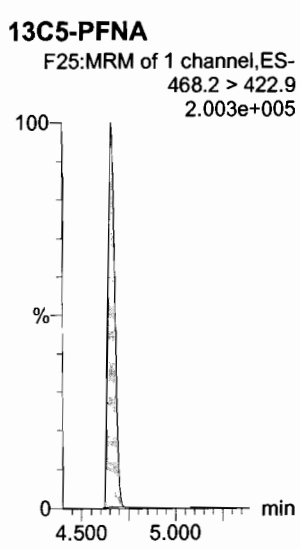
13C2-PFOA



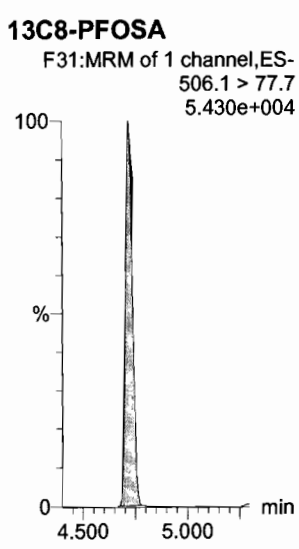
13C3-PFBS



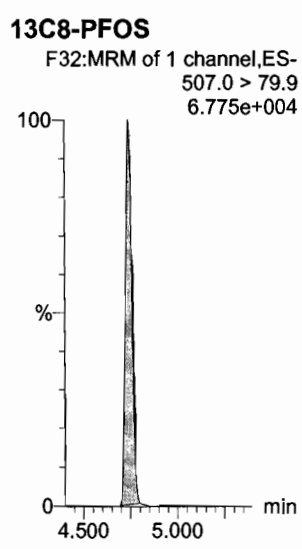
13C5-PFNA



13C8-PFOSA



13C8-PFOS

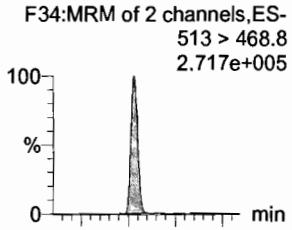


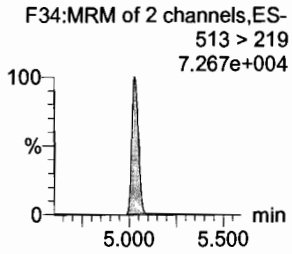
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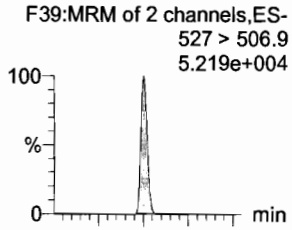
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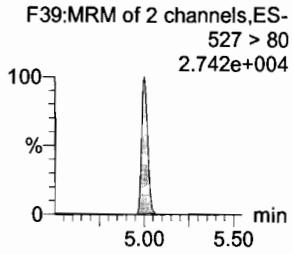
PFDA



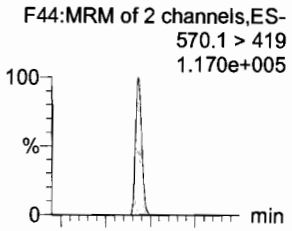


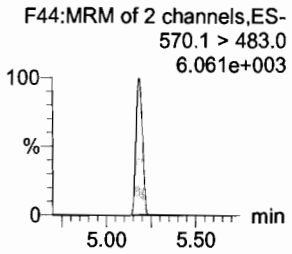
8:2 FTS



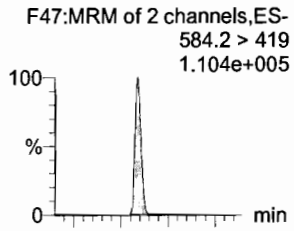


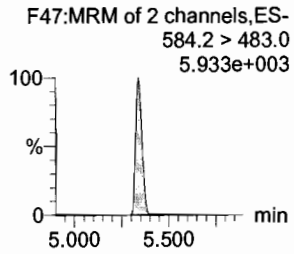
N-MeFOSAA



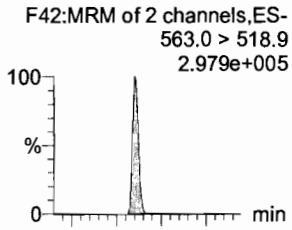


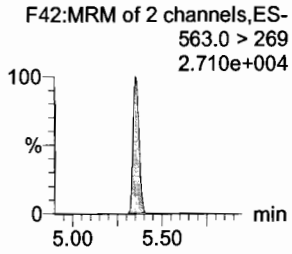
N-EtFOSAA



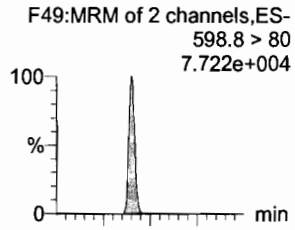


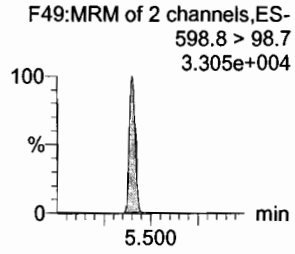
PFUdA



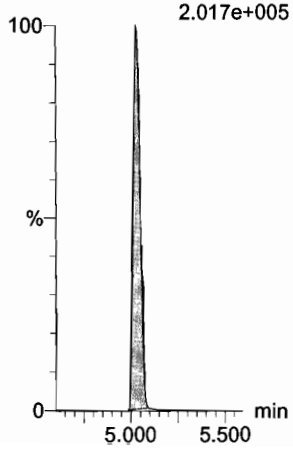


PFDS

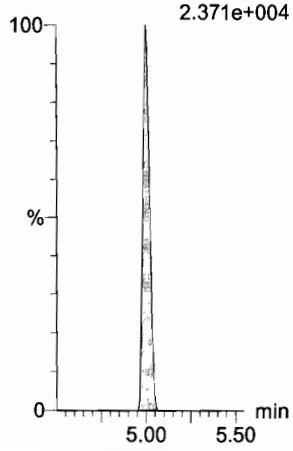




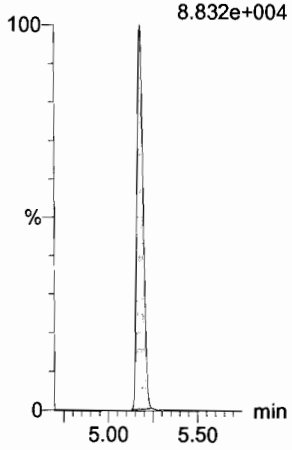
13C2-PFDA



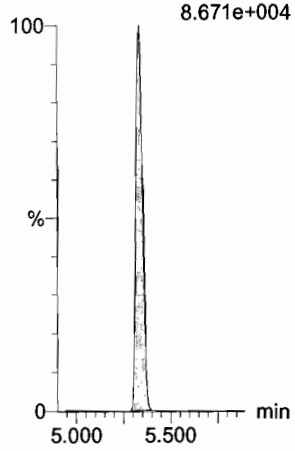
13C2-8:2 FTS



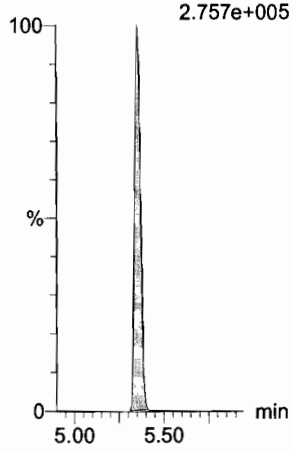
d3-N-MeFOSAA



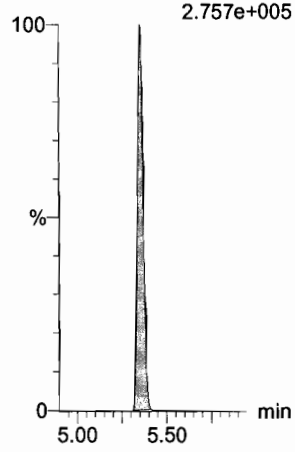
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

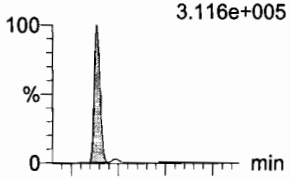


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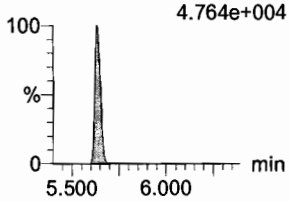
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Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

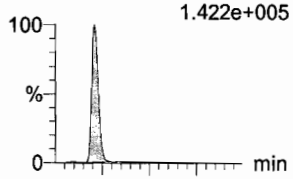
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
3.116e+005



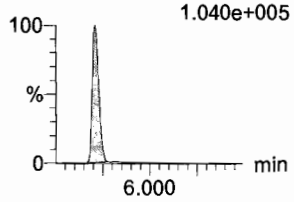
F50:MRM of 2 channels,ES-
612.9 > 318.8
4.764e+004



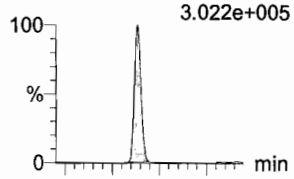
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
1.422e+005



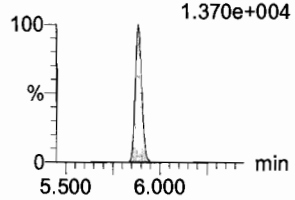
F33:MRM of 2 channels,ES-
512.1 > 219
1.040e+005



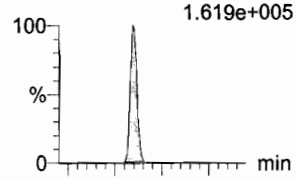
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
3.022e+005



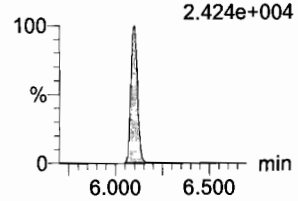
F56:MRM of 2 channels,ES-
662.9 > 319
1.370e+004



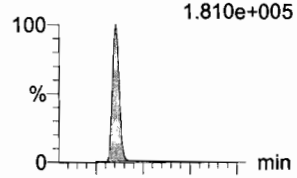
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
1.619e+005



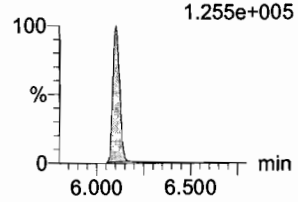
F57:MRM of 2 channels,ES-
712.9 > 369
2.424e+004



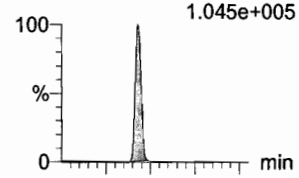
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
1.810e+005



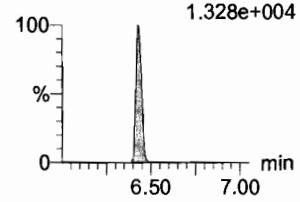
F38:MRM of 2 channels,ES-
526.1 > 219
1.255e+005



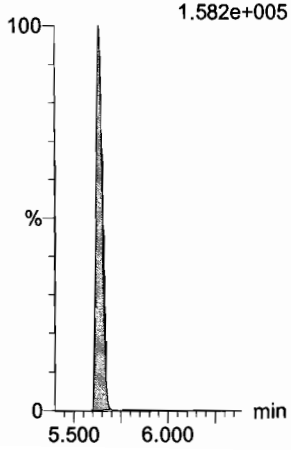
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
1.045e+005



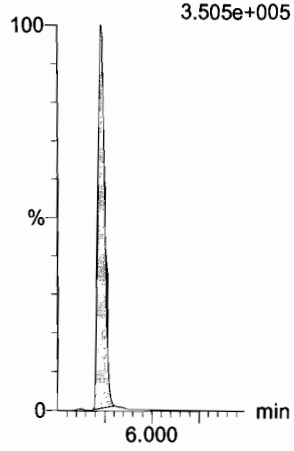
F59:MRM of 2 channels,ES-
813.1 > 219
1.328e+004



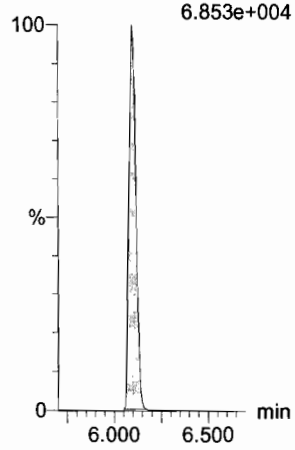
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
1.582e+005



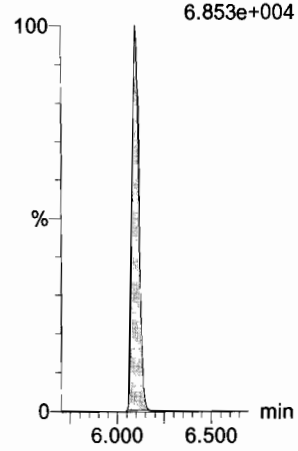
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
3.505e+005



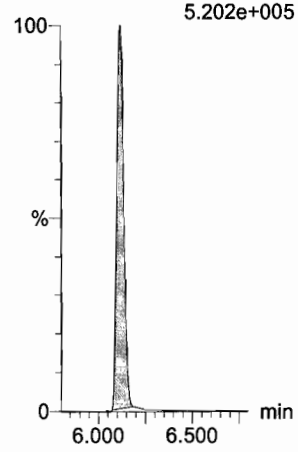
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.853e+004



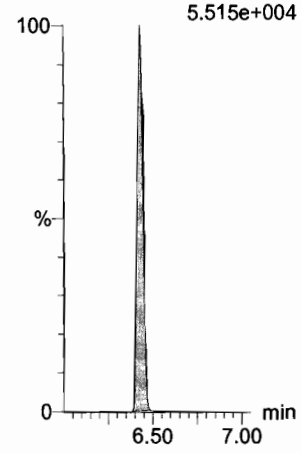
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
6.853e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
5.202e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.515e+004

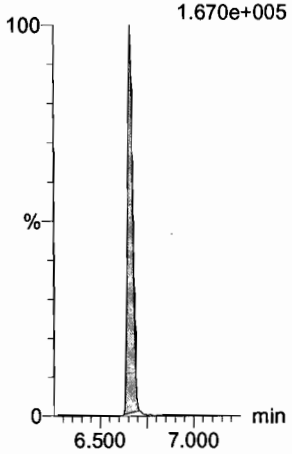


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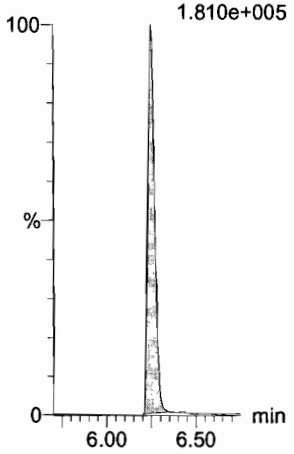
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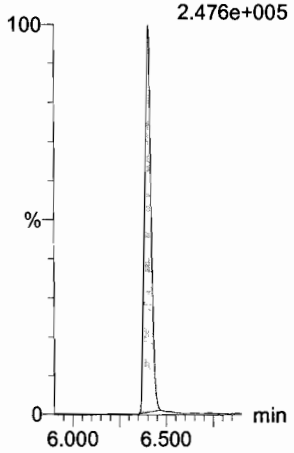
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.670e+005



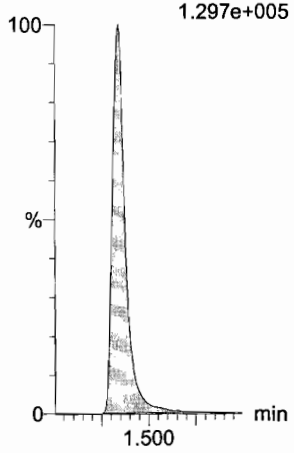
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.810e+005



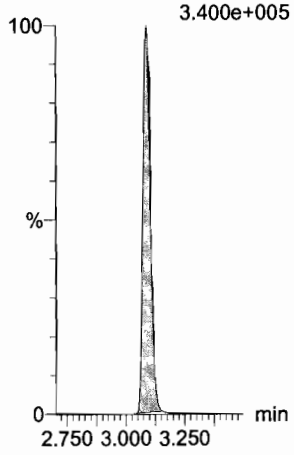
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.476e+005



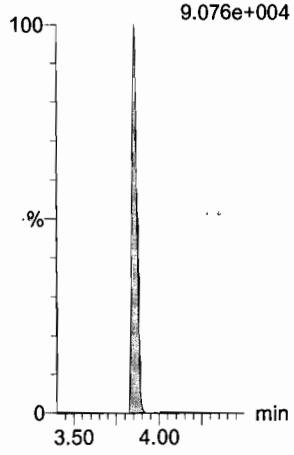
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.297e+005



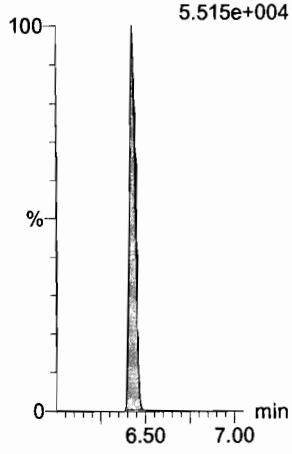
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.400e+005



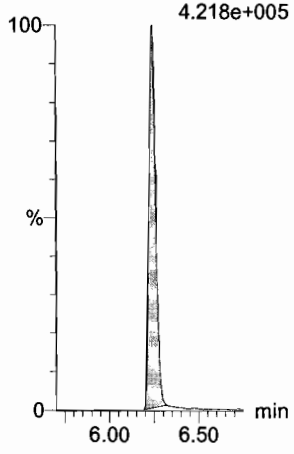
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.076e+004



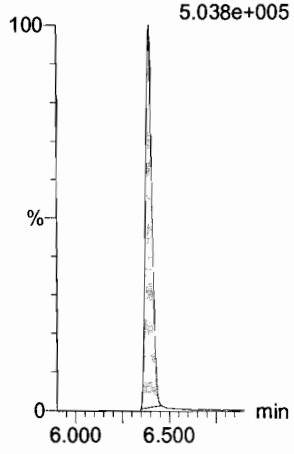
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
5.515e+004



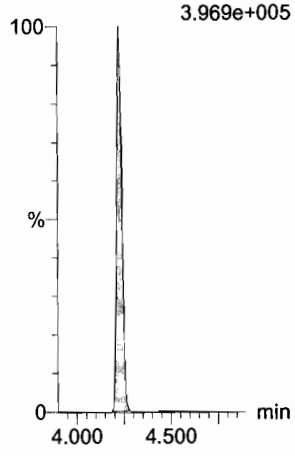
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
4.218e+005



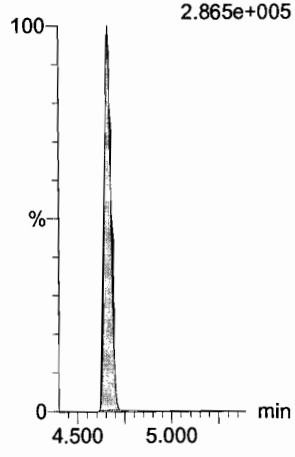
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.038e+005



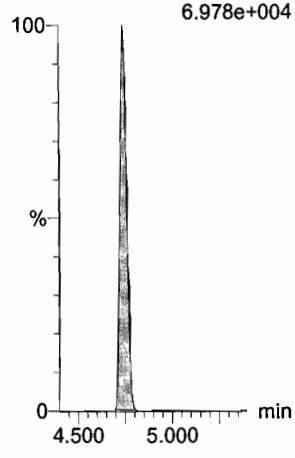
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.969e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.865e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
6.978e+004

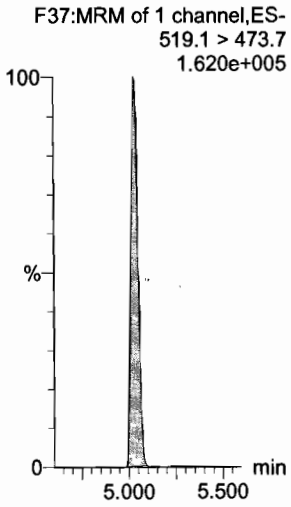


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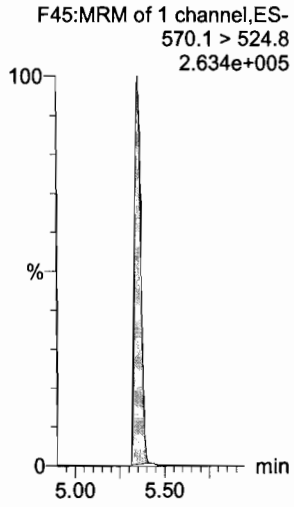
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Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_7, Date: 11-Jan-2018, Time: 10:29:56, ID: ST180110M3-6 PFC CS3 17L2611, Description: PFC CS3 17L2611

13C6-PFDA



13C7-PFUdA

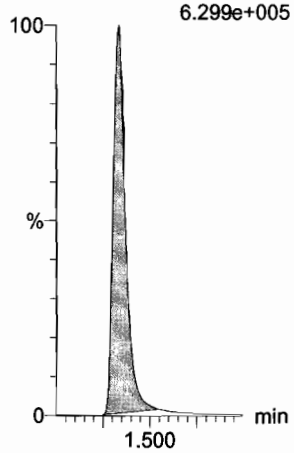


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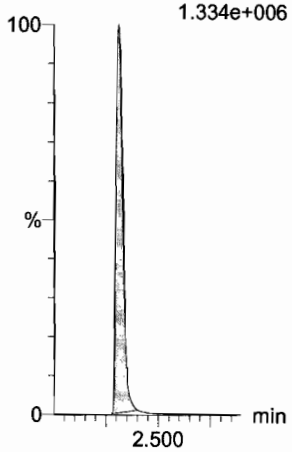
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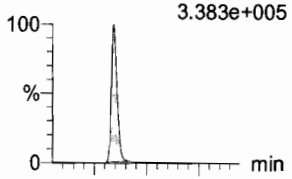
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
6.299e+005



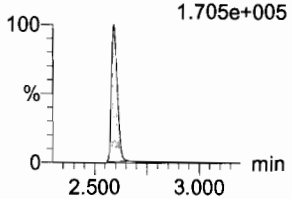
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
1.334e+006



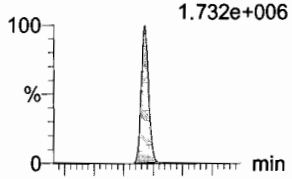
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
3.383e+005



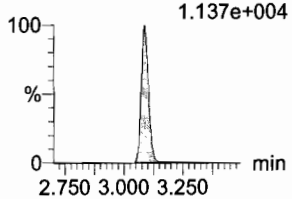
F6:MRM of 2 channels,ES-
299.0 > 99.0
1.705e+005



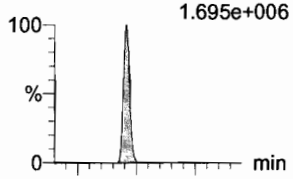
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
1.732e+006



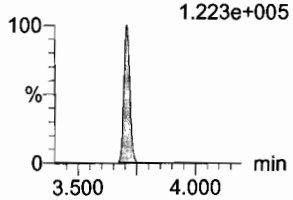
F8:MRM of 2 channels,ES-
313.2 > 119
1.137e+004



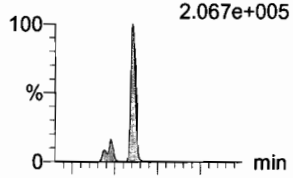
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.695e+006



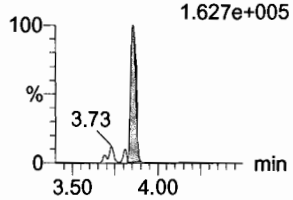
F13:MRM of 2 channels,ES-
363.0 > 169.0
1.223e+005



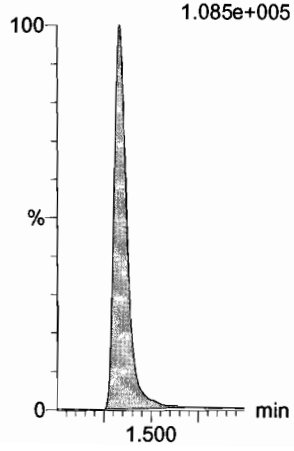
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
2.067e+005



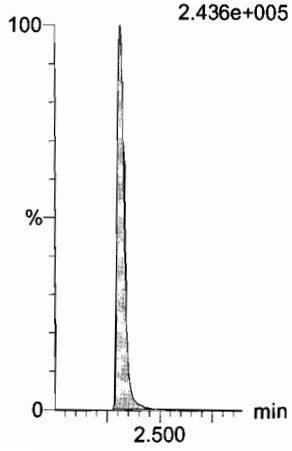
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.627e+005



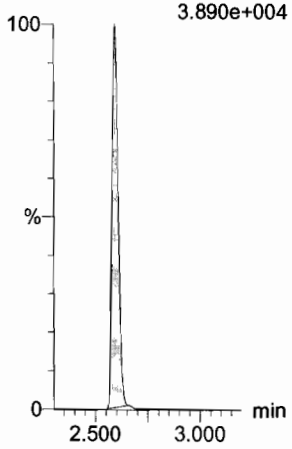
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.085e+005



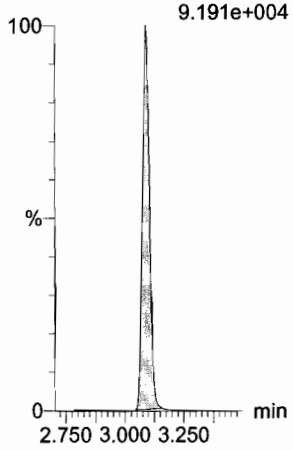
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.436e+005



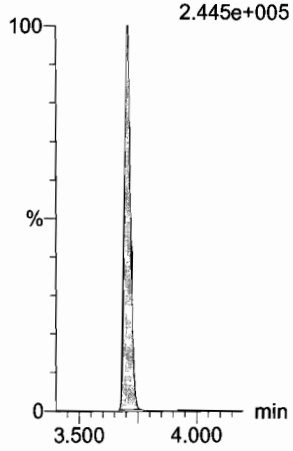
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.890e+004



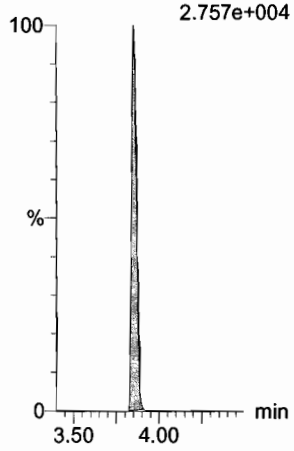
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
9.191e+004



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.445e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
2.757e+004

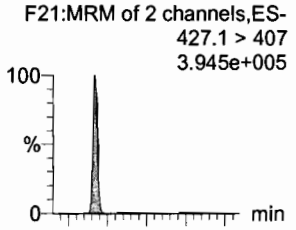


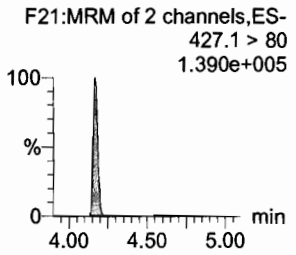
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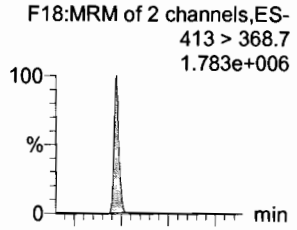
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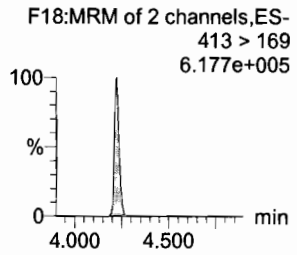
6:2 FTS



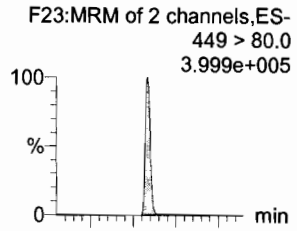


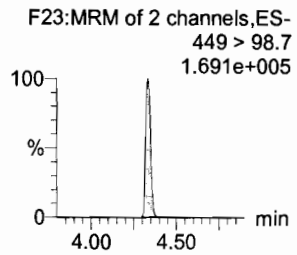
L-PFOA



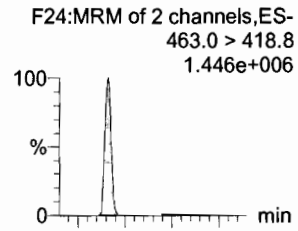


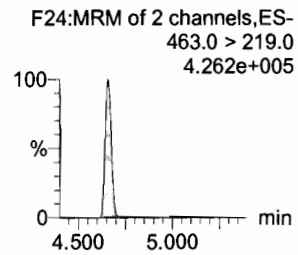
PFHpS



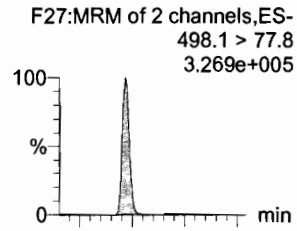


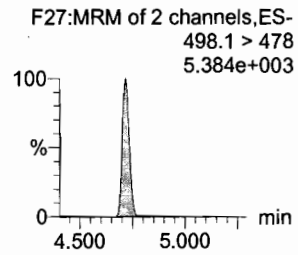
PFNA



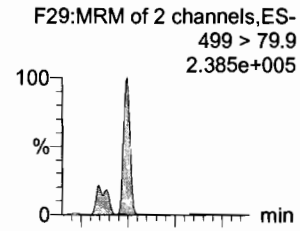


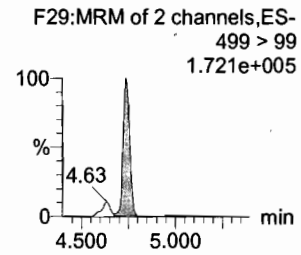
PFOSA



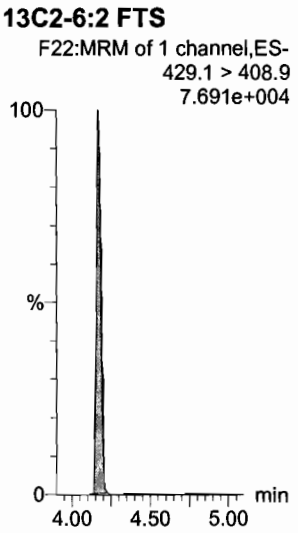


L-PFOS

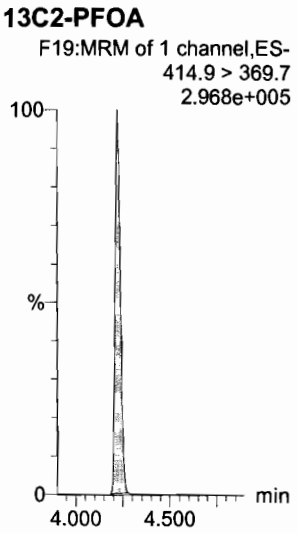




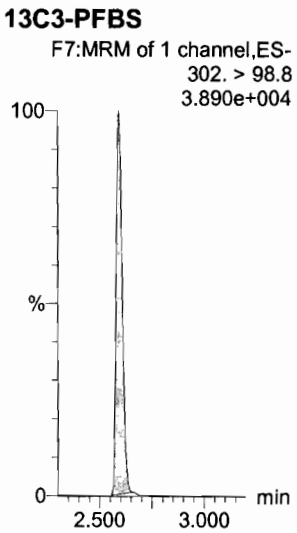
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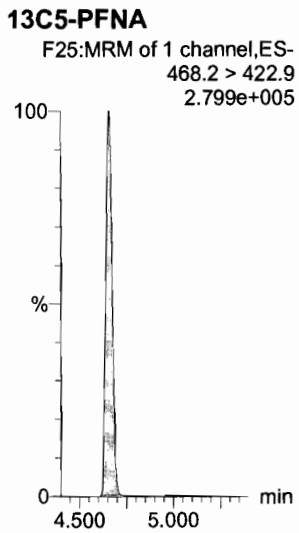
13C2-PFOA



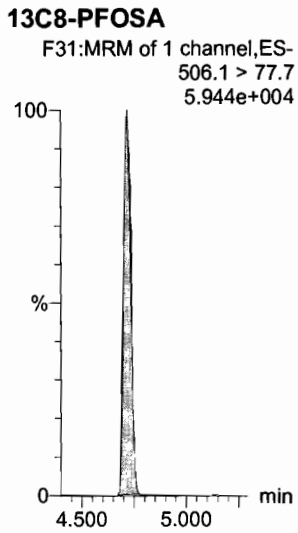
13C3-PFBS



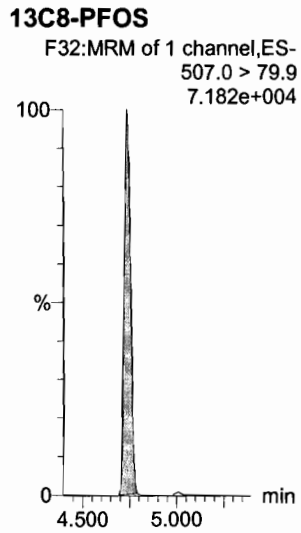
13C5-PFNA



13C8-PFOSA



13C8-PFOS

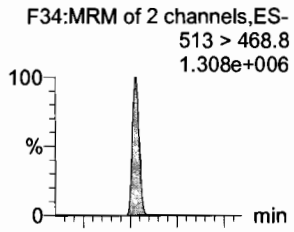


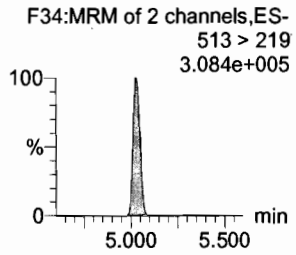
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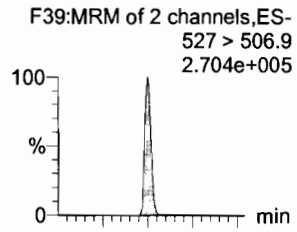
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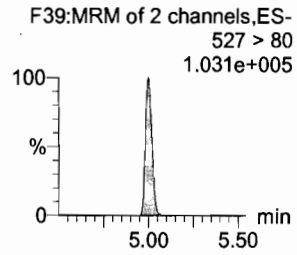
PFDA



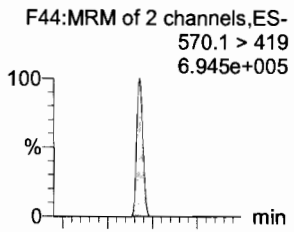


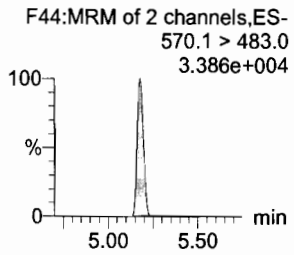
8:2 FTS



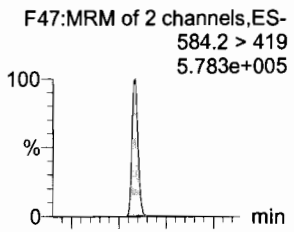


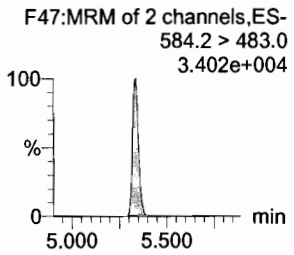
N-MeFOSAA



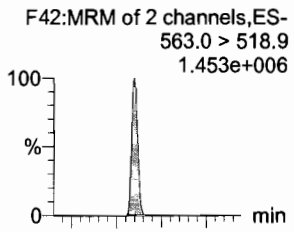


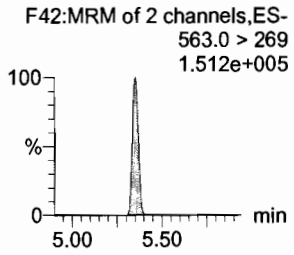
N-EtFOSAA



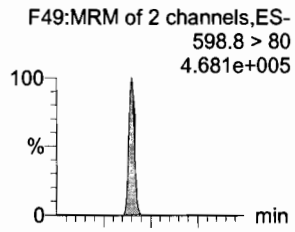


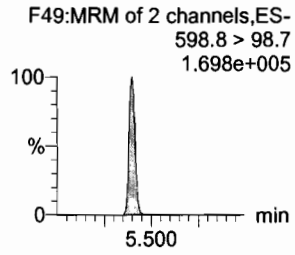
PFUdA



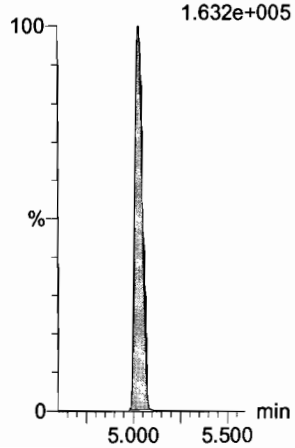


PFDS

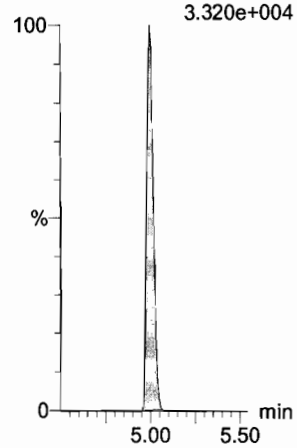




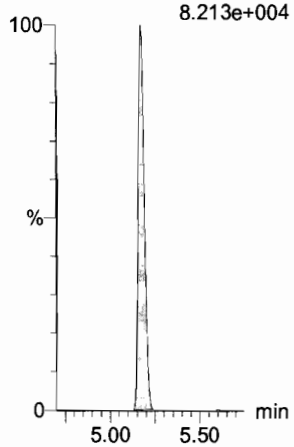
13C2-PFDA



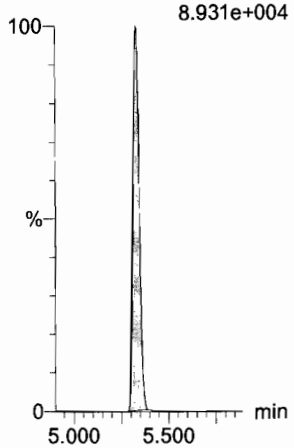
13C2-8:2 FTS



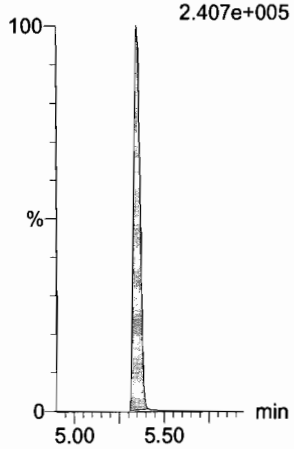
d3-N-MeFOSAA



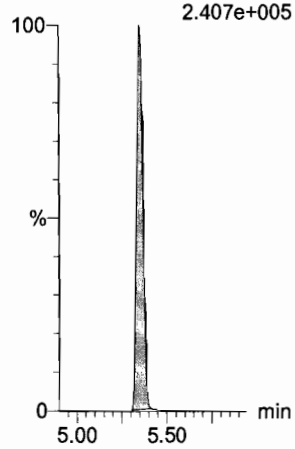
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

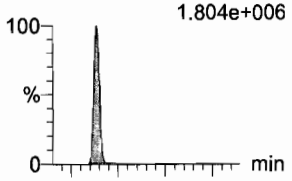


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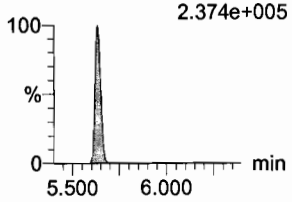
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Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

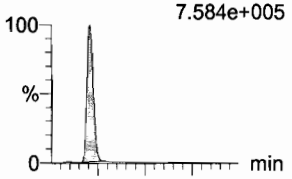
PFDoA
F50:MRM of 2 channels,ES-
612.9 > 569.0
1.804e+006



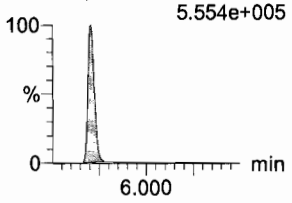
F50:MRM of 2 channels,ES-
612.9 > 318.8
2.374e+005



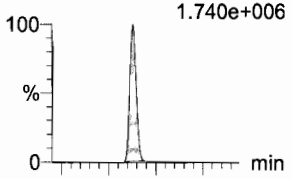
N-MeFOSA
F33:MRM of 2 channels,ES-
512.1 > 168.9
7.584e+005



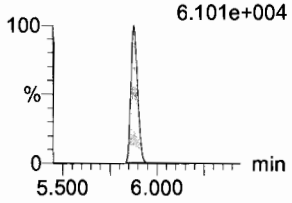
F33:MRM of 2 channels,ES-
512.1 > 219
5.554e+005



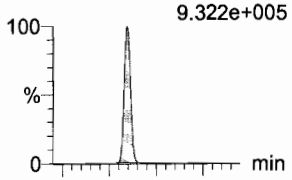
PFTrDA
F56:MRM of 2 channels,ES-
662.9 > 618.9
1.740e+006



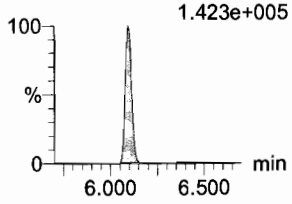
F56:MRM of 2 channels,ES-
662.9 > 319
6.101e+004



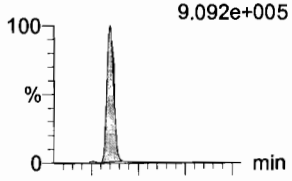
PFTeDA
F57:MRM of 2 channels,ES-
712.9 > 668.8
9.322e+005



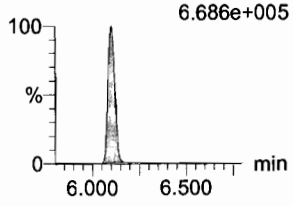
F57:MRM of 2 channels,ES-
712.9 > 369
1.423e+005



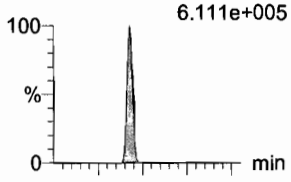
N-EtFOSA
F38:MRM of 2 channels,ES-
526.1 > 168.9
9.092e+005



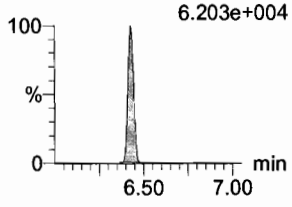
F38:MRM of 2 channels,ES-
526.1 > 219
6.686e+005



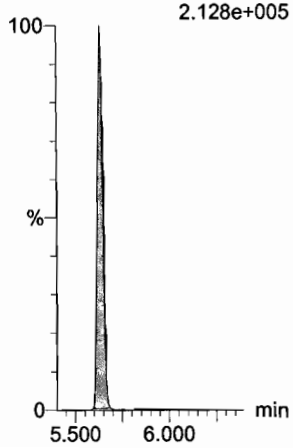
PFHxDA
F59:MRM of 2 channels,ES-
813.1 > 768.6
6.111e+005



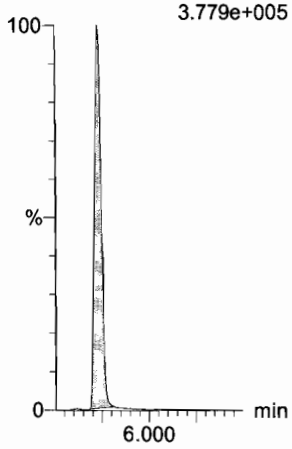
F59:MRM of 2 channels,ES-
813.1 > 219
6.203e+004



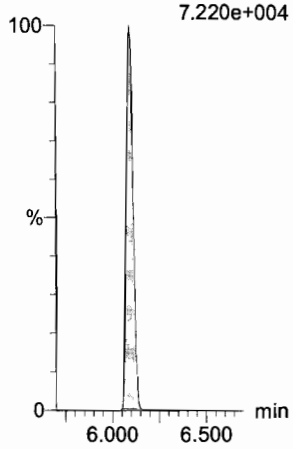
13C2-PFDoA
F51:MRM of 1 channel,ES-
615.0 > 569.7
2.128e+005



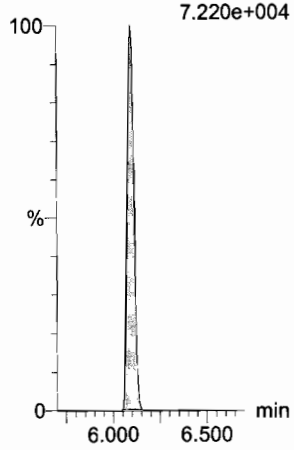
d3-N-MeFOSA
F36:MRM of 1 channel,ES-
515.2 > 168.9
3.779e+005



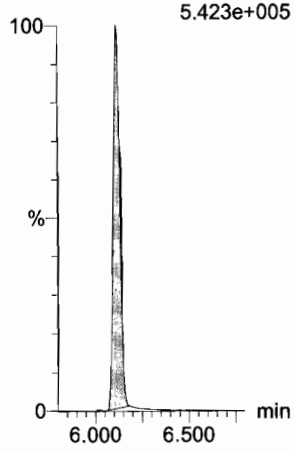
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.220e+004



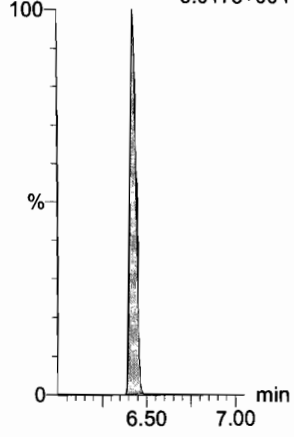
13C2-PFTeDA
F58:MRM of 2 channels,ES-
714.8 > 669.6
7.220e+004



d5-N-ETFOSA
F41:MRM of 1 channel,ES-
531.1 > 168.9
5.423e+005



13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.017e+004

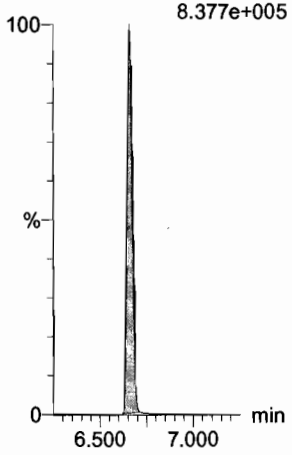


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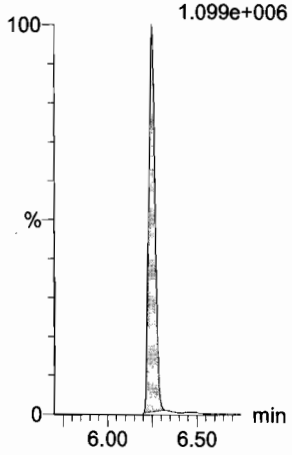
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Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

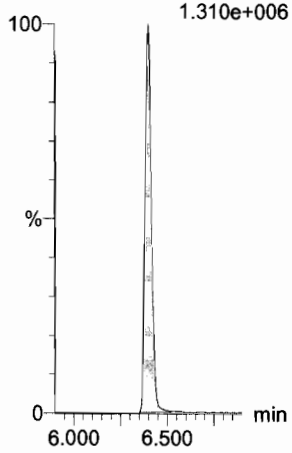
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
8.377e+005



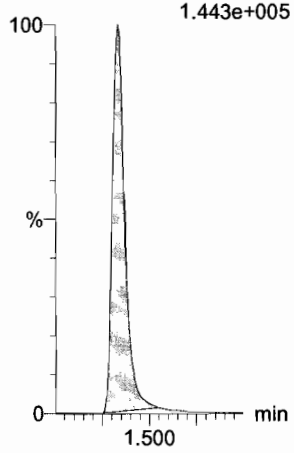
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.099e+006



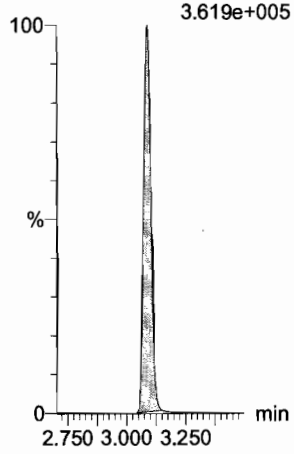
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
1.310e+006



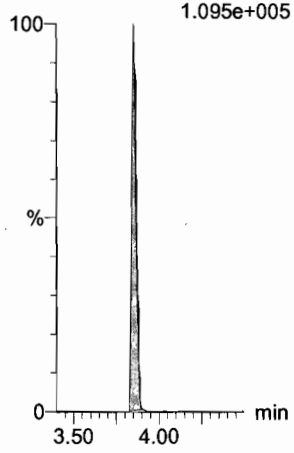
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.443e+005



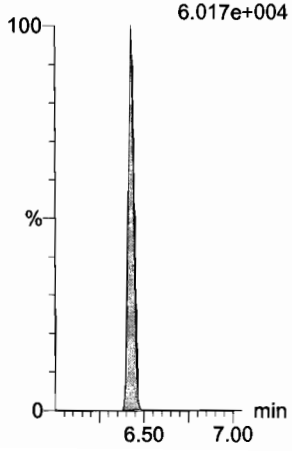
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.619e+005



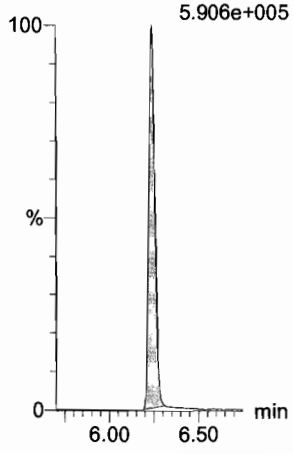
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.095e+005



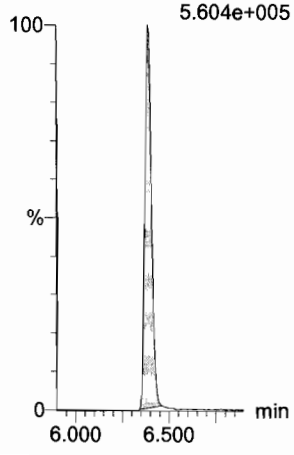
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.017e+004



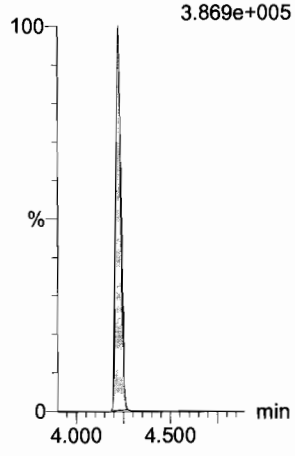
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.906e+005



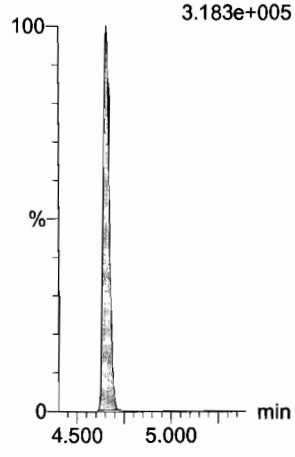
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
5.604e+005



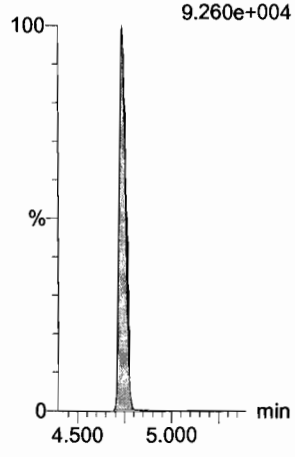
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.869e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.183e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.260e+004

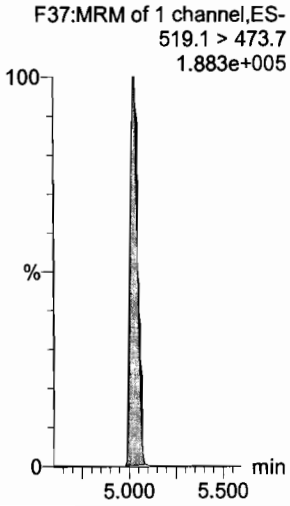


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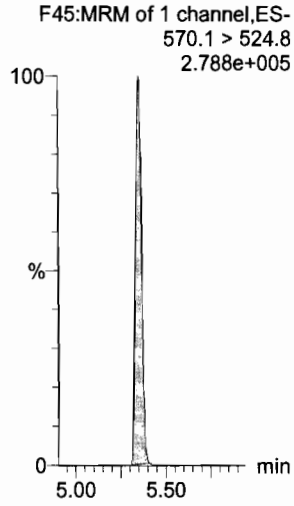
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Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_8, Date: 11-Jan-2018, Time: 10:41:06, ID: ST180110M3-7 PFC CS4 17L2612, Description: PFC CS4 17L2612

13C6-PFDA



13C7-PFUdA



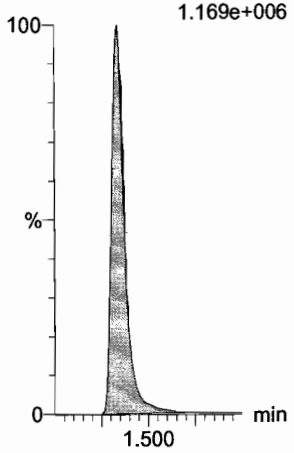
Vista Analytical Laboratory

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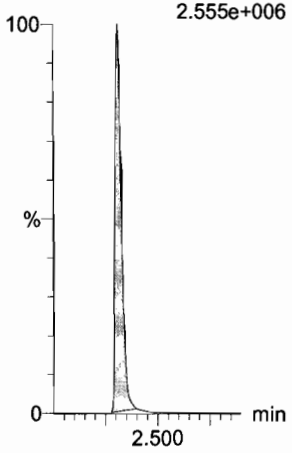
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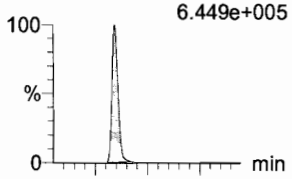
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
1.169e+006



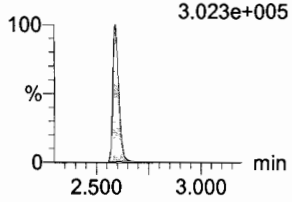
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
2.555e+006



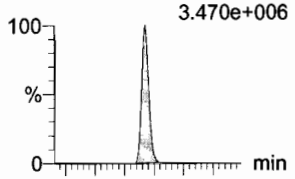
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
6.449e+005



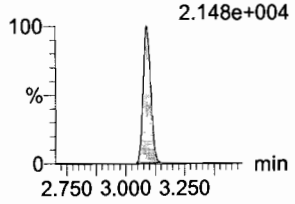
F6:MRM of 2 channels,ES-
299.0 > 99.0
3.023e+005



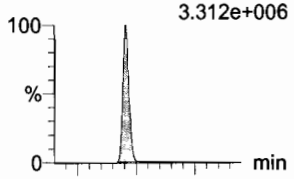
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
3.470e+006



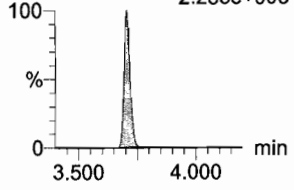
F8:MRM of 2 channels,ES-
313.2 > 119
2.148e+004



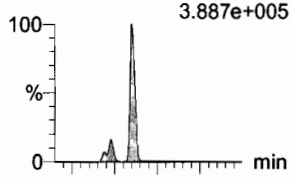
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
3.312e+006



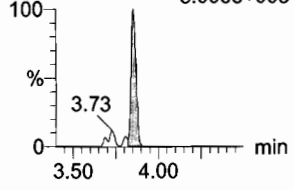
F13:MRM of 2 channels,ES-
363.0 > 169.0
2.283e+005



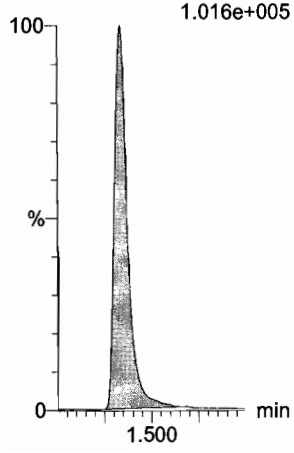
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
3.887e+005



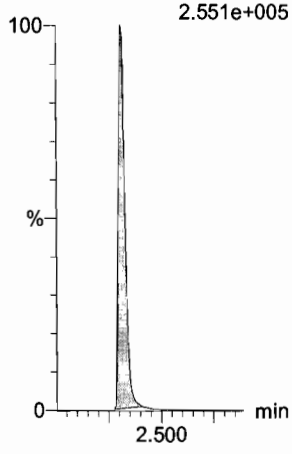
F15:MRM of 2 channels,ES-
398.9 > 99.0
3.096e+005



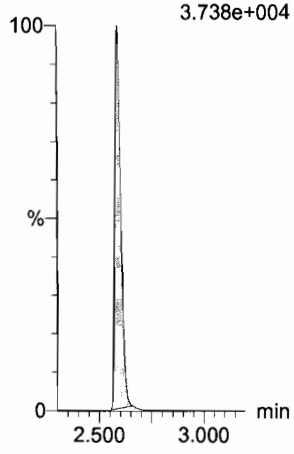
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.016e+005



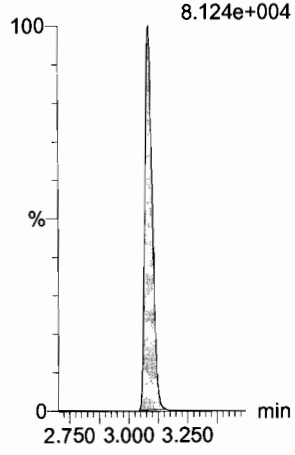
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
2.551e+005



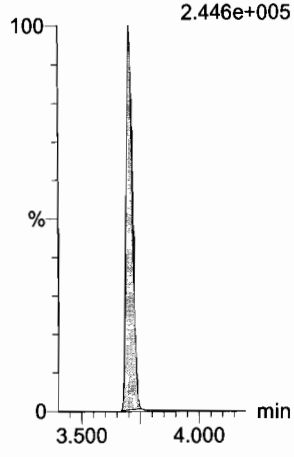
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
3.738e+004



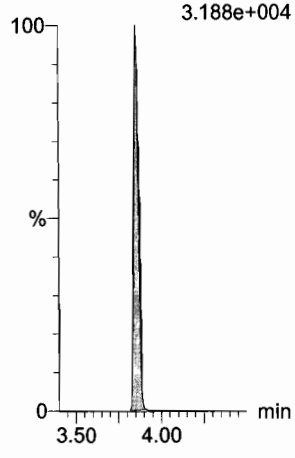
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
8.124e+004



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
2.446e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.188e+004

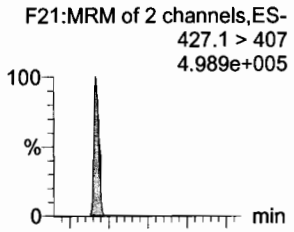


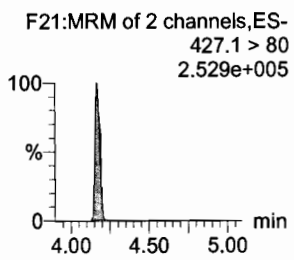
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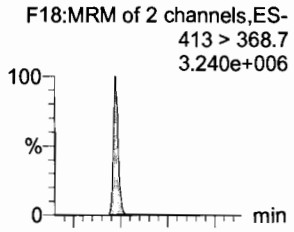
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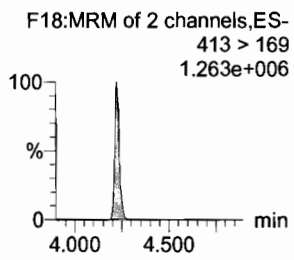
6:2 FTS



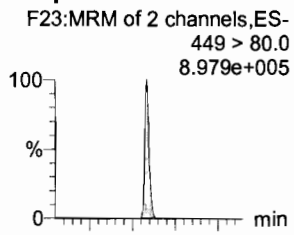


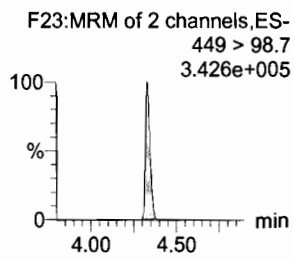
L-PFOA



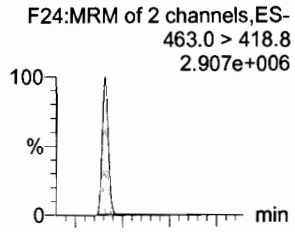


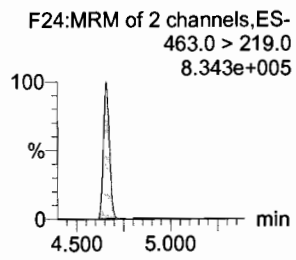
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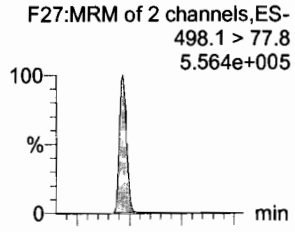


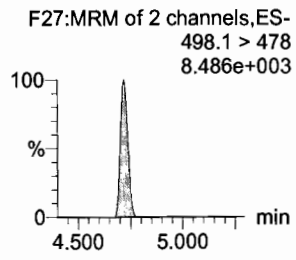
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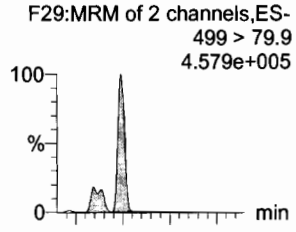


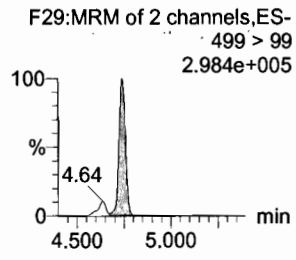
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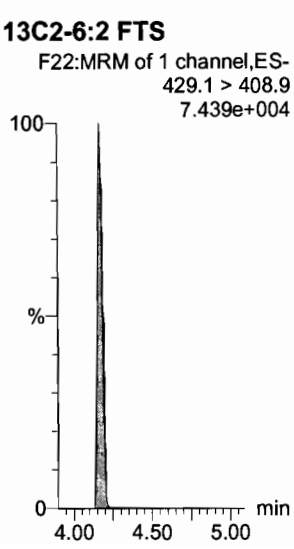


L-PFOS

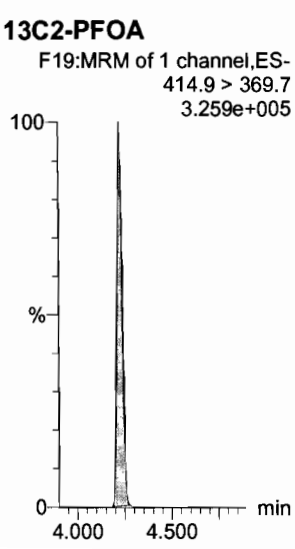




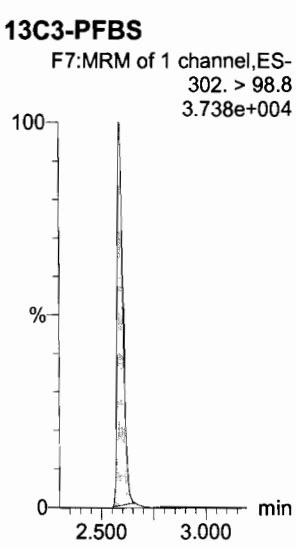
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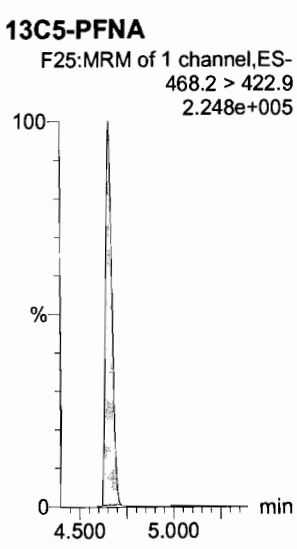
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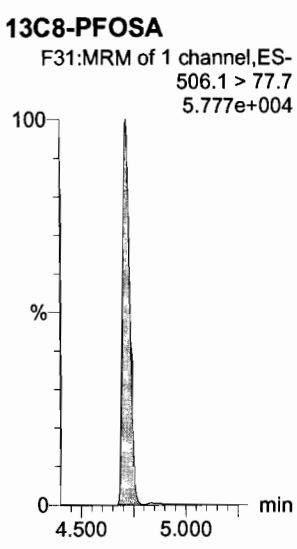
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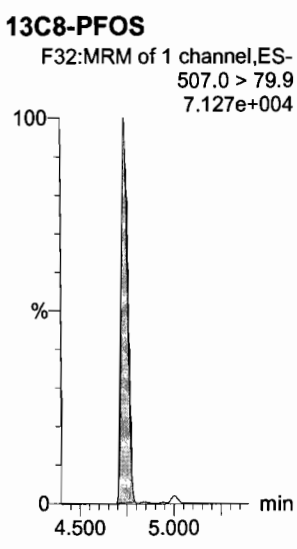
13C5-PFNA



13C8-PFOSA



13C8-PFOS

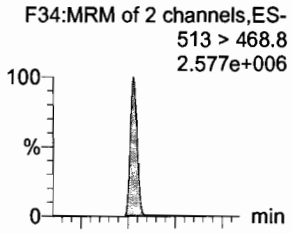


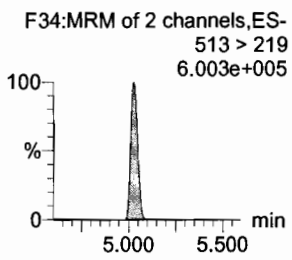
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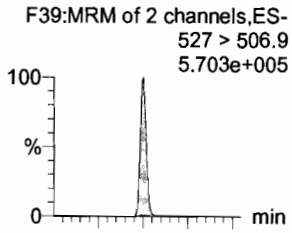
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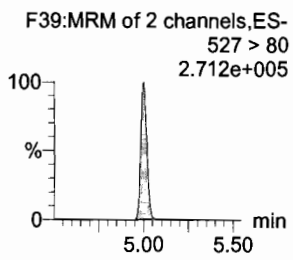
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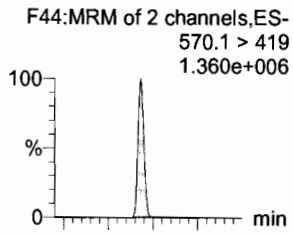


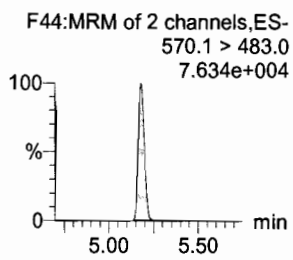
8:2 FTS



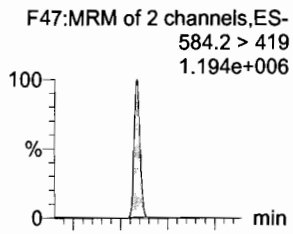


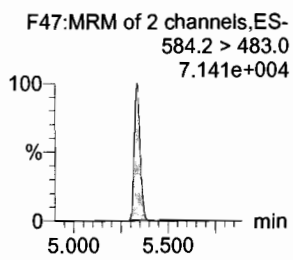
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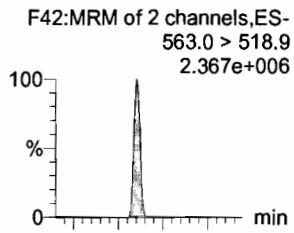


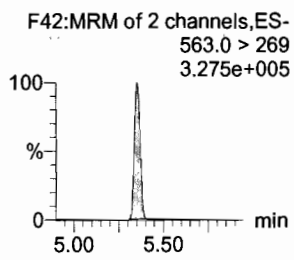
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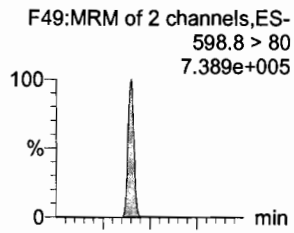


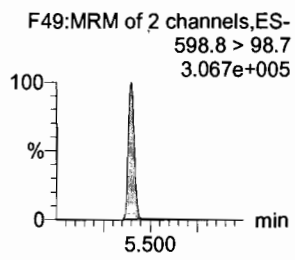
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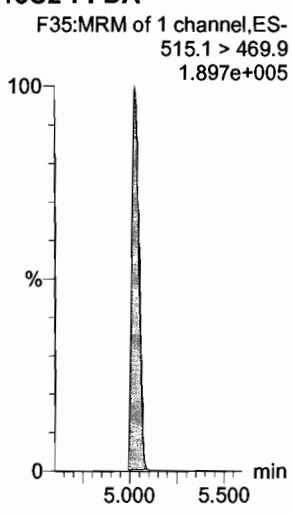


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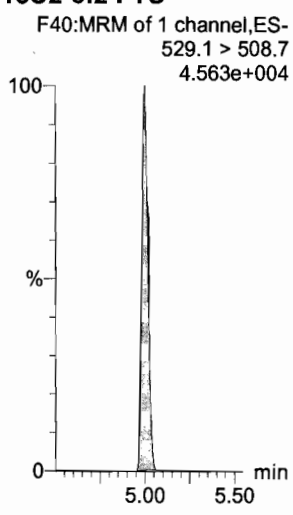




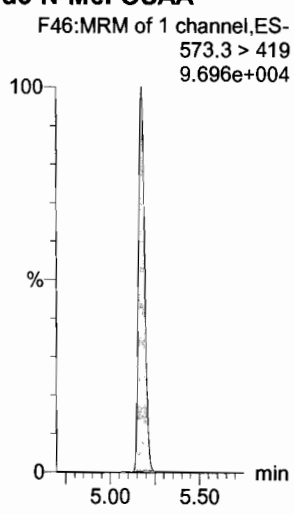
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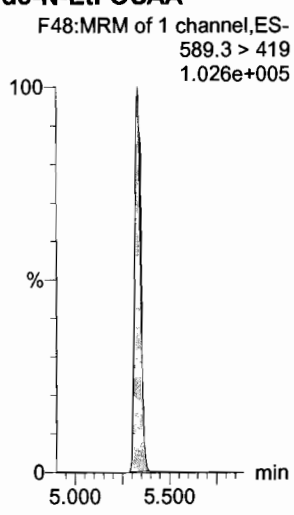
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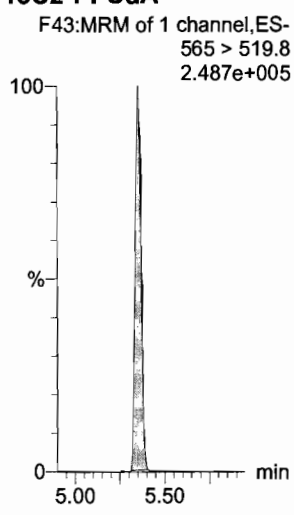
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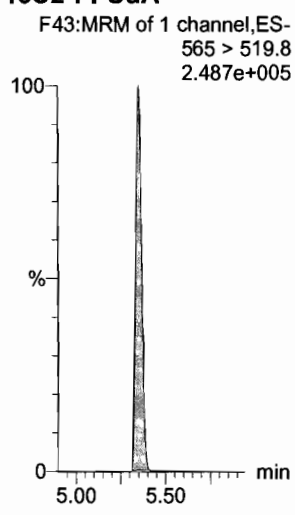
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13C2-PFUdA



13C2-PFUdA

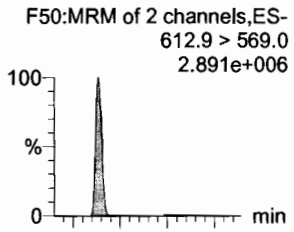


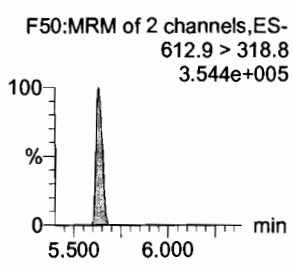
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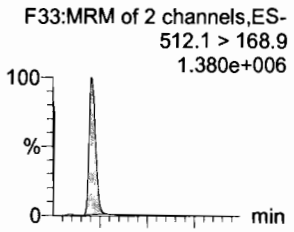
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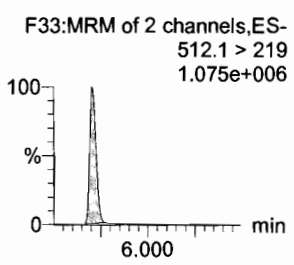
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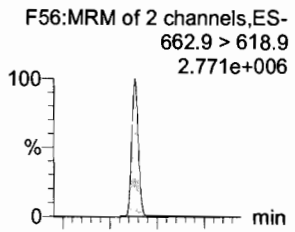


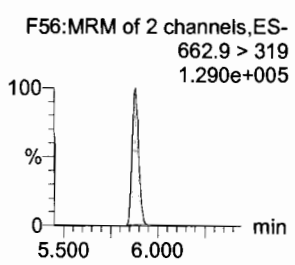
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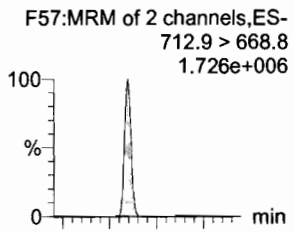


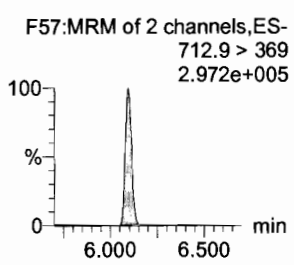
PFTrDA



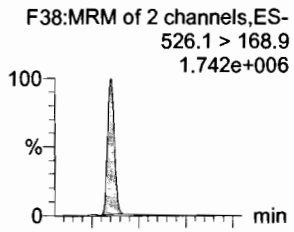


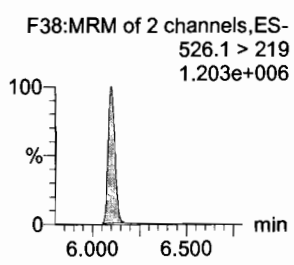
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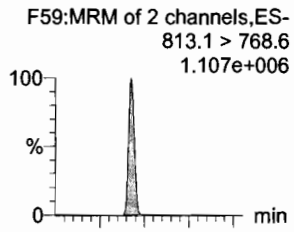


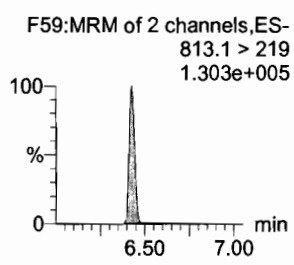
N-EtFOSA



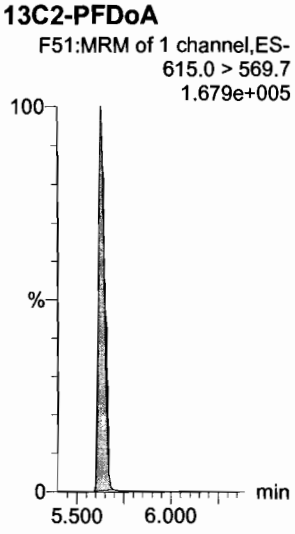


PFHxDA

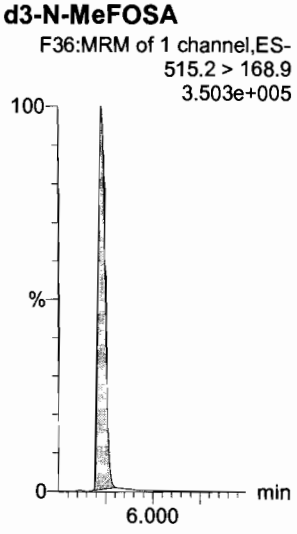




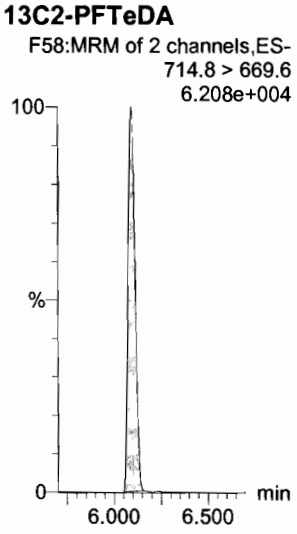
13C2-PFDoA



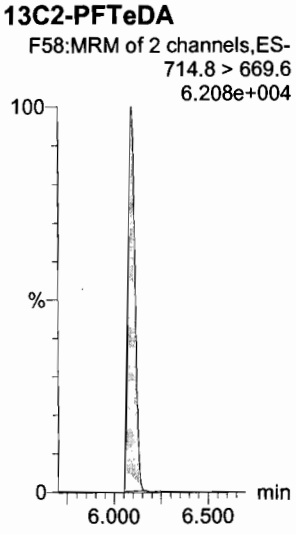
d3-N-MeFOSA



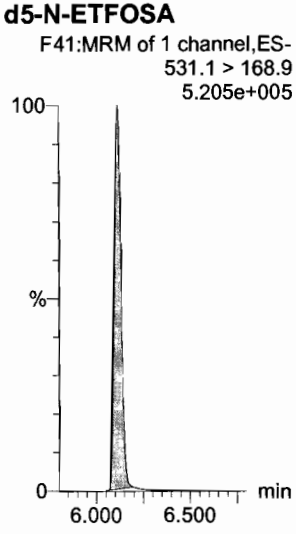
13C2-PFTeDA



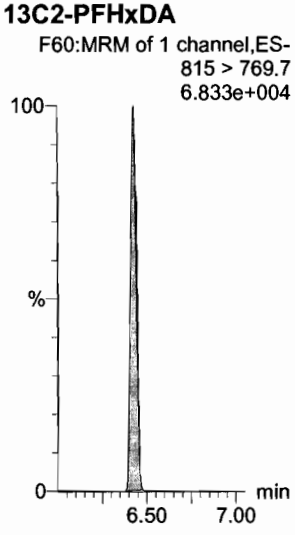
13C2-PFTeDA



d5-N-ETFOSA



13C2-PFHxDA

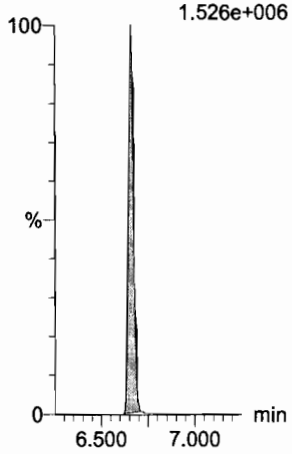


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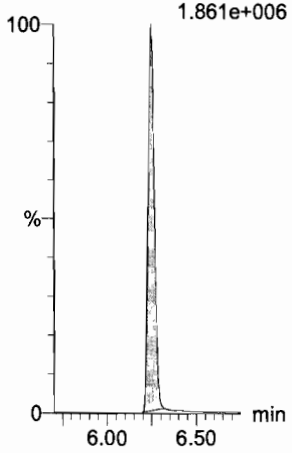
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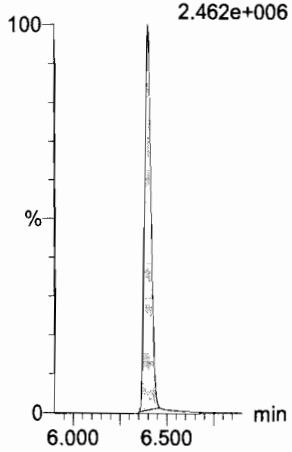
PFODA
F61:MRM of 1 channel,ES-
913.1 > 868.8
1.526e+006



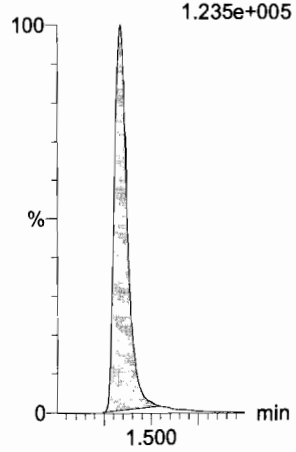
N-MeFOSE
F52:MRM of 1 channel,ES-
616.1 > 58.9
1.861e+006



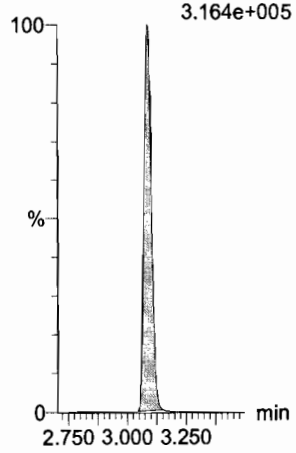
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
2.462e+006



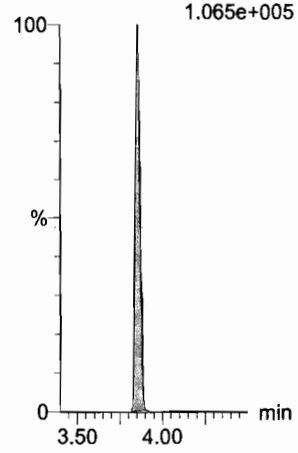
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.235e+005



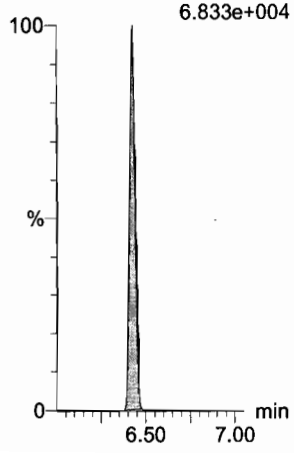
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.164e+005



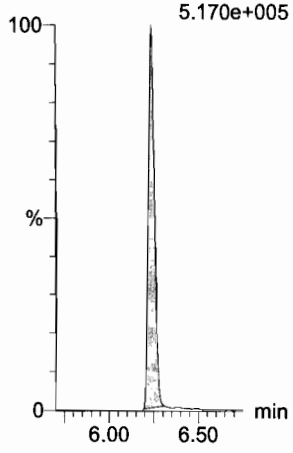
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.065e+005



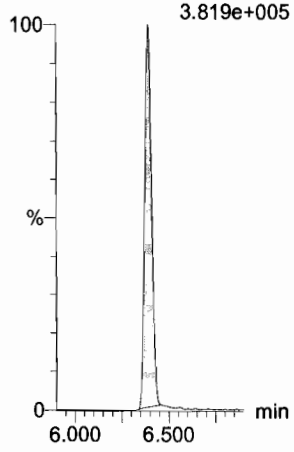
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
6.833e+004



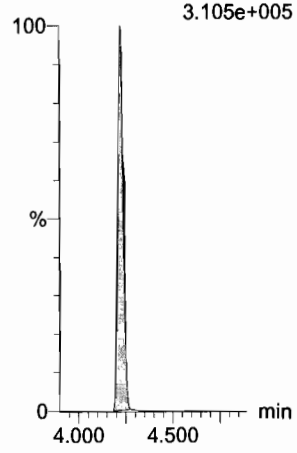
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.170e+005



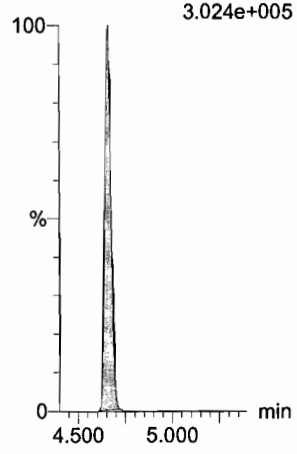
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
3.819e+005



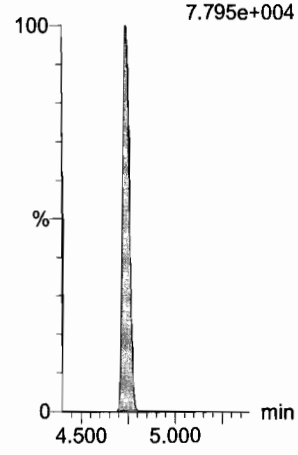
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.105e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.024e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.795e+004

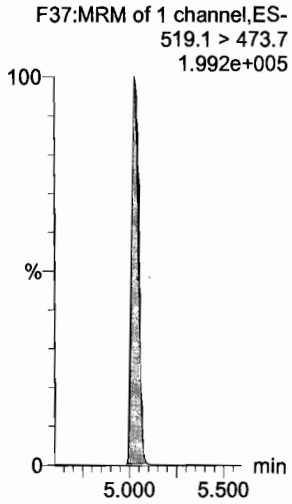


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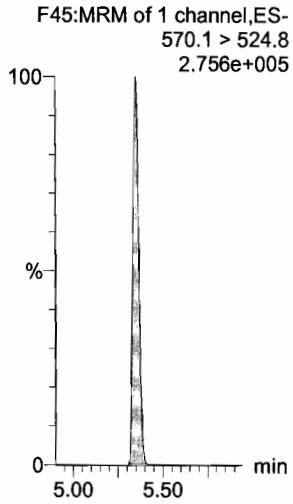
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Name: 180110M3_9, Date: 11-Jan-2018, Time: 10:52:18, ID: ST180110M3-8 PFC CS5 17L2613, Description: PFC CS5 17L2613

13C6-PFDA



13C7-PFUdA

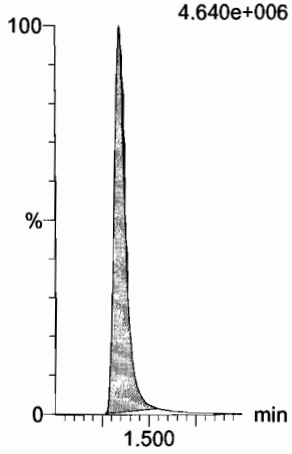


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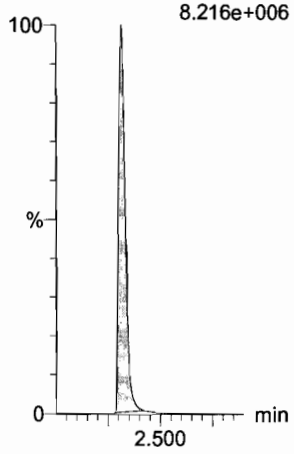
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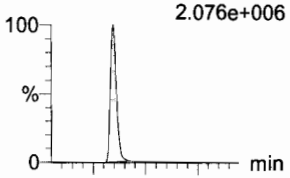
PFBA
F1:MRM of 1 channel,ES-
213.0 > 168.8
4.640e+006



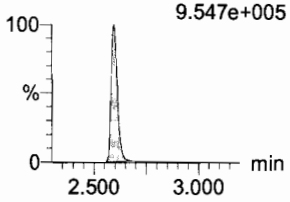
PFPeA
F4:MRM of 1 channel,ES-
263.1 > 218.9
8.216e+006



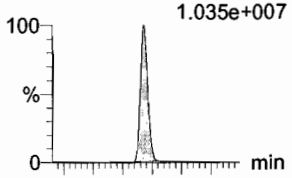
PFBS
F6:MRM of 2 channels,ES-
299.0 > 79.7
2.076e+006



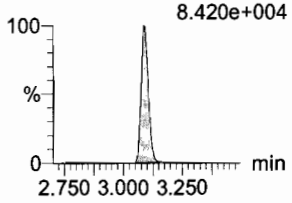
F6:MRM of 2 channels,ES-
299.0 > 99.0
9.547e+005



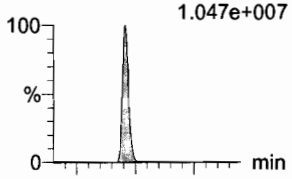
PFHxA
F8:MRM of 2 channels,ES-
313.2 > 268.9
1.035e+007



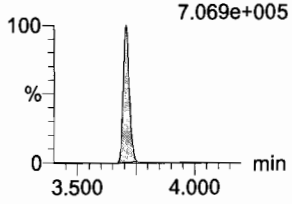
F8:MRM of 2 channels,ES-
313.2 > 119
8.420e+004



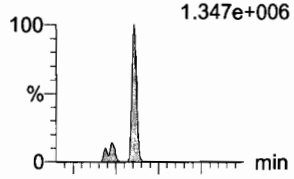
PFHpA
F13:MRM of 2 channels,ES-
363.0 > 318.9
1.047e+007



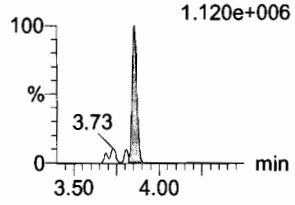
F13:MRM of 2 channels,ES-
363.0 > 169.0
7.069e+005



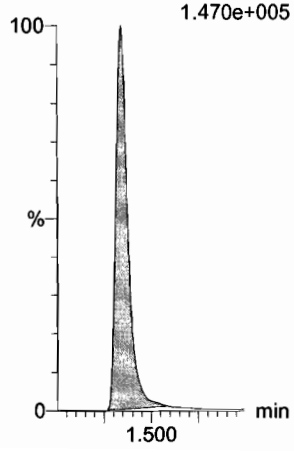
L-PFHxS
F15:MRM of 2 channels,ES-
398.9 > 79.6
1.347e+006



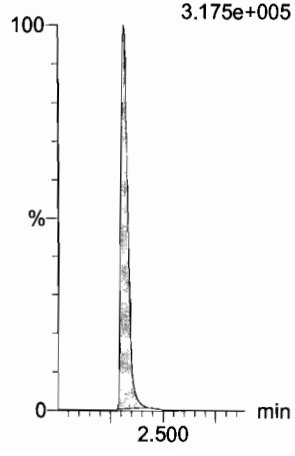
F15:MRM of 2 channels,ES-
398.9 > 99.0
1.120e+006



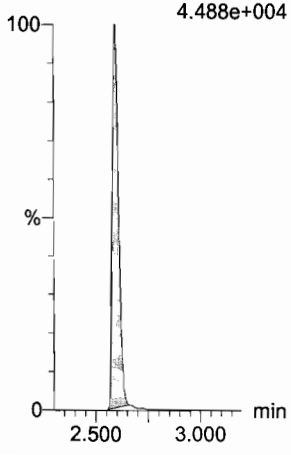
13C3-PFBA
F2:MRM of 1 channel,ES-
216.1 > 171.8
1.470e+005



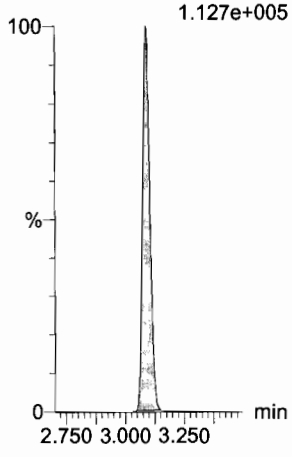
13C3-PFPeA
F5:MRM of 1 channel,ES-
266. > 221.8
3.175e+005



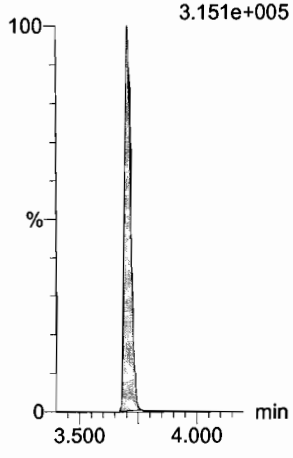
13C3-PFBS
F7:MRM of 1 channel,ES-
302. > 98.8
4.488e+004



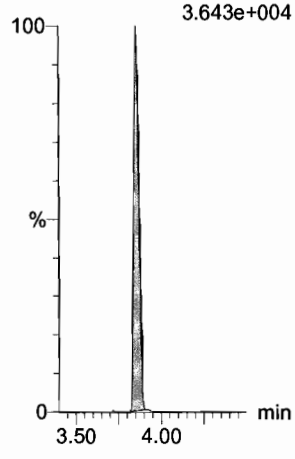
13C2-PFHxA
F9:MRM of 1 channel,ES-
315 > 269.8
1.127e+005



13C4-PFHpA
F14:MRM of 1 channel,ES-
367.2 > 321.8
3.151e+005



18O2-PFHxS
F17:MRM of 1 channel,ES-
403.0 > 102.6
3.643e+004

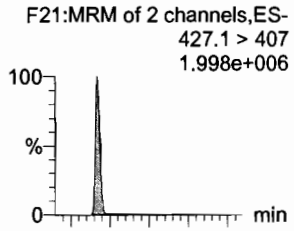


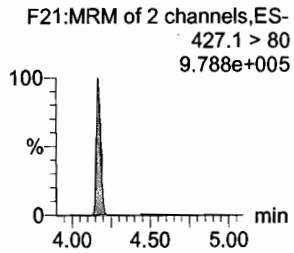
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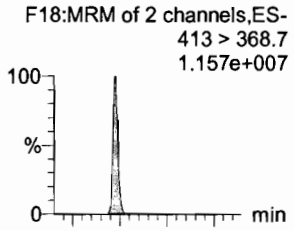
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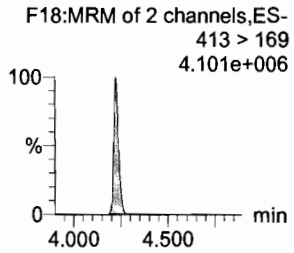
6:2 FTS



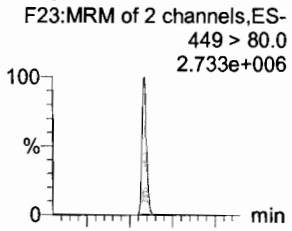


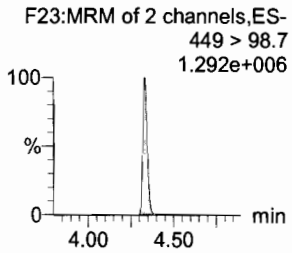
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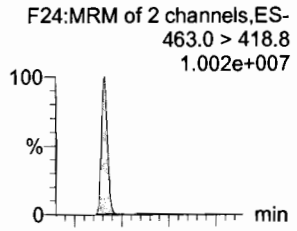


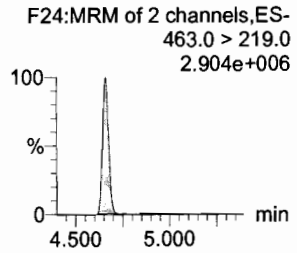
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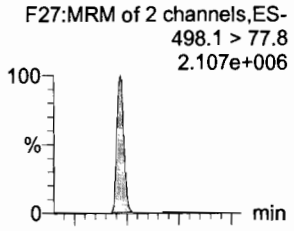


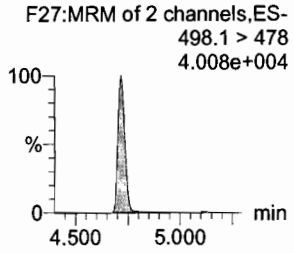
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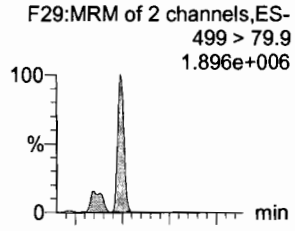


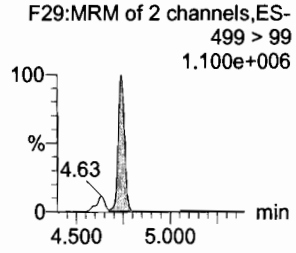
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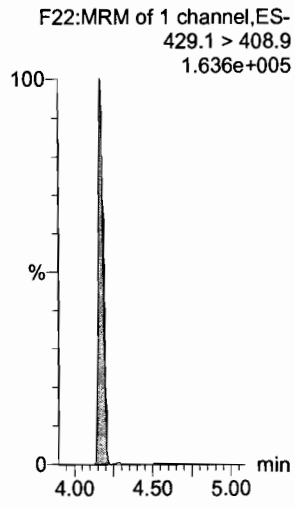


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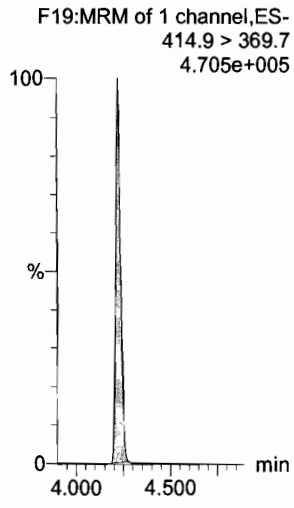




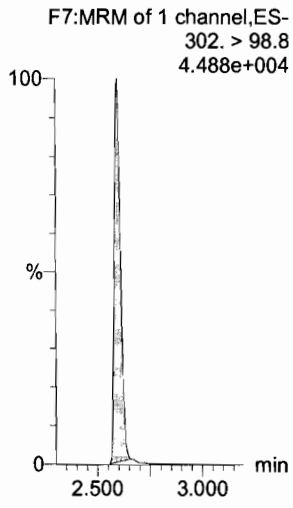
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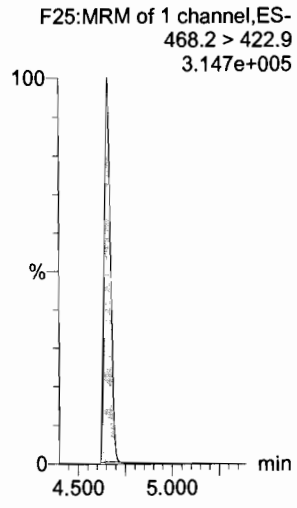
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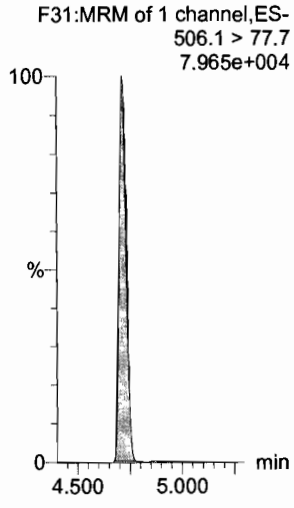
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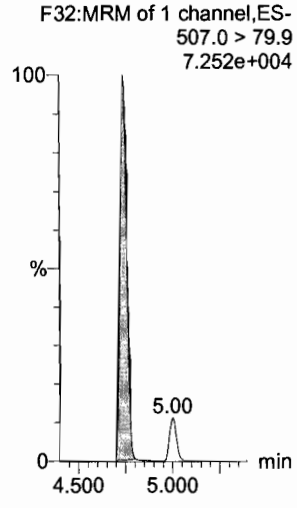
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13C8-PFOSA



13C8-PFOS

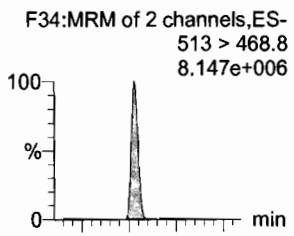


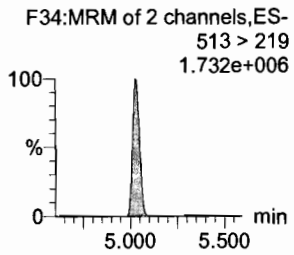
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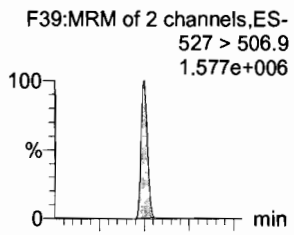
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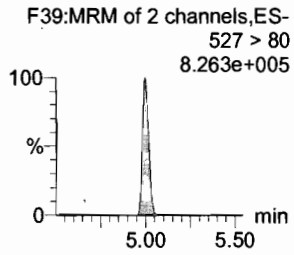
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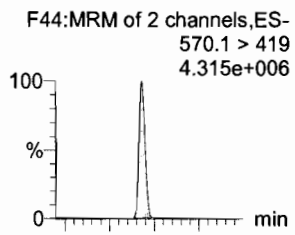


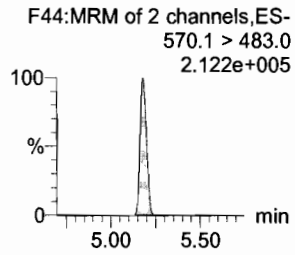
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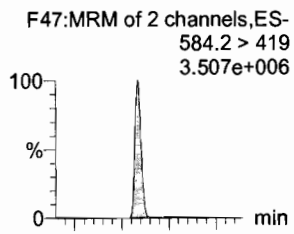


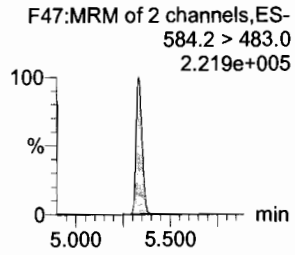
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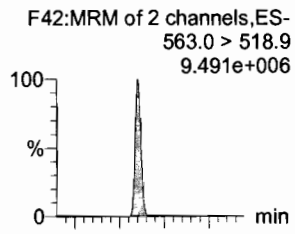


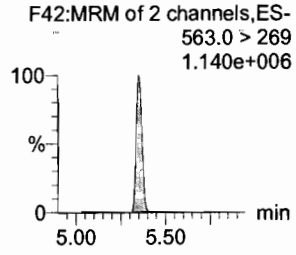
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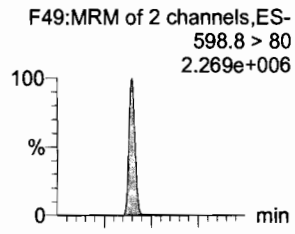


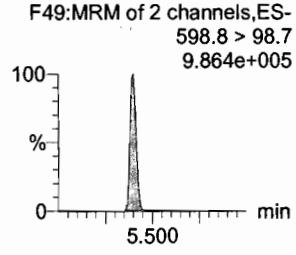
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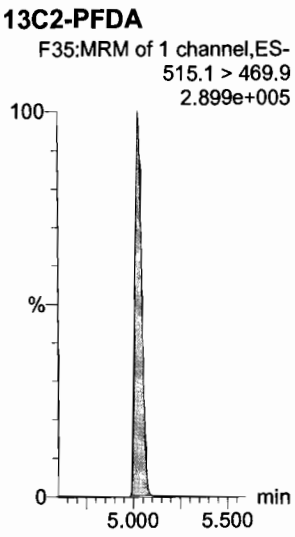


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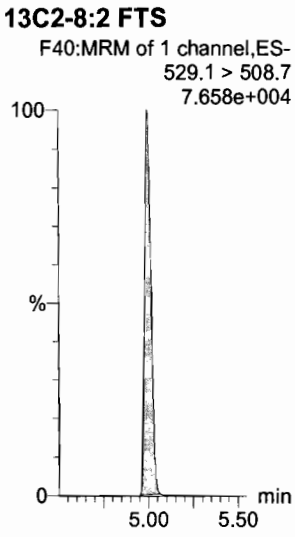




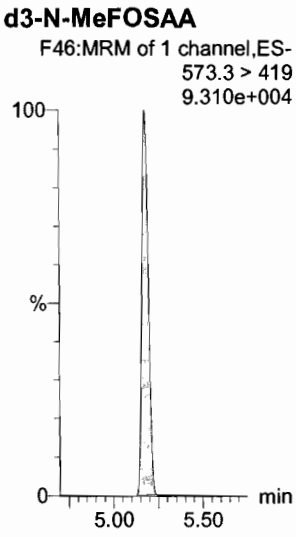
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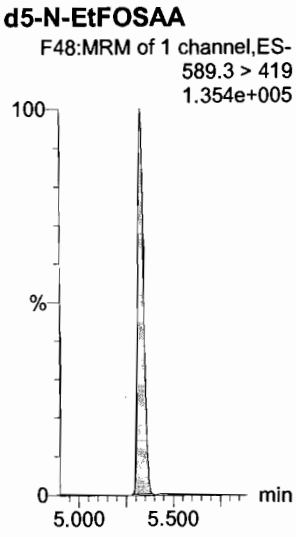
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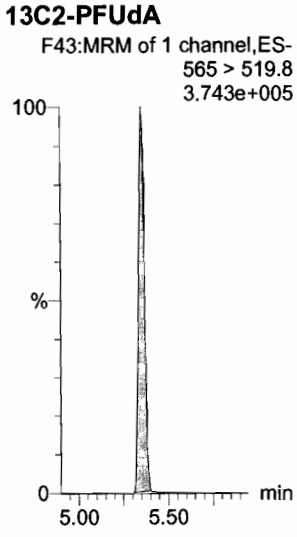
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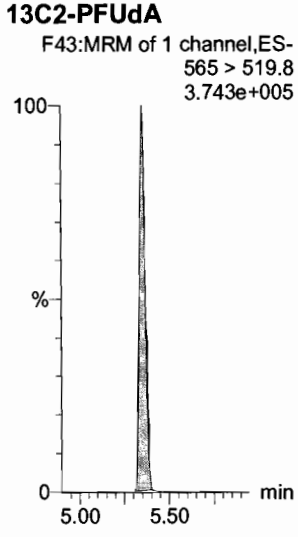
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA

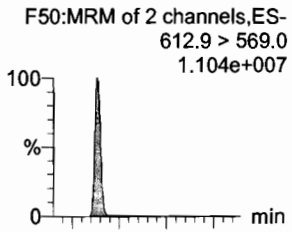


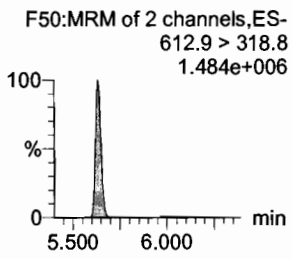
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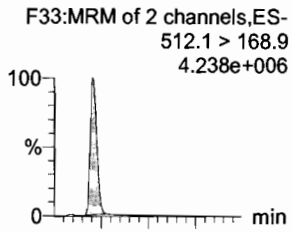
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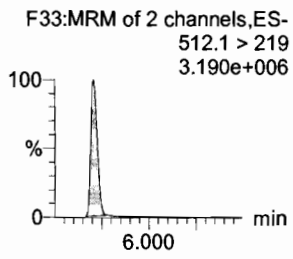
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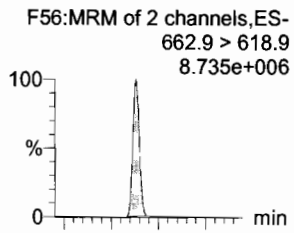


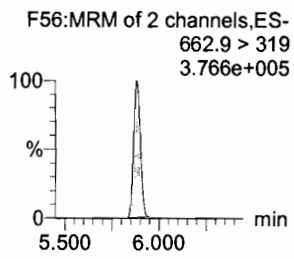
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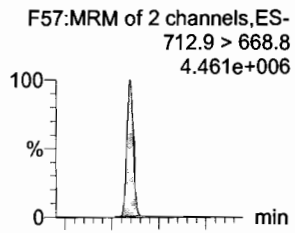


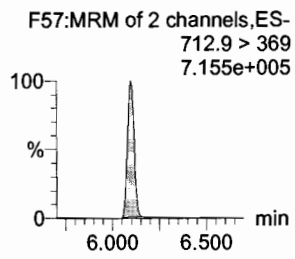
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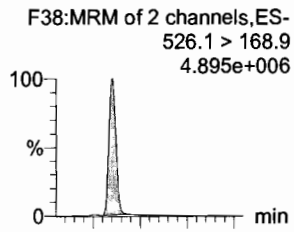


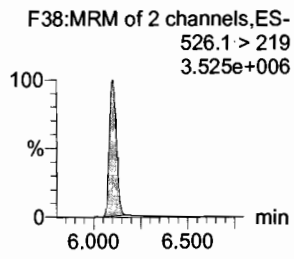
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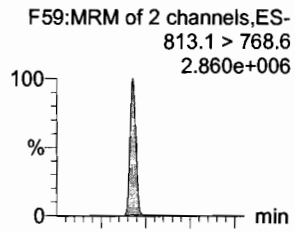


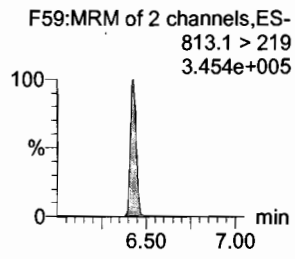
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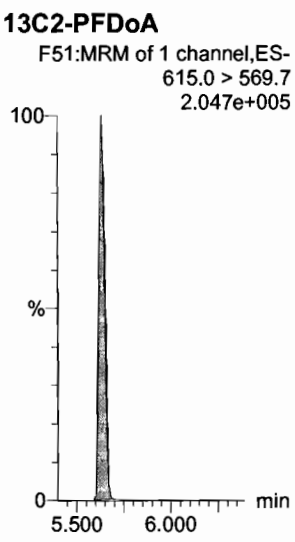


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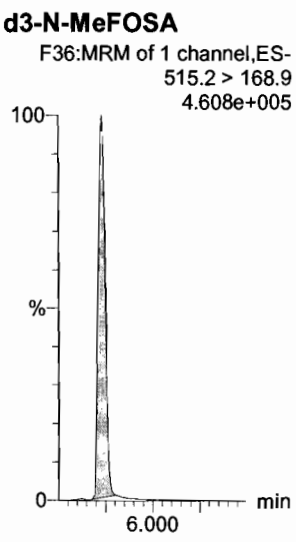




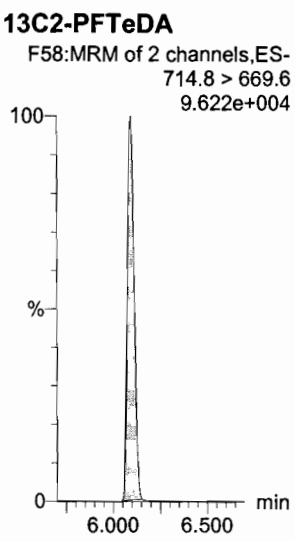
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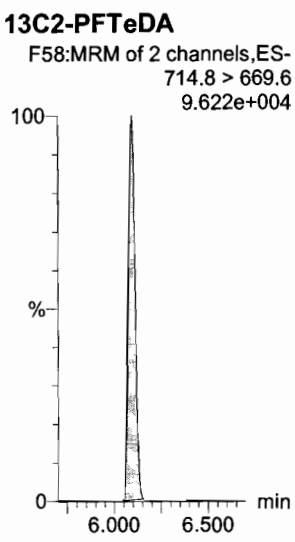
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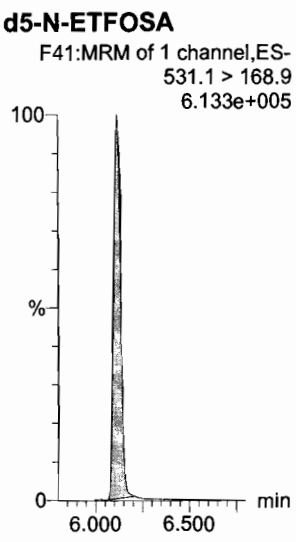
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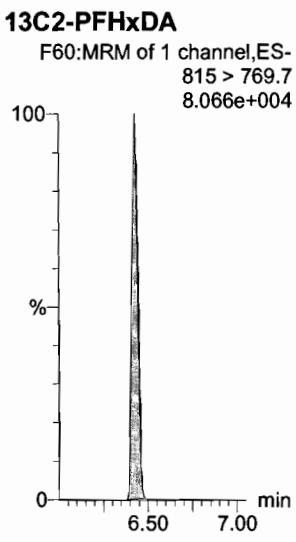
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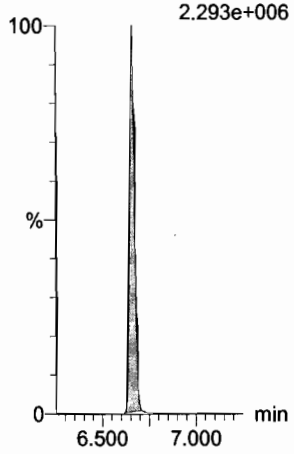


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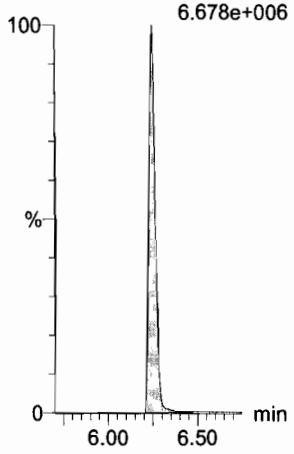
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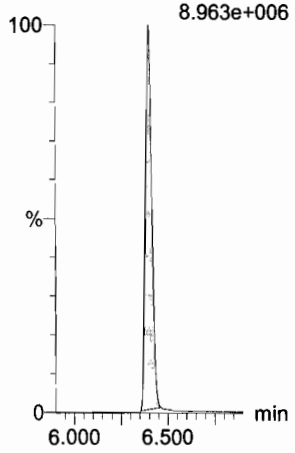
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F61:MRM of 1 channel,ES-
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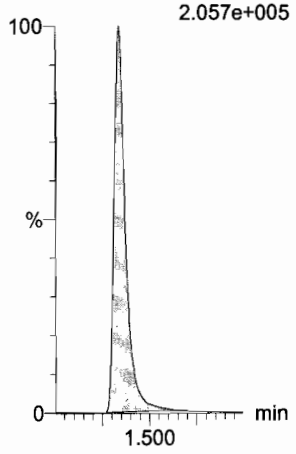
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616.1 > 58.9
6.678e+006



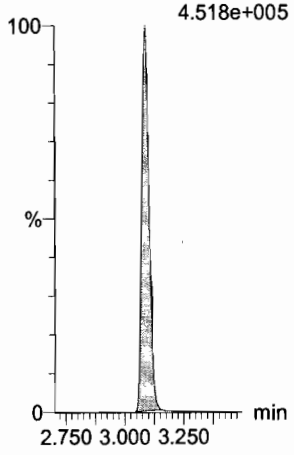
N-EtFOSE
F54:MRM of 1 channel,ES-
630.1 > 58.9
8.963e+006



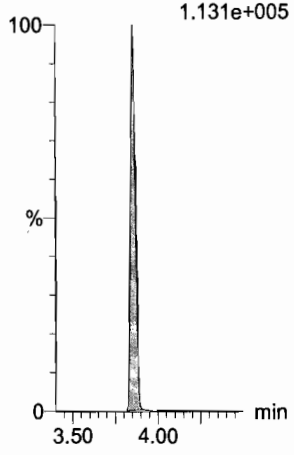
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
2.057e+005



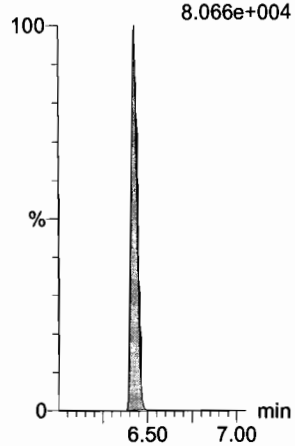
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
4.518e+005



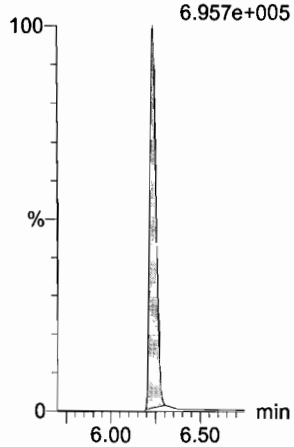
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
1.131e+005



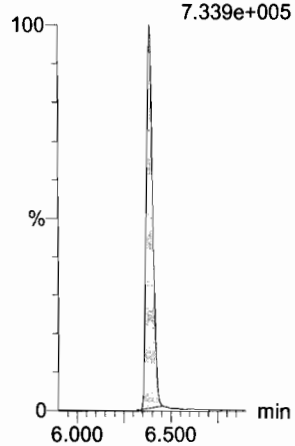
13C2-PFHxDA
F60:MRM of 1 channel,ES-
815 > 769.7
8.066e+004



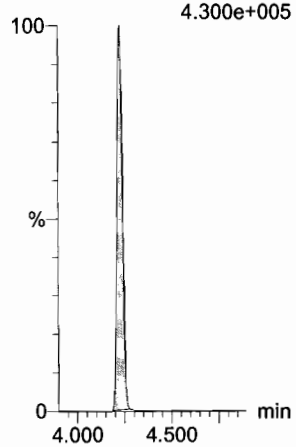
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
6.957e+005



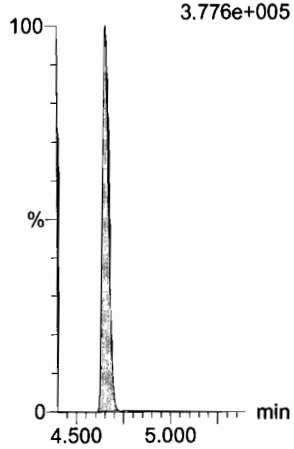
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
7.339e+005



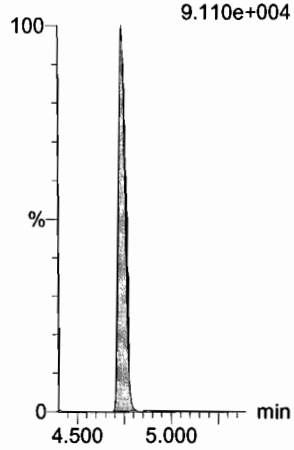
13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
4.300e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
3.776e+005



13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
9.110e+004

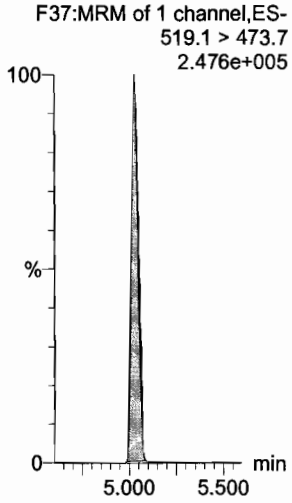


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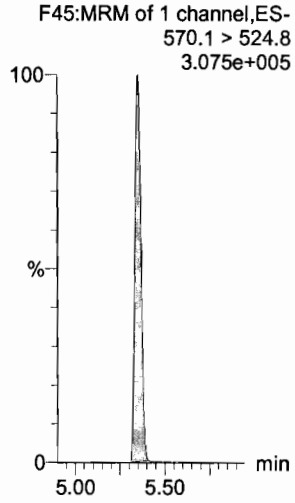
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Printed: Thursday, January 11, 2018 14:28:58 Pacific Standard Time

Name: 180110M3_10, Date: 11-Jan-2018, Time: 11:03:28, ID: ST180110M3-9 PFC CS6 17L2710, Description: PFC CS6 17L2710

13C6-PFDA



13C7-PFUdA



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Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

(A) Not present in SS

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/11/18

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

✓ JA 01/11/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	8.27e3	8.56e3		1.38	1.34	12.1	8.24	82.4	NO
2	2	PFPeA	263.1 > 218.9	8.08e3	9.73e3		2.37	2.32	10.4	8.26	82.6	NO
3	3	PFBS	299.0 > 79.7	1.64e3	1.22e3		2.66	2.60	16.8	7.87	78.7	NO
4	4	PFHxA	313.2 > 268.9	9.53e3	2.94e3		3.15	3.09	16.2	8.37	83.7	NO
5	5	PFHpA	363.0 > 318.9	8.72e3	8.24e3		3.78	3.71	13.2	8.07	80.7	NO
6	6	L-PFHxS	398.9 > 79.6	1.31e3	9.86e2		3.94	3.86	16.6	7.93	79.3	NO
7	8	6:2 FTS	427.1 > 407	1.82e3	9.86e2		4.25	4.17	23.0	7.61	76.1	NO
8	9	L-PFOA	413 > 368.7	9.56e3	1.21e4		4.31	4.23	9.91	7.72	77.2	NO
9	11	PFHpS	449 > 80.0	2.06e3	1.21e4		4.42	4.34	2.14	7.38	73.8	NO
10	12	PFNA	463.0 > 418.8	1.08e4	9.71e3		4.81	4.66	13.9	9.82	98.2	NO
11	13	PFOSA	498.1 > 77.8	2.37e3	2.29e3		4.87	4.72	13.0	9.88	98.8	NO
12	14	L-PFOS	499 > 79.9	2.02e3	2.64e3		4.89	4.74	9.54	8.09	80.9	NO
13	16	PFDA	513 > 468.8	8.49e3	9.21e3		5.18	5.03	11.5	7.17	71.7	NO
14	17	8:2 FTS	527 > 506.9	1.74e3	9.21e3		5.15	5.00	2.36	7.55	75.5	NO
15	18	N-MeFOSAA	570.1 > 419	5.07e3	4.15e3		5.32	5.18	15.3	7.67	76.7	NO
16	19	N-EtFOSAA	584.2 > 419	3.88e3	4.38e3		5.48	5.34	11.0	7.26	72.6	NO
17	20	PFUdA	563.0 > 518.9	9.19e3	9.66e3		5.50	5.35	11.9	9.02	90.2	NO
18	21	PFDS	598.8 > 80	2.11e3	9.66e3		5.54	5.40	2.73	7.36	73.6	NO
19	22	PFDoA	612.9 > 569.0	1.00e4	6.35e3		5.77	5.64	19.7	9.27	92.7	NO
20	23	N-MeFOSA	512.1 > 168.9		1.48e4		5.80				(A)	NO
21	24	PFTrDA	662.9 > 618.9	9.41e3	6.35e3		6.00	5.88	18.5	7.74	77.4	NO
22	25	PFTeDA	712.9 > 668.8	5.49e3	2.33e3		6.22	6.10	29.5	9.98	99.8	NO
23	26	N-EtFOSA	526.1 > 168.9		2.26e4		6.17				(A)	NO
24	27	PFHxDA	813.1 > 768.6		1.99e3		6.53					NO
25	28	PFODA	913.1 > 868.8		1.99e3		6.74					NO
26	29	N-MeFOSE	616.1 > 58.9		2.11e4		6.27					NO
27	30	N-EtFOSE	630.1 > 58.9	7.11e1	1.70e4		6.43	6.40	0.629	0.596	(A) ~~1.2~~	YES
28	31	13C3-PFBA	216.1 > 171.8	8.56e3	9.86e3	0.764	1.38	1.34	10.8	14.2	113.7	NO
29	32	13C3-PFPeA	266. > 221.8	9.73e3	1.10e4	0.730	2.37	2.32	11.0	15.1	120.8	NO
30	33	13C3-PFBS	302. > 98.8	1.22e3	1.10e4	0.095	2.77	2.59	1.38	14.5	116.0	NO
31	34	13C2-PFHxA	315 > 269.8	2.94e3	1.10e4	0.597	3.15	3.09	3.33	5.58	111.7	NO

Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	8.24e3	1.10e4	0.604	3.78	3.71	9.33	15.4	123.6	NO
33	36	18O2-PFHxS	403.0 > 102.6	9.86e2	2.90e3	0.293	3.94	3.86	4.25	14.5	116.0	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.17e3	1.06e4	0.215	4.25	4.18	2.55	11.9	94.8	NO
35	38	13C2-PFOA	414.9 > 369.7	1.21e4	1.06e4	0.916	4.31	4.23	14.1	15.5	123.6	NO
36	39	13C5-PFNA	468.2 > 422.9	9.71e3	9.76e3	0.817	4.81	4.66	12.4	15.2	121.7	NO
37	40	13C8-PFOSA	506.1 > 77.7	2.29e3	9.91e3	0.223	4.87	4.72	2.89	12.9	103.6	NO
38	41	13C8-PFOS	507.0 > 79.9	2.64e3	2.83e3	0.875	4.89	4.74	11.7	13.3	106.7	NO
39	42	13C2-PFDA	515.1 > 469.9	9.21e3	7.32e3	1.105	5.18	5.04	15.7	14.2	113.8	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.21e3	1.10e4	0.101	5.15	5.00	1.37	13.6	108.5	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.15e3	9.91e3	0.345	5.32	5.18	5.23	15.2	121.3	NO
42	45	d5-N-EtFOSAA	589.3 > 419	4.38e3	9.91e3	0.390	5.47	5.34	5.53	14.2	113.4	NO
43	46	13C2-PFUdA	565 > 519.8	9.66e3	9.91e3	0.958	5.49	5.35	12.2	12.7	101.8	NO
44	47	13C2-PFDoA	615.0 > 569.7	6.35e3	9.91e3	0.599	5.77	5.63	8.01	13.4	107.0	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.48e4	9.91e3	0.124	5.83	5.73	18.6	150	100.1	NO
46	49	13C2-PFTeDA	714.8 > 669.6	2.33e3	9.91e3	0.282	6.22	6.10	2.94	10.4	83.5	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.26e4	9.91e3	0.184	6.18	6.12	28.5	155	103.2	NO
48	51	13C2-PFHxDA	815 > 769.7	1.99e3	9.91e3	0.540	6.53	6.43	2.52	4.66	93.2	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.11e4	9.91e3	0.182	6.27	6.24	26.6	146	97.2	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	1.70e4	9.91e3	0.173	6.42	6.39	21.4	124	82.8	NO
51	54	13C4-PFBA	217. > 171.8	9.86e3	9.86e3	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.10e4	1.10e4	1.000	3.15	3.09	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	2.90e3	2.90e3	1.000	4.02	3.86	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.06e4	1.06e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	9.76e3	9.76e3	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	2.83e3	2.83e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	7.32e3	7.32e3	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	9.91e3	9.91e3	1.000	5.49	5.35	12.5	12.5	100.0	NO

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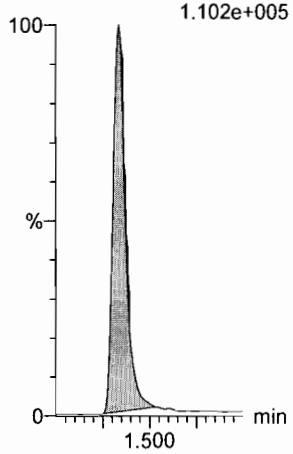
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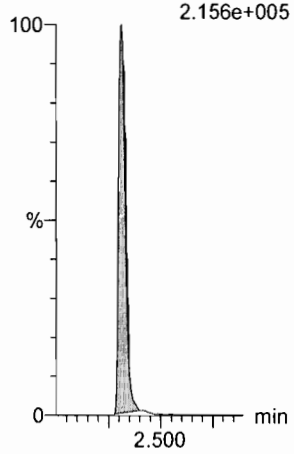
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Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

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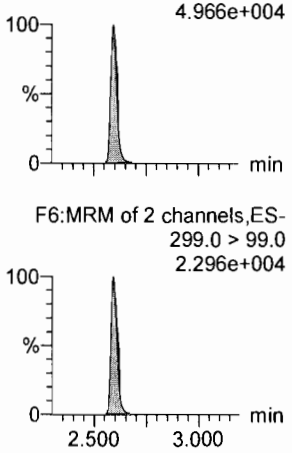
PFBA



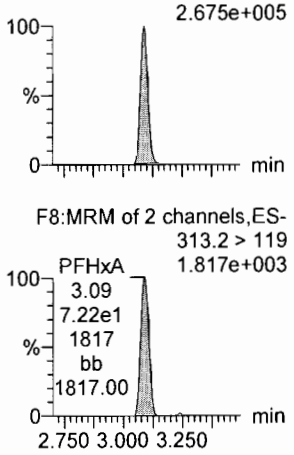
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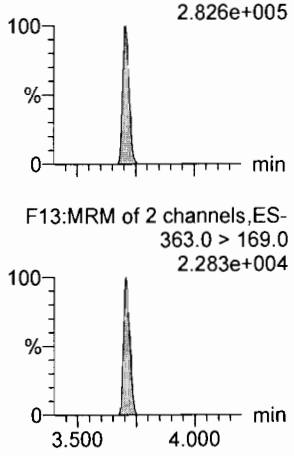
PFBS



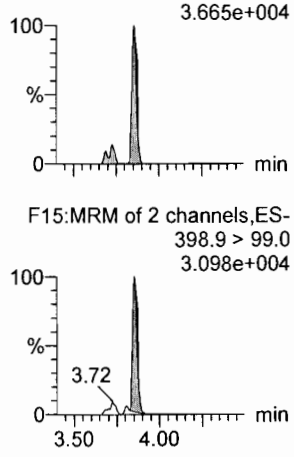
PFHxA



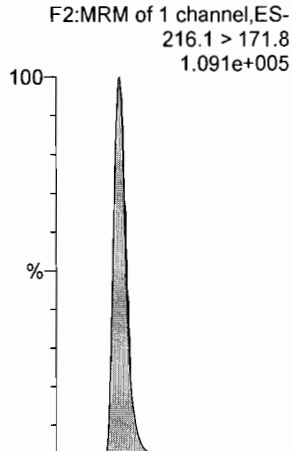
PFHpA



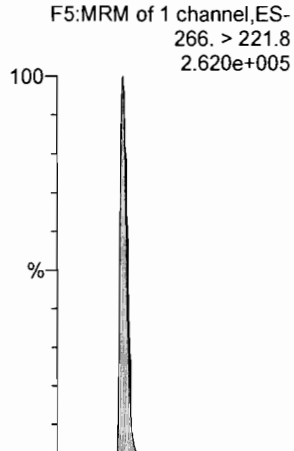
L-PFHxS



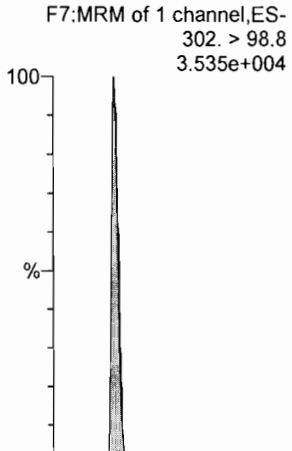
13C3-PFBA



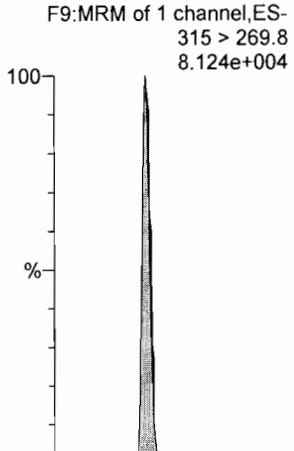
13C3-PFPeA



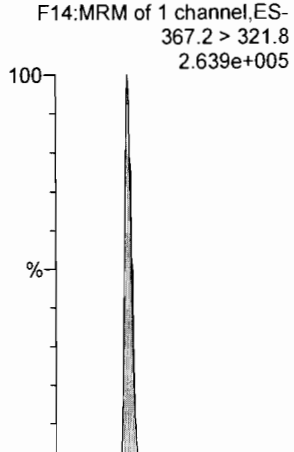
13C3-PFBS



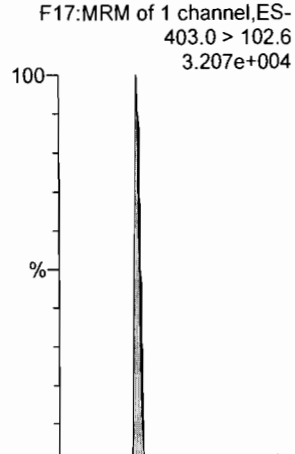
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS

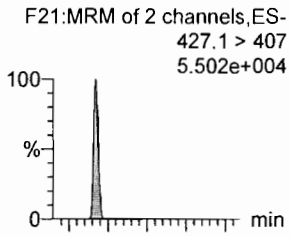


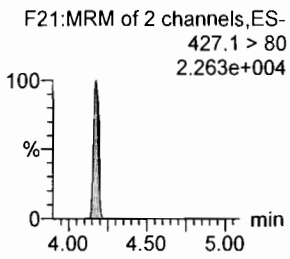
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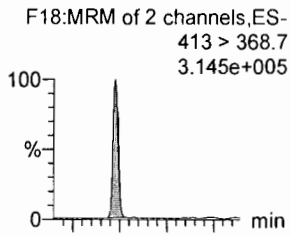
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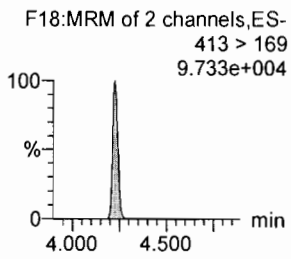
6:2 FTS



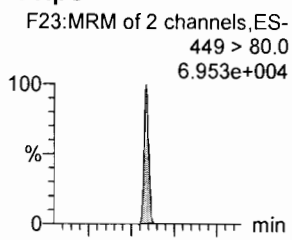


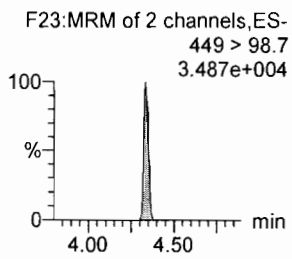
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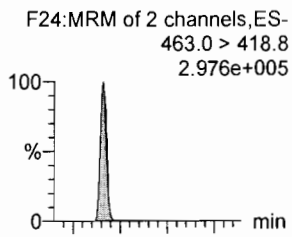


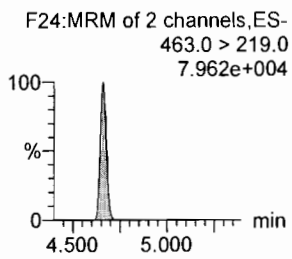
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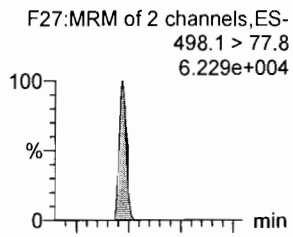


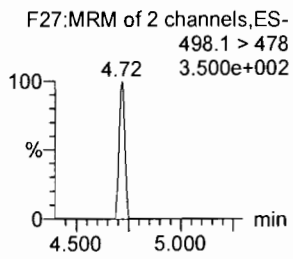
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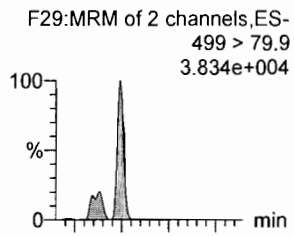


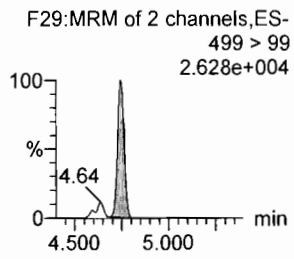
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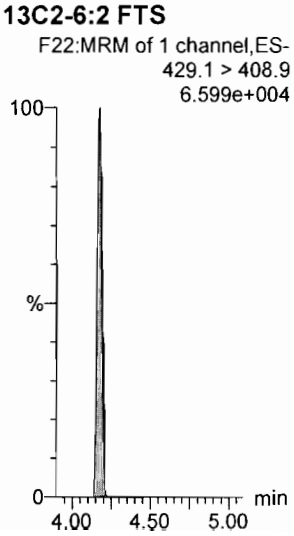


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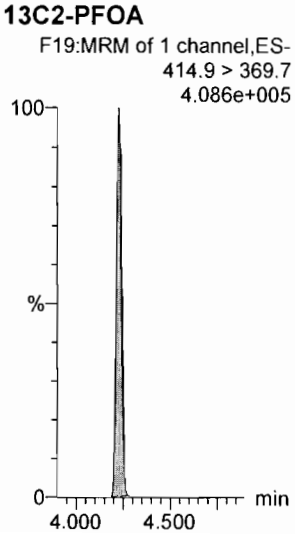




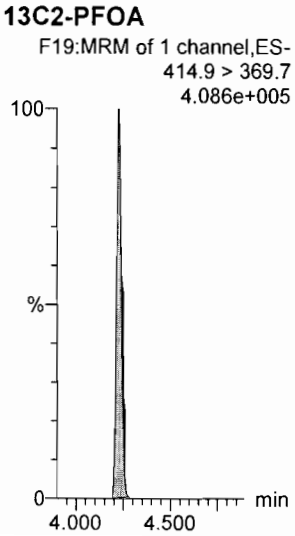
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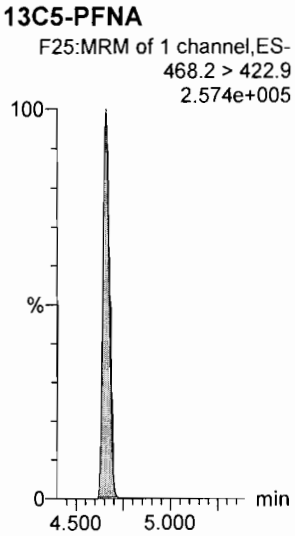
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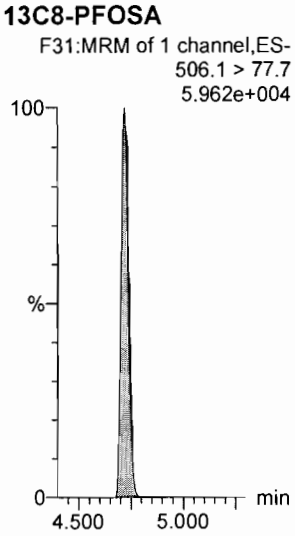
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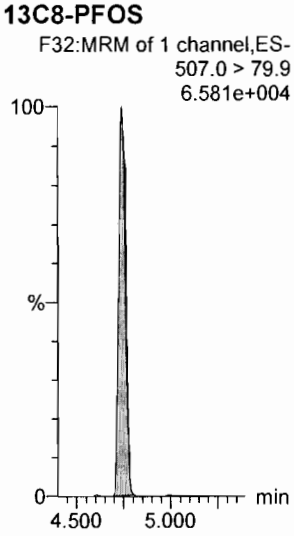
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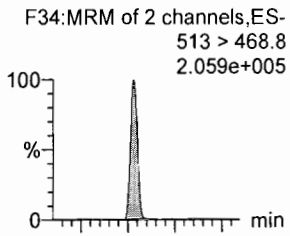


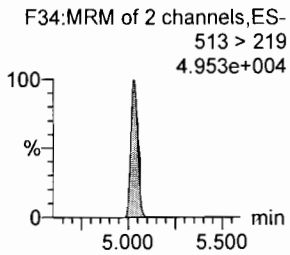
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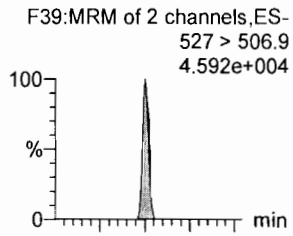
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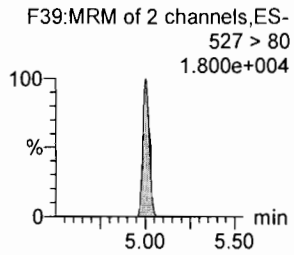
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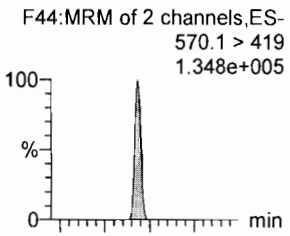


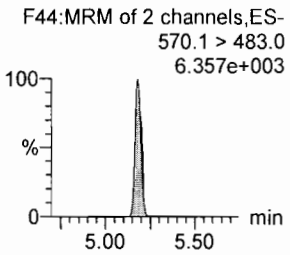
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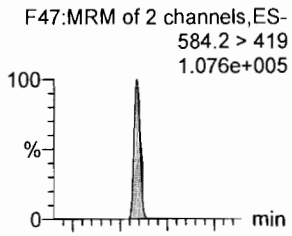


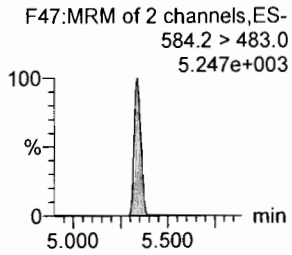
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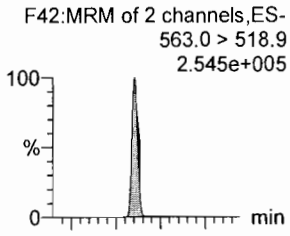


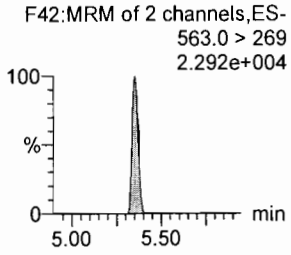
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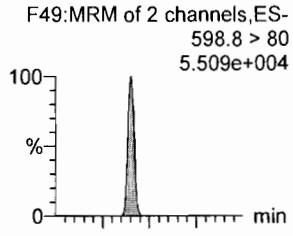


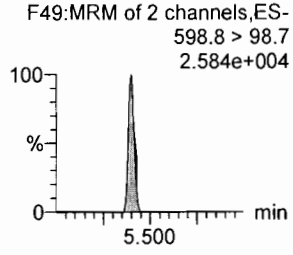
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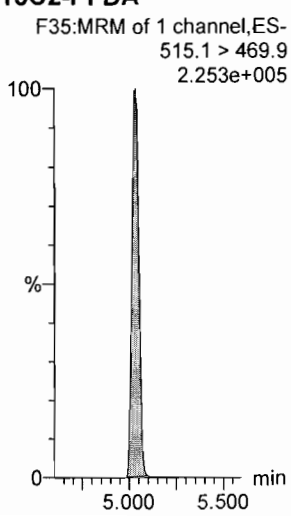


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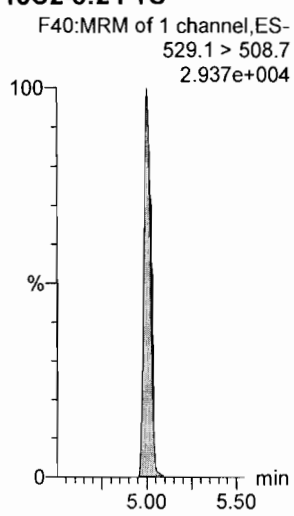




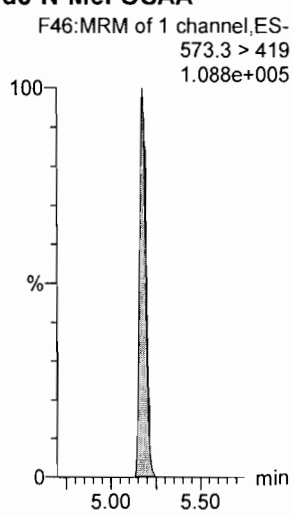
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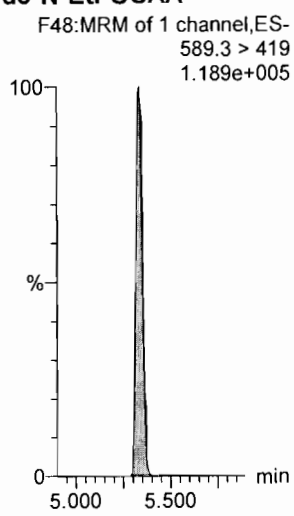
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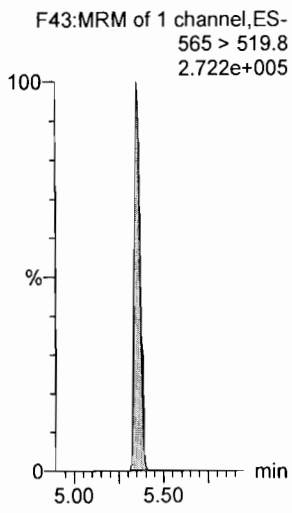
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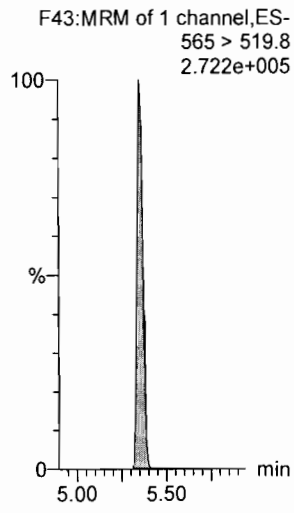
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13C2-PFUdA



13C2-PFUdA

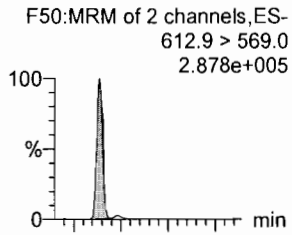


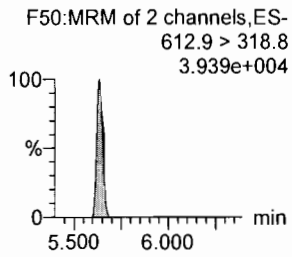
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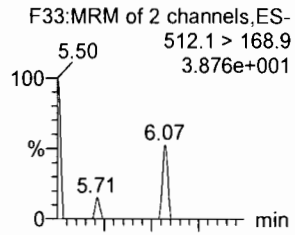
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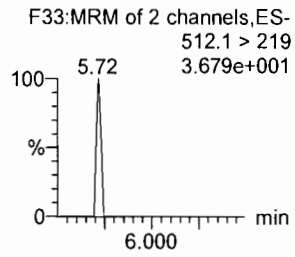
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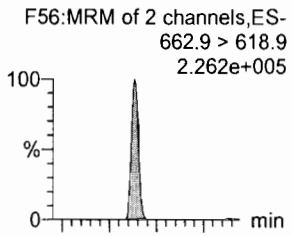


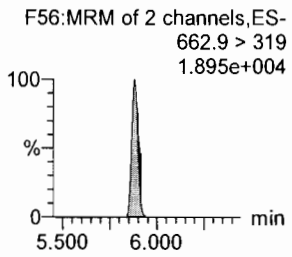
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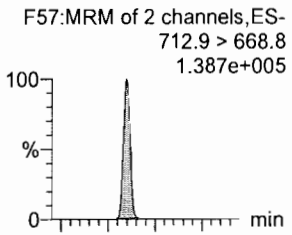


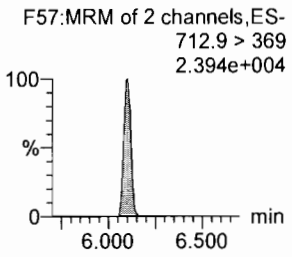
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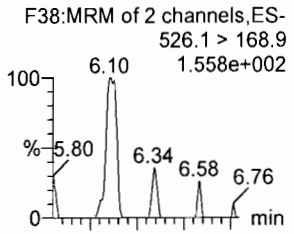


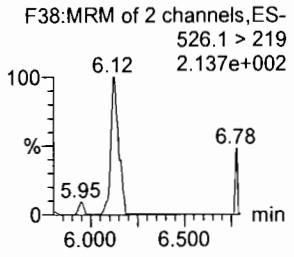
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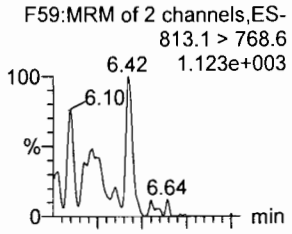


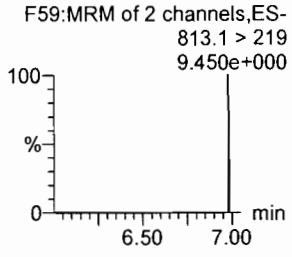
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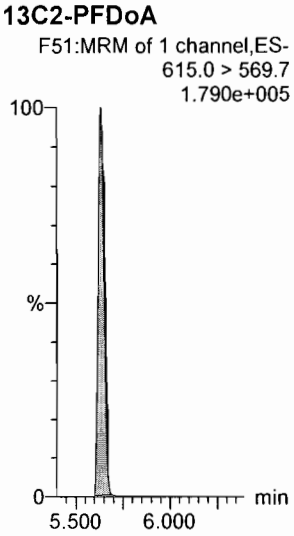


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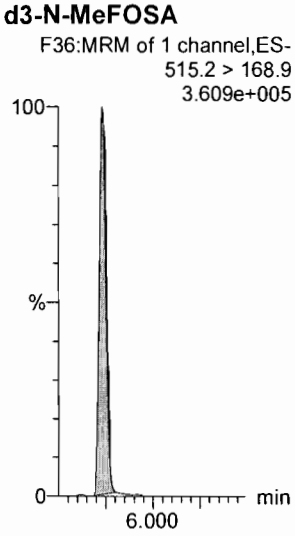




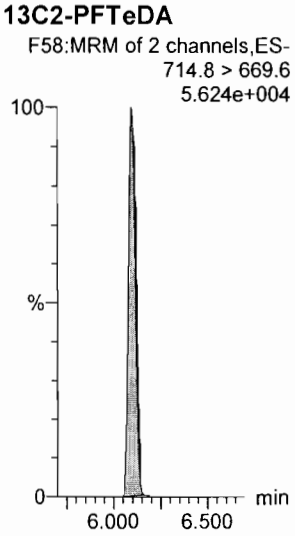
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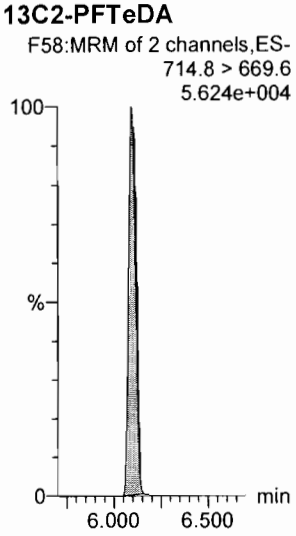
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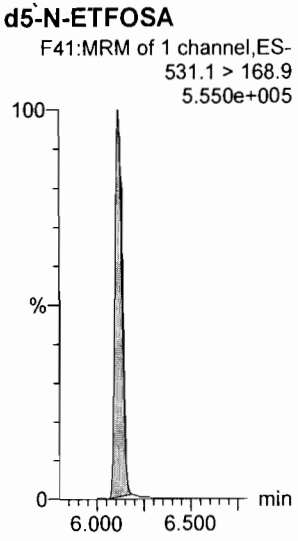
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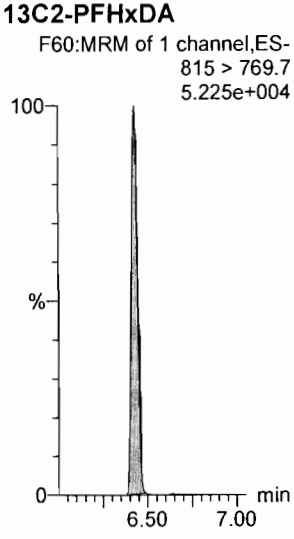
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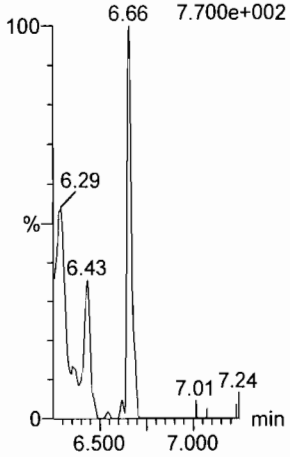


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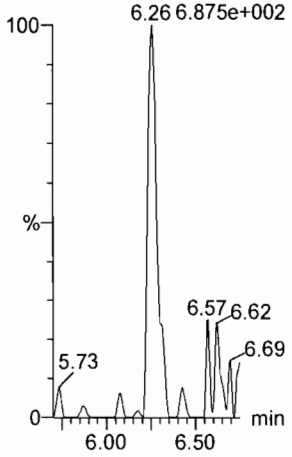
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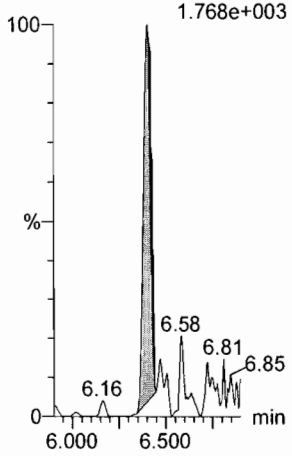
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913.1 > 868.8
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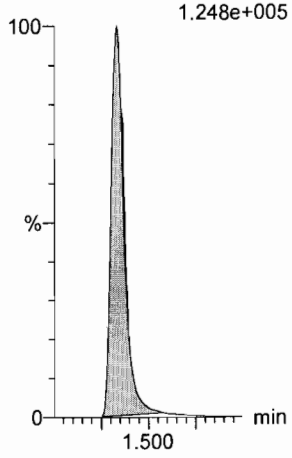
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F52:MRM of 1 channel,ES-
616.1 > 58.9
6.875e+002



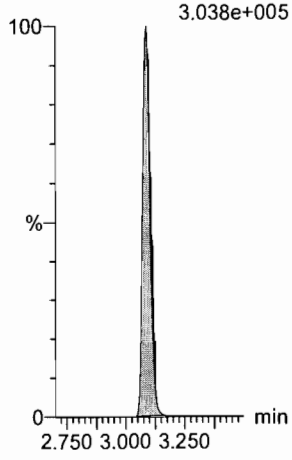
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F54:MRM of 1 channel,ES-
630.1 > 58.9
1.768e+003



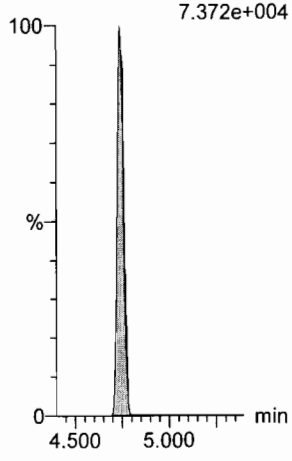
13C4-PFBA
F3:MRM of 1 channel,ES-
217. > 171.8
1.248e+005



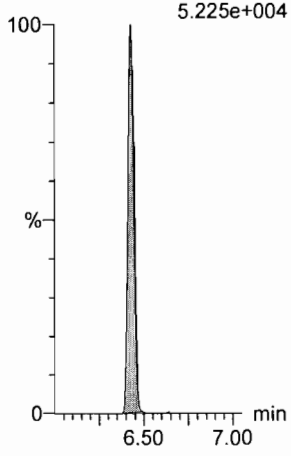
13C5-PFHxA
F10:MRM of 1 channel,ES-
318 > 272.9
3.038e+005



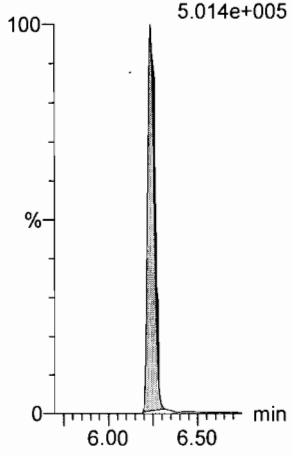
13C4-PFOS
F30:MRM of 1 channel,ES-
503 > 79.9
7.372e+004



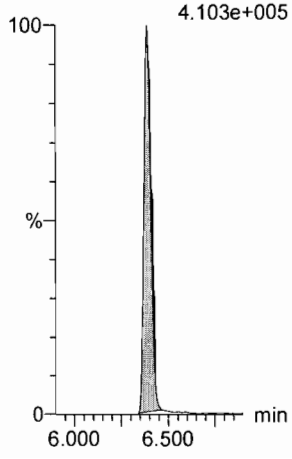
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F60:MRM of 1 channel,ES-
815 > 769.7
5.225e+004



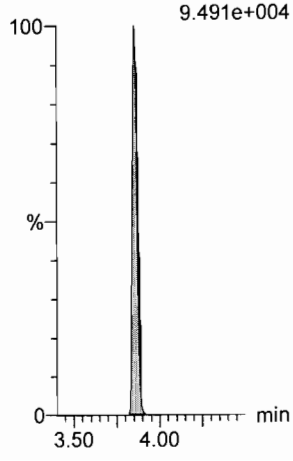
d7-N-MeFOSE
F53:MRM of 1 channel,ES-
623.1 > 58.9
5.014e+005



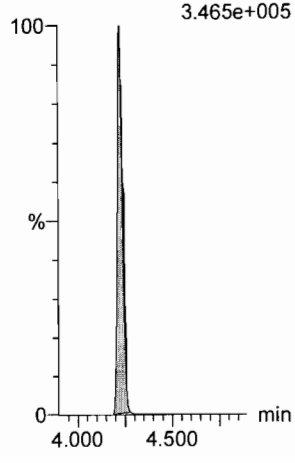
d9-N-EtFOSE
F55:MRM of 1 channel,ES-
639.2 > 58.8
4.103e+005



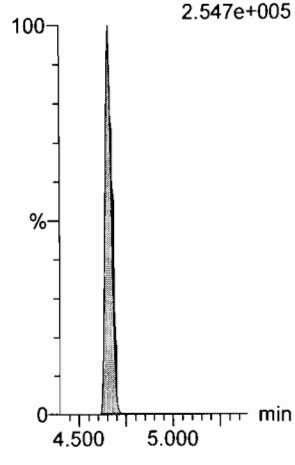
13C3-PFHxS
F16:MRM of 1 channel,ES-
401.9 > 79.9
9.491e+004



13C8-PFOA
F20:MRM of 1 channel,ES-
421.3 > 376
3.465e+005



13C9-PFNA
F26:MRM of 1 channel,ES-
472.2 > 426.9
2.547e+005

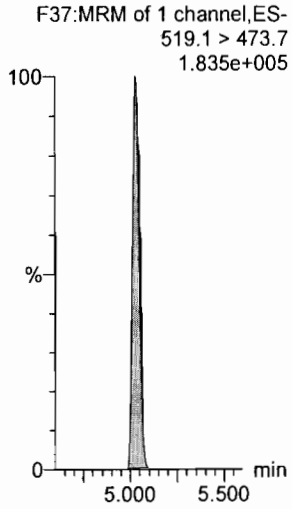


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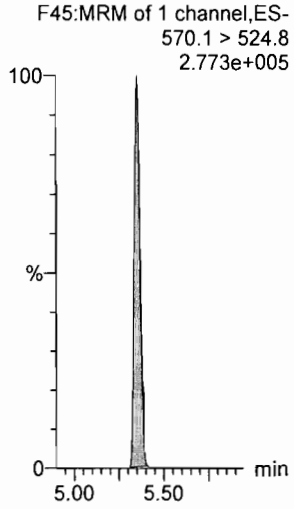
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13C6-PFDA



13C7-PFUdA



Vista Analytical Laboratory

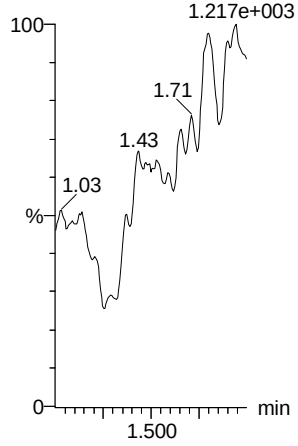
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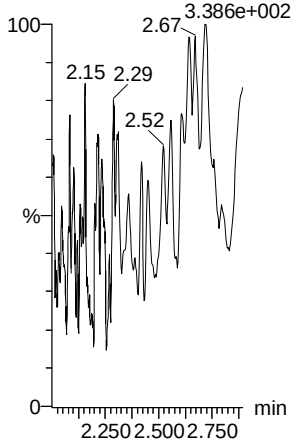
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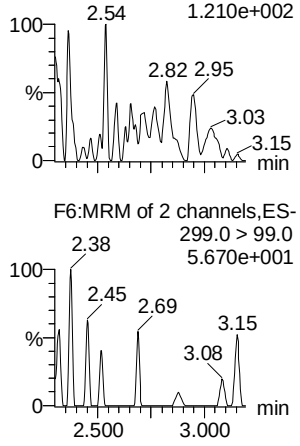
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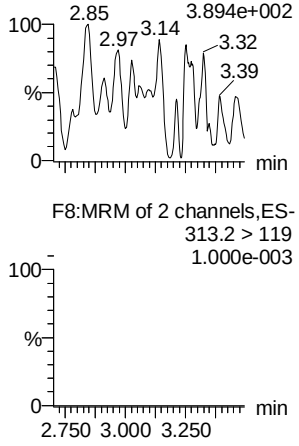
PFPeA



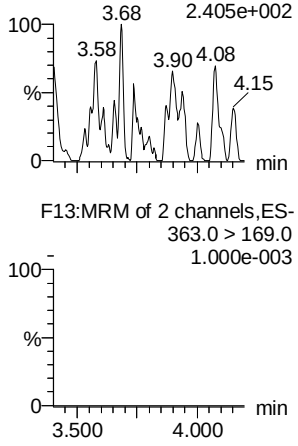
PFBS



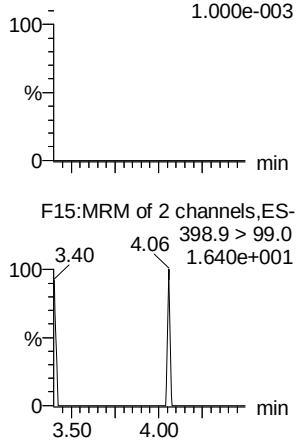
PFHxA



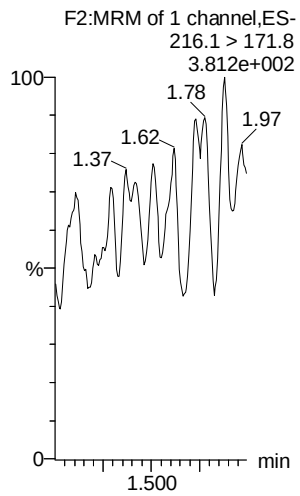
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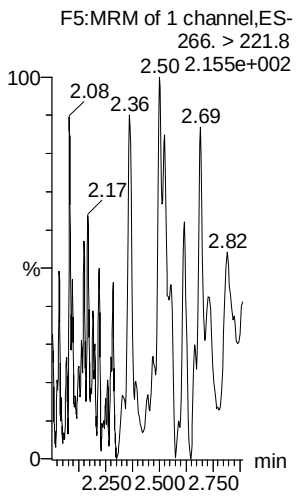
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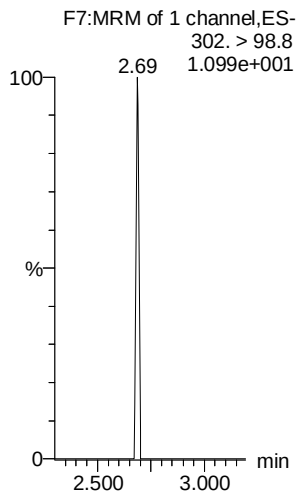
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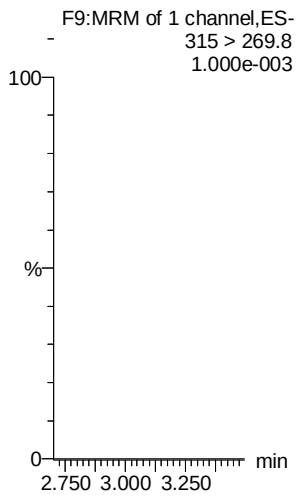
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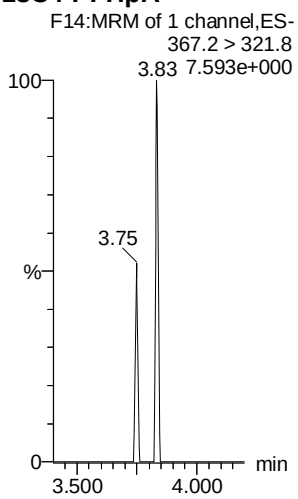
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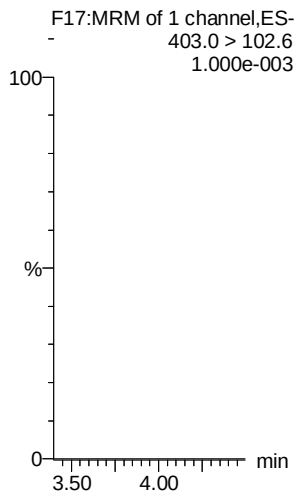
13C2-PFHxA



13C4-PFHpA



18O2-PFHxS



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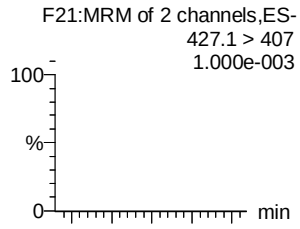
Vista Analytical Laboratory

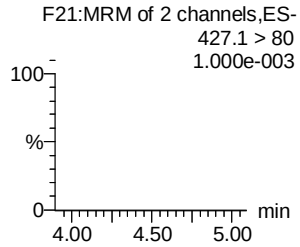
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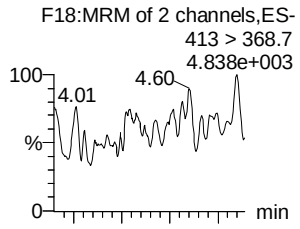
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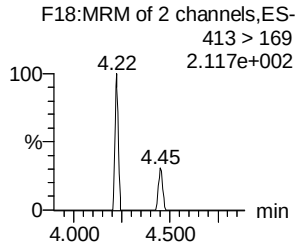
6:2 FTS



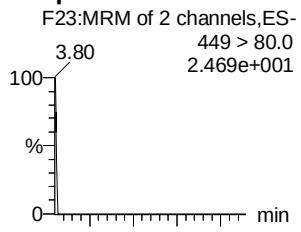


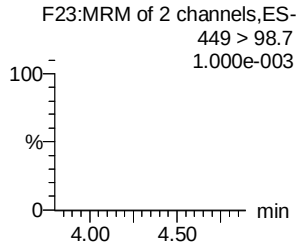
L-PFOA



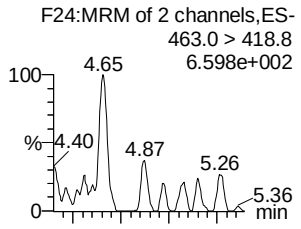


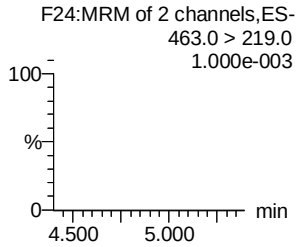
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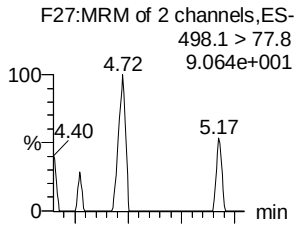


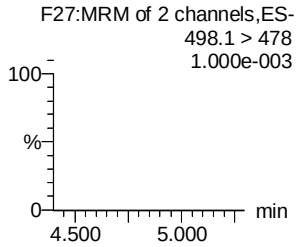
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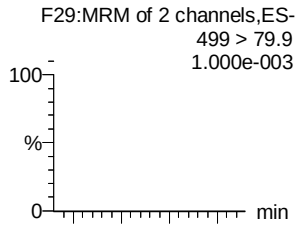


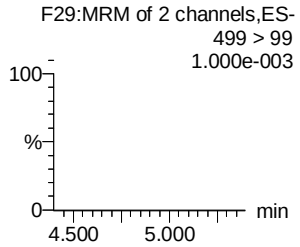
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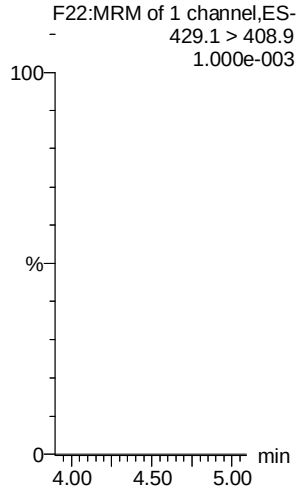


L-PFOS

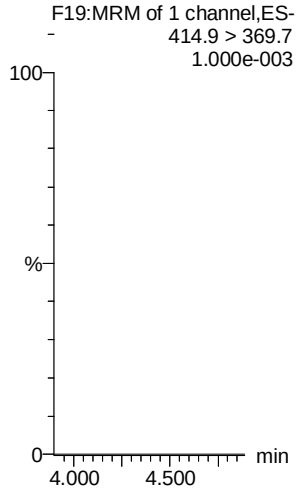




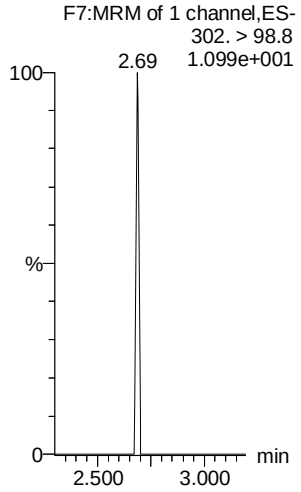
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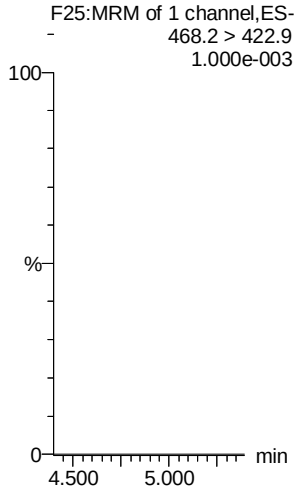
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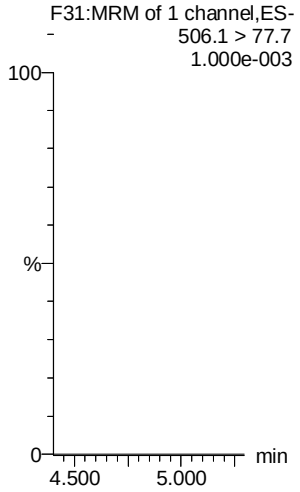
13C3-PFBS



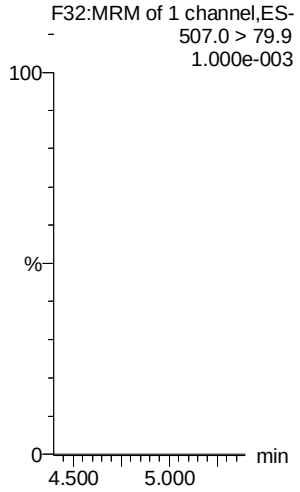
13C5-PFNA



13C8-PFOSA



13C8-PFOS



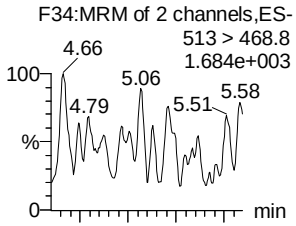
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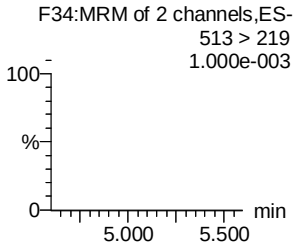
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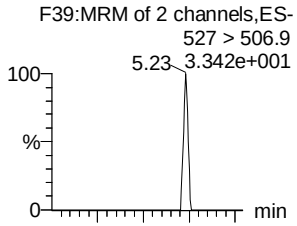
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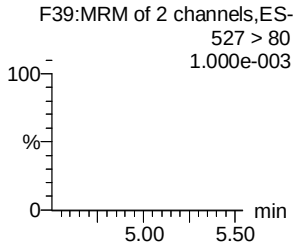
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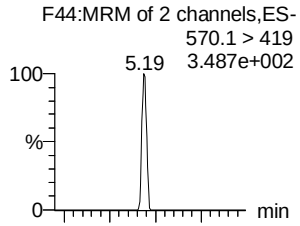


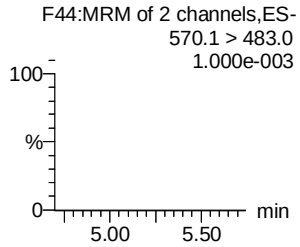
8:2 FTS



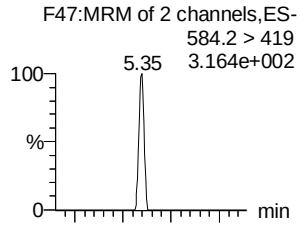


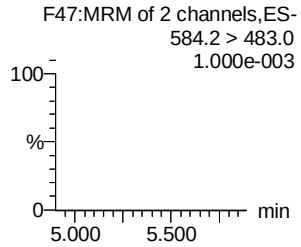
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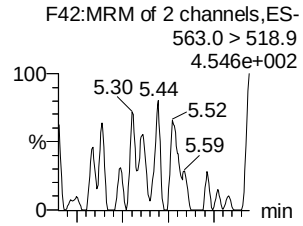


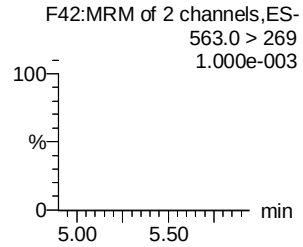
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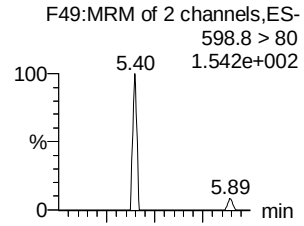


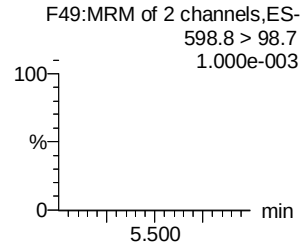
PFUdA



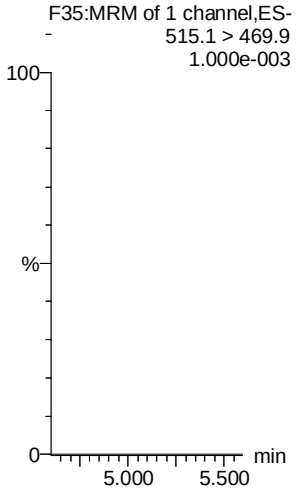


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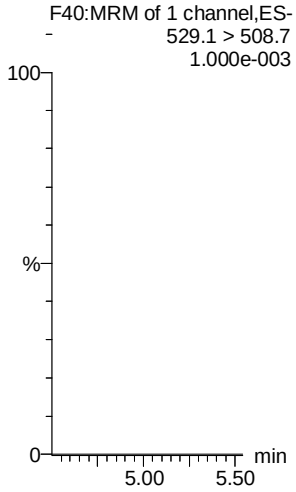




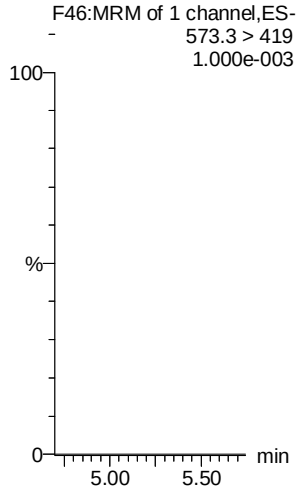
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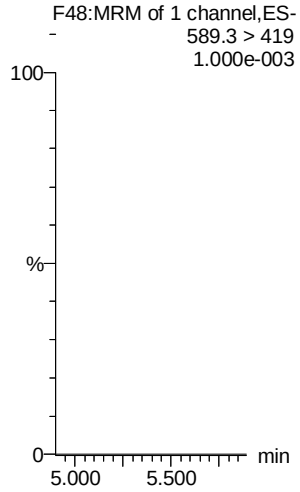
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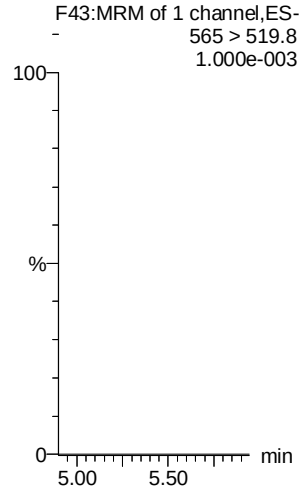
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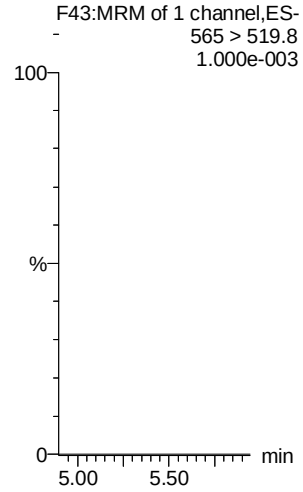
d5-N-EtFOSAA



13C2-PFUdA



13C2-PFUdA



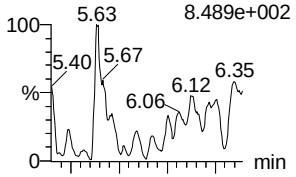
ANP 1/11/2018

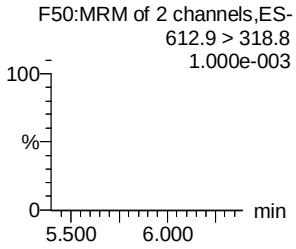
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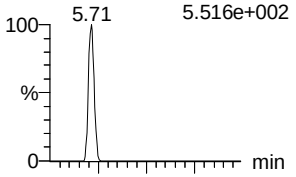
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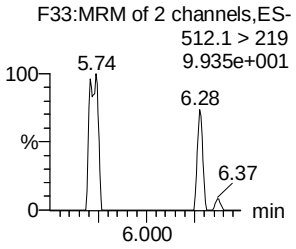
PFDoA



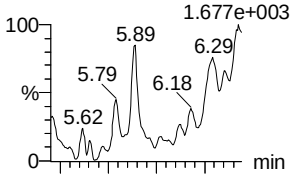


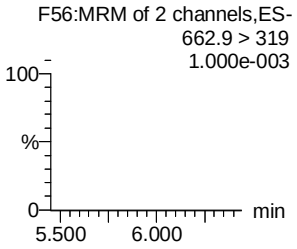
N-MeFOSA



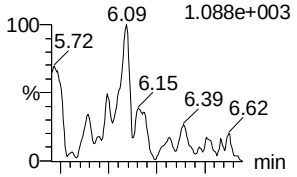


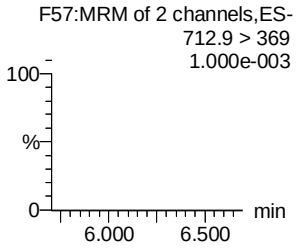
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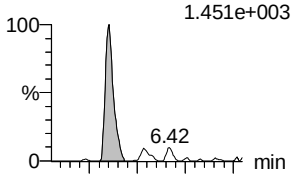


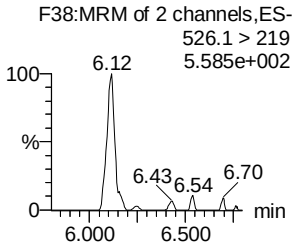
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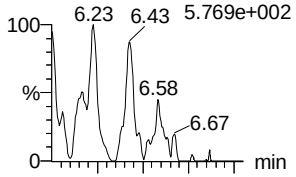


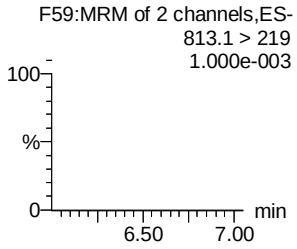
N-EtFOSA



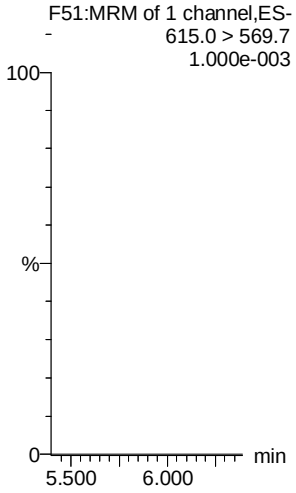


PFHxDA

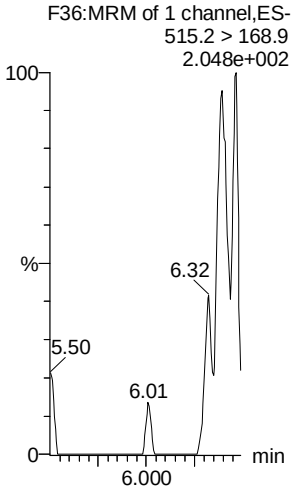




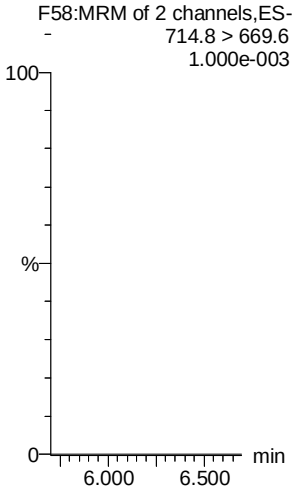
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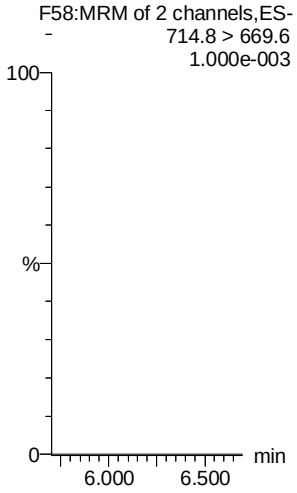
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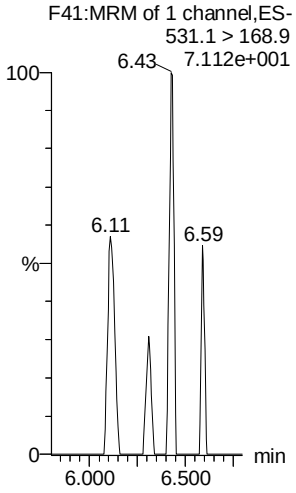
13C2-PFTeDA



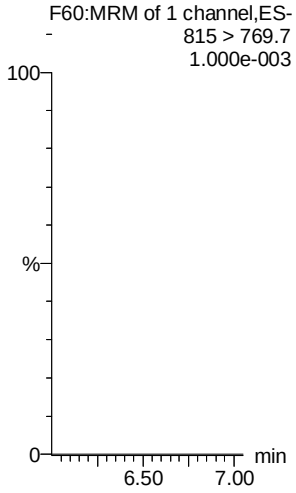
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d5-N-ETFOSA



13C2-PFHxDA



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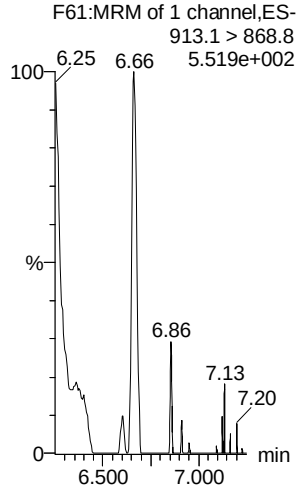
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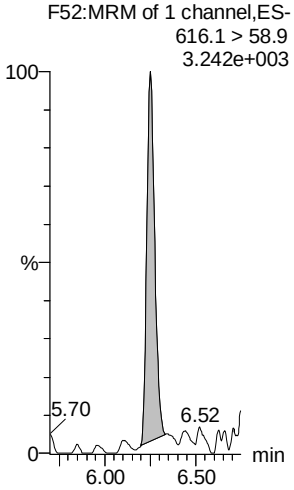
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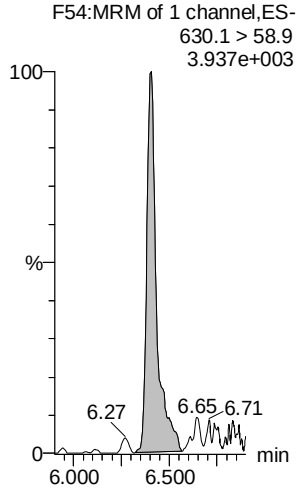
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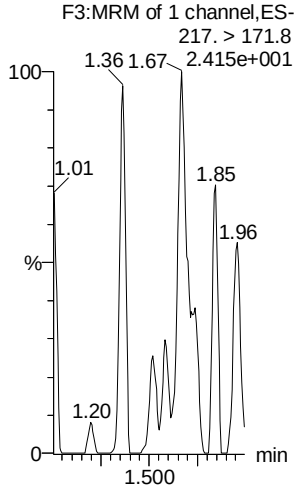
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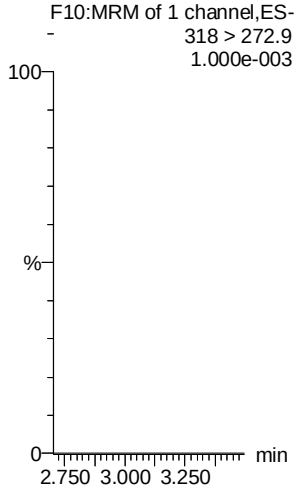
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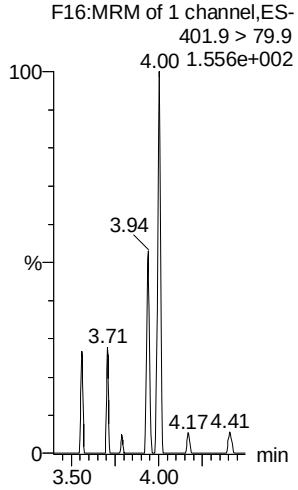
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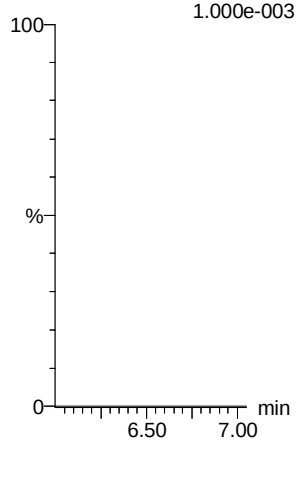
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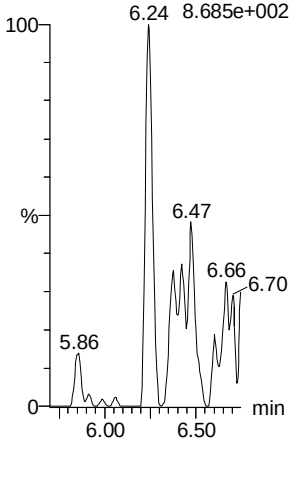
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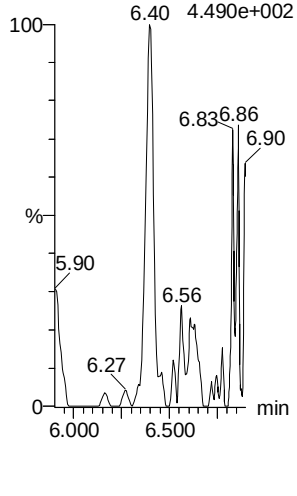
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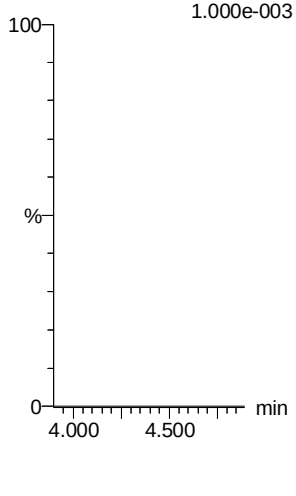
d7-N-MeFOSE



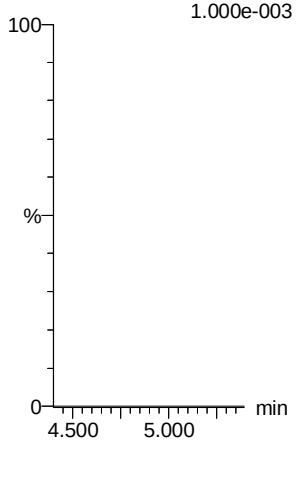
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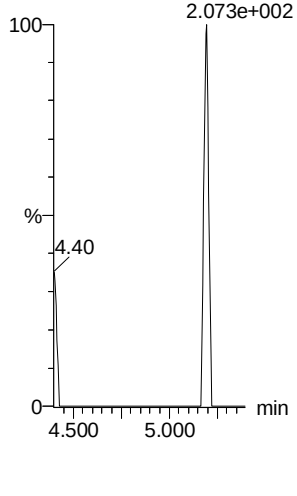
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13C9-PFNA



13C4-PFOS



ANP 1/11/2018

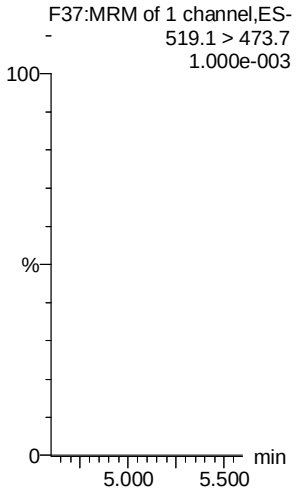
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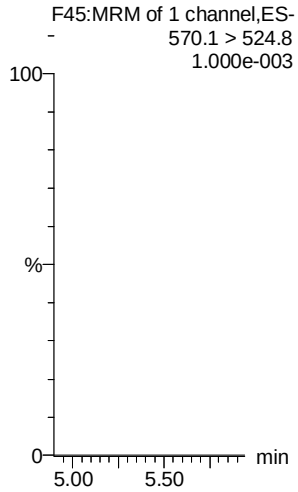
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13C6-PFDA



13C7-PFUdA



ANP 1/11/2018

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
16G1221	br-PFOSK anion	12-Jul-16	** Vendor **	14-Oct-20	19-Oct-17 08:16 by INJ	0.431
17G1209	FOSA-I	12-Jul-17	** Vendor **	30-Sep-21	13-Jul-17 09:08 by INJ	0.4
17G1312	PFTeDA	13-Jul-17	** Vendor **	30-Sep-21	17-Jul-17 16:23 by INJ	0.4
17G1313	PFTrDA	13-Jul-17	** Vendor **	02-May-22	17-Jul-17 16:22 by INJ	0.4
17G1323	br-PFHxSK	13-Jul-17	** Vendor **	04-Jan-22	17-Jul-17 16:16 by INJ	0.44
17G1325	L-PFDS	13-Jul-17	** Vendor **	17-Feb-22	17-Jul-17 16:11 by INJ	0.415
17G1326	L-PFHpS	13-Jul-17	** Vendor **	18-Oct-21	17-Jul-17 16:08 by INJ	0.42
17G1805	PFDA	18-Jul-17	** Vendor **	31-May-21	18-Jul-17 12:37 by INJ	0.4
17G1806	PFHxA	18-Jul-17	** Vendor **	02-Dec-21	18-Jul-17 12:37 by INJ	0.4
17G1807	MeFOSAA	18-Jul-17	** Vendor **	11-Jan-22	18-Jul-17 12:37 by INJ	0.4
17G1808	EtFOSAA	18-Jul-17	** Vendor **	11-Jan-22	18-Jul-17 12:37 by INJ	0.4
17G1809	PFBA	18-Jul-17	** Vendor **	29-May-22	18-Jul-17 12:37 by INJ	0.4
17G1810	PFODA	18-Jul-17	** Vendor **	29-Apr-21	18-Jul-17 12:37 by INJ	0.4
17G1811	L-PFBS	18-Jul-17	** Vendor **	02-Dec-21	18-Jul-17 12:37 by INJ	0.454
17G1812	8:2FTS	18-Jul-17	** Vendor **	12-Dec-21	18-Jul-17 12:37 by INJ	0.418
17G1813	6:2FTS	18-Jul-17	** Vendor **	20-Apr-22	18-Jul-17 12:36 by INJ	0.422
17H0820	PFDoA	08-Aug-17	** Vendor **	31-May-21	08-Aug-17 11:02 by INJ	0.4
17H0821	PFNA	08-Aug-17	** Vendor **	30-Sep-21	08-Aug-17 11:03 by INJ	0.4
17H0822	PFPeA	08-Aug-17	** Vendor **	14-Jun-22	08-Aug-17 11:05 by INJ	0.4
17H0823	PFOA	08-Aug-17	** Vendor **	17-Feb-22	08-Aug-17 11:06 by INJ	0.4
17H0824	PFUdA	08-Aug-17	** Vendor **	18-Oct-21	08-Aug-17 11:08 by INJ	0.4
17H0825	PFHxDA	08-Aug-17	** Vendor **	25-May-21	08-Aug-17 11:09 by INJ	0.4
17H0826	PFHpA	08-Aug-17	** Vendor **	02-Dec-21	08-Aug-17 11:12 by INJ	0.4
17H0827	N-EtFOSA-M	08-Aug-17	** Vendor **	05-Jul-22	08-Aug-17 11:13 by INJ	2
17H0828	N-MeFOSA-M	08-Aug-17	** Vendor **	05-Jul-22	08-Aug-17 11:15 by INJ	2
17H0829	N-EtFOSE-M	08-Aug-17	** Vendor **	24-Apr-22	08-Aug-17 11:16 by INJ	2
17H0830	N-MeFOSE-M	08-Aug-17	** Vendor **	24-Apr-22	08-Aug-17 11:17 by INJ	2

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
L-PFDS		1	ug/mL
6:2 FTS	27619-97-2	1	ug/mL
L-PFTeDA		1	ug/mL
L-PFPeA		1	ug/mL
L-PFOSA		1	ug/mL
L-PFOS		0.789	ug/mL
L-PFODA		1	ug/mL
L-PFOA		1	ug/mL
L-PFNA		1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
L-PFHxS		0.812	ug/mL
L-PFHxDA		1	ug/mL
L-PFHxA		1	ug/mL
L-PFUnA		1	ug/mL
L-PFHpA		1	ug/mL
MeFOSA	31506-32-8	5	ug/mL
L-PFDoA		1	ug/mL
L-PFDA		1	ug/mL
L-PFBS		1	ug/mL
L-PFBA		1	ug/mL
L-8:2FTS		1	ug/mL
L-6:2 FTS		1	ug/mL
EtFOSE	1691-99-2	5	ug/mL
EtFOSAA	2991-50-6	1	ug/mL
EtFOSA	4151-50-2	5	ug/mL
Br-PFHxS	3871-99-6	0.189	ug/mL
8:2 FTS	39108-34-4	1	ug/mL
L-PFHpS		1	ug/mL
PFHxS	355-46-4	1	ug/mL
Total PFHxS		1	ug/mL
Total PFHpS		1	ug/mL
Total PFDS		1	ug/mL
Total 6:2 FTS		1	ug/mL
PFUnA	2058-94-8	1	ug/mL
PFTrDA	72629-94-8	1	ug/mL
PFTeDA	376-06-7	1	ug/mL
PFPeA	2706-90-3	1	ug/mL
PFOSA	754-91-6	1	ug/mL
PFOS	1763-23-1	1	ug/mL
PFODA	16517-11-6	1	ug/mL
L-PFTrDA		1	ug/mL
PFNA	375-95-1	1	ug/mL
Total PFUnA		1	ug/mL
PFHxDA	67905-19-5	1	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17J1820

Description:	PFC NS Stock	Expires:	18-Oct-19
Standard Type:	Analyte Spike	Prepared:	18-Oct-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	19-Oct-17 08:19 by INJ

PFOS and PFHxS linear and branched components

Analyte	CAS Number	Concentration	Units
PFHxA	307-24-4	1	ug/mL
PFHpS	375-92-8	1	ug/mL
PFHpA	375-85-9	1	ug/mL
PFDS	335-77-3	1	ug/mL
PFDoA	307-55-1	1	ug/mL
PFDA	335-76-2	1	ug/mL
PFBS	375-73-5	1	ug/mL
PFBA	375-22-4	1	ug/mL
MeFOSE	24448-09-7	5	ug/mL
MeFOSAA	2355-31-9	1	ug/mL
PFOA	335-67-1	1	ug/mL

1681221

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFOSK

Potassium Perfluorooctanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFOSK
LOT NUMBER:	brPFOSK1015
CONCENTRATION:	50 ± 2.5 µg/ml (total potassium salt)
	46.4 ± 2.3 µg/ml (total PFOS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	10/13/2015
LAST TESTED: (mm/dd/yyyy)	10/14/2015
EXPIRY DATE: (mm/dd/yyyy)	10/14/2020
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorooctanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- A 5-point calibration curve was generated using linear PFOS (potassium salt) and mass-labelled PFOS as an internal standard to enable quantitation of br-PFOSK using isotopic dilution.
- CAS#: 2795-39-3 (for linear isomer; potassium salt).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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CALA

ANAB ACCREDITED

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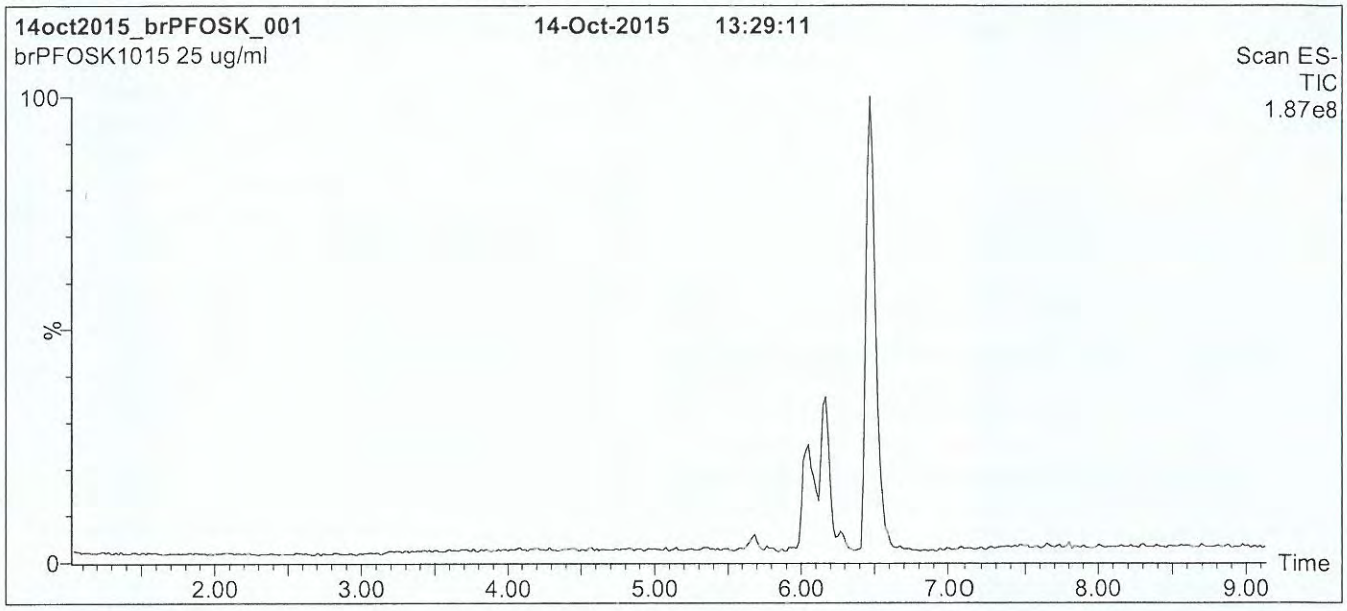
Table A: **br-PFOSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

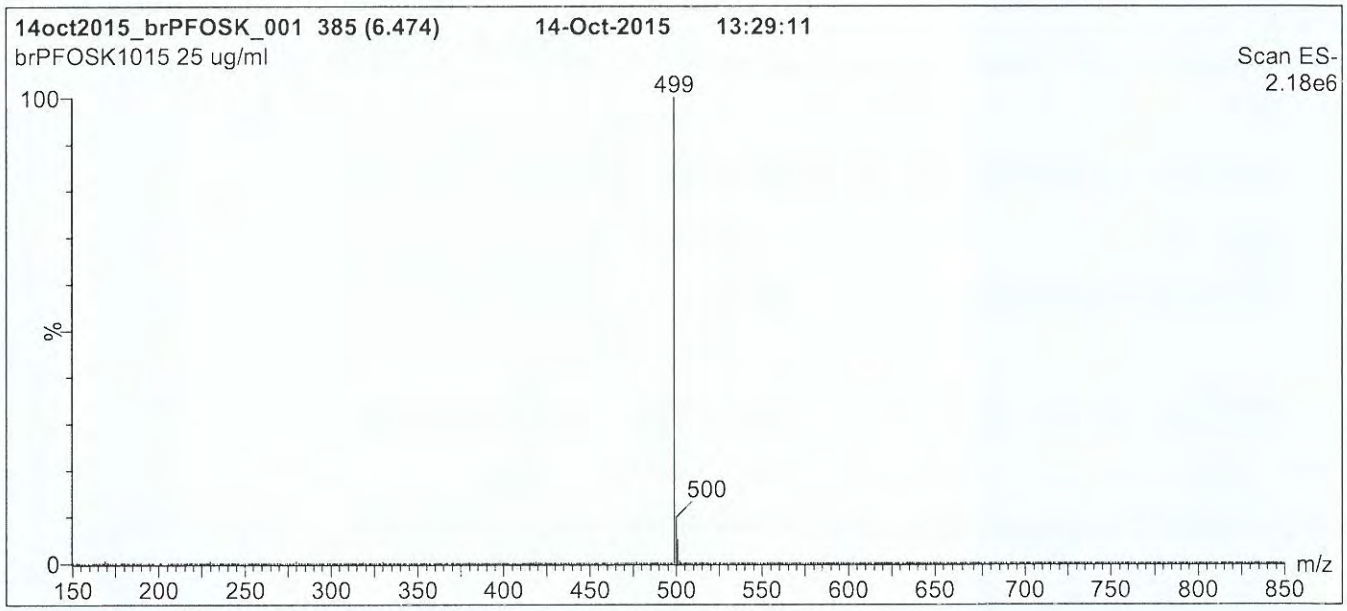
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-octanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	78.8
2	Potassium 1-trifluoromethylperfluoroheptanesulfonate**	$CF_3CF_2CF_2CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	1.2
3	Potassium 2-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	0.6
4	Potassium 3-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	1.9
5	Potassium 4-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	2.2
6	Potassium 5-trifluoromethylperfluoroheptanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	4.5
7	Potassium 6-trifluoromethylperfluoroheptanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	10.0
8	Potassium 5,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3C(CF_3)(CF_3)CF_2CF_2CF_2CF_2SO_3^-K^+$	0.2
9	Potassium 4,4-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF_2C(CF_3)(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.03
10	Potassium 4,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	0.4
11	Potassium 3,5-di(trifluoromethyl)perfluorohexanesulfonate	$CF_3CF(CF_3)CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	0.07

* Percent of total perfluorooctanesulfonate isomers only. Isomers are labelled in Figure 2.
** Systematic Name: Potassium perfluorooctane-2-sulfonate.

Certified By: _____ **Date:** 10/15/2015
B.G. Chittim (mm/dd/yyyy)

Figure 1: br-PFOSK; LC/MS Data (TIC and Mass Spectrum)





Conditions for Figure 1:

LC: Waters Acquity Ultra Performance LC
MS: Micromass Quattro *micro* API MS

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% (80:20 MeOH:ACN) / 55% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 12 min and hold for 2 min.
Return to initial conditions over 0.5 min.
Time: 16 min

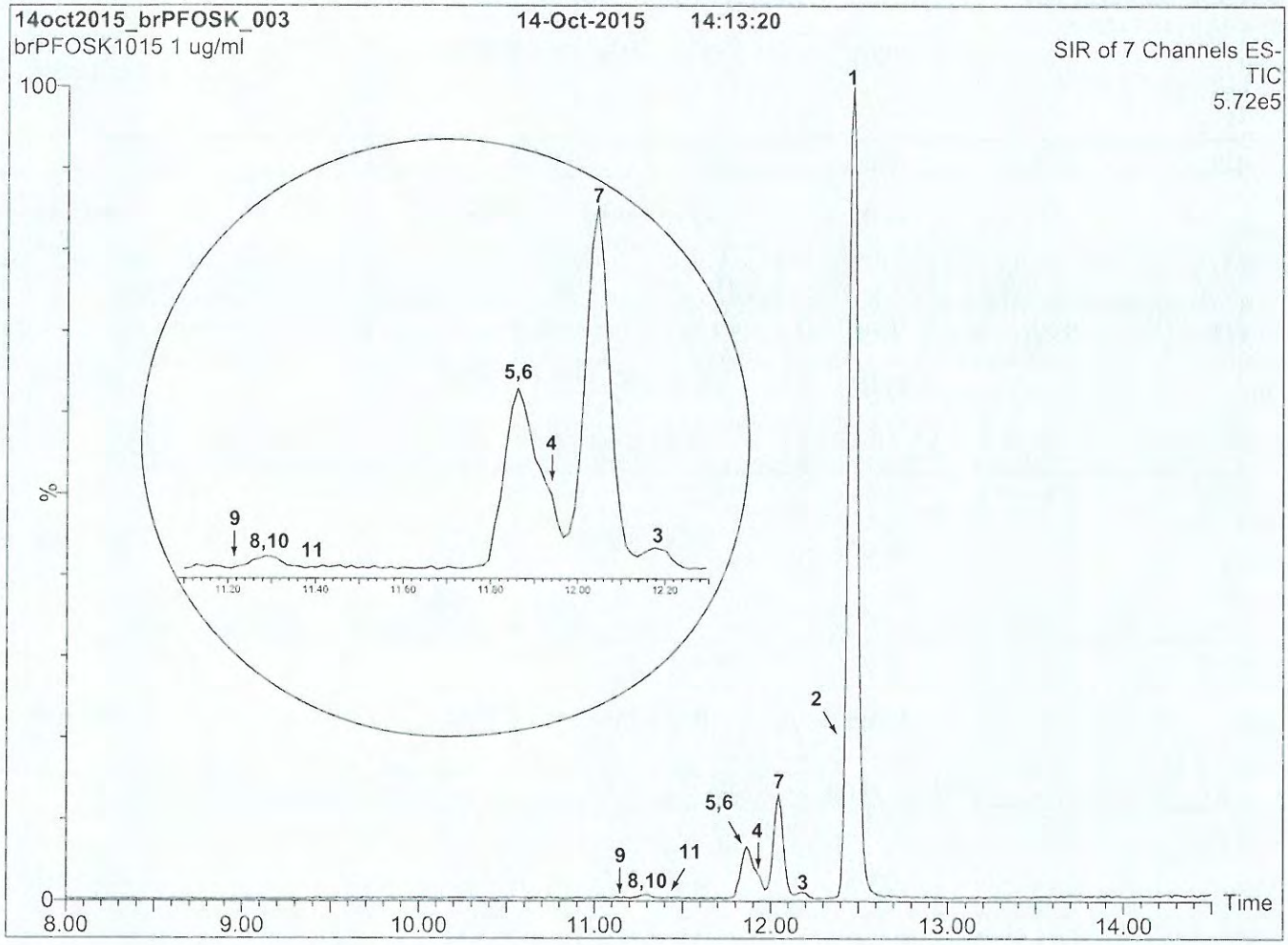
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **br-PFOSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions:

Column: Acquity UPLC BEH Shield RP_{18} (1.7 µm, 2.1 x 100 mm)

Injection: 1.0 µg/ml of br-PFOSK

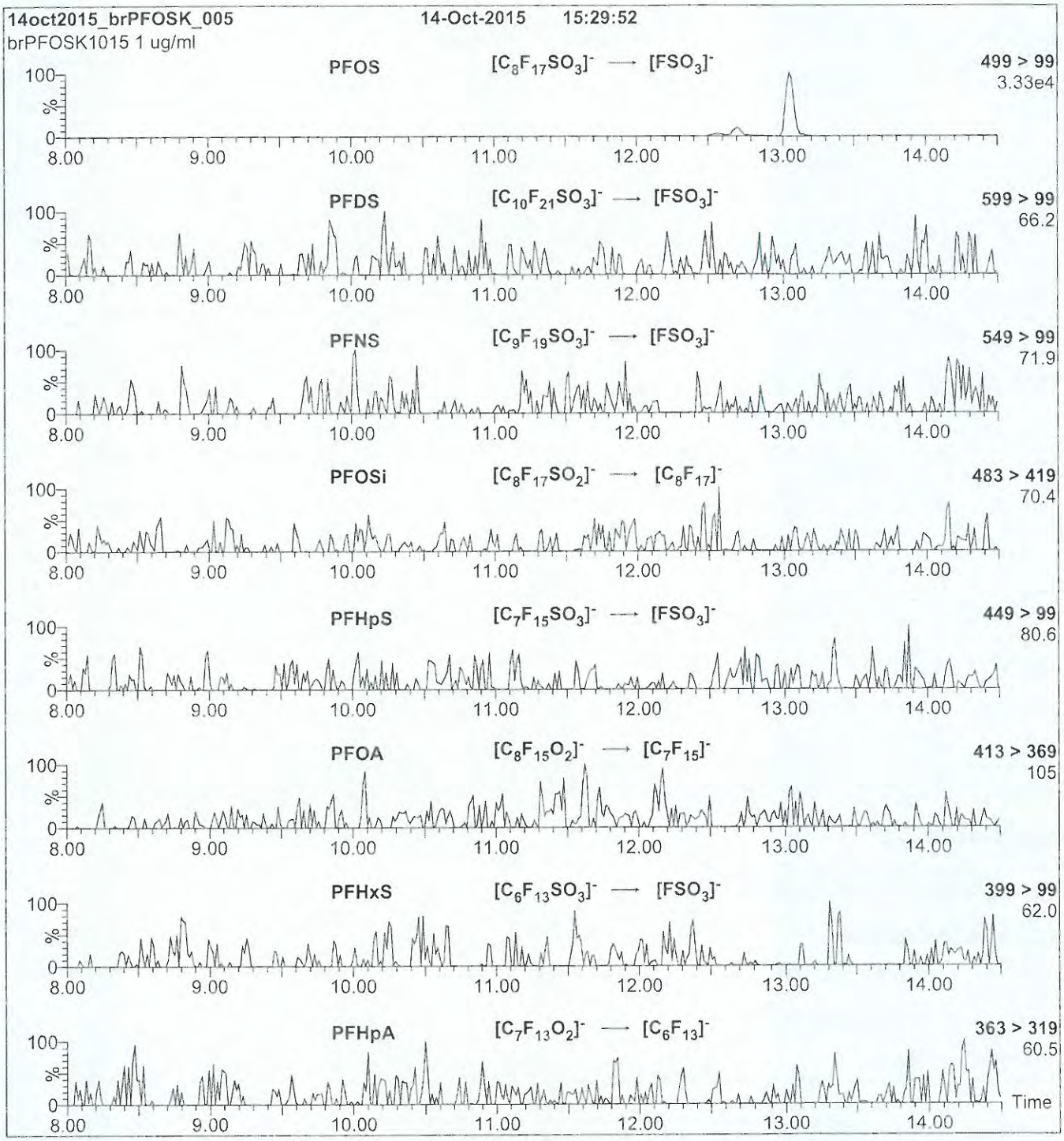
Mobile Phase: Gradient
45% (80:20 MeOH:ACN) / 55% H_2O (both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 15 min and hold for 3 min.
Return to initial conditions over 1 min.
Time: 20 min

Flow: 300 µl/min

MS Conditions:

SIR (ES^-)
Source = 110 °C
Desolvation = 325 °C
Cone Voltage = 60V

Figure 3: **br-PFOSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: On-column

Mobile phase: Same as Figure 2

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.06e-3
Collision Energy (eV) = 11-50 (variable)

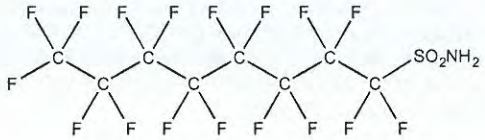
17G1209

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: FOSA-I
COMPOUND: Perfluoro-1-octanesulfonamide
LOT NUMBER: FOSA0916I

STRUCTURE:



CAS #: 754-91-6

MOLECULAR FORMULA:	$C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	499.14
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1209

INTENDED USE:

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HAZARDS:

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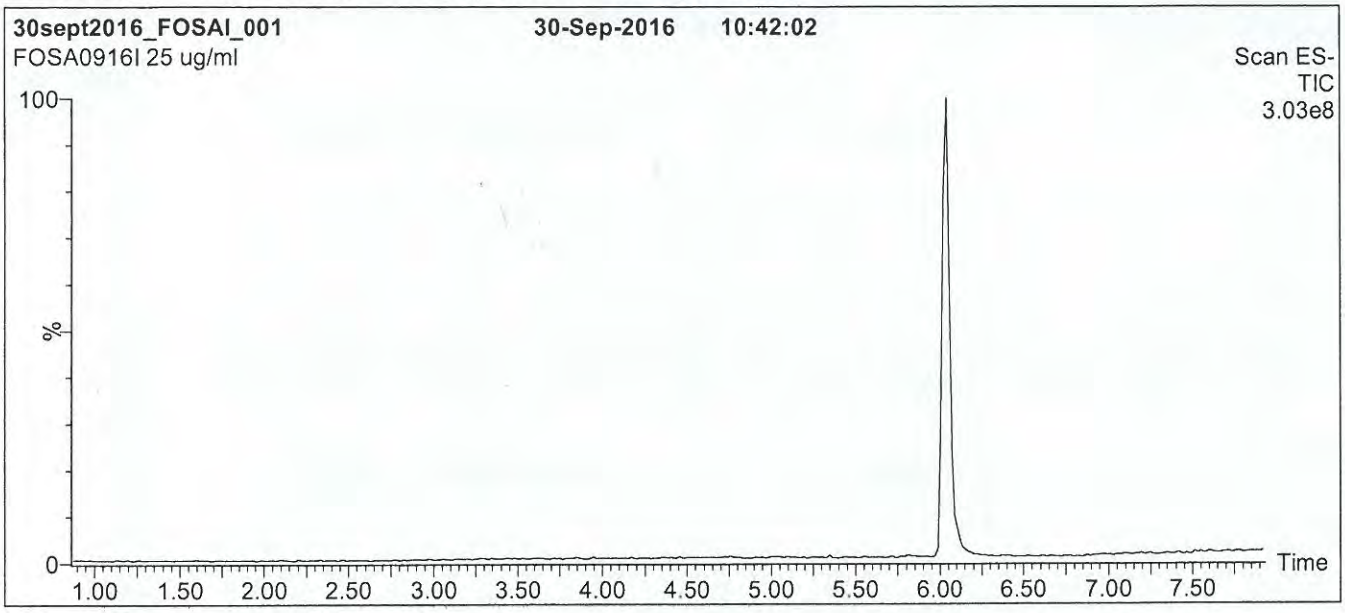
CALA

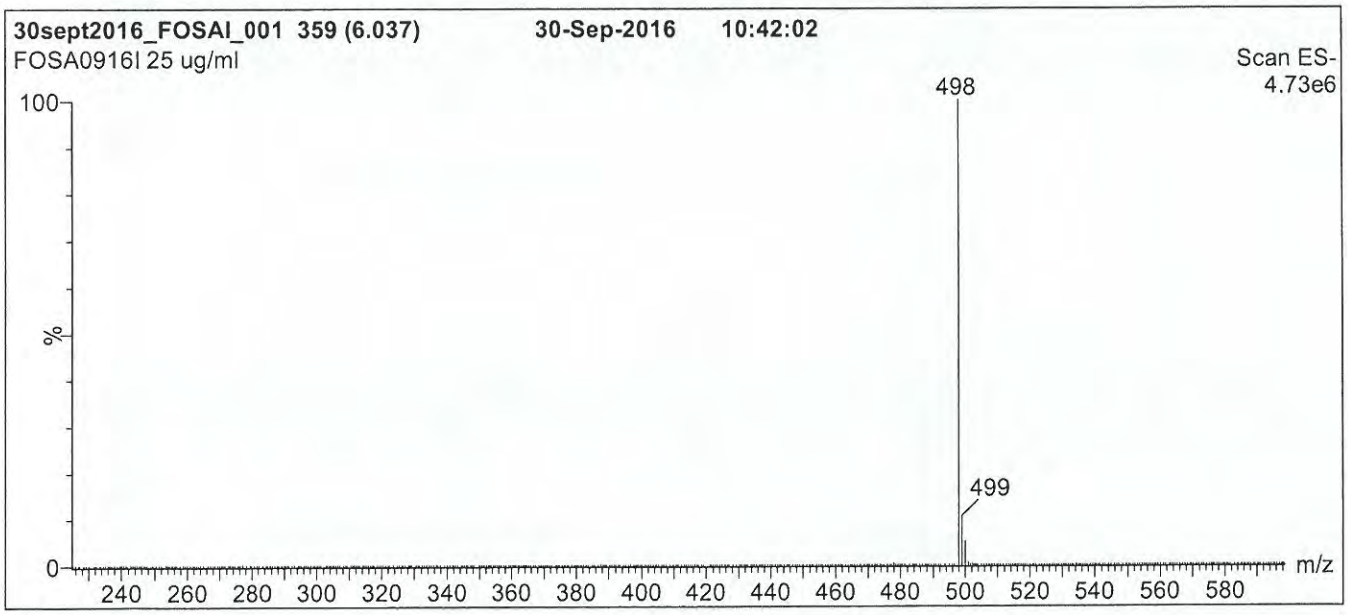
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For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1761209

Figure 1: **FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

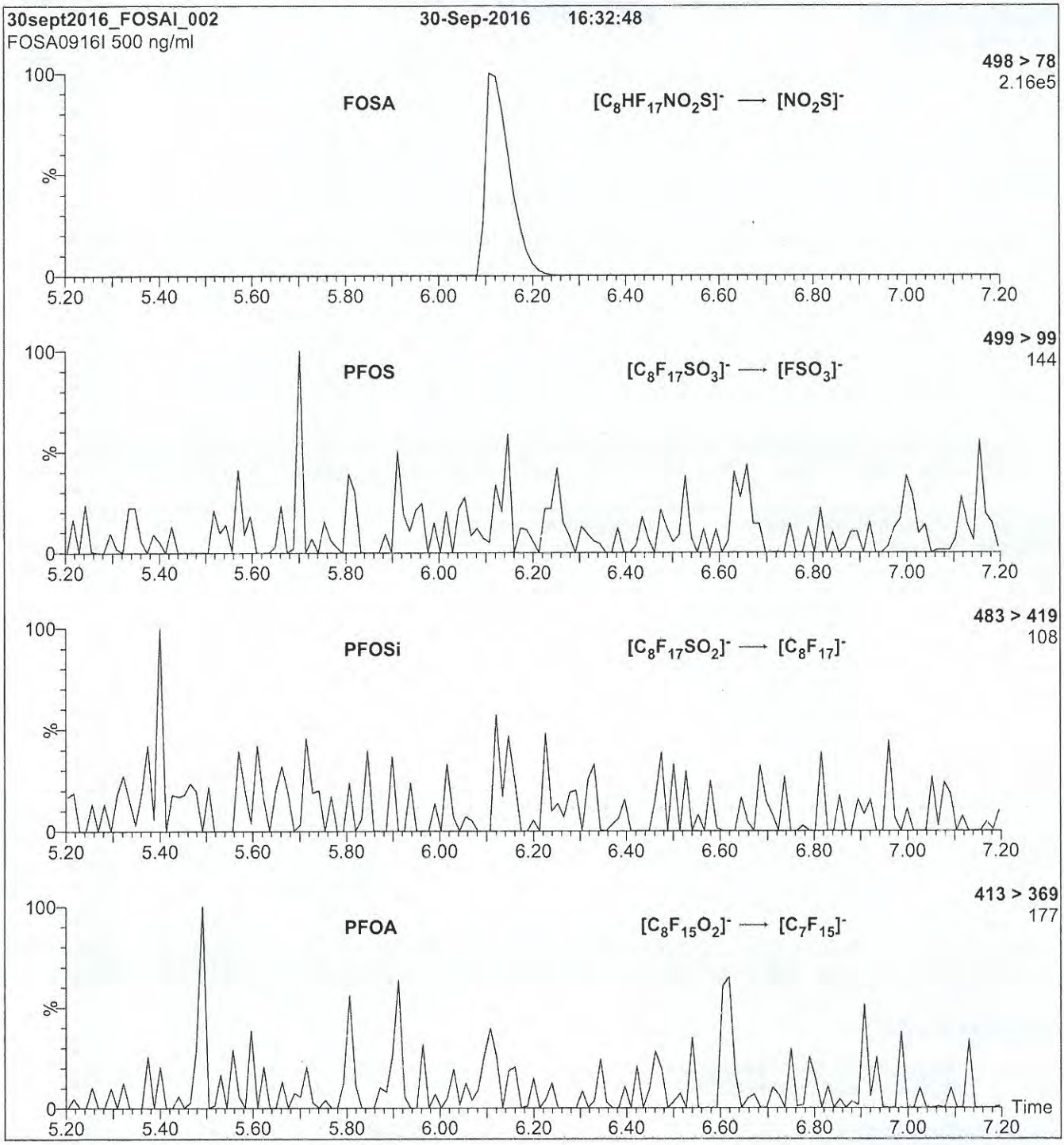
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1209

Figure 2: **FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml FOSA-I)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 30

17G1312

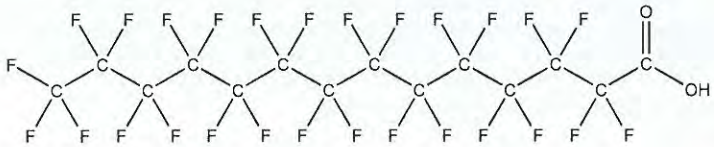
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFTeDA ✓ **LOT NUMBER:** PFTeDA0916 ✓

COMPOUND: Perfluoro-n-tetradecanoic acid

STRUCTURE: **CAS #:** 376-06-7



MOLECULAR FORMULA: $C_{14}HF_{27}O_2$ **MOLECULAR WEIGHT:** 714.11

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 09/30/2016

EXPIRY DATE: (mm/dd/yyyy) 09/30/2021

RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of PFDoA ($C_{12}HF_{23}O_2$) and ~ 0.2% of PFPeDA ($C_{15}HF_{29}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1312

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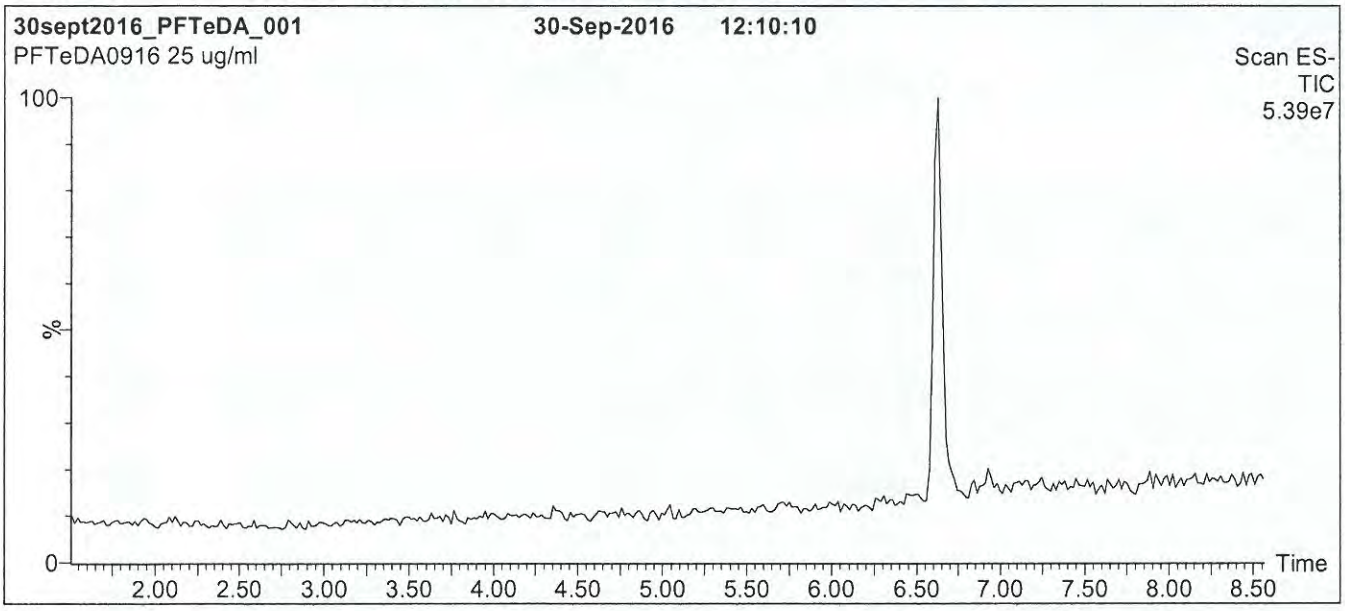
CALA

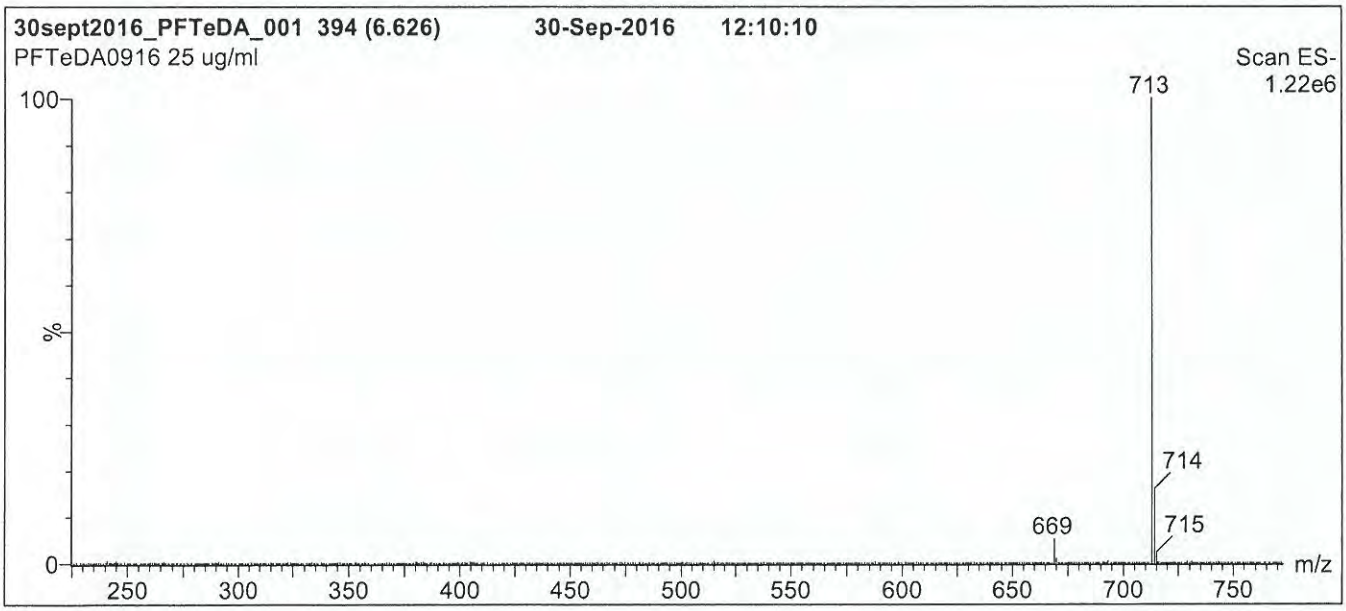
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1701312

Figure 1: **PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

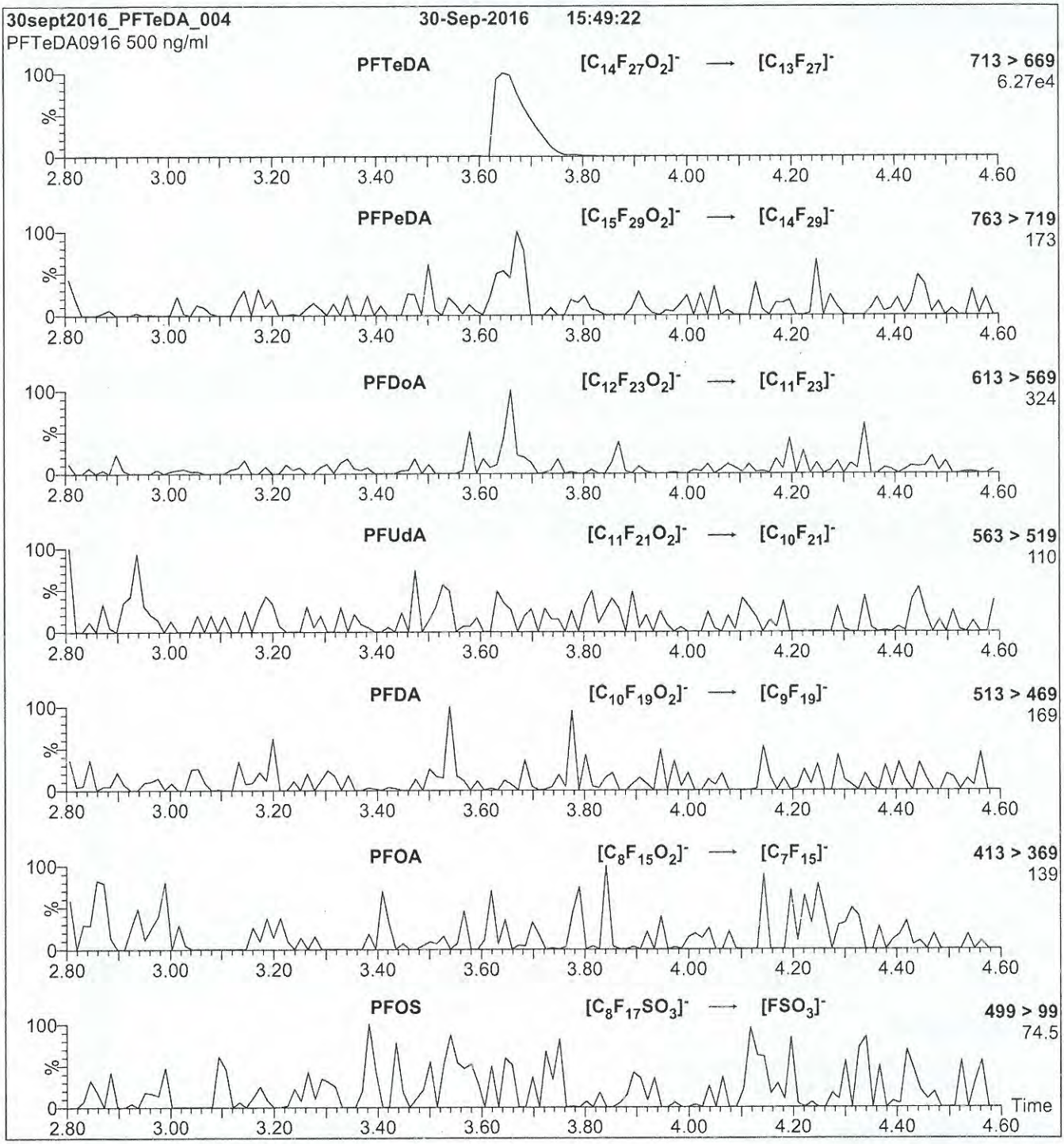
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1312

Figure 2: **PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFTeDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 14

17G1313

WELLINGTON LABORATORIES

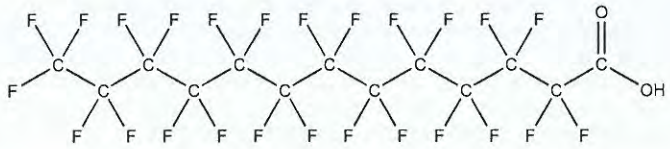
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFTrDA
COMPOUND: Perfluoro-n-tridecanoic acid

LOT NUMBER: PFTrDA0517

STRUCTURE:

CAS #: 72629-94-8



MOLECULAR FORMULA: $C_{13}HF_{25}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 664.11
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/02/2017
EXPIRY DATE: (mm/dd/yyyy) 05/02/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of PFUdA ($C_{11}HF_{21}O_2$), ~ 0.4% of PFDoA ($C_{12}HF_{23}O_2$), and ~ 0.1% of PFTeDA ($C_{14}HF_{27}O_2$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/04/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1313

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

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Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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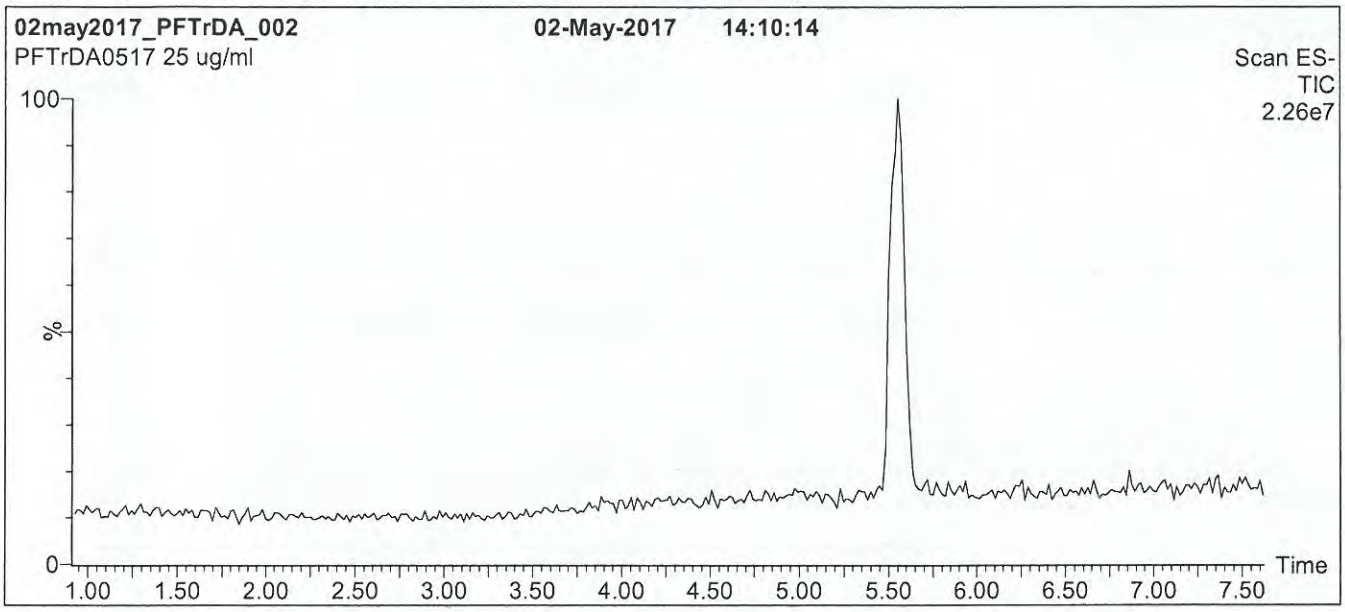
CALA

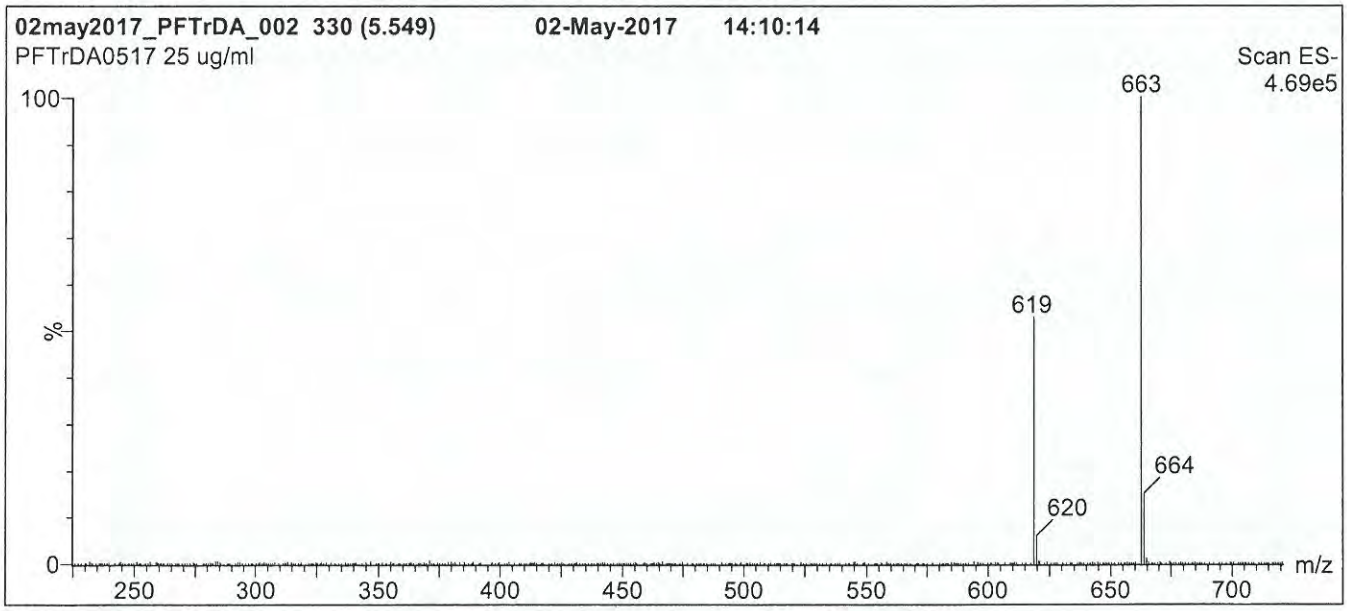
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17G1313

Figure 1: **PFTrDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

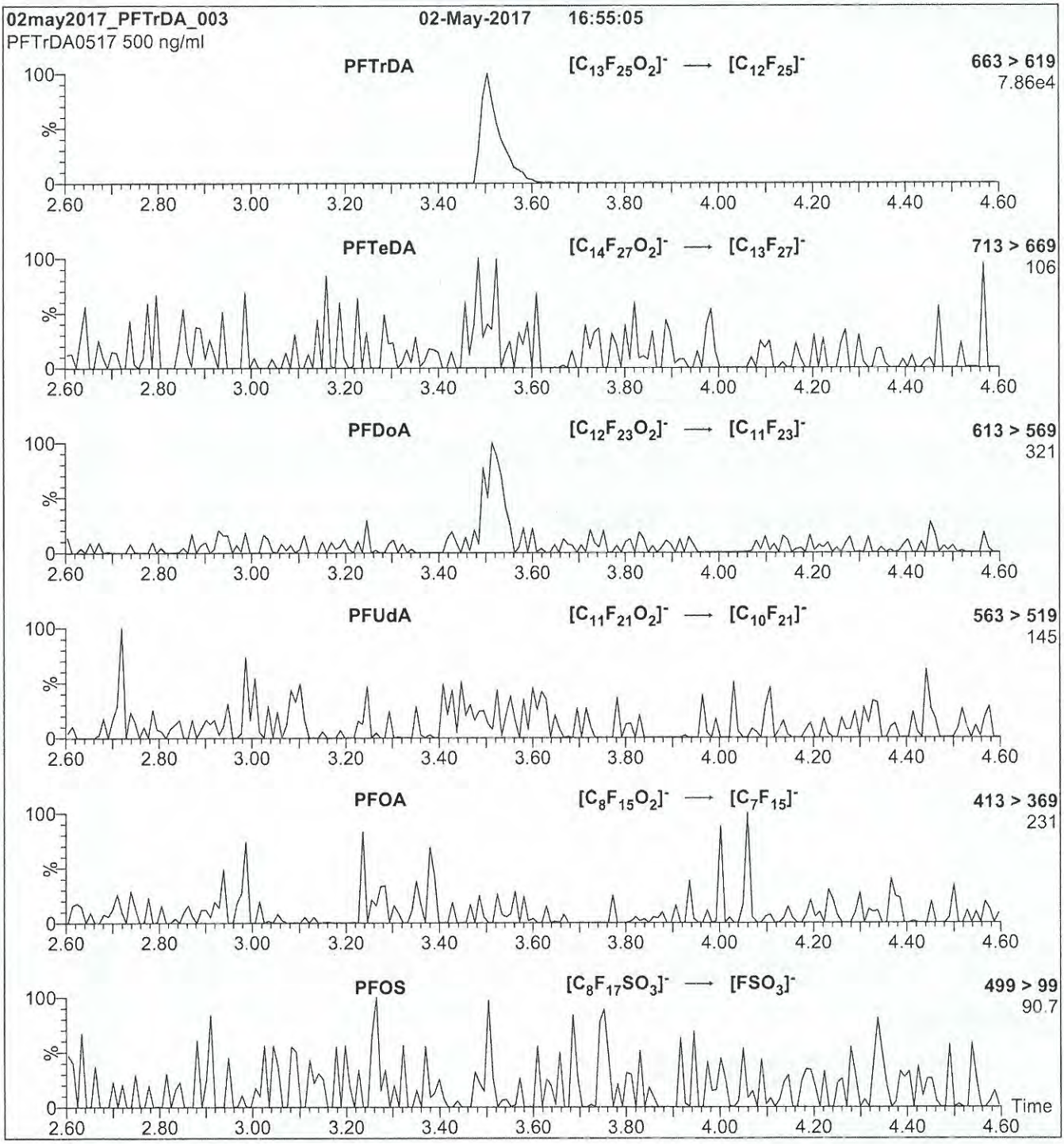
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 22.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 650

17G1313

Figure 2: **PFTrDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFTrDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 15

17G1323

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CERTIFICATE OF ANALYSIS DOCUMENTATION

br-PFHxSK

Potassium Perfluorohexanesulfonate Solution/Mixture of Linear and Branched Isomers

PRODUCT CODE:	br-PFHxSK
LOT NUMBER:	brPFHxSK0117
CONCENTRATION:	50.0 ± 2.5 µg/ml (total potassium salt)
	45.5 ± 2.3 µg/ml (total PFHxS anion)
SOLVENT(S):	Methanol
DATE PREPARED: (mm/dd/yyyy)	01/03/2017
LAST TESTED: (mm/dd/yyyy)	01/04/2017
EXPIRY DATE: (mm/dd/yyyy)	01/04/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DESCRIPTION:

The chemical purity has been determined to be ≥98% perfluorohexanesulfonate linear and branched isomers. The full name, structure and percent composition for each of the identified isomeric components are given in Table A.

DOCUMENTATION/ DATA ATTACHED:

Table A: Isomeric Components and Percent Composition by ^{19}F-NMR
Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (SIR)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.5% of perfluoro-1-pentanesulfonate and ~ 0.2% of perfluoro-1-octanesulfonate.
- CAS#: 3871-99-6 (for linear isomer; potassium salt).

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17G1323

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compounds it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing Accreditation No. A1226

ANAB ACCREDITED Reference Material Producer

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17G1323

Table A: **br-PFHxSK; Isomeric Components and Percent Composition (by ^{19}F-NMR)***

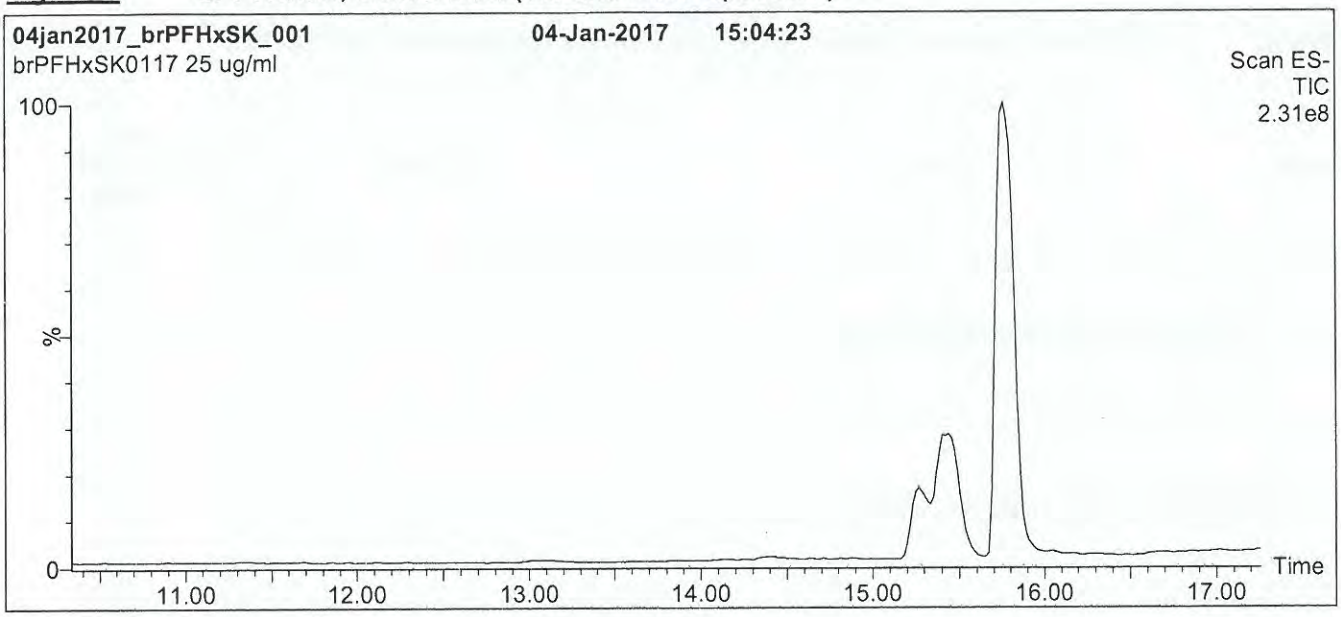
Isomer	Name	Structure	Percent Composition by ^{19}F-NMR
1	Potassium perfluoro-1-hexanesulfonate	$CF_3CF_2CF_2CF_2CF_2CF_2SO_3^-K^+$	81.1
2	Potassium 1-trifluoromethylperfluoropentanesulfonate**	$CF_3CF_2CF_2CF_2CF(CF_3)SO_3^-K^+$	2.9
3	Potassium 2-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF_2CF(CF_3)CF_2SO_3^-K^+$	1.4
4	Potassium 3-trifluoromethylperfluoropentanesulfonate	$CF_3CF_2CF(CF_3)CF_2CF_2SO_3^-K^+$	5.0
5	Potassium 4-trifluoromethylperfluoropentanesulfonate	$CF_3CF(CF_3)CF_2CF_2CF_2SO_3^-K^+$	8.9
6	Potassium 3,3-di(trifluoromethyl)perfluorobutanesulfonate	$CF_3C(CF_3)_2CF_2CF_2SO_3^-K^+$	0.2
7	Other Unidentified Isomers		0.5

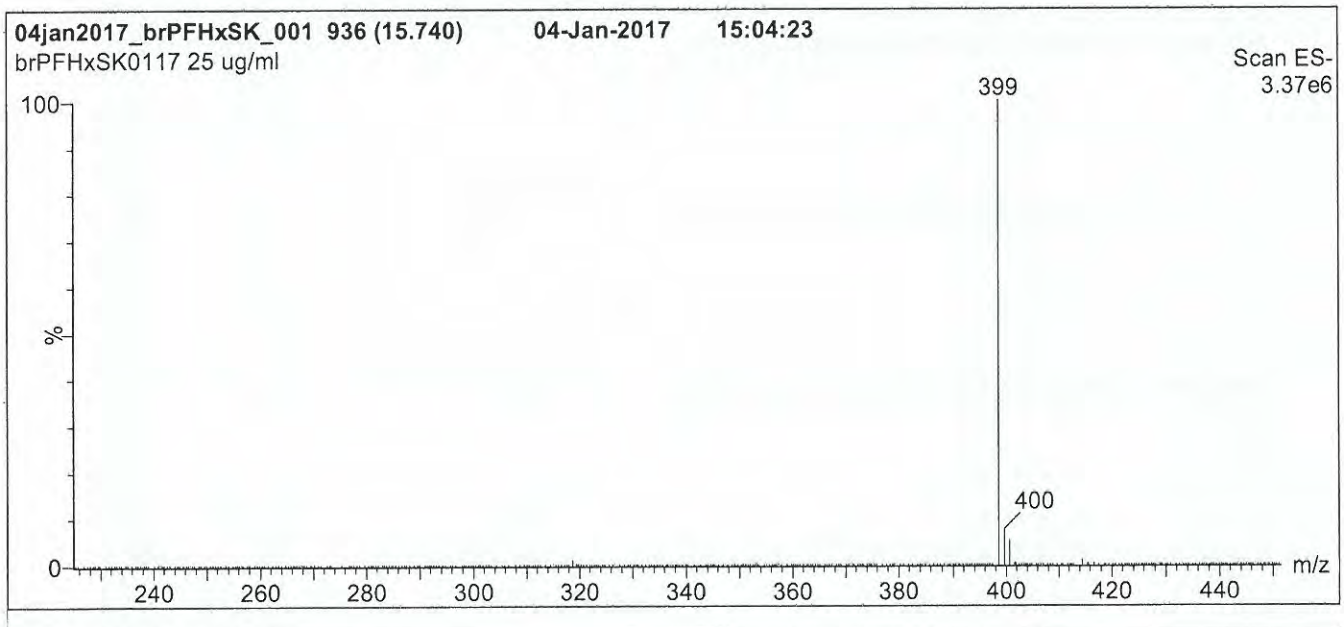
* Percent of total perfluorohexanesulfonate isomers only.
** Systematic Name: Potassium perfluorohexane-2-sulfonate.

Certified By: _____ **Date:** 01/20/2017
B.G. Chittim (mm/dd/yyyy)

17G1323

Figure 1: **br-PFHxSK; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

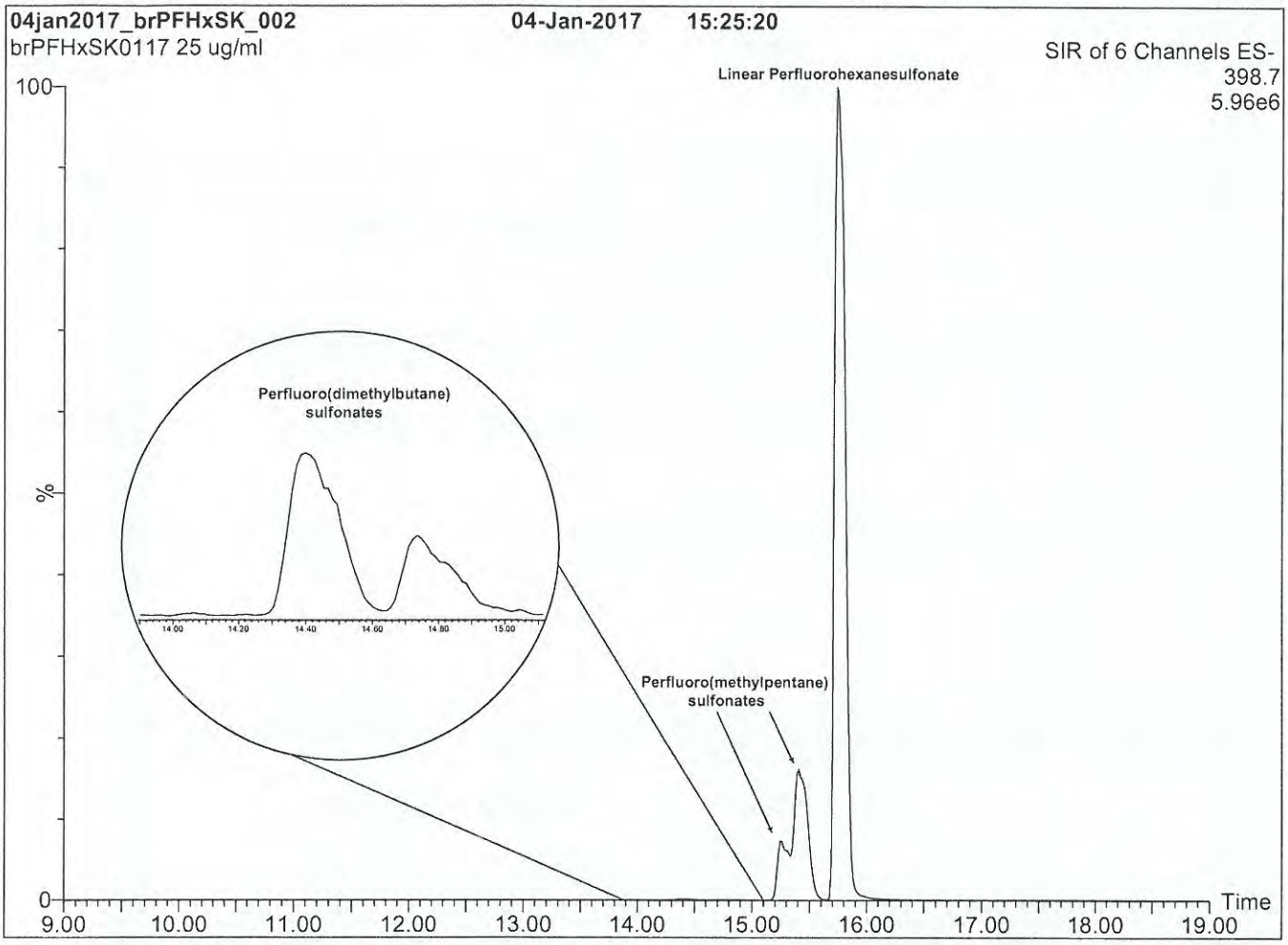
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1323

Figure 2: **br-PFHxSK; LC/MS Data (SIR)**



Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 20% (80:20 MeOH:ACN) / 80% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 50% organic over 14 min. Ramp to 90% organic over 3 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 20 min

Flow: 300 µl/min

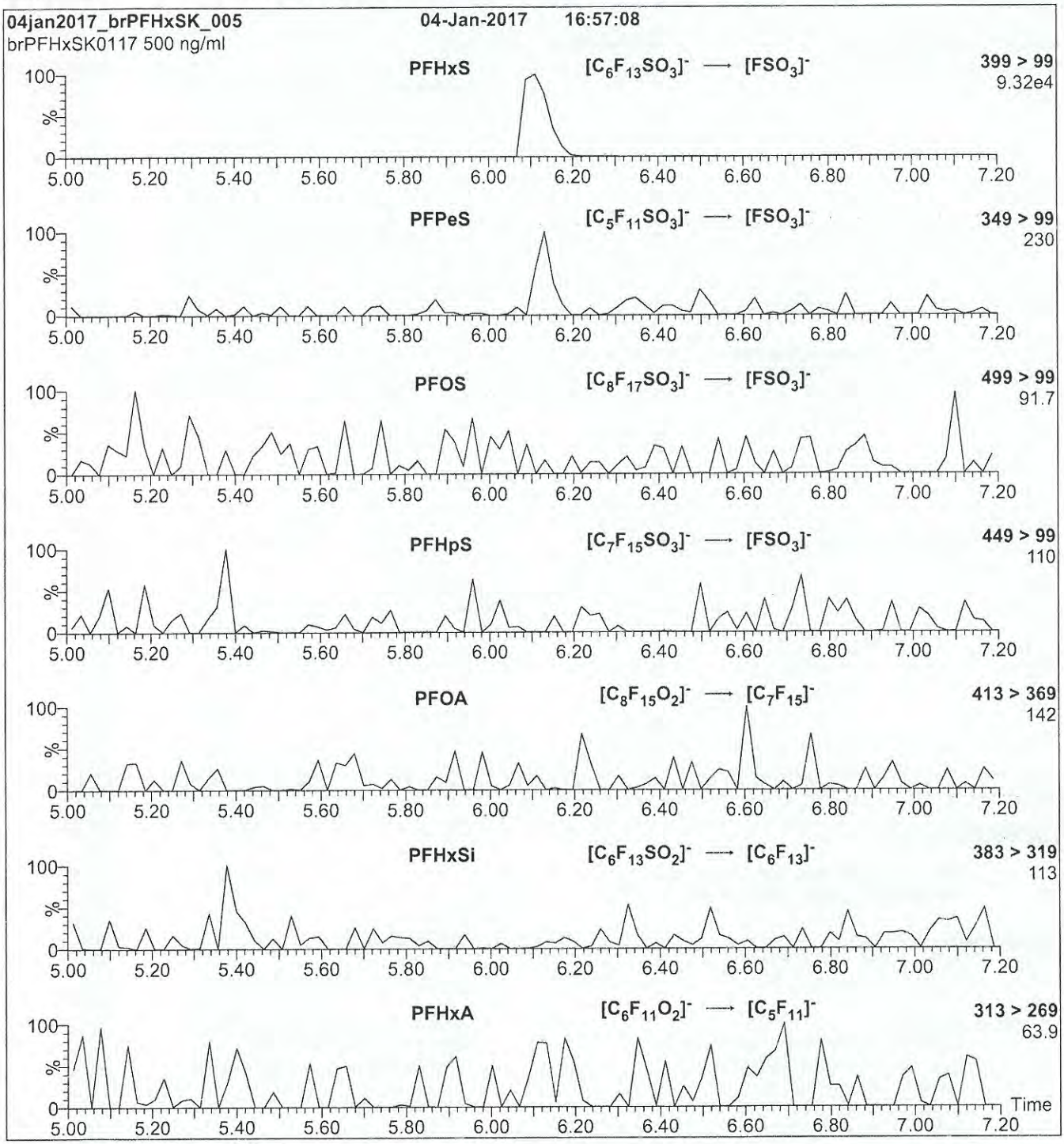
MS Parameters

Experiment: SIR (6 channels)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = variable (15-62)
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1323

Figure 3: **br-PFHxSK; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml br-PFHxSK)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 30

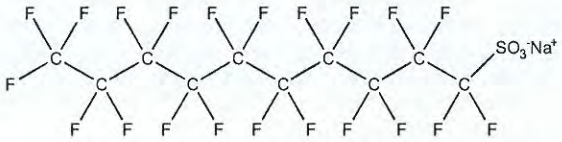
17G1325

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFDS
COMPOUND: Sodium perfluoro-1-decanesulfonate
LOT NUMBER: LPFDS0217

STRUCTURE:



CAS #: 2806-15-7

MOLECULAR FORMULA:	$C_{10}F_{21}SO_3Na$
MOLECULAR WEIGHT:	622.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 48.2 ± 2.4 µg/ml (PFDS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	02/17/2017
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.9% of sodium perfluoro-1-dodecanesulfonate (L-PFDoS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1325

INTENDED USE:

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HAZARDS:

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QUALITY MANAGEMENT:

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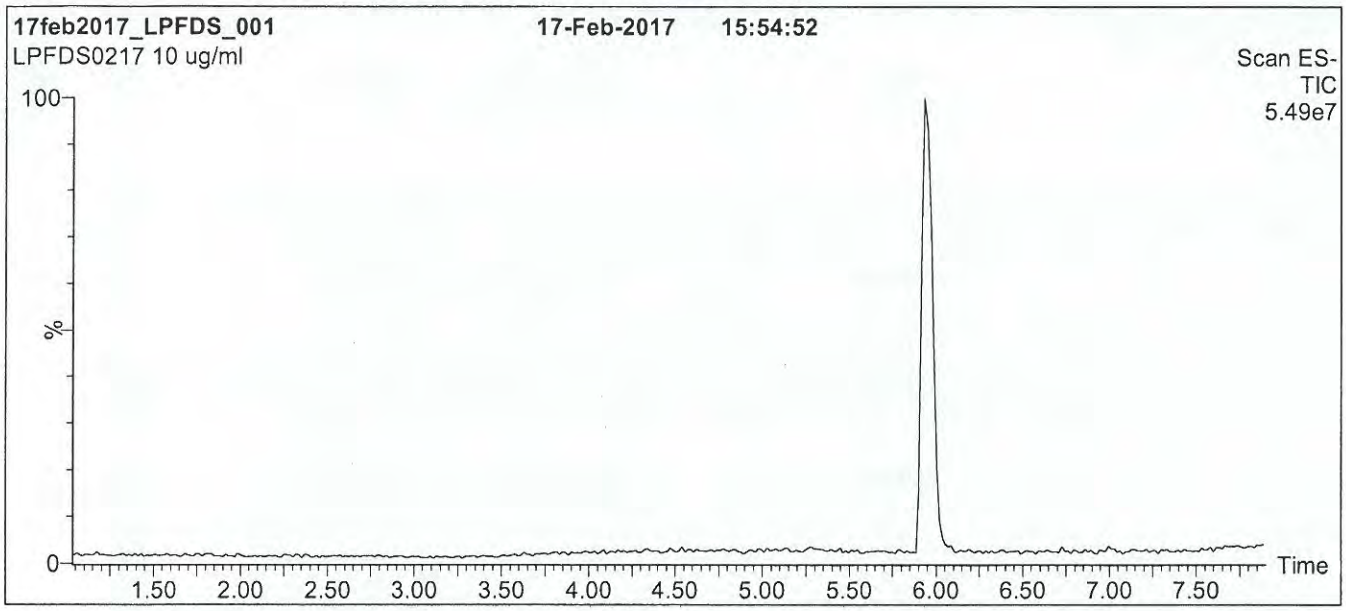
CALA Testing

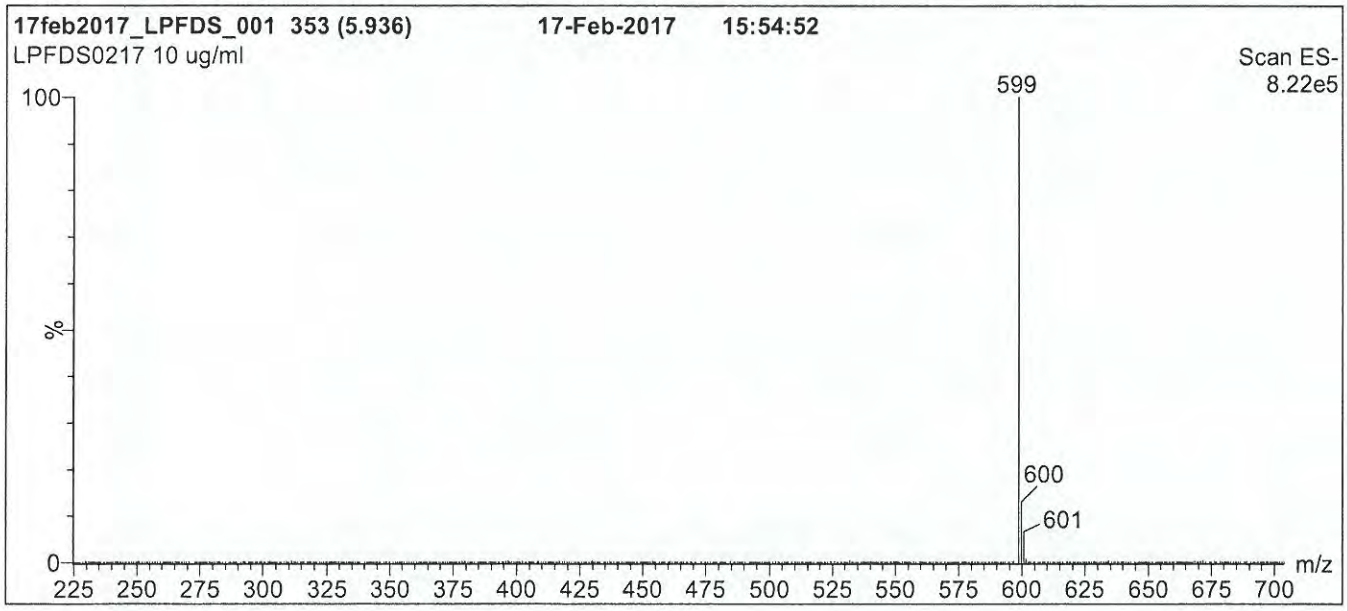
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17G1325

Figure 1: **L-PFDS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

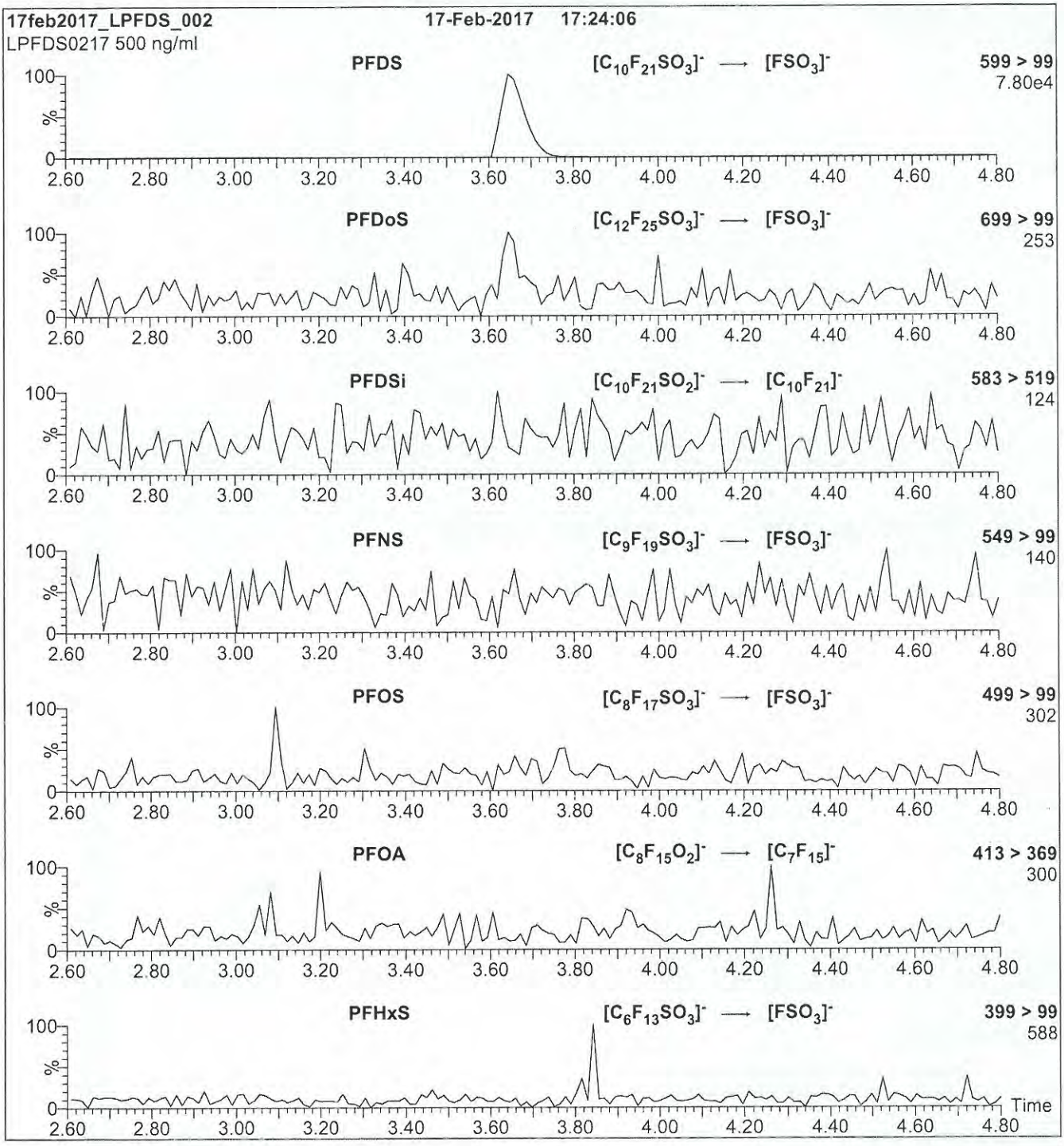
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 70.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1325

Figure 2: **L-PFDS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFDS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 50

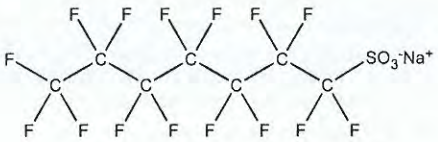
17G1326

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFHpS
COMPOUND: Sodium perfluoro-1-heptanesulfonate
LOT NUMBER: LPFHpS1016

STRUCTURE:



CAS #: Not available

MOLECULAR FORMULA:	$C_7F_{15}SO_3Na$
MOLECULAR WEIGHT:	472.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.6 ± 2.4 µg/ml (PFHpS anion)
SOLVENT(S):	Methanol
CHEMICAL PURITY:	>98%
LAST TESTED: (mm/dd/yyyy)	10/18/2016
EXPIRY DATE: (mm/dd/yyyy)	10/18/2021
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.2% of L-PFHxS ($C_6F_{13}SO_3Na$) and ~ 0.1% of L-PFOS ($C_8F_{17}SO_3Na$).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/20/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1326

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

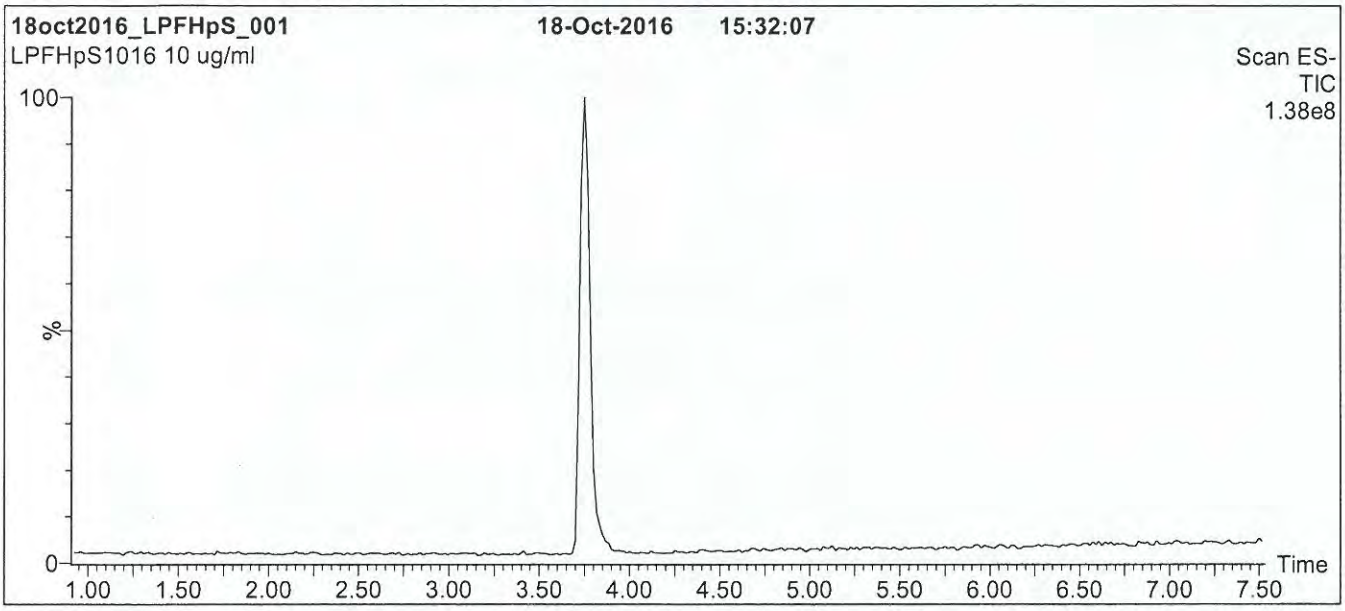
CALA

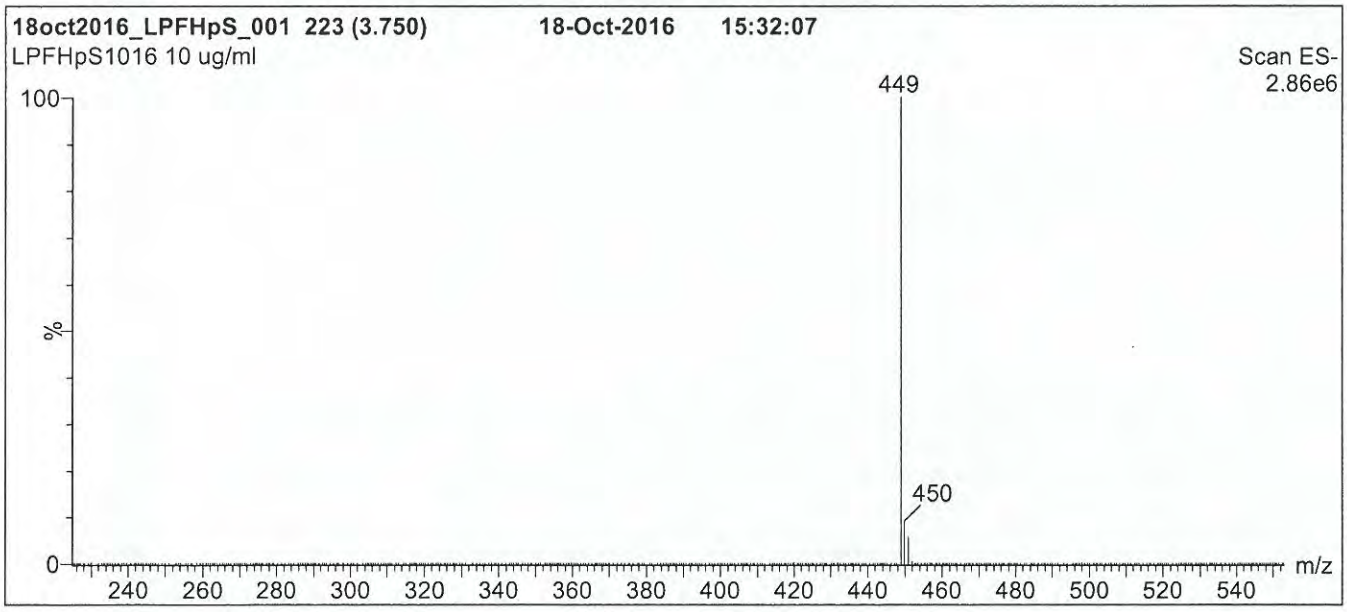
ANAB ACCREDITED

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17G1326

Figure 1: **L-PFHpS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

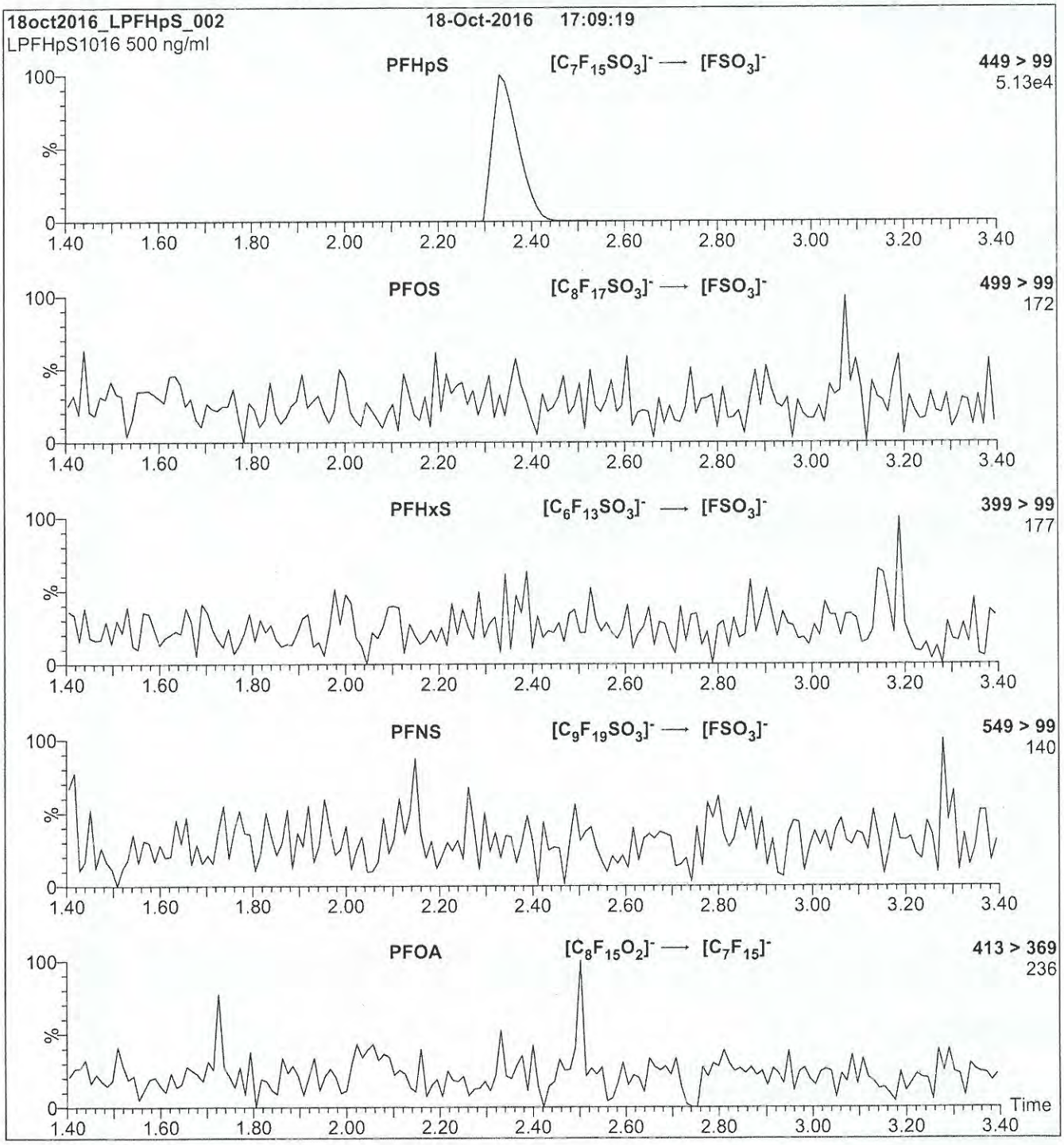
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17G1326

Figure 2: **L-PFHpS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFHpS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 35

17G1805

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	PFDA	**LOT NUMBER:**	PFDA0516
COMPOUND:	Perfluoro-n-decanoic acid		
STRUCTURE:		**CAS #:**	335-76-2



MOLECULAR FORMULA:	$C_{10}HF_{19}O_2$	**MOLECULAR WEIGHT:**	514.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of Perfluoro-n-nonanoic acid (PFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/13/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1805

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

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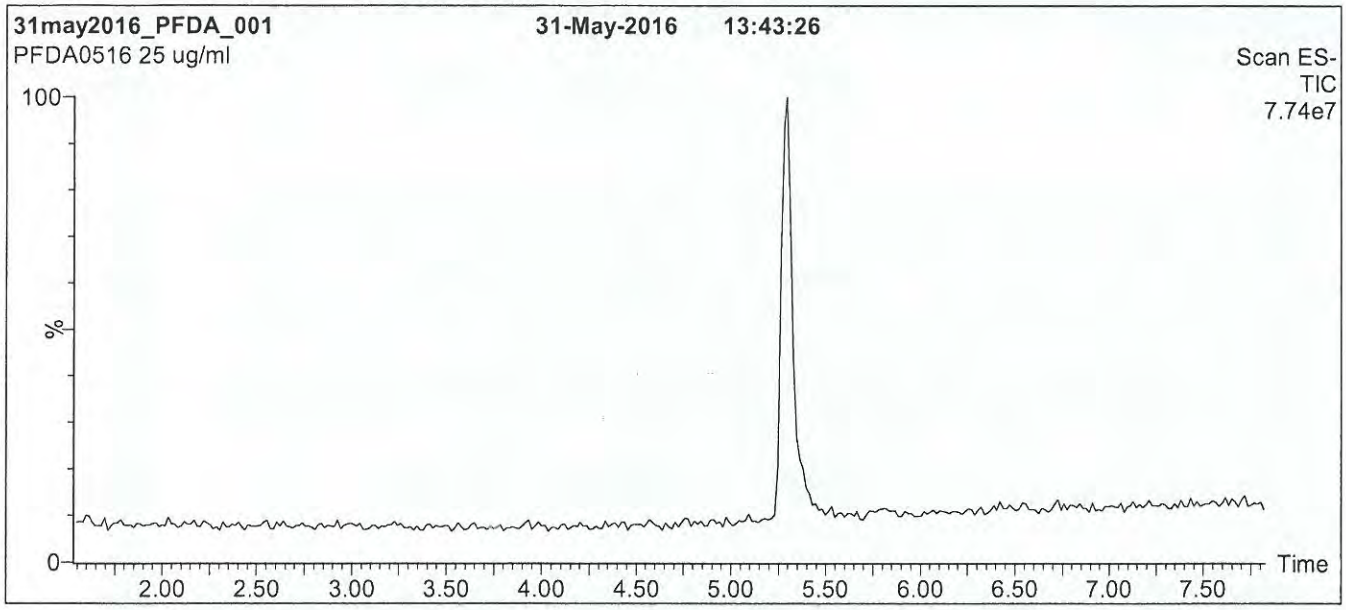
CALA

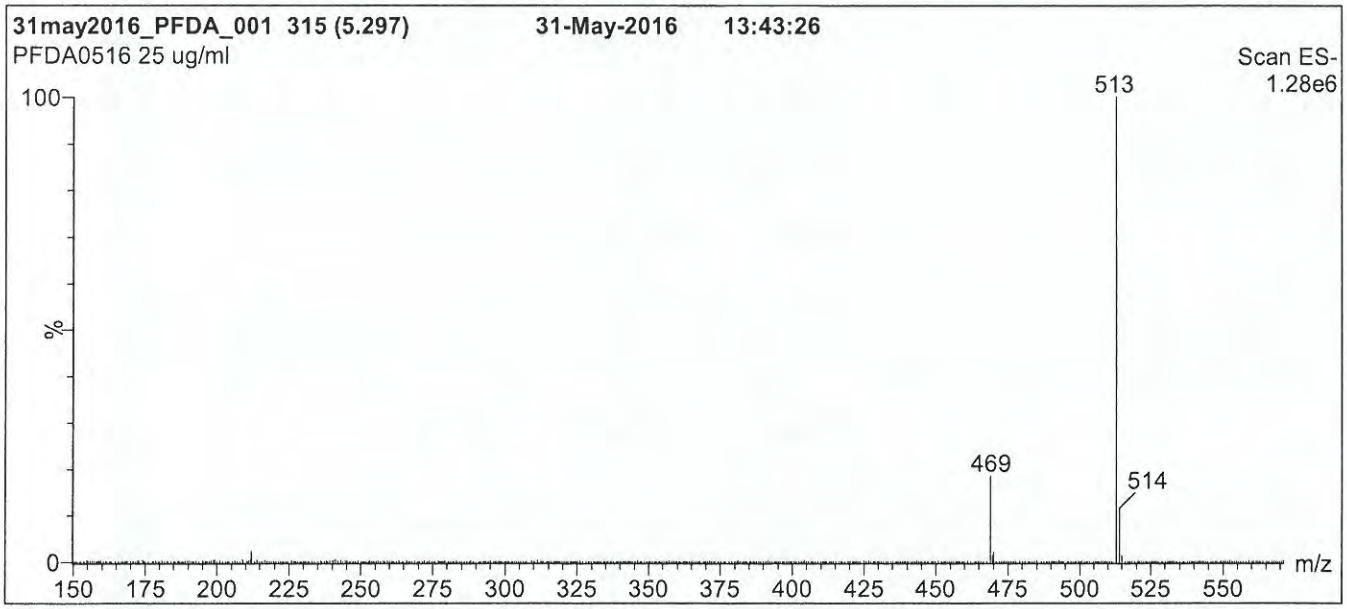
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17G1805

Figure 1: **PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

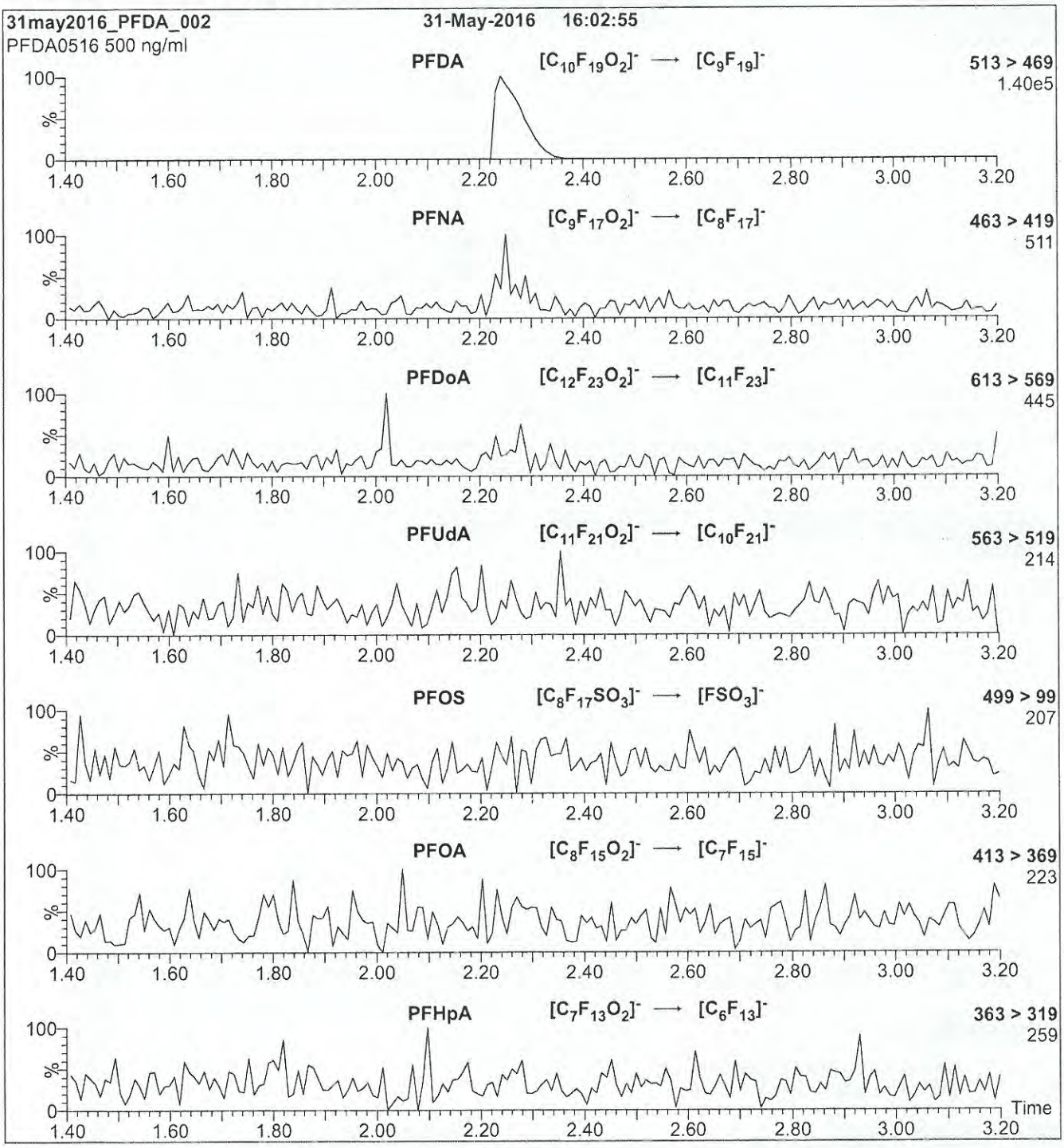
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1805

Figure 2: **PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17G1806

WELLINGTON LABORATORIES

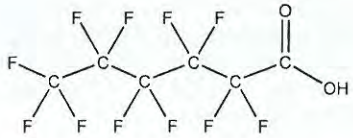
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFHxA
COMPOUND: Perfluoro-n-hexanoic acid

LOT NUMBER: PFHxA1216

STRUCTURE:

CAS #: 307-24-4



MOLECULAR FORMULA: $C_6HF_{11}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 314.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2016
EXPIRY DATE: (mm/dd/yyyy) 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 1.0% of branched isomers.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1806

INTENDED USE:

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HAZARDS:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

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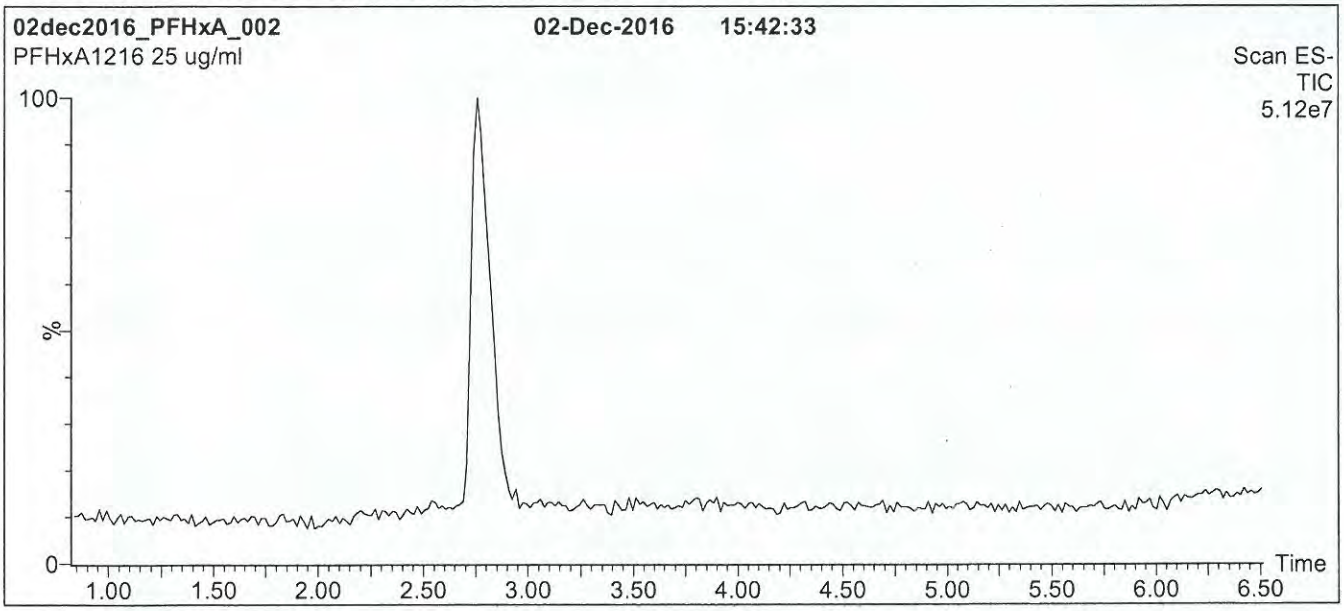
CALA Testing

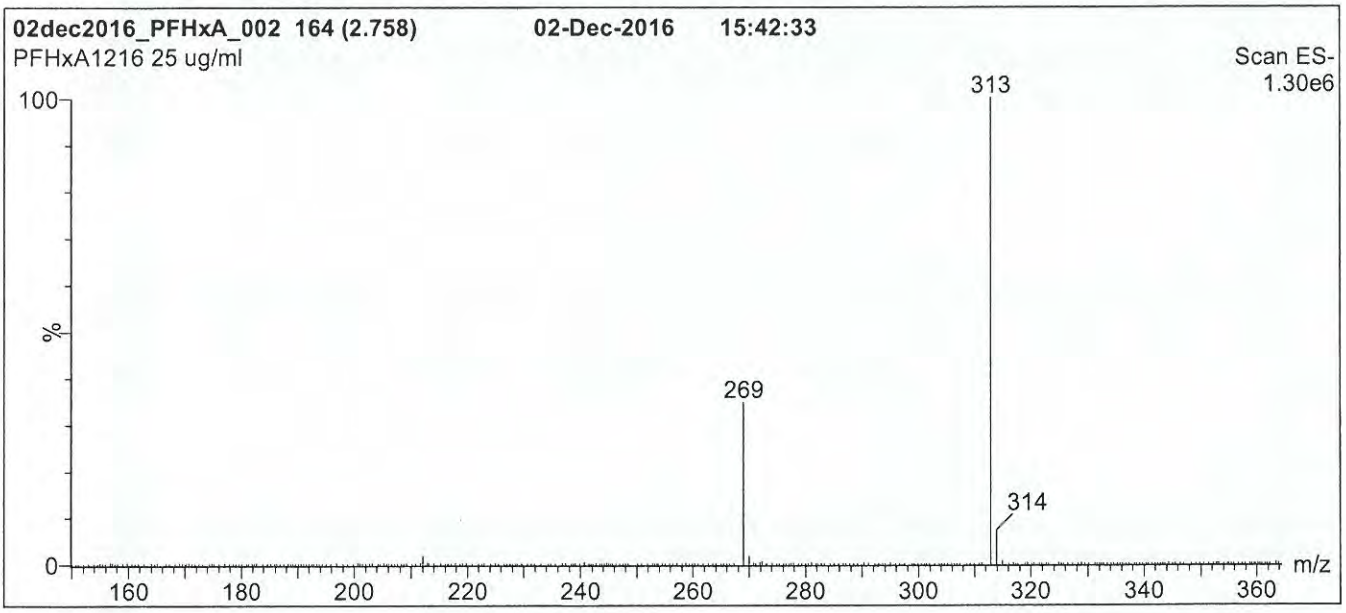
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17G1806

Figure 1: **PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

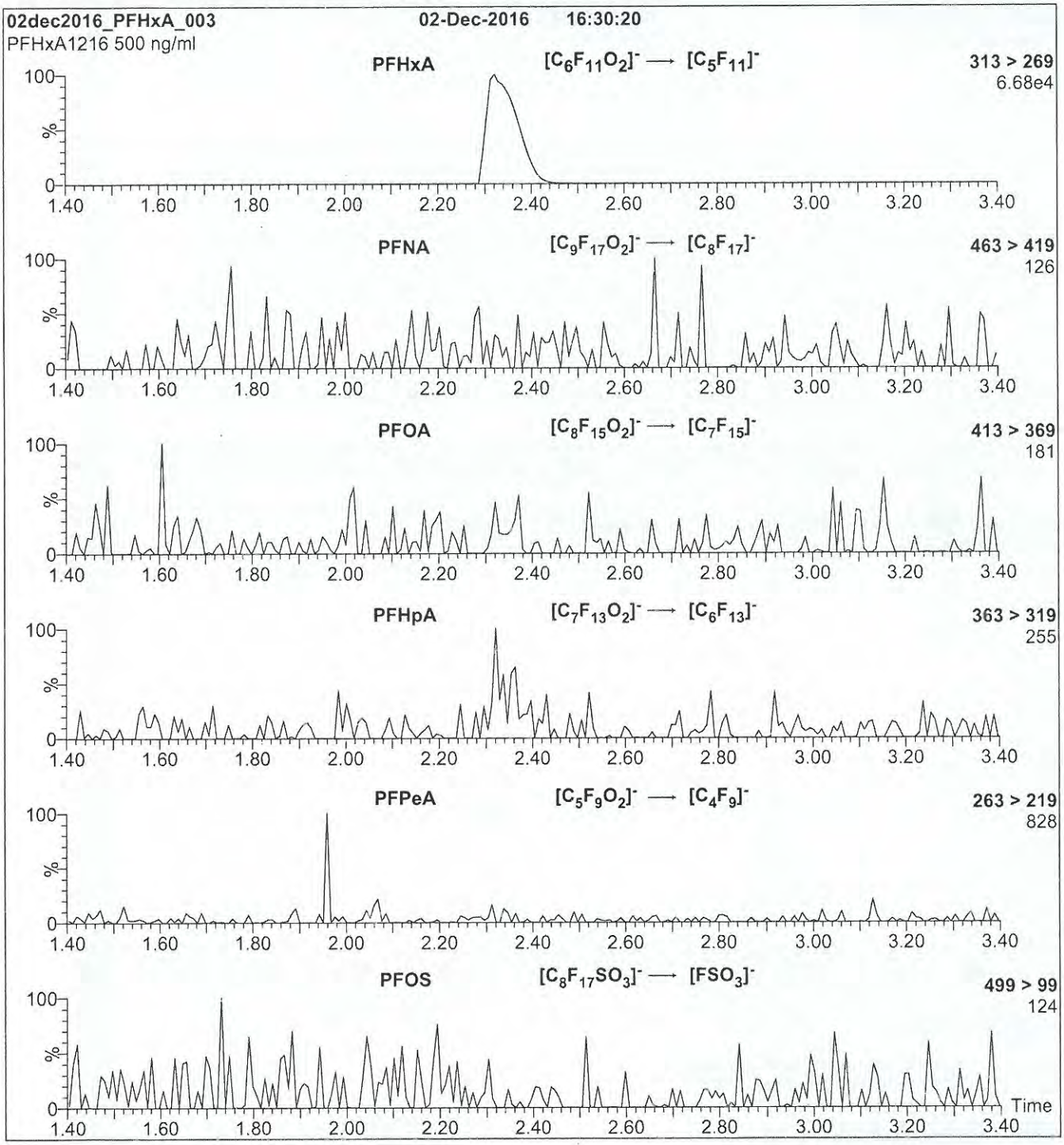
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1806

Figure 2: **PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHxA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 10

17G1807

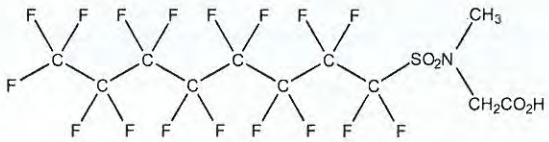
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-MeFOSAA **LOT NUMBER:** NMeFOSAA0117

COMPOUND: N-methylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2355-31-9



MOLECULAR FORMULA:	$C_{11}H_6F_{17}NO_4S$	**MOLECULAR WEIGHT:**	571.21
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	01/11/2017		
EXPIRY DATE: (mm/dd/yyyy)	01/11/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/12/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1867

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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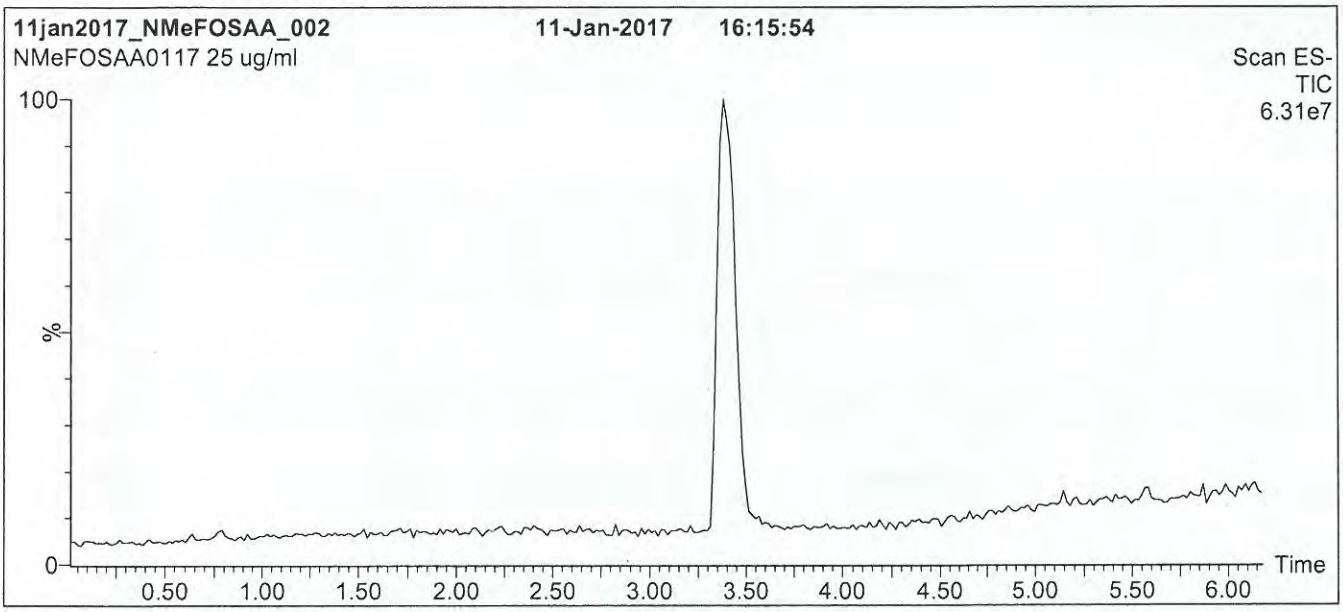
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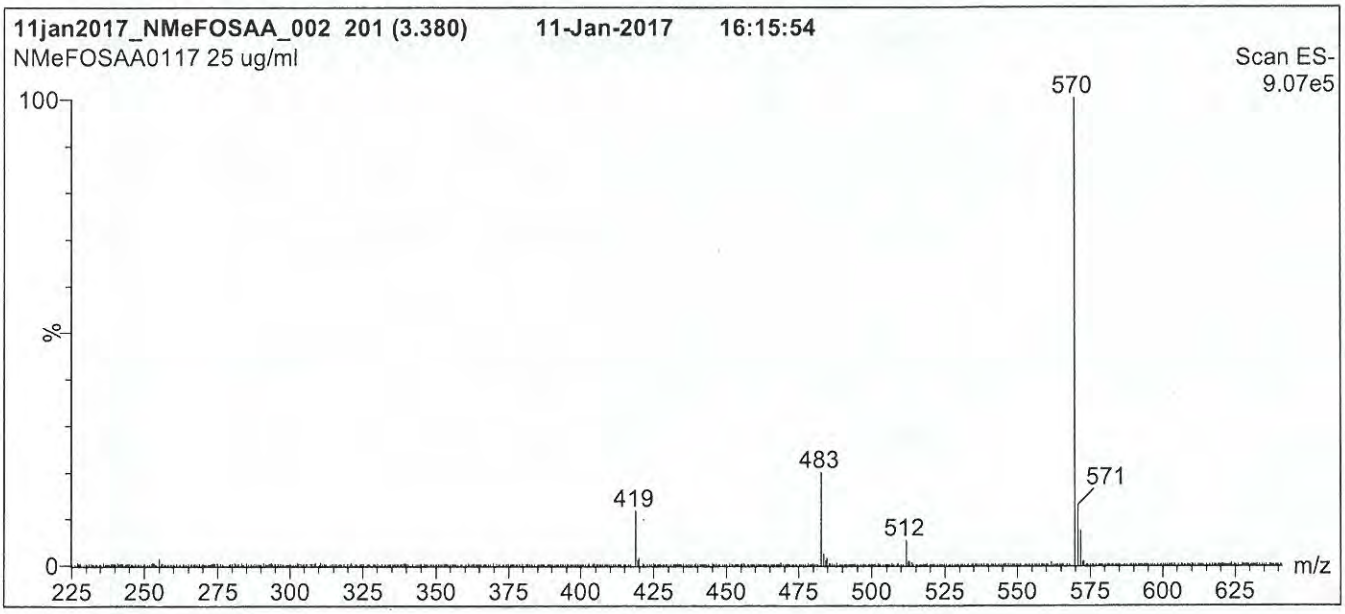
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17G1807

Figure 1: **N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

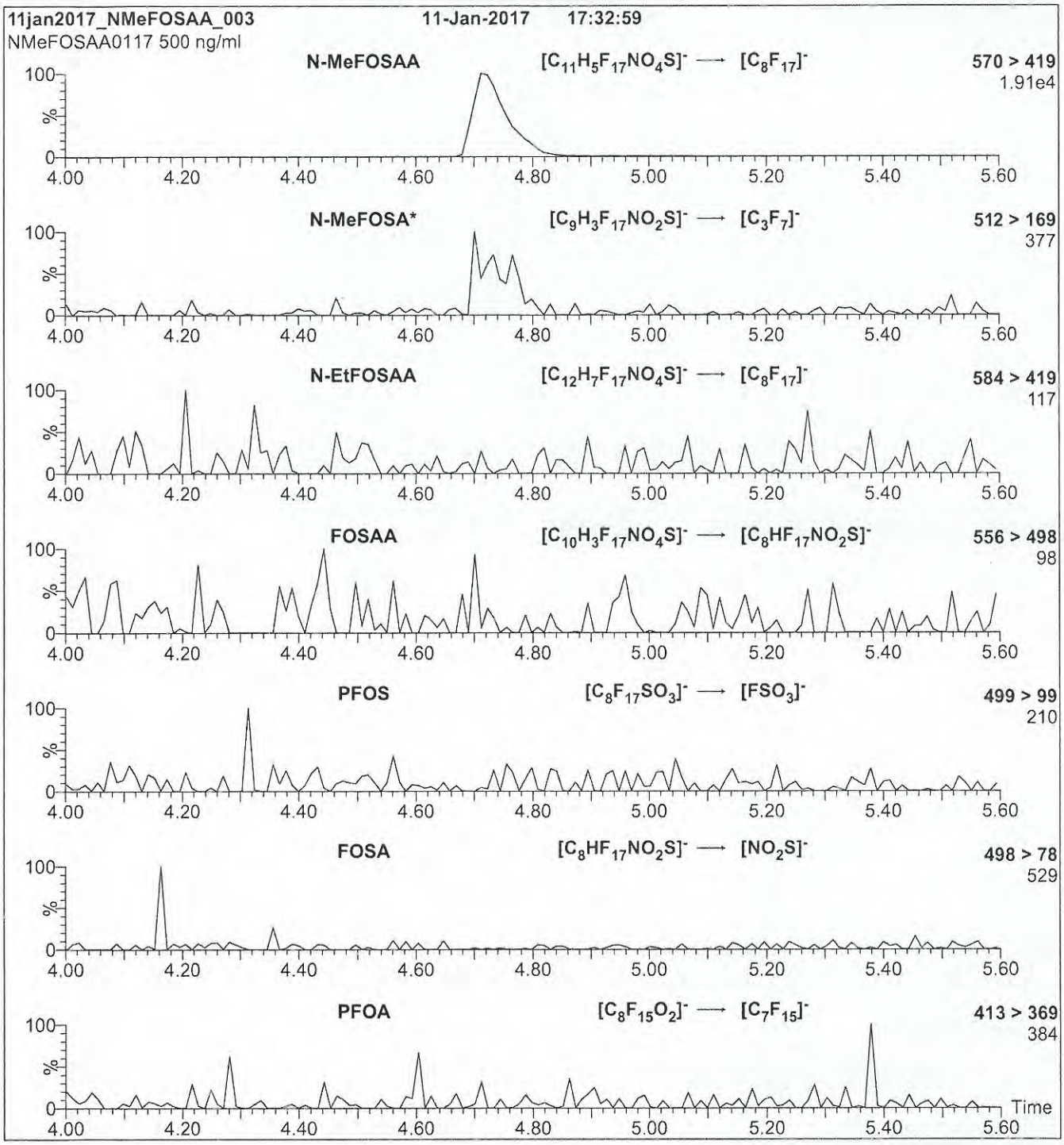
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1807

Figure 2: **N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



*__Note__: N-MeFOSA is formed by in-source fragmentation.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

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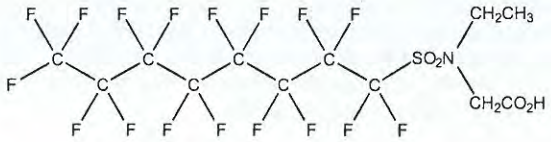
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSAA **LOT NUMBER:** NEtFOSAA0117

COMPOUND: N-ethylperfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** 2991-50-6



MOLECULAR FORMULA: $C_{12}H_8F_{17}NO_4S$ **MOLECULAR WEIGHT:** 585.23

CONCENTRATION: 50 ± 2.5 µg/ml **SOLVENT(S):** Methanol
Water (<1%)

CHEMICAL PURITY: >98%

LAST TESTED: (mm/dd/yyyy) 01/11/2017

EXPIRY DATE: (mm/dd/yyyy) 01/11/2022

RECOMMENDED STORAGE: Refrigerate ampoule

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

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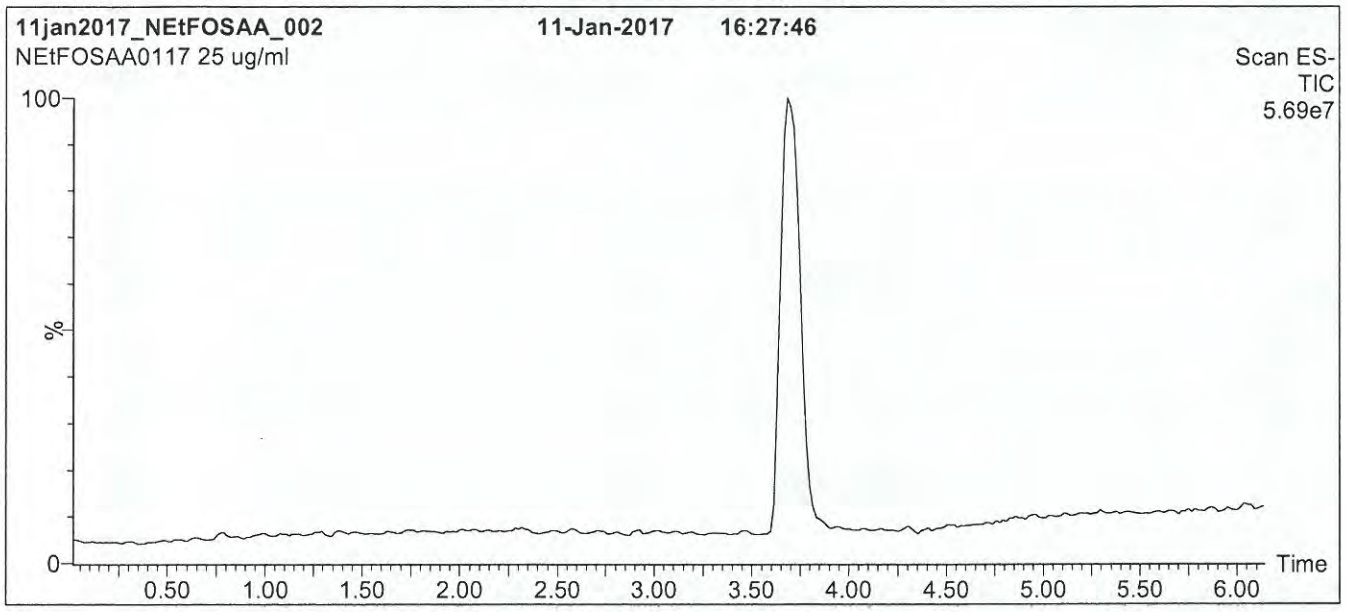
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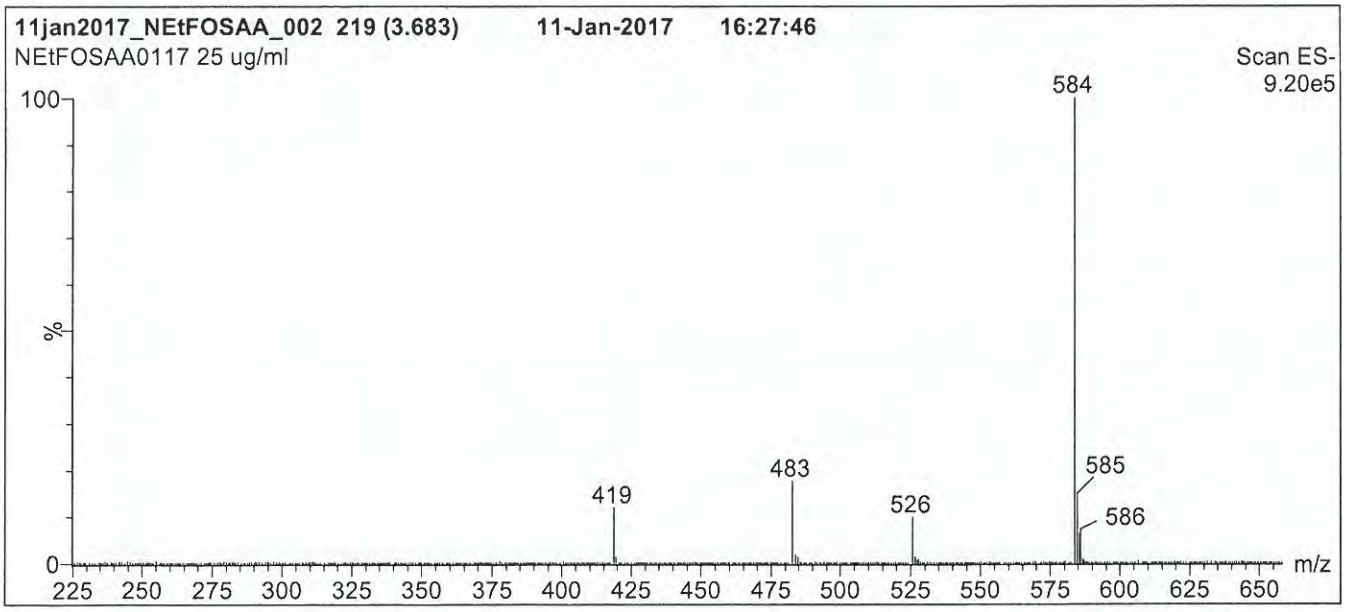
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17G1808

Figure 1: **N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

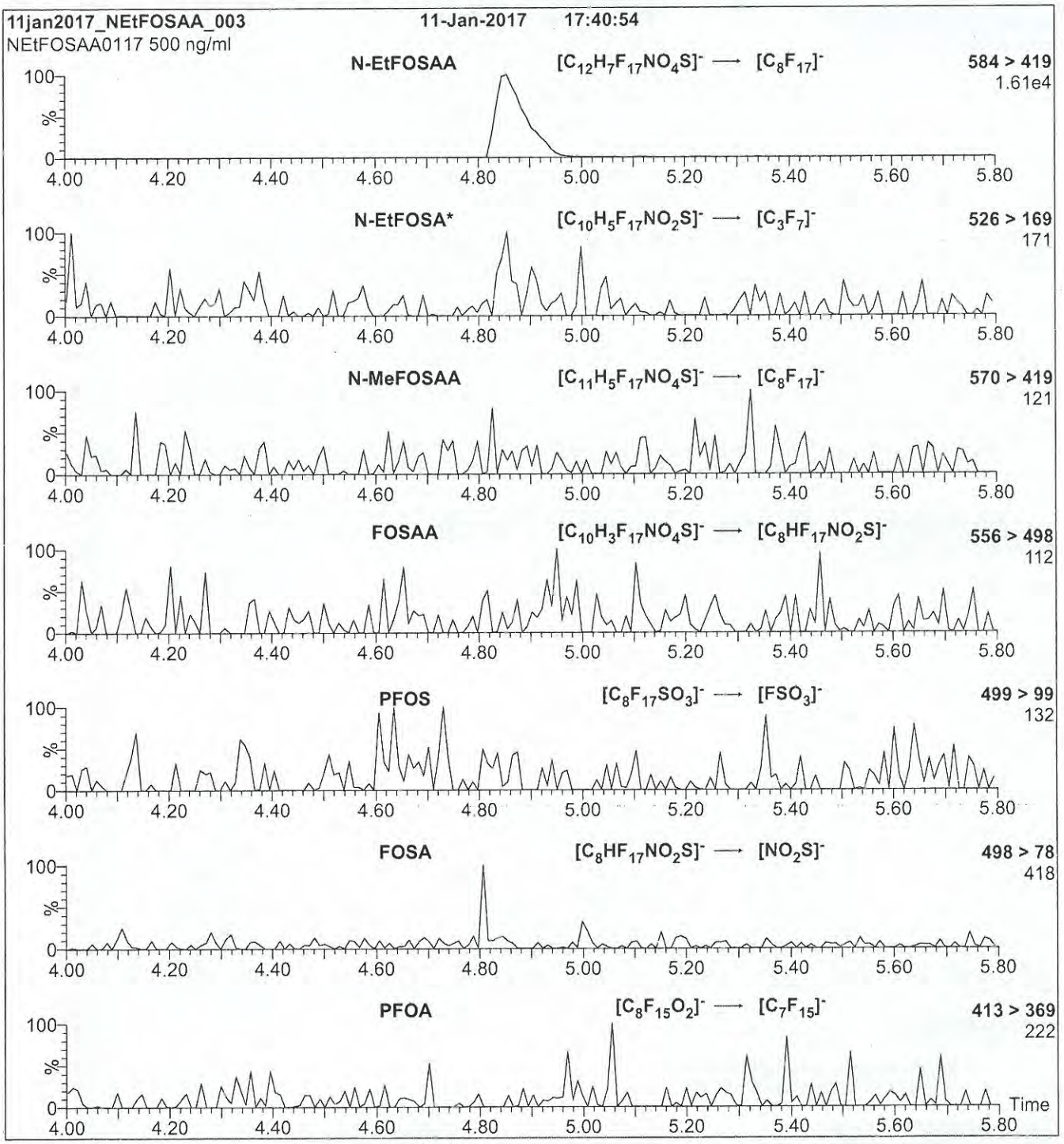
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1808

Figure 2: **N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Note: N-EtFOSA is formed by fragmentation of N-EtFOSAA.

Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 20

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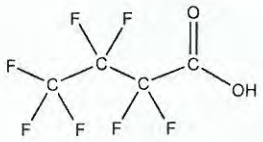
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFBA
COMPOUND: Perfluoro-n-butanoic acid

LOT NUMBER: PFBA0517

STRUCTURE:

CAS #: 375-22-4



MOLECULAR FORMULA: $C_4HF_7O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 214.04
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/29/2017
EXPIRY DATE: (mm/dd/yyyy) 05/29/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
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UNCERTAINTY:

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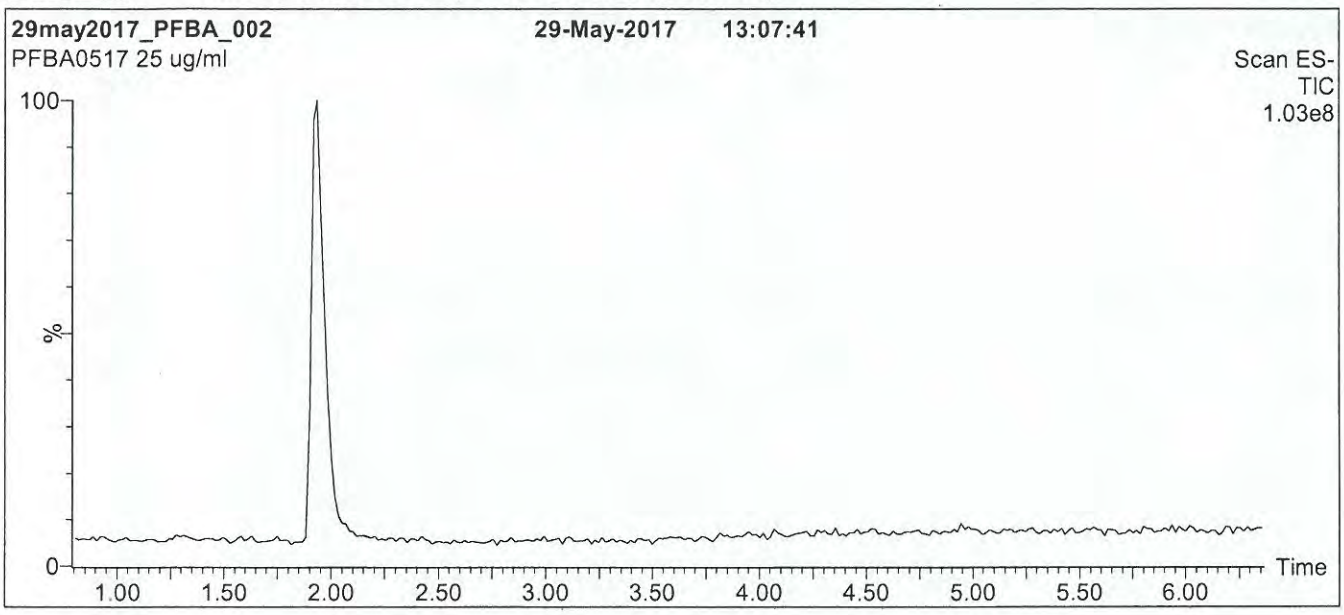
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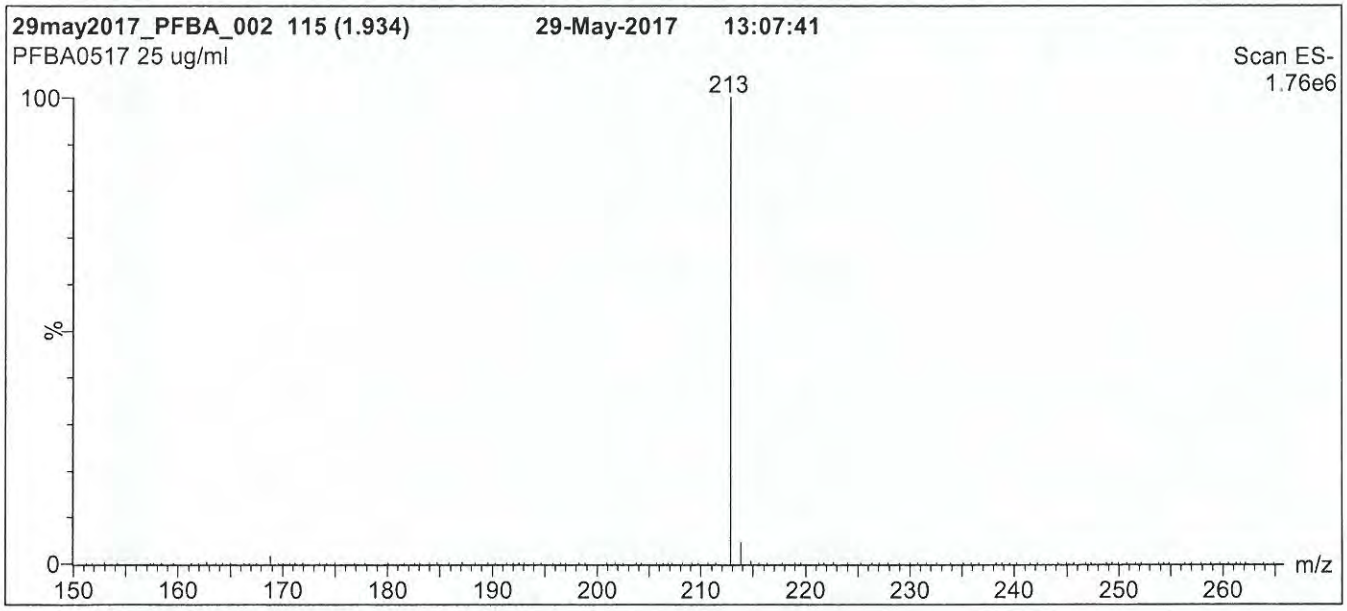
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17G1809

Figure 1: **PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

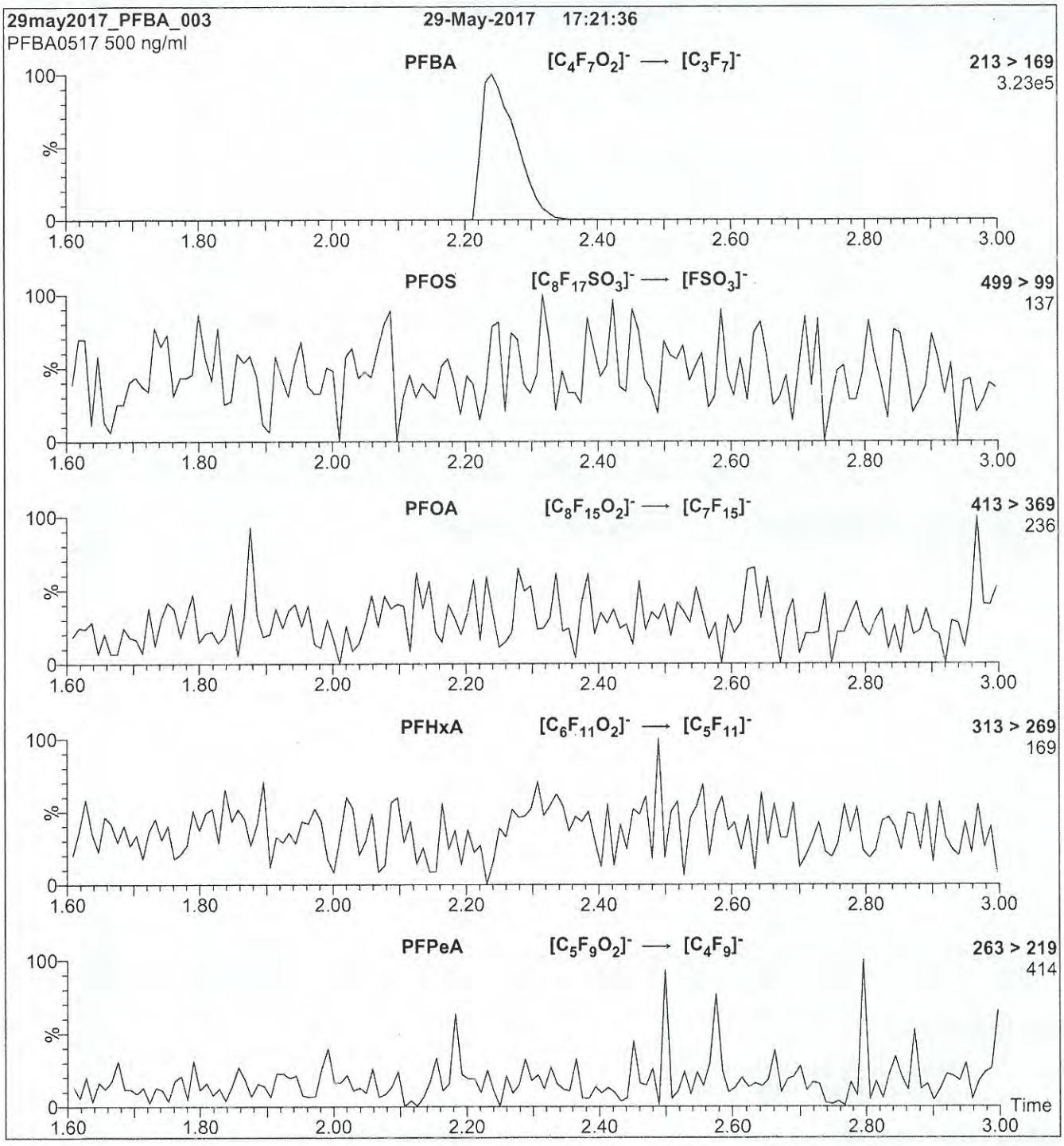
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

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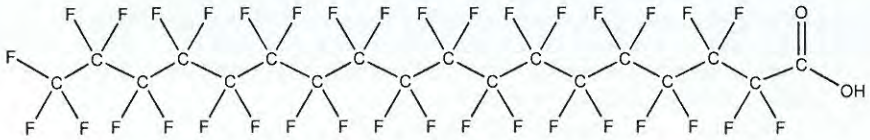
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: PFODA
COMPOUND: Perfluoro-n-octadecanoic acid

LOT NUMBER: PFODA0416

STRUCTURE:

CAS #: 16517-11-6



MOLECULAR FORMULA: $C_{18}HF_{35}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 914.14
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 04/29/2016
EXPIRY DATE: (mm/dd/yyyy) 04/29/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

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Certified By: B.G. Chittim **Date:** 05/20/2016 (mm/dd/yyyy)

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

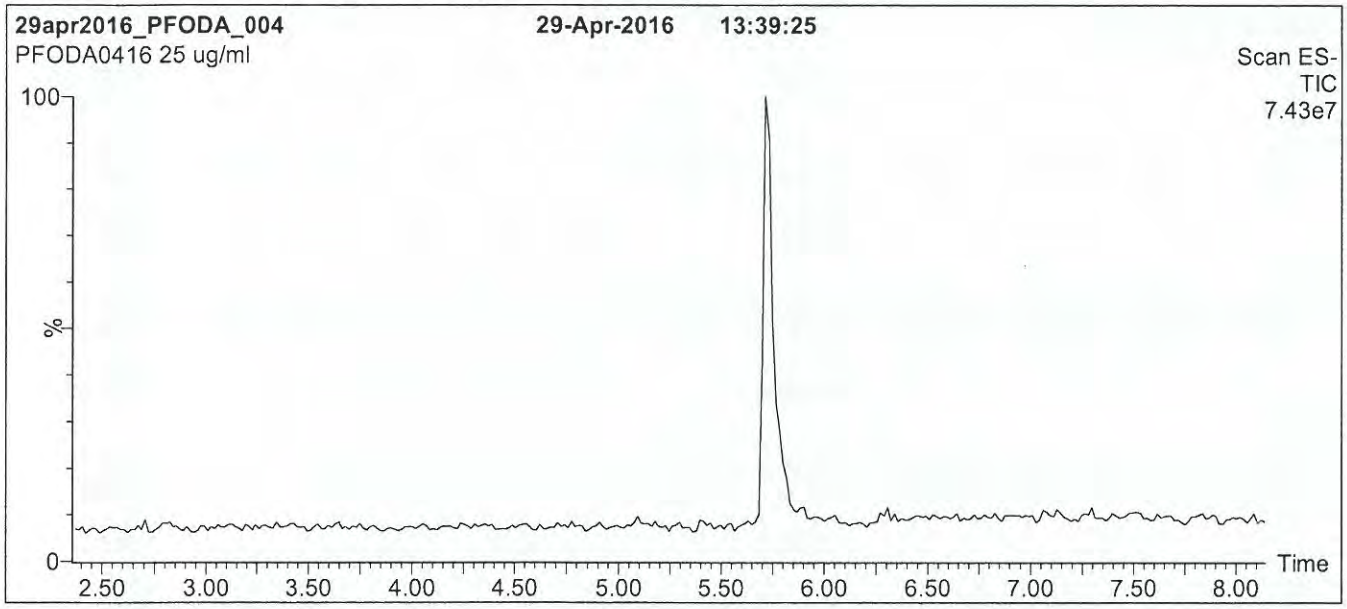
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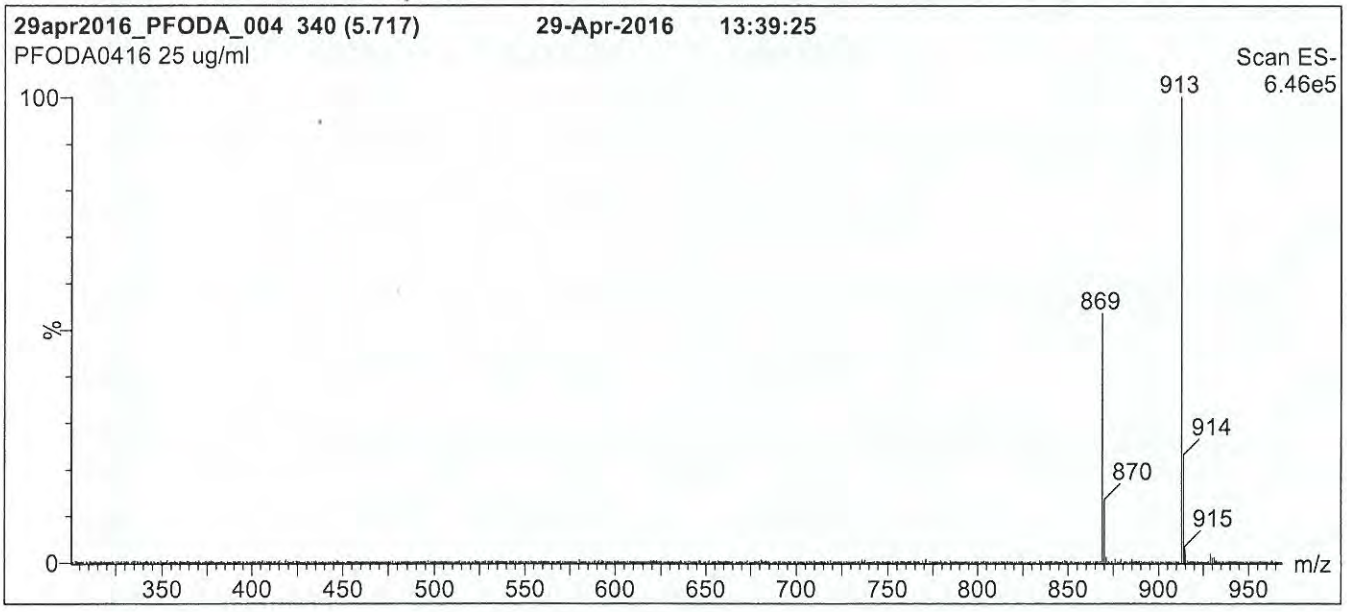
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

1701810

Figure 1: **PFODA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for
2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

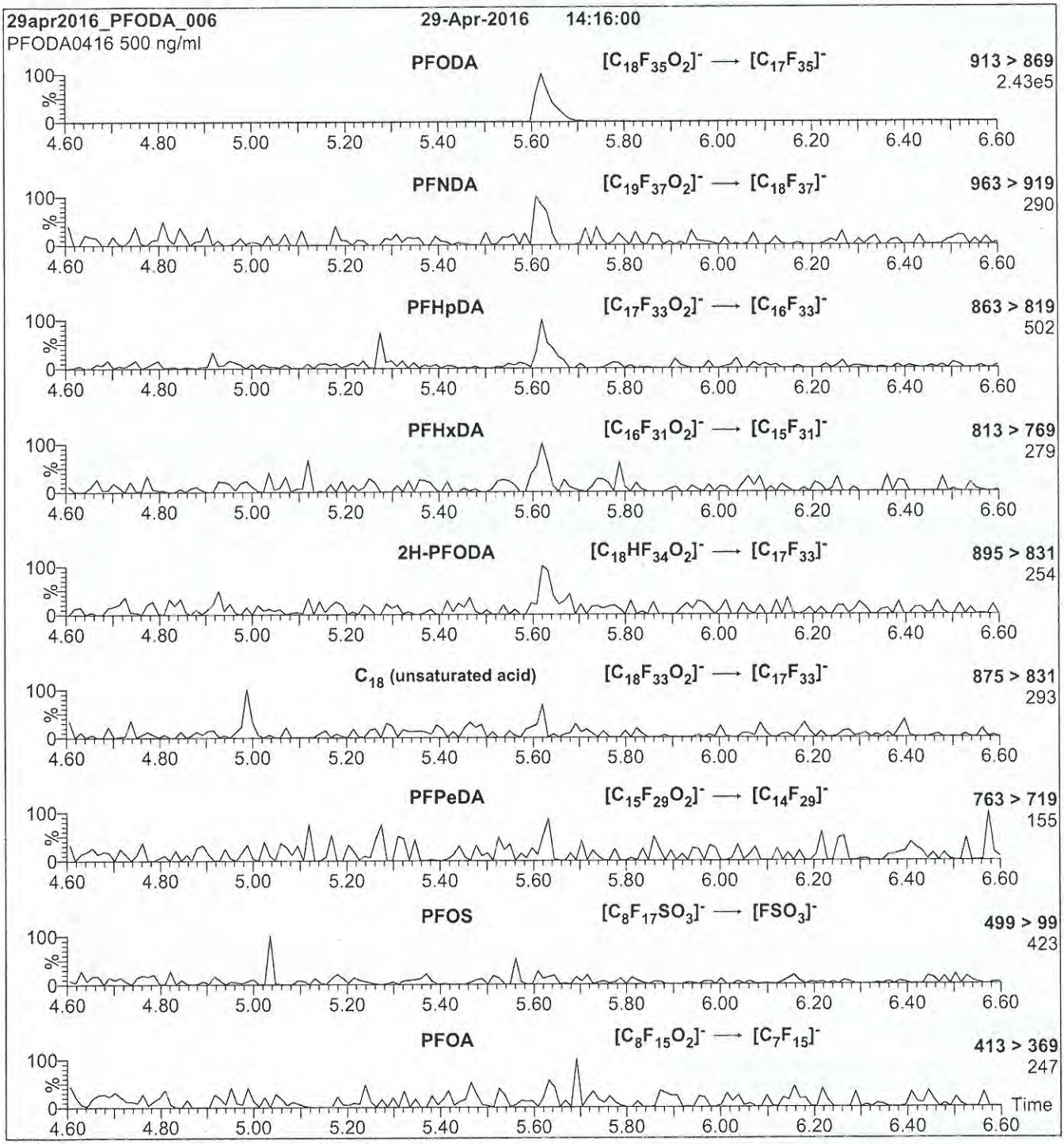
MS Parameters

Experiment: Full Scan (250 - 1000 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1810

Figure 2: **PFODA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFODA)

Mobile phase: Isocratic 90% (80:20 MeOH:ACN) / 10% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17G1811

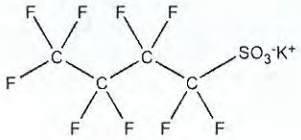
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: L-PFBS
COMPOUND: Potassium perfluoro-1-butanesulfonate
LOT NUMBER: LPFBS1116

STRUCTURE:

CAS #: 29420-49-3



MOLECULAR FORMULA:	$C_4F_9SO_3K$	**MOLECULAR WEIGHT:**	338.19
CONCENTRATION:	50.0 ± 2.5 µg/ml (K salt) 44.2 ± 2.2 µg/ml (PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	12/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	12/02/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/05/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1811

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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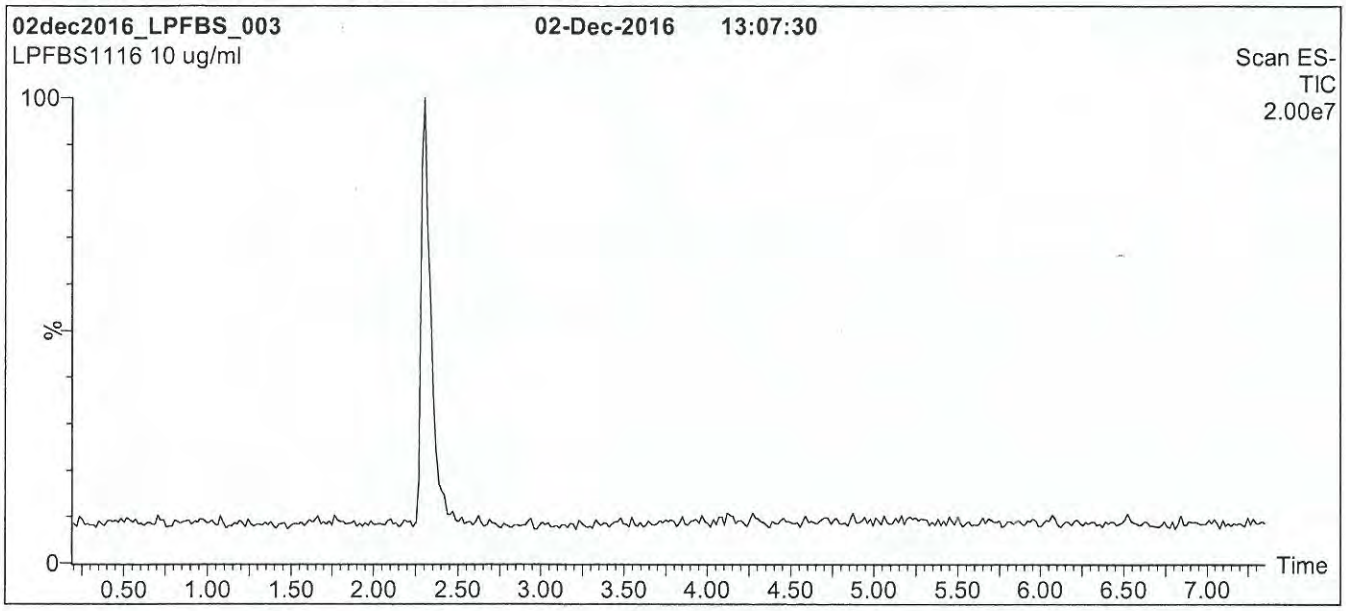
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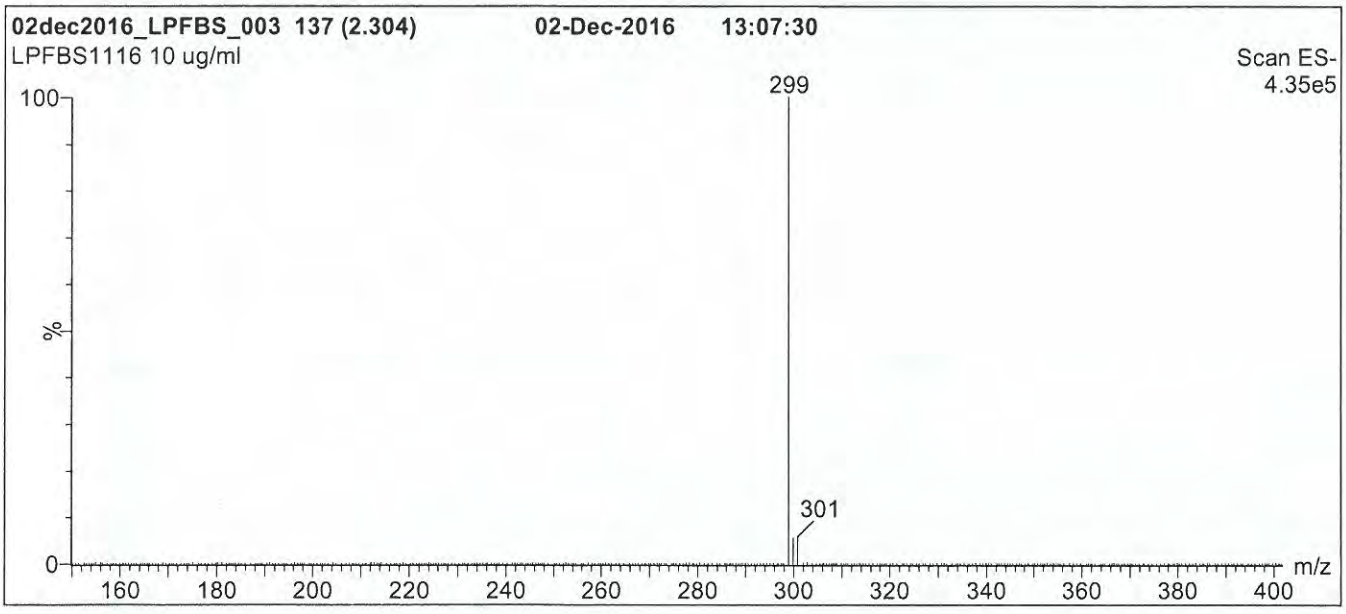
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17G1811

Figure 1: **L-PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

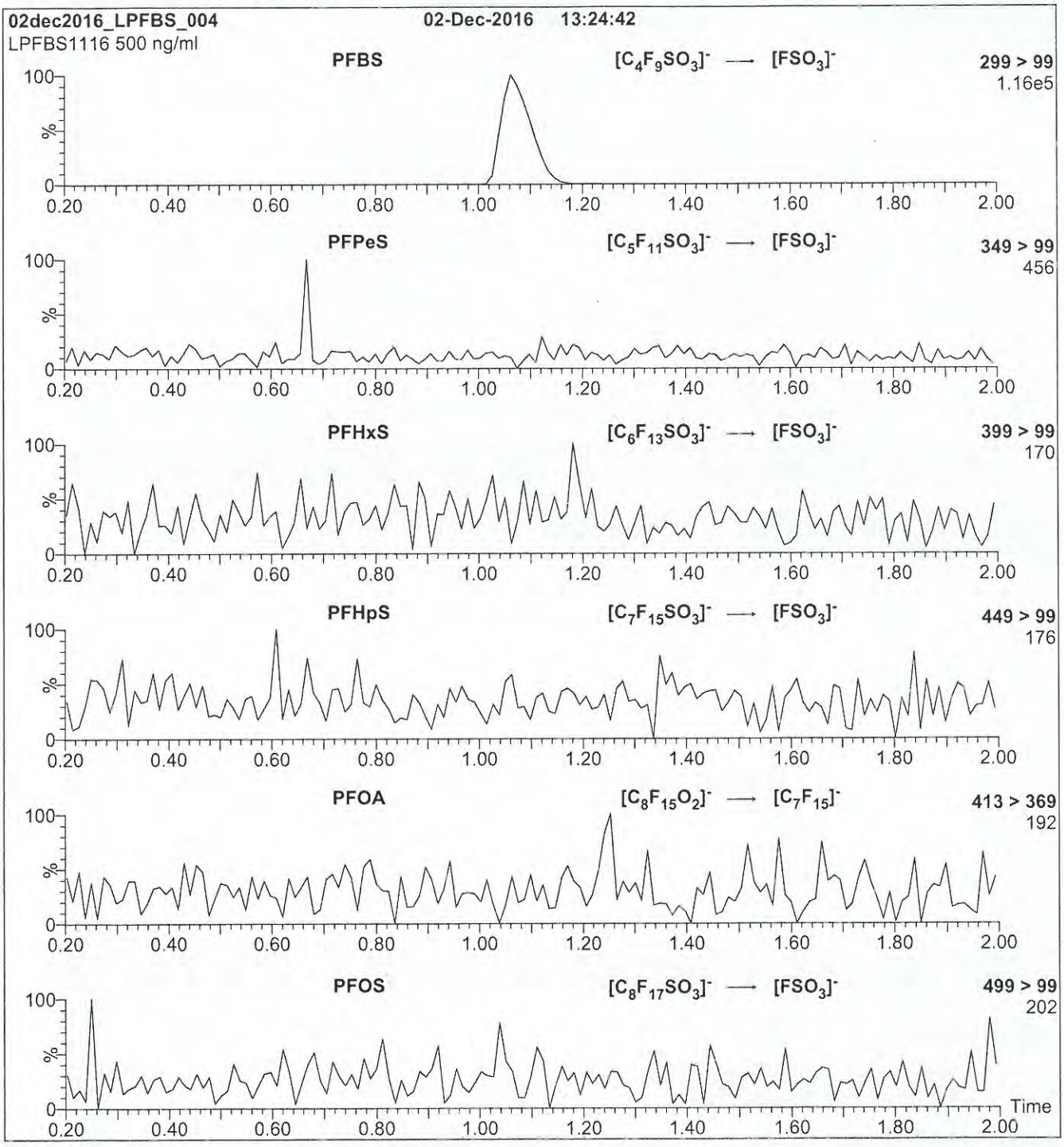
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1811

Figure 2: **L-PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml L-PFBS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 25

17G1812

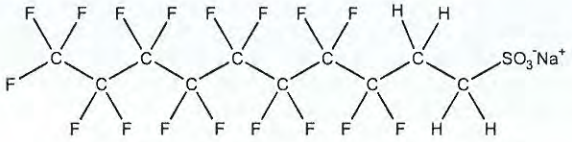
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 8:2FTS **LOT NUMBER:** 82FTS1216

COMPOUND: Sodium 1H,1H,2H,2H-perfluorodecane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{10}H_4F_{17}SO_3Na$		**MOLECULAR WEIGHT:**	550.16
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml	(8:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	12/12/2016			
EXPIRY DATE: (mm/dd/yyyy)	12/12/2021			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

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Certified By: B.G. Chittim **Date:** 12/21/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1812

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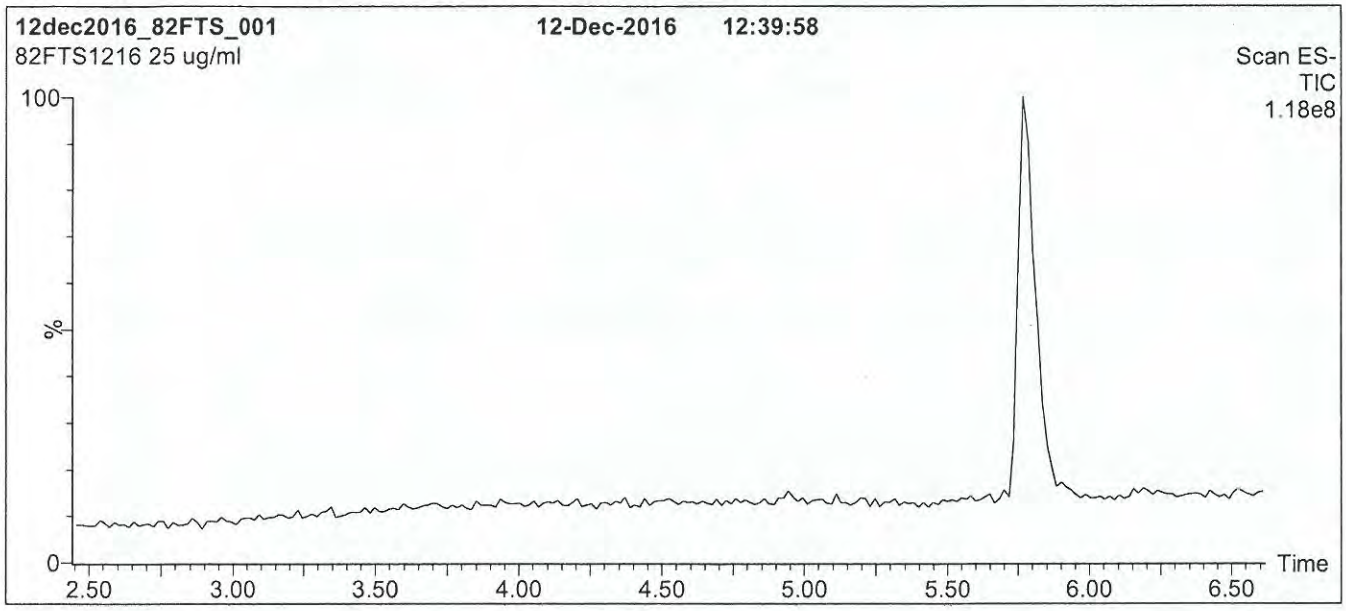
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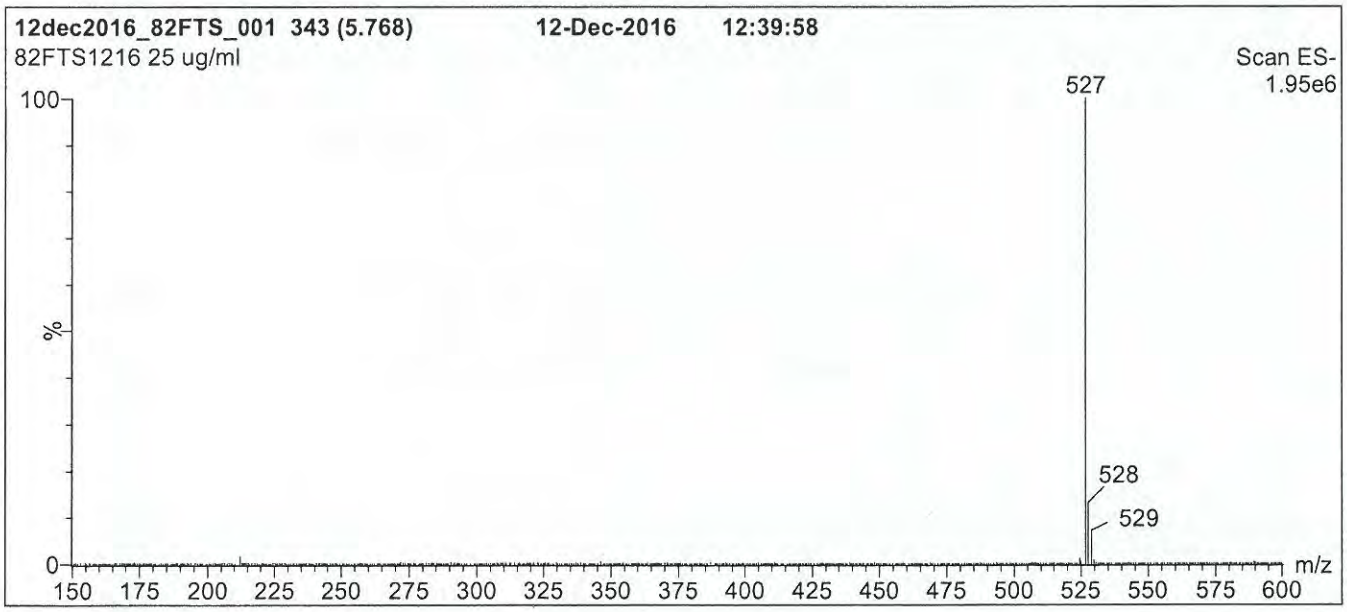
ANAB ACCREDITED

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17G1812

Figure 1: **8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

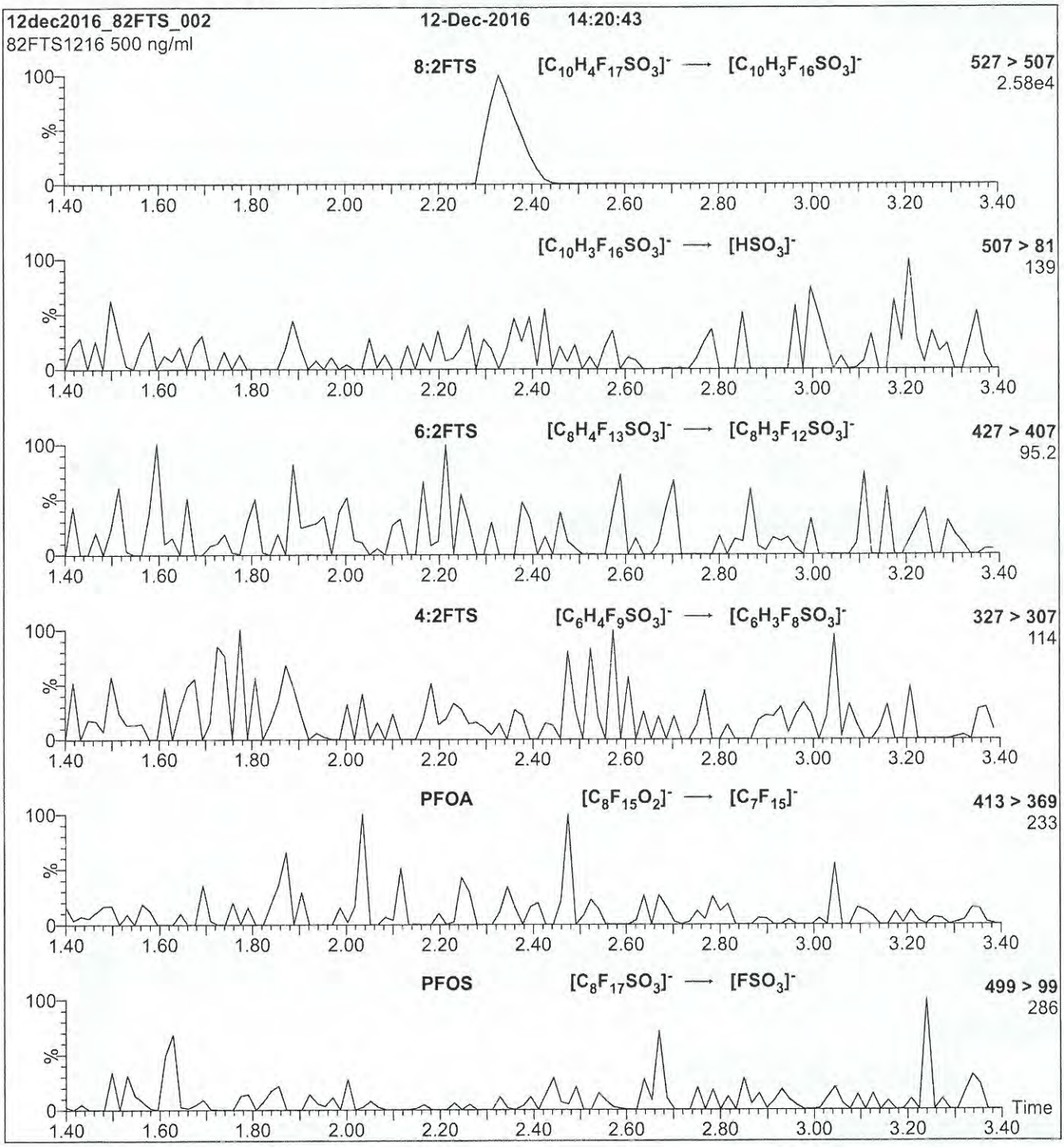
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17G1812

Figure 2: **8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 8:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 30

17G1813

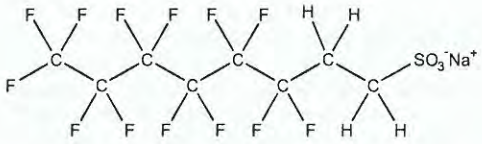
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: 6:2FTS **LOT NUMBER:** 62FTS0417

COMPOUND: Sodium 1H,1H,2H,2H-perfluorooctane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_8H_4F_{13}SO_3Na$		**MOLECULAR WEIGHT:**	450.15
CONCENTRATION:	50.0 ± 2.5 µg/ml	(Na salt)	**SOLVENT(S):**	Methanol
	47.4 ± 2.4 µg/ml	(6:2FTS anion)		
CHEMICAL PURITY:	>98%			
LAST TESTED: (mm/dd/yyyy)	04/20/2017			
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022			
RECOMMENDED STORAGE:	Refrigerate ampoule			

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17G1813

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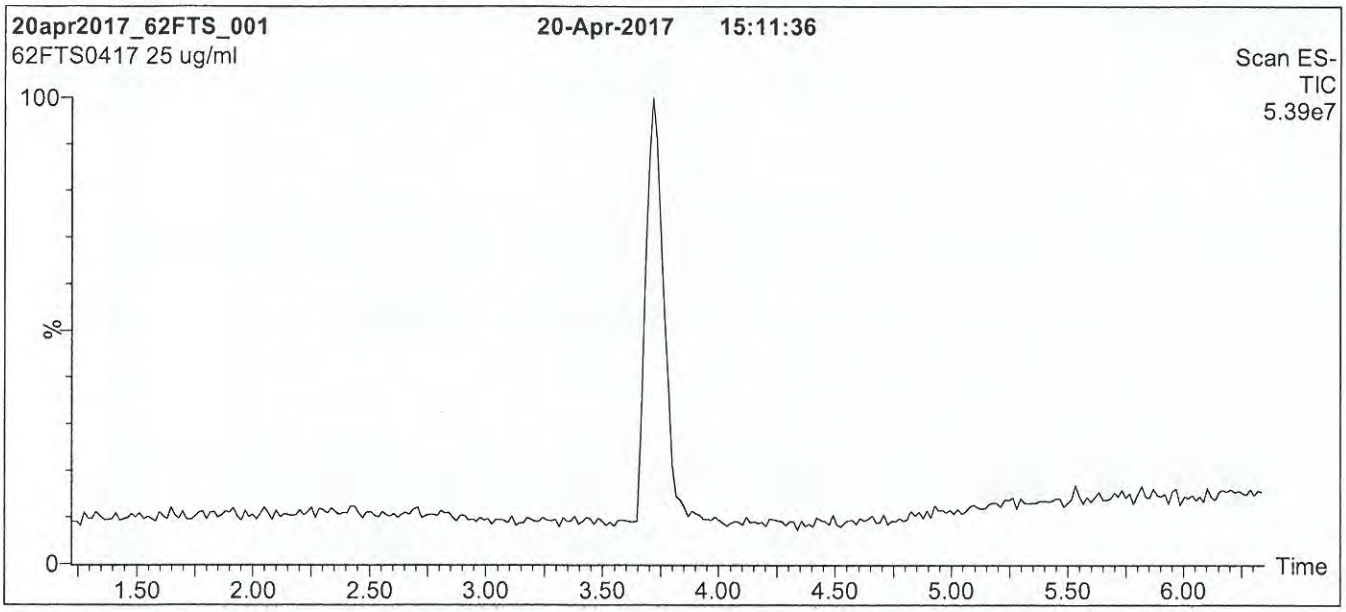
CALA

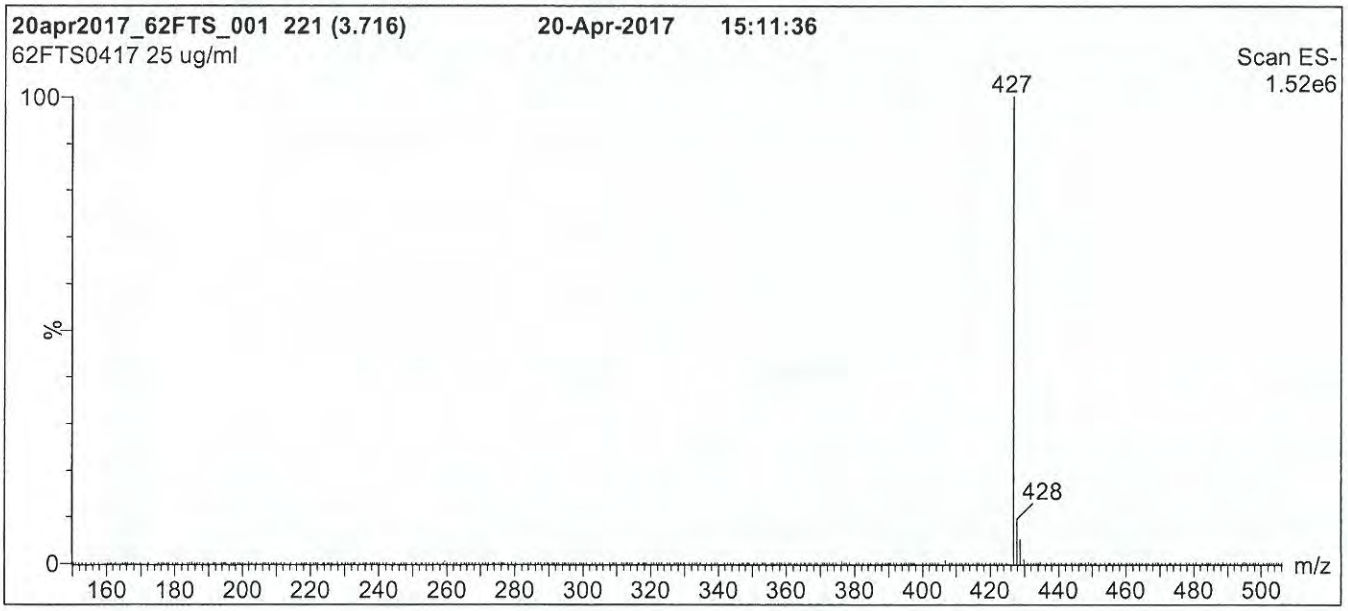
ANAB ACCREDITED

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Figure 1: **6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

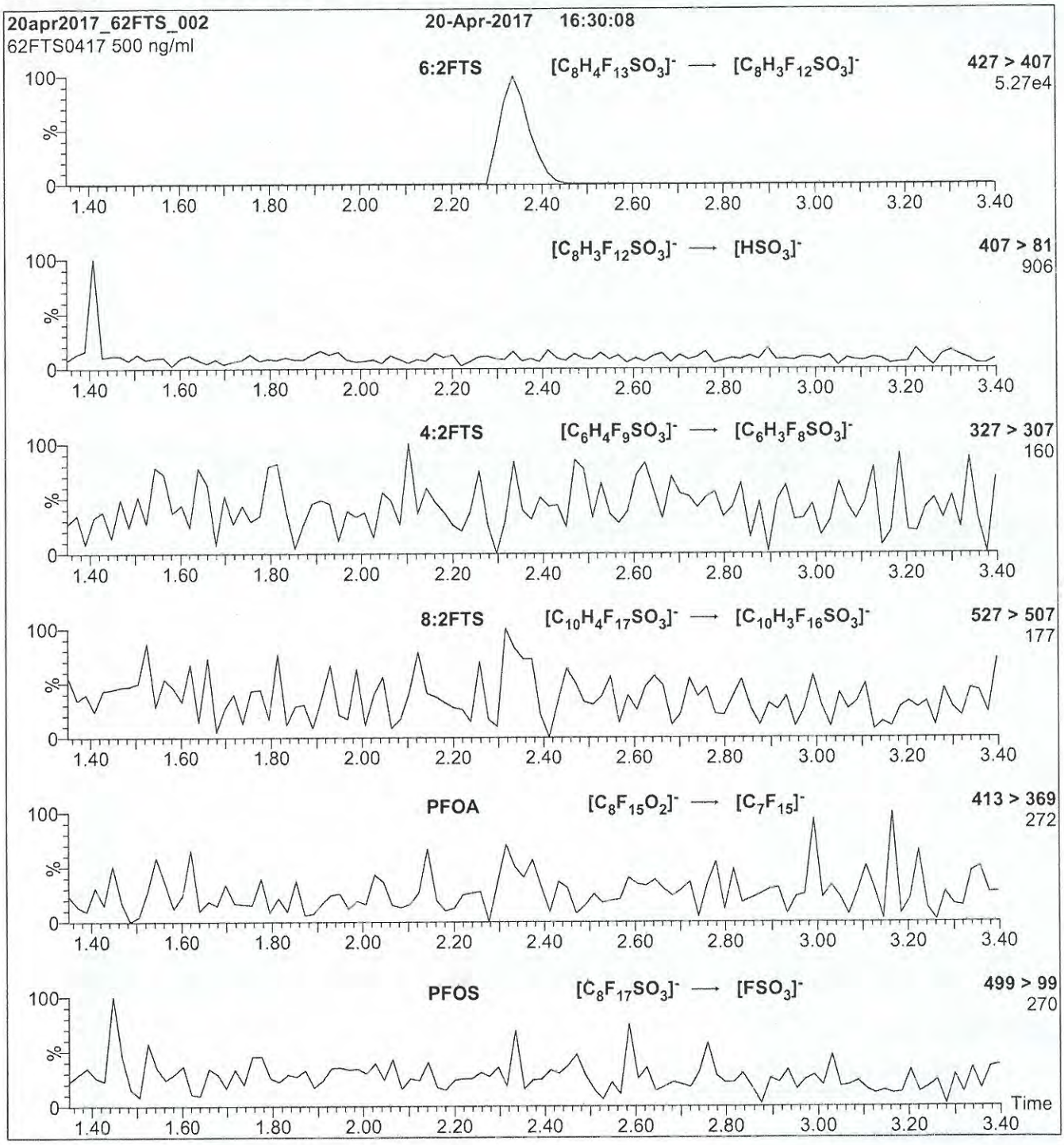
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17G1813

Figure 2: **6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml 6:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 25

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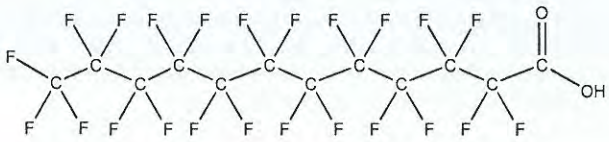
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFDoA
COMPOUND: Perfluoro-n-dodecanoic acid

LOT NUMBER: PFDoA0516

STRUCTURE:

CAS #: 307-55-1



MOLECULAR FORMULA: $C_{12}HF_{23}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 614.10
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/31/2016
EXPIRY DATE: (mm/dd/yyyy) 05/31/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/02/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

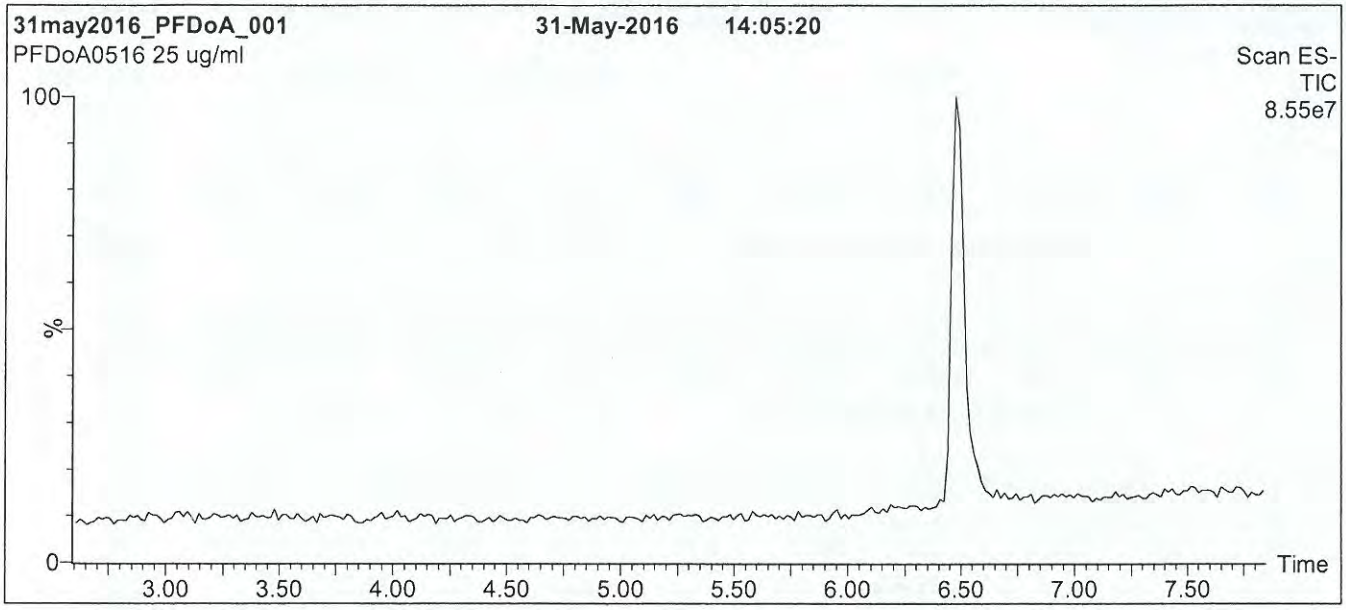
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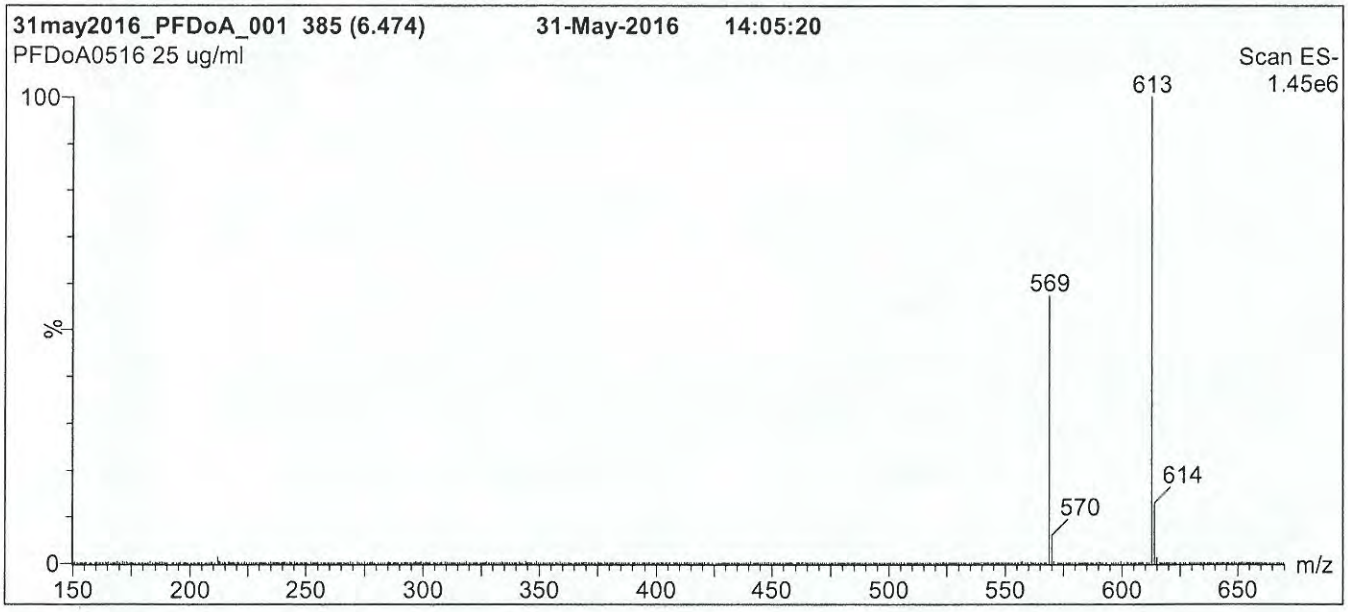
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Figure 1: **PFDoA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

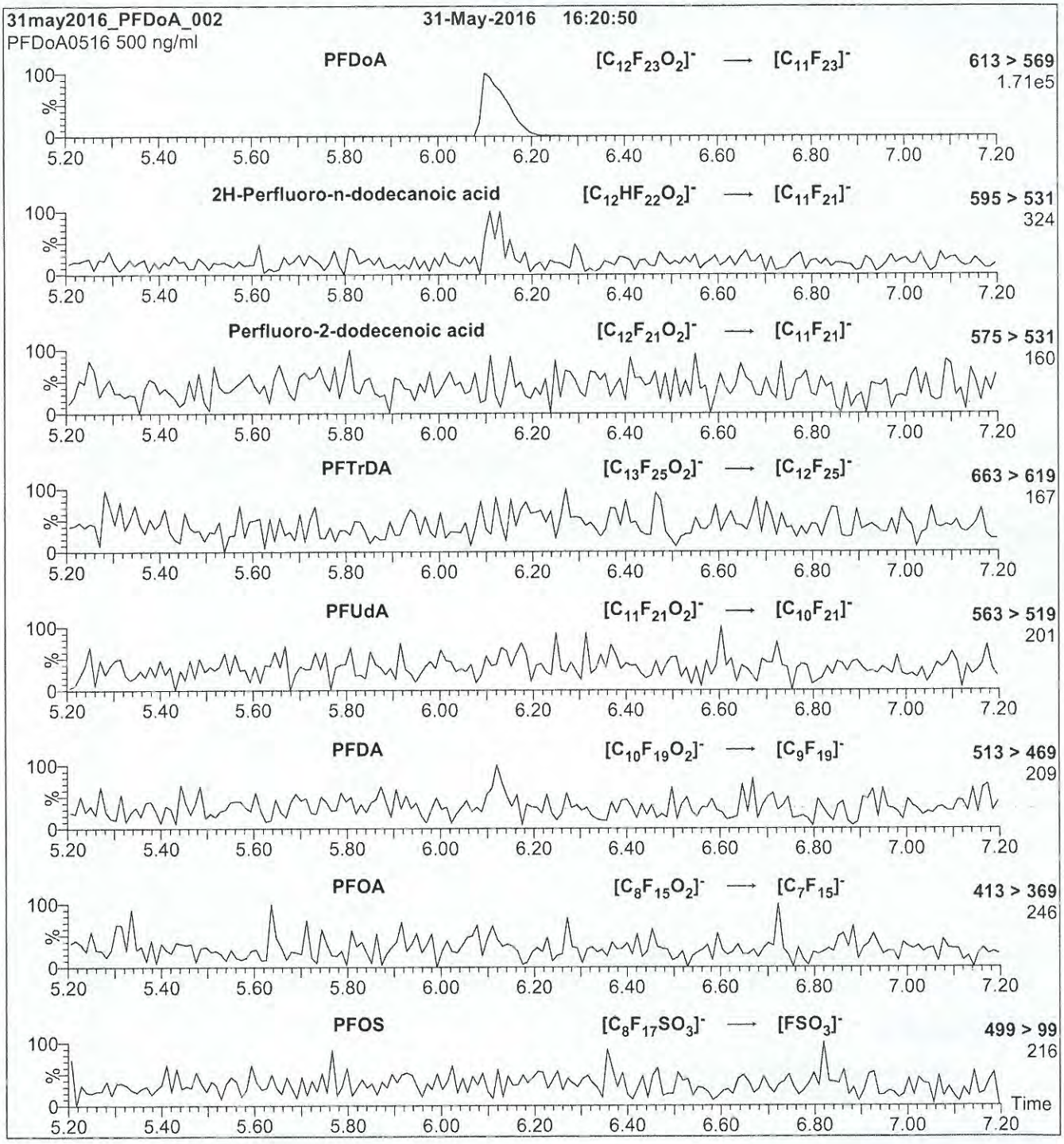
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFDoA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

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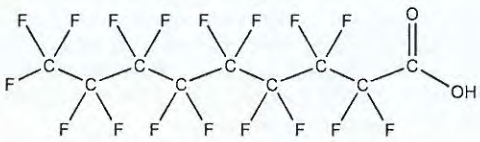
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFNA
COMPOUND: Perfluoro-n-nonanoic acid

LOT NUMBER: PFNA0916

STRUCTURE:

CAS #: 375-95-1



MOLECULAR FORMULA: $C_9HF_{17}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 464.08
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 09/30/2016
EXPIRY DATE: (mm/dd/yyyy) 09/30/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.1% of perfluoro-n-octanoic acid (PFOA) and < 0.1% of perfluoro-n-heptanoic acid (PFHpA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

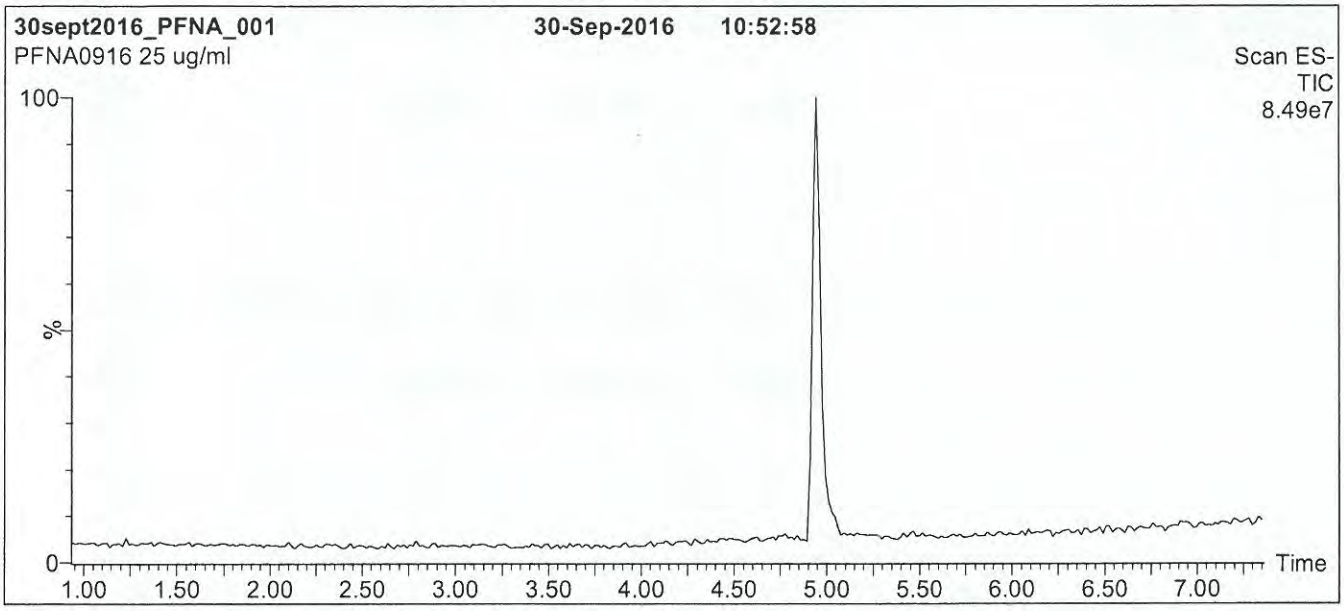
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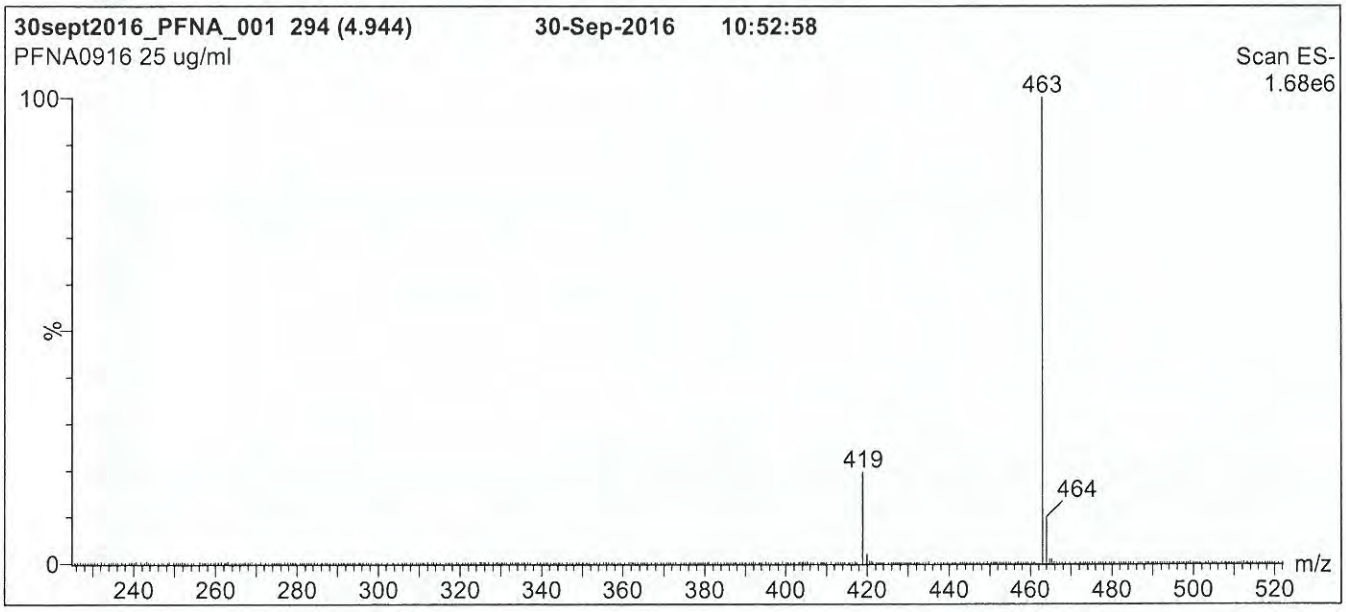
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Figure 1: **PFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

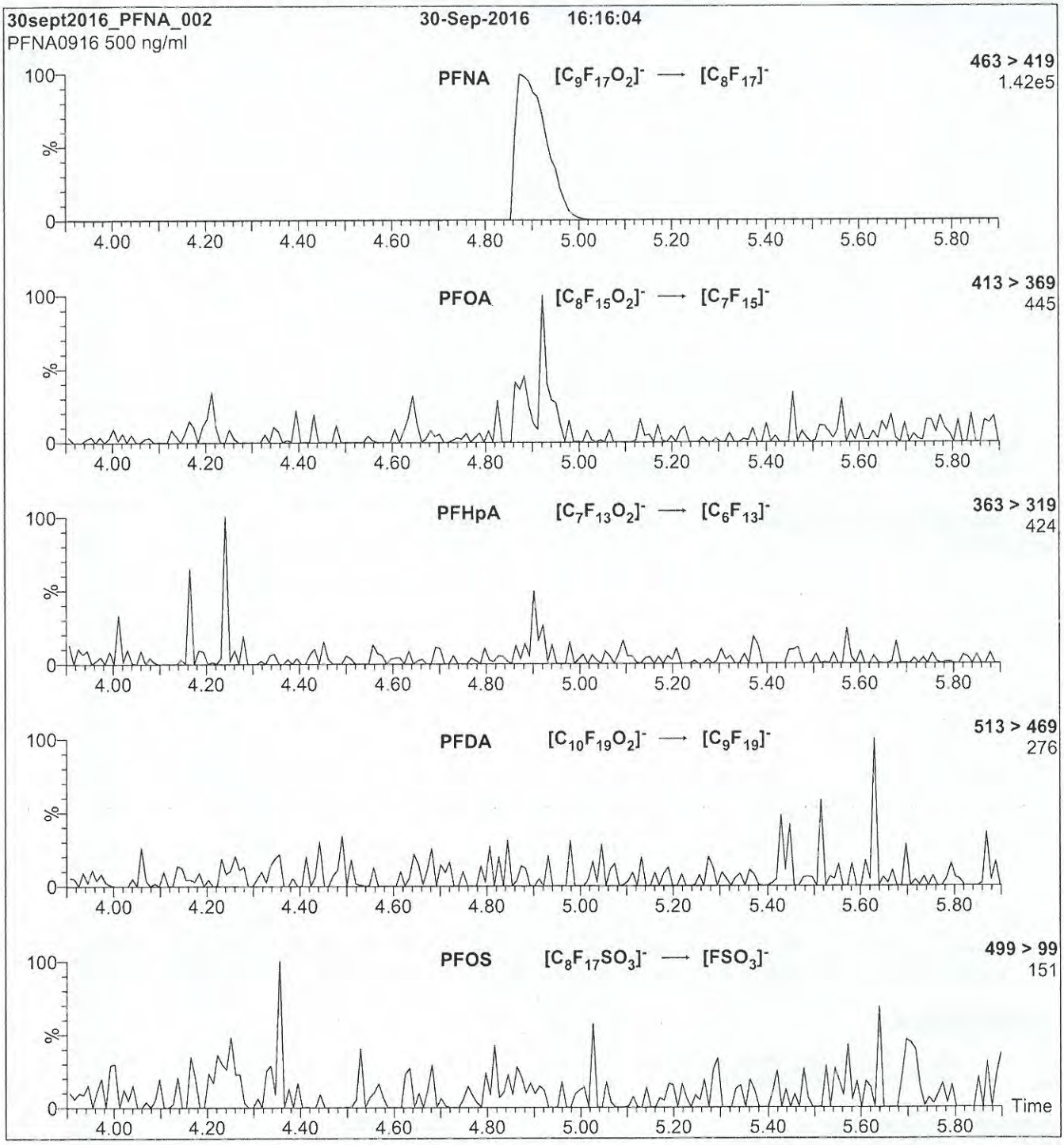
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 11

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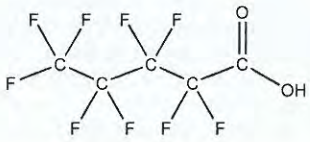
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFPeA
COMPOUND: Perfluoro-n-pentanoic acid

LOT NUMBER: PFPeA0617

STRUCTURE:

CAS #: 2706-90-3



MOLECULAR FORMULA: $C_5HF_9O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 264.05
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 06/14/2017
EXPIRY DATE: (mm/dd/yyyy) 06/14/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of Perfluoro-n-heptanoic acid (PFHpA) and ~ 0.2% of $C_5H_2F_8O_2$ (hydrido - derivative) as measured by ^{19}F NMR.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 06/16/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

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EXPIRY DATE / PERIOD OF VALIDITY:

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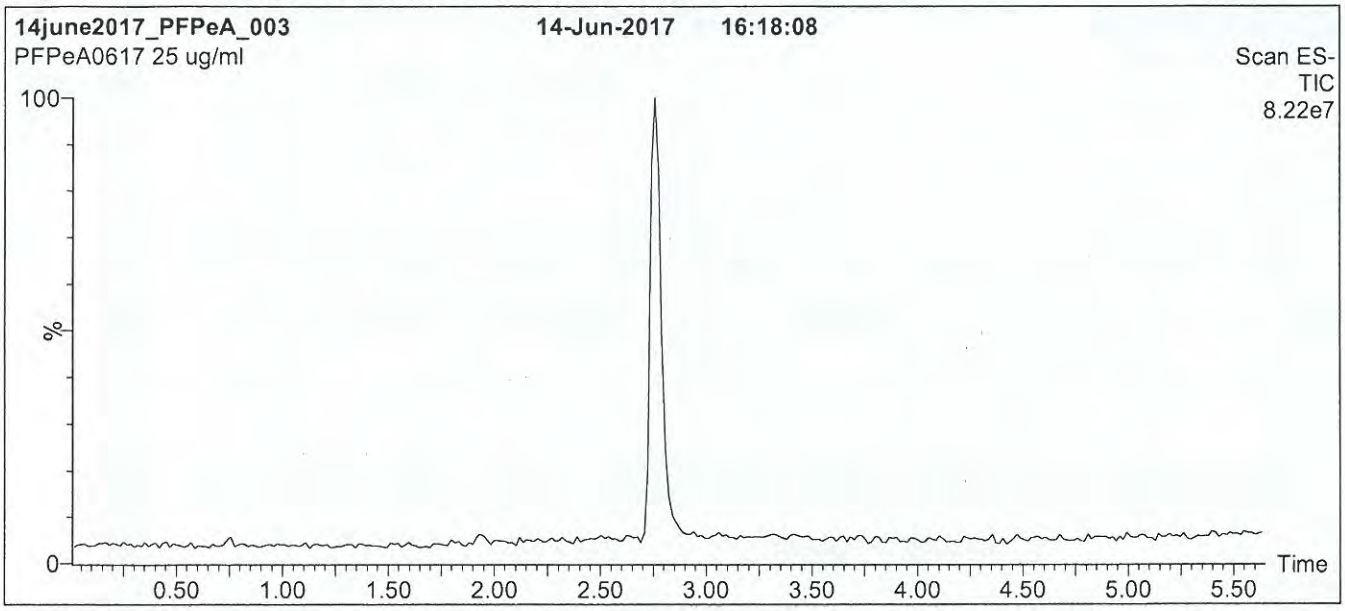
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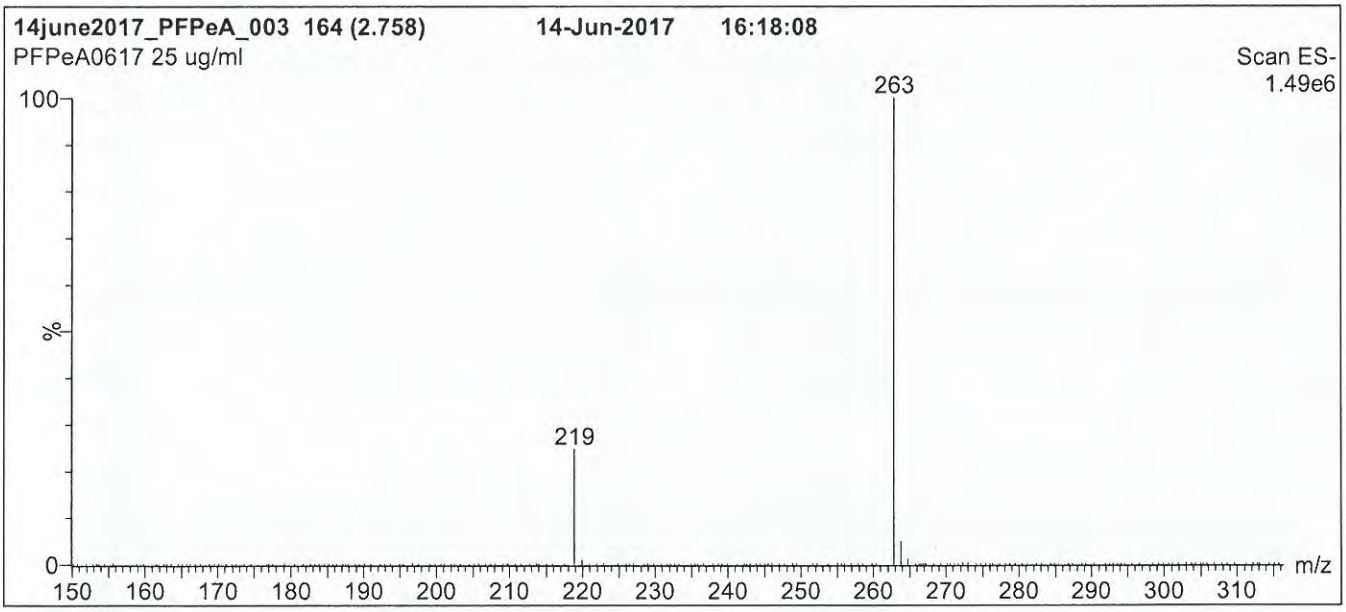
CALA

ANAB ACCREDITED

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Figure 1: **PFPeA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

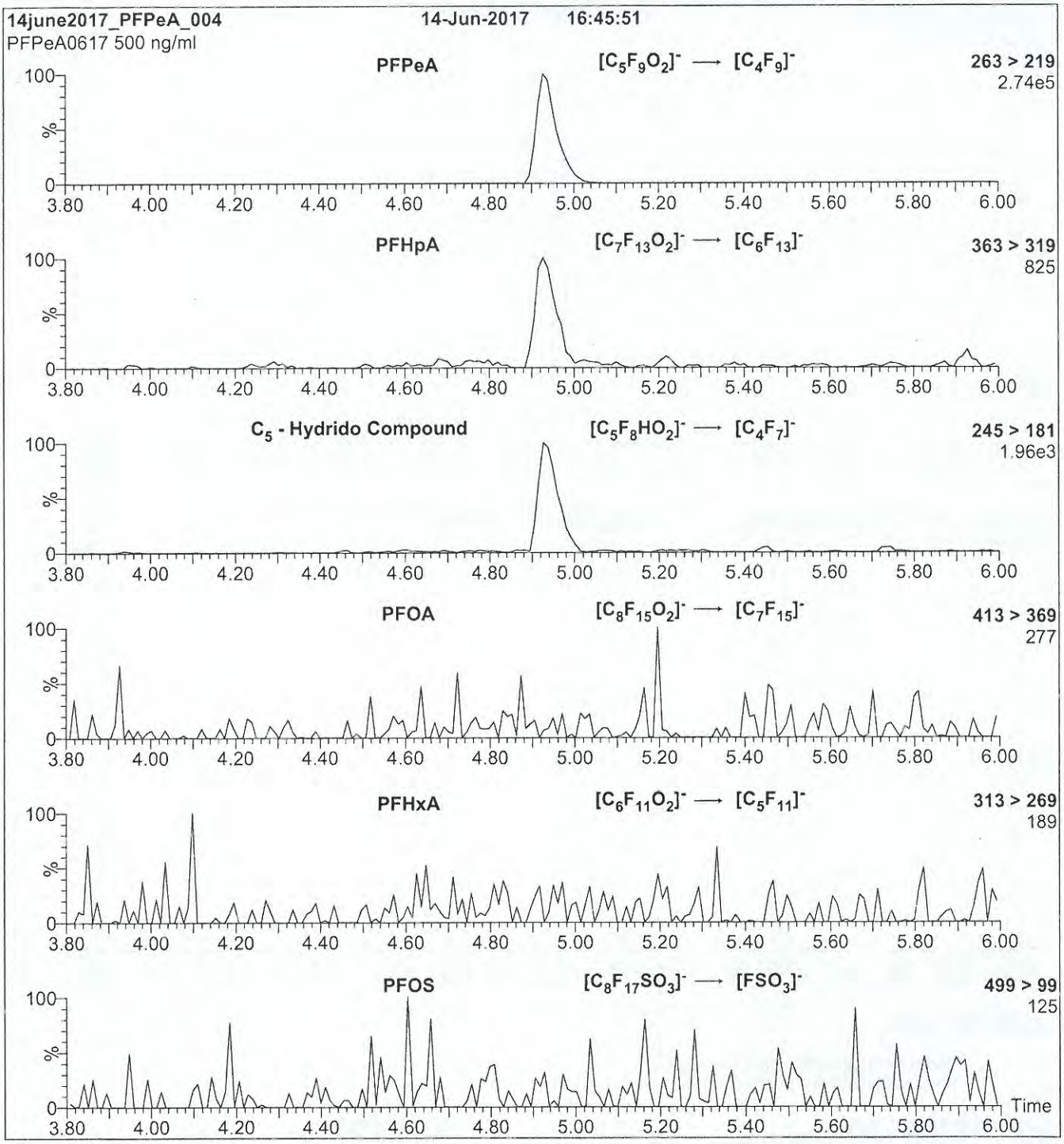
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFPeA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 9

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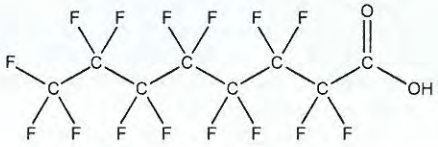
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFOA
COMPOUND: Perfluoro-n-octanoic acid

LOT NUMBER: PFOA0217

STRUCTURE:

CAS #: 335-67-1



MOLECULAR FORMULA: $C_8HF_{15}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 414.07
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 02/17/2017
EXPIRY DATE: (mm/dd/yyyy) 02/17/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 02/22/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c\left(y(x_1, x_2, \ldots x_n)\right) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

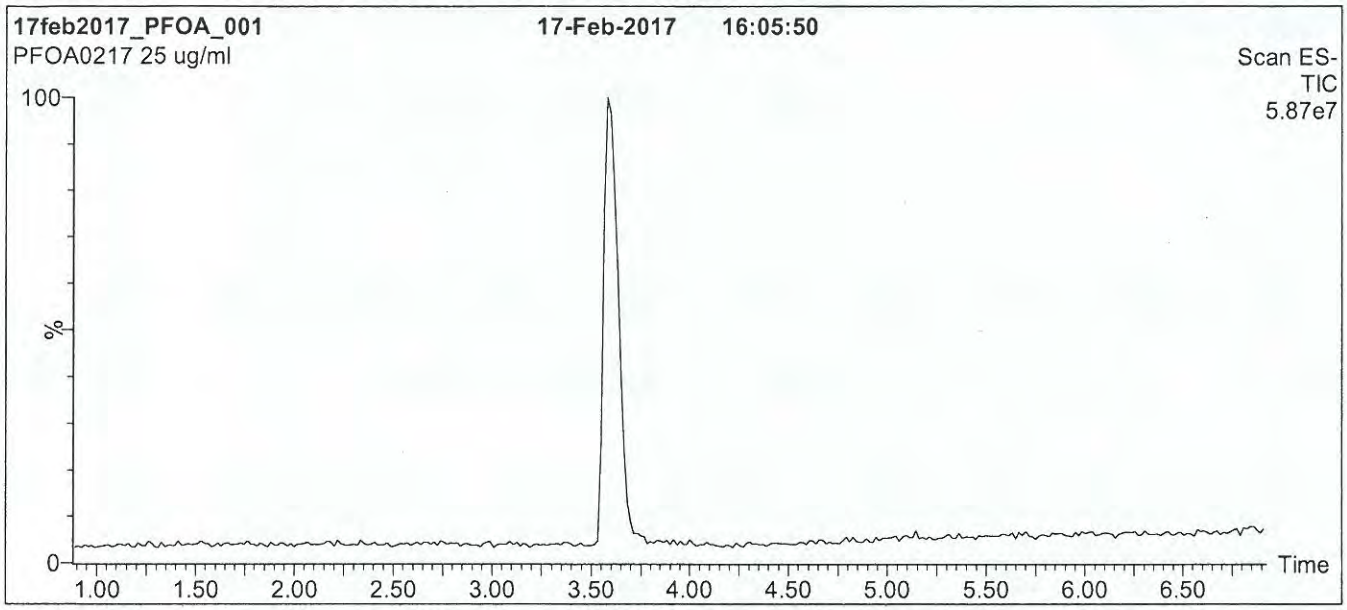
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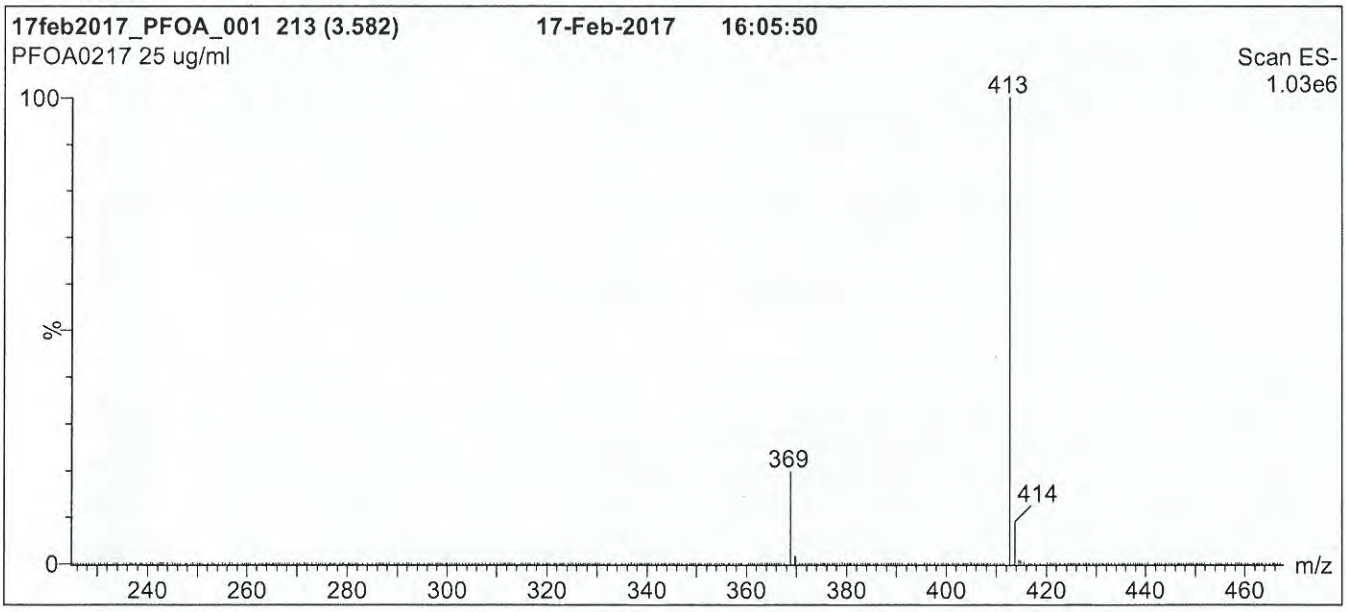
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ANAB ACCREDITED

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Figure 1: **PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for
1 min before returning to initial conditions in 0.5 min.
Time: 10 min

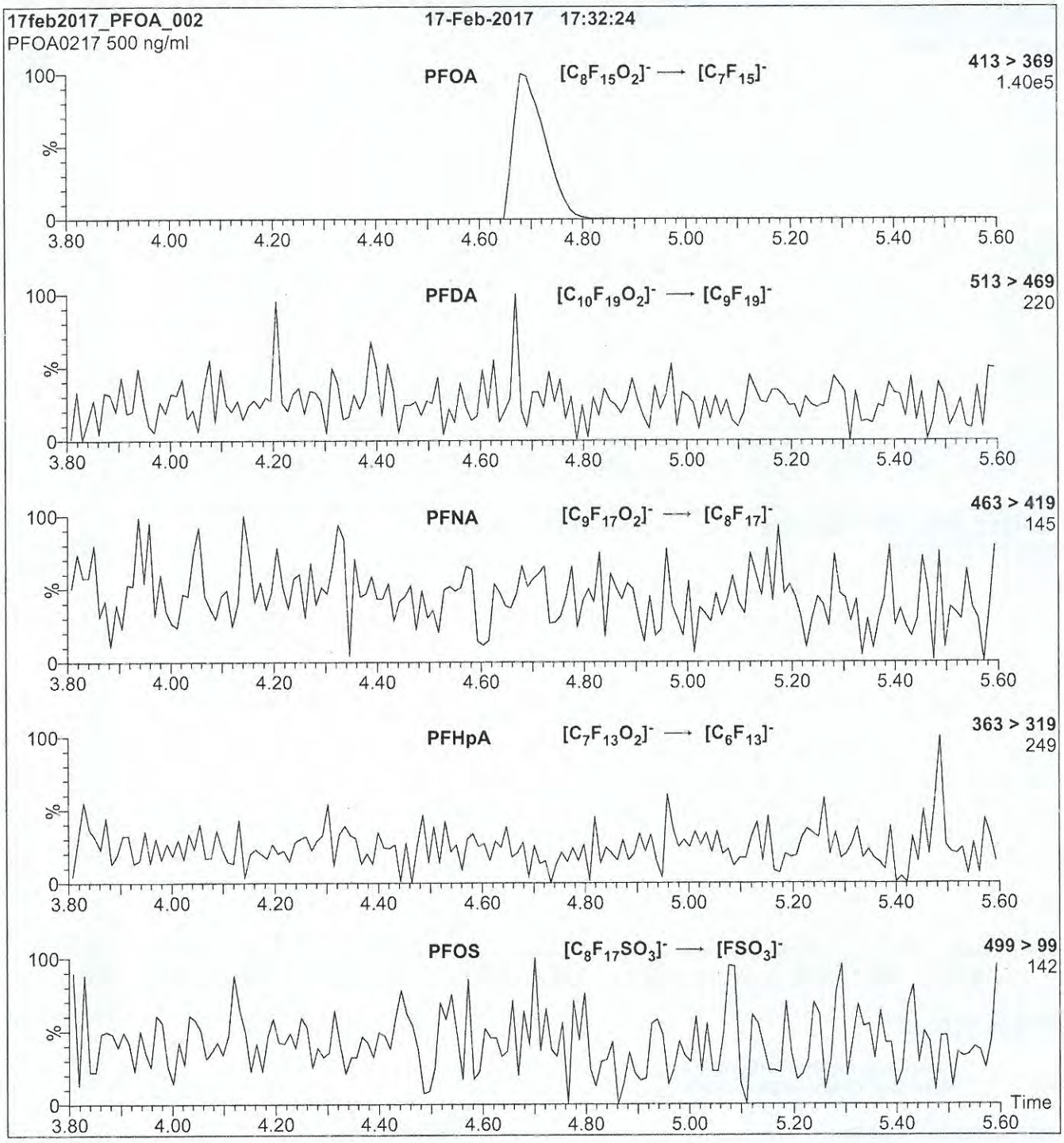
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 10

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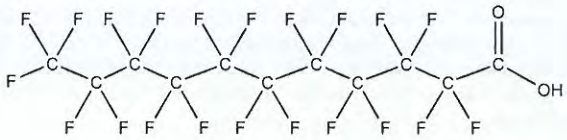
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFUdA
COMPOUND: Perfluoro-n-undecanoic acid

LOT NUMBER: PFUdA1016

STRUCTURE:

CAS #: 2058-94-8



MOLECULAR FORMULA: $C_{11}HF_{21}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 564.09
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 10/18/2016
EXPIRY DATE: (mm/dd/yyyy) 10/18/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

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ADDITIONAL INFORMATION:

- See page 2 for further details.
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Certified By: B.G. Chittim **Date:** 10/19/2016 (mm/dd/yyyy)

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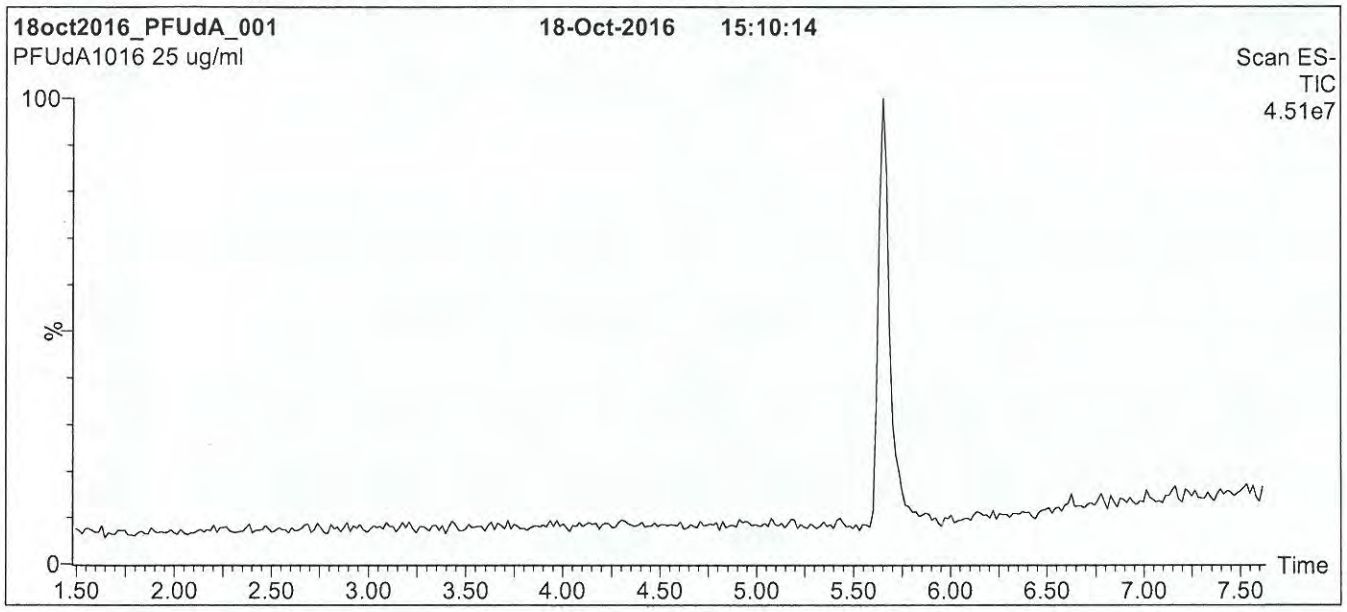
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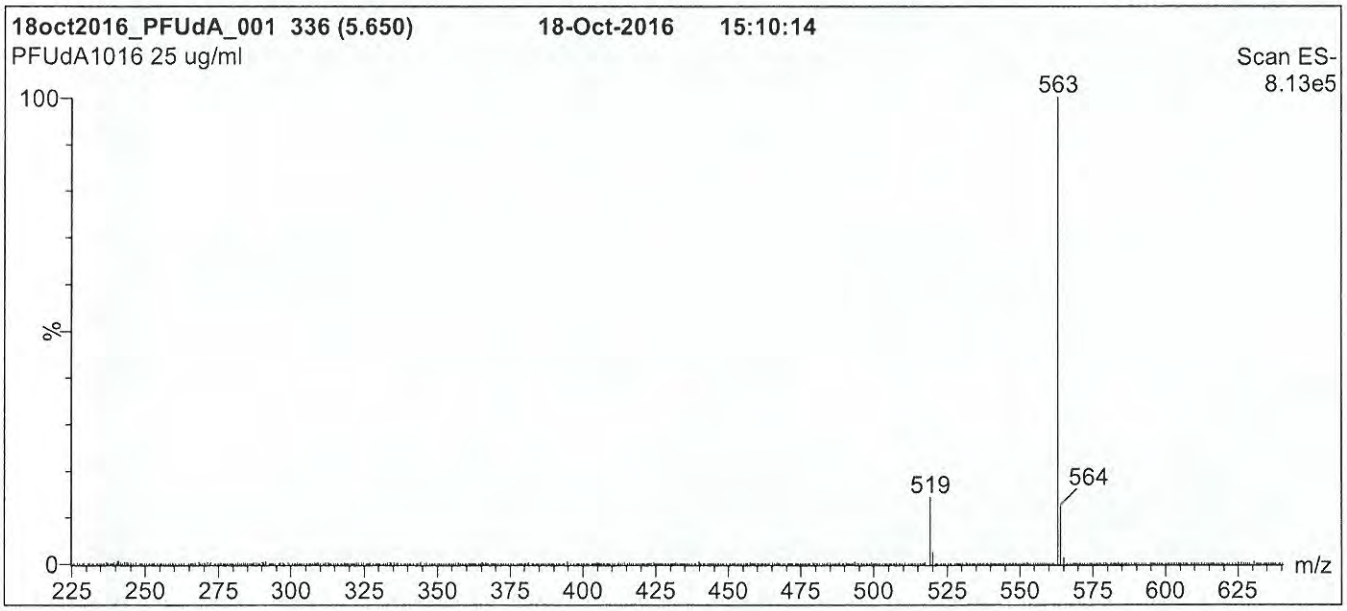
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Figure 1: **PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

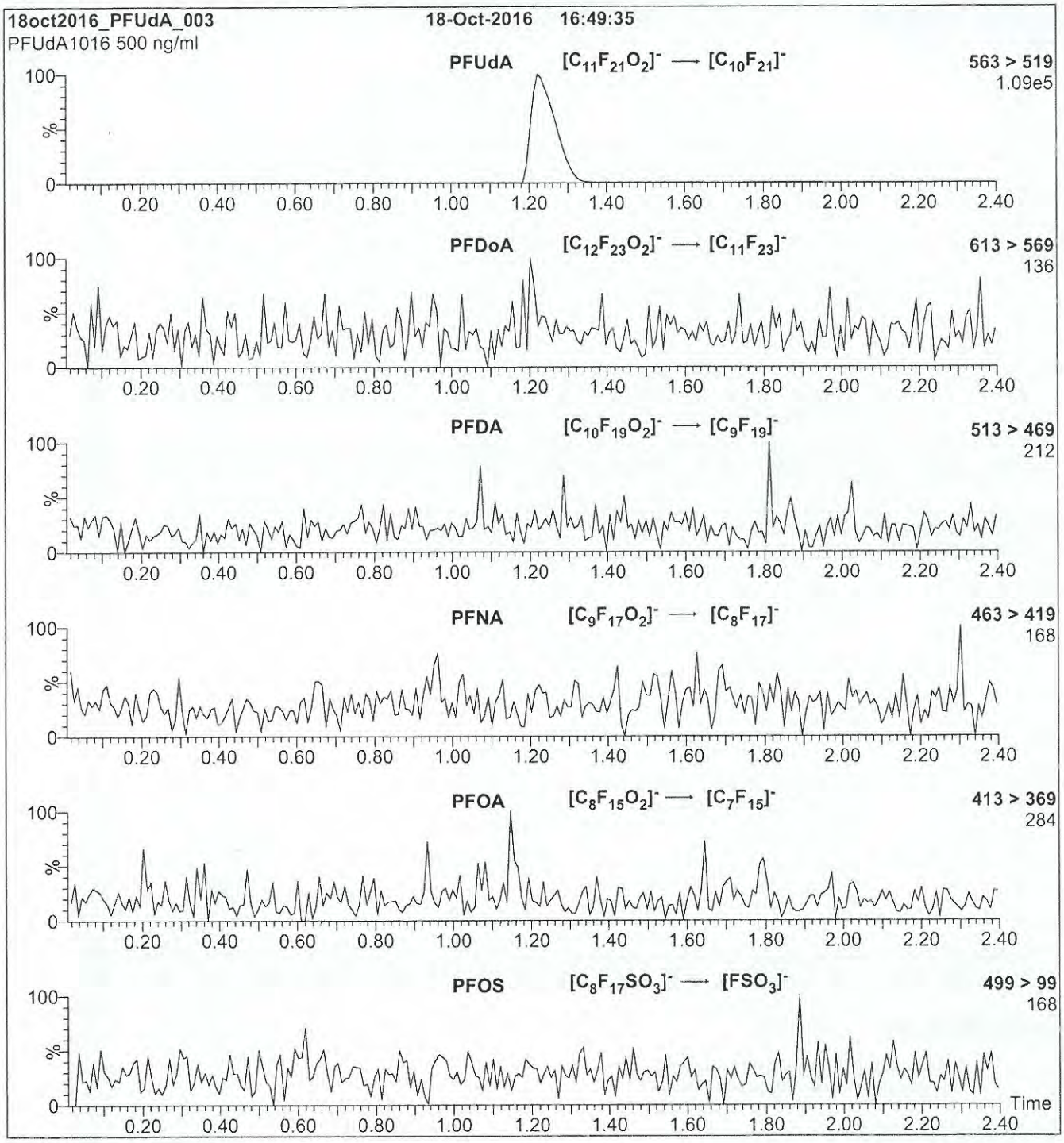
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection:	Direct loop injection 10 µl (500 ng/ml PFUdA)
Mobile phase:	Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O (both with 10 mM NH_4OAc buffer)
Flow:	300 µl/min

MS Parameters

Collision Gas (mbar) = 3.24e-3
Collision Energy (eV) = 11

17H0825

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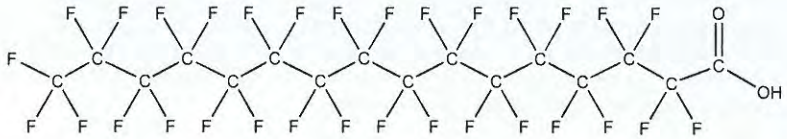
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHxDA ✓
COMPOUND: Perfluoro-n-hexadecanoic acid

LOT NUMBER: PFHxDA0516

STRUCTURE:

CAS #: 67905-19-5



MOLECULAR FORMULA: $C_{16}HF_{31}O_2$
MOLECULAR WEIGHT: 814.13
CONCENTRATION: 50 ± 2.5 µg/ml
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/25/2016
EXPIRY DATE: (mm/dd/yyyy) 05/25/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.4% of PFODA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 05/27/2016 (mm/dd/yyyy)

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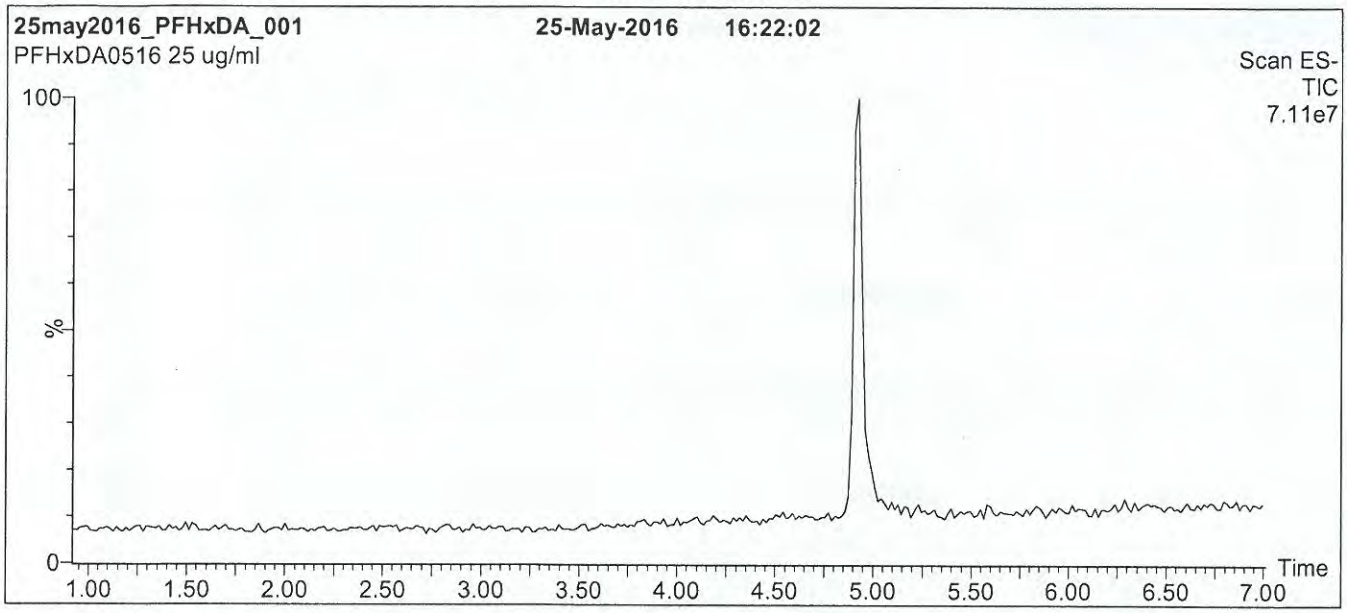
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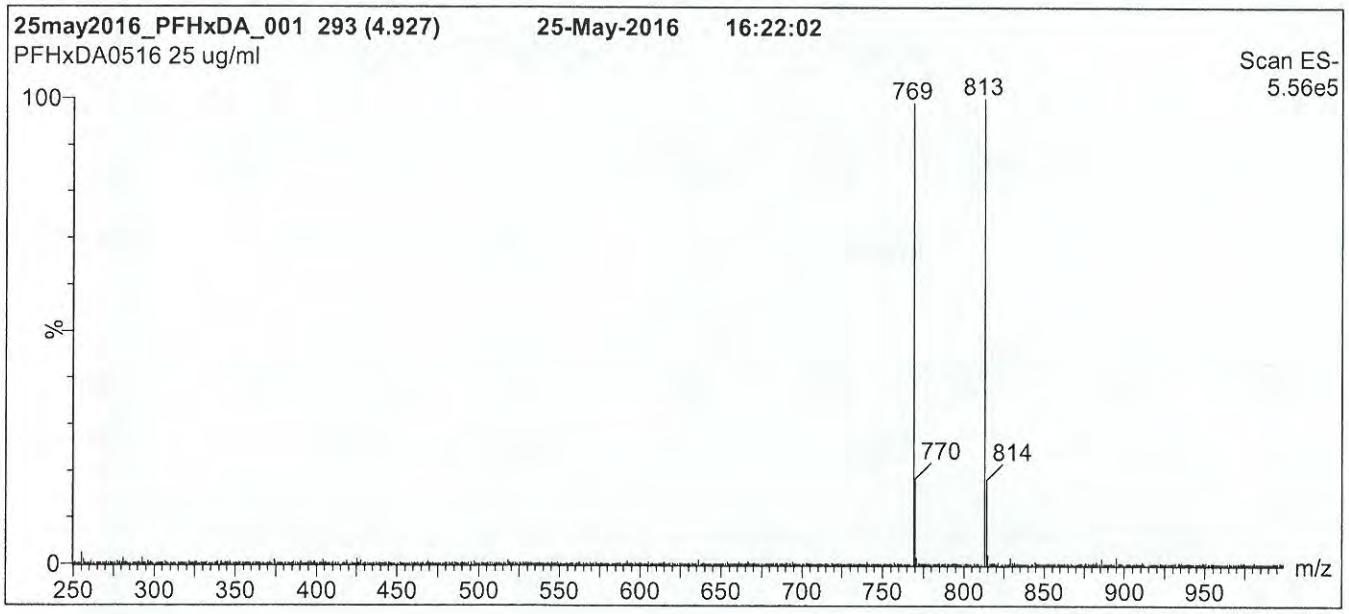
CALA Testing

ANAB ACCREDITED

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Figure 1: **PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 70% (80:20 MeOH:ACN) / 30% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 95% organic over 6 min and hold for 2.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

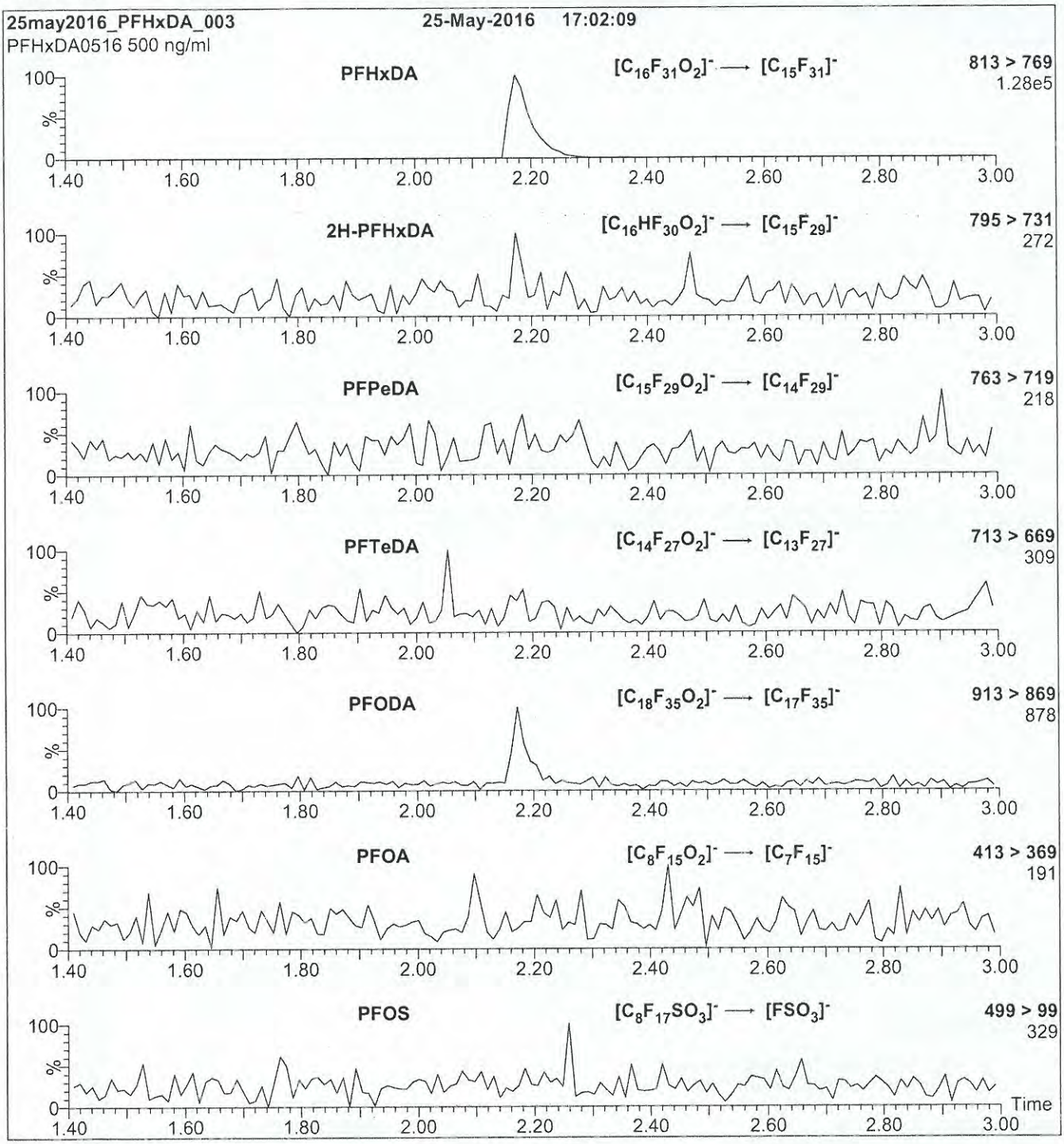
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (250 - 1250 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHxDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.66e-3
Collision Energy (eV) = 15

17H0826

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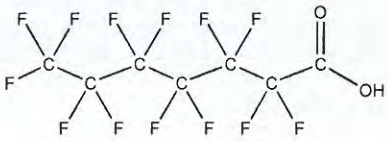
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: PFHpA ✓
COMPOUND: Perfluoro-n-heptanoic acid

LOT NUMBER: PFHpA1216

STRUCTURE:

CAS #: 375-85-9



MOLECULAR FORMULA: $C_7HF_{13}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

MOLECULAR WEIGHT: 364.06
SOLVENT(S): Methanol
Water (<1%)

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 12/02/2016
EXPIRY DATE: (mm/dd/yyyy) 12/02/2021
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

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- See page 2 for further details.
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Certified By: B.G. Chittim **Date:** 12/12/2016 (mm/dd/yyyy)

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The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

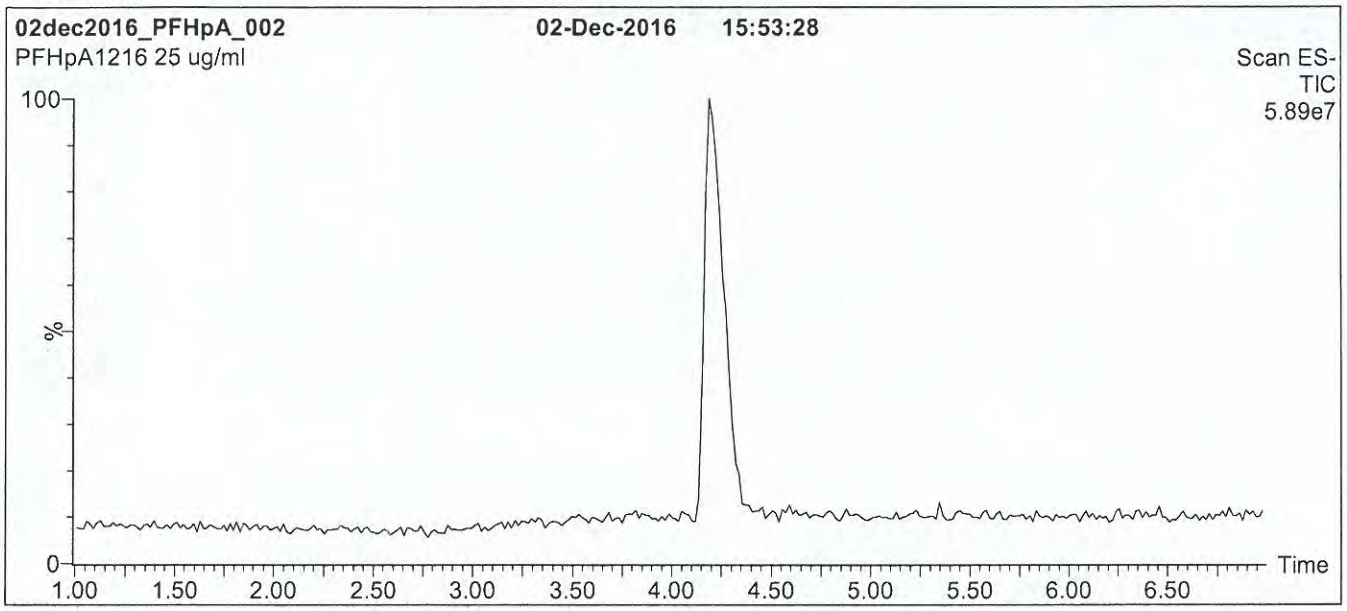
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

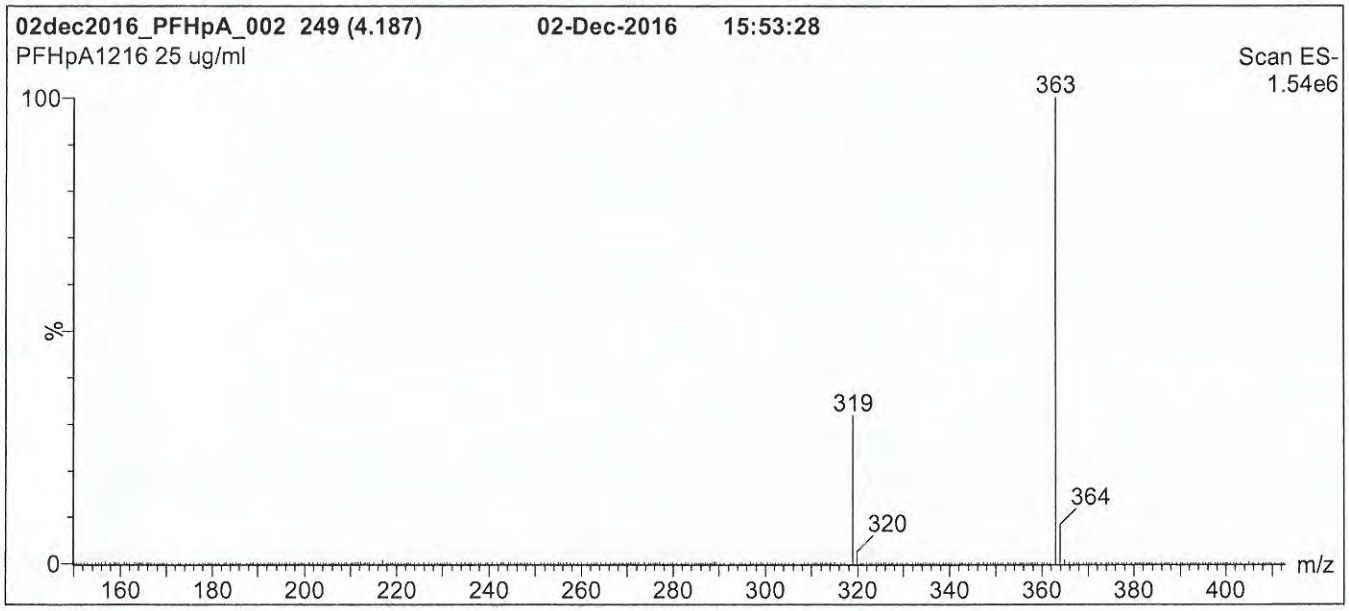
CALA

ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

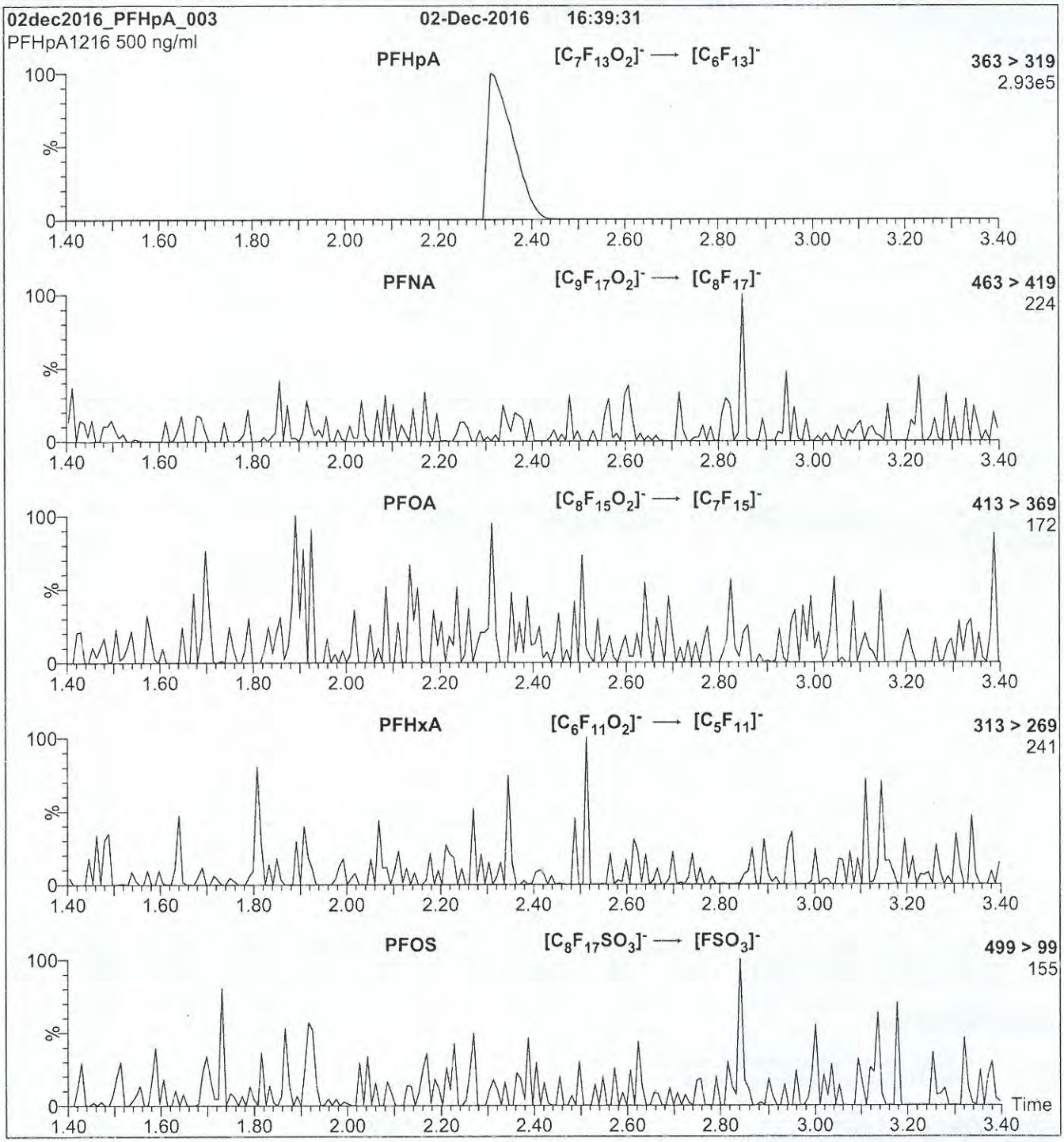
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml PFHpA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 11

17H0827

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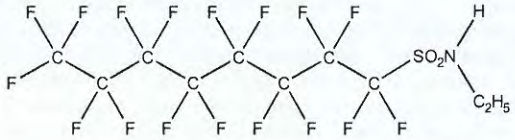
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-EtFOSA-M
COMPOUND: N-ethylperfluoro-1-octanesulfonamide

LOT NUMBER: NEtFOSA0717M

STRUCTURE:

CAS #: 4151-50-2



MOLECULAR FORMULA:	$C_{10}H_6F_{17}NO_2S$	**MOLECULAR WEIGHT:**	527.20
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/18/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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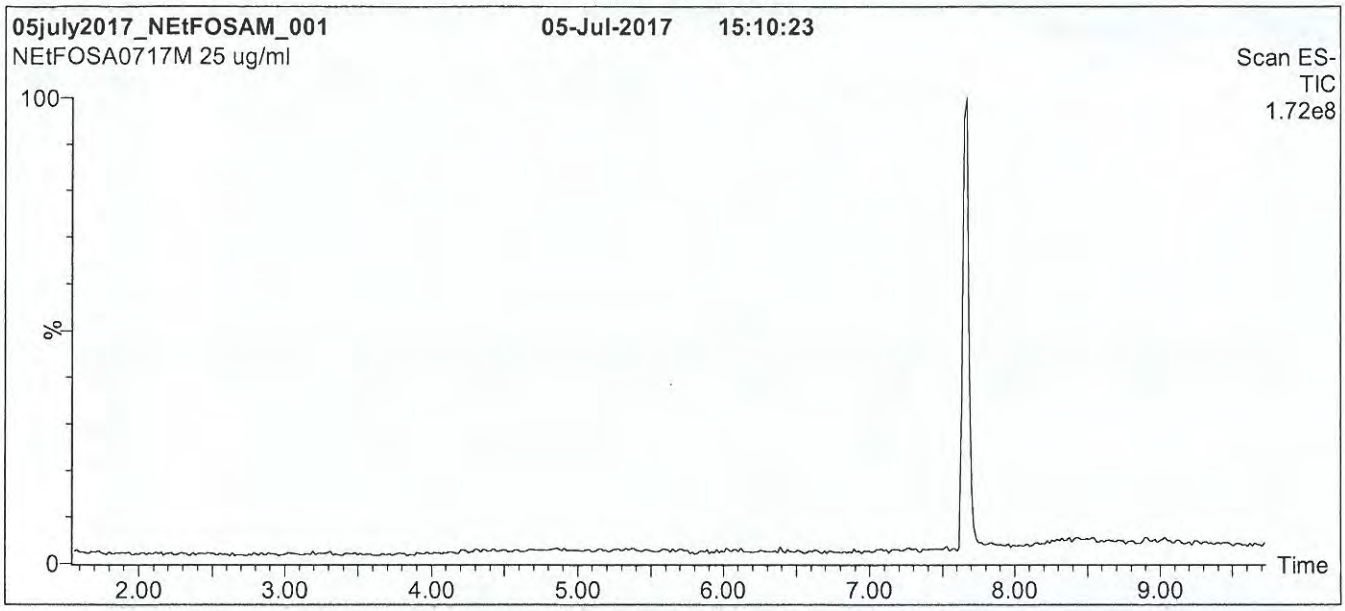
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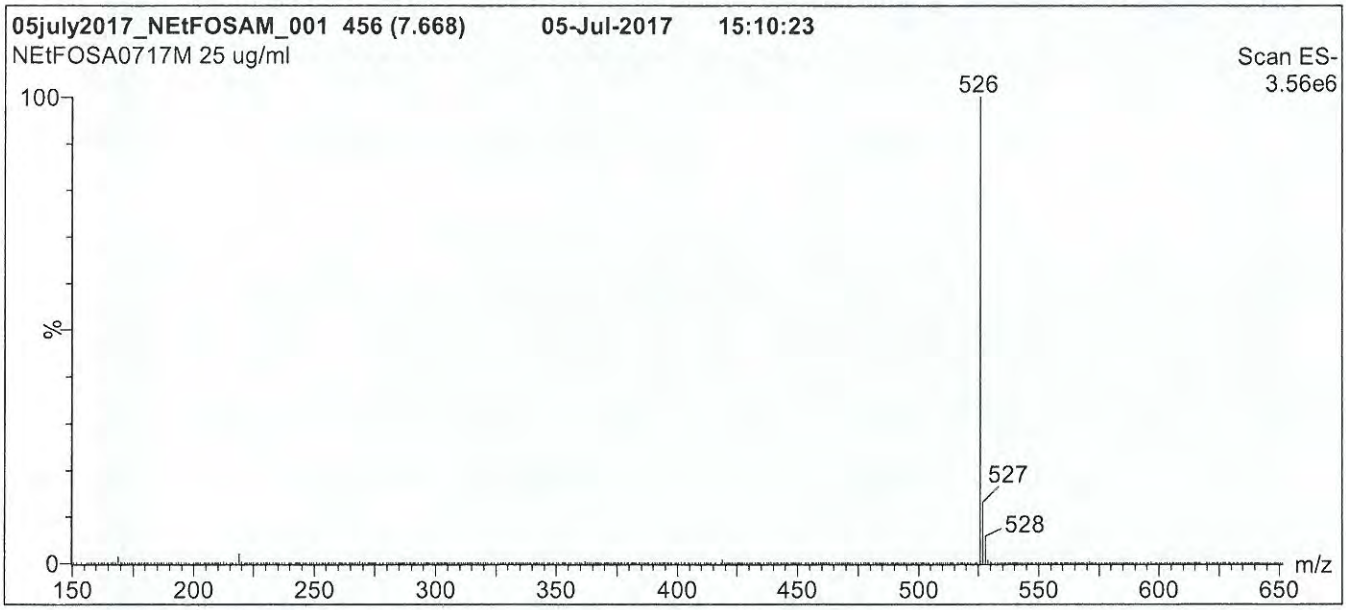
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Figure 1: **N-EtFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

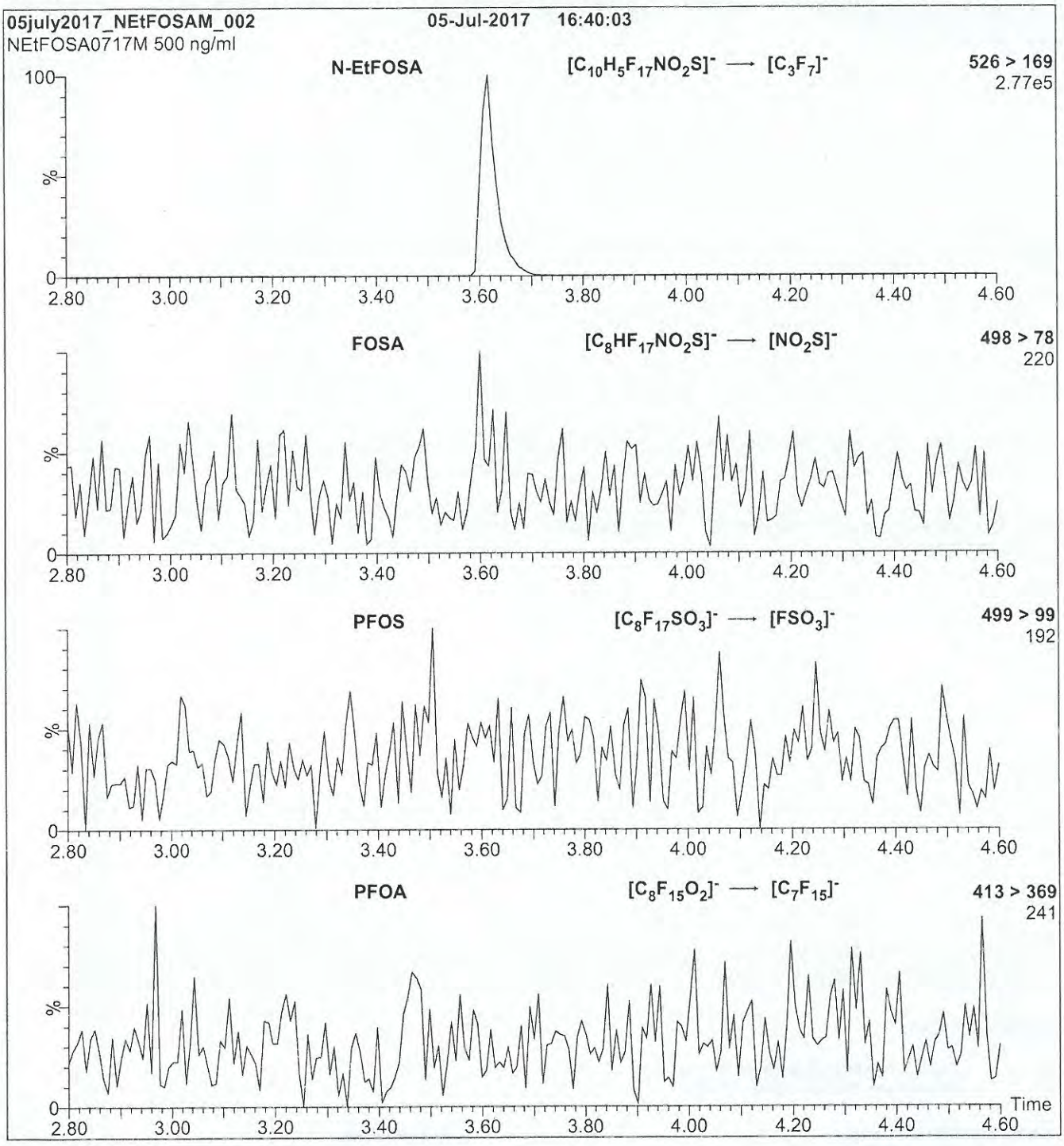
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-EtFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSA-M)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

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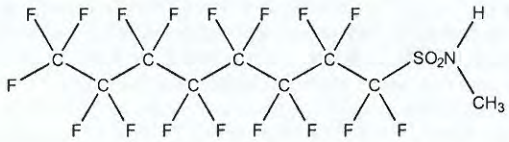
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSA-M ✓
COMPOUND: N-methylperfluoro-1-octanesulfonamide

LOT NUMBER: NMeFOSA0717M

STRUCTURE:

CAS #: 31506-32-8



MOLECULAR FORMULA:	$C_9H_4F_{17}NO_2S$	**MOLECULAR WEIGHT:**	513.17
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/10/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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SYNTHESIS / CHARACTERIZATION:

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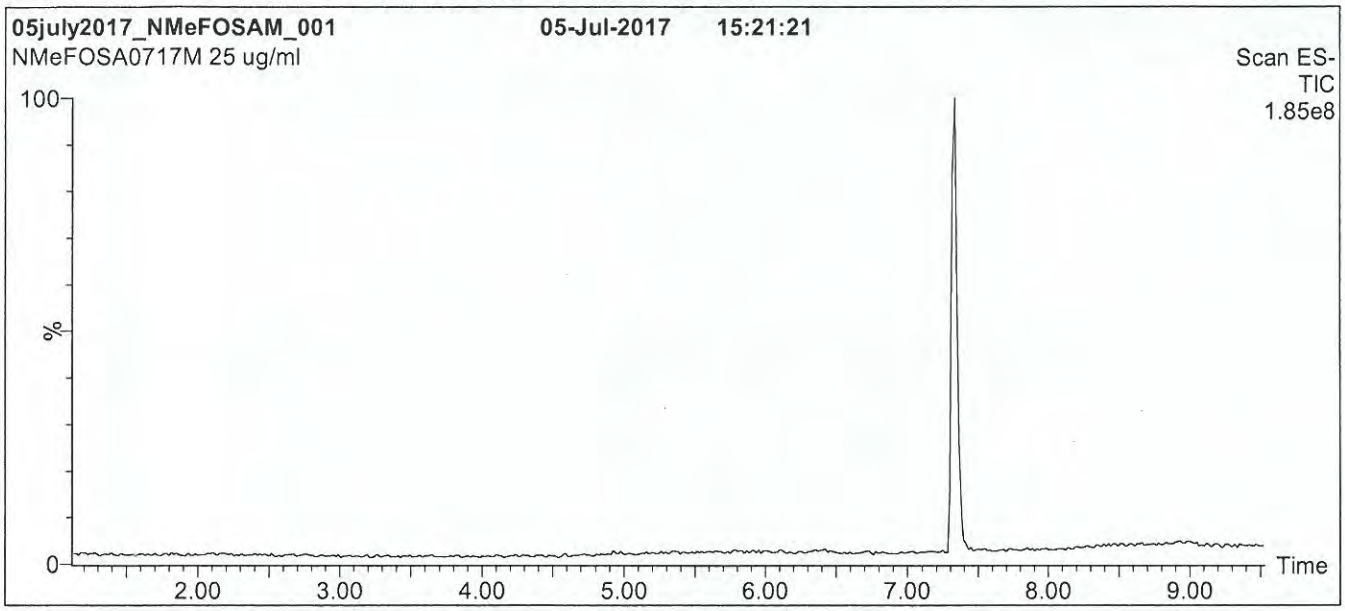
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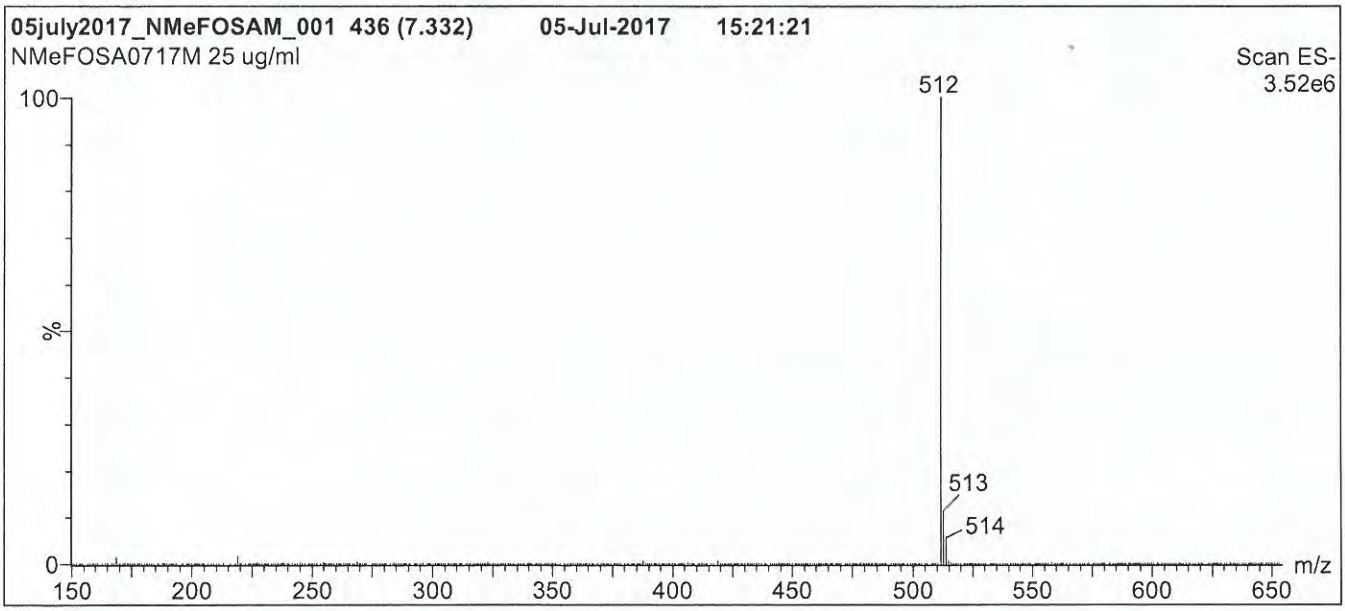
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Figure 1: **N-MeFOSA-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 45% H_2O / 55% (80:20 MeOH:ACN)
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

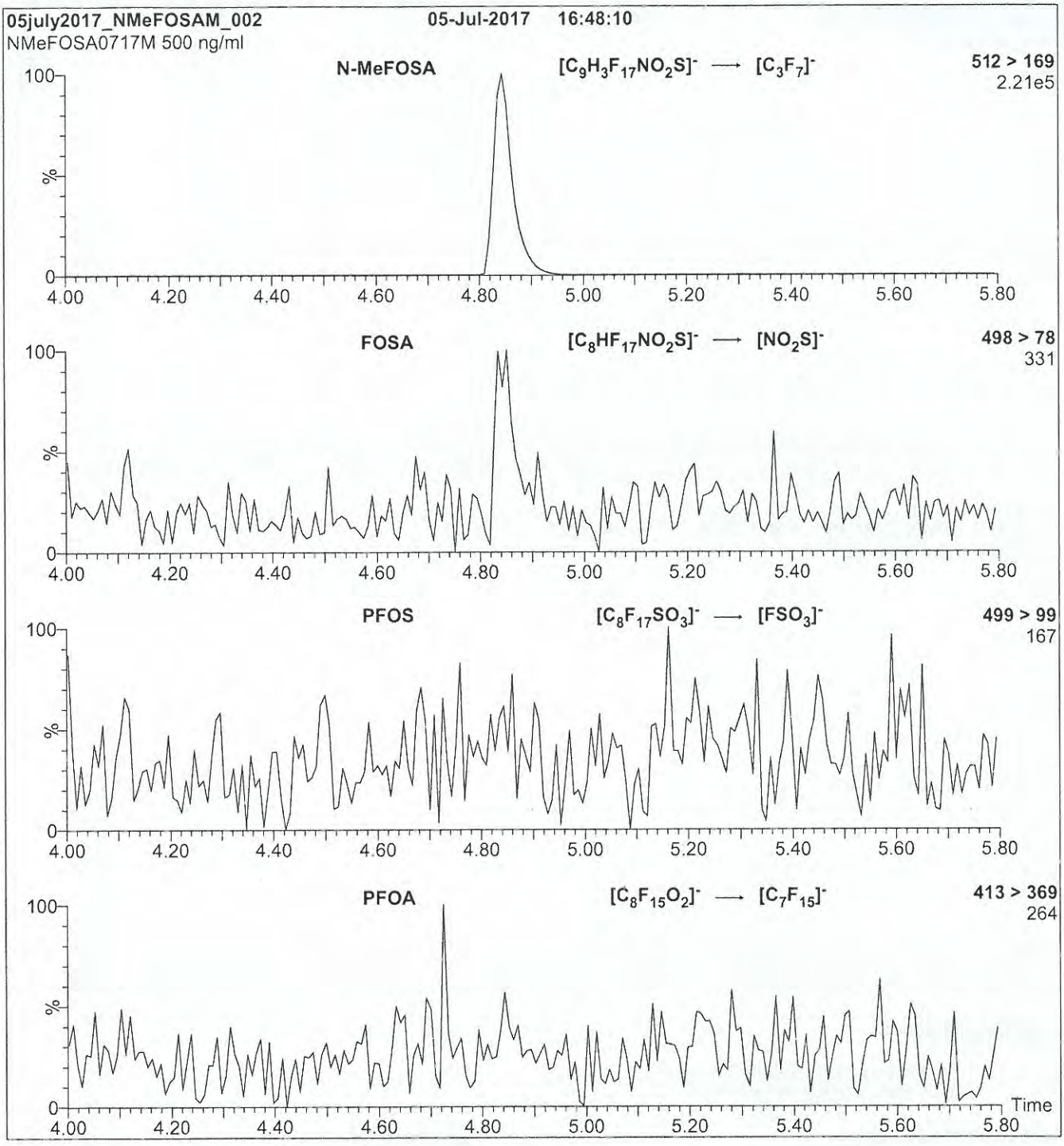
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

Figure 2: **N-MeFOSA-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSA-M)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 30

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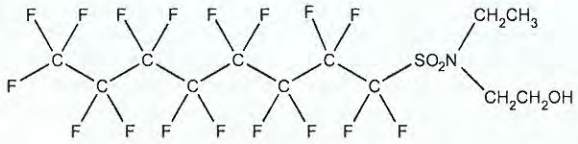
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: N-EtFOSE-M ✓ **LOT NUMBER:** NEtFOSE0417M

COMPOUND: 2-(N-ethylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 1691-99-2



MOLECULAR FORMULA:	$C_{12}H_{10}F_{17}NO_3S$	**MOLECULAR WEIGHT:**	571.25
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/24/2017 (HRGC/LRMS) 04/21/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	04/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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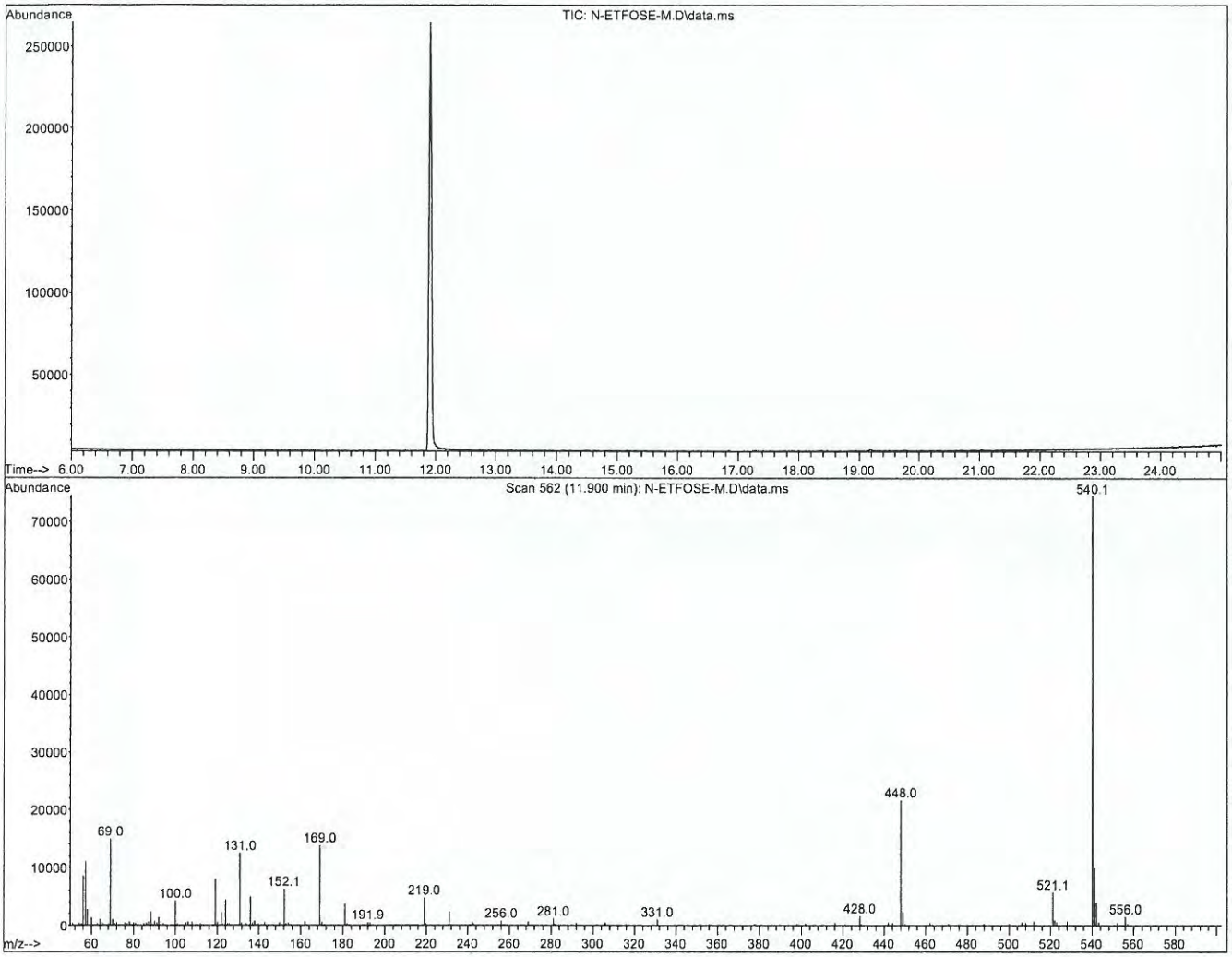
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Figure 1: **N-EtFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



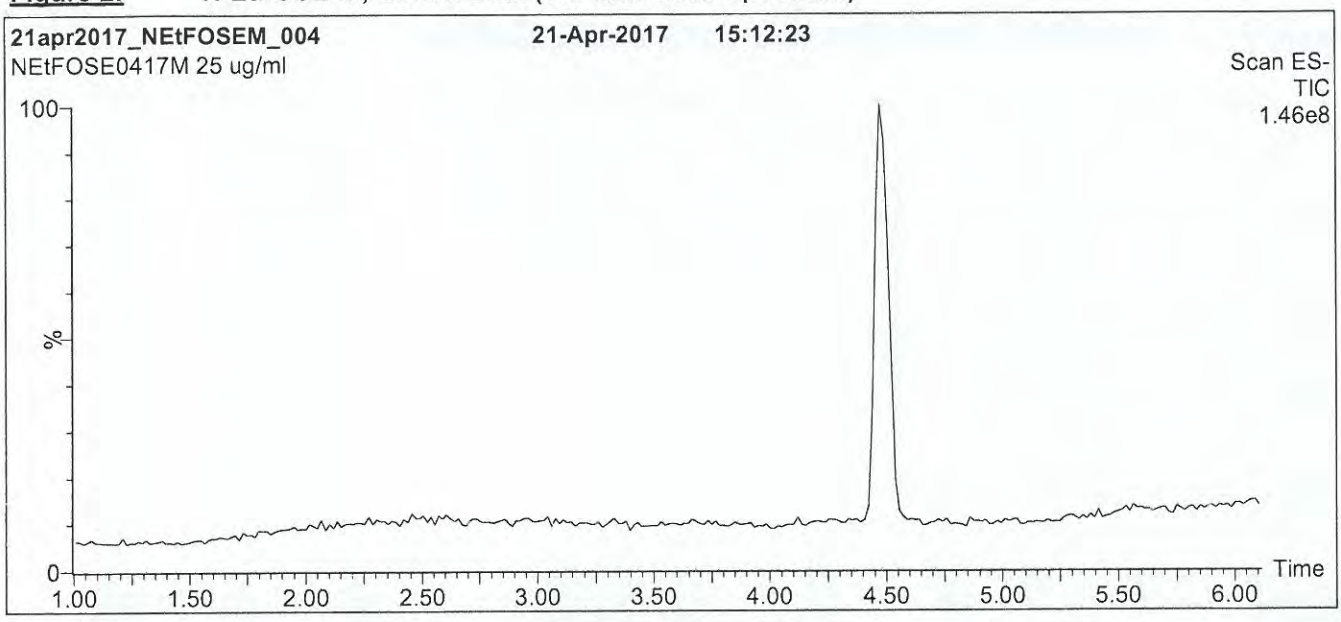
HRGC/LRMS:

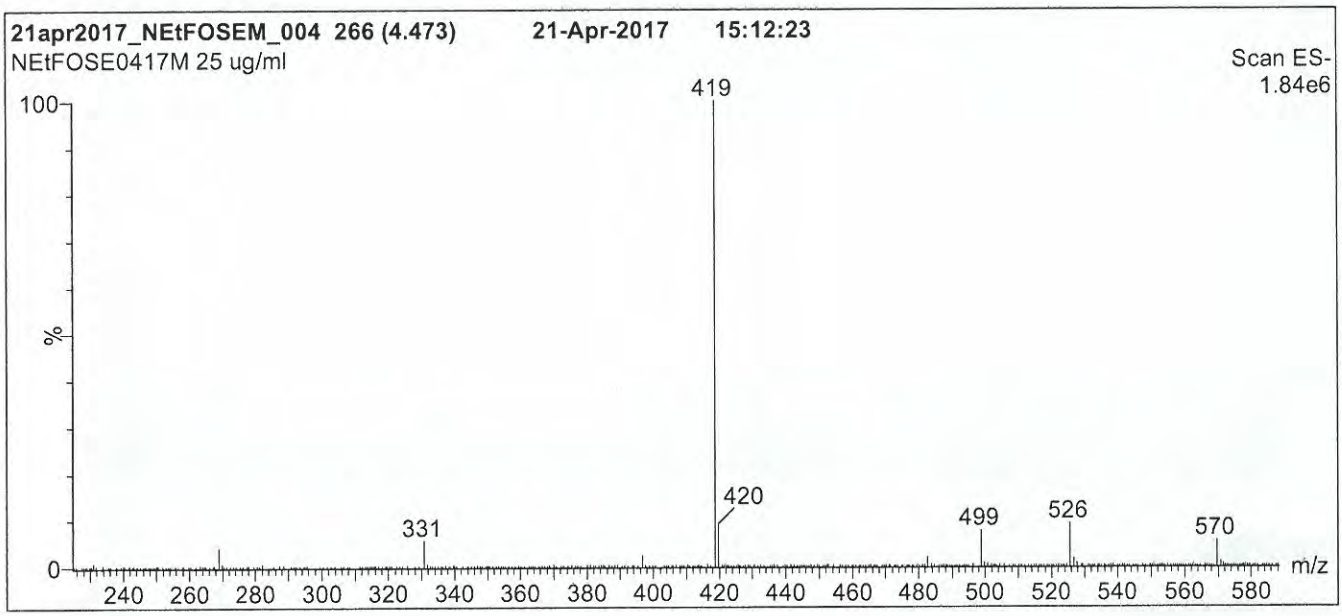
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: **N-EtFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% MeOH / 40% H_2O
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

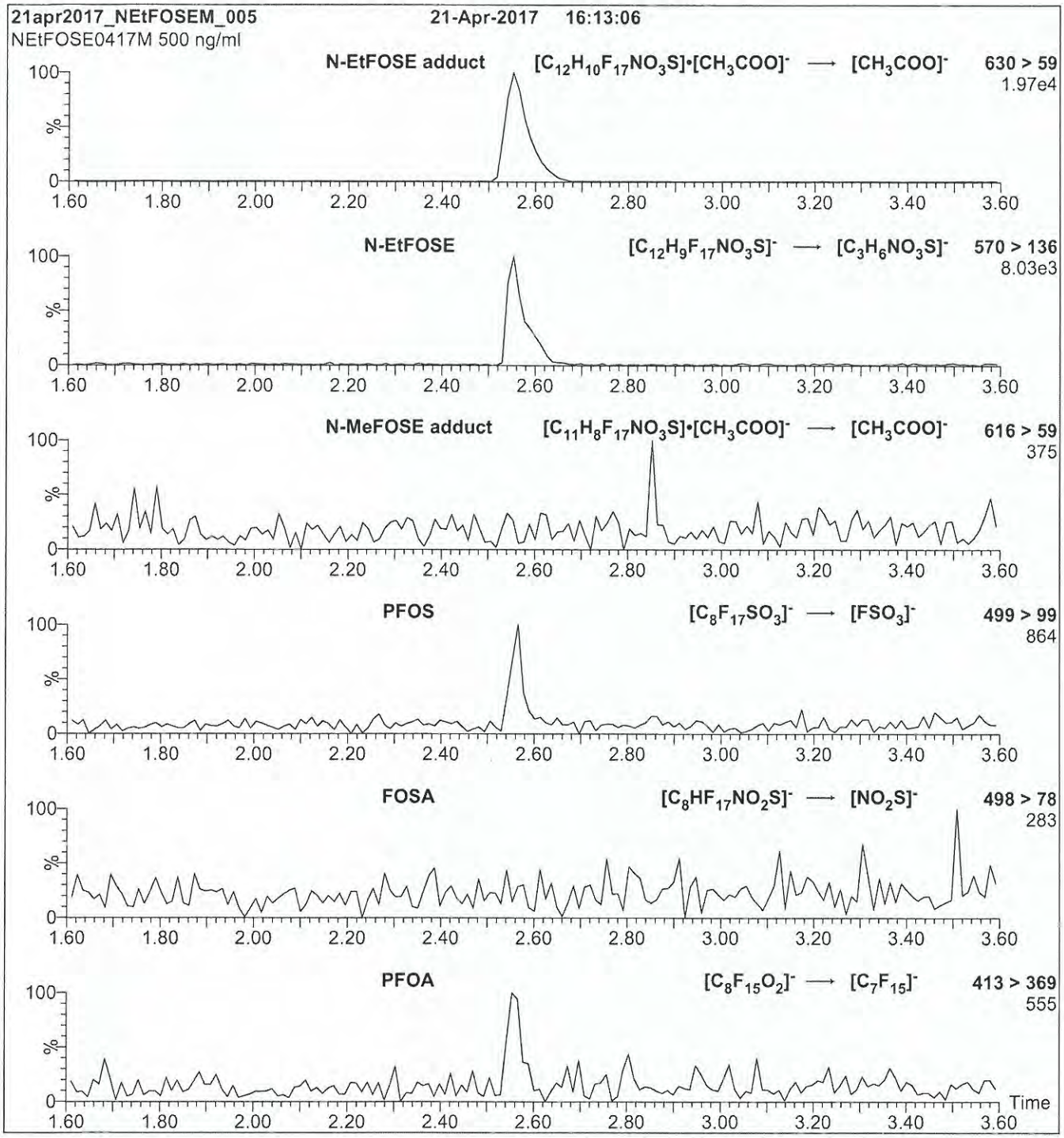
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

Figure 3: **N-EtFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml N-EtFOSE-M)

Mobile phase: Isocratic 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 33

17H0830

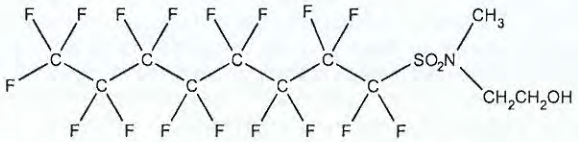
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: N-MeFOSE-M **LOT NUMBER:** NMeFOSE0417M

COMPOUND: 2-(N-methylperfluoro-1-octanesulfonamido)-ethanol

STRUCTURE: **CAS #:** 24448-09-7



MOLECULAR FORMULA:	$C_{11}H_8F_{17}NO_3S$	**MOLECULAR WEIGHT:**	557.22
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%		
LAST TESTED: (mm/dd/yyyy)	04/24/2017 (HRGC/LRMS) 04/21/2017 (LC/MS)		
EXPIRY DATE: (mm/dd/yyyy)	04/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: HRGC/LRMS Data (TIC and Mass Spectrum)
Figure 2: LC/MS Data (TIC and Mass Spectrum)
Figure 3: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- In order to see the molecular ion (adduct free), the LC mobile phase should be free of ammonium acetate buffer.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/05/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, ...x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

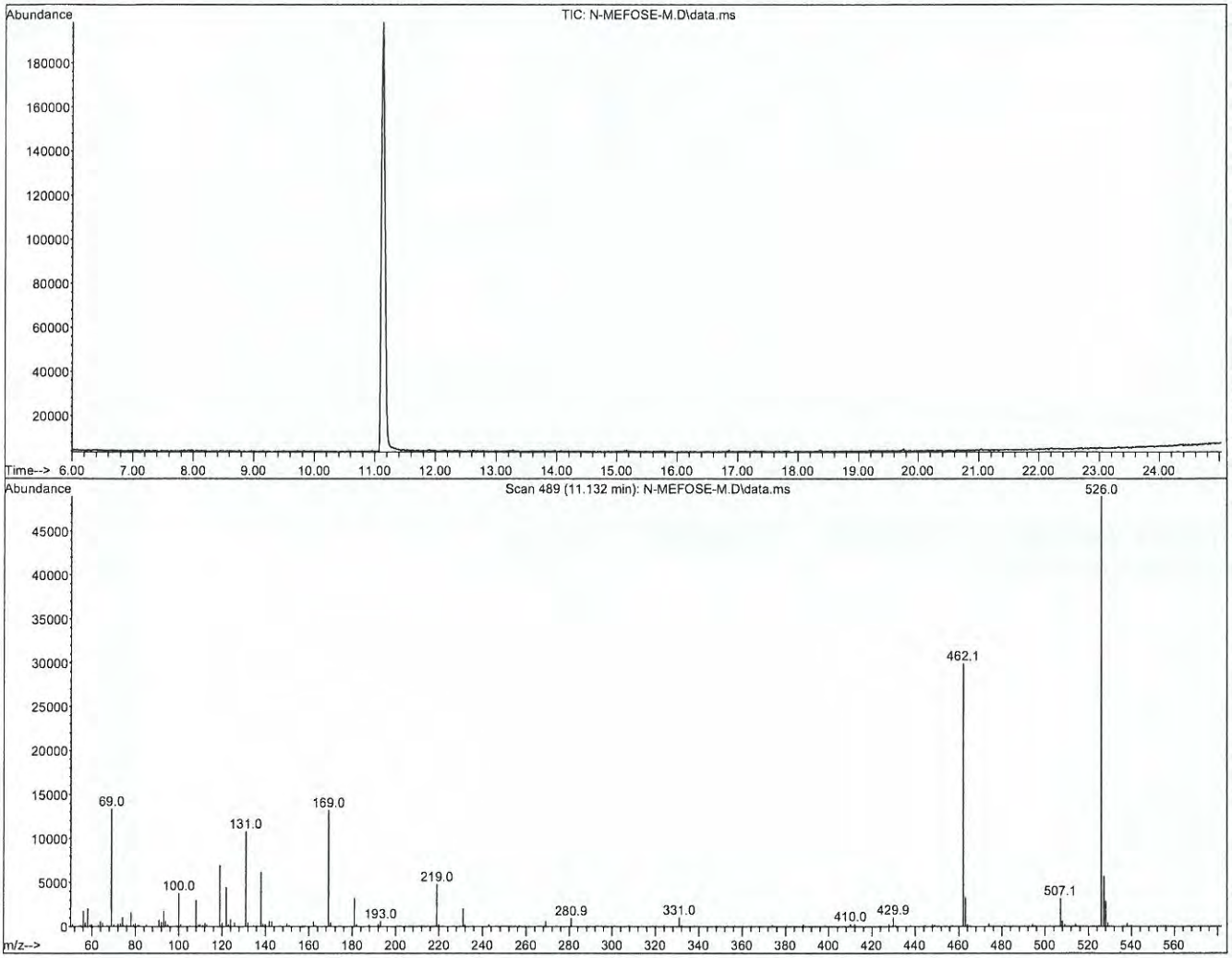
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

CALA Testing

ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **N-MeFOSE-M; HRGC/LRMS Data (TIC and Mass Spectrum)**



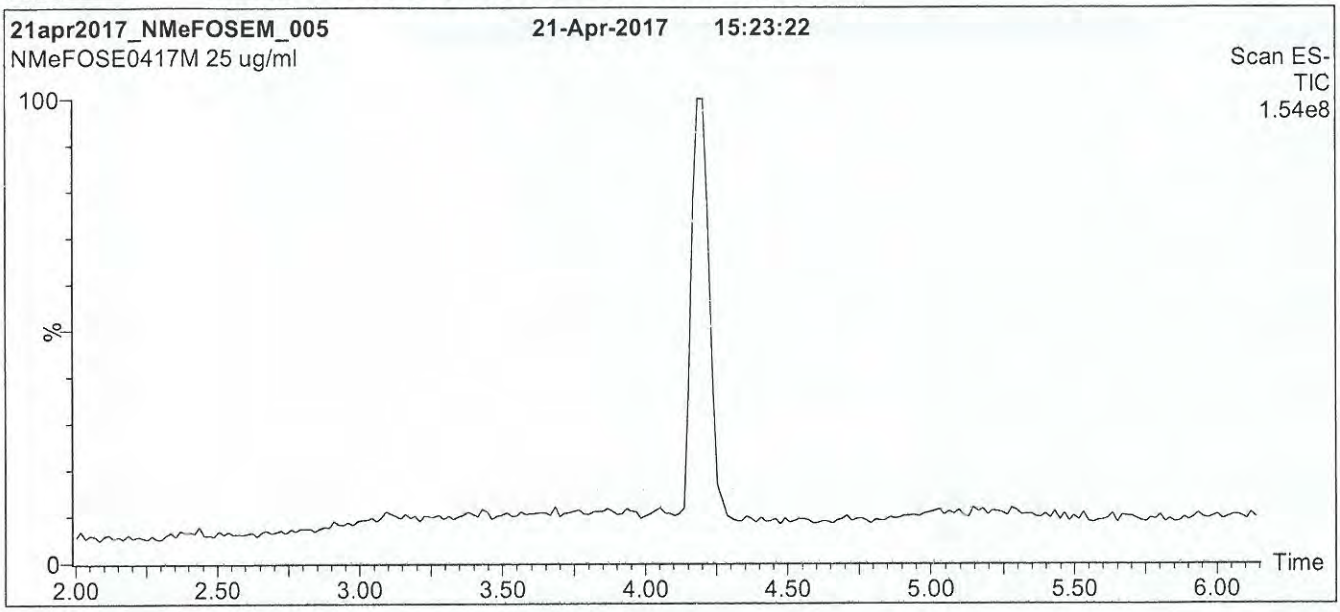
HRGC/LRMS:

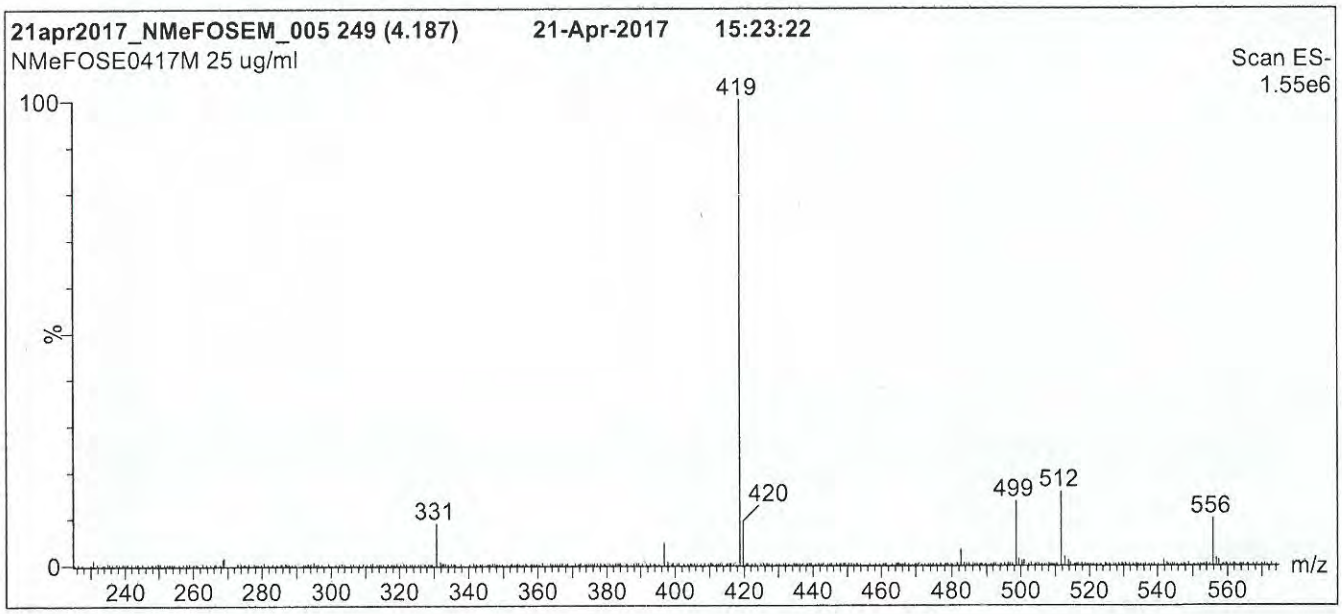
Agilent 7890A (HRGC)
Agilent 5975C (LRMS)

Chromatographic Conditions:

Column:	30 m DB-5 (0.25 mm id, 0.25 µm film thickness) Agilent J&W
Injector:	250 °C (Splitless Injection)
Oven:	100 °C (5 min)
	10 °C/min to 325 °C
	325 °C (20 min)
Ionization:	EI+
Detector:	250 °C
	Full Scan (50-1000 amu)

Figure 2: **N-MeFOSE-M; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 2:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% MeOH / 40% H_2O
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

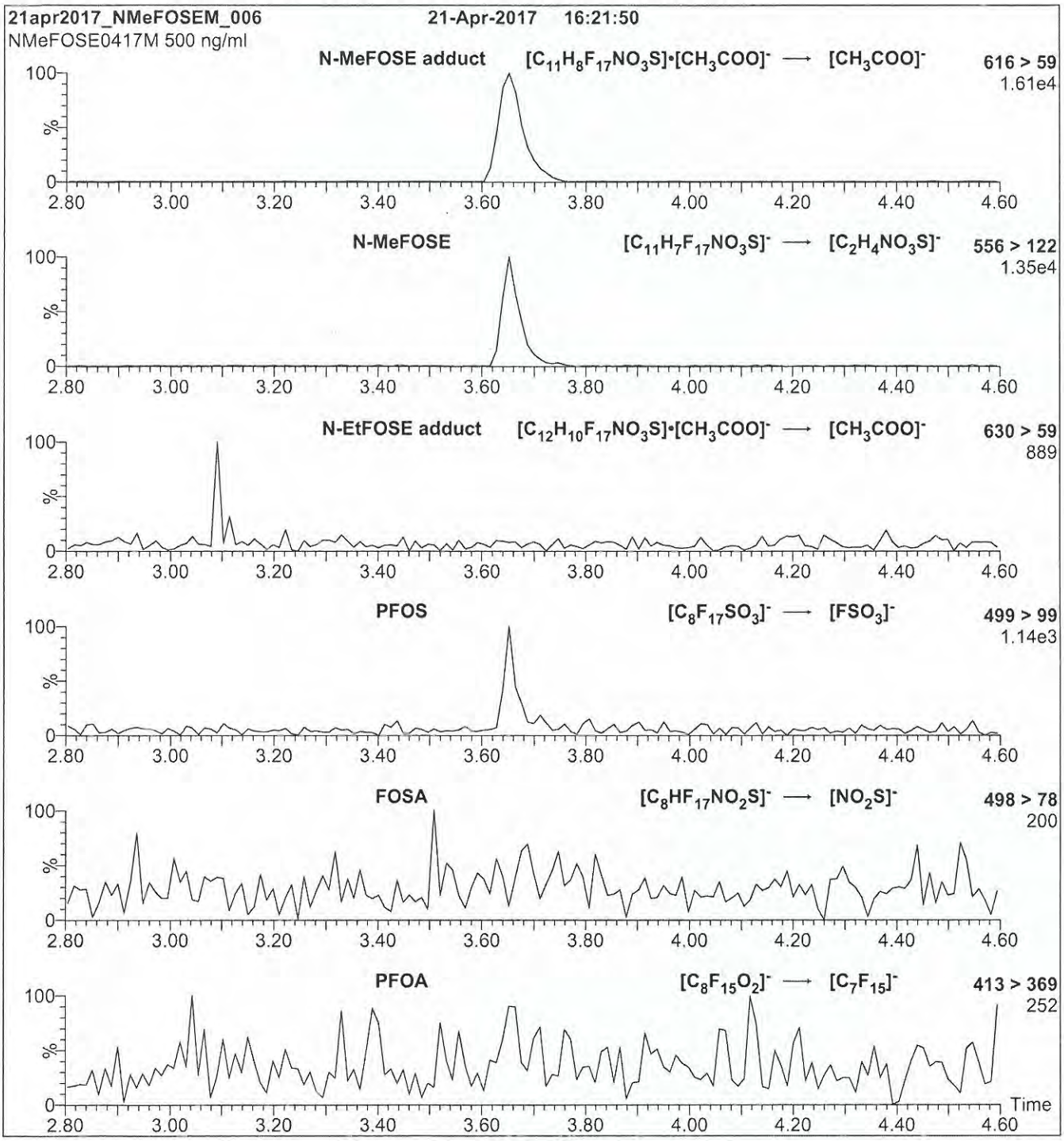
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 3: **N-MeFOSE-M; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 3:

Injection: Direct loop injection
10 µl (500 ng/ml N-MeFOSE-M)

Mobile phase: Isocratic 80% MeOH / 20% H_2O

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 35

Analytical Standard Record

Vista Analytical Laboratory

17L0402

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
17E1716	13C2-PFHxA	17-May-17	** Vendor **	22-Nov-21	0.2
17H0801	13C2-PFHxDA	08-Aug-17	** Vendor **	07-Jan-21	0.2
17K0802	d3-N-Me-FOSAA	08-Nov-17	** Vendor **	19-May-22	0.5
17K0803	d5-N-EtFOSAA	08-Nov-17	** Vendor **	22-Nov-21	0.5
17K0804	13C3-PFBA	08-Nov-17	** Vendor **	27-May-21	0.5
17K0805	13C2-8:2 FTS	08-Nov-17	** Vendor **	05-Jul-22	0.522
17K0807	13C2-6:2 FTS	08-Nov-17	** Vendor **	17-Feb-22	0.526
17K0810	13C5-PFNA	08-Nov-17	** Vendor **	30-Sep-21	0.5
17K0812	13C2-PFTeDA	08-Nov-17	** Vendor **	01-Mar-22	0.5
17K0813	13C2-PFUdA	08-Nov-17	** Vendor **	22-Nov-21	0.5
17K0814	13C4-PFHpA	08-Nov-17	** Vendor **	03-May-22	0.5
17K0816	13C2-PFDoA	08-Nov-17	** Vendor **	23-May-22	0.5
17K0818	18O2-PFHxS	08-Nov-17	** Vendor **	17-Feb-22	0.529
17K0819	13C8-PFOS	08-Nov-17	** Vendor **	30-Sep-21	0.539
17K0821	13C3-PFBS	08-Nov-17	** Vendor **	24-May-22	0.538
17K3038	13C8-FOSA-I	30-Nov-17	** Vendor **	11-Oct-22	0.5
17K3039	13C2-PFDA	30-Nov-17	** Vendor **	13-Jul-22	0.5
17K3040	13C2-PFOA	30-Nov-17	** Vendor **	26-Oct-22	0.5
17K3041	13C3-PFPeA	30-Nov-17	** Vendor **	20-Apr-22	0.5

Description:	PFC - IS	Expires:	04-Dec-18
Standard Type:	Reagent	Prepared:	04-Dec-17
Solvent:	MeOH	Prepared By:	Kyle Byrd-Fisher
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

Analyte	CAS Number	Concentration	Units
13C3-PFBS		1.25	ug/mL
13C2-8:2 FTS		1.25	ug/mL
13C2-PFDA		1.25	ug/mL
13C2-PFDoA		1.25	ug/mL
13C2-PFHxA		0.5	ug/mL
13C2-PFHxDA		0.5	ug/mL
13C2-PFOA		1.25	ug/mL
13C2-PFTeDA		1.25	ug/mL
13C2-6:2 FTS		1.25	ug/mL
13C3-PFBA		1.25	ug/mL
d5-EtFOSAA		1.25	ug/mL
13C3-PFPeA		1.25	ug/mL
13C4-PFHpA		1.25	ug/mL
13C5-PFNA		1.25	ug/mL

Analytical Standard Record

Vista Analytical Laboratory

17L0402

Description:	PFC - IS	Expires:	04-Dec-18
Standard Type:	Reagent	Prepared:	04-Dec-17
Solvent:	MeOH	Prepared By:	Kyle Byrd-Fisher
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	12-Dec-17 09:51 by AEW

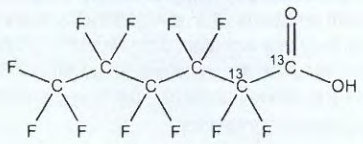
Analyte	CAS Number	Concentration	Units
13C8-PFOS		1.25	ug/mL
13C8-PFOSA		1.25	ug/mL
18O2-PFHxS		1.25	ug/mL
d3-MeFOSAA		1.25	ug/mL
13C2-PFUnA		1.25	ug/mL

17E1716

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	MPFHxA	**LOT NUMBER:**	MPFHxA1116
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]hexanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_4HF_{11}O_2$	**MOLECULAR WEIGHT:**	316.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of perfluoro-n-hexanoic acid and ~ 0.3% of perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/13/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17H0801

WELLINGTON LABORATORIES

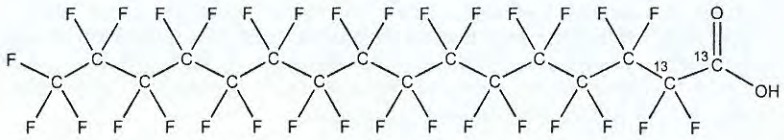
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFHxDA ✓
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]hexadecanoic acid

LOT NUMBER: M2PFHxDA1112

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{14}HF_{31}O_2$	**MOLECULAR WEIGHT:**	816.11
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	01/07/2016		
EXPIRY DATE: (mm/dd/yyyy)	01/07/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.3% of native perfluoro-n-hexadecanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 01/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

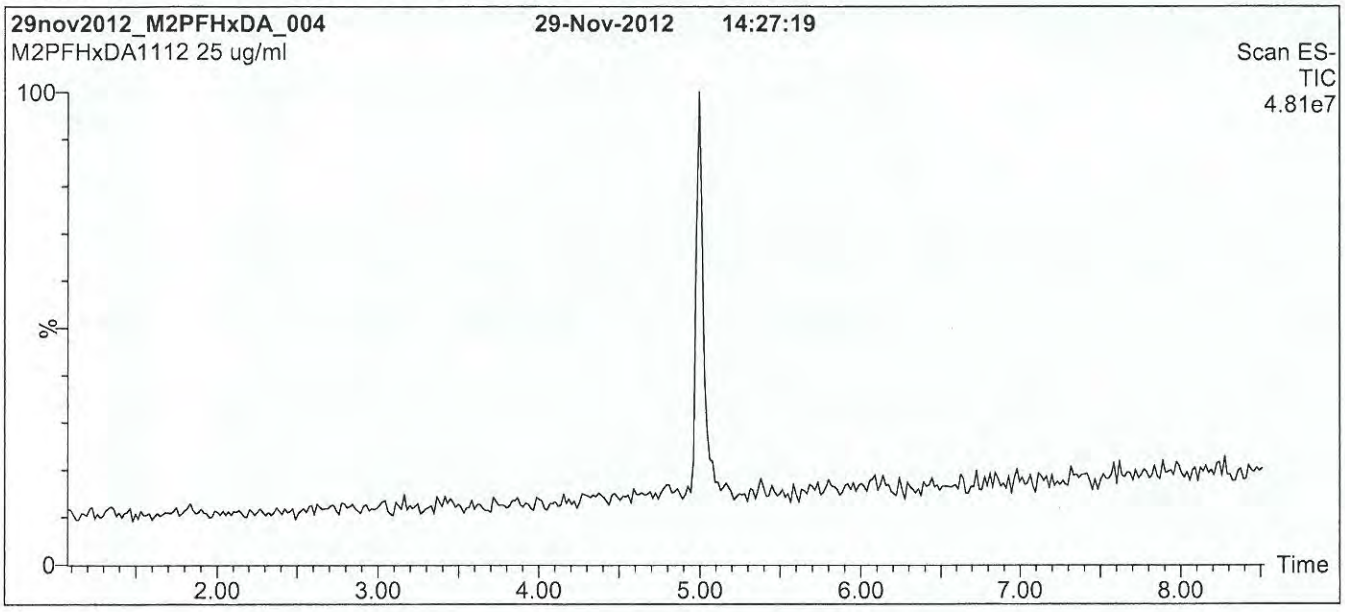
This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

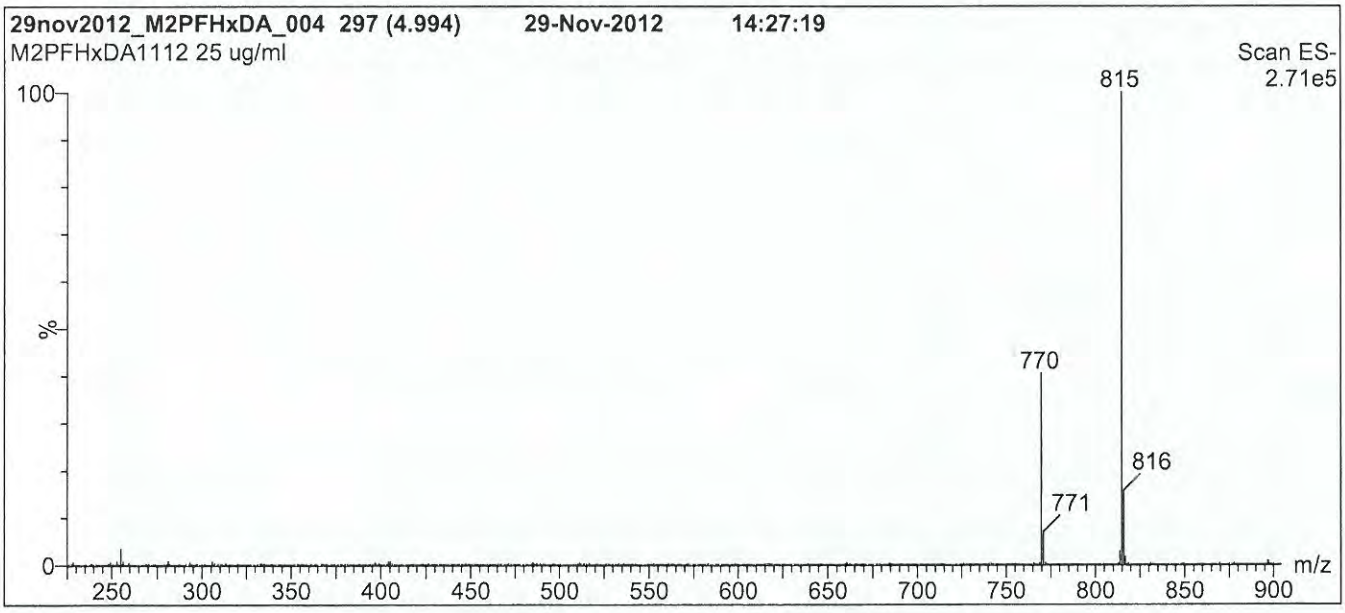
CALA Testing Accreditation No. A 1226

ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

Figure 1: **M2PFHxDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 100% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

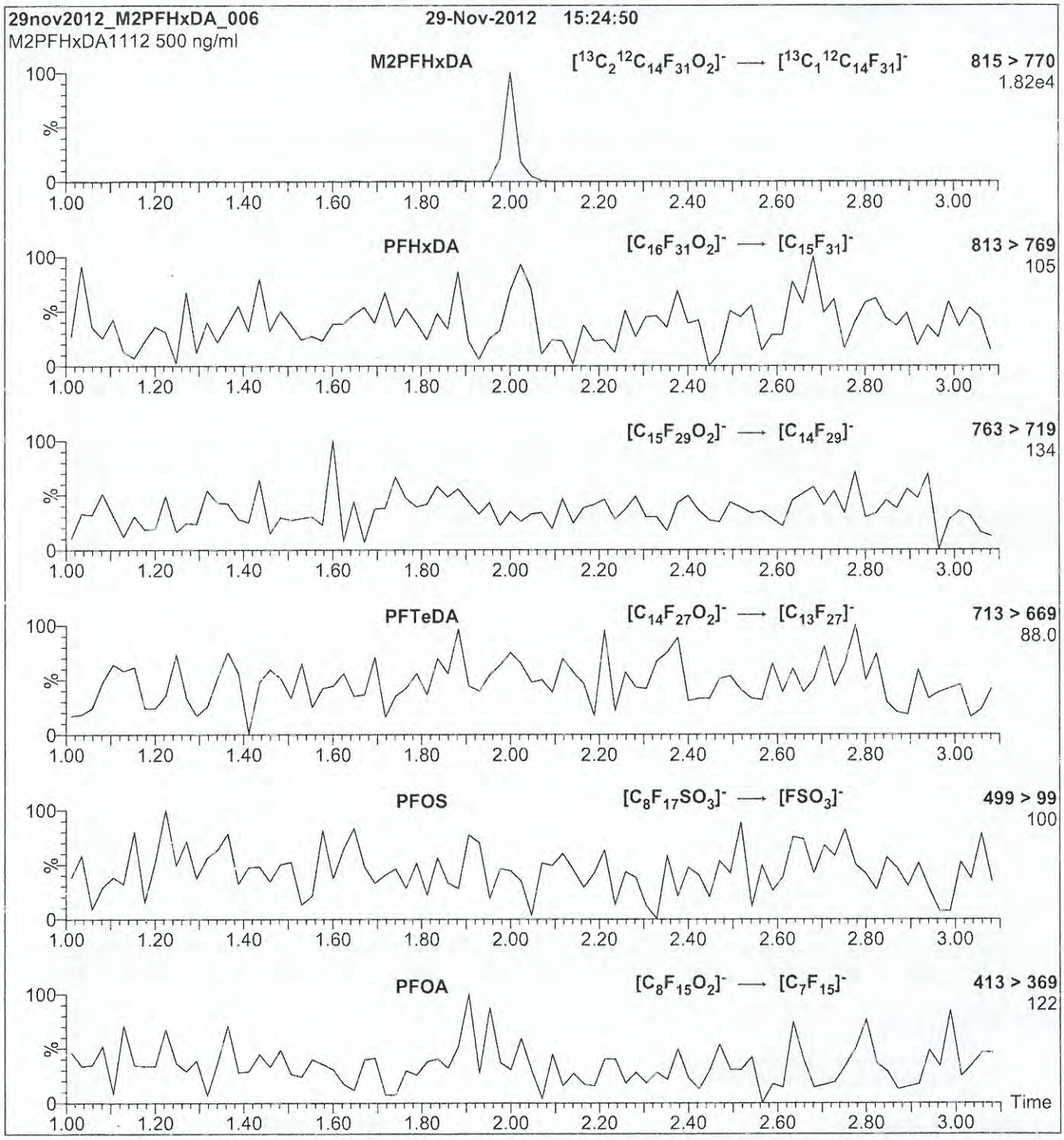
Flow: 300 µl/min

MS Parameters

Experiment: Full Scan (225 - 1200 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 25.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

Figure 2: **M2PFHxDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFHxDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 15

17K0802

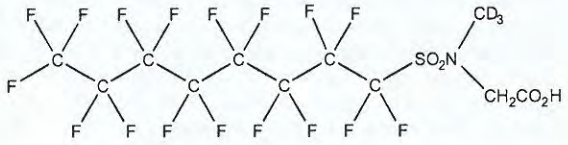
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d3-N-MeFOSAA **LOT NUMBER:** d3NMeFOSAA0517

COMPOUND: N-methyl-d3-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{11}D_3H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	574.23
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_3$
LAST TESTED: (mm/dd/yyyy)	05/19/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/19/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/31/2017 (mm/dd/yyyy)

B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0802

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

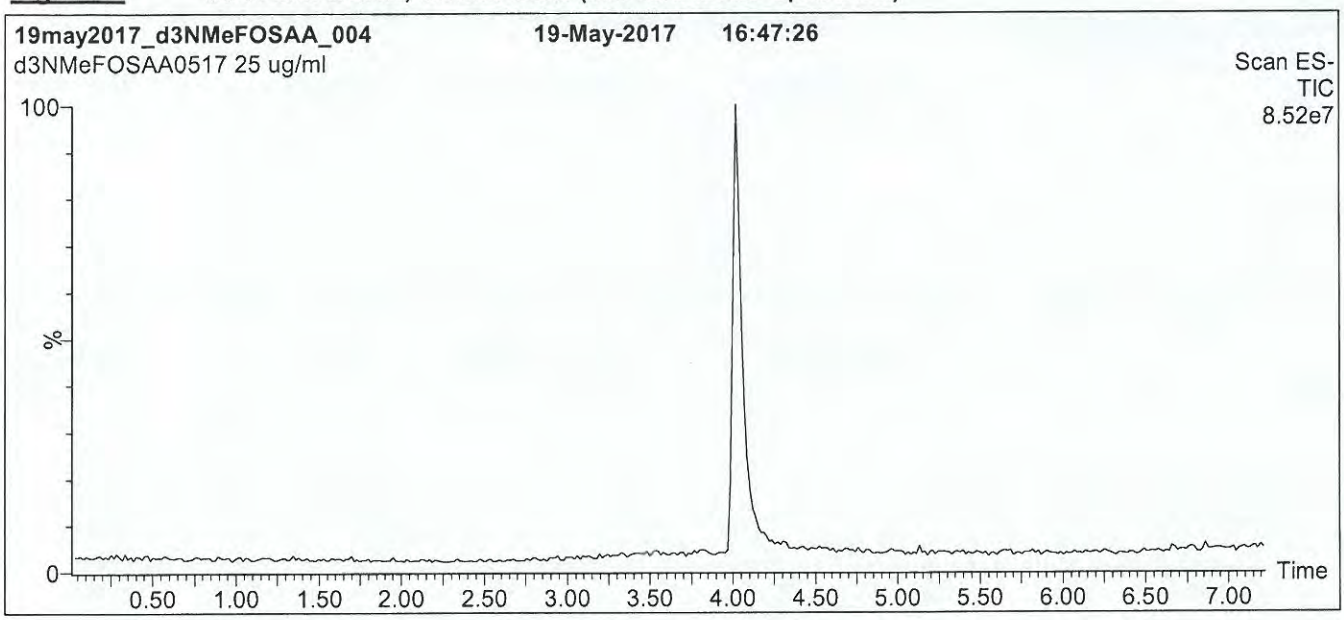
CALA Testing

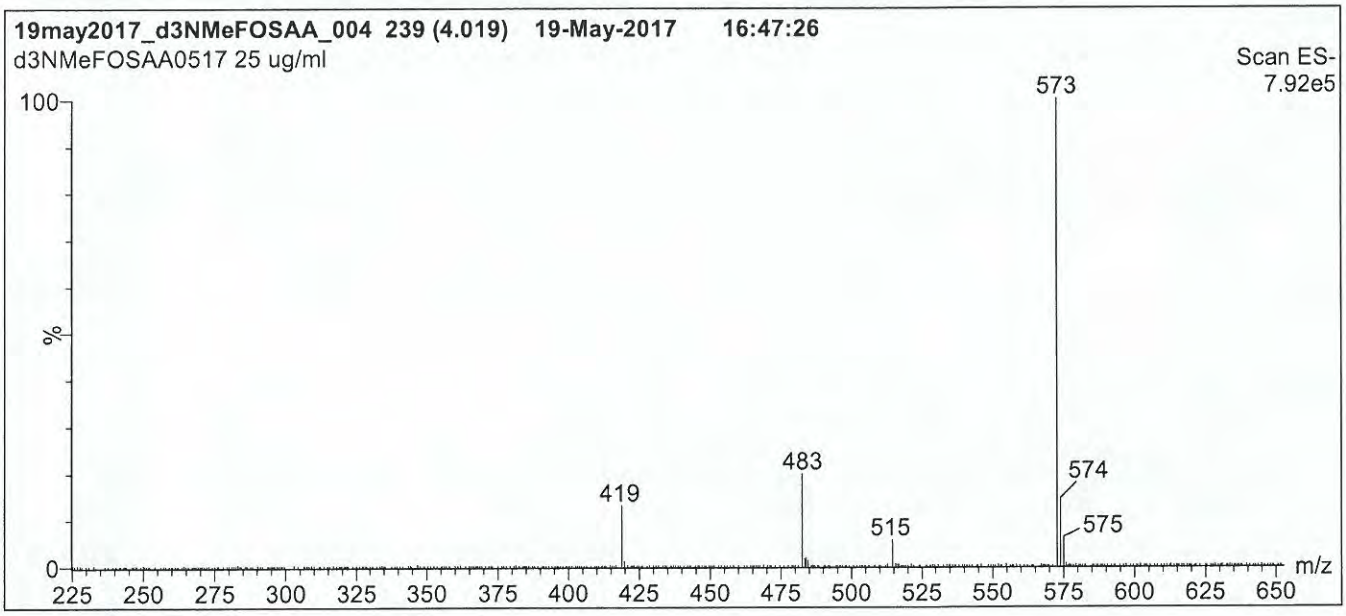
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0802

Figure 1: **d3-N-MeFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

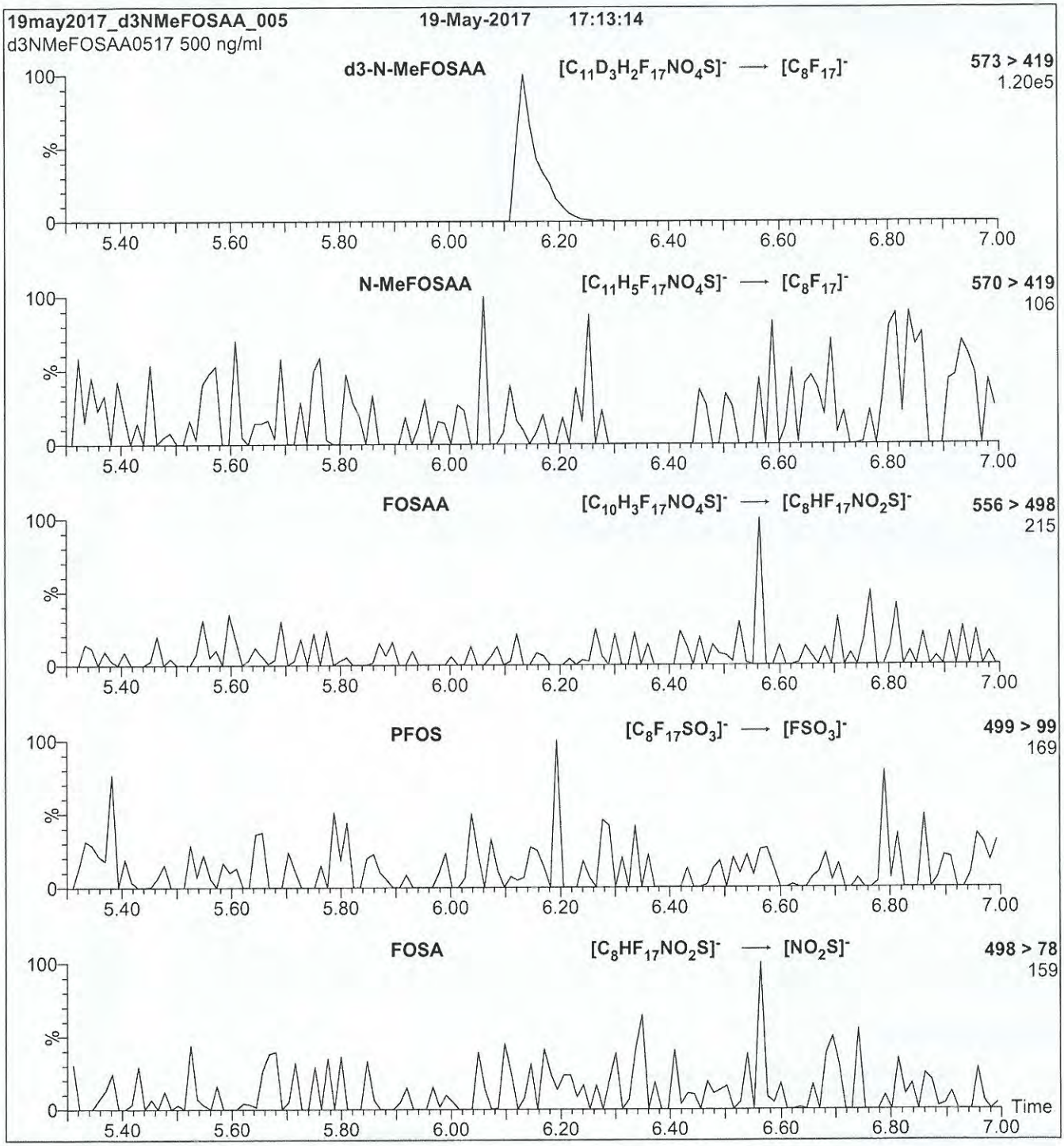
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0802

Figure 2: **d3-N-MeFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d3-N-MeFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 20

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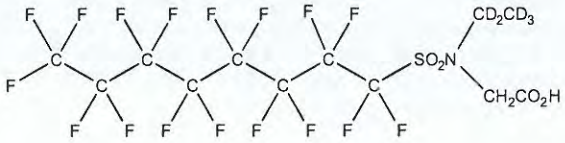
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: d5-N-EtFOSAA **LOT NUMBER:** d5NEtFOSAA1116

COMPOUND: N-ethyl-d5-perfluoro-1-octanesulfonamidoacetic acid

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$C_{12}D_5H_3F_{17}NO_4S$	**MOLECULAR WEIGHT:**	590.26
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥98% $^2H_5$
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent the conversion of the acetic acid moiety to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/01/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0803

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

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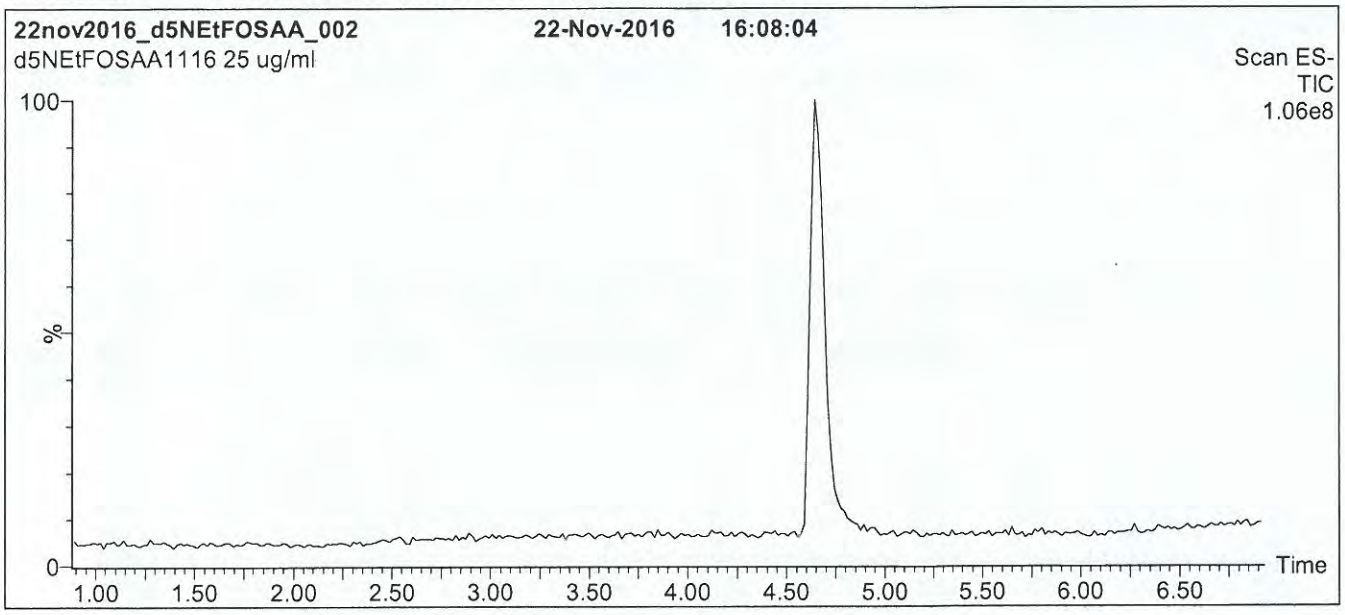
CALA Testing Accreditation No. A1226

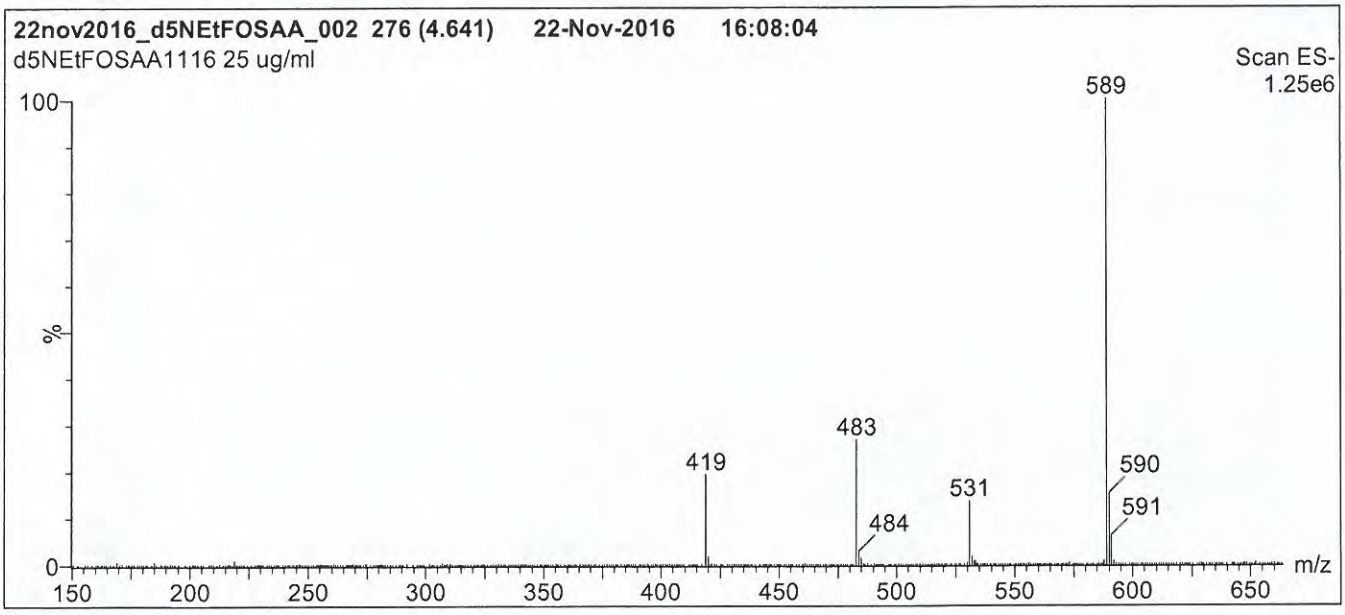
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17K0803

Figure 1: **d5-N-EtFOSAA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

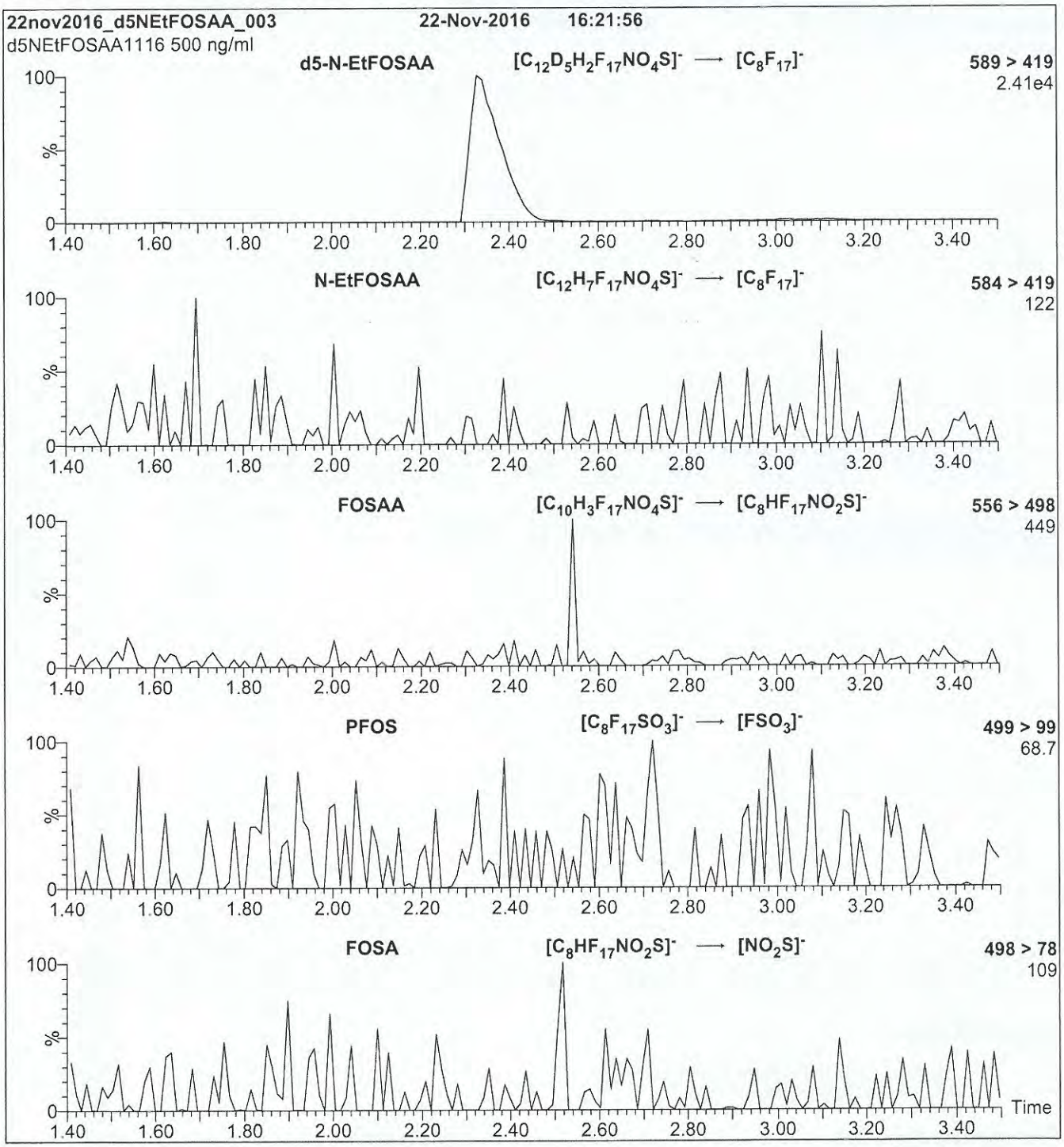
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 35.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0803

Figure 2: **d5-N-EtFOSAA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml d5-N-EtFOSAA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 20

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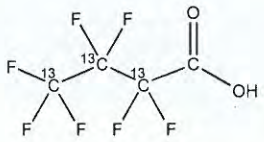
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFBA
COMPOUND: Perfluoro-n-[2,3,4-$^{13}C_3$]butanoic acid

LOT NUMBER: M3PFBA0516

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CHF_7O_2$	**MOLECULAR WEIGHT:**	217.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (2,3,4-$^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/27/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/27/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.2% of perfluoro-n-[$^{13}C_3$]propanoic acid and also contains ~ 1.0% of perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid due to the naturally occurring isotopic abundance of ^{13}C in the unlabelled carbon atom.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 07/08/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0804

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where x is expressed as a relative standard uncertainty of the individual parameter.

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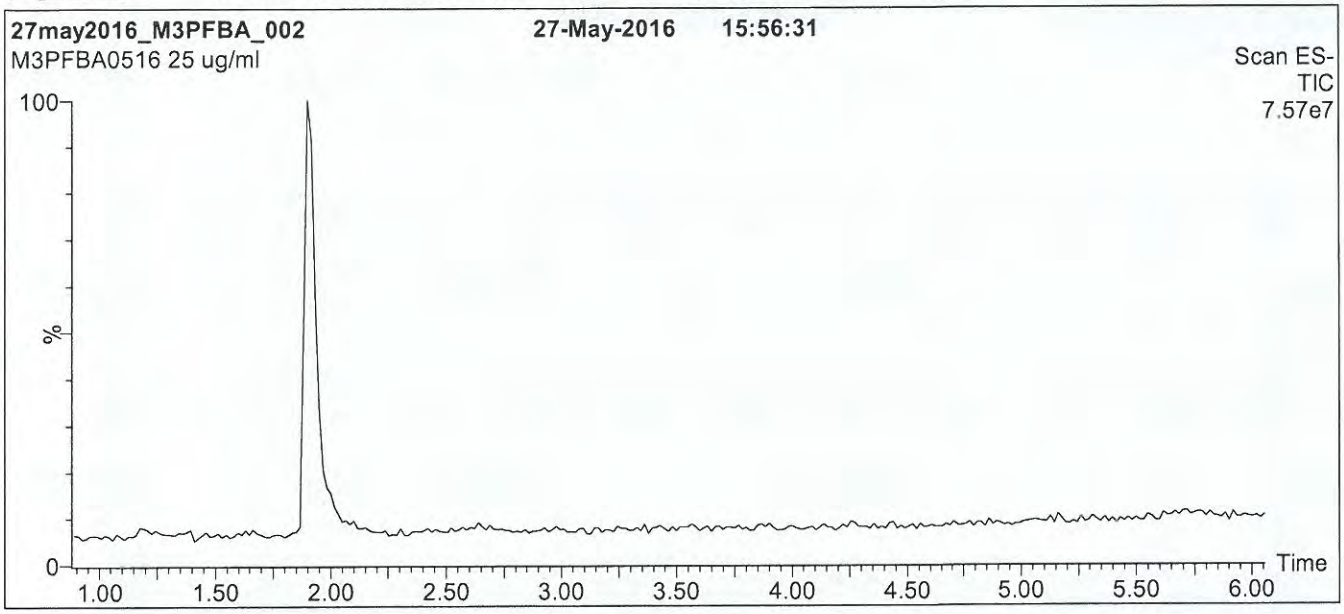
CALA

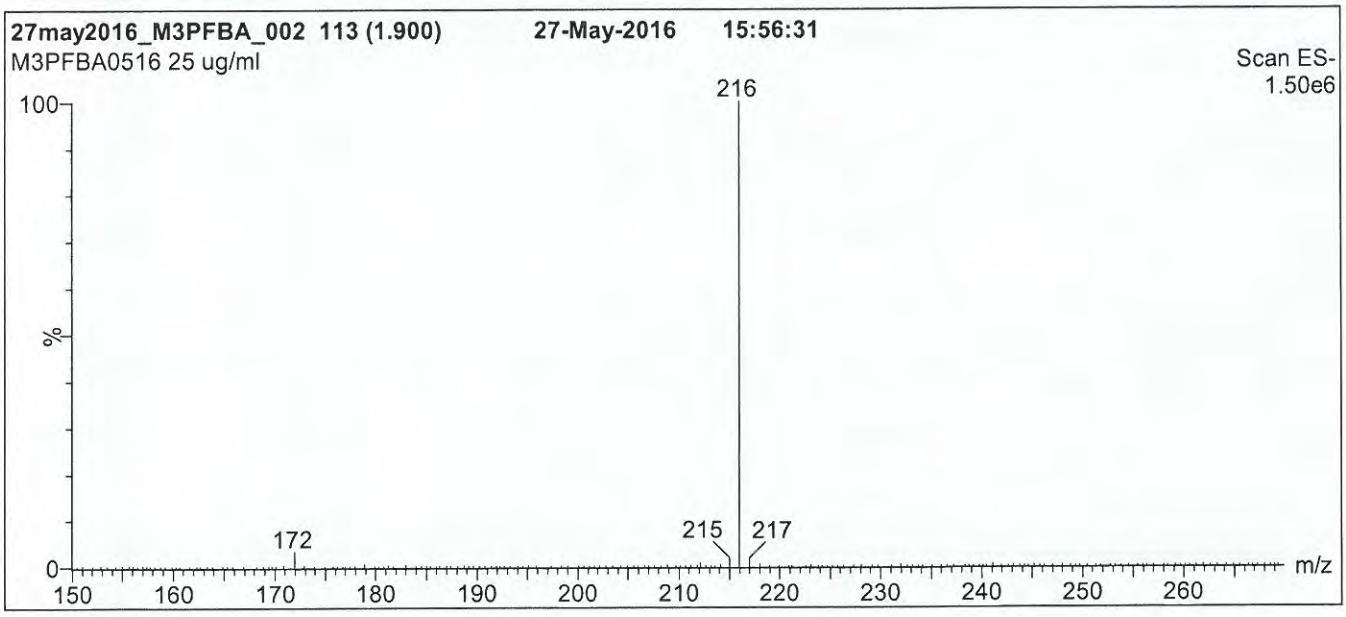
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17K0804

Figure 1: **M3PFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

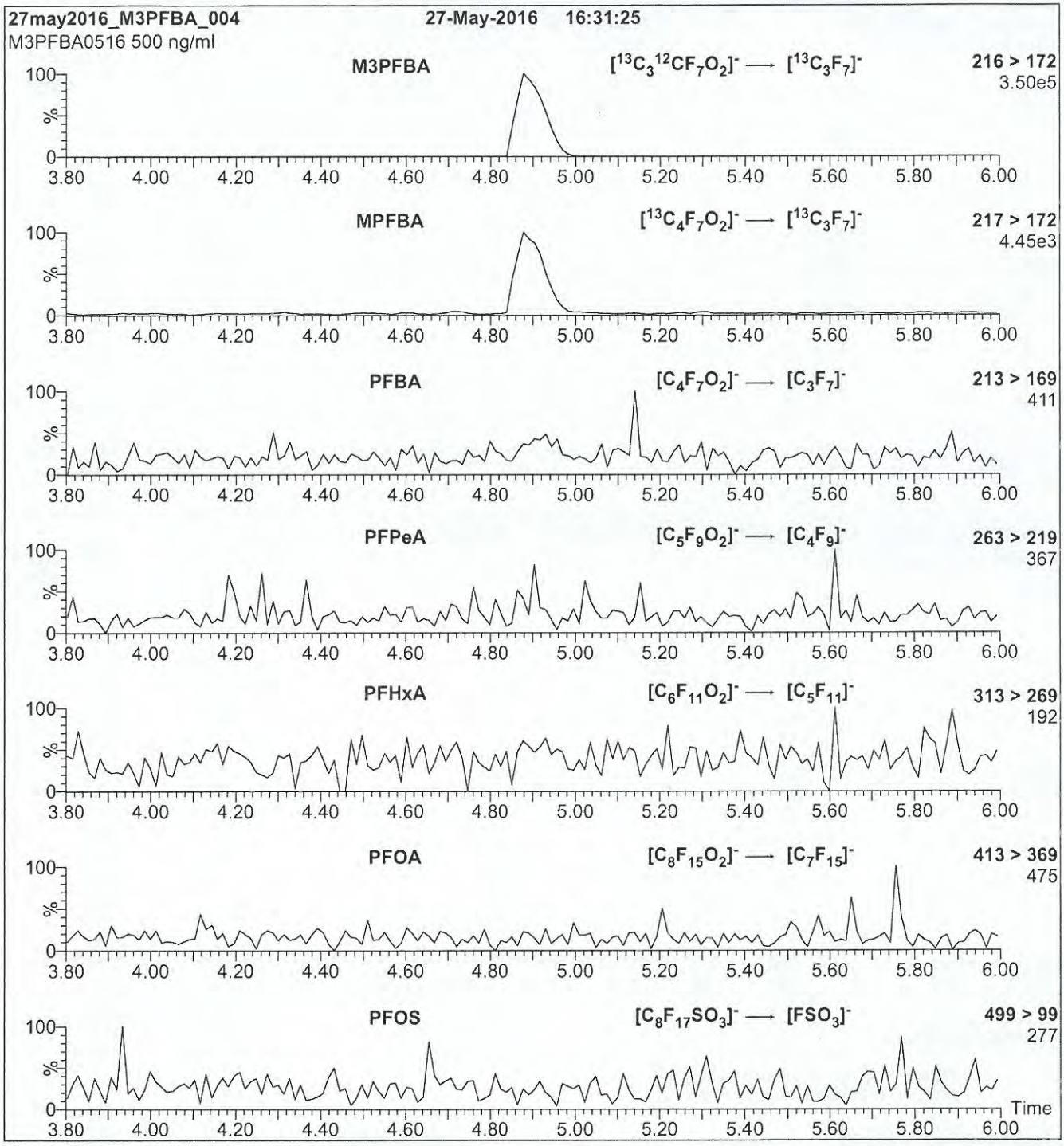
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0804

Figure 2: **M3PFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.62e-3
Collision Energy (eV) = 10

17K0805

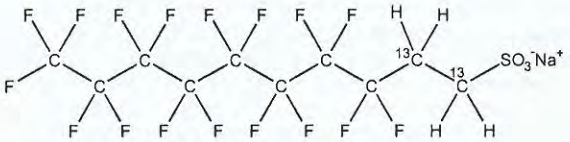
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2-8:2FTS **LOT NUMBER:** M282FTS0717

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]decane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	552.15
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.9 ± 2.4 µg/ml (M2-8:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 8:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 8:2FTS and M2-8:2FTS will produce signals in the m/z 529 to m/z 509 channel during SRM analysis. We recommend using the m/z 529 to m/z 81 transition to monitor for M2-8:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/07/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0805

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

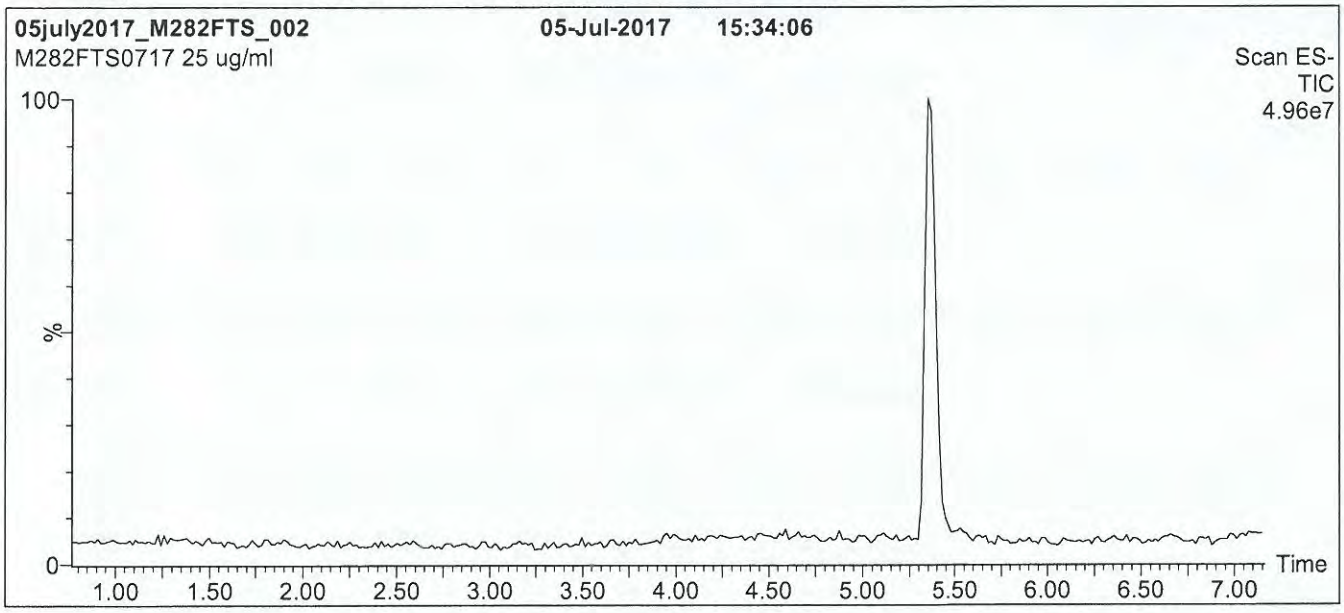
CALA Testing Accreditation No. A1226

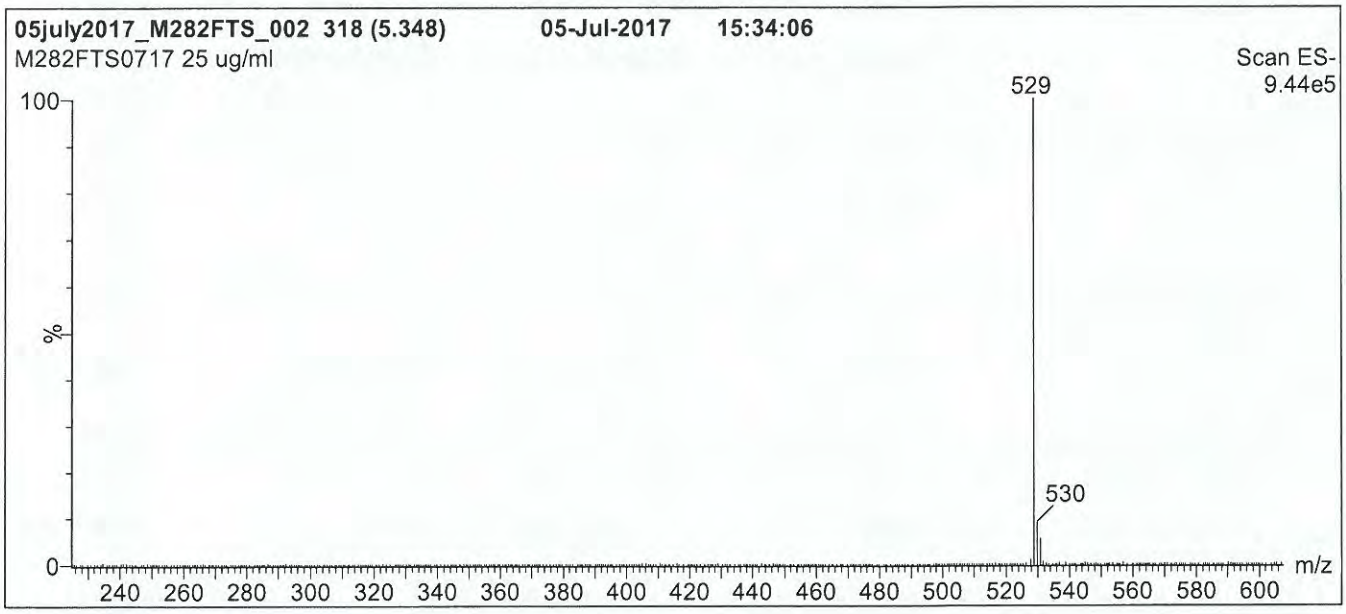
ANAB ACCREDITED

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17K0805

Figure 1: **M2-8:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

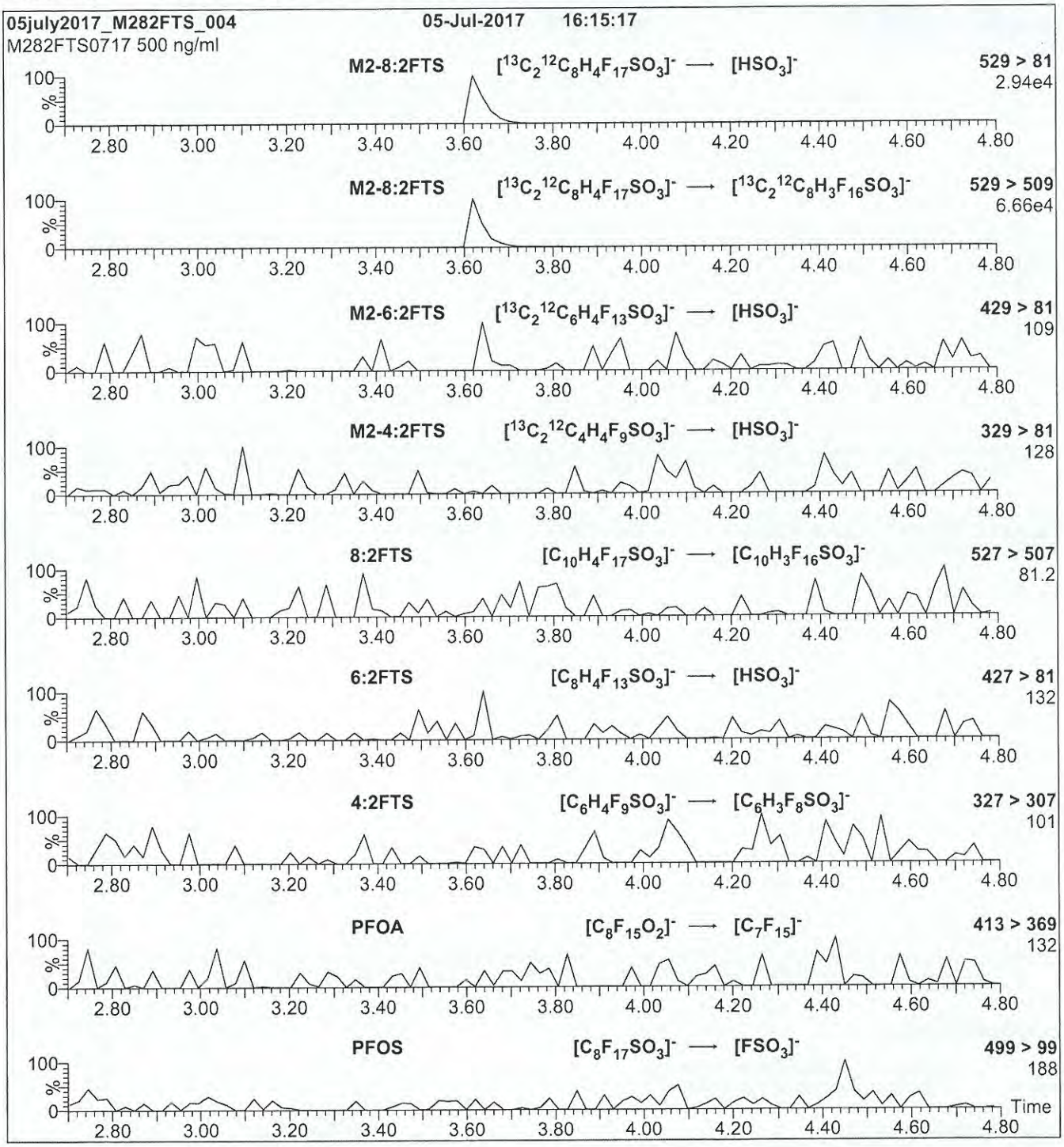
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0805

Figure 2: **M2-8:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-8:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.50e-3
Collision Energy (eV) = 30

17K0807

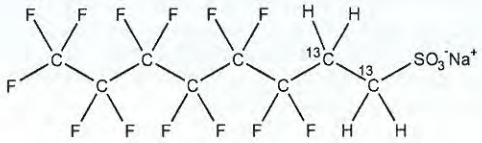
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M2-6:2FTS **LOT NUMBER:** M262FTS0217

COMPOUND: Sodium 1H,1H,2H,2H-perfluoro-[1,2-$^{13}C_2$]octane sulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6H_4F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	452.13
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt)	**SOLVENT(S):**	Methanol
	47.5 ± 2.4 µg/ml (M2-6:2FTS anion)		
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The native 6:2FTS contains 4.22% of ^{34}S (due to natural isotopic abundance) therefore both native 6:2FTS and M2-6:2FTS will produce signals in the m/z 429 to m/z 409 channel during SRM analysis. We recommend using the m/z 429 to m/z 81 transition to monitor for M2-6:2FTS during quantitative analysis as it will be free of any native contribution (see Figure 2).

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Certified By: B.G. Chittim **Date:** 02/24/2017 (mm/dd/yyyy)

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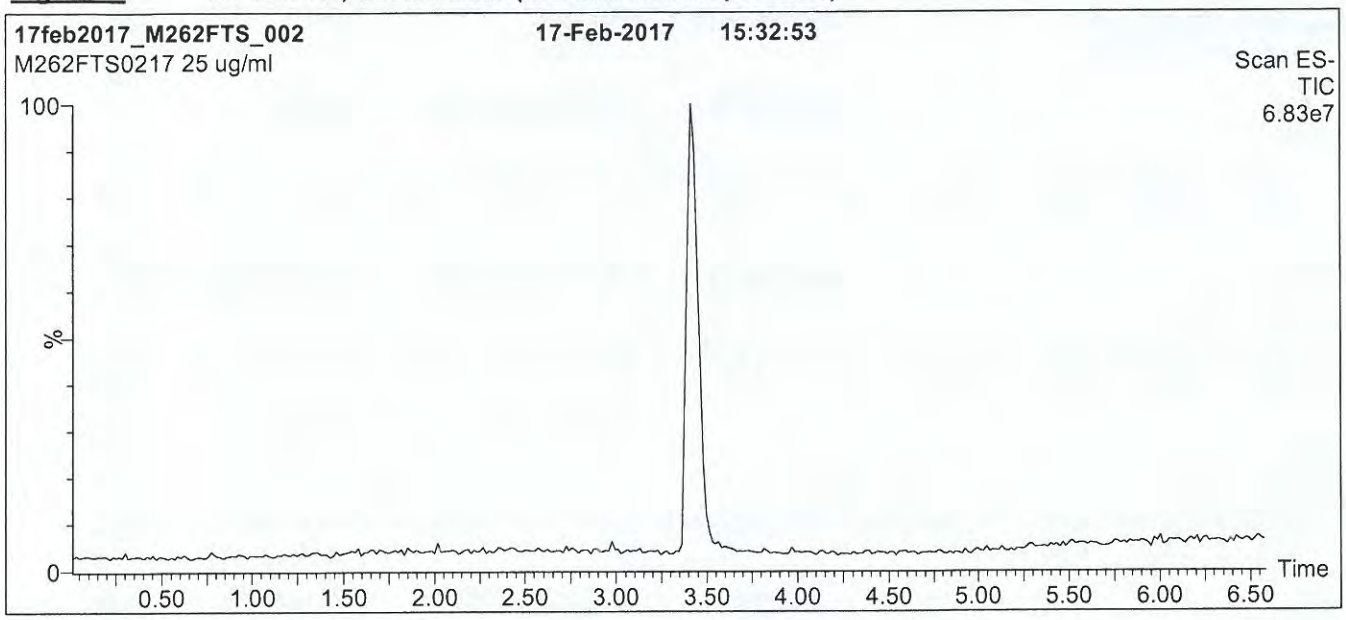
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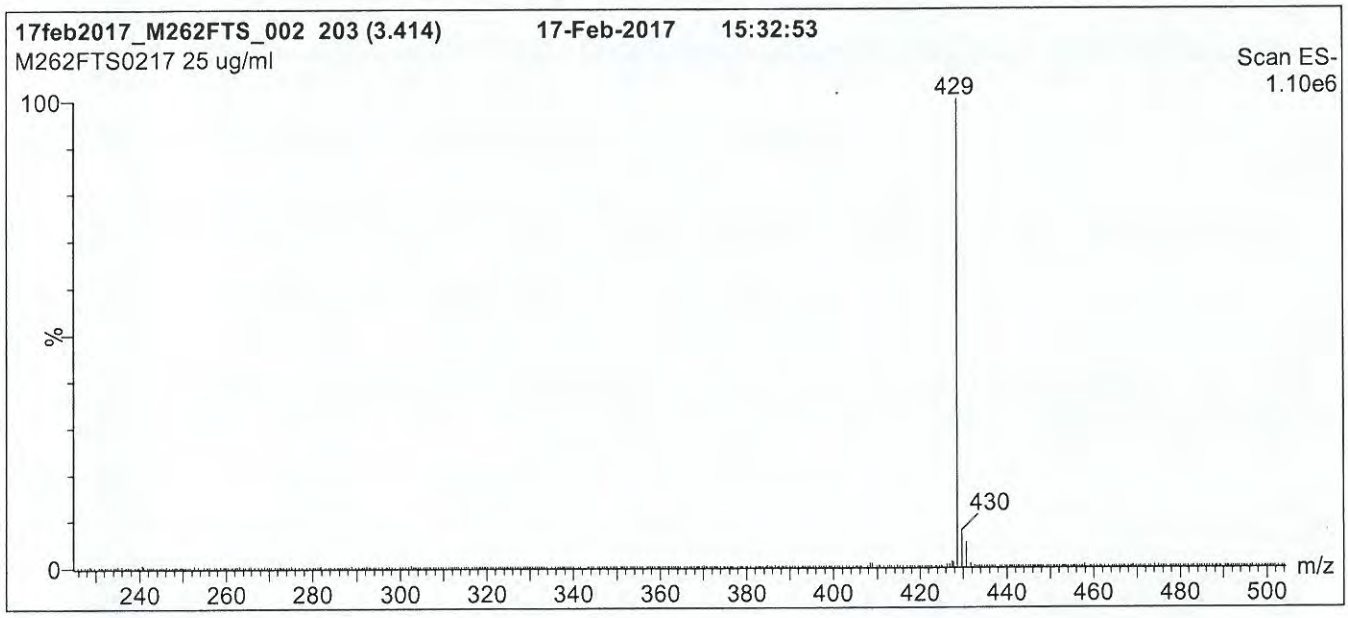
ANAB ACCREDITED ISO 17025 ISO 34 REFERENCE MATERIAL PRODUCER

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17K0807

Figure 1: **M2-6:2FTS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

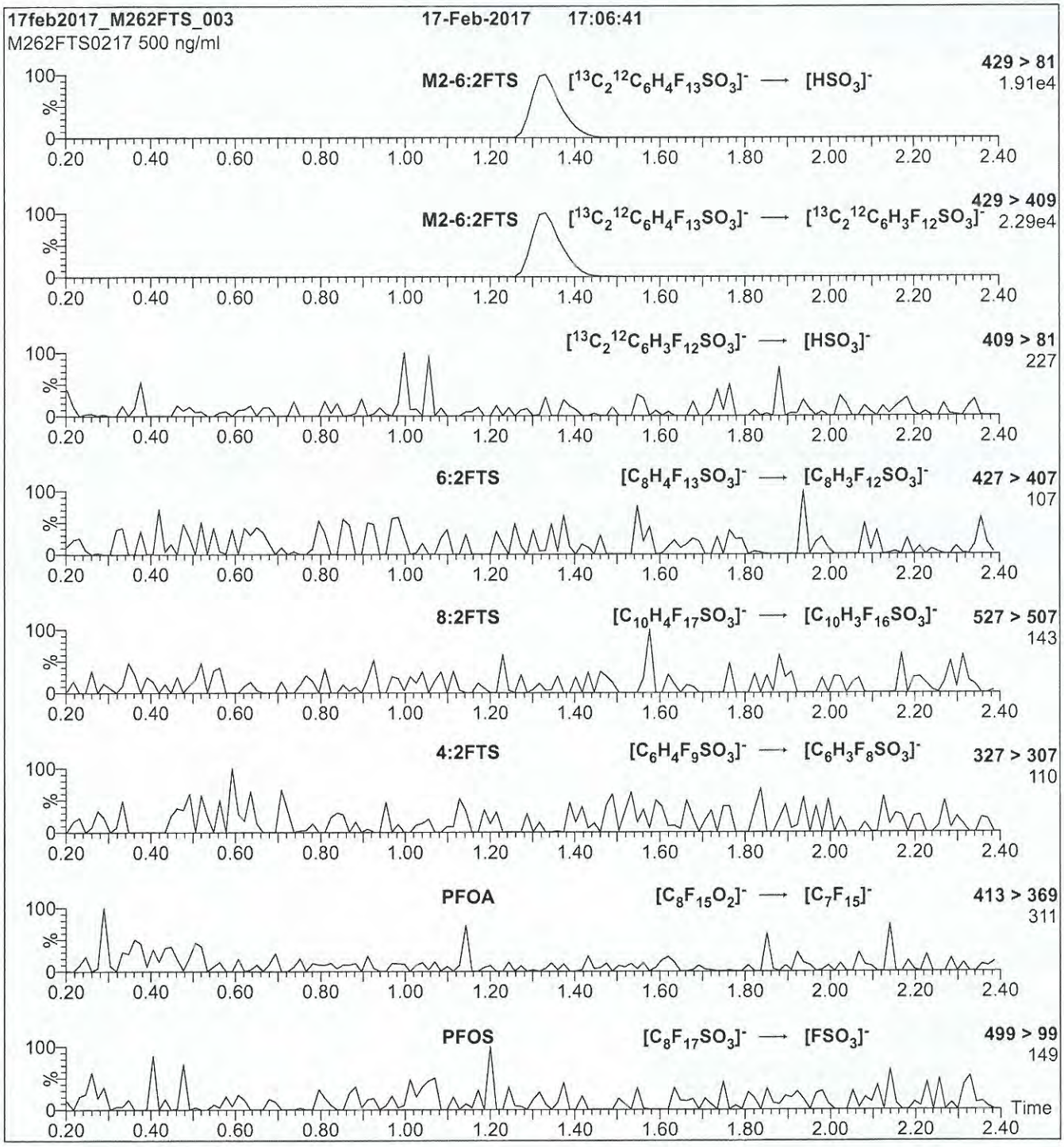
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source:Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 30.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0807

Figure 2: **M2-6:2FTS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2-6:2FTS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 25

17K0810

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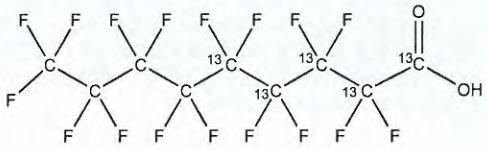
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFNA
COMPOUND: Perfluoro-n-[1,2,3,4,5-$^{13}C_5$]nonanoic acid

LOT NUMBER: MPFNA0916

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_4HF_{17}O_2$	**MOLECULAR WEIGHT:**	469.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4,5$-$^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/11/2016 (mm/dd/yyyy)
B.G. Chittim

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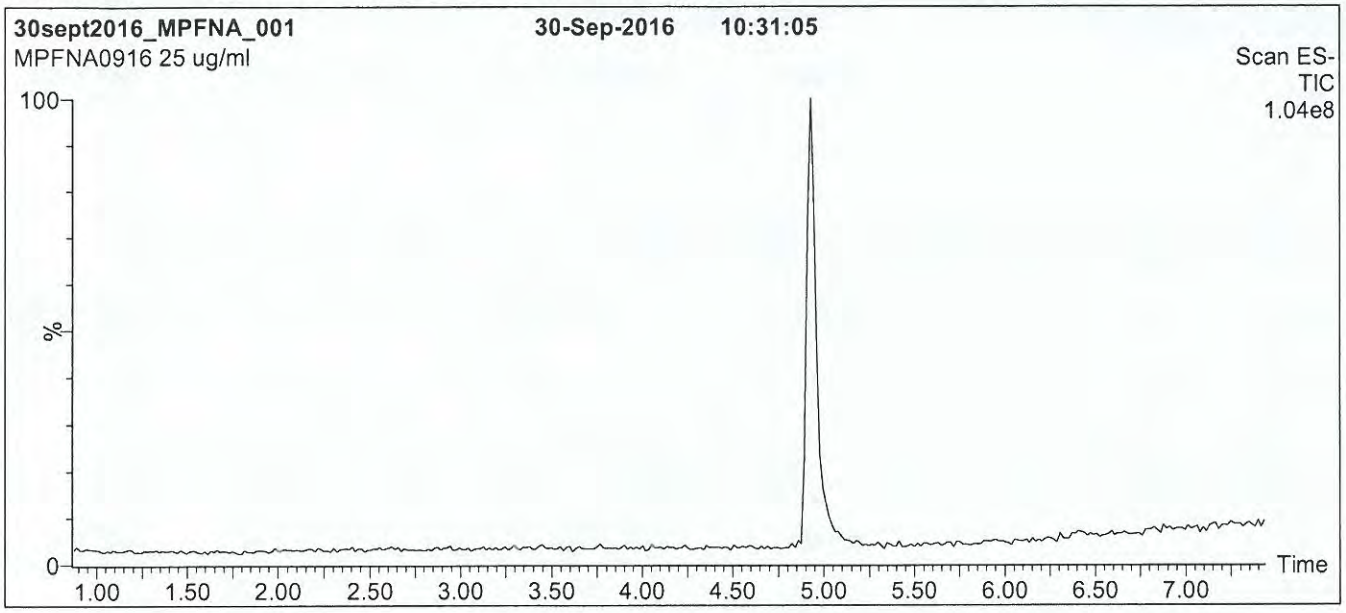
CALA Testing

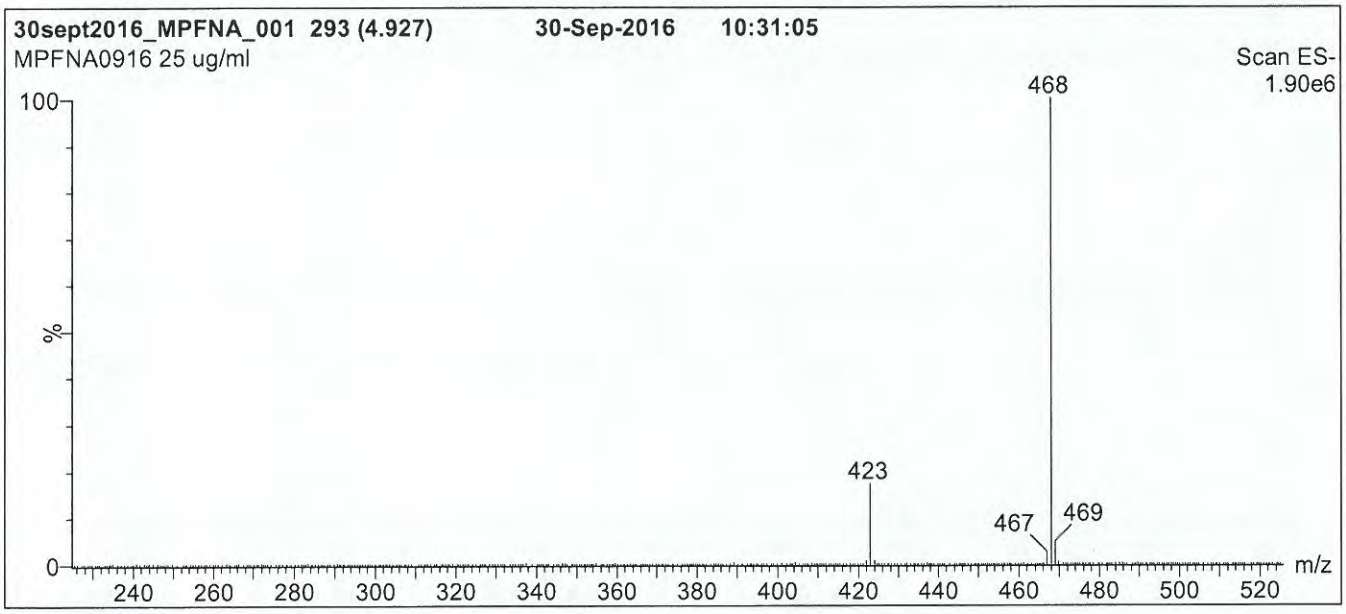
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17K0810

Figure 1: **MPFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

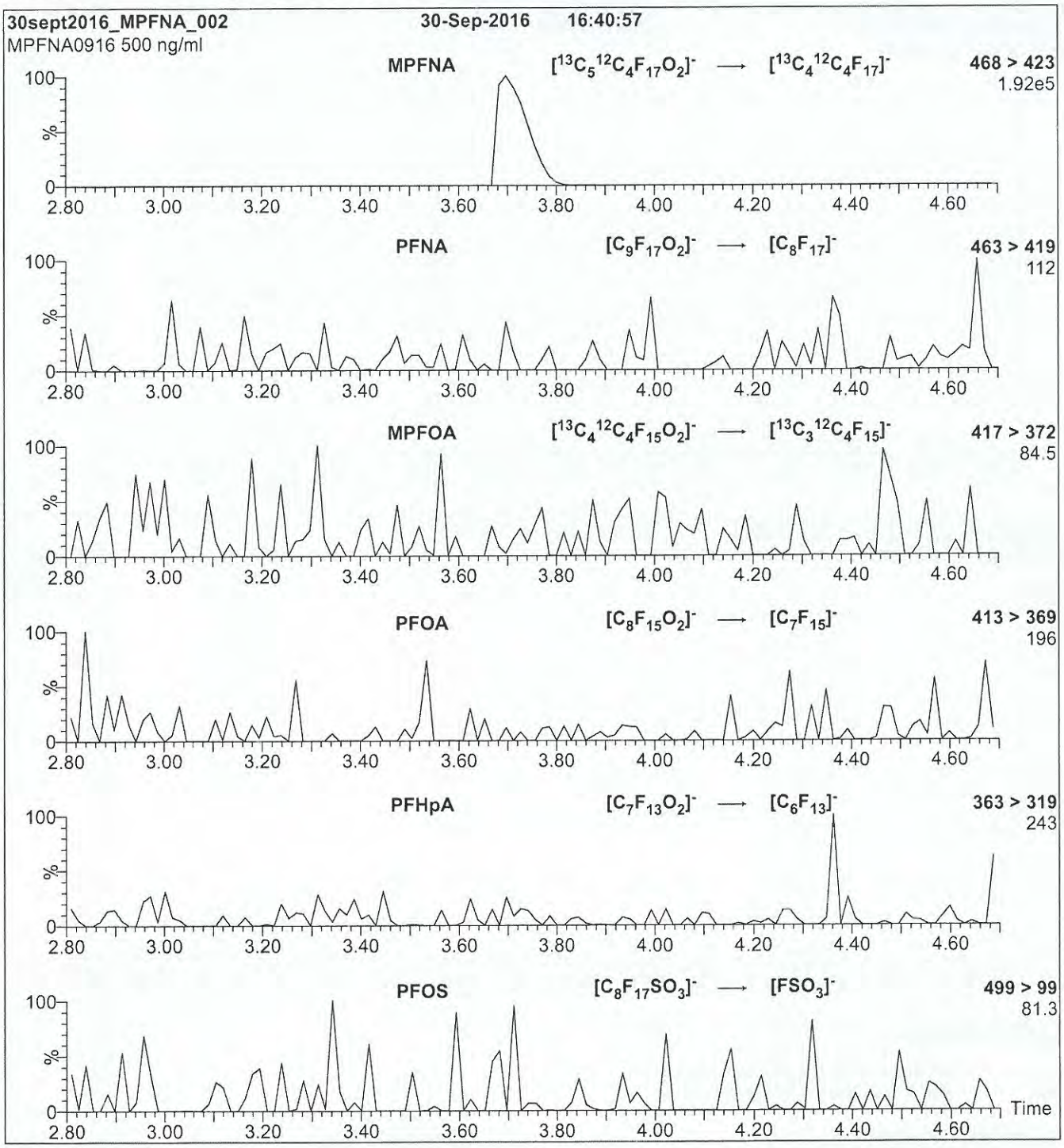
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0810

Figure 2: **MPFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 11

17K0812

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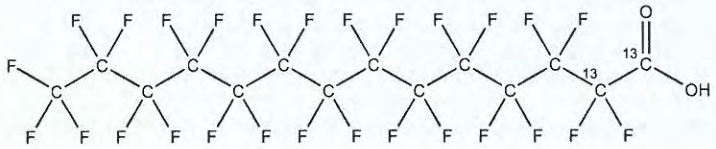
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M2PFTeDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]tetradecanoic acid

LOT NUMBER: M2PFTeDA0217

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{12}HF_{27}O_2$	**MOLECULAR WEIGHT:**	716.10
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	03/01/2017		
EXPIRY DATE: (mm/dd/yyyy)	03/01/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

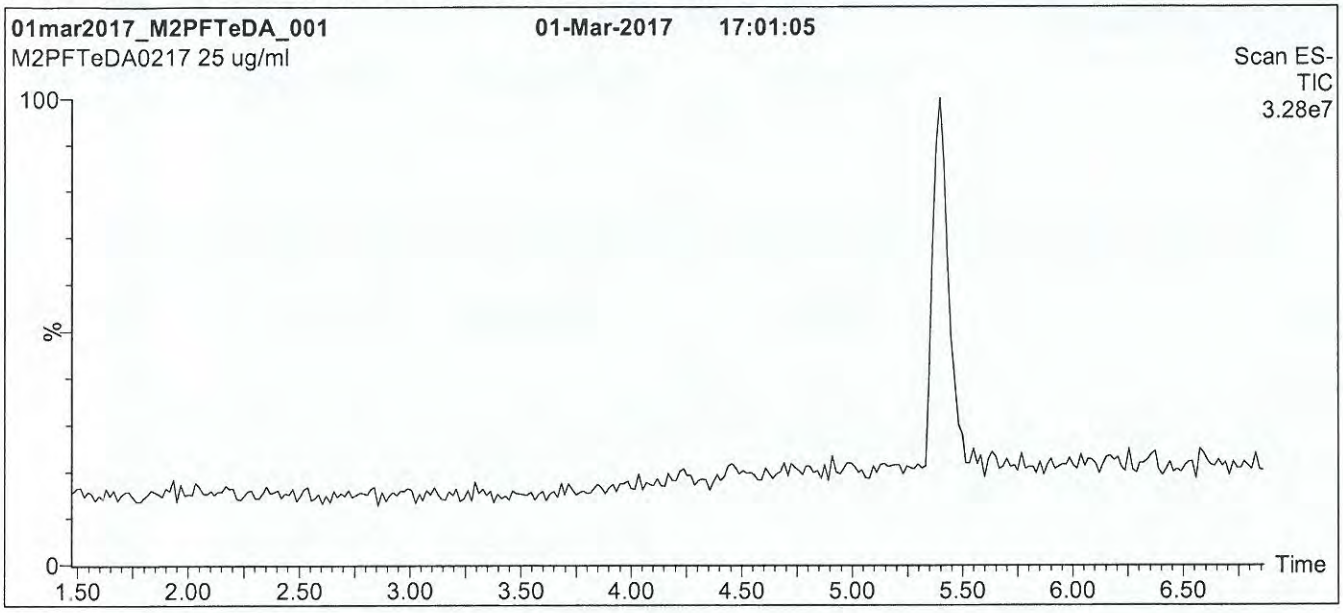
CALA Testing

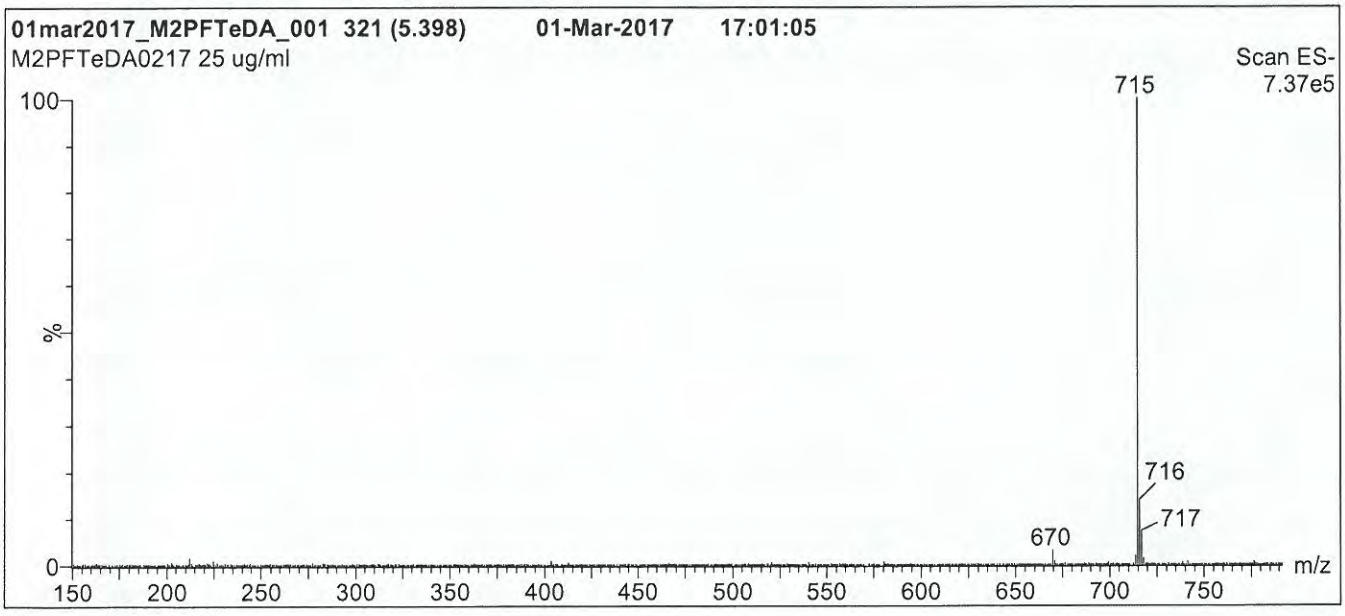
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0812

Figure 1: **M2PFTeDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 65% (80:20 MeOH:ACN) / 35% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

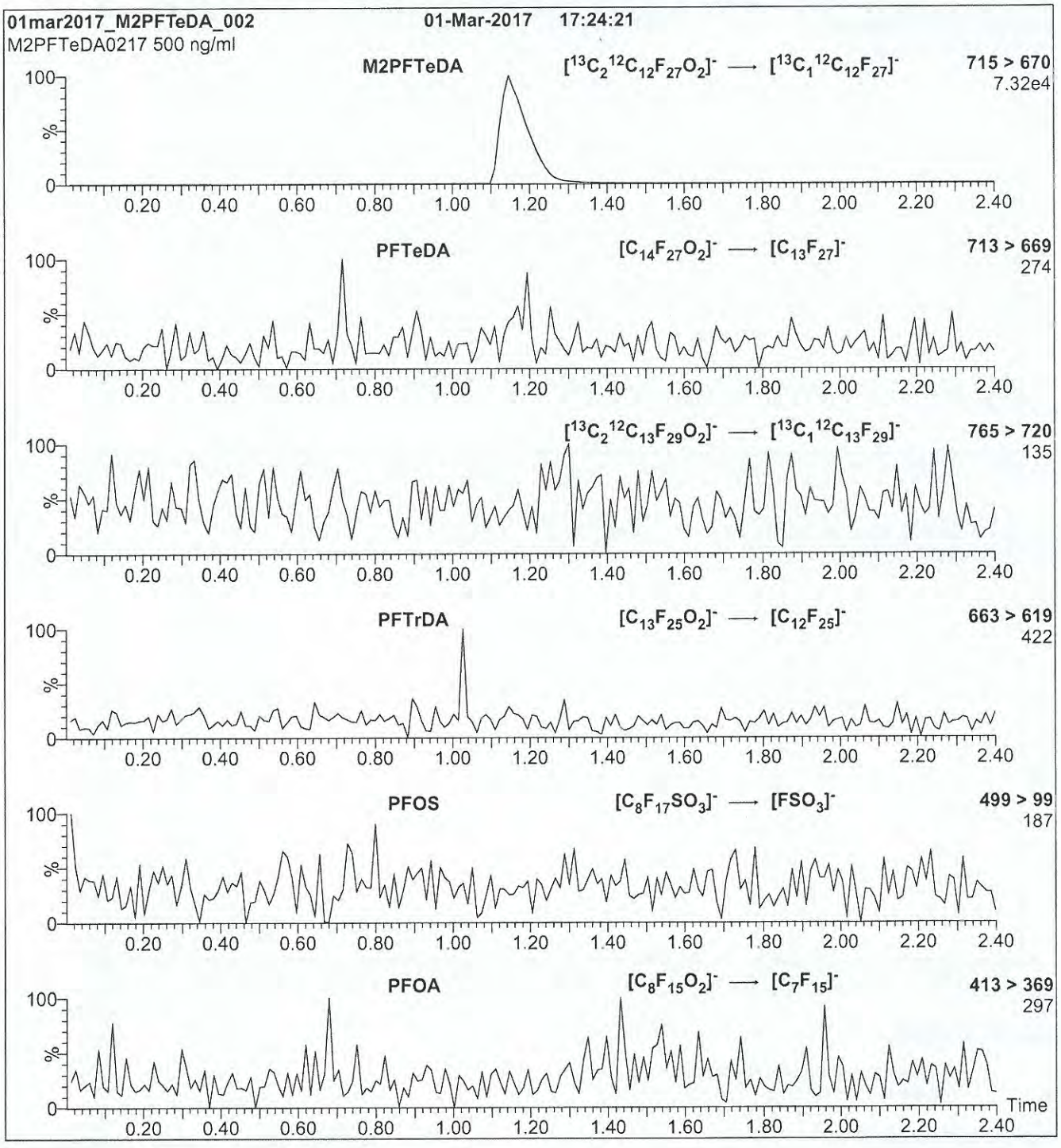
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K0812

Figure 2: **M2PFTeDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFTeDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 14

17K0813

WELLINGTON LABORATORIES

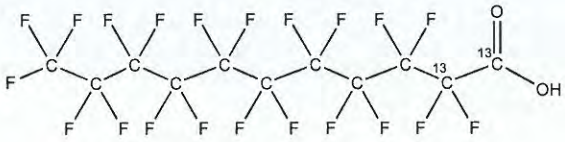
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFUdA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]undecanoic acid

LOT NUMBER: MPFUdA1116

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_9HF_{21}O_2$	**MOLECULAR WEIGHT:**	566.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	11/22/2016		
EXPIRY DATE: (mm/dd/yyyy)	11/22/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Presence of 1-$^{13}C_1$-PFUdA (~1%; see Figure 2), 2-$^{13}C_1$-PFUdA (~1%), and PFUdA (~0.2%; see Figure 2) are due to the isotopic purity of the ^{13}C-precursor.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 12/07/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17140813

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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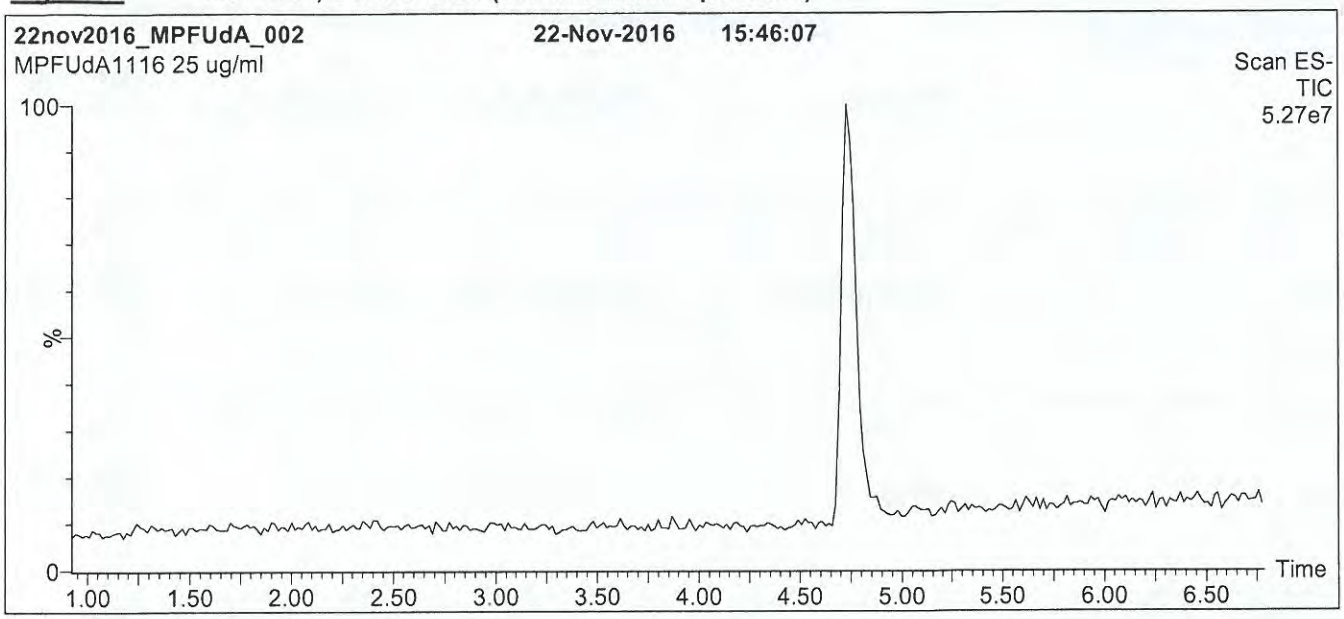
CALA Testing Accreditation No. A 1226

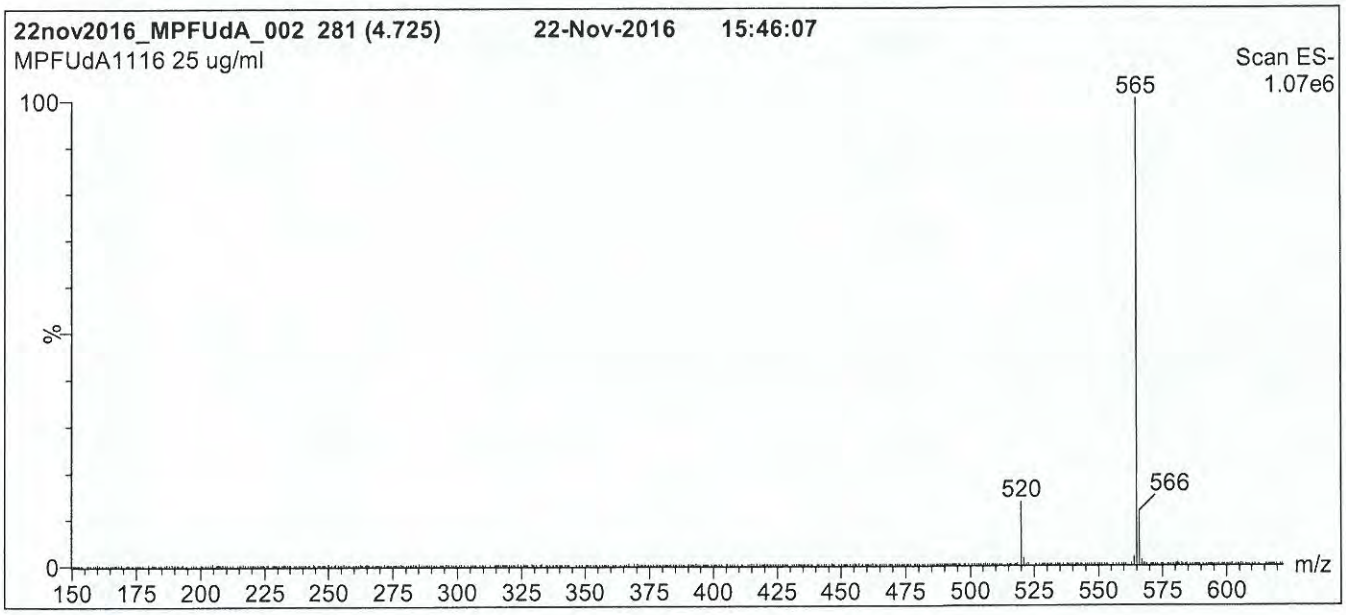
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0813

Figure 1: **MPFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

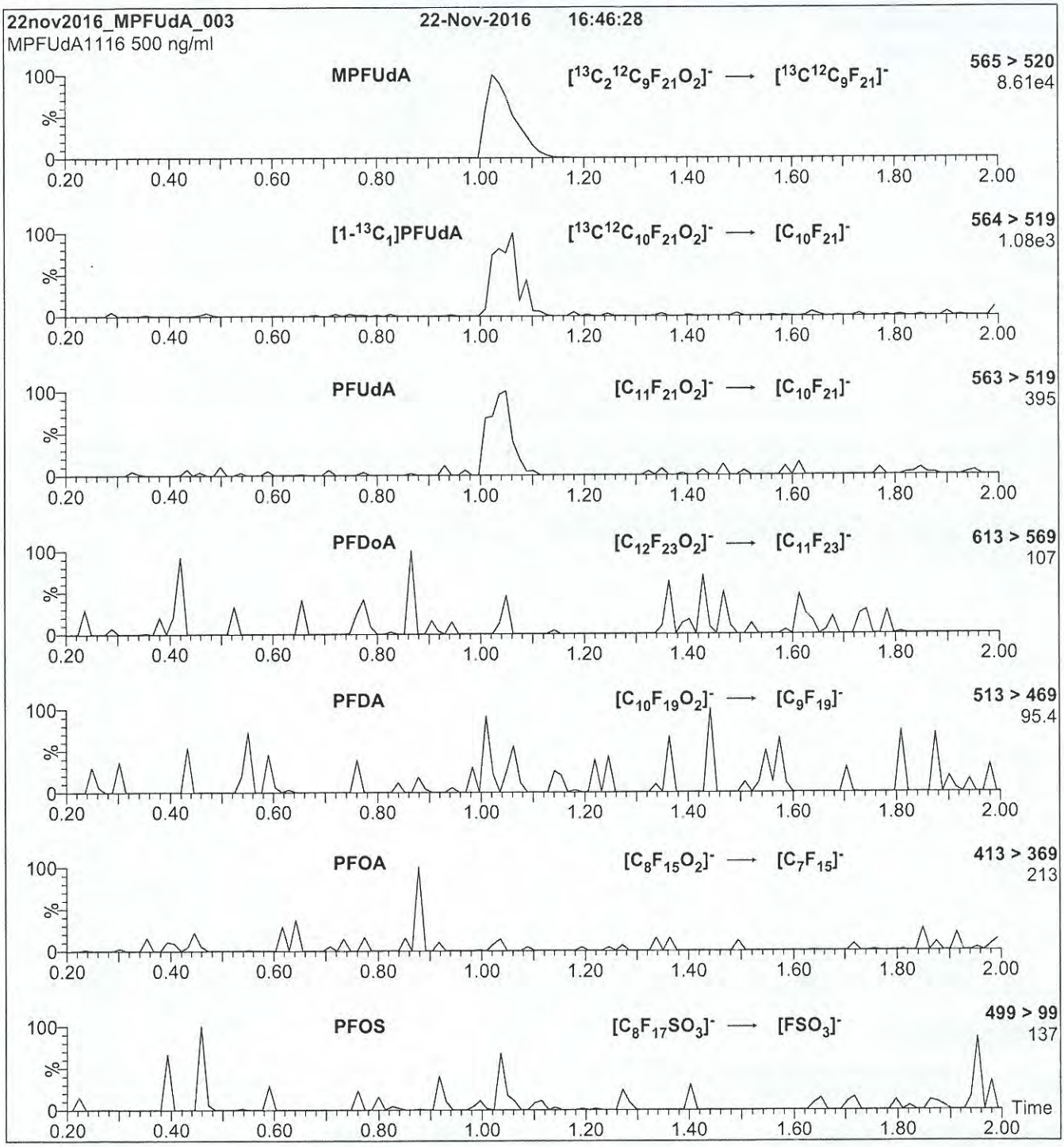
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

17K0813

Figure 2: **MPFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFUdA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 11

17K0814

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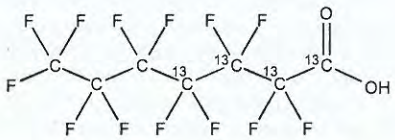
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M4PFHpA
COMPOUND: Perfluoro-n-[1,2,3,4-$^{13}C_4$]heptanoic acid

LOT NUMBER: M4PFHpA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA: $^{13}C_4{}^{12}C_3HF_{13}O_2$
CONCENTRATION: 50 ± 2.5 µg/ml

CHEMICAL PURITY: >98%
LAST TESTED: (mm/dd/yyyy) 05/03/2017
EXPIRY DATE: (mm/dd/yyyy) 05/03/2022
RECOMMENDED STORAGE: Store ampoule in a cool, dark place

MOLECULAR WEIGHT: 368.03
SOLVENT(S): Methanol
Water (<1%)
ISOTOPIC PURITY: ≥99%^{13}C ($1,2,3,4$-$^{13}C_4$)

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/11/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0814

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

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LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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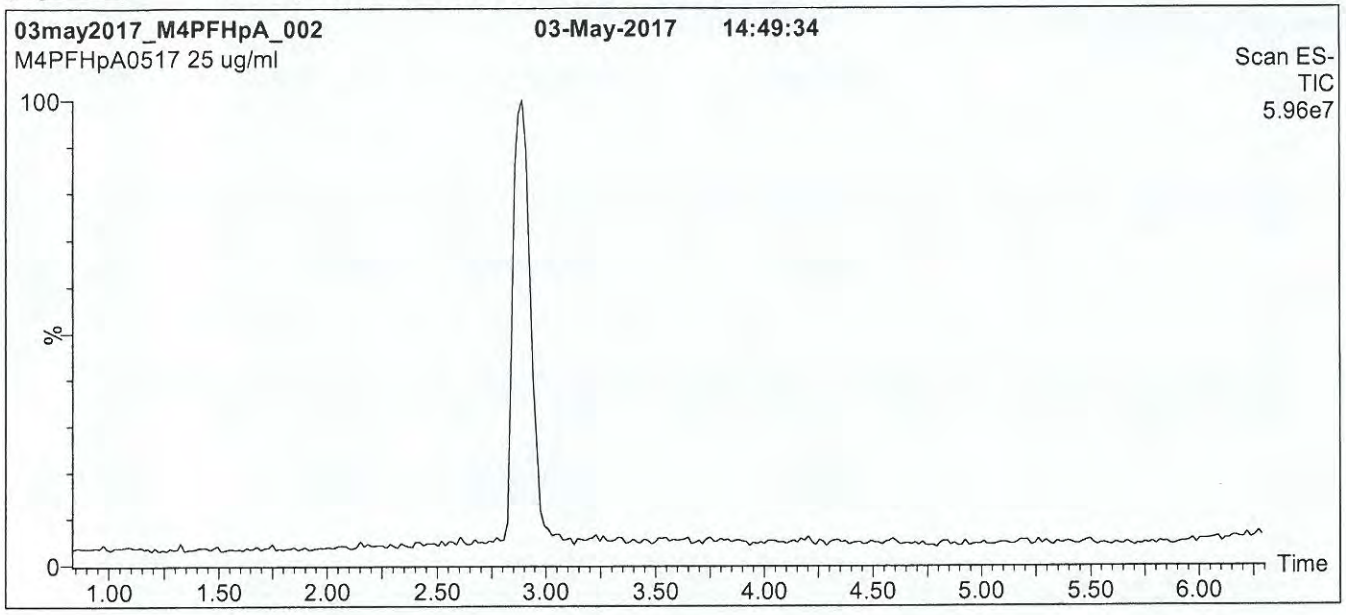
CALA Testing

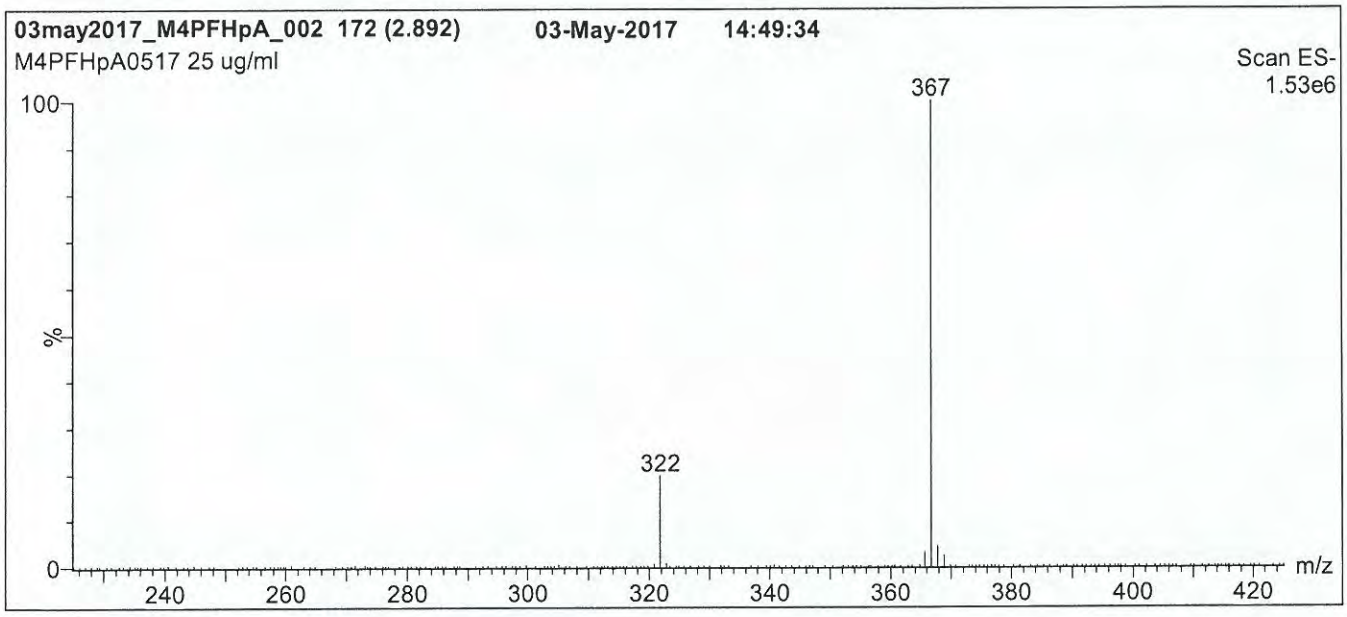
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K0814

Figure 1: **M4PFHpA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

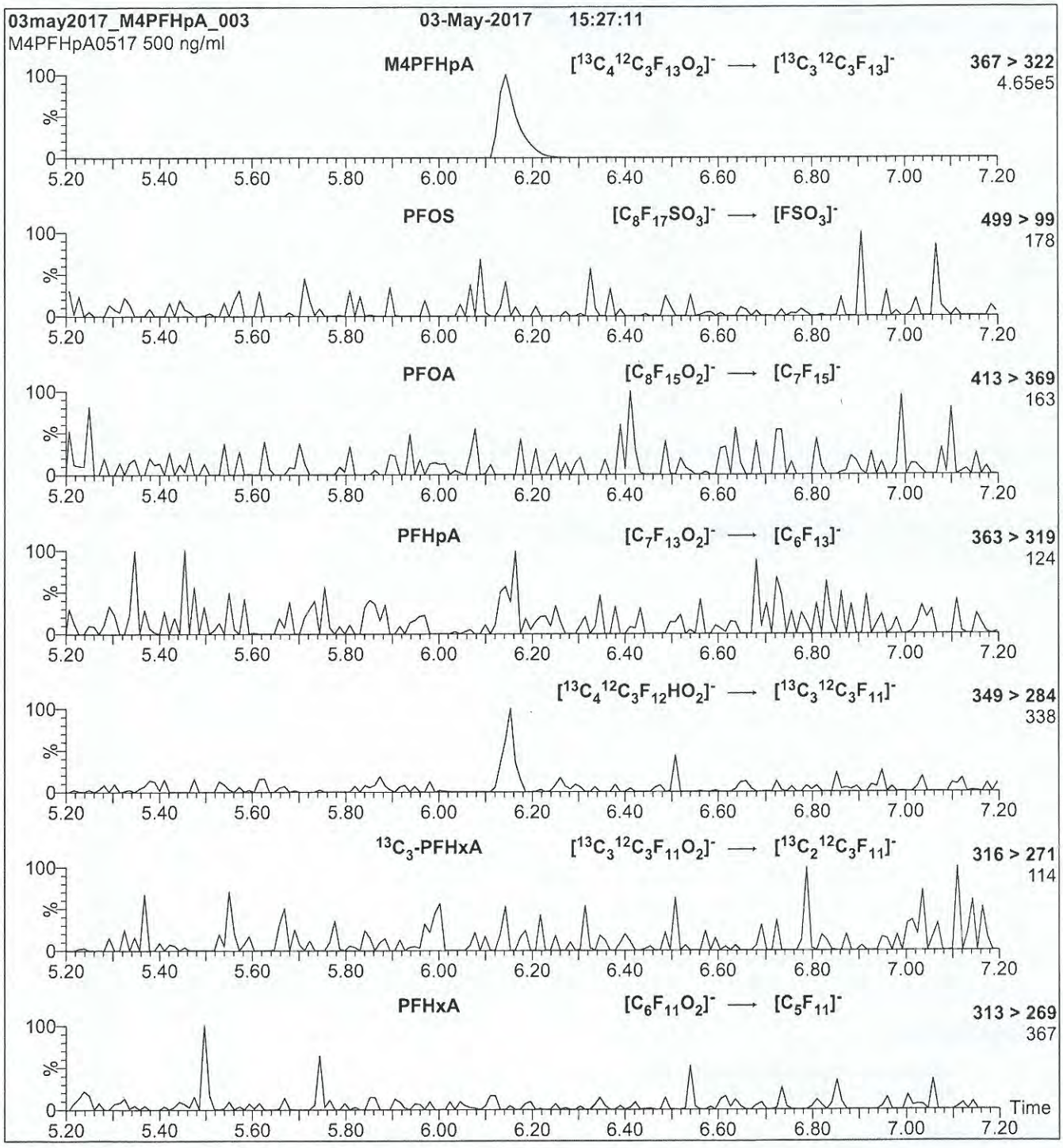
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0814

Figure 2: **M4PFHpA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M4PFHpA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.46e-3
Collision Energy (eV) = 9

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WELLINGTON LABORATORIES

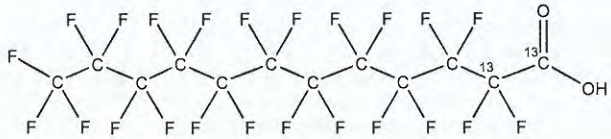
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDoA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]dodecanoic acid

LOT NUMBER: MPFDoA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_{10}HF_{23}O_2$	**MOLECULAR WEIGHT:**	616.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	05/23/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/23/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/26/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0816

INTENDED USE:

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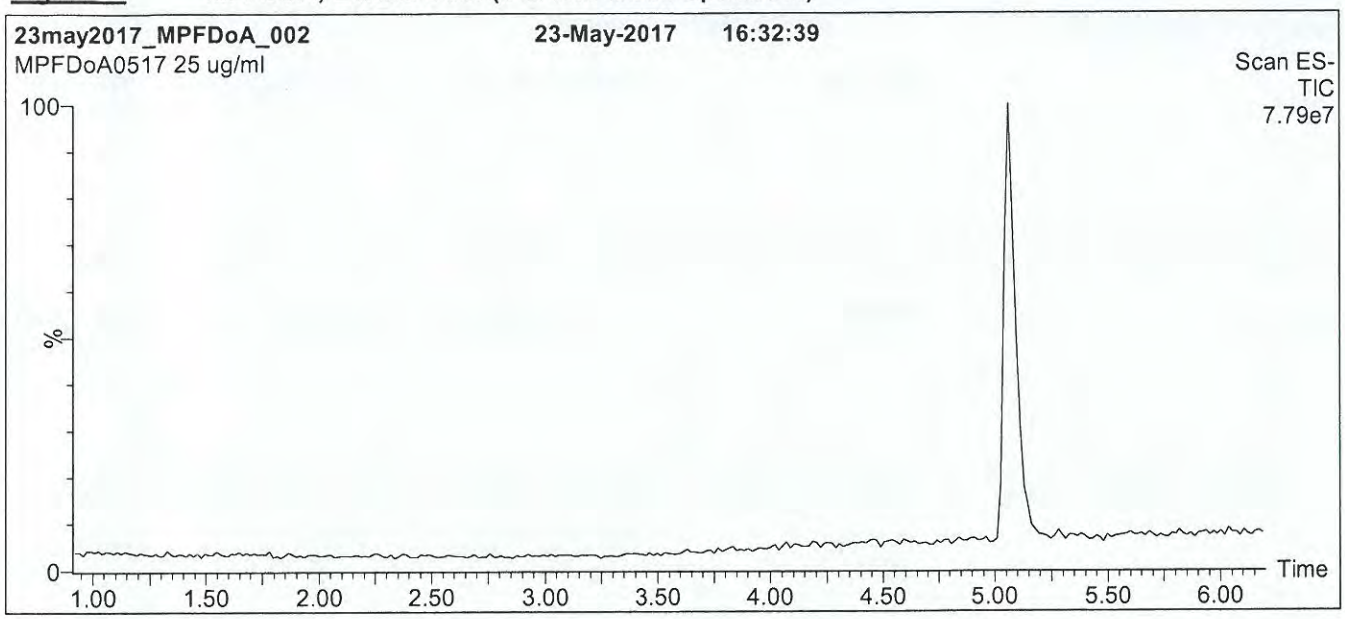
CALA Testing Accreditation No. A 1226

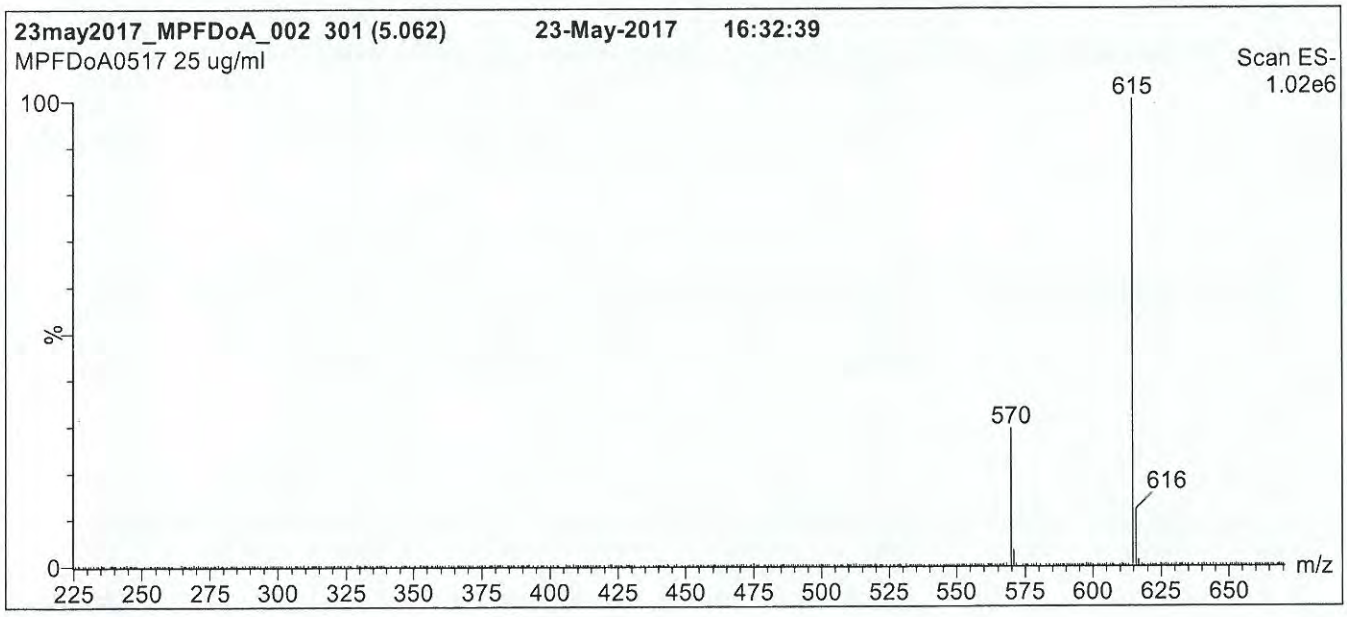
ANAB ACCREDITED Reference Material Producer

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17K0816

Figure 1: **MPFDoA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

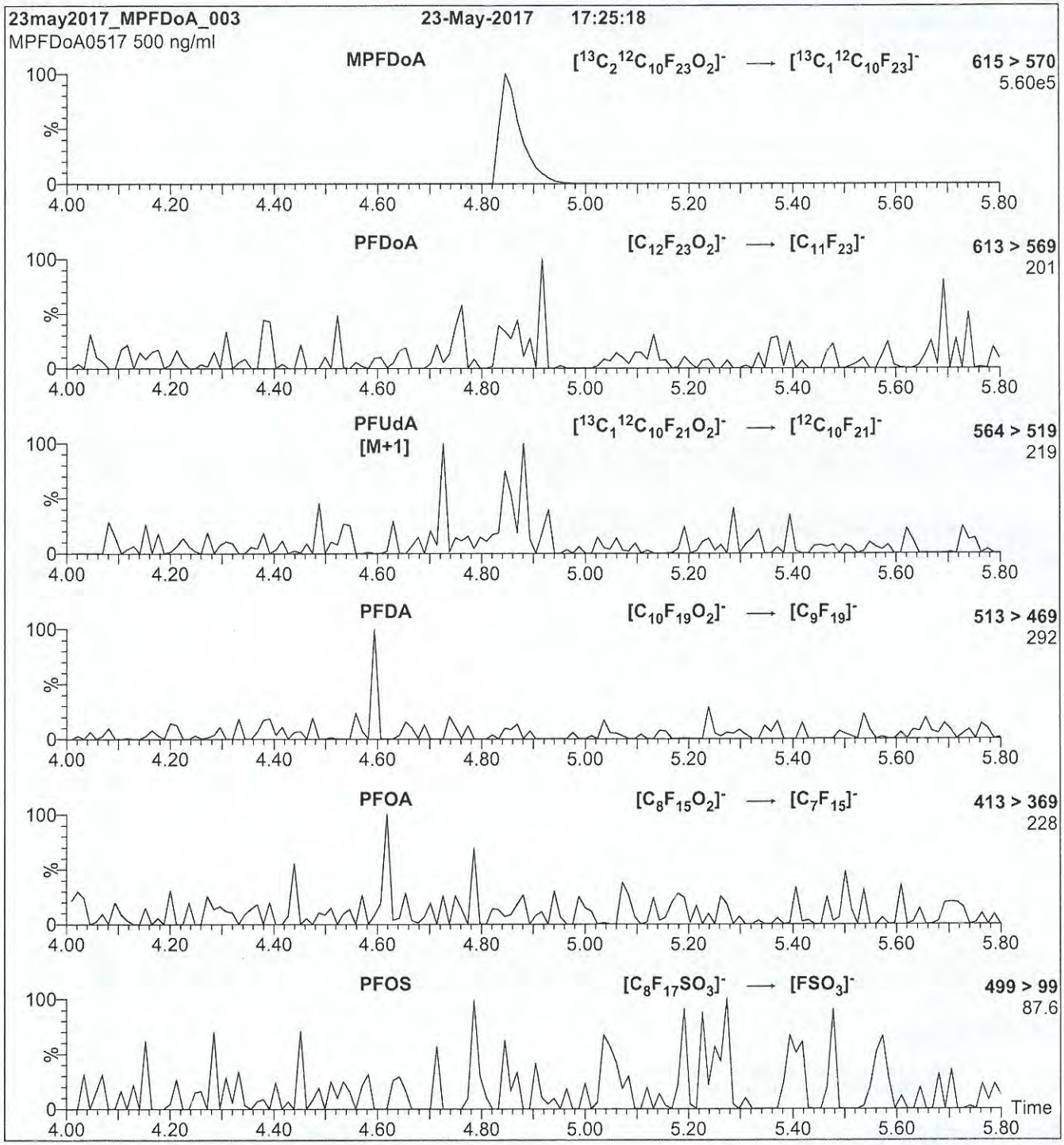
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 20.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K0816

Figure 2: **MPFDoA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDoA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 13

17KO818

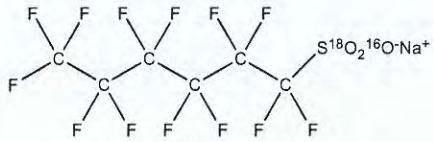
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: MPFHxS
COMPOUND: Sodium perfluoro-1-hexane[$^{18}O_2$]sulfonate
LOT NUMBER: MPFHxS0217

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$C_6F_{13}S^{18}O_2{}^{16}ONa$	**MOLECULAR WEIGHT:**	426.10
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (MPFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	>94% ($^{18}O_2$)
LAST TESTED: (mm/dd/yyyy)	02/17/2017		
EXPIRY DATE: (mm/dd/yyyy)	02/17/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- The response factor for MPFHxS ($C_6F_{13}S^{18}O_2{}^{16}O^-$) has been observed to be up to 10% lower than for PFHxS ($C_6F_{13}S^{16}O_3^-$) when both compounds are injected together. This difference may vary between instruments.
- Contains ~ 1.0% of sodium perfluoro-1-octane[$^{18}O_2$]sulfonate ($^{18}O_2$-PFOS).
- Due to the isotopic purity of the starting material ($^{18}O_2$ >94%), MPFHxS contains ~ 0.3% of PFHxS. This value agrees with the theoretical percent relative abundance that is expected based on the stated isotopic purity.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/02/2017 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0818

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

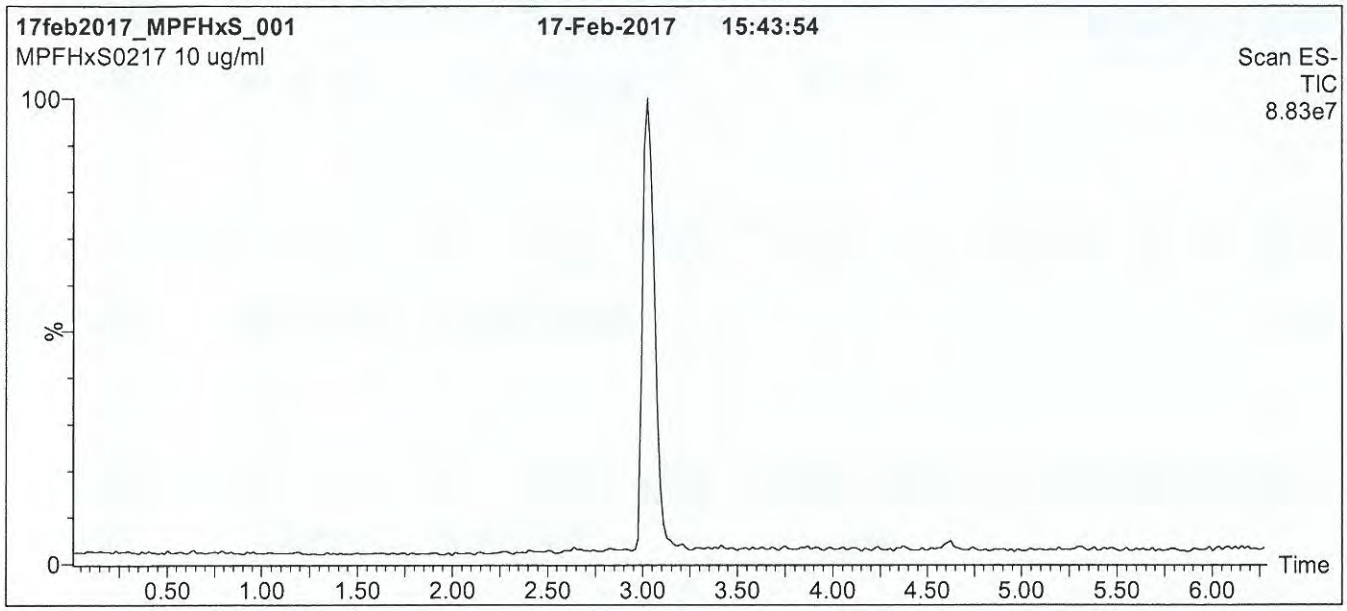
CALA Testing

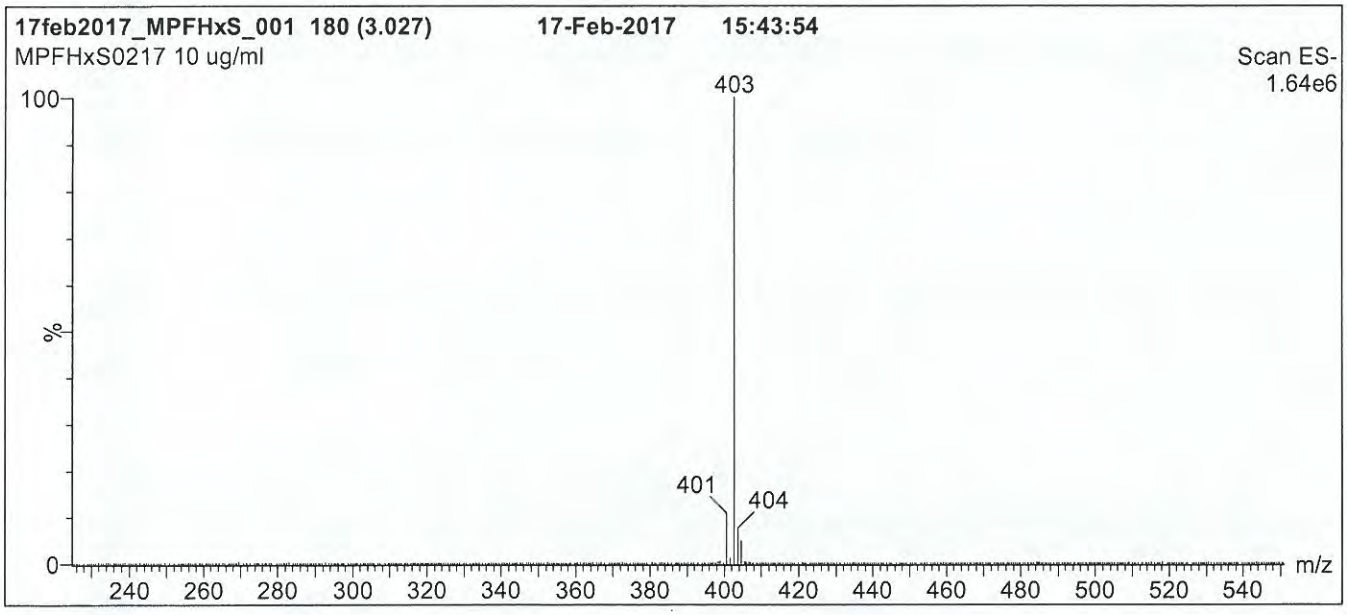
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17KO818

Figure 1: **MPFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

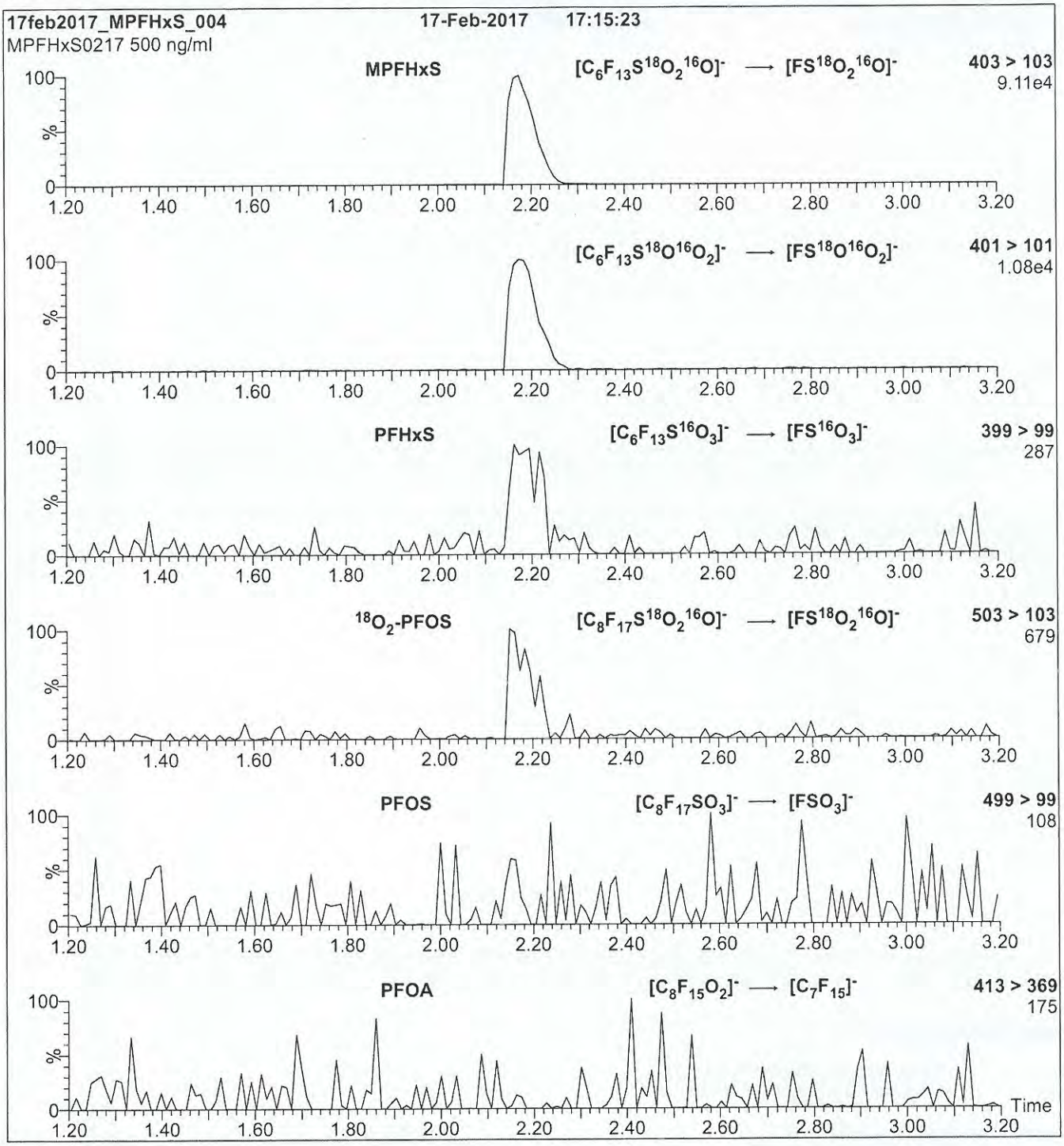
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K0818

Figure 2: **MPFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFHxS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

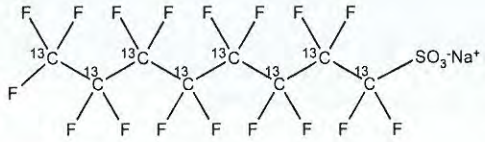
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

17K0819

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M8PFOS	**LOT NUMBER:**	M8PFOS0916
COMPOUND:	Sodium perfluoro-1-[$^{13}C_8$]octanesulfonate		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_8F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	530.05
CONCENTRATION:	48.5 ± 2.4 µg/ml (Na salt) 46.4 ± 2.3 µg/ml (M8PFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>97%	**ISOTOPIC PURITY:**	>99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	09/30/2016		
EXPIRY DATE: (mm/dd/yyyy)	09/30/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.6% of sodium perfluoro-1-[$^{13}C_7$]heptanesulfonate ($^{13}C_7$-PFHpS), ~ 1.0% of chlorohexadecafluoro-1-[$^{13}C_8$]octanesulfonate, and ~ 1.5% of sodium perfluoro-1-[$^{13}C_4$]octanesulfonate (MPFOS).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 10/11/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K0819

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

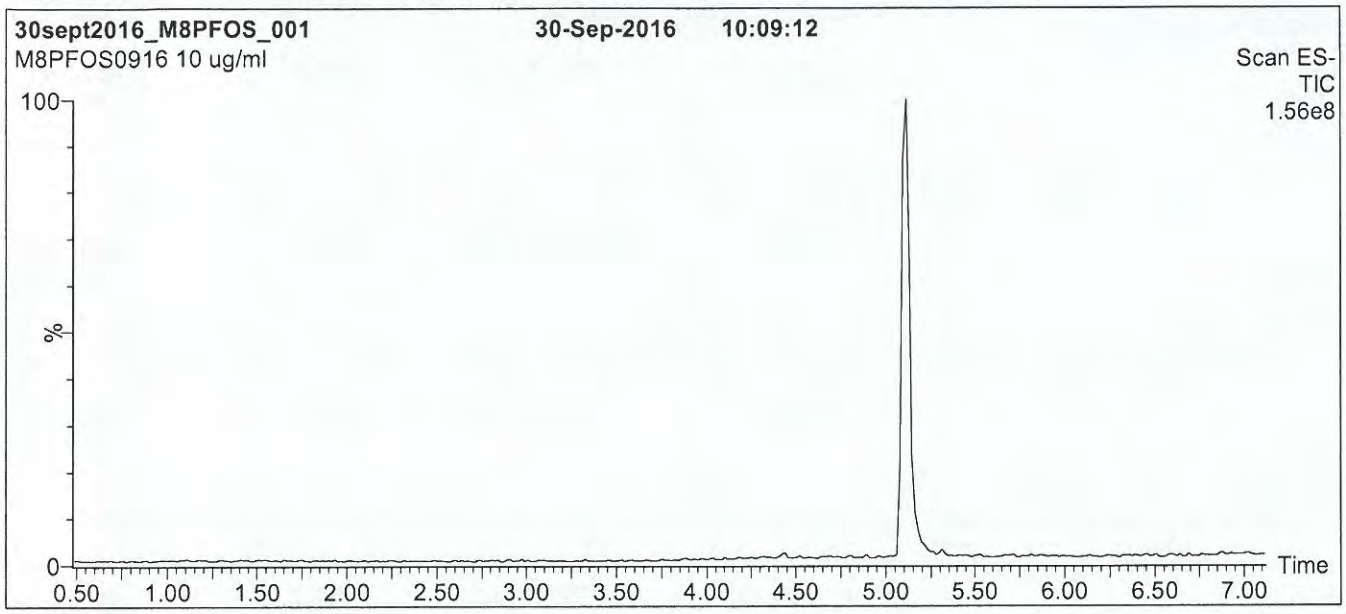
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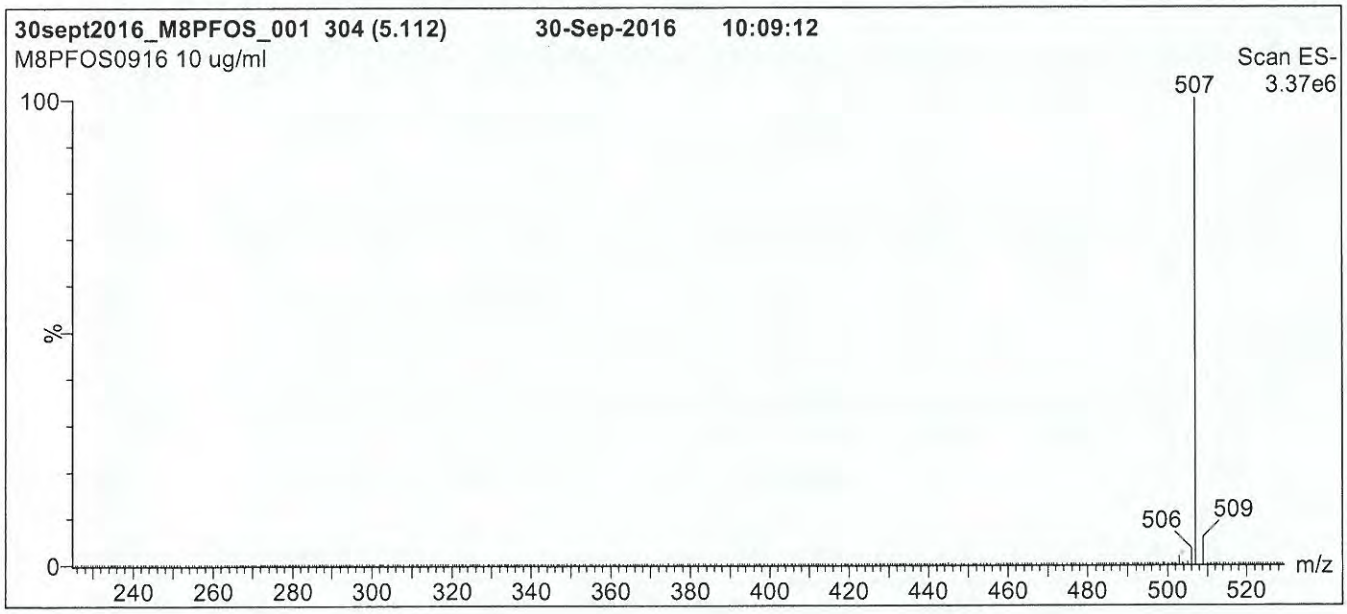
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17K0819

Figure 1: **M8PFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

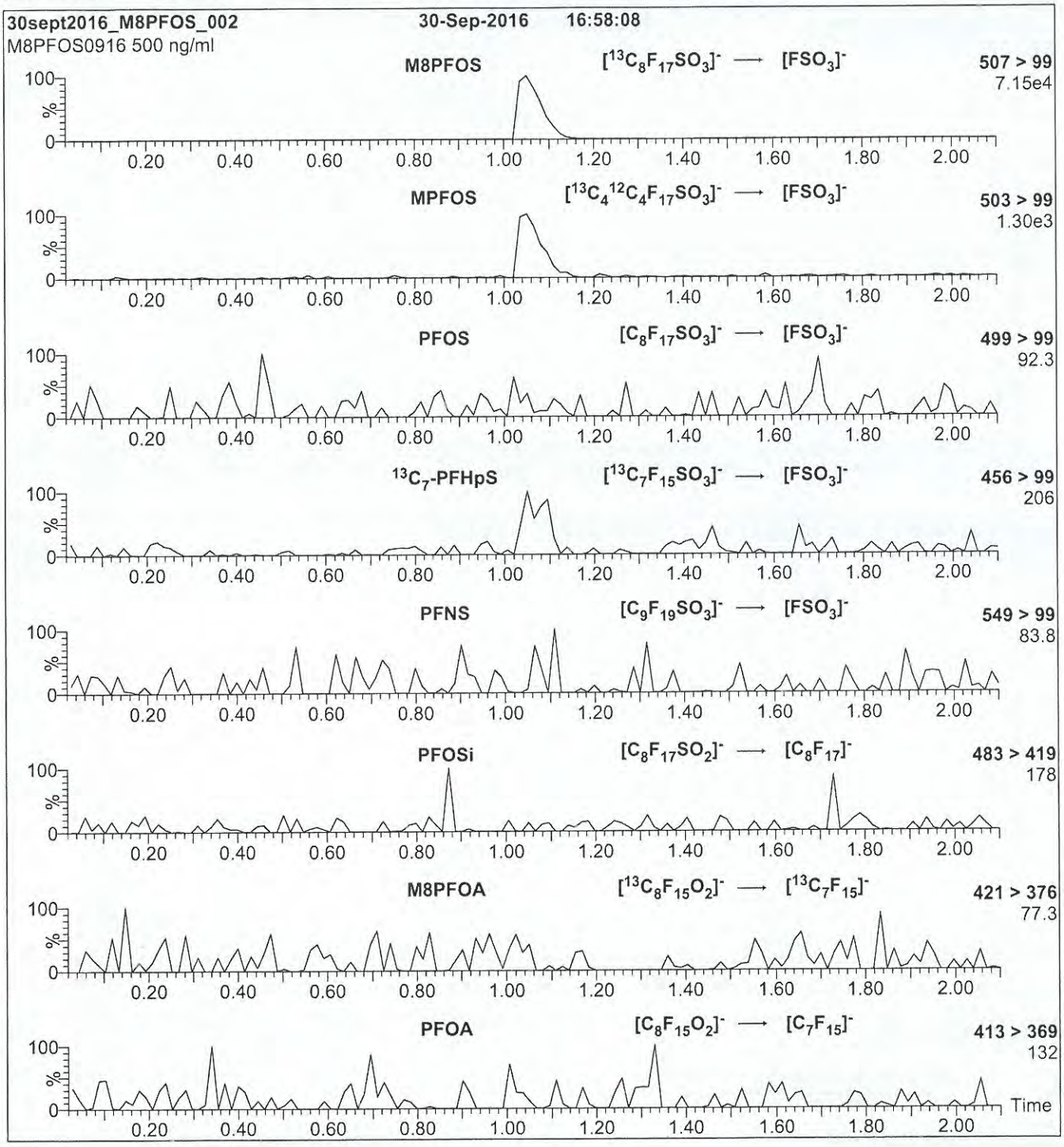
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0819

Figure 2: **M8PFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8PFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 40

17K0821

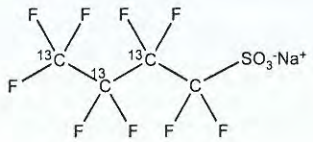
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M3PFBS **LOT NUMBER:** M3PFBS0815

COMPOUND: Sodium perfluoro-1-[2,3,4-$^{13}C_3$]butanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}CF_9SO_3Na$	**MOLECULAR WEIGHT:**	325.06
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 46.5 ± 2.3 µg/ml (M3PFBS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($2,3,4\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	05/24/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/24/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/25/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

1714-0821

INTENDED USE:

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HAZARDS:

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UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

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QUALITY MANAGEMENT:

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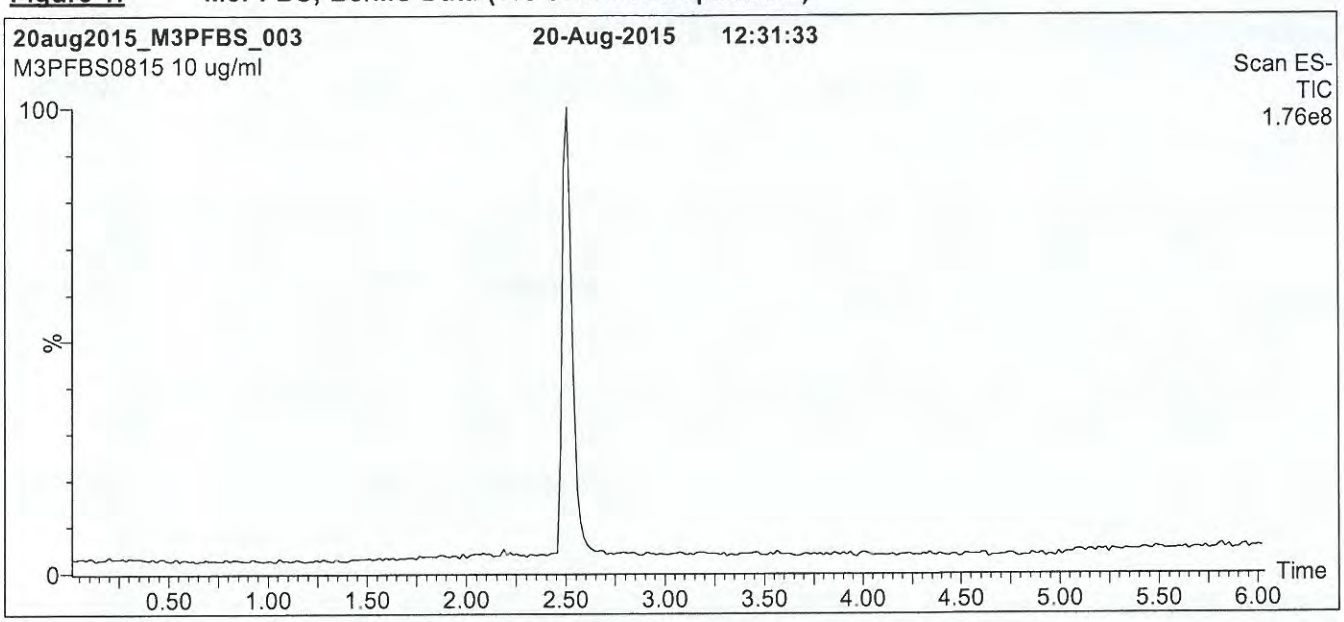
CALA Testing Accreditation No. A1226

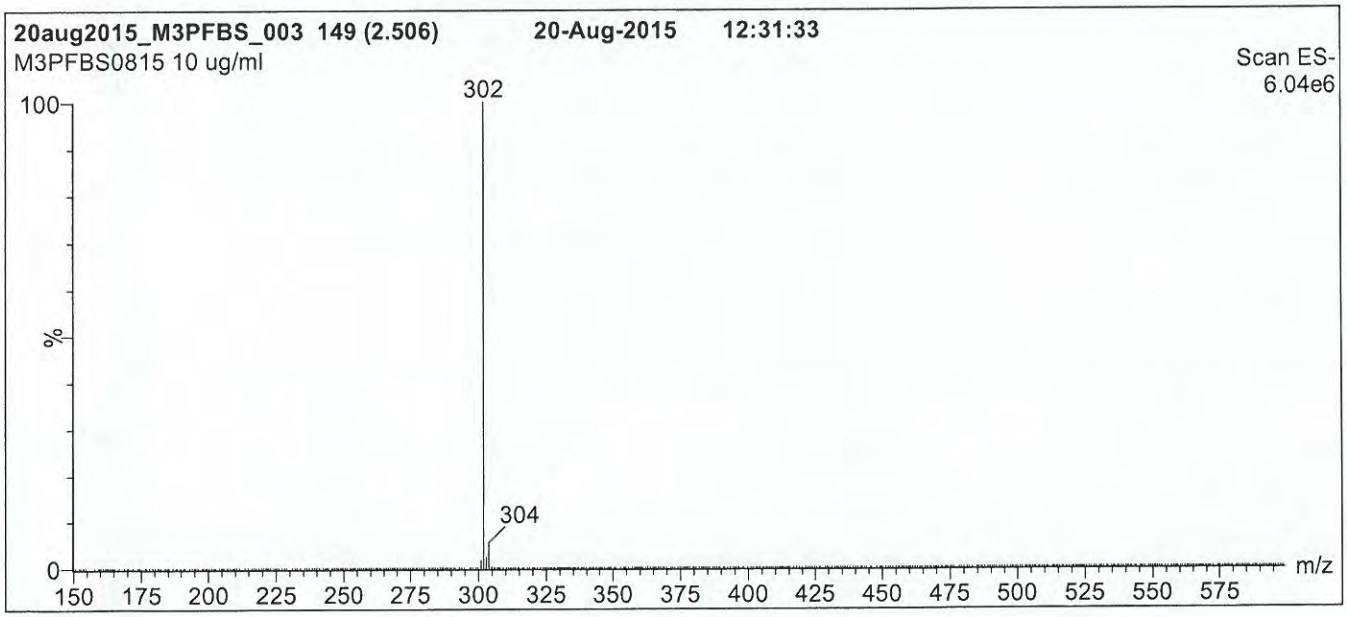
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17K0821

Figure 1: **M3PFBS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

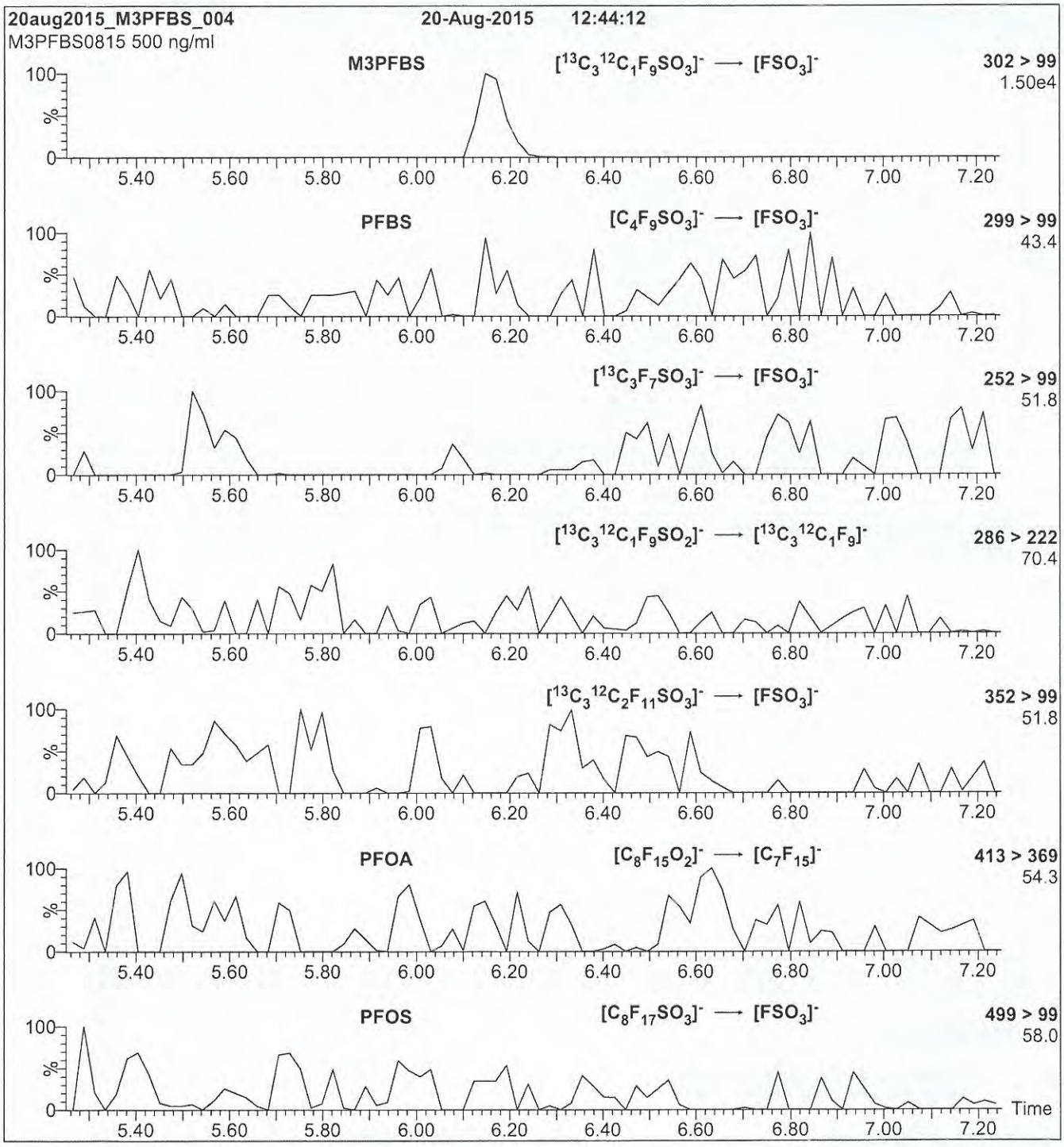
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K0821

Figure 2: **M3PFBS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFBS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 25

17K3038

WELLINGTON LABORATORIES

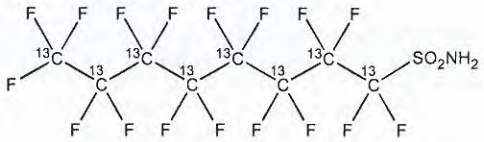
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M8FOSA-I
COMPOUND: Perfluoro-1-[$^{13}C_8$]octanesulfonamide

LOT NUMBER: M8FOSA1017I

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_8H_2F_{17}NO_2S$	**MOLECULAR WEIGHT:**	507.09
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	10/11/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/11/2022		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 1.1% of perfluoro-1-[$^{13}C_4$]octanesulfonamide and ~ 0.01% of perfluoro-1-[$^{13}C_7$]heptanesulfonamide.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/20/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3038

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

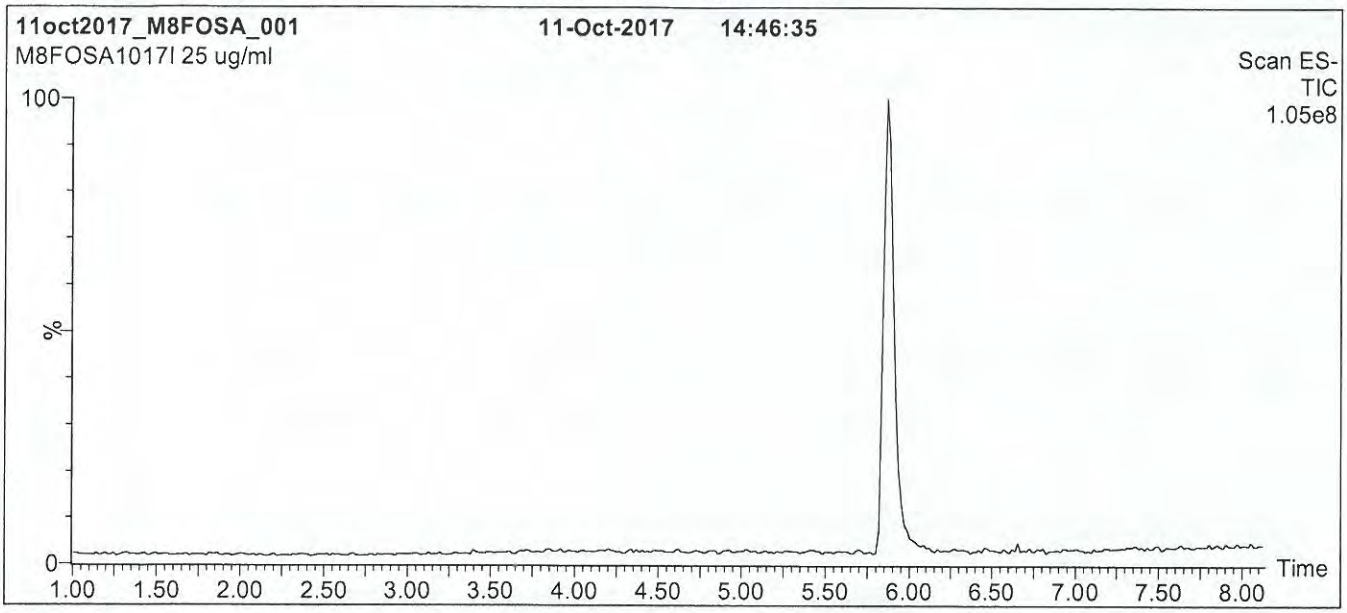
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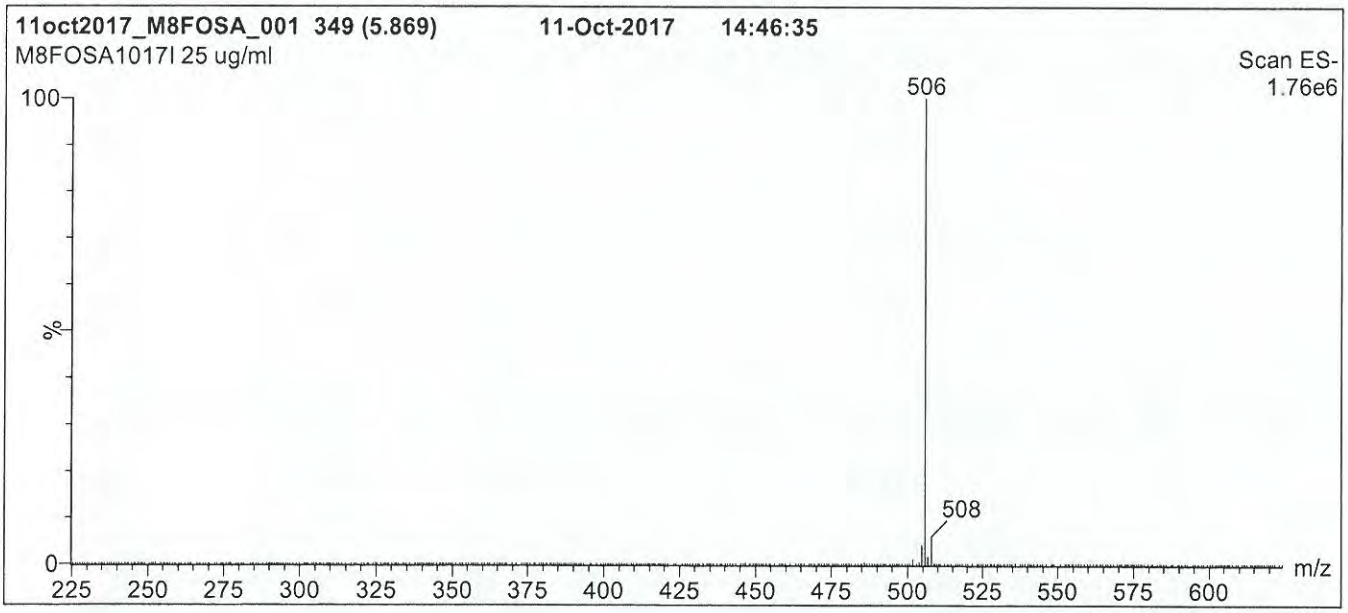
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3038

Figure 1: **M8FOSA-I; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 85% organic over 7.5 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

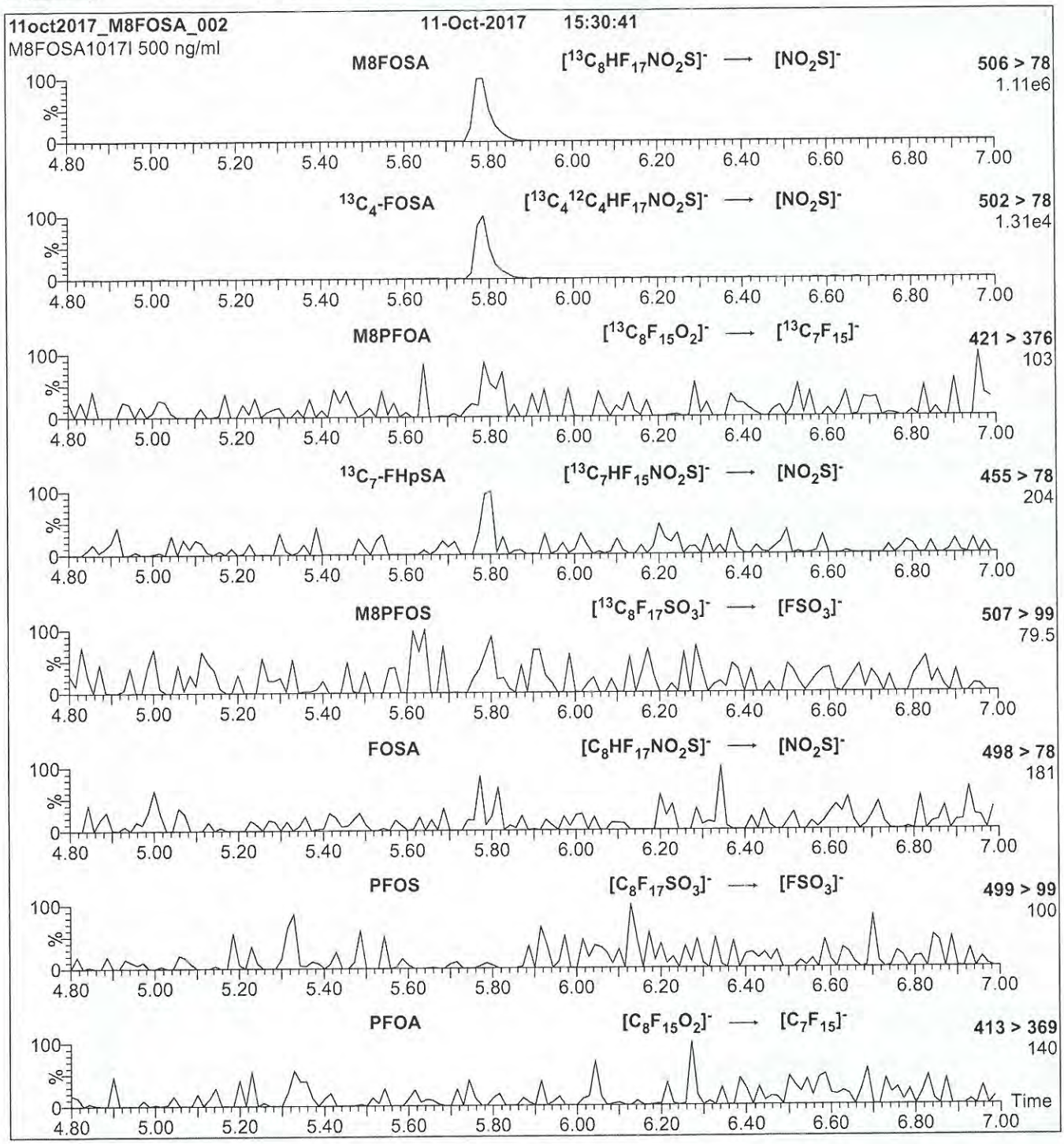
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.50
Cone Voltage (V) = 40.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K3038

Figure 2: **M8FOSA-I; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8FOSA-I)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

17K3039

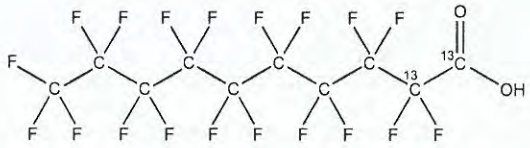
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFDA
COMPOUND: Perfluoro-n-[1,2-$^{13}C_2$]decanoic acid
LOT NUMBER: MPFDA0717

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8HF_{19}O_2$	**MOLECULAR WEIGHT:**	516.07
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	07/13/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of $^{13}C_1$-PFNA.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3039

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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QUALITY MANAGEMENT:

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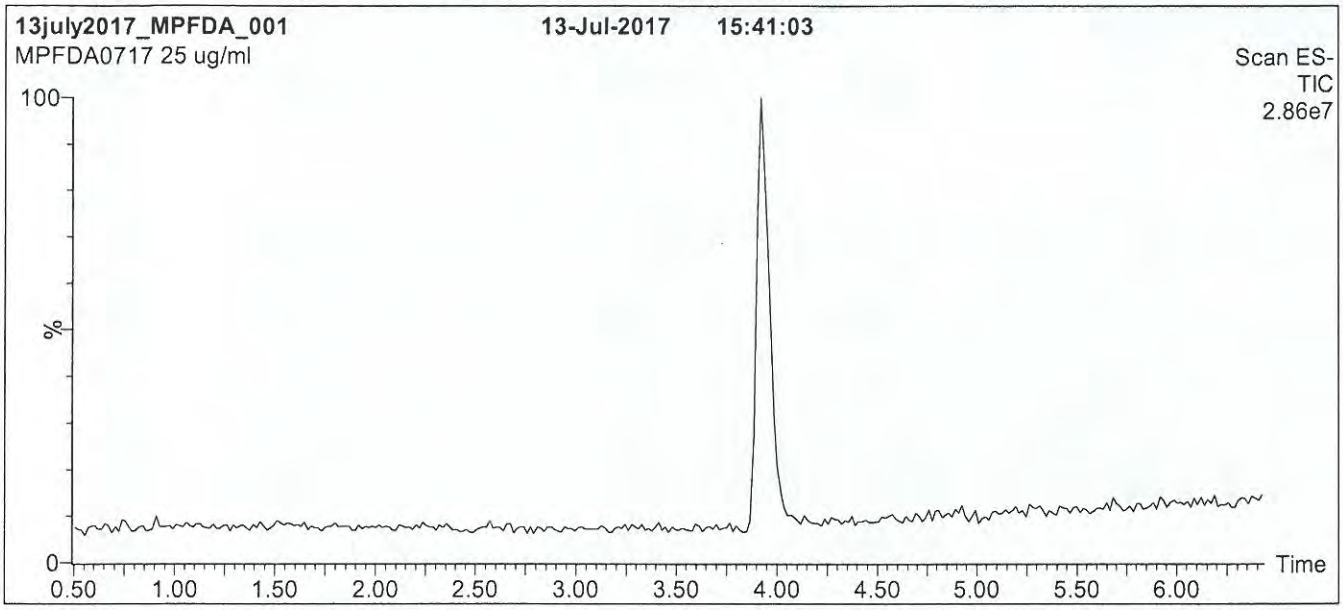
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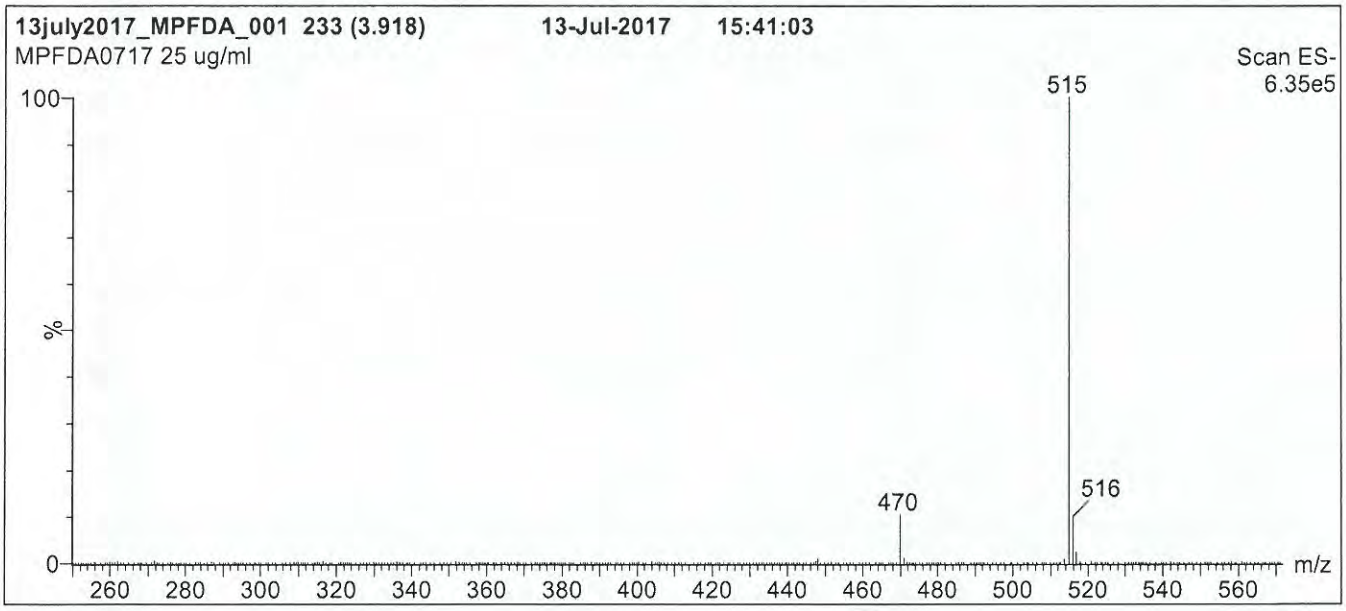
ANAB ACCREDITED

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17K3039

Figure 1: **MPFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

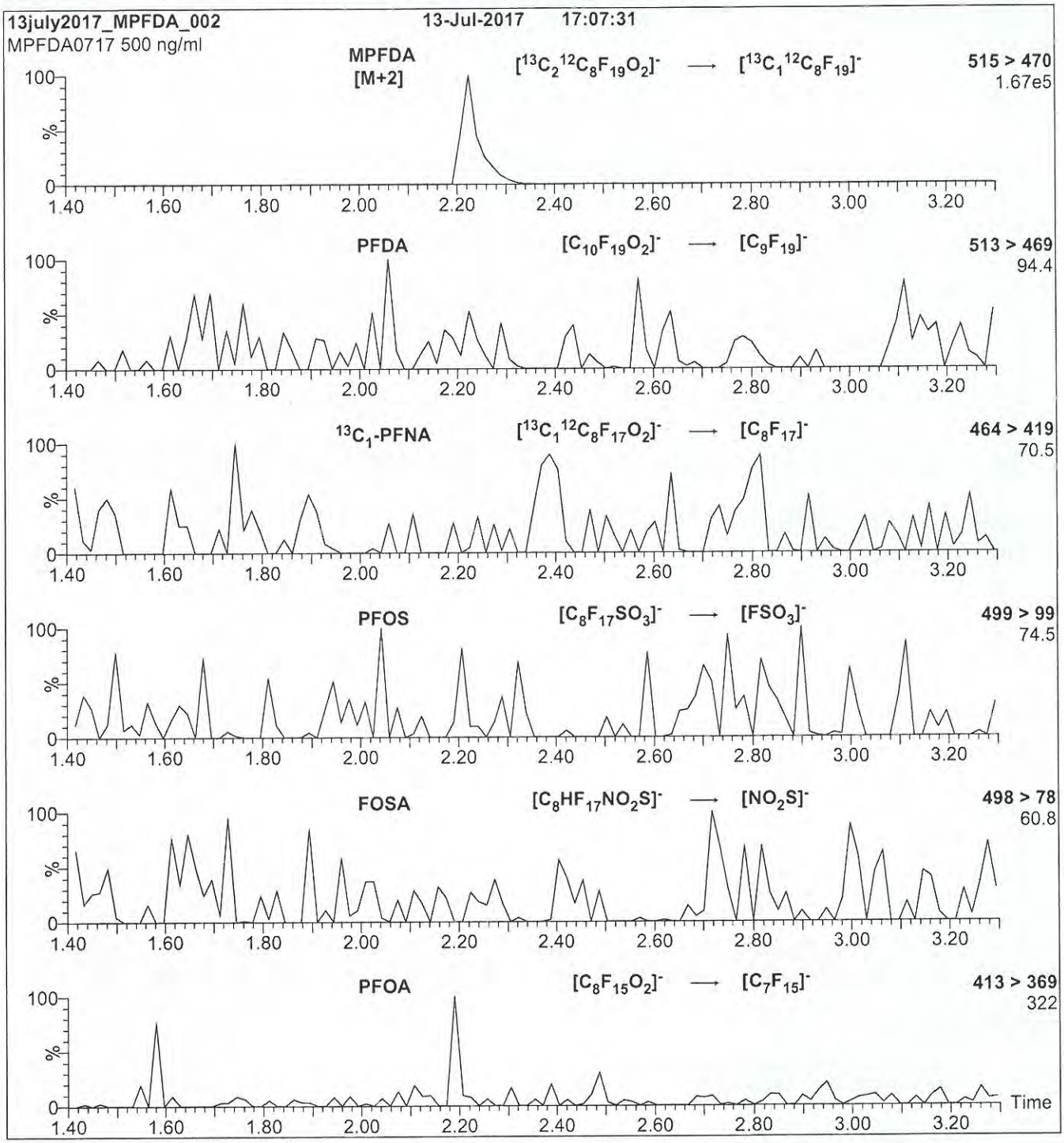
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17K3039

Figure 2: **MPFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

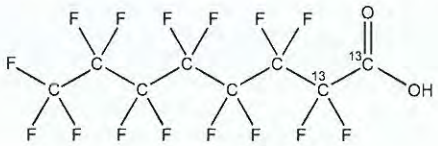
Collision Gas (mbar) = 3.17e-3
Collision Energy (eV) = 13

17K3040

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M2PFOA	**LOT NUMBER:**	M2PFOA1017
COMPOUND:	Perfluoro-n-[1,2-$^{13}C_2$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_6HF_{15}O_2$	**MOLECULAR WEIGHT:**	416.05
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	10/26/2017		
EXPIRY DATE: (mm/dd/yyyy)	10/26/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 10/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3040

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where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

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EXPIRY DATE / PERIOD OF VALIDITY:

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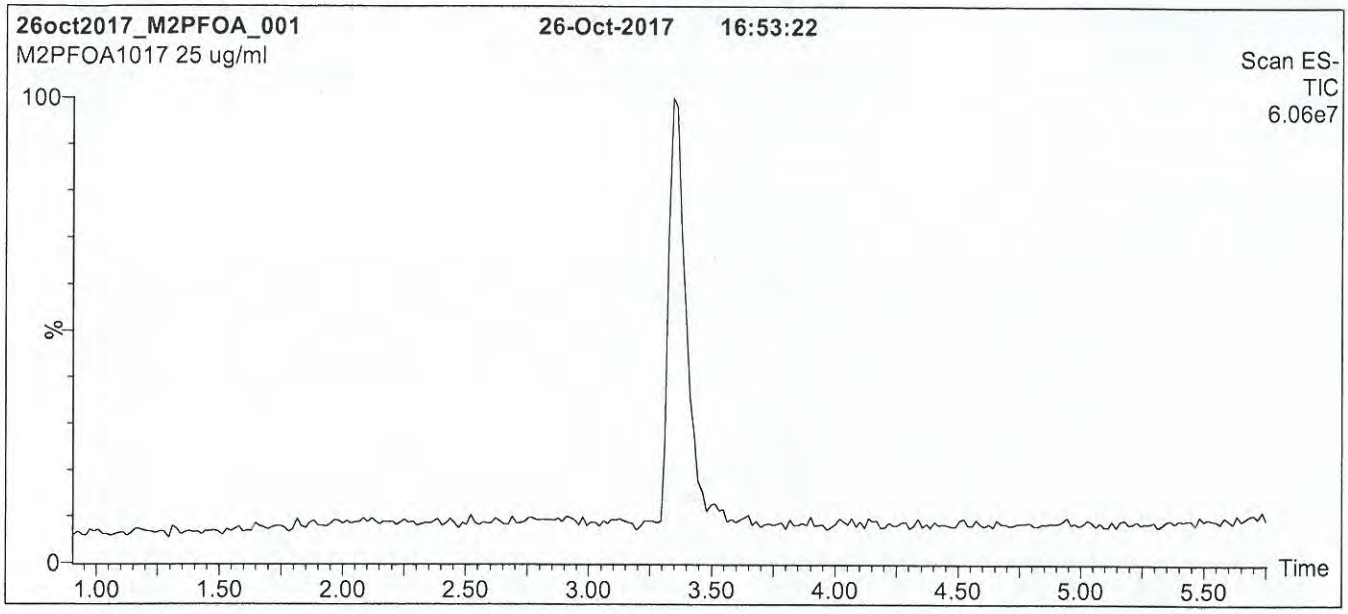
CALA Testing Accreditation No. A 1226

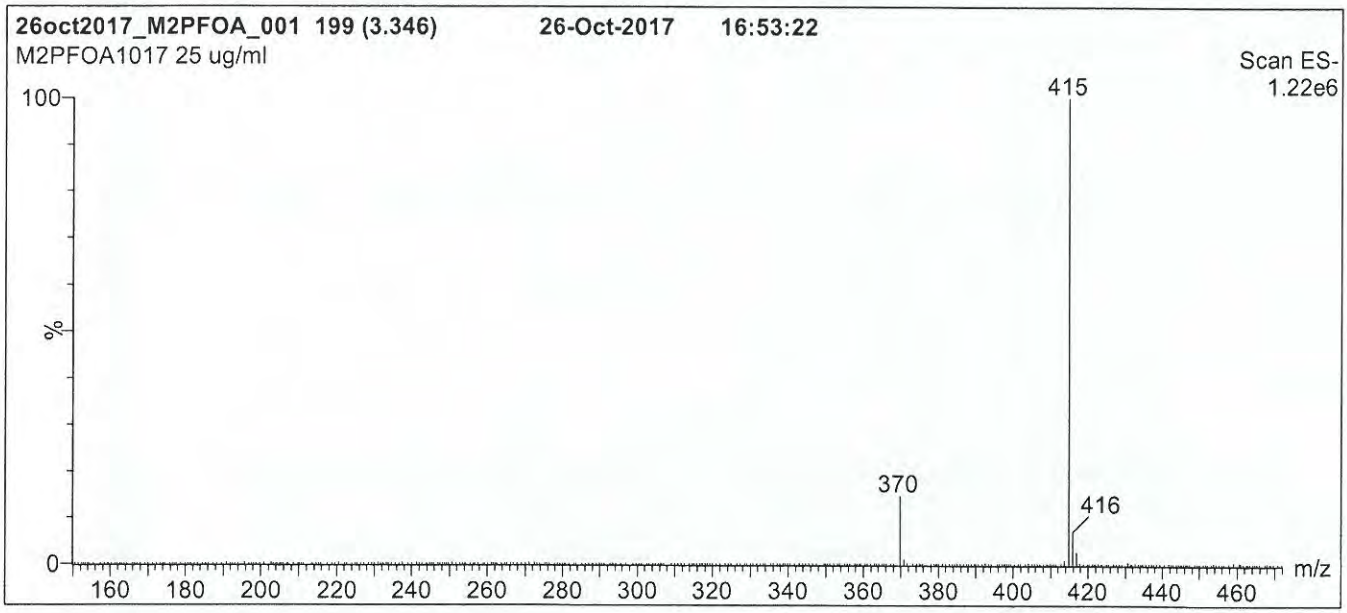
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17K3040

Figure 1: **M2PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

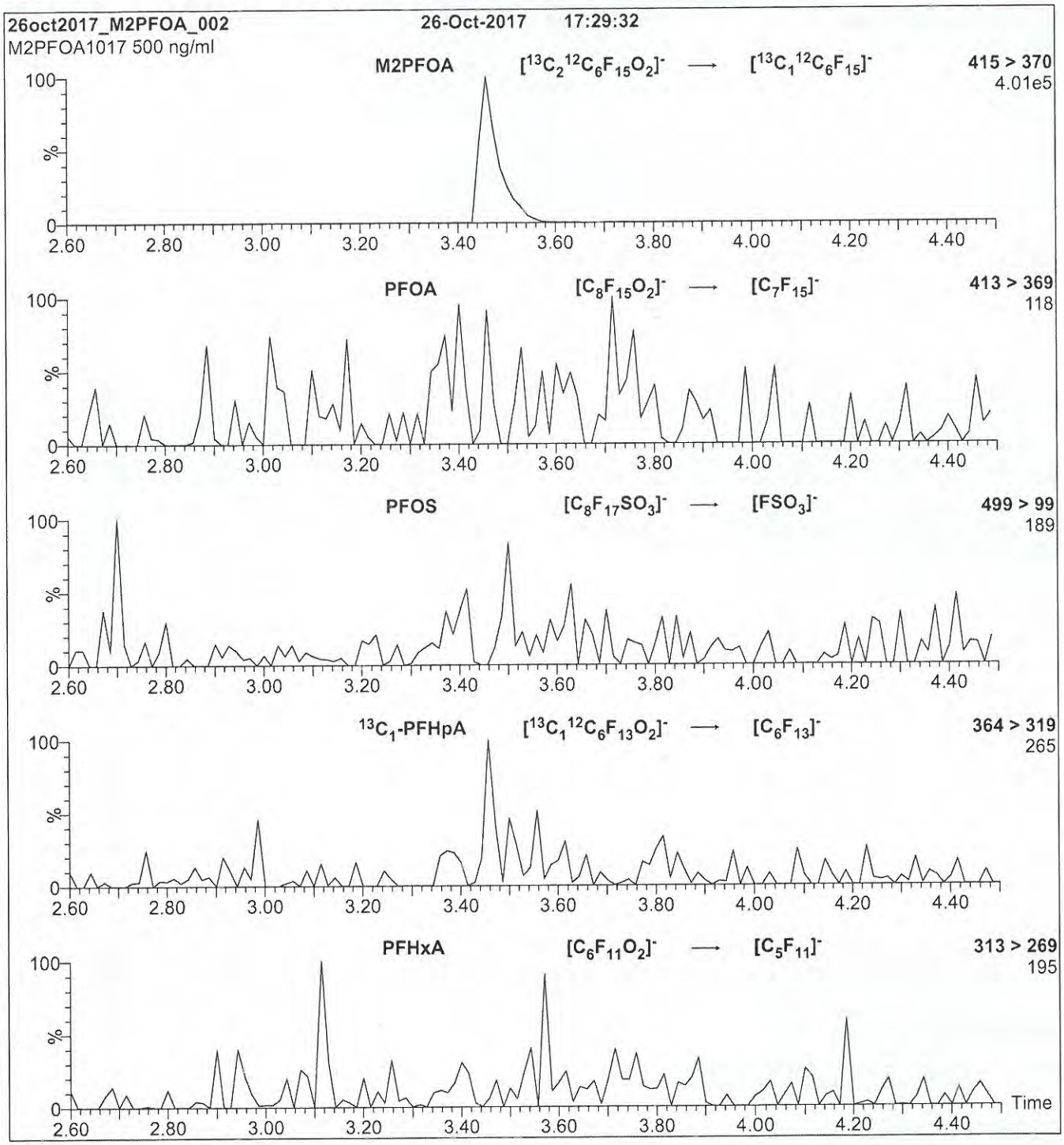
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17K3040

Figure 2: **M2PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M2PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

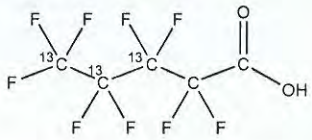
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 10

17K3041

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M3PFPeA	**LOT NUMBER:**	M3PFPeA0417
COMPOUND:	Perfluoro-n-[3,4,5-$^{13}C_3$]pentanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_2HF_9O_2$	**MOLECULAR WEIGHT:**	267.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($3,4,5\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	04/20/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/20/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.95% of perfluoro-n-[$^{13}C_3$]butanoic acid and 0.05% of perfluoro-1-pentanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/24/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17K3041

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

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EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

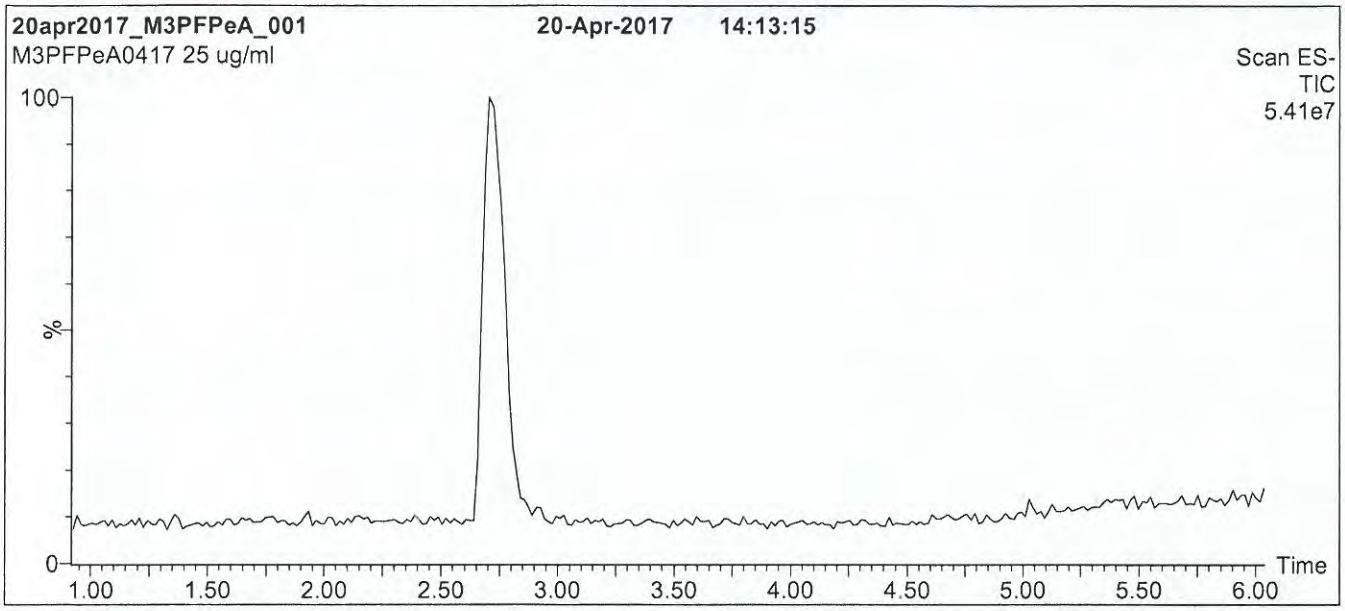
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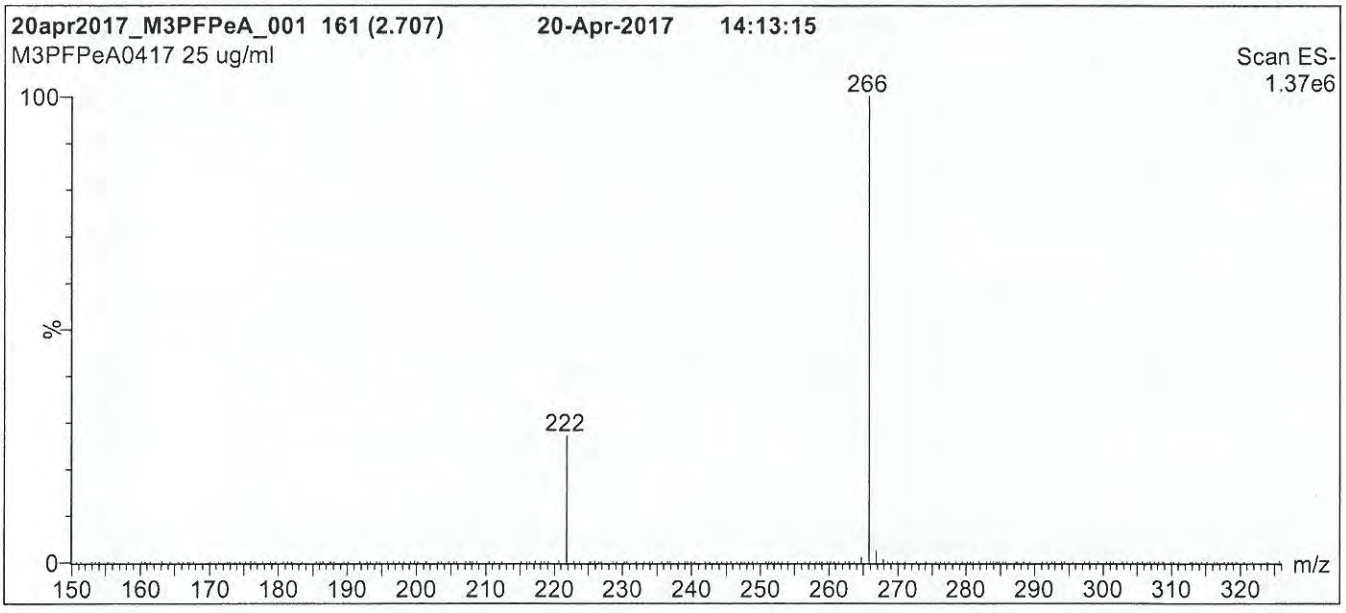
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17K3041

Figure 1: **M3PFPeA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for
2 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

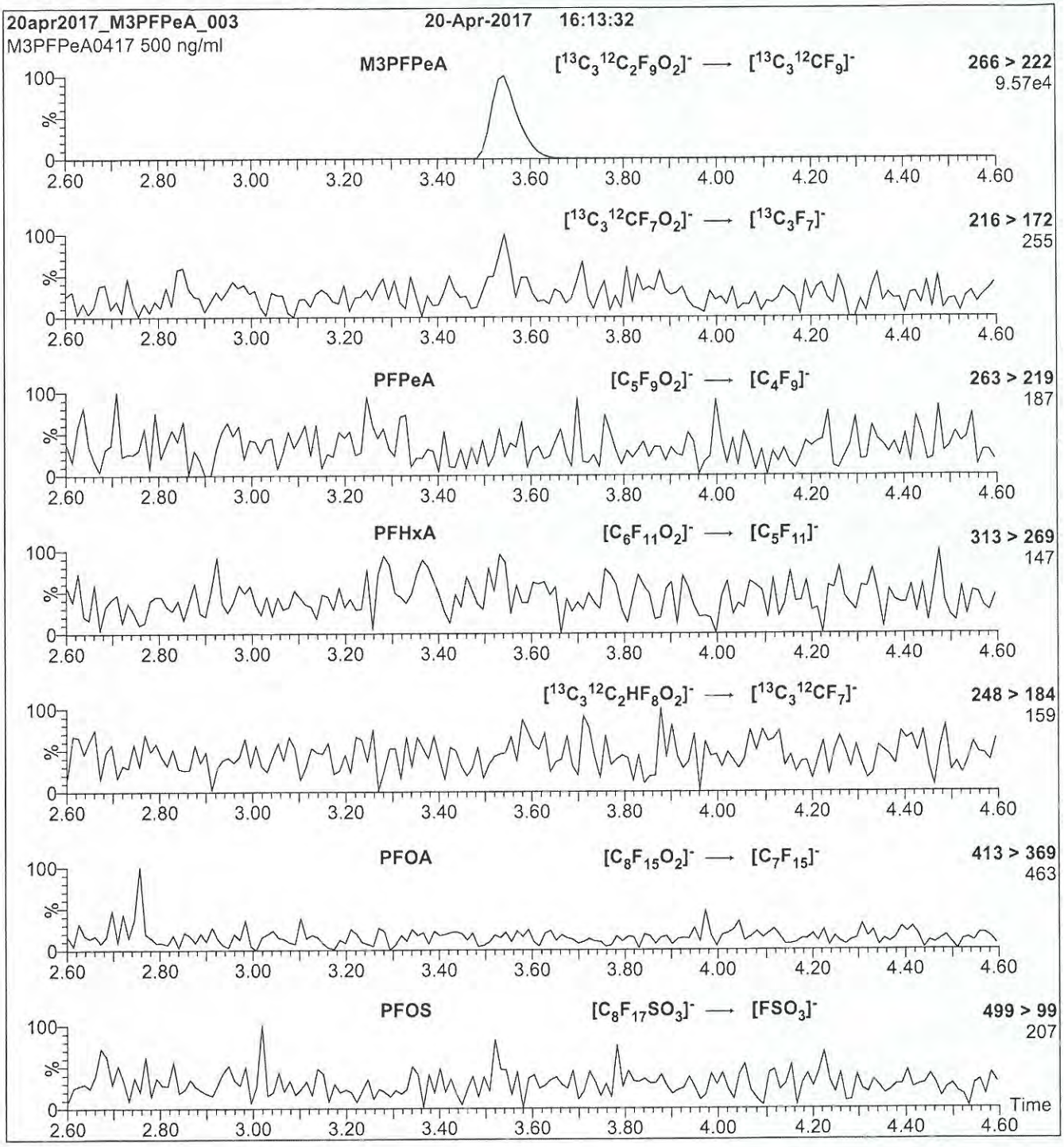
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17K3041

Figure 2: **M3PFPeA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFPeA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 9

Analytical Standard Record

Vista Analytical Laboratory

17K2502

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	(mls)
17J0526	13C6-PFDA	05-Oct-17	** Vendor **	31-May-21	0.5
17J0527	13C8-PFOA	05-Oct-17	** Vendor **	05-Jul-22	0.51
17J1018	13C4-PFBA	10-Oct-17	** Vendor **	12-Apr-22	0.5
17J1019	13C5-PFHxA	10-Oct-17	** Vendor **	27-Aug-19	0.5
17J1020	13C9-PFNA	10-Oct-17	** Vendor **	23-May-22	0.5
17J1021	13C7-PFUdA	10-Oct-17	** Vendor **	13-Jul-22	0.5
17J1022	13C3-PFHxS	10-Oct-17	** Vendor **	05-Jul-22	0.53
17J1023	13C4-PFOS	10-Oct-17	** Vendor **	19-May-22	0.525
17J1024	13C2-FOUEA	10-Oct-17	** Vendor **	02-Aug-18	0.5

Description:	PFC-RS	Expires:	25-Nov-19
Standard Type:	Reagent	Prepared:	25-Nov-17
Solvent:	MeOH	Prepared By:	Isaac N. Johnson
Final Volume (mls):	20	Department:	LCMS
Vials:	1	Last Edit:	25-Nov-17 10:25 by INJ

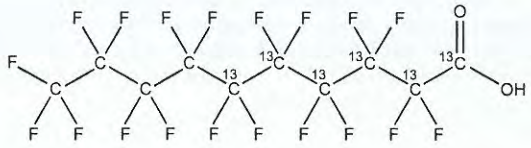
Analyte	CAS Number	Concentration	Units
13C9-PFNA		1.25	ug/mL
13C8-PFOA		1.25	ug/mL
13C7-PFUnA		1.25	ug/mL
13C6-PFDA		1.25	ug/mL
13C5-PFHxA		1.25	ug/mL
13C4-PFOS		1.25	ug/mL
13C4-PFBA		1.25	ug/mL
13C3-PFHxS		1.25	ug/mL
13C2-FOUEA		1.25	ug/mL

17J0526

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M6PFDA	**LOT NUMBER:**	M6PFDA0516
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6-$^{13}C_6$]decanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_6{}^{12}C_4HF_{19}O_2$	**MOLECULAR WEIGHT:**	520.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C (1,2,3,4,5,6-$^{13}C_6$)
LAST TESTED: (mm/dd/yyyy)	05/31/2016		
EXPIRY DATE: (mm/dd/yyyy)	05/31/2021		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 06/13/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J0526

INTENDED USE:

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HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

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UNCERTAINTY:

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The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters x_1, x_2,...x_n on which it depends is:

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where x is expressed as a relative standard uncertainty of the individual parameter.

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TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

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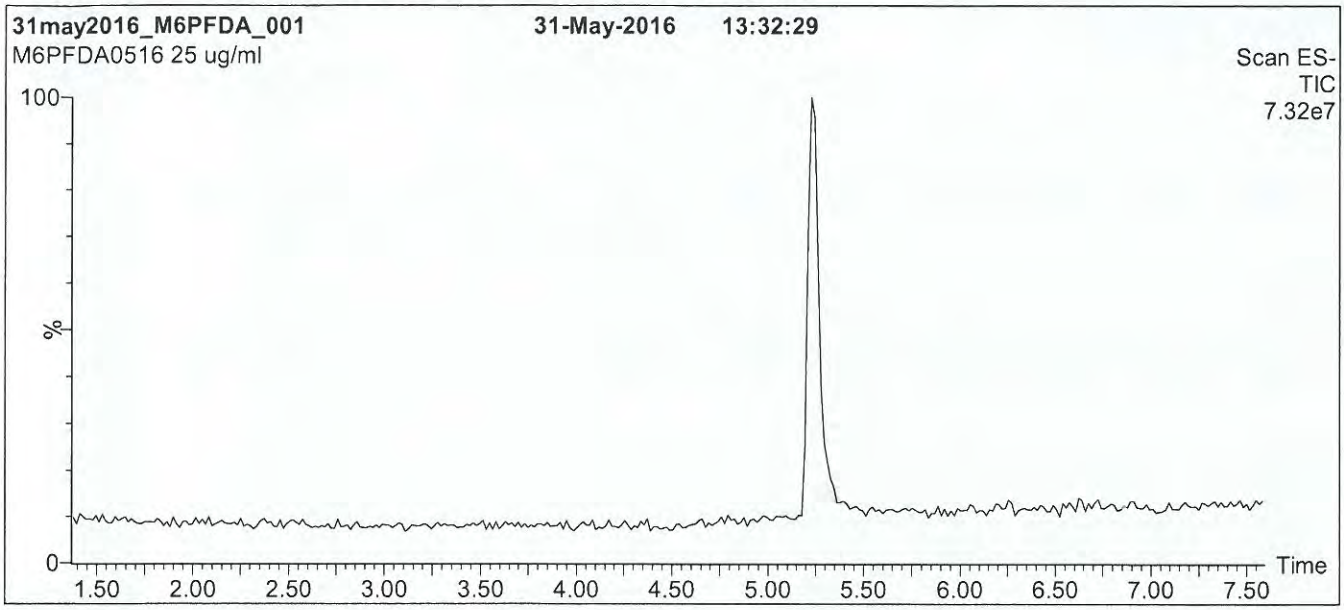
CALA Testing

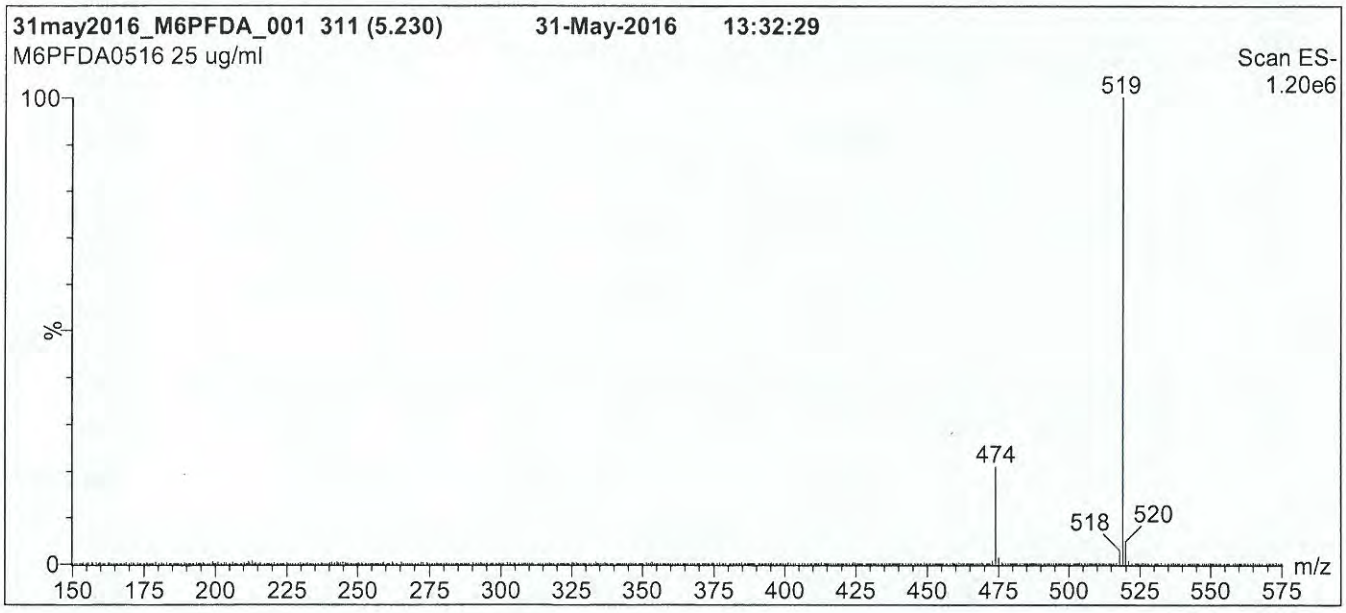
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

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17J0526

Figure 1: **M6PFDA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

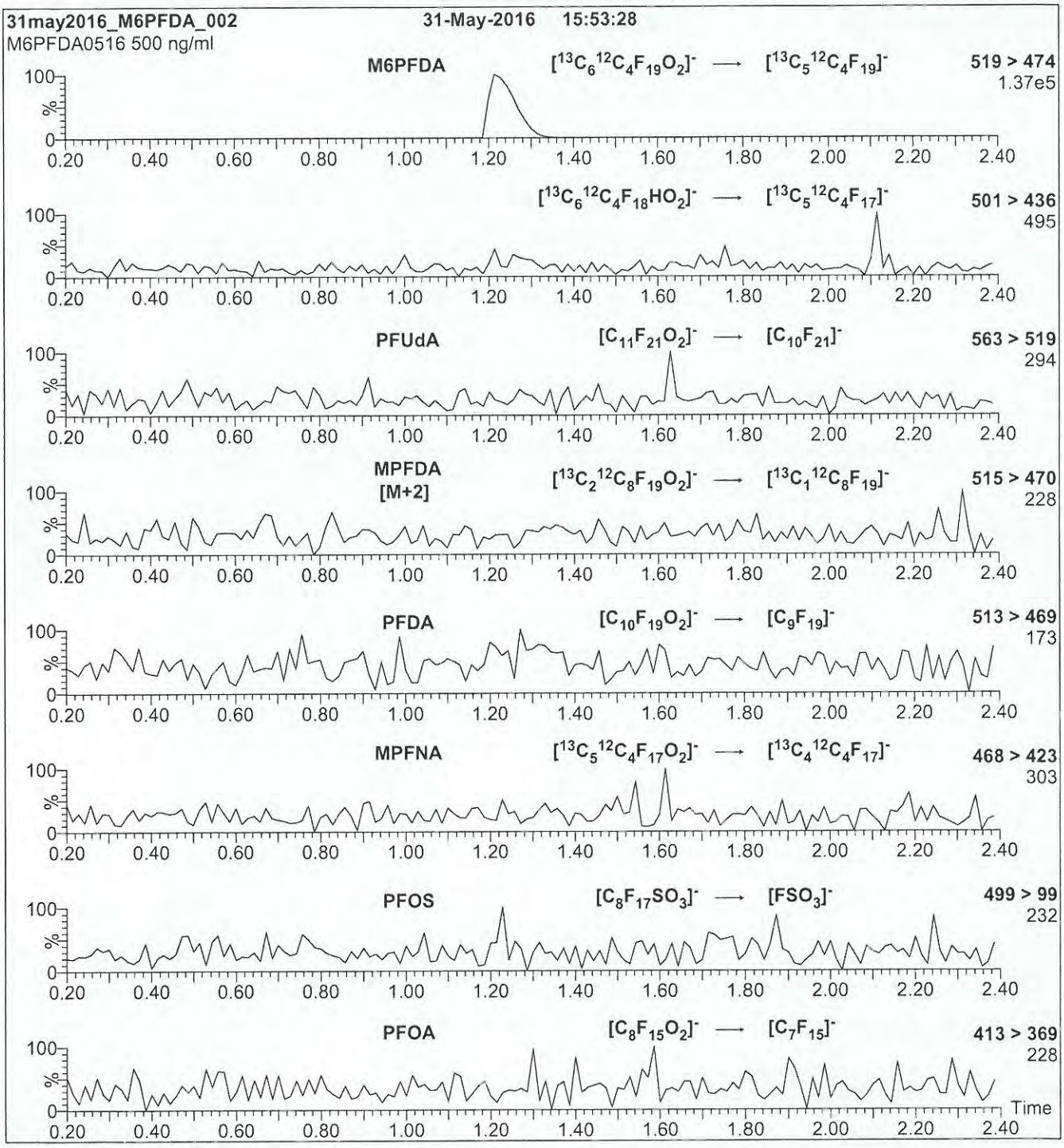
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J0526

Figure 2: **M6PFDA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M6PFDA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

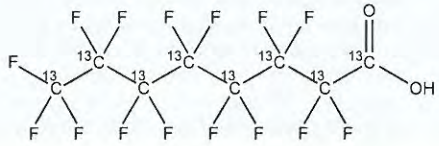
Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 13

~~176~~ INJ 10/5/17 17J0527

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	M8PFOA	**LOT NUMBER:**	M8PFOA0717
COMPOUND:	Perfluoro-n-[$^{13}C_8$]octanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_8HF_{15}O_2$	**MOLECULAR WEIGHT:**	422.01
CONCENTRATION:	49 ± 2.45 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	97.9% (M8PFOA) 2.1% (MPFOA [M+4])	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_8$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains < 0.1% of native perfluoro-n-octanoic acid (PFOA) and ~ 2.1% of [M+4] perfluoro-n-octanoic acid.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J0527

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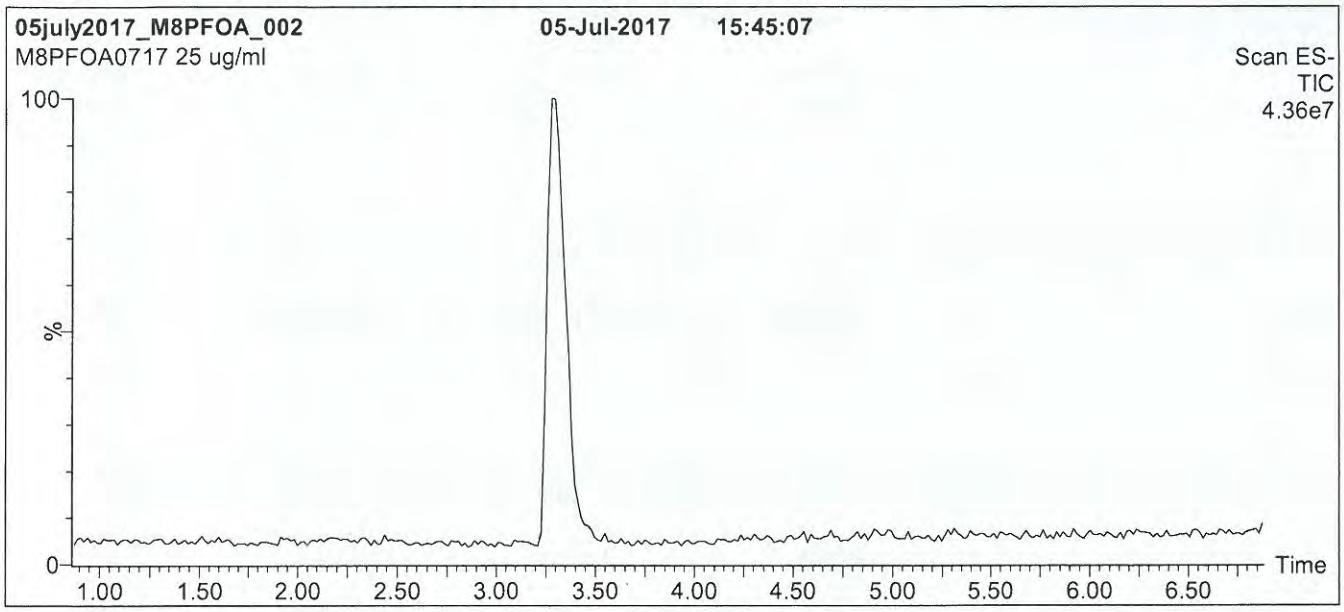
CALA

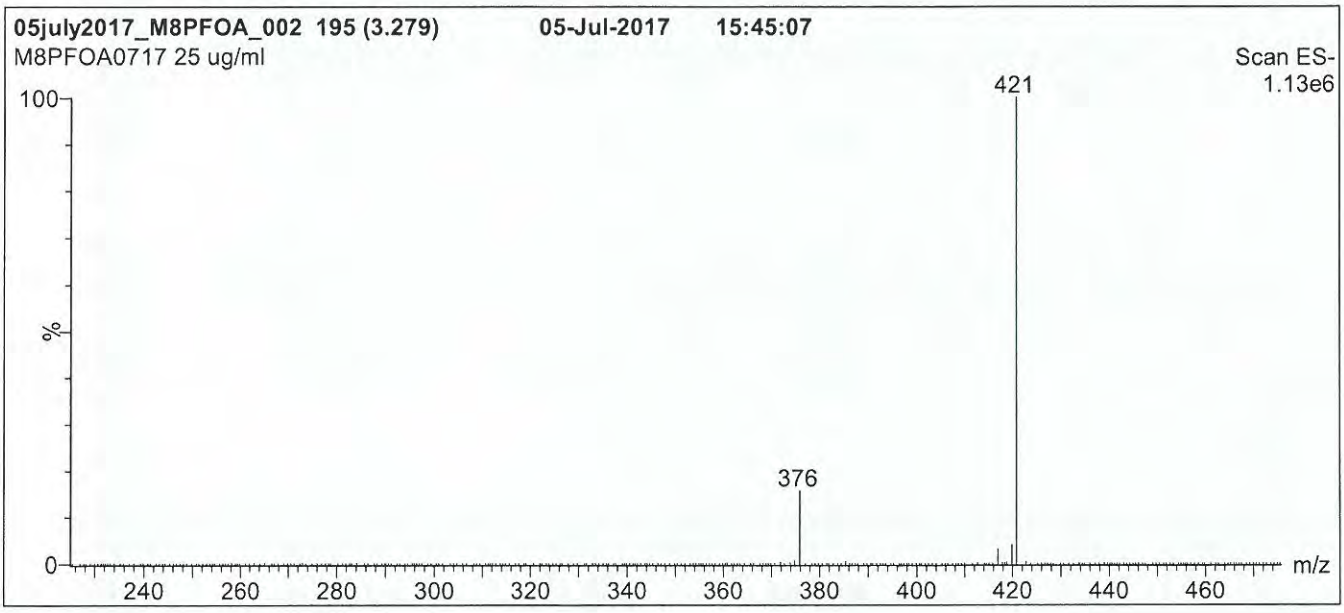
ANAB ACCREDITED

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17J0527

Figure 1: **M8PFOA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

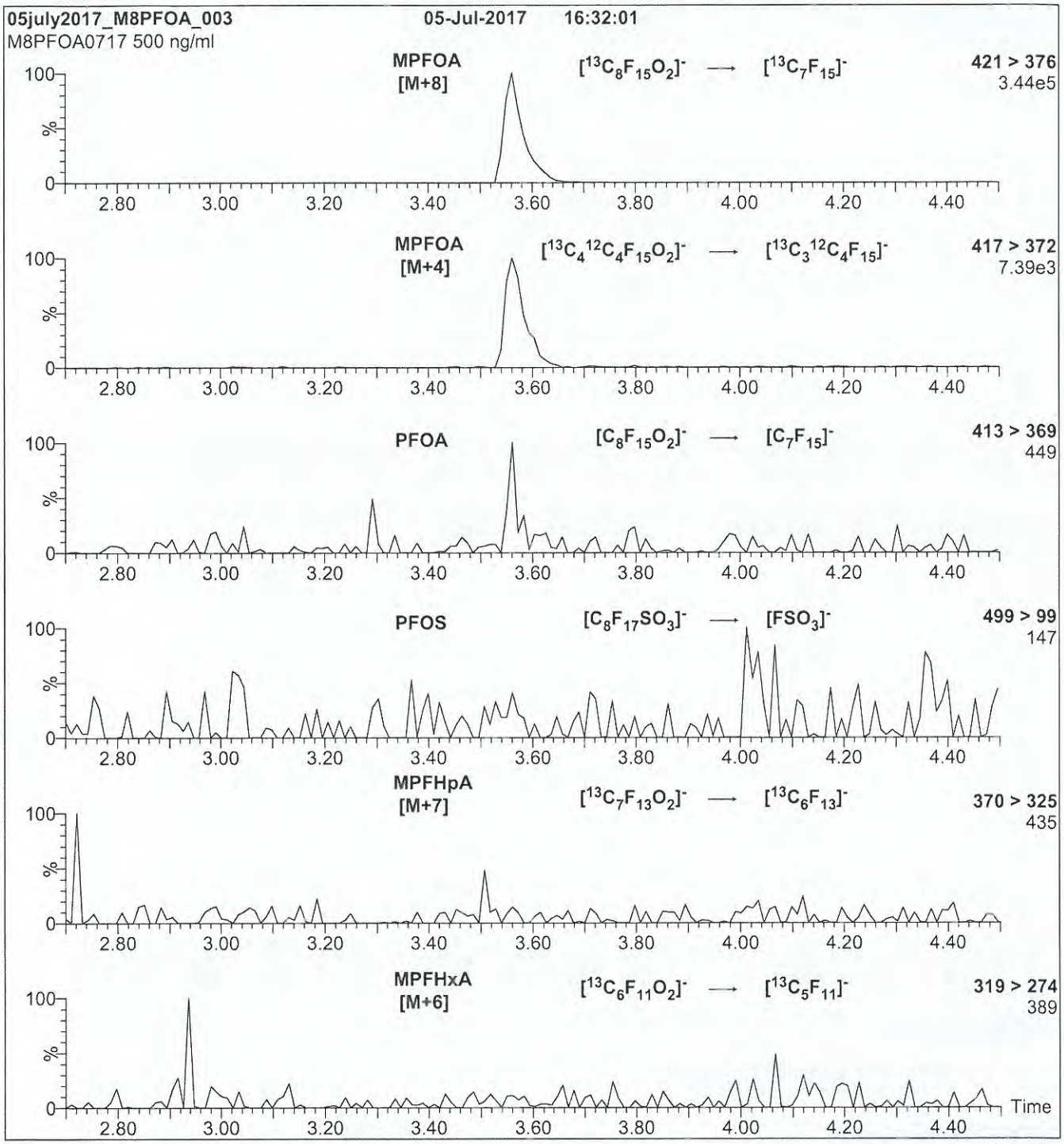
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J0527

Figure 2: **M8PFOA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M8PFOA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

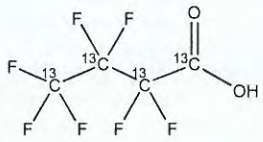
Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 10

17J1018

WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE:	MPFBA	**LOT NUMBER:**	MPFBA0417
COMPOUND:	Perfluoro-n-[1,2,3,4-$^{13}C_4$]butanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_4HF_7O_2$	**MOLECULAR WEIGHT:**	218.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	04/12/2017		
EXPIRY DATE: (mm/dd/yyyy)	04/12/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 04/20/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

SYNTHESIS / CHARACTERIZATION:

Where possible, all of our products are synthesized using single-product unambiguous routes. They are then characterized, and their structures and purities confirmed, using a combination of the most relevant techniques, such as NMR, GC/MS, LC/MS/MS, SFC/UV/MS/MS, x-ray crystallography, and melting point. Isotopic purities of mass-labelled compounds are also confirmed using HRGC/HRMS and/or LC/MS/MS.

HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

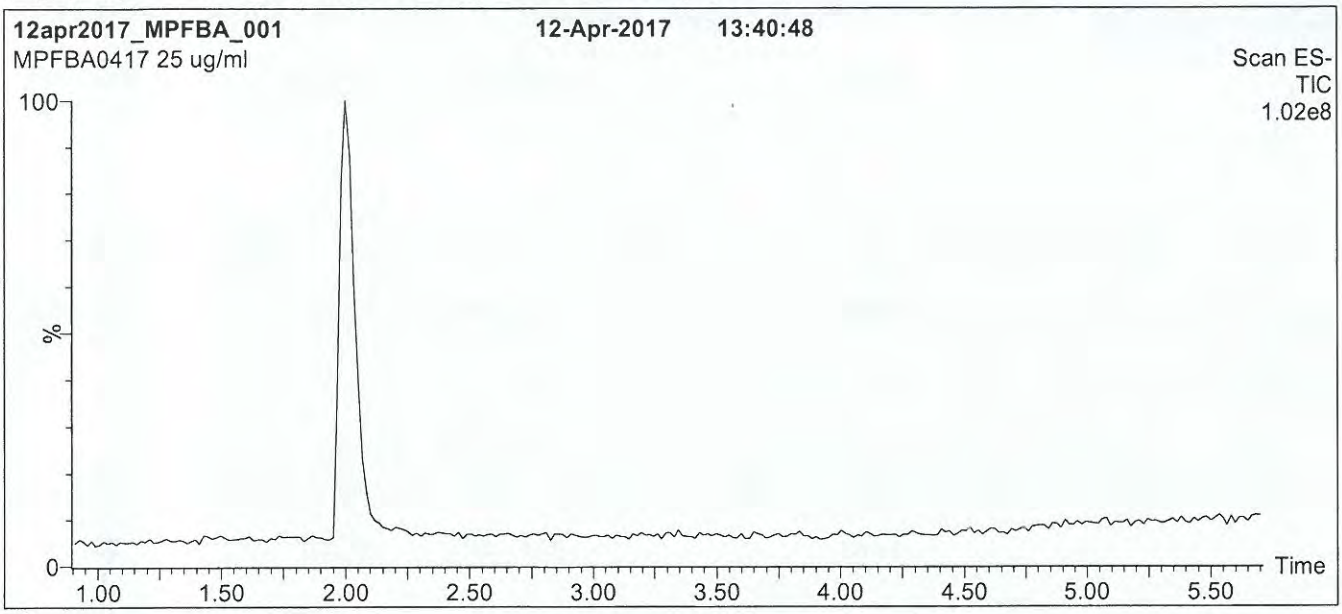
CALA

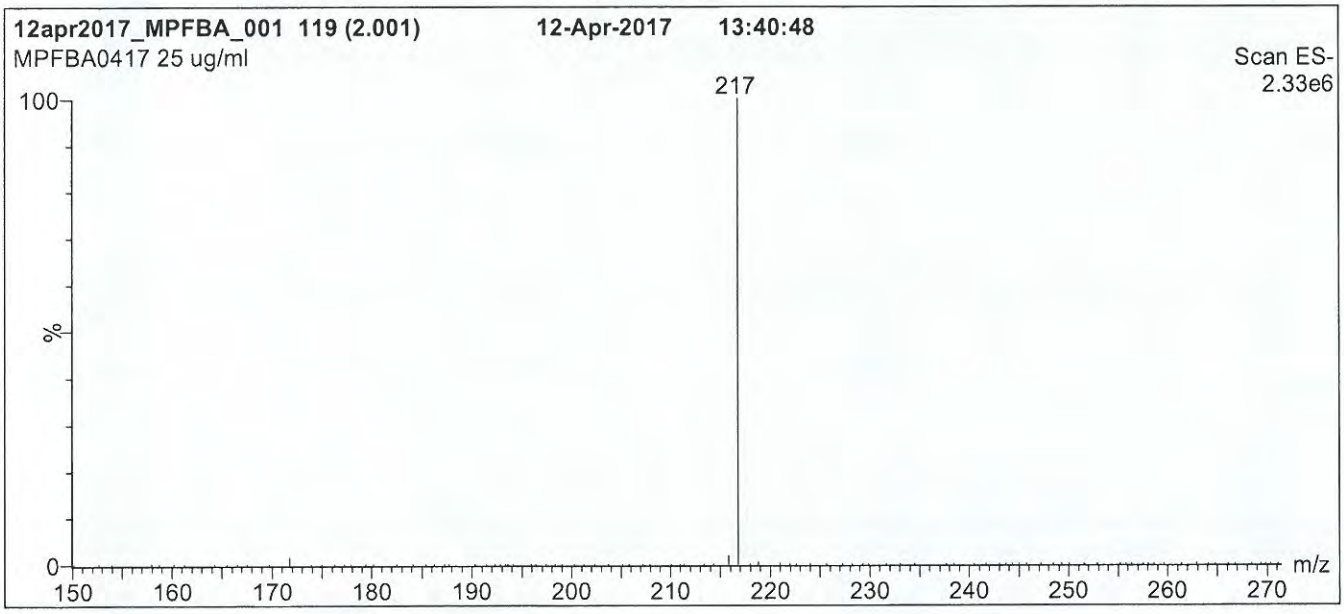
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1018

Figure 1: **MPFBA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 30% (80:20 MeOH:ACN) / 70% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

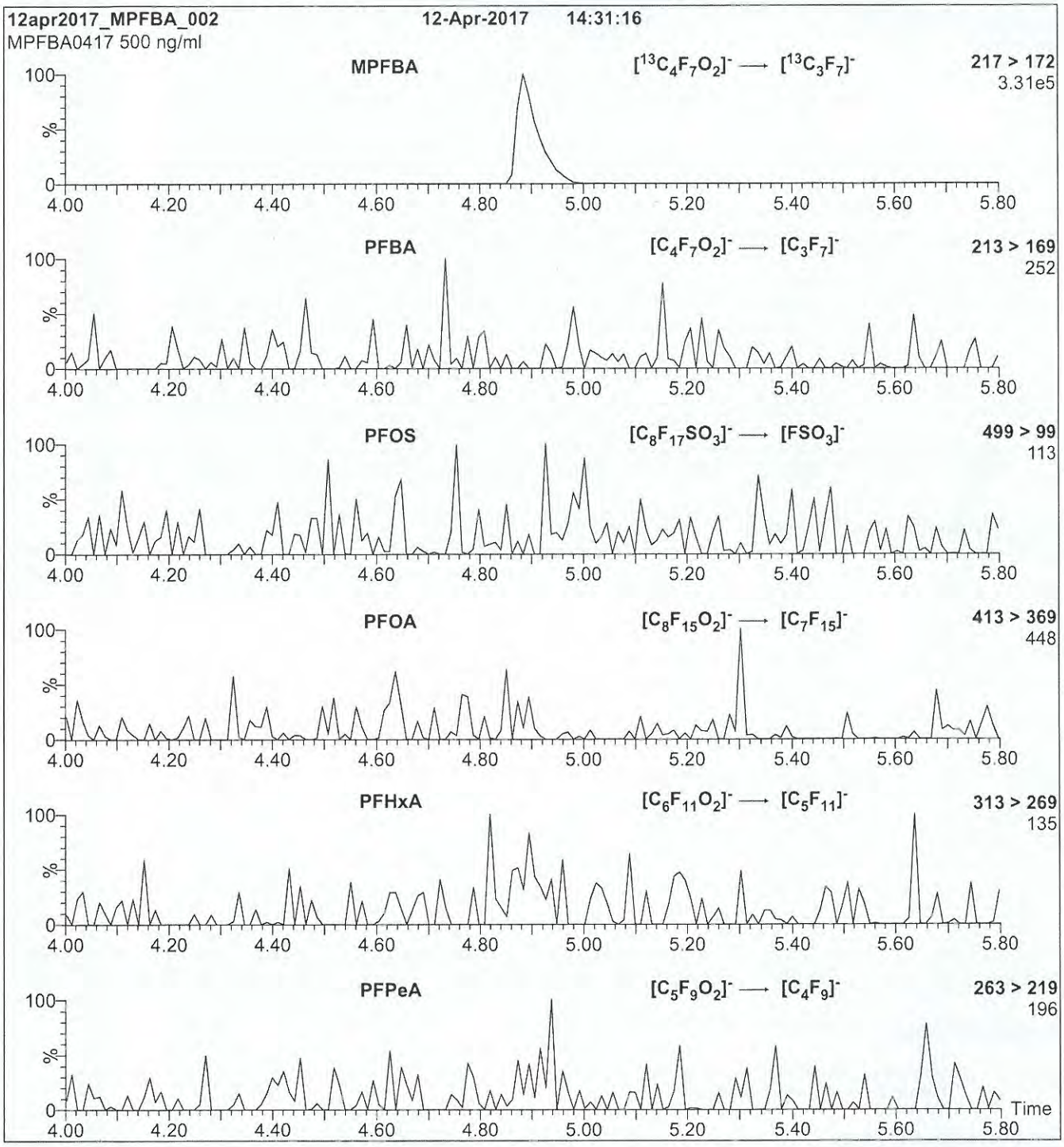
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 10.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

17J1018

Figure 2: **MPFBA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFBA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.35e-3
Collision Energy (eV) = 10

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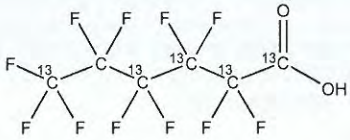
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M5PFHxA
COMPOUND: Perfluoro-n-[1,2,3,4,6-$^{13}C_5$]hexanoic acid

LOT NUMBER: M5PFHxA0814

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_5{}^{12}C_1HF_{11}O_2$	**MOLECULAR WEIGHT:**	319.02
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4,6\text{-}^{13}C_5$)
LAST TESTED: (mm/dd/yyyy)	08/27/2014		
EXPIRY DATE: (mm/dd/yyyy)	08/27/2019		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 03/31/2015 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

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INTENDED USE:

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HAZARDS:

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SYNTHESIS / CHARACTERIZATION:

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HOMOGENEITY:

Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers.

UNCERTAINTY:

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$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

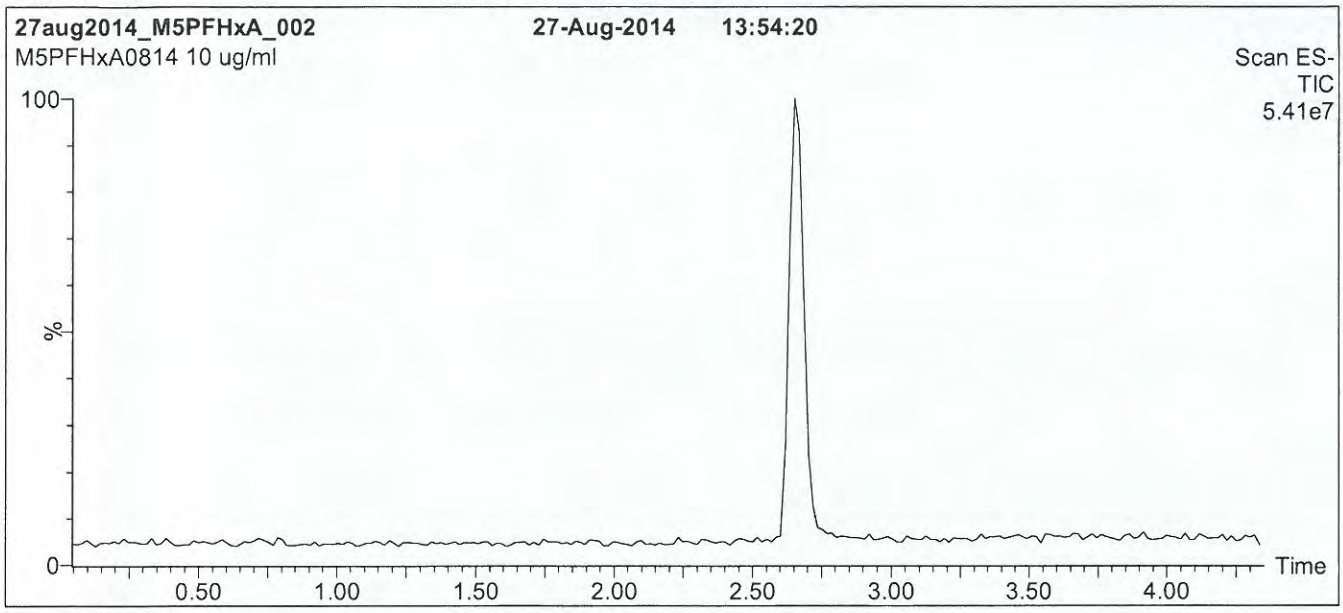
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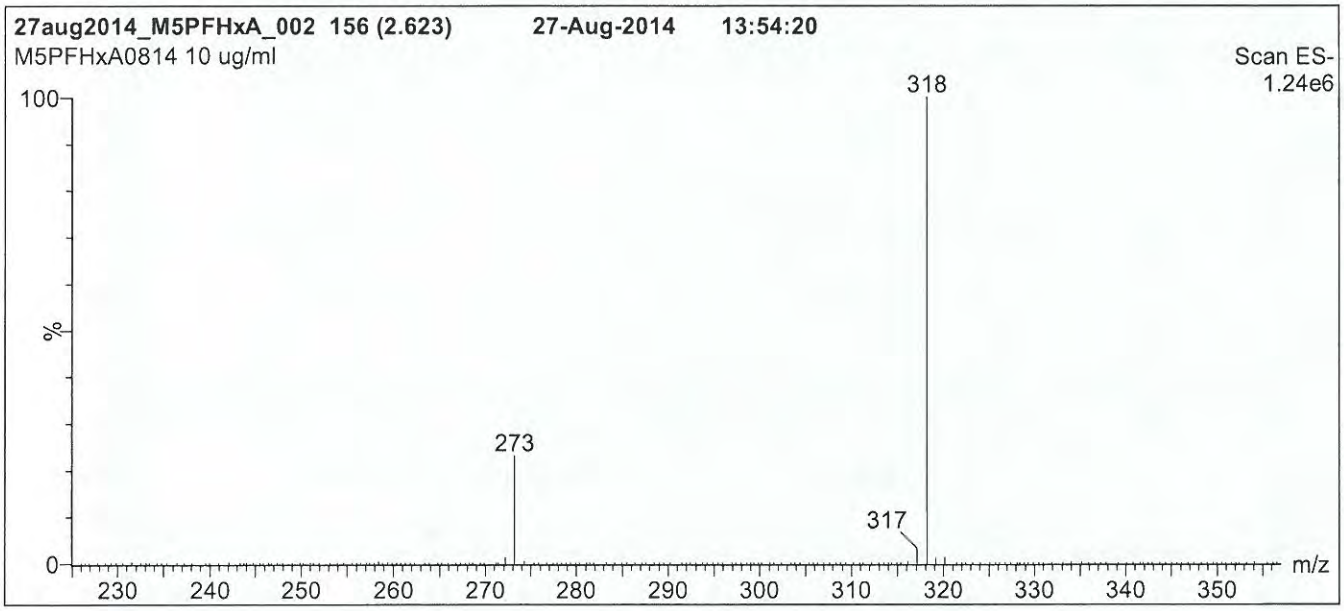
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1019

Figure 1: **M5PFHxA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 40% (80:20 MeOH:ACN) / 60% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

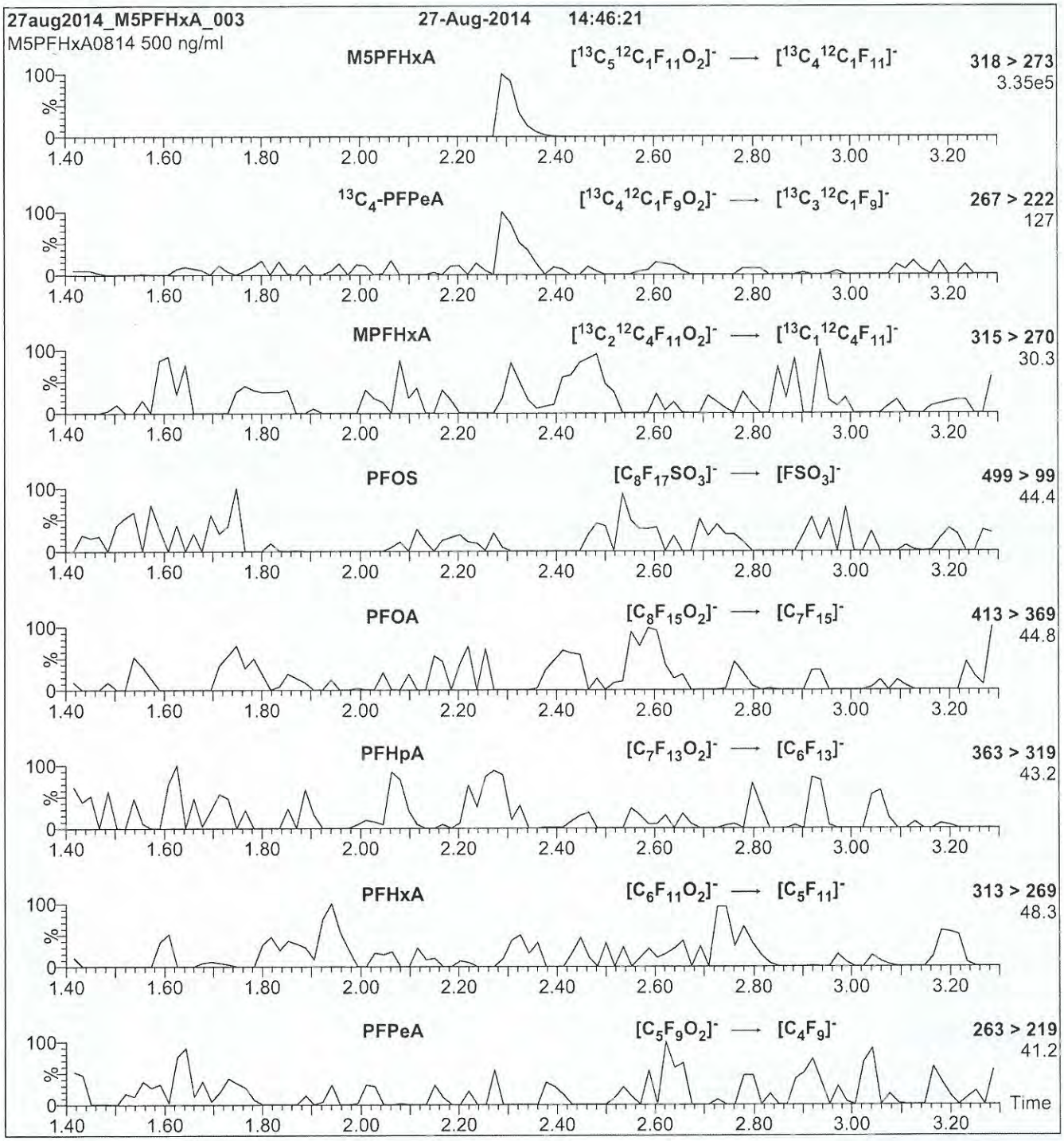
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 100
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **M5PFHxA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M5PFHxA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.54e-3
Collision Energy (eV) = 10

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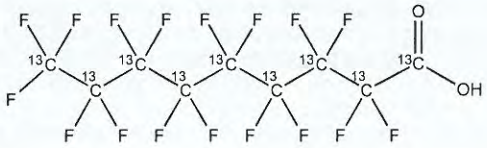
CERTIFICATE OF ANALYSIS
DOCUMENTATION

PRODUCT CODE: M9PFNA
COMPOUND: Perfluoro-n-[$^{13}C_9$]nonanoic acid

LOT NUMBER: M9PFNA0517

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_9HF_{17}O_2$	**MOLECULAR WEIGHT:**	473.01
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($^{13}C_9$)
LAST TESTED: (mm/dd/yyyy)	05/23/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/23/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.
- Contains ~ 0.9% of $^{13}C_5{}^{12}C_4HF_{17}O_2$ (MPFNA).

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/25/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1020

INTENDED USE:

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EXPIRY DATE / PERIOD OF VALIDITY:

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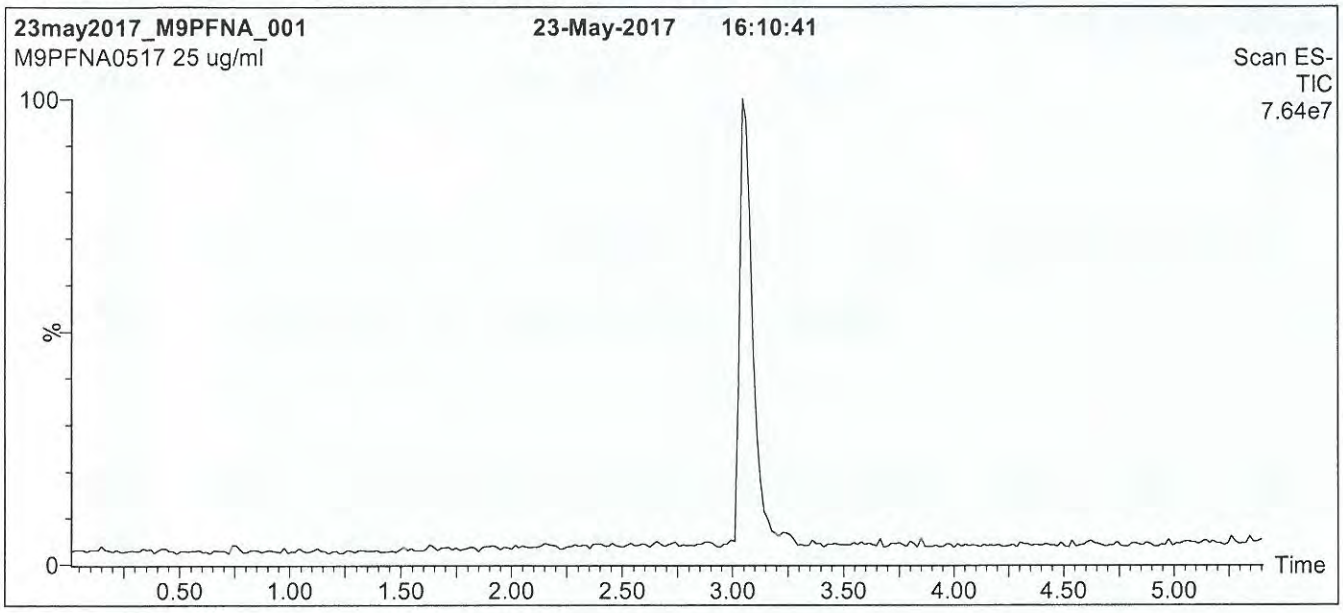
CALA

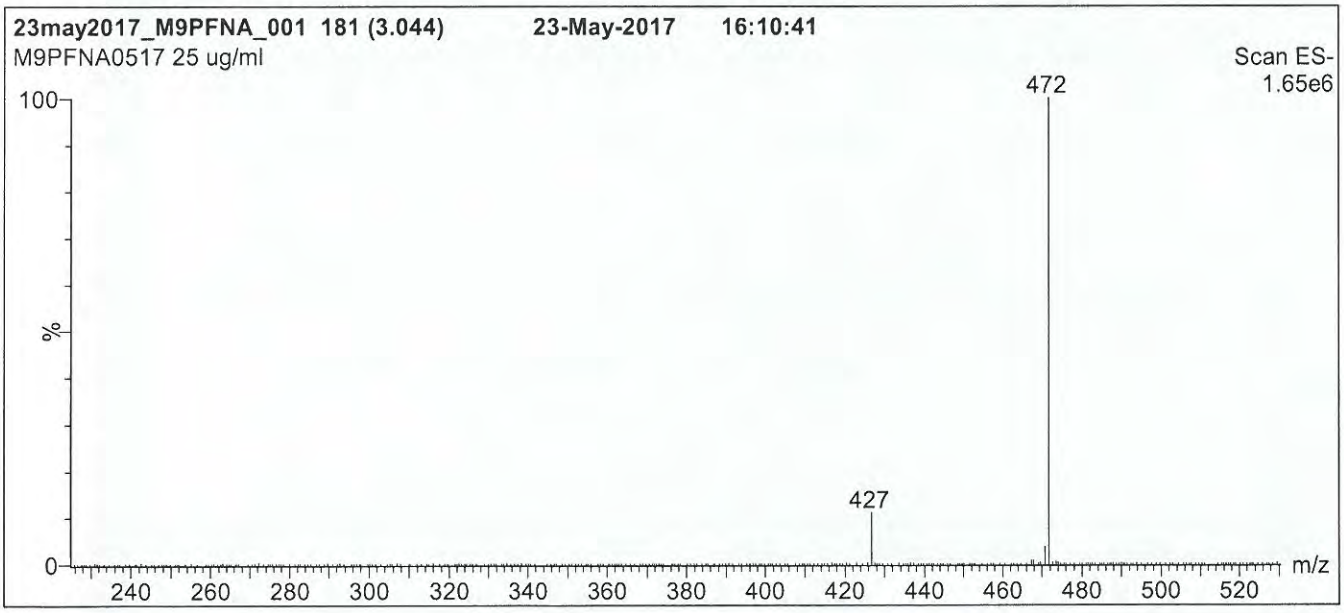
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1020

Figure 1: **M9PFNA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 60% (80:20 MeOH:ACN) / 40% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 1.5 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

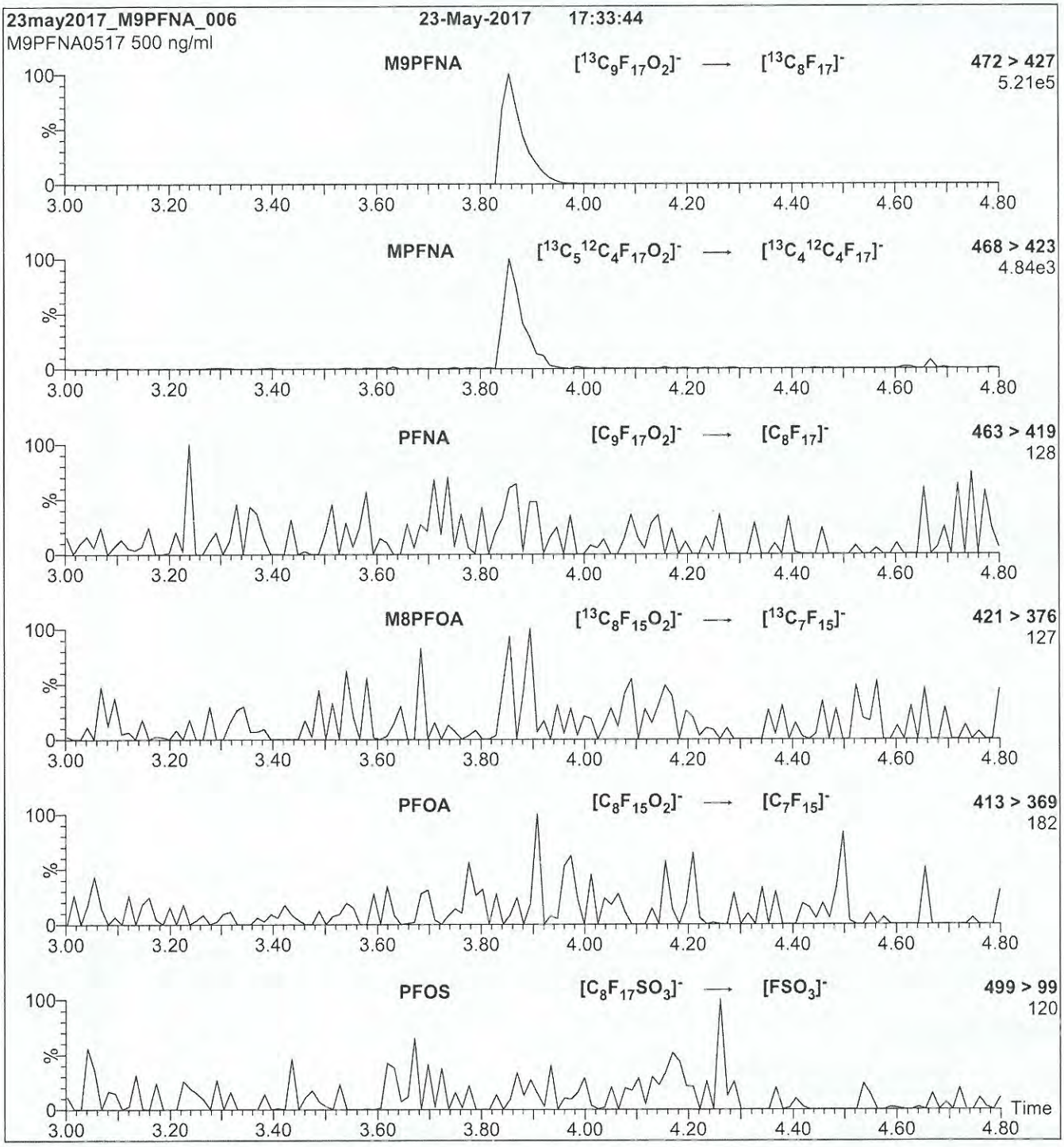
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 2.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J1020

Figure 2: **M9PFNA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M9PFNA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

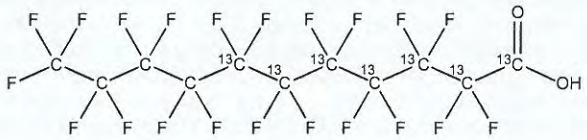
Collision Gas (mbar) = 3.20e-3
Collision Energy (eV) = 11

17J1021

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CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE:	M7PFUdA	**LOT NUMBER:**	M7PFUdA0717
COMPOUND:	Perfluoro-n-[1,2,3,4,5,6,7-$^{13}C_7$]undecanoic acid		
STRUCTURE:		**CAS #:**	Not available



MOLECULAR FORMULA:	$^{13}C_7{}^{12}C_4HF_{21}O_2$	**MOLECULAR WEIGHT:**	571.04
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Methanol Water (<1%)
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C
LAST TESTED: (mm/dd/yyyy)	07/13/2017		(1,2,3,4,5,6,7-$^{13}C_7$)
EXPIRY DATE: (mm/dd/yyyy)	07/13/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains 4 mole eq. of NaOH to prevent conversion of the carboxylic acid to the methyl ester.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1021

INTENDED USE:

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Prior to solution preparation, crystalline material is tested for homogeneity using a variety of techniques (as stated above) and its solubility in a given diluent is taken into consideration. Duplicate solutions of a new product are prepared from the same crystalline lot and, after the addition of an appropriate internal standard, they are compared by GC/MS, LC/MS/MS and/or SFC/UV/MS/MS. The relative response factors of the analyte of interest in each solution are required to be <5% RSD. New solution lots of existing products are compared to older lots in the same manner, which further confirms the homogeneity of the crystalline material as well as the stability and homogeneity of the solutions in the storage containers. In order to maintain the integrity of the assigned value(s), and associated uncertainty, the dilution or injection of a subsample of this product should be performed using calibrated measuring equipment.

UNCERTAINTY:

The maximum combined relative standard uncertainty of our reference standard solutions is calculated using the following equation:

The combined relative standard uncertainty, $u_c(y)$, of a value y and the uncertainty of the independent parameters $x_1, x_2, \ldots x_n$ on which it depends is:

$$u_c(y(x_1, x_2, \ldots x_n)) = \sqrt{\sum_{i=1}^{n} u(y, x_i)^2}$$

where x is expressed as a relative standard uncertainty of the individual parameter.

The individual uncertainties taken into account include those associated with weights (calibration of the balance) and volumes (calibration of the volumetric glassware). An expanded maximum combined percent relative uncertainty of ±5% (calculated with a coverage factor of 2 and a level of confidence of 95%) is stated on the Certificate of Analysis for all of our products.

TRACEABILITY:

All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using calibrated NIST and/or NRC traceable external weights. All volumetric glassware used is calibrated, of Class A tolerance, and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

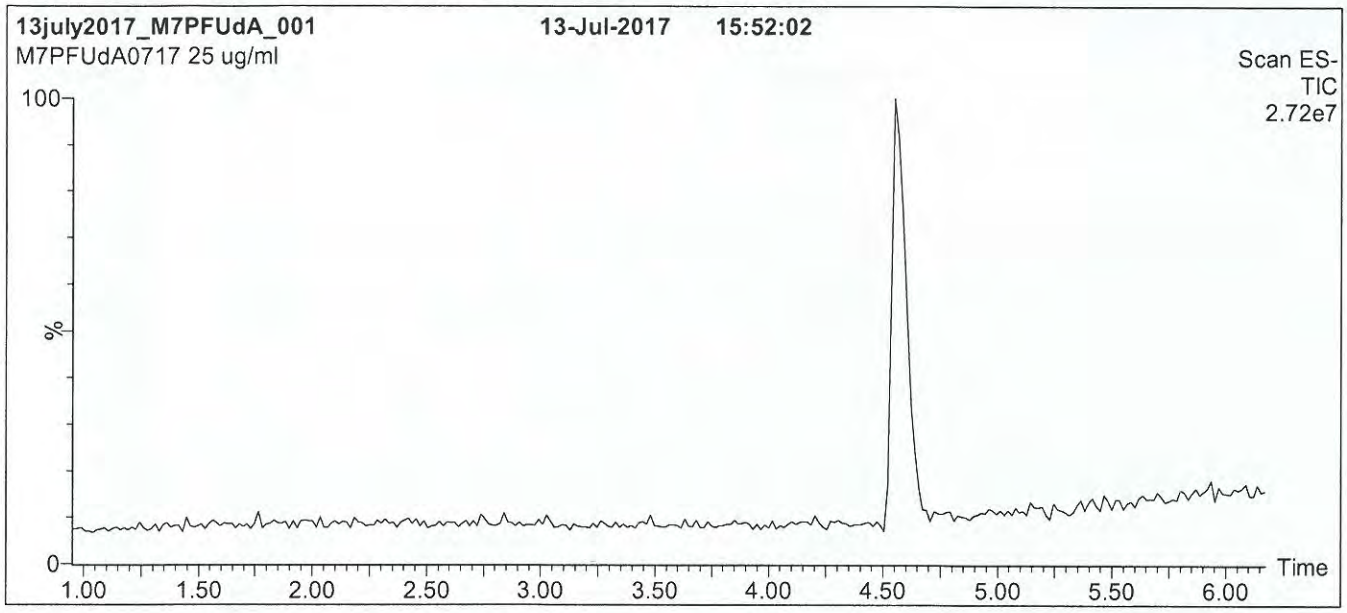
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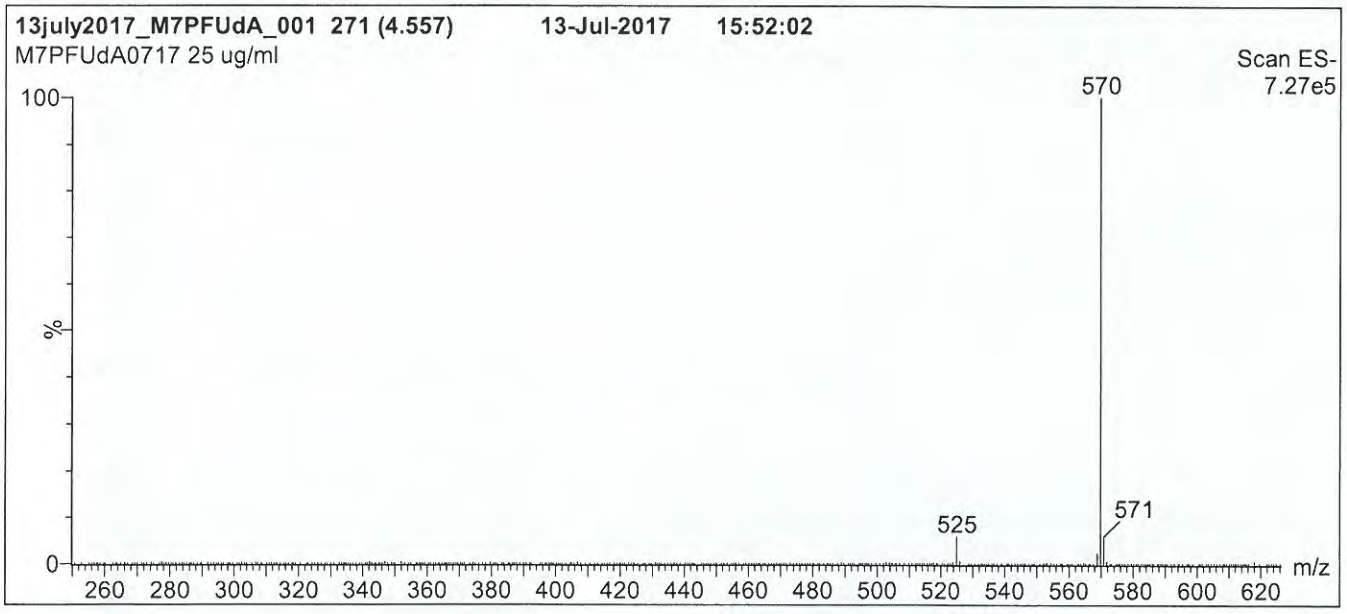
ANAB ACCREDITED Reference Material Producer

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1021

Figure 1: **M7PFUdA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold for 2 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

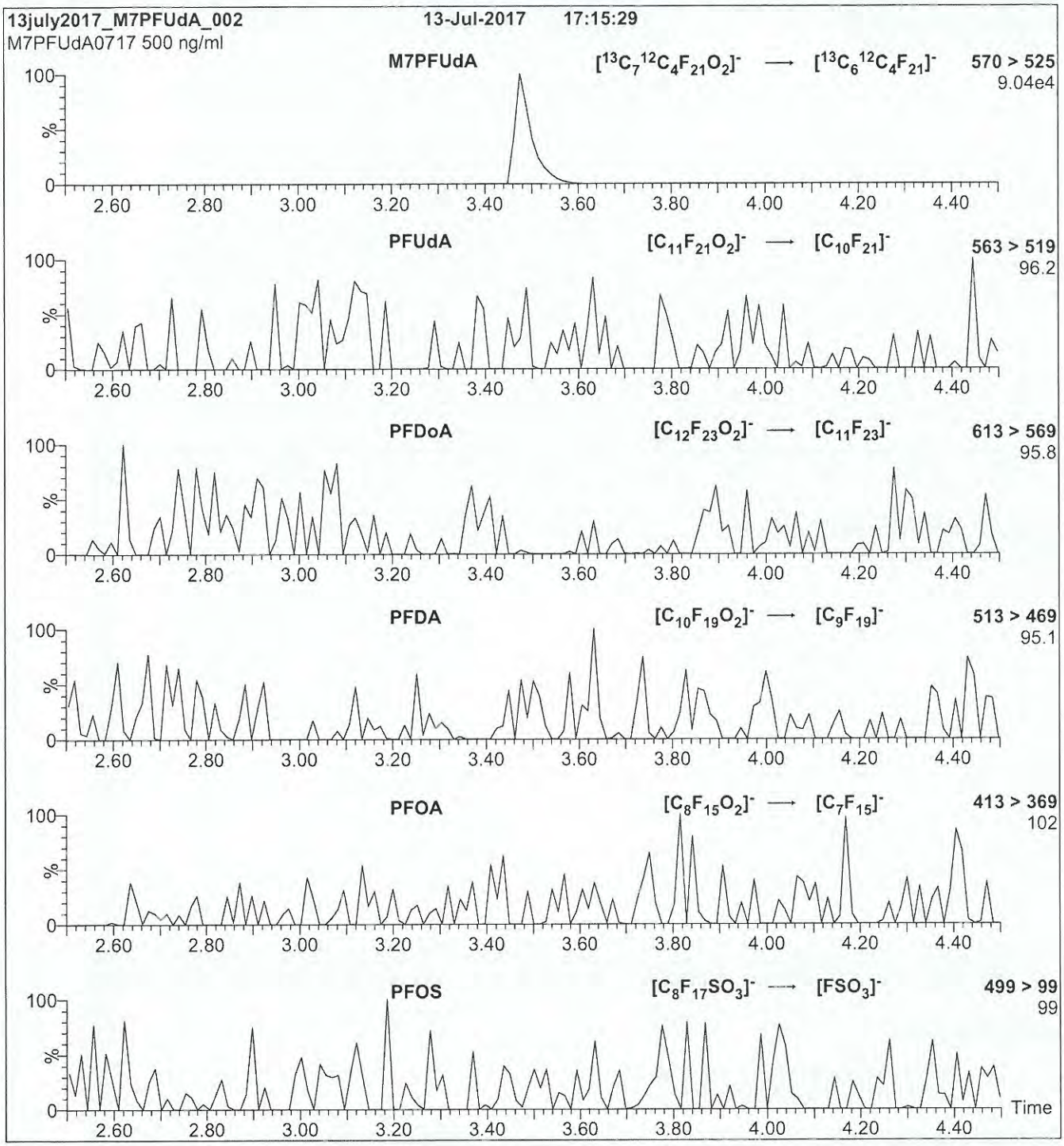
MS Parameters

Experiment: Full Scan (250 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 15.00
Cone Gas Flow (l/hr) = 65
Desolvation Gas Flow (l/hr) = 750

17J1021

Figure 2: **M7PFUdA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M7PFUdA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.28e-3
Collision Energy (eV) = 11

17J1022

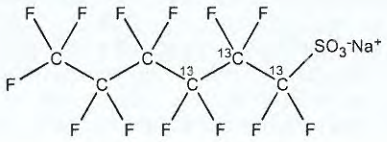
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: M3PFHxS **LOT NUMBER:** M3PFHxS0717

COMPOUND: Sodium perfluoro-1-[1,2,3-$^{13}C_3$]hexanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_3{}^{12}C_3F_{13}SO_3Na$	**MOLECULAR WEIGHT:**	425.07
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.3 ± 2.4 µg/ml (M3PFHxS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3\text{-}^{13}C_3$)
LAST TESTED: (mm/dd/yyyy)	07/05/2017		
EXPIRY DATE: (mm/dd/yyyy)	07/05/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 07/14/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1022

INTENDED USE:

The products prepared by Wellington Laboratories Inc. are for laboratory use only. This certified reference material (CRM) was designed to be used as a standard for the identification and/or quantification of the specific chemical compound it contains.

HAZARDS:

This product should only be used by qualified personnel familiar with its potential hazards and trained in the handling of hazardous chemicals. Due care should be exercised to prevent unnecessary human contact or ingestion. All procedures should be carried out in a well-functioning fume hood and suitable gloves, eye protection, and clothing should be worn at all times. Waste should be disposed of according to national and regional regulations. Safety Data Sheets (SDSs) are available upon request.

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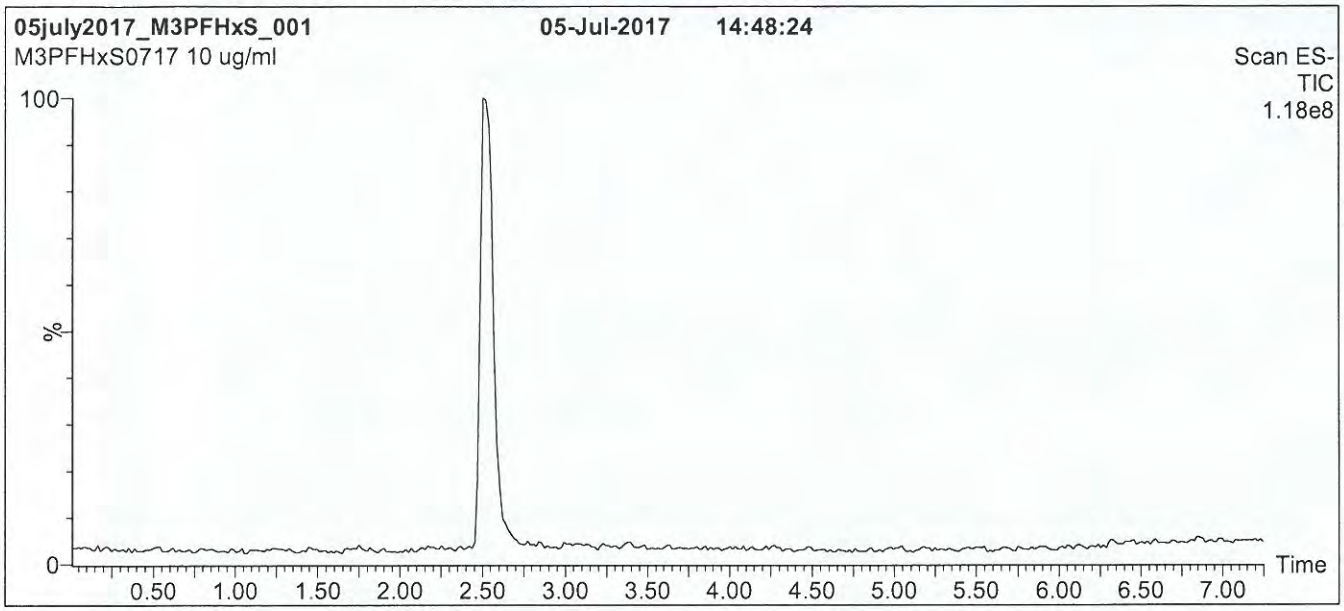
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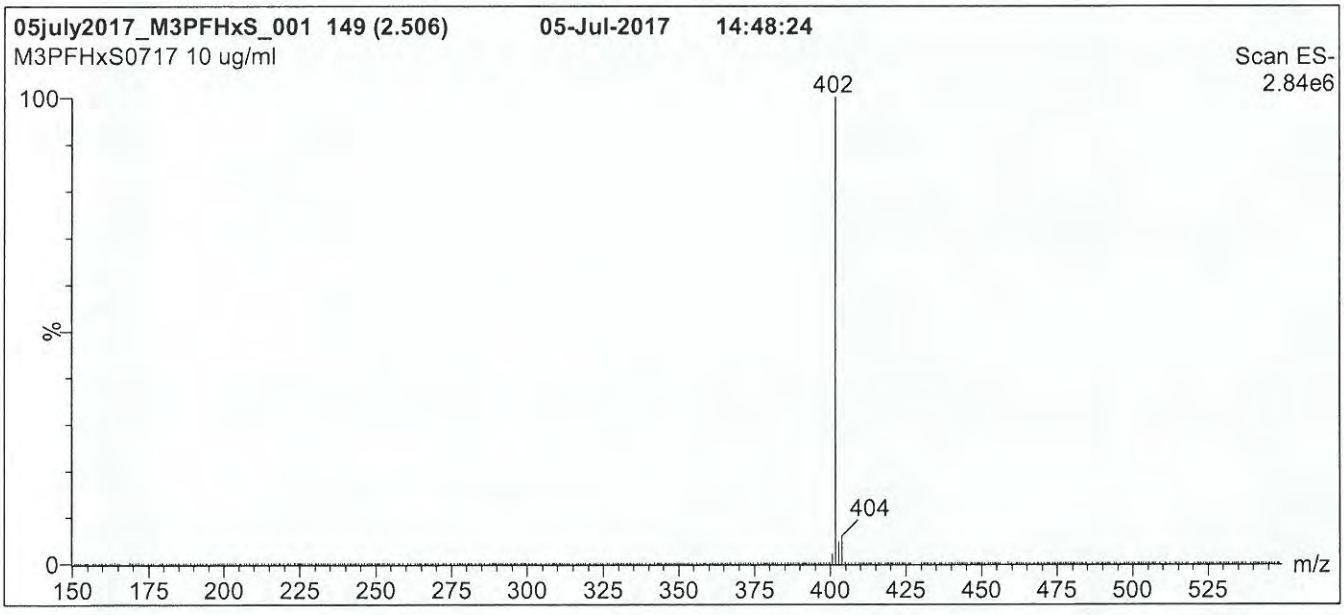
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1022

Figure 1: **M3PFHxS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 55% (80:20 MeOH:ACN) / 45% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7.5 min and hold for
1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

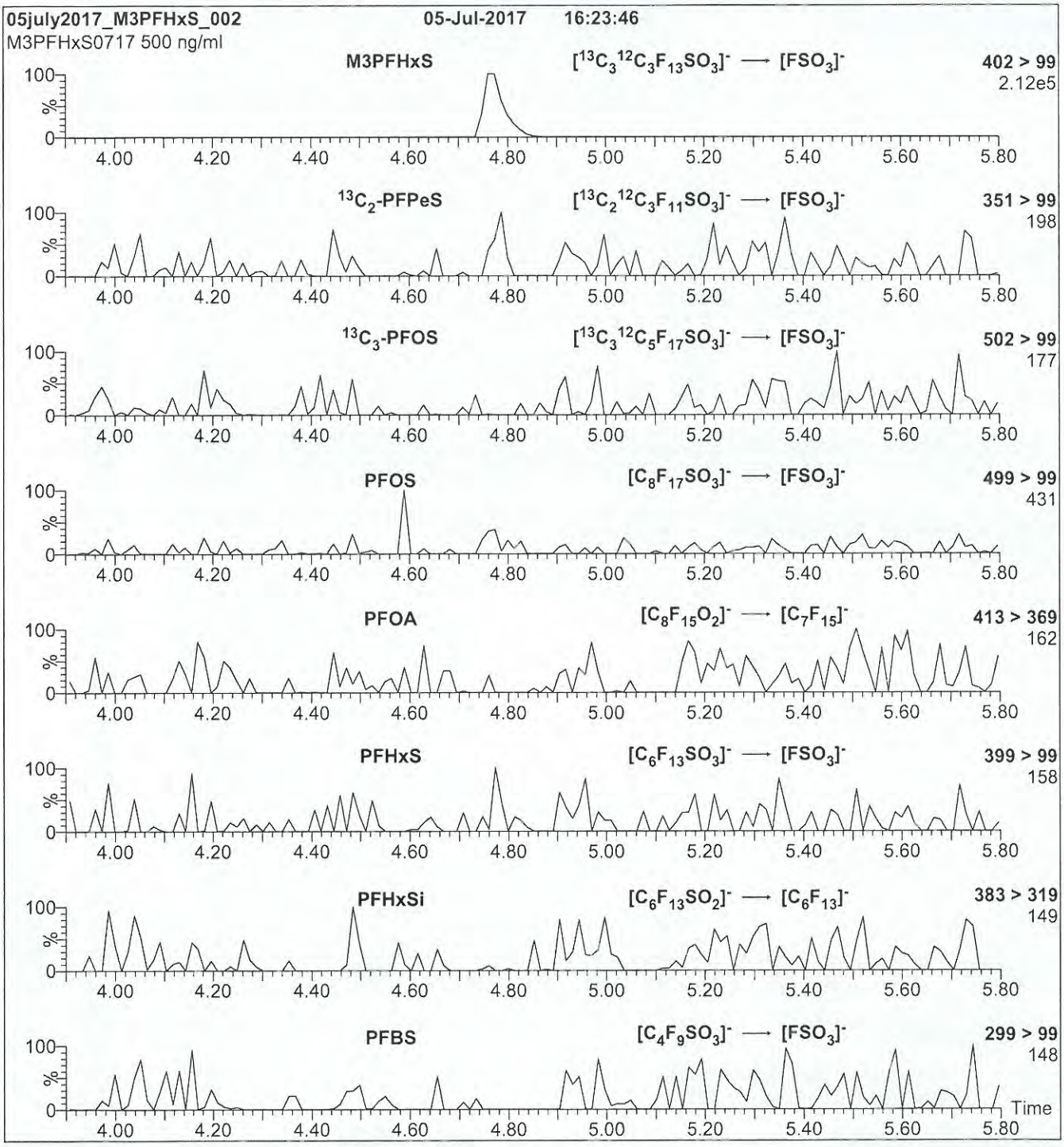
MS Parameters

Experiment: Full Scan (150 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 50.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

17J1022

Figure 2: **M3PFHxS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml M3PFHxS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.43e-3
Collision Energy (eV) = 30

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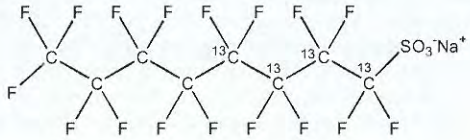
WELLINGTON LABORATORIES

CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MPFOS **LOT NUMBER:** MPFOS0517

COMPOUND: Sodium perfluoro-1-[1,2,3,4-$^{13}C_4$]octanesulfonate

STRUCTURE: **CAS #:** Not available



MOLECULAR FORMULA:	$^{13}C_4{}^{12}C_4F_{17}SO_3Na$	**MOLECULAR WEIGHT:**	526.08
CONCENTRATION:	50.0 ± 2.5 µg/ml (Na salt) 47.8 ± 2.4 µg/ml (MPFOS anion)	**SOLVENT(S):**	Methanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2,3,4$-$^{13}C_4$)
LAST TESTED: (mm/dd/yyyy)	05/19/2017		
EXPIRY DATE: (mm/dd/yyyy)	05/19/2022		
RECOMMENDED STORAGE:	Store ampoule in a cool, dark place		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Contains ~ 0.8% Sodium perfluoro-1-[1,2,3-$^{13}C_3$]heptanesulfonate.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: _____ **Date:** 05/30/2017 (mm/dd/yyyy)
B.G. Chittim, General Manager

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1023

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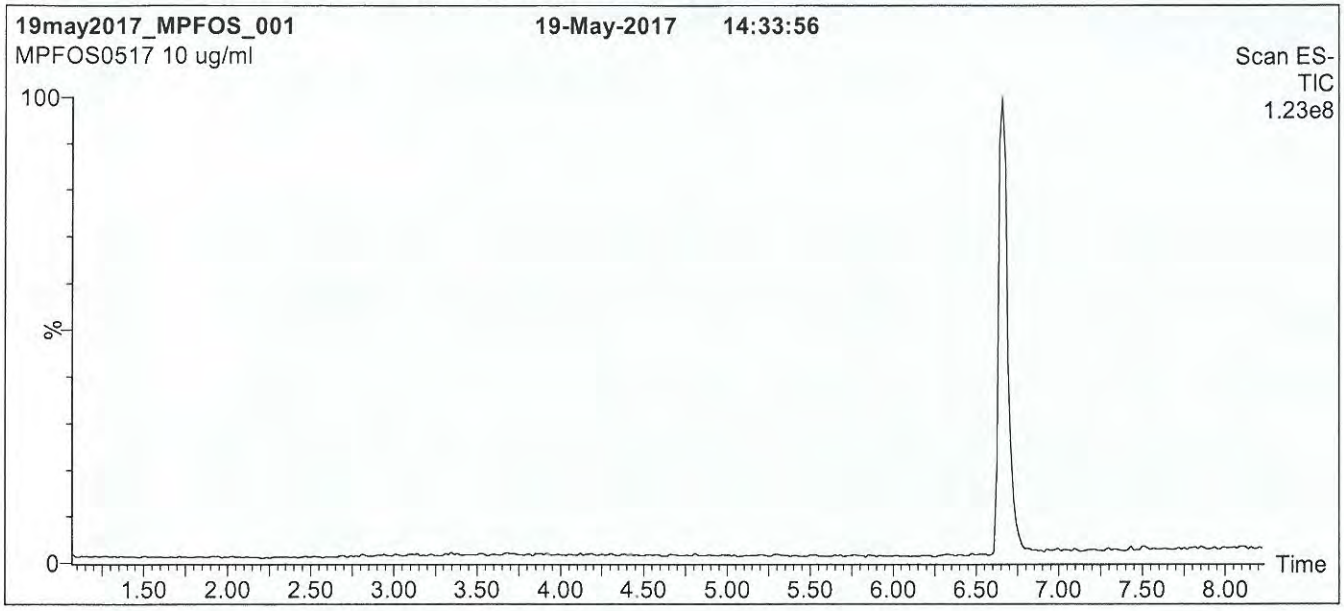
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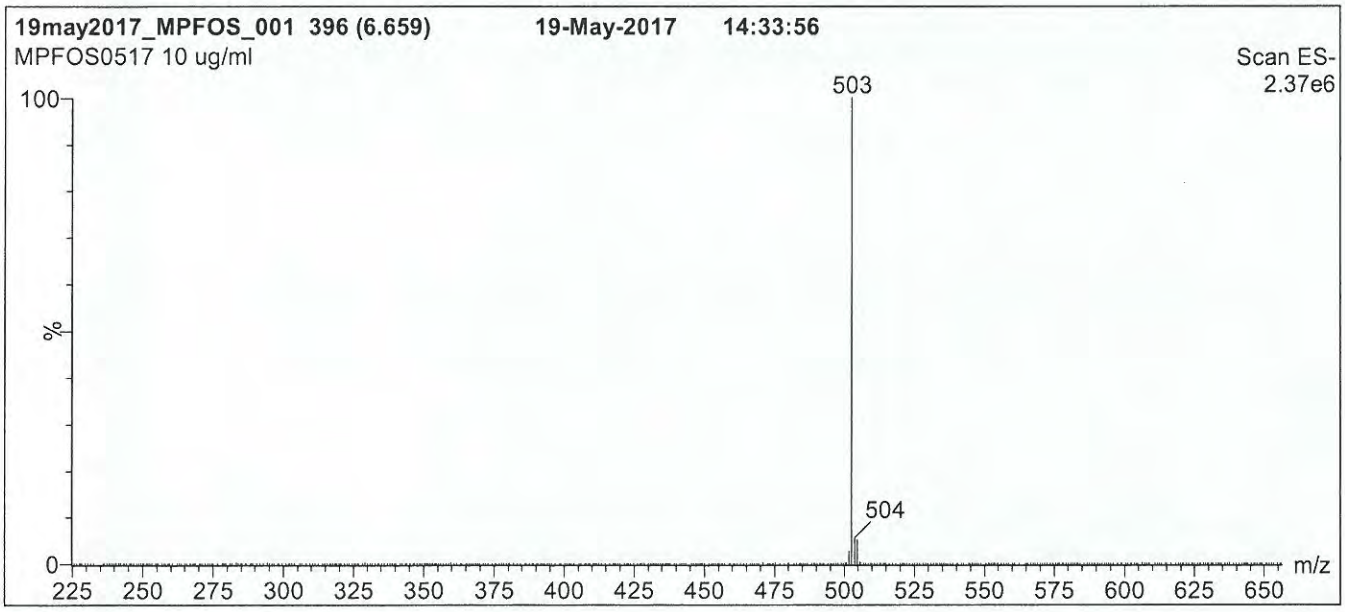
ANAB ACCREDITED

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1023

Figure 1: **MPFOS; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 8 min and hold for 1 min
before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

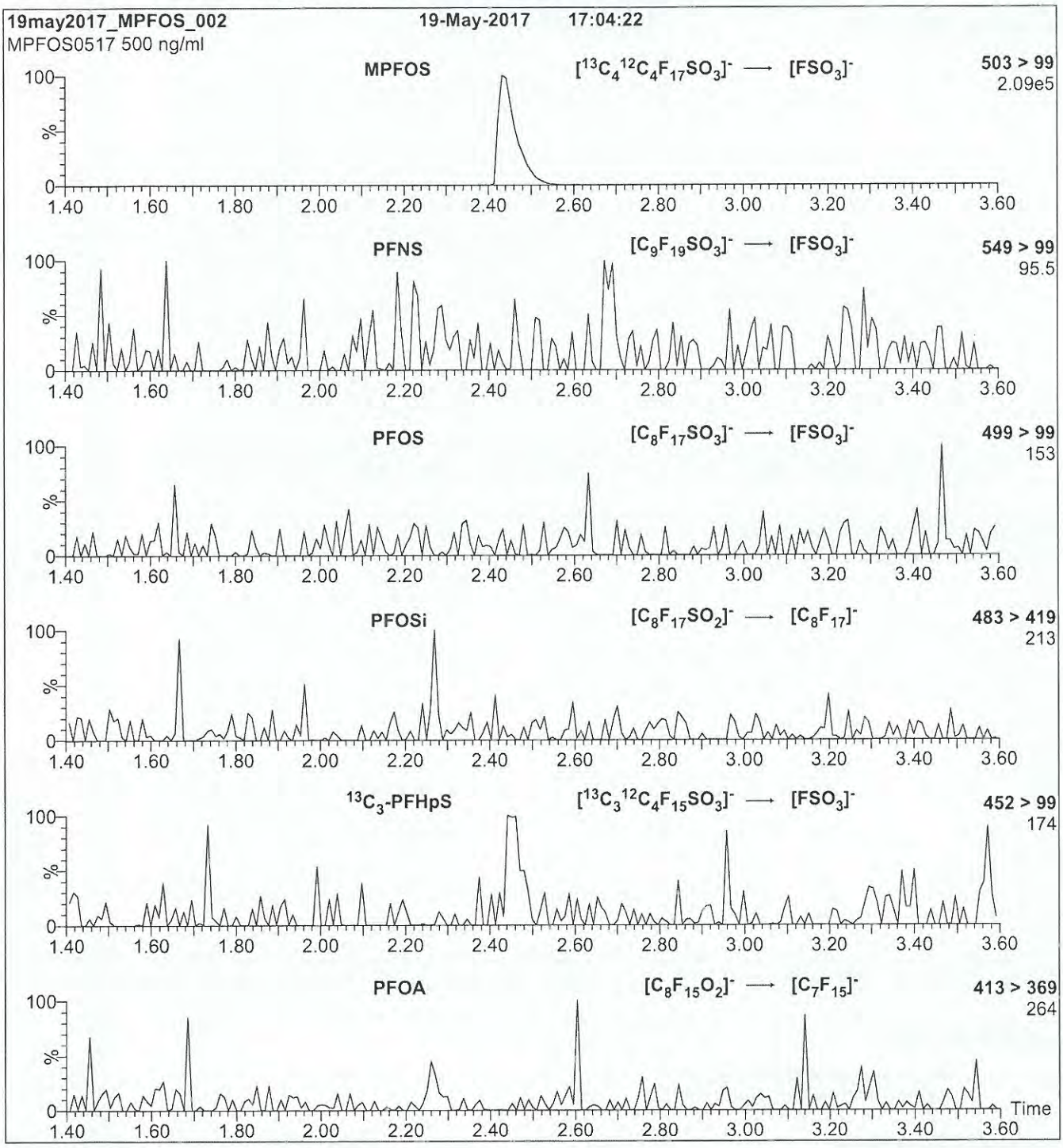
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 60.00
Cone Gas Flow (l/hr) = 50
Desolvation Gas Flow (l/hr) = 750

17J1023

Figure 2: **MPFOS; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MPFOS)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.31e-3
Collision Energy (eV) = 40

17J1024

WELLINGTON LABORATORIES

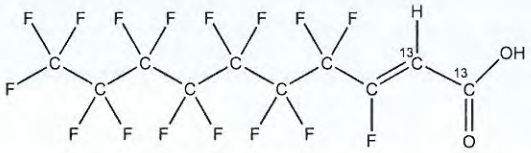
CERTIFICATE OF ANALYSIS DOCUMENTATION

PRODUCT CODE: MFOUEA
COMPOUND: 2H-Perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid

LOT NUMBER: MFOUEA0716

STRUCTURE:

CAS #: Not available



MOLECULAR FORMULA:	$^{13}C_2{}^{12}C_8H_2F_{16}O_2$	**MOLECULAR WEIGHT:**	460.08
CONCENTRATION:	50 ± 2.5 µg/ml	**SOLVENT(S):**	Anhydrous Isopropanol
CHEMICAL PURITY:	>98%	**ISOTOPIC PURITY:**	≥99% ^{13}C ($1,2\text{-}^{13}C_2$)
LAST TESTED: (mm/dd/yyyy)	08/02/2016		
EXPIRY DATE: (mm/dd/yyyy)	08/02/2018		
RECOMMENDED STORAGE:	Refrigerate ampoule		

DOCUMENTATION/ DATA ATTACHED:

Figure 1: LC/MS Data (TIC and Mass Spectrum)
Figure 2: LC/MS/MS Data (Selected MRM Transitions)

ADDITIONAL INFORMATION:

- See page 2 for further details.
- Dilution of this standard in methanol may lead to the formation of 2H-3-methoxy-perfluoro-[1,2-$^{13}C_2$]-2-decenoic acid. This reaction can be catalyzed by the presence of acid or base. All dilutions should be routinely checked for degradation.

FOR LABORATORY USE ONLY: NOT FOR HUMAN OR DRUG USE

Certified By: B.G. Chittim **Date:** 08/19/2016 (mm/dd/yyyy)

Wellington Laboratories Inc., 345 Southgate Dr. Guelph ON N1G 3M5 CANADA
519-822-2436 • Fax: 519-822-2849 • info@well-labs.com

17J1024

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All reference standard solutions are traceable to specific crystalline lots. The microbalances used for solution preparation are regularly tested by an external ISO/IEC 17025 accredited calibration company. In addition, their calibration is verified prior to each weighing using NIST and/or NRC traceable external weights. All volumetric glassware used is of Class A tolerance and has been tested according to the appropriate ASTM procedures, which are ultimately traceable to NIST. For certain products, traceability to international interlaboratory studies has also been established.

EXPIRY DATE / PERIOD OF VALIDITY:

Ongoing stability studies of this product have demonstrated stability in its composition and concentration, until the specified expiry date, in the unopened ampoule. Monitoring for any degradation or change in concentration of the listed analyte(s) is performed on a routine basis.

LIMITED WARRANTY:

At the time of shipment, all products are warranted to be free of defects in material and workmanship and to conform to the stated technical and purity specifications.

QUALITY MANAGEMENT:

This product was produced using a Quality Management System registered to the latest versions of ISO 9001 by SAI Global, ISO/IEC 17025 by the Canadian Association for Laboratory Accreditation Inc. (CALA; A 1226), and ISO GUIDE 34 by ANSI-ASQ National Accreditation Board (ANAB; AR-1523).

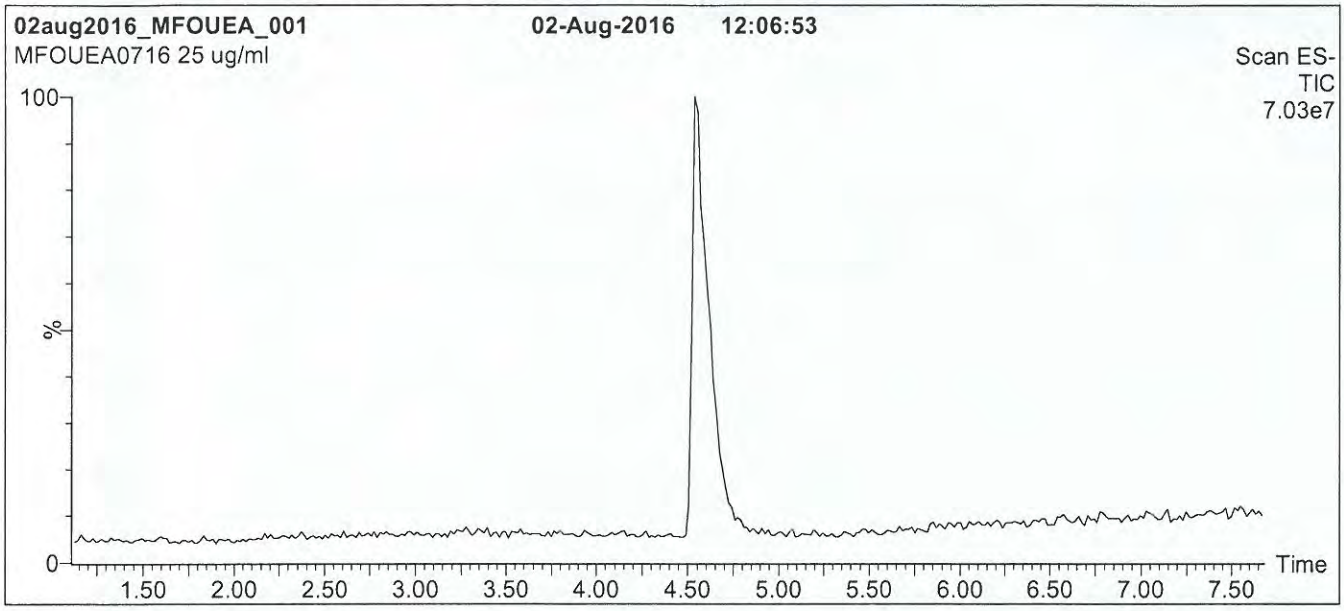
CALA Testing Accreditation No. A 1226

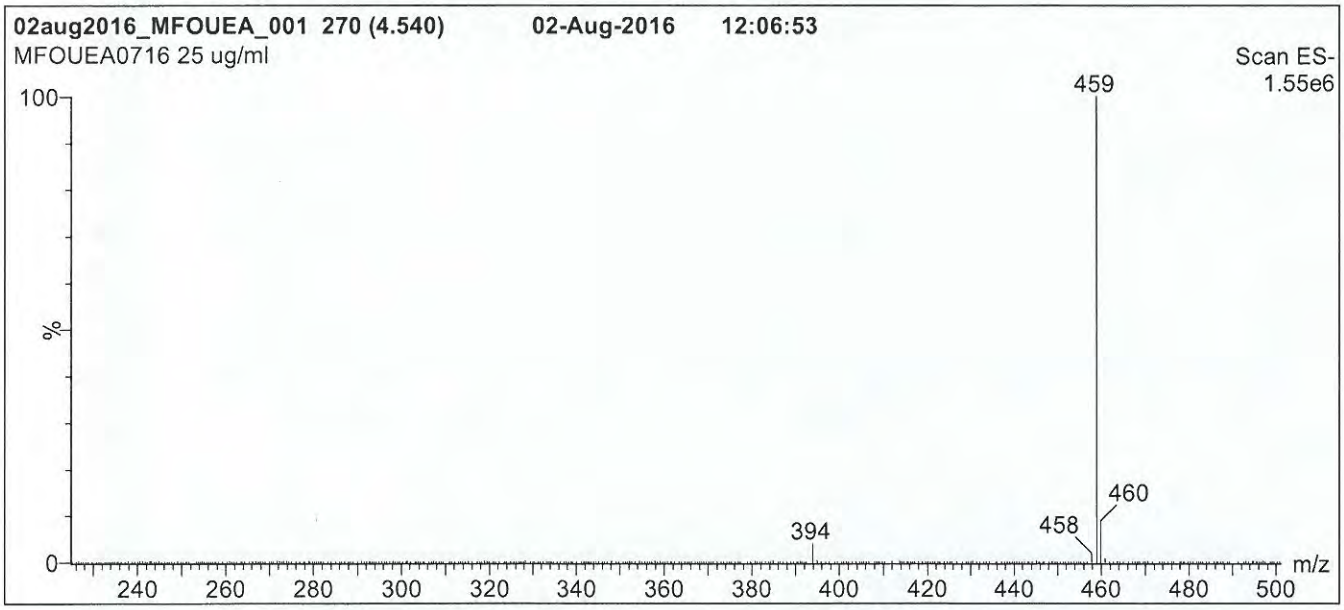
ANAB ACCREDITED REFERENCE MATERIAL PRODUCER

For additional information or assistance concerning this or any other products from Wellington Laboratories Inc., please visit our website at www.well-labs.com or contact us directly at info@well-labs.com

17J1024

Figure 1: **MFOUEA; LC/MS Data (TIC and Mass Spectrum)**





Conditions for Figure 1:

LC: **Waters Acquity Ultra Performance LC**
MS: **Micromass Quattro *micro* API MS**

Chromatographic Conditions

Column: Acquity UPLC BEH Shield RP_{18}
1.7 µm, 2.1 x 100 mm

Mobile phase: Gradient
Start: 50% (80:20 MeOH:ACN) / 50% H_2O
(both with 10 mM NH_4OAc buffer)
Ramp to 90% organic over 7 min and hold
for 1.5 min before returning to initial conditions in 0.5 min.
Time: 10 min

Flow: 300 µl/min

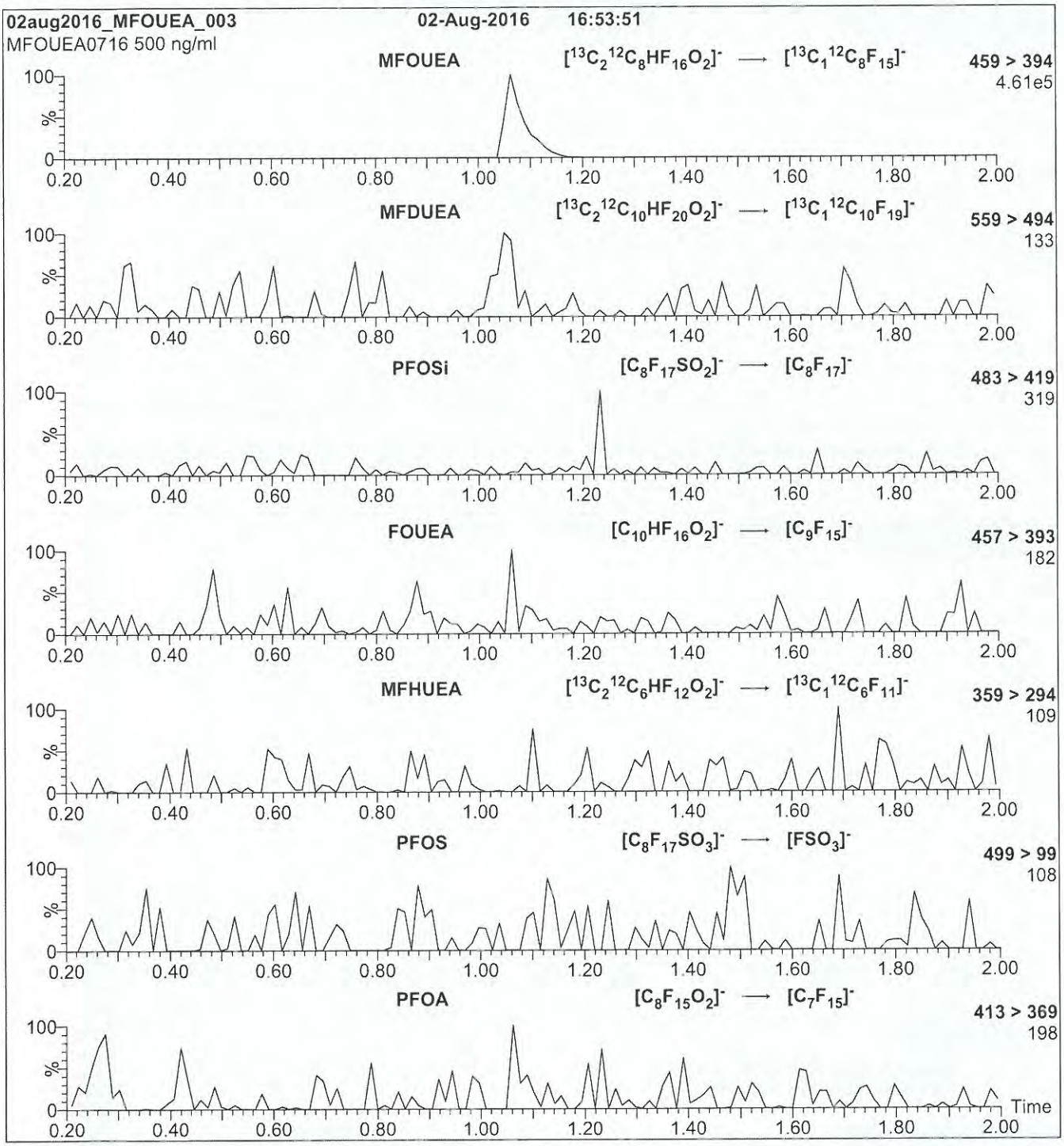
MS Parameters

Experiment: Full Scan (225 - 850 amu)

Source: Electrospray (negative)
Capillary Voltage (kV) = 3.00
Cone Voltage (V) = 14.00
Cone Gas Flow (l/hr) = 60
Desolvation Gas Flow (l/hr) = 750

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Figure 2: **MFOUEA; LC/MS/MS Data (Selected MRM Transitions)**



Conditions for Figure 2:

Injection: Direct loop injection
10 µl (500 ng/ml MFOUEA)

Mobile phase: Isocratic 80% (80:20 MeOH:ACN) / 20% H_2O
(both with 10 mM NH_4OAc buffer)

Flow: 300 µl/min

MS Parameters

Collision Gas (mbar) = 3.39e-3
Collision Energy (eV) = 21

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"FT-SW13-20171201","Modified EPA Method 537","Initial","1701832-03","Vista","d5-EtFOSAA","d5-EtFOSAA","87.9","%R","","-99","NA","","IS","87.9","","-99","NA","YES","100","","0.252","0.001","-99",""
"FT-SW13-20171201","Modified EPA Method 537","Initial","1701832-03","Vista","13C2-PFDoA","13C2-PFDoA","79.2","%R","","-99","NA","","IS","79.2","","-99","NA","YES","100","","0.252","0.001","-99",""
"FT-SW13-20171201","Modified EPA Method 537","Initial","1701832-03","Vista","13C2-PFTeDA","13C2-PFTeDA","90.5","%R","","-99","NA","","IS","90.5","","-99","NA","YES","100","","0.252","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","375-73-5","PFBS","2.45","ng/L","U","0.878","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","307-24-4","PFHxA","6.30","ng/L","","1.07","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","375-85-9","PFHpA","5.92","ng/L","","0.290","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","355-46-4","PFHxS","16.2","ng/L","","0.465","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","335-67-1","PFOA","21.9","ng/L","","0.319","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","1763-23-1","PFOS","30.3","ng/L","","0.396","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","375-95-1","PFNA","67.0","ng/L","","0.397","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","335-76-2","PFDA","6.09","ng/L","","0.731","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","2355-31-9","MeFOSAA","2.45","ng/L","U","0.809","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","2058-94-8","PFUnA","30.9","ng/L","","0.515","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","2991-50-6","EtFOSAA","2.45","ng/L","U","0.672","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","307-55-1","PFDoA","2.45","ng/L","U","0.389","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","72629-94-8","PFTrDA","2.45","ng/L","U","0.242","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","376-06-7","PFTeDA","2.45","ng/L","U","0.370","LOD","","TRG","","","3.92","LOQ","YES","-99","","0.255","0.001","2.45",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C3-PFBS","13C3-PFBS","132","%R","","-99","NA","","IS","132","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C2-PFHxA","13C2-PFHxA","119","%R","","-99","NA","","IS","119","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C4-PFHpA","13C4-PFHpA","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","18O2-PFHxS","18O2-PFHxS","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C2-PFOA","13C2-

PFOA","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C8-PFOS","13C8-
PFOS","127","%R","","-99","NA","","IS","127","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C5-PFNA","13C5-
PFNA","119","%R","","-99","NA","","IS","119","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C2-PFDA","13C2-
PFDA","118","%R","","-99","NA","","IS","118","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","d3-MeFOSAA","d3-
MeFOSAA","99.4","%R","","-99","NA","","IS","99.4","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C2-PFUnA","13C2-
PFUnA","91.9","%R","","-99","NA","","IS","91.9","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","d5-EtFOSAA","d5-
EtFOSAA","96.6","%R","","-99","NA","","IS","96.6","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C2-PFDoA","13C2-
PFDoA","94.4","%R","","-99","NA","","IS","94.4","","-99","NA","YES","100","","0.255","0.001","-99",""
"FT-SW12-20171201","Modified EPA Method 537","Initial","1701832-04","Vista","13C2-PFTeDA","13C2-
PFTeDA","83.1","%R","","-99","NA","","IS","83.1","","-99","NA","YES","100","","0.255","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","375-73-
5","PFBS","2.39","ng/L","U","0.858","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","307-24-
4","PFHxA","9.23","ng/L","","1.05","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","375-85-
9","PFHpA","8.27","ng/L","","0.283","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","355-46-
4","PFHxS","7.85","ng/L","","0.454","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","335-67-
1","PFOA","9.89","ng/L","","0.312","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","1763-23-
1","PFOS","25.0","ng/L","","0.387","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","375-95-
1","PFNA","167","ng/L","","0.388","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","335-76-
2","PFDA","3.23","ng/L","J","0.715","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","2355-31-
9","MeFOSAA","2.39","ng/L","U","0.791","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39
",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","2058-94-
8","PFUnA","12.3","ng/L","","0.504","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","2991-50-
6","EtFOSAA","2.39","ng/L","U","0.657","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39"
,""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","307-55-
1","PFDoA","2.39","ng/L","U","0.380","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","72629-94-
8","PFTrDA","2.39","ng/L","U","0.237","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39","
"
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","376-06-
7","PFTeDA","2.39","ng/L","U","0.362","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.261","0.001","2.39",
""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C3-PFBS","13C3-
PFBS","154","%R","H","-99","NA","","IS","154","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C2-PFHxA","13C2-
PFHxA","127","%R","","-99","NA","","IS","127","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C4-PFHpA","13C4-

PFHpA","129","%R","","-99","NA","","IS","129","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","18O2-PFHxS","18O2-PFHxS","123","%R","","-99","NA","","IS","123","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C2-PFOA","13C2-PFOA","95.1","%R","","-99","NA","","IS","95.1","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C8-PFOS","13C8-PFOS","134","%R","","-99","NA","","IS","134","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C5-PFNA","13C5-PFNA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C2-PFDA","13C2-PFDA","117","%R","","-99","NA","","IS","117","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","d3-MeFOSAA","d3-MeFOSAA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C2-PFUnA","13C2-PFUnA","125","%R","","-99","NA","","IS","125","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","d5-EtFOSAA","d5-EtFOSAA","122","%R","","-99","NA","","IS","122","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C2-PFDoA","13C2-PFDoA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW125-20171201","Modified EPA Method 537","Initial","1701832-05","Vista","13C2-PFTeDA","13C2-PFTeDA","130","%R","","-99","NA","","IS","130","","-99","NA","YES","100","","0.261","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","375-73-5","PFBS","2.54","ng/L","U","0.909","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","307-24-4","PFHxA","6.91","ng/L","","1.11","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","375-85-9","PFHpA","5.10","ng/L","","0.300","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","355-46-4","PFHxS","2.45","ng/L","J","0.481","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","335-67-1","PFOA","8.62","ng/L","","0.331","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","1763-23-1","PFOS","4.43","ng/L","","0.410","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","375-95-1","PFNA","253","ng/L","","0.411","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","335-76-2","PFDA","6.11","ng/L","","0.757","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","2355-31-9","MeFOSAA","2.54","ng/L","U","0.838","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54","",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","2058-94-8","PFUnA","24.4","ng/L","","0.533","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","2991-50-6","EtFOSAA","2.54","ng/L","U","0.696","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54","",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","307-55-1","PFDoA","2.54","ng/L","U","0.402","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","72629-94-8","PFTrDA","2.54","ng/L","U","0.251","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","376-06-7","PFTeDA","2.54","ng/L","U","0.384","LOD","","TRG","","","4.06","LOQ","YES","-99","","0.246","0.001","2.54",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C3-PFBS","13C3-

PFBS","131","%R","","-99","NA","","IS","131","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C2-PFHxA","13C2-
PFHxA","118","%R","","-99","NA","","IS","118","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C4-PFHpA","13C4-
PFHpA","114","%R","","-99","NA","","IS","114","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","18O2-PFHxS","18O2-
PFHxS","123","%R","","-99","NA","","IS","123","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C2-PFOA","13C2-
PFOA","128","%R","","-99","NA","","IS","128","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C8-PFOS","13C8-
PFOS","144","%R","","-99","NA","","IS","144","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C5-PFNA","13C5-
PFNA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C2-PFDA","13C2-
PFDA","120","%R","","-99","NA","","IS","120","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","d3-MeFOSAA","d3-
MeFOSAA","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C2-PFUnA","13C2-
PFUnA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","d5-EtFOSAA","d5-
EtFOSAA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C2-PFDoA","13C2-
PFDoA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-SW124-20171201","Modified EPA Method 537","Initial","1701832-06","Vista","13C2-PFTeDA","13C2-
PFTeDA","115","%R","","-99","NA","","IS","115","","-99","NA","YES","100","","0.246","0.001","-99",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","375-73-
5","PFBS","1.14","ng/L","J","1.01","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","307-24-
4","PFHxA","18.6","ng/L","","1.23","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","375-85-
9","PFHpA","32.2","ng/L","","0.333","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","355-46-
4","PFHxS","14.7","ng/L","","0.534","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","335-67-
1","PFOA","67.9","ng/L","","0.367","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","1763-23-
1","PFOS","7.92","ng/L","","0.455","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Dilution","1701832-07","Vista","375-95-
1","PFNA","2180","ng/L","D","4.57","LOD","","TRG","","","45.1","LOQ","YES","-99","","0.222","0.001","28.2",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","335-76-
2","PFDA","40.6","ng/L","","0.841","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","2355-31-
9","MeFOSAA","2.82","ng/L","U","0.931","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82
",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","2058-94-
8","PFUnA","121","ng/L","","0.592","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","2991-50-
6","EtFOSAA","2.82","ng/L","U","0.773","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82"
,""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","307-55-
1","PFDoA","2.82","ng/L","U","0.447","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""
"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","72629-94-
8","PFTrDA","2.82","ng/L","U","0.279","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82","
"

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","376-06-7","PFTeDA","2.82","ng/L","U","0.426","LOD","","TRG","","","4.51","LOQ","YES","-99","","0.222","0.001","2.82",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C3-PFBS","13C3-PFBS","153","%R","H","-99","NA","","IS","153","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C2-PFHxA","13C2-PFHxA","135","%R","","-99","NA","","IS","135","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C4-PFHpA","13C4-PFHpA","120","%R","","-99","NA","","IS","120","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","18O2-PFHxS","18O2-PFHxS","120","%R","","-99","NA","","IS","120","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C2-PFOA","13C2-PFOA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C8-PFOS","13C8-PFOS","122","%R","","-99","NA","","IS","122","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Dilution","1701832-07","Vista","13C5-PFNA","13C5-PFNA","138","%R","D","-99","NA","","IS","138","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C2-PFDA","13C2-PFDA","129","%R","","-99","NA","","IS","129","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","d3-MeFOSAA","d3-MeFOSAA","103","%R","","-99","NA","","IS","103","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C2-PFUnA","13C2-PFUnA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","d5-EtFOSAA","d5-EtFOSAA","98.9","%R","","-99","NA","","IS","98.9","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C2-PFDoA","13C2-PFDoA","72.1","%R","","-99","NA","","IS","72.1","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-PZ124-20171201","Modified EPA Method 537","Initial","1701832-07","Vista","13C2-PFTeDA","13C2-PFTeDA","72.5","%R","","-99","NA","","IS","72.5","","-99","NA","YES","100","","0.222","0.001","-99",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","375-73-5","PFBS","1.17","ng/L","J","0.943","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","307-24-4","PFHxA","20.8","ng/L","","1.15","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","375-85-9","PFHpA","36.6","ng/L","","0.311","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","355-46-4","PFHxS","13.3","ng/L","","0.499","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","335-67-1","PFOA","68.9","ng/L","","0.343","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","1763-23-1","PFOS","8.49","ng/L","","0.425","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Dilution","1701832-08","Vista","375-95-1","PFNA","3010","ng/L","D","4.27","LOD","","TRG","","","42.1","LOQ","YES","-99","","0.237","0.001","26.4",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","335-76-2","PFDA","45.1","ng/L","","0.785","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","2355-31-9","MeFOSAA","2.64","ng/L","U","0.869","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64","",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","2058-94-8","PFUnA","112","ng/L","","0.553","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","2991-50-6","EtFOSAA","2.64","ng/L","U","0.722","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64","",""

"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","307-55-

1","PFDoA","2.64","ng/L","U","0.417","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","72629-94-8","PFTrDA","2.64","ng/L","U","0.260","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64","
"
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","376-06-7","PFTeDA","2.64","ng/L","U","0.398","LOD","","TRG","","","4.21","LOQ","YES","-99","","0.237","0.001","2.64",
""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C3-PFBS","13C3-PFBS","150","%R","","-99","NA","","IS","150","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C2-PFHxA","13C2-PFHxA","125","%R","","-99","NA","","IS","125","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C4-PFHpA","13C4-PFHpA","116","%R","","-99","NA","","IS","116","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","18O2-PFHxS","18O2-PFHxS","139","%R","","-99","NA","","IS","139","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C2-PFOA","13C2-PFOA","118","%R","","-99","NA","","IS","118","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C8-PFOS","13C8-PFOS","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Dilution","1701832-08","Vista","13C5-PFNA","13C5-PFNA","94.9","%R","D","-99","NA","","IS","94.9","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C2-PFDA","13C2-PFDA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","d3-MeFOSAA","d3-MeFOSAA","96.0","%R","","-99","NA","","IS","96.0","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C2-PFUnA","13C2-PFUnA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","d5-EtFOSAA","d5-EtFOSAA","91.3","%R","","-99","NA","","IS","91.3","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C2-PFDoA","13C2-PFDoA","119","%R","","-99","NA","","IS","119","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-DUP05-20171201","Modified EPA Method 537","Initial","1701832-08","Vista","13C2-PFTeDA","13C2-PFTeDA","62.7","%R","","-99","NA","","IS","62.7","","-99","NA","YES","100","","0.237","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","375-73-5","PFBS","2.48","ng/L","U","0.889","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","307-24-4","PFHxA","2.48","ng/L","U","1.08","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","375-85-9","PFHpA","0.602","ng/L","J","0.294","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48","
"
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","355-46-4","PFHxS","2.48","ng/L","U","0.470","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","335-67-1","PFOA","0.691","ng/L","J","0.323","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","1763-23-1","PFOS","2.48","ng/L","U","0.401","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","375-95-1","PFNA","44.9","ng/L","","0.402","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","335-76-2","PFDA","1.06","ng/L","J","0.740","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","2355-31-9","MeFOSAA","2.48","ng/L","U","0.820","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48
",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","2058-94-

8","PFUnA","5.24","ng/L","","0.522","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","2991-50-
6","EtFOSAA","2.48","ng/L","U","0.681","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48"
,""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","307-55-
1","PFDoA","2.48","ng/L","U","0.393","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","72629-94-
8","PFTrDA","2.48","ng/L","U","0.245","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48","
"
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","376-06-
7","PFTeDA","2.48","ng/L","U","0.375","LOD","","TRG","","","3.97","LOQ","YES","-99","","0.252","0.001","2.48",
""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C3-PFBS","13C3-
PFBS","155","%R","H","-99","NA","","IS","155","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C2-PFHxA","13C2-
PFHxA","145","%R","","-99","NA","","IS","145","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C4-PFHpA","13C4-
PFHpA","136","%R","","-99","NA","","IS","136","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","18O2-PFHxS","18O2-
PFHxS","127","%R","","-99","NA","","IS","127","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C2-PFOA","13C2-
PFOA","131","%R","","-99","NA","","IS","131","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C8-PFOS","13C8-
PFOS","122","%R","","-99","NA","","IS","122","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C5-PFNA","13C5-
PFNA","129","%R","","-99","NA","","IS","129","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C2-PFDA","13C2-
PFDA","143","%R","","-99","NA","","IS","143","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","d3-MeFOSAA","d3-
MeFOSAA","96.9","%R","","-99","NA","","IS","96.9","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C2-PFUnA","13C2-
PFUnA","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","d5-EtFOSAA","d5-
EtFOSAA","97.4","%R","","-99","NA","","IS","97.4","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C2-PFDoA","13C2-
PFDoA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-PZ147-20171201","Modified EPA Method 537","Initial","1701832-09","Vista","13C2-PFTeDA","13C2-
PFTeDA","80.7","%R","","-99","NA","","IS","80.7","","-99","NA","YES","100","","0.252","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","375-73-
5","PFBS","2.52","ng/L","U","0.901","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","307-24-
4","PFHxA","2.87","ng/L","J","1.10","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","375-85-
9","PFHpA","2.93","ng/L","J","0.297","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","355-46-
4","PFHxS","2.97","ng/L","J","0.477","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","335-67-
1","PFOA","5.08","ng/L","","0.328","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","1763-23-
1","PFOS","0.949","ng/L","J","0.406","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","375-95-
1","PFNA","25.5","ng/L","","0.408","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","335-76-
2","PFDA","1.10","ng/L","J","0.750","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""

"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","2355-31-9","MeFOSAA","2.52","ng/L","U","0.830","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52","",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","2058-94-8","PFUnA","1.19","ng/L","J","0.528","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","2991-50-6","EtFOSAA","2.52","ng/L","U","0.689","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52","",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","307-55-1","PFDoA","2.52","ng/L","U","0.399","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","72629-94-8","PFTrDA","2.52","ng/L","U","0.249","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52","",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","376-06-7","PFTeDA","2.52","ng/L","U","0.380","LOD","","TRG","","","4.03","LOQ","YES","-99","","0.248","0.001","2.52","",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C3-PFBS","13C3-PFBS","159","%R","H","-99","NA","","IS","159","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C2-PFHxA","13C2-PFHxA","127","%R","","-99","NA","","IS","127","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C4-PFHpA","13C4-PFHpA","134","%R","","-99","NA","","IS","134","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","18O2-PFHxS","18O2-PFHxS","131","%R","","-99","NA","","IS","131","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C2-PFOA","13C2-PFOA","116","%R","","-99","NA","","IS","116","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C8-PFOS","13C8-PFOS","117","%R","","-99","NA","","IS","117","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C5-PFNA","13C5-PFNA","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C2-PFDA","13C2-PFDA","90.9","%R","","-99","NA","","IS","90.9","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","d3-MeFOSAA","d3-MeFOSAA","99.7","%R","","-99","NA","","IS","99.7","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C2-PFUnA","13C2-PFUnA","96.2","%R","","-99","NA","","IS","96.2","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","d5-EtFOSAA","d5-EtFOSAA","98.4","%R","","-99","NA","","IS","98.4","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C2-PFDoA","13C2-PFDoA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.248","0.001","-99",""
"SA-SW201-20171201","Modified EPA Method 537","Initial","1701832-10","Vista","13C2-PFTeDA","13C2-PFTeDA","133","%R","","-99","NA","","IS","133","","-99","NA","YES","100","","0.248","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","375-73-5","PFBS","2.40","ng/L","U","0.860","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","307-24-4","PFHxA","1.86","ng/L","J","1.05","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","375-85-9","PFHpA","1.96","ng/L","J","0.284","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","355-46-4","PFHxS","2.69","ng/L","J","0.455","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","335-67-1","PFOA","4.78","ng/L","","0.313","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","1763-23-1","PFOS","1.12","ng/L","J","0.388","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""

"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","375-95-1","PFNA","5.15","ng/L","","0.389","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","335-76-2","PFDA","2.40","ng/L","U","0.715","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","2355-31-9","MeFOSAA","2.40","ng/L","U","0.792","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","2058-94-8","PFUnA","0.687","ng/L","J","0.504","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","2991-50-6","EtFOSAA","2.40","ng/L","U","0.658","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","307-55-1","PFDoA","2.40","ng/L","U","0.380","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","72629-94-8","PFTrDA","2.40","ng/L","U","0.237","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","376-06-7","PFTeDA","2.40","ng/L","U","0.363","LOD","","TRG","","","3.84","LOQ","YES","-99","","0.260","0.001","2.40",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C3-PFBS","13C3-PFBS","141","%R","","-99","NA","","IS","141","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C2-PFHxA","13C2-PFHxA","142","%R","","-99","NA","","IS","142","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C4-PFHpA","13C4-PFHpA","128","%R","","-99","NA","","IS","128","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","18O2-PFHxS","18O2-PFHxS","146","%R","","-99","NA","","IS","146","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C2-PFOA","13C2-PFOA","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C8-PFOS","13C8-PFOS","146","%R","","-99","NA","","IS","146","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C5-PFNA","13C5-PFNA","125","%R","","-99","NA","","IS","125","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C2-PFDA","13C2-PFDA","109","%R","","-99","NA","","IS","109","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","d3-MeFOSAA","d3-MeFOSAA","115","%R","","-99","NA","","IS","115","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C2-PFUnA","13C2-PFUnA","129","%R","","-99","NA","","IS","129","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","d5-EtFOSAA","d5-EtFOSAA","92.7","%R","","-99","NA","","IS","92.7","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C2-PFDoA","13C2-PFDoA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.260","0.001","-99",""
"SW-DP01-20171201","Modified EPA Method 537","Initial","1701832-11","Vista","13C2-PFTeDA","13C2-PFTeDA","144","%R","","-99","NA","","IS","144","","-99","NA","YES","100","","0.260","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","375-73-5","PFBS","2.42","ng/L","U","0.866","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","307-24-4","PFHxA","7.48","ng/L","","1.05","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","375-85-9","PFHpA","7.70","ng/L","","0.286","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","355-46-

4","PFHxS","6.92","ng/L","","0.458","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","335-67-
1","PFOA","8.54","ng/L","","0.315","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","1763-23-
1","PFOS","29.6","ng/L","","0.390","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","375-95-
1","PFNA","190","ng/L","","0.392","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","335-76-
2","PFDA","5.35","ng/L","","0.721","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","2355-31-
9","MeFOSAA","2.42","ng/L","U","0.798","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42
",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","2058-94-
8","PFUnA","29.9","ng/L","","0.508","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","2991-50-
6","EtFOSAA","2.42","ng/L","U","0.663","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42"
,""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","307-55-
1","PFDoA","2.42","ng/L","U","0.383","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","72629-94-
8","PFTrDA","2.42","ng/L","U","0.239","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42","
"
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","376-06-
7","PFTeDA","2.42","ng/L","U","0.365","LOD","","TRG","","","3.87","LOQ","YES","-99","","0.258","0.001","2.42",
""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C3-PFBS","13C3-
PFBS","138","%R","","-99","NA","","IS","138","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C2-PFHxA","13C2-
PFHxA","131","%R","","-99","NA","","IS","131","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C4-PFHpA","13C4-
PFHpA","127","%R","","-99","NA","","IS","127","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","18O2-PFHxS","18O2-
PFHxS","124","%R","","-99","NA","","IS","124","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C2-PFOA","13C2-
PFOA","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C8-PFOS","13C8-
PFOS","133","%R","","-99","NA","","IS","133","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C5-PFNA","13C5-
PFNA","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C2-PFDA","13C2-
PFDA","112","%R","","-99","NA","","IS","112","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","d3-MeFOSAA","d3-
MeFOSAA","95.0","%R","","-99","NA","","IS","95.0","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C2-PFUnA","13C2-
PFUnA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","d5-EtFOSAA","d5-
EtFOSAA","115","%R","","-99","NA","","IS","115","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C2-PFDoA","13C2-
PFDoA","96.5","%R","","-99","NA","","IS","96.5","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-20171201","Modified EPA Method 537","Initial","1701832-12","Vista","13C2-PFTeDA","13C2-
PFTeDA","117","%R","","-99","NA","","IS","117","","-99","NA","YES","100","","0.258","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","375-73-
5","PFBS","2.41","ng/L","U","0.863","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","307-24-

4","PFHxA","2.41","ng/L","U","1.05","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","375-85-
9","PFHpA","2.41","ng/L","U","0.285","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","355-46-
4","PFHxS","2.41","ng/L","U","0.456","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","335-67-
1","PFOA","2.41","ng/L","U","0.314","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","1763-23-
1","PFOS","2.41","ng/L","U","0.389","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","375-95-
1","PFNA","2.41","ng/L","U","0.390","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","335-76-
2","PFDA","2.41","ng/L","U","0.718","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","2355-31-
9","MeFOSAA","2.41","ng/L","U","0.795","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41
",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","2058-94-
8","PFUnA","2.41","ng/L","U","0.506","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","2991-50-
6","EtFOSAA","2.41","ng/L","U","0.660","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41
",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","307-55-
1","PFDoA","2.41","ng/L","U","0.382","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","72629-94-
8","PFTrDA","2.41","ng/L","U","0.238","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41","
"
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","376-06-
7","PFTeDA","2.41","ng/L","U","0.364","LOD","","TRG","","","3.86","LOQ","YES","-99","","0.259","0.001","2.41",
""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C3-PFBS","13C3-
PFBS","163","%R","H","-99","NA","","IS","163","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C2-PFHxA","13C2-
PFHxA","141","%R","","-99","NA","","IS","141","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C4-PFHpA","13C4-
PFHpA","116","%R","","-99","NA","","IS","116","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","18O2-PFHxS","18O2-
PFHxS","121","%R","","-99","NA","","IS","121","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C2-PFOA","13C2-
PFOA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C8-PFOS","13C8-
PFOS","136","%R","","-99","NA","","IS","136","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C5-PFNA","13C5-
PFNA","132","%R","","-99","NA","","IS","132","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C2-PFDA","13C2-
PFDA","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","d3-MeFOSAA","d3-
MeFOSAA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C2-PFUnA","13C2-
PFUnA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","d5-EtFOSAA","d5-
EtFOSAA","121","%R","","-99","NA","","IS","121","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C2-PFDoA","13C2-
PFDoA","85.3","%R","","-99","NA","","IS","85.3","","-99","NA","YES","100","","0.259","0.001","-99",""
"SA-SW204-FRB-20171201","Modified EPA Method 537","Initial","1701832-13","Vista","13C2-PFTeDA","13C2-

PFTeDA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.259","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","375-73-
5","PFBS","2.50","ng/L","U","0.895","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","307-24-
4","PFHxA","2.50","ng/L","U","1.09","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","375-85-
9","PFHpA","2.50","ng/L","U","0.296","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","355-46-
4","PFHxS","2.50","ng/L","U","0.474","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","335-67-
1","PFOA","2.50","ng/L","U","0.326","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","1763-23-
1","PFOS","2.50","ng/L","U","0.404","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","375-95-
1","PFNA","2.50","ng/L","U","0.405","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","335-76-
2","PFDA","2.50","ng/L","U","0.745","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","2355-31-
9","MeFOSAA","2.50","ng/L","U","0.825","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50
","",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","2058-94-
8","PFUnA","2.50","ng/L","U","0.525","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","2991-50-
6","EtFOSAA","2.50","ng/L","U","0.685","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50"
,"",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","307-55-
1","PFDoA","2.50","ng/L","U","0.396","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","72629-94-
8","PFTrDA","2.50","ng/L","U","0.247","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50","
"
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","376-06-
7","PFTeDA","2.50","ng/L","U","0.378","LOD","","TRG","","","4.00","LOQ","YES","-99","","0.250","0.001","2.50",
""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C3-PFBS","13C3-
PFBS","131","%R","","-99","NA","","IS","131","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C2-PFHxA","13C2-
PFHxA","138","%R","","-99","NA","","IS","138","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C4-PFHpA","13C4-
PFHpA","125","%R","","-99","NA","","IS","125","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","18O2-PFHxS","18O2-
PFHxS","143","%R","","-99","NA","","IS","143","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C2-PFOA","13C2-
PFOA","136","%R","","-99","NA","","IS","136","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C8-PFOS","13C8-
PFOS","115","%R","","-99","NA","","IS","115","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C5-PFNA","13C5-
PFNA","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C2-PFDA","13C2-
PFDA","130","%R","","-99","NA","","IS","130","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","d3-MeFOSAA","d3-
MeFOSAA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C2-PFUnA","13C2-
PFUnA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","d5-EtFOSAA","d5-

EtFOSAA","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C2-PFDoA","13C2-PFDoA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BLK1","Modified EPA Method 537","Initial","B7L0088-BLK1","Vista","13C2-PFTeDA","13C2-PFTeDA","108","%R","","-99","NA","","IS","108","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","375-73-5","PFBS","35.0","ng/L","","0.895","LOD","","TRG","87.5","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","307-24-4","PFHxA","37.1","ng/L","","1.09","LOD","","TRG","92.8","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","375-85-9","PFHpA","35.7","ng/L","","0.296","LOD","","TRG","89.3","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","355-46-4","PFHxS","35.6","ng/L","","0.474","LOD","","TRG","89.1","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","335-67-1","PFOA","38.5","ng/L","","0.326","LOD","","TRG","96.3","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","1763-23-1","PFOS","35.3","ng/L","","0.404","LOD","","TRG","88.2","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","375-95-1","PFNA","28.3","ng/L","","0.405","LOD","","TRG","70.8","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","335-76-2","PFDA","32.1","ng/L","","0.745","LOD","","TRG","80.2","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","2355-31-9","MeFOSAA","36.0","ng/L","","0.825","LOD","","TRG","90.0","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","2058-94-8","PFUnA","31.2","ng/L","","0.525","LOD","","TRG","77.9","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","2991-50-6","EtFOSAA","35.6","ng/L","","0.685","LOD","","TRG","89.1","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","307-55-1","PFDoA","33.6","ng/L","","0.396","LOD","","TRG","84.0","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50","",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","72629-94-8","PFTrDA","42.3","ng/L","","0.247","LOD","","TRG","106","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","376-06-7","PFTeDA","39.7","ng/L","","0.378","LOD","","TRG","99.3","","4.00","LOQ","YES","40.0","","0.250","0.001","2.50",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C3-PFBS","13C3-PFBS","132","%R","","-99","NA","","IS","132","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C2-PFHxA","13C2-PFHxA","116","%R","","-99","NA","","IS","116","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C4-PFHpA","13C4-PFHpA","126","%R","","-99","NA","","IS","126","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","18O2-PFHxS","18O2-

PFHxS","118","%R","","-99","NA","","IS","118","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C2-PFOA","13C2-
PFOA","121","%R","","-99","NA","","IS","121","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C8-PFOS","13C8-
PFOS","113","%R","","-99","NA","","IS","113","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C5-PFNA","13C5-
PFNA","123","%R","","-99","NA","","IS","123","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C2-PFDA","13C2-
PFDA","106","%R","","-99","NA","","IS","106","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","d3-MeFOSAA","d3-
MeFOSAA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C2-PFUnA","13C2-
PFUnA","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","d5-EtFOSAA","d5-
EtFOSAA","102","%R","","-99","NA","","IS","102","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C2-PFDoA","13C2-
PFDoA","110","%R","","-99","NA","","IS","110","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-BS1","Modified EPA Method 537","Initial","B7L0088-BS1","Vista","13C2-PFTeDA","13C2-
PFTeDA","148","%R","","-99","NA","","IS","148","","-99","NA","YES","100","","0.250","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","375-73-
5","PFBS","34.6","ng/L","","0.865","LOD","","TRG","89.4","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","307-24-
4","PFHxA","38.7","ng/L","","1.05","LOD","","TRG","92.5","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","375-85-
9","PFHpA","33.0","ng/L","","0.286","LOD","","TRG","77.6","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","355-46-
4","PFHxS","36.6","ng/L","","0.458","LOD","","TRG","86.9","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","335-67-
1","PFOA","36.9","ng/L","","0.315","LOD","","TRG","82.3","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","1763-23-
1","PFOS","42.7","ng/L","","0.390","LOD","","TRG","108","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","375-95-
1","PFNA","73.9","ng/L","","0.391","LOD","","TRG","125","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","335-76-
2","PFDA","35.5","ng/L","","0.720","LOD","","TRG","88.9","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","2355-31-
9","MeFOSAA","25.7","ng/L","H","0.797","LOD","","TRG","66.4","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","2058-94-
8","PFUnA","35.8","ng/L","","0.507","LOD","","TRG","89.5","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","2991-50-
6","EtFOSAA","25.2","ng/L","H","0.662","LOD","","TRG","65.2","","3.87","LOQ","YES","38.7","SA-SW201-
20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","307-55-
1","PFDoA","46.3","ng/L","","0.383","LOD","","TRG","120","","3.87","LOQ","YES","38.7","SA-SW201-

20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","72629-94-8","PFTrDA","50.9","ng/L","H","0.239","LOD","","TRG","132","","3.87","LOQ","YES","38.7","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","376-06-7","PFTeDA","32.3","ng/L","","0.365","LOD","","TRG","83.4","","3.87","LOQ","YES","38.7","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C3-PFBS","13C3-PFBS","152","%R","H","-99","NA","","IS","152","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C2-PFHxA","13C2-PFHxA","123","%R","","-99","NA","","IS","123","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C4-PFHpA","13C4-PFHpA","132","%R","","-99","NA","","IS","132","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","18O2-PFHxS","18O2-PFHxS","118","%R","","-99","NA","","IS","118","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C2-PFOA","13C2-PFOA","105","%R","","-99","NA","","IS","105","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C8-PFOS","13C8-PFOS","123","%R","","-99","NA","","IS","123","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C5-PFNA","13C5-PFNA","100","%R","","-99","NA","","IS","100","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C2-PFDA","13C2-PFDA","111","%R","","-99","NA","","IS","111","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","d3-MeFOSAA","d3-MeFOSAA","101","%R","","-99","NA","","IS","101","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C2-PFUnA","13C2-PFUnA","89.5","%R","","-99","NA","","IS","89.5","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","d5-EtFOSAA","d5-EtFOSAA","107","%R","","-99","NA","","IS","107","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C2-PFDoA","13C2-PFDoA","68.9","%R","","-99","NA","","IS","68.9","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MS1","Modified EPA Method 537","Initial","B7L0088-MS1","Vista","13C2-PFTeDA","13C2-PFTeDA","88.7","%R","","-99","NA","","IS","88.7","","-99","NA","YES","100","SA-SW201-20171201","0.259","0.001","-99",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","375-73-5","PFBS","34.5","ng/L","","0.863","LOD","","TRG","89.3","0.112","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","307-24-4","PFHxA","37.8","ng/L","","1.05","LOD","","TRG","90.4","2.30","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","375-85-9","PFHpA","30.7","ng/L","","0.285","LOD","","TRG","71.9","7.63","3.86","LOQ","YES","38.6","SA-SW201-

20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","355-46-4","PFHxS","44.3","ng/L","","0.456","LOD","","TRG","107","20.7","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","335-67-1","PFOA","36.8","ng/L","","0.314","LOD","","TRG","82.3","0","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","1763-23-1","PFOS","31.9","ng/L","","0.389","LOD","","TRG","80.2","29.5","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","375-95-1","PFNA","89.7","ng/L","H","0.390","LOD","","TRG","166","28.2","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
"B7L0088-MSD1","Modified EPA Method 537","Initial","B7L0088-MSD1","Vista","335-76-2","PFDA","32.3","ng/L","","0.718","LOD","","TRG","80.8","9.55","3.86","LOQ","YES","38.6","SA-SW201-20171201","0.259","0.001","2.41",""
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TETRA TECH

INTERNAL CORRESPONDENCE

TO: **K. FRANCISCO** **DATE:** **FEBRUARY 13, 2018**

FROM: **LEIGH A. CIOFANI** **COPIES:** **DV FILE**

SUBJECT: **ORGANIC DATA VALIDATION – PFAS**
NWIRP CALVERTON – FULL REVIEW
SAMPLE DELIVERY GROUP (SDG) 1701832

SAMPLES: 13 / Water / PFAS

FT-DUP04-20171201	FT-SW10-20171201	FT-SW12-20171201
FT-SW13-20171201	SA-DUP05-20171201	SA-PZ124-20171201
SA-PZ147-20171201	SA-SW124-20171201	SA-SW125-20171201
SA-SW201-20171201	SA-SW204-20171201	SA-SW204-FRB-20171201
SW-DP01-20171201		

OVERVIEW

The sample set for NWIRP Calverton, SDG 1701832, consists of twelve (12) aqueous environmental samples and one (1) field reagent blank (FRB). Two (2) field duplicate pairs are included in this SDG: FT-SW10-20171201 (original) / FT-DUP04-20171201 (duplicate) and SA-PZ124-20171201 (original) / SA-DUP05-20171201 (duplicate).

Samples were analyzed for poly- and perfluoroalkyl substances (PFAS). The samples were collected by Tetra Tech on December 01, 2017, and analyzed by Vista Analytical Laboratory. All analyses were conducted in accordance with Modified EPA Method 537 analysis and reporting protocols. The data contained in this SDG were validated with regard to the following parameters:

* • Data Completeness
• Holding Times
* • LC/MS/MS Tuning
• Initial/Continuing Calibrations
* • Laboratory Method Blank Results
* • Field Reagent Blank Results
• Isotope Dilution Analyte Surrogate Recoveries
• Matrix Spike/Matrix Spike Duplicate Results
* • Ongoing Precision Recovery (OPR) Results
• Field Duplicate Precision
* • Compound Quantitation
* • Compound Identification
* • Detection Limits

The asterisk (*) indicates that all quality control criteria were met for this parameter. Qualified (if applicable) analytical results are summarized in Appendix A. Results as reported by the laboratory are presented in Appendix B. Appendix C contains the documentation to support the findings as discussed in this data validation report. The attached table summarizes the validation qualifications which are based on the following information:

HOLDING TIMES

The laboratory analyzed perfluorononanoic acid in samples SA-DUP-05-20171201 and SA-PZ124-20171201, N-ethyl perfluorooctane sulfonamidoacetic acid in samples SA-SW204-20171201, SA-SW204-FRB-20171201, and SW-DP01-20171201 one day outside of the 28-day analysis holding time limit. Non-detected results for these analytes were qualified as estimated (J and UJ, respectively) in the aforementioned samples.

CALIBRATION RESULTS

The closing continuing calibration verification performed on 01/11/18 at 17:12 had a percent recovery (%R) for perfluorododecanoic acid that was outside of (greater than) the laboratory quality control range of 70-130%. Samples SA-DP01-20171201, SA-SW204-20171201, and SA-SW204-FRB-20171201 were associated with this calibration. Non-detected results for perfluorododecanoic acid were qualified as estimated (UJ) in the associated samples.

LABELED STANDARD RECOVERIES

As shown on the Form I reports, the labeled standard %Rs were greater than the laboratory quality control limits for the standard 12C3-PFBS associated with the analyte perfluorobutanesulfonic acid in samples FT-DUP04-20171201, FT-SW10-20171201, SA-PZ124-20171201, SA-PZ147-20171201, SA-SW125-20171201, SA-SW201-20171201, and SA-SW204-FRB-20171201. The detected result for perfluorobutanesulfonic acid in sample SA-PZ124-20171201 was qualified as estimated (J). No action was taken for non-detected perfluorobutanesulfonic acid results in the associated samples.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

The matrix spike (MS)/matrix spike duplicate (MSD) performed on sample SA-SW201-20171201 had MS and MSD %Rs and/or relative percent differences (RPDs) that were outside of the laboratory quality control limits as follows:

Analyte	Noncompliance(s)	Action
Perfluorononanoic Acid (PFNA)	High MSD %R	J
N-Methyl Perfluorooctane Sulfonamidoacetic Acid (MeFOSAA)	Low (>10%) MS/MSD %Rs	UJ
Perfluoroundecanoic Acid (PFUnA)	High RPD	None
N-Ethyl Perfluorooctane Sulfonamidoacetic Acid (EtFOSAA)	Low (>10%) MS %R	UJ
Perfluorotridecanoic Acid (PFTrDA)	High MS %R and RPD	None

The results were qualified in sample SA-SW201-20171201 as indicated above. The detected result for perflorononanoic acid was qualified as estimated (J) because the MS %R was acceptable. The non-detected results for N-methyl perfluorooctane sulfonamidoacetic acid and N-ethyl perfluorooctane sulfonamidoacetic acid were qualified as estimated (UJ). No action was necessary for perfluoroundecanoic acid because the MS and MSD %Rs were compliant. No action was necessary for perfluorotridecanoic acid because this analyte was non-detected in sample SA-SW201-20171201.

FIELD DUPLICATE PRECISION

The field duplicate pair samples SA-PZ124-20171201 and SA-DUP05-20171201 had an RPD that was greater than the 30% quality control limit for perfluorononanoic acid. Detected results for this analyte were qualified as estimated (J) in samples SA-PZ124-20171201 and SA-DUP05-20171201.

UNCERTAINTY NEAR THE DETECTION LIMIT

Positive results reported between the detection limit (DL) and the limit of quantitation (LOQ) were qualified as estimated (J) due to uncertainty near the DL.

ADDITIONAL COMMENTS

Non-detected results were reported to the limit of detection (LOD).

PFAS compounds were not detected in the FRB contained in this SDG.

Perfluorononanoic acid in samples SA-DUP05-20171201 and SA-PZ124-20171201 was analyzed at a dilution factor of 10.

The closing continuing calibration verification performed on 01/11/18 at 17:12 had a %R for n-ethyl perfluorooctane sulfonamidoacetic acid that was outside of the laboratory quality control range of 70-130%. As stated in the laboratory case narrative, samples SA-DP01-20171201, SA-SW204-20171201, and SA-SW204-FRB-20171201 were associated with this calibration but were reinjected on this basis. Results for these samples were reported from the reinjections. Therefore, no qualification was necessary.

EXECUTIVE SUMMARY

Laboratory Performance Issues: Several PFAS results were qualified due to holding time noncompliance.

Other Factors Affecting Data Quality: Some detected and non-detected results were qualified due to MS/MSD noncompliances. Detected results between the DL and the LOQ were qualified as estimated.

The data for these analyses were reviewed with reference to the USEPA “National Functional Guidelines for Organic Superfund Methods Data Review” (January 2017), EPA Method 537 Modified, and the Department of Defense (DoD) document entitled "Quality Systems Manual (QSM) for Environmental Laboratories" (2013). The text of this report has been formulated to address only those problem areas affecting data quality.

for Tetra Tech

Leigh A. Ciofani
Environmental Scientist/Data Validator

Tetra Tech

Joseph A. Samchuck
Data Validation Manager

Attachments:

Appendix A – Qualified Analytical Results
Appendix B – Results as Reported by the Laboratory
Appendix C – Support Documentation

APPENDIX A

QUALIFIED ANALYTICAL RESULTS

Data Qualifier Definitions

The following definitions provide brief explanations of the validation qualifiers assigned to results in the data review process.

U	The analyte was analyzed for, but was not detected at a level greater than or equal to the level of the adjusted method detection limit for sample and method.
J	The analyte was positively identified and the associated numerical value is the approximate concentration of the analyte in the sample (due either to the quality of the data generated because certain quality control criteria were not met, or the concentration of the analyte was below the reporting limit).
J+	The result is an estimated quantity, but the result may be biased high.
J-	The result is an estimated quantity, but the result may be biased low.
UJ	The analyte was analyzed for, but was not detected. The reported detection limit is approximate and may be inaccurate or imprecise.
R	The sample result (detected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.
UR	The sample result (nondetected) is unusable due to the quality of the data generated because certain criteria were not met. The analyte may or may not be present in the sample.

Qualifier Codes:

A = Lab Blank Contamination
B = Field Blank Contamination
C = Calibration Noncompliance (i.e., % RSDs, %Ds, ICVs, CCVs, RRFs, etc.)
C01 = GC/MS Tuning Noncompliance
D = MS/MSD Recovery Noncompliance
E = LCS/LCSD Recovery Noncompliance
F = Lab Duplicate Imprecision
G = Field Duplicate Imprecision
H = Holding Time Exceedance
I = ICP Serial Dilution Noncompliance
J = ICP PDS Recovery Noncompliance; MSA's $r < 0.995$
K = ICP Interference - includes ICS % R Noncompliance
L = Instrument Calibration Range Exceedance
M = Sample Preservation Noncompliance
N = Internal Standard Noncompliance
N01 = Internal Standard Recovery Noncompliance Dioxins
N02 = Recovery Standard Noncompliance Dioxins
N03 = Clean-up Standard Noncompliance Dioxins
O = Poor Instrument Performance (i.e., base-time drifting)
P = Uncertainty near detection limit (< 2 x IDL for inorganics and <CRQL for organics)
Q = Other problems (can encompass a number of issues; i.e.chromatography,interferences, etc.)
R = Surrogates Recovery Noncompliance
S = Pesticide/PCB Resolution
T = % Breakdown Noncompliance for DDT and Endrin
U = RPD between columns/detectors >40% for positive results determined via GC/HPLC
V = Non-linear calibrations; correlation coefficient $r < 0.995$
W = EMPC result
X = Signal to noise response drop
Y = Percent solids <30%
Z = Uncertainty at 2 standard deviations is greater than sample activity
Z1 = Tentatively Identified Compound considered presumptively present
Z2 = Tentatively Identified Compound column bleed
Z3 = Tentatively Identified Compound aldol condensate
Z4 = Sample activity is less than the at uncertainty at 3 standard deviations and greater than the MDC
Z5 = Sample activity is less than the at uncertainty at 3 standard deviations and less than the MDC

PROJ_NO: 08005-WE05	NSAMPLE	FT-DUP04-20171201			FT-SW10-20171201			FT-SW12-20171201			FT-SW13-20171201		
SDG: 1701832	LAB_ID	1701832-02			1701832-01			1701832-04			1701832-03		
FRACTION: PFAS	SAMP_DATE	12/1/2017			12/1/2017			12/1/2017			12/1/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	FT-SW10-20171201											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.41	U		2.51	U		2.45	U		2.48	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.41	U		2.51	U		2.45	U		2.48	U	
PENTADECAFLUOROOCTANOIC ACID		2.41	J	P	2.38	J	P	21.9			22.6		
PERFLUOROBUTANESULFONIC ACID		2.41	U		2.51	U		2.45	U		2.48	U	
PERFLUORODECANOIC ACID		0.954	J	P	1.14	J	P	6.09			5.19		
PERFLUORODODECANOIC ACID		2.41	U		2.51	U		2.45	U		2.48	U	
PERFLUOROHEPTANOIC ACID		1.26	J	P	1.37	J	P	5.92			6.5		
PERFLUOROHEXANESULFONIC ACID		0.627	J	P	0.636	J	P	16.2			13.6		
PERFLUOROHEXANOIC ACID		2.5	J	P	2.18	J	P	6.3			6.18		
PERFLUORONONANOIC ACID		4.27			4.48			67			68.7		
PERFLUOROOCTANE SULFONIC ACID		0.898	J	P	0.531	J	P	30.3			19.6		
PERFLUOROTETRADECANOIC ACID		2.41	U		2.51	U		2.45	U		2.48	U	
PERFLUOROTRIDECANOIC ACID		2.41	U		2.51	U		2.45	U		2.48	U	
PERFLUOROUNDECANOIC ACID		1.11	J	P	1.21	J	P	30.9			9.48		

PROJ_NO: 08005-WE05	NSAMPLE	SA-DUP05-20171201			SA-PZ124-20171201			SA-PZ147-20171201			SA-SW124-20171201		
SDG: 1701832	LAB_ID	1701832-08			1701832-07			1701832-09			1701832-06		
FRACTION: PFAS	SAMP_DATE	12/1/2017			12/1/2017			12/1/2017			12/1/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF	SA-PZ124-20171201											
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.64	U		2.82	U		2.48	U		2.54	U	
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.64	U		2.82	U		2.48	U		2.54	U	
PENTADECAFLUOROOCTANOIC ACID		68.9			67.9			0.691	J	P	8.62		
PERFLUOROBUTANESULFONIC ACID		1.17	J	P	1.14	J	PR	2.48	U		2.54	U	
PERFLUORODECANOIC ACID		45.1			40.6			1.06	J	P	6.11		
PERFLUORODODECANOIC ACID		2.64	U		2.82	U		2.48	U		2.54	U	
PERFLUOROHEPTANOIC ACID		36.6			32.2			0.602	J	P	5.1		
PERFLUOROHEXANESULFONIC ACID		13.3			14.7			2.48	U		2.45	J	P
PERFLUOROHEXANOIC ACID		20.8			18.6			2.48	U		6.91		
PERFLUORONONANOIC ACID		3010	J	GH	2180	J	GH	44.9			253		
PERFLUOROOCTANE SULFONIC ACID		8.49			7.92			2.48	U		4.43		
PERFLUOROTETRADECANOIC ACID		2.64	U		2.82	U		2.48	U		2.54	U	
PERFLUOROTRIDECANOIC ACID		2.64	U		2.82	U		2.48	U		2.54	U	
PERFLUOROUNDECANOIC ACID		112			121			5.24			24.4		

PROJ_NO: 08005-WE05	NSAMPLE	SA-SW125-20171201			SA-SW201-20171201			SA-SW204-20171201			SA-SW204-FRB-20171201		
SDG: 1701832	LAB_ID	1701832-05			1701832-10			1701832-12			1701832-13		
FRACTION: PFAS	SAMP_DATE	12/1/2017			12/1/2017			12/1/2017			12/1/2017		
MEDIA: WATER	QC_TYPE	NM			NM			NM			NM		
	UNITS	NG/L			NG/L			NG/L			NG/L		
	PCT_SOLIDS	0.0			0.0			0.0			0.0		
	DUP_OF												
PARAMETER		RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD	RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.39	U		2.52	UJ	D	2.42	UJ	H	2.41	UJ	H
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.39	U		2.52	UJ	D	2.42	U		2.41	U	
PENTADECAFLUOROOCTANOIC ACID		9.89			5.08			8.54			2.41	U	
PERFLUOROBUTANESULFONIC ACID		2.39	U		2.52	U		2.42	U		2.41	U	
PERFLUORODECANOIC ACID		3.23	J	P	1.1	J	P	5.35			2.41	U	
PERFLUORODODECANOIC ACID		2.39	U		2.52	U		2.42	UJ	C	2.41	UJ	C
PERFLUOROHEPTANOIC ACID		8.27			2.93	J	P	7.7			2.41	U	
PERFLUOROHEXANESULFONIC ACID		7.85			2.97	J	P	6.92			2.41	U	
PERFLUOROHEXANOIC ACID		9.23			2.87	J	P	7.48			2.41	U	
PERFLUORONONANOIC ACID		167			25.5	J	D	190			2.41	U	
PERFLUOROOCTANE SULFONIC ACID		25			0.949	J	P	29.6			2.41	U	
PERFLUOROTETRADECANOIC ACID		2.39	U		2.52	U		2.42	U		2.41	U	
PERFLUOROTRIDECANOIC ACID		2.39	U		2.52	U		2.42	U		2.41	U	
PERFLUOROUNDECANOIC ACID		12.3			1.19	J	P	29.9			2.41	U	

PROJ_NO: 08005-WE05	NSAMPLE	SW-DP01-20171201		
SDG: 1701832	LAB_ID	1701832-11		
FRACTION: PFAS	SAMP_DATE	12/1/2017		
MEDIA: WATER	QC_TYPE	NM		
	UNITS	NG/L		
	PCT_SOLIDS	0.0		
	DUP_OF			
PARAMETER		RESULT	VQL	QLCD
N-ETHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.4	UJ	H
N-METHYL PERFLUOROOCTANE SULFONAMIDOACETIC ACID		2.4	U	
PENTADECAFLUOROOCTANOIC ACID		4.78		
PERFLUOROBUTANESULFONIC ACID		2.4	U	
PERFLUORODECANOIC ACID		2.4	U	
PERFLUORODODECANOIC ACID		2.4	UJ	C
PERFLUOROHEPTANOIC ACID		1.96	J	P
PERFLUOROHEXANESULFONIC ACID		2.69	J	P
PERFLUOROHEXANOIC ACID		1.86	J	P
PERFLUORONONANOIC ACID		5.15		
PERFLUOROOCTANE SULFONIC ACID		1.12	J	P
PERFLUOROTETRADECANOIC ACID		2.4	U	
PERFLUOROTRIDECANOIC ACID		2.4	U	
PERFLUOROUNDECANOIC ACID		0.687	J	P

APPENDIX B

RESULTS AS REPORTED BY THE LABORATORY

Sample ID: FT-DUP04-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 10:00

Laboratory Data

Lab Sample: 1701832-02
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.863	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFHxA	2.50	1.05	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFHpA	1.26	0.285	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFHxS	0.627	0.457	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFOA	2.41	0.314	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFOS	0.898	0.389	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFNA	4.27	0.391	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFDA	0.954	0.719	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
MeFOSAA	ND	0.796	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFUnA	1.11	0.507	2.41	3.86	J	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
EtFOSAA	ND	0.661	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFDoA	ND	0.382	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFTrDA	ND	0.238	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
PFTeDA	ND	0.364	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	158	50 - 150	H	B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFHxA	IS	134	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C4-PFHpA	IS	131	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
18O2-PFHxS	IS	135	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFOA	IS	127	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C8-PFOS	IS	135	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C5-PFNA	IS	139	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFDA	IS	137	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
d3-MeFOSAA	IS	98.5	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFUnA	IS	96.7	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
d5-EtFOSAA	IS	114	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFDoA	IS	115	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	1
13C2-PFTeDA	IS	72.9	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 12:10	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: FT-SW10-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 09:40

Laboratory Data

Lab Sample: 1701832-01
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.899	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFHxA	2.18	1.09	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFHpA	1.37	0.297	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFHxS	0.636	0.475	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFOA	2.38	0.327	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFOS	0.531	0.405	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFNA	4.48	0.407	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFDA	1.14	0.748	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
MeFOSAA	ND	0.828	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFUnA	1.21	0.527	2.51	4.02	J	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
EtFOSAA	ND	0.688	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFDoA	ND	0.398	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFTrDA	ND	0.248	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
PFTeDA	ND	0.379	2.51	4.02		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	163	50 - 150	H	B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFHxA	IS	137	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C4-PFHpA	IS	142	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
18O2-PFHxS	IS	123	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFOA	IS	117	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C8-PFOS	IS	122	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C5-PFNA	IS	111	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFDA	IS	86.7	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
d3-MeFOSAA	IS	111	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFUnA	IS	124	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
d5-EtFOSAA	IS	114	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFDoA	IS	92.7	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	1
13C2-PFTeDA	IS	68.9	50 - 150		B7L0088	14-Dec-17	0.249 L	11-Jan-18 11:59	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: FT-SW12-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 10:05

Laboratory Data

Lab Sample: 1701832-04
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.878	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFHxA	6.30	1.07	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFHpA	5.92	0.290	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFHxS	16.2	0.465	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFOA	21.9	0.319	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFOS	30.3	0.396	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFNA	67.0	0.397	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFDA	6.09	0.731	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
MeFOSAA	ND	0.809	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFUnA	30.9	0.515	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
EtFOSAA	ND	0.672	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFDoA	ND	0.389	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFTrDA	ND	0.242	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
PFTeDA	ND	0.370	2.45	3.92		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	132	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFHxA	IS	119	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C4-PFHpA	IS	113	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
18O2-PFHxS	IS	113	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFOA	IS	112	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C8-PFOS	IS	127	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C5-PFNA	IS	119	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFDA	IS	118	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
d3-MeFOSAA	IS	99.4	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFUnA	IS	91.9	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
d5-EtFOSAA	IS	96.6	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFDoA	IS	94.4	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	1
13C2-PFTeDA	IS	83.1	50 - 150		B7L0088	14-Dec-17	0.255 L	11-Jan-18 12:32	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: FT-SW13-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 09:55

Laboratory Data

Lab Sample: 1701832-03
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.889	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFHxA	6.18	1.08	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFHpA	6.50	0.294	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFHxS	13.6	0.470	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFOA	22.6	0.323	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFOS	19.6	0.401	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFNA	68.7	0.402	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFDA	5.19	0.740	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
MeFOSAA	ND	0.820	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFUnA	9.48	0.522	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
EtFOSAA	ND	0.681	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFDoA	ND	0.393	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFTrDA	ND	0.245	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
PFTeDA	ND	0.375	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	134	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFHxA	IS	121	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C4-PFHpA	IS	120	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
18O2-PFHxS	IS	143	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFOA	IS	99.1	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C8-PFOS	IS	113	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C5-PFNA	IS	108	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFDA	IS	103	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
d3-MeFOSAA	IS	84.2	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFUnA	IS	89.1	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
d5-EtFOSAA	IS	87.9	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFDoA	IS	79.2	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	1
13C2-PFTeDA	IS	90.5	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 12:21	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: SA-DUP05-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 09:00

Laboratory Data

Lab Sample: 1701832-08
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.17	0.943	2.64	4.21	J	B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHxA	20.8	1.15	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHpA	36.6	0.311	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHxS	13.3	0.499	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFOA	68.9	0.343	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFOS	8.49	0.425	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFNA	3010	4.27	26.4	42.1	D	B7L0088	14-Dec-17	0.237 L	12-Jan-18 09:22	10
PFDA	45.1	0.785	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
MeFOSAA	ND	0.869	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFUnA	112	0.553	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
EtFOSAA	ND	0.722	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFDoA	ND	0.417	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFTrDA	ND	0.260	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFTeDA	ND	0.398	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	150	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFHxA	IS	125	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C4-PFHpA	IS	116	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
18O2-PFHxS	IS	139	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFOA	IS	118	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C8-PFOS	IS	111	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C5-PFNA	IS	94.9	50 - 150	D	B7L0088	14-Dec-17	0.237 L	12-Jan-18 09:22	10
13C2-PFDA	IS	106	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
d3-MeFOSAA	IS	96.0	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFUnA	IS	110	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
d5-EtFOSAA	IS	91.3	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFDoA	IS	119	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFTeDA	IS	62.7	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	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.

Vista Analytical Laboratory

Sample ID: SA-PZ124-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Surface Water
Date Collected: 01-Dec-17 11:42

Laboratory Data

Lab Sample: 1701832-07
Date Received: 02-Dec-17 09:37
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.14	1.01	2.82	4.51	J	B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFHxA	18.6	1.23	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFHpA	32.2	0.333	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFHxS	14.7	0.534	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFOA	67.9	0.367	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFOS	7.92	0.455	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFNA	2180	4.57	28.2	45.1	D	B7L0088	14-Dec-17	0.222 L	12-Jan-18 09:10	10
PFDA	40.6	0.841	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
MeFOSAA	ND	0.931	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFUnA	121	0.592	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
EtFOSAA	ND	0.773	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFDoA	ND	0.447	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFTrDA	ND	0.279	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
PFTeDA	ND	0.426	2.82	4.51		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	153	50 - 150	H	B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFHxA	IS	135	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C4-PFHpA	IS	120	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
18O2-PFHxS	IS	120	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFOA	IS	110	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C8-PFOS	IS	122	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C5-PFNA	IS	138	50 - 150	D	B7L0088	14-Dec-17	0.222 L	12-Jan-18 09:10	10
13C2-PFDA	IS	129	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
d3-MeFOSAA	IS	103	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFUnA	IS	110	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
d5-EtFOSAA	IS	98.9	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFDoA	IS	72.1	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	1
13C2-PFTeDA	IS	72.5	50 - 150		B7L0088	14-Dec-17	0.222 L	11-Jan-18 13:06	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: SA-PZ147-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 12:15

Laboratory Data

Lab Sample: 1701832-09
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.889	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFHxA	ND	1.08	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFHpA	0.602	0.294	2.48	3.97	J	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFHxS	ND	0.470	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFOA	0.691	0.323	2.48	3.97	J	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFOS	ND	0.401	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFNA	44.9	0.402	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFDA	1.06	0.740	2.48	3.97	J	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
MeFOSAA	ND	0.820	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFUnA	5.24	0.522	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
EtFOSAA	ND	0.681	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFDoA	ND	0.393	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFTrDA	ND	0.245	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
PFTeDA	ND	0.375	2.48	3.97		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	155	50 - 150	H	B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFHxA	IS	145	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C4-PFHpA	IS	136	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
18O2-PFHxS	IS	127	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFOA	IS	131	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C8-PFOS	IS	122	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C5-PFNA	IS	129	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFDA	IS	143	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
d3-MeFOSAA	IS	96.9	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFUnA	IS	113	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
d5-EtFOSAA	IS	97.4	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFDoA	IS	107	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	1
13C2-PFTeDA	IS	80.7	50 - 150		B7L0088	14-Dec-17	0.252 L	11-Jan-18 13:28	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: SA-SW124-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 11:30

Laboratory Data

Lab Sample: 1701832-06
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.909	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFHxA	6.91	1.11	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFHpA	5.10	0.300	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFHxS	2.45	0.481	2.54	4.06	J	B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFOA	8.62	0.331	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFOS	4.43	0.410	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFNA	253	0.411	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFDA	6.11	0.757	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
MeFOSAA	ND	0.838	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFUnA	24.4	0.533	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
EtFOSAA	ND	0.696	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFDoA	ND	0.402	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFTrDA	ND	0.251	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
PFTeDA	ND	0.384	2.54	4.06		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	131	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFHxA	IS	118	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C4-PFHpA	IS	114	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
18O2-PFHxS	IS	123	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFOA	IS	128	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C8-PFOS	IS	144	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C5-PFNA	IS	108	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFDA	IS	120	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
d3-MeFOSAA	IS	112	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFUnA	IS	103	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
d5-EtFOSAA	IS	110	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFDoA	IS	108	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	1
13C2-PFTeDA	IS	115	50 - 150		B7L0088	14-Dec-17	0.246 L	11-Jan-18 12:55	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.

Vista Analytical Laboratory

Sample ID: SA-SW125-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Surface Water
Date Collected: 01-Dec-17 11:00

Laboratory Data

Lab Sample: 1701832-05
Date Received: 02-Dec-17 09:37
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.858	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFHxA	9.23	1.05	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFHpA	8.27	0.283	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFHxS	7.85	0.454	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFOA	9.89	0.312	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFOS	25.0	0.387	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFNA	167	0.388	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFDA	3.23	0.715	2.39	3.84	J	B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
MeFOSAA	ND	0.791	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFUnA	12.3	0.504	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
EtFOSAA	ND	0.657	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFDoA	ND	0.380	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFTrDA	ND	0.237	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
PFTeDA	ND	0.362	2.39	3.84		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	154	50 - 150	H	B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFHxA	IS	127	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C4-PFHpA	IS	129	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
18O2-PFHxS	IS	123	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFOA	IS	95.1	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C8-PFOS	IS	134	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C5-PFNA	IS	108	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFDA	IS	117	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
d3-MeFOSAA	IS	105	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFUnA	IS	125	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
d5-EtFOSAA	IS	122	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFDoA	IS	108	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	1
13C2-PFTeDA	IS	130	50 - 150		B7L0088	14-Dec-17	0.261 L	11-Jan-18 12:44	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: SA-SW201-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 12:25

Laboratory Data

Lab Sample: 1701832-10
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.901	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFHxA	2.87	1.10	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFHpA	2.93	0.297	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFHxS	2.97	0.477	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFOA	5.08	0.328	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFOS	0.949	0.406	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFNA	25.5	0.408	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFDA	1.10	0.750	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
MeFOSAA	ND	0.830	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFUnA	1.19	0.528	2.52	4.03	J	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
EtFOSAA	ND	0.689	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFDoA	ND	0.399	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFTrDA	ND	0.249	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
PFTeDA	ND	0.380	2.52	4.03		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	159	50 - 150	H	B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFHxA	IS	127	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C4-PFHpA	IS	134	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
18O2-PFHxS	IS	131	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFOA	IS	116	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C8-PFOS	IS	117	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C5-PFNA	IS	100	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFDA	IS	90.9	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
d3-MeFOSAA	IS	99.7	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFUnA	IS	96.2	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
d5-EtFOSAA	IS	98.4	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFDoA	IS	110	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	1
13C2-PFTeDA	IS	133	50 - 150		B7L0088	14-Dec-17	0.248 L	11-Jan-18 13:39	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: SA-SW204-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 13:25

Laboratory Data

Lab Sample: 1701832-12
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.866	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFHxA	7.48	1.05	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFHpA	7.70	0.286	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFHxS	6.92	0.458	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFOA	8.54	0.315	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFOS	29.6	0.390	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFNA	190	0.392	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFDA	5.35	0.721	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
MeFOSAA	ND	0.798	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFUnA	29.9	0.508	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
EtFOSAA	ND	0.663	2.42	3.87		B7L0088	14-Dec-17	0.258 L	12-Jan-18 11:23	1
PFDoA	ND	0.383	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFTrDA	ND	0.239	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
PFTeDA	ND	0.365	2.42	3.87		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	138	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFHxA	IS	131	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C4-PFHpA	IS	127	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
18O2-PFHxS	IS	124	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFOA	IS	113	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C8-PFOS	IS	133	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C5-PFNA	IS	112	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFDA	IS	112	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
d3-MeFOSAA	IS	95.0	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFUnA	IS	101	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
d5-EtFOSAA	IS	115	50 - 150		B7L0088	14-Dec-17	0.258 L	12-Jan-18 11:23	1
13C2-PFDoA	IS	96.5	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	1
13C2-PFTeDA	IS	117	50 - 150		B7L0088	14-Dec-17	0.258 L	11-Jan-18 14:35	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.

Vista Analytical Laboratory

Sample ID: SA-SW204-FRB-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: QC Water
Date Collected: 01-Dec-17 13:25

Laboratory Data

Lab Sample: 1701832-13
Date Received: 02-Dec-17 09:37
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.863	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFHxA	ND	1.05	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFHpA	ND	0.285	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFHxS	ND	0.456	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFOA	ND	0.314	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFOS	ND	0.389	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFNA	ND	0.390	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFDA	ND	0.718	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
MeFOSAA	ND	0.795	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFUnA	ND	0.506	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
EtFOSAA	ND	0.660	2.41	3.86		B7L0088	14-Dec-17	0.259 L	12-Jan-18 11:34	1
PFDoA	ND	0.382	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFTrDA	ND	0.238	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
PFTeDA	ND	0.364	2.41	3.86		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	163	50 - 150	H	B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFHxA	IS	141	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C4-PFHpA	IS	116	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
18O2-PFHxS	IS	121	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFOA	IS	105	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C8-PFOS	IS	136	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C5-PFNA	IS	132	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFDA	IS	111	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
d3-MeFOSAA	IS	105	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFUnA	IS	106	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
d5-EtFOSAA	IS	121	50 - 150		B7L0088	14-Dec-17	0.259 L	12-Jan-18 11:34	1
13C2-PFDoA	IS	85.3	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	1
13C2-PFTeDA	IS	108	50 - 150		B7L0088	14-Dec-17	0.259 L	11-Jan-18 14:47	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: SW-DP01-20171201 **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05

Matrix: Surface Water
Date Collected: 01-Dec-17 13:00

Laboratory Data

Lab Sample: 1701832-11
Date Received: 02-Dec-17 09:37

Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.860	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFHxA	1.86	1.05	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFHpA	1.96	0.284	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFHxS	2.69	0.455	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFOA	4.78	0.313	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFOS	1.12	0.388	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFNA	5.15	0.389	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFDA	ND	0.715	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
MeFOSAA	ND	0.792	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFUnA	0.687	0.504	2.40	3.84	J	B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
EtFOSAA	ND	0.658	2.40	3.84		B7L0088	14-Dec-17	0.260 L	12-Jan-18 11:11	1
PFDoA	ND	0.380	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFTrDA	ND	0.237	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
PFTeDA	ND	0.363	2.40	3.84		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	141	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFHxA	IS	142	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C4-PFHpA	IS	128	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
18O2-PFHxS	IS	146	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFOA	IS	113	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C8-PFOS	IS	146	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C5-PFNA	IS	125	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFDA	IS	109	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
d3-MeFOSAA	IS	115	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFUnA	IS	129	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
d5-EtFOSAA	IS	92.7	50 - 150		B7L0088	14-Dec-17	0.260 L	12-Jan-18 11:11	1
13C2-PFDoA	IS	101	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	1
13C2-PFTeDA	IS	144	50 - 150		B7L0088	14-Dec-17	0.260 L	11-Jan-18 14:24	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.

APPENDIX C

SUPPORT DOCUMENTATION

January 16, 2018

Vista Work Order No. 1701832

Ms. Kristi Francisco
Tetra Tech
5700 Lake Wright Drive, Suite 309
Norfolk, VA 23502

Dear Ms. Francisco,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on December 02, 2017. This sample set was analyzed on a standard turn-around time, under your Project Name '112G08005-WE05'. The SDG Number is WE05.

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,

for

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.

SDG Number WE05
Vista Work Order No. 1701832
Case Narrative

Sample Condition on Receipt:

Nine surface water samples, three groundwater samples and one QC water sample 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.

Analytical Notes:

Modified EPA Method 537

The following samples contained particulate and were centrifuged prior to extraction:

Laboratory ID	Sample Name
1701832-01	FT-SW10-20171201
1701832-02	FT-DUP04-20171201
1701832-03	FT-SW13-20171201
1701832-04	FT-SW12-20171201
1701832-05	SA-SW125-20171201
1701832-06	SA-SW124-20171201
1701832-07	SA-PZ124-20171201
1701832-08	SA-DUP05-20171201
1701832-09	SA-PZ147-20171201
1701832-10	SA-SW201-20171201

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

Holding Times

The samples were extracted within the method hold times. The re-injections of samples "SA-DP01-20171201", "SA-SW204-20171201" and "SA-SW204-FRB-20171201" for Et-FOSAA, as well as the dilutions for "SA-PZ124-20171201" and "SA-DUP05-20171201", were performed outside of the hold time.

Quality Control

The Initial Calibration met the method acceptance criteria. The recovery of PFDoA was 133% in one Continuing Calibration Verification; this analyte was not detected in the associated samples. The recoveries were within acceptance limits for all other analytes in the Continuing Calibration Verifications.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected in the Method Blank above 1/2 the LOQ. The OPR recoveries were within the method acceptance criteria

The extracts of samples "SA-DP01-20171201", "SA-SW204-20171201" and "SA-SW204-FRB-20171201" were

re-injected because the ending Coninuing calibration Verification did not meet criteria for Et-FOSAA. The results for Et-FOSAA were reported from the re-injections.

The labeled standard recoveries outside the acceptance criteria are listed in the table below.

As requested, an MS/MSD was performed on sample "SA-SW201-20171201". The MS/MSD recoveries and/or RPDs were out of the acceptance criteria for PFNA, MeFOSAA, PFUnA, EtFOSAA and PFTrDA.

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
1701832-01	FT-SW10-20171201	Modified EPA Method 537	13C3-PFBS	H	163
1701832-02	FT-DUP04-20171201	Modified EPA Method 537	13C3-PFBS	H	158
1701832-05	SA-SW125-20171201	Modified EPA Method 537	13C3-PFBS	H	154
1701832-07	SA-PZ124-20171201	Modified EPA Method 537	13C3-PFBS	H	153
1701832-09	SA-PZ147-20171201	Modified EPA Method 537	13C3-PFBS	H	155
1701832-10	SA-SW201-20171201	Modified EPA Method 537	13C3-PFBS	H	159
1701832-13	SA-SW204-FRB-20171201	Modified EPA Method 537	13C3-PFBS	H	163
B7L0088-MS1	B7L0088-MS1	Modified EPA Method 537	13C3-PFBS	H	152

H = Recovery was outside laboratory acceptance criteria.

In addition, the laboratory QC officer must read and sign a copy of the Quality Assurance Review Form displayed on the next page of this Attachment. Electronic deliverables are not considered to be complete without the accompanying Quality Assurance Review Form.

I Anna Helak, as the designated Quality Assurance Officer, hereby attest that all electronic deliverables have been thoroughly reviewed and are in agreement with the associated hardcopy data. The enclosed electronic files have been reviewed for accuracy (including significant figures), completeness and format. The laboratory will be responsible for any labor time necessary to correct enclosed electronic deliverables that have been found to be in error. I can be reached at (916) 673 1520 If there are any questions or problems with the enclosed electronic deliverables.

Signature: Anna Helak Title: QA Manager Date: 01/16/2018

Revision 9
ISG
08/18/16

Sample Inventory Report

Vista Sample ID	Client Sample ID		Sampled	Received	Components/Containers
1701832-01	FT-SW10-20171201		01-Dec-17 09:40	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-02	FT-DUP04-20171201		01-Dec-17 10:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-03	FT-SW13-20171201		01-Dec-17 09:55	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-04	FT-SW12-20171201		01-Dec-17 10:05	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-05	SA-SW125-20171201		01-Dec-17 11:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-06	SA-SW124-20171201		01-Dec-17 11:30	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-07	SA-PZ124-20171201		01-Dec-17 11:42	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-08	SA-DUP05-20171201		01-Dec-17 09:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-09	SA-PZ147-20171201		01-Dec-17 12:15	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-10	SA-SW201-20171201	MS/MSD	01-Dec-17 12:25	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-11	SW-DP01-20171201		01-Dec-17 13:00	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-12	SA-SW204-20171201		01-Dec-17 13:25	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL
1701832-13	SA-SW204-FRB-20171201		01-Dec-17 13:25	02-Dec-17 09:37	HDPE Bottle, 250 mL
					HDPE Bottle, 250 mL

Vista Project: 1701832

Client Project: 112G08005-WE05

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.

Rev. No.: 0
Rev. Date: 06/27/2017

ID: LR - 537COC

1 of 2

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701832 Temp: 1.9 °C
Storage ID: WR-2 Storage Secured: Yes [X] No [ ]

Project ID: 112G08005 - WE05 PO#: _____ Sampler: JB/BB (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
	Tetra Tech	5700 Lake Wright Dr. Suite 102	Norfolk	VA		

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Dorston Lauren Dorston #	12/01/17	1700	FedEx		
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Fedex			Ian Arguello	12/2/17	1001

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

ATTN: Sample Custodian

Method of Shipment: Fed Ex

Tracking No.: _____

Add Analysis(es) Requested

Container(s): Quantity, Type, Matrix

Mod. EPA Method 537: PFOA/PFOS; UCMR3 PFAS List:6; 537 List: 14; Full List of 26; Other: Please List Below

EPA Method 537(DW only): PFOA/PFOS; UCMR3 PFAS List:6; PFAS List: 14

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
FT-SW10-20171201	12-01-17	0940	McKay Lake	2	P	SW			X						
FT-DUP04-20171201		1000	McKay Lake												Duplicate
FT-SW13-20171201		0955	Swan Pond												
FT-SW12-20171201		1005	Swan Pond												
SA-SW125-20171201		1100	Peconic River												
SA-SW124-20171201		1130													
SA-PZ124-20171201		1142				GW									
SA-DUP05-20171201		0900				GW									Duplicate
SA-PZ147-20171201		1215				GW									
SA-SW201-20171201		1225		6		SW									MS/MSD

Special Instructions/Comments: _____

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: 5700 Lake Wright Dr. Suite 102
City: Norfolk State: VA Zip: 23502
Phone: 757-466-4902 Fax: _____
Email: Kristi.Francisco@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: _____

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: SW = Surface water, GW = groundwater

Page: 1 of 1

Vista Analytical Laboratory

CHAIN OF CUSTODY

For Laboratory Use Only
Work Order #: 1701832 Temp: 1.9 °C
Storage ID: WR-2 Storage Secured: Yes ☒ No ☐

Project ID: 112G08005-WE05 PO#: _____ Sampler: JB/BB (name)

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

Invoice to: Name	Company	Address	City	State	Ph#	Fax#
	Tetra Tech	5700 Lake Wright Dr. Suite 102	Norfolk	VA		

Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Lauren Dorston Lauren Dorston	12-01-17	1700	FedEX		
Relinquished by (printed name and signature)	Date	Time	Received by (printed name and signature)	Date	Time
Fed Ex			Ian Hyacille	12/2/17	1001

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

ATTN: Sample Custodian

Method of Shipment: FedEX

Tracking No.: _____

Add Analysis(es) Requested

Container(s): Quantity | Type | Matrix

Mod. EPA Method 537: PFOA/PFOS | UCMR3 PFAS List:6 | 537 List: 14 | Full List of 26 | Other: Please List Below

EPA Method 537(DW only): PFOA/PFOS | UCMR3 PFAS List:6 | PFAS List: 14

Sample ID	Date	Time	Location/Sample Description	Qty	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
SW-DP01-20171201	12-01-17	1300	Peconic River	2	P	SW			X						
SA-SW204-20171201	12-01-17	1325	Peconic River	2	P	SW			X						
SA-SW204-FRB-20171201	12-01-17	1325	Peconic River	2	P	QA			X						FRB

Special Instructions/Comments: ~~Extract FRB. Only analyze FRB extract if parent sample has positive detection for PFAS~~

SEND DOCUMENTATION AND RESULTS TO:

Name: Kristi Francisco
Company: Tetra Tech
Address: 5700 Lake Wright Dr. Suite 102
City: Norfolk State: VA Zip: 23502
Phone: 757-466-4902 Fax: _____
Email: Kristi.Francisco@tetratech.com

Container Types: P= HDPE, PJ= HDPE Jar, O = Other: _____

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: SW = Surface water GW = groundwater

Page: 1 of 1

Vista Analytical Laboratory

Sample Log-in Checklist

Vista Work Order #: 1701832 **TAT** Std

Samples Arrival:	**Date/Time** 0937 12/2/17	**Initials:** IA	**Location:** WR-2 **Shelf/Rack:** N/A
Logged In:	**Date/Time** 12/2/17 1552	**Initials:** SR	**Location:** WR-2 **Shelf/Rack:** ~~A5~~ E6 SR 12/2/17

Delivered By:	(FedEx)	UPS	On Trac	GSO	DHL	Hand Delivered	Other
Preservation:	(Ice)		Blue Ice		Dry Ice		None

Temp °C: 1.8	(uncorrected)	**Time:** 1000	**Thermometer ID:** IR-1
Temp °C: 1.9	(corrected)	**Probe used:** Yes☐ No☑	

	YES	NO	NA
Adequate Sample Volume Received?	✓		
Holding Time Acceptable?	✓		
Shipping Container(s) Intact?	✓		
Shipping Custody Seals Intact?	✓		
Shipping Documentation Present?	✓		
Airbill — Trk # 8102 9107 0455	✓		
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:	$Na_2S_2O_3$	Trizma	(None)		(Yes)	No	NA
Shipping Container	(Vista)	Client	Retain	Return		Dispose	

Comments:

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RL1	RL2	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PENTADECAFLUOROOCTANOIC ACID	2.38 J	2.41 J	4.02	4.02	3.86	1.25	FALSE	FALSE	FALSE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUORODECANOIC ACID	1.14 J	0.954 J	4.02	4.02	3.86	17.77	FALSE	FALSE	FALSE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUOROHEPTANOIC ACID	1.37 J	1.26 J	4.02	4.02	3.86	8.37	FALSE	FALSE	FALSE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUOROHEXANESULFONIC ACID	0.636 J	0.627 J	4.02	4.02	3.86	1.43	FALSE	FALSE	FALSE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUOROHEXANOIC ACID	2.18 J	2.5 J	3.86	3.86	3.86	13.68	FALSE	FALSE	FALSE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUORONONANOIC ACID	4.48	4.27	4.02	4.02	3.86	4.80	FALSE	TRUE	TRUE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUOROOCTANE SULFONIC ACID	0.531 J	0.898 J	4.02	4.02	3.86	51.36	TRUE	FALSE	FALSE	FALSE
FT-SW10-20171201	FT-DUP04-20171201	PFAS	PERFLUOROUNDECANOIC ACID	1.21 J	1.11 J	4.02	4.02	3.86	8.62	FALSE	FALSE	FALSE	FALSE

FIELD DUPLICATE PRECISION

ORIGINAL ID	DUP ID	FRACTION	ANALYTE	ORIGINAL	DUPLICATE	RL	RL1	RL2	RPD	RPD > 30%	ORIGINAL SAMPLE CONC >RL	DUPLICATE SAMPLE CONC >RL	DIFFERENCE >2XRL
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PENTADECAFLUOROOCTANOIC ACID	67.9	68.9	4.51	4.51	4.21	1.46	FALSE	TRUE	TRUE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUOROBUTANESULFONIC ACID	1.14 J	1.17 J	4.51	4.51	4.21	2.60	FALSE	FALSE	FALSE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUORODECANOIC ACID	40.6	45.1	4.51	4.51	4.21	10.50	FALSE	TRUE	TRUE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUOROHEPTANOIC ACID	32.2	36.6	4.51	4.51	4.21	12.79	FALSE	TRUE	TRUE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUOROHEXANESULFONIC ACID	14.7	13.3	4.51	4.51	4.21	10.00	FALSE	TRUE	TRUE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUOROHEXANOIC ACID	18.6	20.8	4.51	4.51	4.21	11.17	FALSE	TRUE	TRUE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUORONONANOIC ACID	2180 J	3010 J	45.1	45.1	42.1	31.98	TRUE	TRUE	TRUE	TRUE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUOROOCTANE SULFONIC ACID	7.92	8.49	4.51	4.51	4.21	6.95	FALSE	TRUE	TRUE	FALSE
SA-PZ124-20171201	SA-DUP05-20171201	PFAS	PERFLUOROUNDECANOIC ACID	121	112	4.51	4.51	4.21	7.73	FALSE	TRUE	TRUE	FALSE

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0088

Chemist: HC

Prep Date/Time: ~~13~~-Dec-17 ~~10:57~~ 12.14.17 0915 GRB 12/14/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/13/17 ST | BalanceID: ARMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	B7L0088-BLK1	5	2	0	2	N/A	N/A	(0.250)	HC GRB 12.14.17	GRB 12.14.17	HC GRB 12/14/17
☐	B7L0088-BS1	5	2	0	2	↓	↓	(0.250)	↓	↓	↓
☒	B7L0088-MS1 1701832-10	5	2	0	2	286.43	27.75	0.25868			
☒	B7L0088-MSD1 1701832-10	5	2	0	2	286.49	27.09	0.25940			
☒	1701832-01	5	2	0	2	276.72	27.71	0.24901			
☒	1701832-02	5	2	0	2	286.12	27.00	0.25912			
☒	1701832-03	5	2	0	2	279.42	27.79	0.25163			
☒	1701832-04	5	2	0	2	282.62	27.83	0.25479			
☒	1701832-05	5	2	0	2	288.30	27.67	0.26063			
☒	1701832-06	5	2	0	2	273.07	27.01	0.24606			
☒	1701832-07	5	2	0	2	249.37	27.85	0.22152			
☒	1701832-08	5	2	0	2	264.88	27.62	0.23726			
☒	1701832-09	5	2	0	2	279.54	27.91	0.25163			
☒	1701832-10	5	2	0	2	276.07	27.70	0.24837			
☐	1701832-11	5	2	0	2	288.09	27.77	0.26032			
☐	1701832-12	5	2	0	2	286.05	27.63	0.25842			

IS: 17L0402, 10µL (V5)

IS SUP: NA

NS: 17J1820, 10µL (V2)

RS: 17K2502, 10µL (V3)

SPE Chem: STRATA X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% NH_4OH in MeOH/MeOH

Final Volume(s): 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

PREPARATION BENCH SHEET

Matrix: Aqueous

Method: 537M PFAS DOD (LOQ as mRL)

B7L0088

Chemist: HC

Prep Date/Time: 13-Dec-17 10:57 ~~12-14-17~~ 12.14.17 0915

GRB 12/14/17

Prepared using: LCMS - SPE Extraction-LCMS

Date/Initals: 12/13/17 ST

BalanceID: HRMS-8

Cen	VISTA Sample ID	pH Before	pH After	Chlorine (Cl)	Drops HCl Added	Bottle + Sample (g)	Bottle Only (g)	Sample Amt. (L)	IS/NS CHEM/WIT DATE	SPE	RS CHEM/WIT DATE
☐	1701832-13	5	2	0	2	297.22	27.83	0.25939	HC GRB 12.14.17	GRB 12.14.17	KC GRB 12/14/17
☐	1701841-06	5	2	0	1	145.19	27.06	0.11813	↓	↓	↓
☐	1701841-07	5	2	0	1	147.61	27.13	0.12049	↓	↓	↓

IS: 17L0402, 10µL (V5)

IS SUP: NA

NS: 17J1820, 10µL (V2)

RS: 17K2502, 10µL (V3)

SPE Chem: Strata X-AW 33µm 200mg 6mL

Ele SOLV: 0.5% NH4OH in MeOH/MeOH

Final Volume(s) 1mL

Notes:

Comments: Assume 1 g = 1 mL

Cen = Centrifuged

Batch: B7L0088 Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701832-01	0.24901	NA	NA	1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-02	0.25912			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-03	0.25163			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-04	0.25479			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-05	0.26063			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-06	0.24606			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-07	0.22152			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-08	0.23726			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-09	0.25163			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-10	0.24837			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-11	0.26032			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-12	0.25842			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-13	0.25939			1000	14-Dec-17 09:15	HAC			QC Water	537M PFAS DOD (LOQ as
1701841-06	0.11813			1000	14-Dec-17 09:15	HAC			Aqueous	537M PFAS DOD (LOQ as
1701841-07	0.12048			1000	14-Dec-17 09:15	HAC			Aqueous	537M PFAS DOD (LOQ as
B7L0088-BLK1	0.125			1000	14-Dec-17 09:15	HAC				QC
B7L0088-BS1	0.125			1000	14-Dec-17 09:15	HAC				QC
B7L0088-MS1	0.25868			1000	14-Dec-17 09:15	HAC	17J1820	10		QC
B7L0088-MSD1	0.2594			1000	14-Dec-17 09:15	HAC	17J1820	10		QC

HN 12/18/17

Printed: 12/18/2017 1:08:35PM

Sample ID: Method Blank

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
Matrix: Aqueous

Laboratory Data

Lab Sample: B7L0088-BLK1
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	ND	0.895	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFHxA	ND	1.09	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFHpA	ND	0.296	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFHxS	ND	0.474	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFOA	ND	0.326	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFOS	ND	0.404	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFNA	ND	0.405	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFDA	ND	0.745	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
MeFOSAA	ND	0.825	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFUnA	ND	0.525	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
EtFOSAA	ND	0.685	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFDoA	ND	0.396	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFTrDA	ND	0.247	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
PFTeDA	ND	0.378	2.50	4.00		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	131	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFHxA	IS	138	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C4-PFHpA	IS	125	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
18O2-PFHxS	IS	143	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFOA	IS	136	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C8-PFOS	IS	115	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C5-PFNA	IS	111	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFDA	IS	130	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
d3-MeFOSAA	IS	105	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFUnA	IS	108	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
d5-EtFOSAA	IS	111	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFDoA	IS	110	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	1
13C2-PFTeDA	IS	108	50 - 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:39	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: OPR **Modified EPA Method 537**

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
Matrix: Aqueous

Laboratory Data

Lab Sample: B7L0088-BS1
Column: BEH C18

Analyte	Amt Found (ng/L)	Spike Amt	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	35.0	40.0	87.5	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFHxA	37.1	40.0	92.8	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFHpA	35.7	40.0	89.3	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFHxS	35.6	40.0	89.1	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFOA	38.5	40.0	96.3	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFOS	35.3	40.0	88.2	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFNA	28.3	40.0	70.8	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFDA	32.1	40.0	80.2	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
MeFOSAA	36.0	40.0	90.0	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFUnA	31.2	40.0	77.9	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
EtFOSAA	35.6	40.0	89.1	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFDoA	33.6	40.0	84.0	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFTrDA	42.3	40.0	106	60-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
PFTeDA	39.7	40.0	99.3	70-130		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1

Labeled Standards	Type	% Rec	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	132	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFHxA	IS	116	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C4-PFHpA	IS	126	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
18O2-PFHxS	IS	118	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFOA	IS	121	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C8-PFOS	IS	113	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C5-PFNA	IS	123	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFDA	IS	106	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
d3-MeFOSAA	IS	110	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFUnA	IS	111	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
d5-EtFOSAA	IS	102	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFDoA	IS	110	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1
13C2-PFTeDA	IS	148	50- 150		B7L0088	14-Dec-17	0.250 L	31-Dec-17 02:16	1

Sample ID: SA-SW201-20171201 **Modified EPA Method 537**

Name:	Tetra Tech	Lab Sample:	B7L0088-MS1/B7L0088-MSD1	Source Lab Sample:	1701832-10
Project:	112G08005-WE05	QC Batch:	B7L0088	Date Extracted:	14-Dec-17
Matrix:	Aqueous	Samp Size:	0.259/0.259 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	ND	34.6	38.7	89.4		34.5	38.6	89.3	0.112		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFHxA	2.87	38.7	38.7	92.5		37.8	38.6	90.4	2.30		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFHpA	2.93	33.0	38.7	77.6		30.7	38.6	71.9	7.63		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFHxS	2.97	36.6	38.7	86.9		44.3	38.6	107	20.7		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFOA	5.08	36.9	38.7	82.3		36.8	38.6	82.3	0		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFOS	0.949	42.7	38.7	108		31.9	38.6	80.2	29.5		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFNA	25.5	73.9	38.7	125		89.7	38.6	166	28.2	H	70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFDA	1.10	35.5	38.7	88.9		32.3	38.6	80.8	9.55		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
MeFOSAA	ND	25.7	38.7	66.4	H	26.8	38.6	69.4	4.42	H	70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFUnA	1.19	35.8	38.7	89.5		49.2	38.6	124	32.3	H	70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
EtFOSAA	ND	25.2	38.7	65.2	H	30.7	38.6	79.4	19.6		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFDoA	ND	46.3	38.7	120		41.8	38.6	108	10.5		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFTrDA	ND	50.9	38.7	132	H	35.1	38.6	90.8	37.0	H	60-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1
PFTeDA	ND	32.3	38.7	83.4		29.0	38.6	75.1	10.5		70-130	30	11-Jan-18 11:37	1	11-Jan-18 11:48	1

Labeled Standards	Type	MS % Rec	MS Quals	MSD % Rec	MSD Quals	Limits	MS Analyzed	MS Dil	MSD Analyzed	MSD Dil
13C3-PFBS	IS	152	H	129		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFHxA	IS	123		122		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C4-PFHpA	IS	132		124		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
18O2-PFHxS	IS	118		109		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFOA	IS	105		114		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C8-PFOS	IS	123		119		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C5-PFNA	IS	100		125		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFDA	IS	111		122		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
d3-MeFOSAA	IS	101		114		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFUnA	IS	89.5		96.7		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
d5-EtFOSAA	IS	107		111		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFDoA	IS	68.9		107		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1
13C2-PFTeDA	IS	88.7		119		50-150	11-Jan-18 11:37	1	11-Jan-18 11:48	1

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Name: 180110M3_15, Date: 11-Jan-2018, Time: 11:59:21, ID: 1701832-01 FT-SW10-20171201 0.24901, Description: FT-SW10-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-01 FT-SW10-20171201 0.24901	8.79e3	85.0	NO
2	2	13C5-PFHxA	1701832-01 FT-SW10-20171201 0.24901	9.51e3	77.4	NO
3	3	13C3-PFHxS	1701832-01 FT-SW10-20171201 0.24901	3.26e3	110.7	NO
4	4	13C8-PFOA	1701832-01 FT-SW10-20171201 0.24901	1.04e4	85.3	NO
5	5	13C9-PFNA	1701832-01 FT-SW10-20171201 0.24901	1.04e4	90.4	NO
6	6	13C4-PFOS	1701832-01 FT-SW10-20171201 0.24901	3.15e3	111.9	NO
7	7	13C6-PFDA	1701832-01 FT-SW10-20171201 0.24901	7.84e3	114.1	NO
8	8	13C7-PFUdA	1701832-01 FT-SW10-20171201 0.24901	9.23e3	91.0	NO

Name: 180110M3_16, Date: 11-Jan-2018, Time: 12:10:32, ID: 1701832-02 FT-DUP04-20171201 0.25912, Description: FT-DUP04-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-02 FT-DUP04-20171201 0.25...	6.56e3	63.5	NO
2	2	13C5-PFHxA	1701832-02 FT-DUP04-20171201 0.25...	7.48e3	60.9	NO
3	3	13C3-PFHxS	1701832-02 FT-DUP04-20171201 0.25...	2.30e3	78.2	NO
4	4	13C8-PFOA	1701832-02 FT-DUP04-20171201 0.25...	7.40e3	60.7	NO
5	5	13C9-PFNA	1701832-02 FT-DUP04-20171201 0.25...	6.88e3	59.8	NO
6	6	13C4-PFOS	1701832-02 FT-DUP04-20171201 0.25...	2.22e3	79.1	NO
7	7	13C6-PFDA	1701832-02 FT-DUP04-20171201 0.25...	4.46e3	64.8	NO
8	8	13C7-PFUdA	1701832-02 FT-DUP04-20171201 0.25...	6.76e3	66.6	NO

Name: 180110M3_17, Date: 11-Jan-2018, Time: 12:21:42, ID: 1701832-03 FT-SW13-20171201 0.25163, Description: FT-SW13-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-03 FT-SW13-20171201 0.25163	6.60e3	63.8	NO
2	2	13C5-PFHxA	1701832-03 FT-SW13-20171201 0.25163	8.13e3	66.2	NO
3	3	13C3-PFHxS	1701832-03 FT-SW13-20171201 0.25163	2.17e3	73.6	NO
4	4	13C8-PFOA	1701832-03 FT-SW13-20171201 0.25163	8.68e3	71.3	NO
5	5	13C9-PFNA	1701832-03 FT-SW13-20171201 0.25163	7.55e3	65.6	NO
6	6	13C4-PFOS	1701832-03 FT-SW13-20171201 0.25163	2.27e3	80.9	NO
7	7	13C6-PFDA	1701832-03 FT-SW13-20171201 0.25163	5.10e3	74.3	NO
8	8	13C7-PFUdA	1701832-03 FT-SW13-20171201 0.25163	8.32e3	82.0	NO

Name: 180110M3_18, Date: 11-Jan-2018, Time: 12:32:54, ID: 1701832-04 FT-SW12-20171201 0.25479, Description: FT-SW12-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-04 FT-SW12-20171201 0.25479	6.21e3	60.1	NO
2	2	13C5-PFHxA	1701832-04 FT-SW12-20171201 0.25479	8.19e3	66.7	NO
3	3	13C3-PFHxS	1701832-04 FT-SW12-20171201 0.25479	2.23e3	75.7	NO
4	4	13C8-PFOA	1701832-04 FT-SW12-20171201 0.25479	6.71e3	55.1	NO
5	5	13C9-PFNA	1701832-04 FT-SW12-20171201 0.25479	7.72e3	67.1	NO
6	6	13C4-PFOS	1701832-04 FT-SW12-20171201 0.25479	1.96e3	69.9	NO
7	7	13C6-PFDA	1701832-04 FT-SW12-20171201 0.25479	4.17e3	60.6	NO
8	8	13C7-PFUdA	1701832-04 FT-SW12-20171201 0.25479	6.97e3	68.7	NO

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Name: 180110M3_19, Date: 11-Jan-2018, Time: 12:44:04, ID: 1701832-05 SA-SW125-20171201 0.26063, Description: SA-SW125-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-05 SA-SW125-20171201 0.26...	6.72e3	65.0	NO
2	2	13C5-PFHxA	1701832-05 SA-SW125-20171201 0.26...	7.73e3	62.9	NO
3	3	13C3-PFHxS	1701832-05 SA-SW125-20171201 0.26...	2.28e3	77.4	NO
4	4	13C8-PFOA	1701832-05 SA-SW125-20171201 0.26...	8.14e3	66.8	NO
5	5	13C9-PFNA	1701832-05 SA-SW125-20171201 0.26...	7.10e3	61.7	NO
6	6	13C4-PFOS	1701832-05 SA-SW125-20171201 0.26...	2.09e3	74.2	NO
7	7	13C6-PFDA	1701832-05 SA-SW125-20171201 0.26...	4.80e3	69.8	NO
8	8	13C7-PFUdA	1701832-05 SA-SW125-20171201 0.26...	6.39e3	63.0	NO

Name: 180110M3_20, Date: 11-Jan-2018, Time: 12:55:15, ID: 1701832-06 SA-SW124-20171201 0.24606, Description: SA-SW124-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-06 SA-SW124-20171201 0.24...	6.79e3	65.6	NO
2	2	13C5-PFHxA	1701832-06 SA-SW124-20171201 0.24...	8.69e3	70.7	NO
3	3	13C3-PFHxS	1701832-06 SA-SW124-20171201 0.24...	2.30e3	78.2	NO
4	4	13C8-PFOA	1701832-06 SA-SW124-20171201 0.24...	7.07e3	58.1	NO
5	5	13C9-PFNA	1701832-06 SA-SW124-20171201 0.24...	7.53e3	65.4	NO
6	6	13C4-PFOS	1701832-06 SA-SW124-20171201 0.24...	1.82e3	64.7	NO
7	7	13C6-PFDA	1701832-06 SA-SW124-20171201 0.24...	5.61e3	81.6	NO
8	8	13C7-PFUdA	1701832-06 SA-SW124-20171201 0.24...	7.68e3	75.7	NO

Name: 180110M3_21, Date: 11-Jan-2018, Time: 13:06:26, ID: 1701832-07 SA-PZ124-20171201 0.22152, Description: SA-PZ124-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-07 SA-PZ124-20171201 0.221...	7.22e3	69.8	NO
2	2	13C5-PFHxA	1701832-07 SA-PZ124-20171201 0.221...	8.86e3	72.1	NO
3	3	13C3-PFHxS	1701832-07 SA-PZ124-20171201 0.221...	2.35e3	79.7	NO
4	4	13C8-PFOA	1701832-07 SA-PZ124-20171201 0.221...	8.94e3	73.4	NO
5	5	13C9-PFNA	1701832-07 SA-PZ124-20171201 0.221...	7.14e3	62.1	NO
6	6	13C4-PFOS	1701832-07 SA-PZ124-20171201 0.221...	2.27e3	80.7	NO
7	7	13C6-PFDA	1701832-07 SA-PZ124-20171201 0.221...	4.99e3	72.6	NO
8	8	13C7-PFUdA	1701832-07 SA-PZ124-20171201 0.221...	8.31e3	82.0	NO

Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-08 SA-DUP05-20171201 0.23...	7.66e3	74.1	NO
2	2	13C5-PFHxA	1701832-08 SA-DUP05-20171201 0.23...	9.63e3	78.4	NO
3	3	13C3-PFHxS	1701832-08 SA-DUP05-20171201 0.23...	2.23e3	75.7	NO
4	4	13C8-PFOA	1701832-08 SA-DUP05-20171201 0.23...	8.86e3	72.7	NO
5	5	13C9-PFNA	1701832-08 SA-DUP05-20171201 0.23...	6.75e3	58.7	NO
6	6	13C4-PFOS	1701832-08 SA-DUP05-20171201 0.23...	2.86e3	101.6	NO
7	7	13C6-PFDA	1701832-08 SA-DUP05-20171201 0.23...	5.39e3	78.5	NO
8	8	13C7-PFUdA	1701832-08 SA-DUP05-20171201 0.23...	8.51e3	83.9	NO

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Name: 180110M3_23, Date: 11-Jan-2018, Time: 13:28:47, ID: 1701832-09 SA-PZ147-20171201 0.25163, Description: SA-PZ147-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-09 SA-PZ147-20171201 0.251...	6.79e3	65.7	NO
2	2	13C5-PFHxA	1701832-09 SA-PZ147-20171201 0.251...	7.73e3	62.9	NO
3	3	13C3-PFHxS	1701832-09 SA-PZ147-20171201 0.251...	2.32e3	78.6	NO
4	4	13C8-PFOA	1701832-09 SA-PZ147-20171201 0.251...	7.25e3	59.5	NO
5	5	13C9-PFNA	1701832-09 SA-PZ147-20171201 0.251...	8.96e3	77.9	NO
6	6	13C4-PFOS	1701832-09 SA-PZ147-20171201 0.251...	2.23e3	79.4	NO
7	7	13C6-PFDA	1701832-09 SA-PZ147-20171201 0.251...	4.94e3	71.9	NO
8	8	13C7-PFUdA	1701832-09 SA-PZ147-20171201 0.251...	7.39e3	72.8	NO

Name: 180110M3_24, Date: 11-Jan-2018, Time: 13:39:58, ID: 1701832-10 SA-SW201-20171201 0.24837, Description: SA-SW201-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-10 SA-SW201-20171201 0.24...	8.08e3	78.2	NO
2	2	13C5-PFHxA	1701832-10 SA-SW201-20171201 0.24...	8.20e3	66.8	NO
3	3	13C3-PFHxS	1701832-10 SA-SW201-20171201 0.24...	2.41e3	81.7	NO
4	4	13C8-PFOA	1701832-10 SA-SW201-20171201 0.24...	7.27e3	59.7	NO
5	5	13C9-PFNA	1701832-10 SA-SW201-20171201 0.24...	8.67e3	75.4	NO
6	6	13C4-PFOS	1701832-10 SA-SW201-20171201 0.24...	2.52e3	89.6	NO
7	7	13C6-PFDA	1701832-10 SA-SW201-20171201 0.24...	5.06e3	73.6	NO
8	8	13C7-PFUdA	1701832-10 SA-SW201-20171201 0.24...	7.51e3	74.0	NO

Name: 180110M3_25, Date: 11-Jan-2018, Time: 13:51:09, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180110M3-10 PFC CS3 17L2611	1.16e4	112.2	NO
2	2	13C5-PFHxA	ST180110M3-10 PFC CS3 17L2611	1.45e4	117.8	NO
3	3	13C3-PFHxS	ST180110M3-10 PFC CS3 17L2611	3.34e3	113.5	NO
4	4	13C8-PFOA	ST180110M3-10 PFC CS3 17L2611	1.33e4	109.3	NO
5	5	13C9-PFNA	ST180110M3-10 PFC CS3 17L2611	1.23e4	106.7	NO
6	6	13C4-PFOS	ST180110M3-10 PFC CS3 17L2611	2.77e3	98.4	NO
7	7	13C6-PFDA	ST180110M3-10 PFC CS3 17L2611	9.08e3	132.0	NO
8	8	13C7-PFUdA	ST180110M3-10 PFC CS3 17L2611	1.16e4	114.5	NO

ANP 1/12/2018

Dataset: U:\Q4.PRO\results\180110M3\180110M3_IIS.qld

Last Altered: Friday, January 12, 2018 12:01:20 Pacific Standard Time
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Name: 180110M3_27, Date: 11-Jan-2018, Time: 14:13:30, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180110M3_28, Date: 11-Jan-2018, Time: 14:24:43, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-11 SW-DP01-20171201 0.260...	6.39e3	61.7	NO
2	2	13C5-PFHxA	1701832-11 SW-DP01-20171201 0.260...	6.94e3	56.5	NO
3	3	13C3-PFHxS	1701832-11 SW-DP01-20171201 0.260...	2.06e3	69.9	NO
4	4	13C8-PFOA	1701832-11 SW-DP01-20171201 0.260...	6.48e3	53.3	NO
5	5	13C9-PFNA	1701832-11 SW-DP01-20171201 0.260...	7.49e3	65.1	NO
6	6	13C4-PFOS	1701832-11 SW-DP01-20171201 0.260...	1.88e3	66.9	NO
7	7	13C6-PFDA	1701832-11 SW-DP01-20171201 0.260...	5.05e3	73.4	NO
8	8	13C7-PFUdA	1701832-11 SW-DP01-20171201 0.260...	6.20e3	61.1	NO

Name: 180110M3_29, Date: 11-Jan-2018, Time: 14:35:52, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-12 SA-SW204-20171201 0.25...	6.49e3	62.8	NO
2	2	13C5-PFHxA	1701832-12 SA-SW204-20171201 0.25...	8.33e3	67.8	NO
3	3	13C3-PFHxS	1701832-12 SA-SW204-20171201 0.25...	2.41e3	81.7	NO
4	4	13C8-PFOA	1701832-12 SA-SW204-20171201 0.25...	7.88e3	64.7	NO
5	5	13C9-PFNA	1701832-12 SA-SW204-20171201 0.25...	7.81e3	67.9	NO
6	6	13C4-PFOS	1701832-12 SA-SW204-20171201 0.25...	2.26e3	80.3	NO
7	7	13C6-PFDA	1701832-12 SA-SW204-20171201 0.25...	4.70e3	68.4	NO
8	8	13C7-PFUdA	1701832-12 SA-SW204-20171201 0.25...	7.47e3	73.7	NO

Name: 180110M3_30, Date: 11-Jan-2018, Time: 14:47:02, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-13 SA-SW204-FRB-20171201...	1.04e4	100.6	NO
2	2	13C5-PFHxA	1701832-13 SA-SW204-FRB-20171201...	1.10e4	89.2	NO
3	3	13C3-PFHxS	1701832-13 SA-SW204-FRB-20171201...	2.63e3	89.4	NO
4	4	13C8-PFOA	1701832-13 SA-SW204-FRB-20171201...	8.12e3	66.7	NO
5	5	13C9-PFNA	1701832-13 SA-SW204-FRB-20171201...	7.32e3	63.7	NO
6	6	13C4-PFOS	1701832-13 SA-SW204-FRB-20171201...	1.83e3	65.3	NO
7	7	13C6-PFDA	1701832-13 SA-SW204-FRB-20171201...	5.05e3	73.4	NO
8	8	13C7-PFUdA	1701832-13 SA-SW204-FRB-20171201...	7.14e3	70.4	NO

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_26.qld

Last Altered: Thursday, January 11, 2018 14:36:20 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

CP 1/11/18

Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

✓ JA 01/12/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	9.92e3	8.73e3		1.38	1.32	14.2	9.68	96.8	NO
2	2	PFPeA	263.1 > 218.9	1.10e4	1.13e4		2.37	2.30	12.2	9.73	97.3	NO
3	3	PFBS	299.0 > 79.7	2.23e3	1.31e3		2.66	2.59	21.3	10.0	100.0	NO
4	4	PFHxA	313.2 > 268.9	1.29e4	3.30e3		3.15	3.08	19.5	10.1	100.6	NO
5	5	PFHpA	363.0 > 318.9	1.09e4	8.28e3		3.78	3.70	16.4	10.0	100.1	NO
6	6	L-PFHxS	398.9 > 79.6	1.94e3	1.01e3		3.94	3.85	24.2	11.5	115.1	NO
7	8	6:2 FTS	427.1 > 407	2.85e3	1.01e3		4.25	4.16	35.4	11.5	114.9	NO
8	9	L-PFOA	413 > 368.7	1.32e4	1.24e4		4.31	4.22	13.3	10.4	104.4	NO
9	11	PFHpS	449 > 80.0	2.83e3	1.24e4		4.42	4.33	2.85	9.69	96.9	NO
10	12	PFNA	463.0 > 418.8	1.29e4	1.01e4		4.81	4.66	15.9	11.2	112.1	NO
11	13	PFOSA	498.1 > 77.8	3.18e3	3.00e3		4.87	4.72	13.3	10.1	101.3	NO
12	14	L-PFOS	499 > 79.9	3.00e3	3.24e3		4.89	4.74	11.6	9.82	98.2	NO
13	16	PFDA	513 > 468.8	1.33e4	1.01e4		5.18	5.04	16.5	10.1	100.8	NO
14	17	8:2 FTS	527 > 506.9	2.10e3	1.01e4		5.15	5.00	2.61	8.30	83.0	NO
15	18	N-MeFOSAA	570.1 > 419	6.02e3	4.08e3		5.32	5.18	18.4	9.25	92.5	NO
16	19	N-EtFOSAA	584.2 > 419	5.07e3	4.32e3		5.48	5.34	14.7	9.59	95.9	NO
17	20	PFUdA	563.0 > 518.9	1.29e4	1.00e4		5.50	5.36	16.1	12.2	122.1	NO
18	21	PFDS	598.8 > 80	3.70e3	1.00e4		5.54	5.40	4.63	12.3	123.3	NO
19	22	PFDoA	612.9 > 569.0	1.38e4	6.48e3		5.77	5.64	26.7	12.5	125.4	NO
20	23	N-MeFOSA	512.1 > 168.9	6.57e3	1.71e4		5.80	5.71	57.7	52.3	104.6	NO
21	24	PFTrDA	662.9 > 618.9	1.38e4	6.48e3		6.00	5.89	26.7	11.1	111.4	NO
22	25	PFTeDA	712.9 > 668.8	7.21e3	2.94e3		6.22	6.11	30.7	10.4	103.9	NO
23	26	N-EtFOSA	526.1 > 168.9	9.25e3	2.51e4		6.17	6.12	55.2	54.2	108.4	NO
24	27	PFHxDA	813.1 > 768.6	4.50e3	2.03e3		6.53	6.44	11.1	11.4	113.7	NO
25	28	PFODA	913.1 > 868.8	5.56e3	2.03e3		6.74	6.67	13.7	10.7	107.1	NO
26	29	N-MeFOSE	616.1 > 58.9	1.01e4	2.62e4		6.27	6.27	58.0	50.1	100.1	NO
27	30	N-EtFOSE	630.1 > 58.9	1.18e4	2.77e4		6.43	6.43	64.2	45.9	91.9	NO
28	31	13C3-PFBA	216.1 > 171.8	8.73e3	1.16e4	0.764	1.38	1.32	9.41	12.3	98.6	NO
29	32	13C3-PFPeA	266. > 221.8	1.13e4	1.45e4	0.730	2.37	2.30	9.73	13.3	106.7	NO
30	33	13C3-PFBS	302. > 98.8	1.31e3	1.45e4	0.095	2.77	2.58	1.13	11.9	95.0	NO
31	34	13C2-PFHxA	315 > 269.8	3.30e3	1.45e4	0.597	3.15	3.08	2.85	4.78	95.5	NO

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_26.qld

Last Altered: Thursday, January 11, 2018 14:36:20 Pacific Standard Time
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Name: 180110M3_26, Date: 11-Jan-2018, Time: 14:02:19, ID: ST180110M3-10 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	8.28e3	1.45e4	0.604	3.78	3.70	7.15	11.8	94.7	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.01e3	3.34e3	0.293	3.94	3.85	3.76	12.8	102.6	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.38e3	1.33e4	0.215	4.25	4.16	2.24	10.4	83.2	NO
35	38	13C2-PFOA	414.9 > 369.7	1.24e4	1.33e4	0.916	4.31	4.22	11.7	12.7	102.0	NO
36	39	13C5-PFNA	468.2 > 422.9	1.01e4	1.23e4	0.817	4.81	4.66	10.3	12.6	101.0	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.00e3	1.16e4	0.223	4.87	4.72	3.22	14.5	115.7	NO
38	41	13C8-PFOS	507.0 > 79.9	3.24e3	2.77e3	0.875	4.89	4.74	14.7	16.8	134.0	NO
39	42	13C2-PFDA	515.1 > 469.9	1.01e4	9.08e3	1.105	5.18	5.03	13.9	12.6	100.4	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.30e3	1.45e4	0.101	5.15	5.00	1.13	11.2	89.3	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.08e3	1.16e4	0.345	5.32	5.18	4.40	12.7	101.9	NO
42	45	d5-N-EtFOSAA	589.3 > 419	4.32e3	1.16e4	0.390	5.47	5.34	4.65	11.9	95.2	NO
43	46	13C2-PFUdA	565 > 519.8	1.00e4	1.16e4	0.958	5.49	5.36	10.8	11.2	89.9	NO
44	47	13C2-PFDoA	615.0 > 569.7	6.48e3	1.16e4	0.599	5.77	5.64	6.97	11.6	93.1	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.71e4	1.16e4	0.124	5.83	5.74	18.4	148	98.7	NO
46	49	13C2-PFTeDA	714.8 > 669.6	2.94e3	1.16e4	0.282	6.22	6.11	3.16	11.2	89.8	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.51e4	1.16e4	0.184	6.18	6.13	27.0	147	97.8	NO
48	51	13C2-PFHxDA	815 > 769.7	2.03e3	1.16e4	0.540	6.53	6.44	2.18	4.04	80.8	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.62e4	1.16e4	0.182	6.27	6.27	28.2	155	103.0	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.77e4	1.16e4	0.173	6.42	6.42	29.8	173	115.2	NO
51	54	13C4-PFBA	217. > 171.8	1.16e4	1.16e4	1.000	1.38	1.32	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.45e4	1.45e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	3.34e3	3.34e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.33e4	1.33e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.23e4	1.23e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	2.77e3	2.77e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	9.08e3	9.08e3	1.000	5.18	5.04	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	1.16e4	1.16e4	1.000	5.49	5.36	12.5	12.5	100.0	NO

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Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49
13	180110M3_13	B7L0088-MS1 Matrix Spike 0.25868	11-Jan-18	11:37:00
14	180110M3_14	B7L0088-MSD1 Matrix Spike Dup 0.2594	11-Jan-18	11:48:11
15	180110M3_15	1701832-01 FT-SW10-20171201 0.24901	11-Jan-18	11:59:21
16	180110M3_16	1701832-02 FT-DUP04-20171201 0.25912	11-Jan-18	12:10:32
17	180110M3_17	1701832-03 FT-SW13-20171201 0.25163	11-Jan-18	12:21:42
18	180110M3_18	1701832-04 FT-SW12-20171201 0.25479	11-Jan-18	12:32:54
19	180110M3_19	1701832-05 SA-SW125-20171201 0.26063	11-Jan-18	12:44:04
20	180110M3_20	1701832-06 SA-SW124-20171201 0.24606	11-Jan-18	12:55:15
21	180110M3_21	1701832-07 SA-PZ124-20171201 0.22152	11-Jan-18	13:06:26
22	180110M3_22	1701832-08 SA-DUP05-20171201 0.23726	11-Jan-18	13:17:36
23	180110M3_23	1701832-09 SA-PZ147-20171201 0.25163	11-Jan-18	13:28:47
24	180110M3_24	1701832-10 SA-SW201-20171201 0.24837	11-Jan-18	13:39:58
25	180110M3_25	IPA	11-Jan-18	13:51:09
26	180110M3_26	ST180110M3-10 PFC CS3 17L2611	11-Jan-18	14:02:19
27	180110M3_27	IPA	11-Jan-18	14:13:30
28	180110M3_28	1701832-11 SW-DP01-20171201 0.26032	11-Jan-18	14:24:43
29	180110M3_29	1701832-12 SA-SW204-20171201 0.25842	11-Jan-18	14:35:52
30	180110M3_30	1701832-13 SA-SW204-FRB-20171201 0.259...	11-Jan-18	14:47:02
31	180110M3_31	B7L0114-BS1 OPR 0.125	11-Jan-18	14:58:13

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Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
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Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180110M3_32	IPA	11-Jan-18	15:09:23
33	180110M3_33	B7L0114-BLK1 Method Blank 0.125	11-Jan-18	15:20:34
34	180110M3_34	1701896-01 FB1712041315JM 0.26557	11-Jan-18	15:31:45
35	180110M3_35	1701896-02 WT1712041320JM 0.27098	11-Jan-18	15:42:56
36	180110M3_36	1701896-03 WR1712041330JM 0.26836	11-Jan-18	15:54:06
37	180110M3_37	1701896-04 WT1712041435JM 0.26471	11-Jan-18	16:05:17
38	180110M3_38	1701896-05 WR1712041445JM 0.2652	11-Jan-18	16:16:28
39	180110M3_39	1701896-06 WT1712041505JM 0.26375	11-Jan-18	16:27:39
40	180110M3_40	1701896-07 WT1712041525JM 0.26253	11-Jan-18	16:38:49
41	180110M3_41	1701896-08 WT1712041545JM 0.25304	11-Jan-18	16:50:00
42	180110M3_42	IPA 10	11-Jan-18	17:01:11
43	180110M3_43	ST180110M2-11 PFC CS3 17L2611 ✓	11-Jan-18	17:12:22
44	180110M3_44	IPA	11-Jan-18	17:23:32
45	180110M3_45	1701896-09 WT1712041600JM 0.25668	11-Jan-18	17:34:43
46	180110M3_46	1701896-10 WT1712041625JM 0.26672	11-Jan-18	17:45:54
47	180110M3_47	1701896-11 WT1712041645JM 0.26526	11-Jan-18	17:57:04
48	180110M3_48	1701896-12 WR1712050835JM 0.26075	11-Jan-18	18:08:18
49	180110M3_49	1701896-13 WT1712050920JM 0.25985	11-Jan-18	18:19:34
50	180110M3_50	1701896-14 FB1712050940JM 0.26706	11-Jan-18	18:30:45
51	180110M3_51	1701896-15 WT1712050945JM 0.26049	11-Jan-18	18:41:56
52	180110M3_52	1701896-16 WT1712051000JM 0.26777	11-Jan-18	18:53:06
53	180110M3_53	1701896-17 WT1712051035JM 0.26811	11-Jan-18	19:04:17
54	180110M3_54	1701896-18 WT1712051055JM 0.26798	11-Jan-18	19:15:27
55	180110M3_55	1701896-19 WT1712051115JM 0.26037	11-Jan-18	19:26:38
56	180110M3_56	IPA	11-Jan-18	19:37:49
57	180110M3_57	ST180110M3-12 PFC CS3 17L2611	11-Jan-18	19:49:00
58	180110M3_58	IPA	11-Jan-18	20:00:10
59	180110M3_59	1701852-01 IR03-MW034-C2-17D 0.26646	11-Jan-18	20:11:21
60	180110M3_60	1701852-02 IR03-MW018B-C1-17D 0.25583	11-Jan-18	20:22:32
61	180110M3_61	1701852-03 IR03-MW018A-C2-17D 0.26605	11-Jan-18	20:33:42
62	180110M3_62	1701896-20 WT1712051130JM 0.26351	11-Jan-18	20:44:53
63	180110M3_63	1701892-01 Soil-B109 1.21	11-Jan-18	20:56:04
64	180110M3_64	1701892-02 Soil-S134 1.28	11-Jan-18	21:07:15
65	180110M3_65	1701892-03 Soil-S150 1.1	11-Jan-18	21:18:25

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	180110M3_66	1701892-04 Soil-B113 1.13	11-Jan-18	21:29:36
67	180110M3_67	1701905-03RE1@20X WINF1712061655JLB ...	11-Jan-18	21:40:47
68	180110M3_68	1701905-03RE1@10X WINF1712061655JLB ...	11-Jan-18	21:51:57
69	180110M3_69	IPA	11-Jan-18	22:03:08
70	180110M3_70	ST180110M3-13 PFC CS3 17L2611	11-Jan-18	22:14:18
71	180110M3_71	IPA	11-Jan-18	22:25:30
72	180110M3_72	1701898-11 SP-EQBK-01 0.11933	11-Jan-18	22:36:43
73	180110M3_73	1701879-01 MTBE_15025 0.24122	11-Jan-18	22:47:52
74	180110M3_74	IPA	11-Jan-18	22:59:02
75	180110M3_75	ST180110M3-14 PFC CS3 17L2611	11-Jan-18	23:10:13

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_43.qld

Last Altered: Friday, January 12, 2018 09:51:38 Pacific Standard Time
Printed: Friday, January 12, 2018 09:52:14 Pacific Standard Time

(A) EtFOSAA <70%

(B) PFDoA >130%

AC 1/12/18

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_43, Date: 11-Jan-2018, Time: 17:12:22, ID: ST180109M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

10/3

VJA 01/12/2018

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	9.56e3	8.40e3	1.0000		1.38	1.32	14.2	9.692	96.9
2	2	PFPeA	263.1 > 218.9	9.54e3	9.86e3	1.0000		2.37	2.30	12.1	9.626	96.3
3	3	PFBS	299.0 > 79.7	2.39e3	1.35e3	1.0000		2.66	2.59	22.1	10.393	103.9
4	4	PFHxA	313.2 > 268.9	1.16e4	2.97e3	1.0000		3.15	3.08	19.4	10.040	100.4
5	5	PFHpA	363.0 > 318.9	9.36e3	7.81e3	1.0000		3.78	3.70	15.0	9.125	91.3
6	6	L-PFHxS	398.9 > 79.6	1.65e3	1.00e3	1.0000		3.94	3.85	20.5	9.785	97.9
7	8	6:2 FTS	427.1 > 407	2.42e3	1.00e3	1.0000		4.25	4.16	30.1	9.838	98.4
8	9	L-PFOA	413 > 368.7	1.10e4	1.06e4	1.0000		4.31	4.22	13.0	10.139	101.4
9	11	PFHpS	449 > 80.0	2.80e3	1.06e4	1.0000		4.42	4.33	3.30	11.171	111.7
10	12	PFNA	463.0 > 418.8	1.14e4	1.04e4	1.0000		4.81	4.66	13.7	9.702	97.0
11	13	PFOSA	498.1 > 77.8	3.19e3	2.76e3	1.0000		4.87	4.72	14.4	10.991	109.9
12	14	L-PFOS	499 > 79.9	3.13e3	3.06e3	1.0000		4.75	4.74	12.8	10.849	108.5
13	16	PFDA	513 > 468.8	1.09e4	8.80e3	1.0000		5.18	5.04	15.5	9.505	95.1
14	17	8:2 FTS	527 > 506.9	2.32e3	8.80e3	1.0000		5.15	5.00	3.30	10.401	104.0
15	18	N-MeFOSAA	570.1 > 419	5.59e3	3.71e3	1.0000		5.32	5.19	18.9	9.465	94.7
16	19	N-EtFOSAA	584.2 > 419	3.93e3	4.72e3	1.0000		5.48	5.34	10.4	6.851	(A) 68.5
17	20	PFUdA	563.0 > 518.9	1.23e4	8.99e3	1.0000		5.50	5.36	17.1	12.920	129.2
18	21	PFDS	598.8 > 80	2.99e3	8.99e3	1.0000		5.54	5.40	4.15	11.099	111.0
19	22	PFDoA	612.9 > 569.0	1.03e4	4.29e3	1.0000		5.77	5.64	30.0	14.101	(B) 141.0
20	23	N-MeFOSA	512.1 > 168.9	6.23e3	1.65e4	1.0000		5.80	5.71	56.6	51.320	102.6
21	24	PFTrDA	662.9 > 618.9	1.05e4	4.29e3	1.0000		6.00	5.89	30.7	12.815	128.2
22	25	PFTeDA	712.9 > 668.8	5.53e3	2.63e3	1.0000		6.22	6.11	26.3	8.934	89.3
23	26	N-EtFOSA	526.1 > 168.9	8.84e3	2.53e4	1.0000		6.17	6.12	52.5	51.506	103.0
24	27	PFHxDA	813.1 > 768.6	4.45e3	2.16e3	1.0000		6.53	6.44	10.3	10.540	105.4
25	28	PFODA	913.1 > 868.8	4.69e3	2.16e3	1.0000		6.74	6.67	10.9	8.491	84.9
26	29	N-MeFOSE	616.1 > 58.9	1.02e4	2.48e4	1.0000		6.27	6.27	61.5	53.073	106.1
27	30	N-EtFOSE	630.1 > 58.9	1.09e4	2.54e4	1.0000		6.43	6.43	64.3	46.043	92.1
28	31	13C3-PFBA	216.1 > 171.8	8.40e3	1.11e4	1.0000	0.764	1.38	1.31	9.44	12.365	98.9
29	32	13C3-PFPeA	266. > 221.8	9.86e3	1.23e4	1.0000	0.730	2.37	2.30	10.0	13.745	110.0
30	33	13C3-PFBS	302. > 98.8	1.35e3	1.23e4	1.0000	0.095	2.77	2.58	1.37	14.394	115.2
31	34	13C2-PFHxA	315 > 269.8	2.97e3	1.23e4	1.0000	0.597	3.15	3.08	3.02	5.068	101.4

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This analyte not reported from this analysis

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_43.qld

Last Altered: Friday, January 12, 2018 09:51:38 Pacific Standard Time
Printed: Friday, January 12, 2018 09:52:14 Pacific Standard Time

Name: 180110M3_43, Date: 11-Jan-2018, Time: 17:12:22, ID: ST180109M2-11 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	7.81e3	1.23e4	1.0000	0.604	3.78	3.70	7.95	13.151	105.2
33	36	18O2-PFHxS	403.0 > 102.6	1.00e3	3.33e3	1.0000	0.293	3.94	3.85	3.77	12.870	103.0
34	37	13C2-6:2 FTS	429.1 > 408.9	2.30e3	1.26e4	1.0000	0.215	4.25	4.17	2.29	10.637	85.1
35	38	13C2-PFOA	414.9 > 369.7	1.06e4	1.26e4	1.0000	0.916	4.31	4.22	10.5	11.508	92.1
36	39	13C5-PFNA	468.2 > 422.9	1.04e4	1.24e4	1.0000	0.817	4.81	4.66	10.5	12.794	102.4
37	40	13C8-PFOSA	506.1 > 77.7	2.76e3	1.06e4	1.0000	0.223	4.87	4.72	3.27	14.670	117.4
38	41	13C8-PFOS	507.0 > 79.9	3.06e3	3.66e3	1.0000	0.875	4.89	4.74	10.5	11.949	95.6
39	42	13C2-PFDA	515.1 > 469.9	8.80e3	6.79e3	1.0000	1.105	5.18	5.04	16.2	14.649	117.2
40	43	13C2-8:2 FTS	529.1 > 508.7	1.11e3	1.23e4	1.0000	0.101	5.15	5.01	1.13	11.218	89.7
41	44	d3-N-MeFOSAA	573.3 > 419	3.71e3	1.06e4	1.0000	0.345	5.32	5.18	4.39	12.712	101.7
42	45	d5-N-EtFOSAA	589.3 > 419	4.72e3	1.06e4	1.0000	0.390	5.47	5.34	5.59	14.309	114.5
43	46	13C2-PFUdA	565 > 519.8	8.99e3	1.06e4	1.0000	0.958	5.49	5.36	10.6	11.104	88.8
44	47	13C2-PFDoA	615.0 > 569.7	4.29e3	1.06e4	1.0000	0.599	5.77	5.64	5.07	8.469	67.8
45	48	d3-N-MeFOSA	515.2 > 168.9	1.65e4	1.06e4	1.0000	0.124	5.83	5.74	19.5	157.329	104.9
46	49	13C2-PFTeDA	714.8 > 669.6	2.63e3	1.06e4	1.0000	0.282	6.22	6.11	3.11	11.030	88.2
47	50	d5-N-ETFOSA	531.1 > 168.9	2.53e4	1.06e4	1.0000	0.184	6.18	6.13	29.9	162.106	108.1
48	51	13C2-PFHxDA	815 > 769.7	2.16e3	1.06e4	1.0000	0.540	6.53	6.44	2.55	4.723	94.5
49	52	d7-N-MeFOSE	623.1 > 58.9	2.48e4	1.06e4	1.0000	0.182	6.27	6.26	29.3	161.027	107.4
50	53	d9-N-EtFOSE	639.2 > 58.8	2.54e4	1.06e4	1.0000	0.173	6.42	6.42	30.1	174.187	116.1
51	54	13C4-PFBA	217. > 171.8	1.11e4	1.11e4	1.0000	1.000	1.38	1.32	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.23e4	1.23e4	1.0000	1.000	3.15	3.08	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	3.33e3	3.33e3	1.0000	1.000	4.02	3.85	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.26e4	1.26e4	1.0000	1.000	4.38	4.22	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.24e4	1.24e4	1.0000	1.000	4.81	4.65	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.66e3	3.66e3	1.0000	1.000	4.89	4.74	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	6.79e3	6.79e3	1.0000	1.000	5.18	5.04	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.06e4	1.06e4	1.0000	1.000	5.49	5.36	12.5	12.500	100.0

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Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49
13	180110M3_13	B7L0088-MS1 Matrix Spike 0.25868	11-Jan-18	11:37:00
14	180110M3_14	B7L0088-MSD1 Matrix Spike Dup 0.2594	11-Jan-18	11:48:11
15	180110M3_15	1701832-01 FT-SW10-20171201 0.24901	11-Jan-18	11:59:21
16	180110M3_16	1701832-02 FT-DUP04-20171201 0.25912	11-Jan-18	12:10:32
17	180110M3_17	1701832-03 FT-SW13-20171201 0.25163	11-Jan-18	12:21:42
18	180110M3_18	1701832-04 FT-SW12-20171201 0.25479	11-Jan-18	12:32:54
19	180110M3_19	1701832-05 SA-SW125-20171201 0.26063	11-Jan-18	12:44:04
20	180110M3_20	1701832-06 SA-SW124-20171201 0.24606	11-Jan-18	12:55:15
21	180110M3_21	1701832-07 SA-PZ124-20171201 0.22152	11-Jan-18	13:06:26
22	180110M3_22	1701832-08 SA-DUP05-20171201 0.23726	11-Jan-18	13:17:36
23	180110M3_23	1701832-09 SA-PZ147-20171201 0.25163	11-Jan-18	13:28:47
24	180110M3_24	1701832-10 SA-SW201-20171201 0.24837	11-Jan-18	13:39:58
25	180110M3_25	IPA	11-Jan-18	13:51:09
26	180110M3_26	ST180110M3-10 PFC CS3 17L2611	11-Jan-18	14:02:19
27	180110M3_27	IPA	11-Jan-18	14:13:30
28	180110M3_28	1701832-11 SW-DP01-20171201 0.26032	11-Jan-18	14:24:43
29	180110M3_29	1701832-12 SA-SW204-20171201 0.25842	11-Jan-18	14:35:52
30	180110M3_30	1701832-13 SA-SW204-FRB-20171201 0.259...	11-Jan-18	14:47:02
31	180110M3_31	B7L0114-BS1 OPR 0.125	11-Jan-18	14:58:13

Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
32	180110M3_32	IPA	11-Jan-18	15:09:23
33	180110M3_33	B7L0114-BLK1 Method Blank 0.125	11-Jan-18	15:20:34
34	180110M3_34	1701896-01 FB1712041315JM 0.26557	11-Jan-18	15:31:45
35	180110M3_35	1701896-02 WT1712041320JM 0.27098	11-Jan-18	15:42:56
36	180110M3_36	1701896-03 WR1712041330JM 0.26836	11-Jan-18	15:54:06
37	180110M3_37	1701896-04 WT1712041435JM 0.26471	11-Jan-18	16:05:17
38	180110M3_38	1701896-05 WR1712041445JM 0.2652	11-Jan-18	16:16:28
39	180110M3_39	1701896-06 WT1712041505JM 0.26375	11-Jan-18	16:27:39
40	180110M3_40	1701896-07 WT1712041525JM 0.26253	11-Jan-18	16:38:49
41	180110M3_41	1701896-08 WT1712041545JM 0.25304	11-Jan-18	16:50:00
42	180110M3_42	IPA 10	11-Jan-18	17:01:11
43	180110M3_43	ST180109M2-11 PFC CS3 17L2611	11-Jan-18	17:12:22
44	180110M3_44	IPA	11-Jan-18	17:23:32
45	180110M3_45	1701896-09 WT1712041600JM 0.25668	11-Jan-18	17:34:43
46	180110M3_46	1701896-10 WT1712041625JM 0.26672	11-Jan-18	17:45:54
47	180110M3_47	1701896-11 WT1712041645JM 0.26526	11-Jan-18	17:57:04
48	180110M3_48	1701896-12 WR1712050835JM 0.26075	11-Jan-18	18:08:18
49	180110M3_49	1701896-13 WT1712050920JM 0.25985	11-Jan-18	18:19:34
50	180110M3_50	1701896-14 FB1712050940JM 0.26706	11-Jan-18	18:30:45
51	180110M3_51	1701896-15 WT1712050945JM 0.26049	11-Jan-18	18:41:56
52	180110M3_52	1701896-16 WT1712051000JM 0.26777	11-Jan-18	18:53:06
53	180110M3_53	1701896-17 WT1712051035JM 0.26811	11-Jan-18	19:04:17
54	180110M3_54	1701896-18 WT1712051055JM 0.26798	11-Jan-18	19:15:27
55	180110M3_55	1701896-19 WT1712051115JM 0.26037	11-Jan-18	19:26:38
56	180110M3_56	IPA	11-Jan-18	19:37:49
57	180110M3_57	ST180110M3-12 PFC CS3 17L2611	11-Jan-18	19:49:00
58	180110M3_58	IPA	11-Jan-18	20:00:10
59	180110M3_59	1701852-01 IR03-MW034-C2-17D 0.26646	11-Jan-18	20:11:21
60	180110M3_60	1701852-02 IR03-MW018B-C1-17D 0.25583	11-Jan-18	20:22:32
61	180110M3_61	1701852-03 IR03-MW018A-C2-17D 0.26605	11-Jan-18	20:33:42
62	180110M3_62	1701896-20 WT1712051130JM 0.26351	11-Jan-18	20:44:53
63	180110M3_63	1701892-01 Soil-B109 1.21	11-Jan-18	20:56:04
64	180110M3_64	1701892-02 Soil-S134 1.28	11-Jan-18	21:07:15
65	180110M3_65	1701892-03 Soil-S150 1.1	11-Jan-18	21:18:25

Dataset: Untitled

Last Altered: Friday, January 12, 2018 13:15:54 Pacific Standard Time
Printed: Friday, January 12, 2018 13:16:19 Pacific Standard Time

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
66	180110M3_66	1701892-04 Soil-B113 1.13	11-Jan-18	21:29:36
67	180110M3_67	1701905-03RE1@20X WINF1712061655JLB ...	11-Jan-18	21:40:47
68	180110M3_68	1701905-03RE1@10X WINF1712061655JLB ...	11-Jan-18	21:51:57
69	180110M3_69	IPA	11-Jan-18	22:03:08
70	180110M3_70	ST180110M3-13 PFC CS3 17L2611	11-Jan-18	22:14:18
71	180110M3_71	IPA	11-Jan-18	22:25:30
72	180110M3_72	1701898-11 SP-EQBK-01 0.11933	11-Jan-18	22:36:43
73	180110M3_73	1701879-01 MTBE_15025 0.24122	11-Jan-18	22:47:52
74	180110M3_74	IPA	11-Jan-18	22:59:02
75	180110M3_75	ST180110M3-14 PFC CS3 17L2611	11-Jan-18	23:10:13

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M1\180112M1-1.qld

Last Altered: Friday, January 12, 2018 09:10:37 Pacific Standard Time
Printed: Friday, January 12, 2018 09:11:21 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

CP 1/12/18

Name: 180112M1_1, Date: 12-Jan-2018, Time: 08:42:48, ID: ST180112M1-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out	
1	12	PFNA	463.0 > 418.8	1.16e3	1.09e4		4.81	4.66	1.33	0.937	93.7	NO	70-130
2	39	13C5-PFNA	468.2 > 422.9	1.09e4	1.29e4	0.817	4.81	4.66	10.6	12.9	103.4	NO	50-150
3	58	13C9-PFNA	472.2 > 426.9	1.29e4	1.29e4	1.000	4.81	4.66	12.5	12.5	100.0	NO	

JA 01/12/2018

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 12, 2018 09:42:57 Pacific Standard Time
Printed: Friday, January 12, 2018 09:43:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M1_1	ST180112M1-1 PFC CS0 17L2608	12-Jan-18	08:42:48
2	180112M1_2	IPA	12-Jan-18	08:53:59
3	180112M1_3	1701832-07@10X SA-PZ124-20171201 0.221...	12-Jan-18	09:10:20
4	180112M1_4	1701832-08@10X SA-DUP05-20171201 0.23...	12-Jan-18	09:22:10
5	180112M1_5	ST180112M1-2 PFC CS3 17L2611	12-Jan-18	09:34:03

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M1\180112M1-5.qld

Last Altered: Friday, January 12, 2018 09:41:27 Pacific Standard Time
Printed: Friday, January 12, 2018 09:41:59 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/12/18

Name: 180112M1_5, Date: 12-Jan-2018, Time: 09:34:03, ID: ST180112M1-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	
1	12	PFNA	463.0 > 418.8	1.83e4	1.45e4	1.0000		4.81	4.66	15.8	11.1	111.3	70-130
2	39	13C5-PFNA	468.2 > 422.9	1.45e4	1.97e4	1.0000	0.817	4.81	4.66	9.18	11.2	89.9	50-150
3	58	13C9-PFNA	472.2 > 426.9	1.97e4	1.97e4	1.0000	1.000	4.81	4.66	12.5	12.5	100.0	

VJA. 01/12/2018

Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 12, 2018 09:42:57 Pacific Standard Time
Printed: Friday, January 12, 2018 09:43:51 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M1_1	ST180112M1-1 PFC CS0 17L2608	12-Jan-18	08:42:48
2	180112M1_2	IPA	12-Jan-18	08:53:59
3	180112M1_3	1701832-07@10X SA-PZ124-20171201 0.221...	12-Jan-18	09:10:20
4	180112M1_4	1701832-08@10X SA-DUP05-20171201 0.23...	12-Jan-18	09:22:10
5	180112M1_5	ST180112M1-2 PFC CS3 17L2611	12-Jan-18	09:34:03

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M2\180112M2-IIS.qld

Last Altered: Friday, January 12, 2018 14:35:16 Pacific Standard Time
Printed: Friday, January 12, 2018 15:40:27 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_RS-12-29-17.mdb 30 Dec 2017 10:03:31
Calibration: 12 Jan 2018 14:35:16

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180112M2-1 PFC CS0 17L2608	1.42e4	100.0	NO
2	2	13C5-PFHxA	ST180112M2-1 PFC CS0 17L2608	1.65e4	100.0	NO
3	3	13C3-PFHxS	ST180112M2-1 PFC CS0 17L2608	4.38e3	100.0	NO
4	4	13C8-PFOA	ST180112M2-1 PFC CS0 17L2608	1.62e4	100.0	NO
5	5	13C9-PFNA	ST180112M2-1 PFC CS0 17L2608	1.70e4	100.0	NO
6	6	13C4-PFOS	ST180112M2-1 PFC CS0 17L2608	3.88e3	100.0	NO
7	7	13C6-PFDA	ST180112M2-1 PFC CS0 17L2608	1.05e4	100.0	NO
8	8	13C7-PFUdA	ST180112M2-1 PFC CS0 17L2608	1.75e4	100.0	NO

Name: 180112M2_2, Date: 12-Jan-2018, Time: 10:24:41, ID: IPA, Description: IPA

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	IPA			NO
2	2	13C5-PFHxA	IPA			NO
3	3	13C3-PFHxS	IPA			NO
4	4	13C8-PFOA	IPA			NO
5	5	13C9-PFNA	IPA			NO
6	6	13C4-PFOS	IPA			NO
7	7	13C6-PFDA	IPA			NO
8	8	13C7-PFUdA	IPA			NO

Name: 180112M2_3, Date: 12-Jan-2018, Time: 11:11:50, ID: 1701832-11 SW-DP01-20171201 0.26032, Description: SW-DP01-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-11 SW-DP01-20171201 0.260...	8.65e3	60.8	NO
2	2	13C5-PFHxA	1701832-11 SW-DP01-20171201 0.260...	1.06e4	64.1	NO
3	3	13C3-PFHxS	1701832-11 SW-DP01-20171201 0.260...	3.10e3	70.7	NO
4	4	13C8-PFOA	1701832-11 SW-DP01-20171201 0.260...	1.01e4	62.6	NO
5	5	13C9-PFNA	1701832-11 SW-DP01-20171201 0.260...	1.11e4	65.1	NO
6	6	13C4-PFOS	1701832-11 SW-DP01-20171201 0.260...	2.80e3	72.1	NO
7	7	13C6-PFDA	1701832-11 SW-DP01-20171201 0.260...	6.89e3	65.5	NO
8	8	13C7-PFUdA	1701832-11 SW-DP01-20171201 0.260...	1.17e4	67.2	NO

Name: 180112M2_4, Date: 12-Jan-2018, Time: 11:23:09, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-12 SA-SW204-20171201 0.25...	1.01e4	70.7	NO
2	2	13C5-PFHxA	1701832-12 SA-SW204-20171201 0.25...	1.23e4	74.6	NO
3	3	13C3-PFHxS	1701832-12 SA-SW204-20171201 0.25...	3.16e3	72.1	NO
4	4	13C8-PFOA	1701832-12 SA-SW204-20171201 0.25...	1.15e4	71.0	NO
5	5	13C9-PFNA	1701832-12 SA-SW204-20171201 0.25...	1.24e4	73.2	NO
6	6	13C4-PFOS	1701832-12 SA-SW204-20171201 0.25...	3.50e3	90.1	NO
7	7	13C6-PFDA	1701832-12 SA-SW204-20171201 0.25...	6.44e3	61.3	NO

ANP 1/12/2018

Dataset: U:\Q4.PRO\results\180112M2\180112M2-IIS.qld

Last Altered: Friday, January 12, 2018 14:35:16 Pacific Standard Time
Printed: Friday, January 12, 2018 15:40:27 Pacific Standard Time

Name: 180112M2_4, Date: 12-Jan-2018, Time: 11:23:09, ID: 1701832-12 SA-SW204-20171201 0.25842, Description: SA-SW204-20171201

	#	Name	ID	Area	%Rec	Area Out
8	8	13C7-PFUdA	1701832-12 SA-SW204-20171201 0.25...	1.01e4	57.9	NO

Name: 180112M2_5, Date: 12-Jan-2018, Time: 11:34:29, ID: 1701832-13 SA-SW204-FRB-20171201 0.25939, Description: SA-SW204-FRB-20171201

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	1701832-13 SA-SW204-FRB-20171201...	1.08e4	75.9	NO
2	2	13C5-PFHxA	1701832-13 SA-SW204-FRB-20171201...	1.15e4	69.6	NO
3	3	13C3-PFHxS	1701832-13 SA-SW204-FRB-20171201...	3.35e3	76.5	NO
4	4	13C8-PFOA	1701832-13 SA-SW204-FRB-20171201...	1.23e4	76.3	NO
5	5	13C9-PFNA	1701832-13 SA-SW204-FRB-20171201...	1.15e4	67.7	NO
6	6	13C4-PFOS	1701832-13 SA-SW204-FRB-20171201...	3.07e3	79.0	NO
7	7	13C6-PFDA	1701832-13 SA-SW204-FRB-20171201...	8.68e3	82.6	NO
8	8	13C7-PFUdA	1701832-13 SA-SW204-FRB-20171201...	9.94e3	56.8	NO

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	ID	Area	%Rec	Area Out
1	1	13C4-PFBA	ST180112M2-2 PFC CS3 17L2611	1.85e4	130.2	NO
2	2	13C5-PFHxA	ST180112M2-2 PFC CS3 17L2611	2.18e4	131.8	NO
3	3	13C3-PFHxS	ST180112M2-2 PFC CS3 17L2611	5.47e3	124.7	NO
4	4	13C8-PFOA	ST180112M2-2 PFC CS3 17L2611	1.86e4	114.9	NO
5	5	13C9-PFNA	ST180112M2-2 PFC CS3 17L2611	1.81e4	106.6	NO
6	6	13C4-PFOS	ST180112M2-2 PFC CS3 17L2611	5.32e3	136.9	NO
7	7	13C6-PFDA	ST180112M2-2 PFC CS3 17L2611	1.42e4	135.4	NO
8	8	13C7-PFUdA	ST180112M2-2 PFC CS3 17L2611	2.14e4	122.4	NO

ANP 1/12/2018

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M2\180112M2-1.qld

Last Altered: Friday, January 12, 2018 11:22:41 Pacific Standard Time
Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/12/18

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

✓ JA 01/12/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	1.06e3	1.06e4		1.38	1.33	1.25	0.881	88.1	NO
2	2	PFPeA	263.1 > 218.9	1.18e3	1.31e4		2.37	2.29	1.12	0.934	93.4	NO
3	3	PFBS	299.0 > 79.7	2.92e2	1.61e3		2.66	2.58	2.26	1.06	106.3	NO
4	4	PFHxA	313.2 > 268.9	1.46e3	3.98e3		3.15	3.07	1.83	0.957	95.7	NO
5	5	PFHpA	363.0 > 318.9	1.21e3	1.01e4		3.78	3.70	1.50	0.982	98.2	NO
6	6	L-PFHxS	398.9 > 79.6	1.76e2	1.34e3		3.94	3.84	1.64	0.872	87.2	NO
7	8	6:2 FTS	427.1 > 407	3.26e2	1.34e3		4.25	4.16	3.04	1.06	106.4	NO
8	9	L-PFOA	413 > 368.7	1.64e3	1.44e4		4.31	4.22	1.43	0.985	98.5	NO
9	11	PFHpS	449 > 80.0	3.47e2	1.44e4		4.42	4.33	0.302	1.13	112.6	NO
10	12	PFNA	463.0 > 418.8	1.40e3	1.32e4		4.81	4.65	1.33	0.939	93.9	NO
11	13	PFOSA	498.1 > 77.8	3.74e2	3.91e3		4.87	4.71	1.20	0.888	88.8	NO
12	14	L-PFOS	499 > 79.9	2.88e2	3.65e3		4.75	4.74	0.988	0.814	81.4	NO
13	16	PFDA	513 > 468.8	1.18e3	1.14e4		5.18	5.02	1.30	0.956	95.6	NO
14	17	8:2 FTS	527 > 506.9	2.63e2	1.14e4		5.15	5.00	0.289	1.04	103.5	NO
15	18	N-MeFOSAA	570.1 > 419	6.79e2	4.76e3		5.32	5.18	1.78	1.02	102.5	NO
16	19	N-EtFOSAA	584.2 > 419	5.17e2	5.96e3		5.48	5.33	1.08	0.939	93.9	NO
17	20	PFUdA	563.0 > 518.9	1.21e3	1.43e4		5.50	5.35	1.06	0.867	86.7	NO
18	21	PFDS	598.8 > 80	3.55e2	1.43e4		5.54	5.40	0.310	0.855	85.5	NO
19	22	PFDoA	612.9 > 569.0	1.74e3	9.26e3		5.77	5.63	2.34	1.05	104.5	NO
20	23	N-MeFOSA	512.1 > 168.9	7.51e2	2.25e4		5.80	5.72	5.01	4.68	93.7	NO
21	24	PFTrDA	662.9 > 618.9	1.86e3	9.26e3		6.00	5.88	2.51	1.05	105.0	NO
22	25	PFTeDA	712.9 > 668.8	1.03e3	5.16e3		6.22	6.10	2.50	0.904	90.4	NO
23	26	N-EtFOSA	526.1 > 168.9	9.12e2	3.07e4		6.17	6.12	4.46	4.55	91.0	NO
24	27	PFHxDA	813.1 > 768.6	5.61e2	2.70e3		6.53	6.43	1.04	0.986	98.6	NO
25	28	PFODA	913.1 > 868.8	5.29e2	2.70e3		6.74	6.67	0.978	0.897	89.7	NO
26	29	N-MeFOSE	616.1 > 58.9	8.77e2	2.54e4		6.27	6.27	5.17	5.05	100.9	NO
27	30	N-EtFOSE	630.1 > 58.9	1.11e3	2.63e4		6.43	6.42	6.35	4.68	93.6	NO
28	31	13C3-PFBA	216.1 > 171.8	1.06e4	1.42e4	0.764	1.38	1.33	9.35	12.2	98.0	NO
29	32	13C3-PFPeA	266. > 221.8	1.31e4	1.65e4	0.730	2.37	2.29	9.94	13.6	108.9	NO
30	33	13C3-PFBS	302. > 98.8	1.61e3	1.65e4	0.095	2.77	2.58	1.22	12.8	102.2	NO
31	34	13C2-PFHxA	315 > 269.8	3.98e3	1.65e4	0.597	3.15	3.08	3.01	5.04	100.8	NO

70-130

50-150

Dataset: U:\Q4.PRO\results\180112M2\180112M2-1.qld

Last Altered: Friday, January 12, 2018 11:22:41 Pacific Standard Time
Printed: Friday, January 12, 2018 11:23:04 Pacific Standard Time

Name: 180112M2_1, Date: 12-Jan-2018, Time: 10:13:28, ID: ST180112M2-1 PFC CS0 17L2608, Description: PFC CS0 17L2608

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	1.01e4	1.65e4	0.604	3.78	3.69	7.60	12.6	100.7	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.34e3	4.38e3	0.293	3.94	3.84	3.82	13.0	104.3	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.80e3	1.62e4	0.215	4.25	4.16	2.16	10.1	80.4	NO
35	38	13C2-PFOA	414.9 > 369.7	1.44e4	1.62e4	0.916	4.31	4.22	11.1	12.1	97.0	NO
36	39	13C5-PFNA	468.2 > 422.9	1.32e4	1.70e4	0.817	4.81	4.65	9.69	11.9	94.9	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.91e3	1.75e4	0.223	4.87	4.71	2.79	12.5	100.3	NO
38	41	13C8-PFOS	507.0 > 79.9	3.65e3	3.88e3	0.875	4.89	4.74	11.7	13.4	107.4	NO
39	42	13C2-PFDA	515.1 > 469.9	1.14e4	1.05e4	1.105	5.18	5.02	13.5	12.2	97.9	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.88e3	1.65e4	0.101	5.15	4.99	1.42	14.1	112.8	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.76e3	1.75e4	0.345	5.32	5.17	3.40	9.86	78.8	NO
42	45	d5-N-EtFOSAA	589.3 > 419	5.96e3	1.75e4	0.390	5.47	5.33	4.26	10.9	87.3	NO
43	46	13C2-PFUdA	565 > 519.8	1.43e4	1.75e4	0.958	5.49	5.35	10.2	10.7	85.5	NO
44	47	13C2-PFDoA	615.0 > 569.7	9.26e3	1.75e4	0.599	5.77	5.63	6.62	11.0	88.4	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	2.25e4	1.75e4	0.124	5.83	5.74	16.1	129	86.3	NO
46	49	13C2-PFTeDA	714.8 > 669.6	5.16e3	1.75e4	0.282	6.22	6.10	3.69	13.1	104.7	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	3.07e4	1.75e4	0.184	6.18	6.13	21.9	119	79.3	NO
48	51	13C2-PFHxDA	815 > 769.7	2.70e3	1.75e4	0.540	6.53	6.43	1.93	3.58	71.6	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.54e4	1.75e4	0.182	6.27	6.26	18.2	99.7	66.5	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	2.63e4	1.75e4	0.173	6.42	6.41	18.8	109	72.7	NO
51	54	13C4-PFBA	217. > 171.8	1.42e4	1.42e4	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.65e4	1.65e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	4.38e3	4.38e3	1.000	4.02	3.84	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.62e4	1.62e4	1.000	4.38	4.21	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.70e4	1.70e4	1.000	4.81	4.65	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	3.88e3	3.88e3	1.000	4.89	4.73	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	1.05e4	1.05e4	1.000	5.18	5.02	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	1.75e4	1.75e4	1.000	5.49	5.35	12.5	12.5	100.0	NO

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Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 12, 2018 15:42:35 Pacific Standard Time
Printed: Friday, January 12, 2018 15:47:55 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 12 Jan 2018 15:42:35

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M2_1	ST180112M2-1 PFC CS0 17L2608	12-Jan-18	10:13:28
2	180112M2_2	IPA	12-Jan-18	10:24:41
3	180112M2_3	1701832-11 SW-DP01-20171201 0.26032	12-Jan-18	11:11:50
4	180112M2_4	1701832-12 SA-SW204-20171201 0.25842	12-Jan-18	11:23:09
5	180112M2_5	1701832-13 SA-SW204-FRB-20171201 0.259...	12-Jan-18	11:34:29
6	180112M2_6	ST180112M2-2 PFC CS3 17L2611	12-Jan-18	11:46:03

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M2\180112M2-6.qld

Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

② DoA >130%

1/12/18

JA 01/12/2018

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	1.60e4	1.39e4		1.38	1.33	14.4	9.82	98.2	NO
2	2	PFPeA	263.1 > 218.9	1.63e4	1.56e4		2.37	2.30	13.1	10.4	104.0	NO
3	3	PFBS	299.0 > 79.7	3.65e3	2.19e3		2.66	2.59	20.8	9.77	97.7	NO
4	4	PFHxA	313.2 > 268.9	2.13e4	5.15e3		3.15	3.09	20.7	10.7	107.0	NO
5	5	PFHpA	363.0 > 318.9	1.70e4	1.34e4		3.78	3.70	15.9	9.70	97.0	NO
6	6	L-PFHxS	398.9 > 79.6	2.89e3	1.79e3		3.94	3.85	20.2	9.64	96.4	NO
7	8	6:2 FTS	427.1 > 407	3.61e3	1.79e3		4.25	4.17	25.2	8.31	83.1	NO
8	9	L-PFOA	413 > 368.7	1.90e4	1.79e4		4.31	4.23	13.2	10.3	103.5	NO
9	11	PFHpS	449 > 80.0	4.50e3	1.79e4		4.42	4.33	3.14	10.6	106.3	NO
10	12	PFNA	463.0 > 418.8	1.87e4	1.52e4		4.81	4.66	15.3	10.8	108.2	NO
11	13	PFOSA	498.1 > 77.8	4.65e3	3.70e3		4.87	4.72	15.7	12.0	119.7	NO
12	14	L-PFOS	499 > 79.9	4.32e3	4.92e3		4.75	4.74	11.0	9.31	93.1	NO
13	16	PFDA	513 > 468.8	1.90e4	1.44e4		5.18	5.03	16.5	10.1	100.8	NO
14	17	8:2 FTS	527 > 506.9	3.35e3	1.44e4		5.15	5.00	2.91	9.21	92.1	NO
15	18	N-MeFOSAA	570.1 > 419	9.55e3	5.74e3		5.32	5.19	20.8	10.4	104.4	NO
16	19	N-EtFOSAA	584.2 > 419	8.24e3	7.87e3		5.48	5.34	13.1	8.56	85.6	NO
17	20	PFUdA	563.0 > 518.9	2.01e4	1.75e4		5.50	5.36	14.4	10.9	108.8	NO
18	21	PFDS	598.8 > 80	5.30e3	1.75e4		5.54	5.40	3.79	10.1	101.5	NO
19	22	PFDoA	612.9 > 569.0	1.95e4	8.55e3		5.77	5.64	28.4	13.3	133.5	YES
20	23	N-MeFOSA	512.1 > 168.9	9.65e3	2.55e4		5.80	5.73	56.8	51.5	103.0	NO
21	24	PFTrDA	662.9 > 618.9	1.96e4	8.55e3		6.00	5.89	28.6	12.0	119.6	NO
22	25	PFTeDA	712.9 > 668.8	9.00e3	3.43e3		6.22	6.11	32.8	11.1	111.0	NO
23	26	N-EtFOSA	526.1 > 168.9	1.33e4	3.94e4		6.17	6.13	50.6	49.7	99.4	NO
24	27	PFHxDA	813.1 > 768.6	6.67e3	3.05e3		6.53	6.44	10.9	11.2	111.7	NO
25	28	PFODA	913.1 > 868.8	8.46e3	3.05e3		6.74	6.67	13.8	10.8	108.2	NO
26	29	N-MeFOSE	616.1 > 58.9	1.47e4	3.60e4		6.27	6.27	61.5	53.1	106.1	NO
27	30	N-EtFOSE	630.1 > 58.9	1.54e4	3.61e4		6.43	6.43	64.2	45.9	91.9	NO
28	31	13C3-PFBA	216.1 > 171.8	1.39e4	1.85e4	0.764	1.38	1.33	9.39	12.3	98.4	NO
29	32	13C3-PFPeA	266. > 221.8	1.56e4	2.18e4	0.730	2.37	2.31	8.93	12.2	97.8	NO
30	33	13C3-PFBS	302. > 98.8	2.19e3	2.18e4	0.095	2.77	2.59	1.26	13.2	105.3	NO
31	34	13C2-PFHxA	315 > 269.8	5.15e3	2.18e4	0.597	3.15	3.09	2.95	4.95	99.0	NO

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Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180112M2\180112M2-6.qld

Last Altered: Friday, January 12, 2018 14:33:34 Pacific Standard Time
Printed: Friday, January 12, 2018 14:34:00 Pacific Standard Time

Name: 180112M2_6, Date: 12-Jan-2018, Time: 11:46:03, ID: ST180112M2-2 PFC CS3 17L2611, Description: PFC CS3 17L2611

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	1.34e4	2.18e4	0.604	3.78	3.70	7.66	12.7	101.4	NO
33	36	18O2-PFHxS	403.0 > 102.6	1.79e3	5.47e3	0.293	3.94	3.85	4.09	13.9	111.6	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	4.45e3	1.86e4	0.215	4.25	4.17	2.99	13.9	111.2	NO
35	38	13C2-PFOA	414.9 > 369.7	1.79e4	1.86e4	0.916	4.31	4.22	12.0	13.1	105.2	NO
36	39	13C5-PFNA	468.2 > 422.9	1.52e4	1.81e4	0.817	4.81	4.66	10.5	12.9	102.8	NO
37	40	13C8-PFOSA	506.1 > 77.7	3.70e3	2.14e4	0.223	4.87	4.72	2.16	9.70	77.6	NO
38	41	13C8-PFOS	507.0 > 79.9	4.92e3	5.32e3	0.875	4.89	4.74	11.6	13.2	105.7	NO
39	42	13C2-PFDA	515.1 > 469.9	1.44e4	1.42e4	1.105	5.18	5.03	12.7	11.4	91.6	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.91e3	2.18e4	0.101	5.15	5.00	1.10	10.9	86.9	NO
41	44	d3-N-MeFOSAA	573.3 > 419	5.74e3	2.14e4	0.345	5.32	5.18	3.35	9.71	77.7	NO
42	45	d5-N-EtFOSAA	589.3 > 419	7.87e3	2.14e4	0.390	5.47	5.34	4.60	11.8	94.2	NO
43	46	13C2-PFUdA	565 > 519.8	1.75e4	2.14e4	0.958	5.49	5.36	10.2	10.7	85.3	NO
44	47	13C2-PFDoA	615.0 > 569.7	8.55e3	2.14e4	0.599	5.77	5.64	5.00	8.34	66.7	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	2.55e4	2.14e4	0.124	5.83	5.75	14.9	120	79.9	NO
46	49	13C2-PFTeDA	714.8 > 669.6	3.43e3	2.14e4	0.282	6.22	6.11	2.00	7.11	56.9	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	3.94e4	2.14e4	0.184	6.18	6.14	23.0	125	83.2	NO
48	51	13C2-PFHxDA	815 > 769.7	3.05e3	2.14e4	0.540	6.53	6.44	1.78	3.31	66.1	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	3.60e4	2.14e4	0.182	6.27	6.27	21.0	115	76.8	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	3.61e4	2.14e4	0.173	6.42	6.41	21.1	122	81.4	NO
51	54	13C4-PFBA	217. > 171.8	1.85e4	1.85e4	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	2.18e4	2.18e4	1.000	3.15	3.08	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	5.47e3	5.47e3	1.000	4.02	3.85	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.86e4	1.86e4	1.000	4.38	4.23	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	1.81e4	1.81e4	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	5.32e3	5.32e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	1.42e4	1.42e4	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	2.14e4	2.14e4	1.000	5.49	5.36	12.5	12.5	100.0	NO

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Vista Analytical Laboratory

Dataset: Untitled

Last Altered: Friday, January 12, 2018 15:42:35 Pacific Standard Time
Printed: Friday, January 12, 2018 15:47:55 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:33:36
Calibration: 12 Jan 2018 15:42:35

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180112M2_1	ST180112M2-1 PFC CS0 17L2608	12-Jan-18	10:13:28
2	180112M2_2	IPA	12-Jan-18	10:24:41
3	180112M2_3	1701832-11 SW-DP01-20171201 0.26032	12-Jan-18	11:11:50
4	180112M2_4	1701832-12 SA-SW204-20171201 0.25842	12-Jan-18	11:23:09
5	180112M2_5	1701832-13 SA-SW204-FRB-20171201 0.259...	12-Jan-18	11:34:29
6	180112M2_6	ST180112M2-2 PFC CS3 17L2611	12-Jan-18	11:46:03

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:46:37 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:48:35 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

AC 12/31/17
rjh 12/31/2017

Compound name: PFBA
Correlation coefficient: r = 0.999916, r^2 = 0.999832
Calibration curve: 1.40326 * x + -0.0463085
Response type: Internal Std (Ref 31), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171230M3_2	Standard	0.250	1.40	275.997	10590.634	0.326	0.3	6.1	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	1.40	549.379	10700.368	0.642	0.5	-1.9	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	1.40	1058.451	10778.936	1.227	0.9	-9.2	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	1.41	2291.203	11055.444	2.591	1.9	-6.0	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	1.41	5613.746	10223.187	6.864	4.9	-1.5	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	1.41	12225.308	10998.330	13.895	9.9	-0.7	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	1.41	58865.125	10544.371	69.783	49.8	-0.5	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	1.41	120380.750	10664.267	141.103	100.6	0.6	NO	1.000	NO	bb

Compound name: PFPeA
Correlation coefficient: r = 0.999838, r^2 = 0.999676
Calibration curve: 1.25863 * x + -0.0561556
Response type: Internal Std (Ref 32), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	2.36	313.461	12830.407	0.305	0.3	14.9	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	2.36	585.697	12739.582	0.575	0.5	0.2	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	2.36	1218.109	12601.388	1.208	1.0	0.5	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	2.37	2386.153	13559.735	2.200	1.8	-10.4	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	2.37	6043.357	12517.433	6.035	4.8	-3.2	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	2.37	13297.950	13543.172	12.274	9.8	-2.0	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	2.36	63378.121	12727.579	62.245	49.5	-1.0	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	2.36	131357.063	12918.356	127.103	101.0	1.0	NO	1.000	NO	bb

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:24:41 Pacific Standard Time

Compound name: PFBS
Correlation coefficient: r = 0.999434, r^2 = 0.998868
Calibration curve: 2.22069 * x + -0.183022
Response type: Internal Std (Ref 33), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171230M3_2	Standard	0.250	2.63	68.355	1730.699	0.494	0.3	21.9	NO	0.999	NO	bb
2	2 171230M3_3	Standard	0.500	2.64	131.600	1855.926	0.886	0.5	-3.7	NO	0.999	NO	bb
3	3 171230M3_4	Standard	1.000	2.64	273.834	1744.564	1.962	1.0	-3.4	NO	0.999	NO	bb
4	4 171230M3_5	Standard	2.000	2.64	563.062	1773.955	3.968	1.9	-6.5	NO	0.999	NO	bb
5	5 171230M3_6	Standard	5.000	2.64	1357.268	1643.731	10.322	4.7	-5.4	NO	0.999	NO	bb
6	6 171230M3_7	Standard	10.000	2.64	3114.063	1792.845	21.712	9.9	-1.4	NO	0.999	NO	bb
7	7 171230M3_8	Standard	50.000	2.64	14100.912	1656.078	106.433	48.0	-4.0	NO	0.999	NO	bb
8	8 171230M3_9	Standard	100.000	2.64	29395.707	1615.137	227.502	102.5	2.5	NO	0.999	NO	bb

Compound name: PFHxA
Correlation coefficient: r = 0.999700, r^2 = 0.999400
Calibration curve: 1.95668 * x + -0.0594756
Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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 171230M3_2	Standard	0.250	3.13	404.181	4345.656	0.465	0.3	7.2	NO	0.999	NO	bb
2	2 171230M3_3	Standard	0.500	3.13	755.698	4117.409	0.918	0.5	-0.1	NO	0.999	NO	bb
3	3 171230M3_4	Standard	1.000	3.13	1558.861	4098.995	1.902	1.0	0.2	NO	0.999	NO	bb
4	4 171230M3_5	Standard	2.000	3.13	3196.715	4464.987	3.580	1.9	-7.0	NO	0.999	NO	bb
5	5 171230M3_6	Standard	5.000	3.13	7510.283	3678.770	10.208	5.2	4.9	NO	0.999	NO	bb
6	6 171230M3_7	Standard	10.000	3.13	16818.920	4631.413	18.157	9.3	-6.9	NO	0.999	NO	bb
7	7 171230M3_8	Standard	50.000	3.13	77264.398	3868.221	99.871	51.1	2.1	NO	0.999	NO	bb
8	8 171230M3_9	Standard	100.000	3.13	155495.484	3994.966	194.614	99.5	-0.5	NO	0.999	NO	bb

Dataset: U:\Q4.PRO\results\171230M3\171230M3-CRV.qld

Last Altered: Sunday, December 31, 2017 12:16:44 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:24:41 Pacific Standard Time

Compound name: PFHpA
Correlation coefficient: r = 0.999344, r^2 = 0.998689
Calibration curve: 1.53884 * x + -0.0806046
Response type: Internal Std (Ref 35), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	3.74	324.098	10628.602	0.381	0.3	20.0	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	3.74	623.692	10972.185	0.711	0.5	2.8	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	3.74	1131.954	10844.437	1.305	0.9	-10.0	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	3.75	2416.023	9994.996	3.022	2.0	0.8	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	3.75	6170.000	10840.354	7.115	4.7	-6.5	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	3.75	12471.019	11361.731	13.720	9.0	-10.3	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	3.74	66771.766	10491.151	79.557	51.8	3.5	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	3.74	120224.938	9807.888	153.225	99.6	-0.4	NO	0.999	NO	bb

Compound name: L-PFHxS
Correlation coefficient: r = 0.999556, r^2 = 0.999113
Calibration curve: 2.07297 * x + -0.115432
Response type: Internal Std (Ref 36), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	3.88	47.887	1363.239	0.439	0.3	7.0	NO	0.999	NO	MM
2	2	171230M3_3	Standard	0.500	3.89	102.524	1442.194	0.889	0.5	-3.1	NO	0.999	NO	MM
3	3	171230M3_4	Standard	1.000	3.89	190.595	1307.153	1.823	0.9	-6.5	NO	0.999	NO	MM
4	4	171230M3_5	Standard	2.000	3.89	453.045	1348.822	4.199	2.1	4.1	NO	0.999	NO	MM
5	5	171230M3_6	Standard	5.000	3.89	963.724	1296.596	9.291	4.5	-9.2	NO	0.999	NO	MM
6	6	171230M3_7	Standard	10.000	3.89	2111.817	1174.549	22.475	10.9	9.0	NO	0.999	NO	MM
7	7	171230M3_8	Standard	50.000	3.89	10954.550	1341.063	102.107	49.3	-1.4	NO	0.999	NO	MM
8	8	171230M3_9	Standard	100.000	3.89	20557.797	1237.411	207.669	100.2	0.2	NO	0.999	NO	MM

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Compound name: 6:2 FTS
Coefficient of Determination: R^2 = 0.997647
Calibration curve: -0.000403433 * x^2 + 0.31611 * x + -0.016104
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.20	83.922	15722.004	0.067	0.3	4.8	NO	0.998	NO	bb
2	2	171230M3_3	Standard	0.500	4.20	226.057	14936.890	0.189	0.6	30.0	NO	0.998	NO	bb
3	3	171230M3_4	Standard	1.000	4.20	310.754	15544.537	0.250	0.8	-15.8	NO	0.998	NO	bb
4	4	171230M3_5	Standard	2.000	4.21	664.325	16356.577	0.508	1.7	-17.0	NO	0.998	NO	bb
5	5	171230M3_6	Standard	5.000	4.21	2019.823	15570.807	1.621	5.2	4.3	NO	0.998	NO	bb
6	6	171230M3_7	Standard	10.000	4.21	3546.097	15790.786	2.807	9.0	-9.6	NO	0.998	NO	bb
7	7	171230M3_8	Standard	50.000	4.20	19513.193	15843.892	15.395	52.2	4.5	NO	0.998	NO	bb
8	8	171230M3_9	Standard	100.000	4.20	33101.109	15165.988	27.282	98.8	-1.2	NO	0.998	NO	bb

Compound name: L-PFOA
Correlation coefficient: r = 0.997521, r^2 = 0.995048
Calibration curve: 1.09349 * x + 0.337952
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.25	721.795	15722.004	0.574	0.2	-13.7	NO	0.995	NO	bb
2	2	171230M3_3	Standard	0.500	4.26	1001.076	14936.890	0.838	0.5	-8.6	NO	0.995	NO	bb
3	3	171230M3_4	Standard	1.000	4.26	1747.621	15544.537	1.405	1.0	-2.4	NO	0.995	NO	bb
4	4	171230M3_5	Standard	2.000	4.26	3141.246	16356.577	2.401	1.9	-5.7	NO	0.995	NO	bb
5	5	171230M3_6	Standard	5.000	4.26	7712.174	15570.807	6.191	5.4	7.1	NO	0.995	NO	bb
6	6	171230M3_7	Standard	10.000	4.26	17745.244	15790.786	14.047	12.5	25.4	NO	0.995	NO	bb
7	7	171230M3_8	Standard	50.000	4.26	70571.055	15843.892	55.677	50.6	1.2	NO	0.995	NO	bb
8	8	171230M3_9	Standard	100.000	4.25	128726.258	15165.988	106.098	96.7	-3.3	NO	0.995	NO	bb

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Compound name: PFHpS
Coefficient of Determination: R^2 = 0.997563
Calibration curve: 5.37943e-006 * x^2 + 0.266569 * x + -0.00415487
Response type: Internal Std (Ref 38), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.36	70.269	15722.004	0.056	0.2	-9.9	NO	0.998	NO	bb
2	2	171230M3_3	Standard	0.500	4.36	155.368	14936.890	0.130	0.5	0.7	NO	0.998	NO	bb
3	3	171230M3_4	Standard	1.000	4.36	327.150	15544.537	0.263	1.0	0.2	NO	0.998	NO	bb
4	4	171230M3_5	Standard	2.000	4.37	661.404	16356.577	0.505	1.9	-4.4	NO	0.998	NO	bb
5	5	171230M3_6	Standard	5.000	4.37	1702.867	15570.807	1.367	5.1	2.9	NO	0.998	NO	bb
6	6	171230M3_7	Standard	10.000	4.37	3861.786	15790.786	3.057	11.5	14.8	NO	0.998	NO	bb
7	7	171230M3_8	Standard	50.000	4.37	15984.057	15843.892	12.611	47.3	-5.4	NO	0.998	NO	bb
8	8	171230M3_9	Standard	100.000	4.36	32793.961	15165.988	27.029	101.2	1.2	NO	0.998	NO	bb

Compound name: PFNA
Coefficient of Determination: R^2 = 0.998614
Calibration curve: -0.00399158 * x^2 + 1.78875 * x + -0.552669
Response type: Internal Std (Ref 39), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.69	426.963	13858.102	0.385	0.5	110.0	NO	0.999	NO	bbX
2	2	171230M3_3	Standard	0.500	4.69	717.199	15927.060	0.563	0.6	24.9	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	4.69	1335.866	14404.834	1.159	1.0	-4.1	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	4.70	2721.185	14435.547	2.356	1.6	-18.4	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	4.69	8281.717	12619.688	8.203	4.9	-1.0	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	4.69	17042.129	13060.321	16.311	9.6	-3.7	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	4.69	76975.008	11852.702	81.179	51.6	3.3	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	4.69	156877.641	14277.241	137.349	98.9	-1.1	NO	0.999	NO	bb

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Compound name: PFOSA
Coefficient of Determination: R^2 = 0.999310
Calibration curve: 0.00540399 * x^2 + 1.12028 * x + 0.108059
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	4.75	112.388	3183.584	0.441	0.3	18.8	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	4.75	136.044	2998.887	0.567	0.4	-18.2	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	4.75	257.200	2849.953	1.128	0.9	-9.3	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	4.76	613.524	2931.823	2.616	2.2	10.7	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	4.76	1409.433	3092.321	5.697	4.9	-2.5	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	4.76	3101.081	3253.921	11.913	10.1	0.5	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	4.75	16789.861	3014.224	69.628	50.0	-0.0	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	4.75	34168.512	2894.700	147.548	91.4	-8.6	NO	0.999	NO	bbX

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.996695
Calibration curve: -0.00134849 * x^2 + 1.2979 * x + -0.114204
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	4.76	86.461	3346.149	0.323	0.3	34.8	NO	0.997	NO	MMX
2	2	171230M3_3	Standard	0.500	4.76	165.830	3122.687	0.664	0.6	20.0	NO	0.997	NO	MM
3	3	171230M3_4	Standard	1.000	4.77	297.424	3525.735	1.054	0.9	-9.9	NO	0.997	NO	MM
4	4	171230M3_5	Standard	2.000	4.78	721.628	4035.167	2.235	1.8	-9.3	NO	0.997	NO	MM
5	5	171230M3_6	Standard	5.000	4.78	1515.002	3635.138	5.210	4.1	-17.6	NO	0.997	NO	MM
6	6	171230M3_7	Standard	10.000	4.78	3234.487	3368.915	12.001	9.4	-5.7	NO	0.997	NO	MM
7	7	171230M3_8	Standard	50.000	4.77	19653.742	3759.934	65.339	53.4	6.8	NO	0.997	NO	MM
8	8	171230M3_9	Standard	100.000	4.76	32763.500	3581.165	114.360	98.2	-1.8	NO	0.997	NO	MM

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.997594
Calibration curve: 0.00111351 * x^2 + 1.67605 * x + -0.298586
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 171230M3_2	Standard	0.250	5.06	451.697	11396.063	0.495	0.5	89.4	NO	0.998	NO	bbX
2	2 171230M3_3	Standard	0.500	5.06	738.525	12214.988	0.756	0.6	25.8	NO	0.998	NO	bb
3	3 171230M3_4	Standard	1.000	5.06	1374.049	13065.430	1.315	1.0	-3.8	NO	0.998	NO	bb
4	4 171230M3_5	Standard	2.000	5.06	3420.243	15245.605	2.804	1.8	-7.5	NO	0.998	NO	bb
5	5 171230M3_6	Standard	5.000	5.06	6332.755	10477.484	7.555	4.7	-6.6	NO	0.998	NO	bb
6	6 171230M3_7	Standard	10.000	5.06	15665.607	13506.891	14.498	8.8	-12.2	NO	0.998	NO	bb
7	7 171230M3_8	Standard	50.000	5.06	81247.406	11127.295	91.270	52.8	5.6	NO	0.998	NO	bb
8	8 171230M3_9	Standard	100.000	5.06	152270.188	10803.009	176.190	98.8	-1.2	NO	0.998	NO	bb

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997475
Calibration curve: 0.000346834 * x^2 + 0.357879 * x + -0.0189768
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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 171230M3_2	Standard	0.250	5.02	56.078	11396.063	0.062	0.2	-10.1	NO	0.997	NO	MM
2	2 171230M3_3	Standard	0.500	5.03	166.183	12214.988	0.170	0.5	5.6	NO	0.997	NO	bb
3	3 171230M3_4	Standard	1.000	5.03	261.788	13065.430	0.250	0.8	-24.8	NO	0.997	NO	bb
4	4 171230M3_5	Standard	2.000	5.03	713.724	15245.605	0.585	1.7	-15.7	NO	0.997	NO	bb
5	5 171230M3_6	Standard	5.000	5.03	1779.926	10477.484	2.124	6.0	19.0	NO	0.997	NO	bb
6	6 171230M3_7	Standard	10.000	5.03	4191.860	13506.891	3.879	10.8	7.8	NO	0.997	NO	bb
7	7 171230M3_8	Standard	50.000	5.03	15996.738	11127.295	17.970	48.0	-3.9	NO	0.997	NO	bb
8	8 171230M3_9	Standard	100.000	5.03	34207.176	10803.009	39.581	100.8	0.8	NO	0.997	NO	bb

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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.999652
Calibration curve: 0.00378022 * x^2 + 1.56644 * x + -0.06001
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	5.21	160.754	5518.691	0.364	0.3	8.2	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	5.21	283.075	5810.836	0.609	0.4	-14.7	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	5.21	668.158	6177.302	1.352	0.9	-10.1	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	5.21	1486.781	6081.363	3.056	2.0	-1.0	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	5.21	3431.470	5138.831	8.347	5.3	6.0	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	5.21	7507.504	6165.212	15.222	9.5	-4.6	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	5.21	38983.484	5493.052	88.711	50.5	1.0	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	5.21	82192.547	5297.485	193.942	99.8	-0.2	NO	1.000	NO	bb

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999425
Calibration curve: -0.000739055 * x^2 + 1.32527 * x + -0.0579014
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	5.36	147.507	6870.466	0.268	0.2	-1.5	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	5.36	301.207	6798.414	0.554	0.5	-7.7	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	5.37	542.127	6614.306	1.025	0.8	-18.3	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	5.37	1288.860	6103.646	2.640	2.0	1.9	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	5.37	3119.677	5599.027	6.965	5.3	6.3	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	5.37	7402.977	6844.808	13.519	10.3	3.0	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	5.36	32858.422	6483.990	63.345	49.2	-1.6	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	5.36	61678.703	6142.020	125.526	100.4	0.4	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.999814
Calibration curve: -6.41044e-005 * x^2 + 1.14422 * x + 0.0911568
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.37	389.329	12694.194	0.383	0.3	2.2	NO	1.000	NO	bb
2	2	171230M3_3	Standard	0.500	5.38	742.726	13733.104	0.676	0.5	2.2	NO	1.000	NO	bb
3	3	171230M3_4	Standard	1.000	5.38	1620.543	18060.582	1.122	0.9	-9.9	NO	1.000	NO	bb
4	4	171230M3_5	Standard	2.000	5.38	3123.625	16289.948	2.397	2.0	0.8	NO	1.000	NO	bb
5	5	171230M3_6	Standard	5.000	5.38	6331.628	13179.254	6.005	5.2	3.4	NO	1.000	NO	bb
6	6	171230M3_7	Standard	10.000	5.38	16312.573	17291.234	11.793	10.2	2.3	NO	1.000	NO	bb
7	7	171230M3_8	Standard	50.000	5.38	79564.445	17619.236	56.447	49.4	-1.2	NO	1.000	NO	bb
8	8	171230M3_9	Standard	100.000	5.37	157071.859	17195.029	114.184	100.3	0.3	NO	1.000	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.995645
Calibration curve: -0.00208251 * x^2 + 0.338053 * x + -0.0343255
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.43	67.322	12694.194	0.066	0.3	19.3	NO	0.996	NO	bb
2	2	171230M3_3	Standard	0.500	5.43	148.741	13733.104	0.135	0.5	0.7	NO	0.996	NO	bb
3	3	171230M3_4	Standard	1.000	5.43	360.215	18060.582	0.249	0.8	-15.7	NO	0.996	NO	bb
4	4	171230M3_5	Standard	2.000	5.43	697.250	16289.948	0.535	1.7	-14.9	NO	0.996	NO	bb
5	5	171230M3_6	Standard	5.000	5.43	1909.957	13179.254	1.812	5.7	13.1	NO	0.996	NO	bb
6	6	171230M3_7	Standard	10.000	5.43	4239.656	17291.234	3.065	9.8	-2.5	NO	0.996	NO	bb
7	7	171230M3_8	Standard	50.000	5.43	16436.338	17619.236	11.661	50.0	-0.0	NO	0.996	NO	bb
8	8	171230M3_9	Standard	100.000	5.42	39730.289	17195.029	28.882			NO	0.996	YES	bbXI

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998836
Calibration curve: 0.00218241 * x^2 + 1.50665 * x + -0.0562005
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.65	422.768	12525.502	0.422	0.3	26.9	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	5.66	638.600	13131.589	0.608	0.4	-11.9	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	5.66	1196.452	12932.541	1.156	0.8	-19.6	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	5.66	3507.546	14817.573	2.959	2.0	-0.2	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	5.66	8197.292	12853.370	7.972	5.3	5.8	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	5.67	18362.766	15211.739	15.089	9.9	-0.9	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	5.66	81592.328	12634.695	80.722	50.0	-0.0	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	5.65	160221.000	12666.770	158.112	92.6	-7.4	NO	0.999	NO	bbX

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999764, r^2 = 0.999529
Calibration curve: 1.15109 * x + -0.214856
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	171230M3_2	Standard	1.250	5.80	164.023	16714.852	1.472	1.5	17.2	NO	1.000	NO	bb
2	2	171230M3_3	Standard	2.500	5.80	288.761	17982.373	2.409	2.3	-8.8	NO	1.000	NO	bb
3	3	171230M3_4	Standard	5.000	5.80	610.111	17483.596	5.234	4.7	-5.3	NO	1.000	NO	bb
4	4	171230M3_5	Standard	10.000	5.81	1139.646	18091.666	9.449	8.4	-16.0	NO	1.000	NO	bb
5	5	171230M3_6	Standard	25.000	5.81	3130.164	16698.209	28.118	24.6	-1.5	NO	1.000	NO	bb
6	6	171230M3_7	Standard	50.000	5.81	6692.014	17743.270	56.574	49.3	-1.3	NO	1.000	NO	bb
7	7	171230M3_8	Standard	250.000	5.80	33214.535	17214.338	289.420	251.6	0.6	NO	1.000	NO	bb
8	8	171230M3_9	Standard	500.000	5.80	66163.352	17205.000	576.838	501.3	0.3	NO	1.000	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.998861
Calibration curve: 0.0031192 * x^2 + 1.39506 * x + 0.0280022
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	5.90	333.219	12525.502	0.333	0.2	-12.7	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	5.90	911.072	13131.589	0.867	0.6	20.2	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	5.90	1240.892	12932.541	1.199	0.8	-16.2	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	5.91	3508.982	14817.573	2.960	2.1	4.6	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	5.91	8239.135	12853.370	8.013	5.7	13.0	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	5.91	15675.203	15211.739	12.881	9.0	-9.7	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	5.90	79194.125	12634.695	78.350	50.5	0.9	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	5.90	172707.484	12666.770	170.434	99.9	-0.1	NO	0.999	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999178
Calibration curve: 0.0252471 * x^2 + 2.47541 * x + 0.208919
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	6.12	239.412	3563.046	0.840	0.3	1.7	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	6.12	392.611	3501.355	1.402	0.5	-4.1	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	6.12	958.802	3793.233	3.160	1.2	17.8	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	6.12	1943.328	5426.529	4.476	1.7	-15.3	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	6.12	5481.264	5365.466	12.770	4.8	-3.3	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	6.13	12733.240	5598.277	28.431	10.3	3.2	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	6.12	61944.117	4141.186	186.976	50.0	-0.0	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	6.12	88027.773	4343.655	253.323	62.5	-37.5	NO	0.999	NO	bbX

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999799
Calibration curve: -7.56946e-005 * x^2 + 1.06415 * x + -0.388028
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	1.250	6.19	180.606	25881.516	1.047	1.3	7.9	NO	1.000	NO	bb
2	2	171230M3_3	Standard	2.500	6.19	416.304	25449.146	2.454	2.7	6.8	NO	1.000	NO	bb
3	3	171230M3_4	Standard	5.000	6.19	732.302	25814.051	4.255	4.4	-12.7	NO	1.000	NO	bb
4	4	171230M3_5	Standard	10.000	6.20	1692.493	25987.154	9.769	9.6	-4.5	NO	1.000	NO	bb
5	5	171230M3_6	Standard	25.000	6.19	4311.340	24649.652	26.236	25.1	0.3	NO	1.000	NO	bb
6	6	171230M3_7	Standard	50.000	6.20	9326.233	25935.475	53.939	51.2	2.5	NO	1.000	NO	bb
7	7	171230M3_8	Standard	250.000	6.19	42485.051	24497.834	260.136	249.2	-0.3	NO	1.000	NO	bb
8	8	171230M3_9	Standard	500.000	6.19	84195.617	24616.922	513.035	500.3	0.1	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.998856
Calibration curve: -0.000303396 * x^2 + 0.739048 * x + 0.0394984
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	171230M3_2	Standard	0.250	6.45	156.303	2929.157	0.267	0.3	23.0	NO	0.999	NO	bb
2	2	171230M3_3	Standard	0.500	6.45	245.046	2974.677	0.412	0.5	0.8	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	6.45	530.166	3582.617	0.740	0.9	-5.2	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	6.45	1043.129	3746.107	1.392	1.8	-8.4	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	6.45	2833.612	4163.788	3.403	4.6	-8.8	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	6.45	6022.304	4259.023	7.070	9.6	-4.5	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	6.45	28397.291	3769.071	37.671	52.0	4.1	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	6.45	50317.227	3581.645	70.243	99.0	-1.0	NO	0.999	NO	bb

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:27:18

Compound name: PFODA
Coefficient of Determination: R^2 = 0.998731
Calibration curve: -0.00135252 * x^2 + 1.17153 * x + -0.0475142
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	171230M3_2	Standard	0.250	6.68	234.692	2929.157	0.401	0.4	53.1	NO	0.999	NO	bbX
2	2	171230M3_3	Standard	0.500	6.68	313.022	2974.677	0.526	0.5	-2.0	NO	0.999	NO	bb
3	3	171230M3_4	Standard	1.000	6.68	756.347	3582.617	1.056	0.9	-5.7	NO	0.999	NO	bb
4	4	171230M3_5	Standard	2.000	6.68	1693.487	3746.107	2.260	2.0	-1.3	NO	0.999	NO	bb
5	5	171230M3_6	Standard	5.000	6.68	4414.905	4163.788	5.302	4.6	-8.2	NO	0.999	NO	bb
6	6	171230M3_7	Standard	10.000	6.68	10870.011	4259.023	12.761	11.1	10.7	NO	0.999	NO	bb
7	7	171230M3_8	Standard	50.000	6.68	40746.027	3769.071	54.053	48.9	-2.1	NO	0.999	NO	bb
8	8	171230M3_9	Standard	100.000	6.68	74519.805	3581.645	104.030	100.5	0.5	NO	0.999	NO	bb

Compound name: N-MeFOSE
Correlation coefficient: r = 0.997318, r^2 = 0.994643
Calibration curve: 1.11054 * x + -0.683826
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	1.250	6.32	241.237	19821.924	1.826	2.3	80.8	NO	0.995	NO	bbX
2	2	171230M3_3	Standard	2.500	6.32	276.199	17207.777	2.408	2.8	11.3	NO	0.995	NO	bb
3	3	171230M3_4	Standard	5.000	6.32	611.450	23994.758	3.822	4.1	-18.8	NO	0.995	NO	bb
4	4	171230M3_5	Standard	10.000	6.32	1403.020	19788.824	10.635	10.2	1.9	NO	0.995	NO	bb
5	5	171230M3_6	Standard	25.000	6.32	3746.707	22454.855	25.028	23.2	-7.4	NO	0.995	NO	bb
6	6	171230M3_7	Standard	50.000	6.32	7715.965	18313.316	63.200	57.5	15.0	NO	0.995	NO	bb
7	7	171230M3_8	Standard	250.000	6.32	41234.992	22809.943	271.165	244.8	-2.1	NO	0.995	NO	bb
8	8	171230M3_9	Standard	500.000	6.32	73799.234	17540.598	631.101	568.9	13.8	NO	0.995	NO	bbX

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999225, r^2 = 0.998452
Calibration curve: 1.394 * x + -0.662445
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	171230M3_2	Standard	1.250	6.46	223.178	21333.172	1.569	1.6	28.1	NO	0.998	NO	bb
2	2	171230M3_3	Standard	2.500	6.47	413.054	18647.777	3.323	2.9	14.3	NO	0.998	NO	bb
3	3	171230M3_4	Standard	5.000	6.47	763.481	19787.104	5.788	4.6	-7.5	NO	0.998	NO	bb
4	4	171230M3_5	Standard	10.000	6.47	1606.824	24373.125	9.889	7.6	-24.3	NO	0.998	NO	bb
5	5	171230M3_6	Standard	25.000	6.47	3878.812	19604.211	29.678	21.8	-12.9	NO	0.998	NO	bb
6	6	171230M3_7	Standard	50.000	6.47	9787.315	21146.869	69.424	50.3	0.6	NO	0.998	NO	bd
7	7	171230M3_8	Standard	250.000	6.46	48896.859	20785.039	352.875	253.6	1.4	NO	0.998	NO	bb
8	8	171230M3_9	Standard	500.000	6.46	96401.281	20706.365	698.345	501.4	0.3	NO	0.998	NO	bb

Compound name: 13C3-PFBA
Response Factor: 0.780346
RRF SD: 0.0162245, Relative SD: 2.07915
Response type: Internal Std (Ref 54), 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	171230M3_2	Standard	12.500	1.40	10590.634	13605.824	9.730	12.5	-0.3	NO		NO	bb
2	2	171230M3_3	Standard	12.500	1.40	10700.368	13369.447	10.004	12.8	2.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	1.40	10778.936	13581.593	9.921	12.7	1.7	NO		NO	bb
4	4	171230M3_5	Standard	12.500	1.40	11055.444	14427.911	9.578	12.3	-1.8	NO		NO	bb
5	5	171230M3_6	Standard	12.500	1.41	10223.187	13476.122	9.483	12.2	-2.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	1.40	10998.330	13722.552	10.018	12.8	2.7	NO		NO	bb
7	7	171230M3_8	Standard	12.500	1.41	10544.371	13686.915	9.630	12.3	-1.3	NO		NO	bb
8	8	171230M3_9	Standard	12.500	1.40	10664.267	13784.692	9.670	12.4	-0.9	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.771374
RRF SD: 0.0442968, Relative SD: 5.74259
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	2.36	12830.407	15854.692	10.116	13.1	4.9	NO		NO	bb
2	2	171230M3_3	Standard	12.500	2.36	12739.582	15202.074	10.475	13.6	8.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	2.36	12601.388	18059.971	8.722	11.3	-9.5	NO		NO	bb
4	4	171230M3_5	Standard	12.500	2.36	13559.735	17487.736	9.692	12.6	0.5	NO		NO	bb
5	5	171230M3_6	Standard	12.500	2.37	12517.433	17166.082	9.115	11.8	-5.5	NO		NO	bb
6	6	171230M3_7	Standard	12.500	2.36	13543.172	17836.998	9.491	12.3	-1.6	NO		NO	bb
7	7	171230M3_8	Standard	12.500	2.36	12727.579	16559.475	9.607	12.5	-0.4	NO		NO	bb
8	8	171230M3_9	Standard	12.500	2.36	12918.356	16279.845	9.919	12.9	2.9	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.103096
RRF SD: 0.0086806, Relative SD: 8.41991
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	2.63	1730.699	15854.692	1.365	13.2	5.9	NO		NO	bb
2	2	171230M3_3	Standard	12.500	2.63	1855.926	15202.074	1.526	14.8	18.4	NO		NO	bb
3	3	171230M3_4	Standard	12.500	2.63	1744.564	18059.971	1.207	11.7	-6.3	NO		NO	bb
4	4	171230M3_5	Standard	12.500	2.64	1773.955	17487.736	1.268	12.3	-1.6	NO		NO	bb
5	5	171230M3_6	Standard	12.500	2.64	1643.731	17166.082	1.197	11.6	-7.1	NO		NO	bb
6	6	171230M3_7	Standard	12.500	2.64	1792.845	17836.998	1.256	12.2	-2.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	2.64	1656.078	16559.475	1.250	12.1	-3.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	2.63	1615.137	16279.845	1.240	12.0	-3.8	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.618803
RRF SD: 0.0533048, Relative SD: 8.61418
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	5.000	3.13	4345.656	15854.692	3.426	5.5	10.7	NO		NO	bb
2	2	171230M3_3	Standard	5.000	3.13	4117.409	15202.074	3.386	5.5	9.4	NO		NO	bb
3	3	171230M3_4	Standard	5.000	3.13	4098.995	18059.971	2.837	4.6	-8.3	NO		NO	bb
4	4	171230M3_5	Standard	5.000	3.13	4464.987	17487.736	3.192	5.2	3.2	NO		NO	bb
5	5	171230M3_6	Standard	5.000	3.13	3678.770	17166.082	2.679	4.3	-13.4	NO		NO	bb
6	6	171230M3_7	Standard	5.000	3.13	4631.413	17836.998	3.246	5.2	4.9	NO		NO	bb
7	7	171230M3_8	Standard	5.000	3.13	3868.221	16559.475	2.920	4.7	-5.6	NO		NO	bb
8	8	171230M3_9	Standard	5.000	3.13	3994.966	16279.845	3.067	5.0	-0.9	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.633577
RRF SD: 0.0463811, Relative SD: 7.32051
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	3.74	10628.602	15854.692	8.380	13.2	5.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.74	10972.185	15202.074	9.022	14.2	13.9	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.74	10844.437	18059.971	7.506	11.8	-5.2	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.75	9994.996	17487.736	7.144	11.3	-9.8	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.75	10840.354	17166.082	7.894	12.5	-0.3	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.75	11361.731	17836.998	7.962	12.6	0.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.74	10491.151	16559.475	7.919	12.5	-0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.74	9807.888	16279.845	7.531	11.9	-4.9	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.319596
RRF SD: 0.0248457, Relative SD: 7.77409
Response type: Internal Std (Ref 56), 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	171230M3_2	Standard	12.500	3.89	1363.239	3931.583	4.334	13.6	8.5	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.89	1442.194	4153.182	4.341	13.6	8.7	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.89	1307.153	3997.727	4.087	12.8	2.3	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.89	1348.822	4460.181	3.780	11.8	-5.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.89	1296.596	4016.015	4.036	12.6	1.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.89	1174.549	4349.945	3.375	10.6	-15.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.89	1341.063	4184.471	4.006	12.5	0.3	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.89	1237.411	3866.536	4.000	12.5	0.1	NO		NO	bb

Compound name: 13C2-6:2 FTS
Response Factor: 0.243997
RRF SD: 0.0363144, Relative SD: 14.8831
Response type: Internal Std (Ref 57), 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	171230M3_2	Standard	12.500	4.20	3304.589	15842.009	2.607	10.7	-14.5	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.20	3758.634	14183.630	3.312	13.6	8.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.20	3254.745	14427.698	2.820	11.6	-7.5	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.21	3379.511	15338.244	2.754	11.3	-9.7	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.21	3444.696	15165.979	2.839	11.6	-6.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.21	3389.651	15888.991	2.667	10.9	-12.6	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.20	4363.689	14827.076	3.679	15.1	20.6	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.20	4152.263	13948.476	3.721	15.3	22.0	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 1.04571
RRF SD: 0.0370953, Relative SD: 3.54737
Response type: Internal Std (Ref 57), 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	171230M3_2	Standard	12.500	4.26	15722.004	15842.009	12.405	11.9	-5.1	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.26	14936.890	14183.630	13.164	12.6	0.7	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.26	15544.537	14427.698	13.468	12.9	3.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.26	16356.577	15338.244	13.330	12.7	2.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.26	15570.807	15165.979	12.834	12.3	-1.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.26	15790.786	15888.991	12.423	11.9	-5.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.26	15843.892	14827.076	13.357	12.8	2.2	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.25	15165.988	13948.476	13.591	13.0	4.0	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.838339
RRF SD: 0.0768922, Relative SD: 9.17198
Response type: Internal Std (Ref 58), 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	171230M3_2	Standard	12.500	4.69	13858.102	16136.932	10.735	12.8	2.4	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.69	15927.060	17342.525	11.480	13.7	9.5	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.69	14404.834	15833.807	11.372	13.6	8.5	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.69	14435.547	18011.766	10.018	11.9	-4.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.69	12619.688	13990.217	11.275	13.4	7.6	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.69	13060.321	18828.510	8.671	10.3	-17.3	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.69	11852.702	15145.017	9.783	11.7	-6.6	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.69	14277.241	16995.723	10.501	12.5	0.2	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.162365
RRF SD: 0.0193163, Relative SD: 11.8969
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	4.75	3183.584	17914.830	2.221	13.7	9.4	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.75	2998.887	15156.200	2.473	15.2	21.9	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.75	2849.953	19647.309	1.813	11.2	-10.7	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.76	2931.823	21014.881	1.744	10.7	-14.1	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.76	3092.321	20442.176	1.891	11.6	-6.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.76	3253.921	20354.811	1.998	12.3	-1.5	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.75	3014.224	19464.414	1.936	11.9	-4.6	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.75	2894.700	16752.975	2.160	13.3	6.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.862578
RRF SD: 0.0841194, Relative SD: 9.75209
Response type: Internal Std (Ref 59), 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	171230M3_2	Standard	12.500	4.77	3346.149	4119.288	10.154	11.8	-5.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.77	3122.687	4313.366	9.049	10.5	-16.1	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.77	3525.735	4111.814	10.718	12.4	-0.6	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.77	4035.167	4255.765	11.852	13.7	9.9	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.77	3635.138	3878.207	11.717	13.6	8.7	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.77	3368.915	4210.152	10.002	11.6	-7.2	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.77	3759.934	4401.300	10.678	12.4	-1.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.77	3581.165	3703.629	12.087	14.0	12.1	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 0.82849
RRF SD: 0.0831009, Relative SD: 10.0304
Response type: Internal Std (Ref 60), 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	171230M3_2	Standard	12.500	5.06	11396.063	11822.749	12.049	14.5	16.3	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.06	12214.988	14686.887	10.396	12.5	0.4	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.06	13065.430	15130.091	10.794	13.0	4.2	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.06	15245.605	18457.758	10.325	12.5	-0.3	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.06	10477.484	14194.363	9.227	11.1	-10.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.06	13506.891	15150.772	11.144	13.5	7.6	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.06	11127.295	15884.021	8.757	10.6	-15.4	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.06	10803.009	13293.888	10.158	12.3	-1.9	NO		NO	bb

Compound name: 13C2-8:2 FTS
Response Factor: 0.139048
RRF SD: 0.0198834, Relative SD: 14.2996
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	5.03	1883.502	15854.692	1.485	10.7	-14.6	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.03	2073.621	15202.074	1.705	12.3	-1.9	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.03	2062.173	18059.971	1.427	10.3	-17.9	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.03	2397.384	17487.736	1.714	12.3	-1.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.03	2574.274	17166.082	1.875	13.5	7.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.03	2555.486	17836.998	1.791	12.9	3.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.03	2875.256	16559.475	2.170	15.6	24.9	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.03	3363.342	16279.845	2.582	18.6	48.6	NO		NO	bbX

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Compound name: d3-N-MeFOSAA
Response Factor: 0.305992
RRF SD: 0.0378043, Relative SD: 12.3547
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.20	5518.691	17914.830	3.851	12.6	0.7	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.20	5810.836	15156.200	4.792	15.7	25.3	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.21	6177.302	19647.309	3.930	12.8	2.8	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.21	6081.363	21014.881	3.617	11.8	-5.4	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.21	5138.831	20442.176	3.142	10.3	-17.8	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.21	6165.212	20354.811	3.786	12.4	-1.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.21	5493.052	19464.414	3.528	11.5	-7.8	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.20	5297.485	16752.975	3.953	12.9	3.3	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.346134
RRF SD: 0.0547503, Relative SD: 15.8176
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.36	6870.466	17914.830	4.794	13.8	10.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.36	6798.414	15156.200	5.607	16.2	29.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.36	6614.306	19647.309	4.208	12.2	-2.7	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.36	6103.646	21014.881	3.631	10.5	-16.1	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.36	5599.027	20442.176	3.424	9.9	-20.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.36	6844.808	20354.811	4.203	12.1	-2.8	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.36	6483.990	19464.414	4.164	12.0	-3.8	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.36	6142.020	16752.975	4.583	13.2	5.9	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.84186
RRF SD: 0.124966, Relative SD: 14.844
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.37	12694.194	17914.830	8.857	10.5	-15.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.38	13733.104	15156.200	11.326	13.5	7.6	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.38	18060.582	19647.309	11.490	13.6	9.2	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.38	16289.948	21014.881	9.690	11.5	-7.9	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.38	13179.254	20442.176	8.059	9.6	-23.4	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.38	17291.234	20354.811	10.619	12.6	0.9	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.38	17619.236	19464.414	11.315	13.4	7.5	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.37	17195.029	16752.975	12.830	15.2	21.9	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.713778
RRF SD: 0.0765285, Relative SD: 10.7216
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.65	12525.502	17914.830	8.740	12.2	-2.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.66	13131.589	15156.200	10.830	15.2	21.4	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.66	12932.541	19647.309	8.228	11.5	-7.8	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.66	14817.573	21014.881	8.814	12.3	-1.2	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.66	12853.370	20442.176	7.860	11.0	-11.9	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.67	15211.739	20354.811	9.342	13.1	4.7	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.66	12634.695	19464.414	8.114	11.4	-9.1	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.65	12666.770	16752.975	9.451	13.2	5.9	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.0778145
RRF SD: 0.00994747, Relative SD: 12.7836
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	5.82	16714.852	17914.830	11.663	149.9	-0.1	NO		NO	bb
2	2	171230M3_3	Standard	150.000	5.82	17982.373	15156.200	14.831	190.6	27.1	NO		NO	bb
3	3	171230M3_4	Standard	150.000	5.82	17483.596	19647.309	11.123	142.9	-4.7	NO		NO	bb
4	4	171230M3_5	Standard	150.000	5.83	18091.666	21014.881	10.761	138.3	-7.8	NO		NO	bb
5	5	171230M3_6	Standard	150.000	5.83	16698.209	20442.176	10.211	131.2	-12.5	NO		NO	bb
6	6	171230M3_7	Standard	150.000	5.83	17743.270	20354.811	10.896	140.0	-6.6	NO		NO	bb
7	7	171230M3_8	Standard	150.000	5.82	17214.338	19464.414	11.055	142.1	-5.3	NO		NO	bb
8	8	171230M3_9	Standard	150.000	5.82	17205.000	16752.975	12.837	165.0	10.0	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.236342
RRF SD: 0.0317238, Relative SD: 13.4228
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	6.12	3563.046	17914.830	2.486	10.5	-15.8	NO		NO	bb
2	2	171230M3_3	Standard	12.500	6.12	3501.355	15156.200	2.888	12.2	-2.3	NO		NO	bb
3	3	171230M3_4	Standard	12.500	6.12	3793.233	19647.309	2.413	10.2	-18.3	NO		NO	bb
4	4	171230M3_5	Standard	12.500	6.12	5426.529	21014.881	3.228	13.7	9.3	NO		NO	bb
5	5	171230M3_6	Standard	12.500	6.12	5365.466	20442.176	3.281	13.9	11.1	NO		NO	bb
6	6	171230M3_7	Standard	12.500	6.13	5598.277	20354.811	3.438	14.5	16.4	NO		NO	bb
7	7	171230M3_8	Standard	12.500	6.12	4141.186	19464.414	2.659	11.3	-10.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	6.12	4343.655	16752.975	3.241	13.7	9.7	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.113357
RRF SD: 0.013354, Relative SD: 11.7805
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	6.20	25881.516	17914.830	18.059	159.3	6.2	NO		NO	bb
2	2	171230M3_3	Standard	150.000	6.20	25449.146	15156.200	20.989	185.2	23.4	NO		NO	bb
3	3	171230M3_4	Standard	150.000	6.20	25814.051	19647.309	16.423	144.9	-3.4	NO		NO	bb
4	4	171230M3_5	Standard	150.000	6.21	25987.154	21014.881	15.458	136.4	-9.1	NO		NO	bb
5	5	171230M3_6	Standard	150.000	6.21	24649.652	20442.176	15.073	133.0	-11.4	NO		NO	bb
6	6	171230M3_7	Standard	150.000	6.21	25935.475	20354.811	15.927	140.5	-6.3	NO		NO	bb
7	7	171230M3_8	Standard	150.000	6.20	24497.834	19464.414	15.732	138.8	-7.5	NO		NO	bb
8	8	171230M3_9	Standard	150.000	6.20	24616.922	16752.975	18.368	162.0	8.0	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.48148
RRF SD: 0.0424758, Relative SD: 8.82194
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	5.000	6.45	2929.157	17914.830	2.044	4.2	-15.1	NO		NO	bb
2	2	171230M3_3	Standard	5.000	6.45	2974.677	15156.200	2.453	5.1	1.9	NO		NO	bb
3	3	171230M3_4	Standard	5.000	6.45	3582.617	19647.309	2.279	4.7	-5.3	NO		NO	bb
4	4	171230M3_5	Standard	5.000	6.45	3746.107	21014.881	2.228	4.6	-7.4	NO		NO	bb
5	5	171230M3_6	Standard	5.000	6.45	4163.788	20442.176	2.546	5.3	5.8	NO		NO	bb
6	6	171230M3_7	Standard	5.000	6.45	4259.023	20354.811	2.615	5.4	8.6	NO		NO	bb
7	7	171230M3_8	Standard	5.000	6.45	3769.071	19464.414	2.420	5.0	0.5	NO		NO	bb
8	8	171230M3_9	Standard	5.000	6.45	3581.645	16752.975	2.672	5.6	11.0	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.0898104
RRF SD: 0.00919355, Relative SD: 10.2366
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	6.31	19821.924	17914.830	13.831	154.0	2.7	NO		NO	bb
2	2	171230M3_3	Standard	150.000	6.31	17207.777	15156.200	14.192	158.0	5.3	NO		NO	bb
3	3	171230M3_4	Standard	150.000	6.31	23994.758	19647.309	15.266	170.0	13.3	NO		NO	bb
4	4	171230M3_5	Standard	150.000	6.31	19788.824	21014.881	11.771	131.1	-12.6	NO		NO	bb
5	5	171230M3_6	Standard	150.000	6.31	22454.855	20442.176	13.731	152.9	1.9	NO		NO	bb
6	6	171230M3_7	Standard	150.000	6.31	18313.316	20354.811	11.246	125.2	-16.5	NO		NO	bb
7	7	171230M3_8	Standard	150.000	6.31	22809.943	19464.414	14.648	163.1	8.7	NO		NO	bb
8	8	171230M3_9	Standard	150.000	6.31	17540.598	16752.975	13.088	145.7	-2.8	NO		NO	bd

Compound name: d9-N-EtFOSE
Response Factor: 0.0926026
RRF SD: 0.00888493, Relative SD: 9.59469
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	150.000	6.46	21333.172	17914.830	14.885	160.7	7.2	NO		NO	bb
2	2	171230M3_3	Standard	150.000	6.46	18647.777	15156.200	15.380	166.1	10.7	NO		NO	bb
3	3	171230M3_4	Standard	150.000	6.46	19787.104	19647.309	12.589	135.9	-9.4	NO		NO	bb
4	4	171230M3_5	Standard	150.000	6.46	24373.125	21014.881	14.498	156.6	4.4	NO		NO	bb
5	5	171230M3_6	Standard	150.000	6.46	19604.211	20442.176	11.988	129.5	-13.7	NO		NO	bd
6	6	171230M3_7	Standard	150.000	6.46	21146.869	20354.811	12.986	140.2	-6.5	NO		NO	bb
7	7	171230M3_8	Standard	150.000	6.46	20785.039	19464.414	13.348	144.1	-3.9	NO		NO	bb
8	8	171230M3_9	Standard	150.000	6.46	20706.365	16752.975	15.450	166.8	11.2	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 54), 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	171230M3_2	Standard	12.500	1.40	13605.824	13605.824	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	1.40	13369.447	13369.447	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	1.40	13581.593	13581.593	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	1.40	14427.911	14427.911	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	1.41	13476.122	13476.122	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	1.40	13722.552	13722.552	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	1.40	13686.915	13686.915	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	1.40	13784.692	13784.692	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 55), 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	171230M3_2	Standard	12.500	3.12	15854.692	15854.692	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.13	15202.074	15202.074	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.13	18059.971	18059.971	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.13	17487.736	17487.736	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.13	17166.082	17166.082	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.13	17836.998	17836.998	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.13	16559.475	16559.475	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.13	16279.845	16279.845	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 56), 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	171230M3_2	Standard	12.500	3.89	3931.583	3931.583	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	3.89	4153.182	4153.182	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	3.89	3997.727	3997.727	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	3.89	4460.181	4460.181	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	3.89	4016.015	4016.015	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	3.89	4349.945	4349.945	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	3.89	4184.471	4184.471	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	3.89	3866.536	3866.536	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), 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	171230M3_2	Standard	12.500	4.26	15842.009	15842.009	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.26	14183.630	14183.630	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.26	14427.698	14427.698	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.26	15338.244	15338.244	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.26	15165.979	15165.979	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.26	15888.991	15888.991	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.26	14827.076	14827.076	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.25	13948.476	13948.476	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 58), 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	171230M3_2	Standard	12.500	4.69	16136.932	16136.932	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.69	17342.525	17342.525	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.69	15833.807	15833.807	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.69	18011.766	18011.766	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.69	13990.217	13990.217	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.69	18828.510	18828.510	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.69	15145.017	15145.017	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.68	16995.723	16995.723	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 59), 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	171230M3_2	Standard	12.500	4.76	4119.288	4119.288	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	4.77	4313.366	4313.366	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	4.77	4111.814	4111.814	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	4.78	4255.765	4255.765	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	4.77	3878.207	3878.207	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	4.78	4210.152	4210.152	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	4.77	4401.300	4401.300	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	4.76	3703.629	3703.629	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 60), 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	171230M3_2	Standard	12.500	5.06	11822.749	11822.749	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.06	14686.887	14686.887	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.06	15130.091	15130.091	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.06	18457.758	18457.758	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.06	14194.363	14194.363	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.06	15150.772	15150.772	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.06	15884.021	15884.021	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.06	13293.888	13293.888	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	171230M3_2	Standard	12.500	5.37	17914.830	17914.830	12.500	12.5	0.0	NO		NO	bb
2	2	171230M3_3	Standard	12.500	5.37	15156.200	15156.200	12.500	12.5	0.0	NO		NO	bb
3	3	171230M3_4	Standard	12.500	5.38	19647.309	19647.309	12.500	12.5	0.0	NO		NO	bb
4	4	171230M3_5	Standard	12.500	5.38	21014.881	21014.881	12.500	12.5	0.0	NO		NO	bb
5	5	171230M3_6	Standard	12.500	5.38	20442.176	20442.176	12.500	12.5	0.0	NO		NO	bb
6	6	171230M3_7	Standard	12.500	5.38	20354.811	20354.811	12.500	12.5	0.0	NO		NO	bb
7	7	171230M3_8	Standard	12.500	5.38	19464.414	19464.414	12.500	12.5	0.0	NO		NO	bb
8	8	171230M3_9	Standard	12.500	5.37	16752.975	16752.975	12.500	12.5	0.0	NO		NO	bb

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:16:44

Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9998	NO	
2	2	PFPeA	0.9997	NO	
3	3	PFBS	0.9989	NO	
4	4	PFHxA	0.9994	NO	
5	5	PFHpA	0.9987	NO	
6	6	L-PFHxS	0.9991	NO	
7	8	6:2 FTS	0.9976	NO	
8	9	L-PFOA	0.9950	NO	
9	11	PFHpS	0.9976	NO	
10	12	PFNA	0.9986	NO	
11	13	PFOSA	0.9993	NO	
12	14	L-PFOS	0.9966	NO	
13	16	PFDA	0.9976	NO	
14	17	8:2 FTS	0.9975	NO	
15	18	N-MeFOSAA	0.9997	NO	
16	19	N-EtFOSAA	0.9994	NO	
17	20	PFUdA	0.9998	NO	
18	21	PFDS	0.9956	NO	
19	22	PFDoA	0.9988	NO	
20	23	N-MeFOSA	0.9995	NO	
21	24	PFTrDA	0.9989	NO	
22	25	PFTeDA	0.9992	NO	
23	26	N-EtFOSA	0.9998	NO	
24	27	PFHxDA	0.9989	NO	
25	28	PFODA	0.9985	NO	
26	29	N-MeFOSE	0.9946	NO	
27	30	N-EtFOSE	0.9985	NO	
28	31	13C3-PFBA		NO	2.079
29	32	13C3-PFPeA		NO	5.743
30	33	13C3-PFBS		NO	8.420
31	34	13C2-PFHxA		NO	8.614

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Name: 171230M3_2, Date: 30-Dec-2017, Time: 22:55:42, ID: ST171230M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
32	35	13C4-PFHpA		NO	7.321
33	36	18O2-PFHxS		NO	7.774
34	37	13C2-6:2 FTS		NO	14.883
35	38	13C2-PFOA		NO	3.547
36	39	13C5-PFNA		NO	9.172
37	40	13C8-PFOSA		NO	11.897
38	41	13C8-PFOS		NO	9.752
39	42	13C2-PFDA		NO	10.030
40	43	13C2-8:2 FTS		NO	14.300
41	44	d3-N-MeFOSAA		NO	12.355
42	45	d5-N-EtFOSAA		NO	15.818
43	46	13C2-PFUdA		NO	14.844
44	47	13C2-PFDoA		NO	10.722
45	48	d3-N-MeFOSA		NO	12.784
46	49	13C2-PFTeDA		NO	13.423
47	50	d5-N-ETFOSA		NO	11.780
48	51	13C2-PFHxDA		NO	8.822
49	52	d7-N-MeFOSE		NO	10.237
50	53	d9-N-EtFOSE		NO	9.595
51	54	13C4-PFBA		NO	0.000
52	55	13C5-PFHxA		NO	0.000
53	56	13C3-PFHxS		NO	0.000
54	57	13C8-PFOA		NO	0.000
55	58	13C9-PFNA		NO	0.000
56	59	13C4-PFOS		NO	0.000
57	60	13C6-PFDA		NO	0.000
58	61	13C7-PFUdA		NO	0.000

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Dataset: Untitled

Last Altered: Sunday, December 31, 2017 12:32:21 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:33:45 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:27:18

(A) Not valid for all cmpds. RI.

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	171230M3_1	IPA	30-Dec-17	22:44:34
2	171230M3_2	ST171230M3-1 PFC CS-2 17L2606	30-Dec-17	22:55:42
3	171230M3_3	ST171230M3-2 PFC CS-1 17L2607	30-Dec-17	23:06:53
4	171230M3_4	ST171230M3-3 PFC CS0 17L2608	30-Dec-17	23:18:04
5	171230M3_5	ST171230M3-4 PFC CS1 17L2609	30-Dec-17	23:29:14
6	171230M3_6	ST171230M3-5 PFC CS2 17L2610	30-Dec-17	23:40:25
7	171230M3_7	ST171230M3-6 PFC CS3 17L2611	30-Dec-17	23:51:35
8	171230M3_8	ST171230M3-7 PFC CS4 17L2612	31-Dec-17	00:02:47
9	171230M3_9	ST171230M3-8 PFC CS5 17L2613	31-Dec-17	00:13:57
10	171230M3_10	ST171230M3-9 PFC CS6 17L2710	31-Dec-17	00:25:08
11	171230M3_11	ST171230M3-10 PFC CS7 17L1804	31-Dec-17	00:36:19
12	171230M3_12	IPA	31-Dec-17	00:47:29
13	171230M3_13	ICV171230M3-1 PFC ICV 17L1201 (A)	31-Dec-17	00:58:40
14	171230M3_14	ICV171230M3-2 PFC ICV 17L1201	31-Dec-17	01:09:51
15	171230M3_15	IPA	31-Dec-17	01:21:01

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Dataset: U:\Q4.PRO\results\171230M3\171230M3-14.qld

Last Altered: Sunday, December 31, 2017 12:50:37 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:50:54 Pacific Standard Time

(A) NO SS available.

AC 12/31/17

VJA 12/31/2017

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_122917.mdb 30 Dec 2017 09:38:17
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_12-30-17_FULL_.cdb 31 Dec 2017 12:46:37

Name: 171230M3_14, Date: 31-Dec-2017, Time: 01:09:51, ID: ICV171230M3-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	1	PFBA	213.0 > 168.8	1.12e4	1.20e4	1.0000		1.47	1.41	11.7	8.364	83.6
2	2	PFPeA	263.1 > 218.9	1.19e4	1.38e4	1.0000		2.35	2.37	10.8	8.612	86.1
3	3	PFBS	299.0 > 79.7	2.46e3	1.97e3	1.0000		2.70	2.64	15.6	7.127	71.3
4	4	PFHxA	313.2 > 268.9	1.50e4	4.50e3	1.0000		3.12	3.13	16.7	8.577	85.8
5	5	PFHpA	363.0 > 318.9	1.21e4	1.10e4	1.0000		3.75	3.75	13.8	9.012	90.1
6	6	L-PFHxS	398.9 > 79.6	1.91e3	1.51e3	1.0000		3.85	3.89	15.8	7.673	76.7
7	8	6:2 FTS	427.1 > 407	3.24e3	1.84e4	1.0000		4.20	4.21	2.20	7.071	70.7
8	9	L-PFOA	413 > 368.7	1.40e4	1.84e4	1.0000		4.25	4.26	9.47	8.353	83.5
9	11	PFHpS	449 > 80.0	3.15e3	1.84e4	1.0000		4.35	4.37	2.14	8.028	80.3
10	12	PFNA	463.0 > 418.8	1.43e4	1.47e4	1.0000		4.70	4.69	12.1	7.211	72.1
11	13	PFOSA	498.1 > 77.8	2.93e3	3.19e3	1.0000		4.81	4.76	11.5	9.691	96.9
12	14	L-PFOS	499 > 79.9	2.95e3	4.08e3	1.0000		4.75	4.77	9.04	7.104	71.0
13	16	PFDA	513 > 468.8	1.37e4	1.16e4	1.0000		5.05	5.06	14.7	8.891	88.9
14	17	8:2 FTS	527 > 506.9	3.46e3	1.16e4	1.0000		5.02	5.03	3.72	10.339	103.4
15	18	N-MeFOSAA	570.1 > 419	8.07e3	6.51e3	1.0000		5.20	5.21	15.5	9.707	97.1
16	19	N-EtFOSAA	584.2 > 419	6.32e3	6.78e3	1.0000		5.42	5.37	11.6	8.873	88.7
17	20	PFUdA	563.0 > 518.9	1.59e4	1.90e4	1.0000		5.35	5.38	10.5	9.082	90.8
18	21	PFDS	598.8 > 80	3.42e3	1.90e4	1.0000		5.50	5.43	2.25	7.060	70.6
19	22	PFDoA	612.9 > 569.0	1.51e4	1.56e4	1.0000		5.70	5.66	12.1	7.985	79.8
20	23	N-MeFOSA	512.1 > 168.9		1.82e4	1.0000		5.77				(A)
21	24	PFTrDA	662.9 > 618.9	1.95e4	1.56e4	1.0000		5.95	5.90	15.6	10.917	109.2
22	25	PFTeDA	712.9 > 668.8	1.03e4	4.37e3	1.0000		6.16	6.12	29.5	10.677	106.8
23	26	N-EtFOSA	526.1 > 168.9		2.64e4	1.0000		6.15				(A)
24	27	PFHxDA	813.1 > 768.6		4.51e3	1.0000		6.48				
25	28	PFODA	913.1 > 868.8		4.51e3	1.0000		6.70				
26	29	N-MeFOSE	616.1 > 58.9		1.99e4	1.0000		6.30				
27	30	N-EtFOSE	630.1 > 58.9		2.01e4	1.0000		6.42				
28	31	13C3-PFBA	216.1 > 171.8	1.20e4	1.35e4	1.0000	0.780	1.47	1.41	11.2	14.305	114.4
29	32	13C3-PFPeA	266. > 221.8	1.38e4	1.69e4	1.0000	0.771	2.44	2.37	10.2	13.271	106.2
30	33	13C3-PFBS	302. > 98.8	1.97e3	1.69e4	1.0000	0.103	2.70	2.64	1.46	14.137	113.1
31	34	13C2-PFHxA	315 > 269.8	4.50e3	1.69e4	1.0000	0.619	3.20	3.13	3.34	5.392	107.8

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Dataset: U:\Q4.PRO\results\171230M3\171230M3-14.qld

Last Altered: Sunday, December 31, 2017 12:50:37 Pacific Standard Time
Printed: Sunday, December 31, 2017 12:50:54 Pacific Standard Time

Name: 171230M3_14, Date: 31-Dec-2017, Time: 01:09:51, ID: ICV171230M3-2 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	wt/vol	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
32	35	13C4-PFHpA	367.2 > 321.8	1.10e4	1.69e4	1.0000	0.634	3.80	3.75	8.12	12.821	102.6
33	36	18O2-PFHxS	403.0 > 102.6	1.51e3	4.19e3	1.0000	0.320	3.95	3.89	4.51	14.099	112.8
34	37	13C2-6:2 FTS	429.1 > 408.9	3.93e3	1.43e4	1.0000	0.244	4.26	4.21	3.44	14.084	112.7
35	38	13C2-PFOA	414.9 > 369.7	1.84e4	1.43e4	1.0000	1.046	4.32	4.26	16.1	15.412	123.3
36	39	13C5-PFNA	468.2 > 422.9	1.47e4	1.73e4	1.0000	0.838	4.75	4.69	10.6	12.694	101.6
37	40	13C8-PFOSA	506.1 > 77.7	3.19e3	1.89e4	1.0000	0.162	4.81	4.75	2.11	12.997	104.0
38	41	13C8-PFOS	507.0 > 79.9	4.08e3	3.79e3	1.0000	0.863	4.83	4.77	13.5	15.621	125.0
39	42	13C2-PFDA	515.1 > 469.9	1.16e4	1.33e4	1.0000	0.828	5.11	5.06	10.9	13.203	105.6
40	43	13C2-8:2 FTS	529.1 > 508.7	2.97e3	1.69e4	1.0000	0.139	5.09	5.03	2.21	15.865	126.9
41	44	d3-N-MeFOSAA	573.3 > 419	6.51e3	1.89e4	1.0000	0.306	5.26	5.21	4.30	14.058	112.5
42	45	d5-N-EtFOSAA	589.3 > 419	6.78e3	1.89e4	1.0000	0.346	5.42	5.36	4.48	12.953	103.6
43	46	13C2-PFUdA	565 > 519.8	1.90e4	1.89e4	1.0000	0.842	5.43	5.38	12.5	14.906	119.2
44	47	13C2-PFDoA	615.0 > 569.7	1.56e4	1.89e4	1.0000	0.714	5.70	5.66	10.3	14.435	115.5
45	48	d3-N-MeFOSA	515.2 > 168.9	1.82e4	1.89e4	1.0000	0.078	5.80	5.82	12.0	154.209	102.8
46	49	13C2-PFTeDA	714.8 > 669.6	4.37e3	1.89e4	1.0000	0.236	6.16	6.12	2.89	12.224	97.8
47	50	d5-N-ETFOSA	531.1 > 168.9	2.64e4	1.89e4	1.0000	0.113	6.16	6.20	17.5	153.992	102.7
48	51	13C2-PFHxDA	815 > 769.7	4.51e3	1.89e4	1.0000	0.481	6.48	6.45	2.98	6.184	123.7
49	52	d7-N-MeFOSE	623.1 > 58.9	1.99e4	1.89e4	1.0000	0.090	6.30	6.31	13.2	146.432	97.6
50	53	d9-N-EtFOSE	639.2 > 58.8	2.01e4	1.89e4	1.0000	0.093	6.42	6.46	13.3	143.309	95.5
51	54	13C4-PFBA	217. > 171.8	1.35e4	1.35e4	1.0000	1.000	1.47	1.40	12.5	12.500	100.0
52	55	13C5-PFHxA	318 > 272.9	1.69e4	1.69e4	1.0000	1.000	3.20	3.13	12.5	12.500	100.0
53	56	13C3-PFHxS	401.9 > 79.9	4.19e3	4.19e3	1.0000	1.000	3.95	3.89	12.5	12.500	100.0
54	57	13C8-PFOA	421.3 > 376	1.43e4	1.43e4	1.0000	1.000	4.32	4.26	12.5	12.500	100.0
55	58	13C9-PFNA	472.2 > 426.9	1.73e4	1.73e4	1.0000	1.000	4.75	4.69	12.5	12.500	100.0
56	59	13C4-PFOS	503 > 79.9	3.79e3	3.79e3	1.0000	1.000	4.83	4.77	12.5	12.500	100.0
57	60	13C6-PFDA	519.1 > 473.7	1.33e4	1.33e4	1.0000	1.000	5.11	5.06	12.5	12.500	100.0
58	61	13C7-PFUdA	570.1 > 524.8	1.89e4	1.89e4	1.0000	1.000	5.43	5.38	12.5	12.500	100.0

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: PFOSA
Correlation coefficient: r = 0.999329, r^2 = 0.998658
Calibration curve: 1.30775 * x + 0.0347805
Response type: Internal Std (Ref 40), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.72	50.514	1564.524	0.404	0.3	12.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	4.72	68.373	1375.187	0.621	0.4	-10.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	4.71	201.535	1766.893	1.426	1.1	6.4	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	4.72	360.366	1897.929	2.373	1.8	-10.6	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	4.72	1269.298	2478.382	6.402	4.9	-2.6	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	4.72	2319.396	2100.719	13.801	10.5	5.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	4.72	12512.175	2311.924	67.650	51.7	3.4	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	4.72	21843.365	2220.110	122.986	94.0	-6.0	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	4.72	79570.422	2993.427	332.271	254.1	1.6	NO	0.999	NO	bb

Compound name: L-PFOS
Coefficient of Determination: R^2 = 0.997444
Calibration curve: -3.62431e-005 * x^2 + 1.17583 * x + 0.0311451
Response type: Internal Std (Ref 41), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	4.74	52.733	1618.655	0.407	0.3	27.9	NO	0.997	NO	MM
2	2	180110M3_3	Standard	0.500	4.75	80.186	1941.504	0.516	0.4	-17.5	NO	0.997	NO	MM
3	3	180110M3_4	Standard	1.000	4.74	227.959	1895.721	1.503	1.3	25.2	NO	0.997	NO	MM
4	4	180110M3_5	Standard	2.000	4.74	330.437	2275.169	1.815	1.5	-24.1	NO	0.997	NO	MM
5	5	180110M3_6	Standard	5.000	4.74	1373.176	3237.610	5.302	4.5	-10.3	NO	0.997	NO	MM
6	6	180110M3_7	Standard	10.000	4.75	2325.923	2589.350	11.228	9.5	-4.7	NO	0.997	NO	MM
7	7	180110M3_8	Standard	50.000	4.74	13028.005	2649.839	61.457	52.3	4.6	NO	0.997	NO	MM
8	8	180110M3_9	Standard	100.000	4.74	24612.139	2652.518	115.985	98.9	-1.1	NO	0.997	NO	MM
9	9	180110M3_10	Standard	250.000	4.74	94234.469	2938.436	400.870	344.6	37.8	NO	0.997	NO	MMX

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: PFDA
Coefficient of Determination: R^2 = 0.999932
Calibration curve: 0.00546964 * x^2 + 1.60165 * x + -0.235203
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.03	149.694	6621.417	0.283	0.3	29.2	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	5.03	326.927	7011.031	0.583	0.5	2.0	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	5.03	882.103	7865.675	1.402	1.0	1.9	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	5.03	1805.777	7909.186	2.854	1.9	-4.2	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	5.03	5656.708	8990.281	7.865	5.0	-0.5	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	5.03	11071.540	8394.882	16.486	10.1	0.9	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	5.03	53691.906	7178.136	93.499	50.0	-0.0	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	5.03	106324.383	8067.630	164.739	80.7	-19.3	NO	1.000	NO	bbX
9	9	180110M3_10	Standard	250.000	5.03	334810.344	11784.516	355.138	147.5	-41.0	NO	1.000	NO	bbX

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997732
Calibration curve: 0.00123859 * x^2 + 0.307368 * x + -0.0309813
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.01	6.878	6621.417	0.013	0.1	-42.8	NO	0.998	NO	MMX
2	2	180110M3_3	Standard	0.500	5.00	69.176	7011.031	0.123	0.5	0.2	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	5.00	143.316	7865.675	0.228	0.8	-16.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	5.00	310.839	7909.186	0.491	1.7	-15.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.00	1255.848	8990.281	1.746	5.7	13.1	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.00	2087.793	8394.882	3.109	9.8	-1.7	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.00	10583.119	7178.136	18.429	50.0	-0.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.00	21826.646	8067.630	33.818	82.6	-17.4	NO	0.998	NO	bbX
9	9	180110M3_10	Standard	250.000	5.00	63576.629	11784.516	67.437	140.2	-43.9	NO	0.998	NO	bbX

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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Compound name: N-MeFOSAA
Coefficient of Determination: R^2 = 0.991446
Calibration curve: -0.00315911 * x^2 + 2.0555 * x + -0.320574
Response type: Internal Std (Ref 44), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.18	36.415	2584.018	0.176	0.2	-3.3	NO	0.991	NO	MM
2	2	180110M3_3	Standard	0.500	5.18	80.226	2279.408	0.440	0.4	-26.0	NO	0.991	NO	bb
3	3	180110M3_4	Standard	1.000	5.18	378.250	2474.278	1.911	1.1	8.7	NO	0.991	NO	bb
4	4	180110M3_5	Standard	2.000	5.19	712.568	3010.187	2.959	1.6	-20.0	NO	0.991	NO	bb
5	5	180110M3_6	Standard	5.000	5.18	2686.279	4004.625	8.385	4.3	-14.7	NO	0.991	NO	bb
6	6	180110M3_7	Standard	10.000	5.18	4645.245	3453.088	16.816	8.4	-15.5	NO	0.991	NO	bb
7	7	180110M3_8	Standard	50.000	5.18	27682.430	3302.028	104.793	55.9	11.9	NO	0.991	NO	bb
8	8	180110M3_9	Standard	100.000	5.18	50942.434	3769.683	168.921	96.7	-3.3	NO	0.991	NO	bb
9	9	180110M3_10	Standard	250.000	5.18	168432.422	3847.682	547.188			NO	0.991	NO	bbXI

Compound name: N-EtFOSAA
Coefficient of Determination: R^2 = 0.999097
Calibration curve: -0.000915461 * x^2 + 1.58258 * x + -0.401153
Response type: Internal Std (Ref 45), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.33	66.359	3050.200	0.272	0.4	70.2	NO	0.999	NO	bbX
2	2	180110M3_3	Standard	0.500	5.34	73.558	3056.172	0.301	0.4	-11.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	5.33	220.973	3257.867	0.848	0.8	-21.0	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	5.34	631.177	3281.707	2.404	1.8	-11.3	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	5.34	2480.533	4319.860	7.178	4.8	-4.0	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.34	4016.860	3499.391	14.348	9.4	-6.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.34	20914.289	3318.419	78.781	51.6	3.1	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.33	43324.688	3635.765	148.953	100.2	0.2	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.33	130110.156	4818.760	337.509	249.5	-0.2	NO	0.999	NO	bb

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Compound name: PFUdA
Coefficient of Determination: R^2 = 0.997858
Calibration curve: -0.000355567 * x^2 + 1.33241 * x + -0.0949136
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.36	175.412	7775.131	0.282	0.3	13.2	NO	0.998	NO	bb
2	2	180110M3_3	Standard	0.500	5.35	241.658	5841.358	0.517	0.5	-8.1	NO	0.998	NO	MM
3	3	180110M3_4	Standard	1.000	5.35	652.062	6821.692	1.195	1.0	-3.2	NO	0.998	NO	MM
4	4	180110M3_5	Standard	2.000	5.35	1465.764	7907.348	2.317	1.8	-9.4	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.35	4824.436	9228.782	6.534	5.0	-0.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.35	11112.005	10040.164	13.834	10.5	4.8	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.35	54444.684	9539.813	71.339	54.4	8.8	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.35	92094.172	9474.396	121.504	93.6	-6.4	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	5.35	343973.500	13743.283	312.856	251.8	0.7	NO	0.998	NO	bb

Compound name: PFDS
Coefficient of Determination: R^2 = 0.997344
Calibration curve: 0.000962848 * x^2 + 0.363602 * x + -0.00209133
Response type: Internal Std (Ref 46), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.40	48.906	7775.131	0.079	0.2	-11.3	NO	0.997	NO	MM
2	2	180110M3_3	Standard	0.500	5.41	89.190	5841.358	0.191	0.5	6.0	NO	0.997	NO	bb
3	3	180110M3_4	Standard	1.000	5.40	200.620	6821.692	0.368	1.0	1.4	NO	0.997	NO	bb
4	4	180110M3_5	Standard	2.000	5.40	442.118	7907.348	0.699	1.9	-4.1	NO	0.997	NO	bb
5	5	180110M3_6	Standard	5.000	5.40	1573.748	9228.782	2.132	5.8	15.6	NO	0.997	NO	bb
6	6	180110M3_7	Standard	10.000	5.40	2755.989	10040.164	3.431	9.2	-7.8	NO	0.997	NO	bb
7	7	180110M3_8	Standard	50.000	5.40	15734.462	9539.813	20.617	50.1	0.1	NO	0.997	NO	bb
8	8	180110M3_9	Standard	100.000	5.40	26637.205	9474.396	35.144	79.8	-20.2	NO	0.997	NO	bbX
9	9	180110M3_10	Standard	250.000	5.40	84029.797	13743.283	76.428	150.3	-39.9	NO	0.997	NO	bbX

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Compound name: PFDoA
Coefficient of Determination: R^2 = 0.998683
Calibration curve: 0.00180407 * x^2 + 2.09493 * x + 0.150658
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.64	187.793	4189.487	0.560	0.2	-21.8	NO	0.999	NO	MM
2	2	180110M3_3	Standard	0.500	5.64	395.079	3969.021	1.244	0.5	4.4	NO	0.999	NO	bd
3	3	180110M3_4	Standard	1.000	5.64	711.553	4869.713	1.826	0.8	-20.1	NO	0.999	NO	bd
4	4	180110M3_5	Standard	2.000	5.64	1599.483	4575.956	4.369	2.0	0.5	NO	0.999	NO	bd
5	5	180110M3_6	Standard	5.000	5.63	7052.525	6385.208	13.806	6.5	29.6	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.64	10897.177	5791.910	23.518	11.0	10.5	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.63	62116.109	7164.268	108.378	49.5	-0.9	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.64	105146.766	5943.687	221.131	97.3	-2.7	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.63	373600.125	7304.709	639.314	250.9	0.4	NO	0.999	NO	bb

Compound name: N-MeFOSA
Correlation coefficient: r = 0.999537, r^2 = 0.999075
Calibration curve: 1.10666 * x + -0.170034
Response type: Internal Std (Ref 48), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Include, 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	180110M3_2	Standard	1.250	5.71	74.505	10743.257	1.040	1.1	-12.5	NO	0.999	NO	bb
2	2	180110M3_3	Standard	2.500	5.71	176.977	9835.262	2.699	2.6	3.7	NO	0.999	NO	bb
3	3	180110M3_4	Standard	5.000	5.71	344.751	12097.896	4.275	4.0	-19.7	NO	0.999	NO	bb
4	4	180110M3_5	Standard	10.000	5.71	911.162	12431.512	10.994	10.1	0.9	NO	0.999	NO	bb
5	5	180110M3_6	Standard	25.000	5.71	3012.821	16115.154	28.043	25.5	2.0	NO	0.999	NO	bb
6	6	180110M3_7	Standard	50.000	5.71	5797.346	14402.728	60.378	54.7	9.4	NO	0.999	NO	bb
7	7	180110M3_8	Standard	250.000	5.71	29412.832	15466.819	285.251	257.9	3.2	NO	0.999	NO	bb
8	8	180110M3_9	Standard	500.000	5.71	54924.184	14480.274	568.955	514.3	2.9	NO	0.999	NO	bb
9	9	180110M3_10	Standard	1250.000	5.71	171069.844	18952.975	1353.902	1223.6	-2.1	NO	0.999	NO	bb

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Compound name: PFTrDA
Coefficient of Determination: R^2 = 0.999460
Calibration curve: 0.000122781 * x^2 + 2.39065 * x + 0.000840038
Response type: Internal Std (Ref 47), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.88	174.970	4189.487	0.522	0.2	-12.8	NO	0.999	NO	bb
2	2	180110M3_3	Standard	0.500	5.88	376.310	3969.021	1.185	0.5	-0.9	NO	0.999	NO	bb
3	3	180110M3_4	Standard	1.000	5.88	950.586	4869.713	2.440	1.0	2.0	NO	0.999	NO	bb
4	4	180110M3_5	Standard	2.000	5.89	1891.809	4575.956	5.168	2.2	8.1	NO	0.999	NO	bb
5	5	180110M3_6	Standard	5.000	5.88	5659.594	6385.208	11.080	4.6	-7.3	NO	0.999	NO	bb
6	6	180110M3_7	Standard	10.000	5.89	12450.600	5791.910	26.871	11.2	12.3	NO	0.999	NO	bb
7	7	180110M3_8	Standard	50.000	5.88	68696.688	7164.268	119.860	50.0	0.0	NO	0.999	NO	bb
8	8	180110M3_9	Standard	100.000	5.88	112410.352	5943.687	236.407	98.4	-1.6	NO	0.999	NO	bb
9	9	180110M3_10	Standard	250.000	5.88	354589.906	7304.709	606.783	250.6	0.2	NO	0.999	NO	bb

Compound name: PFTeDA
Coefficient of Determination: R^2 = 0.999533
Calibration curve: 0.00349062 * x^2 + 2.93229 * x + -0.154941
Response type: Internal Std (Ref 49), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	6.09	124.998	1955.129	0.799	0.3	30.1	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	6.10	236.010	1829.135	1.613	0.6	20.5	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	6.10	405.845	2327.717	2.179	0.8	-20.5	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	6.09	1041.416	2174.831	5.986	2.1	4.4	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	6.10	3533.474	3158.222	13.985	4.8	-4.1	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	6.10	6573.327	2821.178	29.125	9.9	-1.3	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	6.09	36266.531	2885.126	157.127	50.6	1.2	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	6.10	68578.852	2620.882	327.079	99.8	-0.2	NO	1.000	NO	db
9	9	180110M3_10	Standard	250.000	6.10	176036.891	3871.496	568.375	162.5	-35.0	NO	1.000	NO	dbX

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Compound name: N-EtFOSA
Coefficient of Determination: R^2 = 0.999897
Calibration curve: -3.00904e-005 * x^2 + 1.02444 * x + -0.199244
Response type: Internal Std (Ref 50), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	1.250	6.10	131.383	16238.895	1.214	1.4	10.3	NO	1.000	NO	bb
2	2 180110M3_3	Standard	2.500	6.11	254.736	15620.249	2.446	2.6	3.3	NO	1.000	NO	bb
3	3 180110M3_4	Standard	5.000	6.10	520.024	17774.992	4.388	4.5	-10.4	NO	1.000	NO	bb
4	4 180110M3_5	Standard	10.000	6.10	1156.534	18942.303	9.158	9.1	-8.6	NO	1.000	NO	bb
5	5 180110M3_6	Standard	25.000	6.10	4408.425	24990.723	26.460	26.0	4.2	NO	1.000	NO	bb
6	6 180110M3_7	Standard	50.000	6.10	7411.040	21510.641	51.679	50.7	1.4	NO	1.000	NO	bb
7	7 180110M3_8	Standard	250.000	6.10	37406.688	22103.201	253.855	249.8	-0.1	NO	1.000	NO	bb
8	8 180110M3_9	Standard	500.000	6.10	71470.891	21279.357	503.804	499.3	-0.1	NO	1.000	NO	bb
9	9 180110M3_10	Standard	1250.000	6.10	207247.922	25200.256	1233.606	1250.3	0.0	NO	1.000	NO	bb

Compound name: PFHxDA
Coefficient of Determination: R^2 = 0.997686
Calibration curve: -0.00114258 * x^2 + 0.984182 * x + 0.0683094
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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 180110M3_2	Standard	0.250	6.43	89.534	1428.470	0.313	0.2	-0.4	NO	0.998	NO	MM
2	2 180110M3_3	Standard	0.500	6.43	149.353	1602.730	0.466	0.4	-19.2	NO	0.998	NO	MM
3	3 180110M3_4	Standard	1.000	6.43	383.028	1624.887	1.179	1.1	13.0	NO	0.998	NO	bb
4	4 180110M3_5	Standard	2.000	6.43	604.669	1502.644	2.012	2.0	-1.0	NO	0.998	NO	bb
5	5 180110M3_6	Standard	5.000	6.43	2370.623	2226.881	5.323	5.4	7.4	NO	0.998	NO	bb
6	6 180110M3_7	Standard	10.000	6.43	3907.469	2045.703	9.550	9.7	-2.6	NO	0.998	NO	bb
7	7 180110M3_8	Standard	50.000	6.43	22137.709	2213.677	50.002	54.1	8.3	NO	0.998	NO	bb
8	8 180110M3_9	Standard	100.000	6.43	40541.285	2470.003	82.067	93.5	-6.5	NO	0.998	NO	bb
9	9 180110M3_10	Standard	250.000	6.43	106609.336	3028.907	175.986	253.1	1.3	NO	0.998	NO	bb

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Compound name: PFODA
Coefficient of Determination: R^2 = 0.997999
Calibration curve: -0.00347318 * x^2 + 1.33796 * x + -0.219409
Response type: Internal Std (Ref 51), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	6.66	89.732	1428.470	0.314	0.4	59.7	NO	0.998	NO	bbX
2	2	180110M3_3	Standard	0.500	6.66	134.672	1602.730	0.420	0.5	-4.3	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	6.66	288.807	1624.887	0.889	0.8	-17.0	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	6.66	713.056	1502.644	2.373	1.9	-2.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	6.66	2483.912	2226.881	5.577	4.4	-12.4	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	6.66	5287.183	2045.703	12.923	10.1	0.9	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	6.66	26551.906	2213.677	59.972	52.0	4.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	6.66	48357.449	2470.003	97.889	98.5	-1.5	NO	0.998	NO	bb
9	9	180110M3_10	Standard	250.000	6.66	71018.602	3028.907	117.235	135.3	-45.9	NO	0.998	NO	bbX

Compound name: N-MeFOSE
Correlation coefficient: r = 0.998982, r^2 = 0.997965
Calibration curve: 1.173 * x + -0.745383
Response type: Internal Std (Ref 52), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.24	132.978	18600.686	1.072	1.5	24.0	NO	0.998	NO	bb
2	2	180110M3_3	Standard	2.500	6.26	224.899	14371.076	2.347	2.6	5.5	NO	0.998	NO	bb
3	3	180110M3_4	Standard	5.000	6.25	520.318	17457.375	4.471	4.4	-11.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	10.000	6.25	1056.121	18372.555	8.623	8.0	-20.1	NO	0.998	NO	bb
5	5	180110M3_6	Standard	25.000	6.25	4167.101	23253.285	26.881	23.6	-5.8	NO	0.998	NO	bb
6	6	180110M3_7	Standard	50.000	6.25	7847.585	18111.193	64.995	56.0	12.1	NO	0.998	NO	bb
7	7	180110M3_8	Standard	250.000	6.25	44727.859	23087.781	290.594	248.4	-0.7	NO	0.998	NO	bb
8	8	180110M3_9	Standard	500.000	6.25	74536.172	20386.021	548.436	468.2	-6.4	NO	0.998	NO	bb
9	9	180110M3_10	Standard	1250.000	6.25	281086.719	28074.316	1501.836	1281.0	2.5	NO	0.998	NO	bd

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Compound name: N-EtFOSE
Correlation coefficient: r = 0.999540, r^2 = 0.999080
Calibration curve: 1.40177 * x + -0.207477
Response type: Internal Std (Ref 53), Area * (IS Conc. / IS Area)
Curve type: Linear, Origin: Exclude, 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	180110M3_2	Standard	1.250	6.40	179.573	16885.416	1.595	1.3	2.9	NO	0.999	NO	bb
2	2	180110M3_3	Standard	2.500	6.41	310.656	13110.849	3.554	2.7	7.3	NO	0.999	NO	bb
3	3	180110M3_4	Standard	5.000	6.40	739.963	16446.465	6.749	5.0	-0.7	NO	0.999	NO	bb
4	4	180110M3_5	Standard	10.000	6.41	1344.736	16689.393	12.086	8.8	-12.3	NO	0.999	NO	bb
5	5	180110M3_6	Standard	25.000	6.41	5119.930	22391.037	34.299	24.6	-1.5	NO	0.999	NO	bb
6	6	180110M3_7	Standard	50.000	6.41	9741.974	19962.660	73.201	52.4	4.7	NO	0.999	NO	bb
7	7	180110M3_8	Standard	250.000	6.40	52164.645	22425.359	348.922	249.1	-0.4	NO	0.999	NO	bd
8	8	180110M3_9	Standard	500.000	6.40	98149.102	16106.103	914.086	652.2	30.4	NO	0.999	NO	bbX
9	9	180110M3_10	Standard	1250.000	6.40	346314.875	28984.094	1792.267	1278.7	2.3	NO	0.999	NO	bbX

Compound name: 13C3-PFBA
Response Factor: 0.763512
RRF SD: 0.0350184, Relative SD: 4.58648
Response type: Internal Std (Ref 54), 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	180110M3_2	Standard	12.500	1.33	5445.118	7508.845	9.065	11.9	-5.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	1.34	5531.277	7057.356	9.797	12.8	2.7	NO		NO	bd
3	3	180110M3_4	Standard	12.500	1.34	6197.237	8001.987	9.681	12.7	1.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	1.34	6682.359	8507.537	9.818	12.9	2.9	NO		NO	bb
5	5	180110M3_6	Standard	12.500	1.33	8645.433	11925.119	9.062	11.9	-5.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	1.34	7475.106	10276.120	9.093	11.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	12.500	1.33	8574.918	10906.643	9.828	12.9	3.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	1.34	8087.149	9827.420	10.286	13.5	7.8	NO		NO	bb
9	9	180110M3_10	Standard	12.500	1.34	10724.149	14467.951	9.265	12.1	-2.9	NO		NO	bb

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Compound name: 13C3-PFPeA
Response Factor: 0.730064
RRF SD: 0.0283912, Relative SD: 3.88886
Response type: Internal Std (Ref 55), 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 180110M3_2	Standard	12.500	2.31	6191.314	8819.409	8.775	12.0	-3.8	NO		NO	bb
2	2 180110M3_3	Standard	12.500	2.32	6388.503	8657.168	9.224	12.6	1.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	2.31	7240.874	10153.727	8.914	12.2	-2.3	NO		NO	bb
4	4 180110M3_5	Standard	12.500	2.31	7656.253	10362.211	9.236	12.7	1.2	NO		NO	bb
5	5 180110M3_6	Standard	12.500	2.31	10067.521	14579.612	8.632	11.8	-5.4	NO		NO	bb
6	6 180110M3_7	Standard	12.500	2.32	9432.145	12281.571	9.600	13.1	5.2	NO		NO	bb
7	7 180110M3_8	Standard	12.500	2.31	9361.531	12975.809	9.018	12.4	-1.2	NO		NO	bb
8	8 180110M3_9	Standard	12.500	2.31	8984.164	11578.389	9.699	13.3	6.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	2.32	11738.701	16242.380	9.034	12.4	-1.0	NO		NO	bb

Compound name: 13C3-PFBS
Response Factor: 0.0953602
RRF SD: 0.0060334, Relative SD: 6.32696
Response type: Internal Std (Ref 55), 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 180110M3_2	Standard	12.500	2.59	843.391	8819.409	1.195	12.5	0.3	NO		NO	bb
2	2 180110M3_3	Standard	12.500	2.60	875.797	8657.168	1.265	13.3	6.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	2.59	894.616	10153.727	1.101	11.5	-7.6	NO		NO	bb
4	4 180110M3_5	Standard	12.500	2.59	1011.215	10362.211	1.220	12.8	2.3	NO		NO	bb
5	5 180110M3_6	Standard	12.500	2.59	1232.651	14579.612	1.057	11.1	-11.3	NO		NO	bb
6	6 180110M3_7	Standard	12.500	2.60	1207.154	12281.571	1.229	12.9	3.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	2.59	1285.018	12975.809	1.238	13.0	3.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	2.59	1183.646	11578.389	1.278	13.4	7.2	NO		NO	bb
9	9 180110M3_10	Standard	12.500	2.60	1488.746	16242.380	1.146	12.0	-3.9	NO		NO	bb

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Compound name: 13C2-PFHxA
Response Factor: 0.596765
RRF SD: 0.0287608, Relative SD: 4.81945
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	5.000	3.08	2081.847	8819.409	2.951	4.9	-1.1	NO		NO	bb
2	2	180110M3_3	Standard	5.000	3.09	2064.240	8657.168	2.981	5.0	-0.1	NO		NO	bb
3	3	180110M3_4	Standard	5.000	3.08	2293.726	10153.727	2.824	4.7	-5.4	NO		NO	bb
4	4	180110M3_5	Standard	5.000	3.09	2353.448	10362.211	2.839	4.8	-4.9	NO		NO	bb
5	5	180110M3_6	Standard	5.000	3.09	3551.324	14579.612	3.045	5.1	2.0	NO		NO	bb
6	6	180110M3_7	Standard	5.000	3.09	2750.103	12281.571	2.799	4.7	-6.2	NO		NO	bb
7	7	180110M3_8	Standard	5.000	3.09	3223.589	12975.809	3.105	5.2	4.1	NO		NO	bb
8	8	180110M3_9	Standard	5.000	3.09	2973.789	11578.389	3.210	5.4	7.6	NO		NO	bb
9	9	180110M3_10	Standard	5.000	3.09	4029.222	16242.380	3.101	5.2	3.9	NO		NO	bb

Compound name: 13C4-PFHpA
Response Factor: 0.604292
RRF SD: 0.0220638, Relative SD: 3.65118
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	3.70	5439.776	8819.409	7.710	12.8	2.1	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.71	5317.372	8657.168	7.678	12.7	1.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.70	6029.103	10153.727	7.422	12.3	-1.7	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.71	6373.487	10362.211	7.688	12.7	1.8	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.70	8559.692	14579.612	7.339	12.1	-2.8	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.71	7383.596	12281.571	7.515	12.4	-0.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.71	7430.805	12975.809	7.158	11.8	-5.2	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.70	7501.529	11578.389	8.099	13.4	7.2	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.71	9581.552	16242.380	7.374	12.2	-2.4	NO		NO	bb

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Compound name: 18O2-PFHxS
Response Factor: 0.293143
RRF SD: 0.02198, Relative SD: 7.49804
Response type: Internal Std (Ref 56), 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 180110M3_2	Standard	12.500	3.85	607.107	2278.692	3.330	11.4	-9.1	NO		NO	bb
2	2 180110M3_3	Standard	12.500	3.85	587.859	2027.751	3.624	12.4	-1.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	3.85	721.191	2588.349	3.483	11.9	-5.0	NO		NO	MM
4	4 180110M3_5	Standard	12.500	3.85	841.432	2638.712	3.986	13.6	8.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	3.86	928.808	3243.043	3.580	12.2	-2.3	NO		NO	bb
6	6 180110M3_7	Standard	12.500	3.86	837.404	2945.932	3.553	12.1	-3.0	NO		NO	bb
7	7 180110M3_8	Standard	12.500	3.85	881.507	3128.825	3.522	12.0	-3.9	NO		NO	bb
8	8 180110M3_9	Standard	12.500	3.85	947.682	3222.897	3.676	12.5	0.3	NO		NO	bb
9	9 180110M3_10	Standard	12.500	3.85	1189.369	3518.808	4.225	14.4	15.3	NO		NO	bb

Compound name: 13C2-6:2 FTS Not used
Response Factor: 0.215203
RRF SD: 0.0808496, Relative SD: 37.5689
Response type: Internal Std (Ref 57), 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 180110M3_2	Standard	12.500	4.17	1482.806	7716.699	2.402	11.2	-10.7	NO		NO	bb
2	2 180110M3_3	Standard	12.500	4.17	1155.556	8022.848	1.800	8.4	-33.1	NO		NO	bb
3	3 180110M3_4	Standard	12.500	4.17	1397.855	9839.251	1.776	8.3	-34.0	NO		NO	bb
4	4 180110M3_5	Standard	12.500	4.17	1987.587	9158.829	2.713	12.6	0.8	NO		NO	bb
5	5 180110M3_6	Standard	12.500	4.17	2364.256	13168.367	2.244	10.4	-16.6	NO		NO	bb
6	6 180110M3_7	Standard	12.500	4.17	2119.823	12177.514	2.176	10.1	-19.1	NO		NO	bb
7	7 180110M3_8	Standard	12.500	4.17	2466.705	11624.087	2.653	12.3	-1.4	NO		NO	bb
8	8 180110M3_9	Standard	12.500	4.17	2650.556	9690.272	3.419	15.9	27.1	NO		NO	bb
9	9 180110M3_10	Standard	12.500	4.17	5642.398	14028.530	5.028	23.4	86.9	NO		NO	bb

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Compound name: 13C2-PFOA
Response Factor: 0.915764
RRF SD: 0.0680605, Relative SD: 7.4321
Response type: Internal Std (Ref 57), 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	180110M3_2	Standard	12.500	4.22	6843.800	7716.699	11.086	12.1	-3.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.23	7076.908	8022.848	11.026	12.0	-3.7	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.22	9304.335	9839.251	11.820	12.9	3.3	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.23	8455.973	9158.829	11.541	12.6	0.8	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.22	11446.934	13168.367	10.866	11.9	-5.1	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.23	10524.176	12177.514	10.803	11.8	-5.6	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.22	9660.232	11624.087	10.388	11.3	-9.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.23	10039.607	9690.272	12.951	14.1	13.1	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.23	14076.219	14028.530	12.542	13.7	9.6	NO		NO	bb

Compound name: 13C5-PFNA
Response Factor: 0.817427
RRF SD: 0.0843622, Relative SD: 10.3205
Response type: Internal Std (Ref 58), 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	180110M3_2	Standard	12.500	4.66	6595.252	8419.302	9.792	12.0	-4.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.66	7834.280	7958.151	12.305	15.1	20.4	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.65	7113.500	8439.292	10.536	12.9	3.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.66	7757.888	9727.010	9.970	12.2	-2.4	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.66	10243.467	13224.706	9.682	11.8	-5.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.66	8076.588	11503.174	8.776	10.7	-14.1	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.66	10747.179	11865.055	11.322	13.9	10.8	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.66	8749.379	11583.457	9.442	11.6	-7.6	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.66	11695.055	14424.272	10.135	12.4	-0.8	NO		NO	bb

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Compound name: 13C8-PFOSA
Response Factor: 0.222952
RRF SD: 0.0226253, Relative SD: 10.148
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	4.72	1564.524	7146.186	2.737	12.3	-1.8	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.72	1375.187	6976.103	2.464	11.1	-11.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.72	1766.893	8730.687	2.530	11.3	-9.2	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.72	1897.929	8502.860	2.790	12.5	0.1	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.72	2478.382	9392.645	3.298	14.8	18.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.72	2100.719	10144.617	2.588	11.6	-7.1	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.72	2311.924	10475.976	2.759	12.4	-1.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.72	2220.110	10176.034	2.727	12.2	-2.1	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.71	2993.427	11733.247	3.189	14.3	14.4	NO		NO	bb

Compound name: 13C8-PFOS
Response Factor: 0.874623
RRF SD: 0.125135, Relative SD: 14.3074
Response type: Internal Std (Ref 59), 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	180110M3_2	Standard	12.500	4.74	1618.655	2105.094	9.612	11.0	-12.1	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.74	1941.504	2275.136	10.667	12.2	-2.4	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.74	1895.721	2164.789	10.946	12.5	0.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.74	2275.169	1933.818	14.706	16.8	34.5	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.74	3237.610	3714.762	10.894	12.5	-0.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.74	2589.350	2811.424	11.513	13.2	5.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.74	2649.839	3528.814	9.386	10.7	-14.1	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.74	2652.518	3149.809	10.527	12.0	-3.7	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.74	2938.436	3620.976	10.144	11.6	-7.2	NO		NO	bb

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Compound name: 13C2-PFDA
Response Factor: 1.10533
RRF SD: 0.141708, Relative SD: 12.8204
Response type: Internal Std (Ref 60), 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	180110M3_2	Standard	12.500	5.03	6621.417	6709.350	12.336	11.2	-10.7	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.04	7011.031	6275.866	13.964	12.6	1.1	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	7865.675	5735.000	17.144	15.5	24.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7909.186	7379.163	13.398	12.1	-3.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8990.281	8404.810	13.371	12.1	-3.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	8394.882	6873.380	15.267	13.8	10.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7178.136	7852.201	11.427	10.3	-17.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8067.630	8147.183	12.378	11.2	-10.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	11784.516	9778.104	15.065	13.6	9.0	NO		NO	bb

Compound name: 13C2-8:2 FTS Not used
Response Factor: 0.100865
RRF SD: 0.0423355, Relative SD: 41.9722
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	5.00	644.281	8819.409	0.913	9.1	-27.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.00	889.045	8657.168	1.284	12.7	1.8	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.00	654.053	10153.727	0.805	8.0	-36.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.01	773.072	10362.211	0.933	9.2	-26.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.00	975.410	14579.612	0.836	8.3	-33.7	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.00	1012.922	12281.571	1.031	10.2	-18.2	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.00	1364.890	12975.809	1.315	13.0	4.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.00	1744.984	11578.389	1.884	18.7	49.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.00	3049.447	16242.380	2.347	23.3	86.1	NO		NO	bb

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Compound name: d3-N-MeFOSAA
Response Factor: 0.34512
RRF SD: 0.0402363, Relative SD: 11.6586
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.18	2584.018	7146.186	4.520	13.1	4.8	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.18	2279.408	6976.103	4.084	11.8	-5.3	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.18	2474.278	8730.687	3.543	10.3	-17.9	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.18	3010.187	8502.860	4.425	12.8	2.6	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.18	4004.625	9392.645	5.329	15.4	23.5	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.18	3453.088	10144.617	4.255	12.3	-1.4	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.18	3302.028	10475.976	3.940	11.4	-8.7	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.18	3769.683	10176.034	4.631	13.4	7.3	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.18	3847.682	11733.247	4.099	11.9	-5.0	NO		NO	bb

Compound name: d5-N-EtFOSAA
Response Factor: 0.390404
RRF SD: 0.0471008, Relative SD: 12.0646
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.33	3050.200	7146.186	5.335	13.7	9.3	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.33	3056.172	6976.103	5.476	14.0	12.2	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.33	3257.867	8730.687	4.664	11.9	-4.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.33	3281.707	8502.860	4.824	12.4	-1.1	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.33	4319.860	9392.645	5.749	14.7	17.8	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.34	3499.391	10144.617	4.312	11.0	-11.6	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.33	3318.419	10475.976	3.960	10.1	-18.9	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.33	3635.765	10176.034	4.466	11.4	-8.5	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.33	4818.760	11733.247	5.134	13.1	5.2	NO		NO	bb

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Compound name: 13C2-PFUdA
Response Factor: 0.957991
RRF SD: 0.119129, Relative SD: 12.4353
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.35	7775.131	7146.186	13.600	14.2	13.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.35	5841.358	6976.103	10.467	10.9	-12.6	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.35	6821.692	8730.687	9.767	10.2	-18.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.36	7907.348	8502.860	11.625	12.1	-2.9	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.35	9228.782	9392.645	12.282	12.8	2.6	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.35	10040.164	10144.617	12.371	12.9	3.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.35	9539.813	10475.976	11.383	11.9	-4.9	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.35	9474.396	10176.034	11.638	12.1	-2.8	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.35	13743.283	11733.247	14.641	15.3	22.3	NO		NO	bb

Compound name: 13C2-PFDoA
Response Factor: 0.599156
RRF SD: 0.0521603, Relative SD: 8.70563
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.63	4189.487	7146.186	7.328	12.2	-2.2	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.64	3969.021	6976.103	7.112	11.9	-5.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.63	4869.713	8730.687	6.972	11.6	-6.9	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.64	4575.956	8502.860	6.727	11.2	-10.2	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.63	6385.208	9392.645	8.498	14.2	13.5	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.64	5791.910	10144.617	7.137	11.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.63	7164.268	10475.976	8.548	14.3	14.1	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.63	5943.687	10176.034	7.301	12.2	-2.5	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.64	7304.709	11733.247	7.782	13.0	3.9	NO		NO	bb

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Compound name: d3-N-MeFOSA
Response Factor: 0.124177
RRF SD: 0.00905884, Relative SD: 7.29512
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	150.000	5.73	10743.257	7146.186	18.792	151.3	0.9	NO		NO	bb
2	2	180110M3_3	Standard	150.000	5.73	9835.262	6976.103	17.623	141.9	-5.4	NO		NO	bb
3	3	180110M3_4	Standard	150.000	5.73	12097.896	8730.687	17.321	139.5	-7.0	NO		NO	bb
4	4	180110M3_5	Standard	150.000	5.73	12431.512	8502.860	18.275	147.2	-1.9	NO		NO	bb
5	5	180110M3_6	Standard	150.000	5.73	16115.154	9392.645	21.447	172.7	15.1	NO		NO	bb
6	6	180110M3_7	Standard	150.000	5.73	14402.728	10144.617	17.747	142.9	-4.7	NO		NO	bb
7	7	180110M3_8	Standard	150.000	5.73	15466.819	10475.976	18.455	148.6	-0.9	NO		NO	bb
8	8	180110M3_9	Standard	150.000	5.73	14480.274	10176.034	17.787	143.2	-4.5	NO		NO	bb
9	9	180110M3_10	Standard	150.000	5.73	18952.975	11733.247	20.192	162.6	8.4	NO		NO	bb

Compound name: 13C2-PFTeDA
Response Factor: 0.281715
RRF SD: 0.0301772, Relative SD: 10.712
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	6.10	1955.129	7146.186	3.420	12.1	-2.9	NO		NO	bb
2	2	180110M3_3	Standard	12.500	6.10	1829.135	6976.103	3.278	11.6	-6.9	NO		NO	bb
3	3	180110M3_4	Standard	12.500	6.10	2327.717	8730.687	3.333	11.8	-5.4	NO		NO	bb
4	4	180110M3_5	Standard	12.500	6.10	2174.831	8502.860	3.197	11.3	-9.2	NO		NO	bb
5	5	180110M3_6	Standard	12.500	6.10	3158.222	9392.645	4.203	14.9	19.4	NO		NO	bb
6	6	180110M3_7	Standard	12.500	6.10	2821.178	10144.617	3.476	12.3	-1.3	NO		NO	bb
7	7	180110M3_8	Standard	12.500	6.10	2885.126	10475.976	3.443	12.2	-2.2	NO		NO	bb
8	8	180110M3_9	Standard	12.500	6.10	2620.882	10176.034	3.219	11.4	-8.6	NO		NO	bb
9	9	180110M3_10	Standard	12.500	6.10	3871.496	11733.247	4.124	14.6	17.1	NO		NO	bb

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Compound name: d5-N-ETFOSA
Response Factor: 0.184306
RRF SD: 0.0154361, Relative SD: 8.37525
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	150.000	6.12	16238.895	7146.186	28.405	154.1	2.7	NO		NO	bb
2	2	180110M3_3	Standard	150.000	6.12	15620.249	6976.103	27.989	151.9	1.2	NO		NO	bb
3	3	180110M3_4	Standard	150.000	6.12	17774.992	8730.687	25.449	138.1	-7.9	NO		NO	bb
4	4	180110M3_5	Standard	150.000	6.12	18942.303	8502.860	27.847	151.1	0.7	NO		NO	bb
5	5	180110M3_6	Standard	150.000	6.12	24990.723	9392.645	33.258	180.5	20.3	NO		NO	bb
6	6	180110M3_7	Standard	150.000	6.12	21510.641	10144.617	26.505	143.8	-4.1	NO		NO	bb
7	7	180110M3_8	Standard	150.000	6.11	22103.201	10475.976	26.374	143.1	-4.6	NO		NO	bb
8	8	180110M3_9	Standard	150.000	6.12	21279.357	10176.034	26.139	141.8	-5.5	NO		NO	bb
9	9	180110M3_10	Standard	150.000	6.12	25200.256	11733.247	26.847	145.7	-2.9	NO		NO	bb

Compound name: 13C2-PFHxDA
Response Factor: 0.539833
RRF SD: 0.0687366, Relative SD: 12.7329
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	5.000	6.43	1428.470	7146.186	2.499	4.6	-7.4	NO		NO	bb
2	2	180110M3_3	Standard	5.000	6.43	1602.730	6976.103	2.872	5.3	6.4	NO		NO	bb
3	3	180110M3_4	Standard	5.000	6.43	1624.887	8730.687	2.326	4.3	-13.8	NO		NO	bb
4	4	180110M3_5	Standard	5.000	6.43	1502.644	8502.860	2.209	4.1	-18.2	NO		NO	bb
5	5	180110M3_6	Standard	5.000	6.43	2226.881	9392.645	2.964	5.5	9.8	NO		NO	bb
6	6	180110M3_7	Standard	5.000	6.43	2045.703	10144.617	2.521	4.7	-6.6	NO		NO	bb
7	7	180110M3_8	Standard	5.000	6.43	2213.677	10475.976	2.641	4.9	-2.1	NO		NO	bb
8	8	180110M3_9	Standard	5.000	6.43	2470.003	10176.034	3.034	5.6	12.4	NO		NO	bb
9	9	180110M3_10	Standard	5.000	6.43	3028.907	11733.247	3.227	6.0	19.5	NO		NO	bb

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Compound name: d7-N-MeFOSE
Response Factor: 0.182261
RRF SD: 0.0217695, Relative SD: 11.9442
Response type: Internal Std (Ref 61), 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 180110M3_2	Standard	150.000	6.24	18600.686	7146.186	32.536	178.5	19.0	NO		NO	bb
2	2 180110M3_3	Standard	150.000	6.24	14371.076	6976.103	25.751	141.3	-5.8	NO		NO	bb
3	3 180110M3_4	Standard	150.000	6.24	17457.375	8730.687	24.994	137.1	-8.6	NO		NO	bb
4	4 180110M3_5	Standard	150.000	6.24	18372.555	8502.860	27.009	148.2	-1.2	NO		NO	bb
5	5 180110M3_6	Standard	150.000	6.24	23253.285	9392.645	30.946	169.8	13.2	NO		NO	bb
6	6 180110M3_7	Standard	150.000	6.24	18111.193	10144.617	22.316	122.4	-18.4	NO		NO	bb
7	7 180110M3_8	Standard	150.000	6.24	23087.781	10475.976	27.548	151.1	0.8	NO		NO	bb
8	8 180110M3_9	Standard	150.000	6.24	20386.021	10176.034	25.042	137.4	-8.4	NO		NO	bb
9	9 180110M3_10	Standard	150.000	6.24	28074.316	11733.247	29.909	164.1	9.4	NO		NO	bb

Compound name: d9-N-EtFOSE
Response Factor: 0.172538
RRF SD: 0.024293, Relative SD: 14.0798
Response type: Internal Std (Ref 61), 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 180110M3_2	Standard	150.000	6.40	16885.416	7146.186	29.536	171.2	14.1	NO		NO	bb
2	2 180110M3_3	Standard	150.000	6.40	13110.849	6976.103	23.492	136.2	-9.2	NO		NO	bb
3	3 180110M3_4	Standard	150.000	6.39	16446.465	8730.687	23.547	136.5	-9.0	NO		NO	bb
4	4 180110M3_5	Standard	150.000	6.39	16689.393	8502.860	24.535	142.2	-5.2	NO		NO	bb
5	5 180110M3_6	Standard	150.000	6.40	22391.037	9392.645	29.799	172.7	15.1	NO		NO	bb
6	6 180110M3_7	Standard	150.000	6.40	19962.660	10144.617	24.598	142.6	-5.0	NO		NO	bb
7	7 180110M3_8	Standard	150.000	6.39	22425.359	10475.976	26.758	155.1	3.4	NO		NO	bb
8	8 180110M3_9	Standard	150.000	6.39	16106.103	10176.034	19.784	114.7	-23.6	NO		NO	bb
9	9 180110M3_10	Standard	150.000	6.39	28984.094	11733.247	30.878	179.0	19.3	NO		NO	bb

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Compound name: 13C4-PFBA
Response Factor: 1
RRF SD: 3.92523e-017, Relative SD: 3.92523e-015
Response type: Internal Std (Ref 54), 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	180110M3_2	Standard	12.500	1.33	7508.845	7508.845	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	1.34	7057.356	7057.356	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	1.33	8001.987	8001.987	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	1.33	8507.537	8507.537	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	1.33	11925.119	11925.119	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	1.34	10276.120	10276.120	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	1.33	10906.643	10906.643	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	1.34	9827.420	9827.420	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	1.34	14467.951	14467.951	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C5-PFHxA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	3.08	8819.409	8819.409	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.09	8657.168	8657.168	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.08	10153.727	10153.727	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.08	10362.211	10362.211	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.08	14579.612	14579.612	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.09	12281.571	12281.571	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.09	12975.809	12975.809	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.08	11578.389	11578.389	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.09	16242.380	16242.380	12.500	12.5	0.0	NO		NO	bb

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Compound name: 13C3-PFHxS
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 56), 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	180110M3_2	Standard	12.500	3.85	2278.692	2278.692	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	3.86	2027.751	2027.751	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	3.85	2588.349	2588.349	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	3.86	2638.712	2638.712	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	3.85	3243.043	3243.043	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	3.86	2945.932	2945.932	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	3.85	3128.825	3128.825	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	3.85	3222.897	3222.897	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	3.85	3518.808	3518.808	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C8-PFOA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 57), 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	180110M3_2	Standard	12.500	4.22	7716.699	7716.699	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.22	8022.848	8022.848	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.22	9839.251	9839.251	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.22	9158.829	9158.829	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.22	13168.367	13168.367	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.23	12177.514	12177.514	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.23	11624.087	11624.087	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.22	9690.272	9690.272	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.23	14028.530	14028.530	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: 13C9-PFNA
Response Factor: 1
RRF SD: 8.77708e-017, Relative SD: 8.77708e-015
Response type: Internal Std (Ref 58), 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	180110M3_2	Standard	12.500	4.65	8419.302	8419.302	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.66	7958.151	7958.151	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.65	8439.292	8439.292	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.66	9727.010	9727.010	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.66	13224.706	13224.706	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.66	11503.174	11503.174	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.66	11865.055	11865.055	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.66	11583.457	11583.457	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.66	14424.272	14424.272	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C4-PFOS
Response Factor: 1
RRF SD: 5.55112e-017, Relative SD: 5.55112e-015
Response type: Internal Std (Ref 59), 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	180110M3_2	Standard	12.500	4.74	2105.094	2105.094	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	4.74	2275.136	2275.136	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	4.74	2164.789	2164.789	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	4.74	1933.818	1933.818	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	4.74	3714.762	3714.762	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	4.74	2811.424	2811.424	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	4.74	3528.814	3528.814	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	4.74	3149.809	3149.809	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	4.74	3620.976	3620.976	12.500	12.5	0.0	NO		NO	bb

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Compound name: 13C6-PFDA
Response Factor: 1
RRF SD: 7.85046e-017, Relative SD: 7.85046e-015
Response type: Internal Std (Ref 60), 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	180110M3_2	Standard	12.500	5.03	6709.350	6709.350	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.03	6275.866	6275.866	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	5735.000	5735.000	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7379.163	7379.163	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8404.810	8404.810	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	6873.380	6873.380	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7852.201	7852.201	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8147.183	8147.183	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	9778.104	9778.104	12.500	12.5	0.0	NO		NO	bb

Compound name: 13C7-PFUdA
Response Factor: 1
RRF SD: 0, Relative SD: 0
Response type: Internal Std (Ref 61), 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	180110M3_2	Standard	12.500	5.35	7146.186	7146.186	12.500	12.5	0.0	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.35	6976.103	6976.103	12.500	12.5	0.0	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.35	8730.687	8730.687	12.500	12.5	0.0	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.36	8502.860	8502.860	12.500	12.5	0.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.35	9392.645	9392.645	12.500	12.5	0.0	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.36	10144.617	10144.617	12.500	12.5	0.0	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.35	10475.976	10475.976	12.500	12.5	0.0	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.35	10176.034	10176.034	12.500	12.5	0.0	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.35	11733.247	11733.247	12.500	12.5	0.0	NO		NO	bb

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

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Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818.mdb 09 Jan 2018 10:39:49
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD
1	1	PFBA	0.9991	NO	
2	2	PFPeA	0.9994	NO	
3	3	PFBS	0.9996	NO	
4	4	PFHxA	0.9981	NO	
5	5	PFHpA	0.9997	NO	
6	6	L-PFHxS	0.9982	NO	
7	8	6:2 FTS	0.9952	NO	
8	9	L-PFOA	0.9985	NO	
9	11	PFHpS	0.9994	NO	
10	12	PFNA	0.9981	NO	
11	13	PFOSA	0.9987	NO	
12	14	L-PFOS	0.9974	NO	
13	16	PFDA	0.9999	NO	
14	17	8:2 FTS	0.9977	NO	
15	18	N-MeFOSAA	0.9914	NO	
16	19	N-EtFOSAA	0.9991	NO	
17	20	PFUdA	0.9979	NO	
18	21	PFDS	0.9973	NO	
19	22	PFDoA	0.9987	NO	
20	23	N-MeFOSA	0.9991	NO	
21	24	PFTrDA	0.9995	NO	
22	25	PFTeDA	0.9995	NO	
23	26	N-EtFOSA	0.9999	NO	
24	27	PFHxDA	0.9977	NO	
25	28	PFODA	0.9980	NO	
26	29	N-MeFOSE	0.9980	NO	
27	30	N-EtFOSE	0.9991	NO	
28	31	13C3-PFBA		NO	4.586
29	32	13C3-PFPeA		NO	3.889
30	33	13C3-PFBS		NO	6.327
31	34	13C2-PFHxA		NO	4.819

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
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Name: 180110M3_2, Date: 11-Jan-2018, Time: 09:34:02, ID: ST180110M3-1 PFC CS-2 17L2606, Description: PFC CS-2 17L2606

	#	Name	CoD	CoD Flag	%RSD	
32	35	13C4-PFHpA		NO	3.651	
33	36	18O2-PFHxS		NO	7.498	
34	37	13C2-6:2 FTS		NO	37.569	not used
35	38	13C2-PFOA		NO	7.432	
36	39	13C5-PFNA		NO	10.320	
37	40	13C8-PFOSA		NO	10.148	
38	41	13C8-PFOS		NO	14.307	
39	42	13C2-PFDA		NO	12.820	
40	43	13C2-8:2 FTS		NO	41.972	Not used
41	44	d3-N-MeFOSAA		NO	11.659	
42	45	d5-N-EtFOSAA		NO	12.065	
43	46	13C2-PFUdA		NO	12.435	
44	47	13C2-PFDoA		NO	8.706	
45	48	d3-N-MeFOSA		NO	7.295	
46	49	13C2-PFTeDA		NO	10.712	
47	50	d5-N-ETFOSA		NO	8.375	
48	51	13C2-PFHxDA		NO	12.733	
49	52	d7-N-MeFOSE		NO	11.944	
50	53	d9-N-EtFOSE		NO	14.080	
51	54	13C4-PFBA		NO	0.000	
52	55	13C5-PFHxA		NO	0.000	
53	56	13C3-PFHxS		NO	0.000	
54	57	13C8-PFOA		NO	0.000	
55	58	13C9-PFNA		NO	0.000	
56	59	13C4-PFOS		NO	0.000	
57	60	13C6-PFDA		NO	0.000	
58	61	13C7-PFUdA		NO	0.000	

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Dataset: Untitled

Last Altered: Thursday, January 11, 2018 15:27:52 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:28:19 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:26:25
Calibration: 11 Jan 2018 15:27:52

Compound name: PFBA

	Name	ID	Acq.Date	Acq.Time
1	180110M3_1	IPA	11-Jan-18	09:22:51
2	180110M3_2	ST180110M3-1 PFC CS-2 17L2606	11-Jan-18	09:34:02
3	180110M3_3	ST180110M3-2 PFC CS-1 17L2607	11-Jan-18	09:45:13
4	180110M3_4	ST180110M3-3 PFC CS0 17L2608	11-Jan-18	09:56:23
5	180110M3_5	ST180110M3-4 PFC CS1 17L2609	11-Jan-18	10:07:34
6	180110M3_6	ST180110M3-5 PFC CS2 17L2610	11-Jan-18	10:18:46
7	180110M3_7	ST180110M3-6 PFC CS3 17L2611	11-Jan-18	10:29:56
8	180110M3_8	ST180110M3-7 PFC CS4 17L2612	11-Jan-18	10:41:06
9	180110M3_9	ST180110M3-8 PFC CS5 17L2613	11-Jan-18	10:52:18
10	180110M3_10	ST180110M3-9 PFC CS6 17L2710	11-Jan-18	11:03:28
11	180110M3_11	IPA	11-Jan-18	11:14:39
12	180110M3_12	ICV180110M3-1 PFC ICV 17L1201	11-Jan-18	11:25:49

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:33:41 Pacific Standard Time

(A) Not present in SS

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 11:46:18
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

1/11/18

Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

✓ JA 01/11/2018

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
1	1	PFBA	213.0 > 168.8	8.27e3	8.56e3		1.38	1.34	12.1	8.24	82.4	NO
2	2	PFPeA	263.1 > 218.9	8.08e3	9.73e3		2.37	2.32	10.4	8.26	82.6	NO
3	3	PFBS	299.0 > 79.7	1.64e3	1.22e3		2.66	2.60	16.8	7.87	78.7	NO
4	4	PFHxA	313.2 > 268.9	9.53e3	2.94e3		3.15	3.09	16.2	8.37	83.7	NO
5	5	PFHpA	363.0 > 318.9	8.72e3	8.24e3		3.78	3.71	13.2	8.07	80.7	NO
6	6	L-PFHxS	398.9 > 79.6	1.31e3	9.86e2		3.94	3.86	16.6	7.93	79.3	NO
7	8	6:2 FTS	427.1 > 407	1.82e3	9.86e2		4.25	4.17	23.0	7.61	76.1	NO
8	9	L-PFOA	413 > 368.7	9.56e3	1.21e4		4.31	4.23	9.91	7.72	77.2	NO
9	11	PFHpS	449 > 80.0	2.06e3	1.21e4		4.42	4.34	2.14	7.38	73.8	NO
10	12	PFNA	463.0 > 418.8	1.08e4	9.71e3		4.81	4.66	13.9	9.82	98.2	NO
11	13	PFOSA	498.1 > 77.8	2.37e3	2.29e3		4.87	4.72	13.0	9.88	98.8	NO
12	14	L-PFOS	499 > 79.9	2.02e3	2.64e3		4.89	4.74	9.54	8.09	80.9	NO
13	16	PFDA	513 > 468.8	8.49e3	9.21e3		5.18	5.03	11.5	7.17	71.7	NO
14	17	8:2 FTS	527 > 506.9	1.74e3	9.21e3		5.15	5.00	2.36	7.55	75.5	NO
15	18	N-MeFOSAA	570.1 > 419	5.07e3	4.15e3		5.32	5.18	15.3	7.67	76.7	NO
16	19	N-EtFOSAA	584.2 > 419	3.88e3	4.38e3		5.48	5.34	11.0	7.26	72.6	NO
17	20	PFUdA	563.0 > 518.9	9.19e3	9.66e3		5.50	5.35	11.9	9.02	90.2	NO
18	21	PFDS	598.8 > 80	2.11e3	9.66e3		5.54	5.40	2.73	7.36	73.6	NO
19	22	PFDoA	612.9 > 569.0	1.00e4	6.35e3		5.77	5.64	19.7	9.27	92.7	NO
20	23	N-MeFOSA	512.1 > 168.9		1.48e4		5.80				(A)	NO
21	24	PFTrDA	662.9 > 618.9	9.41e3	6.35e3		6.00	5.88	18.5	7.74	77.4	NO
22	25	PFTeDA	712.9 > 668.8	5.49e3	2.33e3		6.22	6.10	29.5	9.98	99.8	NO
23	26	N-EtFOSA	526.1 > 168.9		2.26e4		6.17				(A)	NO
24	27	PFHxDA	813.1 > 768.6		1.99e3		6.53					NO
25	28	PFODA	913.1 > 868.8		1.99e3		6.74					NO
26	29	N-MeFOSE	616.1 > 58.9		2.11e4		6.27					NO
27	30	N-EtFOSE	630.1 > 58.9	7.11e1	1.70e4		6.43	6.40	0.629	0.596	(A) ~~1.2~~	YES
28	31	13C3-PFBA	216.1 > 171.8	8.56e3	9.86e3	0.764	1.38	1.34	10.8	14.2	113.7	NO
29	32	13C3-PFPeA	266. > 221.8	9.73e3	1.10e4	0.730	2.37	2.32	11.0	15.1	120.8	NO
30	33	13C3-PFBS	302. > 98.8	1.22e3	1.10e4	0.095	2.77	2.59	1.38	14.5	116.0	NO
31	34	13C2-PFHxA	315 > 269.8	2.94e3	1.10e4	0.597	3.15	3.09	3.33	5.58	111.7	NO

Dataset: U:\Q4.PRO\results\180110M3\180110M3_12.qld

Last Altered: Thursday, January 11, 2018 14:32:59 Pacific Standard Time
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Name: 180110M3_12, Date: 11-Jan-2018, Time: 11:25:49, ID: ICV180110M3-1 PFC ICV 17L1201, Description: PFC ICV 17L1201

	#	Name	Trace	Area	IS Area	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec	Recovery Out
32	35	13C4-PFHpA	367.2 > 321.8	8.24e3	1.10e4	0.604	3.78	3.71	9.33	15.4	123.6	NO
33	36	18O2-PFHxS	403.0 > 102.6	9.86e2	2.90e3	0.293	3.94	3.86	4.25	14.5	116.0	NO
34	37	13C2-6:2 FTS	429.1 > 408.9	2.17e3	1.06e4	0.215	4.25	4.18	2.55	11.9	94.8	NO
35	38	13C2-PFOA	414.9 > 369.7	1.21e4	1.06e4	0.916	4.31	4.23	14.1	15.5	123.6	NO
36	39	13C5-PFNA	468.2 > 422.9	9.71e3	9.76e3	0.817	4.81	4.66	12.4	15.2	121.7	NO
37	40	13C8-PFOSA	506.1 > 77.7	2.29e3	9.91e3	0.223	4.87	4.72	2.89	12.9	103.6	NO
38	41	13C8-PFOS	507.0 > 79.9	2.64e3	2.83e3	0.875	4.89	4.74	11.7	13.3	106.7	NO
39	42	13C2-PFDA	515.1 > 469.9	9.21e3	7.32e3	1.105	5.18	5.04	15.7	14.2	113.8	NO
40	43	13C2-8:2 FTS	529.1 > 508.7	1.21e3	1.10e4	0.101	5.15	5.00	1.37	13.6	108.5	NO
41	44	d3-N-MeFOSAA	573.3 > 419	4.15e3	9.91e3	0.345	5.32	5.18	5.23	15.2	121.3	NO
42	45	d5-N-EtFOSAA	589.3 > 419	4.38e3	9.91e3	0.390	5.47	5.34	5.53	14.2	113.4	NO
43	46	13C2-PFUdA	565 > 519.8	9.66e3	9.91e3	0.958	5.49	5.35	12.2	12.7	101.8	NO
44	47	13C2-PFDoA	615.0 > 569.7	6.35e3	9.91e3	0.599	5.77	5.63	8.01	13.4	107.0	NO
45	48	d3-N-MeFOSA	515.2 > 168.9	1.48e4	9.91e3	0.124	5.83	5.73	18.6	150	100.1	NO
46	49	13C2-PFTeDA	714.8 > 669.6	2.33e3	9.91e3	0.282	6.22	6.10	2.94	10.4	83.5	NO
47	50	d5-N-ETFOSA	531.1 > 168.9	2.26e4	9.91e3	0.184	6.18	6.12	28.5	155	103.2	NO
48	51	13C2-PFHxDA	815 > 769.7	1.99e3	9.91e3	0.540	6.53	6.43	2.52	4.66	93.2	NO
49	52	d7-N-MeFOSE	623.1 > 58.9	2.11e4	9.91e3	0.182	6.27	6.24	26.6	146	97.2	NO
50	53	d9-N-EtFOSE	639.2 > 58.8	1.70e4	9.91e3	0.173	6.42	6.39	21.4	124	82.8	NO
51	54	13C4-PFBA	217. > 171.8	9.86e3	9.86e3	1.000	1.38	1.33	12.5	12.5	100.0	NO
52	55	13C5-PFHxA	318 > 272.9	1.10e4	1.10e4	1.000	3.15	3.09	12.5	12.5	100.0	NO
53	56	13C3-PFHxS	401.9 > 79.9	2.90e3	2.90e3	1.000	4.02	3.86	12.5	12.5	100.0	NO
54	57	13C8-PFOA	421.3 > 376	1.06e4	1.06e4	1.000	4.38	4.22	12.5	12.5	100.0	NO
55	58	13C9-PFNA	472.2 > 426.9	9.76e3	9.76e3	1.000	4.81	4.66	12.5	12.5	100.0	NO
56	59	13C4-PFOS	503 > 79.9	2.83e3	2.83e3	1.000	4.89	4.74	12.5	12.5	100.0	NO
57	60	13C6-PFDA	519.1 > 473.7	7.32e3	7.32e3	1.000	5.18	5.03	12.5	12.5	100.0	NO
58	61	13C7-PFUdA	570.1 > 524.8	9.91e3	9.91e3	1.000	5.49	5.35	12.5	12.5	100.0	NO

Calverton
SDG 1701832

Sample Identification	SA-DUP05-20171201	
Compound	PERFLUORODECANOIC ACID (PFDA)	
Sample volume (L)		0.237
Internal standard concentration		12.5
Concentration using quadratic/calibration curve		
	Area*(IS concentration/IS area)	17.50789
	8880*(12.5/6340)	
Curve		
	Calibration curve (y)=0.00546964*x^2+1.60165*x-0.235203	
	0.00546964*x^2+1.60165*x-0.235203=17.50789	
	0.00546964*x^2+1.60165*x-17.743093=0	
a=	0.00546964	
b=	1.60165	
c=	-17.743093	
D=1.60165^2-4*+0.00546964*-17.743093	2.953476	
SQRT D	1.718568022	
x=-(1.60165+1.718568022)/(2*-0.00546964)	10.6879084	
PFDA result Conc = x/wt		45.09666
result reported		45.1

Vista Analytical Laboratory

Sample ID: SA-DUP05-20171201

Modified EPA Method 537

Client Data

Name: Tetra Tech
Project: 112G08005-WE05
SDG: WE05
Matrix: Surface Water
Date Collected: 01-Dec-17 09:00

Laboratory Data

Lab Sample: 1701832-08
Date Received: 02-Dec-17 09:37
Column: BEH C18

Analyte	Conc. (ng/L)	DL	LOD	LOQ	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
PFBS	1.17	0.943	2.64	4.21	J	B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHxA	20.8	1.15	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHpA	36.6	0.311	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFHxS	13.3	0.499	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFOA	68.9	0.343	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFOS	8.49	0.425	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFNA	3010	4.27	26.4	42.1	D	B7L0088	14-Dec-17	0.237 L	12-Jan-18 09:22	10
PFDA	45.1	0.785	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
MeFOSAA	ND	0.869	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFUnA	112	0.553	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
EtFOSAA	ND	0.722	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFDoA	ND	0.417	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFTrDA	ND	0.260	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
PFTeDA	ND	0.398	2.64	4.21		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Batch	Extracted	Samp Size	Analyzed	Dilution
13C3-PFBS	IS	150	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFHxA	IS	125	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C4-PFHpA	IS	116	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
18O2-PFHxS	IS	139	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFOA	IS	118	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C8-PFOS	IS	111	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C5-PFNA	IS	94.9	50 - 150	D	B7L0088	14-Dec-17	0.237 L	12-Jan-18 09:22	10
13C2-PFDA	IS	106	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
d3-MeFOSAA	IS	96.0	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFUnA	IS	110	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
d5-EtFOSAA	IS	91.3	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFDoA	IS	119	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	1
13C2-PFTeDA	IS	62.7	50 - 150		B7L0088	14-Dec-17	0.237 L	11-Jan-18 13:17	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.

Vista Analytical Laboratory

Sample Calculation - Page 3

Rev'd: MM 1/12/18

Dataset: U:\Q4.PRO\results\180110M3\180110M3_22.qld

Last Altered: Thursday, January 11, 2018 15:31:34 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:32:11 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:26:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	3	PFBS	299.0 > 79.7	6.61e1	1.38e3	0.237		2.66	2.58	0.601	1.1746	
2	4	PFHxA	313.2 > 268.9	5.48e3	2.87e3	0.237		3.15	3.08	9.55	20.8100	
3	5	PFHpA	363.0 > 318.9	7.68e3	6.74e3	0.237		3.78	3.70	14.2	36.5859	
4	6	L-PFHxS	398.9 > 79.6	4.72e2	9.08e2	0.237		3.94	3.85	6.50	13.3351	
5	9	L-PFOA	413 > 368.7	1.59e4	9.57e3	0.237		4.31	4.22	20.8	68.8722	
6	12	PFNA	463.0 > 418.8	6.00e5	6.93e3	0.237		4.81	4.66	1080	2504.7647	E
7	14	L-PFOS	499 > 79.9	5.32e2	2.77e3	0.237		4.75	4.74	2.40	8.4888	
8	16	PFDA	513 > 468.8	8.88e3	6.34e3	0.237		5.18	5.04	17.5	45.0595	
9	18	N-MeFOSAA	570.1 > 419		2.82e3	0.237		5.32				
10	19	N-EtFOSAA	584.2 > 419		3.03e3	0.237		5.48				
11	20	PFUdA	563.0 > 518.9	2.51e4	8.95e3	0.237		5.50	5.36	35.1	112.0025	
12	22	PFDoA	612.9 > 569.0		6.05e3	0.237		5.77				

AC 1/11/2018

Dataset: U:\Q4.PRO\results\180110M3\180110M3_22.qld

Last Altered: Thursday, January 11, 2018 15:31:34 Pacific Standard Time
Printed: Thursday, January 11, 2018 15:33:07 Pacific Standard Time

Method: U:\Q4.PRO\MethDB\PFAS_FULL_80C_010818C.mdb 11 Jan 2018 15:26:25
Calibration: U:\Q4.PRO\CurveDB\C18_VAL-PFAS_Q4_01-10-18-FULL-M3.cdb 11 Jan 2018 14:26:30

Name: 180110M3_22, Date: 11-Jan-2018, Time: 13:17:36, ID: 1701832-08 SA-DUP05-20171201 0.23726, Description: SA-DUP05-20171201

	#	Name	Trace	Area	IS Area	Wt./Vol.	RRF	Pred.RT	RT	y Axis Resp.	Conc.	%Rec
1	24	PFTrDA	662.9 > 618.9		6.05e3	0.237		6.00				
2	25	PFTeDA	712.9 > 668.8		1.50e3	0.237		6.22				
3	33	13C3-PFBS	302. > 98.8	1.38e3	9.63e3	0.237	0.095	2.77	2.58	1.79	78.9076	149.8
4	34	13C2-PFHxA	315 > 269.8	2.87e3	9.63e3	0.237	0.597	3.15	3.08	3.73	26.3089	124.9
5	35	13C4-PFHpA	367.2 > 321.8	6.74e3	9.63e3	0.237	0.604	3.78	3.70	8.75	60.9890	115.8
6	36	18O2-PFHxS	403.0 > 102.6	9.08e2	2.23e3	0.237	0.293	3.94	3.85	5.09	73.2004	139.0
7	37	13C2-6:2 FTS	429.1 > 408.9	2.28e3	8.86e3	0.237	0.215	4.25	4.16	3.21	62.8742	119.4
8	38	13C2-PFOA	414.9 > 369.7	9.57e3	8.86e3	0.237	0.916	4.31	4.22	13.5	62.1402	118.0
9	39	13C5-PFNA	468.2 > 422.9	6.93e3	6.75e3	0.237	0.817	4.81	4.66	12.8	66.1982	125.7
10	40	13C8-PFOSA	506.1 > 77.7	1.60e3	8.51e3	0.237	0.223	4.87	4.71	2.36	44.5183	84.5
11	41	13C8-PFOS	507.0 > 79.9	2.77e3	2.86e3	0.237	0.875	4.89	4.74	12.1	58.3781	110.8
12	42	13C2-PFDA	515.1 > 469.9	6.34e3	5.39e3	0.237	1.105	5.18	5.04	14.7	56.0114	106.3
13	43	13C2-8:2 FTS	529.1 > 508.7	1.03e3	9.63e3	0.237	0.101	5.15	5.00	1.33	55.6629	105.7
14	44	d3-N-MeFOSAA	573.3 > 419	2.82e3	8.51e3	0.237	0.345	5.32	5.18	4.14	50.5946	96.0
15	45	d5-N-EtFOSAA	589.3 > 419	3.03e3	8.51e3	0.237	0.390	5.47	5.34	4.46	48.1021	91.3
16	46	13C2-PFUdA	565 > 519.8	8.95e3	8.51e3	0.237	0.958	5.49	5.36	13.1	57.8156	109.8
17	47	13C2-PFDoA	615.0 > 569.7	6.05e3	8.51e3	0.237	0.599	5.77	5.64	8.88	62.4766	118.6
18	49	13C2-PFTeDA	714.8 > 669.6	1.50e3	8.51e3	0.237	0.282	6.22	6.11	2.21	33.0467	62.7
19	55	13C5-PFHxA	318 > 272.9	9.63e3	9.63e3	0.237	1.000	3.15	3.08	12.5	52.6759	100.0
20	56	13C3-PFHxS	401.9 > 79.9	2.23e3	2.23e3	0.237	1.000	4.02	3.85	12.5	52.6759	100.0
21	57	13C8-PFOA	421.3 > 376	8.86e3	8.86e3	0.237	1.000	4.38	4.22	12.5	52.6759	100.0
22	58	13C9-PFNA	472.2 > 426.9	6.75e3	6.75e3	0.237	1.000	4.81	4.66	12.5	52.6759	100.0
23	59	13C4-PFOS	503 > 79.9	2.86e3	2.86e3	0.237	1.000	4.89	4.74	12.5	52.6759	100.0
24	60	13C6-PFDA	519.1 > 473.7	5.39e3	5.39e3	0.237	1.000	5.18	5.03	12.5	52.6759	100.0
25	61	13C7-PFUdA	570.1 > 524.8	8.51e3	8.51e3	0.237	1.000	5.49	5.36	12.5	52.6759	100.0
26	62	Total PFHxS	398.9 > 79.6	4.72e2	9.08e2	0.237		4.14		6.50	13.3351	
27	63	Total PFOA	413 > 368.7	1.59e4	9.57e3	0.237		4.51		20.8	68.8722	
28	64	Total PFOS	499 > 79.9	5.32e2	2.77e3	0.237		4.75		2.40	8.4888	
29	65	Total N-MeFOSAA	570.1 > 419	0.00e0	2.82e3	0.237		5.45		0.000		
30	66	Total N-EtFOSAA	584.2 > 419	0.00e0	3.03e3	0.237		5.61		0.000		

AC 1/11/2018

Batch: B7L0088

Sample Calculation - Page 5

Matrix: Aqueous

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
1701832-01	0.24901	NA	NA	1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-02	0.25912			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-03	0.25163			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-04	0.25479			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-05	0.26063			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-06	0.24606			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-07	0.22152			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-08	0.23726			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-09	0.25163			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-10	0.24837			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-11	0.26032			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-12	0.25842			1000	14-Dec-17 09:15	HAC			Surface Water	537M PFAS DOD (LOQ as
1701832-13	0.25939			1000	14-Dec-17 09:15	HAC			QC Water	537M PFAS DOD (LOQ as
1701841-06	0.11813			1000	14-Dec-17 09:15	HAC			Aqueous	537M PFAS DOD (LOQ as
1701841-07	0.12048			1000	14-Dec-17 09:15	HAC			Aqueous	537M PFAS DOD (LOQ as
B7L0088-BLK1	0.125			1000	14-Dec-17 09:15	HAC				QC
B7L0088-BS1	0.125			1000	14-Dec-17 09:15	HAC				QC
B7L0088-MS1	0.25868			1000	14-Dec-17 09:15	HAC	17J1820	10		QC
B7L0088-MSD1	0.2594			1000	14-Dec-17 09:15	HAC	17J1820	10		QC

HN 12/18/17

Printed: 12/18/2017 1:08:35PM

Vista Analytical Laboratory

Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: PFDA
Coefficient of Determination: R^2 = 0.999932
Calibration curve: 0.00546964 * x^2 + 1.60165 * x + -0.235203
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Exclude, 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	180110M3_2	Standard	0.250	5.03	149.694	6621.417	0.283	0.3	29.2	NO	1.000	NO	bbX
2	2	180110M3_3	Standard	0.500	5.03	326.927	7011.031	0.583	0.5	2.0	NO	1.000	NO	bb
3	3	180110M3_4	Standard	1.000	5.03	882.103	7865.675	1.402	1.0	1.9	NO	1.000	NO	bb
4	4	180110M3_5	Standard	2.000	5.03	1805.777	7909.186	2.854	1.9	-4.2	NO	1.000	NO	bb
5	5	180110M3_6	Standard	5.000	5.03	5656.708	8990.281	7.865	5.0	-0.5	NO	1.000	NO	bb
6	6	180110M3_7	Standard	10.000	5.03	11071.540	8394.882	16.486	10.1	0.9	NO	1.000	NO	bb
7	7	180110M3_8	Standard	50.000	5.03	53691.906	7178.136	93.499	50.0	-0.0	NO	1.000	NO	bb
8	8	180110M3_9	Standard	100.000	5.03	106324.383	8067.630	164.739	80.7	-19.3	NO	1.000	NO	bbX
9	9	180110M3_10	Standard	250.000	5.03	334810.344	11784.516	355.138	147.5	-41.0	NO	1.000	NO	bbX

Compound name: 8:2 FTS
Coefficient of Determination: R^2 = 0.997732
Calibration curve: 0.00123859 * x^2 + 0.307368 * x + -0.0309813
Response type: Internal Std (Ref 42), Area * (IS Conc. / IS Area)
Curve type: 2nd Order, Origin: Include, 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	180110M3_2	Standard	0.250	5.01	6.878	6621.417	0.013	0.1	-42.8	NO	0.998	NO	MMX
2	2	180110M3_3	Standard	0.500	5.00	69.176	7011.031	0.123	0.5	0.2	NO	0.998	NO	bb
3	3	180110M3_4	Standard	1.000	5.00	143.316	7865.675	0.228	0.8	-16.1	NO	0.998	NO	bb
4	4	180110M3_5	Standard	2.000	5.00	310.839	7909.186	0.491	1.7	-15.6	NO	0.998	NO	bb
5	5	180110M3_6	Standard	5.000	5.00	1255.848	8990.281	1.746	5.7	13.1	NO	0.998	NO	bb
6	6	180110M3_7	Standard	10.000	5.00	2087.793	8394.882	3.109	9.8	-1.7	NO	0.998	NO	bb
7	7	180110M3_8	Standard	50.000	5.00	10583.119	7178.136	18.429	50.0	-0.0	NO	0.998	NO	bb
8	8	180110M3_9	Standard	100.000	5.00	21826.646	8067.630	33.818	82.6	-17.4	NO	0.998	NO	bbX
9	9	180110M3_10	Standard	250.000	5.00	63576.629	11784.516	67.437	140.2	-43.9	NO	0.998	NO	bbX

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Dataset: U:\Q4.PRO\results\180110M3\180110M3_crv.qld

Last Altered: Thursday, January 11, 2018 14:26:31 Pacific Standard Time
Printed: Thursday, January 11, 2018 14:26:56 Pacific Standard Time

Compound name: 13C2-PFDA
Response Factor: 1.10533
RRF SD: 0.141708, Relative SD: 12.8204
Response type: Internal Std (Ref 60), 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	180110M3_2	Standard	12.500	5.03	6621.417	6709.350	12.336	11.2	-10.7	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.04	7011.031	6275.866	13.964	12.6	1.1	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.03	7865.675	5735.000	17.144	15.5	24.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.03	7909.186	7379.163	13.398	12.1	-3.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.03	8990.281	8404.810	13.371	12.1	-3.2	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.03	8394.882	6873.380	15.267	13.8	10.5	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.03	7178.136	7852.201	11.427	10.3	-17.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.03	8067.630	8147.183	12.378	11.2	-10.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.03	11784.516	9778.104	15.065	13.6	9.0	NO		NO	bb

Compound name: 13C2-8:2 FTS Not used
Response Factor: 0.100865
RRF SD: 0.0423355, Relative SD: 41.9722
Response type: Internal Std (Ref 55), 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	180110M3_2	Standard	12.500	5.00	644.281	8819.409	0.913	9.1	-27.6	NO		NO	bb
2	2	180110M3_3	Standard	12.500	5.00	889.045	8657.168	1.284	12.7	1.8	NO		NO	bb
3	3	180110M3_4	Standard	12.500	5.00	654.053	10153.727	0.805	8.0	-36.1	NO		NO	bb
4	4	180110M3_5	Standard	12.500	5.01	773.072	10362.211	0.933	9.2	-26.0	NO		NO	bb
5	5	180110M3_6	Standard	12.500	5.00	975.410	14579.612	0.836	8.3	-33.7	NO		NO	bb
6	6	180110M3_7	Standard	12.500	5.00	1012.922	12281.571	1.031	10.2	-18.2	NO		NO	bb
7	7	180110M3_8	Standard	12.500	5.00	1364.890	12975.809	1.315	13.0	4.3	NO		NO	bb
8	8	180110M3_9	Standard	12.500	5.00	1744.984	11578.389	1.884	18.7	49.4	NO		NO	bb
9	9	180110M3_10	Standard	12.500	5.00	3049.447	16242.380	2.347	23.3	86.1	NO		NO	bb

DODCMD_ID	INSTALLATION_ID	SDG	SITE_NAME	NORM_SITE_NAME	LOCATION_NAME	LOCATION_TYPE_DESC	COORD_X	COORD_Y	CONTRACT_ID	DO_CTO_NUMBER	CONTR_NAME	SAMPLE_NAME	SAMPLE_MATRIX_DESC	SAMPLE_TYPE_DESC	COLLECT_DATE	ANALYTICAL_METHOD	ANALYTICAL_METHOD_GRP_DESC
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SAPZ124	Piezometer	1323822	270307	N6247016D9008	WE05	TETRA TECH, INC.	SA-PZ124-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SASW125	Surface water body - nonspecific	1324504	270691	N6247016D9008	WE05	TETRA TECH, INC.	SA-SW125-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SASW124	Surface water body - nonspecific	1323833	270301	N6247016D9008	WE05	TETRA TECH, INC.	SA-SW124-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00002	SITE 00002	FTSW10	Surface water body - nonspecific	1317262.039	271796.979	N6247016D9008	WE05	TETRA TECH, INC.	FT-SW10-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00002	SITE 00002	FTSW13	Surface water body - nonspecific	1318834.92	269512.2333	N6247016D9008	WE05	TETRA TECH, INC.	FT-SW13-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SASW201	Surface water body - nonspecific	1323256	269787	N6247016D9008	WE05	TETRA TECH, INC.	SA-SW201-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SAPZ147	Piezometer	1323493	270030	N6247016D9008	WE05	TETRA TECH, INC.	SA-PZ147-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00002	SITE 00002	SWDP01	Surface water body - nonspecific	1320025.353	265160.619	N6247016D9008	WE05	TETRA TECH, INC.	SW-DP01-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832							N6247016D9008	WE05	TETRA TECH, INC.	SA-SW204-FRB-20171201	Water for QC samples	Field Reagent Blank	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SASW204	Surface water body - nonspecific	1325699	270897	N6247016D9008	WE05	TETRA TECH, INC.	SA-SW204-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00006	SITE 00006	SAPZ124	Piezometer	1323822	270307	N6247016D9008	WE05	TETRA TECH, INC.	SA-PZ124-20171201-D	Ground water	Field duplicate	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00002	SITE 00002	FTSW10	Surface water body - nonspecific	1317262.039	271796.979	N6247016D9008	WE05	TETRA TECH, INC.	FT-SW10-20171201-D	Ground water	Field duplicate	1-Dec-17	537	Perfluoroalkyl Compounds
MID_ATLANTIC	CALVERTON_NWIRP	1701832	SITE 00002	SITE 00002	FTSW12	Surface water body - nonspecific	1317655.259	269410.5383	N6247016D9008	WE05	TETRA TECH, INC.	FT-SW12-20171201	Ground water	Normal (Regular)	1-Dec-17	537	Perfluoroalkyl Compounds